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PeopleTools 8.55 Installation for Oracle

December 2015

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PeopleTools 8.55 Installation for Oracle
SKU itora_December_2015

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About This Documentation

This preface discusses:

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

Understanding This Documentation

This documentation is designed to direct you through a basic PeopleSoft installation. It is not a substitute for the database administration documentation provided by your relational database management system (RDBMS) vendor, the network administration documentation provided by your network vendor, or the installation and configuration documentation for additional software components that are used with PeopleSoft products.

This documentation is divided into two parts. The chapters in Part 1 include the information that is required to complete a basic PeopleSoft installation. The chapters and appendices in Part 2 include information for less common or optional tasks.

Required updates to this installation documentation are provided in the form of "Required for Install" incidents, which are available on My Oracle Support. In addition, addenda to the recent PeopleTools installation guides are periodically posted in My Oracle Support on the same page as the initial posting.

Instructions for installing Oracle's PeopleSoft PeopleTools are provided in PeopleSoft PeopleTools installation guides. Application-specific installation instructions are provided in a separate document for the PeopleSoft application. For instance, if you are installing Oracle's PeopleSoft Customer Relationship Management (CRM), you need both the PeopleSoft PeopleTools installation guide and the additional instructions provided for installing PeopleSoft CRM.

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

Note. Before proceeding with your installation, check My Oracle Support to ensure that you have the latest version of this installation guide for the correct release of the PeopleSoft product that you are installing.

Audience

This documentation is written for the individuals responsible for installing and administering the PeopleSoft environment. This documentation assumes that you have a basic understanding of the PeopleSoft system. One of the most important components in the installation and maintenance of your PeopleSoft system is your on-site expertise.

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

- SQL and SQL command syntax.

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- PeopleSoft system navigation.
- PeopleSoft windows, menus, and pages, and how to modify them.
- Microsoft Windows.

Oracle recommends that you complete training, particularly a PeopleSoft Server Administration and Installation course, before performing an installation.

See Oracle University, http://education.oracle.com.

Typographical Conventions

To help you locate and understand information easily, the following conventions are used in this documentation:

Convention	Description
`Monospace`	Indicates a PeopleCode program or other code, such as scripts that you run during the install. Monospace is also used for messages that you may receive during the install process.
Italics	Indicates field values, emphasis, and book-length publication titles. Italics is also used to refer to words as words or letters as letters, as in the following example: Enter the letter *O*. Italics are also used to indicate user-supplied information. For example, the term *domain* is used as a placeholder for the actual domain name in the user's environment. When two such placeholders are used together, they may be set apart with angle brackets. For example, the path <*PS_CFG_HOME*>/appserv/<*domain*> includes two placeholders that require user-supplied information.
Initial Caps	Field names, commands, and processes are represented as they appear on the window, menu, or page.
lower case	File or directory names are represented in lower case, unless they appear otherwise on the interface.
Menu, Page	A comma (,) between menu and page references indicates that the page exists on the menu. For example, "Select Use, Process Definitions" indicates that you can select the Process Definitions page from the Use menu.
Cross-references	Cross-references that begin with *See* refer you to additional documentation that will help you implement the task at hand. We highly recommend that you reference this documentation. Cross-references under the heading *See Also* refer you to additional documentation that has more information regarding the subject.

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Convention	Description
⇒ (line-continuation arrow)	A line-continuation arrow inserted at the end of a line of code indicates that the line of code has been wrapped at the page margin. The code should be viewed or entered as a continuous line of code, without the line-continuation arrow.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meaning.
Note. Note text.	Text that begins with *Note.* indicates information that you should pay particular attention to as you work with your PeopleSoft system.
Important! Important note text.	A note that begins with *Important!* is crucial and includes information about what you need to do for the system to function properly.
Warning! Warning text.	A note that begins with *Warning!* contains critical configuration information or implementation considerations; for example, if there is a chance of losing or corrupting data. Pay close attention to warning messages.

Products

This documentation may refer to these products and product families:

- Oracle® BPEL Process Manager
- Oracle® Enterprise Manager
- Oracle® Secure Enterprise Search
- Oracle® Tuxedo
- Oracle® WebLogic Server
- Oracle's PeopleSoft Application Designer
- Oracle's PeopleSoft Change Assistant
- Oracle's PeopleSoft Change Impact Analyzer
- Oracle's PeopleSoft Data Mover
- Oracle's PeopleSoft Process Scheduler
- Oracle's PeopleSoft Pure Internet Architecture
- Oracle's PeopleSoft Customer Relationship Management
- Oracle's PeopleSoft Enterprise Learning Management
- Oracle's PeopleSoft Enterprise Performance Management
- Oracle's PeopleSoft Financial Management
- Oracle's PeopleSoft Human Capital Management
- Oracle's PeopleSoft Interaction Hub
- Oracle's PeopleSoft Pay/Bill Management

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- Oracle's PeopleSoft PeopleTools
- Oracle's PeopleSoft Staffing Front Office
- Oracle's PeopleSoft Supply Chain Management

See the Products area on the Oracle web site, http://www.oracle.com/us/products/product-list/products-a-z/index.html.

Related Information

Oracle provides reference information about PeopleSoft PeopleTools and your particular PeopleSoft Application. You can access documentation for recent releases of PeopleSoft PeopleTools and PeopleSoft Applications at the PeopleSoft Hosted Documentation site. You can also find documentation by searching for the product name on My Oracle Support.

- My Oracle Support. This support platform requires a user account to log in. Contact your PeopleSoft representative for information.

  To locate documentation on My Oracle Support, search for the title and select PeopleSoft Enterprise to refine the search results.

  See My Oracle Support, https://support.oracle.com.
- *PeopleTools: Getting Started with PeopleTools* for your release. This documentation provides a high-level introduction to PeopleTools technology and usage.

  See Oracle PeopleSoft Online Help, http://www.peoplesoftonlinehelp.com.
- PeopleSoft Application Fundamentals for your PeopleSoft Application and release. This documentation provides essential information about the setup, design, and implementation of your PeopleSoft Application.

To install additional component software products for use with PeopleSoft products, including those products that are packaged with your PeopleSoft products as well as products from other vendors, you should refer to the documentation provided with those products, as well as this documentation. For those additional components that are offered by Oracle, such as Oracle Middleware products, see the documentation on the Oracle Help Center.

See Also

Oracle Help Center, https://docs.oracle.com/en/

Comments and Suggestions

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

PSOFT-Infodev_US@oracle.com

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

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Part I

Mandatory Installation

The chapters in the first part of this installation guide cover only those tasks that are required for a basic PeopleSoft installation. Everyone carrying out an installation should use the tasks in Part I. After setting up the Application Server, PeopleSoft Pure Internet Architecture, and Process Scheduler Server, you verify that you can sign into the PeopleSoft installation in a browser.

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Chapter 1

Preparing for Installation

This chapter discusses:

- Understanding the PeopleSoft Installation
- Using Oracle Software Delivery Cloud to Obtain Installation Files
- Considering Project Planning
- Planning Your Initial Configuration
- Planning Database Creation
- Planning Multilingual Strategy
- Preparing for the PeopleTools-Only Upgrade
- Reviewing Patches and Updates Required at Installation
- Installing Supporting Applications
- Installing the Database Engine
- Installing Oracle Net on the Server
- Installing Oracle Net on Your Workstation
- Testing Oracle Net Connectivity
- Performing Backups
- Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer

Understanding the PeopleSoft Installation

This chapter will help you plan and prepare for a basic PeopleSoft installation. Before you begin the installation, please note:

- See *Getting Started on the PeopleSoft Installation*, for an overview of the installation and for information on obtaining the necessary documentation and software.

  You can find *Getting Started on the PeopleSoft Installation* on the same My Oracle Support page as this installation guide.

- Before you begin your PeopleSoft installation, use the PeopleSoft hardware and software requirements information in the My Oracle Support Certifications area to verify that you have the correct hardware and software in place to support a successful installation. In addition to the information in the Certifications area, review the application-specific hardware and software documentation available on My Oracle Support.

  See hardware and software requirements for PeopleSoft PeopleTools and your PeopleSoft application on My Oracle Support.

  See My Oracle Support, Certifications.

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Warning! If you are unable to meet any of the criteria outlined in the hardware and software requirements and certification information on My Oracle Support, contact Oracle before going forward with the installation. Attempting to complete an installation on an unsupported configuration can be a very costly decision, and Oracle will not provide support for such PeopleSoft installations.

Important! Before installing Oracle's Secure Enterprise Search (SES) we highly recommend that you review our deployment and sizing recommendations provided in "Oracle Secure Enterprise Search Deployment Considerations for PeopleSoft 9.2" (Document ID: 1684035.1) found on My Oracle Support. This article provides information regarding the essential hardware for SES and information to help ensure capacity for peak concurrent usage of your PeopleSoft 9.2 environment. Failing to follow these recommendations can impact the performance and stability of your PeopleSoft 9.2 environment.

- Use the My Oracle Support Certifications area to determine the latest certified versions of additional components, such as Oracle Tuxedo or IBM WebSphere, which are supported for the PeopleSoft PeopleTools release you are installing.
- If you will be upgrading your current release after you perform this installation, you also need to install Change Assistant. The page on My Oracle Support containing your upgrade documentation and files includes information on which tool you need.
- For critical issues related to the installation process, see the My Oracle Support web site. Be sure to read the "Required for Installation or Upgrade" incidents on the Patches and Updates page for the PeopleSoft PeopleTools version that you are installing.
- For online technical support information, use the My Oracle Support web site. My Oracle Support includes tools for self-directed searches of information including reference documents and problem resolutions, as well as service request management tools.

  See My Oracle Support, https://support.oracle.com.
- To download software and documentation, use the Oracle Software Delivery Cloud portal, and the Oracle Technology Network.

  See Oracle Software Delivery Cloud, http://edelivery.oracle.com.

  See Oracle Technology Network, http://www.oracle.com/technetwork/index.html.
- Be aware that not all application releases are certified and supported to run on all PeopleSoft PeopleTools releases. Please check the PeopleSoft policy information in article ID 1348959.1 on My Oracle Support for further details on the support policy for your particular application. If you are planning to do a PeopleTools-Only upgrade, do not continue until you have verified that your application is supported on the target PeopleSoft PeopleTools release.
- This installation guide may refer you to other PeopleSoft documentation resources for more information or instructions. You can access Oracle's PeopleSoft Hosted Documentation online during the installation process. For PeopleSoft PeopleTools 8.53 and later, you also have the option to install PeopleSoft Online Help documentation, a dynamic, interactive, accessible HTML version of the documentation formerly known as "PeopleBooks."
- If you are using a Microsoft Windows or Linux operating system, Oracle recommends that you use the PeopleSoft Cloud Architecture. The PeopleSoft Cloud Architecture consists of several deployment packages (DPKs) that deliver pre-installed PeopleSoft components, which can be installed on virtualization platforms as well as directly on traditional, non-virtual machines ("bare-metal") with Microsoft Windows or Linux operating systems.

  See *Getting Started on PeopleSoft Installation*, "Reviewing PeopleSoft Cloud Architecture."

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See Also

"Installing PeopleSoft Online Help"

Oracle's PeopleSoft Hosted Documentation, http://www.peoplesoftonlinehelp.com

"Installing PeopleSoft Change Assistant"

Task 1-1: Using Oracle Software Delivery Cloud to Obtain Installation Files

Before beginning the installation, you should have obtained the PeopleSoft installation software by downloading the necessary zip files from the Oracle Software Delivery Cloud portal. Use the information available in the PeopleSoft documentation and My Oracle Support Certifications to be sure that you obtain all the zip files required for your environment.

See Oracle Software Delivery Cloud, http://edelivery.oracle.com.

In case you have not yet obtained the necessary files, this documentation includes sections on obtaining the files at appropriate points during the installation process.

Note. If your PeopleSoft installation uses Oracle SOA Suite, note that the 32-bit versions of the Oracle SOA Suite 10g media components on the Oracle Software Delivery Cloud portal are certified to run on the Linux x86-64 and the Microsoft Windows 64-bit operating system platforms.

Task 1-2: Considering Project Planning

Identify the maintenance schedule for upcoming PeopleSoft PeopleTools and PeopleSoft application releases. These releases are typically on a regular schedule (for example, quarterly, biannually) and should be included in your project planning and budgeting processes. Maintenance schedules are posted on My Oracle Support. It is important to plan regular maintenance in your overall project plans. For example, for a year-long enterprise upgrade, development, and conversion project, make sure to set aside time for applying the PeopleSoft PeopleTools minor releases that ship during that time frame. Otherwise, if you fall behind, you may find that you need a fix shipped with one of the minor releases that cannot be backported as a patch.

Search for the term "maintenance schedules" on My Oracle Support. You can find schedules by year and quarter for PeopleSoft PeopleTools and PeopleSoft applications. The schedules include lists of bundles and maintenance packs for individual products.

Task 1-3: Planning Your Initial Configuration

This section discusses:

- Understanding Workstations
- Understanding PeopleSoft Servers and Clients
- Defining the PeopleTools Client
- Defining the File Server
- Defining the Database Server

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- Defining the Application Server
- Defining the Batch Server
- Defining Installation Locations
- Defining the Web Server
- Using Oracle Configuration Manager
- Using Laser Printers

Note. Oracle supports a number of versions of UNIX and Linux in addition to Microsoft Windows for the PeopleSoft installation. Throughout this book, there are references to operating systems. Where necessary, this book refers to specific operating systems by name (for example, Oracle Solaris, IBM AIX, or Linux); however, for simplicity the word UNIX is often used to refer to all UNIX-like operating systems, including Linux.

Understanding Workstations

This section discusses:

- Using the PeopleTools Development Environment (Microsoft Windows-Based Clients)
- Using Workstations Equipped with Supported Web Browsers

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

Using the PeopleTools Development Environment (Microsoft Windows-Based Clients)

Microsoft Windows-based clients are referred to as the PeopleTools Development Environment. These clients—which run on supported Microsoft Windows platforms—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 Microsoft Windows-based clients that will be running Data Mover scripts against the database, or running COBOL or Structured Query Report (SQR) batch processes on the client, must have database connectivity installed.

Note. COBOL is not needed for PeopleTools or for applications that contain no COBOL programs. Check My Oracle Support for details about whether your application requires COBOL.

See Installing Supporting Applications.

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 product documentation for PeopleSoft Configuration Manager.

See the *PeopleTools: System and Server Administration* product documentation for more information about using PeopleSoft Configuration Manager.

For installation purposes, you must set up at least one Microsoft Windows-based client for sign-on using a two-tier connection to the database, so that it can create and populate the PeopleSoft database. This documentation refers to this client as the install workstation. Depending on your installation plan, you may want to set up more than one install workstation so that you can perform asynchronous installation tasks in parallel.

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Note. The Microsoft Windows machine that you use to perform your PeopleSoft PeopleTools installation must be running in 256-color mode or higher when running the PeopleSoft installation and database configuration on Microsoft Windows. This is not necessary for UNIX or console mode.

Using Workstations Equipped with Supported Web Browsers

To run the PeopleSoft Pure Internet Architecture, the client workstation only needs a web browser that is HTML 4.0 compliant. You may need an additional workstation for demonstration and testing purposes if you plan to use a browser running on a platform other than Microsoft Windows—such as Macintosh or UNIX.

See *PeopleTools: Portal Technology.*

See My Oracle Support, Certifications.

Understanding PeopleSoft Servers and Clients

You use the PeopleSoft Installer to install PeopleSoft servers and the PeopleTools Client. Here is a summary of the functionality included in each server or client installation:

- *File Server*

  All Client executables (such as PeopleSoft Application Designer and Configuration Manager), PS/nVision, Change Assistant, files and directories necessary to perform upgrade, and Client SQR.

  See Defining the File Server

- *PeopleTools Client*

  All Client executables (such as PeopleSoft Application Designer and Configuration Manager), PS/nVision, Change Assistant, Change Impact Analyzer, PeopleSoft Test Framework, PSEM Agent, and Client SQR.

  See Defining the PeopleTools Client.

- *Application Server*

  PSADMIN and COBOL for remote call

- *Database Server*

  Scripts and data directories, files necessary to run Data Mover.

- *Process Scheduler Server*

  PSADMIN, COBOL, and SQR.

- *Web Server*

  The Web Server contains all the scripts file, Portal Search data files, and PeopleSoft Pure Internet Architecture (PIA) installation tools that can assist in setting up a web server domain. However, to run the PeopleSoft Pure Internet Architecture, the client workstation only needs a web browser that is HTML 4.0 compliant.

Task 1-3-1: Defining the PeopleTools Client

The PeopleTools Client is the environment repository for the PeopleSoft PeopleTools Development environment. The PeopleTools Client provides two-tier and three-tier connectivity to PeopleSoft applications.

The PeopleSoft installer for the PeopleTools Client is included as part of the PeopleSoft PeopleTools installation. Keep in mind that the PeopleTools Client can be installed *only* on supported Microsoft Windows operating systems.

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Note. The client may be referred to as the PeopleTools Client, PT Client, or PeopleSoft Microsoft Windows client in this documentation.

See "Using the PeopleSoft Installer," Installing the PeopleTools Client Files.

Task 1-3-2: Defining the File Server

The file server is the environment (or file) repository for the PeopleTools Development Environment, which is needed for the Database Configuration Wizard. The file server is also the repository for the files necessary to perform an upgrade. This includes Change Assistant and all of the executables and scripts that are necessary to perform an upgrade. You will apply patches and updates from My Oracle Support directly to the file server and then copy the updated files to your other servers. In addition, the file server is a source repository for COBOL and SQR.

Important! Remember, a COBOL compiler is not needed for PeopleSoft PeopleTools unless your application contains COBOL programs. If your application requires COBOL and you are running on Microsoft Windows, we require that you maintain a central repository of your COBOL source code on the Windows file server. See the task Installing 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 documentation, the install workstations, Microsoft Windows batch servers, and Microsoft Windows report servers will access the PeopleSoft files on the file server by pointing to a directory referred to in this documentation as *PS_HOME* on a shared network drive. You can install SQR on the file server, or install them locally on Microsoft Windows batch servers and on Microsoft Windows-based clients that will be running these processes locally.

Setting up a file server is part of installations on both UNIX and Microsoft Windows environments. If you are doing an installation only for UNIX computers, you need a Microsoft Windows file server. If you are working only on Microsoft Windows, and you install the file server along with the other servers, you do not need to repeat the file server setup.

If you need to set up the file server on a separate Microsoft Windows machine, you should install PeopleSoft PeopleTools, any PeopleSoft applications, and the Multilanguage files.

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

Task 1-3-3: Defining the Database Server

The servers that host your PeopleSoft databases need sufficient processing, storage, and networking resources to process the database requests, store the data and transaction logs, and communicate freely to the clients of this data. These databases will include your own PeopleSoft database prototypes as well as any system and demonstration databases delivered directly from Oracle with the PeopleSoft installation media.

See Planning Database Creation.

Database sizes vary depending on the applications that 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.

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Task 1-3-4: Defining the Application Server

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

The application server also provides functionality required for application messaging and for implementing the PeopleSoft Pure 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 Microsoft Windows machines. This configuration is called *physical three-tier.* (See the Certification area on My Oracle Support for information on supported operating systems for PeopleSoft Application Servers.)

If you are installing on an Oracle for Windows RDBMS, you may use a Microsoft Windows application server. This application server can be installed on the same machine as the Oracle database server, but for Windows 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 machine to the database server using a SQL tool. This topic will be addressed later in this chapter.

See Also

PeopleTools: Portal Technology

Task 1-3-5: Defining the 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.

With Oracle Windows databases, 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 installed to the batch server through the PeopleSoft Installer; and COBOL source files must be compiled.

Oracle supports setting up the batch environments on a dedicated server, an application server, or even on the database server.

For Windows-specific batch processes—such as nVision reports, Cube Builder, or Microsoft Word—you need to set up a Windows batch environment on a Microsoft Windows application server or on a dedicated Microsoft Windows workstation.

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.

See Also

PeopleTools: Process Scheduler

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Task 1-3-6: Defining Installation Locations

This section discusses:

- Understanding Installation Locations
- Defining PS_HOME
- Defining PS_APP_HOME
- Defining PS_CFG_HOME
- Defining PS_CUST_HOME
- Defining PIA_HOME

Understanding Installation Locations

As you proceed through the PeopleSoft PeopleTools installation, you are asked to specify several installation locations. Use the information in this section to choose how to specify the installation locations for the various components in a PeopleSoft installation.

In addition to these installation locations, there are home directories for the various supporting software, such as Oracle WebLogic, which are described in the appropriate chapters.

Defining PS_HOME

The *PS_HOME* directory holds the PeopleSoft PeopleTools files. The way that you specify the other installation locations discussed in the following sections will determine whether other files are installed in *PS_HOME* or elsewhere; for example, whether the PeopleSoft application files are installed into *PS_HOME* or into *PS_APP_HOME.*

See "Using the PeopleSoft Installer."

For information on setting up *PS_HOME* as a read-only environment, see the *PeopleTools: System and Server Administration* product documentation on securing PS_HOME and PS_CFG_HOME.

PS_HOME can be used in the following ways:

- Multiple hosts can access *PS_HOME* on a shared (Microsoft Windows) or mounted (UNIX) location.
- An administrator can do an installation where all PeopleTools, PeopleSoft application, and customized files reside in the same location. That is, the paths for *PS_HOME, PS_APP_HOME,* and *PS_CUST_HOME* are the same. The administrator can then copy and paste *PS_HOME* to different locations with no requirement to duplicate the original file path. This scenario requires a *PS_CFG_HOME* location that is separate from *PS_HOME, PS_APP_HOME* and *PS_CUST_HOME.*
- Several Application Server, PIA, and Process Scheduler domains can use the same *PS_HOME.*

Defining PS_APP_HOME

The *PS_APP_HOME* location holds the PeopleSoft application files.

Depending upon the PeopleSoft application that you are installing, for PeopleSoft PeopleTools 8.52 and later, the directory where you install the PeopleSoft application files does not have to be the same as the location where you install PeopleSoft PeopleTools, *PS_HOME.* You can select any writeable location on the file system. The *PS_APP_HOME* location is sometimes referred to as "Application Home."

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For details about whether this functionality is supported for your PeopleSoft application, and how it is used, see the PeopleSoft application-specific installation guide.

If you choose to install the PeopleSoft application software to a *PS_APP_HOME* location that is different from the *PS_HOME* location where you installed PeopleSoft PeopleTools, you will need to define a PS_APP_HOME environmental variable.

For example, on Microsoft Windows:

1. Select Start, Control Panel, System on Microsoft Windows 7.

   Click the Start button, then Control Panel, System and Security, System, on Microsoft Windows 8 or 2012 R2.
2. Select Advanced system settings.
3. On the System Properties dialog box, select Advanced, and click Environment Variables.
4. Add or modify the user variable PS_APP_HOME and specify its value. For example:

   ```
   PS_APP_HOME=C:\HC9.2
   ```

On UNIX, specify the environment variable with a command such as this:

```
PS_APP_HOME=/data1/ora/HC9.2;export PS_APP_HOME
```

If your environment includes more than one PeopleSoft application, such as FSCM and HCM, you can install into a separate *PS_APP_HOME* location for each. However, in this case, you must change the value of the PS_APP_HOME environment variable for any configuration tasks.

For information on setting and working with the PS_APP_HOME environment variable, see the product documentation *PeopleTools: System and Server Administration,* "Working with PS_APP_HOME."

See the chapters on installing and compiling COBOL in this documentation for further information.

Defining PS_CFG_HOME

The *PS_CFG_HOME* location holds the configuration files for the application server, batch server and search server domains.

It also holds the configuration files for web server domains if *PIA_HOME,* defined in the next section, is equal to *PS_CFG_HOME.* This location is sometimes referred to as "Config Home."

When you install PeopleSoft PeopleTools and the PeopleSoft application software, the PeopleSoft installer places the required files into the specified *PS_HOME* directory. When you create an application server, batch server, or search server domain, the configuration files associated with that domain are installed into a directory referred to as *PS_CFG_HOME.*

By default, the system separates the binary files (executables and libraries) stored in *PS_HOME* from the ASCII files (configuration and log files) associated with a domain stored in *PS_CFG_HOME.* This separation applies only to these servers:

- PeopleSoft Application Server
- PeopleSoft Process Scheduler Server
- PeopleSoft Search Server

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When you use the PSADMIN utility, the system creates the *PS_CFG_HOME* directory based upon environment variables associated with the current user. This table lists the user environment variable and default directory by operating system:

Operating System	User Environment Variable	PS_CFG_HOME Default Location
UNIX	HOME	$HOME/psft/pt/*<peopletools_version>*
Microsoft Windows	USERPROFILE	%USERPROFILE%\psft\pt\ *<peopletools_version>*

For example, if USERPROFILE is C:\Documents and Settings\asmith and the PeopleTools version is 8.55, by default *PS_CFG_HOME* would be C:\Documents and Settings\asmith\psft\pt\8.55. The configuration and log files for the application server, process scheduler server, and search server are installed below this directory.

Note. The *PS_CFG_HOME* directory is associated with the *PS_HOME* from which it was originally generated.

This server domain configuration allows for a more flexible installation. You also have the opportunity to place different security restrictions on the binary and configuration files. To take advantage of this flexibility, you have the option to specify a different location by setting a PS_CFG_HOME environment variable. Before doing so, however, see the *PeopleTools: System and Server Administration* product documentation for a more complete explanation of working with PS_CFG_HOME.

Defining PS_CUST_HOME

The *PS_CUST_HOME* location holds customized file system objects.

Anything that is changed from the file system objects that are delivered with the PeopleSoft application installation should be placed here. The sub-directory structure must mirror the *PS_APP_HOME* upon which it is based. For example, when you install your PeopleSoft application, the directory structure includes SQR scripts in *PS_APP_HOME/*sqr. If you have customized SQR scripts, you would place them in *PS_CUST_HOME/*sqr.

If a value is not assigned for the PS_CUST_HOME environment variable it assumes the default value of *PS_HOME.* This location is sometimes referred to as "Cust Home."

For information on setting up and using *PS_CUST_HOME,* see the information on working with PS_CUST_HOME in the product documentation *PeopleTools: System and Server Administration.*

Defining PIA_HOME

When you install the PeopleSoft Pure Internet Architecture, the files are installed in the *PIA_HOME* directory. The *PIA_HOME* location holds the webserv directory, and the files for the PeopleSoft Pure Internet Architecture installation. The directory where you install PeopleSoft Pure Internet Architecture, *PIA_HOME,* does not have to be the same as the location where you install PeopleSoft PeopleTools and the PeopleSoft application software, *PS_HOME.* You have the option to specify the installation location for the PeopleSoft Pure Internet Architecture by setting the environment variable PS_CFG_HOME.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode."

See "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode."

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The *PS_CFG_HOME* directory is created the first time that the PSADMIN utility starts. PSADMIN recognizes that *PS_CFG_HOME* is not present and creates it when necessary. This is done before any domains are created. When you invoke PeopleSoft Pure Internet Architecture, the installer checks your environment to determine the *PS_CFG_HOME*. If the environment variable PS_CFG_HOME is defined, the *PS_CFG_HOME* location is seen as the directory to which that environment variable points. If PS_CFG_HOME is not defined the default value is used.

See the product documentation for using the %V Meta variable in *PeopleTools: System and Server Administration* product documentation for more information about setting the PS_CFG_HOME environment variable.

Task 1-3-7: Defining the Web Server

A web server is required to run the PeopleSoft Pure Internet Architecture. The PeopleSoft Pure Internet Architecture is certified to work with either of the following two J2EE web application servers (also commonly referred to as web servers):

- Oracle WebLogic Server
- IBM WebSphere Server

Refer to the Certifications page on My Oracle Support for supported web server combinations.

To find support information for the HTTP servers that can be used as reverse proxy servers (RPS), see the following:

- For Oracle WebLogic, see the Oracle WebLogic documentation, included with Oracle Fusion Middleware.
- For IBM WebSphere, see the information for PeopleSoft PeopleTools on My Oracle Support, Certifications.

Oracle WebLogic, IBM WebSphere, and the supported reverse proxy servers will provide out-of-the-box SSL support across all supported operating systems. Oracle WebLogic and IBM WebSphere provide demo digital certificates, but for production grade SSL you must purchase digital certificates from a Certificate Authority supported by the web server that you are using (for example, Verisign, Baltimore, Entrust, and so on).

Task 1-3-8: Using Oracle Configuration Manager

When you install PeopleSoft PeopleTools, you can configure the Oracle Configuration Manager. Oracle Configuration Manager enables you to connect to My Oracle Support to upload your environment information to an Oracle repository. When you enter your configuration information for the Oracle Configuration Manager during the PeopleSoft PeopleTools installation, the installer checks the Internet connection and associates the current environment data with your My Oracle Support account. Oracle Configuration Manager offers the following advantages:

- Facilitates communication with Oracle Software Support
- Improves access to the Oracle knowledge base
- Enables pro-active problem avoidance.

If you choose not to configure the Oracle Configuration Manager during the PeopleSoft PeopleTools installation, you can complete the configuration at a later date. If your system is already configured to use Oracle Configuration Manager, the PeopleSoft installer does not display the screens for the configuration.

If you are installing on an IBM AIX operating system, and you configure Oracle Configuration Manager during the PeopleSoft PeopleTools installation, the installation will complete with errors. To set up Oracle Configuration Manager on IBM AIX, download the latest Oracle Configuration Manager version from the Collector page on My Oracle Support, and follow the instructions in the documentation on that page to install and configure it.

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See Also

Oracle Configuration Manager Documentation on the Oracle Technology Network web site, http://www.oracle.com/technetwork/indexes/documentation/index.html

How to Install Oracle Configuration Manager (OCM) for PeopleTools 8.48 through 8.53, My Oracle Support, (search for article name)

PeopleTools: Change Assistant and Update Manager, "Integrating with Oracle Configuration Manager"

Task 1-3-9: Using Laser Printers

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 1.5 MB) to produce graphics images for page printouts.

See Also

My Oracle Support, Certifications

Task 1-4: Planning Database Creation

This section discusses:

- Understanding Database Creation
- Determining Databases and Database Names
- Defining Oracle and PeopleSoft Databases
- Using Oracle Pluggable Databases

Understanding Database Creation

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

- System (also called SYS) databases, which contain the PeopleSoft 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 is 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. Oracle recommends that you install only one PeopleSoft database per Oracle instance. For details, see the section "Defining Oracle and PeopleSoft Databases" later in this task.

If you are installing PeopleSoft software on an Oracle Real Application Cluster (RAC) database, you must use the manual procedure for database setup, and complete other configuration procedures.

See "Creating a Database Manually (on UNIX or Windows)."

See the information on setting up the PeopleSoft installation with Oracle RAC in the *PeopleTools: Data Management* product documentation.

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Before installing PeopleSoft software, you should install the Oracle RDBMS software. This documentation does not cover installation of Oracle software. Please refer to the Oracle RDBMS installation documentation that accompanied your Oracle software for information.

You need to install 64-bit server and client Oracle RDBMS software for your PeopleSoft installation. The PeopleSoft PeopleTools database server, Application Server, and Process Scheduler, as well as the PeopleTools Client features, require 64-bit connectivity.

Task 1-4-1: Determining 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 names PSHRDMO and PSHRSYS, using the two characters HR (for Human Resources) to indicate the product line.

Task 1-4-2: Defining Oracle and PeopleSoft Databases

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. The Oracle database is commonly referred to as the *Oracle SID.*

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.

Note. You must limit the owner ID (access ID) to eight characters or less. You must limit the owner password (access password) to 30 characters or less.

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 is more efficient to tune each instance to the requirements of its corresponding PeopleSoft application database.

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.

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Sharing tablespaces is not recommended.

- Each PeopleSoft database should have different operator IDs (also known as user 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 A single table, PS.PSDBOWNER, is created in the Oracle SID as part of the database creation procedures. PS.PSDBOWNER is maintained and acts as directory during the sign-on process to all of the PeopleSoft databases in the Oracle database/SID. There is a single row in the PS.PSDBOWNER for each PeopleSoft DB contained in the SID.

This table includes an example of four PeopleSoft databases, uses, and IDs, 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

Note. With Oracle 11gR1 the database user ID is case-sensitive. So, when running the installation, system administrators need to make sure the database user ID, such as SYSADM, with all upper-case letters, is represented consistently, wherever it needs to be supplied in the configuration tools and scripts as well as on any signon screen.

Task 1-4-3: Using Oracle Pluggable Databases

If your RDBMS is Oracle 12c, for PeopleSoft PeopleTools 8.54 and later, you can use the Oracle 12c database multitenant architecture, with pluggable databases. The Pluggable Databases (PDB) functionality is an Oracle 12c Enterprise Edition database feature that enables an Oracle database to function as a container database. A container database (CDB) is an Oracle database that includes one or more pluggable databases (PDBs). A PDB is a portable collection of schemas, schema objects, and non-schema objects that appears to an Oracle Net client as a non-CDB. For an introduction to the Oracle multitenant architecture, PDBs, and CDBs, see the Oracle database documentation.

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Using the Oracle multitenant architecture with pluggable databases, a single database instance can host multiple PeopleSoft application databases.

The owners of PDBs and CDBs and their relationship to PeopleSoft users can be described as follows:

- CDB Administrator (Common User)

  A common user is a database user that has the same identity in the root and in every existing and future PDB. Every common user can connect to and perform operations within the root, and within any PDB in which it has privileges. every common user is either Oracle-supplied or user-created. Examples of Oracle-supplied common users are SYS and SYSTEM.

  In PeopleSoft PeopleTools, the Oracle database user who belongs to the ORA_DBA group acts as a CDB Administrator.

- PDB Administrator (Local User)

  A local user is a database user that is not common and can operate only within a single PDB. The PeopleSoft PeopleTools Access ID acts as the PDB Administrator.

This documentation includes the instructions for creating CDBs and PDBs with both the Database Configuration Wizard (on UNIX) and manually (on UNIX or Microsoft Windows).

See Also

Oracle Database Concepts 12c Release 1 (12.1), "Introduction to the Multitenant Architecture," Oracle Database Documentation Library, http://st-doc.us.oracle.com/12/121/server.121/e17633/toc.htm

PeopleTools: Data Management, "Using Pluggable Databases"

Tech Update - PeopleSoft Supports Oracle 12c Multitenant, My Oracle Support, (search for article title)

Task 1-5: Planning Multilingual Strategy

This section discusses:

- Understanding Multilingual Issues
- Choosing a Base Language
- Selecting Additional Languages
- Selecting a Database Character Set

Understanding Multilingual Issues

Before beginning your installation, you should determine which languages your PeopleSoft system will need to support. If multiple languages are required, determine which language will be used most often. These decisions will affect tasks at various stages of the installation, including file server setup, database creation, and the ability to change the base language of the PeopleSoft database after it is created. Even if you do not 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 (AL32UTF8 recommended)

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The current languages provided by Oracle and their language codes are listed in the following table, as well as the corresponding database character sets for that language. These are the languages for which Oracle provides pre-translated products. If you plan to provide users access to your applications in these languages, Oracle 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 Oracle-provided translations at a later date. After installation, you also have the option of performing your own translations, and adding additional languages.

In considering which languages to include, whether for pre-translated objects or for your own application development, keep in mind that certain languages require a Unicode database. Oracle recommends Unicode character sets rather than non-Unicode character sets, including Western European and Japanese Shift-JIS, for all installations and upgrades regardless of the languages used.

See Selecting a Database Character Set.

Language Code	Language	Database Character Set
ARA	Arabic	Unicode only
CFR	Canadian French	Unicode recommended
CZE	Czech	Unicode only
DAN	Danish	Unicode recommended
DUT	Dutch	Unicode recommended
ENG	US English	Unicode recommended
FIN	Finnish	Unicode recommended
ESP	Spanish	Unicode recommended
FRA	French	Unicode recommended
GER	German	Unicode recommended
HUN	Hungarian	Unicode only
ITA	Italian	Unicode recommended
JPN	Japanese	Unicode recommended
KOR	Korean	Unicode only
NOR	Norwegian	Unicode recommended
POL	Polish	Unicode only
POR	Portuguese	Unicode recommended
ROM	Romanian	Unicode only

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Language Code	Language	Database Character Set
RUS	Russian	Unicode only
SVE	Swedish	Unicode recommended
THA	Thai	Unicode only
TUR	Turkish	Unicode only
UKE	United Kingdom English	Unicode recommended
ZHS	Simplified Chinese	Unicode only
ZHT	Traditional Chinese	Unicode only

See Also

PeopleTools: Global Technology

Task 1-5-1: 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.

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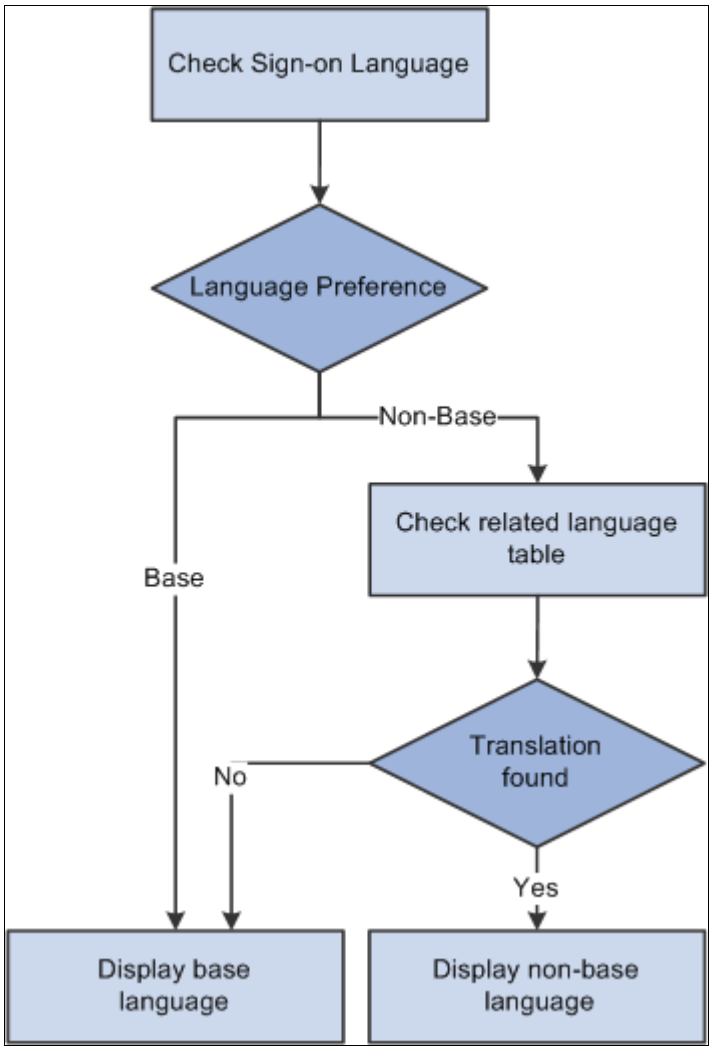
When PeopleSoft PeopleTools attempts to open language-sensitive objects (such as pages and menus), it first compares the operator's preferred language to the base language of the database. If the preferred language matches the base language, PeopleSoft PeopleTools immediately loads the required definition from the base language PeopleSoft PeopleTools tables. However, if the user's preferred language differs from the database's base language, PeopleSoft 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 process flow illustrates the selection of the language used for language-sensitive objects, beginning with the language selected when the user signs in to the PeopleSoft application:



Language selection process using the base language and the preferred language

While these queries typically occur very quickly, they still take up valuable processing time. To optimize performance you can set the base language of your database as the language that is used most often by your users. Another consideration is that because PeopleSoft databases are shipped with a base language of English, maintenance is simpler if English remains the base language. Both configurations are supported by Oracle.

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Task 1-5-2: Selecting Additional Languages

Oracle provides translations of all end-user objects with the Global Multi-Language installation files. It is much easier to install additional languages upon initial database creation than to add them later in your implementation process, so we recommend that you choose which additional languages may be required now. There is no limit to the number of languages that can coexist in a single PeopleSoft database; however, remember that each language will require additional storage space, primarily for PeopleSoft PeopleTools objects.

Task 1-5-3: Selecting a Database Character Set

This section discusses:

- Understanding Character Sets
- Using Unicode Databases

Understanding Character Sets

Oracle recommends Unicode AL32UTF8, but also supports non-Unicode (legacy) character sets, in PeopleSoft databases.

The following table lists a selection of character sets, descriptions, and languages that the PeopleSoft software supports for Oracle databases:

Legacy Character Set	Description	Languages Supported
WE8ISO8859P1	Western European ISO 8859-1	All Western European (English, French, Spanish, Portuguese, German, Dutch, and so on)
WE8ISO8859P15	Western European ISO 8859-15	All Western European (English, French, Spanish, Portuguese, German, Dutch, and so on), and includes the euro symbol
WE8MSWIN1252	Western European MS Windows CP1252	All Western European (English, French, Spanish, Portuguese, German, Dutch and so on), and includes the euro symbol
US7ASCII	US 7–bit ASCII	English
JA16SJIS **Note.** The Shift-JIS character set JA16SJISTILDE is also supported.	Japanese Shift-JIS 16-bit The JA16SJIS and JA16SJISTILDE character sets are essentially the same, except for the way that the wave dash and the tilde are mapped to and from Unicode.	Japanese, English

See *PeopleTools: Global Technology,* "Selecting and Configuring Character Sets."

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Using Unicode Databases

To create an Oracle Unicode database, you must specify the character set as either AL32UTF8 or UTF8 in the CREATE DATABASE statement. The default value for an Oracle Unicode database is AL32UTF8, although UTF8 is also supported. The difference between the two is that the newer AL32UTF8 supports Unicode supplementary characters.

In addition, you must specify the init.ora parameter `NLS_LENGTH_SEMANTICS` as `CHAR` or `BYTE` based on the database used, as described in the following sections:

See Creating an INIT<SID>.ORA File in "Creating a Database Manually on Windows" or "Creating a Database on UNIX."

See "Creating a Database Manually on UNIX," Creating an Oracle Instance.

Unicode databases are required if the languages that 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 coexist in a non-Unicode database. However, Japanese does not share the same script as French, so if you need to have Japanese and French coexist 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. For example, Japanese and English can coexist 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.

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

See Understanding Multilingual Issues.

See Understanding Character Sets.

Task 1-6: Preparing for the PeopleTools-Only Upgrade

This section discusses:

- Understanding the PeopleTools Only Upgrade
- Reviewing the Upgrade Documentation
- Shutting Down Servers
- Reviewing Customized Configuration Files

Understanding the PeopleTools Only Upgrade

As part of a PeopleTools-only upgrade, you will need to use files included in the new PeopleSoft PeopleTools release. For PeopleSoft PeopleTools 8.54 and later, you must install a separate PeopleTools codeline *PS_HOME* that is different than your old release *PS_HOME* for use in performing the upgrade. When performing a PeopleTools-only upgrade, prior to the installation of the new release codeline, you will need to perform the tasks described in this section.

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Task 1-6-1: Reviewing the Upgrade Documentation

Review *Getting Started on Your PeopleTools Upgrade,* located on the PeopleTools Upgrade Home Page for your new PeopleSoft PeopleTools release. The installation of the new PeopleTools codeline is only part of the upgrade process. After installing the PeopleTools codeline, you will apply the PeopleTools upgrade Change Package to complete the database portion of the upgrade.

See Also

PeopleSoft PeopleTools Upgrade Home Page for your new release, My Oracle Support

PeopleTools: Change Assistant and Update Manager

Task 1-6-2: Shutting Down Servers

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

Note. For IBM AIX, run the slibclean utility as the root user to remove unused shared libraries from memory.

Task 1-6-3: Reviewing Customized Configuration Files

If you have any customized configuration files (such as psappsrv.cfg, psconfig.sh, pscbl.mak, psrun.mak, and so on), organize and save them in order to have them ready for configuring your new release system. This enables you to preserve any tuned variables. If after finishing the upgrade, you want to install and use a different *PS_HOME* than the one used during the upgrade, then make sure that these customized configuration files are available for use in configuring your new release system.

Task 1-7: Reviewing Patches and Updates Required at Installation

Before beginning the installation, check the Patches and Updates page on My Oracle Support to identify any patches, updates, or fixes required at installation that you will need to apply, based on the products, product version, and PeopleSoft PeopleTools version that you are installing. Specific instructions for applying the patches and updates are included in each listed incident.

Make note of all the patches and updates, 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 media pack to the appropriate server, and so on.

Note. For any patches and updates that require database changes, be sure to read the section on deciding when to apply patches.

See "Completing the Database Setup," Reviewing Patch Application.

The following procedure describes how to access the Patches & Updates database. Contact Oracle if you don't have a user ID and password for My Oracle Support.

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Note. The My Oracle Support interface is updated periodically. For information on using the Patches & Updates area, select the Help link at the top of the page.

To review patches and updates required at installation:

1. Go to My Oracle Support at https://support.oracle.com.
2. Enter your user name and password to log in.

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

3. Select Patches & Updates.
4. In the Patch Search section, select the Product or Family (Advanced) link.

   The Search page includes several search filters. Click the plus sign to add additional filters.
5. In the Product drop-down list, select *PeopleSoft Enterprise PT PeopleTools.*

   Note. PeopleSoft products begin with the word *PeopleSoft.*

6. In the Release drop-down list, select the appropriate PeopleSoft PeopleTools release for the patch search.
7. Select Install/Upgrade (PeopleSoft) as a search filter, and select Required at Install from the drop-down list beside it.

   Note. This search filter is only available when you select PeopleSoft products.

8. Click the Search button (Patch Search).
9. Note any PeopleTools patches and updates that apply to your installation.

   Open the Read Me documentation to view information about the patch that you choose for your installation.
10. Return to the Patch Search page (or click Edit Search on the results page) and search for any PeopleSoft application-related incidents by selecting the appropriate product or product family, release, and language.

    It is strongly recommended that you include Language as a search filter for PeopleSoft application patch searches.

    Make sure the Required for Install option is selected and click the Search button (Patch Search).
11. Note any PeopleSoft application-specific patches and updates that apply to your installation.

Note. Keep in mind that your installation will require additional software components, including web server, report generation, and search software. Be sure to check for updates and patches for any additional component software you install on your environment. Later chapters cover this topic in detail.

After this installation, you can upgrade your Java Runtime Engine (JRE) to a newer version without upgrading PeopleTools, as long as the new JRE is certified.

See Also

"Installing Web Server Products"

"Installing Additional Components"

"Configuring Integration Between PeopleSoft PeopleTools and Oracle SES"

PeopleTools Certifications - Suggested Fixes, My Oracle Support, (search for the article title)

Operating System, RDBMS, and Additional Component Patches Required for Installation PeopleTools, My Oracle Support, (search for the article title)

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PeopleSoft Enterprise PeopleTools Certification Table of Contents, My Oracle Support, (search for the article title)

Task 1-8: Installing Supporting Applications

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

COBOL

- Consult the PeopleSoft information on My Oracle Support to verify whether your application requires COBOL. Remember that COBOL is not needed for PeopleSoft PeopleTools or for applications that do not contain COBOL programs.

  See PeopleSoft Enterprise Frequently Asked Questions about PeopleSoft and COBOL Compilers, My Oracle Support, (search for the article name).

  See PeopleSoft Enterprise Frequently Asked Questions about PeopleSoft and the IBM COBOL Compiler, My Oracle Support, (search for the article name).
- For PeopleSoft applications written in COBOL, install the appropriate version of the COBOL compiler on the server where you will compile.

  See "Installing and Compiling COBOL on Windows."

  See "Installing and Compiling COBOL on UNIX."

  - For UNIX servers, install Micro Focus Server Express or IBM Compiler for IBM AIX.
  - For Microsoft Windows servers, install the appropriate version of Micro Focus Net Express.
- If all your servers are on Microsoft Windows operating systems, Oracle recommends that you install a COBOL compiler on the file server.

  You can install PeopleSoft PeopleTools plus any patches on the file server, compile your COBOL there, and then copy the COBOL binaries to your application and batch servers.
- If your application and batch servers are on UNIX or Linux, 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. In this case, you would install a COBOL compiler on the master (or compile) server and either the COBOL compiler or runtime on the rest. You can also copy patches or customizations from the file server to all of your UNIX servers and compile the COBOL on each machine.

  Note that the compile server must have the same operating system as any destination application or batch servers. For example, if your compile server is an IBM AIX machine, you can only copy COBOL compiled there to other IBM AIX application and batch servers. Oracle recommends this approach. It will help you keep your COBOL source code in sync and only requires that you install COBOL in a single location.
- 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.
- The PeopleSoft Installer installs COBOL source code from the installation directory to your Microsoft Windows file server and to all UNIX servers, but not to the rest of your Microsoft Windows servers.

SQR

- You must install SQR on any non-Windows batch server.

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- On Microsoft Windows batch servers and 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 Microsoft Windows batch server or two-tier client once SQR has been installed to a shared directory. Installing SQR locally will result in improved performance; over a slow network connection the improvement will be significant.

Microsoft Office

Install Microsoft Office (Excel and Word) on any Windows batch server or two-tier client that will be running PS/nVision or Microsoft Word batch processes.

Microsoft Office must be installed locally, because it requires registry settings.

See Also

My Oracle Support, Certifications

Task 1-9: Installing the Database Engine

This section discusses:

- Understanding the Database Engine
- Creating a Seed Database

Understanding the 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 selection influences the resulting generated Oracle Shared Library. The PeopleSoft product calls the Oracle Shared library when making calls to the Oracle RDBMS.

Task 1-9-1: Creating a 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 Oracle Net connectivity from your application servers, batch servers, and workstations.

Task 1-10: Installing Oracle Net on the Server

You need to carry out this step for the database server, batch server, and application server. You need to load the Oracle Net listener and the communication protocol adapter you are using, such as TCP/IP, IPX, or NetBIOS.

Additionally you should do the following:

- Configure the listener to start automatically upon booting.

  Refer to your Oracle documentation for details on setting up the listener.
- Verify that Oracle Net 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:

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```
oracleid/password@TNS:service_name
```

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

- Set required Oracle network configuration file parameters.

Note. PeopleTools 8.44 introduced a new feature called Query Kill. For Query Kill to work successfully, your application server must be using a remote network connection (for example, Oracle Net). In addition, you need to set the SQLNET.EXPIRE_TIME = nn parameter in the SQLNET.ORA network configuration file, as discussed below. If you are using a local connection, Query Kill will not work. However, the BEQUEATH_DETACH=YES parameter in the SQLNET.ORA network configuration file should also be set to keep UNIX defunct processes from being created on aborted batch server processes.

Oracle requires its PeopleSoft customers to use one of the following two Oracle SQLNET.ORA parameters to force the Oracle database server to terminate "dead" or "defunct" threads: SQLNET.EXPIRE_TIME or BEQUEATH_DETACH.

- The Dead Connection Detection parameter, `SQLNET.EXPIRE_TIME = nn`, applies only to connections being done through Oracle Net (for example, through tnsnames.ora).

  This parameter sets a dead connection time-out value. Oracle Net sends a probe periodically to verify that a client-server connection is still active. (Oracle recommends a value of 10. The time increment is in minutes.) This ensures that connections are not left open indefinitely, due to an abnormal client termination. (Client in this context can be an application server thread.) If the probe finds a dead connection or a connection that is no longer in use, it returns an error, causing the server process to exit.

  Note. Be sure to set this parameter in the SQLNET.ORA on the server side.

  Note. This parameter works with all the supported versions of Oracle with PeopleTools 8.51 and higher.

  Limitations on using the dead connection detection feature are:

  - Dead connection detection is not allowed on bequeathed connections.
  - Though very small, a probe packet generates additional traffic that may downgrade network performance.
  - The server may need to perform additional processing to distinguish the connection probing event from other events that occur, depending on which operating system is in use.

    This may also downgrade network performance.
- The parameter Turn Off Unix Signal Handling, `BEQUEATH_DETACH=YES`, applies only to local connections using the BEQ protocol.

  Because the client application spawns a server process internally through the Bequeath protocol as a child process, the client application becomes responsible for cleaning up the child process when it completes. When the server process completes its connection responsibilities, it becomes a defunct process. Signal handlers are responsible for cleaning up these defunct processes. Setting this parameter configures the client profile to pass this process to the UNIX init process by disabling signal handlers.

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Task 1-11: Installing Oracle Net on Your Workstation

You must install Oracle Net 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.

Note. You must also install Oracle Net on each application server and batch server that will connect to the PeopleSoft database server.

Oracle Net 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 Oracle Net) and to the PeopleSoft PeopleTools software on the file server.

You must use the same version of Oracle Net (either 11g or 12c for PeopleSoft PeopleTools 8.54 and later) on your workstations, applications servers, batch servers, and database servers. PeopleSoft PeopleTools 8.55 requires at a minimum the NET 11g (version 11.2.0.x) functionality. Note as well that you must install the necessary protocol driver for your environment, such as the Oracle TCP/IP Adapter.

Note. Ensure that Oracle Net client connectivity is installed prior to performing a PeopleSoft workstation installation. Always check the most recent version of supported platforms on My Oracle Support for the currently supported Oracle Net versions.

See My Oracle Support, Certifications.

Task 1-12: Testing Oracle Net Connectivity

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

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 Oracle Net 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 1-13: Performing 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 workstations to access the file server and database server simultaneously, back up the workstations.

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Task 1-14: Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer

After you have completed the tasks in this book to install PeopleSoft PeopleTools, including installing any necessary patches and fixes, you need to install PeopleSoft Change Assistant. PeopleSoft Change Assistant is a standalone application that enables you to assemble and organize all of the steps necessary to apply patches and fixes for maintenance updates.

PeopleSoft Change Assistant gathers all the necessary information for a maintenance update from the Environment Management Hub and uploads it to My Oracle Support. With the environment data available, My Oracle Support can determine what updates are applicable to your environment. PeopleSoft Change Assistant carries out the following tasks:

- Coordinates with Environment Management Framework to monitor information specific to your PeopleSoft implementation.
- Finds required updates
- Downloads updates
- Creates change packages

  Note. Beginning with PeopleSoft PeopleTools 8.53, use the PeopleSoft Update Manager from PeopleSoft Change Assistant to use a tailored search to find patches, as well as create and apply change packages.

- Applies all change packages

You can also install PeopleSoft Change Impact Analyzer, either as part of the PeopleSoft Change Assistant installation, or separately from the installation executable provided with PeopleSoft PeopleTools. PeopleSoft Change Impact Analyzer is a Microsoft Windows-based tool that you can use to evaluate the effect of changes you make on your installation.

See Also

"Installing PeopleSoft Change Assistant"

"Installing PeopleSoft Change Impact Analyzer"

PeopleTools: Change Assistant and Update Manager

PeopleTools: Change Impact Analyzer

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Chapter 2

Installing Web Server Products

This chapter discusses:

- Installing Oracle WebLogic Server
- Installing IBM WebSphere Application Server

Task 2-1: Installing Oracle WebLogic Server

This section discusses:

- Understanding the Oracle WebLogic Installation
- Reviewing Troubleshooting Tips
- Obtaining Oracle WebLogic Installation Files from Oracle Software Delivery Cloud
- Installing JDK for Oracle WebLogic
- Installing Oracle WebLogic on Microsoft Windows
- Installing Oracle WebLogic on Linux or UNIX in Silent Mode
- Configuring JDK for Daylight Savings Time Change
- Removing the Oracle WebLogic Installation on Microsoft Windows
- Removing the Oracle WebLogic Installation on Linux or UNIX

Understanding the Oracle WebLogic Installation

PeopleSoft PeopleTools 8.55 supports Java 7 enabled 64-bit Oracle WebLogic Server 12.1.3. Oracle provides installation files for Oracle WebLogic on the Oracle Software Delivery Cloud portal.

See Obtaining Oracle WebLogic Installation Files from Oracle Software Delivery Cloud.

To familiarize yourself with the most current support information and information about any required Oracle WebLogic service packs based on operating system platform or PeopleSoft PeopleTools versions, consult the Certifications area of My Oracle Support.

You must install an operating-system specific Java Developers Kit (JDK) before beginning the Oracle WebLogic installation.

See Installing JDK for Oracle WebLogic.

See Also

Oracle Software Delivery Cloud, http://edelivery.oracle.com

My Oracle Support, Certifications

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Clustering and High Availability for PeopleTools, My Oracle Support, (search for the article title)

Operating System, RDBMS, and Additional Component Patches Required for Installation PeopleTools, My Oracle Support, (search for the article title and release number)

Reviewing Troubleshooting Tips

If you have trouble with the installation, review these tips:

- It can require up to 800 MB space to install Oracle WebLogic. If there is not enough space, the installer displays an error with information about the space limitation. You will need to exit the installation and create some space under your home directory before starting over.
- The Oracle WebLogic installer makes use of the default system temporary space. It will stop and display an error message if the temporary space is not sufficient. Clean up the default system temp space and try again. If you do not have the privilege to clean up that directory and need to proceed, the workaround is to set aside a directory under your Home directory and use it as the temporary space. This can be achieved by setting `-Djava.io.tmpdir` in the command for launching the installer.

  The following command is a sample Linux command for silent mode installation, which uses the "temp" directory under your Home directory. *RESPONSE_DIR* refers to the location of the silent mode response file, and *INVENTORY_DIR* refers to the location of the Oracle inventory file.

  See Installing Oracle WebLogic on Linux or UNIX in Silent Mode.

  ```
  $JAVA_HOME/bin/java -jar -Djava.io.tmpdir=~/temp ./fmw_12.1.3.0.0_⇒
  wls.jar -silent -responseFile RESPONSE_DIR/res.rsp -invPtrLoc INVENTORY_⇒
  DIR/oraInst.loc
  ```

  Note. This workaround may not be applicable on all platforms. If you tried and the installer still errors out due to the amount of temporary space, contact your system administrator to clean up the system temporary space before proceeding.

- If the installation fails, and the Middleware Home directory that you specified for the Oracle WebLogic 12.1.3 installation is one in which other Oracle products have been installed in previous releases, (for example c:\oracle folder in Microsoft Windows), it may indicate corruption in the registry.xml file inside your existing Middleware Home. Pick a different location for the Oracle WebLogic 12.1.3 installation directory and try the installation again.
- If you are installing onto an UNIX or Linux environment, in case of installation failure, refer to the log file Wls1213Install.log under the installation logs directory to view the events that occurred.
- If you encounter the following error message while running in console mode on a Microsoft Windows operating system, it means an environment variable *_JAVA_OPTIONS* has been set in your system. It causes the Java process initiated by the Oracle WebLogic installer to fail.

  ```
  ERROR: JVMPI, an experimental interface, is no longer supported.
  Please use the supported interface: the JVM Tool Interface (JVM TI).
  ```

  To resolve the problem, remove the environment variable *_JAVA_OPTIONS* from your system and rerun the installation.
- If you encounter the following error message while installing on an Oracle Solaris operating system, it means there is a problem with access to the temporary directory:

  ```
  *sys-package-mgr*: can't write cache file
  ```

  This message appears because the Oracle WebLogic installer creates a temporary directory (for example, on Oracle Solaris it is /var/tmp/wlstTemp) that is shared by all users, and it is unable to differentiate between

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users. As a result, access to the directory is blocked when the user accessing the directory is not the one who originally created the directory. The workaround for this problem is to remove the installation and install it again after manually adjusting the temporary directory permissions. A user with superuser privileges can use the following command to adjust the permissions:

```
chmod -R 777 /var/tmp/wlstTemp
```

For more information, search the Oracle documentation for Oracle WebLogic.

Task 2-1-1: Obtaining Oracle WebLogic Installation Files from Oracle Software Delivery Cloud

At this point you should have already downloaded the necessary files from Oracle Software Delivery Cloud. If not, this section includes additional information on finding and using the files for Oracle WebLogic if necessary.

See "Preparing for Installation," Using Oracle Software Delivery Cloud to Obtain Installation Files.

See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

To obtain the files for Oracle WebLogic installation:

1. After logging in to Oracle Software Delivery Cloud, read the information about export restrictions, and then click Accept.
2. Enter Oracle WebLogic in the Product field, and select Oracle Server, Enterprise Edition, from the drop-down list.

   Note. The Enterprise Edition includes Oracle WebLogic Server and Oracle Coherence, as well as other items.

3. Click Select Platform, select the operating system you are running on, and click Select.

   The following operating systems are supported:

   - IBM AIX
   - HP-UX Itanium
   - Linux
   - Microsoft Windows
   - Oracle Solaris on SPARC
   - Oracle Solaris on x86–64
4. Click Continue.
5. On the page listing the selected product, click Continue.

   Note. Click the arrow to view the list of products included.

6. Read the license agreements, and select the check box to acknowledge that you accept the agreement, and then click Continue.
7. On the File Download window, download the zip file for Oracle Fusion Middleware 12c (12.1.3.0.0) WebLogic Server and Coherence.

   Download the files you need by clicking a file name to download an individual file, or click Download All to obtain all of the files listed.

   Save the zip files to a temporary directory on your local system. The directory where you save the zip file is referred to in this documentation as *WLS_INSTALL*. You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Oracle Solaris, you must unzip it on Oracle

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Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to an Oracle Solaris, the stage area files may be corrupt.

8. Extract the files into *WLS_INSTALL*.

   The Oracle WebLogic installer file is fmw_12.1.3.0.0_wls.jar.

Note. If you need to FTP the downloaded file, make sure to FTP it in Binary mode.

Task 2-1-2: Installing JDK for Oracle WebLogic

This section discusses:

- Understanding the JDK Requirement for Oracle WebLogic
- Installing JDK for IBM AIX
- Installing JDK for HP-UX Itanium
- Installing JDK for Linux
- Installing JDK for Microsoft Windows
- Installing JDK for Oracle Solaris on SPARC
- Installing JDK for Oracle Solaris on x86-64

Understanding the JDK Requirement for Oracle WebLogic

Before beginning the Oracle WebLogic installation you must install the 64-bit Java 7 JDK. The specific JDK required depends upon the operating system and vendor, as described in this table:

Operating System Platforms	JDK Version Supported	64-bit or Mixed Mode*	Comments
IBM AIX	IBM JDK 1.7.0 SR6+	64-bit	none
HP-UX Itanium	Hewlett-Packard JDK 7.0.08+	Mixed mode	Use "-d64" to turn on 64–bit mode
Linux	Oracle JDK 1.7.0_51+	64-bit	none
Microsoft Windows	Oracle JDK 1.7.0_51+	64-bit	none
Oracle Solaris on SPARC	Oracle JDK 1.7.0_51+	Mixed mode	Requires two installers. Use "-d64" to turn on 64-bit mode.
Oracle Solaris on x86–64	Oracle JDK 1.7.0_51+	Mixed mode	Install the X86 JDK installer first and then the one for X64. Use "-d64" to turn on 64 bit mode.

* The mixed mode installers run in 32-bit by default. The parameter *-d64* is required to run them in 64-bit mode.

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Installing JDK for IBM AIX

To install 64-bit IBM JDK for IBM AIX:

1. Go to the IBM JDK download site:

   http://www.ibm.com/developerworks/java/jdk/aix/service.html

   Note. You need a user name and password for downloading IBM JDK. If you don't have the required credentials, your AIX support personnel should be able to help.

2. Select the link for Java 7 64-bit under Java SE Version 7.
3. Register and log in to download.
4. Download Java7_64_sdk installer for version 7.1.0.15 or higher.
5. Install the JDK on the AIX computer where you will install the Oracle WebLogic server.

   The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

   Note. Spaces are not allowed in the *JAVA_HOME* name.

Installing JDK for HP-UX Itanium

To install Hewlett-Packard JDK for an Oracle WebLogic installation on HP-UX Itanium:

1. Go to the Hewlett-Packard download web site:

   https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPUXJDKJRE70

2. Select the link for Version 7.0.08 or higher.
3. Provide the login credentials.
4. Provide the required information.
5. Click Next and download JDK.
6. Install the JDK on the computer where you will install the Oracle WebLogic server.

   The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

   Note. Spaces are not allowed in the *JAVA_HOME* name.

Installing JDK for Linux

To install 64-bit JDK for an Oracle WebLogic installation on Linux:

1. Go to the Oracle JDK download site:

   http://www.oracle.com/technetwork/java/javase/downloads/index.html

2. Download Oracle Java 7 64-bit JDK version 1.7.0_51 or higher for Linux x86-64.

   Refer to the JDK installation instructions at the following link:

   http://docs.oracle.com/javase/7/docs/webnotes/install/linux/linux-jdk.html

3. Install the JDK on the computer where you will install the Oracle WebLogic server. The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

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Note. Spaces are not allowed in the *JAVA_HOME* name.

Installing JDK for Microsoft Windows

To install 64-bit JDK for an Oracle WebLogic installation on Microsoft Windows:

1. Go to the Oracle JDK download site:

   http://www.oracle.com/technetwork/java/javase/downloads/index.html
2. Download Oracle Java 7 64-bit JDK version 1.7.0_51 or higher for Microsoft Windows x86-64.

   Refer to the JDK installation instructions at the following link:

   http://docs.oracle.com/javase/7/docs/webnotes/install/windows/jdk-installation-windows.html
3. Install the JDK on the computer where you will install the Oracle WebLogic server. The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

Note. Spaces are not allowed in the *JAVA_HOME* name.

Installing JDK for Oracle Solaris on SPARC

To install JDK for an Oracle WebLogic installation on Oracle Solaris on SPARC (64-bit):

1. Go to the Oracle JDK download site:

   http://www.oracle.com/technetwork/java/javase/downloads/index.html
2. Download the Oracle Java 7 64-bit JDK version 1.7.0_51 or higher for Solaris SPARC.

   Be sure to get both files needed for 64-bit JDK for Solaris. The JDK is mixed mode, and the second installer enables the JDK to be run in 64-bit mode, which is triggered by the "-d64" parameter.

   Refer to the installation instructions at the following link:

   http://docs.oracle.com/javase/7/docs/webnotes/install/solaris/solaris-jdk.html
3. Install the JDK on the computer where you will install the Oracle WebLogic server.

   The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

Note. Spaces are not allowed in the *JAVA_HOME* name.

Installing JDK for Oracle Solaris on x86-64

To install JDK for an Oracle WebLogic installation on Oracle Solaris on x86-64:

1. Go to the Oracle JDK download site:

   http://www.oracle.com/technetwork/java/javase/downloads/index.html
2. Download the Sun Java 7 64-bit JDK version 1.7.0_51 or higher for both Oracle Solaris x86 and Oracle Solaris x64.

   Oracle Solaris x64 requires users to first install the JDK for Oracle Solaris x86 and then run the JDK installer for Oracle Solaris x64. The JDK is mixed mode, and the second installer enables the JDK to be run in 64-bit mode, which is triggered by the "-d64" parameter.

   Refer to the installation instructions at the following link:

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http://docs.oracle.com/javase/7/docs/webnotes/install/solaris/solaris-jdk.html

3. Install the JDK on the computer where you will install the Oracle WebLogic server.

   The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

   Note. Spaces are not allowed in the *JAVA_HOME* name.

Task 2-1-3: Installing Oracle WebLogic on Microsoft Windows

The following procedure assumes that you saved the installation file fmw_12.1.3.0.0_wls.jar from Oracle Software Delivery Cloud in the directory *WLS_INSTALL.* Installation in GUI mode is normally used for Microsoft Windows operating systems. You should have installed the appropriate JDK to *JAVA_HOME* before beginning this installation.

See Installing JDK for Oracle WebLogic.

Note. Previous releases of Oracle WebLogic Server, such as 9.2 MP*X,* and 10.3.*X,* can coexist with 12.1.3 on a single machine. The best practice is to install Oracle WebLogic 12.1.3 into an empty directory, or at least one that does not contain other Oracle WebLogic (previously BEA) products.

If you choose, however, to install this version of Oracle WebLogic in an existing *WLS_HOME* directory (for example, c:\oracle), you must shut down all instances of Oracle WebLogic Server running in that *WLS_HOME* before performing this installation.

To install Oracle WebLogic Server 12.1.3:

1. Open a command prompt and change directory to *WLS_INSTALL*.

   Note. If you are running on a Microsoft Windows operating system, you must run the command prompt as administrator.

2. Set the environment variable JAVA_HOME to be the location where you installed the Oracle Java JDK 7.

   For example, if you installed JDK to D:\jdk1.7.0_51 use this command:

   ```
   set JAVA_HOME=D:\jdk1.7.0_51
   ```

3. Use the following command to launch the installer:

   ```
   %JAVA_HOME%\bin\java -jar fmw_12.1.3.0.0_wls.jar
   ```

   Note. It may take up to five minutes to extract the installer. You see system check messages. The Welcome window appears when the extraction is complete.

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4. Click Next on the Welcome window for Oracle Fusion Middleware 12c (12.1.3.0.0) WebLogic Server and Coherence Installer.

Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 1 of 7: Welcome window

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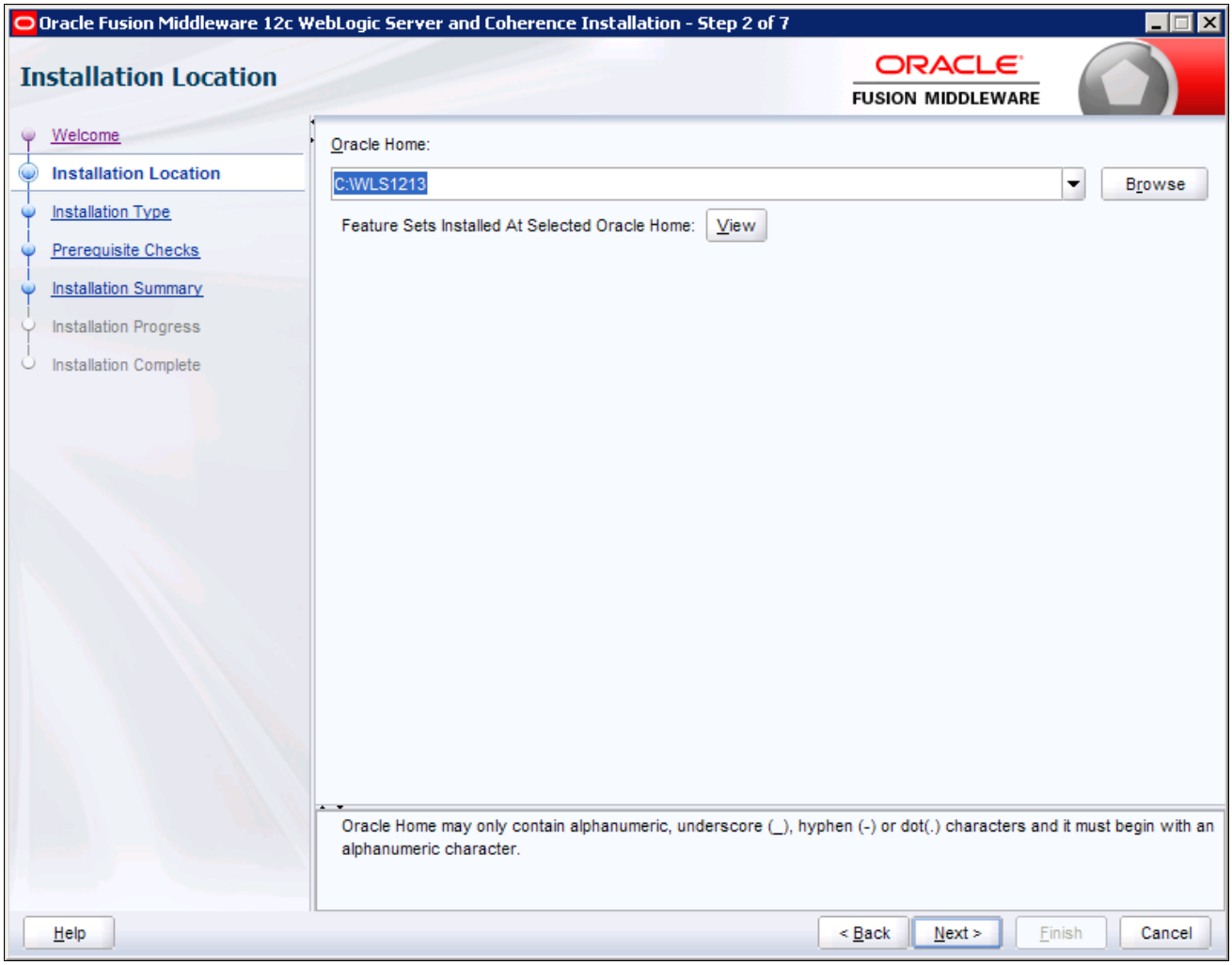
5. On the Installation Location window, enter a location for the Oracle Home, or browse to an existing directory.

   Do not choose a directory that contains an existing installation of Oracle WebLogic.

   If the directory does not exist, the Oracle WebLogic installer creates it. The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. In this example *WLS_HOME* is C:\WLS1213.

   Click Next to continue.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 2 of 7: Installation Location window

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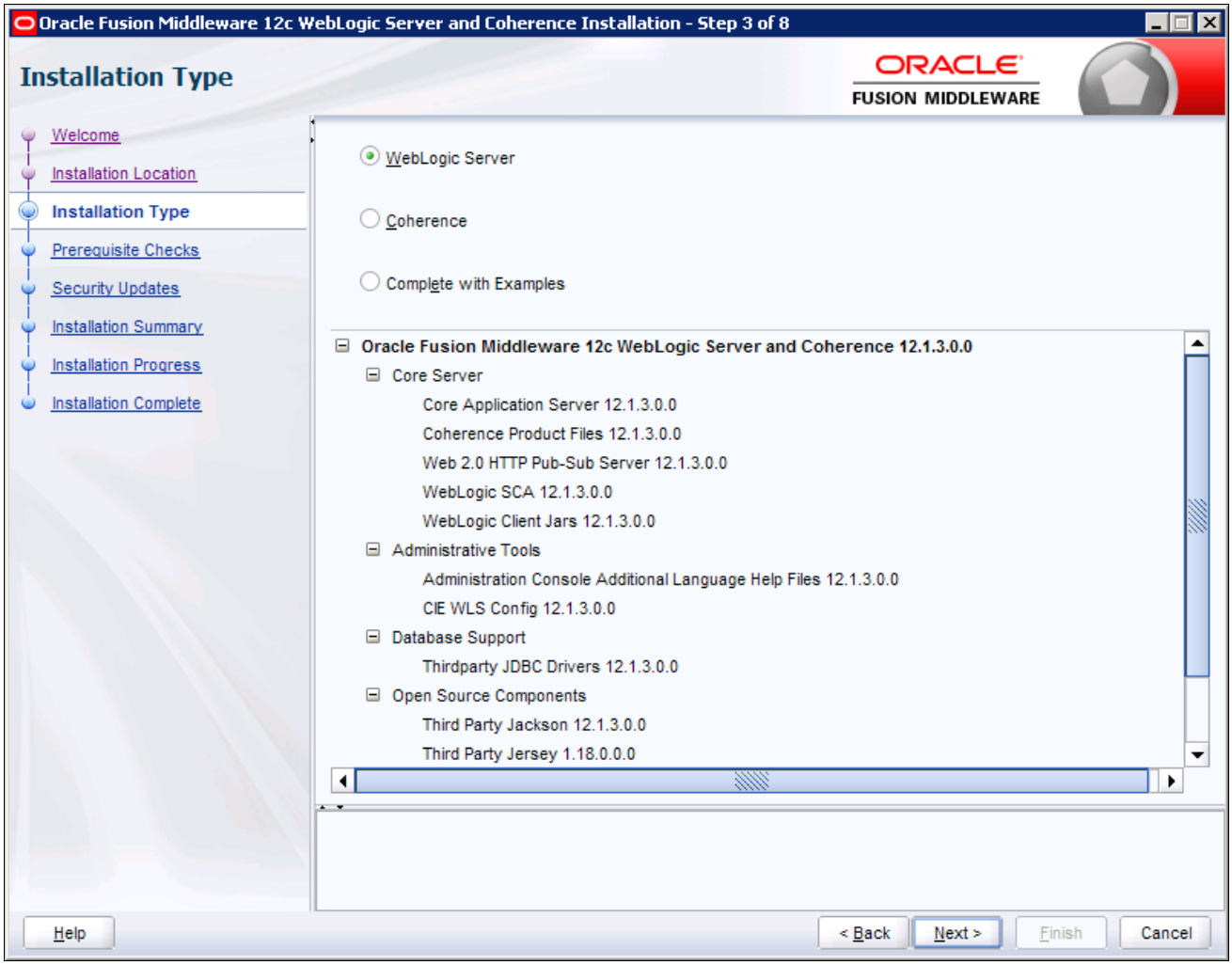
6. Accept the default WebLogic Server installation option on the Installation Type window, for WebLogic Server Installation, and then click Next.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 3 of 8: Installation Type window

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7. Wait while the installer carries out prerequisite checks.

Note. You may see the following message if installing Oracle WebLogic 12.1.3 on Microsoft Windows 2012 R2. You can ignore this warning and proceed with the installation:

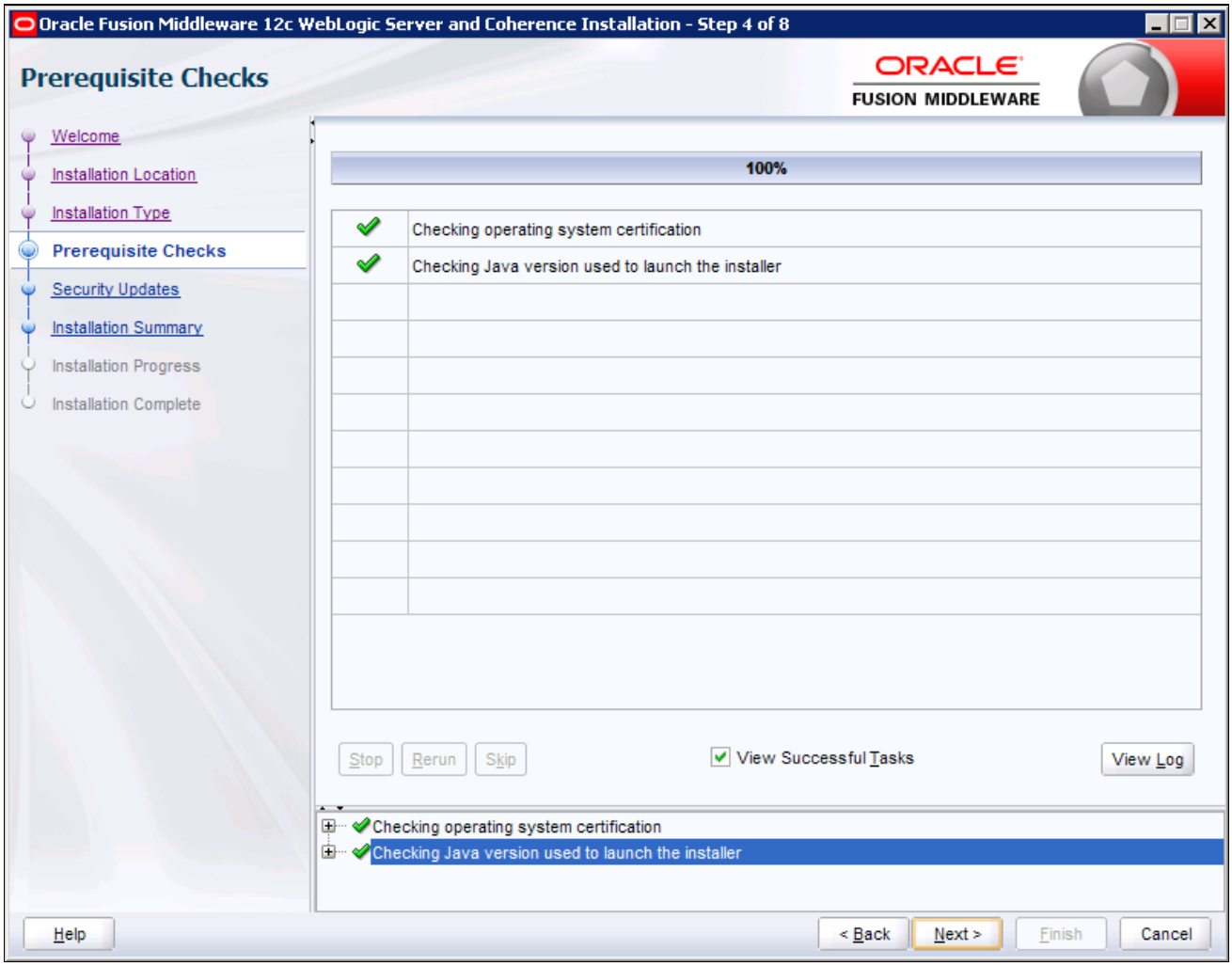
"Expected result: One of 6.0,6.1,6.2[[

Actual Result: 6.3

Check complete.

The overall result of this check is: Failed"

In this example the system passed the prerequisite checks.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 4 of 8: Prerequisite Checks window

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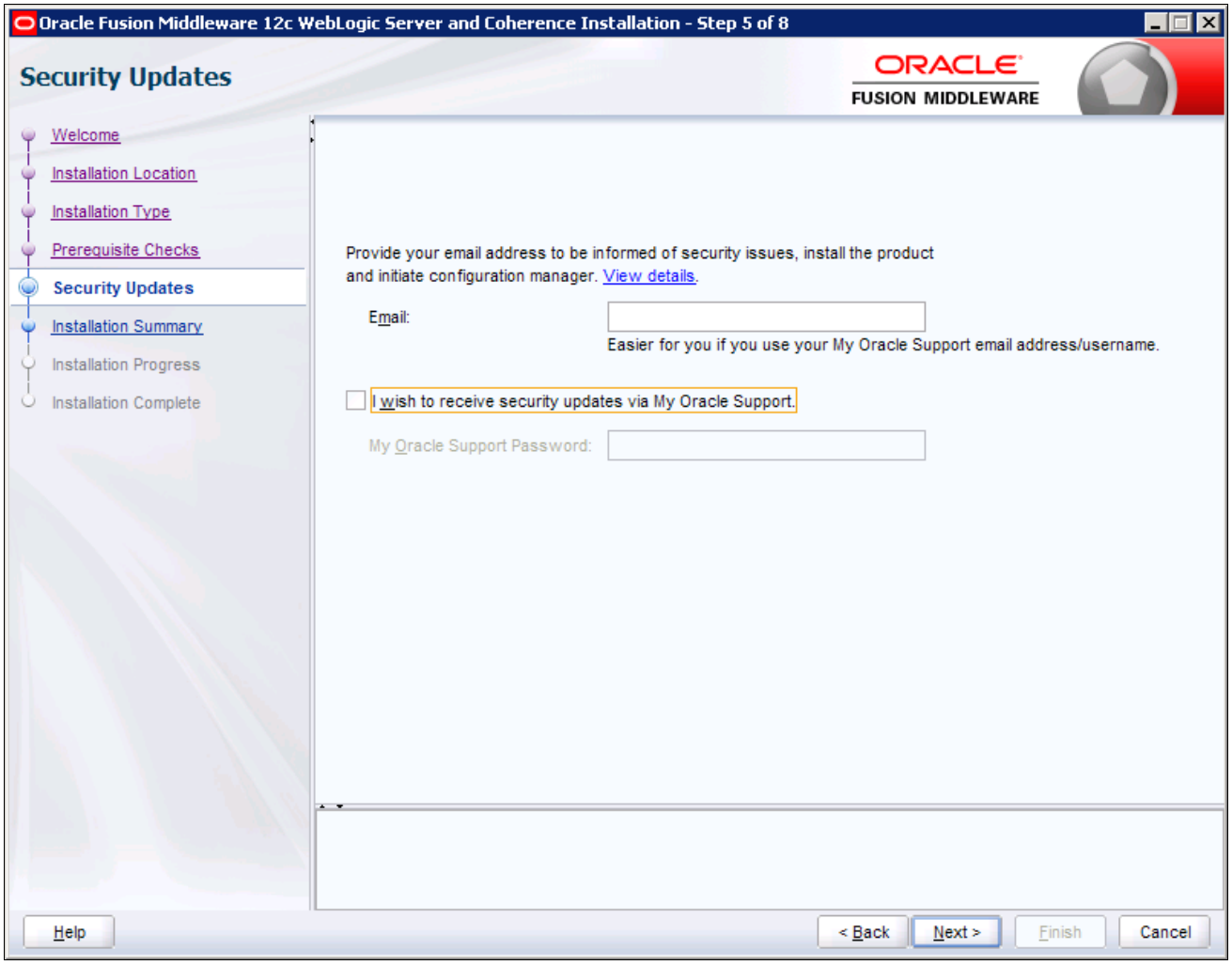
8. Clear the option I wish to receive security updates via My Oracle Support on the Specify Security Updates window, as shown in this example.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 5 of 8: Specify Security Updates window

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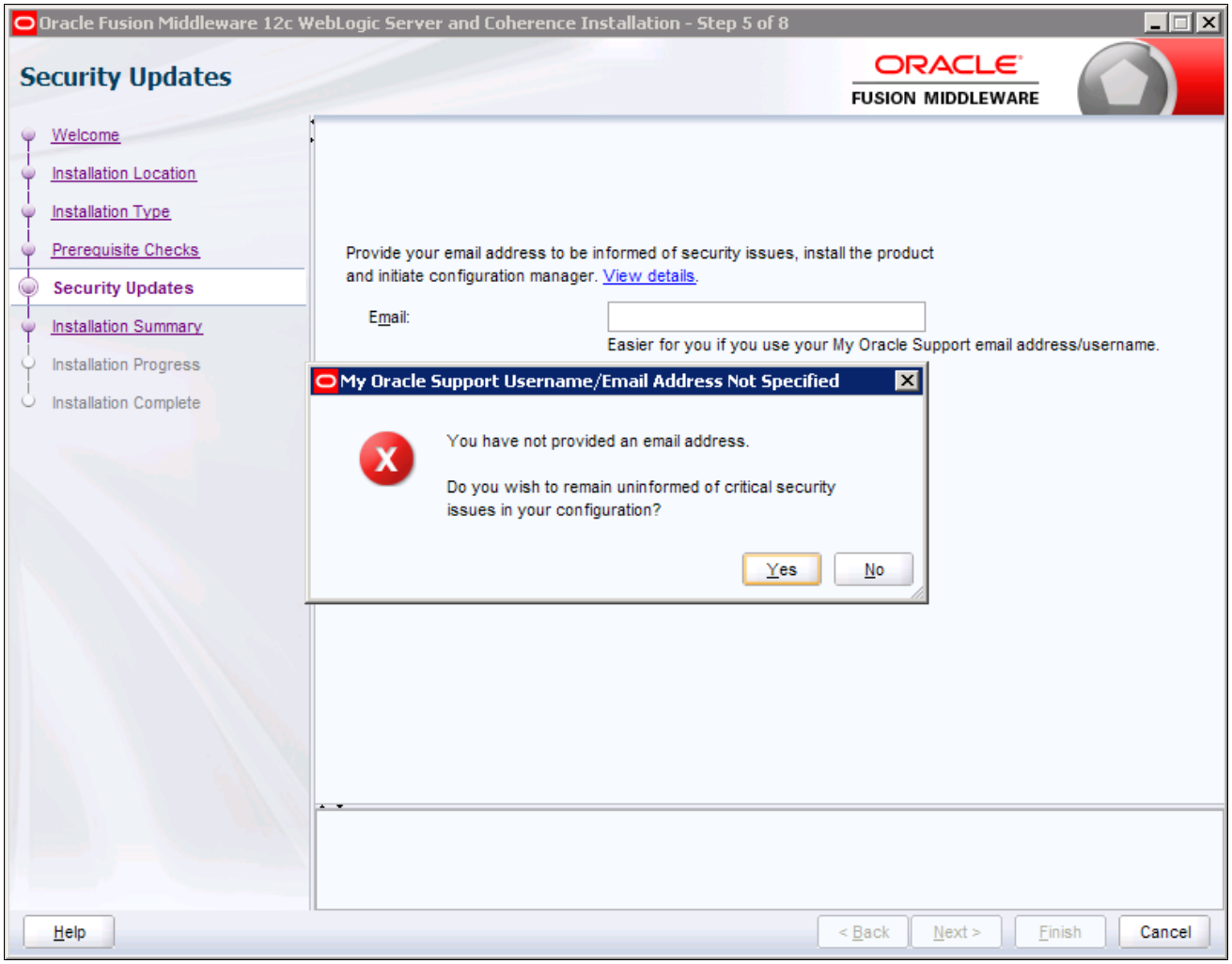
9. A dialog box labelled "My Oracle Support Username/Email Address Not Specified" appears; click Yes to confirm that you wish to remain uninformed of critical security issues in your configuration:



My Oracle Support Username/Email Address Not Specified dialog box

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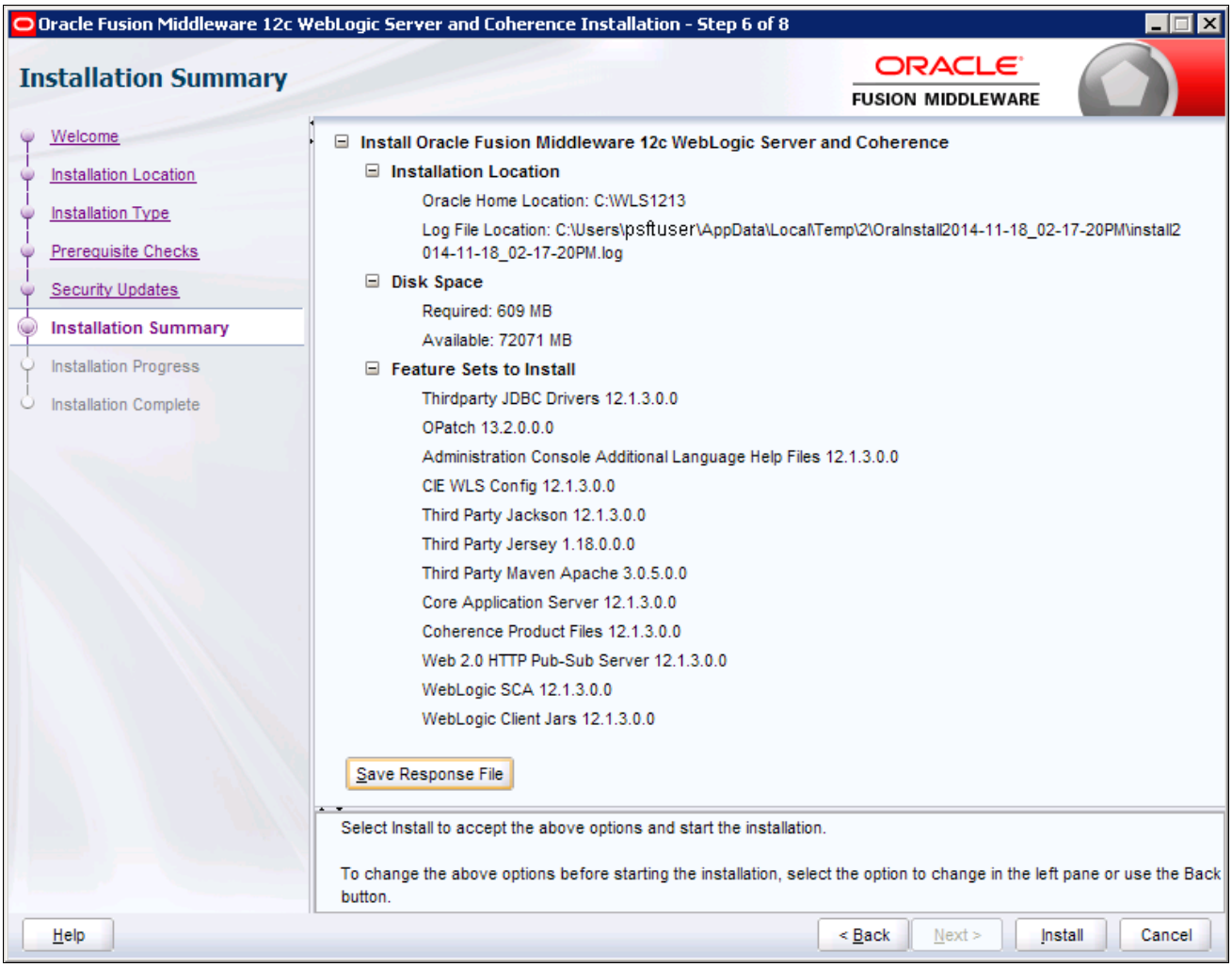
10. Verify your choices in the installation summary, such as the installation location and features to install.

    If you want to save a response file to be used in silent installation, click Save Response File and provide a location.

    Click Install to begin the installation.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 6 of 8: Installation Summary window

A progress indicator appears. Click Next when the tasks are complete, as shown in this example:

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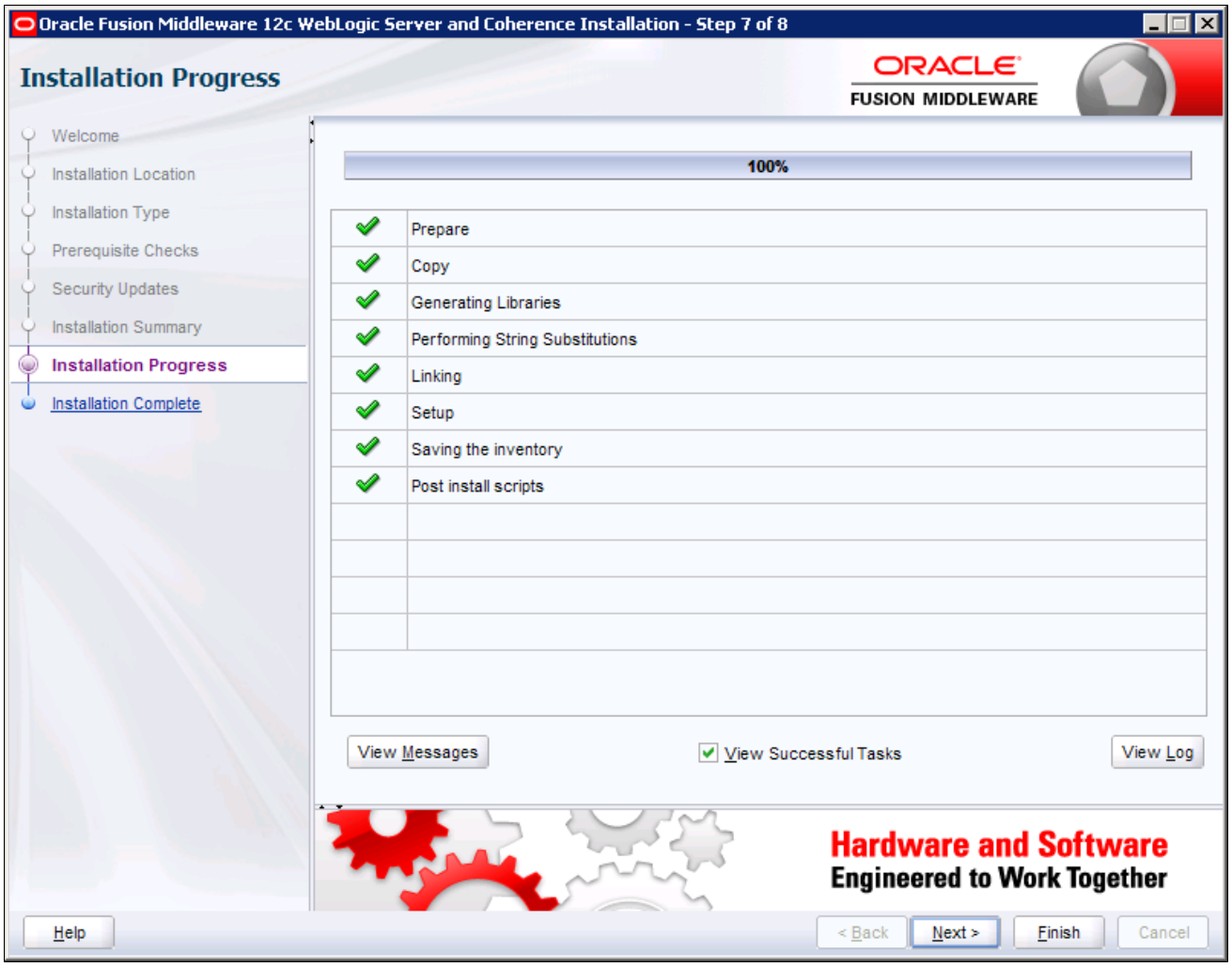

Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 7 of 8: Installation Progress window

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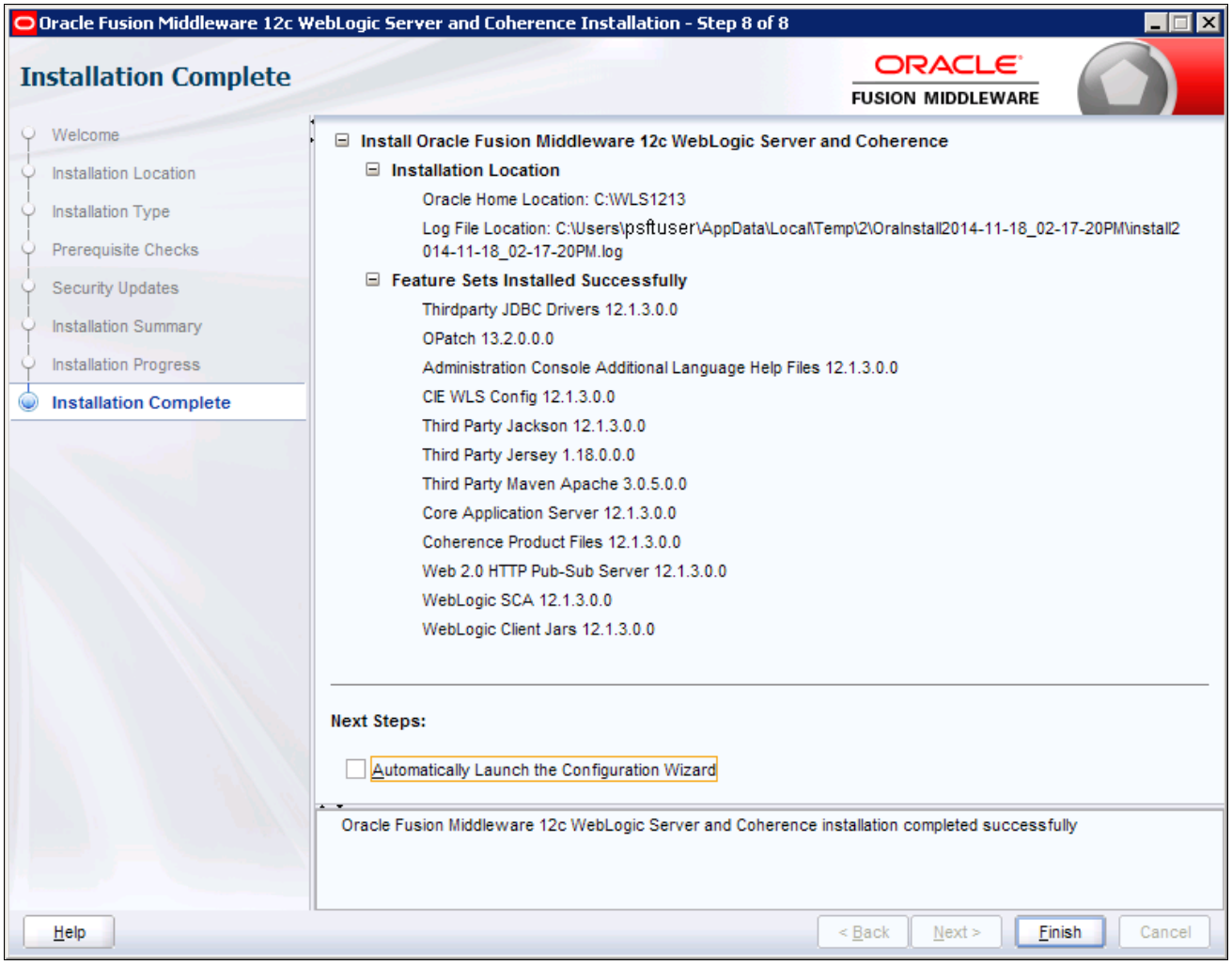
11. When the installation has completed successfully, clear the Automatically Launch the Configuration Wizard option, and click Finish.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 8 of 8: Installation Complete window

Task 2-1-4: Installing Oracle WebLogic on Linux or UNIX in Silent Mode

Use these instructions for silent mode installation for Linux and UNIX operating systems.

Note. Console mode installation is not supported beginning with Oracle WebLogic 12.1.3.

See the information on silent installation for Oracle WebLogic in the Oracle Middleware documentation.

The following procedure assumes that you saved the installation file fmw_12.1.3.0.0_wls.jar from Oracle Software Delivery Cloud in the directory *WLS_INSTALL*. You should have installed the appropriate JDK to *JAVA_HOME* before beginning this installation.

To run the Oracle WebLogic installation in silent mode:

1. Download the Oracle WebLogic installation file and save it in a local directory, referred to here as *WLS_INSTALL*.

   If you downloaded the zip file for the Oracle WebLogic installation from Oracle Software Delivery Cloud to a

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Microsoft Windows computer, FTP the zip file in binary mode to your Linux or Oracle Solaris computer before unzipping it into *WLS_INSTALL*.

2. Change directory to *WLS_INSTALL* and make the installer file executable using the following command:

   ```
   chmod a+x fmw_12.1.3.0.0_wls.jar
   ```

3. In a shell window, change directory to *WLS_INSTALL*:

   ```
   cd WLS_INSTALL
   ```

4. Set *JAVA_HOME* to be the location where you installed the JDK.

   For example, if the JDK is installed under "/home/jdklnk7u51", use the following command:

   ```
   export JAVA_HOME=/home/jdklnk7u51
   ```

5. If it does not exist, use a text editor, such as "vi", to create the central inventory location file, named oraInst.loc, in a directory referred to in this documentation as *INVENTORY_DIR*.

   The oraInst.loc file contains only the following two lines:

   ```
   inventory_loc=/home/psftuser/oraInventory
   inst_group=wlsgrp
   ```

   The oraInst.loc file contains the following information:

   - inventory_loc — Specify the full path to the directory where you want the installer to create the inventory directory. The location in the example is /home/psftuser/oraInventory.
   - oui_install_group — Specify the name of the group whose members have write permissions to this directory. The group name in the example is wlsgrp.

6. Copy the following content into a text editor and save it as res.rsp.

   This is the silent response file. The directory where you save it is referred to here as *RESPONSE_DIR*.

   ```
   [ENGINE]

   #DO NOT CHANGE THIS.
   Response File Version=1.0.0.0.0

   [GENERIC]

   #The oracle home location. This can be an existing Oracle Home or a new⇒
    Oracle Home
   ORACLE_HOME=

   #Set this variable value to the Installation Type selected. e.g. Web⇒
   Logic Server, Coherence, Complete with Examples.
   INSTALL_TYPE=WebLogic Server

   #Provide the My Oracle Support Username. If you wish to ignore Oracle⇒
    Configuration Manager configuration provide empty string for user name.
   MYORACLESUPPORT_USERNAME=

   #Provide the My Oracle Support Password
   MYORACLESUPPORT_PASSWORD=<SECURE VALUE>

   #Set this to true if you wish to decline the security updates. Setting⇒
   ```

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```
 this to true and providing empty string for My Oracle Support username⇒
 will ignore the Oracle Configuration Manager configuration
DECLINE_SECURITY_UPDATES=true

#Set this to true if My Oracle Support Password is specified
SECURITY_UPDATES_VIA_MYORACLESUPPORT=false

#Provide the Proxy Host
PROXY_HOST=

#Provide the Proxy Port
PROXY_PORT=

#Provide the Proxy Username
PROXY_USER=

#Provide the Proxy Password
PROXY_PWD=<SECURE VALUE>

#Type String (URL format) Indicates the OCM Repeater URL which should⇒
 be of the format [scheme[Http/Https]]://[repeater host]:[repeater port]
COLLECTOR_SUPPORTHUB_URL=
```

7. Use a text editor to enter the full path for ORACLE_HOME.

   Oracle WebLogic will be installed into the ORACLE_HOME directory entered here. This must be a new directory; do not enter a directory that has been used previously.

8. If this is the first time you are installing on your system (meaning there is no pre-existing Oracle inventory location), use the following commands to perform a silent installation.

   These commands use res.rsp as the name for the response file.

   - For IBM AIX or Linux:

     ```
     $JAVA_HOME/bin/java -jar ./fmw_12.1.3.0.0_wls.jar -silent -response⇒
     File RESPONSE_DIR/res.rsp -invPtrLoc INVENTORY_DIR/oraInst.loc
     ```

   - For HP-UX Itanium or Oracle Solaris (on SPARC or x86–64):

     ```
     $JAVA_HOME/bin/java -d64 -jar ./fmw_12.1.3.0.0_wls.jar -silent -⇒
     responseFile RESPONSE_DIR/res.rsp -invPtrLoc INVENTORY_DIR/ora⇒
     Inst.loc
     ```

     Note. The JVM parameter "-d64" is required for HP-UX Itanium or Oracle Solaris.

9. If you have previously installed an Oracle product on your system and do not need to specify an Oracle inventory location, use the following commands to perform a silent installation:

   - For IBM AIX or Linux:

     ```
     $JAVA_HOME/bin/java -jar ./fmw_12.1.3.0.0_wls.jar -silent -response⇒
     File RESPONSE_DIR/res.rsp
     ```

   - For HP-UX Itanium or Oracle Solaris (on SPARC or x86–64):

     ```
     $JAVA_HOME/bin/java -d64 -jar ./fmw_12.1.3.0.0_wls.jar -silent -⇒
     ```


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```
responseFile RESPONSE_DIR/res.rsp
```

Note. The JVM parameter "-d64" is required for HP-UX Itanium or Oracle Solaris.

10. After you enter the commands in the previous steps, the installer is launched in silent mode, and a progress indicator tracks the installation.

    When the installation is complete, you should see a completion message such as "The installation of Oracle Fusion Middleware 12c WebLogic Server and Coherence 12.1.3.0.0 completed successfully."

Task 2-1-5: Configuring JDK for Daylight Savings Time Change

The version of JDK mentioned in the previous section Installing JDK for Oracle WebLogic includes the Daylight Saving Time (DST) rules available at the time of packaging. If new rules are implemented after this time, you should use the instructions in this section to update the time zone definition files.

You can skip this section unless a change to the DST rules has happened near or after the general availability date of Oracle WebLogic or PeopleSoft PeopleTools. Consult the information on configuring PeopleSoft time zone definitions in the *PeopleTools: Global Technology* product documentation.

This section provides an example of how the time zone updater utility (TZUPDATER), which is supplied by the JDK vendors, can be used to update the time zone definition files contained in the JDK used by Oracle WebLogic server.

1. Identify and shut down any JVM processes that are using the JDK that you will be updating.
2. For future reference or restoration, back up the location where the targeted JDK is located.

   The JDK being used for different operating systems is different. For Oracle WebLogic 12.1.3.0.0, refer to the commEnv.cmd (for Microsoft Windows), or commEnv.sh (for UNIX) file under *WLS_HOME*\oracle_common\common\bin to determine the setting for JAVA_HOME and the exact name and location for the JDK being used by your Oracle WebLogic server. *WLS_HOME* is the directory where Oracle WebLogic is installed.
3. Download the appropriate updater utility for your operating system from the JDK vendor.

Each tzupdater provided by the vendor comes with instructions (typically in a readme file) describing how to:

- Locate the correct JDK.
- Apply classes using the tzupdater or provided scripts.
- Check tzupdater versions.

Read the instructions carefully as the steps and instructions are vendor-specific. Keep in mind that these instructions and versions may be updated when the vendor finds it necessary.

Note. After successfully running the TZUPDATER to update a JDK location, the changes will take effect only for newly started Java processes from that location. In the event that you did not identify and stop all Java processes running from this location, it will be necessary to stop and restart these for the changes to take effect.

See Also

Timezone Updater Tool, Oracle Technology Network, http://www.oracle.com/technetwork/java/javase/tzupdater-readme-136440.html

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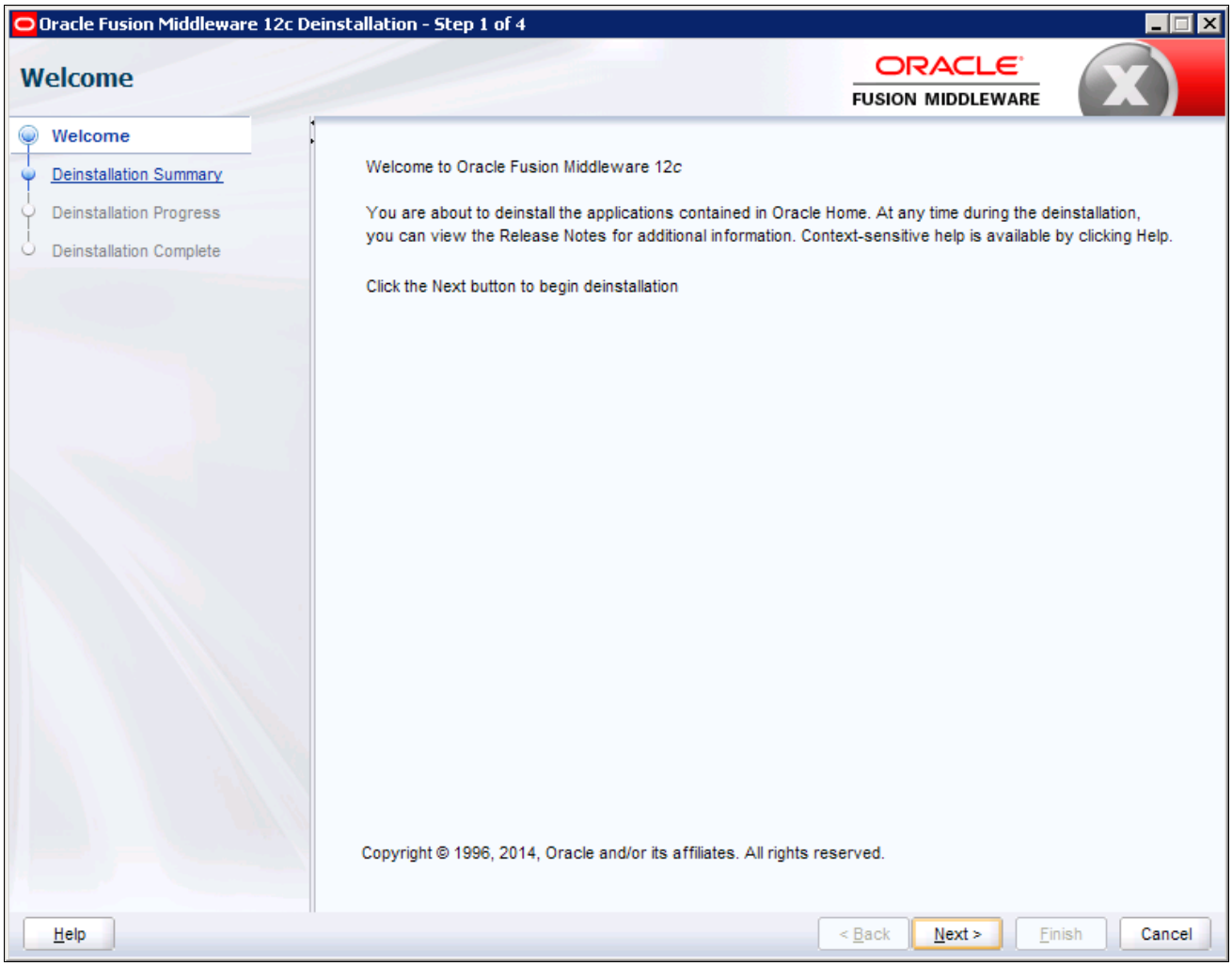
Task 2-1-6: Removing the Oracle WebLogic Installation on Microsoft Windows

To remove the Oracle WebLogic installation on Microsoft Windows (GUI mode):

1. Before running the deinstaller, stop all servers and processes associated with the Oracle home you are going to remove.
2. Change directory to the *WLS_HOME*\oui\bin folder and run the deinstall.cmd script.

   WLS_HOME is the location where you installed your Oracle WebLogic 12.1.3.0.0. Click Next on the Welcome window.



Oracle Fusion Middleware Deinstallation - Step 1 of 4: Welcome window

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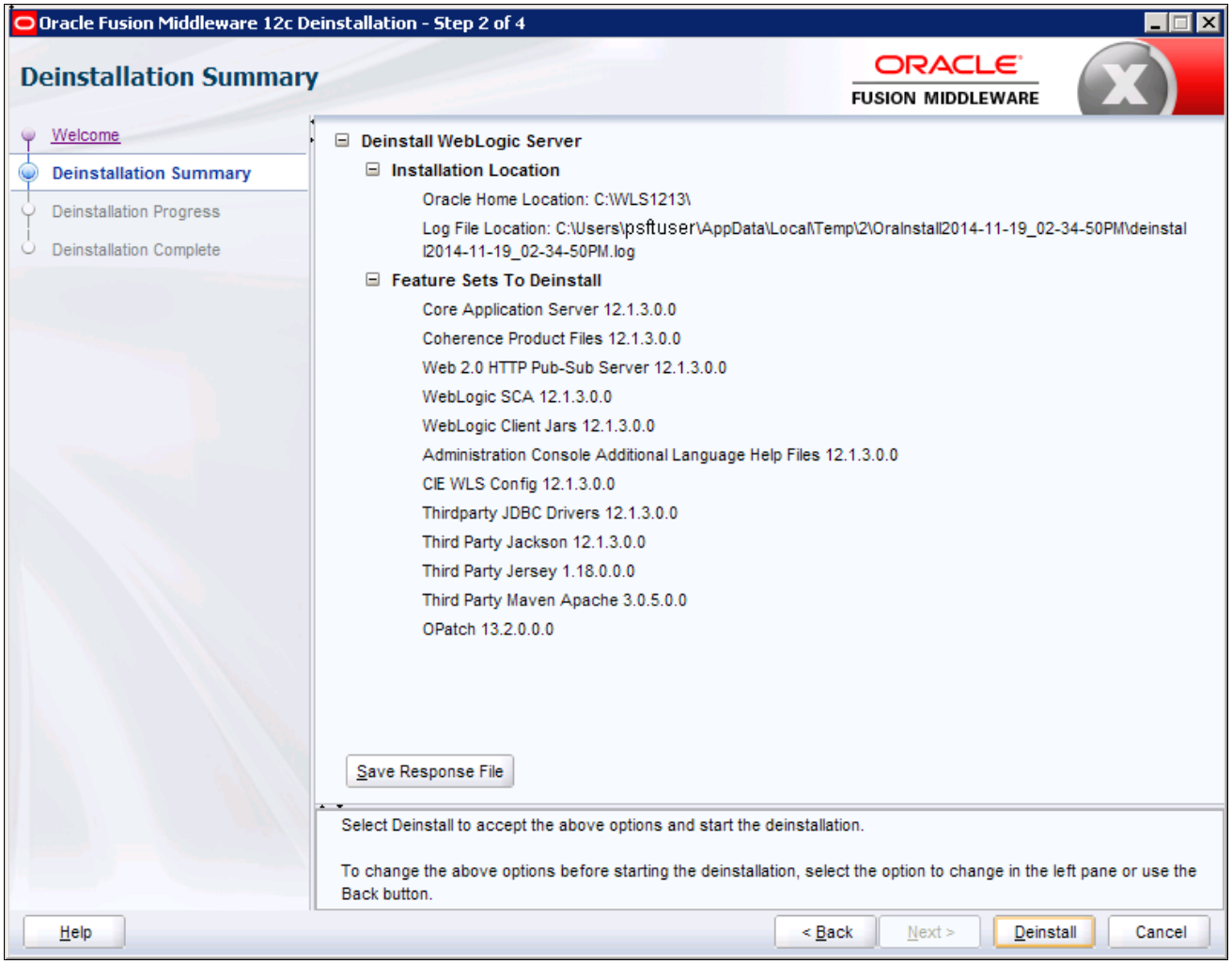
3. Verify the components that you want to uninstall (by default all components are selected as shown in this example).



Oracle Fusion Middleware Deinstallation - Step 2 of 4: Deinstallation Summary window

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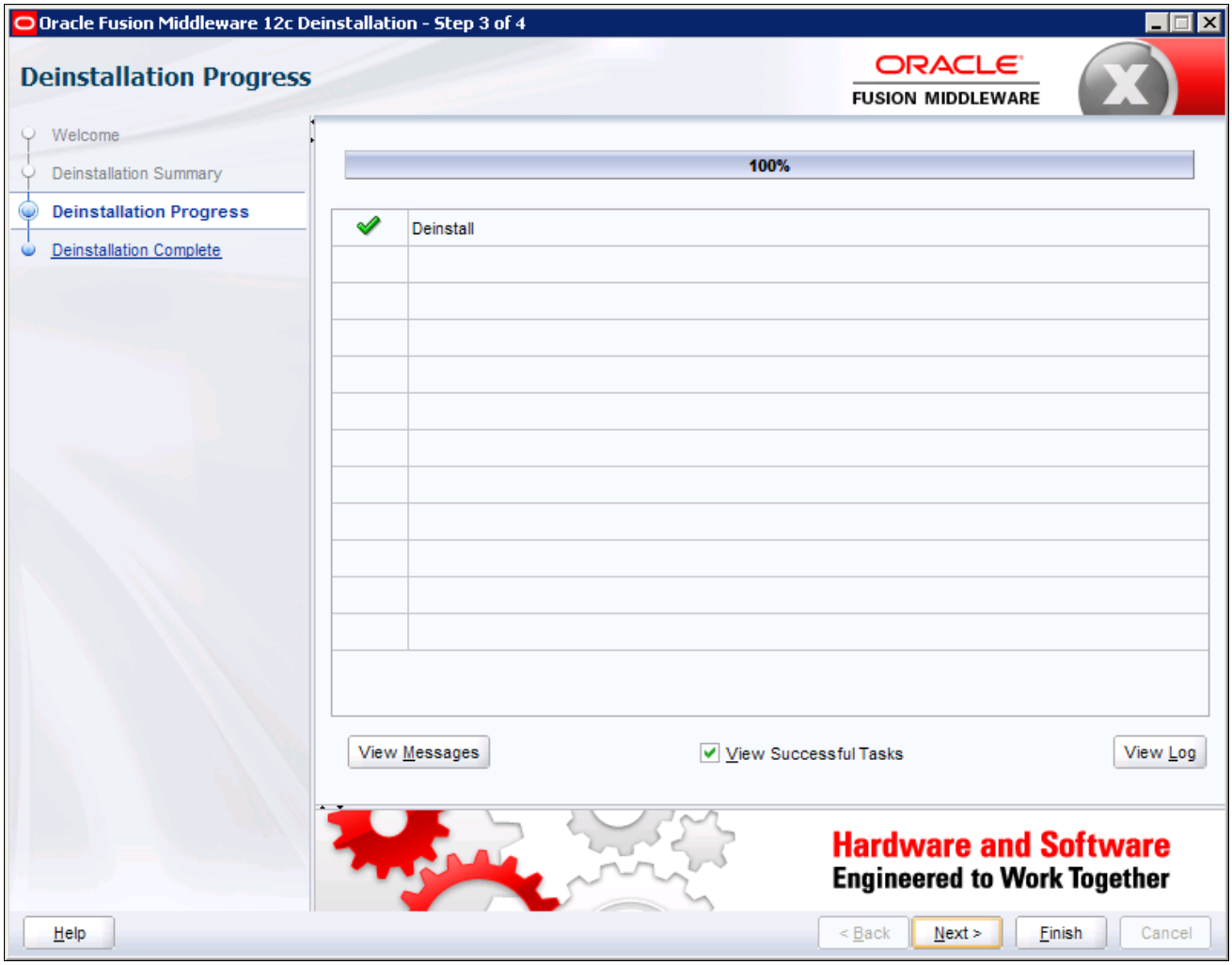
4. Click the Save Response File button and browse to a location to save the file, which you can use for a silent mode deinstallation.

   See Removing the Oracle WebLogic Installation on UNIX or Linux.

   Click Deinstall. A progress indicator appears. Click Next when the tasks are complete, as shown in this example.



Oracle Fusion Middleware Deinstallation - Step 3 of 4: Deinstallation Progress window

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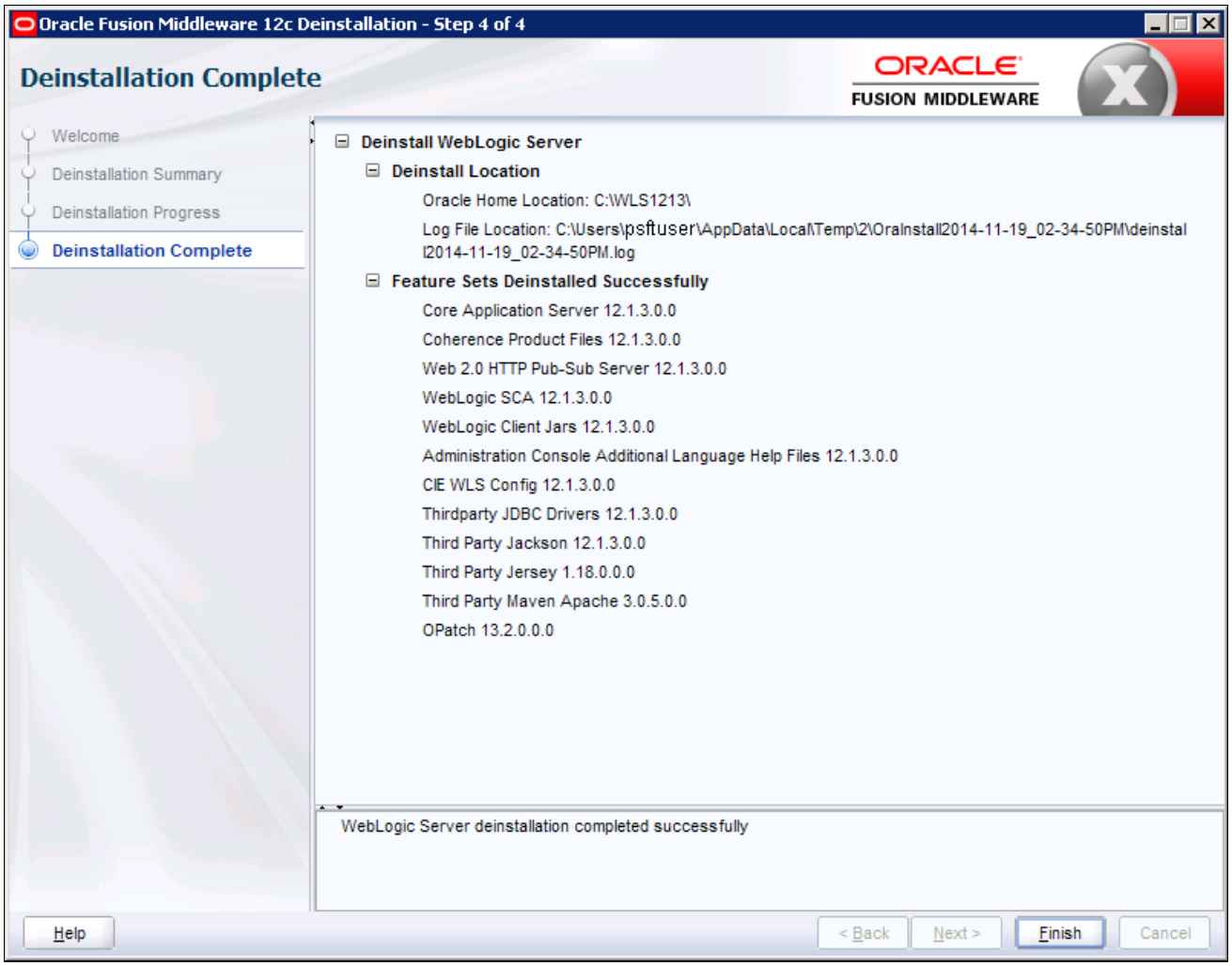
5. Click Finish on the Deinstallation Complete window.



Oracle Fusion Middleware Deinstallation - Step 4 of 4: Deinstallation Complete window

6. Remove the *WLS_HOME* directory manually after the deinstallation.

Task 2-1-7: Removing the Oracle WebLogic Installation on Linux or UNIX

To remove the installation on Linux or UNIX, you run in console mode, and use a response file.

Note. The previous section, Removing the Oracle WebLogic Installation on Microsoft Windows, included a step in which you saved a response file. You can edit and use this response file for different operating system platforms.

To remove the Oracle WebLogic installation on UNIX or Linux in silent mode:

1. Before running the deinstaller, stop all servers and processes associated with the Oracle home you are going to remove.
2. If you need to create a response file, copy the following content into a text editor and save it.

   This is the silent response file, referred to here as *RESPONSE_DIR/response.txt.*

   ```
   [ENGINE]
   ```

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```
#DO NOT CHANGE THIS.
Response File Version=1.0.0.0.0

[GENERIC]

#This will be blank when there is nothing to be de-installed in⇒
 distribution level
SELECTED_DISTRIBUTION=WebLogic Server~12.1.3.0.0

#The oracle home location. This can be an existing Oracle Home or a new⇒
 Oracle Home
ORACLE_HOME=
```

3. Edit the ORACLE_HOME line to add the location where you installed Oracle WebLogic 12.1.3.0.0.
4. Change directory to *WLS_HOME*/oui/bin and locate the deinstall.sh script.

   WLS_HOME is the location where you installed your Oracle WebLogic 12.1.3.0.0.
5. Run the following command.

   For *INVENTORY_DIR*, specify the full directory path containing the Oracle installer inventory file, oraInst.loc.

   See Installing Oracle WebLogic on Linux or UNIX in Silent Mode.

   ```
   ./deinstall.sh -silent -response RESPONSE_DIR/response.txt -invPtrLoc ⇒
   INVENTORY_DIR/oraInst.loc
   ```
6. An indicator shows the progress of the removal process, followed by a completion message such as "The uninstall of Oracle Fusion Middleware 12c WebLogic Server and Coherence 12.1.3.0.0 completed successfully."
7. Remove the *WLS_HOME* directory manually to complete the deinstallation.

Task 2-2: Installing IBM WebSphere Application Server

This section discusses:

- Understanding IBM WebSphere Installation
- Prerequisites
- Obtaining IBM WebSphere Installation Files
- Installing IBM WebSphere 8.5.5.0 ND
- Installing IBM HTTP Server 8.5.5.0
- Installing IBM WebSphere Plug-ins 8.5.5.0

Understanding IBM WebSphere Installation

Oracle supports 64-bit IBM® WebSphere® Application Server Network Deployment 8.5.5.0 (referred to as IBM WebSphere ND in this documentation) for PeopleSoft PeopleTools 8.55. The IBM WebSphere ND requires IBM Runtime Environment, Java Technology Edition 6.0.1 (J9 2.6).

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IBM WebSphere Application Server supports IBM HTTP server (IHS) as a HTTP Reverse Proxy server. IBM WebSphere Application Server alone cannot act as a proxy server for PeopleSoft PeopleTools REN Server. You must also install PeopleSoft Pure Internet Architecture, as well as installing the IBM HTTP server. Consult My Oracle Support for information on the versions of IHS certified for use with PeopleSoft PeopleTools.

This section includes guidelines for installing IBM WebSphere ND, the Web server plug-ins for IBM WebSphere Application Server, and IHS. For detailed installation instructions, see the IBM documentation.

See Also

My Oracle Support, Certifications

Clustering and High Availability for PeopleTools, My Oracle Support, (search for the article name)

IBM WebSphere Application Server Information Center,
http://pic.dhe.ibm.com/infocenter/wasinfo/v8r5/index.jsp

Prerequisites

IBM WebSphere ND is certified for PeopleSoft PeopleTools 8.55 on the following operating systems:

- IBM AIX
- HP-UX Itanium
- Linux
- Microsoft Windows
- Oracle Solaris

The full lists of prerequisites for IBM WebSphere Application Server Network Deployment 8.5.5.0 are available on the IBM website:

See http://www-01.ibm.com/support/docview.wss?uid=swg24034969

In addition, review the following prerequisites before beginning your installation:

- Both IBM WebSphere ND and PeopleSoft Pure Internet Application (PIA) need to be installed and deployed using the same user ID. Following this requirement avoids security and profile management issues.
- On Microsoft Windows operating systems, if you are not using the built-in administrator account to run the commands, you will need stronger user account privileges to carry out the installation of IBM Installation Manager.

  To set the appropriate privileges, right-click the installer and select Run as administrator. Do the same thing for the installation of IBM Installation Manager.
- On UNIX platforms, the /var file system is used to store all the security logging information for the system. Therefore it is critical that you maintain free space in /var for these operations.
- When you carry out the GUI mode installation on UNIX, executing the installation wizard launches a GUI window. You must run this command from an X-Windows client window (for example, Reflection-X).
- PeopleSoft PeopleTools 8.55 supports the IBM HTTP Server (IHS) 8.5.5.0 that is bundled with the IBM WebSphere 8.5.5.0 installation. Use of an external remote proxy server (RPS) is optional.

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Task 2-2-1: Obtaining IBM WebSphere Installation Files

For PeopleSoft PeopleTools 8.55, the installation files for IBM WebSphere are not packaged with PeopleSoft PeopleTools on Oracle Software Delivery Cloud. To download the necessary files for the IBM WebSphere installation, contact IBM. The installation of IBM WebSphere 8.5.5.0 requires the download of the following components:

- IBM Installation Manager V1.6.2
- WebSphere Application Server Network Deployment V8.5.5.0 64-bit
- IBM HTTP Server V8.5.5.0 64-bit
- Plug-ins V8.5.5.0 64-bit
- IBM SDK V1.7

The distribution is provided as operating-system-specific zip files. The base binaries of IBM WebSphere 8.5.5.0, IHS 8.5.5.0, and Plug-in 8.5.5.0 have to be downloaded by providing an IBM partner ID and password.

Download and extract the appropriate zip files for your operating system, listed in the following tables.

IBM AIX

File or Folder Name	Description
QS_FOR_WAS_ND_V8.5.5.0.zip	Quick Start for IBM WebSphere Application Server Network Deployment V8.5
• WAS_ND_V8.5.5_1_OF_3.zip • WAS_ND_V8.5.5_2_OF_3.zip • WAS_ND_V8.5.5_3_OF_3.zip	Binaries for IBM WebSphere Application Server Network Deployment V8.5.5.0
• WS_SDK_JAVA_TEV7.0_1OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_2OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_3OF3_WAS_8.5.5.zip	Binaries for IBM WebSphere SDK Java (TM) Technology Edition V7.0
• WAS_V8.5.5_SUPPL_1_OF_3.zip • WAS_V8.5.5_SUPPL_2_OF_3.zip • WAS_V8.5.5_SUPPL_3_OF_3.zip	Binaries for Application Client, IBM HTTP Server, Web Server Plug-ins and WebSphere Customization Toolbox
InstalMgr1.6.2_AIX_PPC_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for AIX

HP-UX Itanium

File or Folder Name	Description
QS_FOR_WAS_ND_V8.5.5.0.zip	Quick Start for IBM WebSphere Application Server Network Deployment V8.5
• WAS_ND_V8.5.5_1_OF_3.zip • WAS_ND_V8.5.5_2_OF_3.zip • WAS_ND_V8.5.5_3_OF_3.zip	Binaries for IBM WebSphere Application Server Network Deployment V8.5.5.0

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File or Folder Name	Description
• WS_SDK_JAVA_TEV7.0_1OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_2OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_3OF3_WAS_8.5.5.zip	Binaries for IBM WebSphere SDK Java (TM) Technology Edition V7.0
• WAS_V8.5.5_SUPPL_1_OF_3.zip • WAS_V8.5.5_SUPPL_2_OF_3.zip • WAS_V8.5.5_SUPPL_3_OF_3.zip	Binaries for Application Client, IBM HTTP Server, Web Server Plug-ins and WebSphere Customization Toolbox
InstalMgr1.6.2_HPUXIA64_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for HP-UX Itanium

Linux

File or Folder Name	Description
QS_FOR_WAS_ND_V8.5.5.5.zip	Quick Start for IBM WebSphere Application Server Network Deployment V8.5
• WAS_ND_V8.5.5_1_OF_3.zip • WAS_ND_V8.5.5_2_OF_3.zip • WAS_ND_V8.5.5_3_OF_3.zip	Binaries for IBM WebSphere Application Server Network Deployment V8.5.5.0
• WS_SDK_JAVA_TEV7.0_1OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_2OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_3OF3_WAS_8.5.5.zip	Binaries for IBM WebSphere SDK Java (TM) Technology Edition V7.0
• WAS_V8.5.5_SUPPL_1_OF_3.zip • WAS_V8.5.5_SUPPL_2_OF_3.zip • WAS_V8.5.5_SUPPL_3_OF_3.zip	Binaries for Application Client, IBM HTTP Server, Web Server Plug-ins and WebSphere Customization Toolbox
InstalMgr1.6.2_LNX_PPC_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for Linux PowerPC
InstalMgr1.6.2_LNXS390_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for Linux s390
InstalMgr1.6.2_LNX_X86_64_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2. for Linux x86 64-bit

Microsoft Windows

File or Folder Name	Description
QS_FOR_WAS_ND_V8.5.5.0.zip	Quick Start for IBM WebSphere Application Server Network Deployment V8.5

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File or Folder Name	Description
• WAS_ND_V8.5.5_1_OF_3.zip • WAS_ND_V8.5.5_2_OF_3.zip • WAS_ND_V8.5.5_3_OF_3.zip	Binaries for IBM WebSphere Application Server Network Deployment V8.5.5.0
• WS_SDK_JAVA_TEV7.0_1OF3_WAS8.5.5.zip • WS_SDK_JAVA_TEV7.0_2OF3_WAS8.5.5.zip • WS_SDK_JAVA_TEV7.0_3OF3_WAS8.5.5.zip	Binaries for IBM WebSphere SDK Java (TM) Technology Edition V7.0
• WAS_V8.5.5_SUPPL_1_OF_3.zip • WAS_V8.5.5_SUPPL_2_OF_3.zip • WAS_V8.5.5_SUPPL_3_OF_3.zip	Binaries for Application Client, IBM HTTP Server, Web Server Plug-ins and WebSphere Customization Toolbox
InstalMgr1.6.2_WINX86_64_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for Microsoft Windows

Oracle Solaris on SPARC

File or Folder Name	Description
QS_FOR_WAS_ND_V8.5.5.0.zip	Quick Start for IBM WebSphere Application Server Network Deployment V8.5
• WAS_ND_V8.5.5_1_OF_3.zip • WAS_ND_V8.5.5_2_OF_3.zip • WAS_ND_V8.5.5_3_OF_3.zip	Binaries for IBM WebSphere Application Server Network Deployment V8.5.5.0
• WS_SDK_JAVA_TEV7.0_1OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_2OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_3OF3_WAS_8.5.5.zip	Binaries for IBM WebSphere SDK Java (TM) Technology Edition V7.0
• WAS_V8.5.5_SUPPL_1_OF_3.zip • WAS_V8.5.5_SUPPL_2_OF_3.zip • WAS_V8.5.5_SUPPL_3_OF_3.zip	Binaries for Application Client, IBM HTTP Server, Web Server Plug-ins and WebSphere Customization Toolbox
InstalMgr1.6.2SOLSPARC_WAS_8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for Solaris SPARC

Oracle Solaris on x86_64

File or Folder Name	Description
QS_FOR_WAS_ND_V8.5.5.0.zip	Quick Start for IBM WebSphere Application Server Network Deployment V8.5

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File or Folder Name	Description
• WAS_ND_V8.5.5_1_OF_3.zip • WAS_ND_V8.5.5_2_OF_3.zip • WAS_ND_V8.5.5_3_OF_3.zip	Binaries for IBM WebSphere Application Server Network Deployment V8.5.5.0
• WS_SDK_JAVA_TEV7.0_1OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_2OF3_WAS_8.5.5.zip • WS_SDK_JAVA_TEV7.0_3OF3_WAS_8.5.5.zip	Binaries for IBM WebSphere SDK Java (TM) Technology Edition V7.0
• WAS_V8.5.5_SUPPL_1_OF_3.zip • WAS_V8.5.5_SUPPL_2_OF_3.zip • WAS_V8.5.5_SUPPL_3_OF_3.zip	Binaries for Application Client, IBM HTTP Server, Web Server Plug-ins and WebSphere Customization Toolbox
InstalMgr1.6.2_SOL_X86_WAS8.5.5.zip	Binaries for IBM Installation Manager v1.6.2 for Solaris x86_64

Task 2-2-2: Installing IBM WebSphere 8.5.5.0 ND

For detailed information on installing IBM WebSphere 8.5.5.0. ND, see the documentation on the IBM web site. See the previous section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system. The installation of IBM WebSphere Application Server Network includes the following steps:

1. Install IBM Installation Manager V1.6.2
2. Install IBM WebSphere 8.5.5.0 64-bit
3. Install IBM WebSphere SDK Java (TM) Technology Edition V7.0

Task 2-2-3: Installing IBM HTTP Server 8.5.5.0

For detailed information on installing IHS 8.5.5.0, see the documentation on the IBM web site. See the previous section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system.

To install IHS 8.5.5.0 64-bit, use IBM Installation Manager.

Task 2-2-4: Installing IBM WebSphere Plug-ins 8.5.5.0

For detailed information on installing the Web server plug-ins for IBM WebSphere Application Servers, see the documentation on the IBM web site. See the earlier section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system.

To install the IBM Plug-ins 8.5.5.0 64-bit for IBM WebSphere Application Servers, use IBM Installation Manager.

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Chapter 3

Installing Additional Components

This chapter discusses:

- Reviewing Additional Components
- Installing Oracle Tuxedo

Reviewing Additional Components

Depending upon your PeopleSoft installation environment, you may need to install and configure software components that are not included with the PeopleSoft PeopleTools installation files, or which you acquire from vendors other than Oracle. Some of the components that are discussed in this installation guide include:

- Oracle Tuxedo

  The installation of Oracle Tuxedo is required for a basic PeopleSoft PeopleTools installation, and is covered in this chapter.

- COBOL

  COBOL is not needed for PeopleSoft PeopleTools or for PeopleSoft Applications that contain no COBOL programs. Check My Oracle Support for details about whether your application requires COBOL.

  See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers," My Oracle Support (search for article title).

  See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support (search for article title).

  The installation and configuration of Micro Focus and IBM COBOL compilers are covered in later chapters.

  See "Installing and Configuring COBOL on UNIX."

  See "Installing and Configuring COBOL on Windows."

- Oracle Secure Enterprise Search

  Oracle Secure Enterprise Search (SES) is the search engine for the PeopleSoft Search Framework. The integration of Oracle SES with PeopleSoft PeopleTools is covered in a later chapter.

  See "Configuring Integration Between PeopleSoft PeopleTools and Oracle SES."

Note. Use the My Oracle Support Certifications area to determine the latest certified versions of additional components that are supported for the PeopleSoft PeopleTools release you are installing.

See Also

"Installing the Verity Installation Kit"

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Task 3-1: Installing Oracle Tuxedo

This section discusses:

- Understanding Oracle Tuxedo
- Prerequisites
- Debugging the Oracle Tuxedo Installer
- Obtaining the Oracle Tuxedo Installation Files from Oracle Software Delivery Cloud
- Obtaining the Oracle Tuxedo Patches from My Oracle Support
- Removing Existing Oracle Tuxedo Installations from Microsoft Windows (Optional)
- Designating the Application Server Administrator on Microsoft Windows
- Installing Oracle Tuxedo on Microsoft Windows in GUI Mode
- Installing the Oracle Tuxedo Patch on Microsoft Windows
- Installing Oracle Tuxedo on Microsoft Windows in Silent Mode
- Uninstalling the Oracle Tuxedo Patch on Microsoft Windows
- Uninstalling Oracle Tuxedo in GUI Mode
- Checking the Windows Service Account
- Restricting Domain Process Privileges
- Setting Up the Windows Services for Oracle Tuxedo
- Verifying the Server Installation on Microsoft Windows
- Removing Existing Oracle Tuxedo Installations from UNIX (Optional)
- Completing the Preinstallation Checklist on UNIX
- Designating the Oracle Tuxedo Owner on UNIX
- Installing Oracle Tuxedo in Silent Mode on UNIX
- Installing the Oracle Tuxedo Patch on UNIX
- Uninstalling the Oracle Tuxedo Patch from UNIX
- Uninstalling Oracle Tuxedo from UNIX Using Silent Mode
- Verifying the Server Installation on UNIX
- Ensuring that Oracle Tuxedo Coexists with Earlier Versions

Understanding Oracle Tuxedo

The PeopleSoft application server uses the Oracle® Fusion Middleware product, Oracle Tuxedo, to perform transaction management, messaging, and administration. This task guides you through the installation of Oracle Tuxedo on your server. It is essential that you install Oracle Tuxedo 64-bit, version 12c Release 2 (12.1.3.0), which is available on Oracle Software Delivery Cloud. You need to install Oracle Tuxedo before you go any further in setting up your application server and your PeopleSoft Pure Internet Architecture. After you perform the installation described here, you will configure the application server environment to incorporate Oracle Tuxedo with the PeopleSoft components.

Oracle supports Oracle Tuxedo 12c Release 2 (64-bit) for Linux or UNIX, and Oracle Tuxedo 12c Release 2 (64-bit) with MS Visual Studios 2012 for Microsoft Windows, with PeopleSoft PeopleTools 8.55.

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The minimum patch level certified for running Oracle Tuxedo 12c Release 2 with PeopleSoft PeopleTools 8.55 is RP037. These installation instructions include the installation of the base Oracle Tuxedo 12c Release 2, followed by the patch installation.

Note. Oracle Tuxedo 12c Release 2 for Linux operating systems supports Exalogic optimizations.

For PeopleSoft customers running on Oracle Exalogic Elastic Cloud, we strongly recommend the use of the Exalogic OVM Template for PeopleSoft.

See Oracle's PeopleSoft Virtualization Products, My Oracle Support, Doc ID 1538142.1.

Note. For the sake of brevity and convenience, this documentation shortens "Oracle Tuxedo 12c Release 2 (64-bit)" to "Oracle Tuxedo 12cR2" and "Oracle Tuxedo 12c Release 2 (64-bit) with MS Visual Studios 2012" to "Oracle Tuxedo 12cR2_VS2012."

If you have a previous version of Oracle Tuxedo installed, you need to install the new version of Oracle Tuxedo, and re-create your application server domains. (You must create your domains using PSADMIN; you cannot migrate existing domains.) You can also use the PSADMIN domain import utility.

You can install Oracle Tuxedo once for each release on a machine, regardless of the number of PeopleSoft applications or databases the server supports. For example, if you installed Oracle Tuxedo 10gR3 for an earlier release of your PeopleSoft application, you may install Oracle Tuxedo 12cR2 on the same machine in a separate directory. For example:

On Windows, you may install into C:\oracle\tuxedo10gR3_VS2008 and C:\oracle\tuxedo12.1.3.0.0_VS2012.

On UNIX, you may install into /home/oracle/tuxedo10gR3 and /home/oracle/tuxedo12cR2.

If more than one PeopleSoft application uses the same Oracle Tuxedo version (that is, the same patch level), then it is recommended that you have a single installation of Oracle Tuxedo to serve all the supported PeopleSoft applications. A single Oracle Tuxedo installation simplifies future maintenance (such as applying patches). However, if you choose to have more than one Oracle Tuxedo installation (this scenario is possible only on UNIX systems, as Oracle Tuxedo does not allow multiple installations of the same version of Oracle Tuxedo on Microsoft Windows), you must install and maintain the same Oracle Tuxedo version more than once in different directories.

See Also

Oracle Tuxedo Documentation on Oracle Technology Network, http://www.oracle.com/technetwork/middleware/tuxedo/documentation/index.html

PeopleTools: Portal Technology

PeopleTools: System and Server Administration

Operating System, RDBMS, and Additional Component Patches Required for Installation PeopleTools, My Oracle Support (search for article name and select the release)

Clustering and High Availability for PeopleTools, My Oracle Support (search for title)

Using OVM Templates for PeopleSoft on Exalogic, My Oracle Support (search for title)

Prerequisites

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

- TCP/IP connectivity (required for PeopleSoft PeopleTools 8.50 or higher) between the client machine and the application server

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- For UNIX, you must have root access.
- Enough free disk space on the application server to install the product.

  The disk space requirements vary by operating system. For free disk space requirements, see the Oracle Tuxedo documentation.

The Oracle Tuxedo installer uses the default system temporary space. If there is not enough space for installation, it will stop with an error. To specify a different temporary directory on Microsoft Windows, use the following command before starting the installer:

```
set IATEMPDIR=Complete_Path_Temp_Dir
```

Replace *Complete_Path_Temp_Dir* with the full path to the temporary directory that you want to use for the installation.

If you are sure you have enough space, but the installer still gives an error about low disk space (this usually happens on Linux), run the following command before starting the installer:

```
unset BLOCKSIZE
```

Debugging the Oracle Tuxedo Installer

If the Oracle Tuxedo installation fails with no error message, open a command prompt and enter the following command:

```
set LAX_DEBUG=1
```

After entering this command, start the installer again. If you are using GUI mode on Microsoft Windows, you must start the installer using the same command prompt.

Task 3-1-1: Obtaining the Oracle Tuxedo Installation Files from Oracle Software Delivery Cloud

You can obtain the files needed to install Oracle Tuxedo 12cR2 or 12cR2_VS2012 from the Oracle Software Delivery Cloud portal. At this point you should have already downloaded the necessary files. If you have not yet downloaded the files, this section includes additional information on finding and using the files for Oracle Tuxedo if necessary.

See "Preparing for Installation," Using Oracle Software Delivery Cloud to Obtain Installation Files.

See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

1. After logging in to Oracle Software Delivery Cloud, read the export restrictions, and then click Accept.
2. Enter Oracle Tuxedo in the Product field, and select Oracle Tuxedo from the drop-down list.
3. Click Select Platform, select the operating system you are running on, and then click Select.
4. Click Continue.
5. Click the arrow to expand the product list, select the check box for Oracle Tuxedo 12.1.3.0.0, and click Continue.
6. Read the license agreement and select the check box to acknowledge that you accept the agreement.
7. Click Continue.
8. Click one of the filenames to download an individual zip file, or click Download All to obtain all of the files.

   Save the zip files to a temporary directory on your local system, referred to in this documentation as *TUX_INSTALL*.

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9. After you download the installation files from Oracle Software Delivery Cloud, if it is necessary, transfer the files to a UNIX computer using FTP. Unzip the file and change the permissions of the unzipped file to make it an executable, for example using the chmod +x command.
10. Extract the files into *TUX_INSTALL*.

    After you extract, you see a Disk1 folder with two subfolders, install and stage.

    Note. For the PeopleTools Client, install Oracle Tuxedo 12cR2_VS2012 for Microsoft Windows (64-bit) to run with PeopleSoft PeopleTools 8.55.

Task 3-1-2: Obtaining the Oracle Tuxedo Patches from My Oracle Support

You can download the latest patch for Oracle Tuxedo 12cR2_VS2012 for Microsoft Windows or Oracle Tuxedo 12cR2 for Linux or UNIX from My Oracle Support. Patches released for Oracle Tuxedo 12cR2 and 12cR2_VS2012 will also be supported.

Note. To obtain older Oracle Tuxedo patches, raise a service request through My Oracle Support.

To obtain the latest Oracle Tuxedo patch:

1. Sign in to My Oracle Support with your account name and password:

   https://support.oracle.com
2. Select the Patches & Updates tab.
3. Under Patch Search, select Product or Family (Advanced Search).
4. Select *Oracle Tuxedo* from the product drop-down list.
5. Select *Oracle Tuxedo 12.1.3.0.0* from the release drop-down list.
6. Select your platform.

   Note. For detailed supported platform information, see the certifications area on My Oracle Support.

   The supported platforms are:

   - AIX
   - HP-UX Itanium
   - Linux
   - Microsoft Windows
   - Oracle Solaris
7. Click Search.

   Download the necessary files from the list of results. For installation on Microsoft Windows operating systems, make sure your rolling patch (RP) description has "VS2012" or "Visual Studio 2012" in the description.

   Note. To begin a new search, select Edit Search in the top right of the results page.

8. Download the patch file for your operating system platform to a convenient directory, referred to here as *TUX_INSTALL*.
9. After you install a patch, use these steps to verify the installation:

   a. In a command prompt, change directory to *TUXDIR*\bin (where *TUXDIR* is the Oracle Tuxedo installation location).

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b. Execute the following command:

```
tmadmin -v
```

The command displays the patch level. For example:

```
INFO: Oracle Tuxedo, Version 12.1.3.0.0_VS2012, 64-bit, Patch Level ⇒
(012)
```

Task 3-1-3: Removing Existing Oracle Tuxedo Installations from Microsoft Windows (Optional)

You may already have prior versions of Oracle Tuxedo installed on your system from an earlier version of PeopleSoft PeopleTools. If you are completely upgrading to PeopleSoft PeopleTools 8.55 from an earlier version of PeopleSoft PeopleTools, then you may uninstall the existing version and patches.

Note. It is not mandatory to uninstall the existing version of PeopleSoft PeopleTools, as Oracle Tuxedo 12cR2_VS2012 can coexist with prior versions on the same machine.

If you wish to use two versions of PeopleSoft PeopleTools that depend on different versions of Oracle Tuxedo, you should read the section "Ensuring that Oracle Tuxedo Coexists with Earlier Versions" before continuing.

You may have to uninstall Oracle Tuxedo for these reasons:

- You are having problems starting Oracle Tuxedo and decide to reinstall.
- You no longer need Oracle Tuxedo on a machine.

To uninstall Oracle Tuxedo from Microsoft Windows:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search 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.
   a. Right-click on the task bar and select Task Manager.
   b. Highlight wlisten, and click the End Task button.
   c. Highlight tuxwsvr and click the End Task button.
   d. Exit Task Manager.
3. Stop and set the TListen *VERSION* service to manual, if applicable.

   Replace *VERSION* with the version number for the existing service. For example, this would be TListen 9.1 or TListen 10gR3.
   a. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.
   b. Select TListen *VERSION* and click the Stop button.
   c. Choose the Startup Type and set to Manual.
4. Stop and set the ORACLE ProcMGR *VERSION* (or BEA ProcMGR *VERSION* for earlier releases) service to manual.
   a. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.
   b. Select ORACLE ProcMGR *VERSION* and click the Stop button.
   c. Choose the Startup Type and set to Manual.

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5. Reboot your machine.
6. Uninstall Oracle Tuxedo in one of the following ways:
   - Using the Oracle Tuxedo *VERSION* installation CD provided by Oracle for PeopleSoft installations, open a Command Window, navigate to the root of the CD, and enter `pstuxinstall rmall`. This will remove Oracle Tuxedo *VERSION* plus any delivered Oracle Tuxedo patches from your system.
   - Using the Add/Remove Programs dialog, in sequence remove: Oracle Tuxedo*VERSION* RP and then Oracle Tuxedo *VERSION*.
7. Go to the Control Panel, double-click on the System icon, and then perform the following actions:
   a. Make sure *TUXDIR*\bin is deleted from the PATH environment variable definition.

      TUXDIR refers to the Oracle Tuxedo installation directory.

   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:\bea\tuxedo8.1.

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

Task 3-1-4: Designating the Application Server Administrator on Microsoft Windows

Before beginning the installation, 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. The Application Server Administrator, not the Windows Administrator, will install Oracle Tuxedo.

The designated user must be a local Microsoft Windows administrator and must have full system privileges. The Oracle Tuxedo installation program creates a new service for Microsoft Windows—called ORACLE ProcMGR V12.1.3.0.0_VS2012—for which you need administrator privileges. This service was developed to port Oracle Tuxedo from UNIX to Microsoft Windows. Administrator rights are required since system registry settings are updated. Once this new service is created, you must reboot to start it.

When you configure your application server domain in a read-only *PS_HOME* environment, the user ID designated to be the Application Server Administrator must have read-only access to *PS_HOME,* read and write access to *PS_CFG_HOME,* and read-only access to the Oracle Tuxedo installation directory, *TUXDIR,* (for example, C:\oracle\tuxedo12.1.3.0.0_VS2012). Otherwise, in a scenario where *<PS_CFG_HOME> = <PS_HOME>,* the Application Server Administrator must have read and write access to *PS_HOME* and read-only access to *TUXDIR.*

See "Configuring the Application Server on Windows."

See "Preparing for Installation," Defining Installation Locations.

To designate the Application Server Administrator:

1. Add the user ID by selecting Start, Administrative Tools, Computer Management, Local Users and Groups.

   Keep in mind that you can also use an existing account if you do not 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).
2. Expand Local Users and Groups.
3. If the user ID does not yet exist, highlight the Users folder, and select Action, New User.
4. On the New User dialog box, specify the information for the new account.

   Make sure to deselect the User must change password at next logon check box.

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5. Expand the Groups folder.
6. Right-click the Administrators group, and select All Tasks, Add to Group, Add.
7. Click Locations to select the local machine or the network domain in which you created the new user.
8. Enter the new user name you created in the object names box.
9. Click OK, and click Apply and OK again to accept the changes.

Task 3-1-5: Installing Oracle Tuxedo on Microsoft Windows in GUI Mode

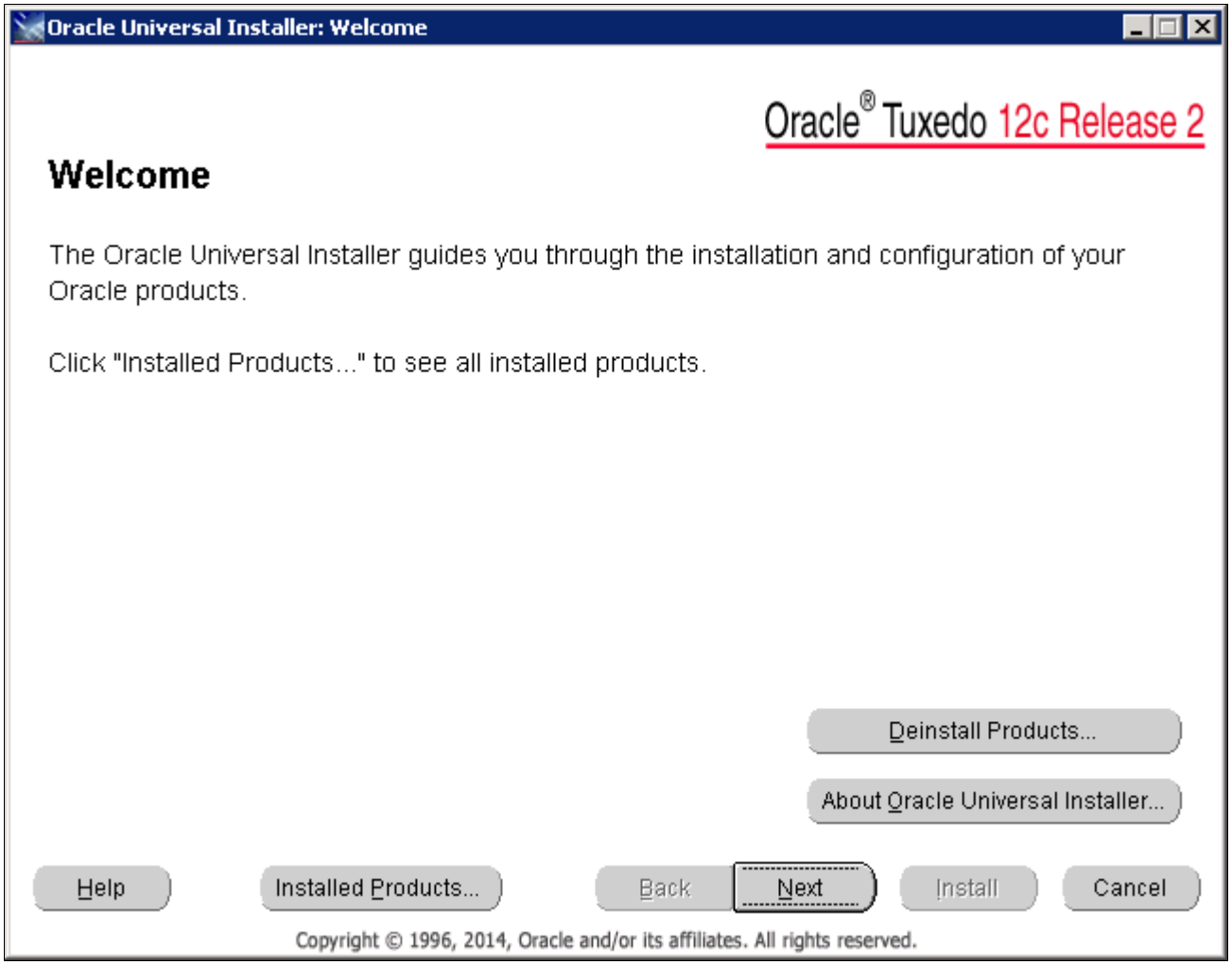
The following procedure assumes that you saved and extracted the installation files from Oracle Software Delivery Cloud in the directory *TUX_INSTALL*. Installation in GUI mode is normally used for Microsoft Windows operating systems.

Note. Oracle Tuxedo 12cR2_VS2012 can coexist on a machine with other versions of Oracle Tuxedo.

To install Oracle Tuxedo on Microsoft Windows:

1. Double-click *TUX_INSTALL*\Disk1\install\setup.exe to begin the installation process.

   Click OK on the Welcome window, shown in this example:



Oracle Universal Installer: Welcome window for Oracle Tuxedo

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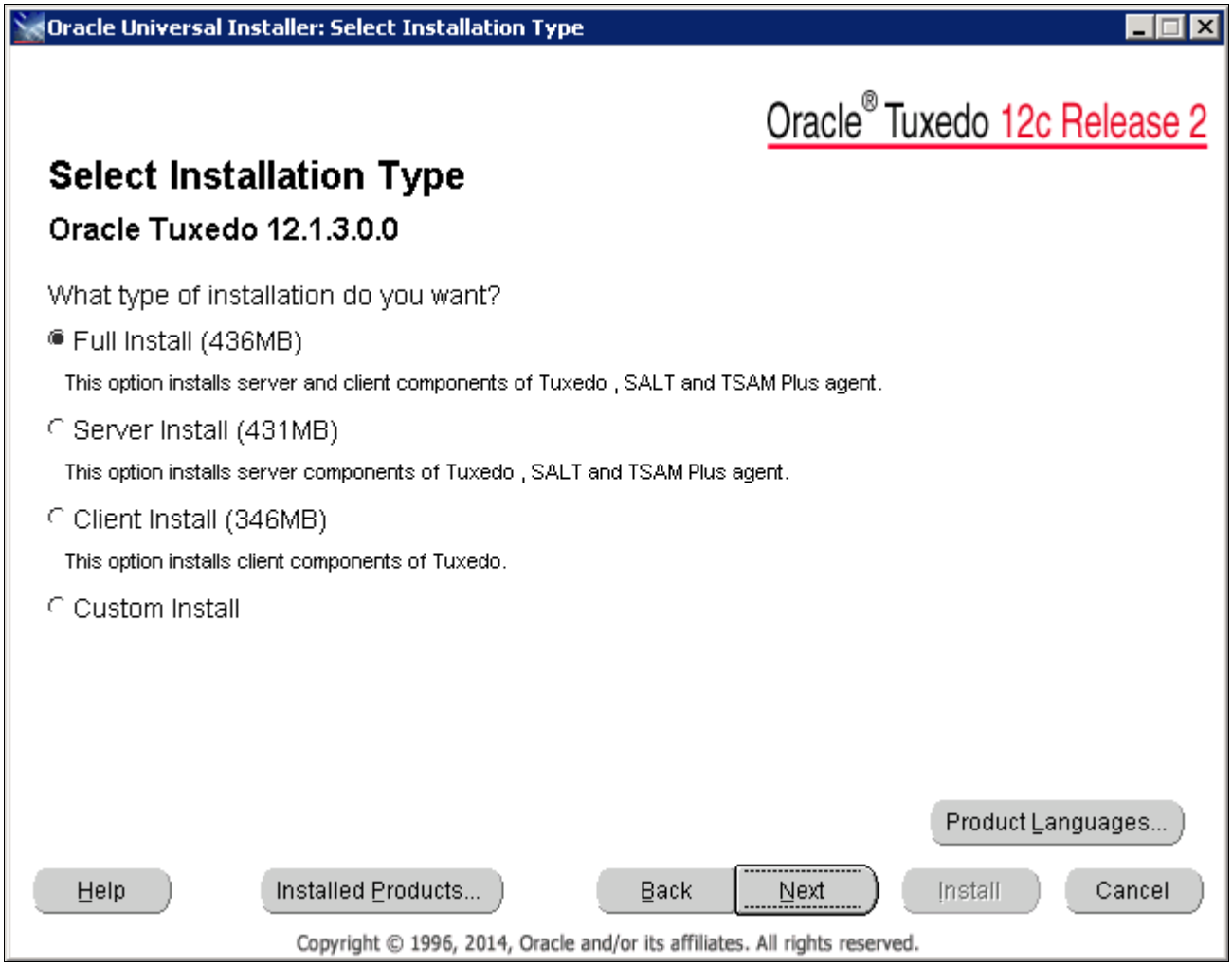
2. Accept the default option, Full Install, on the Select Installation Type window, as shown in this example, and click Next.



Select Installation Type window

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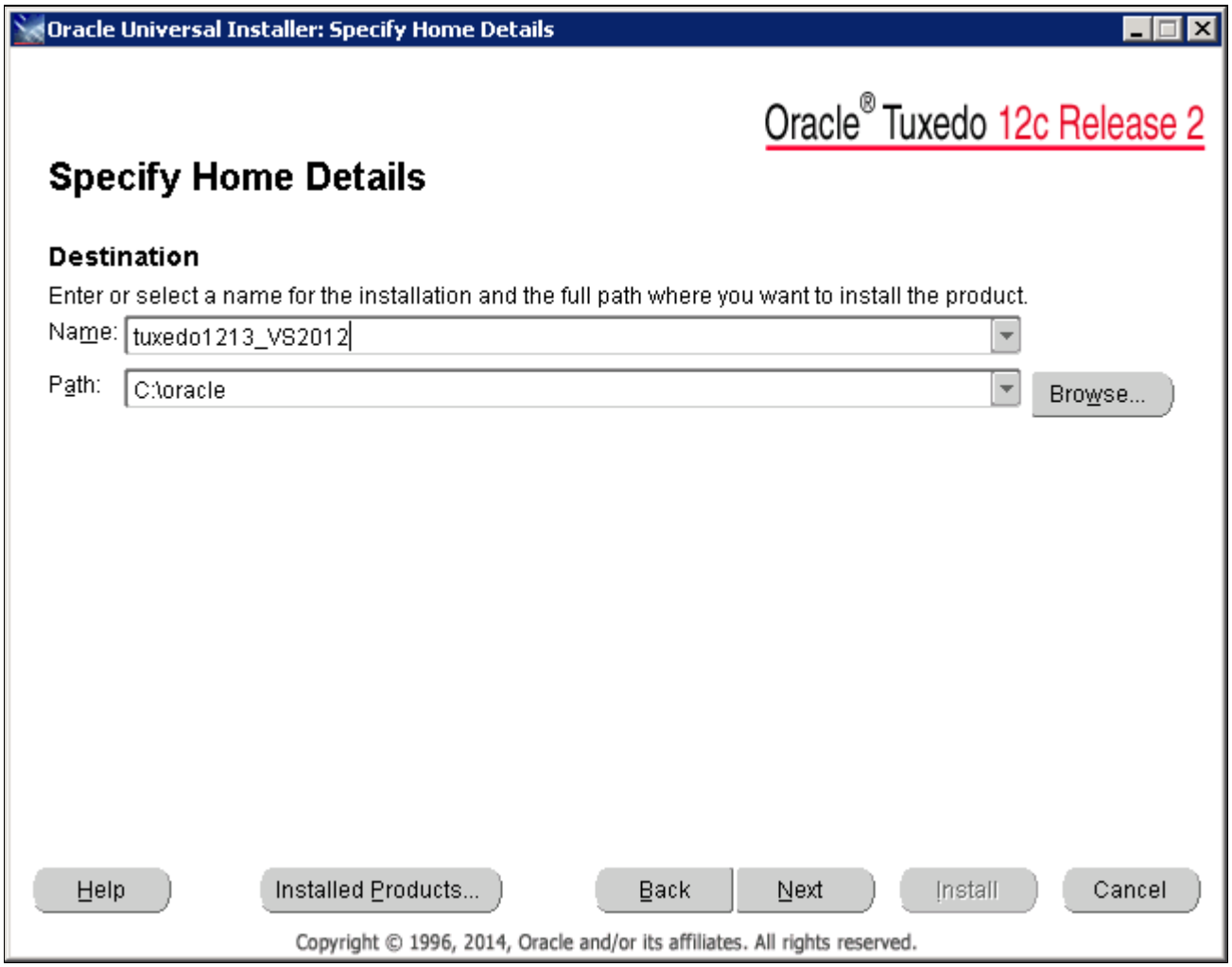
3. Specify a name and the home directory path for the installation.

   You can enter a new name, or choose an existing name from the drop-down list. The name that you supply will be used to identify this Oracle Tuxedo installation in the Oracle Universal Installer, when reviewing the Installed Products list. In this example, the name is tuxedo1213_VS2012.

   Specify the full path for the home directory. You can choose an existing path from the drop-down list. The Path refers to the location where the Oracle Tuxedo will be installed. The default is *ORACLE_HOME*\tuxedo12.1.3.0.0_VS2012. In this example, the path is C:\oracle, which is the recommended location, so the software will be installed to C:\oracle\tuxedo12.1.3.0.0_VS2012. The installation directory is referred to in this documentation as *TUXDIR*.

Note. In previous Oracle Tuxedo and PeopleSoft PeopleTools releases, the installation directory was referred to as *BEA_HOME,* and the default was C:\bea. You may see installation directories from previous releases displayed here, and if so, you can select one.



Specify Home Details window

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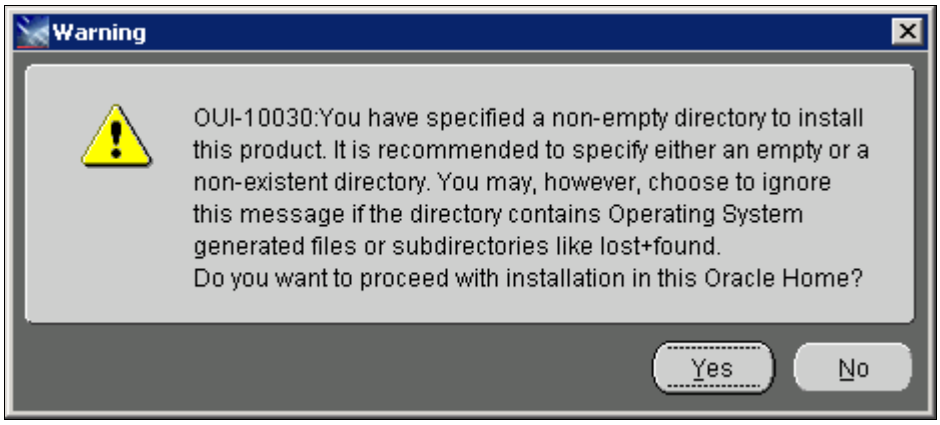
4. If you select an existing directory that is not empty, you may see a warning message.

   The message recommends that you install to an empty directory unless the directory contains Operating System generated files or subdirectories like lost+found. Click Yes to close the message and continue.



Warning message for a non-empty directory

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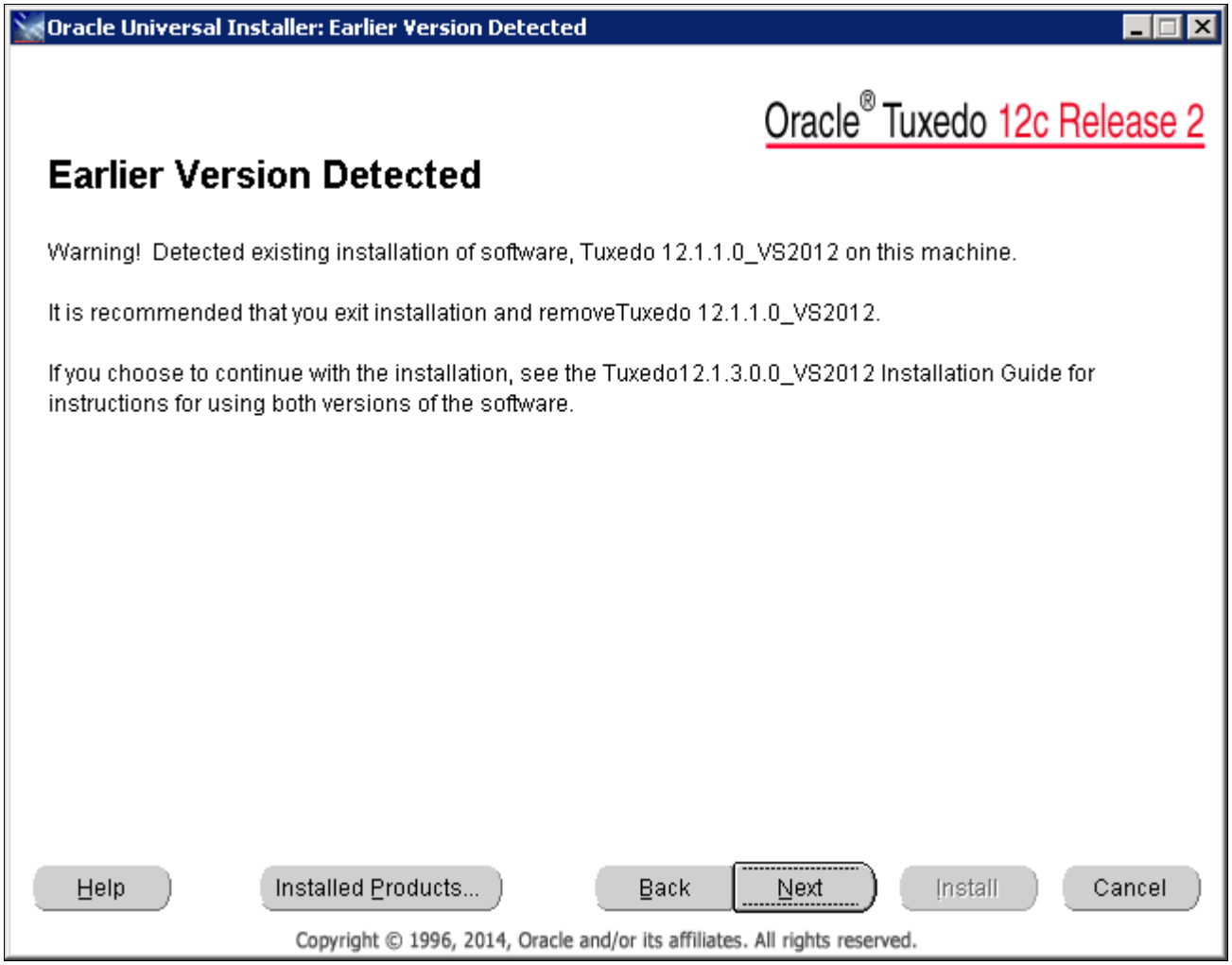
5. If you have other versions of Oracle Tuxedo on your system, you may get a warning that earlier versions were detected, and with a recommendation that you exit and remove the earlier versions.

   You can either quit and remove the earlier version, or install to a different directory if you want to maintain more than one version of the software. The message, shown in this example, directs you to the Tuxedo 12.1.3.0.0_VS2012 Installation Guide for instructions for using more than one version of the software. Click Next to continue.



Earlier Version Detected window

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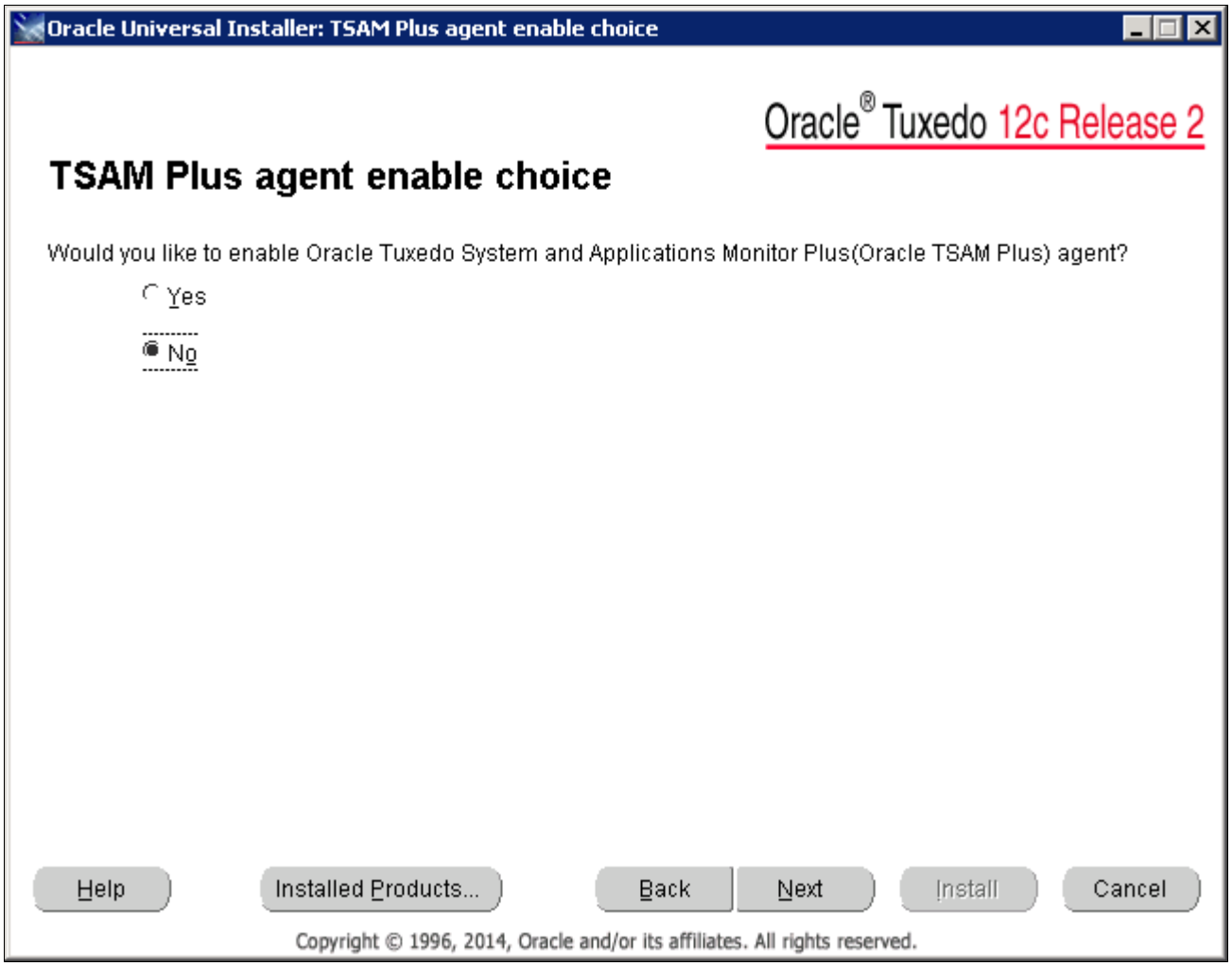
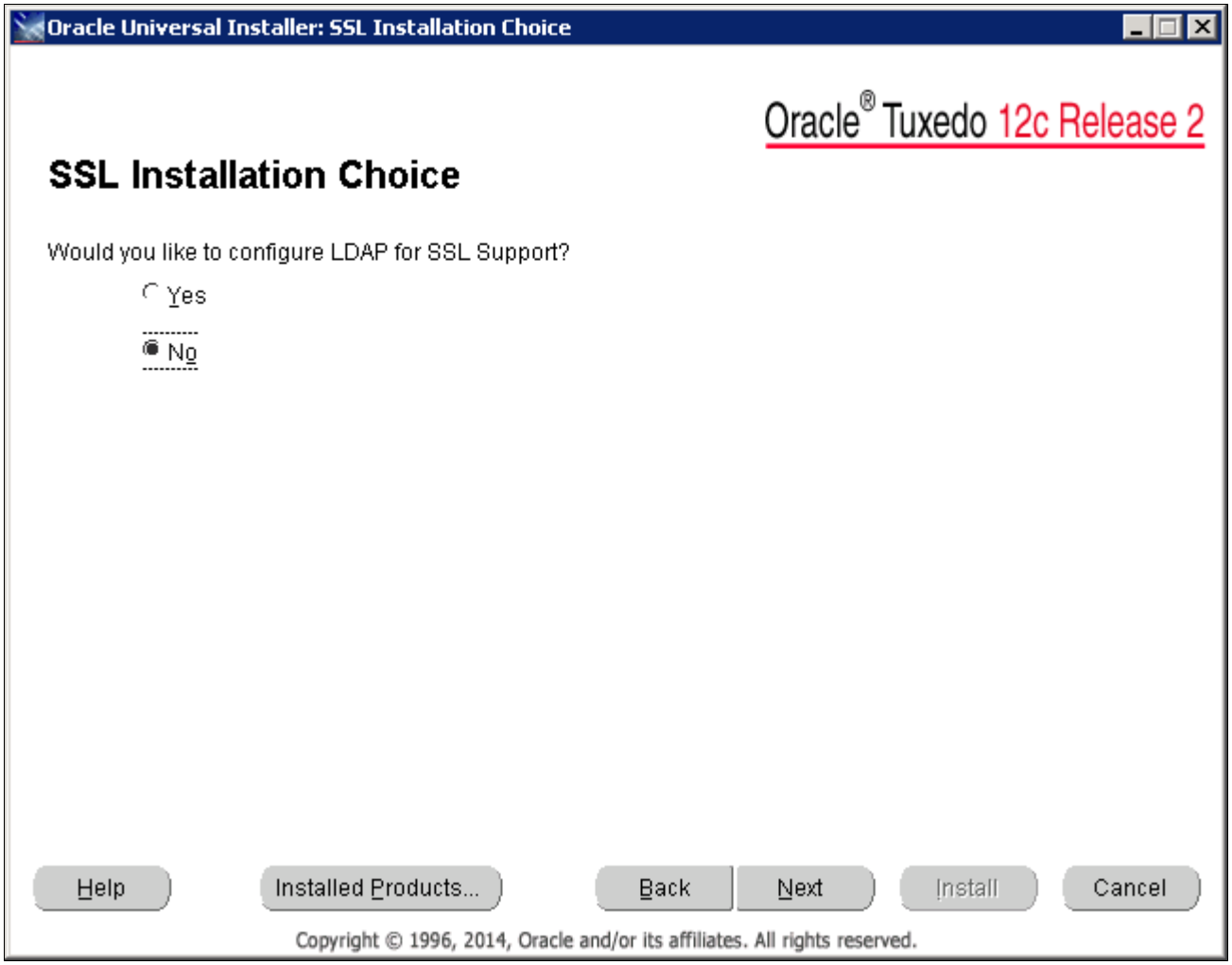
6. Select No on the TSAM Plus agent enable choice window, as shown in this example, and then click Next.

   This indicates that you do not want to enable Oracle Tuxedo System and Applications Monitor Plus (Oracle TSAM Plus) agent.



TSAM Plus agent enable choice window

7. Select No on the SSL Installation Choice window, as shown in this example, and then click Next.
   This indicates that you do not want to configure LDAP for SSL Support.



SSL Installation Choice window

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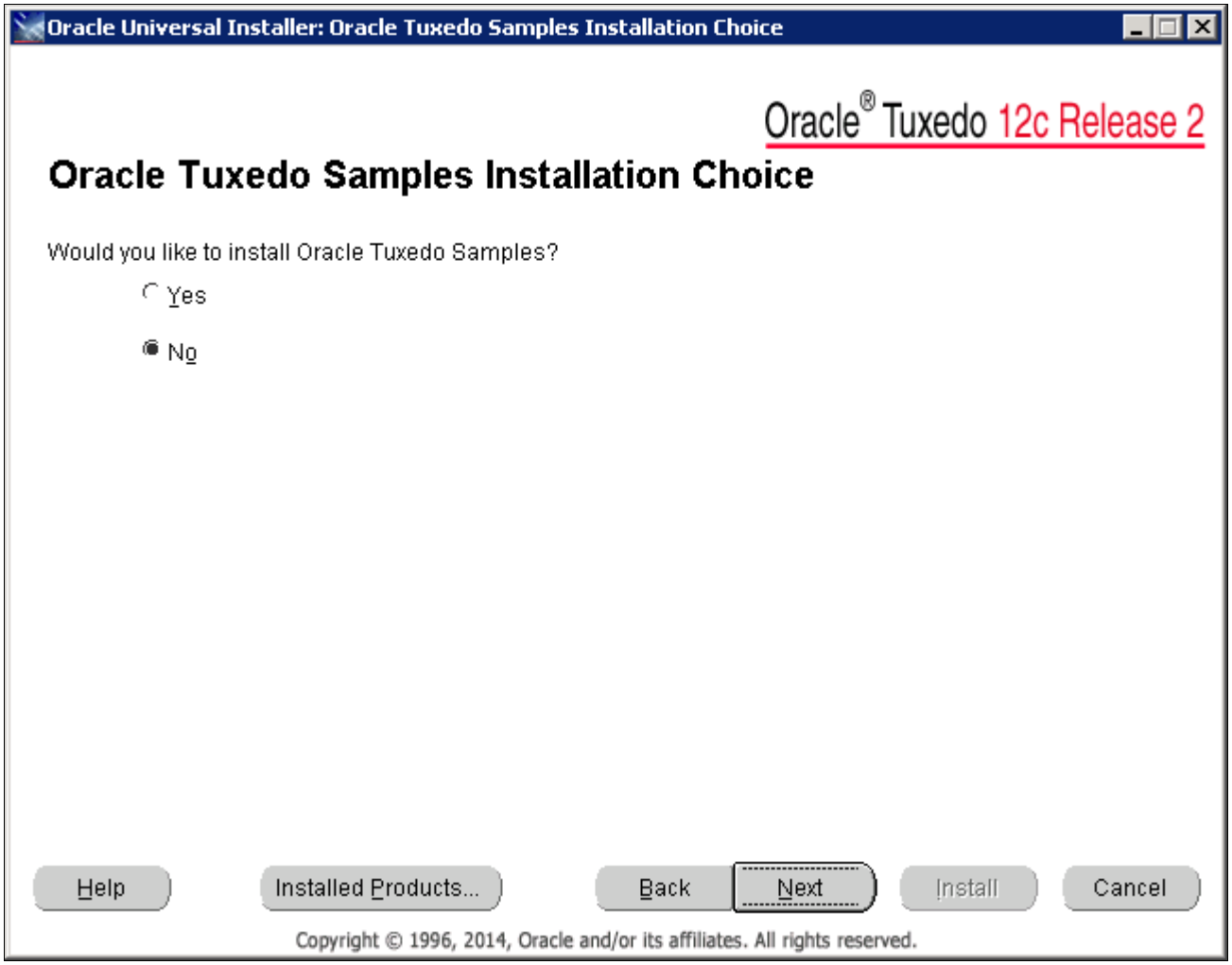
8. Select No to indicate that you do not want to install Oracle Tuxedo Samples, as shown in this example, and then click Next.



Oracle Tuxedo Samples Installation Choice window

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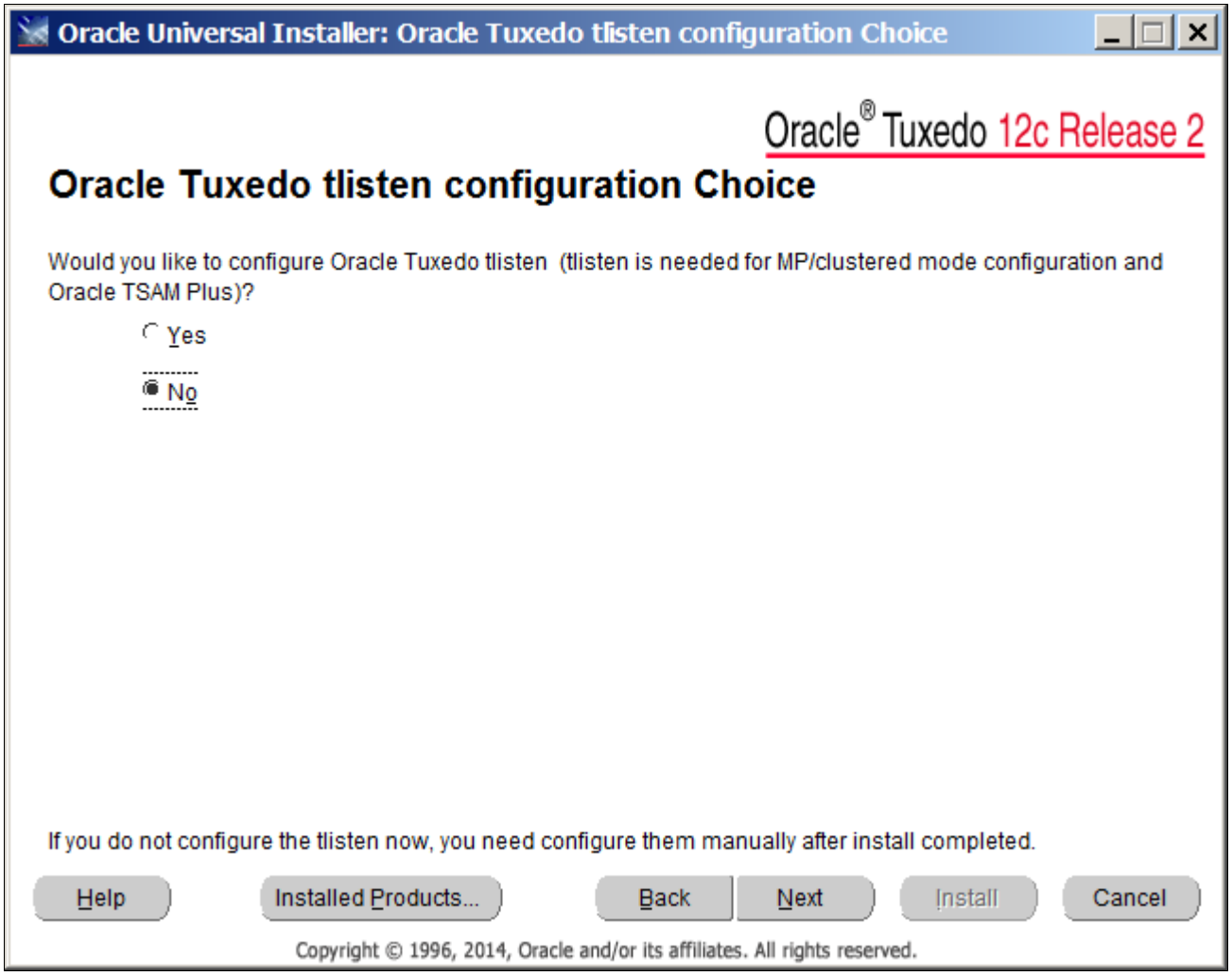
9. Select No to indicate that you do not want to configure Oracle Tuxedo tlisten, as shown in this example, and then click Next.

   If you want to configure tlisten, you must first apply patch RP037, and then configure tlisten manually after the installation is complete. See the Oracle Tuxedo documentation on performing post-installation tasks for information.

   See Oracle Tuxedo Documentation on Oracle Technology Network, http://www.oracle.com/technetwork/middleware/tuxedo/documentation/index.html.



Oracle Tuxedo tlisten configuration Choice window

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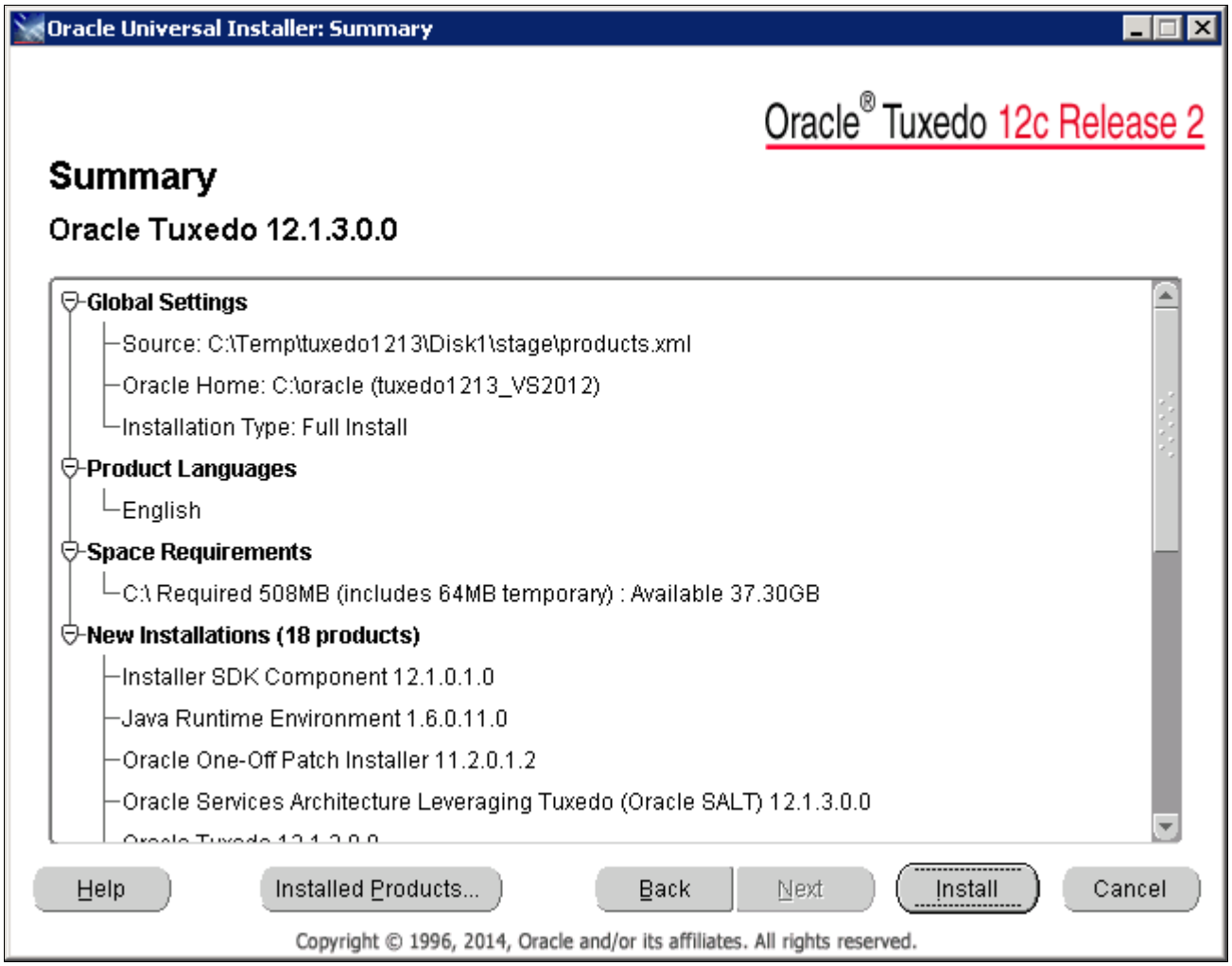
10. Review the summary information, and click Install to continue.

    The summary information, shown in this example, includes the product name, install folder, installation type, and disk space information. If you want to change any of your choices, click Back.



Summary window

A progress indicator appears during the installation, as shown in this example.

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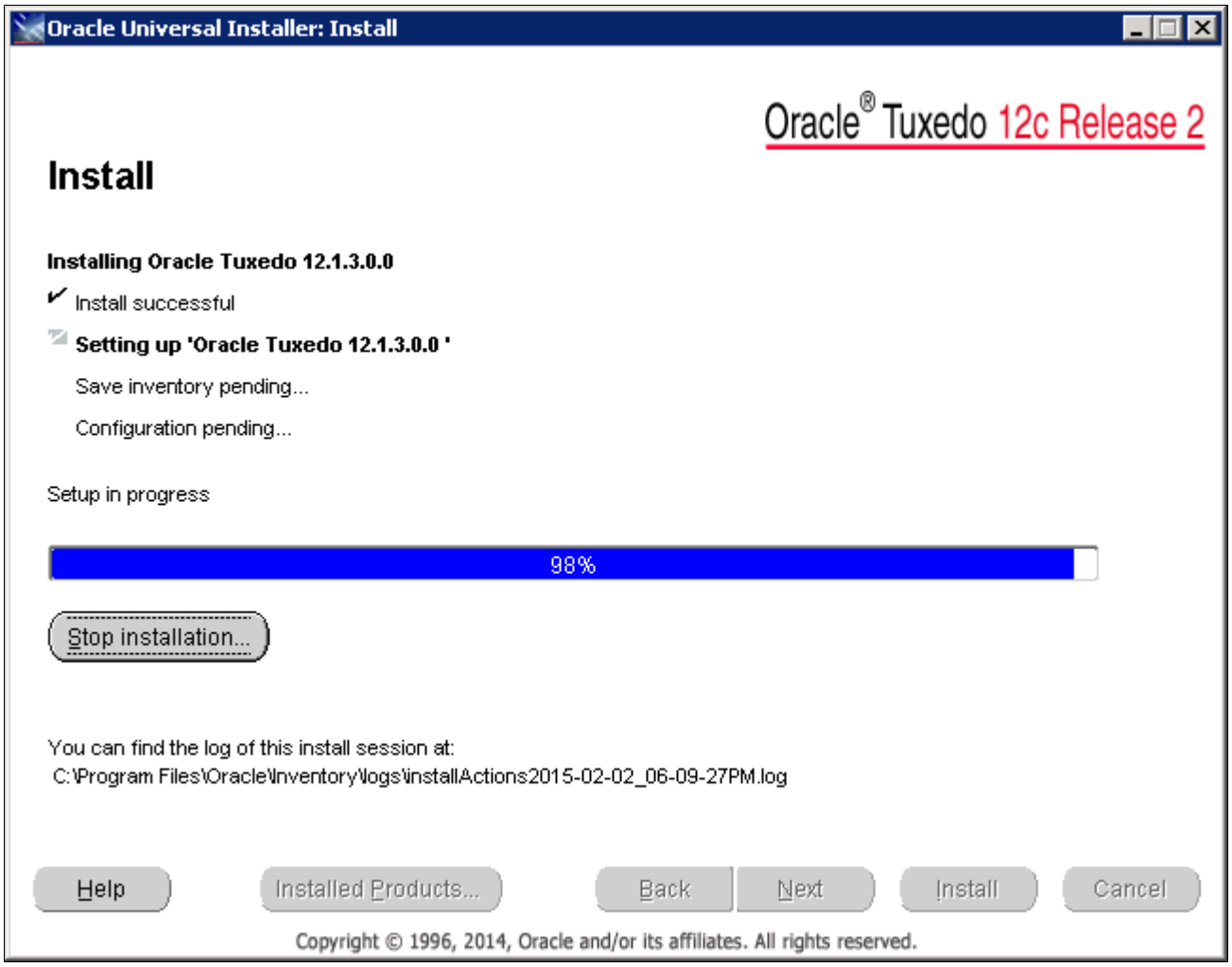

Install progress indicator window

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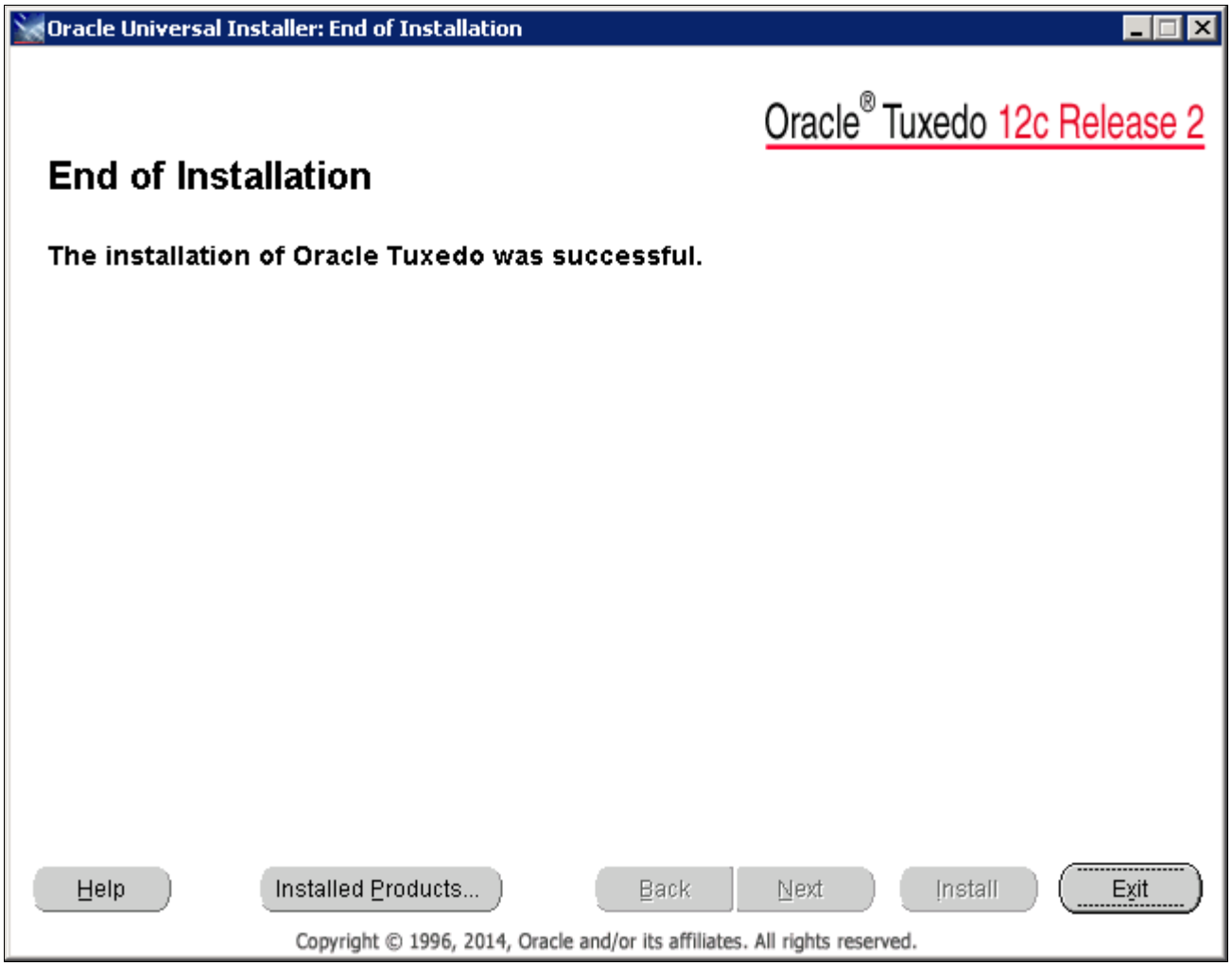
11. Click Exit when you see the window indicating the installation is complete, as shown in this example.



End of Installation window

Task 3-1-6: Installing the Oracle Tuxedo Patch on Microsoft Windows

These instructions assume that you have installed the base Oracle Tuxedo 12cR2_VS2012, and have downloaded the platform-specific version of the rolling patch to a directory referred to here as *TUX_INSTALL*.

To install the patch:

1. Stop all PeopleSoft PeopleTools domains that are running and using your Oracle Tuxedo installation.
2. Verify that the environment variable TUXDIR is set to the Oracle Tuxedo installation location, such as C:\oracle\tuxedo12.1.3.0.0_VS2012.
3. Verify that the environment variable ORACLE_HOME is set to the *ORACLE_HOME* location you specified when you installed Oracle Tuxedo, such as C:\oracle.
4. Run the following command to verify the opatch version:

   ```
   %ORACLE_HOME%\OPatch\opatch.bat version
   ```

   The version should be 12.1.0.1.1 or later. If the version is lower, you must first update opatch by installing patch 19166960.

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5. Launch the Services window; for example, select Start, Administrative Tools, Services.
6. Select each of the following services, right-click, and select Stop:
   - ORACLE ProcMGR V12.1.3.0.0_VS2012
   - TListen 12.1.3.0.0_VS2012 (Port: 3050)

   Note. The port number is variable.
7. Uninstall any existing patches.
8. Go to the directory where you downloaded the patch zip file from My Oracle Support, *TUX_INSTALL*, and unzip the file.

   This creates a directory 21618163, which includes a zip file with the patch.
9. Set the environment variable for the platform ID; for example:

   ```
   set OPATCH_PLATFORM_ID=233
   ```
10. Open a command prompt and go to the *TUX_INSTALL*/21618163 directory.
11. Run the following command:

    ```
    %ORACLE_HOME%\OPatch\opatch.bat apply 21618163.zip
    ```

    Note. The patch installer backs up all files being patched. The backup copy is located in the directory *ORACLE_HOME*\.patch_storage\. Do not delete these backup files. They will be used if you need to remove the patch installation.

Task 3-1-7: Installing Oracle Tuxedo on Microsoft Windows in Silent Mode

This section discusses:

- Understanding Silent Installation on Microsoft Windows
- Running the Silent Mode Installation on Microsoft Windows

Understanding Silent Installation on Microsoft Windows

You can carry out a silent installation of Oracle Tuxedo 12cR2_VS2012 by providing all the required settings in a response file. With silent installation there is little or no user interaction.

See Oracle Tuxedo documentation.

Use a text editor to create the response file and specify the values according to your installation requirements. Here is a sample response file:

```
#
# .......... Silent Installation Properties file .........
#

RESPONSEFILE_VERSION=2.2.1.0.0

ORACLE_HOME="C:\oracle"

ORACLE_HOME_NAME="tuxedo1213_VS2012"
```


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```
INSTALL_TYPE="Full Install"

ENABLE_TSAM_AGENT=false

LDAP_SUPPORT_SSL=false

INSTALL_SAMPLES=false

ENCRYPT_CHOICE=0

CONFIG_TLISTEN=false
```

Most of the entries are similar to those seen in the GUI installation. Note the following definitions:

- ORACLE_HOME: The high level installation directory, for example C:\oracle.

  The installer creates the Oracle Tuxedo installation directory, *TUXDIR*, as ORACLE_HOME\tuxedo12.1.3.0.0_VS2012.
- ORACLE_HOME_NAME: The name of the current Oracle installation, for example tuxedo1213_VS2012.

  This identifies the Oracle Tuxedo installation in the Oracle Universal Installer, when reviewing the Installed Products list.

Running the Silent Mode Installation on Microsoft Windows

The following procedure assumes that you saved and extracted the installation file from Oracle Software Delivery Cloud in the directory *TUX_INSTALL*.

See Obtaining the Oracle Tuxedo Installation Files from Oracle Software Delivery Cloud.

To run the installer:

1. Create a response file as described in the previous section and copy it to *TUX_INSTALL*.
2. Open a command prompt and change directory to *TUX_INSTALL*\Disk1\install.
3. Run the installer.
   - If you specify an empty directory for ORACLE_HOME, use this command:

     `setup.exe -silent -responseFile response_file`

     Specify the full path to the response file. For example, if the response file name is response.rsp, and *TUX_INSTALL* is D:\Temp, use this command:

     `setup.exe -silent -responseFile D:\Temp\response.rsp`
   - If you specify an existing directory that is not empty for ORACLE_HOME, you must include the `-force` option.

     When you use the `-force` option with a non-empty ORACLE_HOME, you may see a warning message recommending that you install to an empty directory or one that includes Operating System generated files. You may close the message to continue the installation.

     `setup.exe -silent -responseFile D:\Temp\response.rsp -force`

     Note. If you do not include the `-force` option with an ORACLE_HOME directory that is not empty, the installer will abort.

     ---
4. After you enter the commands in the previous steps, the installer is launched in silent mode, and a progress

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indicator tracks the installation.

When the installation is complete, you should see a completion message such as "The installation of Oracle Tuxedo was successful."

Task 3-1-8: Uninstalling the Oracle Tuxedo Patch on Microsoft Windows

To remove an Oracle Tuxedo installation, you must first remove the rolling patch, as follows:

1. Stop all PeopleSoft PeopleTools domains that are running and using your Oracle Tuxedo installation.
2. Verify that the environment variable TUXDIR is set to the Oracle Tuxedo installation location, such as C:\oracle\tuxedo12.1.3.0.0_VS2012.
3. Verify that the environment variable ORACLE_HOME is set to the *ORACLE_HOME* location you specified when you installed Oracle Tuxedo, such as C:\oracle.
4. Open a command prompt and run the following command:

   ```
   %ORACLE_HOME%\OPatch\opatch.bat rollback -id 21618163
   ```

Task 3-1-9: Uninstalling Oracle Tuxedo in GUI Mode

To remove the Oracle Tuxedo 12cR2_VS2012 or 12cR2 installation, use Oracle Universal Installer (OUI).

1. Start Oracle Universal Installer (OUI).

   The way you start OUI depends upon the Oracle products you have installed. For example:

   - On Microsoft Windows 7, select Start, Programs, Oracle 12c, Oracle Installation Products, Universal Installer.
   - On Microsoft Windows 8 or 2012 R2, access the Apps screen. Navigate to Oracle 12c, Oracle Installation Products, Universal Installer.
   - Double-click *TUX_INSTALL*\Disk1\install\setup.exe.

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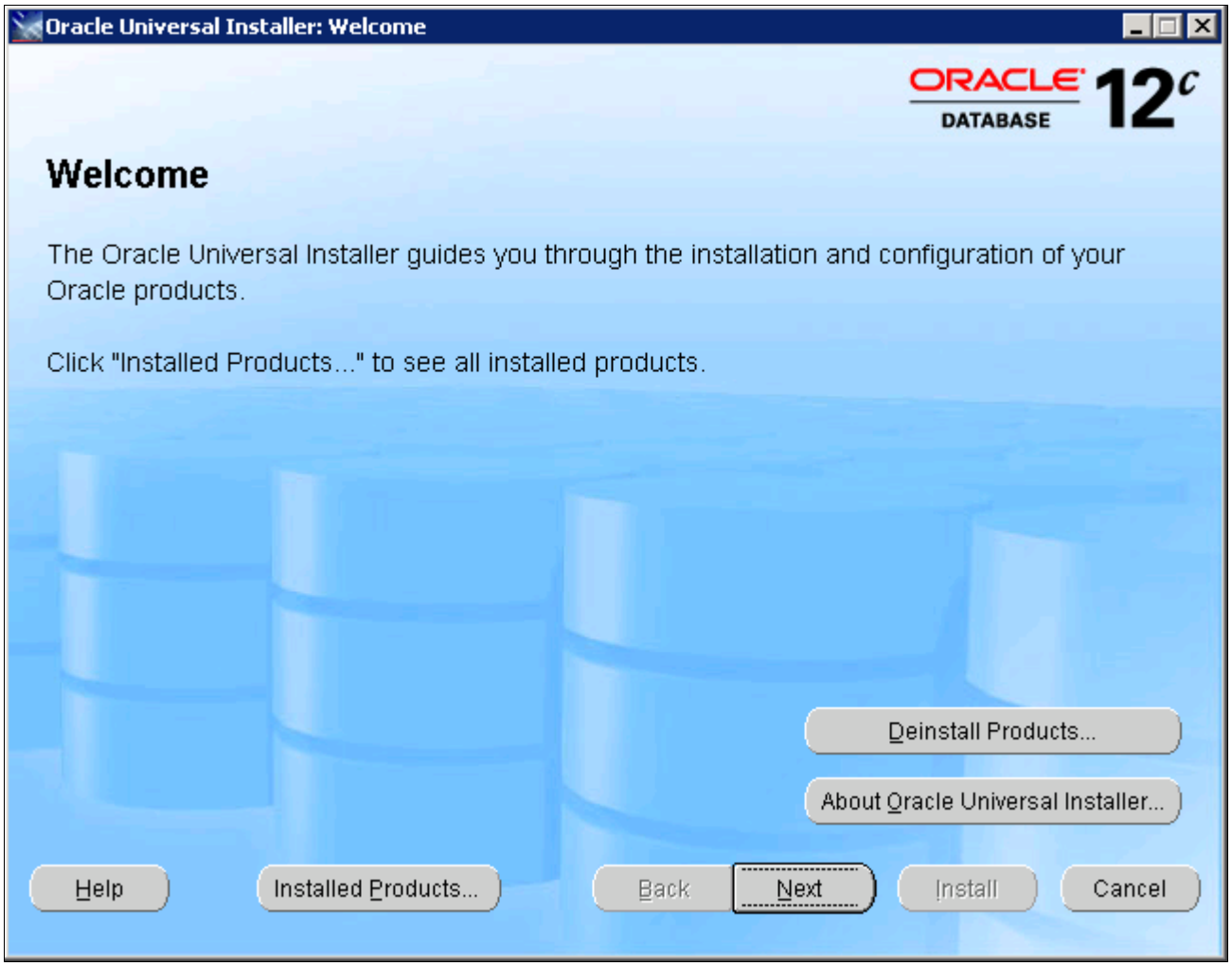
2. Click Deinstall Products, as shown in this example:



Oracle Universal Installer: Welcome window

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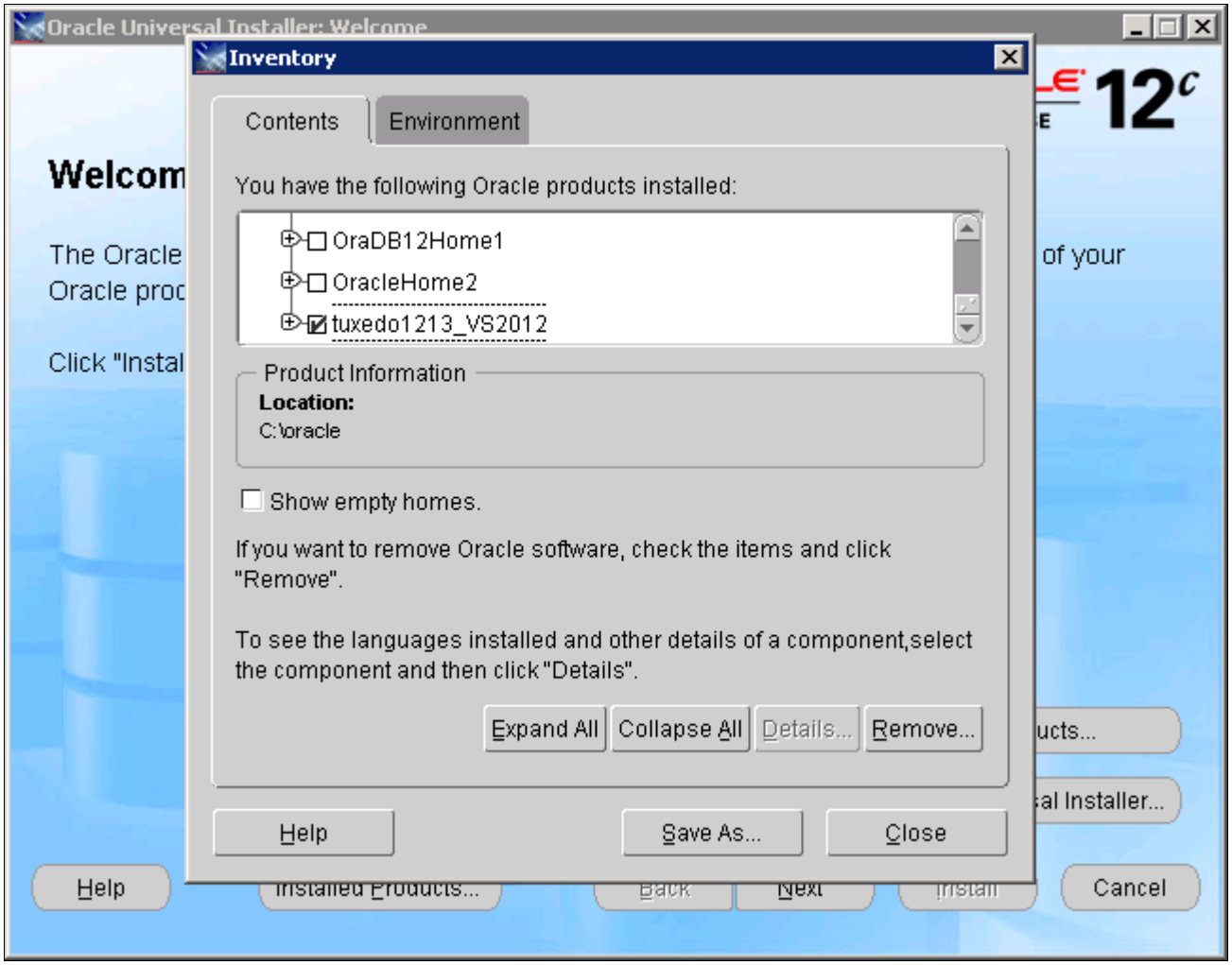
3. On the Contents page, select the name for the Oracle Tuxedo installation, which is tuxedo1213_VS2012 in this example, and then click Remove.



Inventory window: Contents page

4. Open the Microsoft Windows registry, for example by selecting Start, Run, regedit.

   Verify that the following key has been removed from the registry:

   HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\TUXEDO\12.1.3.0.0_VS2012

See Oracle Tuxedo, Installing the Oracle Tuxedo System 12c Release 2 (12.1.3), Oracle Technology Network.

Task 3-1-10: Checking the Windows Service Account

Use the information in this section to ensure that the Microsoft Windows services are properly configured. Oracle recommends installing the application server binaries locally on your C drive, for best performance. The procedure to set up the ORACLE ProcMGR V12.1.3.0.0_VS2012 service in the next section includes options for the account type. Use the following guidelines to choose between the Local System account option and the This Account option. (For the option This Account, you must specify a user ID and password.)

Note. For the sake of brevity and convenience, this documentation sometimes shortens "ORACLE ProcMGR V12.1.3.0.0_VS2012" to "Oracle ProcMGR."

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- If you plan to install the PeopleSoft application server binaries (as in, psappsrv.exe and so on) on a remote file server, you must select the This Account option.
- If the PeopleSoft application server binaries are *local*, that is, they exist on your local hard drive, you can use either the Local System account or This Account option.
- If you intend to use this Microsoft Windows service to start Process Scheduler, you must *always* select the This Account option. Enter the name of your Domain/Windows user name—not the machine name—and your password.
- If you are running on Microsoft Windows and are configuring a search index that resides on a mapped network drive, you must ensure that the user ID of the Oracle ProcMGR service has access to network drives accessed by the search engine. The search engine stores the search indexes at *PS_HOME/*data/search. However, this path can be changed in the application or the Process Scheduler's configuration. If this path is changed in these configurations and it points to a network drive, you must ensure that the user ID that starts the Oracle ProcMGR service has access to these network drives. The application server and the Process Scheduler are started by the Oracle ProcMGR service and therefore inherit the same permissions as the Oracle ProcMGR service.

See Also

"Setting Up Process Scheduler on Windows," Setting Up Process Scheduler Security

Task 3-1-11: Restricting Domain Process Privileges

This section discusses:

- Understanding Domain Process Privileges
- Setting TM_CPAU Environment Variable

Understanding Domain Process Privileges

For PeopleSoft systems, the Oracle ProcMGR service (tuxipc.exe) is responsible for starting Oracle Tuxedo domain processes on Microsoft Windows. By default, domain processes run as the same user ID that the service is running as. In a default installation, the service is configured to log on to Microsoft Windows as the Local System user. Microsoft does not support assigning network privileges to the Local System user for security reasons, but the Local System user otherwise has full administrative access to the local system.

In this configuration, PeopleSoft PeopleTools domain processes also run as the Local System user, which presents several potential issues, including:

- PeopleSoft PeopleTools domain processes are unable to access network resources.
- PeopleSoft PeopleTools domain processes run with more privileges than are necessary. A compromised PeopleSoft PeopleTools process will have full access to the local system and could potentially be used to gain unauthorized access to the local system.
- All PeopleSoft PeopleTools domain processes on the system run as the same user ID.

These problems are not present on UNIX systems where domain processes are always started as the user that runs tmadmin (by way of PSADMIN for PeopleSoft installations) to boot the domain. UNIX systems therefore support multiple domains, each running under different user IDs, with only the desired local privileges, and with no undesirable restrictions to network resources.

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For Microsoft Windows platforms, you can use the Oracle Tuxedo TM_CPAU environment variable to achieve behavior similar to UNIX systems. If TM_CPAU is set to *YES* before tuxipc is started, tuxipc creates an Oracle Tuxedo process that belongs to the user who initiated tmboot. If the Oracle ProcMGR service (tuxipc.exe) is started with the TM_CPAU=YES environment variable set, then domain processes will run as the user ID used to run tmadmin (PSADMIN) to boot the domain.

Using the TM_CPAU environment variable enables a variety of configuration options, including:

- The Oracle ProcMGR service can be run as the Local System user, but domain processes can be run using a minimally privileged user. This reduces the chance of a compromised PeopleSoft PeopleTools process being used to gain unauthorized access to the system. Note that the option "Allow services to interact with Desktop" should *not* be selected.
- The Oracle ProcMGR service can be configured to log on to Microsoft Windows using a minimally privileged user ID and PeopleSoft PeopleTools processes can run as a user with more privileges than the Oracle Tuxedo user ID. For example, the Oracle Tuxedo user ID could have read-only access to *PS_CFG_HOME*, but the PeopleSoft PeopleTools user could have read-write access. The Oracle Tuxedo user ID does not actually require read access to *PS_HOME*. When CreateProcessAsUser runs, access to the executable to start is evaluated using the user ID that the process will run as.
- A single Microsoft Windows system can be used to host multiple PeopleSoft PeopleTools installations that are each administered by a different user. A non-administrative user ID used to boot one domain will have no privileges to processes started with a different user ID.
- Domain processes can be identified and managed in Windows Task Manager by a non-administrative user.

See File Formats, Data Descriptions, MIBs, and System Processes Reference, Oracle Tuxedo Reference Topics, http://docs.oracle.com/cd/E35855_01/tuxedo/docs12c/rf5/rf5.html.

Setting TM_CPAU Environment Variable

This is a recommended step. Perform this step only if Local System account is used in the task Setting Up the Windows Services for Oracle Tuxedo.

To set the TM_CPAU environment variable:

1. Select Start, Control Panel, System on Microsoft Windows 7.

   Click the Start button, then Control Panel, System and Security, System, on Microsoft Windows 8 or 2012 R2.
2. Select Advanced system settings.
3. Select the Advanced tab.
4. Click Environment Variables.
5. In the System variables area, click New to add a new environment variable.
6. Enter TM_CPAU as the variable name, YES as the value, and click OK three times to close the dialog boxes.
7. Restart your machine.

Task 3-1-12: Setting Up the Windows Services for Oracle Tuxedo

To set up the Microsoft Windows services for Oracle Tuxedo:

1. Log on again as the Application Server Administrator, TUXADM, or a designated user ID.
2. Open the Control Panel and double-click Administrative Tools.
3. Select Computer Management and expand Services and Applications.
4. Select Services and locate the service labeled *ORACLE ProcMGR V12.1.3.0.0_VS2012*.

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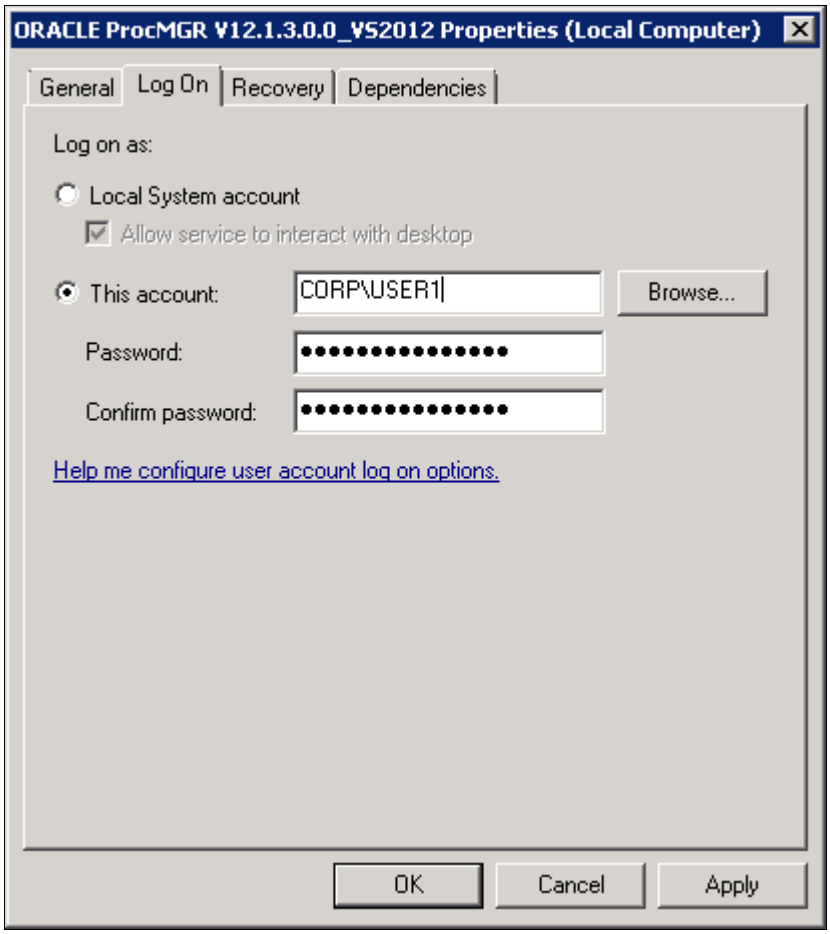
Double-click ORACLE ProcMGR V12.1.3.0.0_VS2012 to open the properties dialog box.

5. On the General tab, if the Stop button is enabled, click it to stop the current ORACLE ProcMGR V12.1.3.0.0_VS2012 process.
6. Select Log On.
7. Choose either Local System account or This account.

   If you select This account, as shown in this example, be sure to specify a user with the appropriate permissions, and then enter and confirm the password.

   See Checking the Windows Service Account.



ORACLE ProcMGR V12.1.3.0.0_VS2012 Properties dialog box: Log On tab

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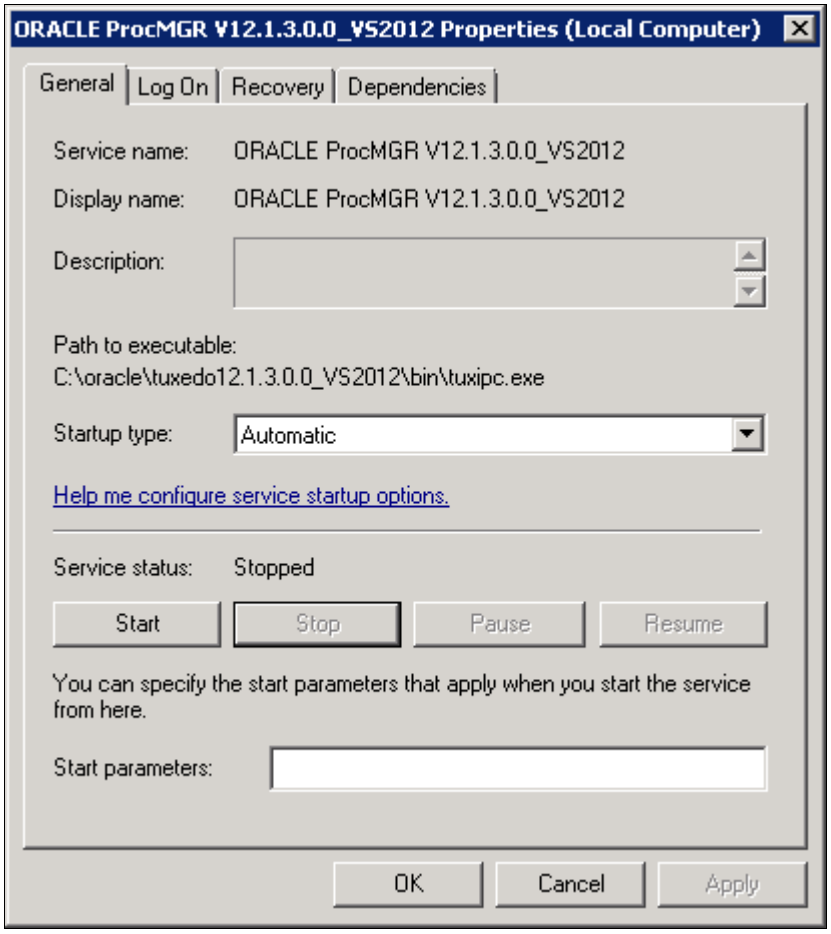
8. Select General.

   Make sure that Startup Type is set to *Automatic*, as shown in this example.



ORACLE ProcMGR V12.1.3.0.0_VS2012 Properties dialog box: General tab

9. Click Start.

   The status Started appears both on the General tab of the Oracle ProcMGR V12.1.3.0.0_VS2012 Properties dialog box and in the Services dialog box. Click OK to close the dialog box.

10. As mentioned, unless you intend to use the Tuxedo Web Monitor, you should disable the TListen 12.1.3.0.0_VS2012 (Port: *PORT*) service, where *PORT* is the port number you entered during the installation. The default is 3050.

Task 3-1-13: Verifying the Server Installation on Microsoft Windows

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

To verify the installation:

1. Open a command prompt.
2. Set the TUXDIR environment variable; for example:

   ```
   set TUXDIR=C:\oracle\tuxedo12.1.3.0.0_VS2012
   ```

3. Go to the directory where you installed Oracle Tuxedo, *TUXDIR*, and then to the bin sub-directory. For example:

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```
C:\oracle\tuxedo12.1.3.0.0_VS2012\bin
```

4. Issue this command:

   ```
   tmadmin -v
   ```

   The command will return the Oracle Tuxedo version that is installed. For example:

   ```
   INFO: Oracle Tuxedo, Version 12.1.3.0.0_VS2012, 64-bit, Patch Level⇒
   (None)
   ```

   If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 12cR2_VS2012.
5. Open the Microsoft Windows registry, for example by selecting Start, Run, regedit.

   Verify that the following key is created in the Windows registry:

   HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\TUXEDO\12.1.3.0.0_VS2012

Task 3-1-14: Removing Existing Oracle Tuxedo Installations from UNIX (Optional)

You may have older versions of Oracle Tuxedo installed on your system from an earlier version of PeopleSoft PeopleTools. If you are completely upgrading to PeopleSoft PeopleTools 8.55 from an earlier version of PeopleSoft PeopleTools and you do not require the older Oracle Tuxedo anymore, then, you may uninstall it.

Note. It is not mandatory to uninstall older Oracle Tuxedo versions from the machine where you are installing Oracle Tuxedo 12cR2, as older Oracle Tuxedo versions and Oracle Tuxedo 12cR2 can exist on the same machine.

You may have to remove your Oracle Tuxedo installation on UNIX for the following reasons:

- You are having problems starting Oracle Tuxedo and decide to reinstall.
- You no longer need Oracle Tuxedo on a machine.

To remove Oracle Tuxedo from UNIX:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
2. Use the UNIX `rm` command to directly remove the Oracle Tuxedo installation.

   Be sure to remove the directory containing Oracle Tuxedo, referred to here as *TUXDIR*.
3. Remove the TUXDIR environment variable and any entries containing your platform-specific LIBRARY PATH and PATH environment variables.

Task 3-1-15: Completing the Preinstallation Checklist on UNIX

We recommend that you complete the following preinstallation checklist before you begin the Oracle Tuxedo installation. The checklist includes various parameters with descriptions and example values. 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
ORACLE_HOME	The high level installation directory. You specify this value in the silent installation file.	/oracle	<enter value>

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Item	Description	Example Value	Real Value
ORACLE_HOME_NAME	The name of the current Oracle installation. This identifies the Oracle Tuxedo installation in the Oracle Universal Installer, when reviewing the Installed Products list.	tuxedo1213	<enter value>
TUXDIR	The full path to the Oracle Tuxedo installation. The installer creates this as ORACLE_HOME/tuxedo12.1.3.0.0	/oracle/tuxedo12.1.3.0.0	<enter value>
Username	The UNIX user name of the Application Server Administrator (Oracle Tuxedo owner). See the next section for instructions.	tuxedo	<enter value>
UNIX_GROUP_NAME	The UNIX group name of the Oracle Tuxedo owner. See the next section for instructions.	tuxedo	<enter value>
FROM_LOCATION	The full path to the directory containing the products to be installed.	/home/temp/Disk1/stage/products.xml	

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

Task 3-1-16: Designating the Oracle Tuxedo Owner on UNIX

A new or existing user must be designated as the Oracle Tuxedo owner.

Note. For Oracle Tuxedo 11gR1 and later releases, the application server can be booted only by the Oracle Tuxedo owner or the group that the owner is in. The predefined UNIX "other" group does not have read or execute permission. If it is required that members of the "other" group be able to boot and shut down an application server domain, you must manually give read and execute permissions to all files and folders under the *TUXDIR/*locale and *TUXDIR/*udataobj directories.

To designate the Oracle 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 Oracle Tuxedo.

   Using the values from the preinstallation checklist, create the group and specify the group name. Then create the user who will be the Oracle Tuxedo owner, specifying the user name, group name, and home directory, denoted by TUXDIR from the checklist.

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Note. The utility that you use to create the user and group varies, depending on your operating system. For example, HP-UX Itanium uses the "sam" utility, IBM AIX uses the "smit" utility, and so on. For the exact utility, refer to your operating system documentation.

Task 3-1-17: Installing Oracle Tuxedo in Silent Mode on UNIX

This section discusses:

- Understanding the Silent Mode Installation on UNIX
- Running the Silent Mode Installation on UNIX

Understanding the Silent Mode Installation on UNIX

You can carry out a silent installation of Oracle Tuxedo 12cR2 by providing all the required settings in a response file. With silent installation there is little or no user interaction.

See Oracle Tuxedo documentation.

Note. Console mode installation is not supported for Oracle Tuxedo 12cR2.

Use a text editor to modify the values in the response file according to your installation requirements. Here is a sample response file:

```
#
# .......... Silent Installation Properties file .........
#

RESPONSEFILE_VERSION=2.2.1.0.0
#Unix group to be set for the inventory directory. Valid only in Unix⇒
 platforms.
UNIX_GROUP_NAME="dba"

#Complete path of the Oracle Home.
ORACLE_HOME="/home/psftuser/oracle"

#Oracle Home Name. Used in creating folders and services.
ORACLE_HOME_NAME="tuxedo1213"
DEINSTALL_LIST={"Tuxedo","12.1.3.0.0"}
SELECTED_LANGUAGES={"en"}
COMPONENT_LANGUAGES={"en"}
INSTALL_TYPE="Full Install"
ENABLE_TSAM_AGENT=false
LDAP_SUPPORT_SSL=false
TLISTEN_PORT="3050"
MIN_CRYPT_BITS_CHOOSE=0
MAX_CRYPT_BITS_CHOOSE=256
INSTALL_SAMPLES=true
ENCRYPT_CHOICE=0
CONFIG_TLISTEN=true
TLISTEN_PASSWORD=password
```

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Running the Silent Mode Installation on UNIX

The following procedure assumes that you saved and extracted the installation files from Oracle Software Delivery Cloud in the directory *TUX_INSTALL*.

To install Oracle Tuxedo on UNIX or Linux:

1. If it does not exist, use a text editor, such as "vi", to create the central inventory location file, named oraInst.loc, in a convenient directory.

   If you have previously installed Oracle software on the system, the oraInst.loc file may already exist. The oraInst.loc file contains only the following two lines:

   ```
   inventory_loc=/home/psftuser/oraInventory
   inst_group=ccpt
   ```

   The oraInst.loc file contains the following information:

   - inventory_loc — Specify the full path to the directory where you want the installer to create the inventory directory. The location in the example is /home/psftuser/oraInventory.
   - oui_install_group — Specify the name of the group whose members have write permissions to this directory. The group name in the example is ccpt.
2. Create a response file as described in the previous section and copy it to *TUX_INSTALL*.
3. Open a command prompt and change directory to *TUX_INSTALL*/Disk1/install.
4. If this is the first time you are installing on your system (that is, there is no pre-existing Oracle inventory location, and you had to create the oraInst.loc file in the first step), use the following command to perform a silent installation:

   ```
   ./runInstaller -responseFile <complete_filename> -silent -invPtrLoc ⇒
   <complete_inventory_filename>
   ```

   Specify the full path and name for both the response file and the oraInst.loc file. For example:

   ```
   ./runInstaller -responseFile /home/temp/response.rsp -silent -invPtrLoc⇒
    /home/psftuser/oraInventory/oraInst.loc
   ```

5. If you have previously installed an Oracle product on your system and do not need to specify an Oracle inventory location, use the following command to perform a silent installation:

   ```
   ./runInstaller -responseFile <complete_filename> -silent
   ```

   Specify the full path and name for both the response file. For example:

   ```
   ./runInstaller -responseFile /home/temp/response.rsp -silent
   ```

6. After you enter the commands in the previous steps, the installer is launched in silent mode, and a progress indicator tracks the installation.

   When the installation is complete, you should see a completion message such as "The installation of Oracle Tuxedo was successful."

Task 3-1-18: Installing the Oracle Tuxedo Patch on UNIX

These instructions assume that you have installed the base Oracle Tuxedo 12cR2, and have downloaded the platform-specific version of the rolling patch to a directory referred to here as *TUX_INSTALL*.

To install the patch:

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1. Stop all PeopleSoft PeopleTools domains that are running and using your Oracle Tuxedo installation.
2. Verify that the environment variable TUXDIR is set to the Oracle Tuxedo installation location, such as /home/psftuser/oracle/tuxedo12.1.3.0.0.
3. Verify that the environment variable ORACLE_HOME is set to the *ORACLE_HOME* location you specified when you installed Oracle Tuxedo, such as /home/psftuser/oracle.
4. Go to the directory where you downloaded the patch zip file from My Oracle Support, *TUX_INSTALL*, and unzip the file.

   This creates a directory 21618163, which includes a zip file with the patch.
5. Open a command prompt and go to the *TUX_INSTALL/*21618163 directory.
6. Run the following command:

   ```
   $ORACLE_HOME/OPatch/opatch apply 21618163.zip
   ```

Note. The patch installer backs up all files being patched. The backup copy is located in the directory *ORACLE_HOME*\.patch_storage\. Do not delete these backup files. They will be used if you need to remove the patch installation.

Task 3-1-19: Uninstalling the Oracle Tuxedo Patch from UNIX

To remove an Oracle Tuxedo installation, you must first remove the rolling patch, as follows:

1. Stop all PeopleSoft PeopleTools domains that are running and using your Oracle Tuxedo installation.
2. Verify that the environment variable TUXDIR is set to the Oracle Tuxedo installation location, such as /home/psftuser/oracle/tuxedo12.1.3.0.0.
3. Verify that the environment variable ORACLE_HOME is set to the *ORACLE_HOME* location you specified when you installed Oracle Tuxedo, such as /home/psftuser/oracle.
4. Open a command prompt and run the following command:

   ```
   $ORACLE_HOME/OPatch/opatch rollback -id 21618163
   ```

Task 3-1-20: Uninstalling Oracle Tuxedo from UNIX Using Silent Mode

To remove the Oracle Tuxedo 12cR2 installation from UNIX:

1. Open a command prompt and change directory to *TUX_INSTALL/*Disk1/install.
2. Run the following command, where ORACLE_HOME refers to the high-level installation director, and REMOVE_HOMES refers to the directory to be removed:

   ```
   ./runInstaller -deinstall -silent ORACLE_HOME=<LOCATION_OF_ORACLE_HOME>⇒
    "REMOVE_HOMES={<LOCATION_OF_ORACLE_HOME_TO_BE_REMOVED>}"
   ```

   For example:

   ```
   ./runInstaller -deinstall -silent ORACLE_HOME="/home/psftuser/oracle"⇒
    "REMOVE_HOMES={/home/psftuser/oracle}"
   ```

See Oracle Tuxedo documentation.

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Task 3-1-21: Verifying the Server Installation on UNIX

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

To verify the installation:

1. Open a shell.
2. Change directory to *TUXDIR/*bin. For example:
   `/home/psftuser/oracle/tuxedo1213/bin`
3. Issue the following command:
   `tmadmin -v`

The command will return the Oracle Tuxedo version that is installed. For example:

```
INFO: Oracle Tuxedo, Version 12.1.3.0.0, 64-bit, Patch Level(None)
```

If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 12cR2.

Task 3-1-22: Ensuring that Oracle Tuxedo Coexists with Earlier Versions

This section discusses:

- Understanding the Use of Multiple Oracle Tuxedo Versions
- Checking Your Environment Variables
- Changing the TListen Port

Understanding the Use of Multiple Oracle Tuxedo Versions

Earlier versions of PeopleSoft PeopleTools rely on earlier versions of Oracle Tuxedo—for example, PeopleSoft PeopleTools 8.49 uses Oracle Tuxedo 9.1, and releases 8.44 to 8.48 use Oracle Tuxedo 8.1. If you are installing only PeopleSoft PeopleTools 8.55, you can safely skip this section. If you need to run application servers on PeopleSoft PeopleTools 8.55 and earlier PeopleSoft PeopleTools versions on the same machine, read this section to learn about coexistence issues. Although Oracle Tuxedo 12cR2 coexists with earlier Oracle Tuxedo versions on the same machine, you may need to take a number of manual steps to ensure that these products share the same environment gracefully.

Checking Your Environment Variables

Installing Oracle Tuxedo changes your TUXDIR and PATH environment variables. Although you do not need to change these environment variables to successfully run PeopleSoft PeopleTools 8.55 with Oracle Tuxedo 12cR2, earlier versions of PeopleSoft PeopleTools rely on these environment variables being set.

To change your environment variables manually:

1. Set your TUXDIR environment variable to reflect the installation directory of your earlier Oracle Tuxedo release.

   For example, Oracle Tuxedo 8.1 may be installed to C:\tux8.1. This means that TUXDIR=C:\tux8.1 is the correct setting.
2. Your PATH environment variable must contain *TUXDIR*\bin for the earlier Oracle Tuxedo version before any entries for *TUXDIR*\bin for Oracle Tuxedo 12cR2.

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For example the setting PATH=C:\winnt;C:\oracle\tuxedo12.1.3.0.0_VS2012\bin;C:\tux8.1\bin will cause your pre-8.49 domains to no longer work. You would need to change this to PATH=C:\winnt;C:\tux8.1\bin;C:\oracle\tuxedo12.1.3.0.0_VS2012\bin to work with pre-PeopleSoft PeopleTools 8.49 domains.

Note. PeopleSoft PeopleTools 8.44 and later do not use environment variables to discover the installation location of Oracle Tuxedo 8.1 and later. The PSADMIN tool retrieves these values from the Microsoft Windows registry.

---

3. Your library path on UNIX (whichever of the environment variables LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH is appropriate for your platform) must contain *TUXDIR*/lib for the earlier Oracle Tuxedo version before any entries for Oracle Tuxedo 12cR2.

   For example the setting LD_LIBRARY_PATH=/lib:/usr/lib:/home/user/Oracle/tuxedo12cR2/lib:/prod/tuxedo/8.1/lib, will cause your pre-8.49 domains to no longer work. You would need to change this to LD_LIBRARY_PATH=/lib:/usr/lib:/prod/tuxedo/8.1/lib:/home/user/Oracle/tuxedo12cR2/lib for your pre-8.49 domains to work.

Alternatively, you can set the environment variables for a desired release using these steps:

1. Go to the *TUXDIR* directory for the release that you want to run and run the command `./tux.env`.

   This command sets the environment variables needed to run Oracle Tuxedo.

2. Verify the correct Oracle Tuxedo version by running this command:

   ```
   tmadmin -v
   ```

   See Verifying the Server Installation on UNIX.

Changing the TListen Port

Installing Oracle Tuxedo 12cR2 and earlier creates a new service known as TListen. In most cases, you can disable this service as it is not required to run PeopleSoft PeopleTools application server domains. However, if you intend to use the Tuxedo Web Monitor you may wish to ensure that there is no port clash with earlier versions. This port is determined at installation and should be changed to a port other than the default 3050 if you intend on using the TListen service for Oracle Tuxedo 12cR2 and earlier Oracle Tuxedo versions concurrently.

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Chapter 4

Using the PeopleSoft Installer

This chapter discusses:

- Understanding the PeopleSoft Installer
- Prerequisites
- Obtaining the PeopleSoft Installation Files from Oracle Software Delivery Cloud
- Running the PeopleSoft Installer
- Verifying Necessary Files for Installation on Windows
- Installing PeopleSoft Application Software
- Installing the Multilanguage Files
- Installing the PeopleTools Client Files
- Mapping a Drive on the Install Workstation

Understanding the PeopleSoft Installer

This section discusses:

- Defining the PeopleSoft Installer
- Defining Supported Server Combinations
- Obtaining License Codes

Defining the PeopleSoft Installer

The PeopleSoft Installer is a Java-based tool that delivers software to your servers and to the PeopleTools Client. You can install the whole range of PeopleSoft servers and client with the PeopleSoft installer. You can install the server and client software separately or together.

Note. You must install the necessary web server products and any additional component software as described in the previous chapters before you run the PeopleSoft Installer.

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. You can also use the PeopleSoft Installer to install the files for the PeopleTools Client.

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You run the PeopleSoft installer to install the necessary products on the target machines. Which files are installed depends on the operating system on the target machine, the database platform, and the selected server option. The PeopleSoft Installer installs files directly to Microsoft Windows, UNIX, and Linux machines. PeopleSoft PeopleTools and PeopleSoft applications use the same PeopleSoft installation template. This chapter discusses the installation of PeopleSoft PeopleTools, followed by the installation of PeopleSoft application software and the application-specific Multilanguage files.

All licensed components of the PeopleSoft Architecture must be installed on each server. If you are not able to download and extract the PeopleSoft installation files directly on a UNIX machine, for example, you can download to the Windows file server and then FTP the files to your UNIX system.

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.

Before beginning the installation, be sure to review the information about the various PeopleSoft servers and clients in the chapter "Preparing for Installation."

See Also

"Preparing for Installation," Planning Your Initial Configuration

Defining Supported Server Combinations

The following table lists the supported operating systems for the various PeopleSoft servers for your database platform. For more detailed information, consult the PeopleSoft product certifications area of My Oracle Support.

Supported operating systems for database servers	Supported operating systems for application servers and batch servers	Supported operating systems for file servers	Supported operating systems for web servers
• HP-UX Itanium • IBM AIX on POWER Systems (64-bit) • IBM: Linux on System z • Linux x86-64 • Microsoft Windows x64 (64-bit) • Oracle Solaris on SPARC (64-bit) • Oracle Solaris x86_64	• HP-UX Itanium • IBM AIX on POWER Systems (64-bit) • IBM: Linux on System z (batch server only; no application server) • Linux x86-64 • Microsoft Windows x64 (64-bit) • Oracle Solaris on SPARC (64-bit) • Oracle Solaris x86_64	Microsoft Windows x64 (64-bit) Linux or UNIX with network file system (NFS) or equivalent support	• HP-UX Itanium (64-bit) • IBM AIX on POWER Systems (64-bit) • Linux x86-64 • Microsoft Windows x64 (64-bit) • Oracle Solaris on SPARC (64-bit) • Oracle Solaris x86_64

See Also

My Oracle Support, Certifications

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Obtaining License Codes

Refer to the following URL for license codes for Oracle's PeopleSoft line of products: http://licensecodes.oracle.com/ent_keys_by_prod.html.

See Also

My Oracle Support, (search for Licensing Notes for the current release)

"Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Completing Post-Installation Steps

"Setting Up the PeopleSoft Pure Internet Architecture in Console Mode," Completing Post-Installation Steps

Prerequisites

Verify that you fulfill the following requirements before beginning the installation:

- The PeopleSoft Installer requires Java Virtual Machine (JVM), which is bundled for all OS platforms. The PeopleSoft Installer directly uses the bundled JVM, and therefore does not need to search for the JVMs in the directories in which users would typically install JVM. PeopleSoft PeopleTools supports JRE/JDK 1.7 and higher patch level. See My Oracle Support for information on the correct JRE version for your system.

  See My Oracle Support, Certifications.
- Before running the PeopleSoft installer, you must verify that you have the correct patches for your JVM level.

  Check My Oracle Support and your vendor for required patches.

  See Operating System, RDBMS, & Additional Component Patches Required for Installation PeopleTools, My Oracle Support, (search for the article title).
- Make sure you have at least 4.5 GB of free space to perform your installation.

  See Running the PeopleSoft Installer.
- The installation process also requires at least 2.0 GB of free temporary disk space, which is needed only for the duration of the process. The process uses the directory defined by the TEMP environment variable on your installation computer or the directory specified by the -tempdir option when using setup.sh to install.

  Oracle strongly recommends that you use the –tempdir option to install, using the following guidelines:

  - Do not use /tmp as the temporary directory.
  - Do not specify /tmp as the explicit temporary directory for the -tempdir option.
  - Do not specify a directory that is on a shared drive.
  - Do not specify a directory that is inside the location where PeopleSoft PeopleTools is being installed; for example, *PS_HOME/*temp.
- The user who installs PeopleSoft PeopleTools must be root or the owner of *PS_HOME*.

  PS_HOME is used throughout this installation guide to refer to the high-level directory where your PeopleSoft PeopleTools software is installed. The documentation may also use the notation $PS_HOME or %PS_HOME% to refer to the PS_HOME environment variable in a code sample.
- You can install the PeopleSoft Application software to *PS_HOME*, or to another directory outside *PS_HOME*. This documentation refers to the directory where you install the PeopleSoft application software as *PS_APP_HOME*.

  See "Preparing for Installation," Defining Installation Locations.

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- You must have admin privileges to install the PeopleSoft web server.
- You can install the PeopleSoft web server to *PS_HOME*, or to another directory outside *PS_HOME*. This documentation refers to the directory where you install the PeopleSoft web server as *PIA_HOME*.

  See "Preparing for Installation," Defining Installation Locations.
- If your installation requires any PeopleSoft PeopleTools patches, you can apply the code (that is, the contents of the zip file you downloaded from My Oracle Support) after running the PeopleSoft Installer. Do not apply the database instructions at this time; the database objects will be applied later during the install. Be sure to read and follow the instructions provided with the PeopleSoft PeopleTools patches.

See Also

My Oracle Support, Certifications

Task 4-1: Obtaining the PeopleSoft Installation Files from Oracle Software Delivery Cloud

You obtain the PeopleSoft PeopleTools, PeopleSoft application, and multi-language software by downloading them as zip files from Oracle Software Delivery Cloud. At this point you should have already downloaded the necessary files. However, if you have not yet downloaded the files, this section includes information on finding and using the installation files.

See "Preparing for Installation," Using Oracle Software Delivery Cloud to Obtain Installation Files.

See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

To obtain the installation files for PeopleSoft PeopleTools and PeopleSoft applications from Oracle Software Delivery Cloud:

1. After logging in to Oracle Software Delivery Cloud read the information about export restrictions, and then click Accept.
2. Enter the name of a specific PeopleSoft application product in the type-ahead Product field.

   For example, for PeopleSoft Human Capital Management, enter and select PeopleSoft Enterprise Human Resources. For PeopleSoft Financials and Supply Chain Management, enter and select PeopleSoft Enterprise Financials.

   Note. The installation files for PeopleSoft PeopleTools are included with the PeopleSoft application installation files. If you want to obtain the files for PeopleSoft PeopleTools only, enter PeopleSoft Enterprise PeopleTools in the Product field, and select PeopleSoft Enterprise PeopleTools - Enterprise Development from the drop-down list.

   ---

3. Click Select Platform, select the operating system you are running on, and then click Select.

   Note that you must unzip the zip files on the operating system platform for which they are intended. For example, if you download the files for Oracle Solaris, you must unzip the files on an Oracle Solaris operating system. If you unzip the files on a Microsoft Windows machine into a staging directory, and then move the directory to an Oracle Solaris machine, the staging area files may be corrupted.
4. In the Selected Products section, click the Quick Select link below your PeopleSoft application.
5. In the Quick Select window, select the check boxes for all the products you want to download, and then click Select.

   The products are added to the Selected Products list.

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6. Click Continue.
7. Click the arrow to view and select from the list of products included.
8. Click Continue.
9. Read the license agreement, select the check box to acknowledge that you accept the agreement, and then click Continue.
10. On the File Download window, click one of the filenames to download an individual zip file, or click Download All to obtain all of the files
11. For the PeopleSoft PeopleTools installation, when you unzip the files, extract them into a temporary directory, referred to here as *PS_INSTALL*. The extracted files are loaded into directories Disk1, Disk2, Disk3, and so on.

    For the PeopleSoft application, and other files, extract the zip files into a convenient local directory, referred to as *PS_INSTALL*.

For UNIX only:

After you download the installation files from Oracle Software Delivery Cloud, if it is necessary to transfer the files to a UNIX computer using FTP, you must change the permissions to make them executable, for example using the `chmod +x` command. Change the mode to executable for the following files:

- *PS_INSTALL*\Disk1\setup.sh
- Files in *PS_INSTALL*\Disk1\InstData:
  - setup.aix
  - setup.hp-ia64
  - setup.linux
  - setup.solaris
  - setup.solaris-x86_64
  - setup.zlinux

See Also

Application-specific installation instructions, My Oracle Support, (search for the PeopleSoft application)

Obtaining License Codes

Task 4-2: Running the PeopleSoft Installer

This section discusses:

- Understanding the PeopleSoft Installer
- Starting the PeopleSoft Installer
- Installing PeopleSoft PeopleTools in GUI Mode
- Installing PeopleSoft PeopleTools in Console Mode

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Understanding 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 machine that you use for one or more PeopleSoft server. The specific options that you see during the installation procedure depend upon the operating system platform, database platform and so on.

Use the PeopleSoft Installer for:

- PeopleSoft PeopleTools
- PeopleSoft applications
- Multilanguage files
- PeopleTools Client files

The directory where the files are installed is referred to in this section as *PS_HOME.* As described earlier in this documentation, you can configure your environment with separate installation locations for PeopleSoft PeopleTools and PeopleSoft applications. It is a good idea to use a directory name that indicates the application you are installing and the version number, such as HCM920 for the 9.2 version of PeopleSoft Human Capital Management.

See "Preparing for Installation," Defining Installation Locations.

You can run the installer in GUI mode, on Microsoft Windows operating systems, or in console (text) mode, on UNIX or Linux.

Note. The machine that you use to perform your PeopleSoft PeopleTools installation must be running in *256-color mode* or higher when running the PeopleSoft PeopleTools, PeopleSoft application, multilanguage, or PeopleSoft Pure Internet Architecture installation, and database configuration in Microsoft Windows. This is not necessary for UNIX or console mode.

The PeopleSoft Installer asks whether you want to install supporting features such as Environment Management Hub. Before you run the PeopleSoft Installer, you may want to consult supporting documentation to help you in choosing these options.

See Also

PeopleTools: Global Technology

PeopleTools: Change Assistant and Update Manager

PeopleTools: System and Server Administration

My Oracle Support, Certifications

Task 4-2-1: Starting the PeopleSoft Installer

After you download and extract the PeopleSoft PeopleTools installation files you can find the installer in *PS_INSTALL/*disk1.

To start the PeopleSoft Installer on Microsoft Windows, type:

```
PS_INSTALL\disk1\setup.bat [command line options]
```

To start the PeopleSoft Installer on a supported UNIX or Linux operating system, type:

```
PS_INSTALL/disk1/setup.sh [command line options]
```


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The following list includes options that you can use when running setup.bat and setup.sh on the command line, their allowed values, descriptions, and environment variables that must be set before using the options.

Note. Only the command line options listed in this documentation are supported for PeopleSoft installation. Note that the use of a response file for silent installation is not supported for the installer for PeopleSoft PeopleTools 8.55. For some of the installations described elsewhere in this documentation, such as PeopleSoft Pure Internet Architecture, the same options apply.

- Specify console or GUI mode with the `–i` option.
  - To run in GUI mode:

    ```
    setup.bat -i GUI
    ```

  - To run in console mode:

    ```
    setup.sh -i console
    setup.bat -i console
    ```

- Specify the full absolute path to the Java (JRE or JDK) executable.

  Use either of the options `–javahome` or `–LAX_VM` to specify the absolute path to the JRE or JDK executable, including the executable name. Use this option if your installation is different than the vendor-defined installation path. This is used by the installer as the runtime javahome.

  On Microsoft Windows:

  ```
  setup.bat -javahome D:\prod\java7\bin\java.exe
  setup.bat -LAX_VM D:\prod\java7\bin\java.exe
  ```

  On UNIX:

  ```
  setup.sh -javahome /opt/java7/bin/java
  setup.sh -LAX_VM /opt/java7/bin/java
  ```

- Run in debug mode to investigate basic installer features.
  1. Set the environment variable LAX_DEBUG; for example:

     On Microsoft Windows:

     ```
     set LAX_DEBUG=true
     ```

     On UNIX:

     ```
     export LAX_DEBUG=true
     ```

  2. Run the installer; for example:

     On Microsoft Windows:

     ```
     setup.bat -DDEBUG=console
     ```

     On UNIX:

     ```
     setup.sh -DDEBUG=console
     ```

- Specify the temporary directory to extract temporary files.

  This is recommended if you have less than 2 GB of space in your default temporary directory. See the Prerequisites section for information on choosing the temporary directory.

  - On Microsoft Windows, set the environment variable %TMP%, and then run `setup.bat` without an option for the temporary directory; for example:

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```
set TMP=D:\user\temp
setup.bat
```

- On UNIX, use the `-tempdir` option to specify the absolute path to the temporary directory; for example:

  ```
  setup.sh -tempdir /opt/home/user/temp
  ```

- To use more than one of the preceding options, you can combine them in any order; for example:

  ```
  setup.bat -i console -javahome D:\prod\java7\bin\java.exe
  ```

  ```
  setup.sh -LAX_VM /opt/java7/bin/java -DDEBUG=console -i console
  ```

- To start the debugger in GUI mode:
  1. Type the command; for example:

     ```
     setup.bat -DDEBUG=console -i console
     ```

  2. Press ENTER, and then hold down the CTRL key.

     The GUI installer window opens, and a console window also opens with the debugger messages.

Task 4-2-2: Installing PeopleSoft PeopleTools in GUI Mode

To install PeopleSoft PeopleTools with the PeopleSoft Installer in GUI mode:

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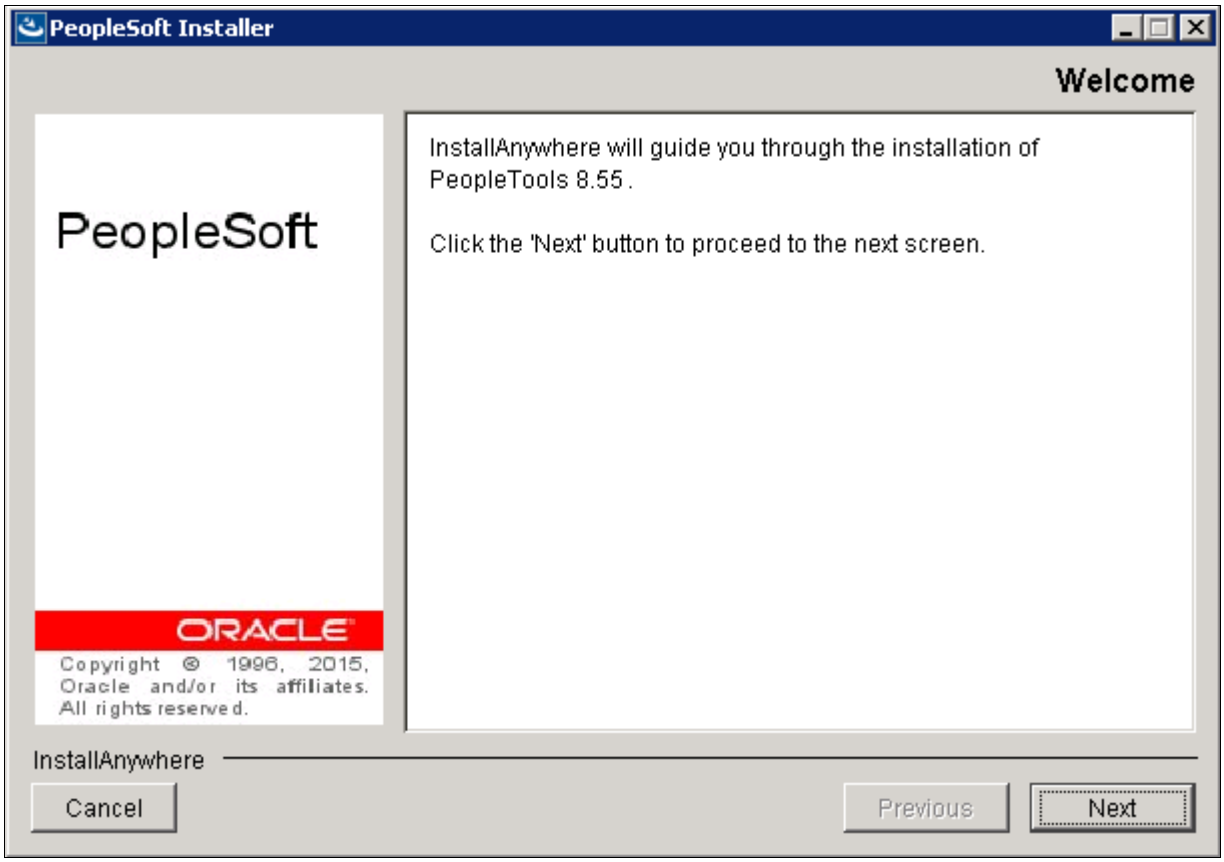
1. Launch the installer. For example:

   `PS_INSTALL\disk1\setup.bat`

   Click Next when you see the Welcome screen for PeopleTools 8.55.



PeopleSoft Installer Welcome window

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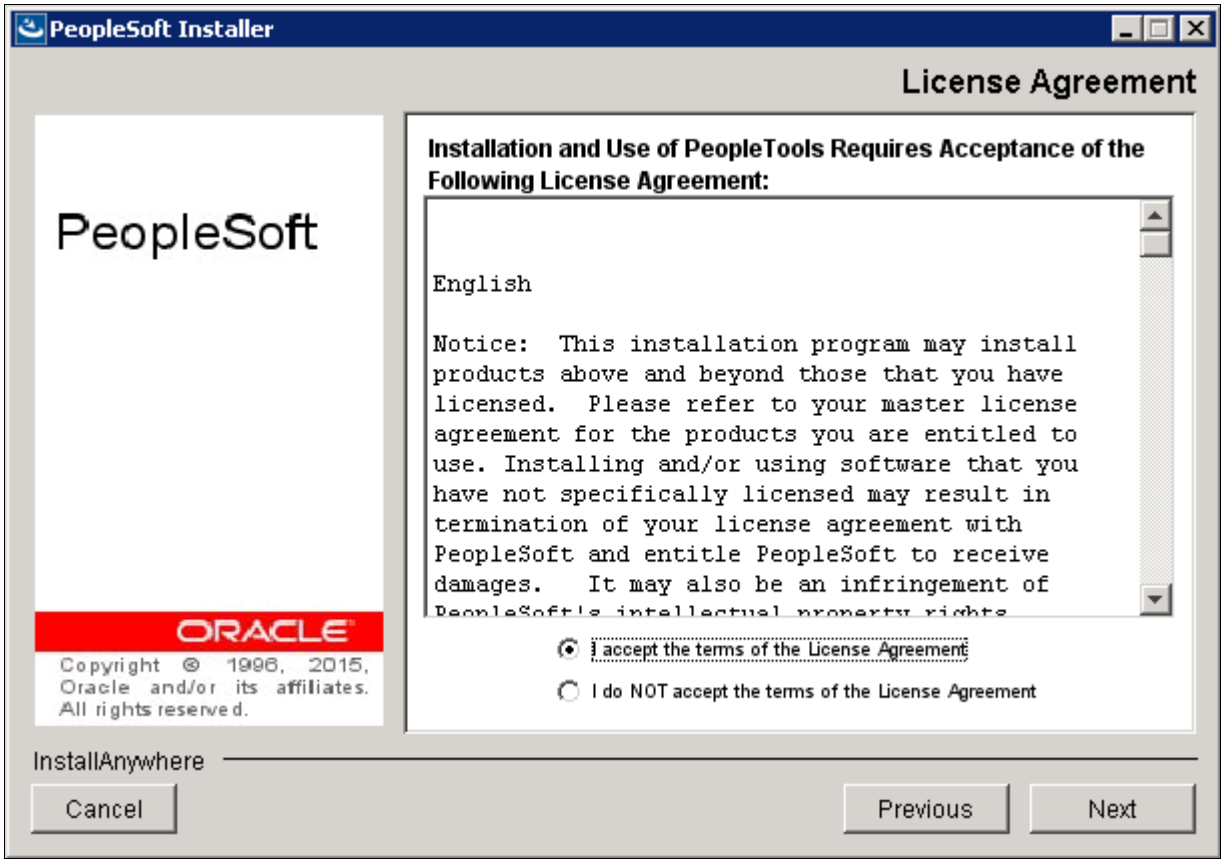
2. Click the radio button to accept the license agreement and click Next.

   The License Agreement window includes the terms in several languages.



PeopleSoft Installer License Agreement window

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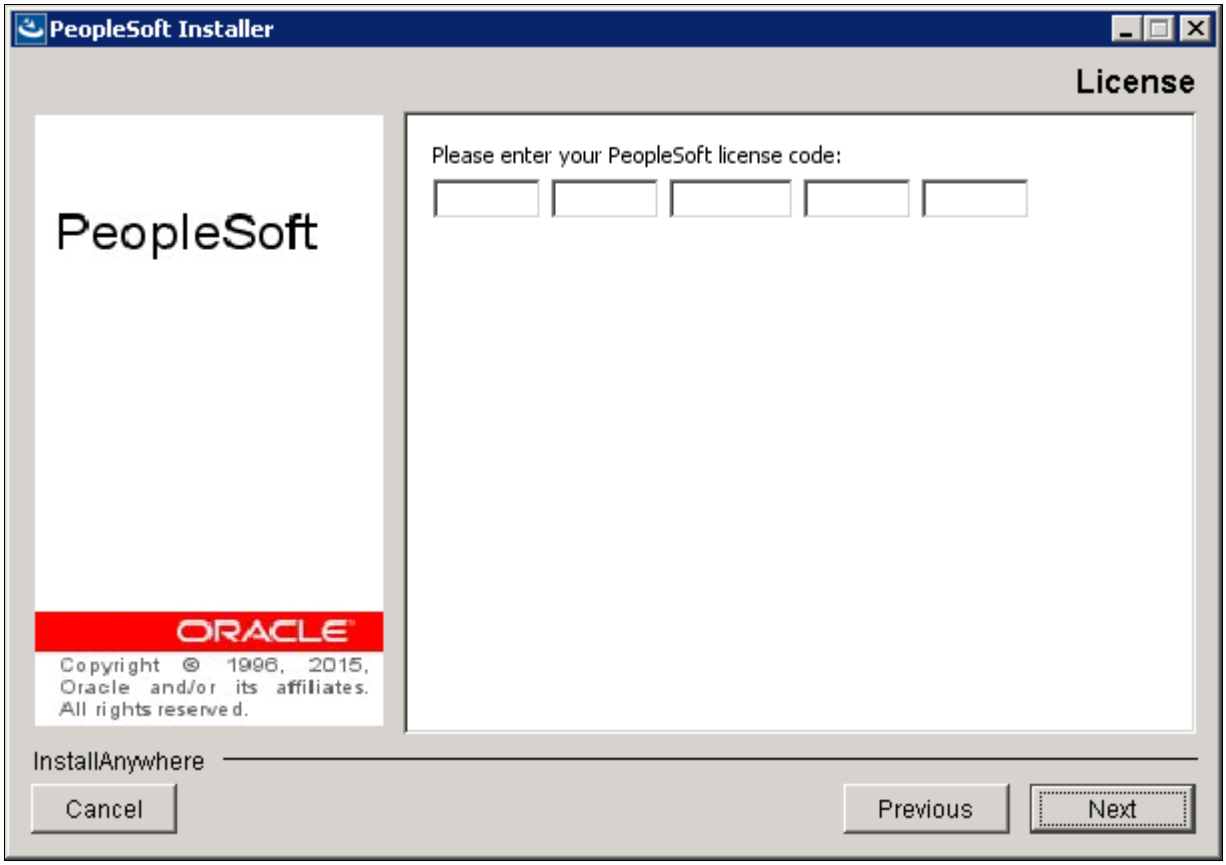
3. Enter your license code and click Next.

   See Understanding the PeopleSoft Installer, Obtaining License Codes.



PeopleSoft Installer License window

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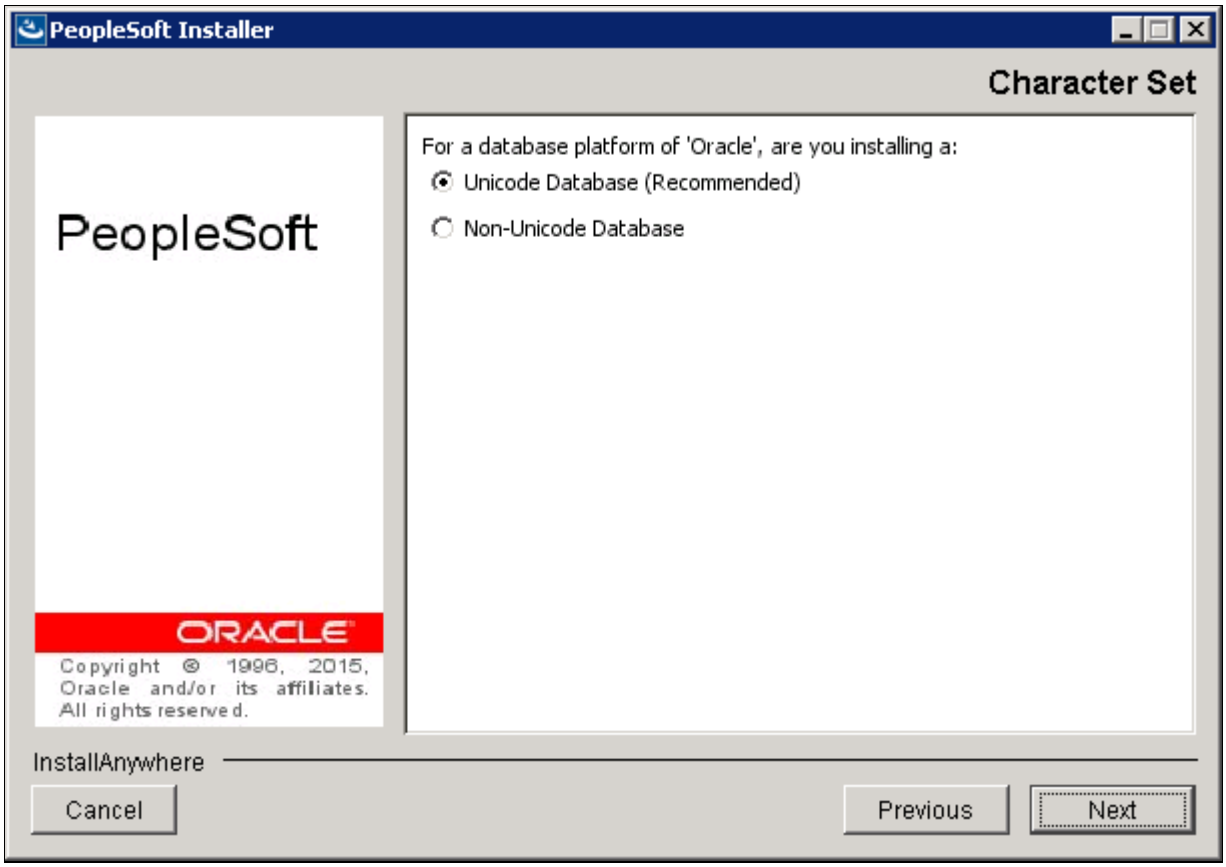
4. Choose a Unicode or non-Unicode database and click Next.

Note. Unicode databases are recommended by Oracle. Some languages in a PeopleSoft installation are only supported in a Unicode database. Unicode databases can require more disk space than non-Unicode databases.

See *PeopleTools: Global Technology.*

This example shows the option Unicode Database (Recommended) selected.



PeopleSoft Installer Character Set window

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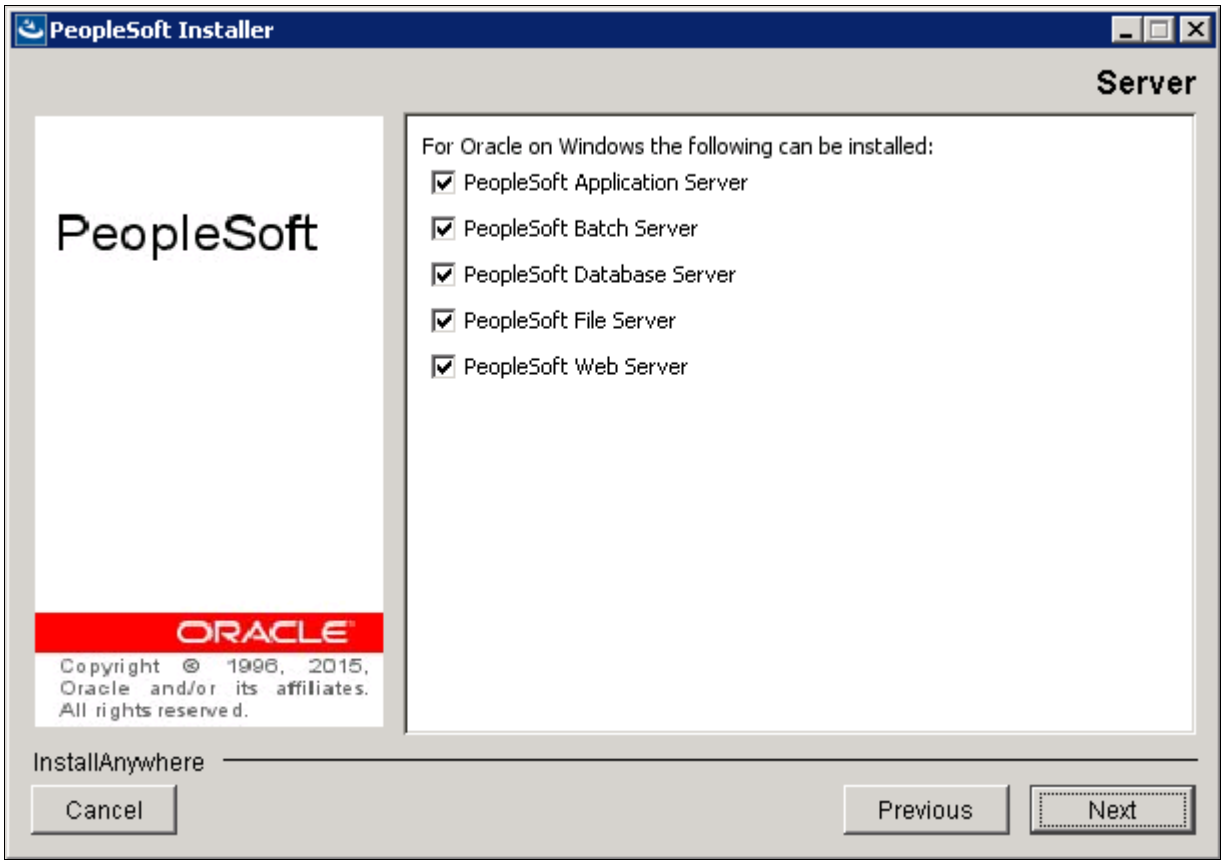
5. Select the servers you want to install and click *Next*.

   In this example the PeopleSoft Application Server, PeopleSoft Batch Server, PeopleSoft Database Server, PeopleSoft File Server, and PeopleSoft Web Server are selected.



PeopleSoft Installer Server window

Use the following information to help you make your selection on the Server window:

- 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.
- If you do not have admin privileges, you will not be able to install PeopleSoft web server. You will have to either acquire admin privileges or deselect the Web Server option to continue.
- You *must* install the PeopleSoft software on your database server in order to run the PeopleSoft Database Configuration Wizard. (Running the Database Configuration Wizard is discussed in the chapter on creating a database.)

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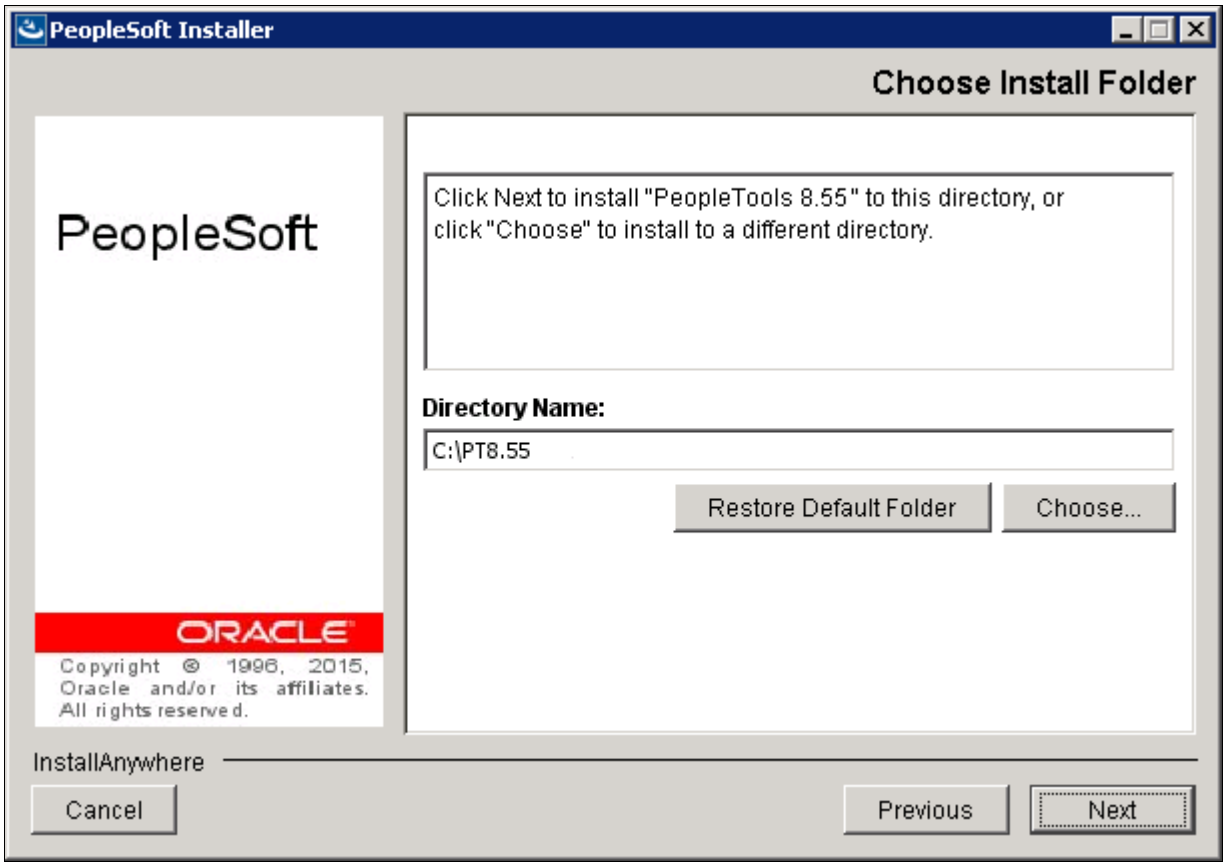
6. Specify the directory where you want to install PeopleSoft PeopleTools, referred to in this documentation as *PS_HOME*, in the Directory Name field, and click *Next.*

   In this example, *PS_HOME* is C:\PT8.55.

Note. Substitute your network drive and the directory name of your choice for the default selection. The installation directory name cannot contain a space. Note that directory names containing periods or non-US-ASCII characters may not work with some additional component software.



PeopleSoft Installer Choose Install Folder window

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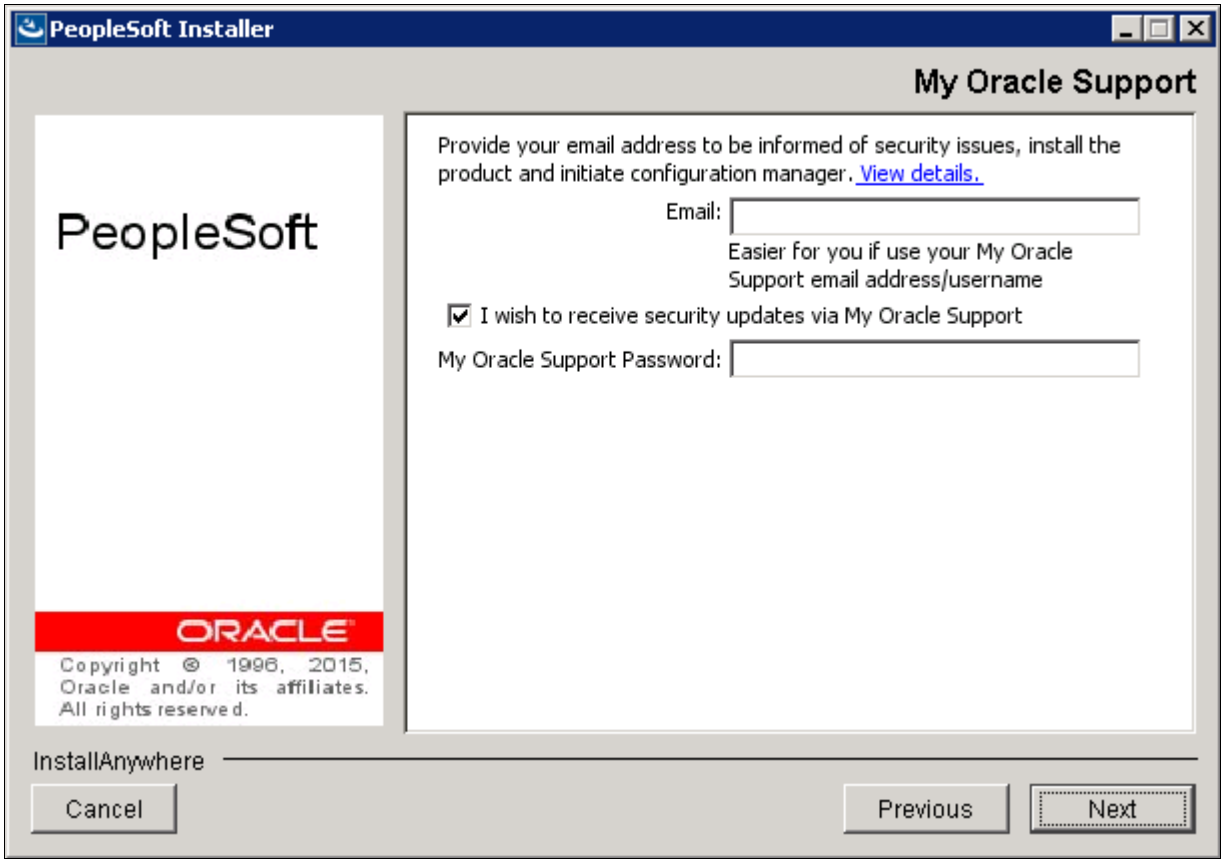
7. If you selected the PeopleSoft Application Server, PeopleSoft Web Server, or PeopleSoft Batch Server option above, the My Oracle Support window appears.

   This window does not appear if the Oracle Configuration Manager is already configured for your environment.

   See "Preparing for Installation," Using Oracle Configuration Manager.



PeopleSoft Installer My Oracle Support window

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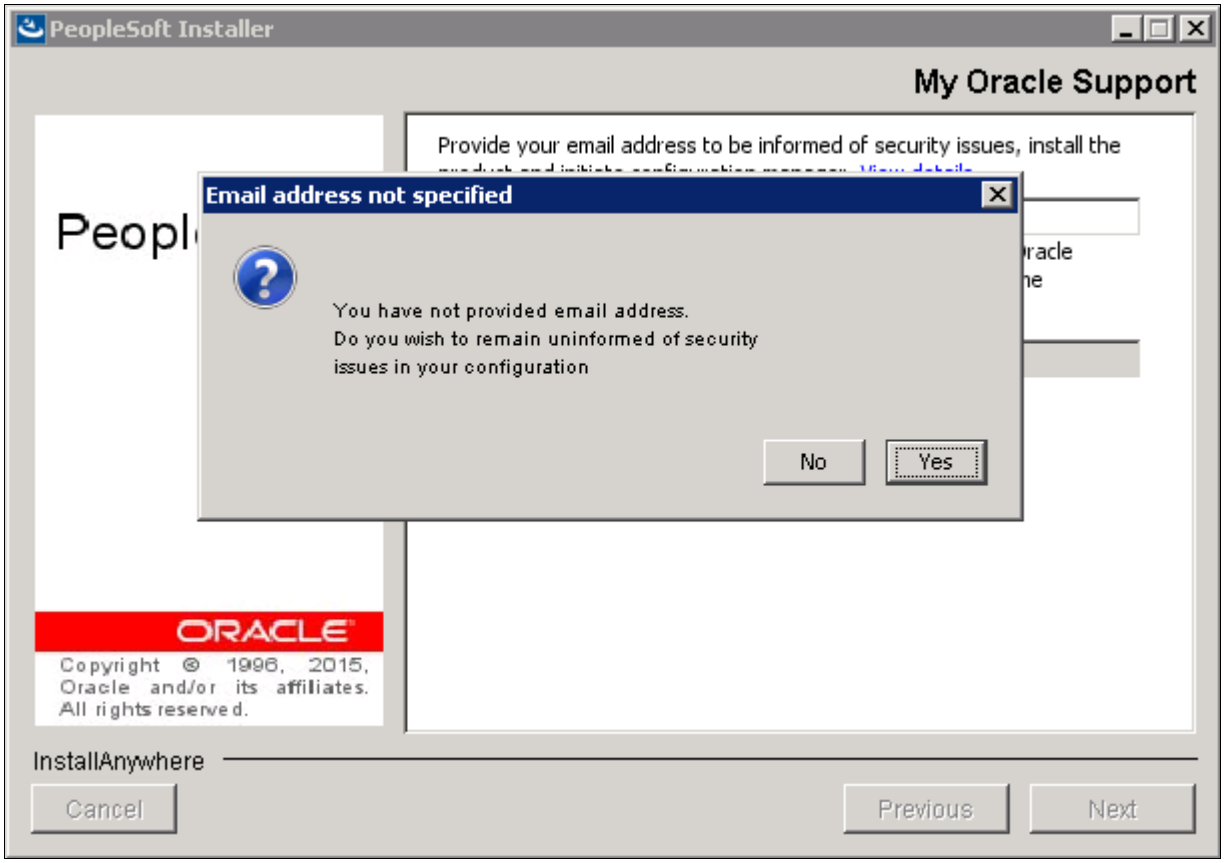
8. If you would prefer not to continue with the setup of Oracle Configuration Manager, do not enter either an email address or a password.

   When you click Next, a confirmation dialog box appears asking if you really do not want to receive security updates, as shown in this example. If you click Yes, the PeopleSoft PeopleTools installation continues and Oracle Configuration Manager is not configured. You can configure Oracle Configuration Manager later from *PS_HOME*/ccr using the instructions available at My Oracle Support.

   See My Oracle Support, https://support.oracle.com



Email address not specified dialog box

9. If you want to configure Oracle Configuration Manager in anonymous mode, clear the check box I wish to receive security updates via My Oracle Support, enter an email address, and click Next.

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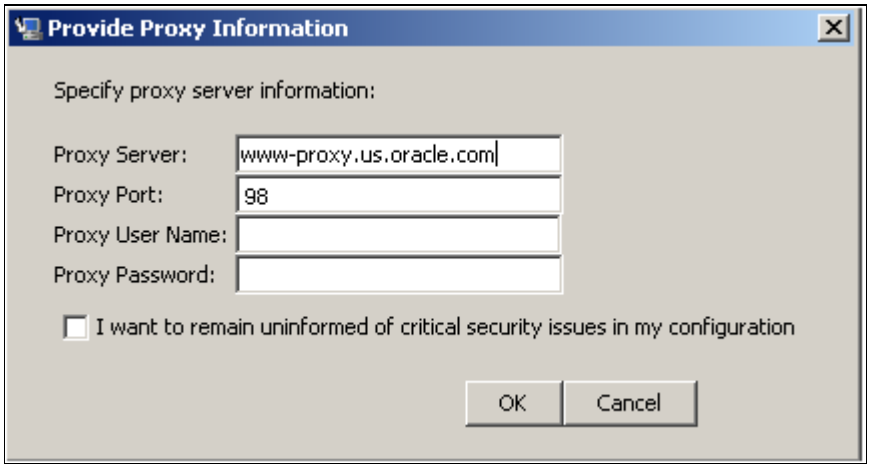
10. To configure Oracle Configuration Manager now, enter the email address and password associated with your My Oracle Support account.

    Select or clear the option I wish to receive security updates via My Oracle Support, and click Next.

    Oracle Configuration Manager checks for Internet connectivity, and verifies the credentials specified. If there is no direct connectivity to the Internet, the Provide Proxy Information dialog box appears to enable you to define a proxy server.



Provide Proxy Information dialog box

    Enter the following information:

    - Proxy Server — The host name of the proxy server, for example www-proxy.us.oracle.com.
    - Proxy Port — The port for the proxy server, for example, 98.
    - Proxy User Name — If the proxy server requires authentication, enter the user name.
    - Proxy Password — If the proxy server requires authentication, enter the password.
    - Select the option I want to remain uninformed of critical security issues in my configuration check box if you want Oracle Configuration Manager to be installed in disconnected mode.

11. Click OK to confirm connectivity.

    If Oracle Configuration Manager cannot validate the entered My Oracle Support account and the proxy information, the Provide Proxy Information dialog box appears. If you attempt the validation three times, an error message appears, and your account is registered as anonymous.

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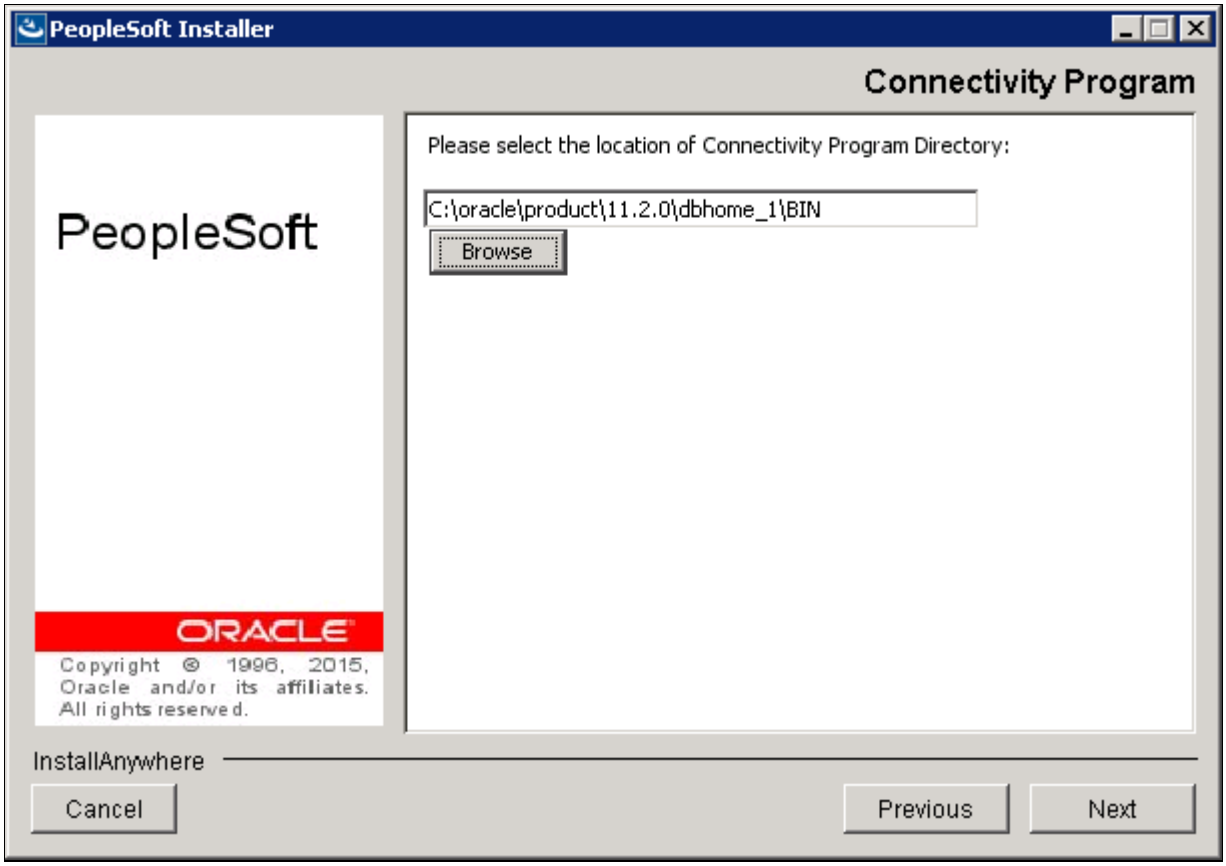
12. Specify the location of your Connectivity Program Directory and click *Next*.

    For Oracle database platforms, specify the path to the 64-bit connectivity software.

    The default location for the connectivity software for Oracle 11g is C:\oracle\product\11.2.0\dbhome_1\BIN, as shown in this example.

Note. If you are using Oracle 12c, the default location is C:\oracle\product\12.1.0\dbhome_1\BIN.



PeopleSoft Installer Connectivity Program window

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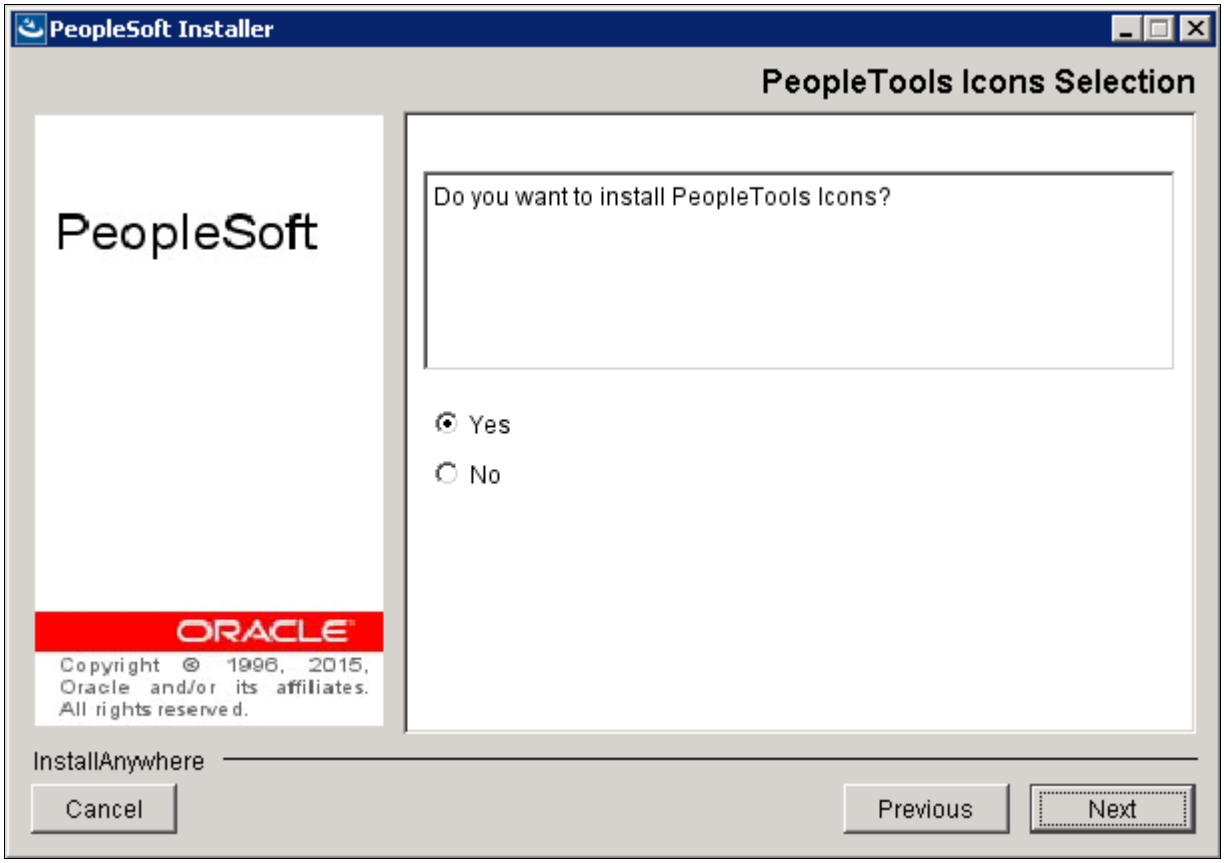
13. Depending on the PeopleSoft servers you selected, choose whether to install the PeopleSoft PeopleTools icons and click Next.



PeopleSoft Installer PeopleTools Icons Selection window

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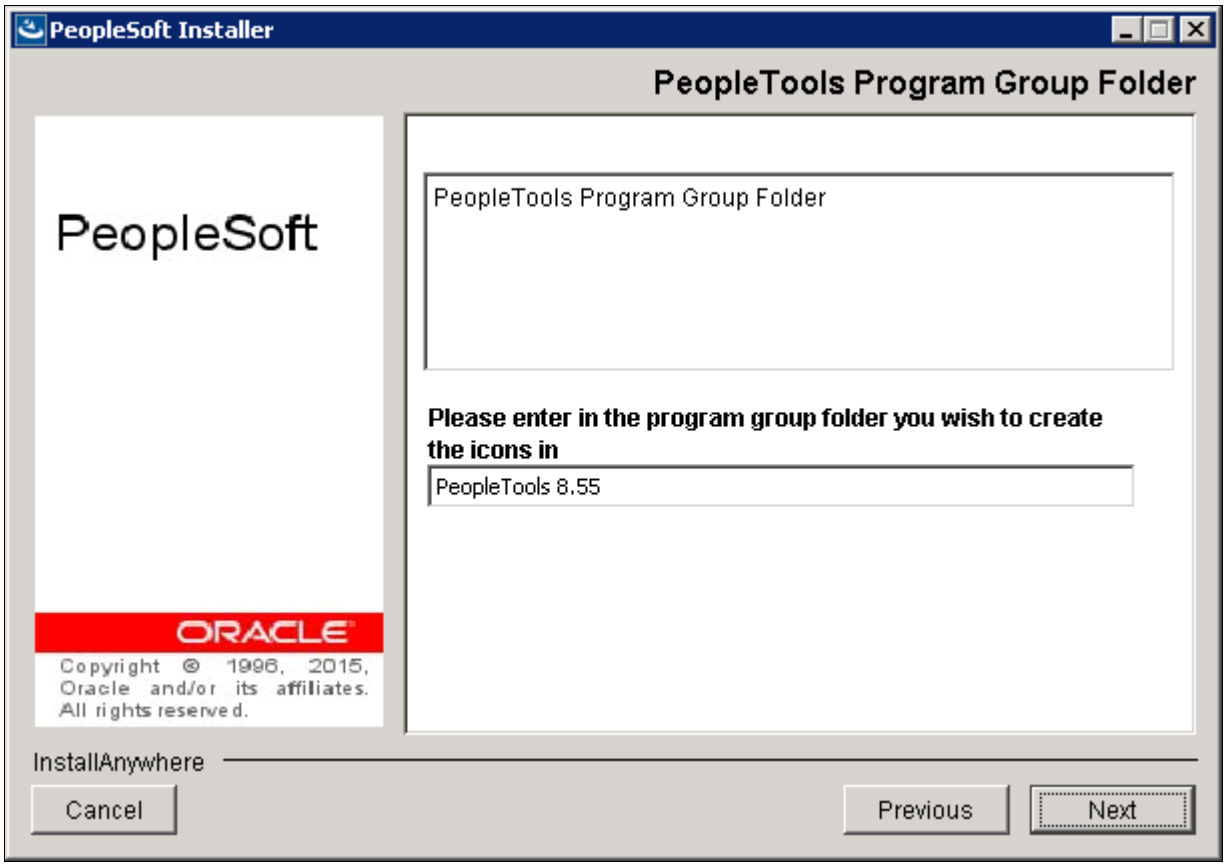
14. If you elected to install PeopleSoft PeopleTools icons, choose a valid group folder in which to create them and click Next.

    This example shows the default group folder, PeopleTools 8.55.



PeopleSoft Installer PeopleTools Program Group Folder window

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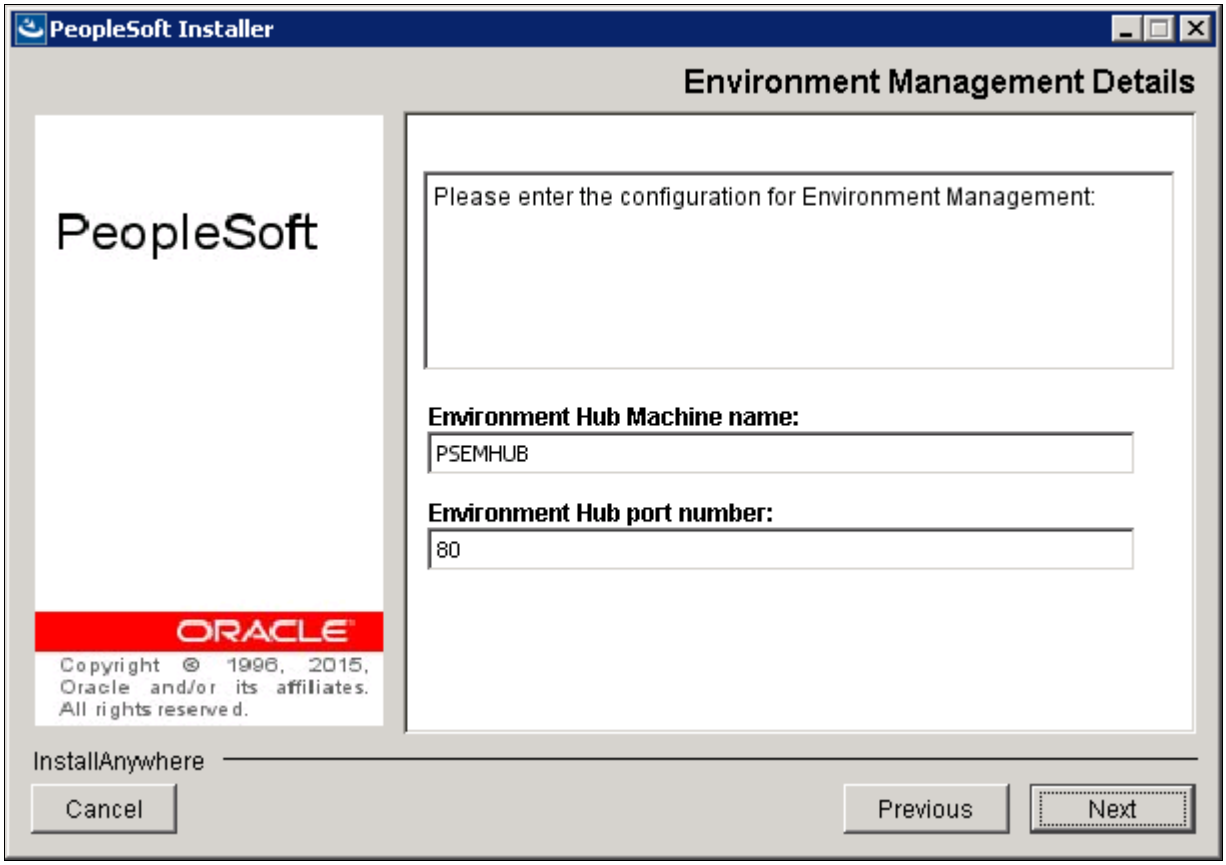
15. Enter the configuration information for Environment Management, the Environment Management machine name and port number.

    Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run the PeopleSoft Pure Internet Architecture). Select the hub port number (the default is 80, as shown in the example). This needs to match the PeopleSoft Pure Internet Architecture port. If you change the port number for the PeopleSoft Pure Internet Architecture configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

    See the information on configuring and running Environment Management Components in the *PeopleTools: Change Assistant and Update Manager* product documentation.



PeopleSoft Installer Environment Management Details window

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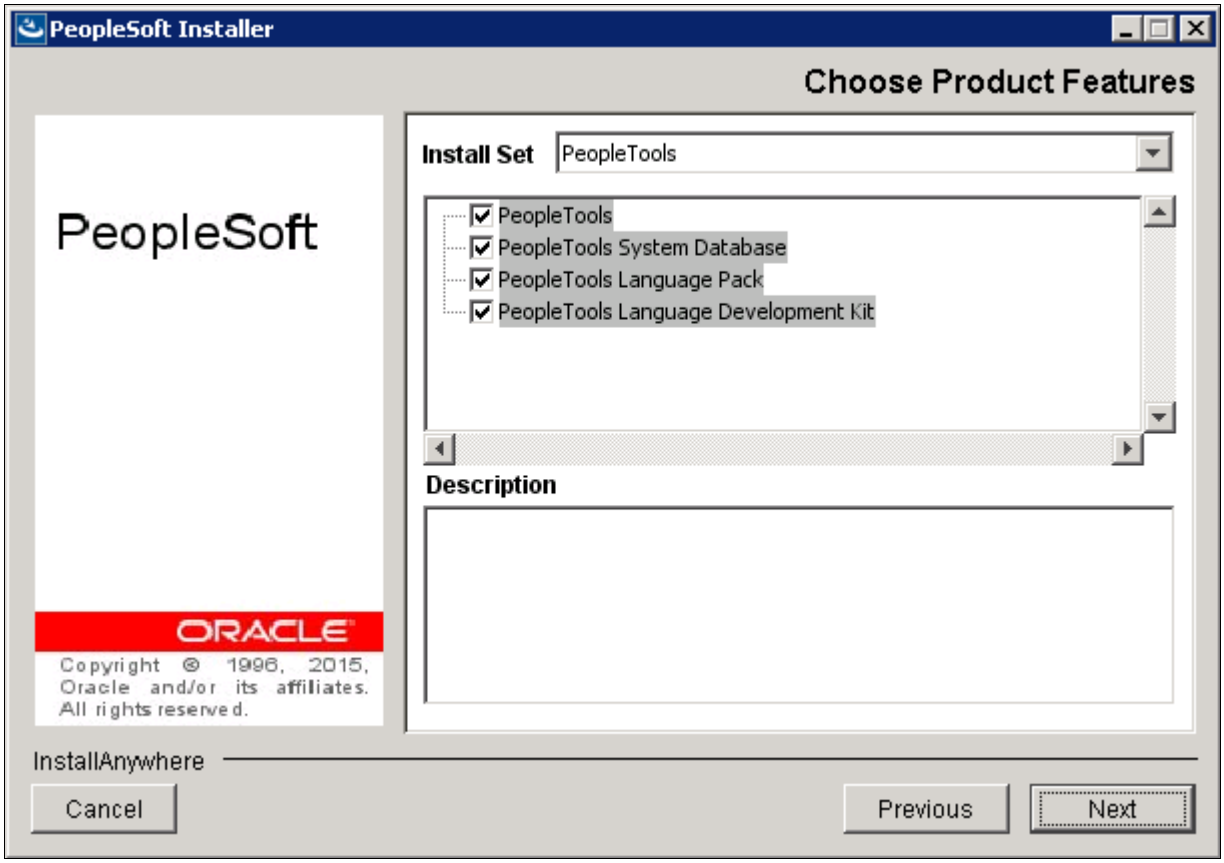
16. The next screen lists the PeopleSoft PeopleTools components (product features). Accept the defaults for the PeopleSoft PeopleTools features and click Next.



PeopleSoft Installer Choose Product Features window

- Select *PeopleTools* to install PeopleSoft PeopleTools and the PeopleSoft Pure Internet Architecture. This component contains the core PeopleTools files and is required for the proper operation of the PeopleSoft system and the PeopleSoft Pure Internet Architecture.
- Select *PeopleTools System Database* to allow your developers to create custom PeopleSoft PeopleTools applications outside of the delivered PeopleSoft Application.
- The *PeopleTools Language Pack* and *PeopleTools Language Development Kit* contain the translated PeopleSoft PeopleTools DLLs and the resource files and headers needed to build them.

Note. These options are available only for installations on Windows.

Select *PeopleTools Language Pack* if you plan on running the Windows components of the 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 do not need this component.

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

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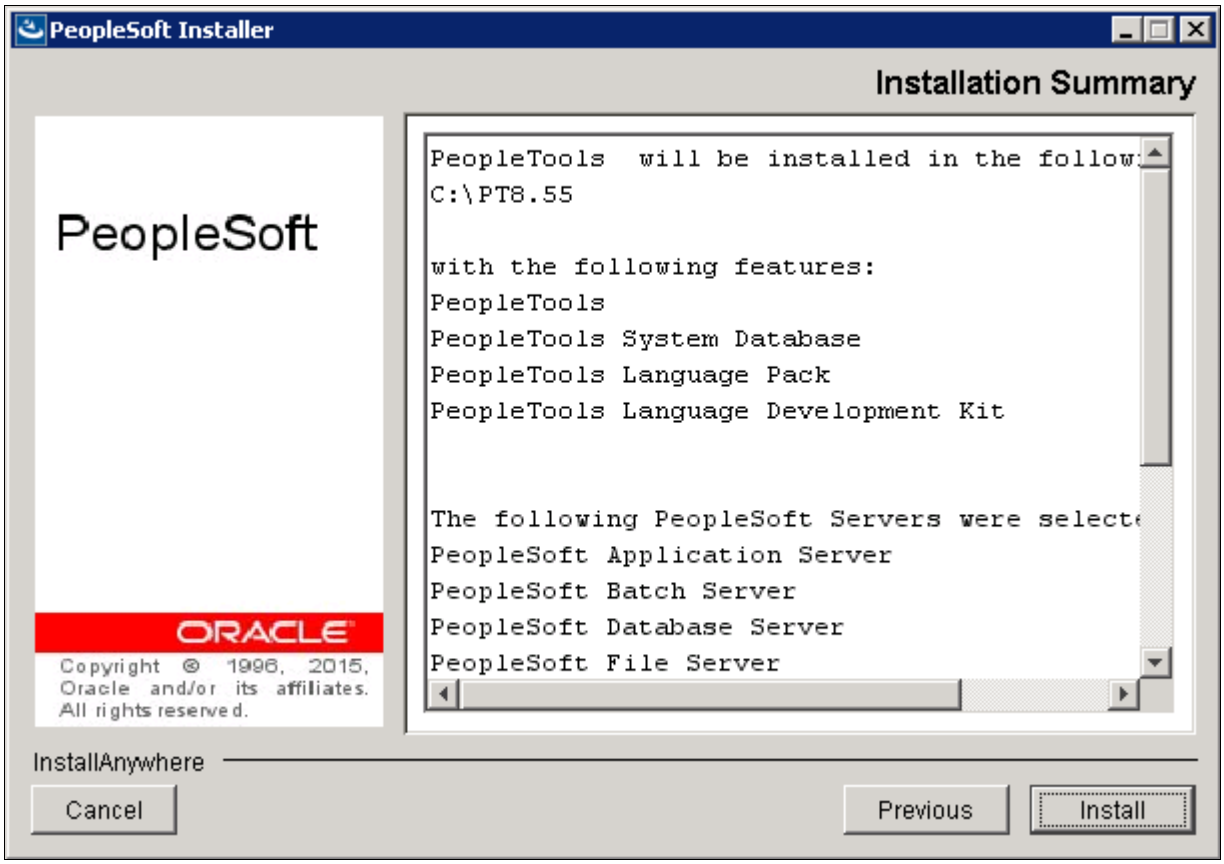
17. You will see an installation confirmation window. If the information is correct, choose Next. If you need to modify any of the information, choose the Back button and make your changes.

    The summary information includes the installation directory, the features, and the PeopleSoft servers:



PeopleSoft Installer Installation Summary window

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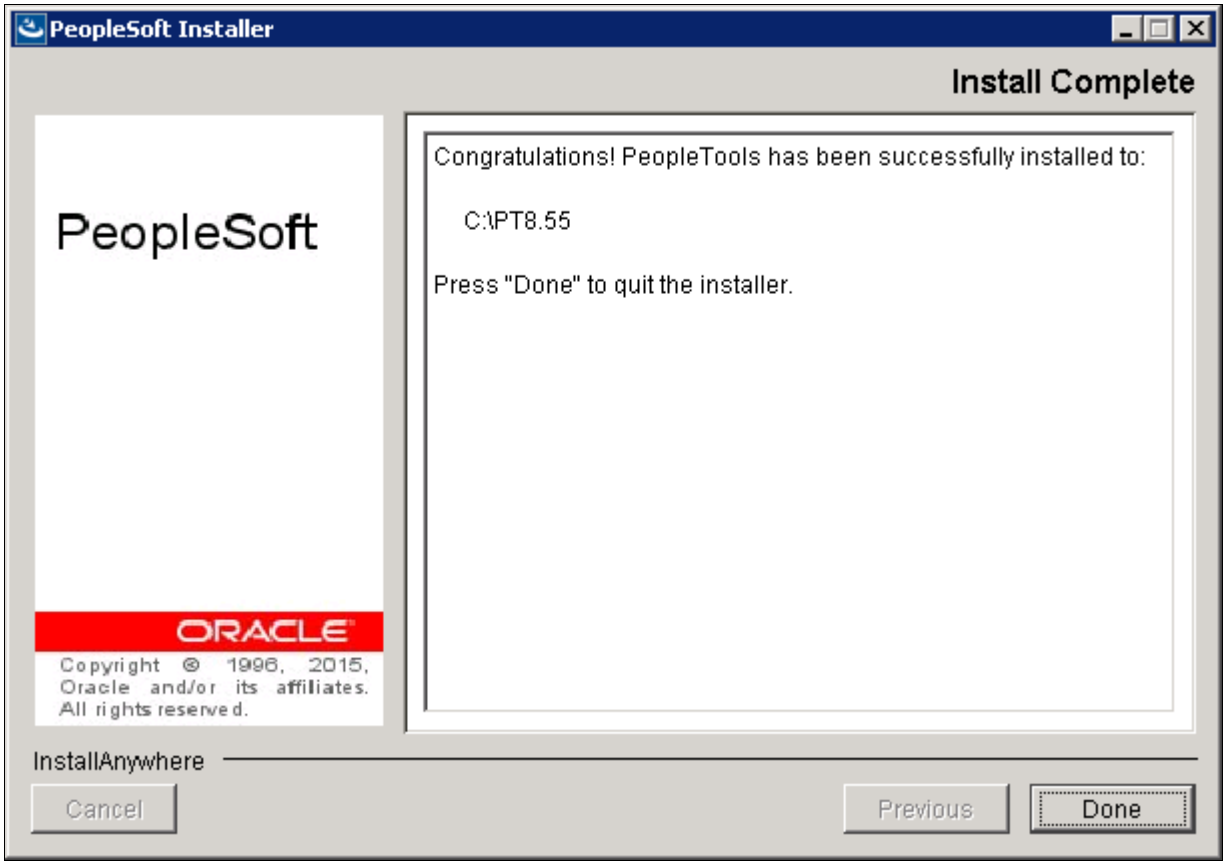
18. After the files have been installed, click *Done* to complete the setup.

    The window displays the installation directory, which is C:\PT8.55 in this example.



PeopleSoft Installer Install Complete window

Task 4-2-3: Installing PeopleSoft PeopleTools in Console Mode

To install PeopleSoft PeopleTools with the PeopleSoft Installer in console mode:

Note. The console mode installation is typically used on UNIX and Linux platforms, but can also be used on Microsoft Windows.

---

1. Launch the PeopleSoft Installer in console mode. For example:

   On Unix and Linux

   ```
   PS_INSTALL/disk1/setup.sh -i console -tempdir /tmp
   ```

   On Microsoft Windows

   ```
   PS_INSTALL/disk1/setup.bat -i console
   ```

   See Starting the PeopleSoft Installer.

2. At the Welcome prompt, press ENTER to continue.

   ```
   ==============================================================================⇒
   =======
   Welcome
   ```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```
-------

InstallAnywhere will guide you through the installation of PeopleTools
8.55.

PRESS <ENTER> TO CONTINUE:
```

3. Accept the license agreement by entering *Y*. Select 0 when you are finished.

   Portions of the agreement text have been omitted from this example for brevity.

```
==============================================================================⇒
=======
License Agreement
-----------------

Installation and Use of PeopleTools Requires Acceptance of the Following
License Agreement:

English

Notice:  This installation program may install products above and⇒
 beyond those
that you have licensed.  Please refer to your master license agreement⇒
 for the
products you are entitled to use. Installing and/or using software that⇒
 you
have not specifically licensed may result in termination of your license
agreement with PeopleSoft and entitle PeopleSoft to receive damages.  ⇒
 It may
also be an infringement of PeopleSoft's intellectual property rights.

DO YOU ACCEPT THE TERMS OF THIS LICENSE AGREEMENT? (Y/N): y
```

4. Enter your license code, and press ENTER to continue.

   Do not include spaces when entering the license code.

   See Understanding the PeopleSoft Installer, Obtaining License Codes.

```
   Please enter your PeopleSoft license code []:
```

5. Enter *1* to select a Unicode Database (Recommended), or *2* to select a non-Unicode database, and then 0 to continue.

Note. Unicode databases are beneficial if you intend to deploy your applications globally. Some languages in a PeopleSoft installation are only supported in a Unicode database. Unicode databases can require more disk space than non-Unicode databases.

See *PeopleTools: Global Technology*.

```
Please select the Oracle database character set:

  ->1- Unicode Database (Recommended)
    2- Non-Unicode Database
```

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```
To select an item enter its number, or 0 when you are finished [0] :
```

6. Select the PeopleSoft servers you want to install.

```
For Oracle please select the products to install:

  ->1- PeopleSoft Application Server
  ->2- PeopleSoft Batch Server
  ->3- PeopleSoft Database Server
  ->4- PeopleSoft File Server
  ->5- PeopleSoft Web Server

To select an item enter its number, or 0 when you are finished [0] :
```

By default, all of the servers supported for your database platform are selected.

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

---

7. Enter the installation location, such as /home/pt855, referred to as *PS_HOME*, and press ENTER to continue.

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

```
Please enter an installation location or press <ENTER> to accept the⇒
 default
   (Default: C:\PT8.55-803-I1):
```

8. If you selected the PeopleSoft Application Server, PeopleSoft Web Server, or PeopleSoft Batch Server option above, the Oracle Configuration Manager Setup prompt appears.

   This prompt does not appear if the Oracle Configuration Manager is already configured for your environment.

   See "Preparing for Installation," Using Oracle Configuration Manager.

```
Email address / User Name [DEFAULT]:
Provide your My Oracle Support password to receive security updates via⇒
 your My Oracle Support account.
Password (optional):
```

9. If you would prefer not to continue with the setup of Oracle Configuration Manager, do not enter either an email address or a password.

   When you enter Next, a confirmation prompt asks if you really do not want to receive security updates. If you enter *Y* (Yes), the PeopleSoft PeopleTools installation continues and Oracle Configuration Manager is not configured. You can configure Oracle Configuration Manager later from *PS_HOME/*ccr using the instructions available on My Oracle Support.

   See My Oracle Support, https://support.oracle.com.

```
You have not provided an email address.
Do you wish to remain uninformed of critical security issues in your⇒
 configuration? (Y/N): Y
```

10. If you want to configure Oracle Configuration Manager in anonymous mode, enter an email address but no password.
11. To configure Oracle Configuration Manager now, enter the email address and password associated with your My Oracle Support account, and press ENTER to continue.

    Oracle Configuration Manager checks for Internet connectivity, and verifies the credentials specified. If there

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is no direct connectivity to the Internet, the next prompt asks you to define a proxy server. Provide the information for the proxy server in the following format:

```
[<proxy-user>@]<proxy-host>[:<proxy-port>]
```

Enter the following information:

- Proxy User Name — If the proxy server requires authentication, enter the user name.

  Note. If you do not specify the proxy-user, (that is, you enter <proxy-host>:<proxy-port>), a proxy server will be used for the connection, but will not be authenticated.

- Proxy Server — The host name of the proxy server, for example www-proxy.us.oracle.com.
- Proxy Port — The port for the proxy server, for example, 98.

12. If you specify Proxy User Name, a prompt appears asking for a Proxy Password.
13. Enter NONE if you do not want to receive security updates through your My Oracle Support account.

```
If you want to remain uninformed of critical security issues in your⇒
 configuration, enter NONE
Proxy specification (DEFAULT: NONE)
```

14. Enter Next to confirm connectivity.

    If Oracle Configuration Manager cannot validate the entered My Oracle Support account and the proxy information, the Provide Proxy Information prompt appears again. If you attempt the validation three times, an error message appears, and your account is registered as anonymous.

15. *Microsoft Windows only:* Specify the database connectivity directory.

```
Please select the location of Connectivity Program Directory [c:\orawin⇒
\bin]
   :
```

    Specify the path to the 64-bit connectivity software.

    The default location for the connectivity software for Oracle 11g is: C:\oracle\product\11.2.0\dbhome_1\BIN. If the database connectivity software was installed to a different directory, enter that path instead.

    Note. If you are using Oracle 12c, the default location is C:\oracle\product\12.1.0\dbhome_1\BIN.

16. *Microsoft Windows only:* Indicate whether you want icons to be created.

```
Do you want to Install PeopleTools Icons?

  ->1- Yes
    2- No

To select an item enter its number, or 0 when you are finished [0] :
```

17. If you select the option to create PeopleTools icons, enter the name for the program group.

    The default is PeopleTools 8.55.

```
 Please enter in the program group folder you wish to create the icons⇒
 in
   [PeopleTools 8.55]:
```

18. Enter the configuration for Environment Management. Select the machine name and port number.

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```
Please enter the hub machine name: [PSEMHUB]:

   Please enter the hub port number: [80]:
```

Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run the PeopleSoft Pure Internet Architecture). Select the hub port number (the default is 80). This needs to match the PeopleSoft Pure Internet Architecture port. If you change the port number for the PeopleSoft Pure Internet Architecture configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See the information on configuring and running Environment Management components in the *PeopleTools: Change Assistant and Update Manager* product documentation.

19. Choose the features that you wish to install:

```
To select/deselect a feature or to view its children, type its number

         -> 1-  PeopleTools
            2-  PeopleTools System Database
            3-  PeopleTools Language Pack
            4-  PeopleTools Language Development Kit
```

Options 3 and 4 appear only on Microsoft Windows.

20. 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. This summary will depend on your earlier selections.

```
Pre-Install Summary

Please review the following before continuing:

PeopleTools  will be installed in the following location: /home/PT855

with the following features:
PeopleTools
PeopleTools System Database

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:
Oracle

Environment Hub Configuration:
Hub machine name: PSEMHUB
Hub port number: 80

Press 1 for Next, 2 for Previous, 3 to Cancel, or 5 to Redisplay [1]
```

21. Press ENTER to start the installation.

The PeopleSoft Installer displays a text-based progress bar to indicate the progress of the installation.

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22. Press ENTER to exit.

Note. For UNIX operating systems, if you chose PeopleSoft servers that require a JRE, you see the "Unpacking JRE" message after the progress bar.

```
Installation Complete
---------------------

Congratulations. PeopleTools has been successfully installed to:

   /home/PT855

PRESS <ENTER> TO EXIT THE INSTALLER:
```

23. If you are installing on AIX, go to the *PS_HOME/*jre directory and ensure that the directory has executable permissions. If not, set the permission using a command such as chmod +x.

Task 4-3: Verifying Necessary Files for Installation on Windows

PeopleSoft PeopleTools 8.50 and later releases are developed using Microsoft Visual C++ 2005 and later. Microsoft, as part of VC++ 2005, changed the way applications use and ship the required C Run Time (CRT) files (these files are installed as shared assemblies). PeopleSoft PeopleTools 8.50 and higher programs require these files to be present or the programs will not run.

During your PeopleSoft PeopleTools installation, the install programs will automatically update the Microsoft Windows machine performing the installation.

The required CRT files are installed by all of the PeopleSoft installers, including:

- PeopleSoft PeopleTools
- PeopleTools Client
- Database Configuration Wizard (DCW)
- PeopleSoft Pure Internet Architecture
- Change Assistant
- Change Impact Analyzer
- Web Application Deployment tool

In some cases it may be necessary for you to carry out a separate installation of the CRT files. For example:

- If the update does not take place during the installation program run, you may not be able to launch PeopleSoft PeopleTools client or server executables on that machine and may receive error messages.
- If you are accessing PeopleSoft PeopleTools executables from a machine on which the PeopleSoft installer did not run, the executables may not work and you may receive error messages.

If you encounter these errors, you can update the Microsoft Windows machine's CRT files by running the installers manually.

If installing on a server or PeopleTools Client environment:

1. Go to *PS_HOME*\setup\psvccrt.
2. Run psvccrt_retail.msi.
3. Run psvccrt_retail_x64.msi.

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Note. For each installer, the installation is completed automatically.

Task 4-4: Installing PeopleSoft Application Software

After installing PeopleSoft PeopleTools, install the PeopleSoft application software to the same *PS_HOME* directory, or to *PS_APP_HOME.* The installation windows may look slightly different depending upon which application you install.

See "Preparing for Installation," Defining Installation Locations.

To install the PeopleSoft application, launch the PeopleSoft Installer from *PS_INSTALL/*disk1 and follow the procedure in Running the PeopleSoft Installer.

Use the following guidelines when installing:

- If supported by the PeopleSoft Application that you are installing, you can install the PeopleSoft Application software to a *PS_APP_HOME* location that is not the same as the *PS_HOME* location where you installed PeopleSoft PeopleTools. Be sure to review the installation guide for your PeopleSoft Application to determine whether this functionality is supported.
- If you are installing more than one application, it is a good idea to create an application-specific *PS_HOME* or *PS_APP_HOME* and carry out an installation of PeopleSoft PeopleTools for each application. This helps you to maintain your applications more efficiently, since you can easily match each application version to the correct version of PeopleSoft PeopleTools.
- The installation includes all products for your PeopleSoft application and both System Database and Demo Database files. After you set up the PeopleSoft Pure Internet Architecture, you will complete a step to update the installation table for your licensed products.

  See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Completing Post-Installation Steps.

  See "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode," Completing Post-Installation Steps.

Task 4-5: Installing the Multilanguage Files

If you are licensed for and have chosen to install languages other than English, you need to load the Application-specific PeopleSoft Multilanguage files. Each PeopleSoft Application product installation has corresponding Multilanguage installation software that contains all the non-English translations.

To download the necessary files for a Multilanguage installation from the Oracle Software Delivery Cloud portal, select the Translation Media Pack for your PeopleSoft Application on the Media Pack Search page. The listing for the Translation Media Pack is divided into sets of files for PeopleSoft PeopleTools, the PeopleSoft Application, and the Multilanguage files for the PeopleSoft Application.

Warning! The release numbers for the PeopleSoft Application media pack and the Application Multilanguage media pack must be in sync. For example, if you are installing HCM 9.2 Feature Pack 1, you can only use the Multilanguage HCM 9.2 Feature Pack 1 ML; you cannot use the HCM 9.2 ML.

Download each media pack into a temporary location, referred to here as *PS_INSTALL,* launch the PeopleSoft installer from *PS_INSTALL/*disk1, and follow the procedure in the task Running the PeopleSoft Installer.

To carry out a Multilanguage installation:

- Install the PeopleSoft PeopleTools installation files to *PS_HOME*.

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- Install the PeopleSoft Application installation files to *PS_APP_HOME*.
- Install the PeopleSoft Application Multilanguage installation files to the same *PS_APP_HOME* as the PeopleSoft Application installation files.

Keep in mind that the *PS_APP_HOME* installation location may be the same as or different from the *PS_HOME* location, as described previously.

See "Preparing for Installation," Planning Your Initial Configuration.

Task 4-6: Installing the PeopleTools Client Files

This section discusses:

- Installing the PeopleTools Client Files Using the PeopleSoft Installer
- Installing the PeopleTools Client Files in Silent Mode

Task 4-6-1: Installing the PeopleTools Client Files Using the PeopleSoft Installer

To install the files needed for the PeopleTools Client, you must first install PeopleSoft PeopleTools. After you install PeopleSoft PeopleTools, launch the PeopleSoft Installer from *PS_HOME*\setup\Client\Disk1 and follow the procedure in the section Running the PeopleSoft Installer. Note that the PeopleTools Client installation does not include the Environment Management Setup window.

Note. If you installed PeopleSoft PeopleTools on a UNIX or Linux computer, you can copy the directory *PS_HOME*\setup\Client\ to a Microsoft Windows machine to install the client.

Task 4-6-2: Installing the PeopleTools Client Files in Silent Mode

This section discusses:

- Editing the Response File
- Running the Silent Mode Installation for the PeopleTools Client

Editing the Response File

You can carry out a silent installation of the PeopleTools client files by providing all the required settings in a response file. With silent installation there is no user interaction after the installation begins.

You need a response file to start the installer in silent mode. After installing PeopleSoft PeopleTools you can find a response file template (resp_file_client.txt) in the directory *PS_HOME*\setup\Client\Disk1. Modify the values in the response file according to your installation requirements. Use the information in the section Running the PeopleSoft installer for guidance in editing the file.

For example, to specify D:/PT8.55_Client as the installation directory, edit the file to include this line:

```
USER_INSTALL_DIR=D:/PT8.55_Client
```

Note. Use a forward slash ("/") to specify the directory.

Sample response file:

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```
# Response file for Client Installation

# Notes:
# 1. Use "/" forward slash in the path (unix style), (for ex, D:/PT8.53-⇒
803-R1-client)
# 2. Replace _DESTDIR_ below with the destination directory path.
# 3. Invoke silent install as "<cddir>\disk1\setup.bat -i silent -DRES_⇒
FILE_PATH=<path_to_response_file>".

# the install directory for (for ex, D:/PT8.53-803-R1-client)
USER_INSTALL_DIR=_DESTDIR_

# Possbile values for database type are "ORA","DBX","MSS","DB2"
DB_TYPE=ORA

# "0" for non-unicode db and  "1" for unicode db
# Applies to daatabase types "ORA","DBX","MSS","DB2"
UNICODE_DB=1

# install shortcuts for Client components in start > programs , allowed⇒
 values- "0" not to create shortcut, "1" to create shortcut.
USER_INPUT_RESULT_0=0

# if you set USER_INPUT_RESULT_0 to 1 (above) then Name your shortcut like⇒
 the way you want to see in Start>programs (default is PeopleTools Client⇒
 8.55)
USER_INPUT_RESULT_14=PeopleTools Client 8.55
```

Running the Silent Mode Installation for the PeopleTools Client

Use the response file that you modified for your configuration. Substitute the location where you saved the response file for *<path_to_response_file>* in the following procedures:

To install the PeopleTools client files in silent mode:

1. In a command prompt, go to *PS_HOME*\setup\Client\Disk1.
2. Run the following command:

   `setup.bat -i silent -DRES_FILE_PATH=<path_to_response_file>`

Task 4-7: Mapping a Drive on the Install Workstation

If you need to install to the file server or PeopleTools Client from a networked install workstation, map a drive letter to the top-level PeopleSoft directory *(PS_HOME)* from the install workstation. The *PS_HOME* directory must be shared, and you must have write permission from the install workstation to the file server or PeopleSoft Client.

From the install workstation, create a logical drive that points to the *PS_HOME* directory.

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

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```
NET USE N: \\SERVER1\PS_HOME
```

On a Novell network, use the MAP command:

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

In this example, *SERVER1* is the name of the file server or PeopleTools Client.

See Also

"Setting Up the Install Workstation"

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Chapter 5

Setting Up the Install Workstation

This chapter discusses:

- Understanding the Install Workstation
- Prerequisites
- Starting Configuration Manager
- Setting Startup Options
- Editing the Default Profile
- Running Client Setup

Understanding the Install Workstation

This chapter describes how to set up a PeopleSoft Windows-based client for connecting to the database server in two-tier mode, specifically for the purpose of performing install-related tasks from the workstation. You must configure at least one two-tier Windows-based client for running the Data Mover and SQR processes required for setting up the batch server and for creating the PeopleSoft database. For some installations you may wish to set up multiple install workstations, so that you can perform asynchronous tasks at the same time; for example, you could create and populate multiple databases simultaneously. You can quickly configure multiple workstations by exporting a configuration file from one workstation and importing it to another workstation.

See Also

PeopleTools: System and Server Administration

Prerequisites

The following tasks are prerequisites for setting up the install workstation:

- The workstation must have database connectivity software installed.
- You must have planned your database creation strategy. You should know the precise names of the databases that you intend to create.
- Make sure that you have created your connect strategy. You must use a Connect ID. You should know both the Connect ID and Connect password.

  For information on PeopleSoft Connect ID and Connect password, consult the *PeopleTools: System and Server Administration* product documentation for information on setting Application Server domain parameters.
- The workstation must have a logical drive mapped to *PS_HOME* on the file server (or, if the file server and

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install workstation are one and the same, *PS_HOME* can be installed on a local drive).

- The person performing the installation must have read access to the *PS_HOME* directory.

If this is the same workstation on which the PeopleSoft PeopleTools installation was performed, it should have a PeopleTools 8.5 installation program group, which was created when you loaded the PeopleTools software. This isn't a requirement, but it does make it more convenient to run the PeopleTools install applications.

See Also

"Preparing for Installation"

"Using the PeopleSoft Installer"

Task 5-1: Starting Configuration Manager

Configuration Manager is a utility for configuring workstations being used as the PeopleTools Development Environment. These are its principal functions:

- Sets up and make changes to PeopleSoft configuration settings.
- Creates a program group containing Microsoft Windows shortcuts to PeopleSoft applications.
- Installs local DLLs.

The first time you run Configuration Manager on the client, it will populate certain fields with default values specified in a configuration file stored on the file server, specifically: *PS_HOME*\setup\pstools.cfg. This configuration file was set up when you ran the installation. Once you set up and run Configuration Manager, it will populate fields using values that are stored in the Windows system registry.

To start Configuration Manager, do one of the following:

- On Microsoft Windows 7, select *Start, Programs, PeopleTools 8.55, Configuration Manager*. (This program group will be available if you installed PeopleSoft PeopleTools on this workstation.)
- On Microsoft Windows 8 or 2012 R2, access the Apps screen, navigate to the PeopleTools 8.55 category, and select Configuration Manager.

  Note. See the documentation for your operating system for information on accessing the Apps screen.

- If the *PeopleTools 8.55* program group was not installed on this workstation, run pscfg.exe directly from the *PS_HOME*\bin\client\winx86 directory on the file server.

Task 5-2: Setting Startup Options

The Startup tab of Configuration Manager sets the default options for the PeopleSoft sign-on screen that is used for connecting to a PeopleSoft database. It also contains a setting that specifies the local directory for storing cached PeopleSoft data.

To set Startup options:

1. Confirm that you are viewing the Configuration Manager Startup tab (this tab is what you see if you started Configuration Manager as described in the previous task).
2. Set the following options:
   - *Database type* — Verify the type of RDBMS. This should already be set to Oracle.

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- *Application Server Name* — This option appears if you select a database type of Application Server. It is where you enter your application server name if you are setting up a three-tier connection.
- *Database name* — The name of the default database to connect to. Enter the name of one of the databases that you intend to create.
- *User ID* — The name of the default user that will appear in the sign-on screen. This can be any valid user name, although for installation setup it normally matches the name of one of the built-in PeopleSoft users (typically PS or VP1) that will be installed in the database.
- *Connect ID and Connect Password* — Type your connect ID and password into these fields. Connect ID is required for this PeopleSoft release.

Task 5-3: Editing the Default Profile

Begin by editing the default profile for the workstation. Among other things, this will verify that the paths to *PS_HOME* and its subdirectories are correctly set, which is required for subsequent tasks.

For more information on using Configuration Manager, see the *PeopleTools: System and Server Administration* product documentation for configuring user profiles.

To edit the default profile:

1. Select the Profile tab in Configuration Manager.

   Only one profile, the Default Profile, has been defined.
2. Select Edit to display the Edit Profile dialog box, and then select the Process Scheduler tab.

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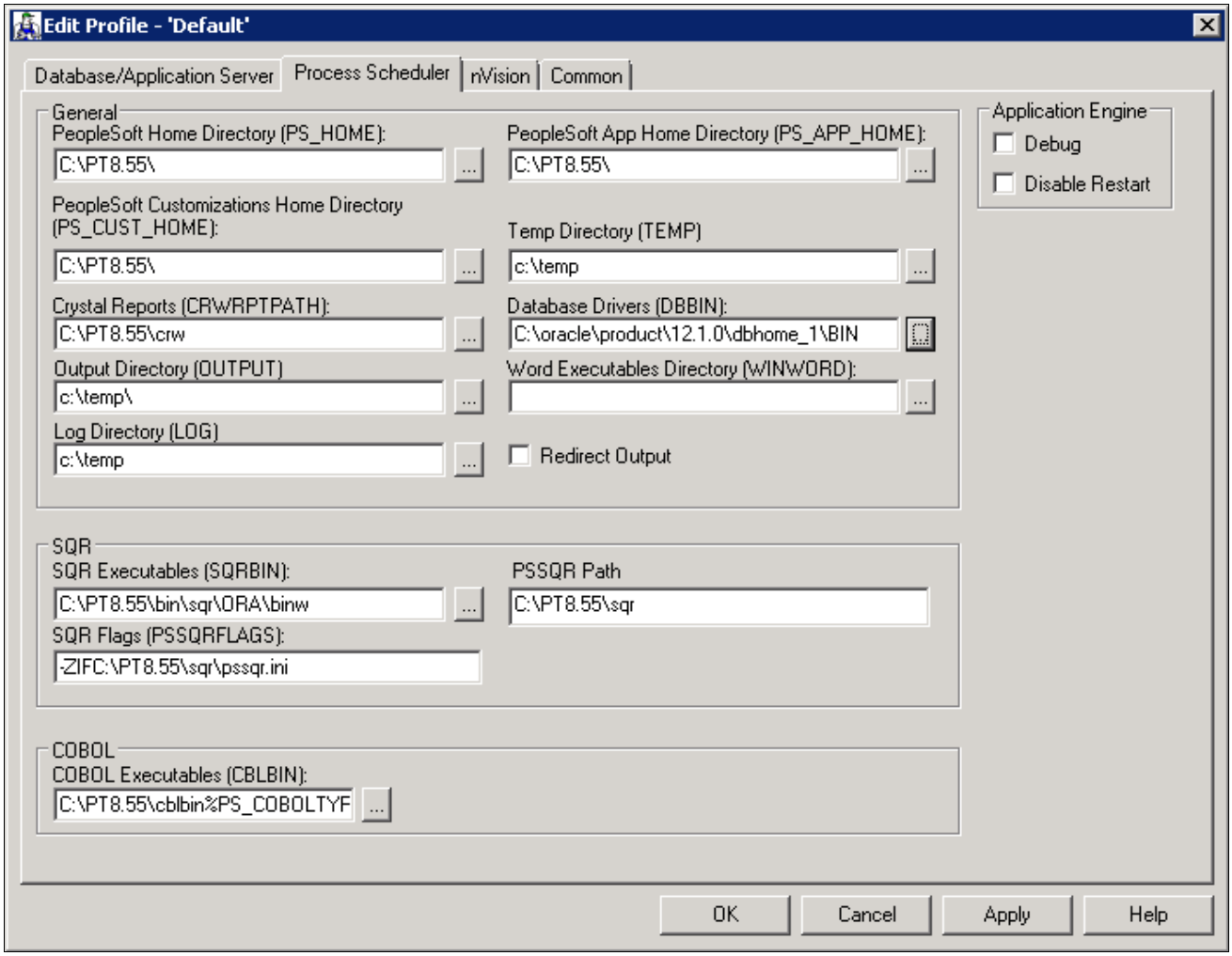
3. In the Process Scheduler tab verify the options listed below the example.

   These should have been set correctly by the PeopleSoft installation program.



Edit Profile dialog box: Process Scheduler tab

- Verify that the PeopleSoft Home Directory (PS_HOME) field is set to the path to *PS_HOME* on the file server.
- Verify that the PeopleSoft Apps Home Directory (PS_APP_HOME) field is set to the path to *PS_APP_HOME* on the file server.

  The default value is the same as *PS_HOME*.
- On Microsoft Windows operating systems, set the Database Drivers (DBBIN) field to the path for the 64-bit database connectivity files, if necessary.

  The example shows the default for Oracle, C:\oracle\product\11.2.0\dbhome_1\bin.
- Set the SQR Executables (SQRBIN) field to the file server directory where SQR for Windows was installed when you ran the PeopleSoft Installer.
- Set the SQR Flags (PSSQRFLAGS) field to *-ZIF<PS_HOME>\sqr\pssqr.ini*.
- Set the SQR Report Search 1 (PSSQR1) field to *PS_HOME\sqr*. The remaining SQR Report Search fields can be left blank, because no additional SQR report directories have been created yet.

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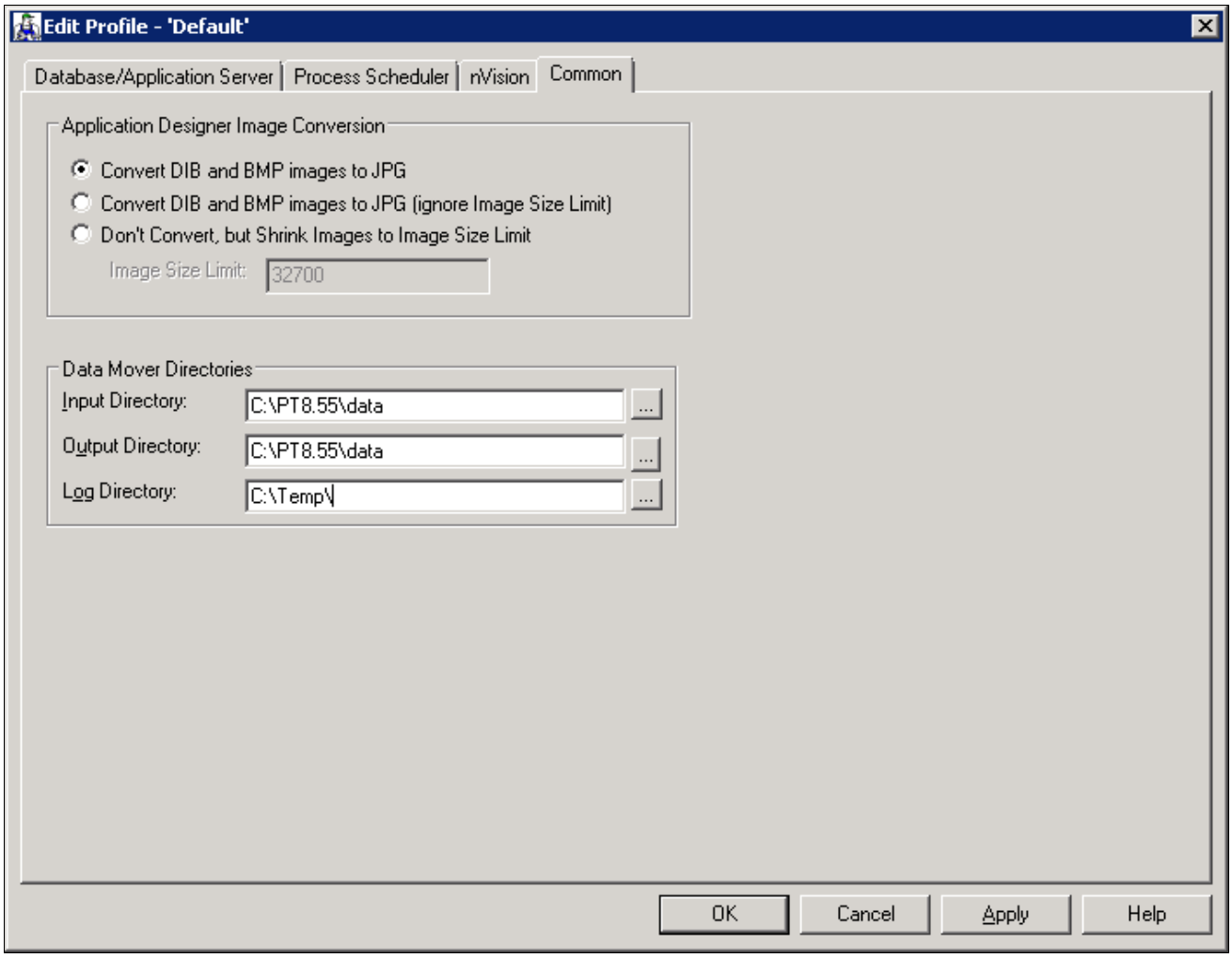
4. Select the Common tab of the Edit Profile dialog box, shown in this example:



Edit Profile dialog box: Common tab

The following fields on the Common tab are used to set Data Mover default input, output, and log directories.

- Verify that the Input Directory and Output Directory fields are set to *PS_HOME\data*. This directory will store the Data Mover scripts required to populate the PeopleSoft database.
- Set the Log Directory to a local workstation directory to store the Data Mover log files. The default is C:\TEMP.

  Data Mover will not create a new directory under *PS_APP_HOME* or *PS_HOME* for log files. If you want Data Mover to write log files into *PS_APP_HOME*, you must create a new directory named log under *PS_APP_HOME*.

5. Select OK to close the Edit Profile dialog box.

Task 5-4: Running Client Setup

The Client Setup tab does the following:

- Installs a PeopleSoft program group on the workstation.
- Installs system DLLs on the workstation.

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These Client Setup functions are performed when you click OK or Apply from Configuration Manager only if the Install Workstation option on the Client Setup tab is selected.

Note. Any files installed by Client Setup on the workstation from the file server use the paths specified in the default profile.

To run Client Setup:

1. Select the Client Setup tab in Configuration Manager.
2. In the Group Title text box enter the name of the program group for the icons you want on the client workstation. (A program group name cannot contain any of the following characters: \ / : * ? " < > |)

   You can call the program group anything you want, but this documentation uses *PeopleTools 8.55*.
3. If you do not have a PeopleTools 8.55 program group set up on the workstation, be sure to check the following two options for installing shortcuts to applications essential for installation.

   Note. When you run Client Setup, it will uninstall any existing shortcuts in the PeopleTools 8.55 program group, and install shortcuts for the applications you have selected. If you subsequently want to install or uninstall shortcuts, you can always re-run Client Setup.

   - *Data Mover*
   - *Configuration Manager*
4. Select the option Install Workstation.

   This check box determines whether Client Setup runs when you click Apply or OK in Configuration Manager. If this option is not selected, Client Setup will create or update settings in the registry, but it will not set up the PeopleTools 8.55 program group or install local DLLs.
5. Click OK to run Client Setup and close Configuration Manager.

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Chapter 6A

Creating a Database Manually on Windows

This chapter discusses:

- Understanding Database Creation
- Preparing for the PeopleSoft Database Installation
- Creating the Windows Service for the Database Instance
- Using SQL Tools
- Editing Database Scripts (non-Multitenant)
- Creating an Oracle Instance (non-Multitenant)
- Creating Catalog Views and Utility Tablespaces (non-Multitenant)
- Creating PS.PSDBOWNER Table (non-Multitenant)
- Creating Application-Specific Dbspaces and Tablespaces (non-Multitenant)
- Creating PeopleSoft Database Roles (non-Multitenant)
- Creating the PeopleSoft Database Owner ID (non-Multitenant)
- Setting Up Connect ID (non-Multitenant)
- Editing Database Scripts (Multitenant Architecture)
- Creating an Oracle Instance (Multitenant Architecture)
- Creating Catalog Views and Utility Tablespaces (Multitenant Architecture)
- Creating PS.PSDBOWNER Table (Multitenant Architecture)
- Creating Application-Specific Dbspaces and Tablespaces (Multitenant Architecture)
- Creating PeopleSoft Database Roles (Multitenant Architecture)
- Creating the PeopleSoft Database Owner ID (Multitenant Architecture)
- Setting Up Connect ID (Multitenant Architecture)
- Updating Connection Information
- Setting NLS_LANG in the Windows Registry
- Creating Data Mover Import Scripts
- Running Data Mover Import Scripts
- Checking the Log Files and Troubleshooting
- Changing the Base Language

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Understanding Database Creation

This section 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 (SYS) database has no company specific data, and can be used to load your data and begin development of your production database.
- *Demo:* The Demo (DMO) 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 section's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

Remember, you need to have the PeopleTools Development Environment set up to create your database.

This section includes tasks to create pluggable databases and for non-pluggable databases, as well as tasks that apply to both types. The pluggable database tasks create an Oracle Container Database (CDB) and a Pluggable Database (PDB), and are labelled "(Multitenant Architecture)." The tasks specific to non-pluggable databases are labelled "(non-Multitenant)." Choose which tasks to use according to the RDBMS you installed, as follows:

- If you installed Oracle 12c Enterprise Edition RDBMS, you can choose to create either CDBs or non-CDBs.
- If you installed Oracle 11gR2 RDBMS, you can create only a non-CDB. For installations on Oracle 11gR2, pluggable databases are not supported. In this case, use the non-multitenant sections.

Important! Do not 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 PeopleSoft PeopleTools installation guide and any additional instructions provided by CRM. Search in My Oracle Support for the installation documentation specific to your application.

Important! If you are installing the PeopleSoft software on an Oracle RAC database, there are additional configuration procedures that you must follow.

See *PeopleTools: Data Management,* "Setting Up the PeopleSoft Installation with Oracle RAC."

Note. The Database Configuration Wizard cannot be used on a Microsoft Windows operating system. You must use the manual method of creating a database for this configuration.

After you complete the tasks in this chapter, read the chapter "Completing the Database Setup." Depending upon your environment, you may not need to carry out every task in that chapter. However it is important that you evaluate the requirements and perform the necessary tasks.

See Also

"Preparing for Installation," Planning Database Creation

"Setting Up the Install Workstation"

Task 6A-1: Preparing for the PeopleSoft Database Installation

This section discusses:

- Installing the PeopleSoft Database Server Components on the Database Server

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- Installing the Oracle RDBMS Software
- Identifying the Oracle RDBMS Trace and Alert File Locations
- Obtaining Windows Administrator Authority
- Creating an INIT<SID>.ORA File
- Creating an INIT<SID>.ORA File (Multitenant Architecture)
- Creating Target Directory Paths
- Creating Target Directory Paths (Multitenant Architecture)
- Setting the ORACLE_SID Environment Variable

Task 6A-1-1: Installing the PeopleSoft Database Server Components on the Database Server

To create a PeopleSoft Database you *must have installed* the PeopleSoft software on your database server by running the PeopleSoft Installer and choosing the Database Server option, as described in a previous chapter. In addition, you need to install your application software to your database server before loading the database.

See "Using the PeopleSoft Installer."

Note. Remember, you need to have the PeopleTools Development Environment set up to create your database.

See the information on using PeopleSoft Configuration Manager in the *PeopleTools: System and Server Administration* product documentation.

Task 6A-1-2: Installing the Oracle RDBMS Software

The rest of this chapter assumes that the Oracle RDBMS software is installed on your database server. If you have not already done so, install the Oracle RDBMS software now. During the database creation process, we refer to an existing Oracle RDBMS installation. Specifically:

ORACLE_HOME and *ORACLE_HOME*\bin

Note. If you are creating pluggable databases, you must install Oracle 12c Enterprise Edition.

Task 6A-1-3: Identifying the Oracle RDBMS Trace and Alert File Locations

For Oracle 11gR2 and later releases, all diagnostic data, including the alert log, are stored in the Automatic Diagnostic Repository (ADR), whose location is set by the DIAGNOSTIC_DEST initialization parameter. Due to this change, the initialization parameter settings for background dump (BACKGROUND_DUMP_DEST), core dump (CORE_DUMP_DEST), and user dump (USER_DUMP_DEST) are replaced by the diagnostic destination parameter DIAGNOSTIC_DEST. For information on the DIAGNOSTIC_DEST parameter and the default location for the ADR, see the Oracle RDBMS documentation.

See the information on managing diagnostic data in the Oracle Database Administrator's Guide.

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Task 6A-1-4: Obtaining Windows Administrator Authority

To create a database instance on Microsoft Windows, you must be a Windows administrator of the target server. This is necessary because creating an instance on Microsoft Windows requires creating a SERVICE using the Oracle `ORADIM` command to add a Windows service. On UNIX, an Oracle SID is comprised of many different processes. On Microsoft Windows, an Oracle SID is run as a single Windows service and you need to be an administrator to create that service.

Note. You must also be part of the ORA_DBA group.

Task 6A-1-5: Creating 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 the Oracle installation. The init<SID>.ora file is referenced in the following places during the database creation process:

- Using the ORADIM command to create the Windows Service
- Executing the CREATEDB.SQL script

  Note. PeopleSoft PeopleTools 8.55 supports Oracle 11g and Oracle 12c on Microsoft Windows. The PeopleSoft scripts are delivered to work across all versions of the Oracle RDBMS that Oracle supports for this release of PeopleSoft PeopleTools. To support these versions the PeopleSoft installation is delivered with the CREATEDB.SQL script for Oracle 11g or later installations.

  Note. If you are creating pluggable databases, see the following section Creating an INIT<SID>.ORA File (Multitenant Architecture) after completing this section.

Add or modify the following parameters in the init<SID>.ora file:

- DB_NAME = <SID>
- DB_FILES

  Specify the maximum allowed for your operating system, typically 1021.
- OPEN_CURSORS = 1000

  This is a minimum value. You may choose to set this higher.
- DB_BLOCK_SIZE = 8192

Review the following init<SID>.ora parameters and if necessary modify them for your environment:

DB_BLOCK_SIZE

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 AL32UTF8), a DB_BLOCK_SIZE value of 8K is required.

NLS_LENGTH_SEMANTICS

Use these guidelines to set the `NLS_LENGTH_SEMANTICS` init<SID>.ora parameter:

- Set `NLS_LENGTH_SEMANTICS=CHAR` if you are installing a Unicode database with PeopleSoft application 9.0 or higher releases on PeopleTools 8.48 or higher.
- Set `NLS_LENGTH_SEMANTICS=BYTE` if you are installing any non-Unicode database (such as a Western European or Shift-JIS database).

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- Set `NLS_LENGTH_SEMANTICS=BYTE` if you are installing a Unicode database with PeopleSoft application prior to release 9.0 on PeopleSoft PeopleTools prior to release 8.48.

If necessary, verify the PeopleSoft PeopleTools release for your PeopleSoft application using this SQL query:

```
select TOOLSREL from PSSTATUS
```

Unicode databases on PeopleSoft PeopleTools 8.48 and later, with PeopleSoft application 9.0 or later, use character length semantics. When character length semantics is used, a field of VARCHAR2(10) will store 10 characters. Prior to PeopleSoft PeopleTools 8.48 and PeopleSoft applications 9.0, byte length semantics was used, meaning a VARCHAR2(10) stored 10 bytes. If you are upgrading from a release before PeopleSoft PeopleTools 8.48 and PeopleSoft application 9.0 to one after 8.48 and 9.0, a database conversion is necessary for utilizing CHARACTER LENGTH SEMANTICS. This conversion process is covered in all PeopleSoft application 9.0 or higher upgrade paths.

It is very important that you set this parameter at the correct point during database creation. Database creation consists of running several scripts before loading the database with Data Mover, as follows:

- CREATEDB.SQL
- UTLSPACE.SQL
- *XX*DDL.SQL
- DBOWNER.SQL
- PSROLES.SQL
- PSADMIN.SQL
- CONNECT.SQL

Set the parameter `NLS_LENGTH_SEMANTICS` at the beginning of database creation or right before the Data Mover load.

To do this, modify the init<SID>.ora to add the `NLS_LENGTH_SEMANTICS` parameter, and then shut down and restart the database instance.

Oracle Password

If you choose to use an Oracle Password file, create one using the ORAPWD utility, as illustrated in this example:

```
set ORACLE_SID=FDMO
orapwd file=$ORACLE_HOME\dbs\pwdtemp2.ora password=manager entries=5
```

If you choose not to use an Oracle Password file, you must make one of the following changes to the init<SID>.ora file before running the CREATEDB.SQL script:

- Remove the line beginning with `remote_login_passwordfile`, or add a comment character to the beginning as shown in this example:

  ```
  #remote_login_passwordfile=EXCLUSIVE
  ```

- Set the parameter to *NONE,* as shown in this example:

  ```
  remote_login_passwordfile=NONE
  ```

For more parameters that may be required for the init<SID>.ora file, consult My Oracle Support.

See Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools, My Oracle Support (search for the title and select your release).

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Task 6A-1-6: Creating an INIT<SID>.ORA File (Multitenant Architecture)

If you are creating pluggable databases, set <SID> to the database name for the CDB (root database). This documentation uses *PDB_SERVICE_NAME* to refer to the PDB.

Create an init<SID>.ora file as described in Creating an INIT<SID>.ORA File, and append the following line in the init<SID>.ora:

```
enable_pluggable_database=true
```

Note. It is strongly advisable to set the value of the parameter MEMORY_TARGET, otherwise you may get the error "ORA-04031: unable to allocate *string* bytes of shared memory" (where *string* represents memory size) while creating the database . For information on the MEMORY_TARGET environment variable, see the Oracle Database documentation.

Task 6A-1-7: Creating Target Directory Paths

You must create the directory path structure for the target directories referenced in the scripts that are executed by the database creation process. The referenced directories are not created on the fly, so they need to exist when referenced.

Note. If you want to use something other than the delivered directory paths, you need to modify the CREATEDB.SQL, UTLSPACE.SQL, and *XX*DDL.SQL scripts in the *PS_HOME*\scripts directory, replacing the delivered paths with paths that are appropriate for your site installation prior to creating the database.

Here are some examples of directory path structure references.

- The delivered CREATEDB.SQL script makes the following directory path structure references, where <drive> refers to the Microsoft Windows drive letter:

  ```
  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;
  ```

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

- 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 inserted manually by the user creating the init<SID>.ora parameter file.

  Control file references:

  ```
  control_files = ("c:\apps\db\Oracle11g\oradata\ORC1\control01.ctl", "c:⇒
  \apps\db⇒
  \Oracle11g\oradata\ORC1\control02.ctl", "c:\apps\db\Oracle11g\oradata⇒
  \ORC1⇒
  \control03.ctl")
  ```

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

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

```
CREATE  TEMPORARY TABLESPACE       PSTEMP
TEMPFILE                '<drive>:\oradata\<SID>\pstemp01.dbf'     SIZE⇒
 300M
EXTENT MANAGEMENT LOCAL UNIFORM SIZE 128K;

CREATE TABLESPACE       PSDEFAULT
DATAFILE                '<drive>:\oradata\<SID>\psdefault.dbf'     SIZE⇒
 10M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

- The delivered *XX*DDL.SQL scripts make the following directory path structure references:

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

```
CREATE TABLESPACE PSIMAGE DATAFILE '<drive>:\oradata\<SID>\psimage.dbf'⇒
 SIZE 8M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PSINDEX DATAFILE '<drive>:\oradata\<SID>\psindex.dbf'⇒
 SIZE 64M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PTAPP DATAFILE '<drive>:\oradata\<SID>\ptapp.dbf' SIZE⇒
 4M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
```

Task 6A-1-8: Creating Target Directory Paths (Multitenant Architecture)

In addition to the directory structure discussed in the previous section, if you are creating a PDB, you must add the following target directories, where <*SID*> refers to the ORACLE_SID for the CDB, and <*PDB_SERVICE_NAME*> refers to the PDB database name.

- <*drive*>:\oradata\<*SID*>\pdbseed
- <*drive*>:\oradata\<*SID*>\logs
- <*drive*>:\oradata\<*SID*>\<*PDB_SERVICE_NAME*>

Task 6A-1-9: Setting the ORACLE_SID Environment Variable

Make sure that you have the ORACLE_SID parameter set in your user or system environment variables.

Note. If you are creating pluggable databases, set ORACLE_SID to <*SID*> for the CDB (root database).

For example (the navigation may vary depending upon the operating system):

1. Select Start, Control Panel, System and Security, System on Microsoft Windows 7.

   Click the Start button, then Control Panel, System and Security, System, on Microsoft Windows 8 or 2012 R2.

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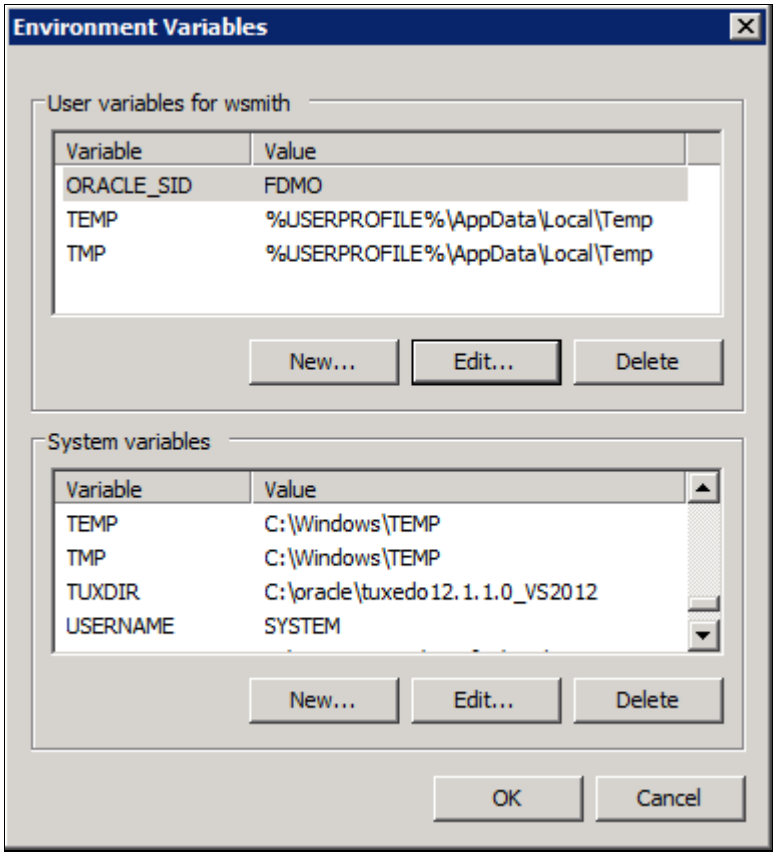
2. Select Advanced system settings.
3. On the System Properties dialog box, select the Advanced tab.
4. Click Environment Variables.

   Verify that the ORACLE_SID variable is set correctly.

This example shows the Environment Variables dialog box with the variable ORACLE_SID and value FDMO.



Setting the ORACLE_SID environment variable

Task 6A-2: Creating the Windows Service for the Database Instance

Before running the CREATEDB.SQL script and all other scripts needed to create a database, you must first create a Microsoft Windows service. This is necessary because creating an instance on Windows requires creating a SERVICE using the Oracle `ORADIM` command to add a Microsoft Windows service. On UNIX, an Oracle SID is comprised of many different processes. On Microsoft Windows operating systems, an Oracle SID is run as a single Windows service and you need to be an administrator to create that service. You must also be part of the ORA_DBA group.

To create a Windows service:

1. Log on to your database server using an ID that is both a Server Administrator and part of the ORA_DBA administrative group.
2. To create the Windows service, open up a command prompt window.
3. Set the ORACLE_SID value to the Oracle database SID you are going to create, <*SID*> in this example:

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```
Set ORACLE_SID=<SID>
```

4. If you choose to use an Oracle Password file, you need to create one using the ORAPWD utility, as illustrated in this example:

```
Set ORACLE_SID=<SID>
orapwd file=%ORACLE_HOME%\database\pwdtemp2.ora password=manager⇒
 entries=5
```

Note. If you choose not to use an Oracle Password file, don't forget to comment out or remove the following parameter in the init.ora file:

```
remote_login_passwordfile=EXCLUSIVE
```

5. Use the ORADIM utility as directed in the following example to create the Windows Oracle Service associated with the SID you are creating:

```
oradim -new -sid <SID> -intpwd manager -startmode
auto -pfile %ORACLE_HOME%⇒ \database\init<SID>.ora
```

Task 6A-3: Using 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 version of the Oracle RDBMS that is supported by Oracle for PeopleSoft installations.

There are various ways to connect to the database with SQL*Plus. For information on using SQL*Plus, see the Oracle database documentation.

Task 6A-4: Editing Database Scripts (non-Multitenant)

This section discusses:

- Understanding Database Scripts
- Modifying Database Scripts

Understanding 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.

Note. If you are creating a PDB, follow the instructions for modifying the database scripts in the section Editing Database Scripts for CDBs later in this chapter.

Task 6A-4-1: Modifying Database Scripts

To edit required database scripts:

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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 to remove the REMARK from the following line:

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

     Note. When editing CREATEDB.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by the PeopleSoft software. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to either AL32UTF8 or UTF8.

   - CONNECT.SQL.

     Edit CONNECT.SQL only if you do not wish to use the default CONNECT_ID.
   - UTLSPACE.SQL.
   - *XX*DDL.SQL, where XX is a two-letter code for your product line or PeopleSoft PeopleTools, as listed in the table below

Code	Description
CS	PeopleSoft Campus Solutions
CR	PeopleSoft Customer Relationship Management
LM	PeopleSoft Enterprise Learning Management
PF	PeopleSoft Enterprise Performance Management
EP	PeopleSoft Financials / Supply Chain Management
EA	PeopleSoft Financials / Supply Chain Management Argentina
EB	PeopleSoft Financials / Supply Chain Management Brazil
HC	PeopleSoft Human Capital Management
PA	PeopleSoft Portal Solutions
PT	PeopleSoft PeopleTools

Note. This is a complete list of available product lines for PeopleSoft PeopleTools 8.55. Note that not all products go out on all PeopleSoft 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. Search My Oracle Support to confirm that the product is supported for a specific release and database platform.

See My Oracle Support, Certifications.

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Note. Compare the sizes of the PeopleTools tablespaces in *XX*DDL.SQL with the tablespaces in PTDDL.SQL. If the tablespace sizes in PTDDL.SQL are larger, increase the PeopleTools tablespace sizes in *XX*DDL.SQL to be at least as large as those in PTDDL.SQL.

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.

See Also

"Using the PeopleSoft Installer"

Task 6A-5: Creating an Oracle Instance (non-Multitenant)

Run the CREATEDB.SQL script from SQL*Plus to create an Oracle database.

To create an Oracle database:

1. Invoke SQL*PLUS (sqlplus), connecting as sysdba.

   ```
   sqlplus / as sysdba
   ```

2. Run the CREATEDB.SQL script, using the following example as a guide:

   ```
   sqlplus>@<PS_HOME>\scripts\nt\createdb.sql
   ```

Note. When editing CREATEDB.SQL, if you are creating a Unicode database, you need to choose an Oracle character set that is supported by Oracle. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to AL32UTF8 or UTF8.

Task 6A-6: Creating Catalog Views and Utility Tablespaces (non-Multitenant)

Run the UTLSPACE.SQL script from SQL*Plus to create catalog views and utility tablespaces, as follows:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the UTLSPACE.SQL script:

   ```
   sqlplus>@<PS_HOME>\scripts\nt\utlspace.sql
   ```

Task 6A-7: Creating PS.PSDBOWNER Table (non-Multitenant)

Run the DBOWNER.SQL script from SQL*Plus to create the PS.PSDBOWNER table, as follows:

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
   ```

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Task 6A-8: Creating Application-Specific Dbspaces and Tablespaces (non-Multitenant)

To create tablespaces for the product you are installing, run the appropriate *XX*DDL.SQL scripts, logged on as the system user, where *XX* stands for your product line or PeopleSoft PeopleTools, as listed in the table in the section Editing Database Scripts.

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 6A-9: Creating PeopleSoft Database Roles (non-Multitenant)

Run the PSROLES.SQL script from SQL*Plus to create the PeopleSoft database roles, as follows:

1. Log on to SQL*Plus, connecting as sysdba.

   ```
   sqlplus / as sysdba
   ```

2. Run the PSROLES.SQL script:

   ```
   sqlplus>@<PS_HOME>\scripts\nt\psroles.sql
   ```

Task 6A-10: Creating the PeopleSoft Database Owner ID (non-Multitenant)

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.

Note. You must 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.

To create the PeopleSoft database owner ID:

1. Log on to SQL*Plus, connecting as the System user.

   ```
   sqlplus system/manager
   ```

2. Run the PSADMIN.SQL script.

   ```
   SQLPLUS>@<PS_HOME>\scripts\nt\psadmin.sql
   ```

3. Supply values for Access ID, Access ID password, and the default tablespace name when prompted.

   Note. The password for Access ID must be between 6 and 30 characters.

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Task 6A-11: Setting Up Connect ID (non-Multitenant)

This section discusses:

- Understanding Connect ID
- Understanding Connect ID and the Login Process
- Creating the Connect ID

Understanding Connect ID

With the current PeopleSoft PeopleTools release, you establish connections to a database simply by using the connect ID, 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>;
grant select on PSACCESSPROFILE to <CONNECT_ID>;
```

In order to work, the connect ID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

Understanding Connect ID and the Login Process

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. This table lists the steps and related database SQL operations associated with logging in.

Log-in Processing Steps	Related Database SQL Operations
The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/<*ConnectID*>/<*ConnectIDPassword*>
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTTM, LASTCHANGEDTTM FROM PSSTATUS
Validate the User ID and Password	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSOPRDEFN WHERE OPRID =:1

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Log-in Processing Steps	Related Database SQL Operations
Get the Access ID and Password	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSACCESSPROFILE 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.

Task 6A-11-1: Creating the Connect ID

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. Supply values for the connect ID and connect ID password when prompted.

   The connect ID password must be between 6 and 30 characters.
4. The script will then create the connect ID and grant it CREATE Session privileges only.

Task 6A-12: Editing Database Scripts (Multitenant Architecture)

Edit the scripts listed in this section for your environment before you execute them and continue with the procedure to create a database. You can locate the *XX*DDL.SQL scripts in the *PS_HOME*\scripts\nt directory on the file server. The remainder of the scripts listed here reside in the *PS_HOME*\scripts\nt\pdb directory on the file server.

- CONNECT.SQL

  No changes are required.
- CREATEDBCDB.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <drive> variable with the Microsoft Windows drive letter, for example C or D.

Note. When editing CREATEDBCDB.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by the PeopleSoft software. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to AL32UTF8.

- CREATEPDB.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
  - Replace the <drive> variable with the Microsoft Windows drive letter, for example C or D.
- DBOWNER.SQL

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  - Replace the <MANAGERPWD> variable with the System user password.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
- PSADMIN.SQL
  - Replace the <MANAGERPWD> variable with the System user password.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
- PSROLES.SQL

  No changes are required.
- PSROLES2.SQL

  Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
- PTDDL.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
  - Replace the <drive> variable with the Microsoft Windows drive letter, for example C or D.
  - Remove the REMARK from the line for Autoextend.
- UTLSPACE.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
  - Replace the <drive> variable with the Microsoft Windows drive letter, for example C or D.
- *XX*DDL.SQL, where *XX* is a two-letter code for your PeopleSoft Application product line.

  See the section Editing Database Scripts for a table listing the codes with the PeopleSoft product lines.
  - Replace <SID> with the combined name *<SID>/<PDB_SERVICE_NAME>*.

    In this combined name, specify ORACLE_SID, that is, the CDB database name, for *<SID>*, and the PDB database name for *<PDB_SERVICE_NAME>*.
  - Replace the <drive> variable with the Microsoft Windows drive letter, for example C or D.
  - Remove the REMARK from all the lines for Autoextend.

After you edit the scripts, continue with the steps in this chapter to run these scripts and to run the Data Mover import.

Task 6A-13: Creating an Oracle Instance (Multitenant Architecture)

This section discusses:

- Creating a Root Container Database
- Creating a PDB

Task 6A-13-1: Creating a Root Container Database

To create a (root container database) CDB for pluggable databases:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba:

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```
sqlplus / as sysdba
```

2. Run the createdbcdb.sql script, using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\pdb\createdbcdb.sql
```

3. Exit from SQL*Plus.
4. Open the script ptperlcat.bat for editing, and make the following changes for PDBs:
   - Replace the <SID> variable with ORACLE_SID
   - Replace the <drive> variable with the Microsoft Windows drive letter.
5. Run the script ptperlcat.bat.

   This scripts runs the scripts catalog.sql and catproc.sql.
6. To verify that the database was created successfully, log in to SQL*Plus again and run the following command

```
select name,cdb from v$database;
```

   If the value of CDB is "YES" in the response, it means that the database with ID <SID> (FSDMO855 in this example) can be used as a pluggable database:

```
NAME      CDB
--------  ---
FSDMO855  YES
```

Task 6A-13-2: Creating a PDB

To create a PDB:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba:

```
sqlplus / as sysdba
```

2. Run the createpdb.sql script, using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\pdb\createpdb.sql
```

   You should see a message "Pluggable database created".
3. Execute the following command:

```
sqlplus>select name, open_mode from v$pdbs;
```

   The following response indicates that the PDB is open and is ready to use:

```
NAME                OPEN_MODE
----------------    ---------
PDB$SEED            READ ONLY
PDB_SERVICE_NAME    READ WRITE
```

   The PDB_SERVICE_NAME is created by the Oracle server for a new PDB.
4. To verify the service name for the PDB, execute the following command:

```
lsnrctl status;
Service "PDB_SERVICE_NAME" has 1 instance(s).
Instance "PDB_SERVICE_NAME", status READY, has 1 handler(s) for this⇒
 service.
```


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5. Add an entry for the PDB service name to the tnsnames.ora file.

   This example shows a portion of the tnsnames.ora file. Replace <*PDB_SERVICE_NAME*> with the PDB database name:

```
<PDB_SERVICE_NAME> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = servername.com)(PORT = 1521))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <PDB_SERVICE_NAME>)
    )
  )
```

6. Log in to the PDB in SQL*Plus with the following command:

```
sqlplus / as sysdba
SQL> ALTER SESSION SET CONTAINER = <PDB_SERVICE_NAME>
```

Task 6A-14: Creating Catalog Views and Utility Tablespaces (Multitenant Architecture)

To create catalog views and utility tablespaces:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.

```
sqlplus / as sysdba
```

2. Run the UTLSPACE.SQL script:

```
sqlplus>@<PS_HOME>\scripts\nt\pdb\utlspace.sql
```

Task 6A-15: Creating PS.PSDBOWNER Table (Multitenant Architecture)

Run the DBOWNER.SQL script from SQL*Plus to create the PS.PSDBOWNER table, as follows:

1. Log on to SQL*Plus (sqlplus), connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>:

```
sqlplus system/manager@<PDB_SERVICE_NAME>
```

2. Run the DBOWNER.SQL script, using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\pdb\dbowner.sql
```

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Task 6A-16: Creating Application-Specific Dbspaces and Tablespaces (Multitenant Architecture)

To create tablespaces for the product you are installing, run the appropriate *XX*DDL.SQL scripts, logged on as the system user, where *XX* stands for your product line or PeopleSoft PeopleTools, as listed in the table in the section Editing Database Scripts (Multitenant Architecture).

To create application-specific tablespaces:

1. Log on to SQL*Plus (sqlplus), connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>:

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the appropriate DDL scripts.

   For example, for PeopleSoft Financials/Supply Chain Management:

   ```
   sqlplus>@<PS_HOME>\scripts\nt\epddl.sql
   ```

Task 6A-17: Creating PeopleSoft Database Roles (Multitenant Architecture)

To create the roles for your PeopleSoft database:

1. Log on to SQL*Plus, connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>:

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the PSROLES.SQL script:

   ```
   sqlplus>@<PS_HOME>\scripts\nt\pdb\psroles.sql
   ```

3. Log out of SQL*Plus.
4. Log on to SQL*Plus, connecting as sysdba.

   ```
   sqlplus / as sysdba
   ```

5. Run the PSROLES2.SQL script:

   ```
   sqlplus>@<PS_HOME>\scripts\nt\pdb\psroles2.sql
   ```

Task 6A-18: Creating the PeopleSoft Database Owner ID (Multitenant Architecture)

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.

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Note. You must run the PSADMIN.SQL script for each pluggable 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.

To create the PeopleSoft database owner ID:

1. Log on to SQL*Plus, connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>.

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the PSADMIN.SQL script.

   ```
   sqlplus>@<PS_HOME>\scripts\nt\pdb\psadmin.sql
   ```

3. Supply values for Access ID, Access ID password, and the default tablespace name when prompted.

   Note. The password for Access ID must be between 6 and 30 characters.

Task 6A-19: Setting Up Connect ID (Multitenant Architecture)

This section discusses:

- Understanding Connect ID
- Understanding Connect ID and the Login Process
- Creating the Connect ID

Understanding Connect ID

With the current release of PeopleSoft PeopleTools, you establish connections to a database simply by using the connect ID, 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 do not have to maintain access for all PeopleSoft users, just for the connect ID.

The connect ID is granted access using the *Connect.sql* script. This script 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 through 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>;
grant select on PSACCESSPROFILE to <CONNECT_ID>;
```

In order to work, the connect ID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

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Understanding Connect ID and the Login Process

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. This table lists the steps and related database SQL operations associated with logging in.

Log-in Processing Steps	Related Database SQL Operations
The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/<*ConnectID*>/<*ConnectIDPassword*>
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTTM, 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 PSACCESSPROFILE 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.

Task 6A-19-1: Creating the Connect ID

To create connect ID:

1. Log on to SQL*Plus as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>.

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the connect.sql script.

   ```
   sqlplus>@<PS_HOME>\scripts\nt\pdb\connect.sql
   ```

3. Supply values for the connect ID and connect ID password when prompted.

   The connect ID password must be between 6 and 30 characters.

4. The script will then create the connect ID and grant it CREATE Session privileges only.

Task 6A-20: Updating Connection Information

You must update connection information on the client. To do this, update the connection information in TNSNAMES.ORA on your client to reflect your Database Name, Oracle SID, and Server Name.

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Note. If you are creating pluggable databases, create an entry for the CDB, using the SID. Create another entry for the PDB, using the PDB_SERVICE_NAME.

Task 6A-21: Setting NLS_LANG in the Windows Registry

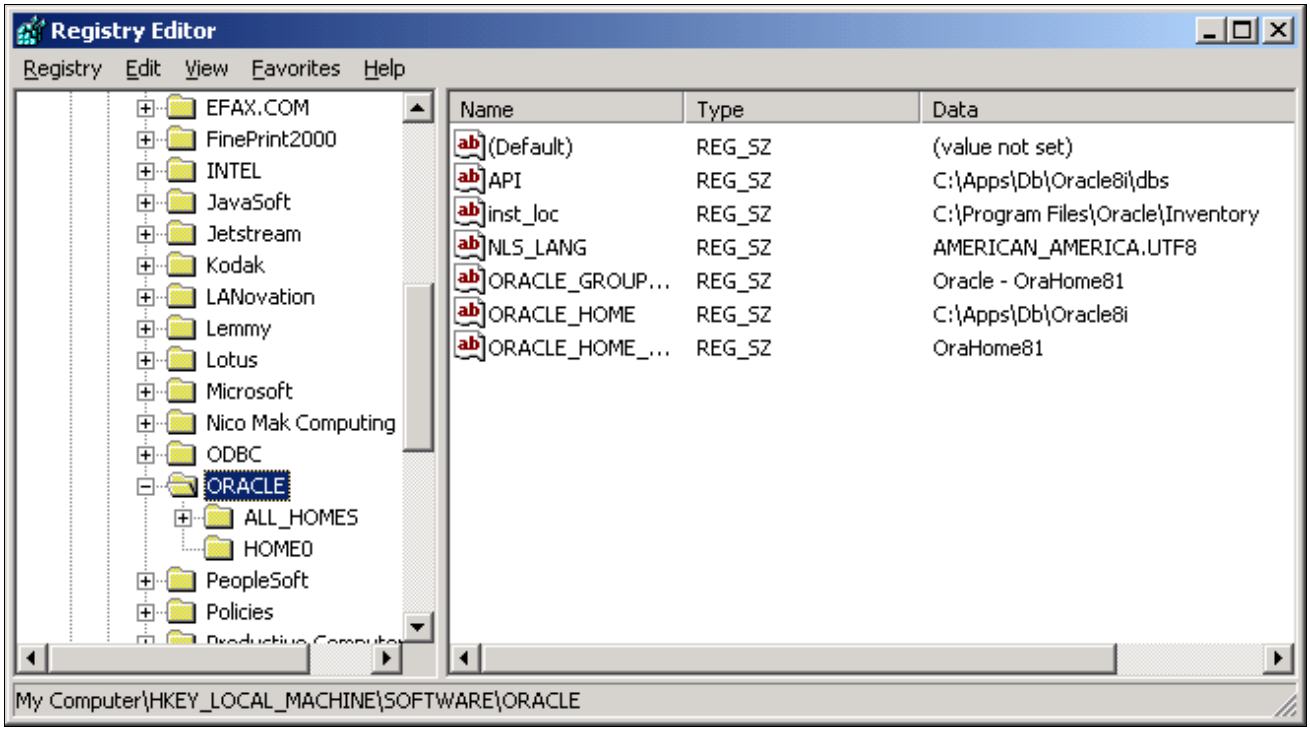
You must set the NLS_LANG Oracle registry key to indicate the Oracle language and character set. The PeopleSoft Application Server and reporting tools run in Unicode regardless of the database character set or the NLS_LANG character set component. However, the NLS_LANG character set component does affect the transmission of data in non-PeopleTools connections, such as SQL*Plus and direct COBOL. 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 a PeopleSoft installation would be AMERICAN_AMERICA.AL32UTF8. See the Oracle National Language Support guide for full details.

The NLS_LANG parameter should be set on *each* workstation you use to access the PeopleSoft application in two-tier mode, and on your application server machine.

Note. When using SQL*Plus to query data, set NLS_LANG on the client side to match the OS character set rather than the database character set.

To set NLS_LANG in the Windows registry:

1. Open the Windows Registry Editor by selecting *Run* from the Microsoft Windows Start menu.
2. Type REGEDIT in the Run dialog.
3. Navigate to the key HKEY_LOCAL_MACHINE\Software\Oracle.



Navigating to NLS_LANG

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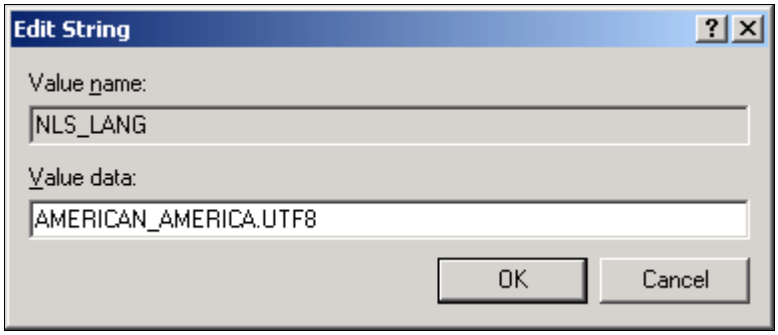
4. Double-click on the NLS_LANG key in the right hand side of the window.

   The Edit String dialog box appears as in this example.



Entering the Value data

5. Enter <*language*>_<*territory*>.AL32UTF8 in the Value Data field, substituting <language> and <territory> for your preferred language and territory settings.

   If unsure, use AMERICAN_AMERICA.AL32UTF8.

6. Click *OK* and close the Registry Editor.

Task 6A-22: Creating Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts
- Working with Multilingual Databases
- Running Database Setup to Create Data Mover Import Scripts

Understanding Data Mover Import Scripts

The Data Mover Import scripts are used to populate the PeopleSoft database with data. You use the Database Setup feature of the PeopleSoft Data Mover utility to create the Data Mover import scripts.

Note. This task and the next one (Running Data Mover Import Scripts) should be executed from a Microsoft Windows client machine. Before you can load PeopleSoft data from a Microsoft Windows client machine, you need to install PeopleSoft PeopleTools and your PeopleSoft Application to the Microsoft Windows client machine and be sure to select File Server and Database Server.

To complete the database creation procedure you must supply information on various authorization IDs and passwords, including Access ID, Connect ID, Symbolic ID, and User IDs. Before beginning this procedure, review the information in the section Planning Database Creation and make a note of the authorization information for your environment. For PeopleSoft PeopleTools 8.53 and later releases, the user profiles in PeopleTools demo databases are delivered disabled. During the procedure to create Data Mover import scripts you will choose whether to enable the delivered user profiles, and how to assign passwords for the profiles. In addition, you will supply several passwords that were previously provided as defaults. Be sure to note the passwords that you supply, as they will be needed for subsequent installation procedures.

See the information on administering user profiles in the *PeopleTools: Security Administration* product documentation.

See "Preparing for Installation," Planning Database Creation.

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Task 6A-22-1: Working with Multilingual Databases

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. After the installation is complete, you can change the database's base language to the language that you plan to use most frequently, or leave the base language as English.

Read the section Planning Multilingual Strategy for information on installing multiple languages and changing your base language.

See "Preparing for Installation," Planning Multilingual Strategy.

If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.

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.

Note. During the database setup process, you have the option to select the database's base language. Select the language that you plan to use most frequently. If the database's base language is different than that set in this database setup process, generate the SWAP_BASE_LANGUAGE command in the Data Mover Import script to swap the language.

See *PeopleTools: Global Technology.*

Task 6A-22-2: Running Database Setup to Create Data Mover Import Scripts

To create the import scripts using Data Mover:

See *PeopleTools: Data Management.*

1. Run Configuration Manager by using one of the following methods:
   - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Configuration Manager.
   - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Configuration Manager.
   - Run *PS_HOME*\bin\client\winx86\pscfg.exe.

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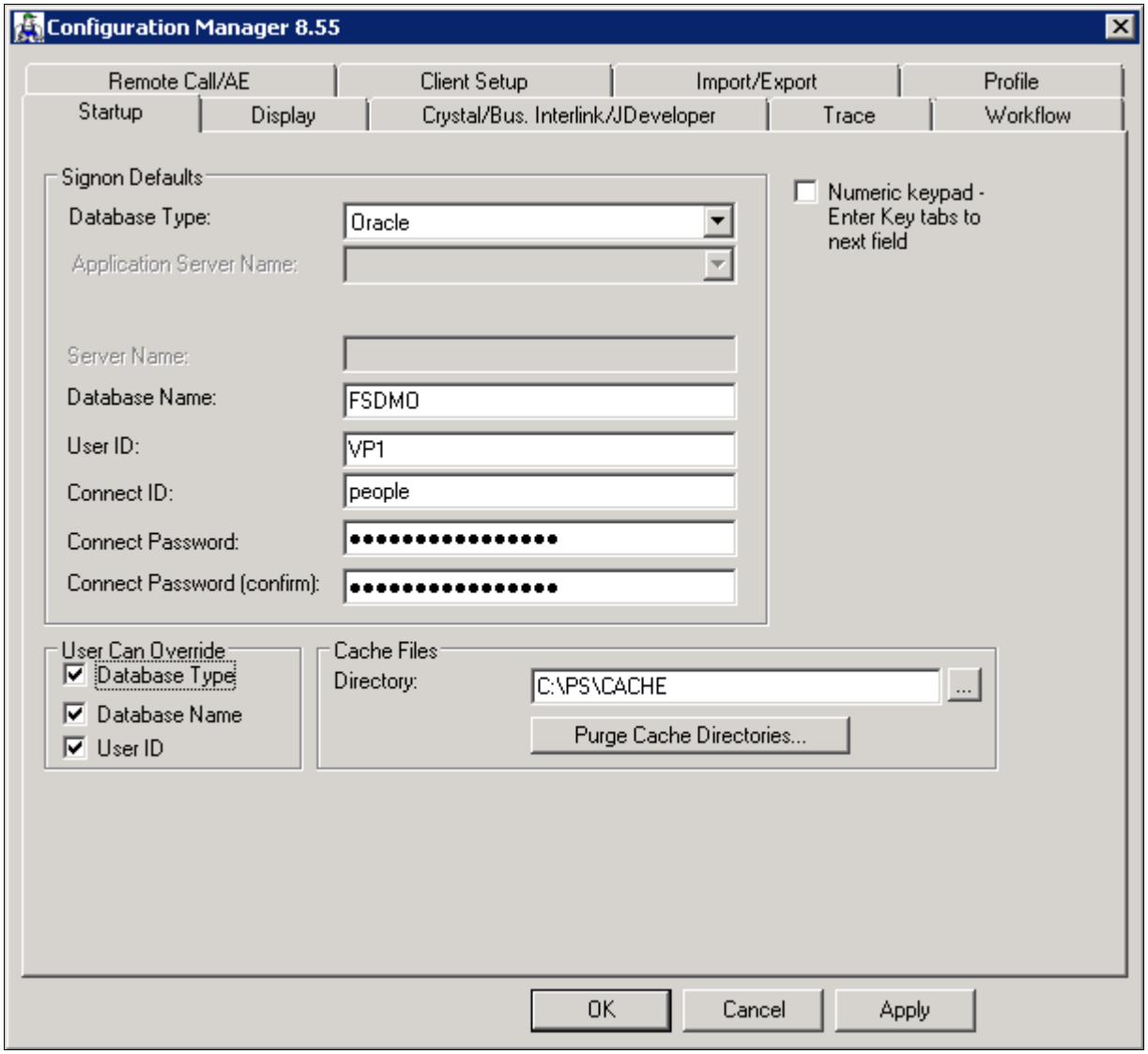
2. Verify in the Signon Defaults on the Startup page that the Database Type of Oracle is selected, as shown in the example.



Startup tab on the Configuration Manager dialog box

3. Verify that the connect ID is correct.

   If you accepted all defaults, the connect ID is people. Enter and confirm a value for the connect ID password.

4. If the *PS_APP_HOME* location is not the same as *PS_HOME*, make sure it is set in Configuration Manager, as follows:

   a. In Configuration Manager, select Profile.

   b. Highlight the Default Profile and select Edit.

   c. On the Edit Profile dialog box, select the Process Scheduler tab.

   d. Verify that the *PS_APP_HOME* value is correct.

   See "Setting Up the Install Workstation," Editing the Default Profile.

5. Run Data Mover by using one of these methods:

   - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Data Mover.

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- On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Data Mover.
- Run *PS_HOME*\bin\client\winx86\psdmt.exe.

6. Log on using the access ID as the user id to start Data Mover in bootstrap mode; this should be the user that creates the database.

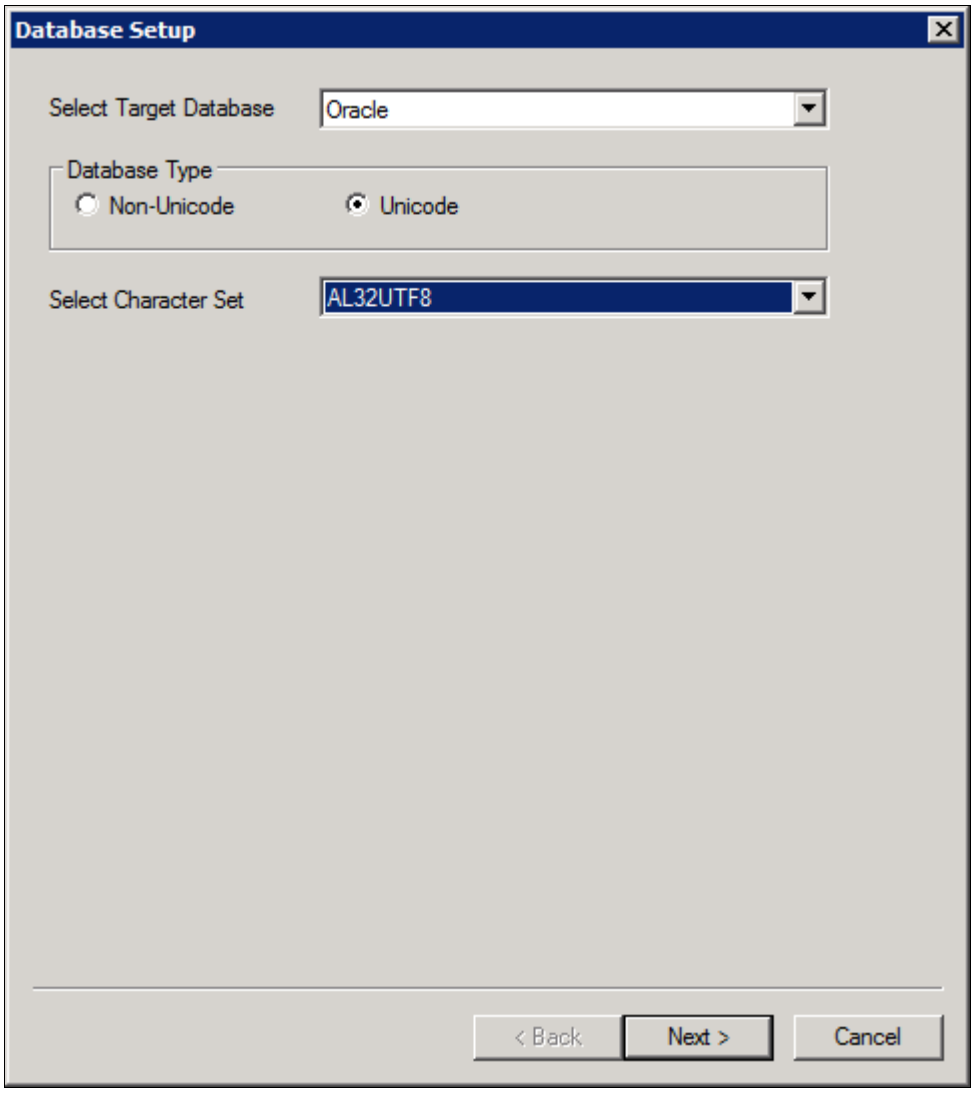
   See Checking the Log Files and Troubleshooting, Running Data Mover.

Note. You must limit the access ID to eight characters or less. You must limit the access password to 30 characters or less.

---

7. Select File, Database Setup.

   The Database Setup dialog box appears, as shown in this example:



Selecting target database and character set on the Database Setup dialog box

8. Select your database platform from the Select Target Database drop-down list.
9. Select your database type, Unicode or non-Unicode, and character set.

   Choose the Database Type—Unicode or Non-Unicode—that you selected in the section on multilingual

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strategy. If you choose Non-Unicode, select the character set that you decided upon in that section from the drop-down list.

Note. When you select a non-Unicode character set, only the characters within that character set can be stored in your database. Oracle recommends that you create your database using Unicode.

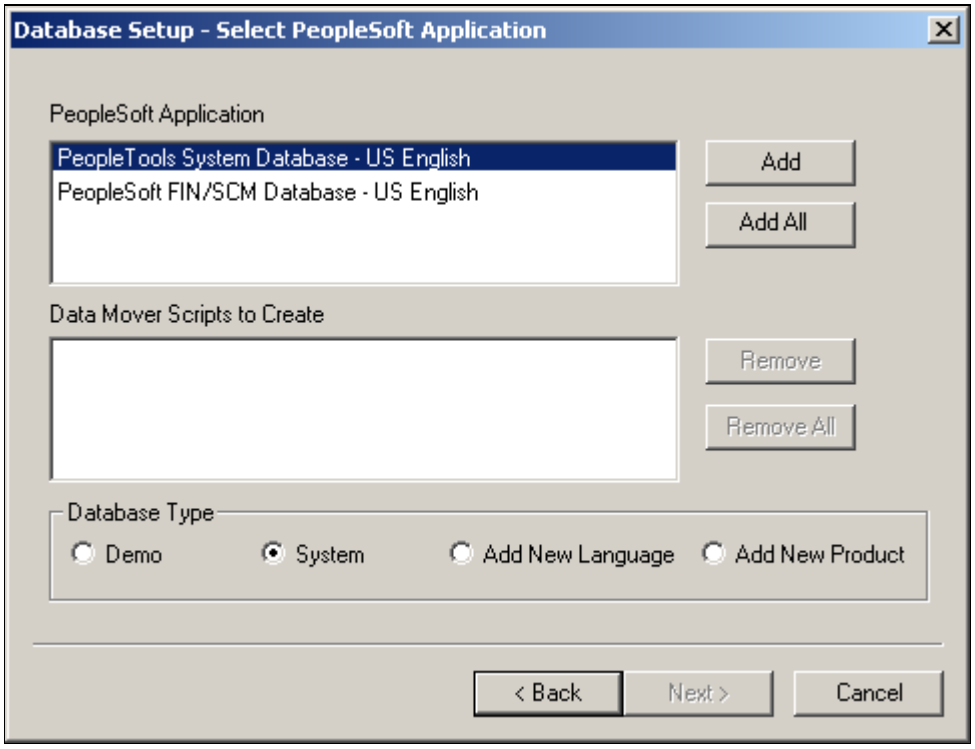
See "Preparing for Installation," Planning Multilingual Strategy.

The character set you select here must match the character set you used to create your database in the task Creating an Oracle Database. If you choose to create a Unicode database, you must have created your instance using the AL32UTF8 or UTF8 character set in the step Creating an Oracle Instance.

Note. The database setup does not actually modify the character set of your database. That is done by the DBA during database creation. The database setup process only creates customized scripts based on your selection.

---

10. Select the Demo or System radio button, depending on which type of PeopleSoft database you are installing.



Selecting a PeopleSoft application in the Database Setup dialog box

11. Select the Products for which you want to create a Data Mover script from the PeopleSoft Application list box, and move the items 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 software, each application will be listed several times, once for each language. 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.

    See "Preparing for Installation," Planning Multilingual Strategy.

    If you are installing an application in any language other than English, you must also select the English component of the application. For example, if you select PeopleSoft Fin/SCM - French, you must also select PeopleSoft Fin/SCM Database - US English. This ensures that you install the necessary base-language

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components.

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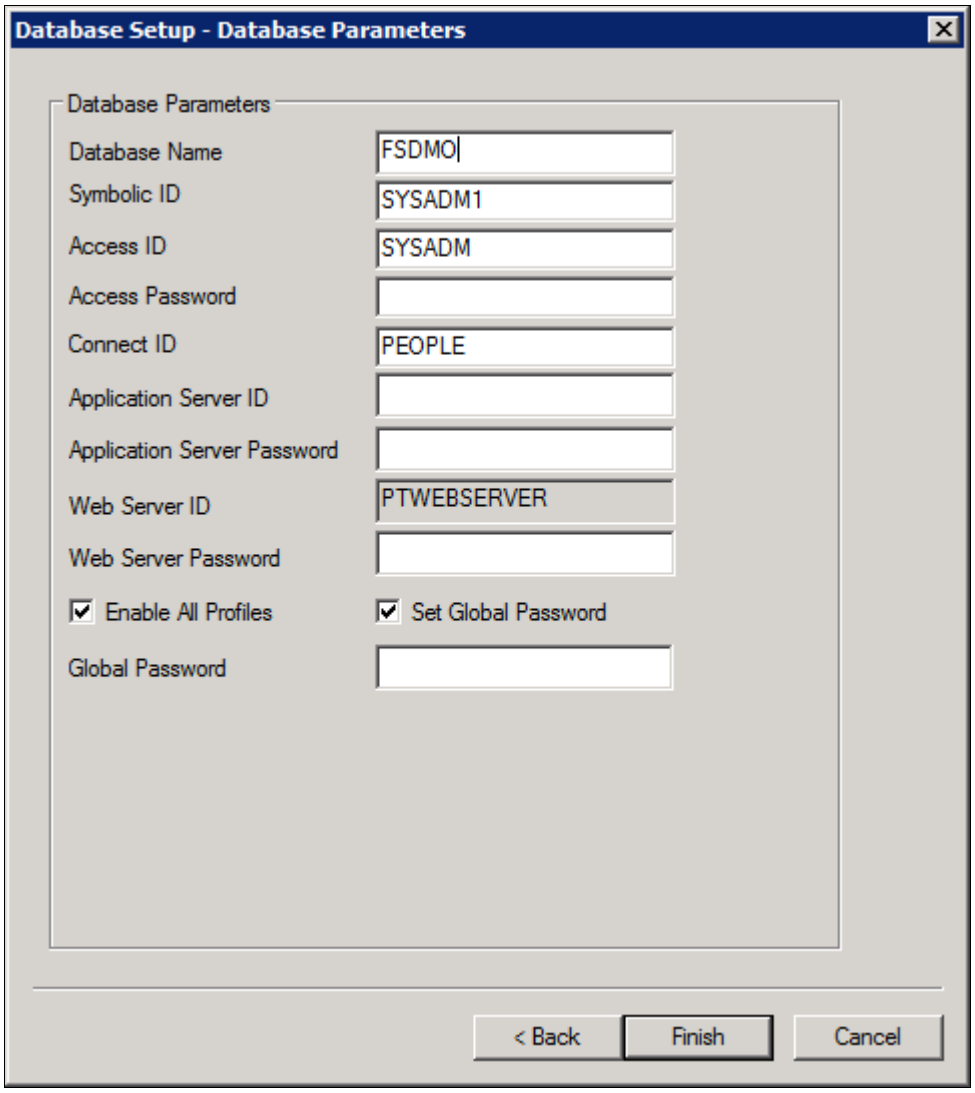
12. Set the database parameters described below and then click Finish.



Specifying Database Parameters on the Database Setup dialog box

- *Database Name:* Specify 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 PSACCESSPROFILE.

  For initial installation set it equal to the Database Name. The symbolic ID cannot be longer than eight characters.
- *Access ID:* Specify the user you used to create the database. Limit this to eight characters or less.

  This value is case sensitive. You will use the access ID every time you want to sign on to Data Mover in bootstrap mode. Limit this to eight characters or less.
- *Access Password:* This is the PeopleSoft access ID password defined in the chapter "Preparing for Installation." Limit this to 30 characters or less.
- *Connect ID:* For Oracle, this is the connect ID that is used for the initial connection to Oracle. This ID is used for connecting to the database. Limit this to eight characters or less.
- *Application Server ID*: The Application Server ID has privileges to start or shut down the Application

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Server domain. It is also used during the Application Server configuration. Enter one of the delivered PeopleSoft user IDs.

- *Application Server Password*: Specify a password for the Application Server ID.
- *Web Server Password*: Specify a password for the Web Server ID.

  The default Web Server ID, as displayed in the example, is PTWEBSERVER. The Web Server ID, also referred to in this documentation as Web Profile User ID, is used to access the web profile information from the database through the Application Server Jolt service.
- *Enable All Profiles*: Select this option to leave the User profiles (other than the Application Server profile and the Web Server User profiles) unchanged.

  If you do not select this option, all of the User profiles in the database, with the exception of the Application Server profile and Web Server User profiles, remain disabled as delivered.
- *Set Global Password*: If you enabled all profiles, you can choose to set the same password for all of the profiles.

  Note. This option is enabled when the Enable All Profiles option is selected, as shown in the example.

- *Global Password*: Enter the password to be used for all user profiles.

  Note. This option is enabled when the Set Global Password option is selected, as shown in the example.

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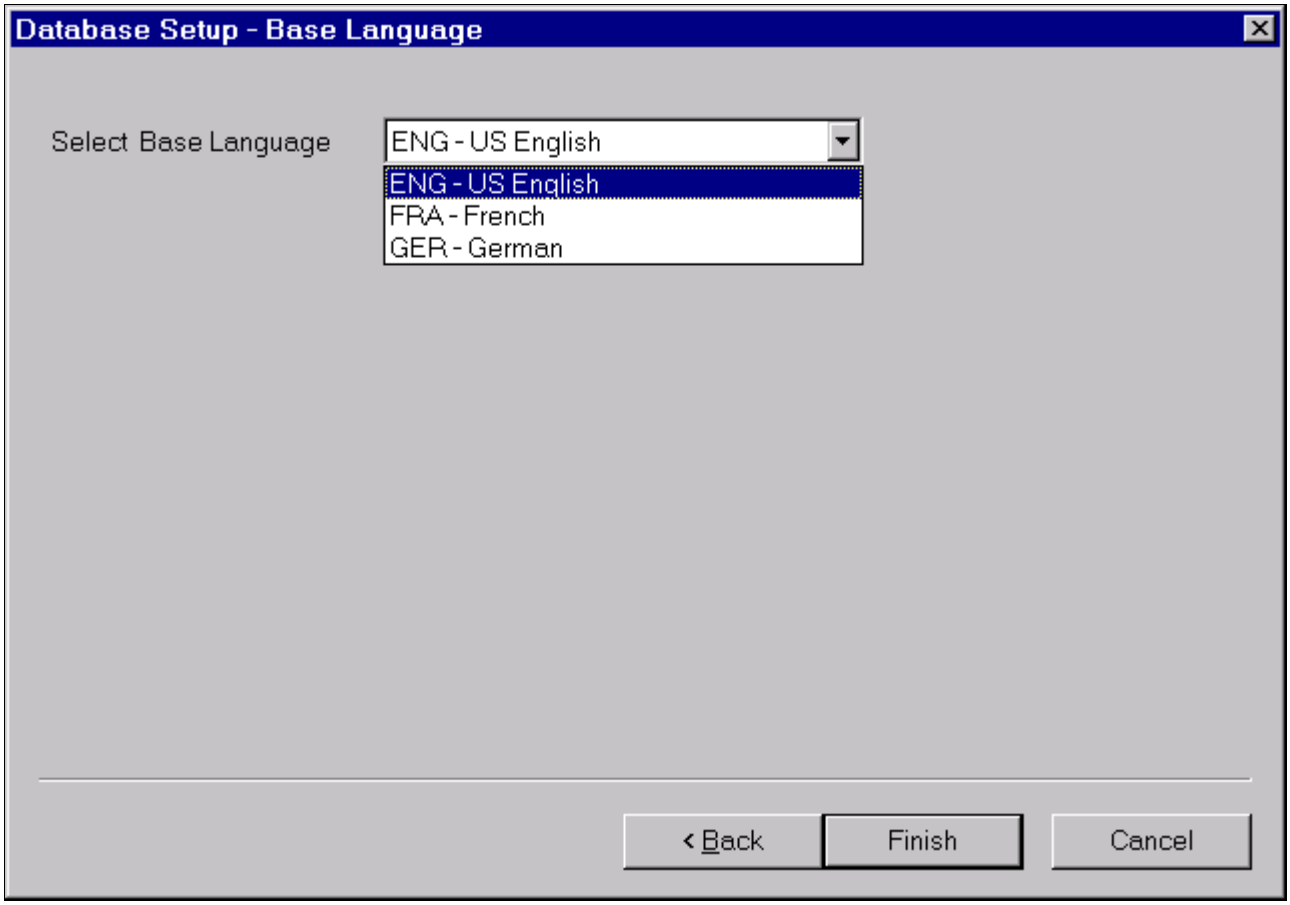
13. Select your database's base language.

Note. This window appears only if you selected a database for a language other than English. If you see this window it is 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.

See "Preparing for Installation," Planning Multilingual Strategy.

See Working with Multilingual Databases.



Selecting a base language in the Database Setup dialog box

Use the following information in making your selection:

- If you have not already done so, read the earlier section on multilingual strategy before determining whether to install multiple languages and whether to change your base language.
- If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.
- 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.
- If you are creating a non-Unicode database, you must ensure that the languages you select are all

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supported by the character set you used to create your database.

14. Click Finish.

Note. If the Database Setup - Base Language window does not appear, click Finish after supplying the parameters on the Database Setup - Database Parameters window.

At this point you are in Data Mover, with the DMS script you just created ready to run.

See Also

PeopleTools: Data Management

PeopleTools: Security Administration, "PeopleSoft Authorization IDs"

Task 6A-23: Running Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts
- Populating Tables in the PeopleSoft Database

Understanding Data Mover Import Scripts

Now you will run the Data Mover scripts (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 with the Access ID and password, using bootstrap mode. 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.

See *PeopleTools: Data Management.*

See Also

Checking the Log Files and Troubleshooting, Running Data Mover

Task 6A-23-1: Populating Tables in the PeopleSoft Database

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 performs the following actions:

- IMPORT *

  Create all the PeopleTools and application tables with their indexes.

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- 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.

Task 6A-24: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover
- Troubleshooting
- Improving Performance

Task 6A-24-1: Checking the Log Files

After running each Data Mover script, examine the .LOG files to make sure that all the commands were executed successfully. The log files are located in the directory you specified in the Data Mover script.

See "Setting Up the Install Workstation," Editing the Default Profile.

Task 6A-24-2: Running Data Mover

Use one of these methods to run Data Mover.

Microsoft Windows

- On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Data Mover, to run a graphical user interface (GUI mode).
- On Microsoft Windows 8 or 2012 R2, access the Apps screen, and navigate to PeopleTools 8.55, Data Mover to run in GUI mode.
- Run *PS_HOME*\bin\client\winx86\psdmt.exe from the command line.

If you use the access ID that you specified during the database configuration to log on, you log on in "bootstrap mode." When you start Data Mover in bootstrap mode, the word "BootStrap" appears in the Data Mover status bar.

If you use a valid PeopleSoft Operator ID, such as PS for Human Capital Management or VP1 for Financials/Supply Chain Management, you log on in "user mode." In this mode, no designation appears in the Data Mover status bar.

See Also

PeopleTools: Data Management

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Task 6A-24-3: Troubleshooting

If the DMS 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, and use the following guidelines to edit and rerun the DMS scripts.

   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 statement, add the SET START statement before the first IMPORT *; statement.
   - If the failure occurred during a subsequent IMPORT statement, comment out all statements preceding the IMPORT *; statement where the failure occurred 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 "Building required indexes" section, 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. Run Data Mover as previously described.

   See Running Data Mover.

   The PeopleSoft Logon dialog box appears.
3. Log on using the Access ID to start Data Mover in *bootstrap mode.*

   Use the Access ID you specified when you created the Data Mover scripts with the Database Setup utility.

   The input window should display the DMS import script for the database. The script has the format <dbname>ora.dms.
4. If necessary, select File, Open, and browse to the *PS_HOME/*scripts directory to find the appropriate DMS script.
5. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

   ```
   SET START <RECORD NAME>;
   ```

   <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 command will begin the Data Mover import at the specified record name.

   Note. It is 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.

   For 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
   ```

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First drop the partially inserted table (for example, 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. 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. The SET START statement will begin the Data Mover import at the specified <RECORD NAME>.

Example of the original script:

```
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 ON;
IMPORT *;
```

Example of script after modification, with changes in bold font:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs2.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE ON;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;
```

For the DROP statement, for records with a recname without a leading PS, add PS_ to the beginning of the recname; otherwise the table will not be found. For example, PS_<RECNAME>.

6. Restart the script (File, Run Script).

See Also

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows.

Task 6A-24-4: Improving 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.

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- 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 that 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 are 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.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the UNDO tablespace or the number of UNDO Segments.
- Use asynchronous read and write.
- Use multiple db_writers.

Task 6A-25: Changing the Base Language

The information in the earlier task Planning Multilingual Strategy will help you determine whether you should change your base language, and lists the currently supported languages.

See "Preparing for Installation," Planning Multilingual Strategy.

See PeopleTools Certifications — Supported Languages, My Oracle Support (search for article name).

This task applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. It gives a performance boost to the language you designate as the base language, but requires more administrative overhead than leaving English as the base language. The details are spelled out in the *PeopleTools: Global Technology* product documentation.

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Chapter 6B

Creating a Database on UNIX

This chapter discusses:

- Understanding the Database Configuration Wizard
- Fulfilling PeopleSoft Database Configuration Wizard Prerequisites
- Running the Database Configuration Wizard
- Checking the Log Files and Troubleshooting

Understanding the Database Configuration Wizard

The Database Configuration Wizard is a tool designed to simplify your PeopleSoft database installation. When you run the Database Configuration Wizard, Data Mover is also running silently.

See *PeopleTools: Data Management.*

Important! Do not 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 PeopleSoft PeopleTools installation guide and you also need any additional instructions provided by CRM. My Oracle Support provides installation guides that are specific to your application.

See My Oracle Support, (search for "installation," the application name, and release).

This section includes information on creating an Oracle Container Database (CDB) and Pluggable Databases (PDBs). The sections specific to creation of CDBs and PDBs are labelled "(Multitenant Architecture)." Choose whether to create pluggable databases according to the Oracle RDBMS you installed, as follows:

- If you installed the Oracle 12c Enterprise Edition RDBMS, you can choose to create either CDBs or non-CDBs.
- If you installed Oracle 11gR2 RDBMB, you can create only a non-CDB. For installations on Oracle 11gR2, pluggable databases are not supported.

You also have the option of using a manual process for creating a PeopleSoft database, instead of using the Database Configuration Wizard. The manual process is mandatory for some configurations.

Important! The Database Configuration Wizard cannot be used for z/Linux. To create a database on that operating system platform, you must use the manual method of creating a database.

Important! The Database Configuration Wizard cannot be used with Oracle RAC. To create a database with this database platform, you must use the manual method of creating a database.

See the information on setting up the PeopleSoft installation with Oracle RAC in the *PeopleTools: Data Management* product documentation.

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Important! The Database Configuration Wizard cannot be used for an Unicode database on an Oracle database version lower than 11g. You must use the manual method of creating a database for this configuration.

See Creating a Database Manually on UNIX.

After you complete the tasks in this chapter, read the chapter "Completing the Database Setup." Depending upon your environment, you may not need to carry out every task in that chapter. However it is important that you evaluate the requirements and perform the necessary tasks.

Task 6B-1: Fulfilling PeopleSoft Database Configuration Wizard Prerequisites

This section discusses:

- Installing the PeopleSoft Database Server Components on the Database Server
- Installing the Oracle RDBMS Software
- Identifying the Trace and Alert File Locations
- Creating an INIT<SID>.ORA File
- Creating an INIT<SID>.ORA File (Multitenant Architecture)
- Creating Target Directory Paths
- Creating Target Directory Paths (Multitenant Architecture)
- Setting Up Target Database Connectivity
- Running the Shell Script psconfig.sh

Task 6B-1-1: Installing the PeopleSoft Database Server Components on the Database Server

To run the PeopleSoft Database Configuration Wizard, your setup *must* fulfill these requirements:

- You must have installed the PeopleSoft PeopleTools software on your database server by running the PeopleSoft Installer.
- You must have chosen the Database Server option during the PeopleTools software installation.
- You must have installed the Database component of your application installation software to your database server.
- You must have the PeopleTools Development Environment set up to create your database.
- You must have the Oracle Tuxedo software installed before you run the Database Configuration Wizard.

  The Database Configuration Wizard invokes the PeopleSoft Data Mover utility. Data Mover on the UNIX platform has a dependency on the Oracle Tuxedo software.
- You must run the Database Configuration Wizard at the database server.

Be sure the UNIX login ID executing the Database Configuration Wizard has sufficient read and write permissions on this server. Ideally the UNIX login ID executing the Database Configuration Wizard is part of the same UNIX group that the Oracle RDBMS owner is part of, usually the DBA group.

See the information on PeopleSoft Configuration Manager in the *PeopleTools: System and Server Administration* product documentation.

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See Also

"Using the PeopleSoft Installer"

"Setting Up the Install Workstation"

Task 6B-1-2: Installing the Oracle RDBMS Software

The Oracle RDBMS software must be installed before you run the Database Configuration Wizard. The following discussion assumes that you are familiar with Oracle administration tasks. During the execution of the Wizard, references are made to an existing Oracle RDBMS installation:

$ORACLE_HOME and $ORACLE_HOME/bin

Note. The PeopleSoft Database Configuration Wizard for the current PeopleSoft PeopleTools release supports Oracle 11g or Oracle 12c. If you are using the pluggable database functionality, you must install Oracle 12c Enterprise Edition.

Task 6B-1-3: Identifying the Trace and Alert File Locations

For Oracle 11gR2 and later releases, all diagnostic data, including the alert log, are stored in the Automatic Diagnostic Repository (ADR), whose location is set by the DIAGNOSTIC_DEST initialization parameter. Due to this change, the initialization parameter settings for background dump (BACKGROUND_DUMP_DEST), core dump (CORE_DUMP_DEST), and user dump (USER_DUMP_DEST) are replaced by the diagnostic destination parameter DIAGNOSTIC_DEST. For information on the DIAGNOSTIC_DEST parameter and the default location for the ADR, see the Oracle RDBMS documentation.

See the information on managing diagnostic data in the Oracle Database Administrator's Guide.

Task 6B-1-4: Creating 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.

Add or modify the following init.ora parameters:

- DB_NAME = <SID>
- DB_FILES

  Specify the maximum allowed for your operating system, typically 1021.
- CONTROL_FILES

  Specify the control files for your database, such as `/filesystem1/cntrl1<SID>,/filesystem2/cntrl2<SID>`.
- OPEN_CURSORS = 1000

  This is a minimum value. You may choose to set this higher.
- DB_BLOCK_SIZE = 8192

PeopleSoft PeopleTools supports Oracle 11g and Oracle 12c. The PeopleSoft scripts are delivered to work across all versions of the Oracle RDBMS that Oracle supports for this release of PeopleSoft PeopleTools.

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.

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Review the following information and make any necessary edits to these parameters for your environment:

DB_BLOCK_SIZE

For UNIX the default DB_BLOCK_SIZE in the init<SID>.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 AL32UTF8), a DB_BLOCK_SIZE value of 8K is required.

NLS_LENGTH_SEMANTICS

Use these guidelines to set the `NLS_LENGTH_SEMANTICS` init<SID>.ora parameter:

- Set `NLS_LENGTH_SEMANTICS=CHAR` if you are installing a Unicode database with PeopleSoft application 9.0 or higher releases on PeopleTools 8.48 or higher.
- Set `NLS_LENGTH_SEMANTICS=BYTE` if you are installing any non-Unicode database (such as a Western European or Shift-JIS database).
- Set `NLS_LENGTH_SEMANTICS=BYTE` if you are installing a Unicode database with PeopleSoft application prior to release 9.0 on PeopleSoft PeopleTools prior to release 8.48.

If necessary, verify the PeopleTools release for your PeopleSoft application using this SQL query:

```
select TOOLSREL from PSSTATUS
```

Unicode databases on PeopleSoft PeopleTools 8.48 and later, with PeopleSoft application 9.0 or later use character length semantics. When character length semantics is used, a field of VARCHAR2(10) will store 10 characters. Prior to PeopleSoft PeopleTools 8.48 and PeopleSoft applications 9.0, byte length semantics was used, meaning a VARCHAR2(10) stored 10 bytes. If you are upgrading from a release before PeopleSoft PeopleTools 8.48 and PeopleSoft application 9.0 to one after 8.48 and 9.0, a database conversion is necessary for utilizing CHARACTER LENGTH SEMANTICS. This conversion process is covered in all PeopleSoft application 9.0 or higher upgrade paths.

It is very important that you set this parameter at the correct point during database creation. Database creation consists of running several scripts before loading the database with Data Mover, as follows:

- CREATEDB.SQL
- UTLSPACE.SQL
- *XX*DDL.SQL
- DBOWNER.SQL
- PSROLES.SQL
- PSADMIN.SQL
- CONNECT.SQL

Set the parameter `NLS_LENGTH_SEMANTICS` at the beginning of database creation or right before the Data Mover load.

To do this, modify the init<SID>.ora to add the `NLS_LENGTH_SEMANTICS` parameter, and then shut down and restart the database instance.

Oracle password

If you choose to use an Oracle Password file, you must create one using the ORAPWD utility, as illustrated in this example:

```
export ORACLE_SID=FSDMO
orapwd file=$ORACLE_HOME/dbs/pwdtemp2.ora password=manager entries=5
```


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If you choose not to use an Oracle Password file, make one of the following changes to the init<SID>.ora file. This must be done *before* running the CREATEDB.SQL script.

- Remove the line beginning with `remote_login_passwordfile`, or add a comment character at the beginning as shown in this example:

  ```
  #remote_login_passwordfile=EXCLUSIVE
  ```

- Set the parameter to *NONE,* as in this example:

  ```
  remote_login_passwordfile=NONE
  ```

Note. The init<SID>.ora file will reference "target" directories to write control files, log files, and system files, 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, Creating Target Directory Paths, for details.

For more parameters that may be required for the init<SID>.ora file, consult My Oracle Support.

See Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools, My Oracle Support, (search for the article name and your release).

Task 6B-1-5: Creating an INIT<SID>.ORA File (Multitenant Architecture)

If you are creating pluggable databases, set ORACLE_SID to the SID for the root container database (CDB); for example:

```
export ORACLE_SID=<SID>
```

Add the following line to the init<SID>.ora file:

```
enable_pluggable_database=true
```

Task 6B-1-6: Creating 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 want to use something other than the delivered directory paths, you need to modify the CREATEDB.SQL, UTLSPACE.SQL, and *XX*DDL.SQL scripts in the scripts directory under *PS_HOME,* replacing the delivered paths with paths appropriate for your site installation prior to running the Database Configuration Wizard.

Note. Compare the content in *XX*DDL.SQL with PTDDL.SQL, and if PTDDL.SQL has bigger tablespace sizes than *XX*DDL.SQL, increase the size of the tablespaces to at least as much in PTDDL.SQL.

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.)

Here are some examples of directory path structure references:

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

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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/test92/control01.ctl", "/u01/oradata⇒
/test92⇒
/control02.ctl", "/u01/oradata/test92/control03.ctl")
```

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

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

```
CREATE TEMPORARY TABLESPACE       PSTEMP
TEMPFILE                'u03/oradata/<SID>/pstemp01.dbf'     SIZE 300M
EXTENT MANAGEMENT LOCAL UNIFORM SIZE 128K;

CREATE TABLESPACE      PSDEFAULT
DATAFILE               'u03/oradata/<SID>/psdefault.dbf'     SIZE 10M

EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
        INITIAL     100K
        NEXT        100K
        PCTINCREASE   0  );
```

- The delivered *XX*DDL.SQL scripts make the following directory path structure references:

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

```
 CREATE TABLESPACE PSIMAGE DATAFILE '/u01/oradata/<SID>/psimage.dbf'⇒
 SIZE 8M
 EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PSINDEX DATAFILE '/u01/oradata/<SID>/psindex.dbf' SIZE⇒
 64M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PTAPP DATAFILE '/u01/oradata/<SID>/ptapp.dbf' SIZE 4M
```


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```
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
```

Task 6B-1-7: Creating Target Directory Paths (Multitenant Architecture)

If you are creating a PDB, you must add the following target directories, replacing <*SID*> with ORACLE_SID for the CDB, and <*PDB_SERVICE_NAME*> with the PDB database name.

- /mount/oradata/<*SID*>/pdbseed
- /mount/oradata/<*SID*>/logs

Note. The PeopleSoft UNIX user ID executing the Database Configuration Wizard should have read and write permissions for the /mount/oradata/<SID>/logs directory.

- /mount/oradata/<*SID*>/<*PDB_SERVICE_NAME*>

Task 6B-1-8: Setting 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 by means of 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 that you stop and start (or reload) the Oracle Net listener.

If you are creating a PDB, add an entry in tnsnames.ora to the PDB database (for example, <*PDB_SERVICE_NAME*>), not to the root (CDB) database.

Task 6B-1-9: Running 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 the directory to *PS_HOME*.
2. Run psconfig.sh (. ./psconfig.sh)

Note. The PeopleSoft UNIX user ID executing the Database Configuration Wizard has to be part of the Oracle DBA group or the PeopleSoft UNIX user ID must grant the UNIX Oracle Administration ID write permission to the following directories in *PS_HOME*: log, modifiedscripts, and scripts.

Task 6B-2: Running the Database Configuration Wizard

When you run the Database Configuration Wizard, Data Mover typically performs the following actions:

1. IMPORT *.

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Create all the PeopleTools and application tables with their indexes.

2. ENCRYPT_PASSWORD *

   Encrypt security information for the database.

3. CREATE_TRIGGER *

   Create application-required triggers.

4. REPLACE_VIEW *

   Create PeopleSoft views.

5. 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 Database Configuration 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.

To complete the database creation procedure you must supply information on various authorization IDs and passwords, including Access ID, Connect ID, Symbolic ID, and User IDs. Before beginning this procedure, review the information in the section Planning Database Creation and make a note of the authorization information for your environment. Beginning with PeopleSoft PeopleTools 8.53, the user profiles in PeopleTools demo databases are delivered disabled. During the database configuration procedure you will choose whether to enable the delivered user profiles, and how to assign passwords for the profiles. In addition, you will supply several passwords that were previously provided as defaults. Be sure to note the passwords that you supply, as they will be needed for subsequent installation procedures.

See the information on user profiles in the *PeopleTools: Security Administration* product documentation.

See "Preparing for Installation," Planning Database Creation.

Beginning with PeopleSoft PeopleTools 8.54, you can create an Oracle Container Database (CDB) and Oracle Pluggable Database (PDB). The Database Configuration Wizard process described in this section includes choices for creating either CDBs or non-CDBs. For pluggable databases, the Database Configuration Wizard runs the script createdbCDB.sql.

See Understanding the Database Configuration Wizard.

Note. During UNIX console mode installation, you can go back to the previous steps whenever you see the instruction: `Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1].` Choose 2 for Previous.

To run the Database Configuration Wizard:

1. Go to *PS_HOME/*setup/PsMpDbInstall.
2. Launch the installation using the command `setup.sh`:

   See the chapter "Using the PeopleSoft Installer" for additional flags, or for details about running in GUI mode.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer.

3. You see the following prompt:

```
Welcome to the PeopleSoft Database Configuration Wizard 8.55

This Wizard will assist you in configuring and loading a PeopleSoft⇒
 database.

PRESS <ENTER> TO CONTINUE:
```

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4. Press ENTER to continue.
5. Specify the location of *PS_HOME*—the high-level directory where the PeopleSoft PeopleTools software is installed—and press ENTER.

```
Please enter an installation location or press <ENTER> to accept the⇒
 default
(DEFAULT: [/ds1/ora/PT855]) /ds1/certora/PT855

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

6. Press ENTER to continue
7. Specify the location of *PS_APP_HOME*—the high-level directory where the PeopleSoft Application software is installed—and press ENTER.

```
Note: If you have installed PeopleSoft Applications outside PeopleTools⇒
 PS_HOME
then choose the PeopleSoft Applications home PS_APP_HOME, else leave⇒
 the default PS_HOME.

Choose the directory where you previously installed PeopleSoft⇒
 Applications,
commonly known as PS_APP_HOME.  or press <ENTER> to accept the default ⇒

(DEFAULT: /ds1/ora/PT855): /ds1/ora/FSCM92

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

Note. If the *PS_APP_HOME* is different from the *PS_HOME* then all the modified scripts will be will be created under *PS_APP_HOME*\modifiedscripts, and all the DCW logs will be created under *PS_APP_HOME*\logs.

---

8. Select whether you want to create a container or non-container database.

```
 ->1- Non-Container DB
   2- Container DB

Note: The "Container DB" option applies to Oracle database 12c or⇒
 higher for
Pluggable database feature.
```

Select option 1, Non-Container DB, if you are not creating a CDB. Select option 2, Container DB, if you are running on Oracle 12c or higher, and are creating a CDB.

9. Select whether you want to create a Unicode or non-Unicode database, and press ENTER.

```
For a database platform of 'Oracle', are you installing a:

   1  -  Non-Unicode Database
 ->2  -  Unicode Database

To select an item enter its number, or 0 when you are finished [0]: 0
```

10. Select the desired character set and press ENTER.

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This character set selection is substituted and used in the CREATEDB.SQL script. This example shows the Unicode character set.

```
Select Character Set:
 ->1  -  AL32UTF8

 To select an item enter its number, or 0 when you are finished [0]: 0
```

11. If you select a non-Unicode database, you see the following prompt.

    Specify the number for the desired character set.

```
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 an item enter its number, or 0 when you are finished [0]:
```

12. The Database Configuration Wizard detects which 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 an item enter its number, or 0 when you are finished [0]: 2

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

Note. See the manual database creation chapter for further details about PeopleSoft database types.

13. Select the PeopleSoft application database you want to load, pressing ENTER when you are done. (The available selections will depend upon which application software you have installed.)

```
Select PeopleSoft Application:

   1  -  PeopleSoft Fin/SCM Database Objects - US English

To select an item enter its number, or 0 when you are finished [0]: 0

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

    If you installed the Multilanguage software, each application will be listed several times, once for each language. 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.

    See "Preparing for Installation," Planning Multilingual Strategy.

    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 Financials/Supply Chain Management if you select Fin/SCM - French, you must also select Fin/SCM - US English. This ensures that you install the necessary base-language

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components.

14. 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/11.2.0/bin] /products/oracle/11.2.0/bin
Specify the location for ORACLE_HOME
   Please specify a directory name or press Enter
   [/products/oracle/11.2.0] /products/oracle/11.2.0
```

15. You see the following informational prompt:

Note. The modifiedscripts directory is populated based on the *PS_APP_HOME* path that you entered in an earlier step.

```
Location of modified scripts:

 /ds1/certora/FSCM92/modifiedscripts

Please press Enter to Continue
```

16. Choose to either create an Oracle SID and load a PeopleSoft database, or use an existing Oracle SID to load the PeopleSoft database. For a new installation you must create a new Oracle SID.

Note. The available options depend upon the operating system you are running on.

```
Do you want to create a new SID or use the existing one?
 ->1  -  Create new SID
   2  -  Use existing SID

   To select an item enter its number, or 0 when you are finished [0]: 1

   Please press Enter to Continue
```

To create a PDB on an existing CDB, choose option 2, Use existing SID. In this case, the Oracle SID will be the root SID. The "Database Name" that you specify in the next step will be the PDB database name (that is, <PDB_SERVICE_NAME>).

17. The following prompts request Oracle server and SID 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.

Note. You must use all uppercase text for the Oracle SID and the database name.

Note. No preceding slash is required for the mount points.

```
Please enter oracle server information

   Oracle SID [PTSYS] TEST920

   Database Name [PTSYS] PT855
```

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```
Mount Point 1( for SYSTEM and REDO LOGS file in createdb.sql, ex: NT⇒
 'C', UNIX⇒
 'u01') [c] ds1

Mount Point 2 ( for PSTEMP and PSDEFAULT file in utlspace.sql, ex: NT⇒
 'C' , UNIX 'u01') [c]⇒
 ds1

Mount Point 3 ( for all files in xxddl.sql, ex: NT 'C' , UNIX 'u01') ⇒
[c] ds2

Enable AutoExtend for Peoplesoft Tablespaces?

 ->1  -  Yes
   2  -  No

   To select an item enter its number, or 0 when you are finished [0]: 0

   Please press Enter to Continue
```

18. The following prompts request additional Oracle server information.

```
Please enter oracle server information

Peoplesoft owner ID (ex: 'sysadm')   [SYSADM]:

Peoplesoft owner password (ex: 'sysadm') []:

Peoplesoft connect ID [people]:

Peoplesoft connect password []:

Peoplesoft default tablespace  (ex: 'PSDEFAULT') [PSDEFAULT]:

Location of init.ora file complete path
[/ds29/products/oracle/11.2.0/dbs/initTEST920.ora] /products/oracle⇒
/11.2.0/dbs/initTEST920.ora

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

Use the following guidelines to specify the server information:

- You must limit the owner ID (access ID) and connect ID to eight characters or less.
- The passwords for the owner ID (access ID) and connect ID must be between 6 and 30 characters.
- Whatever you type as your password will not be displayed. This is true for the connect ID password.
- 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.
- The path in the preceding prompt for init<SID>.ora (initTEST920.ora in the example code) must match the path of the init<SID>.ora file you created under the task "Fulfilling PeopleSoft Database Configuration Wizard Prerequisites" earlier in this chapter.

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19. Specify the Application Server User ID and password.

    The Appserver user has privileges to start or shut down the Application Server domain. It is also used during the Application Server configuration. Enter one of the delivered PeopleSoft user IDs.

```
Please enter the Appserver User and Password for your database.


   Appserver User []: VP1

   Password []:

   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

20. Specify the Web server user ID and password.

```
Please enter the Webserver User and Password for your database.


   Webserver User : PTWEBSERVER

   Password []:

   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

    The default Web server user in the prompt is PTWEBSERVER. The Web Server user ID, also referred to in this documentation as Web Profile User ID, is used to access the web profile information from the database through the Application Server Jolt service.

21. Choose whether to enable or disable other user profiles in the database.

```
Choose whether to enable or disable all other user profiles in your⇒
 database.


   1- Disable
-> 2- Enable

To select an item enter its number, or 0 when you are finished [0] :
```

- Select the Enable option to leave the User profiles (other than the Application Server User Profile and Web server User profiles specified in the previous steps) unchanged.
- Select the Disable option to disable all the User profiles in the database except the Application Server User Profile and Web server User profiles specified in the previous steps.

22. Select an option to set User profile passwords.

```
Choose whether to set the password same as the OPRID (user) or a⇒
 different password (a global password, same for all OPRIDs).


   1- Set the password same as OPRID
-> 2- I would like to set a different password
```

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```
To select an item enter its number, or 0 when you are finished [0] :
```

- Select the option "Set the password same as OPRID" to specify a password that is the same as the User ID (for example, VP1/VP1).
- Select the option "I would like to set a different password" to set a common global password for all the User profiles in the database in the next step.

23. If you selected the option "I would like to set a different password", specify (and re-enter) a password for all other user profiles except the Application Server User Profile and Web server User profiles specified in the previous steps of this procedure.

```
Enter a password that you want to set for all other user profiles.


   Password []:

   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

24. Select the base language (the default is US English) and press ENTER.

```
Select Base Language:
 ->1  -  ENG - US English

To select an item enter its number, or 0 when you are finished [0]: 0

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

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.

See "Preparing for Installation," Planning Multilingual Strategy.

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.

See *PeopleTools: Global Technology*.

25. You see a confirmation dialog indicating the selected database configuration.

```
Peoplesoft Database Configuration will be installed in the following⇒
 location:

Install Folder:
   /ds1/certora/PT855

PeopleToolsOraUnixFeature

Apps Install Home:
   /ds1/certora/FSCM92

Database Platform:

   Oracle  -  Non-Unicode

Oracle SID:
```


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```
   TEST920

Application:
   PeopleTools System Database - US English

Database Name:

   PT855

Please type 'back' to go to previous panels
PRESS <ENTER> TO CONTINUE:
```

26. Press ENTER. You see a number of messages indicating the progress of the processes being run.

```
Installing Peoplesoft Database Configuration... Please wait.
The ORACLE_SID Environment Variable has been updated to "TEST920"
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 is 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 again. The file vpd.properties is located under your home directory.

---

27. If you chose to use an existing SID, you see Database Configuration Wizard messages like this:

Note. The messages are displayed on the console to indicate real time progress of the Database Configuration Wizard. All messages are also written to log files contained in the *PS_HOME*/log directory.

You see a message for every SQL script the Database Configuration Wizard executes, regardless of which option you have chosen. The messages may vary depending upon your environment.

```
Installing Peoplesoft Database Configuration... Please wait.
The ORACLE_SID Environment Variable has been updated to 'TEST920'

Executing runCreatedbCDB.sh
Executing ptperlcat.sh
Executing createPDB.sql
Executing runUtlspace.sh
Executing ptddl.sql
Executing dbowner.sql
Executing psroles.sql
Executing psroles2.sql

Executing psadmin.sql...

Executing connect.sql......
```

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
```

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```
PeopleTools 8.55 - Data Mover
Copyright (c) 2012 PeopleSoft, Inc.
All Rights Reserved
Started:  Thu Jan  3 19:39:02 2012
Data Mover Release: 8.55
Database: PT855
Creating Database setup script /PT855/scripts/PT855.dms
Ended: Thu Jan  3 19:39:02 2012
Successful completion
Initializing Data Mover ... please wait
```

Note. At this step, Data Mover is invoked to execute the input Data Mover script.

If Data Mover attempts to run and fails, you can edit and rerun the script and restart Data Mover. This procedure is covered in the next section. If the process fails before Data Mover begins, run the script DBSetup.dms.

See Checking the Log Files and Troubleshooting.

```
PeopleTools 8.55 - Data Mover
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Started:  Thu Jan  3 19:39:40 2012
Data Mover Release: 8.55
Database: PT855
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('PT855', 'PT855')
```


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```
SQL Successful -  UPDATE  PSSTATUS SET OWNERID = 'PT855'
SQL Successful -  UPDATE  PSOPRDEFN SET SYMBOLICID = 'TEST920',⇒
OPERPSWD =⇒
OPRID, ENCRYPTED = 0
SQL Successful -  UPDATE  PSACCESSPRFL SET ACCESSID = 'PT855',⇒
SYMBOLICID =⇒
'TEST920', ACCESSPSWD = 'PT855', VERSION = 0, ENCRYPTED = 0
SQL Successful -  UPDATE  PSOPTIONS SET LICENSE_CODE =⇒
'fffffffffffffffff⇒
fffffffffff2', 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 P⇒
SSTATUS A, USER_IND_COLUMNS B
SQL Successful -  CREATE  VIEW SYSINDEXES (TBCREATOR, NAME, TBNAME,⇒
CREATO R,⇒
UNIQUERULE, COLCOUNT, IXTYPE, CLUSTERRULE, IXSIZE, PERC
ENTFREE) AS SELECT TABLE_OWNER, INDEX_NAME, TABLE_NAME, TABLE_OWNER,⇒
SUBST R⇒
(UNIQUENESS,1,1), 1, 'b', 'n', 1, PCT_FREE FROM USER_INDEXES
Ended:  Thu Jan  3 20:00:32 2012
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 2012
Data Mover Release: 8.55
Database: PT855
Password hashed for GUEST
Password hashed for GUEST_IP
Password hashed for PAPP_ACCOUNTSIGNONADM
Password hashed for PAPP_ACTIONITEMSADM
Password hashed for PAPP_AUTHOR
Password hashed for PAPP_BRANDINGADM
Password hashed for PAPP_CALENDARSADM
Password hashed for PAPP_CONTCATGADM
Password hashed for PAPP_CONTENTADM
Password hashed for PAPP_CONTENTMGR
Password hashed for PAPP_CONTENTRATINGSADM
Password hashed for PAPP_CONTENTUSR
Password hashed for PAPP_CONTEXTADM
Password hashed for PAPP_CONTEXTMGR
Password hashed for PAPP_CUSTOMER
Password hashed for PAPP_DEMOADM
```

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```
Password hashed for PAPP_DEMOITEMCXTADM
Password hashed for PAPP_DEMOITEMCXTMGR
Password hashed for PAPP_DEMOITEMCXTUSR
Password hashed for PAPP_DEMOPUB
Password hashed for PAPP_DEMOVWR
Access Profiles successfully encrypted.
Ended:  Thu Jan  3 20:00:35 2012
Successful completion
```

Note. At this step, Data Mover is executing the CREATE_TRIGGER * command.

```
Started:  Thu Jan  3 20:00:35 2012
Data Mover Release: 8.55
Database: PT855
Creating Trigger for CURRENCY_CD_TBL
Records remaining: 2
Creating Trigger for PSMPRTPREF
Records remaining: 1
Creating Trigger for PSWORKLIST
SQL Triggers: 3
Ended:  Thu Jan  3 20:00:41 2012
Successful completion
```

Note. At this step, Data Mover is executing the REPLACE_VIEW command.

```
Started:  Thu Jan  3 20:00:41 2012
Data Mover Release: 8.55
Database: PT855
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  PSTREESTRCTDFVW
Views remaining: 1
View  PSTREESTRCTNFVW
SQL Views: 667
Ended:  Thu Jan  3 20:02:52 2012
Successful completion
```

Note. At this step, Data Mover is executing the CREATE_TEMP_TABLE * command.

```
Started:  Thu Jan  3 20:02:52 2012
```


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```
 Data Mover Release: 8.55
 Database: PT855
 Creating Table  MENU_LANG_TMP
 Building required indexes for MENU_LANG_TMP
 SQL Tables: 1  Indexes: 1
 Ended: Thu Jan  3 20:02:57 2012
 Successful completion
```

Note. At this step, the Data Mover steps are complete. If the Database Configuration Wizard executed successfully, you see the message below.

```
Creating Table  GPFR_DASR_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASR_TMP

Records remaining: 1

Creating Table  GPFR_DASS_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASS_TMP

SQL Tables: 832  Temp Tables: 7805 Indexes: 8266

Ended: Thu Oct 16 16:35:16 2012

Successful completion

ExitCode: 0

Error: false

=====================================
Installation Complete
---------------------

Congratulations. Peoplesoft Database Configuration has been⇒
 successfully installed to:

  /ds1/certora/PT855
```

Note. If the Database Configuration Wizard detected an error, you get a message similar to the one below, depending on the error encountered:

```
Checking Data Mover log ... please wait

Checking ... ptengs.log

Error Information
```

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```
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
```

28. If you chose to create a new SID, you see Database Configuration Wizard messages like this:

```
Installing Peoplesoft Database Configuration... Please wait.
The ORACLE_SID Environment Variable has been updated to 'TEST920'
```

Note. You see a message for every SQL script the Database Configuration Wizard executes, regardless of which option you have chosen.

```
Executing createdb.sql for Oracle(UNIX).....
Executing utlspace.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 from 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 8.55 - Data Mover
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Started:  Fri Jan  4 06:24:55 2012
Data Mover Release: 8.55
Database: PT855
Creating Database setup script /ds1/home/certora/PT855/scripts⇒
/PT855ora.dms
Ended: Fri Jan  4 06:24:55 2012
Successful completion
```

Note. At this step, Data Mover is invoked to execute the input Data Mover script.

```
Initializing Data Mover ... please wait

Started:  Fri Jan  4 06:25:27 2012
Data Mover Release: 8.55
Database: PT855
Importing  ACCESS_GRP_LANG
Creating Table  ACCESS_GRP_LANG
Import  ACCESS_GRP_LANG  0
```


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```
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('PT855', 'PT855')
SQL Successful -  UPDATE  PSSTATUS SET OWNERID = 'PT855'
SQL Successful -  UPDATE  PSOPRDEFN SET SYMBOLICID = 'prod817',⇒
 OPERPSWD = OPRI0
SQL Successful -  UPDATE  PSACCESSPRFL SET ACCESSID = 'PT855',⇒
 SYMBOLICID = 0
SQL Successful -  UPDATE  PSOPTIONS SET LICENSE_CODE = 'ffffffffffffffff⇒
ffffff'
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 2012
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 2012
Data Mover Release: 8.55
Database: PT855
Password encrypted for APPENV
Password encrypted for PSADMIN
Password encrypted for PT8
Password encrypted for PTADMIN
Password encrypted for PTAE
Password encrypted for PTAPPMSG
Password encrypted for PTDMO
```

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```
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 PTPRD
Password encrypted for PTQETST
Password encrypted for PTRPT
Password encrypted for PTSECADM
Password encrypted for PTSVR
Password encrypted for PTTOOLS
Password encrypted for PTUPG
Password encrypted for PTWEB
Access Profiles successfully encrypted.
Ended:  Fri Jan  4 06:38:13 2012
Successful completion
```

Note. At this step, Data Mover is executing the CREATE_TRIGGER * command.

```
Started:  Fri Jan  4 06:38:13 2012
Data Mover Release: 8.55
Database: PT855
Creating Trigger for CURRENCY_CD_TBL
Records remaining: 2
Creating Trigger for PSMPRTPREF
Records remaining: 1
Creating Trigger for PSWORKLIST
SQL Triggers: 3
Ended:  Fri Jan  4 06:38:18 2012
Successful completion
```

Note. At this step, Data Mover is executing the REPLACE_VIEWS * command.

```
Started:  Fri Jan  4 06:38:18 2012
Data Mover Release: 8.55
Database: PT855
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  PSTREESTRCTDFVW
Views remaining: 1
```


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```
View  PSTREESTRCTNFVW
SQL Views: 667
Ended:  Fri Jan  4 06:40:19 2012
Successful completion
```

Note. At this step, Data Mover is executing the CREATE_TEMP_TABLE * command.

```
Started:  Fri Jan  4 06:40:19 2012
Data Mover Release: 8.55
Database: PT855
Creating Table  MENU_LANG_TMP
Building required indexes for MENU_LANG_TMP

SQL Tables: 1  Indexes: 1
Ended: Fri Jan  4 06:40:20 2012
Successful completion
```

Note. At this point, Data Mover is complete.

```
Creating Table  GPFR_DASR_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASR_TMP

Records remaining: 1

Creating Table  GPFR_DASS_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASS_TMP

SQL Tables: 832  Temp Tables: 7805 Indexes: 8266

Ended: Thu Oct 16 16:35:16 2012

Successful completion

ExitCode: 0

Error: false
```

29. If the Database Configuration Wizard executed successfully, you see the following message, and you can press ENTER to exit.

```
=========================================
Installation Complete
---------------------

Congratulations. Peoplesoft Database Configuration has been⇒
 successfully installed to:
```

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```
/ds1/certora/PT855
```

30. If the Database Configuration Wizard detected an error, you get a message similar to the one below, depending on the error encountered:

```
Checking Data Mover log ... please wait
Checking ... /ds1/home/certora/PT855/log/ptengs.log         Error
Information
The installation failed to load PeopleSoft data with the following⇒
 error: Error
in /ds1/home/certora/PT855/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 CURRCD_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 2012
Unsuccessful completion
```

Task 6B-3: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover
- Troubleshooting
- Improving Performance

Task 6B-3-1: Checking the Log Files

After the Database Configuration Wizard finishes its execution, look for all log output in the *PS_HOME*/log directory. Open all the log files. There is a log file for each of the steps that the Database Configuration Wizard carries out—importing, encrypting passwords, creating triggers, replacing views, and creating temp tables. *None should contain error messages.*

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Task 6B-3-2: Running Data Mover

If the Database Configuration Wizard does not complete successfully, you must run Data Mover manually, using one of the following methods.

On UNIX, run *PS_HOME/*bin/psdmtx from the command line.

If you use the access ID that you specified during the database configuration to log on, you log on in "bootstrap mode." When you start Data Mover in bootstrap mode, the word "BootStrap" appears in the Data Mover status bar.

If you use a valid PeopleSoft Operator ID, such as PS for Human Capital Management or VP1 for Financials/Supply Chain Management, you log on in "user mode." In this mode, no designation appears in the Data Mover status bar.

To run Data Mover on the command line:

Note. You can run `psdmtx` by supplying arguments on the command line, or by passing the arguments from a text file. This section describes the text file method.

---

1. Go to *PS_HOME/*bin.

   ```
   cd $PS_HOME/bin
   ```

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2. Use the following command to view the help for `psdmtx`:

```
$ psdmtx /help
Usage:  psdmtx  [-CT DB2|DB2ODBC|DB2UNIX|MICROSFT|ORACLE]
                [-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]
```

To capture the output in a file, use a greater-than symbol ("pipe", >) followed by a filename. For example:

```
psdmtx [arguments] > filename.txt
```

Use the following list of commands and descriptions for the `psdmtx` arguments:

Command Argument	Description
-CT <DB type>	The type of database to connect to: ORACLE.
-CD <DBNAME>	Your selected Database Name.
-CO <ACCESSID>	Use the <DBNAME> Access ID to run Data Mover in bootstrap mode.
-CP <ACCESSPWD>	The password for <DBNAME> Access ID.
-CI <CONN ID>	The ID used to connect to the database server.
-CW <CONN PSWD>	The password for the specified connection ID.
-FP <filename>	The filename for the Data Mover import script (DMS) to run.

3. To set up Data Mover to rerun the Data Mover import script in bootstrap mode, do the following:
   a. Change directory to *PS_HOME/*setup.
   b. Copy parmfile to parm<DBNAME>. For example, *parmPT855*.
   c. Edit parm<DBNAME>.

      Use the information in the table above to edit the file for your configuration.

      Use ORACLE for <DB type>.

      For example:

      Before

```
-CT <DB type> -CD <DBNAME> -CO <ACCESSID> -CP <ACCESSPWD> -CI <CONN⇒
 ID> -CW⇒
 <CONN PSWD> -FP <filename>
```


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After

```
-CT ORACLE -CD HRDMO -CO HRDMO -CP HRDMO -CI people -CW people -FP⇒
 $PS_HOME⇒
/scripts/pt855ora.dms
```

4. To launch Data Mover in bootstrap mode, do the following:
   - Change directory (cd) to *PS_HOME/*bin
   - Run the psdmtx command with the edited parm<DBNAME> file.

     ```
     pt-sun20:$ psdmtx ../setup/parmPT855
     ```

     You see Data Mover log messages tracking the progress.

See Also

PeopleTools: Data Management

Task 6B-3-3: Troubleshooting

If the Database Configuration Wizard did not complete successfully, read this troubleshooting information. 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 manually. The Data Mover script files have the extension .dms and are sometimes referred to as "DMS scripts."

The generated Data Mover import script is saved in the *PS_HOME/*scripts directory. The script conforms to the following naming convention:

<dbname>ora.dms

If the Database Configuration Wizard fails while creating views, clear the cache folder, for example, *USER_HOME/*PS_CACHE, and repeat the database creation.

See the information on startup settings in PeopleSoft Configuration Manager in the *PeopleTools: System and Server Administration* product documentation.

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, and use the following guidelines to edit and rerun the DMS scripts.

   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 statement, add the SET START statement before the first IMPORT *; statement.
   - If the failure occurred during a subsequent IMPORT statement, comment out all statements preceding the IMPORT *; statement where the failure occurred 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 "Building required indexes" section, 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.

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2. Start Data Mover by running psdmtx on the command line.

   See Running Data Mover.

3. Log on using the Access ID to start Data Mover in *bootstrap mode*.

   The input window should display the DMS import script for the database. The script has the format <dbname>ora.dms.

4. If necessary, select File, Open, and browse to the *PS_HOME*/scripts directory to find the appropriate DMS script.

5. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

   ```
   SET START <RECORD NAME>;
   ```

   <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 command will begin the Data Mover import at the specified record name.

   Note. It is 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.

   For 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 (for example, 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. 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. The SET START statement will begin the Data Mover import at the specified <RECORD NAME>.

   Example of the original script:

   ```
   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 ON;
   IMPORT *;
   ```

   Example of script after modification, with changes in bold font:

   ```
   REM - PeopleTools System Database - US English
   /
   ```


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```
SET LOG ptengs2.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE ON;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;
```

For the DROP statement, for records with a recname without a leading PS, add PS_ to the beginning of the recname; otherwise the table will not be found. For example, PS_<RECNAME>.

6. To restart the script, use the `psdmtx` command to execute Data Mover on the command line.

   See Running Data Mover.

Task 6B-3-4: Improving 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 that 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 are 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.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the UNDO tablespace or the number of UNDO Segments.
- Use asynchronous read and write.
- Use multiple db_writers.

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Chapter 7

Completing the Database Setup

This chapter discusses:

- Selecting the Necessary Tasks to Complete the Database Setup
- Reviewing Patch Application
- Updating Database to Latest PeopleTools Release
- Running Additional Data Mover Scripts
- Installing a Multilingual PeopleTools System Database
- Running VERSION Application Engine Program
- Running SQR Reports
- Checking the Database
- Running SETSPACE.SQR
- Running Alter Audit

Selecting the Necessary Tasks to Complete the Database Setup

Review each of the tasks in this chapter to determine which are required for your database setup. Depending upon the details of your installation you may not need to complete every task. However, it is important to evaluate the tasks with respect to your specific situation.

Task 7-1: Reviewing Patch Application

The section Reviewing Patches and Updates Required at Installation in the first chapter of this documentation instructed you to search the My Oracle Support Patches & Updates area for Required for Install patches for PeopleSoft PeopleTools and your PeopleSoft application.

See "Preparing for Installation," Reviewing Patches and Updates Required at Installation.

The patch user documentation, which is included with the files that you download from My Oracle Support, specifies whether the patch includes database changes. The type of patch you are applying may affect how you proceed with the tasks in this chapter.

- If you meet *both* of the following listed requirements, skip the task Updating Database to Latest PeopleTools Release, and continue with the task Running Additional Database Mover Scripts:
  - You are installing either a PeopleSoft PeopleTools System (SYS) database or a database delivered on PeopleSoft PeopleTools 8.55.
  - You are applying a Required for Install PeopleSoft PeopleTools patch.

    Follow the directions in the patch user documentation to apply the database changes.

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- Complete the task Updating Database to Latest PeopleTools Release, and proceed to review and carry out the tasks following it if:

  You are installing a PeopleSoft Application system (SYS) or demo (DMO) database that is *not* delivered on PeopleSoft PeopleTools 8.55. The task includes a step to apply the patch database changes.

  See Understanding Database Updates for information on determining the delivered version of PeopleSoft PeopleTools.

Task 7-2: Updating Database to Latest PeopleTools Release

This section discusses:

- Understanding Database Updates
- Cleaning Up Data
- Deleting Performance Monitor System Default Data
- Creating New PeopleTools Tablespaces
- Updating PeopleTools System Tables
- Updating PeopleTools Database Objects
- Updating PeopleTools Multilingual Objects
- Deleting Obsolete PeopleTools Database Objects
- Applying Patched PeopleTools Database Objects
- Altering PeopleTools Tables
- Migrating Records to New Tablespaces
- Updating PeopleTools System Data
- Running PeopleTools Conversions
- Converting Integration Broker
- Running Additional PeopleTools Conversions

Understanding Database Updates

Your PeopleSoft application database may be on a PeopleSoft 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 PeopleSoft PeopleTools versions for your database and your file server must match. The steps in this task ensure that your PeopleSoft database is in sync with the PeopleSoft PeopleTools version that you are running.

Note. You will use Application Designer for several steps in this portion of the installation. Consult the Application Designer documentation if you have questions.

See *PeopleTools: Application Designer Developer's Guide*

Note. If you are installing either a PeopleSoft PeopleTools System Database or a database delivered on PeopleSoft PeopleTools 8.55, and you are applying a required for install PeopleSoft PeopleTools patch, skip the steps in this task. Instead, follow the directions in the patch user doc to apply the database changes, and then continue with the install at the task Running Additional Data Mover Scripts. If you are installing an application SYS or DMO database that is not delivered on PeopleSoft PeopleTools 8.55, please proceed with this task.

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This task must be run for any applications where the PeopleSoft PeopleTools version of the database that was shipped is different than the version of PeopleSoft PeopleTools that you are running. To verify the PeopleSoft PeopleTools release for your application database, run this SQL query:

```
select TOOLSREL from PSSTATUS
```

If the PeopleTools version is not 8.55, you must run this task. Otherwise, continue to the task Running Additional Data Mover Scripts.

Task 7-2-1: Cleaning Up Data

If your database is delivered on PeopleSoft PeopleTools 8.48 or higher, do *not* run this step, and instead, proceed to Deleting Performance Monitor System Default Data. If your database is delivered on PeopleSoft PeopleTools 8.47 or earlier, perform this step to clean out obsolete message data.

Warning! Performing this task when updating from PeopleSoft PeopleTools 8.48 or later will wipe out current valid data that is needed for your system to function properly.

Message functionality and structure changed as of PeopleSoft PeopleTools 8.48 and the old data is obsolete. Edit *PS_HOME*\scripts\ptupgibdel.sql to delete data from the tables that only exist in the old PeopleSoft PeopleTools release. Open the script and make the following modifications, and then run the modified script using your SQL query tool:

1. Search for the string "--- End of PT8.<*xx*> ---" where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from.
2. Delete the entire portion of the script below this string.
3. Save the script as <*PS_HOME*>\scripts\ptupgibdel8<*xx*>.sql where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from, as determined in Step 1.

   Important! Be sure to save the script using the naming convention shown above. This will preserve the original script for use in updating other databases at different PeopleSoft PeopleTools releases.

4. Using a SQL query tool, run the ptupgibdel8<*xx*>.sql script against your PeopleSoft database.

Task 7-2-2: Deleting Performance Monitor System Default Data

If your database is delivered on PeopleSoft PeopleTools 8.54 or higher, do *not* run this step, and instead, proceed to Creating New PeopleTools Tablespaces. If your database is delivered on PeopleSoft PeopleTools 8.45 through 8.53, perform this task to clean out obsolete message data.

Warning! Performing this task when updating from PeopleSoft PeopleTools 8.54 or later will wipe out current valid data that is needed for your system to function properly.

Truncate the PeopleTools table PSPMSYSDEFAULTS to ensure the successful completion of your installation. Because a primary key index was added to this table as of PeopleSoft PeopleTools 8.54, the data stored in this table needs to be deleted to ensure that the index can be successfully created later in the installation.

Task 7-2-3: Creating New PeopleTools Tablespaces

Review the *XX*DDL.SQL tablespace creation script that was run earlier in the install process (*XX* is a two-letter code for your product line). Compare the contents of the script with the ptddlupg.sql script.

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Work with your database administrator (DBA) to review, edit, and then run the ptddlupg.sql script to create any missing tablespaces before continuing with the installation.

See Also

"Creating a Database Manually on Windows," Editing Database Scripts

"Creating a Database on UNIX," Fulfilling PeopleSoft Database Configuration Wizard Prerequisites

"Creating a Database Manually on UNIX," Editing Database Scripts

Task 7-2-4: Updating PeopleTools System Tables

Run SQL scripts to update your PeopleSoft PeopleTools system tables to the latest PeopleSoft PeopleTools release (currently 8.55).

Use a query tool, such as Query SQL*Plus, to run SQL scripts while in the PeopleSoft database.

This procedure also includes steps to run Data Mover scripts. Depending upon the step, you run Data Mover in "bootstrap mode" or in "user mode."

See the section Checking the Log Files and Troubleshooting, Running Data Mover in the chapters on creating a database using the Database Configuration Wizard, or creating a database manually.

To update your PeopleSoft PeopleTools system tables:

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1. Run the appropriate SQL scripts for your application version.

   The following scripts are found in the *PS_HOME*\scripts directory.

   Use the scripts in the following table for non-Unicode databases:

Application Database Version	Required Scripts for Non-Unicode Databases
8.40	rel841, rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.41	rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.42	rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.43	rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.44	rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.45	rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.46	rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855
8.47	rel848, rel849, rel850, rel851, rel852, rel853, rel854, and rel855 **Note.** If you are installing ELM 9.0, run rel848n, rel849n, rel850n, rel851n, rel852n, rel853n, rel854n, and rel855n instead.
8.48	rel849, rel850, rel851, rel852, rel853, rel854, and rel855 **Note.** If you are installing a 9.0 or higher application, run rel849n, rel850n, rel851n, rel852n, rel853n, and rel854n, and rel855n instead.
8.49	rel850, rel851, rel852, rel853, rel854, and rel855 **Note.** If you are installing a 9.0 or higher application, run rel850n, rel851n, rel852n, rel853n, rel854n and rel855n instead.
8.50	rel851, rel852, rel853, rel854, and rel855 **Note.** If you are installing a 9.0 or higher application, run rel851n, rel852n, rel853n, rel854n, and rel855n instead.
8.51	rel852, rel853, rel854, and rel855 **Note.** If you are installing a 9.0 or higher application, run rel852n, rel853n, rel854n, and rel855n instead.

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Application Database Version	Required Scripts for Non-Unicode Databases
8.52	rel853, rel854, and rel855 **Note.** If you are installing a 9.0 or higher application, run rel853n, rel854n, and rel855n instead.
8.53	rel854 and rel855 **Note.** If you are installing a 9.0 or higher application, run rel854n and rel855n instead.
8.54	rel855 **Note.** If you are installing a 9.0 or higher application, run rel855n instead.
8.55	None

Use the scripts in the following table for Unicode databases:

Application Database Version	Required Scripts for Unicode Databases
8.40	rel841u, rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.41	rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.42	rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.43	rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.44	rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.45	rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.46	rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u
8.47	rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u **Note.** If you are installing ELM 9.0, run rel848un, rel849un, rel850un, rel851un, rel852un, rel853un, and rel854un, and rel855un instead.

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Application Database Version	Required Scripts for Unicode Databases
8.48	rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u **Note.** If you are installing a 9.0 or higher application, run rel849un, rel850un, rel851un, rel852un, rel853un, rel854un, and rel855un instead.
8.49	rel850u, rel851u, rel852u, rel853u, rel854u, and rel855u **Note.** If you are installing a 9.0 or higher application, run rel850un, rel851un, rel852un, rel853un, rel854un, and rel855un instead.
8.50	rel851u, rel852u, rel853u, rel854u, and rel855u **Note.** If you are installing a 9.0 or higher application, run rel851un, rel852un, rel853un, rel854un, and rel855un instead.
8.51	rel852u, rel853u, rel854u, and rel855u **Note.** If you are installing a 9.0 or higher application, run rel852un, rel853un, rel854un, and rel855un instead.
8.52	rel853u, rel854u, and rel855u **Note.** If you are installing a 9.0 or higher application, run rel853un, rel854un, and rel855un instead.
8.53	rel854u and rel855u **Note.** If you are installing a 9.0 or higher application, run rel854un and rel855un instead.
8.54	rel855u **Note.** If you are installing a 9.0 or higher application, run rel855un instead.
8.55	None

2. If the application database version you are installing is either 8.42 or 8.43, run the following SQL command:

   ```
   DROP TABLE PS_PSMCFQUEUESLANG
   ```

   Note. PS_PSMCFQUEUESLANG may not exist in some 8.43 application databases. Do *not* drop the table PSMCFQUEUESLANG.

3. If the application database you are installing is 8.45 or lower, run the following SQL command:

   ```
   DROP TABLE PSOPTSTATUS
   ```

4. Edit and run the grant.sql script in the *PS_HOME*\scripts directory. This will grant permissions to the Connect

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ID.

5. If the application database you are installing is 8.54 or lower, you are using Oracle 12c or higher, and you are using multitenant architecture, re-run the scripts to create the PeopleSoft database roles.

   This will grant additional privileges to enable use of the Oracle in-memory feature in Oracle 12c and restrict certain privileges to the Access ID.

   a. Open *PS_HOME*\scripts\nt\pdb\psroles2.sql for editing and replace the variable <PDB_SERVICE_NAME> with the PDB database name.

   b. Log on to SQL*Plus, connecting as the System user to the PDB.

      The PDB name in this example is <PDB_SERVICE_NAME>:

      ```
      sqlplus system/manager@<PDB_SERVICE_NAME>
      ```

   c. Run the PSROLES.SQL script:

      ```
      sqlplus>@PS_HOME\scripts\nt\pdb\psroles.sql
      ```

   d. Log out of SQL*Plus.

   e. Log on to SQL*Plus, connecting as sysdba.

      ```
      sqlplus / as sysdba
      ```

   f. Run the PSROLES2.SQL script:

      ```
      sqlplus>@PS_HOME\scripts\nt\pdb\psroles2.sql
      ```

   g. Run the following SQL command, substituting your access ID:

      ```
      grant PSADMIN to ACCESSID
      ```

6. If the application database you are installing is 8.54 or lower, you are using Oracle 12c or higher, and the database is non-multitenant, re-run the script to create the PeopleSoft database roles.

   This will grant additional privileges to enable use of the Oracle in-memory feature in Oracle 12c and restrict certain privileges to the Access ID.

   a. Log on to SQL*Plus, connecting as the System user.

      ```
      sqlplus system/manager
      ```

   b. Run the PSROLES.SQL script:

      ```
      sqlplus>@PS_HOME\scripts\nt\psroles.sql
      ```

   c. Run the following SQL command, substituting your access ID:

      ```
      grant PSADMIN to ACCESSID
      ```

7. If your database is delivered on PeopleSoft PeopleTools 8.49 or earlier, run the UPGDBOPTIONS_ENABLETIMESTAMPS.sql script in the *PS_HOME*\scripts directory.

   This enables the usage of the TIMESTAMP data type.

8. If the application database you are installing is 8.54 or lower, invoke Data Mover in bootstrap mode, and run the encrypt.dms Data Mover script in the *PS_HOME/*scripts directory.

   This will encrypt the operator passwords in your database.

9. With Data Mover still in bootstrap mode, run the msgtlsupg.dms Data Mover script in the *PS_HOME*\scripts directory.

   This will update the PeopleSoft PeopleTools messages in your database.

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10. If you are applying a required for install PeopleSoft PeopleTools patch, invoke Data Mover in user mode and run *PS_HOME*\scripts\PTPATCH.DMS.
11. With Data Mover still in user mode, run the storeddl.dms Data Mover script in the *PS_HOME*\scripts directory.

    Note. Comment out the other platform-specific scripts according to your platform.

    This will update your platform-specific DDL model statements.

Task 7-2-5: Updating PeopleTools Database Objects

To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools release. Failure to run this step will introduce problems to your environment.

To update PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.

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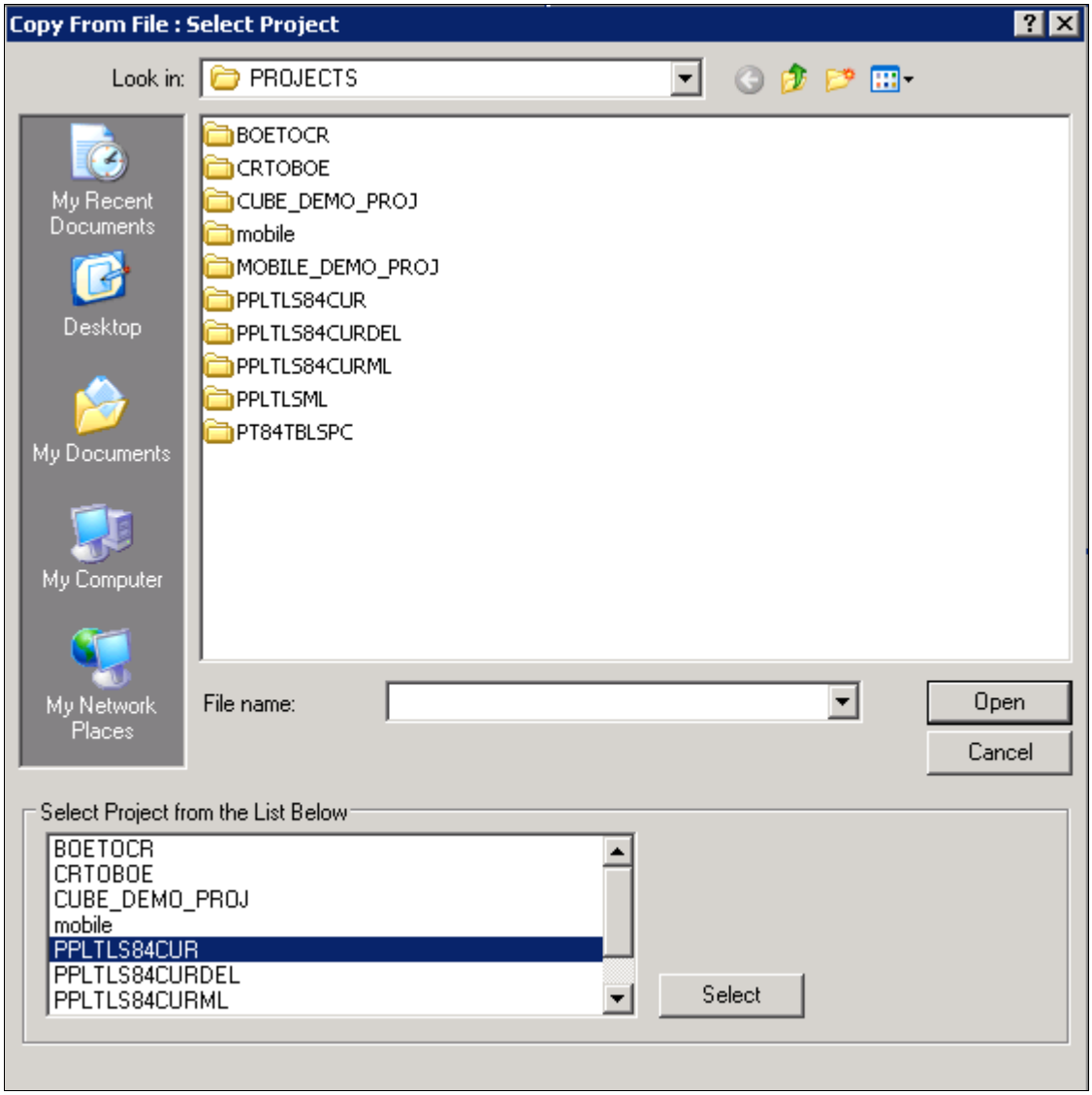
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CUR from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CUR in the Copy From File dialog box

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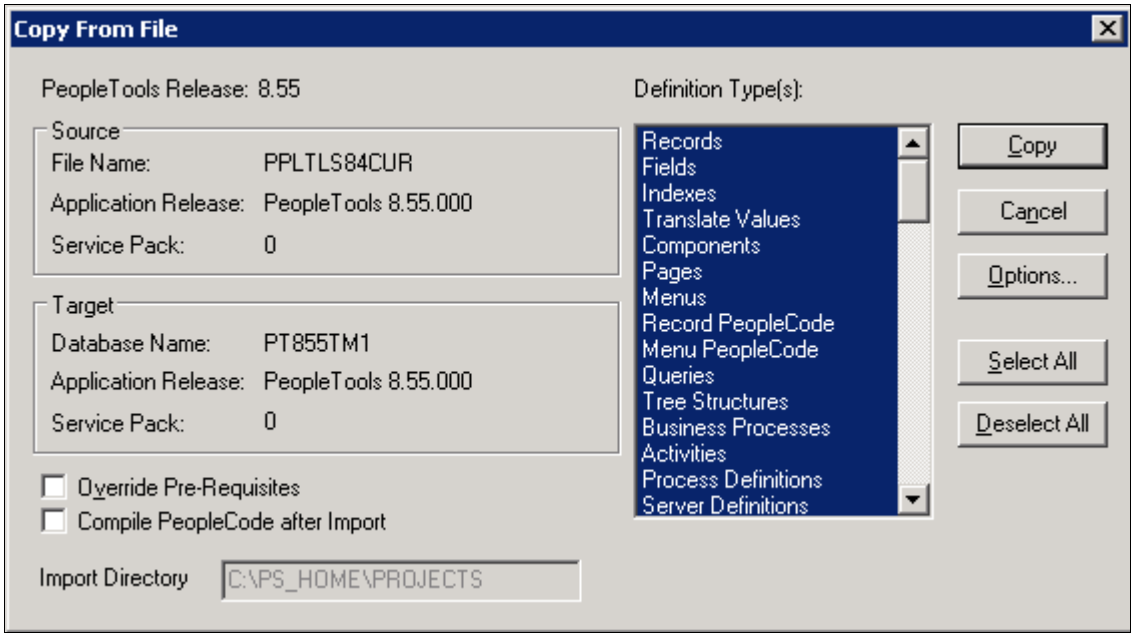
4. The Copy From File dialog box appears.

   Select all object types and then click the Options button.



The Copy From File dialog box showing that PPLTLS84CUR will be copied

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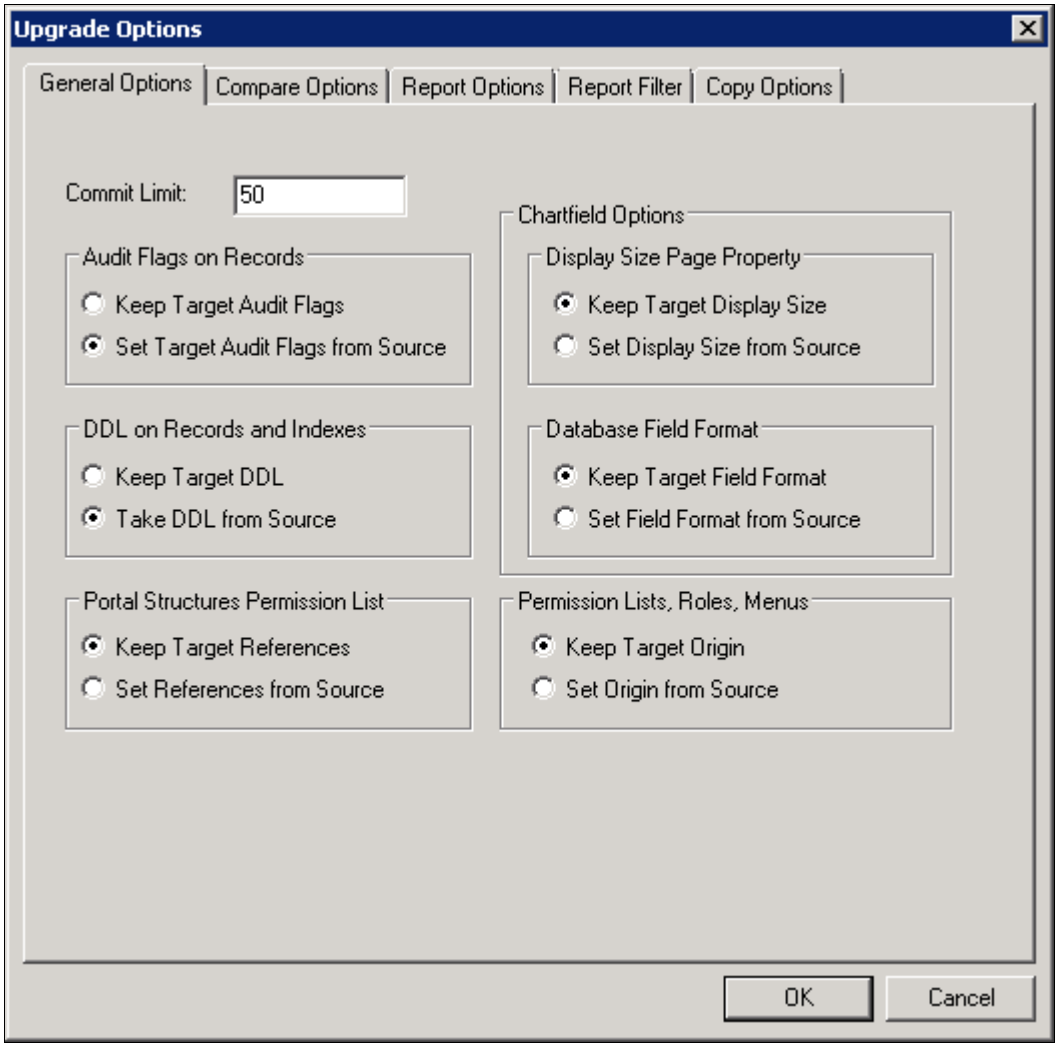
5. On the Upgrade Options dialog box, select the General Options tab.

   Make sure that the Keep Target Origin option is selected, as shown in this example, and click OK.



Upgrade Options dialog box: General Options page

6. On the Copy from File dialog box, click the Copy button.

   When the progress window disappears, the project has been copied.

If you see the following types of messages in the output window do not worry; they are acceptable because the field label properties were copied with the object definition:

- Definition Name: OPERPSWD.OPERPSWD not copied, entire definition already copied (62,32).
- Definition Name: OPRID.NEW not copied, entire definition already copied (62,32).

Task 7-2-6: Updating PeopleTools Multilingual Objects

If you are currently updating a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleSoft PeopleTools Objects.

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Note. If the application database you are installing is 8.44 or lower and you have licensed and installed French into this database, copy the PPLTLSML project instead of the PPLTLS84CURML project for French only. Substitute the project name PPLTLSML instead of PPLTLS84CURML in the instructions below. Copy the PPLTLS84CURML project to update any non-French languages that are installed in the database in addition to the PPLTLSML project for French.

If your application is 8.45 or later, then you only need to copy the PPTL84CURML for all of your licensed and installed languages.

To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file.

To apply the translation project for PeopleSoft PeopleTools 8.55:

1. Bring up the Configuration Manager and select the Display tab.

   Ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
3. Select Tools, Copy Project, From File.
4. In the resulting dialog box, change the import directory to *PS_HOME*\projects.

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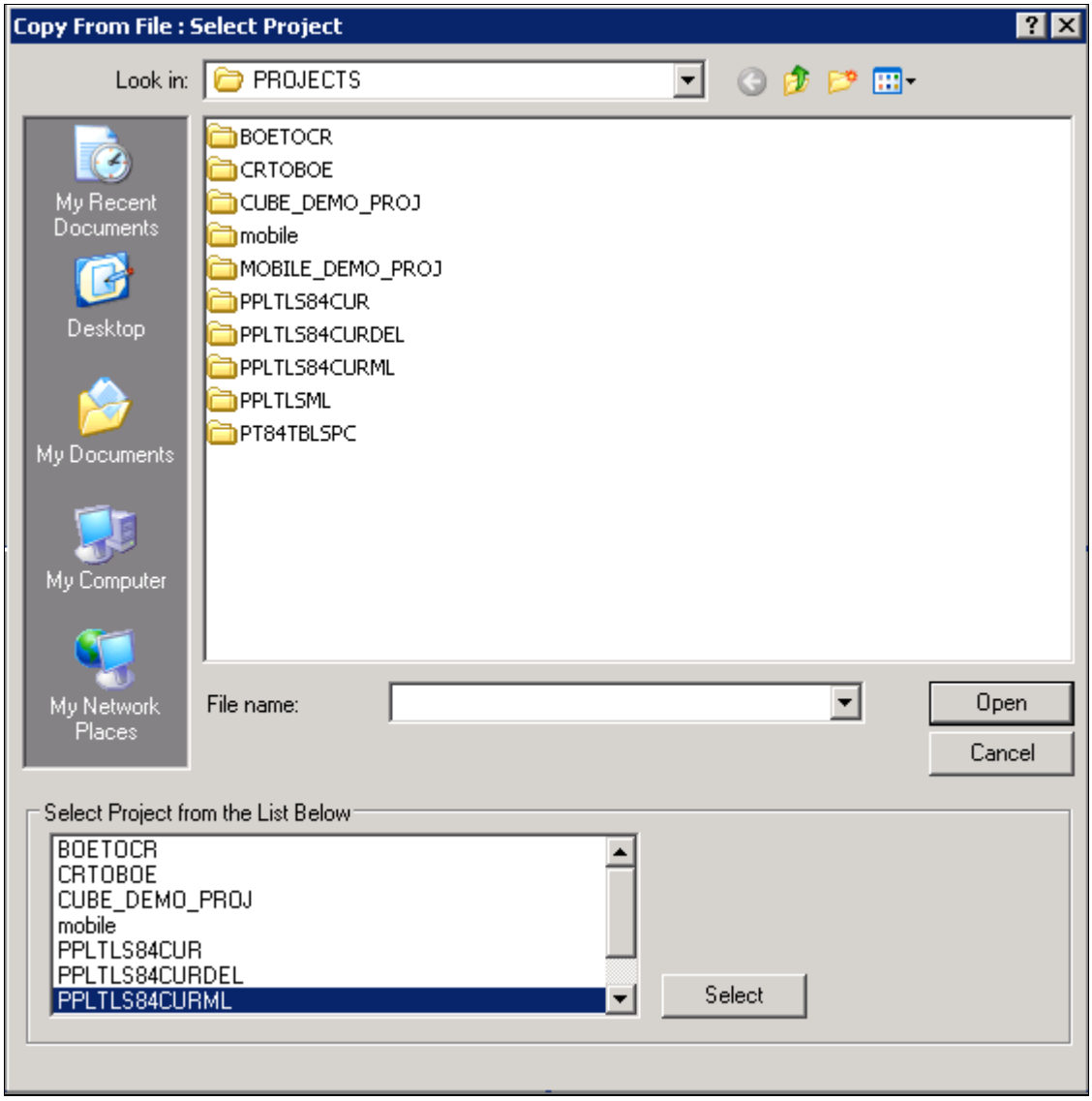
5. Select PPLTLS84CURML from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CURML in the Copy From File dialog box

6. The Copy From File dialog box appears.

   Make sure that all object types are selected.

7. Click 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. Select the languages that you are currently installing from the Copy Options dialog box.

9. On the Upgrade Options dialog box, select the General Options tab and make sure that the Keep Target Origin option is selected.

   Click OK.

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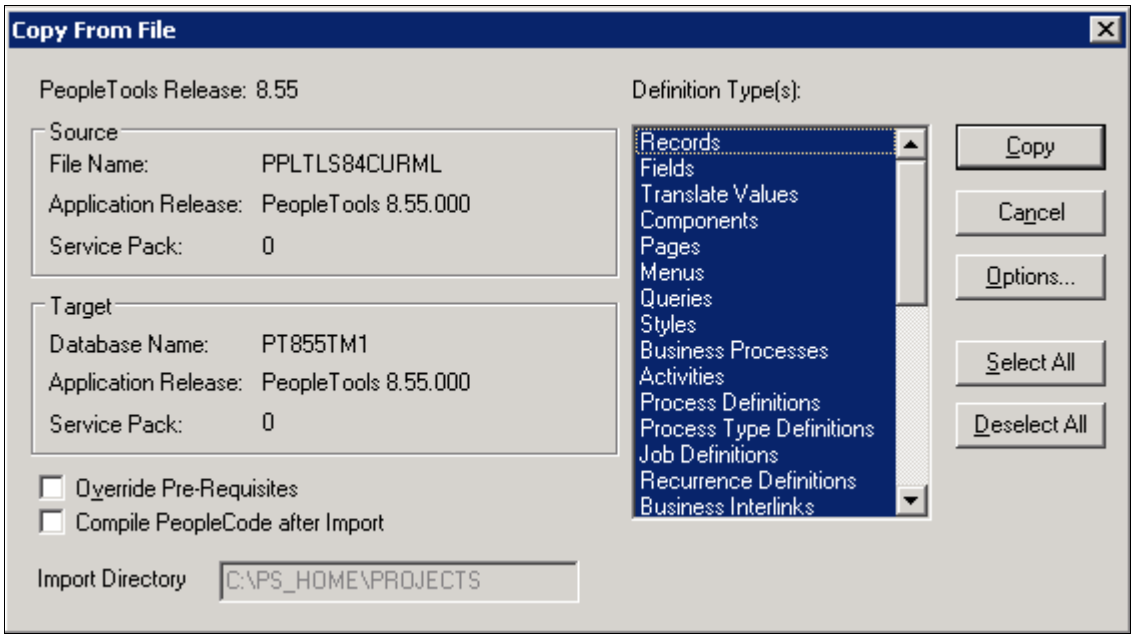
10. On the Copy from File dialog box, click the Copy button.



The Copy From File dialog box showing that PPLTLS84CURML will be copied

When the progress dialog box disappears, the project has been copied.

Task 7-2-7: Deleting Obsolete PeopleTools Database Objects

This process removes obsolete PeopleSoft PeopleTools objects from your database. To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. You will use the Copy from File functionality to delete the obsolete objects from the database.

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

```
Field <FIELDNAME> is in use on at least one record.
```

You must clean up any objects that reference the deleted field(s) after the upgrade. While PeopleTools has deleted the field as part of the new release, you may still have objects that reference this deleted field. After fixing any objects that reference this field, delete the field from your system.

To delete obsolete PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.

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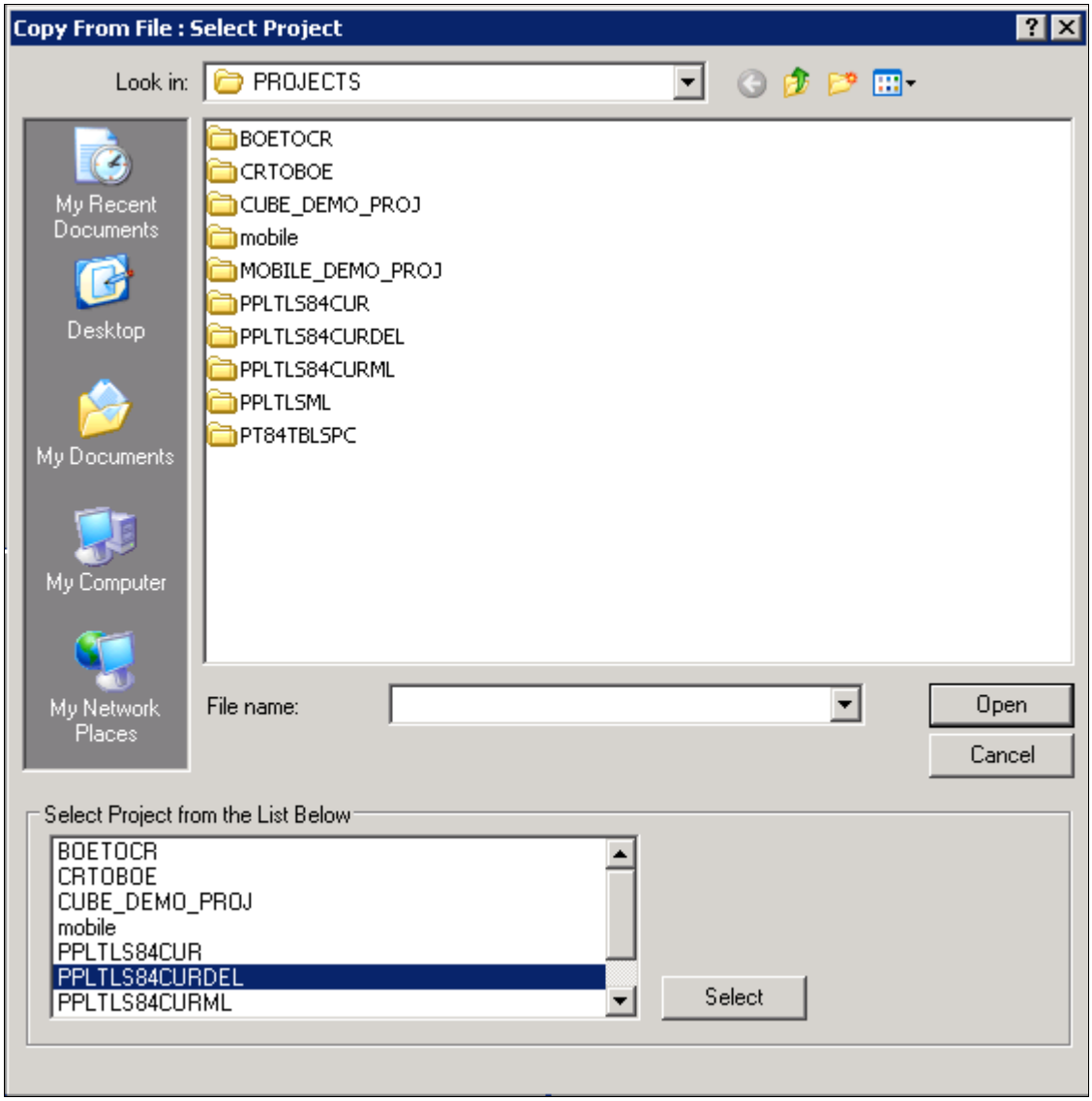
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CURDEL from the list of projects and click Select.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CURDEL in the Copy From File dialog box

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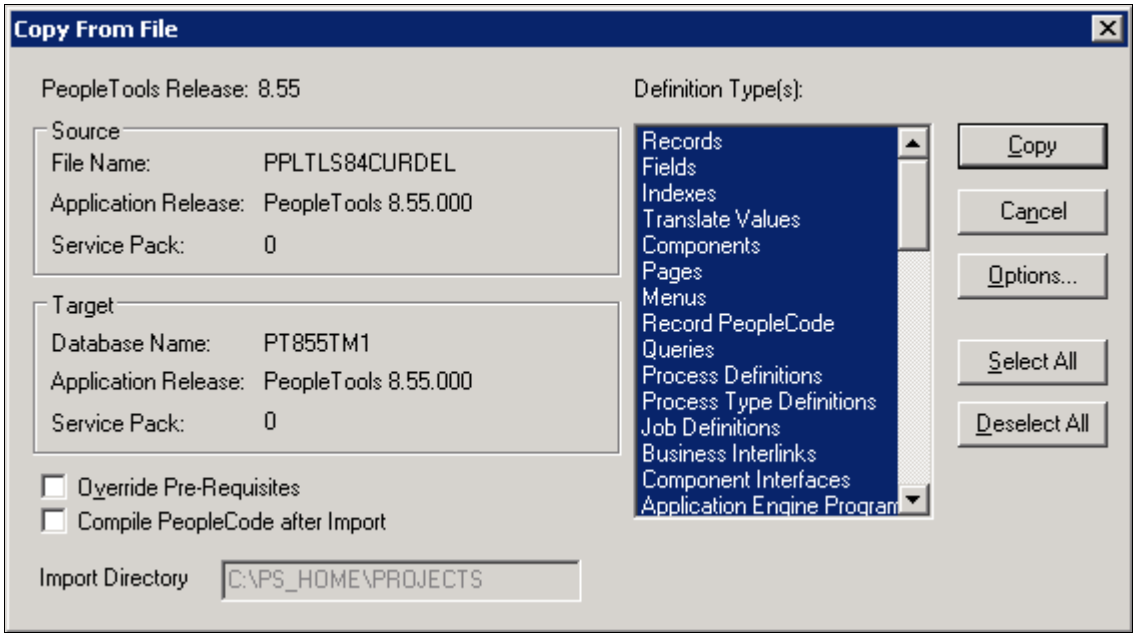
4. The Copy From File dialog box appears.

   Select all object types and click the Options button.



The Copy From File dialog box showing that PPLTLS84CURDEL will be copied

---

Note. If you have a multilingual database, do not change the languages that are selected by default.

---

5. On the Upgrade Options dialog box, select the General Options tab and make sure that the Keep Target Origin option is selected.

   Click OK.

6. On the Copy from File dialog box, click the Copy button.

   When the progress dialog box disappears, the project has been copied.

Task 7-2-8: Applying Patched PeopleTools Database Objects

If you are applying a required for install PeopleSoft PeopleTools patch and *if a database project is included as part of the patch,* apply the database project(s) now. Make sure you apply all projects that are appropriate for your environment, including multilingual (ML) projects, if necessary. Make sure to read the patch release notes to find out if database changes are in the patch.

To update patched PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools patch release. Failure to run this step will introduce problems to your environment.

To apply patched PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. On the Copy From File dialog box, change the import directory to *PS_HOME*\projects, select the patch project from the list of projects and click the Select button.
4. Follow the patch instructions to select the correct copy options. Select all object types and then click the

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Options button.

5. On the Upgrade Options dialog box, select the General Options tab.
6. Select the Keep Target Origin option, and click OK.
7. On the Copy From File dialog box, click Copy.

   When the progress window disappears, the project has been copied.

Task 7-2-9: Altering PeopleTools Tables

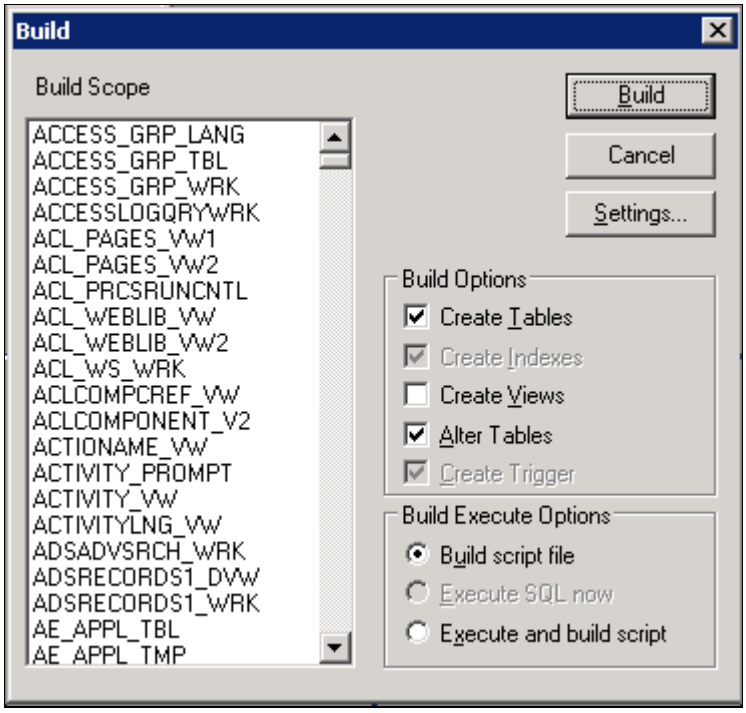
Use the ALTER AUDIT process in this step to check whether the PeopleSoft PeopleTools tables are synchronized with the underlying SQL data tables in your database. This step uses a delivered project to compare the data structures of your database tables with the PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point in the installation, we expect to see differences between the database structure and the PeopleSoft PeopleTools tables. You will generate and run a SQL script to synchronize the PeopleSoft PeopleTools table definitions with the underlying tables in your database.

To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer with a valid PeopleSoft user ID and sign on to the installed database.
2. Select File, Open.

   The Open Definition dialog box opens.
3. Select *Project* from the Definition drop-down list, enter *PPLTLS84CUR* in the name dialog box, and click OK.
4. Select Build, Project.

   The Build dialog box appears:



The Build dialog box with selections for altering tables

5. Select Create Tables and Alter Tables in the Build Options region as shown in the example above (Create Indexes and Create Trigger will automatically be selected).

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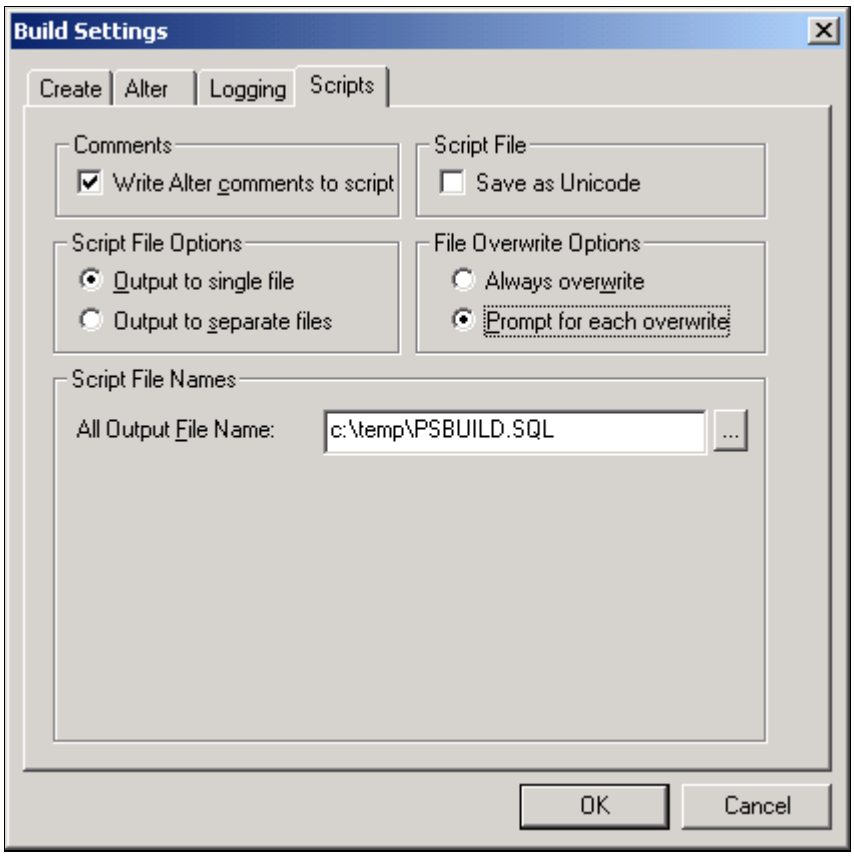
6. Select Build script file in the Build Execute Options region.
7. Click Settings.

   The Build Settings dialog box appears:



Build Settings dialog box: Scripts tab

8. Select the Scripts tab.
9. Select Write Alter comments to script.

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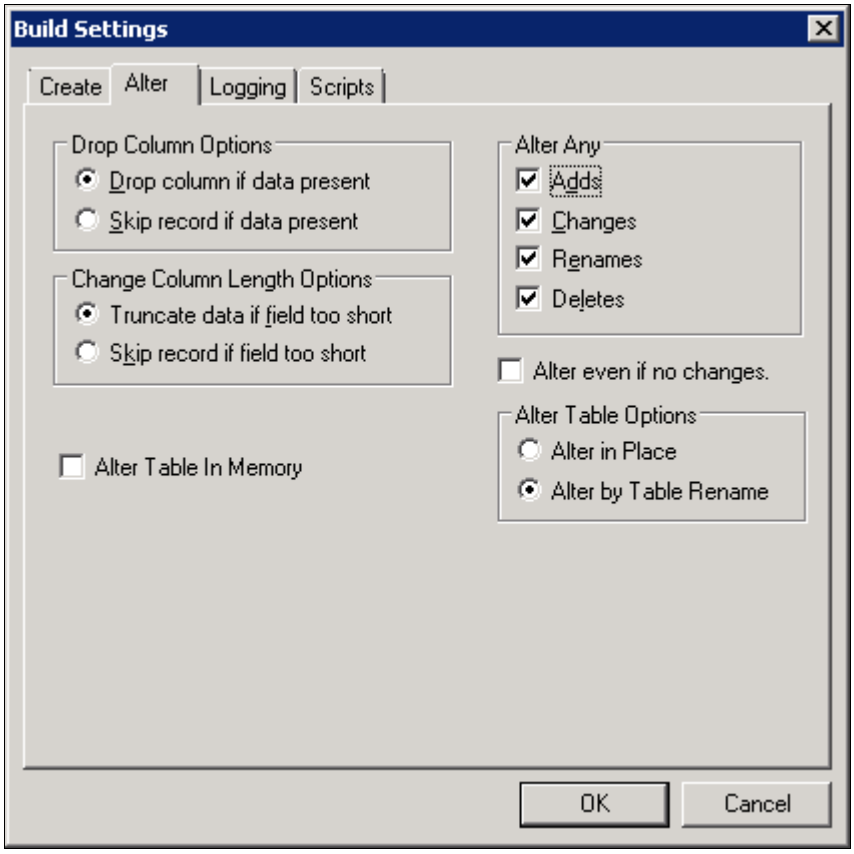
10. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region.

    The check box Drop column if data present should be selected in the Drop Column Options region, and the option Truncate data if field too short should be selected in the Change Column Length Options region.

    Make sure that the option Alter by Table Rename is selected in the Alter Table Options region.



Build Settings dialog box: Alter tab

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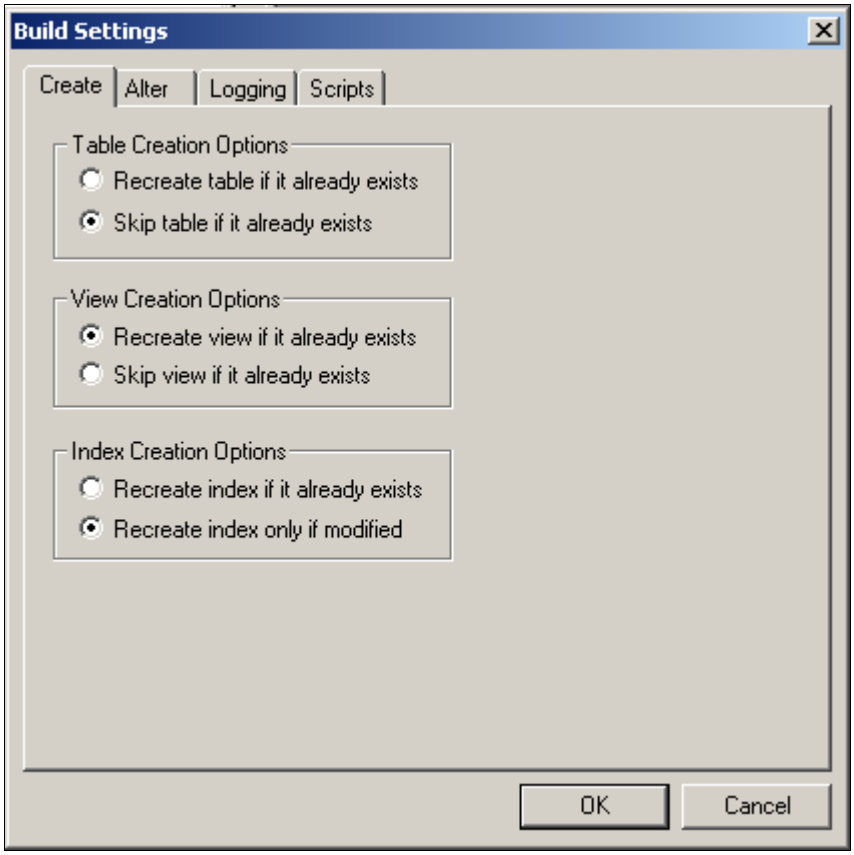
11. Select the Create tab and ensure that the options Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified options are selected.



Build Settings dialog box: Create tab

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 sync with the PeopleSoft PeopleTools tables.

Task 7-2-10: Migrating Records to New Tablespaces

This section discusses:

- Copying the Tablespace Record Project
- Running Alter Tools Tables

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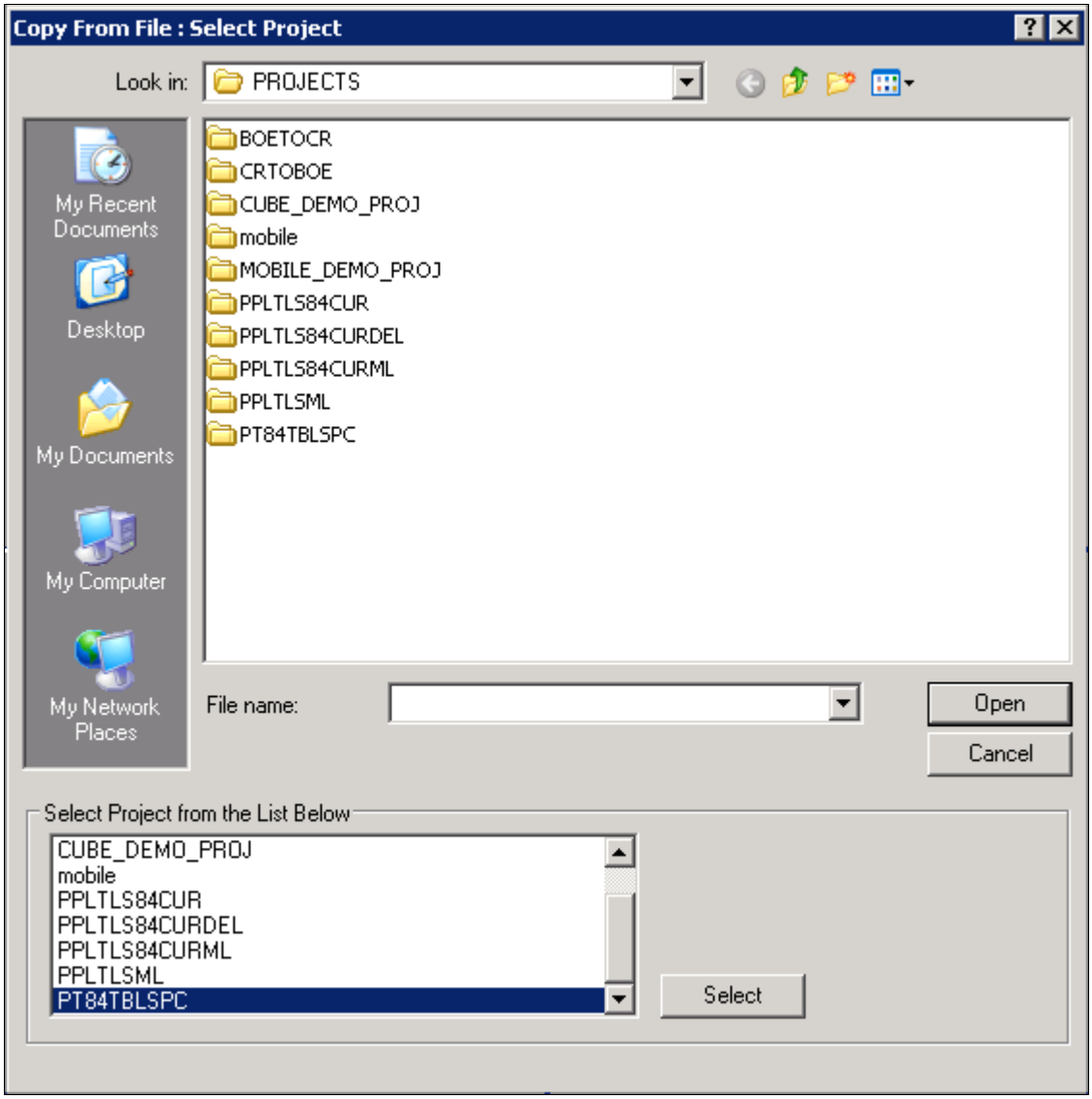
Copying the Tablespace Record Project

In every PeopleSoft PeopleTools release, Oracle moves some delivered tables to different tablespaces. You must run this step to move the tables.

To copy the Tablespace Record project:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PT84TBLSPC from the list of projects, and click Select.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PT84TBLSPC in the Copy From File dialog box

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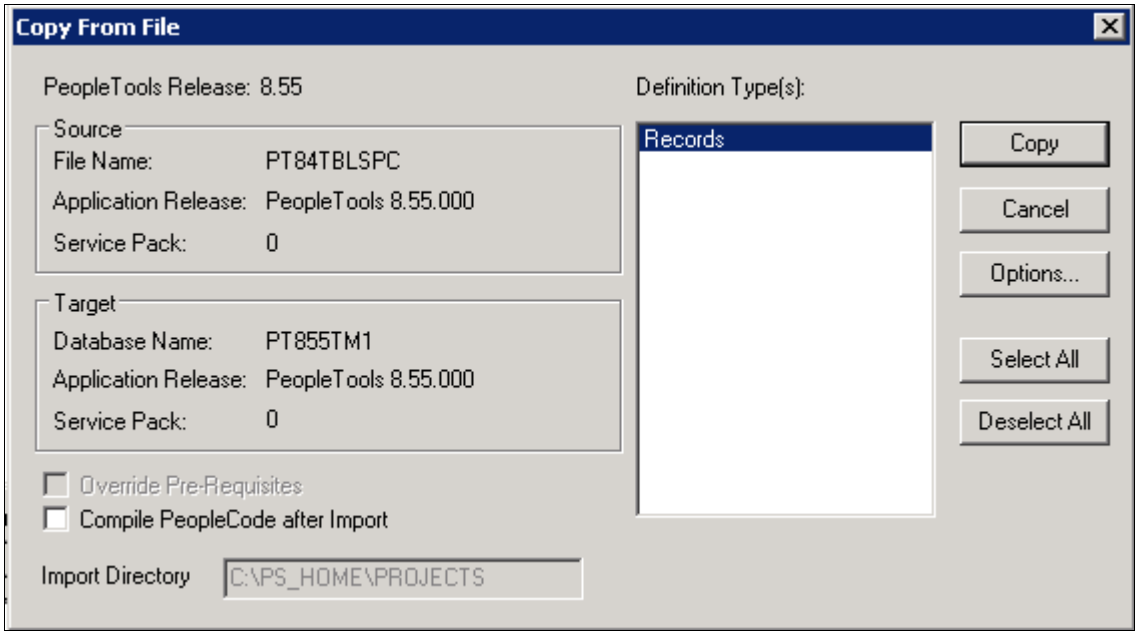
4. The Copy From File dialog box appears.

   Select all object types and click the Options button.



The Copy From File dialog box showing that PT84TBLSPC will be copied

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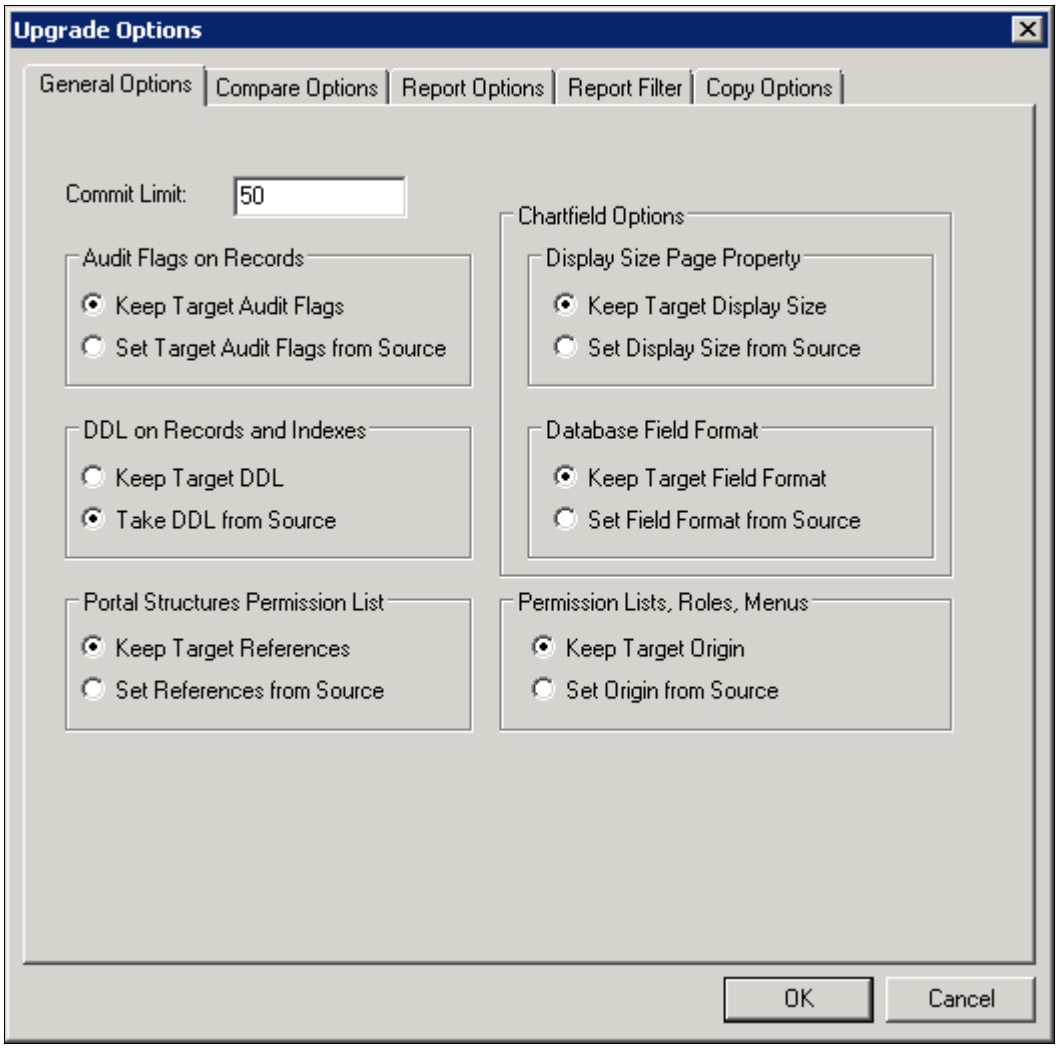
5. On the Upgrade Options dialog box, select the General Options tab and make sure that the Take DDL from Source and Keep Target Origin options are selected.

   Click OK.



Upgrade Options dialog box: General Options tab

6. On the Copy From File dialog box, click the Copy button.

   When the progress dialog box disappears, the project has been copied.

Running Alter Tools Tables

To run Alter Tools tables:

1. Launch PeopleSoft PeopleTools and sign on to Installed database.
2. From the Application Designer, select File, Open.
3. Select *Project* from the Definition drop-down list, enter *PT84TBLSPC* in the name dialog box, and click OK.

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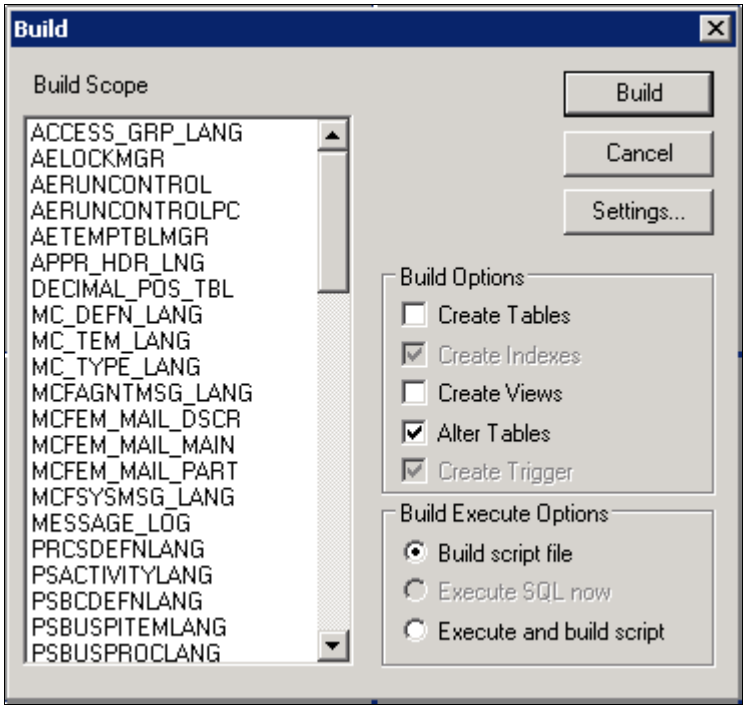
4. Select Build, Project.

   The Build dialog box appears:



The Build dialog box

5. Select Alter Tables in the Build Options region as shown in the example above (Create Indexes and Create Trigger will automatically be selected).
6. Select Build script file in the Build Execute Options region.

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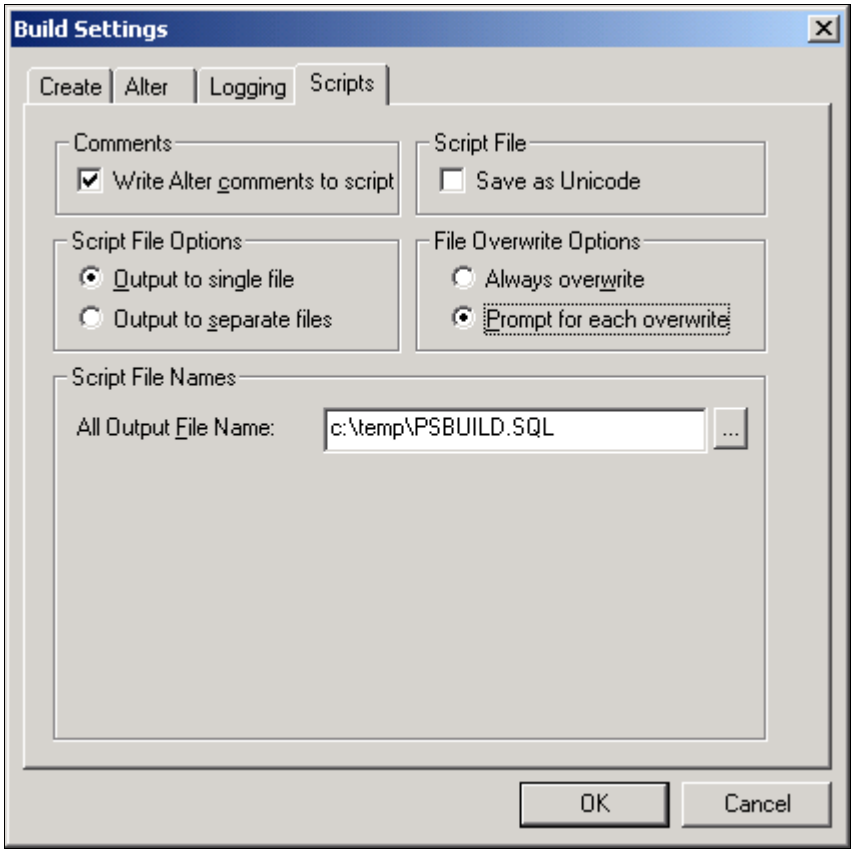
7. Click Settings.

   The Build Settings dialog box appears:



Build Settings dialog box: Scripts tab

8. Select the Scripts tab.
9. Select Write Alter comments to script.

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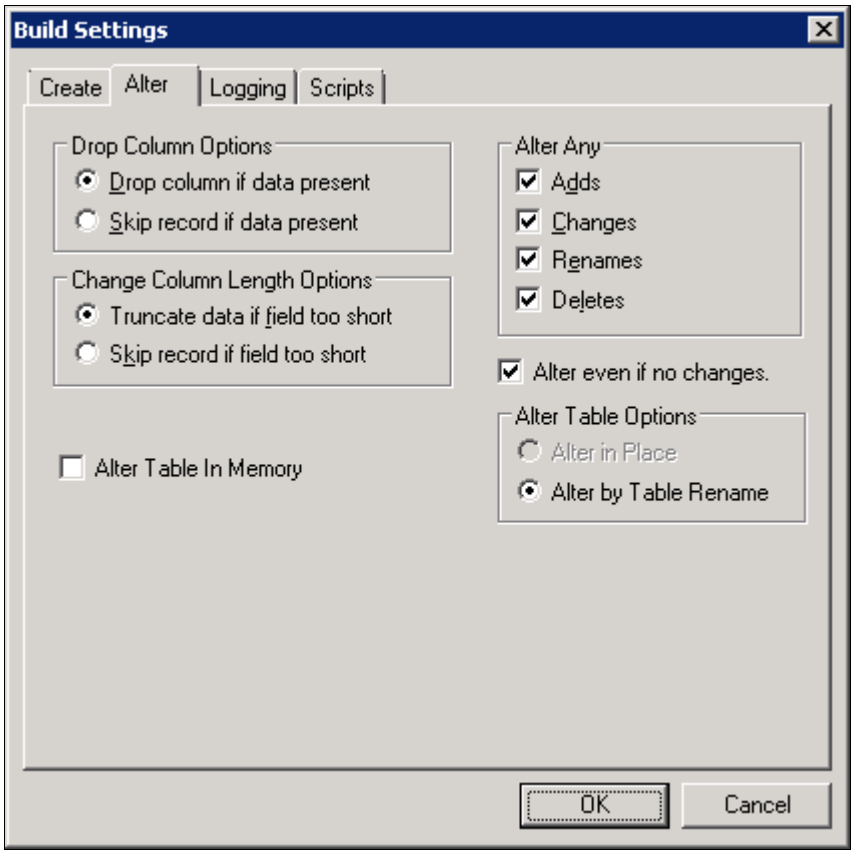
10. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region, and that the Alter even if no changes check box has been selected.

    Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.



Build Settings dialog box: Alter tab

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.

Task 7-2-11: Updating PeopleTools System Data

Data Mover scripts that update PeopleSoft PeopleTools system data are run to enable new features and load new messages for the PeopleSoft PeopleTools 8.55 release. Several of the scripts that you need to run are dependent upon the version of the application you are running.

See Understanding Database Updates.

To update PeopleSoft PeopleTools system data:

1. Invoke Data Mover by running *PS_HOME*\bin\client\winx86\psdmt.exe.

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The PeopleSoft Logon window appears.

2. 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.

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3. Run the appropriate Data Mover scripts for your application database version.

   The application database version refers to the version before you started this step. Be sure to run the scripts in the order listed. The scripts are found in the *PS_HOME*\scripts directory:

Application Database Version	Scripts to Run
8.40	pt841tls, pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.41	pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.42	pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.43	pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.44	pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.45	pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.46	pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.47	pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.48	pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.49	pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.50	pt851tls, pt852tls, pt853tls, pt854tls, and pt855tls
8.51	pt852tls, pt853tls, pt854tls, and pt855tls
8.52	pt853tls, pt854tls, and pt855tls
8.53	pt854tls and pt855tls
8.54	pt855tls
8.55	None

4. Run the pslanguages.dms Data Mover script in the *PS_HOME*\scripts directory.

   This script loads language-specific seed data.

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5. Run the tlsupgnoncomp.dms Data Mover script in the *PS_HOME*\scripts directory.

   This will import the updated PeopleSoft PeopleTools Trees, Roles, and Access Groups into your database.

6. If you are a Multilingual customer, from the Data Mover script that was created for your PeopleSoft database installation, find the UPDATE to PSLANGUAGES.

   The statement should look similar to the following, where *xxx* is one of the PeopleSoft three-letter language code identifiers, as described earlier:

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

   See "Preparing for Installation," Planning Multilingual Strategy.

   Run the SQL command identified above using your SQL tool.

7. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for Human Capital Management or VP1 for Financials/Supply Chain Management.

8. If you are a Multilingual customer and have licensed non-English languages, run the pt855tls*xxx*.dms scripts in the *PS_HOME*\scripts directory.

   This will update the language-specific PeopleSoft PeopleTools system data in your database.

   Note. The portion of the script name *xxx* is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the non-English languages you have installed. There will be a Data Mover script for each non-English language.

   ---

9. Run the msgtleng.dms Data Mover Script in the *PS_HOME*\scripts directory.

   Non-English message data was loaded in the pt855tls*xxx*.dms scripts. This will update the messages in your database.

10. Run the ptstreng.dms Data Mover script in the *PS_HOME*\scripts directory.

    Non-English system data was loaded in the pt855tls*xxx*.dms scripts. This will update the SQR strings in your database.

11. Run the storept.dms Data Mover script in the *PS_HOME*\src\cbl\base directory.

    This will update your PeopleSoft PeopleTools COBOL stored statements.

12. Run the ptdefnsec.dms Data Mover script in the *PS_HOME*\scripts directory.

    This will update the PeopleSoft PeopleTools Definition Security group.

13. If the application database you are installing is PeopleSoft PeopleTools 8.53 or later, you must compile all directive PeopleCode in your database. Execute the following command on your database to run PeopleSoft Application Designer in quiet mode. From the DOS command line, the syntax is:

    ```
    <PS_HOME>\bin\client\winx86\pside.exe -CT ORACLE -cD <dbname> -CS⇒
     <database server name> -CO <oprid> -CP <pswd> -SS NO -QUIET -HIDE -⇒
    CMPDIRPC -LF <full path of log file>
    ```

14. Run the createvw.dms Data Mover script in the *PS_HOME*\scripts directory.

    This will recreate all the views in your database.

Task 7-2-12: Running PeopleTools Conversions

This section discusses:

- Understanding Usage of Application Engine Programs
- Converting Portal Objects

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- Converting Setup Manager
- Converting Navigation Collection and Pagelet Wizard Data
- Converting Additional Pagelet Wizard Data
- Populating the Feed Options Table
- Updating Feeds for Active Data Guard
- Updating Web Profiles
- Updating Chart and Grid Filters
- Populating the Hash Values
- Migrating the Authorization Configuration Data
- Populating BI Publisher Templates with Object Owner ID Values
- Creating the NavBar and Adding Default Tiles
- Populating the DB-Cache Lock Table

Understanding Usage of Application Engine Programs

You run several Application Engine programs in this section. For information on Application Engine, including how to use and restart Application Engine programs, consult the Application Engine documentation.

See *PeopleTools: Application Engine.*

Converting Portal Objects

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.43 or earlier. The Application Engine program UPG844PORTAL splits PSPRSMDEFN.PORTAL_URLTEXT into segments. This is performed for PeopleSoft Components URLs to extract Menu, Component, and Market information. Record, Field, Event, and Function Names are extracted from Iscript URLs. This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role. The following SQL will identify which users have the PeopleSoft Administrator or Portal Administrator roles:

```
select ROLEUSER, ROLENAME from PSROLEUSER where ROLENAME in ('PeopleSoft⇒
 Administrator','Portal Administrator')
```

Run the UPG844PORTAL Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPG844PORTAL
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <oprid>, respectively. However, be aware that <pswd> is not the same as the connect password that you entered on the Configuration Manager startup tab. Enter a value for <pswd> that is the password you want to be associated with the <oprid>.

See "Setting Up the Install Workstation."

You may see some of the following errors when running this Application Engine program:

- `Not authorized CRef: <Portal Object Name> (95,5032).`

  This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

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- `Security synchronization failed for Portal Object: <Portal Object Name> (96,61).`

  This is not a fatal error. It may be caused by a content reference that contains invalid URL text and indicates that there was an internal error writing to the security table. The invalid URL text may be pointing to a component or script that does not exist in the database. If you receive this error, search the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.
- `Cref <Portal Object Name> points to Menu: <Menu Name>, Component <Component Name> which doesn't exist. (96,80).`

  The content reference is pointing to an invalid Menu/Component combination. If you receive this error, search the Patches and Updates section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.

See "Preparing for Installation," Reviewing Patches and Updates Required at Installation.

See *PeopleTools: Portal Technology.*

Converting Setup Manager

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.45 or earlier. The application engine program UPGPTSMDAT upgrades Setup Manager Version 1 (shipped with Fin SCM 8.8, CRM 8.9, and with HCM 8.9) to Setup Manager Version 2 (shipped with PeopleSoft PeopleTools 8.46 and above). The program moves all data from Setup Manager Version 1 tables to Version 2 tables.

The application engine program was designed so that it can be run in any database, and can be rerun in the same database. In either case, it will determine if there is data to convert and run as appropriate. For detailed information, see comments attached to the Steps and Actions in this Application Engine Program within Application Designer. This program must be run by a PeopleSoft user with PeopleSoft Administrator role.

Run the UPGPTSMDAT Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPTSMDAT
```

Converting Navigation Collection and Pagelet Wizard Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.45 or earlier. The application engine program UPGPT846PP adds Navigation Collection and Pagelet Wizard data from the Common Components and PeopleSoft Applications Portal storage tables into PeopleSoft PeopleTools tables.

The application engine program performs the following conversions:

1. Moves data from Common Components tables to PeopleSoft PeopleTools tables.
2. Moves data from PeopleSoft Applications Portal tables to PeopleSoft PeopleTools tables.
3. Updates the registry definitions to enable displaying Navigation pages.
4. Adds, updates, and deletes the Navigation Collections folders and content references in the portal registry to the new structures.
5. Converts Pagelet Wizard definitions to the PeopleSoft PeopleTools Pagelet Wizard version.
6. Renames Navigation Collection and Pagelet Wizard portal registry attributes to the PeopleSoft PeopleTools attribute names.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

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Run the UPGPT846PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPT846PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT846PP to check for any remaining errors after applying patches.

Converting Additional Pagelet Wizard Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.47 or earlier. The application engine program UPGPT848PP adds the following Pagelet Wizard data sources from PeopleSoft Applications Portal to PeopleSoft PeopleTools: IB Connector, Integration Broker, SOAP, and URL. In addition, the application program transforms the WSRP Portlets created in PeopleSoft PeopleTools 8.46 or 8.47 versions of Pagelet Wizard. The process includes the following:

- Move data from PeopleSoft Applications Portal tables to PeopleSoft PeopleTools tables.
- Convert WSRP Portlets created by Pagelet Wizard to the new version.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT848PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R⇒
 INSTALL -AI UPGPT848PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT848PP to check for any remaining errors after applying patches.

Populating the Feed Options Table

The Application Engine program UPGPT850PTFP populates the feed options table PS_PTFP_OPTIONS if it is empty.

Run the UPGPT850PTFP Application Engine program on your database. From the DOS command line, the syntax is:

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```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPT850PTFP
```

Updating Feeds for Active Data Guard

The Application Engine program UPGPT852PTFP updates Service Operations used by Feeds for Active Data Guard support.

Run the UPGPT852PTFP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPT852PTFP
```

Updating Web Profiles

The Application Engine Program UPGPTWBPFNVP migrates the web profile properties from the PT_PROPVALUE field to the PT_LPROPVALUE field for the PSWEBPROFNVP record.

Run the UPGPTWBPFNVP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPTWBPFNVP
```

Updating Chart and Grid Filters

The Application Engine program UPGPTPGFLRS upgrades the Pivot Grid and chart filters from the PSPGVIEWOPT record into the new long filter fields. The grid filters are updated in the PTPG_FLRS_GRID_EX field on the PSPGVIEWOPT record and the chart filters are updated in the PTPG_FLRS_CHART_EX field on the PSPGCHRTFLRSOPT record.

Run the UPGPTPGFLRS Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPTPGFLRS
```

Populating the Hash Values

The Application Engine program UPGPTHASH populates the hash columns on PSPCMTEXT and PSSQLHASH if they are empty.

Run the UPGPTHASH Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPTHASH
```


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Migrating the Authorization Configuration Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.53 or earlier. The Application Engine program UPGPT854AUTH migrates the authorization configuration data from PTCAC_AUTHCONF to PTCAC_AUTHORIZE.

Run the UPGPT854AUTH Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPT854AUTH
```

Populating BI Publisher Templates with Object Owner ID Values

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.53 or earlier. The Application Engine program UPGPTXPTMPL populates Oracle Business Intelligence Publisher (BI Publisher) templates with owner ID values.

Run the UPGPTXPTMPL Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPTXPTMPL
```

Creating the NavBar and Adding Default Tiles

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.53 or earlier. The Application Engine program UPGPT855NUI creates the Fluid User Interface navigation bar (NavBar) and adds default tiles if they do not exist.

See *PeopleTools: Application User's Guide,* "Working with Fluid Homepages."

Run the UPGPT855NUI Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPT855NUI
```

Populating the DB-Cache Lock Table

The Application Engine program UPGPT851DBC populates the DB Cache lock table PSOBJCACHELOCK.

Run the UPGPT851DBC Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R INSTALL -AI UPGPT851DBC
```

Task 7-2-13: Converting Integration Broker

This section discusses:

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- Updating Integration Broker Defaults
- Creating Integration Broker Objects
- Saving Application Messaging Objects
- Exporting Node Transactions
- Deleting Application Messaging Objects
- Deleting Node Transactions

If your database is delivered with PeopleSoft PeopleTools 8.48 or higher, do *not* run this task since the database is already delivered with the new Integration Broker objects as of PeopleSoft PeopleTools 8.48. Instead, proceed to Running Additional PeopleTools Conversions.

Updating Integration Broker Defaults

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

Open Data Mover using a valid PeopleSoft Operator ID and run this script.

Creating Integration Broker Objects

The application engine program UPGPT848IBUG converts Application Package metadata into Integration Broker metadata. It also creates the projects PTUPGIBCLONE and PTUPGIBDELETE, and the script ptupg_trx.dms.

Note. Conversion errors in the Application Engine log file will be resolved by applying application-specific Required for Install patches.

Run the UPGPT848IBUG Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R⇒
 INSTALL -AI UPGPT848IBUG
```

Saving Application Messaging Objects

The PTUPGIBCLONE project was created by the UPGPT848IBUG Application Engine program and contains objects that were successfully converted. Copy this project to a directory of your choice where it will not be overwritten. The objects are copied to file as a precautionary measure since you will delete them from the database in a subsequent step.

To save Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBCLONE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to one of your choice, and click Copy.

   When the progress dialog box disappears, the project has been copied to the specified location.

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Exporting Node Transactions

Open Data Mover using a valid PeopleSoft Operator ID and run the script *PS_HOME*\scripts\ptupg_trx_export.dms to save the old pre-conversion node transaction data.

Deleting Application Messaging Objects

Delete the obsolete pre-conversion object definitions from the database by first copying the PTUPGIBDELETE project to file, and then copying the same project from file. This project was created by the UPGPT848IBUG Application Engine program and contains the same objects as PTUPGIBCLONE.

To delete Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBDELETE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to the same one you used for PTUPGIBCLONE, and click Copy.

   When the progress dialog box disappears, the project has been copied to the specified location.
6. Select Tools, Copy Project, From File.
7. In the resulting dialog box, change the import directory to the previously specified directory, select PTUPGIBDELETE from the list of projects, and click Select.

   Note. Because the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.

   ---

8. Select all object types and click the Copy button.

   When the progress dialog box disappears, the project has been copied. The actions in the project are set to Delete, so this will delete the obsolete pre-conversion object definitions from the database.

Deleting Node Transactions

The script ptupg_trx.dms is generated by the UPGPT848IBUG Application Engine program. This script can be found in the location specified in the OUTPUT variable set in Configuration Manager.

To view the OUTPUT variable:

1. Open Configuration Manager.
2. Select the Profile tab.
3. Click Edit to open the Default profile.
4. Select the Process Scheduler tab.
5. Examine the Output Directory value.

Open Data Mover using a valid PeopleSoft Operator ID and run this script to remove obsolete node transaction data associated with the obsolete objects in the PTUPGIBDELETE project.

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Task 7-2-14: Running Additional PeopleTools Conversions

The Application Engine program UPGPTSERVOPR converts WSDL and Schema data.

Run the UPGPTSERVOPR Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP⇒
 <pswd> -R⇒
 INSTALL -AI UPGPTSERVOPR
```

Task 7-3: Running 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 scripts. These script files have the extension .dms and are sometimes referred to as "DMS scripts." They are located in the *PS_HOME*\scripts directory of your file server, and need to be run from the file server by means of Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

If you have installed a language other than English, you may need additional instructions on language-specific Data Mover scripts.

See Installing a Multilingual PeopleTools System Database.

Task 7-4: Installing a Multilingual PeopleTools System Database

This section discusses:

- Understanding the Multilingual Database Project
- Applying the Multilingual Database Project
- Populating the Translated System Data

Understanding the Multilingual Database Project

The information in this section applies if you are installing a multilingual PeopleSoft PeopleTools System database. If not, skip this task and go on to the task "Running VERSION Application Engine Program." If you are installing an application database (for example, HCM, FSCM, EPM, and so on), you do not need to run this task.

If you are adding a new (Oracle-delivered) language to the PTSYS database, you must execute this step for that language. For example, if you want to add Polish to your current multilingual database, you should install Polish from PPLTLSML so you will get all objects. Using the PPLTLS84CURML project to "upgrade" your database will not provide all the necessary objects.

If you are installing a PeopleSoft PeopleTools System database and you want it to be multilingual, you need to perform the steps in the following section after the database has been loaded with Data Mover.

See Applying the Multilingual Database Project.

Note. When you log onto the multilingual database, be sure to select the base language of the database.

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Task 7-4-1: Applying the Multilingual Database Project

This procedure describes how to apply the multilingual database project that contains translations of the PeopleSoft PeopleTools objects.

To apply the multilingual database project:

1. Launch Application Designer.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects.
4. Select *PPLTLSML* from the list of projects and click the Open button.
5. In the Upgrade Copy dialog box, make sure that all object types are selected.
6. Click 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. Select the languages that you are currently installing from the Copy Options dialog box.
8. Click the Copy button.

   (The Reset Done Flags check box will be selected; accept this default.)

Task 7-4-2: Populating the Translated System Data

To populate the translated system data:

Note. You need to run the following script in User mode.

---

1. Launch Data Mover.
2. Open the pt855tls*xxx*.dms script using File, Open.
3. Select File, Run

   Note. The portion of the script name *xxx* is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the languages you have installed. There will be a Data Mover script for each language.

Task 7-5: Running VERSION Application Engine Program

Run the VERSION Application Engine program on your database. From the command line utility, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname>  -CT ORACLE -CO <userid> -CP⇒
 <userpswd> -R RESETVERSIONS  -AI VERSION
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <userid> respectively. However, be aware that <userpswd> is not the same as the connect password you entered on the Configuration Manager startup tab. Enter a value for <userpswd> that is the password associated with the <userid>.

Note. Do not change the parameter `–R RESETVERSIONS`. This value is required for the run control ID for this task.

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See "Setting Up the Install Workstation."

Task 7-6: Running SQR Reports

This section discusses:

- Understanding Running SQR Reports
- Running SQRs on the Client Workstation
- Creating a Shortcut to Run SQRs

Understanding Running SQR Reports

The instructions in this section describe how to run SQR reports from the client workstation. On the Microsoft Windows client, you may prefer to create a shortcut to allow you to run the reports repeatedly. You can use these instructions to run SQRs required in the upcoming task Checking the Database.

You can also choose to run SQR reports from the command line in console mode. Before running SQR from the command line on Microsoft Windows operating systems, set PS_HOME from the prompt. For example:

```
set PS_HOME=C:\PT855
```

See Also

PeopleTools: SQR for PeopleSoft Developers

PeopleTools: SQR Language Reference for PeopleSoft

Task 7-6-1: Running SQRs on the Client Workstation

To run an SQR on the client workstation:

1. Select Start, Run, click Browse, and navigate to *PS_HOME*\bin\sqr\ORA\binw.

   Select sqrw.exe and click Open.

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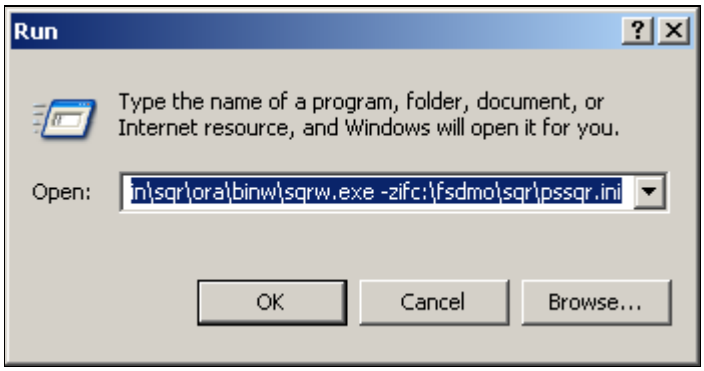
2. Add any needed flags at the end of the command line.

   Refer to the table that follows. For those flags that require attributes, append the attributes to the flags with no intervening spaces (for example, –fE:\fsdmo\bin\sqr\pssqr.ini).



Microsoft Windows Run dialog box launching SQRW

The following table summarizes the SQR report arguments used by PeopleSoft software. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog box.)

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. If you use the –keep flag, you must specify the directory with a trailing slash. If you use the –printer flag, specify a full pathname with a filename for the HTML file.
-ZIF	Sets the full path and name of the SQR initialization file. The -ZIF flag should point to your *PS_HOME*\sqr\pssqr.ini file.
-keep	Keeps the .SPF file after the program runs. This enables you to view the report with the SQR viewer.
-printer:ht	Generates the output file in HTML format. Specify the filename, with path location, with the –f flag.

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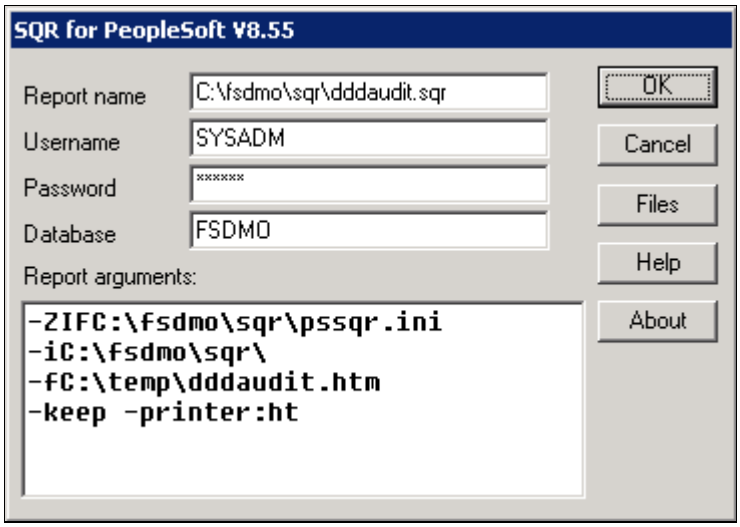
3. Click OK.

   The SQR for PeopleSoft V8.55 dialog box appears, displaying the attributes that you entered in the Run dialog box. The fields on this dialog box are described in the next step:

   Note. The report arguments in this example have been arranged for readability.



SQR for PeopleSoft dialog box with DDDAUDIT.SQR

4. Enter the following values:
   - Enter the report name.

     You must specify the full path.
   - Enter the access ID in the Username field.
   - Enter the access password in the Password field.
   - Enter the database name.
5. 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.

Task 7-6-2: Creating a Shortcut to Run SQRs

If you think you may need to run the SQR reports more than once, you may want to create a shortcut on the Windows client workstation. To save the report arguments:

1. Open Windows Explorer on the machine on which you want to run SQR.
2. Navigate to *PS_HOME*\bin\sqr\ORA\binw.
3. Right-click sqrw.exe and click Create Shortcut.
4. Right-click the shortcut that you just created and select Properties.
5. On the Shortcut tab, add the same sqr flags that you used in the previous task after sqrw.exe in the Target entry box.
6. Click OK.

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7. To run the report, double-click the shortcut and specify the following information in the dialog box:
   - Report Name: Enter the full path and the name.
   - Database name
   - Username: Enter the access ID.
   - Password: Enter the access password.
   - Report arguments: Make any necessary modifications to the saved arguments.
8. Click OK.

Task 7-7: Checking the Database

Run and examine the SQR reports to verify that your database is complete.

See Running SQR Reports.

To verify that the database is complete, run the following SQR reports from the *PS_HOME*\sqr directory:

- dddaudit.sqr
- sysaudit.sqr
- swpaudit.sqr, if you plan to swap your base language

For further information about these reports, consult PeopleSoft product documentation. This documentation includes specific information on how to interpret the reports and how to fix any errors found there.

It is good practice to run and read the audit reports, which include sysaudit, dddaudit, swpaudit, and alter audit, after making changes such as applying patches, bundles, and upgrades to the database, to make sure that the tables are internally and externally in synch. It is also a good idea to schedule regular maintenance, for example weekly, in which you run and review the reports. You can find information on these audit reports in the *PeopleTools: Data Management* product documentation.

See *PeopleTools: Global Technology,* "Running the Swap Audit Report."

You can greatly improve the performance and run time of the sysaudit.sqr run by making the following configuration changes to 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
```

If you are using rollback segments, you may also want to increase the size of the RBSBIG rollback segment to 500 MB.

Note. If any records show up in the VIEWS-2 or TABLE-3 section of dddaudit and are contained within the PPLTLS84CURDEL project, you may safely drop these records using the SQL query tool for your platform.

See Also

PeopleTools: Data Management

PeopleTools: System and Server Administration

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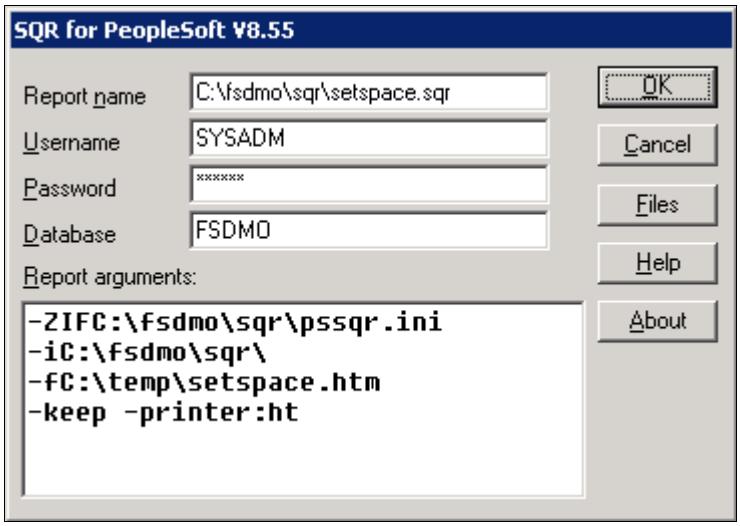
Task 7-8: Running SETSPACE.SQR

Run the SETSPACE.SQR script to populate or synchronize Tablespace information with the system catalog. To run SETSPACE.SQR:

1. Using the instructions provided earlier, run SETSPACE.SQR from the *PS_HOME*\SQR directory.

   See Running SQR Reports.

   Note. Your results will vary depending on the application you are loading. The dialog box example shown here is typical. The report arguments in this example have been arranged for readability.



   SQR for PeopleSoft dialog box with setspace.sqr

2. Click OK.
3. As SETSPACE.SQR runs you see a progress indicator similar to the following.

```
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.
```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Task 7-9: Running Alter Audit

Use the ALTER AUDIT process to check whether the PeopleSoft 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 PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point of time in the install, we do not expect to see differences between the database structure and the PeopleSoft PeopleTools tables.

Note. If your application database was delivered on the PeopleSoft PeopleTools release you are installing, this task is optional.

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

To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer and sign on to the installed database with a valid PeopleSoft user ID.
2. Select File, New.
3. Select Project and click OK.
4. Select Insert, Definitions into Project.
5. Select *Records* from the Definition Type drop-down list box.
6. Select *Table* from the Type drop-down list box.
7. Click Insert, and then click Select All.
8. Click Insert, and then click Close.

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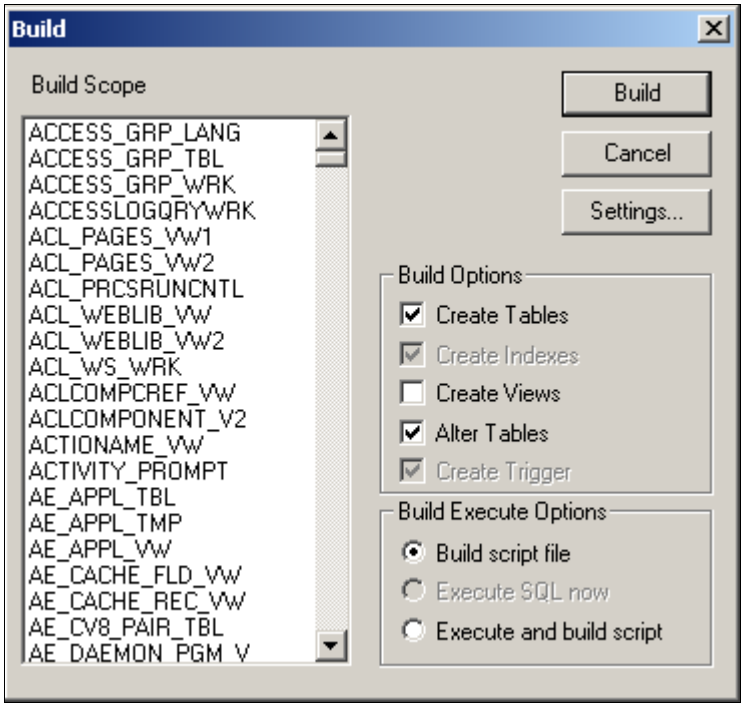
9. Select Build, Project.

   The Build dialog box appears:



   The Build dialog box

10. Select Create Tables and Alter Tables in the Build Options region (Create Indexes and Create Trigger will automatically be selected).
11. Select Build script file in the Build Execute Options region.

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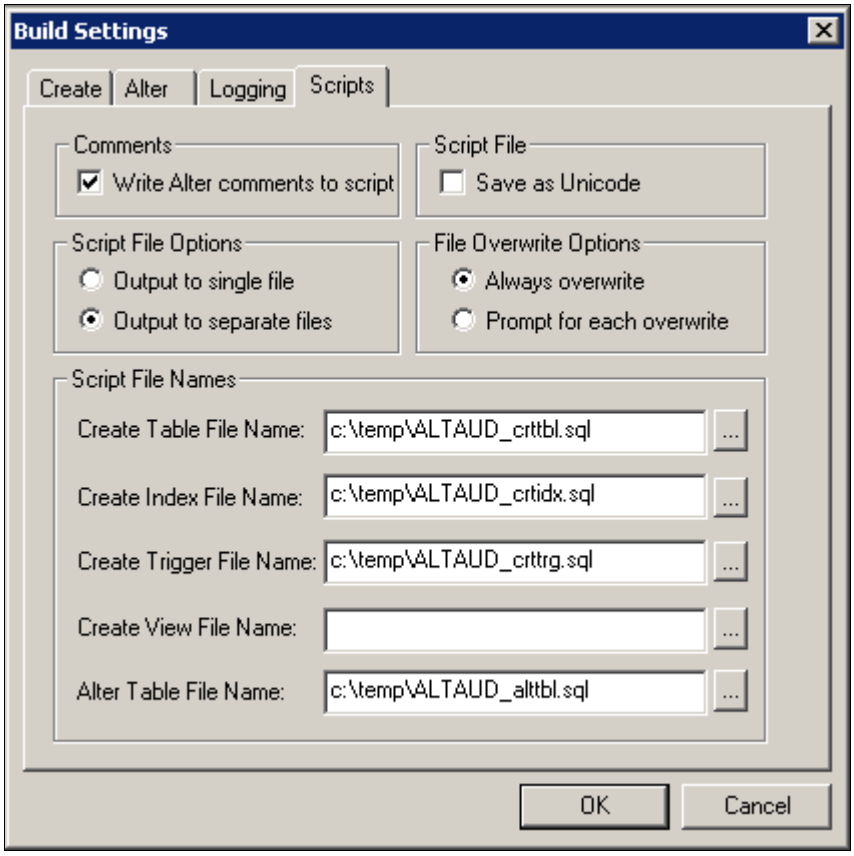
12. Click Settings.

    The Build Settings dialog box appears:



Build Settings dialog box: Scripts tab

13. Select the Scripts tab.
14. Select Write Alter comments to script.
15. Enter a unique output file name for each type.

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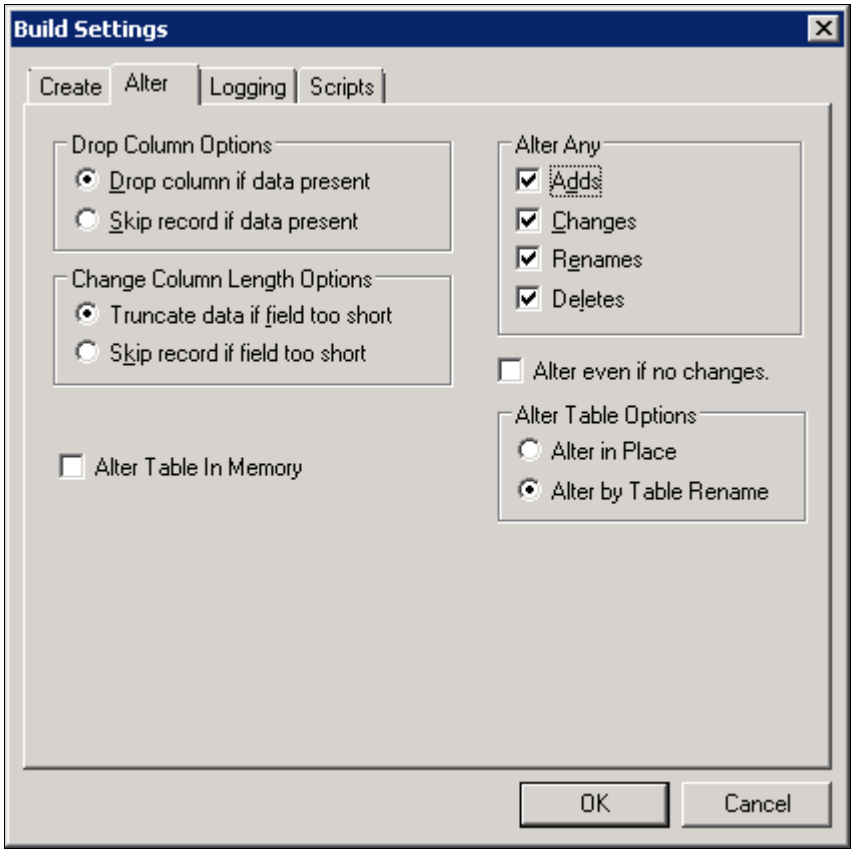
16. Select the Alter tab and ensure that the Adds,Changes,Renames, and Deletes check boxes are selected in the Alter Any region.

    Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.

    Make sure that Alter by Table Rename is selected in the Alter Table Options region.



Build Settings dialog box: Alter tab

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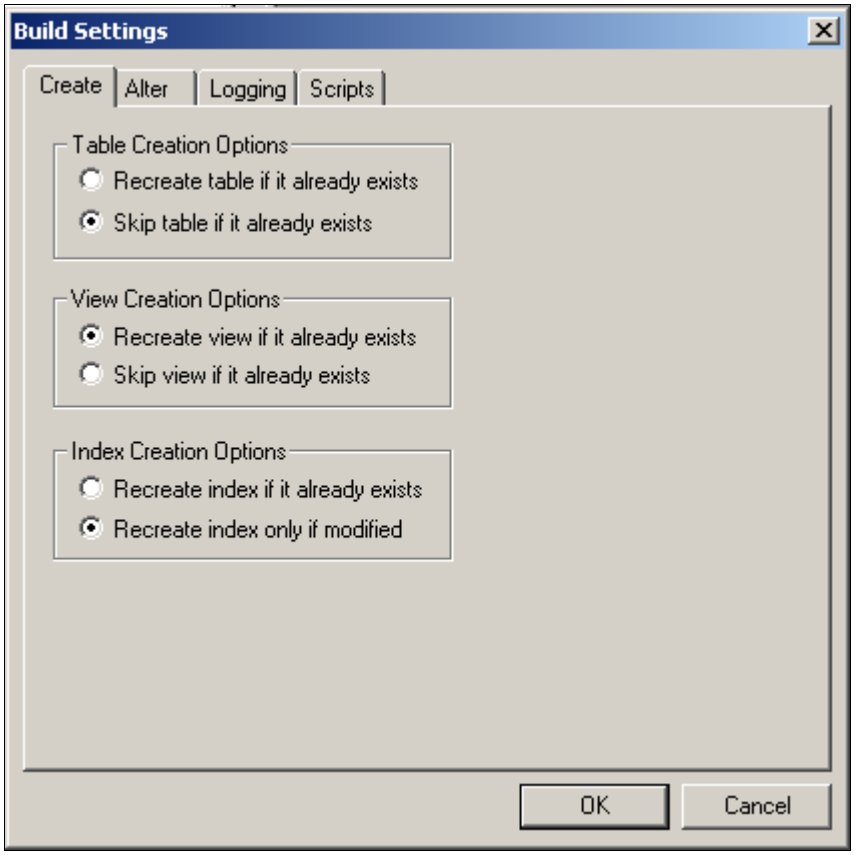
17. Select the Create tab, and ensure that the options Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified are selected.



Build Setting dialog box: Create tab

18. Click OK.

    The Build dialog box reappears.
19. Click Build.
20. Click Close when the process is completed.
21. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
22. Run the generated SQL scripts in your platform-specific query tool to bring your database structure in sync with the PeopleTools tables.

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Chapter 8A

Configuring the Application Server on Windows

This chapter discusses:

- Understanding the Application Server
- Prerequisites
- Preparing the Application Server File System for a PeopleTools-Only Upgrade
- Setting Up COBOL for Remote Call
- Verifying Database Connectivity
- Creating, Configuring, and Starting an Initial Application Server Domain

Understanding the Application Server

The information in this chapter is provided to help you configure your PeopleSoft application server.

Note. COBOL is not needed for PeopleSoft PeopleTools or for PeopleSoft Applications that contain no COBOL programs. Check the information on My Oracle Support, and your application-specific documentation, for the details on whether your application requires COBOL.

Oracle supports a Microsoft Windows application server to use with any of our supported databases for the PeopleSoft installation. For detailed information, consult the certification information on My Oracle Support. The application server support can be found on the certification pages for PeopleSoft systems.

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 PeopleSoft installation, Oracle 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.

The configuration and log files for application server domains reside in *PS_CFG_HOME.* If you do not set a PS_CFG_HOME environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

`%USERPROFILE%\psft\pt\<peopletools_version>`

See "Preparing for Installation," Defining Installation Locations.

Note. You can start application servers as a Windows service, which means that administrators no longer need to manually start each application server that runs on a Windows machine.

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See Also

"Preparing for Installation," Understanding PeopleSoft Servers and Clients

"Setting Up Process Scheduler on Windows," Starting Process Scheduler as a Windows Service

PeopleTools: System and Server Administration, "Using PSADMIN Menus"

PeopleTools: Data Management

My Oracle Support, Certifications

"Setting Up the Install Workstation"

"Installing and Compiling COBOL on Windows"

Prerequisites

Before beginning this procedure, you should have completed the following tasks:

- Installed your application server.

  See "Using the PeopleSoft Installer," Planning Your Initial Configuration.
- Installed the supported version of Oracle Tuxedo

  See "Installing Additional Components."
- Granted authorization to a PeopleSoft user ID to start the application server.

  The database configuration procedure includes a step for setting up the user ID with authorization to start the application server. See the application-specific installation instructions for information on the user IDs for your PeopleSoft application. See the *PeopleTools: Security Administration* product documentation for information on PeopleSoft PeopleTools delivered user profiles.

  See "Creating a Database on UNIX," Running the Database Configuration Wizard.

  See "Creating a Database Manually on Windows," Creating Data Mover Import Scripts.

  See "Creating a Database Manually on UNIX," Creating Data Mover Import Scripts.
- 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. 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.

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Task 8A-1: Preparing the Application Server File System for a PeopleTools-Only Upgrade

When performing the installation of the separate upgrade *PS_HOME* (which is different than your old release *PS_HOME),* you may configure your Application Server at this point in time of the installation. Do not boot your Application Server until directed to do so within the upgrade. If you are installing into an old *PS_HOME* or *PS_CFG_HOME* after completing a PeopleTools-only upgrade, review your old *PS_HOME* or *PS_CFG_HOME* for configuration files that you may want to reuse for the new PeopleSoft PeopleTools release.

See Also

"Preparing for Installation," Preparing for the PeopleTools-Only Upgrade

Task 8A-2: Setting Up COBOL for Remote Call

Remote Call is a PeopleCode feature that launches a COBOL program from an application server, PeopleCode program or a batch Application Engine PeopleCode program and waits for it to complete execution before continuing. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler. You need to set up a COBOL runtime environment and COBOL executables on the application server to support Remote Call.

See "Installing and Compiling COBOL on Windows."

Note. If your application does not contain COBOL programs, you do not need to purchase or compile COBOL.

Task 8A-3: Verifying Database Connectivity

Before continuing, it is critical to verify connectivity to the database that 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 Oracle use SQL*Plus.

Task 8A-4: Creating, Configuring, and Starting an Initial Application Server Domain

This section discusses:

- Creating, Configuring, and Starting the Application Server Domain
- Testing the Three-Tier Connection
- Importing an Existing Application Server Domain Configuration
- Setting Up a Custom Application Server Domain Configuration
- Troubleshooting Common Errors

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Task 8A-4-1: Creating, Configuring, and Starting the Application Server Domain

To create, configure, and start the application server domain:

1. Run the `psadmin` command.

   You see the PeopleSoft Server Administration menu, as in this example:

```
--------------------------------
PeopleSoft Server Administration
--------------------------------

PS_CFG_HOME:  C:\Users\JSMITH\psft\pt\8.55
PS_HOME:      C:\PT8.55
PS_APP_HOME:  C:\HR92

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Service Setup
7) Replicate Config Home
8) Refresh Config Home
q) Quit

Command to execute (1-8, q): 1
```

   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. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME/*peopletools.properties file with the current *PS_HOME* location:

```
*********************************************************
PS_CFG_HOME/peopletools.properties file has been updated.
You should use the Config Home Refresh feature in PSAdmin
to ensure that all of your domains are current.
Alternatively, you may recreate all of your domains.
Please press any key to continue...
*********************************************************
```

   This indicates that one of these situations exists:

   - The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
   - You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.

3. Specify *1* for Application Server and press ENTER.

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4. Specify *2* to Create a domain and press ENTER.

```
-------------------------------------------
PeopleSoft Application Server Administration
-------------------------------------------
  1) Administer a domain
  2) Create a domain
  3) Delete a domain
  4) Import domain configuration
  q) Quit

 Command to execute (1-4, q): 2
```

5. Specify the domain name.

   In this example the database name is HRDMO:

```
Please enter name of domain to create :HRDMO
```

   Domain names are case sensitive and must be eight US-ASCII characters or less. The domain name is used to create a directory name under the *PS_CFG_HOME*\appserv directory.

   See the information on *PS_CFG_HOME* and server domain configuration in the *PeopleTools: System and Server Administration* product documentation.

6. Specify *4* for small if this is your initial domain installation, press ENTER.

   See *PeopleTools: System and Server Administration.*

7. After the system creates the domain, the PeopleSoft Application Server Administration menu appears with a Quick-configure menu similar to this:

```
-------------------------------------------------------
Quick-configure menu -- domain: HRDMO
-------------------------------------------------------
         Features                                Settings
        ==========                              ==========
  1) Pub/Sub Servers       : No        17) DBNAME         :[HRDMO]
  2) Quick Server          : No        18) DBTYPE         :[ORACLE]
  3) Query Servers         : No        19) UserId         :[QEDMO]
  4) Jolt                  : Yes       20) UserPswd       :[]
  5) Jolt Relay            : No        21) DomainID       :[TESTSERV]
  6) WSL                   : No        22) AddToPATH      :[c:\oracle⇒
\product\11.2.0\dbhome_1\bin]
  7) PC Debugger           : No        23) ConnectID      :[people]
  8) Event Notification    : Yes       24) ConnectPswd    :[]
  9) MCF Servers           : No        25) DomainConnectPswd:[]
 10) Perf Collator         : No        26) WSL Port       :[7000]
 11) Analytic Servers      : Yes       27) JSL Port       :[9000]
 12) Domains Gateway       : No        28) JRAD Port      :[9100]
 13) Push Notifications    : No

      Actions
     =========
 14) Load config as shown
 15) Custom configuration
 16) Edit environment settings
  h) Help for this menu
```

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```
 q) Return to previous menu

HINT: Enter 17 to edit DBNAME, then 14 to load

Enter selection (1-28, h, or q):
```

Note. If your installation includes more than one application server domain on a given machine, read the troubleshooting section for more information.

See Troubleshooting Common Errors.

8. If you need to modify any of the values for these settings, enter the number next to the parameter name, press ENTER, then type the new value, and press ENTER again.

   If you need to change any of the features, type the number next to the feature name and press ENTER.

9. Configure the WSL to boot by changing option 6 to Yes.

   Enter *6*, and press ENTER.

10. If you intend to use the PeopleSoft Report Distribution system, you must select *Yes* for feature 8, Event Notification.

    This enables the REN server, which is used by the "run to window" functionality of the Report Distribution system. *The Report Distribution system, MultiChannel Framework, and Optimization Framework use REN servers.* You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Pure Internet Architecture (PIA).

11. 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.

    See the information on configuring REN Servers in the product documentation.

    See *PeopleTools: MultiChannel Framework.*

12. Enter *22* for AddToPATH, and enter the path to the 64-bit connectivity software. For example:

    ```
    C:\oracle\product\11.2.0\dbhome_1\BIN
    ```

13. Enter the values for the 20) UserPswd and 24) ConnectPswd that you specified during the database configuration.

    Reenter each password to verify the value. The password is hidden by masking characters as you type and in the Quick-configure menu.

14. If you want to set a Domain Connection password, enter *25* and specify a password of 8 characters or less.

    Reenter the password to verify the value. The password is hidden by masking characters as you type and in the Quick-configure menu.

    The Domain Connection password is optional. You can specify a value or leave it blank. However, if you do specify a value, you must supply the same value when installing the PeopleSoft Pure Internet Architecture, to ensure the connection to the Application Server.

15. If you are installing a REN server:

    a. Enter *15* for Custom configuration.

    b. Reply *y*, and press ENTER, at this prompt:

       ```
       Do you want to change any config values (y/n) [n]?
       ```

    c. Reply *n*, and press ENTER, at this prompt:

       ```
       Do you want to change any values (y/n) [n]?
       ```


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Continue to enter *n*, for No, for all sections until you see the PSRENSRV section, and then answer *y*. (Be aware that there are several sections.)

d. Leave the defaults for all settings except for default_auth_token, which you should set to the domain name for your web server.

Note. The default_auth_token setting should be identical to the Authentication Token Domain that you set during PIA installation.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode."

e. Accept the defaults for the next series of questions until asked if you want Event Notification configured. In this case, answer *y*.

f. Accept the default for the remaining questions; the configuration will load automatically.

16. If you are not installing a REN server, after you update the settings you can load the configuration by entering *14*, for Load config as shown, from the Quick-configure menu.
17. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
18. Select *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

---

19. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
20. If you want to shut down your PeopleSoft application server domain later, follow these simple steps:

    a. From the PeopleSoft Domain Administration menu, enter *2* for Domain shutdown menu.

    b. From the PeopleTools Domain Shutdown Menu, enter *1* for Normal shutdown.

    You see messages about the application server processes being shut down. The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

    c. Enter *q* to quit the PeopleSoft Domain Administration Menu.

Task 8A-4-2: Testing the Three-Tier Connection

If you get an error message when you try to sign in to the Application Server in Application Designer (that is, three-tier mode), it may be due to an incorrect server name or port number, because the database server is not running, or because the application server was not booted. To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Start Configuration Manager with one of these methods:
   - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Configuration Manager.
   - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Configuration Manager.
   - Run *PS_HOME*\bin\client\winx86\pscfg.exe.
2. Select the Profile Tab. Highlight Default and select Edit.
3. On the Edit Profile dialog box, select *Application Server* as the Connection Type.
4. Enter values for these parameters:
   - Application Server Name
   - Machine Name or IP Address

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- Port Number (WSL)
- Domain Connection Password and Domain Connection Password (confirm)

  Specify a value for the password, and repeat your entry for confirmation. The password must be 8 characters or less.

  This password is optional. If you did not set the Domain Connection Password in Configuration Manager or in the Application Server configuration, leave it blank. If you specify a password, you must supply the same password during the PeopleSoft Pure Internet Architecture installation for a successful connection between the Application Server and PeopleSoft Pure Internet Architecture.

  See the *PeopleTools: System and Server Administration* product documentation for information on using PeopleSoft Configuration Manager and PSADMIN.

5. Select Set to add the definition to the list and select OK to close the dialog box.
6. On the Configuration Manager dialog box, select the Startup tab.
7. Select *Application Server* from the Database Type list. Your application server name should be displayed.
8. Enter the values for User ID, Connect ID, and password.
9. Click OK.

Note. Confirm that the application server is running by booting it from PSADMIN. Select *1,* Boot this domain, from the PeopleSoft Domain administration menu. Select option *1,* Boot (Serial Boot) or *2,* Parallel Boot, from the PeopleSoft Domain Boot menu.

---

10. Start Application Designer with one of these methods:
    - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Application Designer.
    - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Application Designer.
    - Run *PS_HOME*\bin\client\winx86\pside.exe.
11. In the PeopleSoft Signon dialog box:
    - Select *Application Server* as the Connection Type.
    - Confirm that the Application Server Name is correct.
    - Enter values for User ID and password.
12. Select OK to open Application Designer.

If you see the following error message when you try to sign in to the Application Server in Application Designer:

```
Network API: "Could not connect to application server 'Application Server⇒
 Name' Make sure the PeopleTools authentication server (PSAUTH) is booted."
```

This may indicate a problem with the Domain Connection Password. For example, if the password set in the Application Server configuration file does not match the value in Configuration Manager, you may get this error message when you sign in to Application Designer in three-tier mode. Check the Application Server logs for more information.

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Task 8A-4-3: Importing an Existing Application Server Domain Configuration

If you have an existing application server configuration for a previous PeopleSoft PeopleTools release, you can import it to create a new domain. You can import an existing domain configuration by specifying a file or by specifying the path to an existing domain. To import from a file, you must use the psappsrv.cfg file found inside an existing application server domain folder (you must specify the full path to psappsrv.cfg). This file can be located anywhere in the file system, but must be named psappsrv.cfg. To import from an existing domain configuration that you created in PeopleSoft PeopleTools 8.55, you must specify *PS_CFG_HOME* and the name of an existing application server domain. (If you are importing a domain from a release before PeopleSoft PeopleTools 8.50, note that the domains were created in *PS_HOME,* and that is the path that you should provide.)

To import an existing application server domain configuration:

1. Go to the *PS_HOME*\appserv directory and run the `psadmin` command.

   You see the PeopleSoft Server Administration menu, as in this example:

   ```
   --------------------------------
   PeopleSoft Server Administration
   --------------------------------

   PS_CFG_HOME:  C:\Users\JSMITH\psft\pt\8.55
   PS_HOME:      C:\PT8.55
   PS_APP_HOME:  C:\HR92

   1) Application Server
   2) Process Scheduler
   3) Search Server
   4) Web (PIA) Server
   5) Switch Config Home
   6) Service Setup
   7) Replicate Config Home
   8) Refresh Config Home
   q) Quit

   Command to execute (1-8, q): 1
   ```

   The PS_CONFIG_HOME location, also referred to as Config Home, corresponds to the current working directory. For information on how Config Home is set, see the *PeopleTools: System and Server Administration* product documentation.

   Note. Make sure you change the directory from the *PS_HOME* on the file server to the *PS_HOME* on the application server.

2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME/*peopletools.properties file with the current *PS_HOME* location:

   ```
   ********************************************************
   PS_CFG_HOME/peopletools.properties file has been updated.
   You should use the Config Home Refresh feature in PSAdmin
   to ensure that all of your domains are current.
   Alternatively, you may recreate all of your domains.
   ```

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```
Please press any key to continue...
*********************************************************
```

This indicates that one of these situations exists:

- The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
- You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.

3. Specify *1* for Application Server.
4. Specify *4* for Import domain configuration.

```
--------------------------------------------
PeopleSoft Application Server Administration
--------------------------------------------
  1) Administer a domain
  2) Create a domain
  3) Delete a domain
  4) Import domain configuration
  q) Quit

 Command to execute (1-4, q): 4
```

5. Specify *1* for Import regular domain.

```
--------------------------------------------
PeopleSoft Import Application Server Configuration
--------------------------------------------

  1) Import regular domain
  2) Import IB Master Configuration
  q) Quit

Command to execute (1-2, q) : 1
```

6. Specify whether to import the domain configuration from a file (option 1) or from an existing application domain configuration (option 2).

```
--------------------------------------------
PeopleSoft Import Application Server Configuration
--------------------------------------------
  1) Import from file
  2) Import from application domain
  q) Quit

Command to execute (1-2, q) :
```

7. If you selected *1*, provide the full path to the file psappsrv.cfg, and then specify the name of the domain you want to create. If you selected 2, go to the next step.

```
Enter full path to configuration file
  :C:\temp\oldconfig\psappsrv.cfg
```


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```
Enter domain name to create
  :HRDMO
```

8. If you selected *2*, to Import from application domain, provide the full path to the *PS_CFG_HOME* of the existing domain.

```
If importing from PeopleTools 8.49 or earlier, provide PS_HOME for PS_⇒
CFG_HOME.

Enter PS_CFG_HOME of domain you wish to import: C:\Users\JSMITH\psft\pt⇒
\8.55
```

If applicable, choose among the existing application server domains in the specified *PS_CFG_HOME*:

```
Tuxedo domain list:
  1)  HRDBA
  2)  HRDBB

Select domain number to import: 1

Enter a name for new domain:  HRDMO
```

After you create the domain, continue to the next task to verify that the imported configuration parameters are appropriate for the newly created domain. You may need to change the following values:

- DBName

  DBName can be the same or different, depending on which database the application server needs to point to.
- DBType

  DBType depends on the database type of DBName.
- UserId and UserPswd

  UserId and UserPswd are the user's choice.
- Workstation Listener Port

  Workstation Listener Port will need to be modified if the old domain will be up and running in the same machine.
- Jolt Listener Port

  Jolt Listener Port will also need a different number if the old domain will be up and running in the same machine.
- Jolt Relay Adapter Listener Port

  Jolt Relay Adapter Listener Port will need a different number if the old domain will be up and running in the same machine, and will be using Jolt Relay Adapter.

Task 8A-4-4: Setting Up a Custom Application Server Domain Configuration

The Quick-configure menu is initially displayed when you choose to configure your domain. This menu is intended for the commonly adjusted parameters—those most likely to change from domain to domain. However, there are additional configuration parameters that are not available through the Quick-configure menu. For such configuration parameters, you must use the Custom Configuration option, which you can access from the Quick-configure menu. Feel free to skip this procedure if you have already created and configured your Application Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using PSADMIN to specify parameter settings.

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To reconfigure an application server domain:

1. Go to the *PS_HOME*\appserv directory and run the `psadmin` command.

   Note. Make sure you change the directory from the *PS_HOME* on the file server to the *PS_HOME* on the application server.

2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME/*peopletools.properties file with the current *PS_HOME* location:

   ```
   *********************************************************
   PS_CFG_HOME/peopletools.properties file has been updated.
   You should use the Config Home Refresh feature in PSAdmin
   to ensure that all of your domains are current.
   Alternatively, you may recreate all of your domains.
   Please press any key to continue...
   ************************************************************
   ```

   This indicates that one of these situations exists:

   - The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
   - You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.
3. Specify *1* for Application Server and press ENTER.
4. Specify *1* for Administer a domain and press ENTER.
5. Select the domain to administer and press ENTER.
6. Specify *4* for Configure this domain and press ENTER.

   The option 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 tmloadcf executable to create binary file PSTUXCFG used during the domain boot process.
7. Specify *15* for Custom Configuration and press ENTER.
8. Respond to this 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.

     Oracle recommends this option for more experienced users.
   - Specify *n* if you have already edited psappsrv.cfg, skip the next step, and continue with the step to select server process options.
9. Complete the interactive dialog to specify configuration parameters.

   Configuration parameters are grouped into sections. For each section, you are asked whether you want to

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change any parameters in that section, as in the following example:

```
Values for config section - Startup
                DBName=
                DBType=
                UserId=
                UserPswd=
                ConnectId=
                ConnectPswd=
                ServerName=
                StandbyDBName=
                StandbyDBType=
                StandbyUserId=
                StandbyUserPswd=
                InMemoryDBName=
                InMemoryDBType=
Do you want to change any values (y/n)? [n]:  y
```

- Specify *y* to change any parameter values 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.
- 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.

  The password you enter is hidden by masking characters.
- The parameters StandbyDBName, StandbyDBType, StandbyUserId, and StandbyUserPswd, are used for a standby database in an Oracle environment.

  See *PeopleTools: Data Management*, "Implementing Oracle Active Data Guard."
- The parameters InMemoryDBName and InMemoryDBType are reserved for internal use.
- The WSL, JSL, and JRAD port numbers, which are found in other sections of the configuration parameters, 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
- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

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 will need to use these same values when installing the PeopleSoft Pure Internet Architecture.

See *PeopleTools: System and Server Administration.*

10. 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. A message similar to this appears:

    ```
    Setting Log Directory to the default... [PS_SERVDIR\LOGS]
    Configuration file successfully created.
    Loading new configuration...
    ```

    The message "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

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properly configured.

Task 8A-4-5: Troubleshooting Common Errors

For troubleshooting help, you can access a log file through the PSADMIN PeopleSoft Domain Administration menu. The following list includes possible errors and troubleshooting tips.

- Use PSADMIN menu option 6 for Edit configuration/log files menu to check for errors in <*PS_CFG_HOME*>\appserv\<*domain*>\LOGS\APPSRV_mmdd.log and <*PS_CFG_HOME*>\appserv\<*domain*>\LOGS\TUXLOG.mmddyy.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. The failure of the PSAPPSRV process is often signalled by the message "Assume failed"—which means the process has failed to start. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId, 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 you are unable to start the BBL, check that your Tuxedo is installed fully and that the directory really exists.
- If the installation includes more than one application server domain on a single machine, before booting the second domain, adjust the REN server configuration to avoid conflict in one of these ways:
  - Use PSADMIN to disable Event Notification (option 8 on the Quick-configure menu) for the second and subsequent app server domains.
  - Change default_http_port to a value other than 7180.

See Also

PeopleTools: System and Server Administration

PeopleTools: MultiChannel Framework

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Chapter 8B

Configuring the Application Server on UNIX

This chapter discusses:

- Understanding the Application Server
- Understanding the Application Server Domain Processes
- Prerequisites
- Preparing the Application Server File System for a PeopleTools-Only Upgrade
- Setting Environment Variables
- Setting Up COBOL for Remote Call
- Verifying Database Connectivity
- Creating, Configuring, and Starting an Initial Application Server Domain

Understanding the Application Server

The information in this chapter is provided to help you configure your PeopleSoft application server.

Note. COBOL is not needed for PeopleSoft PeopleTools or for PeopleSoft Applications that contain no COBOL programs. Check the information on My Oracle Support, and your application-specific documentation, for the details on whether your application requires COBOL.

Oracle supports application servers for the PeopleSoft installation on several UNIX and Linux operating system platforms. For detailed information, consult the certification information on My Oracle Support. The application server support can be found on the certification pages for PeopleSoft systems.

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 PeopleSoft installation, Oracle 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.

The configuration and log files for application server domains reside in *PS_CFG_HOME*. If you do not set a PS_CFG_HOME environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

`$HOME/psft/pt/<peopletools_version>`

See "Preparing for Installation," Defining Installation Locations.

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See Also

"Preparing for Installation," Understanding PeopleSoft Servers and Clients

PeopleTools: System and Server Administration, "Using PSADMIN Menus"

PeopleTools: Data Management

My Oracle Support, Certifications

"Setting Up the Install Workstation"

"Installing and Compiling COBOL on UNIX"

Understanding the Application Server Domain Processes

On most platforms (IBM AIX, Oracle Solaris, Linux, and HP-UX Itanium) no changes are required from the system defaults, in order to allow the "small" and "development" domains that are shipped with PeopleSoft PeopleTools to boot successfully.

Refer to the performance documentation for guidance in configuring your system to run larger domains. That document describes the suggested minimum kernel settings for running PeopleSoft PeopleTools in a real-world environment.

See PeopleTools Performance Guidelines Red Paper on My Oracle Support (search for the article title).

Permanently changing system-wide parameters generally requires root privileges, and any changes to the kernel configuration of your operating system should be done with care.

If you are installing on HP-UX 11.31 operating systems, be aware that hosts with machine names longer than 8 characters require the HP-UX kernel configuration `uname_eoverflow` to be set to 0 (zero).

Prerequisites

Before beginning this procedure, you should have completed the following tasks:

- Installed your application server.

  See "Using the PeopleSoft Installer," Planning Your Initial Configuration.
- Installed the supported version of Oracle Tuxedo

  See "Installing Additional Components."
- Granted authorization to a PeopleSoft user ID to start the application server.

  The database configuration procedure includes a step for setting up the user ID with authorization to start the application server. See the application-specific installation instructions for information on the user IDs for your PeopleSoft application. See the *PeopleTools: Security Administration* product documentation for information on PeopleSoft PeopleTools delivered user profiles.

  See "Creating a Database on UNIX," Running the Database Configuration Wizard.

  See "Creating a Database Manually on Windows," Creating Data Mover Import Scripts.

  See "Creating a Database Manually on UNIX," Creating Data Mover Import Scripts.
- Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table:

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```
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. 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 8B-1: Preparing the Application Server File System for a PeopleTools-Only Upgrade

When performing the installation of the separate upgrade *PS_HOME* (which is different than your old release *PS_HOME),* you may configure your Application Server at this point in time of the installation. Do not boot your Application Server until directed to do so within the upgrade. If you are installing into an old *PS_HOME* or *PS_CFG_HOME* after completing a PeopleTools-only upgrade, review your old *PS_HOME* or *PS_CFG_HOME* for configuration files that you may want to reuse for the new PeopleSoft PeopleTools release.

See Also

"Preparing for Installation," Preparing for the PeopleTools-Only Upgrade

Task 8B-2: Setting Environment Variables

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately.

Note. The environment variables for Tuxedo must be set explicitly; they are not set by running psconfig.sh. These can be also set using the .profile file in the user's home directory.

- $TUXDIR must be set to the correct Oracle Tuxedo installation directory. For example:

  ```
  TUXDIR=/home/user/Oracle/tuxedo12cR1; export TUXDIR
  ```

- $TUXDIR/lib must be prepended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform. For example:

  ```
  LD_LIBRARY_PATH=$TUXDIR/lib:$LD_LIBRARY_PATH; export  LD_LIBRARY_PATH
  ```

- $TUXDIR/bin must be prepended to PATH. For example:

  ```
  PATH=$TUXDIR/bin:$PATH; export PATH
  ```

One method to ensure that the following PeopleSoft environment variables are set is to source psconfig.sh. Go to the *PS_HOME* directory, and enter the following command:

```
. ./psconfig.sh
```

Note. After running psconfig.sh, you can invoke the psadmin utility from any location.

Alternatively you can make sure the following environment variables are set in the .profile file in the user's home directory:

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- $ORACLE_HOME must point to the correct Oracle installation for example:
  ```
  ORACLE_HOME=/products/oracle/11.2.0;export ORACLE_HOME
  ```
- $ORACLE_HOME/bin must be added to PATH; for example:
  ```
  PATH=$PATH:$ORACLE_HOME/bin;export PATH
  ```
- $ORACLE_HOME/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.
- $ORACLE_HOME/lib must be ahead of $ORACLE_HOME/lib32 in the library path.
- $ORACLE_SID must be set to the correct Oracle instance. For example:
  ```
  ORACLE_SID=hdmo;export ORACLE_SID
  ```
- $COBDIR must be set to the Server Express installation directory. For example:
  ```
  COBDIR=/cobol/prod/svrexp-5.1_wp11-64bit;export COBDIR
  ```

  Note. If your application does not contain COBOL programs, you do not need to set the $COBDIR environment variables.

- $COBDIR/bin must be appended to the PATH; for example:
  ```
  PATH=$PATH:$COBDIR/bin;export PATH
  ```
- $COBDIR/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform. For example:
  ```
  LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$COBDIR/lib;export LD_LIBRARY_PATH
  LIBPATH=$LIBPATH:$COBDIR/lib;export LIBPATH
  SHLIB_PATH=$SHLIB_PATH:$COBDIR/lib;export SHLIB_PATH
  ```

Task 8B-3: Setting Up COBOL for Remote Call

Remote Call is a PeopleCode feature that launches a COBOL program from an application server, PeopleCode program or a batch Application Engine PeopleCode program and waits for it to complete execution before continuing. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler. You need to set up a COBOL runtime environment and COBOL executables on the application server to support Remote Call.

See "Installing and Compiling COBOL on UNIX."

Note. If your application does not contain COBOL programs, you do not need to purchase or compile COBOL.

Task 8B-4: Verifying Database Connectivity

Before continuing, it is critical to verify connectivity to the database that 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 Oracle use SQL*Plus.

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Task 8B-5: Creating, Configuring, and Starting an Initial Application Server Domain

This section discusses:

- Creating, Configuring, and Starting the Application Server Domain
- Testing the Three-Tier Connection
- Importing an Existing Application Server Domain Configuration
- Setting Up a Custom Application Server Domain Configuration
- Troubleshooting Common Errors

Task 8B-5-1: Creating, Configuring, and Starting the Application Server Domain

To create, configure, and start the application server domain:

1. Run the `psadmin` command.

   You see the PeopleSoft Server Administration menu, as in this example:

```
--------------------------------
PeopleSoft Server Administration
--------------------------------
PS_CFG_HOME:  /home/JSMITH/peopletools/8.55
PS_HOME:      /home/PT855
PS_APP_HOME:  /home/HR92


1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Replicate Config Home
7) Refresh Config Home
q) Quit

Command to execute (1-7, q): 1
```

2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME*/peopletools.properties file with the current *PS_HOME* location:

```
*********************************************************
PS_CFG_HOME/peopletools.properties file has been updated.
You should use the Config Home Refresh feature in PSAdmin
to ensure that all of your domains are current.
Alternatively, you may recreate all of your domains.
Please press any key to continue...
*********************************************************
```

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This indicates that one of these situations exists:

- The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
- You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME*/peopletools.properties file. Continue with the next step.

3. Specify *1* for Application Server and press ENTER.
4. Specify *2* to Create a domain and press ENTER.

```
-------------------------------------------
PeopleSoft Application Server Administration
-------------------------------------------
  1) Administer a domain
  2) Create a domain
  3) Delete a domain
  4) Import domain configuration
  q) Quit

 Command to execute (1-4, q): 2
```

5. Specify the domain name.

   In this example the database name is HRDMO:

```
Please enter name of domain to create :HRDMO
```

   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_CFG_HOME*/appserv directory.

   See the information on *PS_CFG_HOME* and server domain configuration in the *PeopleTools: System and Server Administration* product documentation.

6. Specify *4* for small if this is your initial domain installation, press ENTER.

   See *PeopleTools: System and Server Administration.*

7. After the system creates the domain, the PeopleSoft Application Server Administration menu appears with a Quick-configure menu similar to this:

```
---------------------------------------------------------
Quick-configure menu -- domain: HRDMO
---------------------------------------------------------
         Features                                  Settings
        ==========                                ==========
  1) Pub/Sub Servers       : No        17) DBNAME         :[HRDMO]
  2) Quick Server          : No        18) DBTYPE         :[ORACLE]
  3) Query Servers         : No        19) UserId         :[VP1]
  4) Jolt                  : Yes       20) UserPswd       :[]
  5) Jolt Relay            : No        21) DomainID       :[TESTSERV]
  6) WSL                   : No        22) AddToPATH      :[.]
  7) PC Debugger           : No        23) ConnectID      :[people]
  8) Event Notification    : Yes       24) ConnectPswd    :[]
  9) MCF Servers           : No        25) DomainConnectPswd:[]
 10) Perf Collator         : No        26) WSL Port       :[7000]
 11) Analytic Servers      : Yes       27) JSL Port       :[9000]
 12) Domains Gateway       : No        28) JRAD Port      :[9100]
```


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```
13) Push Notifications    : No

     Actions
    =========
14) Load config as shown
15) Custom configuration
16) Edit environment settings
 h) Help for this menu
 q) Return to previous menu

HINT: Enter 17 to edit DBNAME, then 14 to load

Enter selection (1-28, h, or q):
```

Note. If your installation includes more than one application server domain on a given machine, read the troubleshooting section for more information.

See Troubleshooting Common Errors.

8. If you need to modify any of the values for these settings, enter the number next to the parameter name, press ENTER, then type the new value, and press ENTER again.

   If you need to change any of the features, type the number next to the feature name and press ENTER.

9. Configure the WSL to boot by changing option 6 to Yes.

   Enter *6*, and press ENTER.

10. If you intend to use the PeopleSoft Report Distribution system, you must select *Yes* for feature 8, Event Notification.

    This enables the REN server, which is used by the "run to window" functionality of the Report Distribution system. *The Report Distribution system, MultiChannel Framework, and Optimization Framework use REN servers.* You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Pure Internet Architecture (PIA).

11. 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.

    See the information on configuring REN Servers in the product documentation.

    See *PeopleTools: MultiChannel Framework.*

12. Enter the values for the 20) UserPswd and 24) ConnectPswd that you specified during the database configuration.

    Reenter each password to verify the value. The password is hidden by masking characters as you type and in the Quick-configure menu.

13. If you want to set a Domain Connection password, enter *25* and specify a password of 8 characters or less.

    Reenter the password to verify the value. The password is hidden by masking characters as you type and in the Quick-configure menu.

    The Domain Connection password is optional. You can specify a value or leave it blank. However, if you do specify a value, you must supply the same value when installing the PeopleSoft Pure Internet Architecture, to ensure the connection to the Application Server.

14. If you are installing a REN server:

    a. Enter *15* for Custom configuration.

    b. Reply *y*, and press ENTER, at this prompt:

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```
Do you want to change any config values (y/n) [n]?
```

c. Reply *n*, and press ENTER, at this prompt:

```
Do you want to change any values (y/n) [n]?
```

Continue to enter *n*, for No, for all sections until you see the PSRENSRV section, and then answer *y*. (Be aware that there are several sections.)

d. Leave the defaults for all settings except for default_auth_token, which you should set to the domain name for your web server.

Note. The default_auth_token setting should be identical to the Authentication Token Domain that you set during PIA installation.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode."

e. Accept the defaults for the next series of questions until asked if you want Event Notification configured. In this case, answer *y*.

f. Accept the default for the remaining questions; the configuration will load automatically.

15. If you are not installing a REN server, after you update the settings you can load the configuration by entering *14*, for Load config as shown, from the Quick-configure menu.
16. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
17. Select *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

---

18. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
19. If you want to shut down your PeopleSoft application server domain later, follow these simple steps:

a. From the PeopleSoft Domain Administration menu, enter *2* for Domain shutdown menu.

b. From the PeopleTools Domain Shutdown Menu, enter *1* for Normal shutdown.

You see messages about the application server processes being shut down. The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

c. Enter *q* to quit the PeopleSoft Domain Administration Menu.

Task 8B-5-2: Testing the Three-Tier Connection

If you get an error message when you try to sign in to the Application Server in Application Designer (that is, three-tier mode), it may be due to an incorrect server name or port number, because the database server is not running, or because the application server was not booted. To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Start Configuration Manager with one of these methods:
   - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Configuration Manager.
   - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Configuration Manager.
   - Run *PS_HOME*\bin\client\winx86\pscfg.exe.
2. Select the Profile Tab. Highlight Default and select Edit.

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3. On the Edit Profile dialog box, select *Application Server* as the Connection Type.
4. Enter values for these parameters:
   - Application Server Name
   - Machine Name or IP Address
   - Port Number (WSL)
   - Domain Connection Password and Domain Connection Password (confirm)

     Specify a value for the password, and repeat your entry for confirmation. The password must be 8 characters or less.

     This password is optional. If you did not set the Domain Connection Password in Configuration Manager or in the Application Server configuration, leave it blank. If you specify a password, you must supply the same password during the PeopleSoft Pure Internet Architecture installation for a successful connection between the Application Server and PeopleSoft Pure Internet Architecture.

     See the *PeopleTools: System and Server Administration* product documentation for information on using PeopleSoft Configuration Manager and PSADMIN.
5. Select Set to add the definition to the list and select OK to close the dialog box.
6. On the Configuration Manager dialog box, select the Startup tab.
7. Select *Application Server* from the Database Type list. Your application server name should be displayed.
8. Enter the values for User ID, Connect ID, and password.
9. Click OK.

Note. Confirm that the application server is running by booting it from PSADMIN. Select *1,* Boot this domain, from the PeopleSoft Domain administration menu. Select option *1,* Boot (Serial Boot) or *2,* Parallel Boot, from the PeopleSoft Domain Boot menu.

---

10. Start Application Designer with one of these methods:
    - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Application Designer.
    - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Application Designer.
    - Run *PS_HOME*\bin\client\winx86\pside.exe.
11. In the PeopleSoft Signon dialog box:
    - Select *Application Server* as the Connection Type.
    - Confirm that the Application Server Name is correct.
    - Enter values for User ID and password.
12. Select OK to open Application Designer.

If you see the following error message when you try to sign in to the Application Server in Application Designer:

```
Network API: "Could not connect to application server 'Application Server⇒
 Name' Make sure the PeopleTools authentication server (PSAUTH) is booted."
```

This may indicate a problem with the Domain Connection Password. For example, if the password set in the Application Server configuration file does not match the value in Configuration Manager, you may get this error message when you sign in to Application Designer in three-tier mode. Check the Application Server logs for more information.

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Task 8B-5-3: Importing an Existing Application Server Domain Configuration

If you have an existing application server configuration for a previous PeopleSoft PeopleTools release, you can import it to create a new domain. You can import an existing domain configuration by specifying a file or by specifying the path to an existing domain. To import from a file, you must use the psappsrv.cfg file found inside an existing application server domain folder (you must specify the full path to psappsrv.cfg). This file can be located anywhere in the file system, but must be named psappsrv.cfg. To import from an existing domain configuration that you created in PeopleSoft PeopleTools 8.55, you must specify *PS_CFG_HOME* and the name of an existing application server domain. (If you are importing a domain from a release before PeopleSoft PeopleTools 8.50, note that the domains were created in *PS_HOME,* and that is the path that you should provide.)

To import an existing application server domain configuration:

1. Run the `psadmin` command.

   You see the PeopleSoft Server Administration menu, as in this example:

   ```
   --------------------------------
   PeopleSoft Server Administration
   --------------------------------
   PS_CFG_HOME:  /home/JSMITH/peopletools/8.55
   PS_HOME:      /home/PT855
   PS_APP_HOME:  /home/HR92


   1) Application Server
   2) Process Scheduler
   3) Search Server
   4) Web (PIA) Server
   5) Switch Config Home
   6) Replicate Config Home
   7) Refresh Config Home
   q) Quit

   Command to execute (1-7, q): 1
   ```

   The PS_CONFIG_HOME location, also referred to as Config Home, corresponds to the current working directory. For information on how Config Home is set, see the *PeopleTools: System and Server Administration* product documentation.

2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME*/peopletools.properties file with the current *PS_HOME* location:

   ```
   ************************************************************
   PS_CFG_HOME/peopletools.properties file has been updated.
   You should use the Config Home Refresh feature in PSAdmin
   to ensure that all of your domains are current.
   Alternatively, you may recreate all of your domains.
   Please press any key to continue...
   ************************************************************
   ```

   This indicates that one of these situations exists:

   - The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this

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case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.

- You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.

3. Specify *1* for Application Server.
4. Specify *4* for Import domain configuration.

```
--------------------------------------------
PeopleSoft Application Server Administration
--------------------------------------------
  1) Administer a domain
  2) Create a domain
  3) Delete a domain
  4) Import domain configuration
  q) Quit

 Command to execute (1-4, q): 4
```

5. Specify *1* for Import regular domain.

```
--------------------------------------------
PeopleSoft Import Application Server Configuration
--------------------------------------------

  1) Import regular domain
  2) Import IB Master Configuration
  q) Quit

Command to execute (1-2, q) : 1
```

6. Specify whether to import the domain configuration from a file (option 1) or from an existing application domain configuration (option 2).

```
--------------------------------------------
PeopleSoft Import Application Server Configuration
--------------------------------------------
  1) Import from file
  2) Import from application domain
  q) Quit

Command to execute (1-2, q) :
```

7. If you selected *1*, provide the full path to the file psappsrv.cfg, and then specify the name of the domain you want to create. If you selected 2, go to the next step.

```
Enter full path to configuration file
:/home/oldconfig/psappsrv.cfg

Enter domain name to create
 :HRDMO
```

8. If you selected *2*, to Import from application domain, provide the full path to the *PS_CFG_HOME* of the existing domain.

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```
If importing from PeopleTools 8.49 or earlier, provide PS_HOME for PS_⇒
CFG_HOME.

Enter PS_CFG_HOME of domain you wish to import: /home/JSMITH⇒
/peopletools/8.55
```

If applicable, choose among the existing application server domains in the specified *PS_CFG_HOME*:

```
Tuxedo domain list:
  1)  HRDBA
  2)  HRDBB

Select domain number to import: 1

Enter a name for new domain:  HRDMO
```

After you create the domain, continue to the next task to verify that the imported configuration parameters are appropriate for the newly created domain. You may need to change the following values:

- DBName

  DBName can be the same or different, depending on which database the application server needs to point to.
- DBType

  DBType depends on the database type of DBName.
- UserId and UserPswd

  UserId and UserPswd are the user's choice.
- Workstation Listener Port

  Workstation Listener Port will need to be modified if the old domain will be up and running in the same machine.
- Jolt Listener Port

  Jolt Listener Port will also need a different number if the old domain will be up and running in the same machine.
- Jolt Relay Adapter Listener Port

  Jolt Relay Adapter Listener Port will need a different number if the old domain will be up and running in the same machine, and will be using Jolt Relay Adapter.

Task 8B-5-4: Setting Up a Custom Application Server Domain Configuration

The Quick-configure menu is initially displayed when you choose to configure your domain. This menu is intended for the commonly adjusted parameters—those most likely to change from domain to domain. However, there are additional configuration parameters that are not available through the Quick-configure menu. For such configuration parameters, you must use the Custom Configuration option, which you can access from the Quick-configure menu. Feel free to skip this procedure if you have already created and configured your Application 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 reconfigure an application server domain:

1. Run the `psadmin` command.
2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME*/peopletools.properties file with the current *PS_HOME*

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location:

```
*******************************************************
PS_CFG_HOME/peopletools.properties file has been updated.
You should use the Config Home Refresh feature in PSAdmin
to ensure that all of your domains are current.
Alternatively, you may recreate all of your domains.
Please press any key to continue...
*********************************************************
```

This indicates that one of these situations exists:

- The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
- You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.

3. Specify *1* for Application Server and press ENTER.
4. Specify *1* for Administer a domain and press ENTER.
5. Select the domain to administer and press ENTER.
6. Specify *4* for Configure this domain and press ENTER.

   The option 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 tmloadcf executable to create binary file PSTUXCFG used during the domain boot process.
7. Specify *15* for Custom Configuration and press ENTER.
8. Respond to this 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.

     Oracle recommends this option for more experienced users.
   - Specify *n* if you have already edited psappsrv.cfg, skip the next step, and continue with the step to select server process options.
9. Complete the 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=
   ```

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```
                 ServerName=
                 StandbyDBName=
                 StandbyDBType=
                 StandbyUserId=
                 StandbyUserPswd=
                 InMemoryDBName=
                 InMemoryDBType=
Do you want to change any values (y/n)? [n]:  y
```

- Specify *y* to change any parameter values 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.
- 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.

  The password you enter is hidden by masking characters.
- The parameters StandbyDBName, StandbyDBType, StandbyUserId, and StandbyUserPswd, are used for a standby database in an Oracle environment.

  See *PeopleTools: Data Management*, "Implementing Oracle Active Data Guard."
- The parameters InMemoryDBName and InMemoryDBType are reserved for internal use.
- The WSL, JSL, and JRAD port numbers, which are found in other sections of the configuration parameters, 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
- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

  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 will need to use these same values when installing the PeopleSoft Pure Internet Architecture.

  See *PeopleTools: System and Server Administration.*

10. 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. A message similar to this appears:

    ```
    Setting Log Directory to the default... [PS_SERVDIR/LOGS]
    Configuration file successfully created.
    Loading new configuration...
    ```

    The message "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.

Task 8B-5-5: Troubleshooting Common Errors

For troubleshooting help, you can access a log file through the PSADMIN PeopleSoft Domain Administration menu. The following list includes possible errors and troubleshooting tips.

- Use the PSADMIN PeopleSoft Domain Administration menu option 6 for Edit configuration/log files menu to

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check for errors in <*PS_CFG_HOME*>/appserv/<*domain*>/LOGS/APPSRV_mmdd.LOG and <*PS_CFG_HOME*>/appserv/<*domain*>/LOGS/TUXLOG.mmddyy.

- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. The failure of the PSAPPSRV process is often signalled by the message "Assume failed"—which means the process has failed to start. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId, 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 you are unable to start the BBL, check that your Tuxedo is installed fully and that the directory really exists.
- If the installation includes more than one application server domain on a single machine, before booting the second domain, adjust the REN server configuration to avoid conflict in one of these ways:
  - Use PSADMIN to disable Event Notification (option 8 on the Quick-configure menu) for the second and subsequent app server domains.
  - Change default_http_port to a value other than 7180.
- Check that you do not have older Tuxedo releases prepended in your PATH or runtime library (LIBPATH, SHLIB_PATH or LD_LIBRARY_PATH, depending on the UNIX operating system).

See Also

PeopleTools: System and Server Administration

PeopleTools: MultiChannel Framework

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Chapter 9A

Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in GUI Mode
- Testing and Administering the PeopleSoft Pure Internet Architecture Installation
- Completing Post-Installation Steps

Understanding PeopleSoft Pure Internet Architecture

This chapter explains how to install and configure the components of the PeopleSoft Pure Internet Architecture (PIA) in GUI mode. It includes instructions for installing the PeopleSoft files on Oracle WebLogic and IBM WebSphere. Only complete the instructions for the web server product that you installed.

Note. See the chapter "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode" for instructions on installing in silent mode on Microsoft Windows.

See "Installing Web Server Products."

The setup program for the PeopleSoft Pure Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option.

See "Using the PeopleSoft Installer."

Oracle only supports customer installations that use web servers that are certified for PeopleSoft PeopleTools. *You must install the web server before you install the PeopleSoft Pure Internet Architecture.* Before you install the PeopleSoft Pure Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The location where you install the PeopleSoft Pure Internet Architecture is referred to in this documentation as *PIA_HOME.* You can specify different locations for *PS_HOME* and *PIA_HOME.* After you complete the PeopleSoft Pure Internet Architecture installation, you can locate the installation files in the directory *PIA_HOME*/webserv.

For PeopleSoft PeopleTools 8.51 and later, if you are setting up the PeopleSoft Pure Internet Architecture on a Microsoft Windows platform, the directory and path that you specify for *PIA_HOME* may include spaces. However, parentheses in the directory name (for example, "C:\Program Files (x86)") are *not* allowed for *PIA_HOME.*

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See "Preparing for Installation," Defining Installation Locations.

If your web server is on a different machine than your application server, you need to make sure you have JRE installed on your web server to run the PeopleSoft Pure Internet Architecture installation.

The initial PeopleSoft Pure Internet Architecture setup automatically creates the default PeopleSoft site named ps. In subsequent PeopleSoft Pure Internet Architecture setups, change the 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.

The URL that you use to invoke the PeopleSoft Pure Internet Architecture must conform to ASN.1 specifications. That is, it may contain only alphanumeric characters, dots ("."), or dashes ("-"). The URL must not begin or end with a dot or dash, or contain consecutive dots (".."). If the URL includes more than one portion, separated by dots, do not use a number to begin a segment if the other segments contain letters. For example, "mycompany.second.country.com" is correct, but "mycompany.2nd.country.com" is wrong.

Review the following additional notes before beginning the PeopleSoft Pure Internet Architecture installation:

- If you want to connect between multiple application databases, you need to implement single signon.
- If the PeopleSoft Pure Internet Architecture installation encounters an error, it will indicate which log files to refer to.

  See "Installing Web Server Products."
- The machine on which you run the PeopleSoft Pure Internet Architecture install must be running in *256 color mode.* This is not necessary for UNIX or console mode.
- When installing on Microsoft Windows Server 2008, change the font size to the default value.

  If you use the installer with a non-default font size, some of the fields on the installer windows may appear with an incorrect length. To change the font size:

  1. Right-click the desktop and select Personalize.
  2. Click Adjust font size (DPI).
  3. Select the default, 96 DPI.

The PeopleSoft Pure Internet Architecture installation includes the following products:

- *PeopleSoft Pure 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. The portal packs and PeopleSoft Portal Solutions have their own installation instructions, which are available on My Oracle Support. For an overview of the various types of portals, consult the *PeopleTools: Portal Technology* product documentation.
- *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.

  Important! For PeopleSoft PeopleTools 8.50 and later, review the product documentation concerning security properties for Integration Gateway. When setting the properties in the integrationGateways.properties file, the property secureFileKeystorePasswd must be encrypted, and the secureFileKeystorePath must be set.

  See *PeopleTools: Integration Broker Administration.*
- *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.

  See *PeopleTools: MultiChannel Framework.*

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- *Environment Management Hub.* The Environment Management hub is a web application that is installed with the PeopleSoft Pure Internet Architecture and portal. It is started along with the rest of the web applications when the user boots the web server. You cannot start the Environment Management Hub on a server that is configured to run HTTPS; in other words, if you plan to run Environment Management, your PIA server needs to be configured in HTTP mode.

  See *PeopleTools: Change Assistant and Update Manager*.

See Also

PeopleTools: Security Administration

PeopleTools: System and Server Administration

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows

Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation

You have the option to specify an authentication domain when you install the PeopleSoft Pure Internet Architecture on Oracle WebLogic or IBM WebSphere.

Note. The authentication domain was referred to as the Authentication Token Domain in previous releases, and that term is still seen in the software.

When an authentication domain is specified during the PeopleSoft Pure Internet Architecture installation, 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 does not imply that you must have a DNS, but you do need some type of naming service such as DNS or some managed ..\etc\hosts file that contains a list of the servers with their domain name.
- The cookie domain value being set must begin with a dot (.ps.com is valid, ps.com is NOT valid).
- The cookie domain value being set must contain at least 1 embedded dot (.ps.com is valid, .corp.ps.com is valid, .com is NOT valid).
- The cookie domain value can only be a single domain name. It cannot be a delimiter-separated list of domains.

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.

Specifying the authentication domain may be necessary in certain cases. For example, if you plan to use the PeopleSoft portal technology, be sure to read the supporting documentation on configuring the portal environment, to determine whether setting the authentication domain is required for correct operation.

See *PeopleTools: Portal Technology.*

Specify an authentication 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 *PeopleTools: MultiChannel Framework.*

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If you use the PeopleSoft Mobile Application Platform (MAP), you must specify the same authentication domain during the PeopleSoft Pure Internet Architecture installation, for MAP, and for Integration Broker and integration hubs.

See *PeopleTools: Mobile Application Platform.*

See *PeopleTools: Integration Broker.*

Task 9A-1: Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade

When performing the installation of the PeopleSoft Pure Internet Architecture system using the separate upgrade *PS_HOME* (which is different than your old release *PS_HOME*), you may install and configure your PeopleSoft Pure Internet Architecture system at this point in time of the installation, but do not start your PeopleSoft Pure Internet Architecture system until directed to do so within the upgrade.

If you are installing into an existing *PS_HOME* or *PIA_HOME* after completing a PeopleTools-only upgrade, perform the following instructions to remove any obsolete files.

See "Preparing for Installation," Preparing for the PeopleTools-Only Upgrade.

Stop the web server before performing the PeopleSoft Pure Internet Architecture installation or uninstallation.

Depending on your web server platform, complete the following steps to clean up previous PeopleSoft Pure Internet Architecture sites:

- Oracle WebLogic

  Shut down Oracle WebLogic and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform.

  Alternatively, delete the contents of one of the following directories:

  - For PeopleSoft PeopleTools 8.43.x or earlier: <*weblogic_home*>\wlserver6.1\config\<*domain_name*>*
  - For PeopleSoft PeopleTools 8.44.x to 8.49.x: <*PS_HOME*>\webserv\<*domain_name*>*
  - For PeopleSoft PeopleTools 8.50.x or later: <*PIA_HOME*>\webserv\<*domain_name*>*
- IBM WebSphere

  Shut down IBM WebSphere and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform.

Task 9A-2: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on a New Oracle WebLogic Domain
- Installing the PeopleSoft Pure Internet Architecture on an Existing Oracle WebLogic Domain
- Uninstalling the PeopleSoft Pure Internet Architecture on Oracle WebLogic

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Prerequisites

This section describes how to install the PeopleSoft Pure Internet Architecture on Oracle WebLogic. Before installing the PeopleSoft Pure Internet Architecture (PIA) on Oracle WebLogic, you must have installed the Oracle WebLogic software. PeopleSoft PeopleTools 8.55 supports Java 7 enabled 64-bit Oracle WebLogic 12.1.3.

See "Installing Web Server Products," Installing Oracle WebLogic.

See the *PeopleTools: System and Server Administration* product documentation for more information on working with Oracle WebLogic.

Task 9A-2-1: Installing the PeopleSoft Pure Internet Architecture on a New Oracle WebLogic Domain

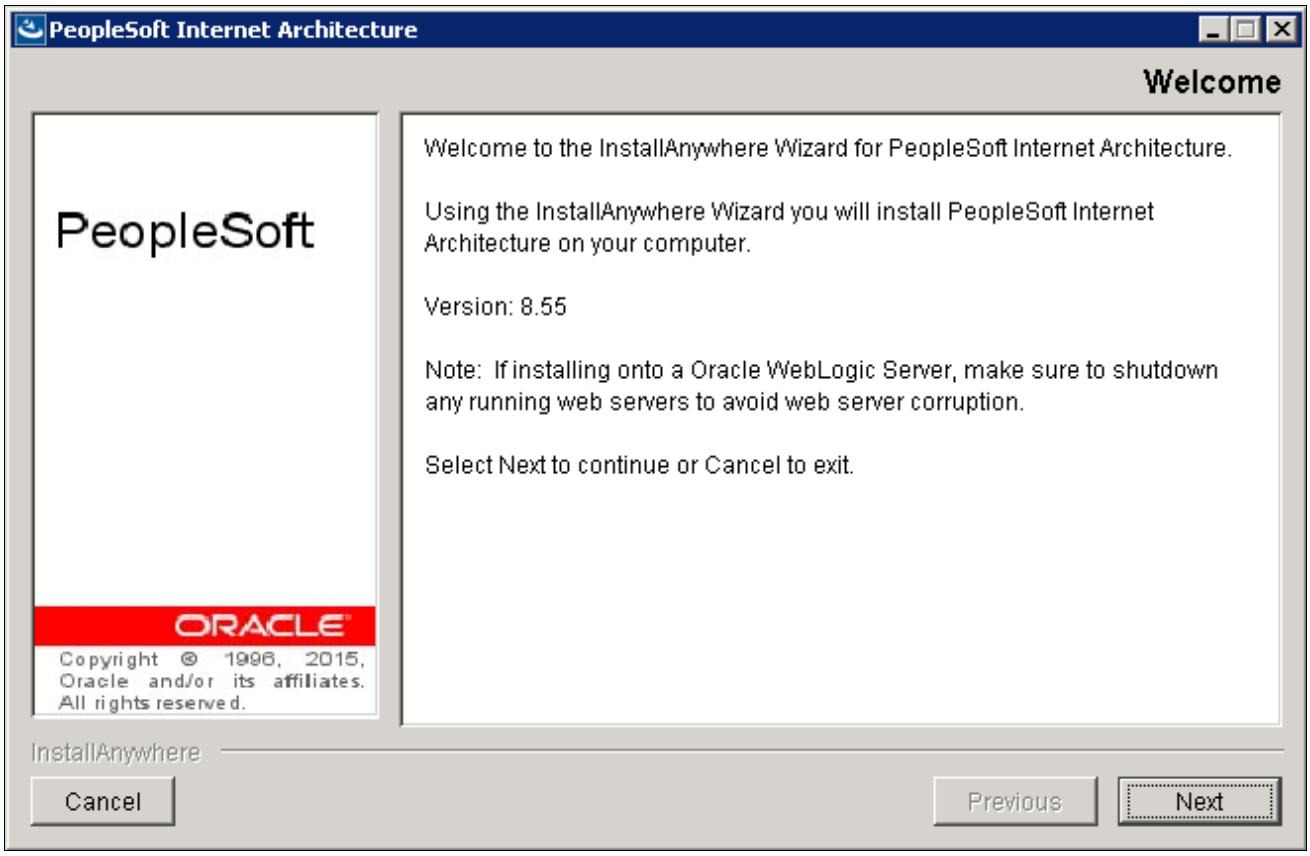
Use these instructions to install the PeopleSoft Pure Internet Architecture on a new Oracle WebLogic domain. See the next section to install on an existing Oracle WebLogic domain.

1. Go to *PS_HOME*\setup\PsMpPIAInstall and run `setup.bat`.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

2. Click Next on the Welcome to the InstallAnywhere Wizard for PeopleSoft Internet Architecture window.

   The window displays the PeopleSoft PeopleTools version, 8.55 in this example, and includes this note: "If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption."



PeopleSoft Internet Architecture Welcome window

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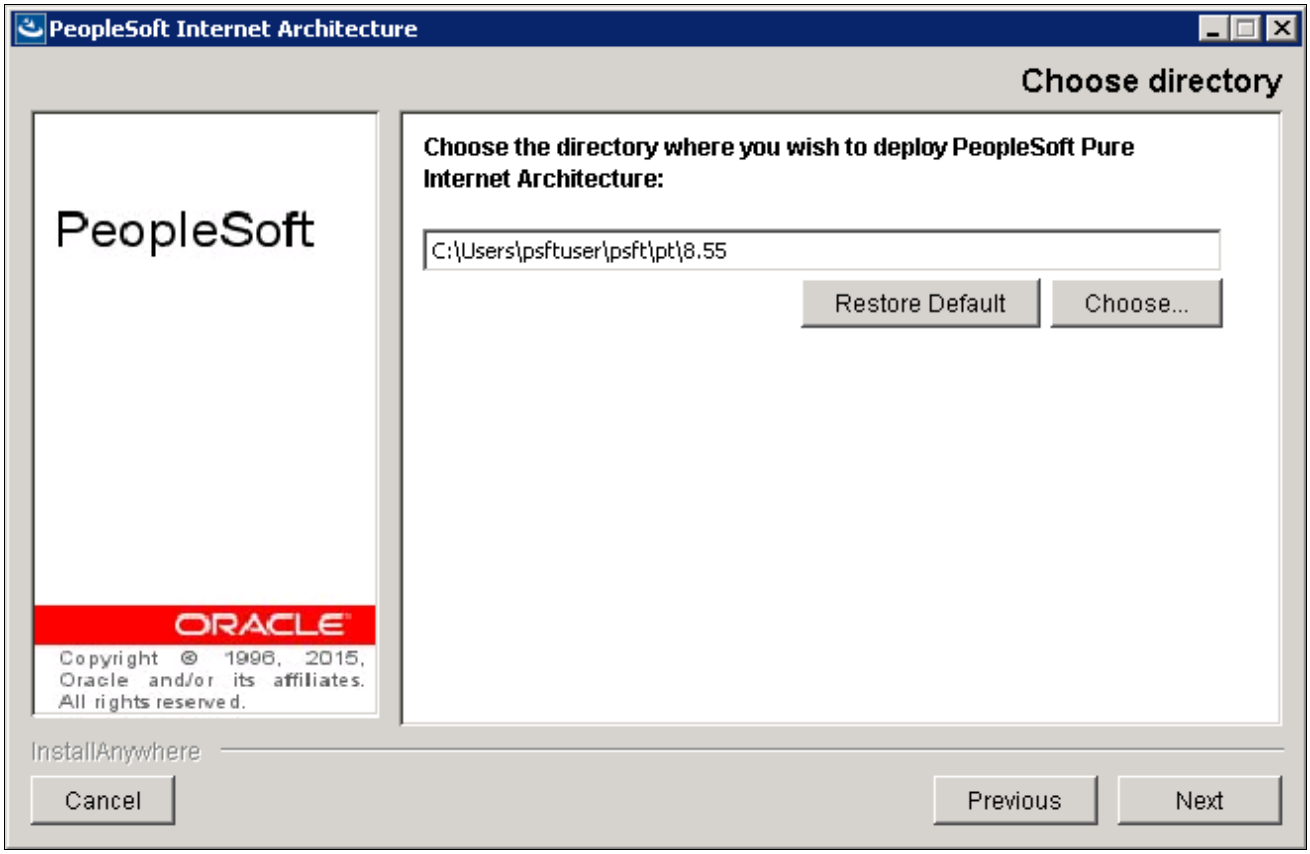
3. Enter the location where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA_HOME*.

   In this example, the directory is C:\Users\psftuser\psft\pt\8.55. The default location for *PIA_HOME* is the same as *PS_CFG_HOME*.

   See "Preparing for Installation," Planning Your Initial Configuration.



PeopleSoft Internet Architecture Choose directory window

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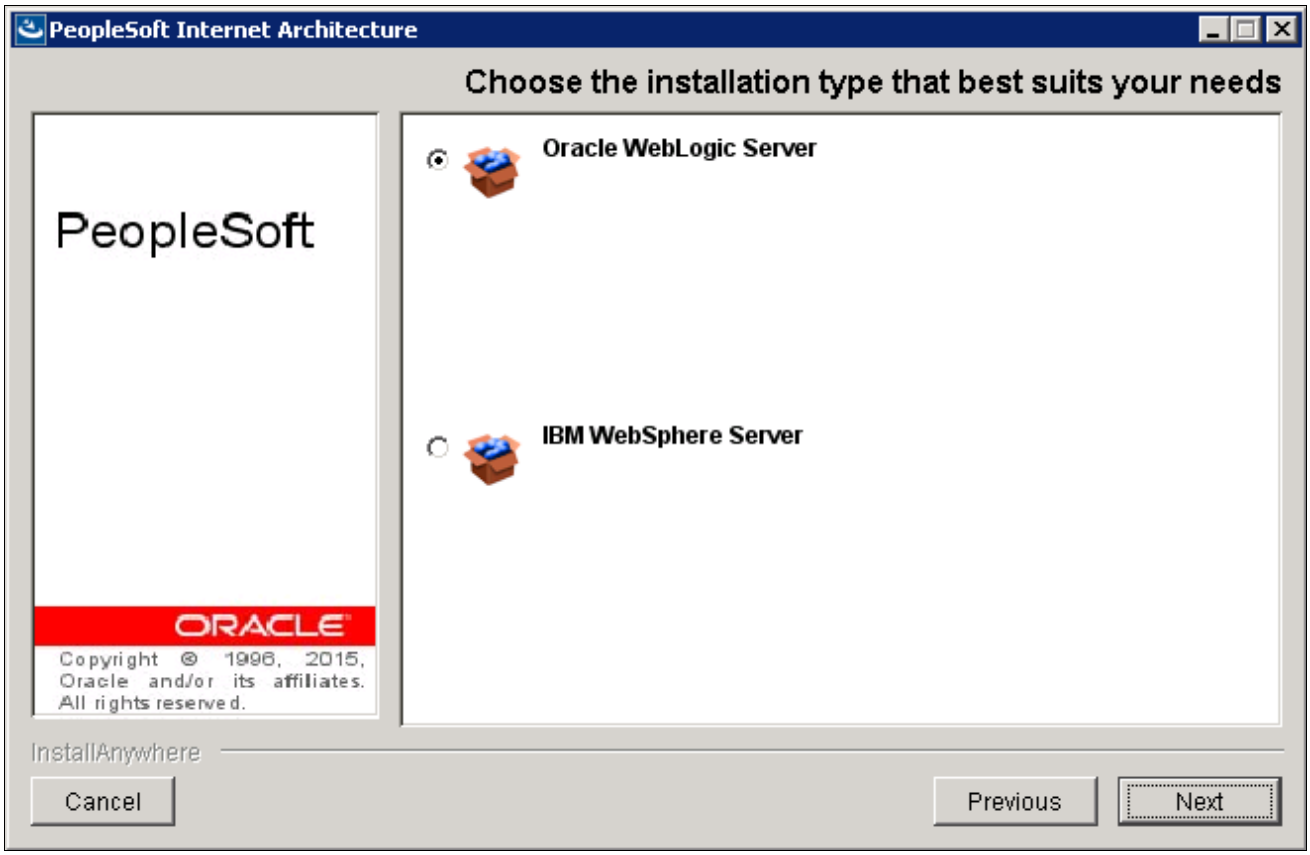
4. Select Oracle WebLogic Server as in this example, and then click Next.



PeopleSoft Internet Architecture Choose the installation type that best suits your needs window

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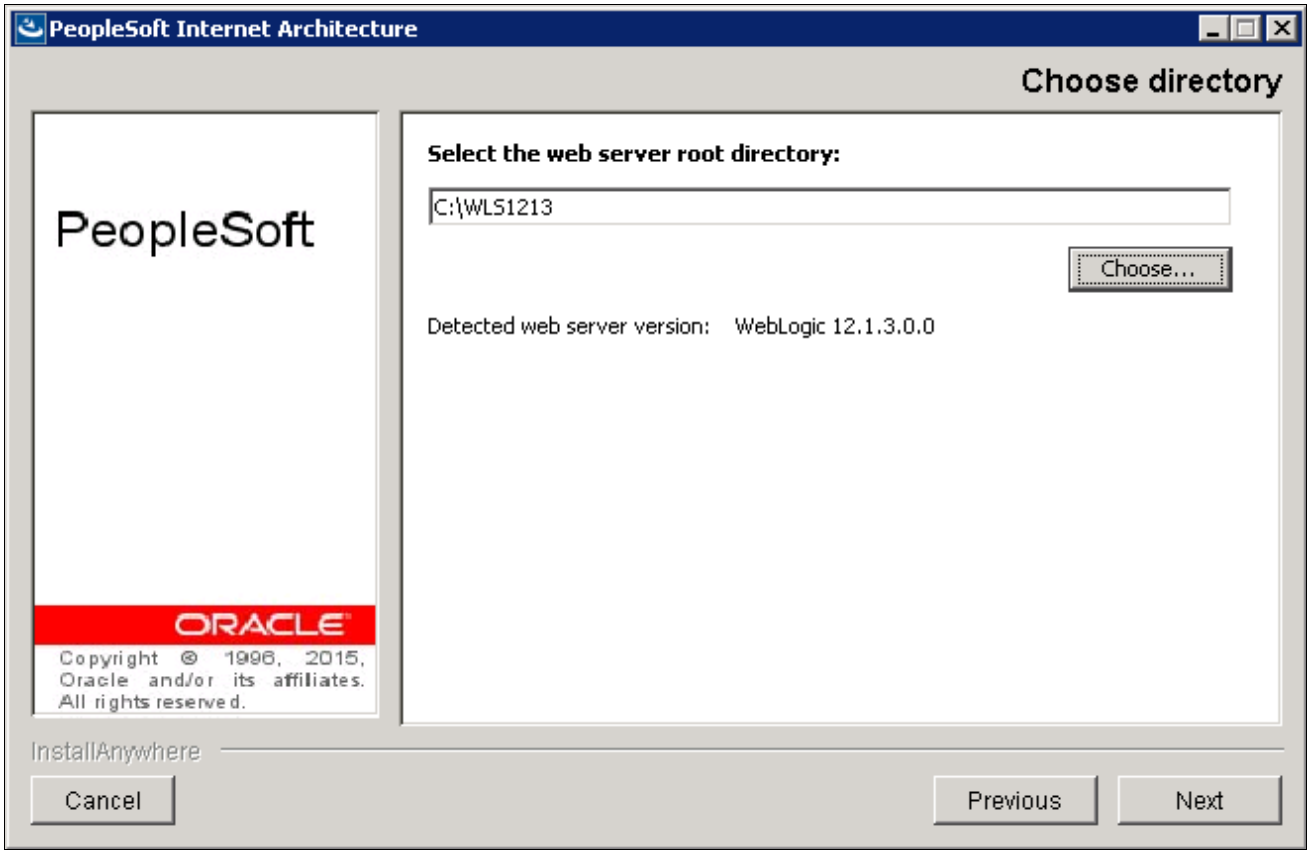
5. Specify the root directory where Oracle WebLogic is installed, *WLS_HOME*, and click Next.

   In this example, the root directory for Oracle WebLogic 12.1.3.0.0 is C:\WLS1213.

Note. If you enter an incorrect path for Oracle WebLogic, you receive an error message "Detected web server version: no choices available." Check that you have Oracle WebLogic installed, and in the designated directory.



PeopleSoft Internet Architecture Choose directory window for Oracle WebLogic

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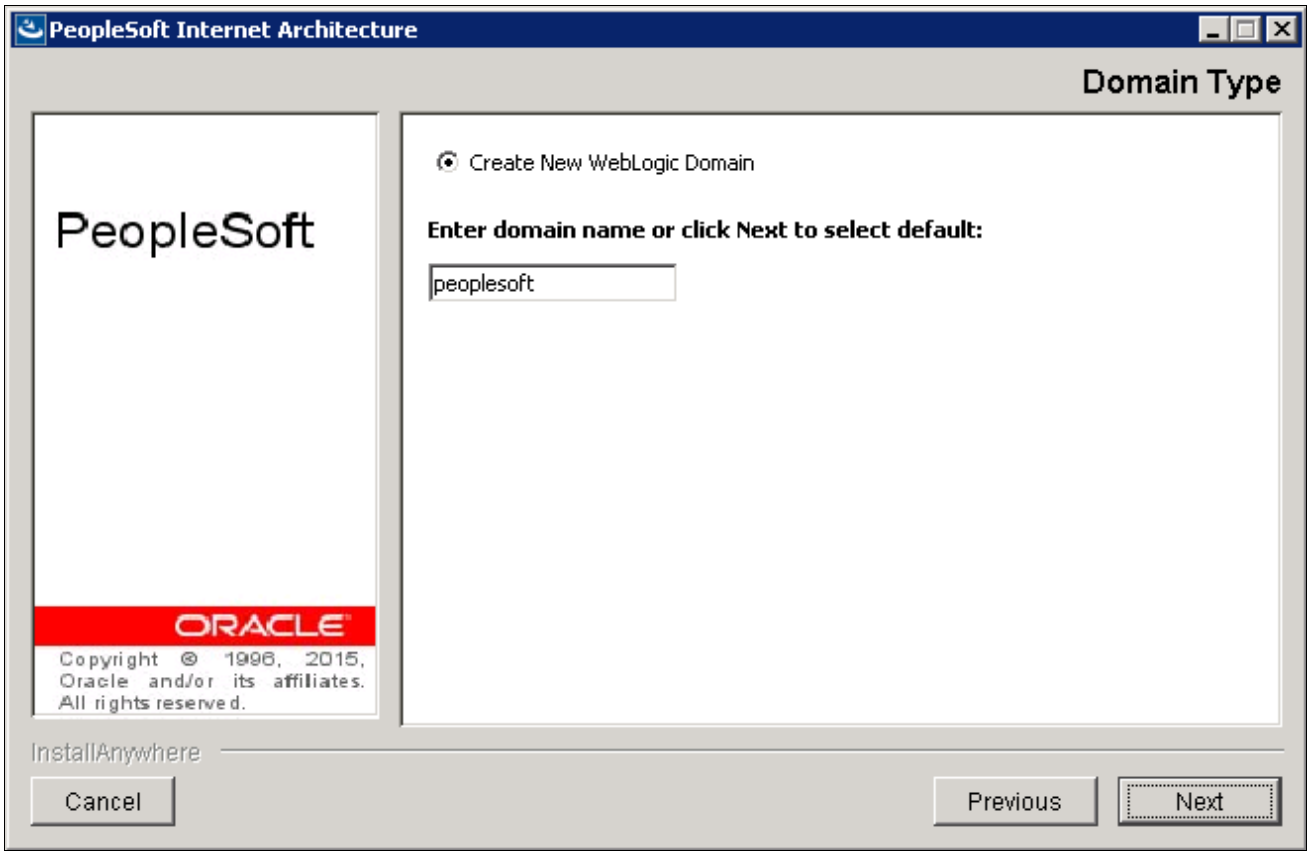
6. Enter a domain name or accept the default name on the Domain Type window.

   If the PIA installer cannot detect any existing Oracle WebLogic domains, only the option Create New WebLogic Domain is available as shown in this example. The default name is peoplesoft.

   Note. If the PIA installer detects an existing WebLogic domain, you also see the option Existing WebLogic Domain, which is discussed in the next section. Verify that the option Create New WebLogic Domain is selected for this procedure. The installation process automatically generates a valid domain name in the domain name field, such as peoplesoft1.

   See Installing the PeopleSoft Pure Internet Architecture on an Existing Oracle WebLogic Domain.

   Click Next to continue.



PeopleSoft Internet Architecture Domain Type window for creating a new domain

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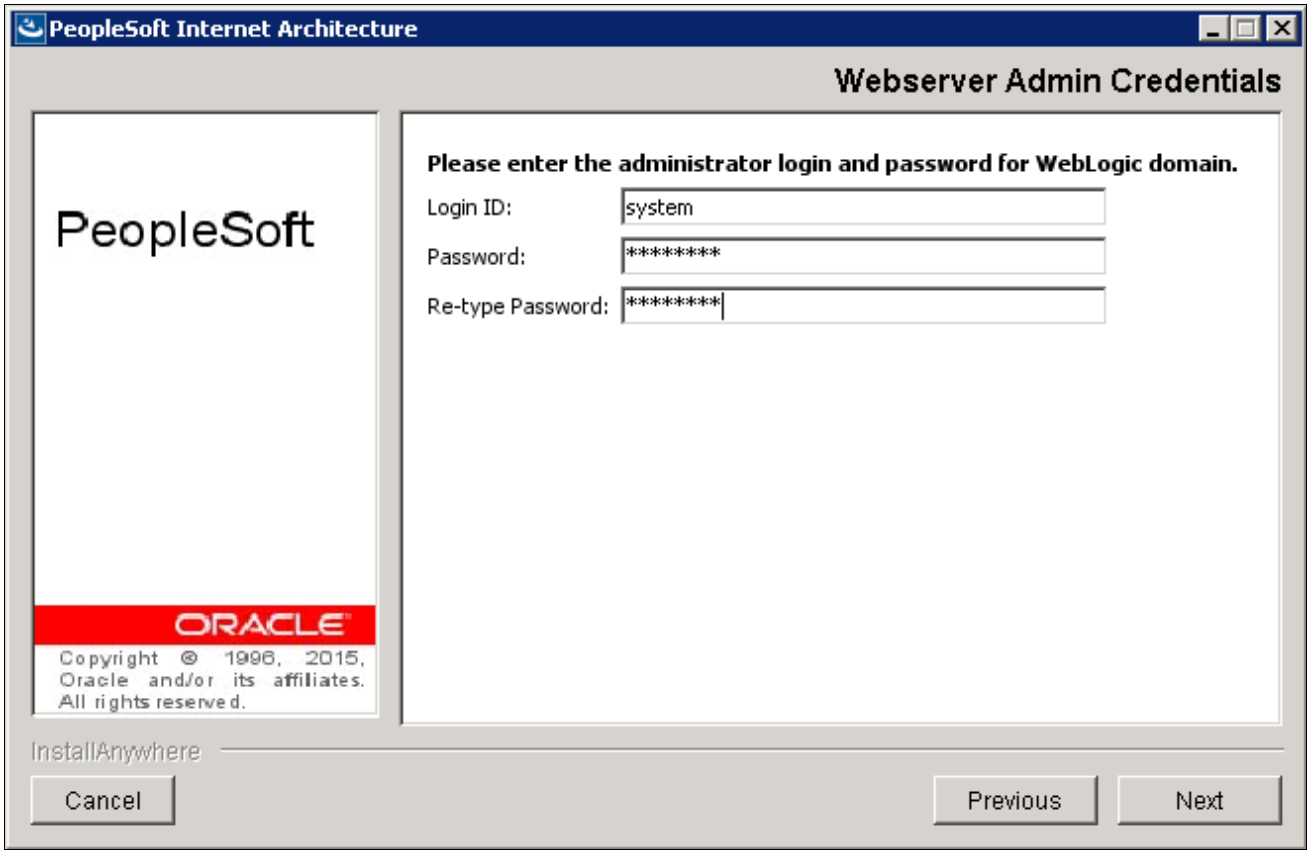
7. Enter the administrator login ID, and enter and re-enter the password for the new web server domain to be created.

   The default login ID is system as shown in this example. The password must be at least 8 alphanumeric characters with at least one number or special character.

   Click Next to continue.



PeopleSoft Internet Architecture Webserver Admin Credentials window

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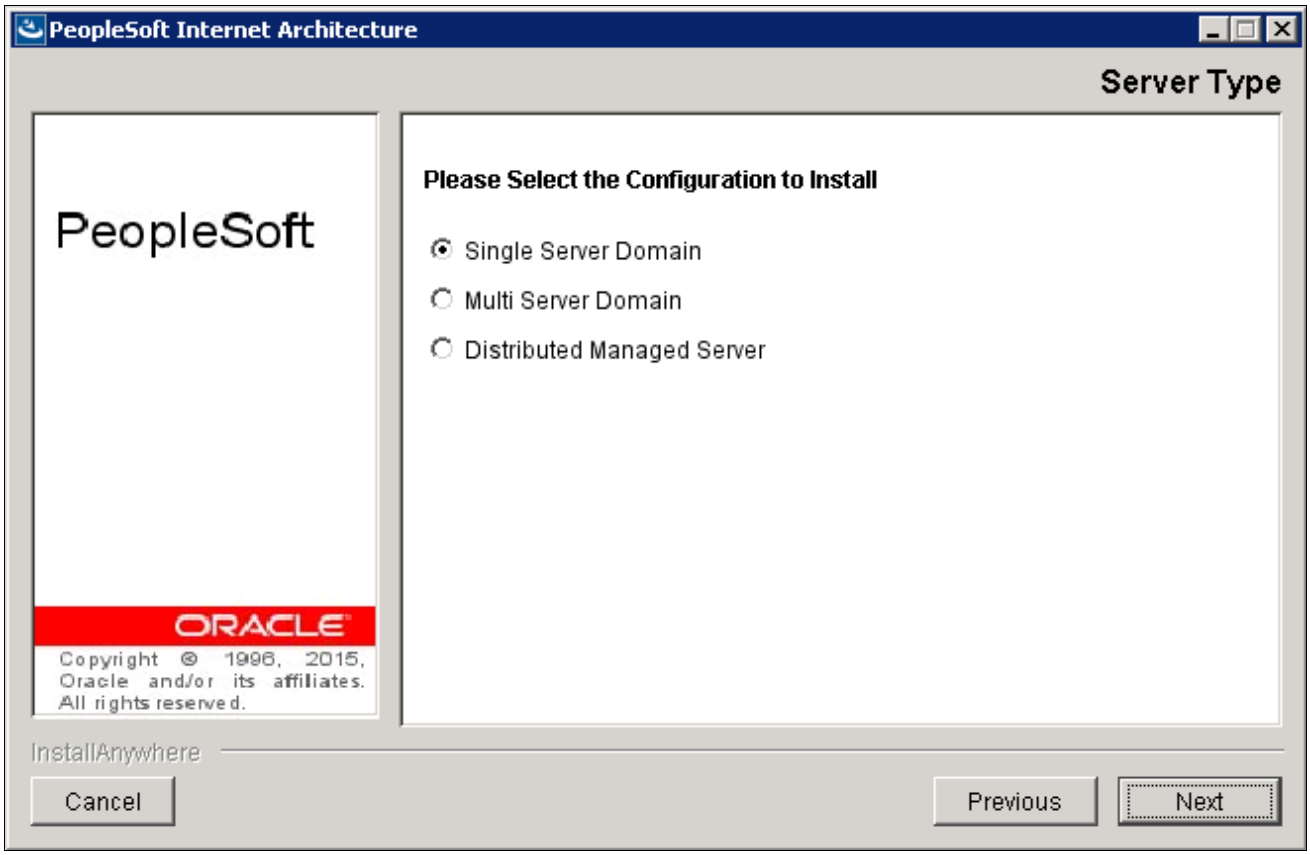
8. Select the type of domain to create—single server, multi server, or distributed managed server.

   In this example, Single Server Domain is selected.



PeopleSoft Internet Architecture Server Type window

There are three domain configuration options:

- *Single Server Domain*

  This domain configuration contains one server named PIA, and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, non-production environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

- *Multi Server Domain*

  This domain configuration contains seven unique server definitions, an Oracle WebLogic cluster, and the PeopleSoft application split across multiple servers. This configuration is intended for a production environment.

- *Distributed Managed Server*

  This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

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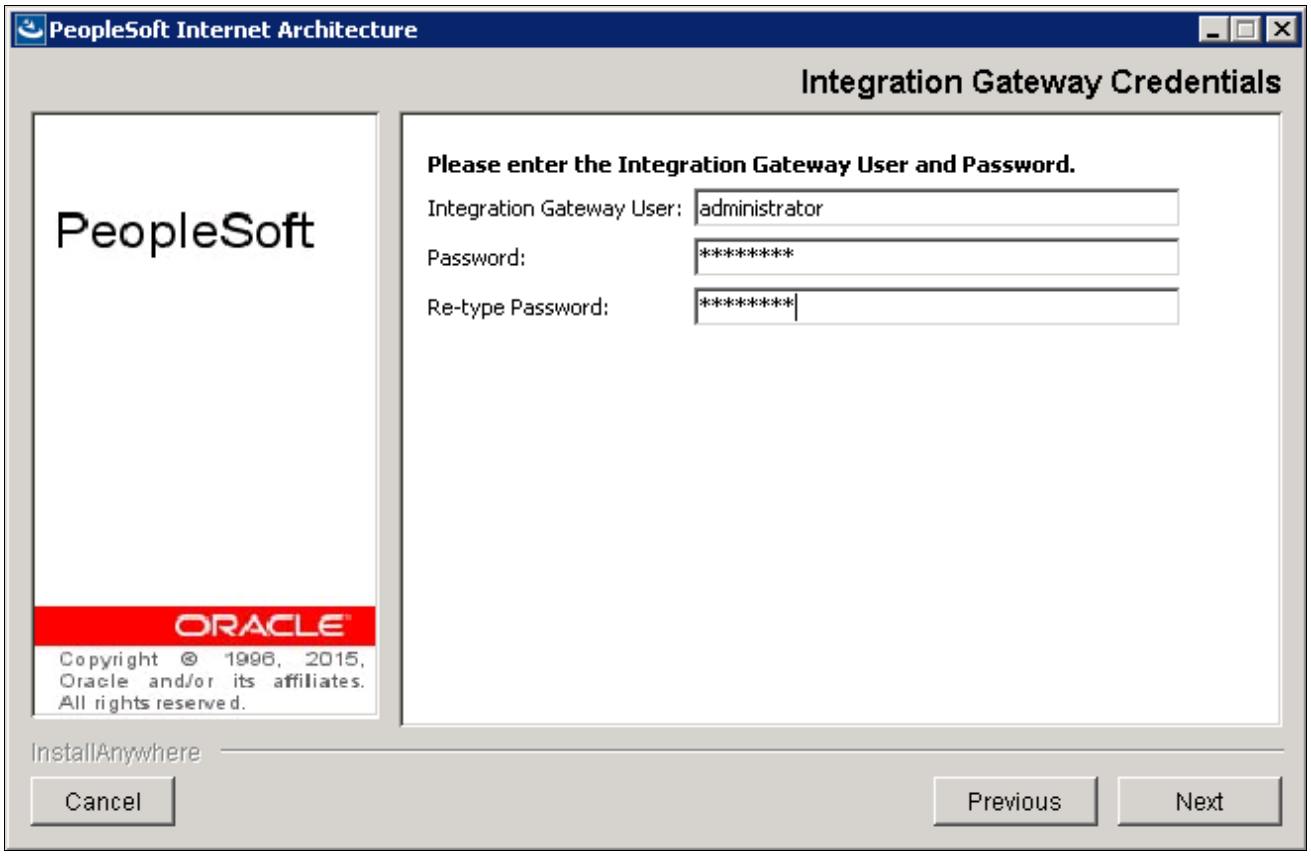
9. Enter the Integration Gateway User name. Enter and re-enter the password for the Integration Gateway User.

   The default Integration Gateway User is administrator as shown in this example. The password must be at least 8 alphanumeric characters.

   See *PeopleTools: Integration Broker Administration.*



PeopleSoft Internet Architecture Integration Gateway Credentials window

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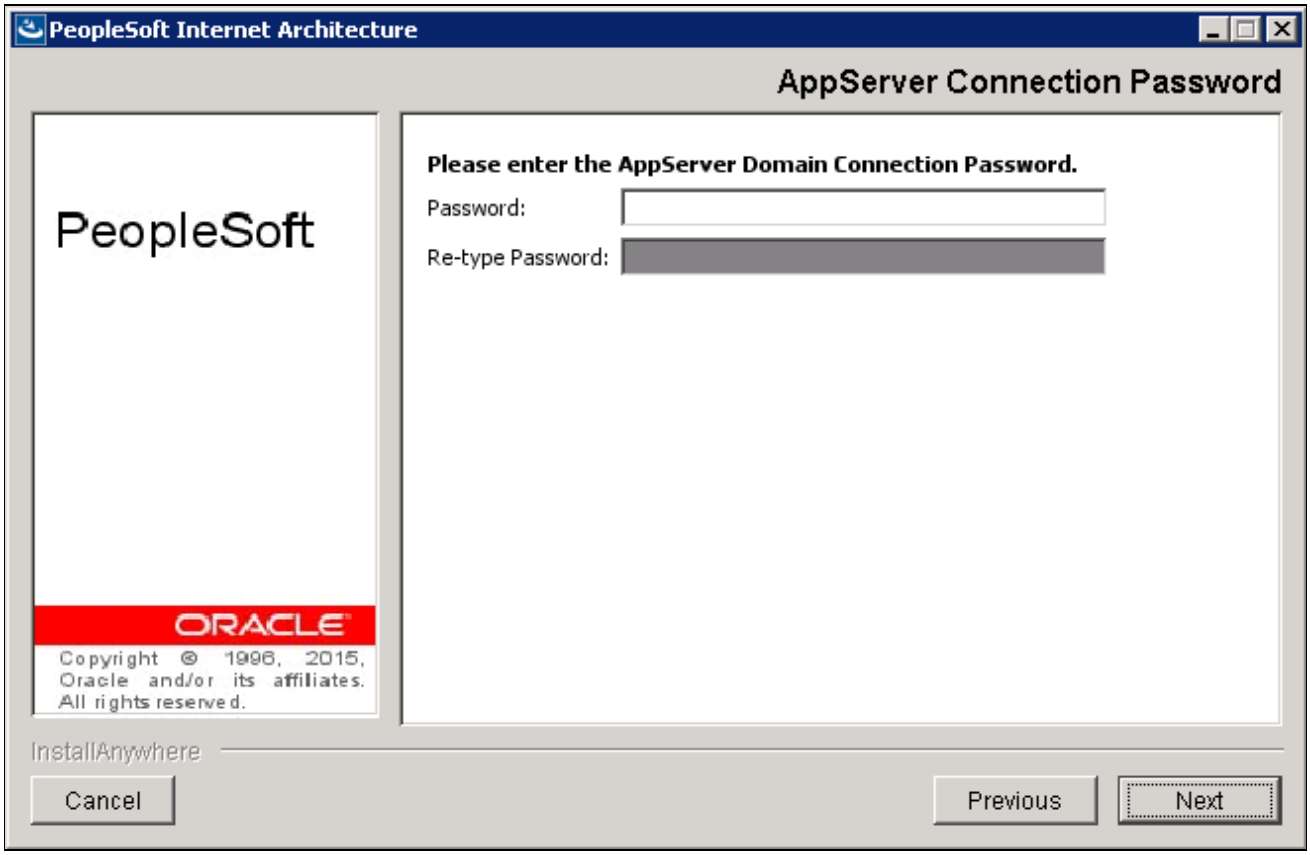
10. Enter the AppServer Domain Connection password (optional).

    If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank as shown in this example. This password will be propagated to the Integration Gateway.

    For more information about Application Server domain configuration and setting domain parameters, see the product documentation *PeopleTools: System and Server Administration.*



PeopleSoft Internet Architecture AppServer Connection Password window

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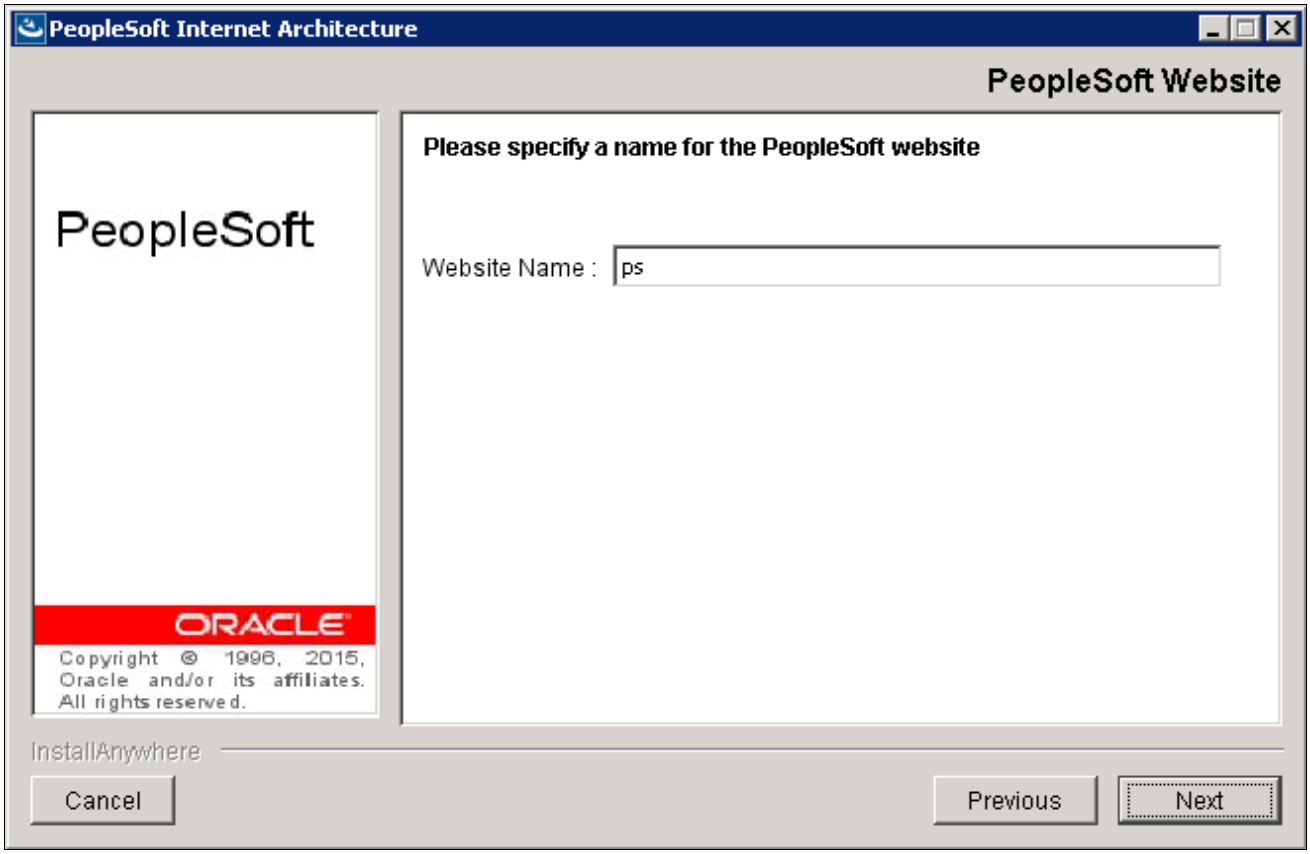
11. Enter a PeopleSoft web site name; the default is ps as shown in this example.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).



PeopleSoft Internet Architecture PeopleSoft Website window

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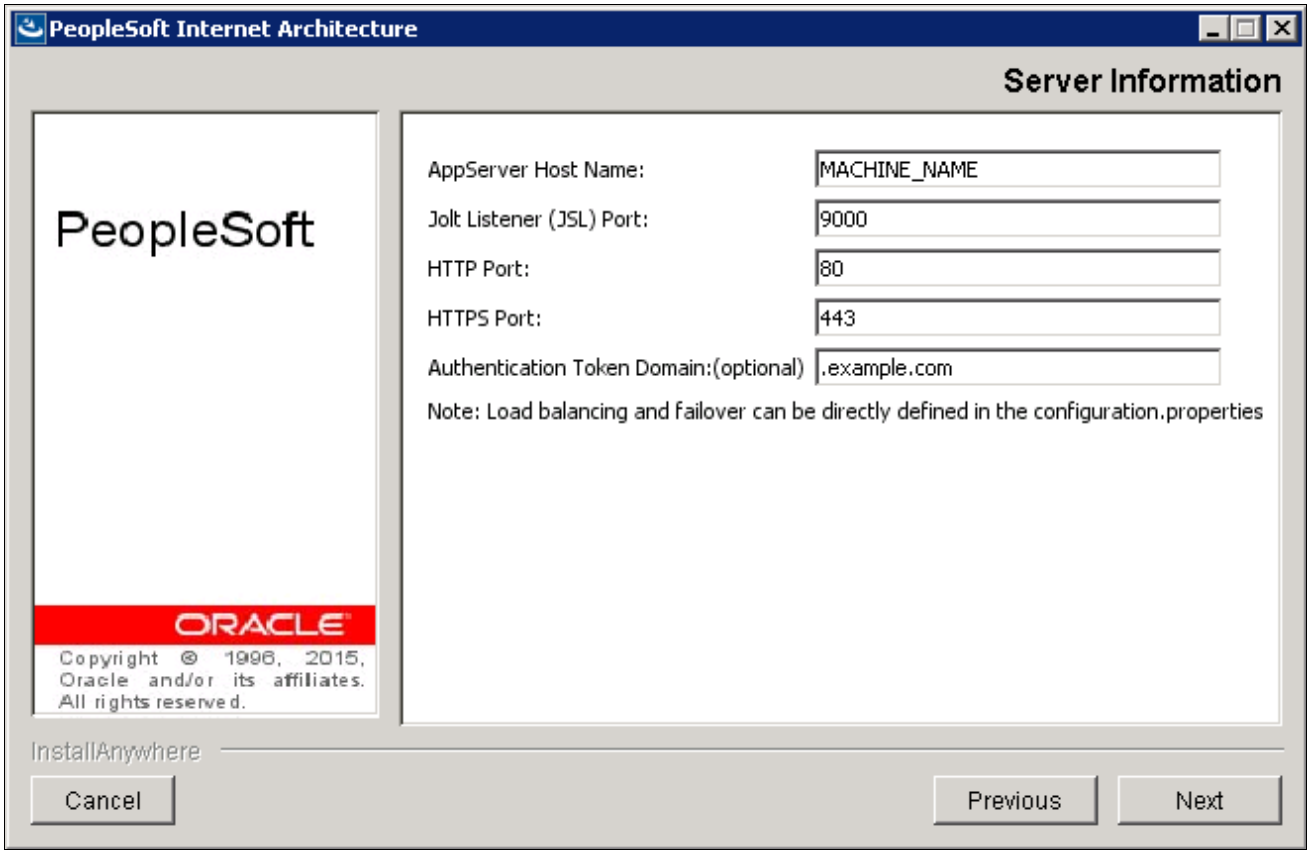
12. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional), and click Next.



PeopleSoft Internet Architecture Server Information window

- *AppServer name*

  For the AppServer name setting, enter the name of your application server, MACHINE_NAME in this example.

- *JSL Port*

  For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000 as in this example.)

  See "Configuring the Application Server on Windows."

  See "Configuring the Application Server on UNIX."

- *HTTP Port*

  The default value for the HTTP port is 80, as shown in this example.

- *HTTPS Port*

  The default value for the HTTPS port is 443, as shown in this example.

- *Authentication Token Domain*

  Note. The value you enter for Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

  See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

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If you enter a value for Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName/ps/signon.html. If you do enter a value for the authentication domain (for example, .myCompany.com), the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName.myCompany.com/ps/signon.html. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example http://MachineName:8080/ps/signon.html if there is no authentication domain, or http://MachineName.myCompany.com:8080/ps/signon.html if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

See Understanding the PeopleSoft Pure Internet Architecture.

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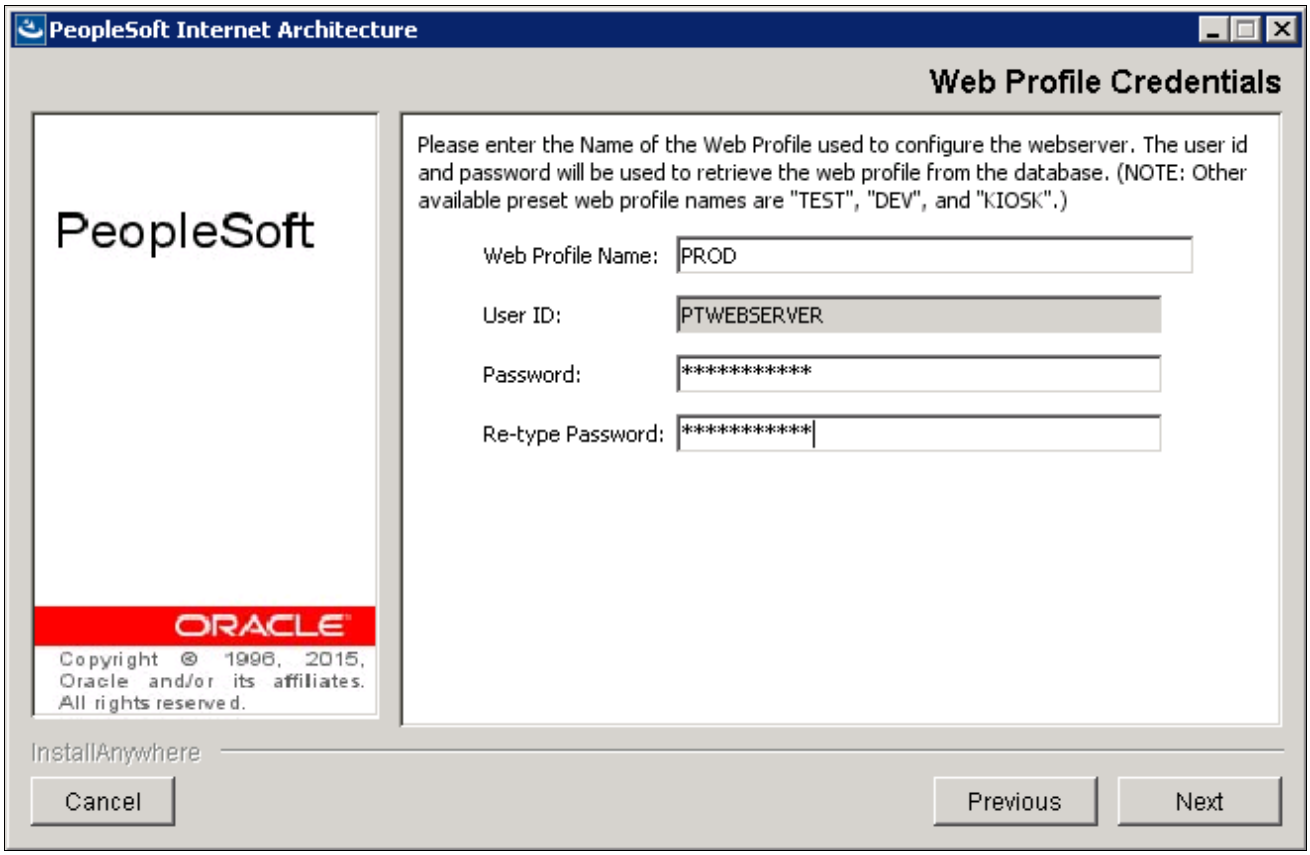
13. Enter the details for the web profile, PROD, or enter another name.

    Enter a Web Profile Name, and enter the password two times. The example below shows the default web profile name, PROD, and default user ID, PTWEBSERVER.

    The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, PTWEBSERVER, be sure to review the information on web profile configuration and security in the *PeopleTools: Portal Technology* product documentation.

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step. The password must be at least 8 alphanumeric characters.

See the *PeopleTools: Security Administration* product documentation for the steps required to add a User Profile.



PeopleSoft Internet Architecture Web Profile Credentials window

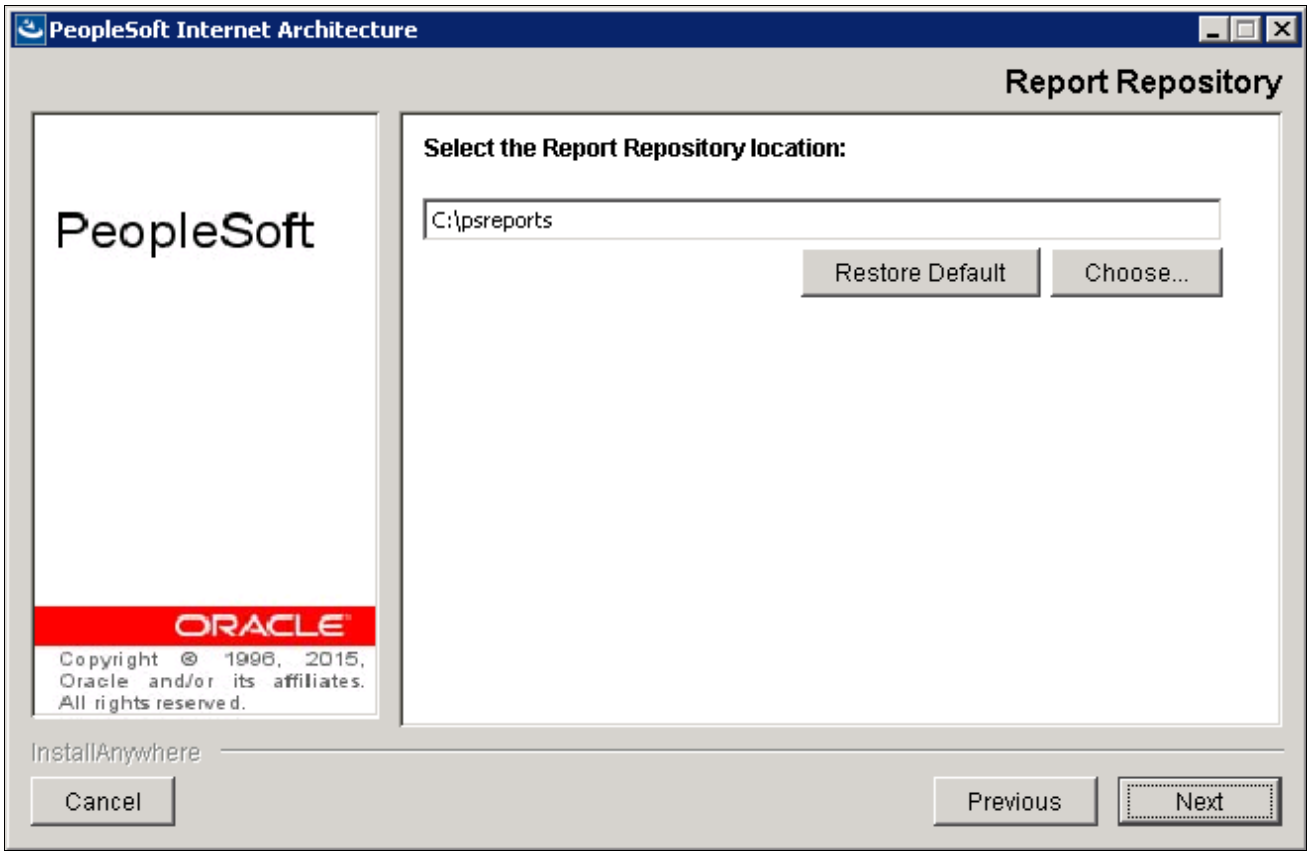
14. Specify the root directory for the Report Repository, and click Next.

    Make sure that the report repository directory is shared. You must have write access to the Report Repository directory. The default is C:\psreports, as shown in this example.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP transfer protocol, use the same directory for the Home Directory as you use here for the report repository.

See *PeopleTools: Portal Technology*.

See "Setting Up Process Scheduler on Windows," Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.



PeopleSoft Internet Architecture Report Repository window

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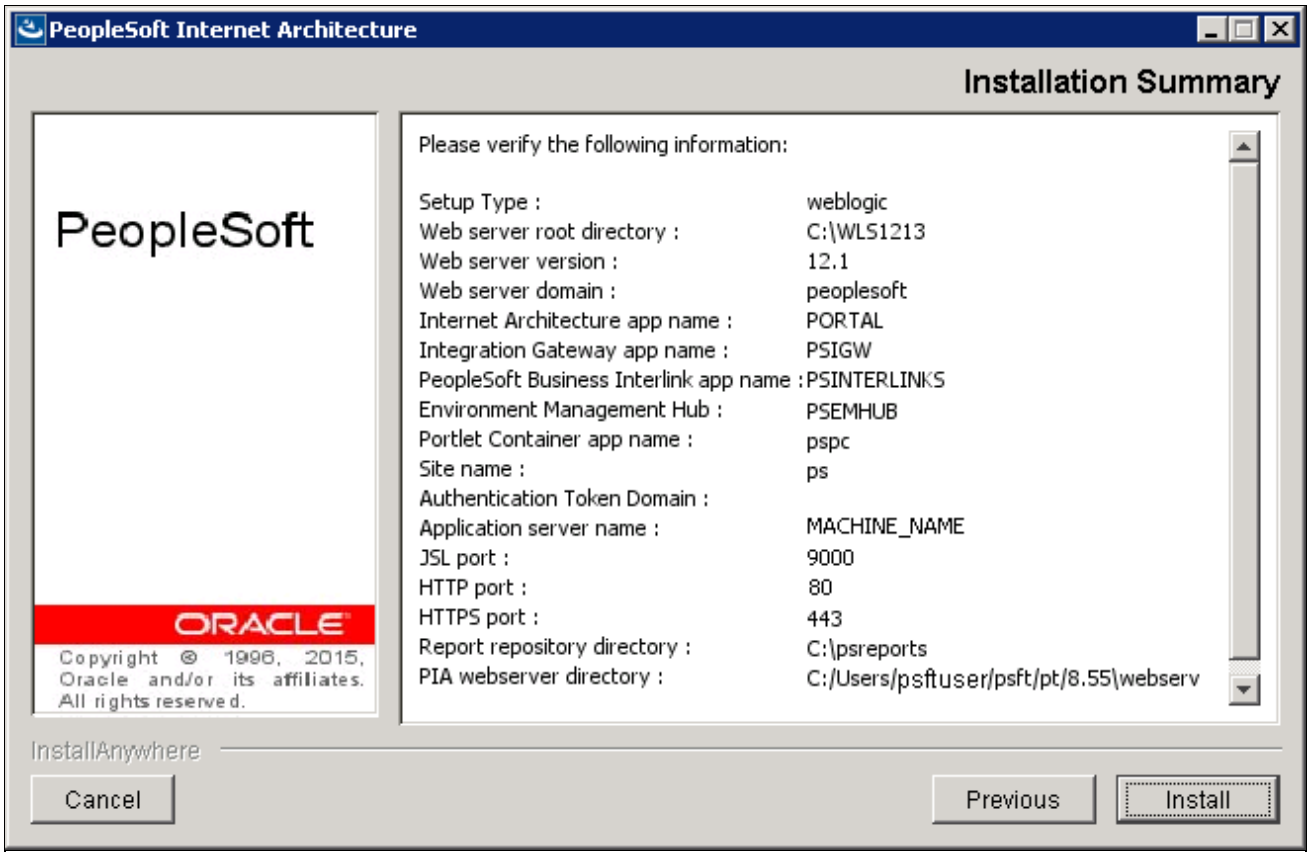
15. Verify all of your selections (click Back if you need to make any changes), and click Install to begin the installation.

    The window displays a summary of the installation information, such as web server software, web server root directory, version, and so on.



PeopleSoft Internet Architecture Installation Summary window

An indicator appears showing the progress of your installation.

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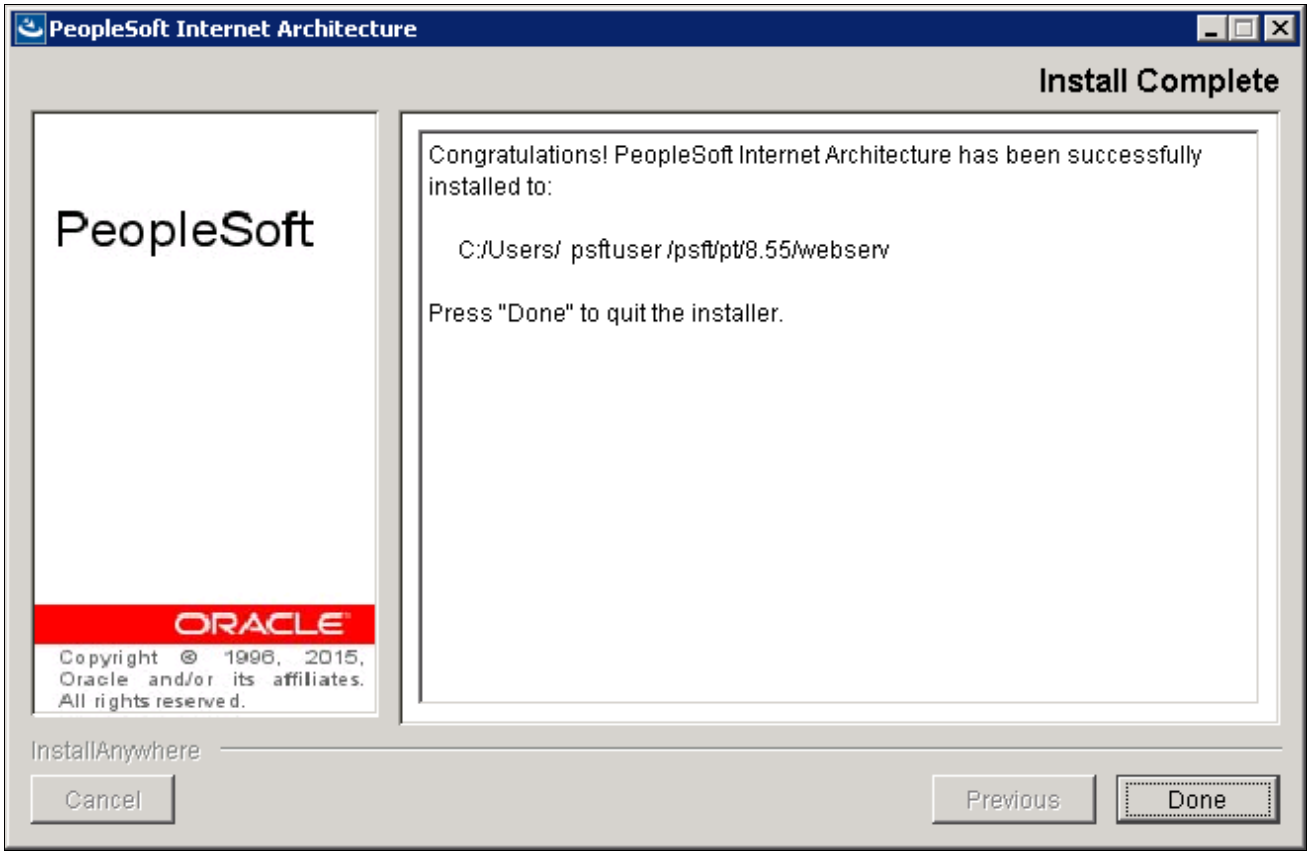
16. Click Finish to complete the installation.

    The default installation directory for the PIA domain is *<PIA_HOME>*\webserv*<domain_name>*. The Install Complete window displays the parent installation directory for the domain. In this example, this is C:/Users/psftuser/psft/pt/8.55/webserv.

Note. If you are installing into an existing domain, you need to restart that domain.



PeopleSoft Internet Architecture Install Complete window

Task 9A-2-2: Installing the PeopleSoft Pure Internet Architecture on an Existing Oracle WebLogic Domain

Use these instructions to install the PeopleSoft Pure Internet Architecture on an existing Oracle WebLogic domain. See the previous section to install on a new Oracle WebLogic domain.

1. Go to *PS_HOME*\setup\PsMpPIAInstall and run `setup.bat`.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

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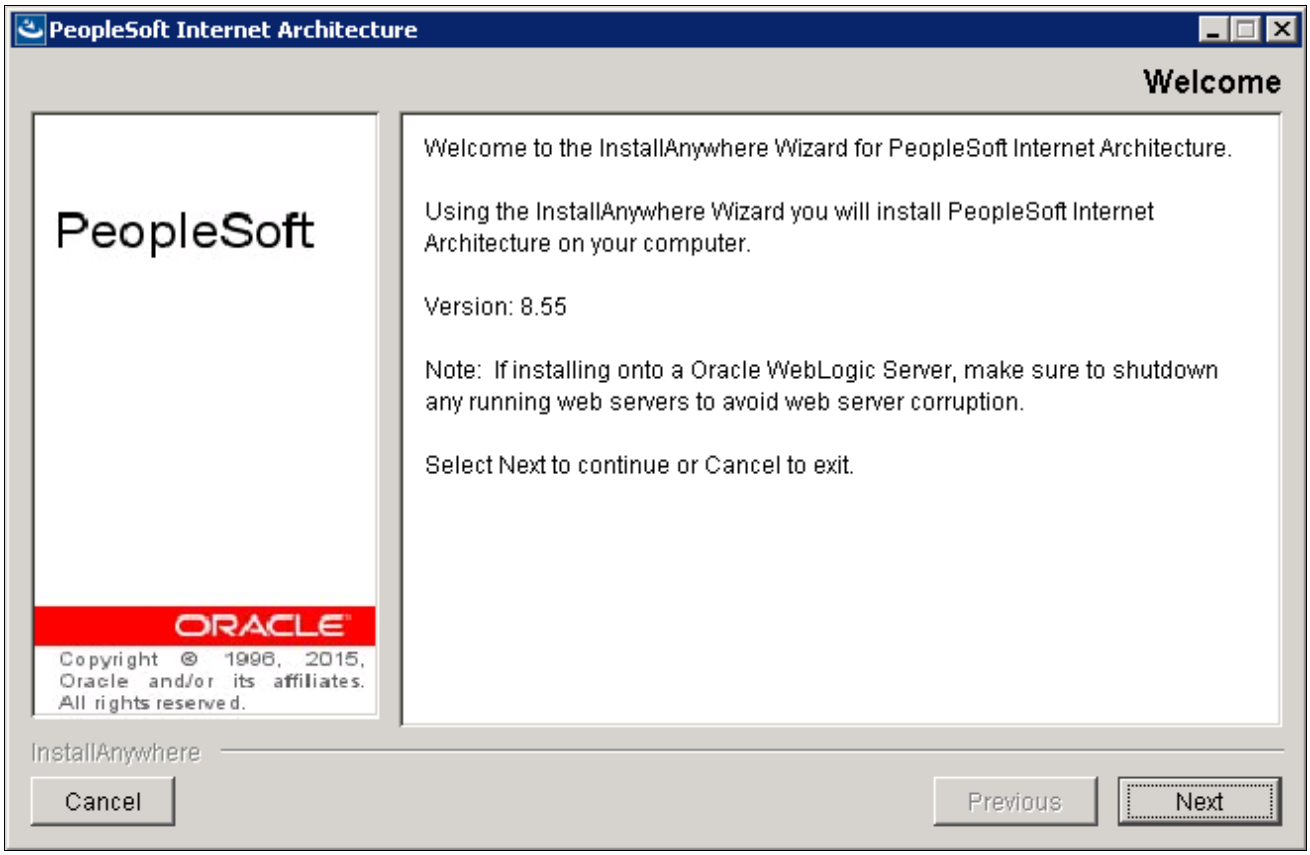
2. Click Next on the Welcome to the InstallAnywhere Wizard for PeopleSoft Internet Architecture window.

   The window displays the PeopleSoft PeopleTools version, 8.55 in this example, and includes this note: "If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption."



PeopleSoft Internet Architecture Welcome window

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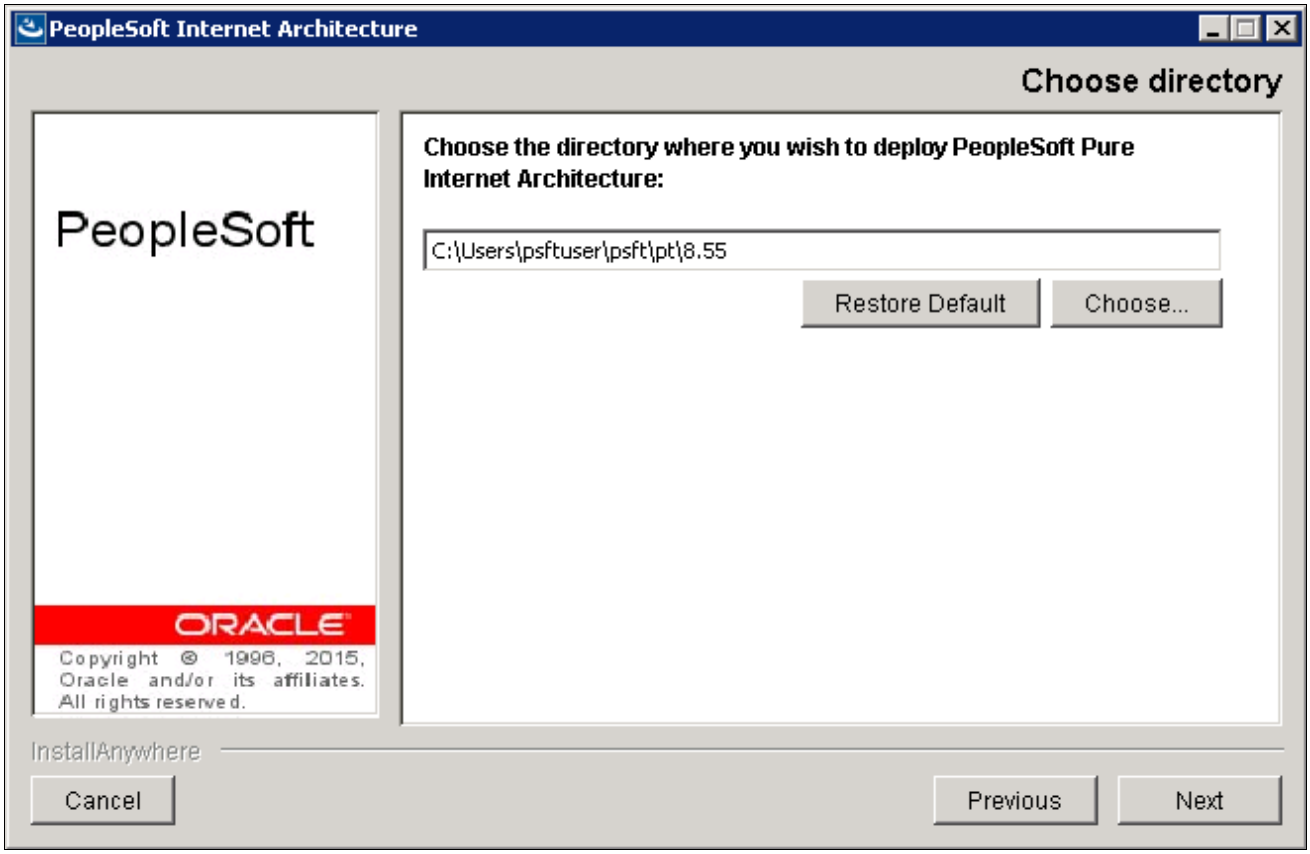
3. Enter the location where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA_HOME*.

   In this example, the directory is C:\Users\psftuser\psft\pt\8.55. The default location for *PIA_HOME* is the same as *PS_CFG_HOME*.

   See "Preparing for Installation," Planning Your Initial Configuration.



PeopleSoft Internet Architecture Choose directory window

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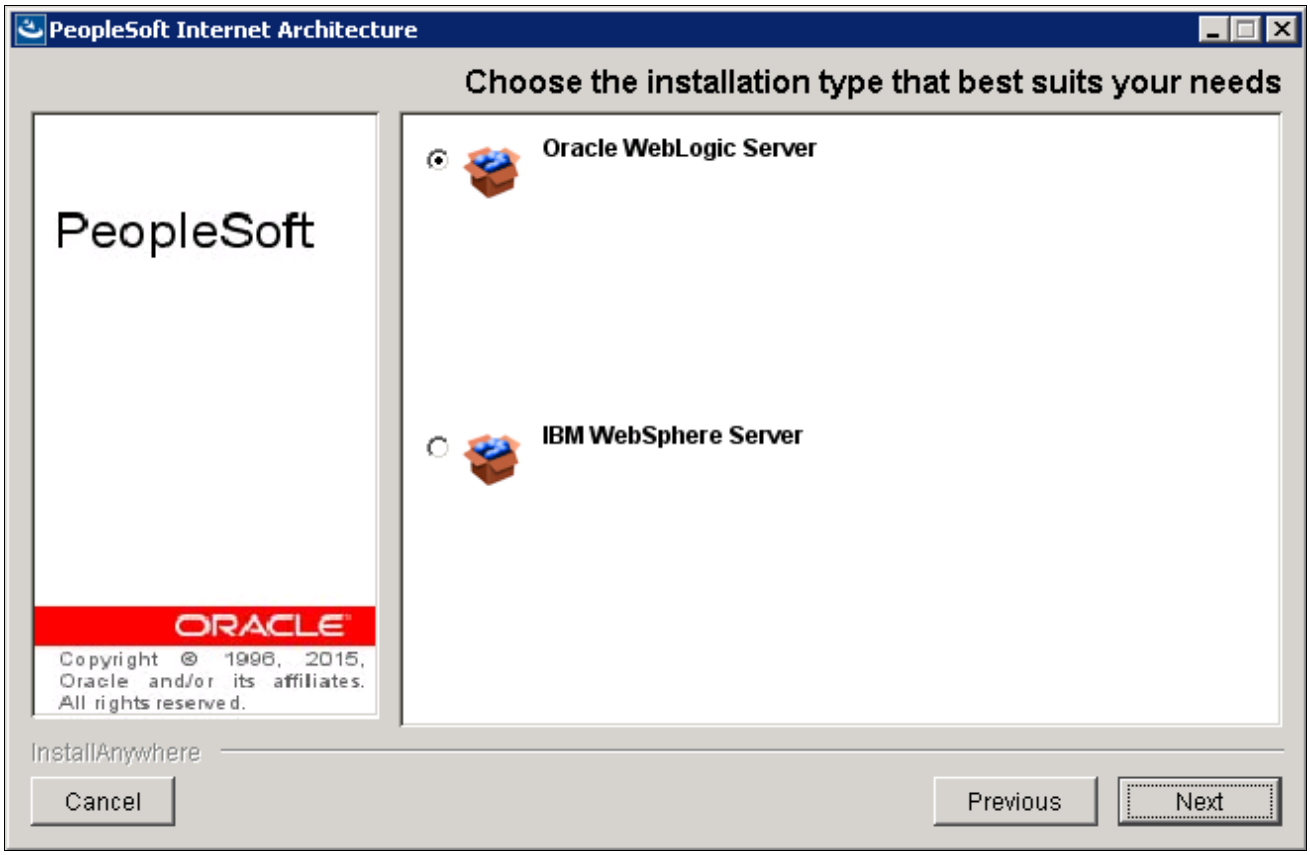
4. Select Oracle WebLogic Server as in this example, and then click Next.



PeopleSoft Internet Architecture Choose the installation type that best suits your needs window

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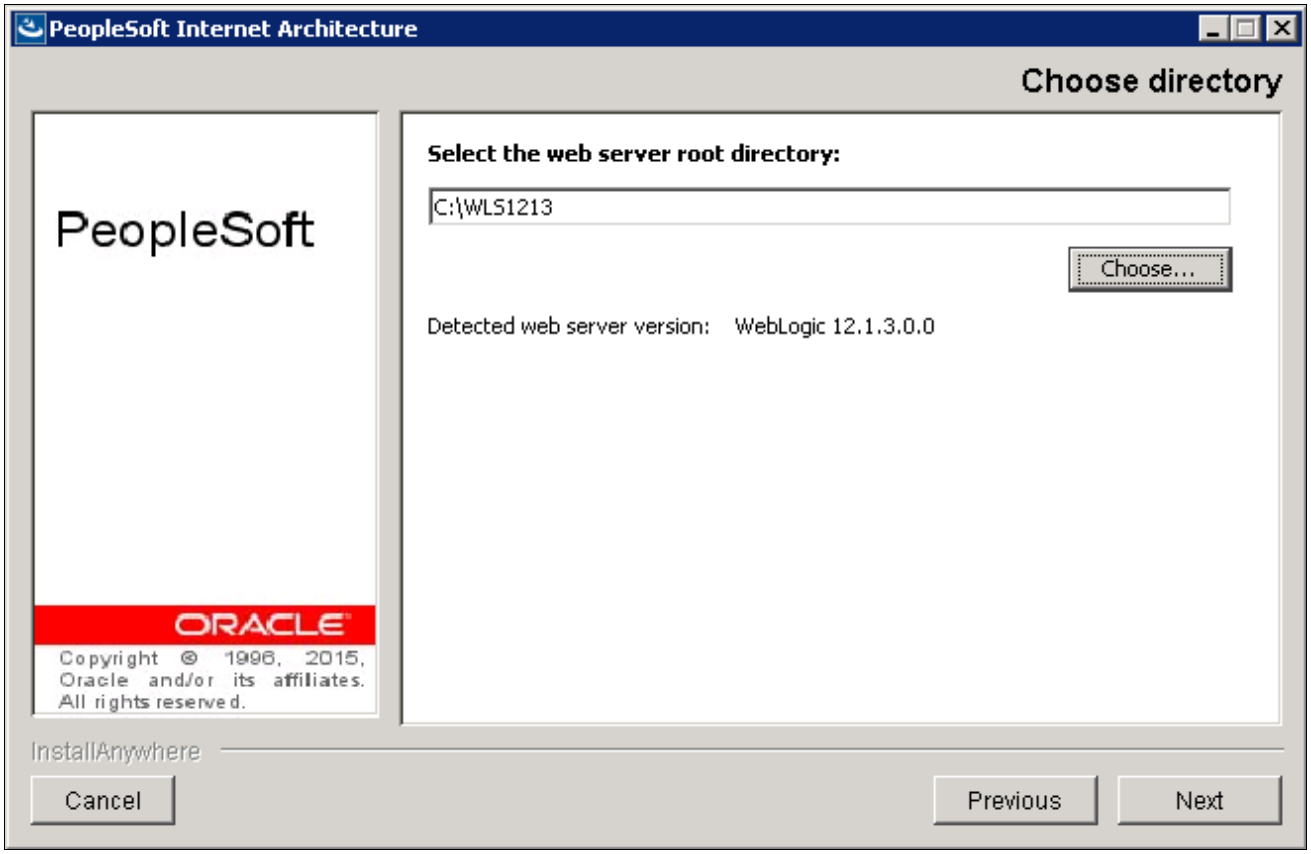
5. Specify the root directory where Oracle WebLogic is installed, *WLS_HOME*, and click Next.

   In this example, the root directory for Oracle WebLogic 12.1.3.0.0 is C:\WLS1213.

Note. If you enter an incorrect path for Oracle WebLogic, you receive an error message "Detected web server version: no choices available." Check that you have Oracle WebLogic installed, and in the designated directory.



PeopleSoft Internet Architecture Choose directory window for Oracle WebLogic

6. Select Existing WebLogic Domain on the Domain Type window.

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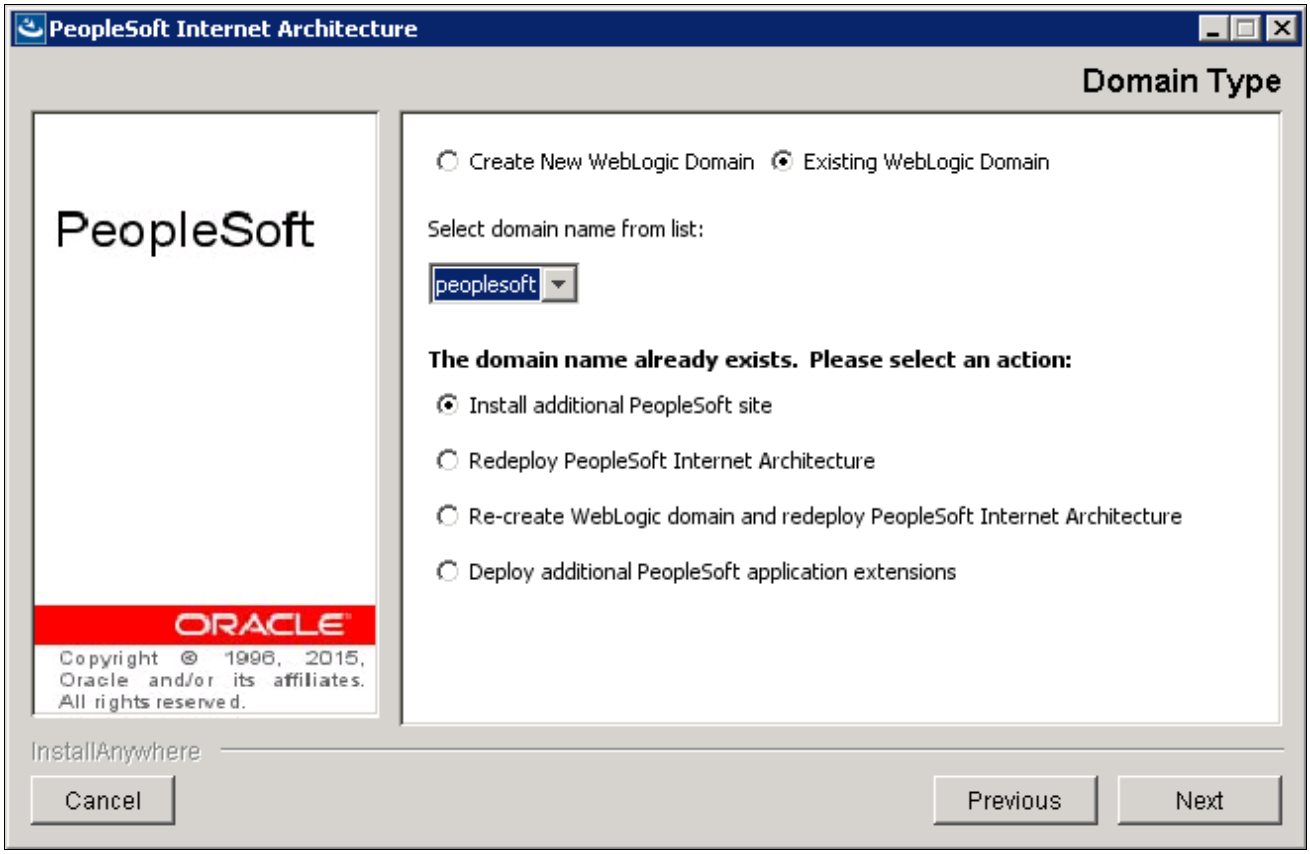
7. Select the domain name from the drop-down list, peoplesoft in this example, and select one of the following options:



PeopleSoft Internet Architecture Domain Type window with options for Existing WebLogic Domain

- *Install additional PeopleSoft site*

  This option is relevant only to the PeopleSoft PORTAL web application, and does not modify or revert any other configuration settings. Select this option to install only the necessary files for defining an additional PeopleSoft site onto an existing Oracle WebLogic configuration. The new site will be accessed using its name in the URL. A site named "CRM" would be accessed using a URL similar to http://mywebserver_machine/CRM. To reset or re-create an existing PeopleSoft site, simply enter that site's name as the site to create. On your web server, a PeopleSoft site is comprised of the following directories within the PORTAL web application:

  <WEBLOGIC_DOMAIN>\applications\peoplesoft\PORTAL*<site>**

  <WEBLOGIC_DOMAIN>\applications\peoplesoft\PORTAL\WEB-INF\psftdocs*<site>**

- *Redeploy PeopleSoft Internet Architecture*

  This option affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to redeploy all of the web components of the PeopleSoft Pure Internet Architecture. The redeployment process updates all of the web components of the PeopleSoft Pure Internet Architecture, without modifying the configuration files or scripts that belong to the Oracle WebLogic server domain.

- *Re-create WebLogic domain and redeploy PeopleSoft Internet Architecture*

  This option affects Oracle WebLogic Server domain configuration and all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to completely remove an existing Oracle WebLogic domain and deploy the PeopleSoft Pure Internet

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Architecture components to create the newly specified PeopleSoft site.

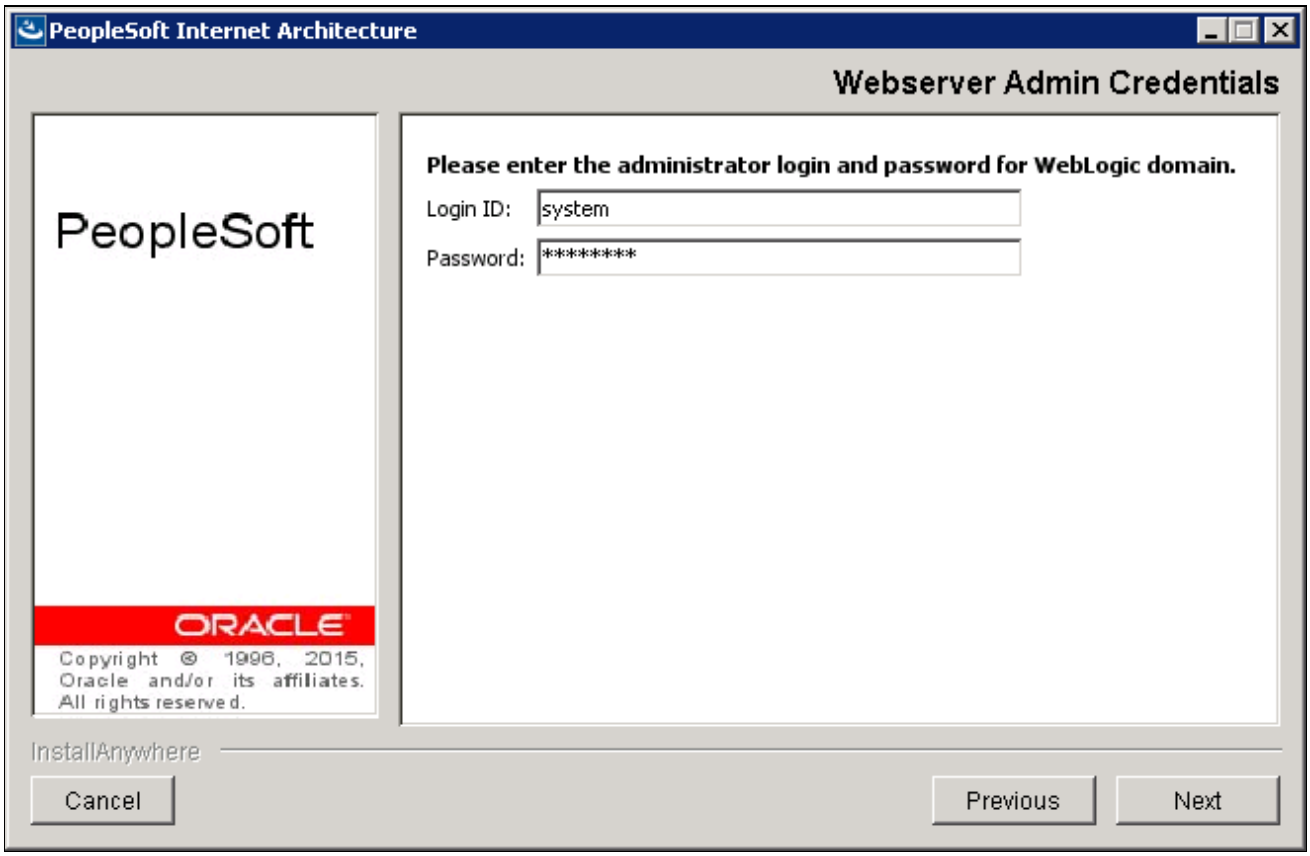
Warning! Re-creating an existing domain will delete everything previously installed into that domain.

See *PeopleTools: Portal Technology*.

- *Deploy additional PeopleSoft application extensions*

  This option is solely for use with PeopleSoft applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see if this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

8. Enter the Login ID and password that you used when creating the existing domain:



PeopleSoft Internet Architecture Webserver Admin Credentials window for an existing domain

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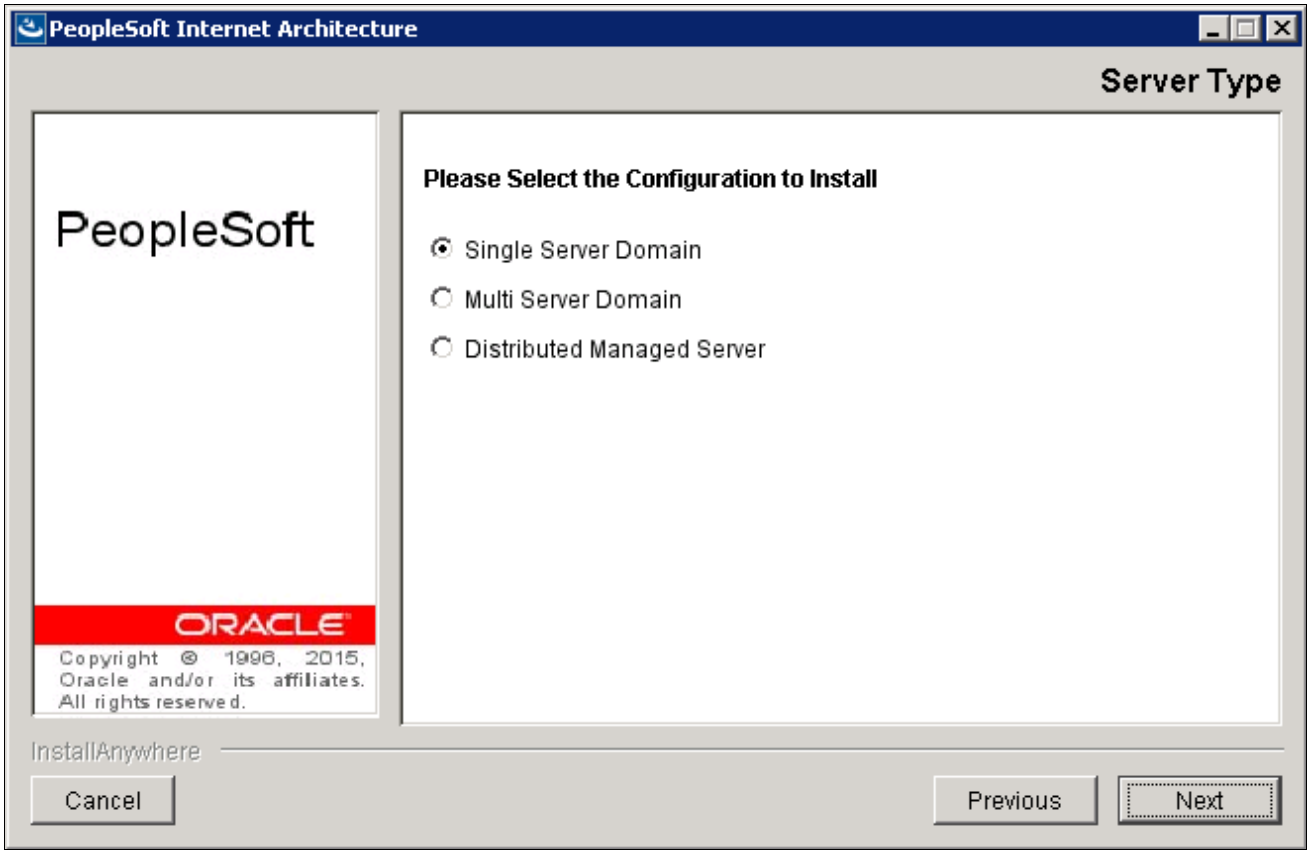
9. Select the type of domain to create—single server, multi server, or distributed managed server.

   In this example, Single Server Domain is selected.

Note. Depending upon the operation you are carrying out for an existing domain, you may not see this window.



PeopleSoft Internet Architecture Server Type window

There are three domain configuration options:

- *Single Server Domain*

  This domain configuration contains one server named PIA, and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, non-production environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

- *Multi Server Domain*

  This domain configuration contains seven unique server definitions, an Oracle WebLogic cluster, and the PeopleSoft application split across multiple servers. This configuration is intended for a production environment.

- *Distributed Managed Server*

  This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

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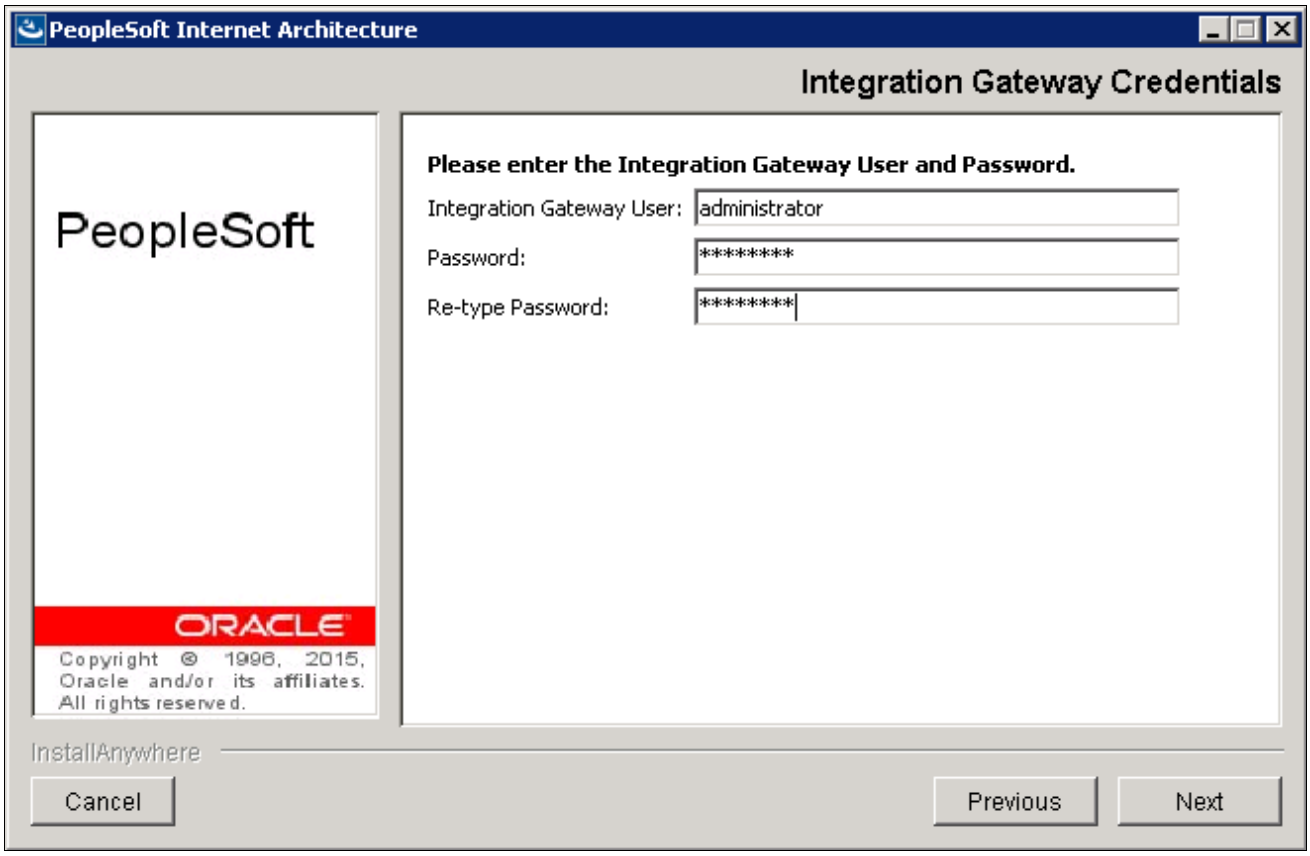
10. Enter the Integration Gateway User name. Enter and re-enter the password for the Integration Gateway User.

    The default Integration Gateway User is administrator as shown in this example. The password must be at least 8 alphanumeric characters.

    See *PeopleTools: Integration Broker Administration.*



PeopleSoft Internet Architecture Integration Gateway Credentials window

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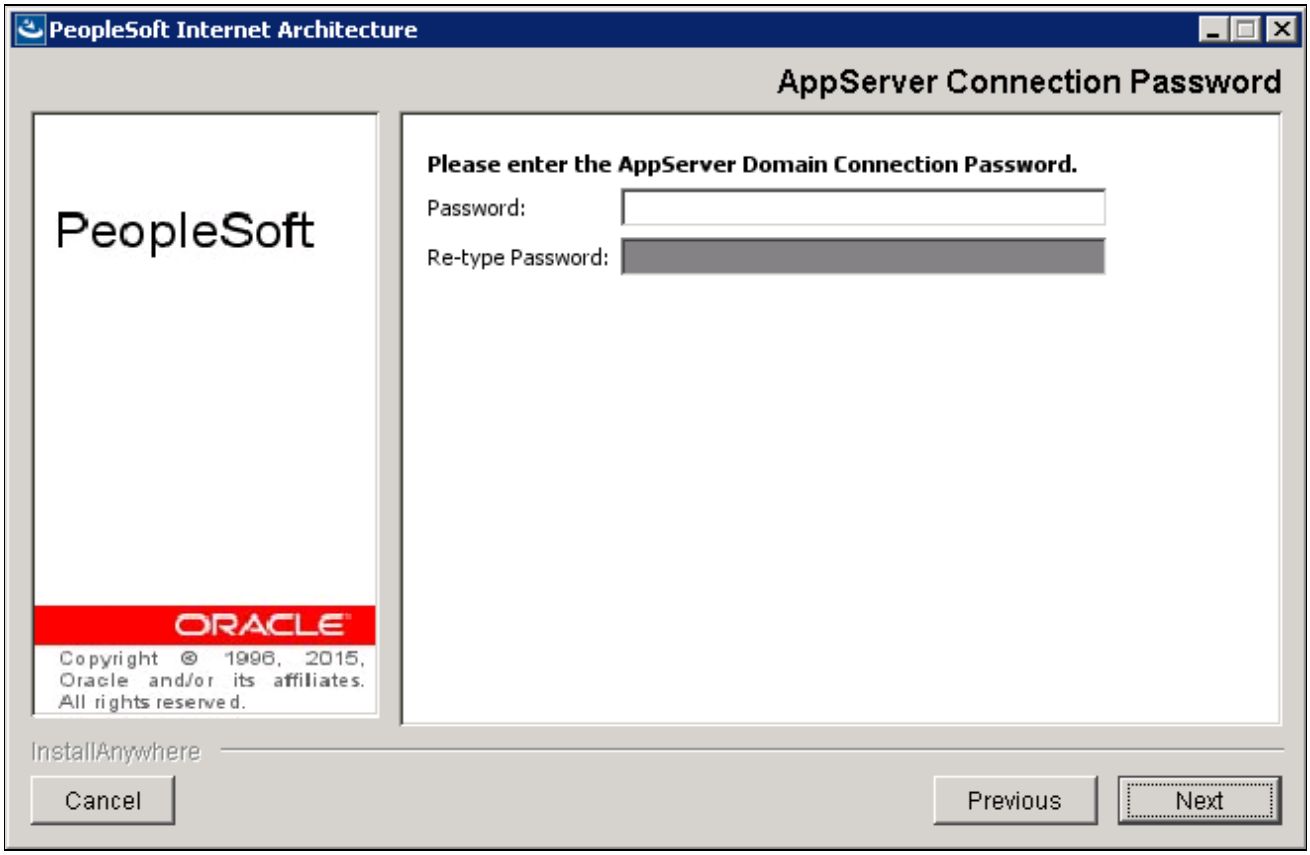
11. Enter the AppServer Domain Connection password (optional).

    If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank as shown in this example. This password will be propagated to the Integration Gateway.

    For more information about Application Server domain configuration and setting domain parameters, see the product documentation *PeopleTools: System and Server Administration.*



PeopleSoft Internet Architecture AppServer Connection Password window

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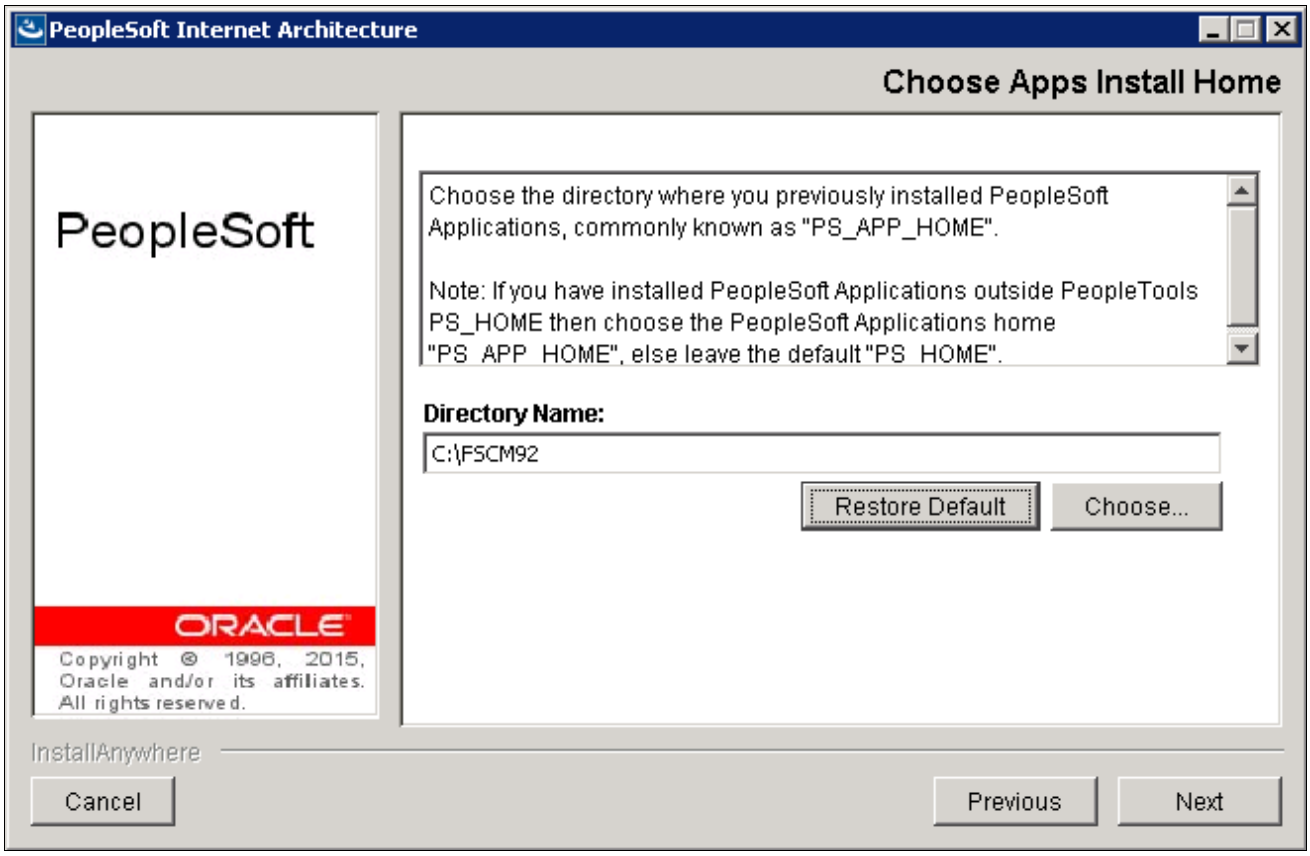
12. If you selected the option Deploy additional PeopleSoft application extensions on the Domain Type window, enter the location where you installed the PeopleSoft application software, *PS_APP_HOME*, in this example C:\FSCM92:



PeopleSoft Internet Architecture Choose Apps Install Home window

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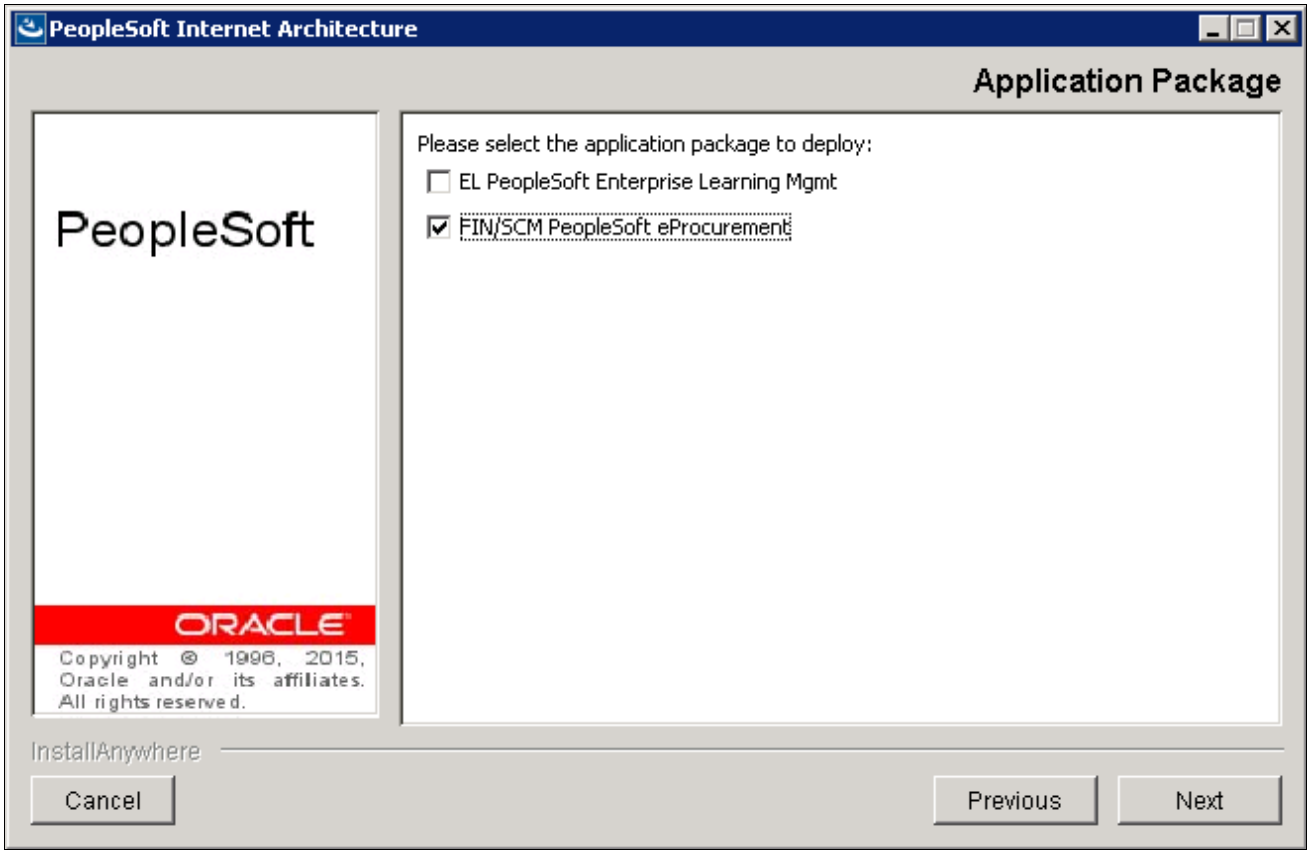
13. For the option Deploy additional PeopleSoft application extensions, select the application packages to deploy, FIN/SCM PeopleSoft eProcurement in this example:



PeopleSoft Internet Architecture Application Package window

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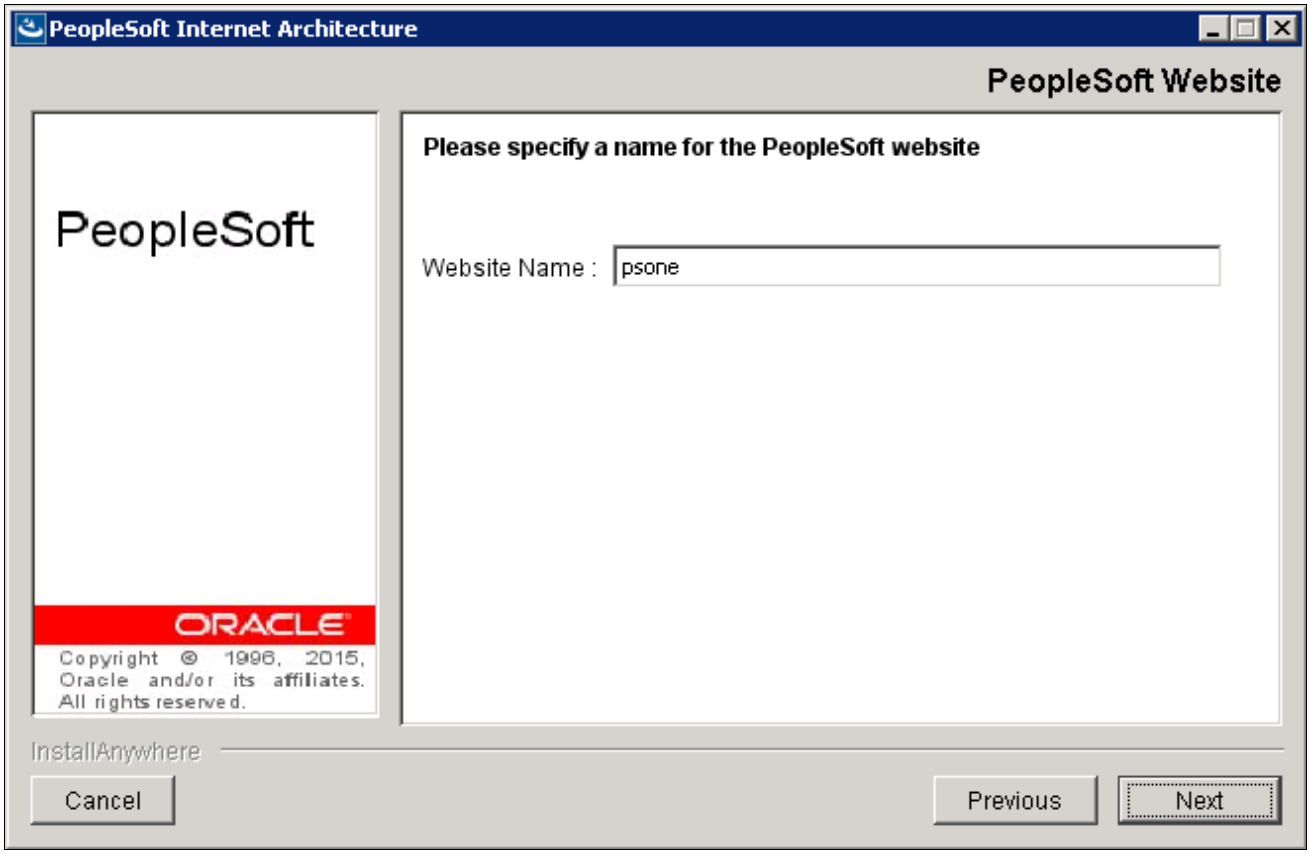
14. Enter a PeopleSoft web site name; in this example the name is psone.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).



PeopleSoft Internet Architecture PeopleSoft Website window

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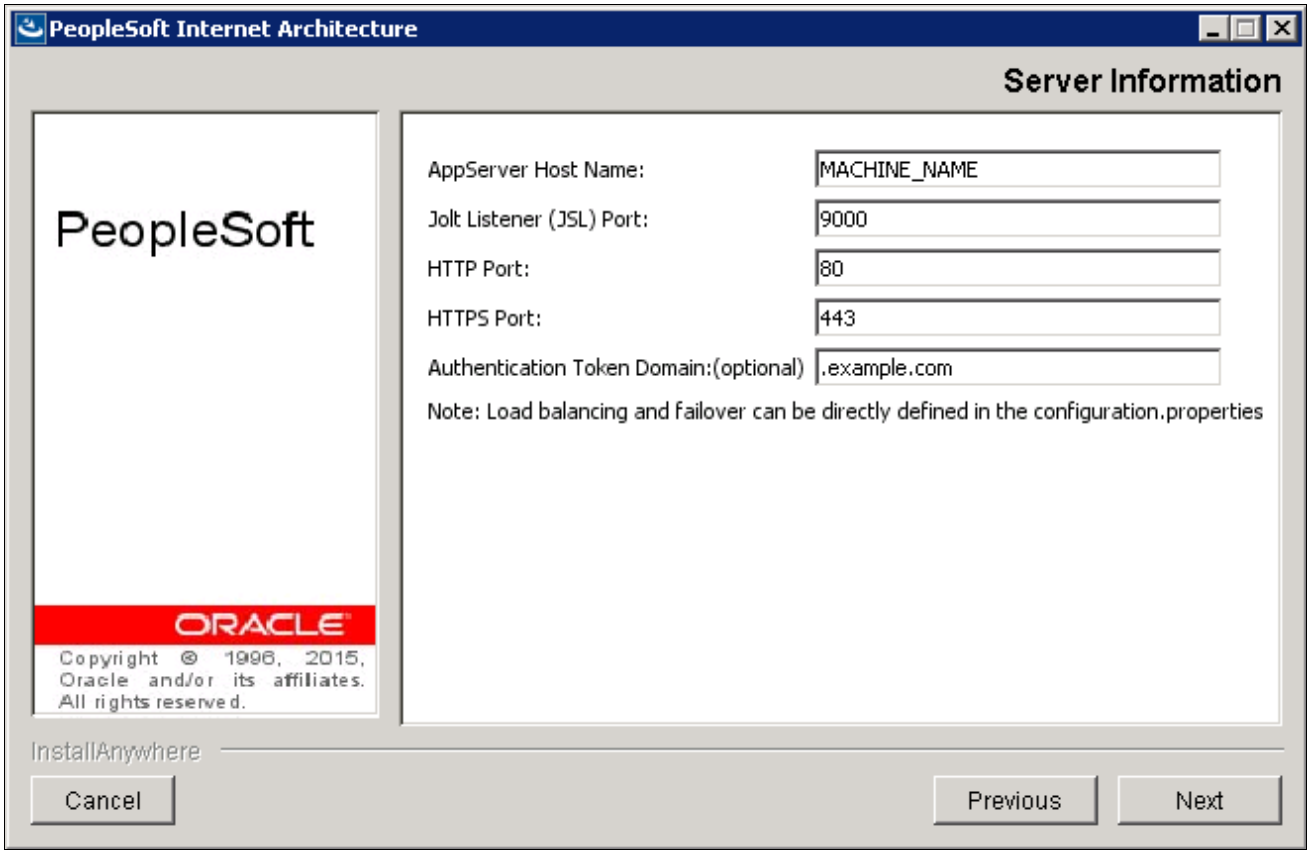
15. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional), and click Next.

Note. The fields that appear on this window may change depending upon the type of operation you are carrying out for an existing domain.



PeopleSoft Internet Architecture Server Information window

- *AppServer name*

  For the AppServer name setting, enter the name of your application server, MACHINE_NAME in this example.

- *JSL Port*

  For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000 as in this example.)

  See the chapter on configuring the application server in this documentation.

- *HTTP Port*

  The default value for the HTTP port is 80, as shown in this example.

- *HTTPS Port*

  The default value for the HTTPS port is 443, as shown in this example.

- *Authentication Token Domain*

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Note. The value you enter for Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

If you enter a value for Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName/ps/signon.html. If you do enter a value for the authentication domain (for example, .myCompany.com), the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName.myCompany.com/ps/signon.html. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example http://MachineName:8080/ps/signon.html if there is no authentication domain, or http://MachineName.myCompany.com:8080/ps/signon.html if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

See Understanding the PeopleSoft Pure Internet Architecture.

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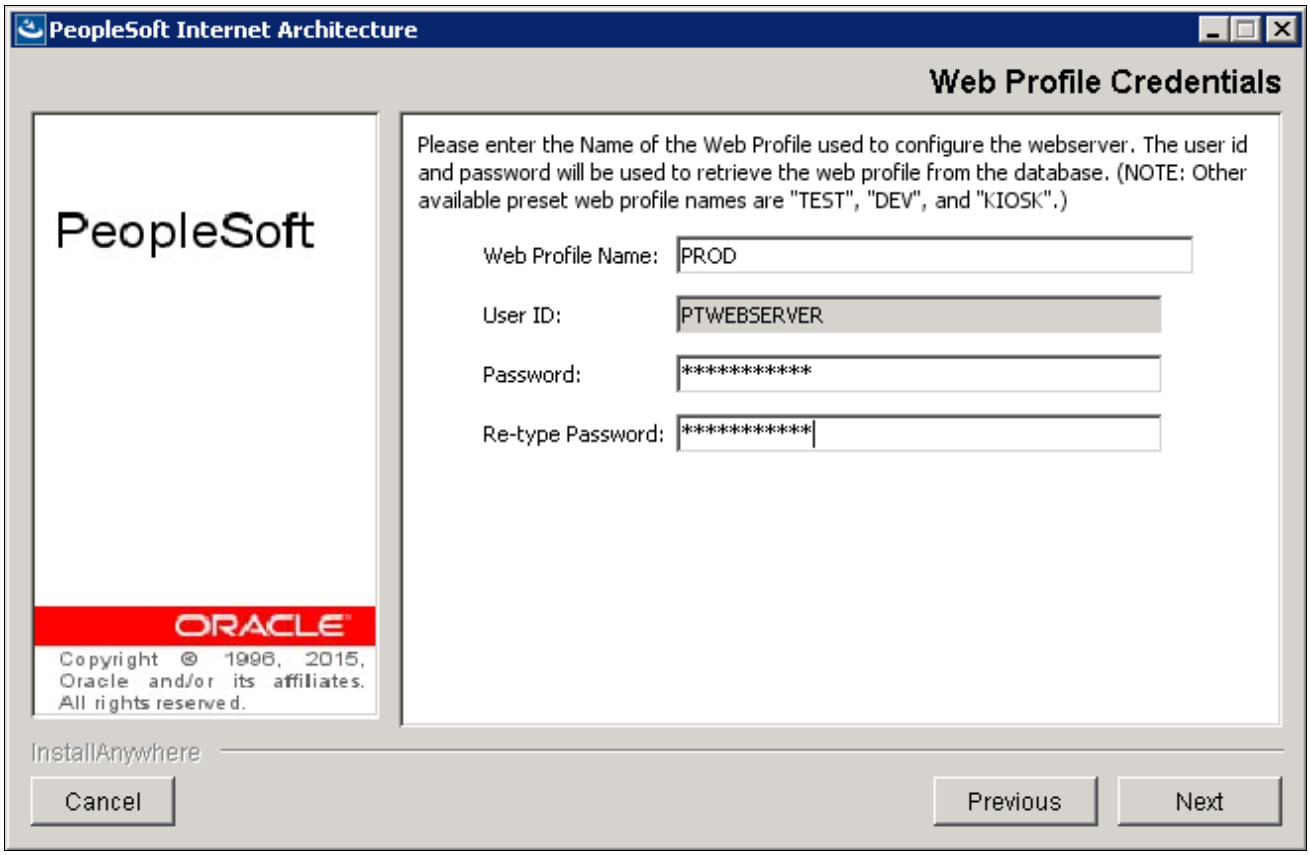
16. Enter the details for the web profile, PROD, or enter another name.

    Enter a Web Profile Name, and enter the password two times. The example below shows the default web profile name, PROD, and default user ID, PTWEBSERVER.

    The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, PTWEBSERVER, be sure to review the information on web profile configuration and security in the *PeopleTools: Portal Technology* product documentation.

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step. The password must be at least 8 alphanumeric characters.

See the *PeopleTools: Security Administration* product documentation for the steps required to add a User Profile.



PeopleSoft Internet Architecture Web Profile Credentials window

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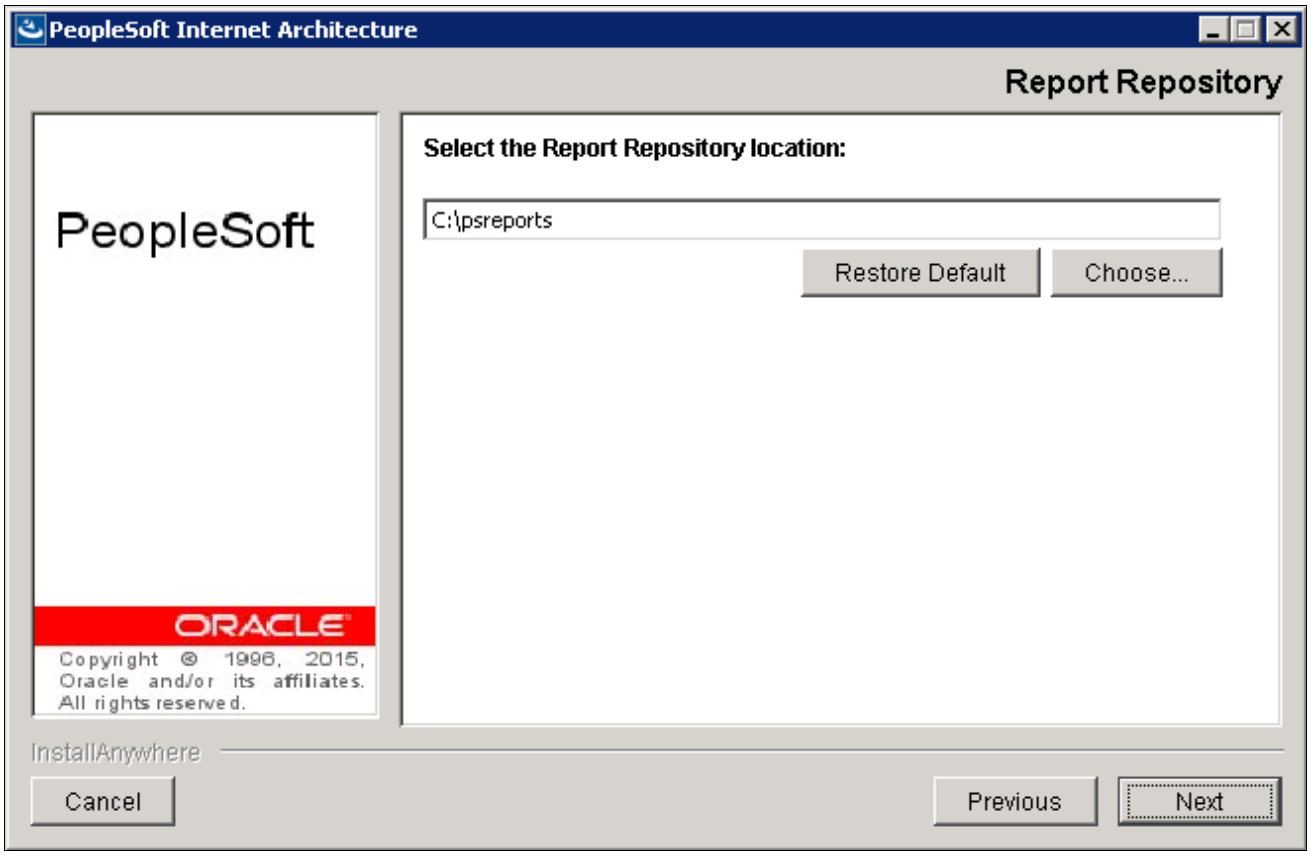
17. Specify the root directory for the Report Repository, and click Next.

    Make sure that the report repository directory is shared. You must have write access to the Report Repository directory. The default is C:\psreports, as shown in this example.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP transfer protocol, use the same directory for the Home Directory as you use here for the report repository.

See *PeopleTools: Portal Technology*.

See "Setting Up Process Scheduler on Windows," Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.



PeopleSoft Internet Architecture Report Repository window

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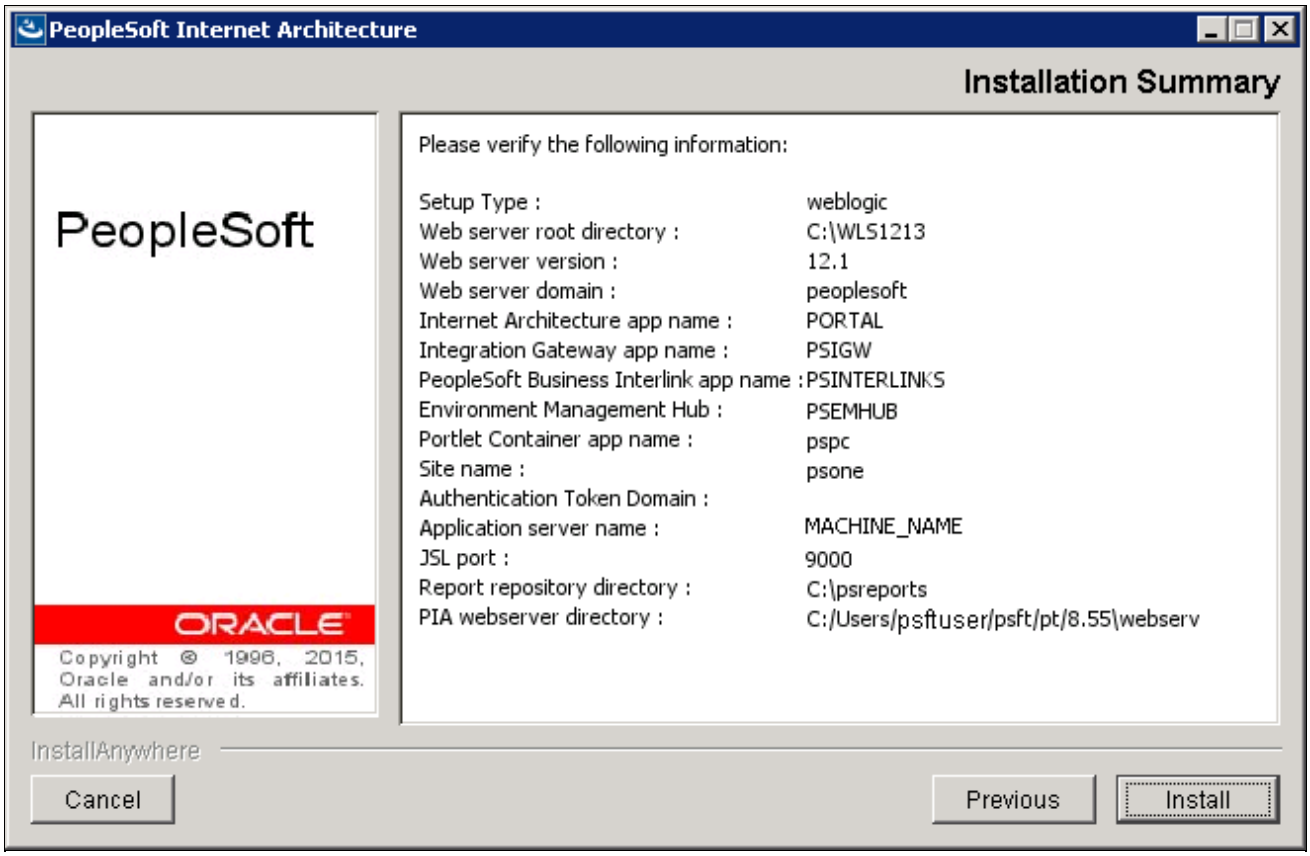
18. Verify all of your selections (click Back if you need to make any changes), and click Install to begin the installation.

    The window displays a summary of the installation information, such as web server software, web server root directory, version, and so on.



PeopleSoft Internet Architecture Installation Summary window

An indicator appears showing the progress of your installation.

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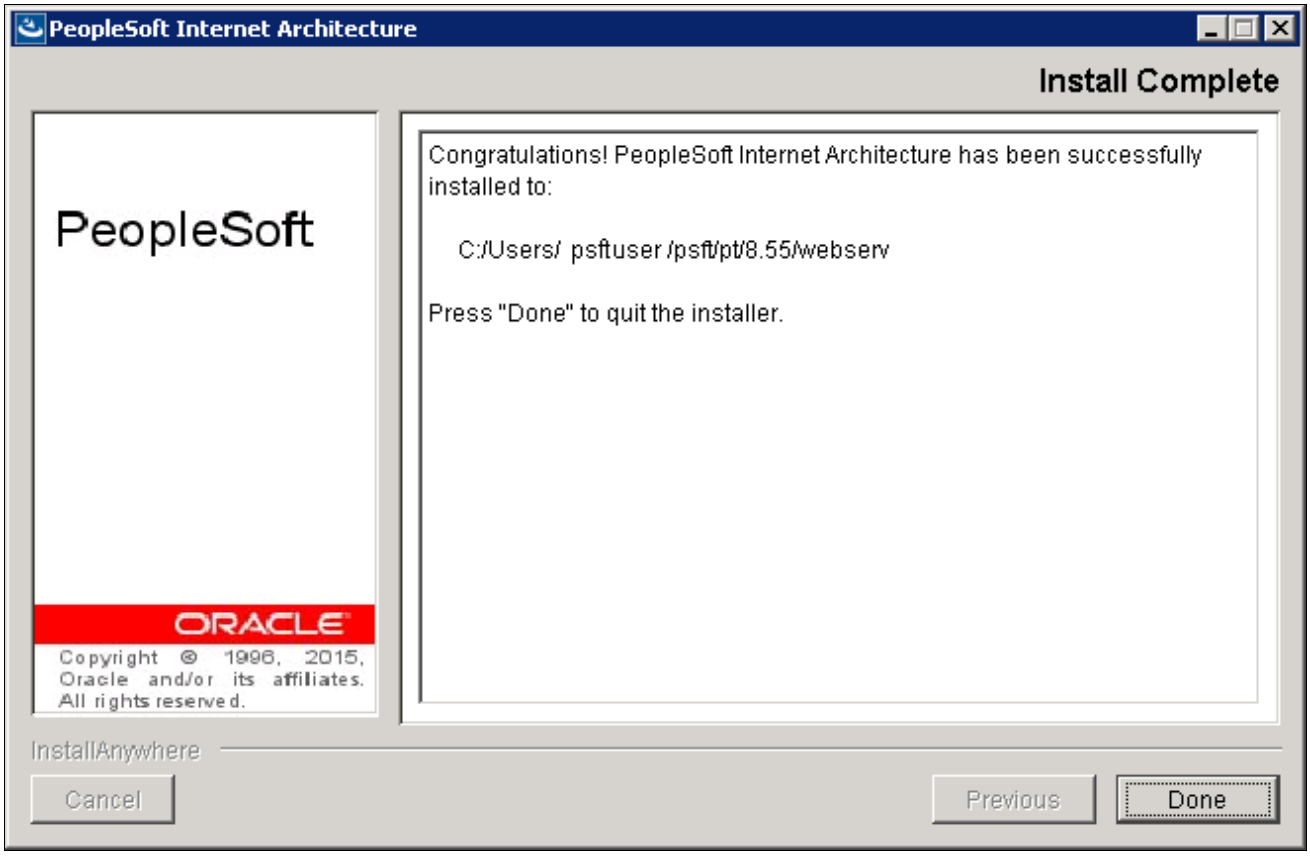
19. Click Finish to complete the installation.

    The default installation directory for the PIA domain is *<PIA_HOME>*\webserv*<domain_name>*. The Install Complete window displays the parent installation directory for the domain. In this example, this is C:/Users/psftuser/psft/pt/8.55/webserv.

Note. If you are installing into an existing domain, you need to restart that domain.



PeopleSoft Internet Architecture Install Complete window

Task 9A-2-3: Uninstalling the PeopleSoft Pure Internet Architecture on Oracle WebLogic

To remove a PIA domain deployed on Oracle WebLogic, delete the folder *<PIA_HOME>*\webserv*<domain_name>*. If there is more than one domain, delete the *domain_name* folder for every domain you want to remove.

Task 9A-3: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in GUI Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere

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- Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

Prerequisites

The information in this section applies to the installation of PeopleSoft Pure Internet Architecture (PIA) on an IBM WebSphere Application Server. PeopleSoft PeopleTools 8.52 and later releases require a 64–bit IBM WebSphere ND installation. PeopleSoft PeopleTools 8.55 supports 64–bit IBM WebSphere 8.5.5.0. Review the following points before beginning the installation:

- Before installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server Network Deployment, (referred to here as IBM WebSphere ND) you must have installed the IBM WebSphere ND software.
- Each IBM WebSphere Application Server runs one PeopleSoft Pure Internet Architecture application. If you need to install more than one PeopleSoft Pure Internet Architecture application on your IBM WebSphere Application Server, you must run the PIA installation again.
- When installing PIA on IBM WebSphere ND, you must work with a local copy of the PIA installation software; you cannot install remotely. If you are doing the installation on a machine other than the one on which you installed PeopleSoft PeopleTools, copy the *PS_HOME*\setup\PsMpPIAInstall directory to the local machine and keep the same directory structure.
- Both IBM WebSphere Application Server Network Deployment and PeopleSoft Pure Internet Architecture need to be installed and deployed using the same user ID. Following this requirement avoids any security and profile management issues.

See Also

"Installing Web Server Products," Installing IBM WebSphere Application Server

Task 9A-3-1: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere

To install PIA on IBM WebSphere ND:

1. Go to *PS_HOME*\setup\PsMpPIAInstall.

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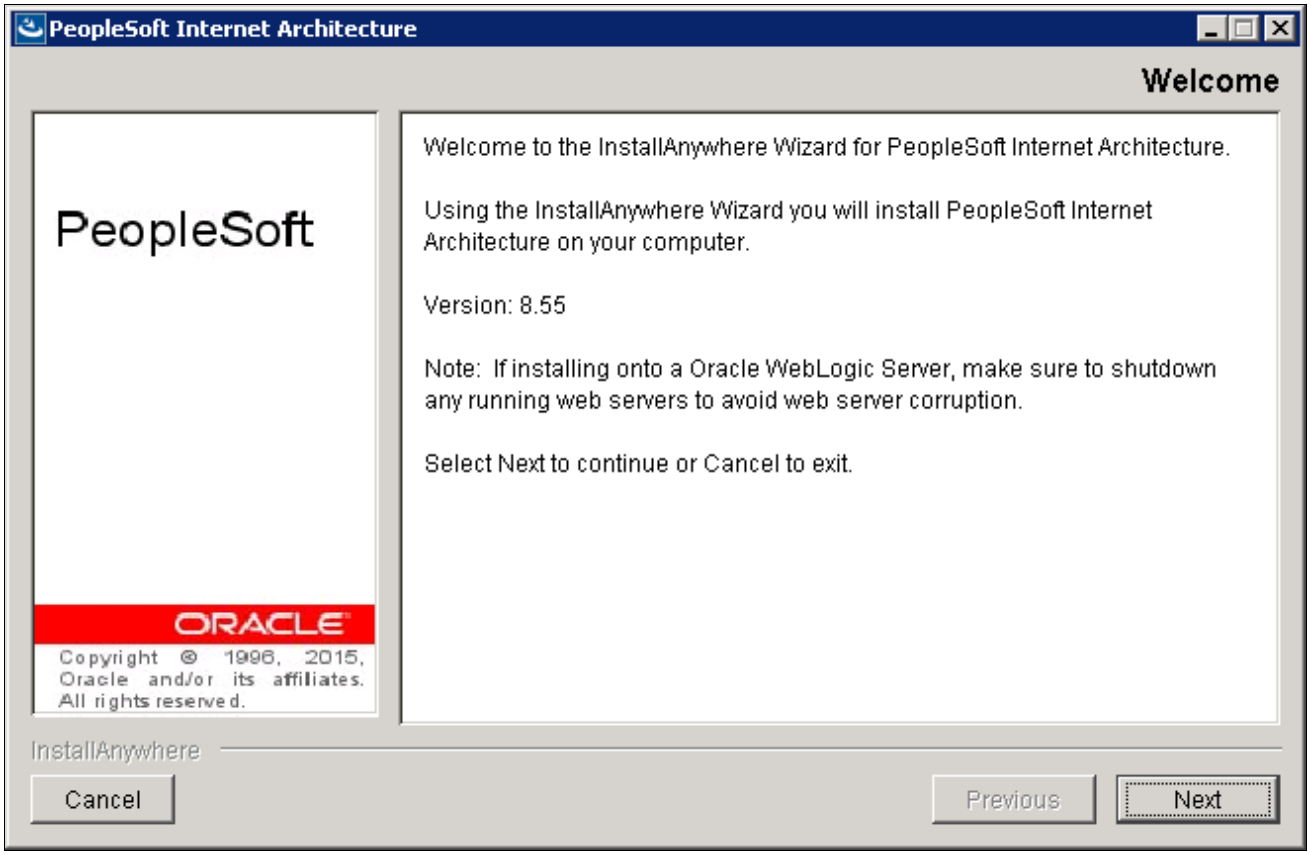
2. Double-click on `setup.bat`.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

   The Welcome window appears with the PeopleSoft PeopleTools version, which is 8.55 in this example.



PeopleSoft Internet Architecture Welcome window

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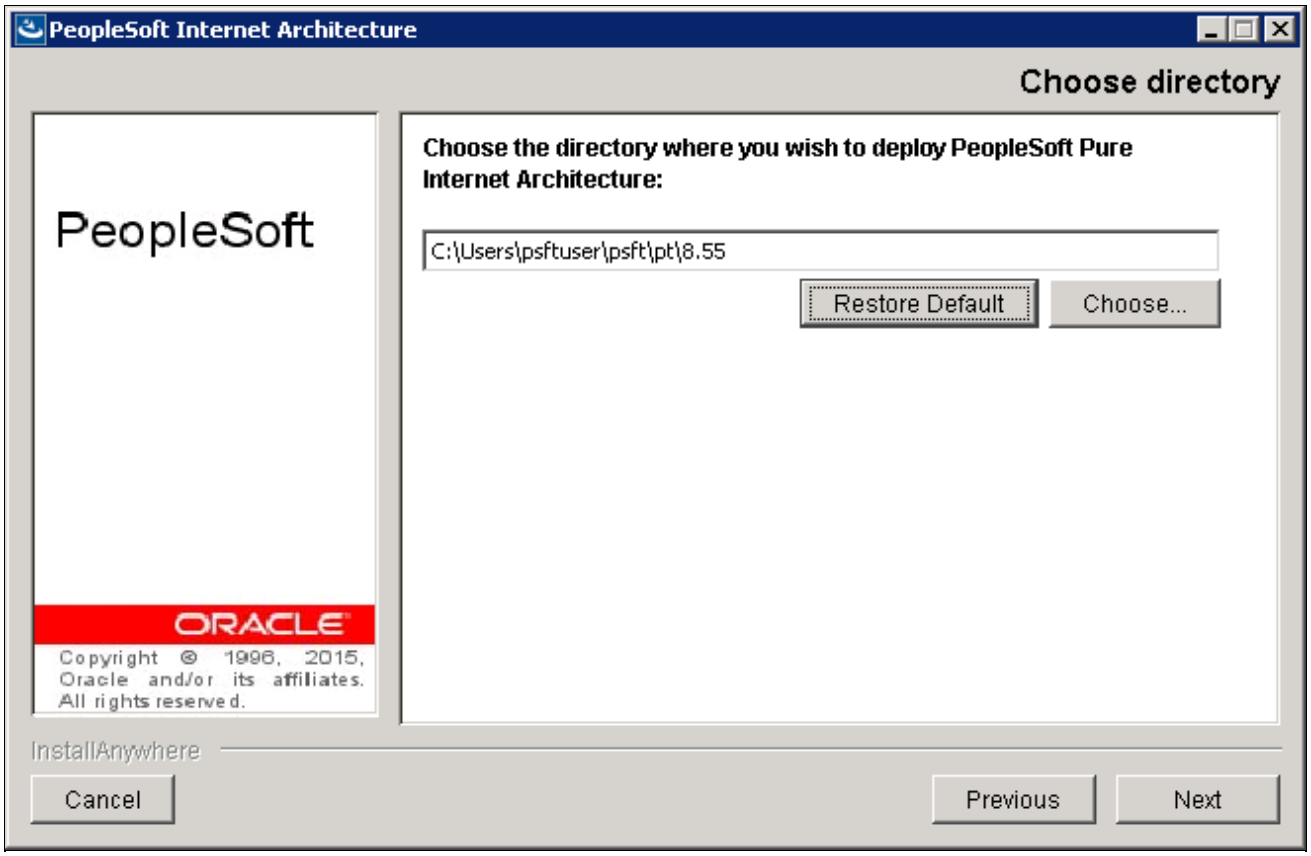
3. Click Next in the Welcome window, and specify the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as *PIA_HOME*.

   The default path for *PIA_HOME* is the *PS_CFG_HOME* path. In this example, the directory is C:\Users\psftuser\psft\pt\8.55.



PeopleSoft Internet Architecture Choose directory window

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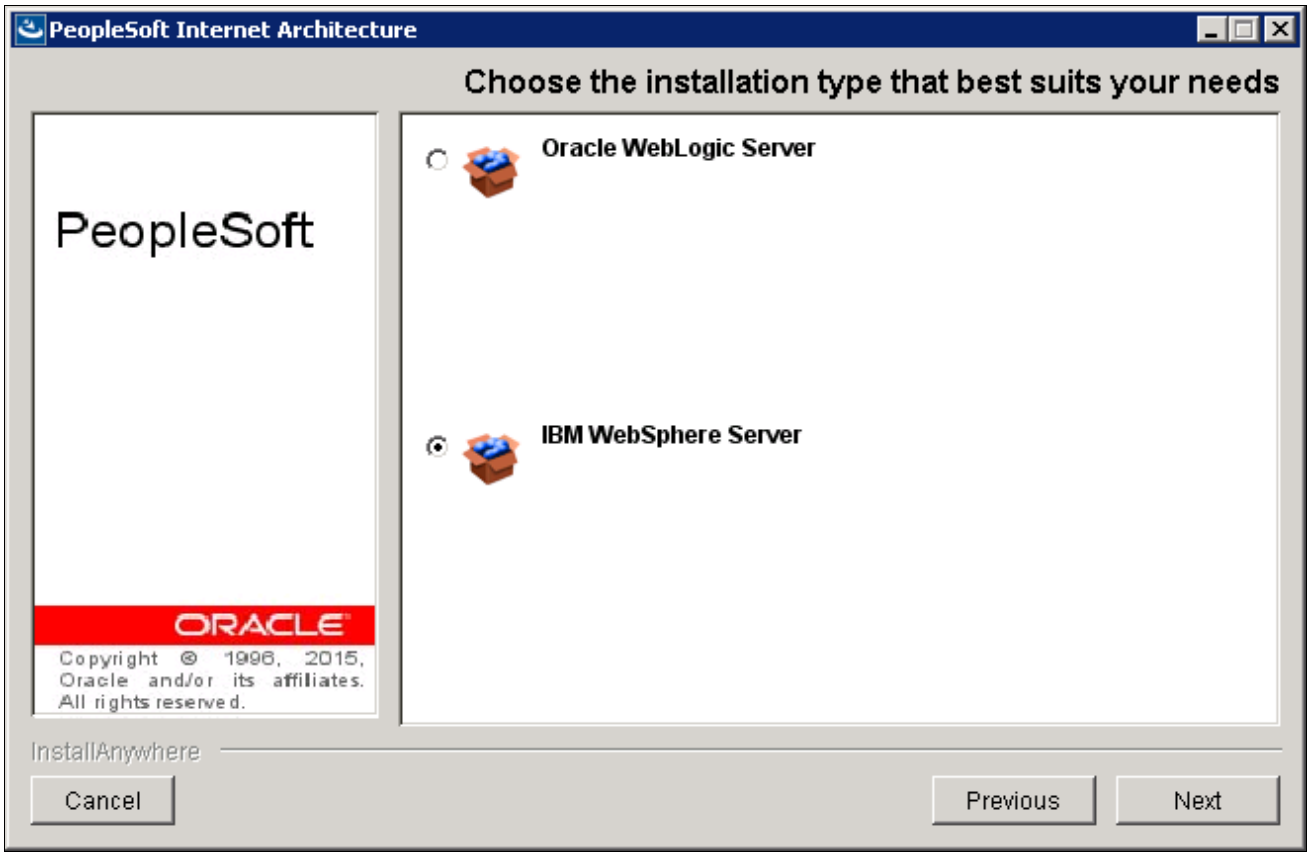
4. Select the option IBM WebSphere Server as the installation type as shown in this example, and click Next.



PeopleSoft Internet Architecture Choose the installation type that best suits your needs window

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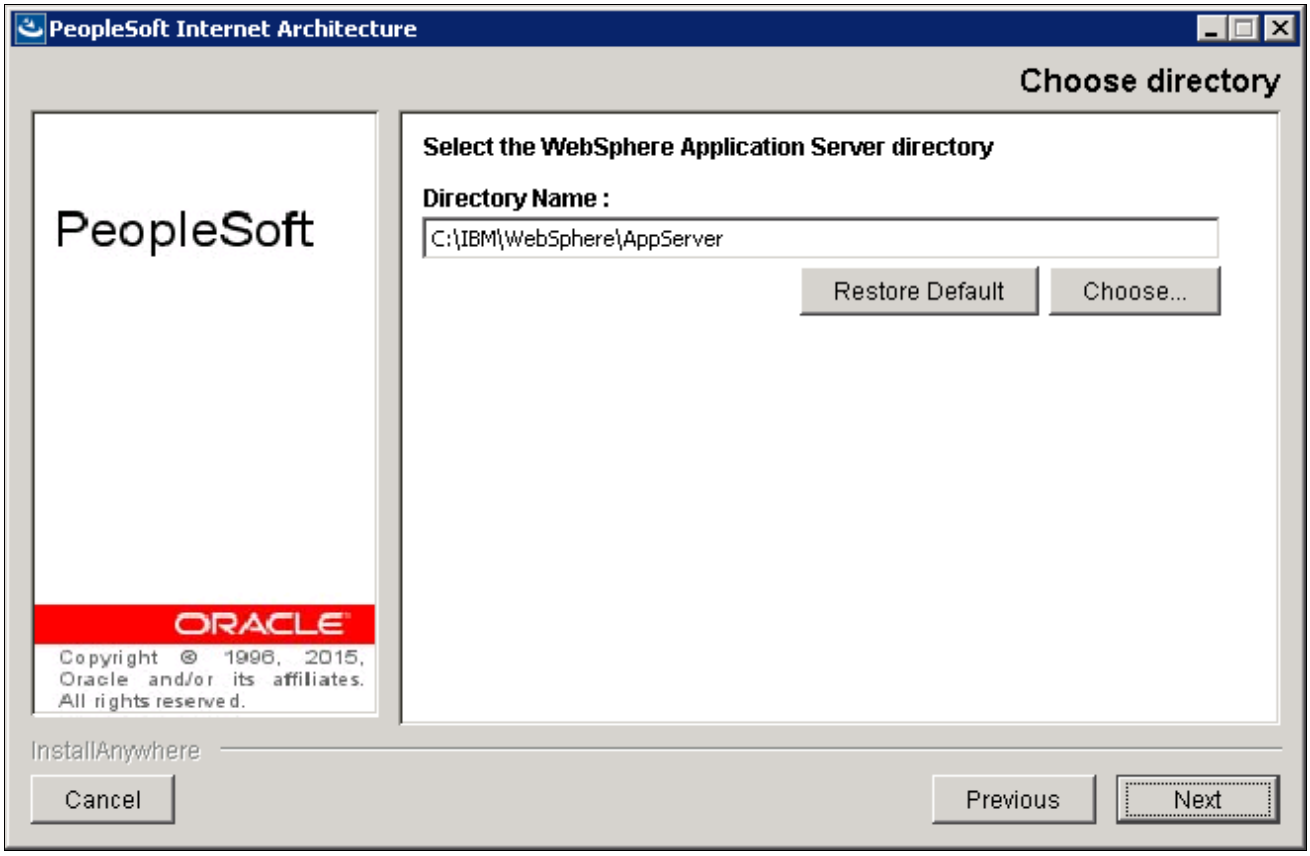
5. Specify the directory where IBM WebSphere ND was installed, referred to as *WAS_HOME*.

   The WebSphere Application Server directory in this example is C:\IBM\WebSphere\AppServer. Click Next.



PeopleSoft Internet Architecture Choose directory window

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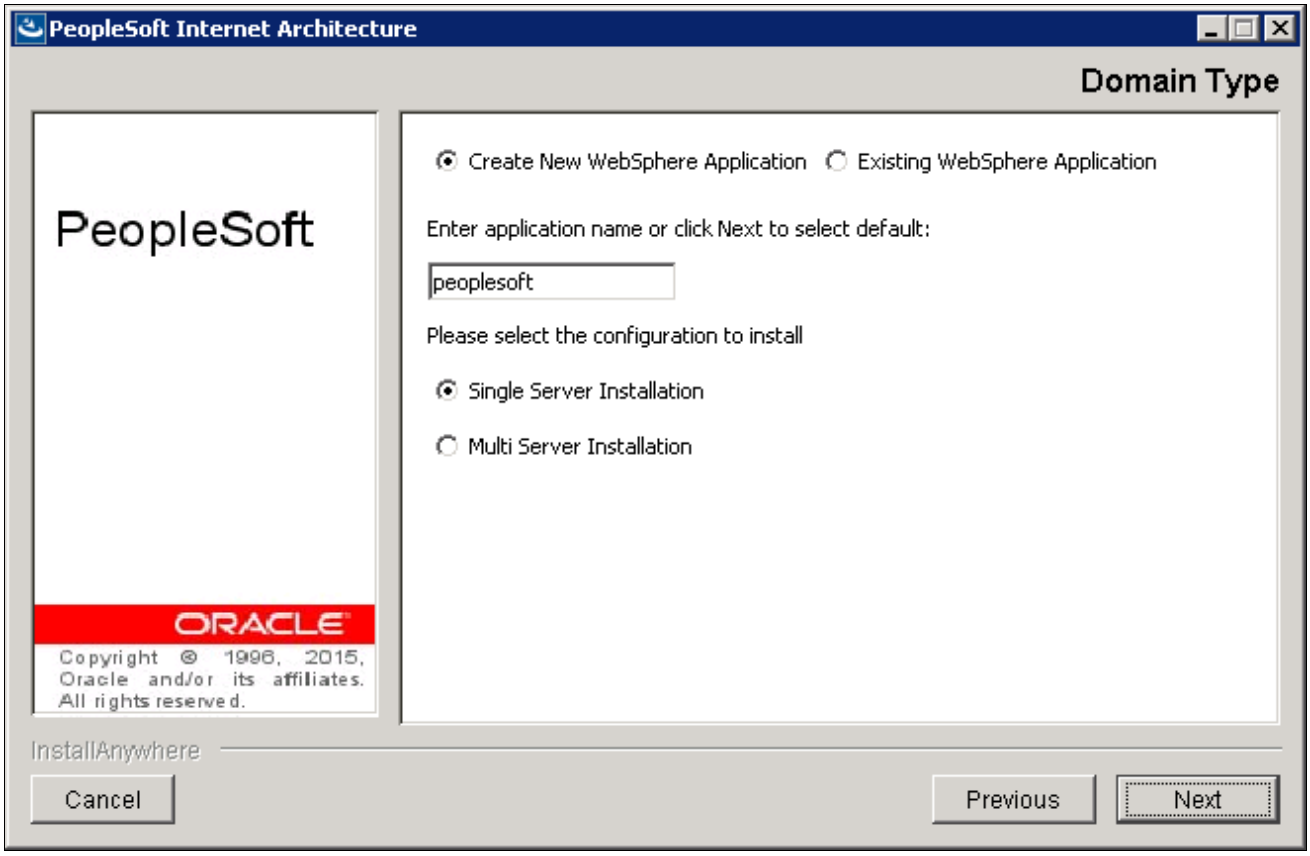
6. Enter an application (domain) name or accept the default name on the Domain Type window. Select the type of configuration from the options Single Server Installation or Multi Server Installation.

   If the PIA installer cannot detect any existing IBM WebSphere applications, only the option Create New WebSphere Application is available. The default name is peoplesoft as shown in this example.

Note. The name you specify here for each application must be unique for each IBM WebSphere node.



PeopleSoft Internet Architecture Domain Type window for creating a new WebSphere Application

- *Single Server Installation*

  The Single Server Installation option creates one WebSphere Application Server profile to hold all the PeopleSoft web applications. The installer uses the application name you enter for the new profile's name.

- *Multi Server Installation*

  The Multi Server Installation option creates a single profile with the name you enter as the application name on this page. The profile includes two servers, which deploy discrete functionality and are found on different ports, as specified in the following table:

Server Name	Purpose	HTTP or HTTPS Port Number
server1	PORTAL applications	X
psemhub	PeopleSoft Environment Management Framework applications (PSEMHUB)	X+1

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7. If there are existing IBM WebSphere applications on your system, select one of the options Create New WebSphere Application or Existing WebSphere Application.

   If you select Create New WebSphere Application, the installation process automatically generates a valid domain name in the domain name field, such as peoplesoft1.

   If you attempt to enter an invalid domain name, you see a prompt asking you to enter a new domain name or choose an existing domain.

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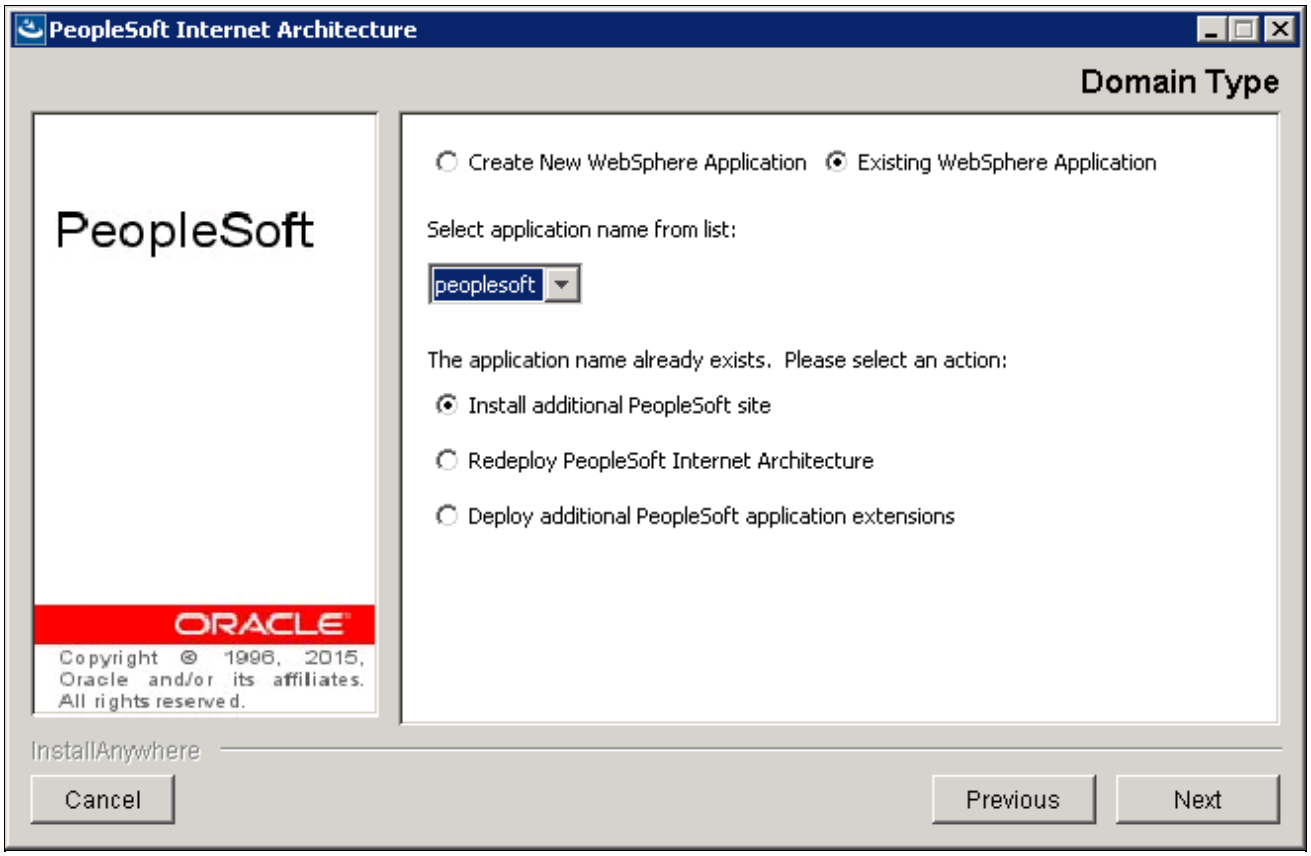
8. If you select the Existing WebSphere Application option, you can choose from a drop-down list of existing application names, and can select whether to install an additional PeopleSoft site, redeploy PeopleSoft Internet Architecture, or deploy additional PeopleSoft application extensions.

Note. Make sure the server is up and running before installing an additional PeopleSoft site, redeploying PIA, or deploying additional PeopleSoft application extensions.



PeopleSoft Internet Architecture Domain Type window for an existing WebSphere Application

Install additional PeopleSoft site

Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing IBM WebSphere ND web server configuration.

Redeploy PeopleSoft Internet Architecture

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local IBM WebSphere Application Server profile. The redeployment process updates all of the web components of the PeopleSoft Pure Internet Architecture.

Deploy additional PeopleSoft application extensions

This option is solely for use with PeopleSoft product applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see whether this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

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9. Enter the IBM WebSphere administrator Login ID, and enter the password two times.

Note. The default administrator login ID is system as shown in this example. The password must be at least 8 alphanumeric characters with one number or special character. Use these criteria to log into the IBM WebSphere administrative console.

If you selected Create New WebSphere Application in the previous step, the following window appears.

PeopleSoft Internet Architecture Webserver Admin Credentials window

If you selected the Existing WebSphere Application option, and either Install additional PeopleSoft site or Redeploy PeopleSoft Internet Architecture, the following window appears. Enter the same Login ID and password as you entered for the original IBM WebSphere Application creation. If the Login ID and password do not match the original values, you cannot continue with the PIA installation.

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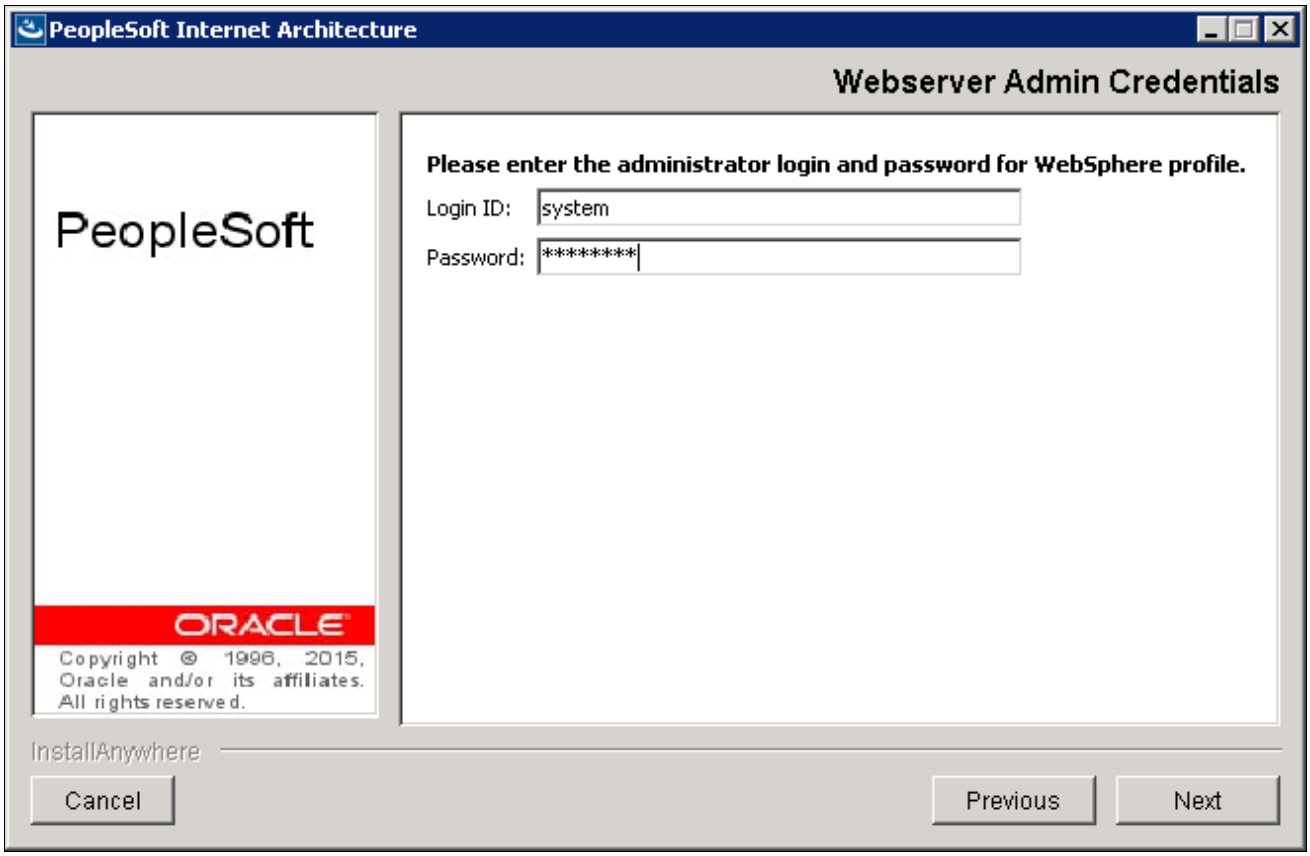

PeopleSoft Internet Architecture Webserver Admin Credentials window for existing WebSphere profile

10. If there are PeopleSoft application packages in the archives directory, the PIA installer asks whether you want to deploy them.

    If you are using an existing domain, you will only be prompted if you selected Deploy additional PeopleSoft extensions.

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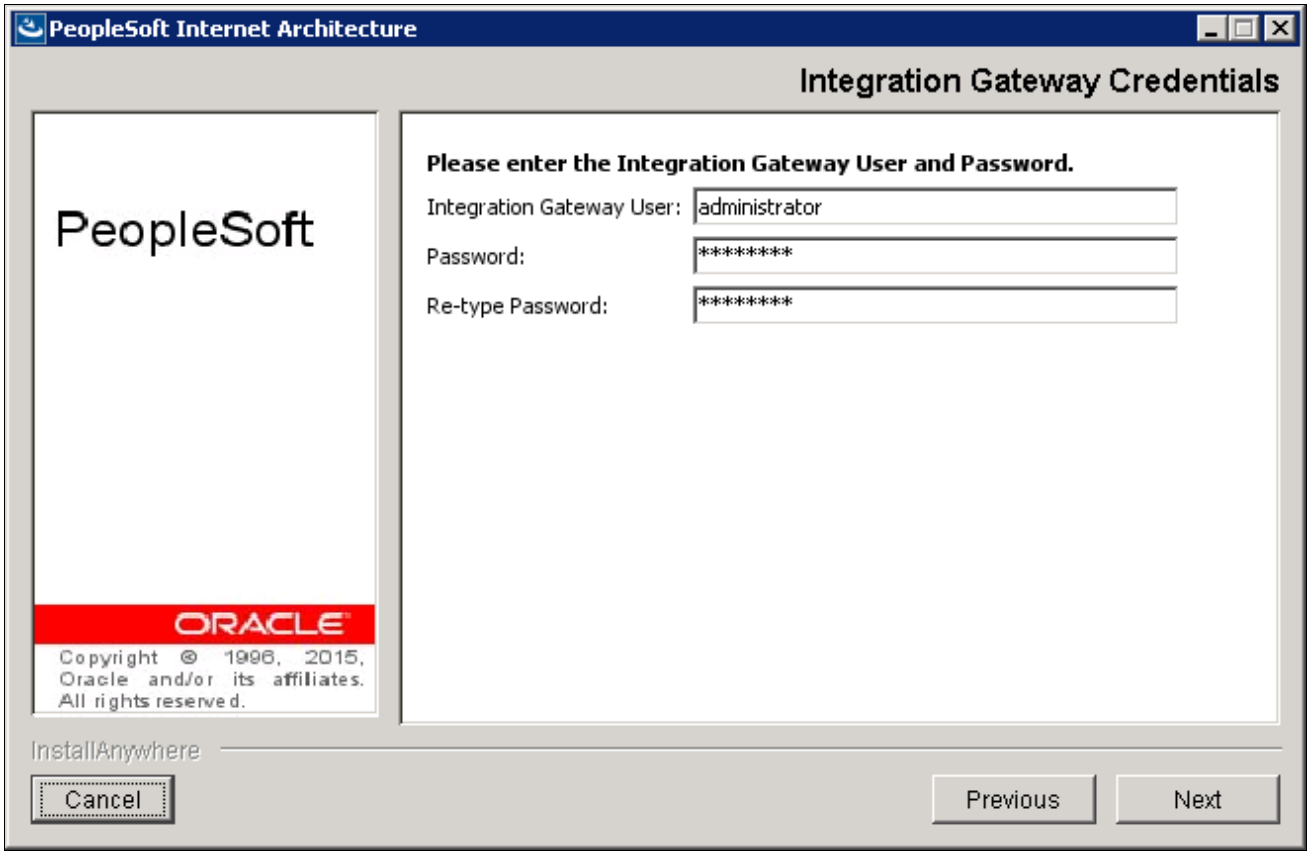
11. Enter the Integration Gateway User and enter the password two times.

    The default Integration Gateway User is administrator, as shown in this example.



PeopleSoft Internet Architecture Integration Gateway Credentials window

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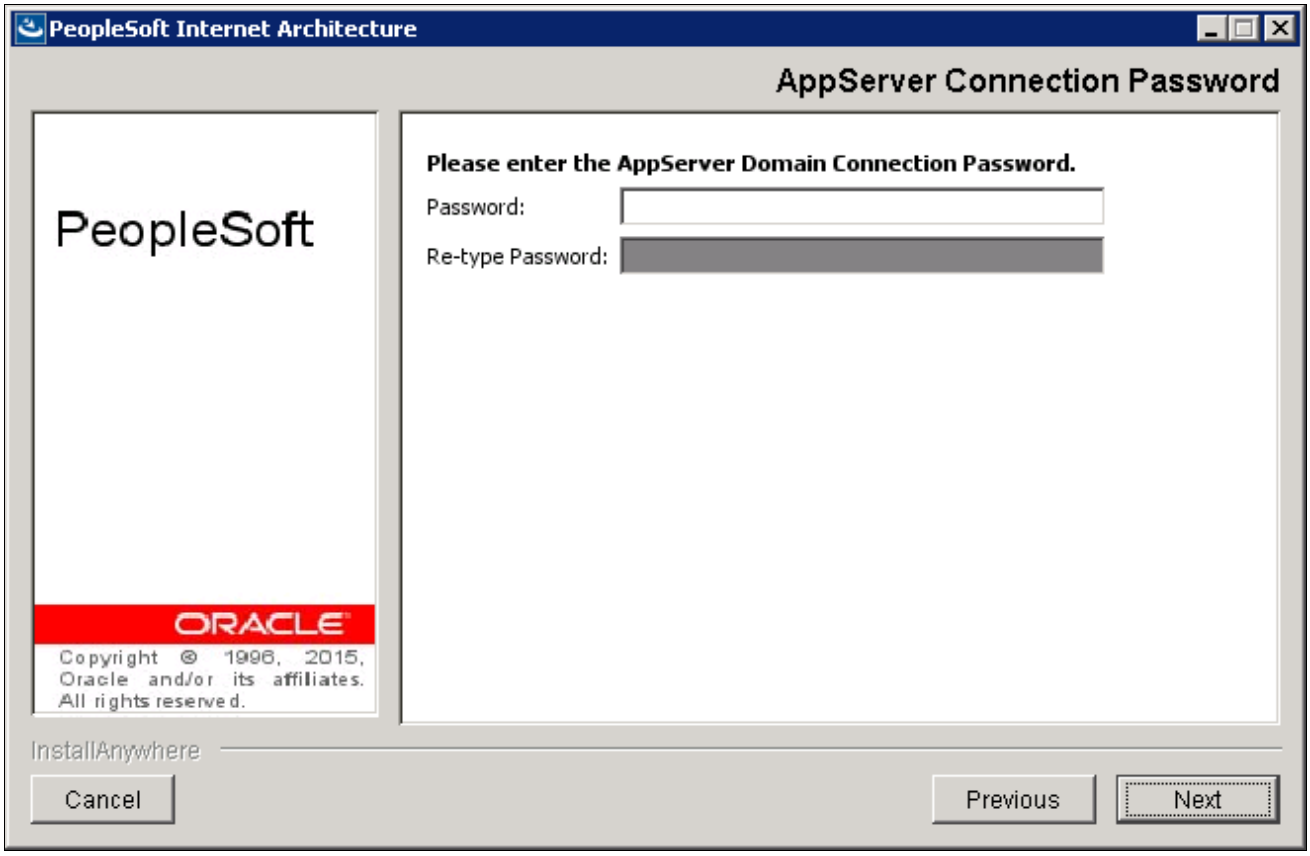
12. Enter the AppServer Domain Connection password two times (optional).

    In this example, the password fields are blank.



PeopleSoft Internet Architecture AppServer Connection Password window

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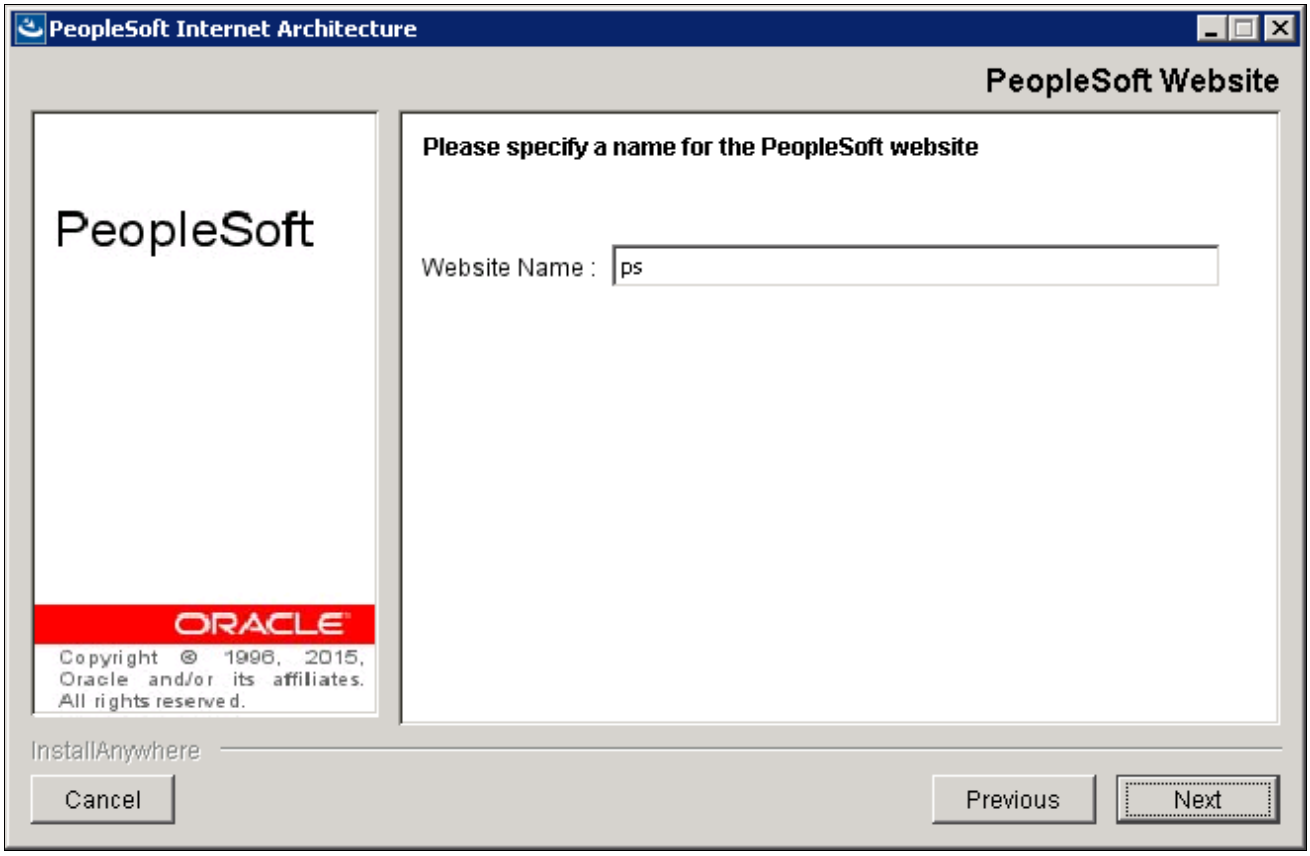
13. Enter a PeopleSoft web site name; the default is ps as shown in this example.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).



PeopleSoft Internet Architecture PeopleSoft Website window

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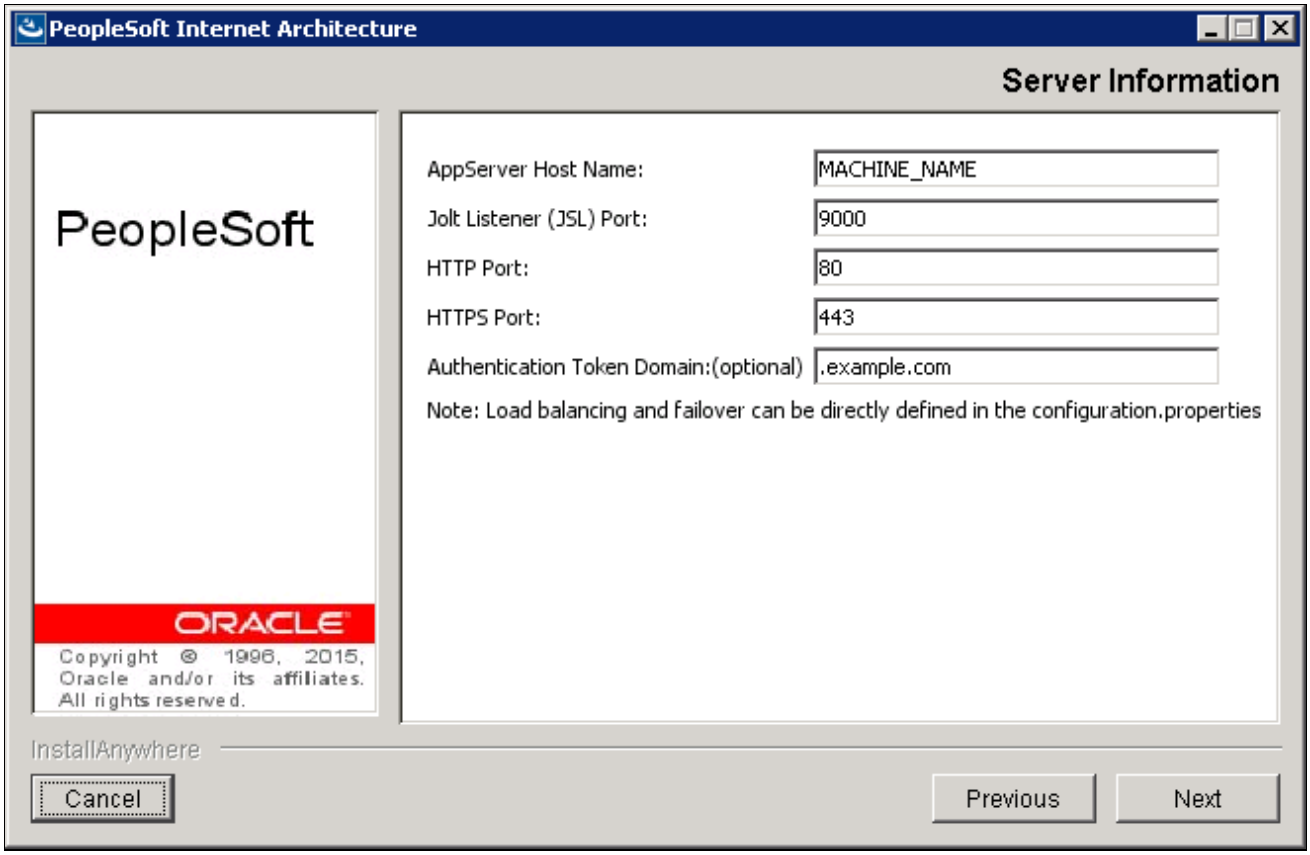
14. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the authentication token domain, and click Next.



PeopleSoft Internet Architecture Server Information window

- *AppServer name*

  For AppServer name, enter the name of your application server. The name is MACHINE_NAME in this example.

- *JSL port*

  For the JSL port, enter the JSL port number you specified when setting up your application server. (The default value is 9000 as shown in this example.)

  See "Configuring the Application Server on Windows."

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- *HTTP and HTTPS ports*

  The default HTTP port is 80, and the default HTTPS port is 443, as shown in this example.

  When you enter HTTP and HTTPS port numbers, they will not be recognized until you restart your WebSphere server.

  In the case of Multi Server Installation type, HTTP and HTTPS ports *cannot* be consecutive numbers. The range for port number will be <Port#>-<Port#>+1 for the two application servers that the install creates. For example, if you select HTTP Port as 5555 and HTTPS port as 5560 then the ports are assigned as given below.

Server Name	HTTP Port Number	HTTPS Port Number
server1	5555	5560
psemhub	5556	5561

- *Authentication Token Domain*

  The value you enter for Authentication Token Domain must match the value you specify for the authentication domain when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

  See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

  If you enter a value for the Authentication Token Domain, the URL to invoke PIA must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PIA is http://MachineName:port/ps/signon.html. If you do enter a value for the authentication domain (for example, .myCompany.com), the URL to invoke PIA is http://MachineName.myCompany.com:port/ps/signon.html. The URL must also comply with the naming rules given earlier in this chapter.

  See Understanding the PeopleSoft Pure Internet Architecture.

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15. Enter the details for the web profile, PROD, or enter another name.

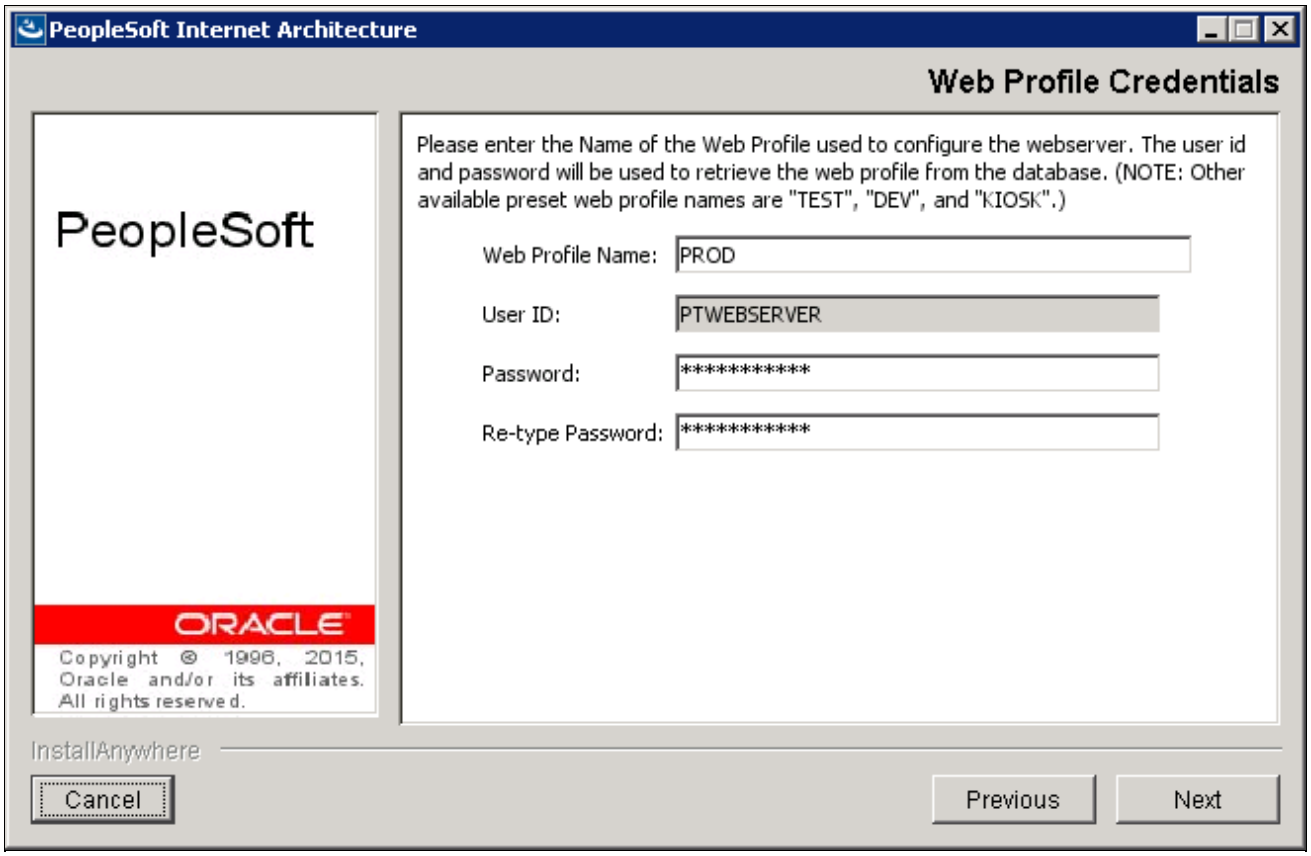
    The following example shows the default web profile name, PROD, and default user ID, PTWEBSERVER.

    The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security.

    Enter and re-enter the password that you set for the User Profile for the User ID password in this step. The password must be at least 8 alphanumeric characters.

    For more information on configuring web profiles, see the *PeopleTools: Portal Technology* product documentation.

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step, as shown in this example. See the product documentation *PeopleTools: Security Administration* for the steps required to add a User Profile.



PeopleSoft Internet Architecture Web Profile Credentials window

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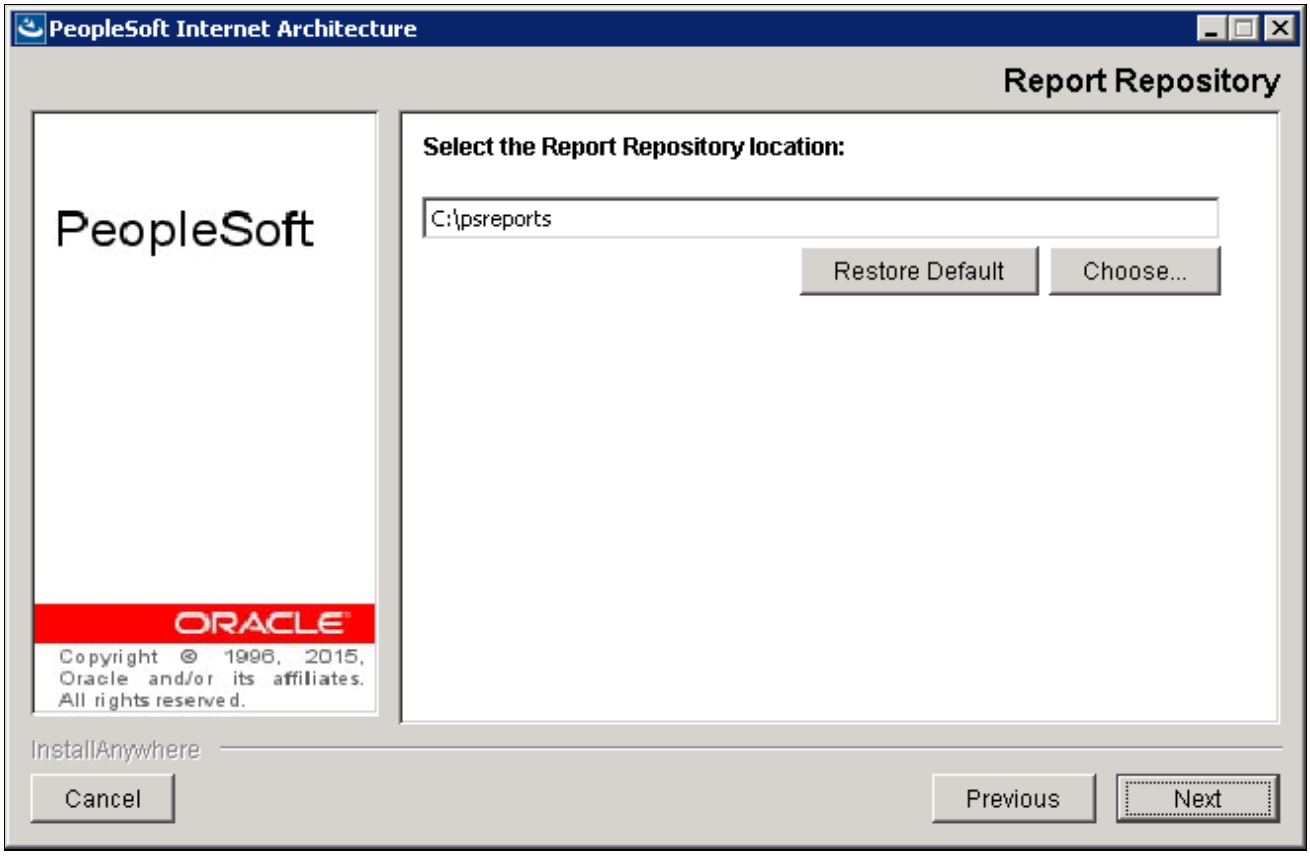
16. Specify the root directory for the Report Repository (c:\psreports by default as shown in this example), and click Next.

    Make sure that the report repository directory is shared, and that you have write access.

    Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

    See "Setting Up Process Scheduler on Windows," Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.



PeopleSoft Internet Architecture Report Repository window

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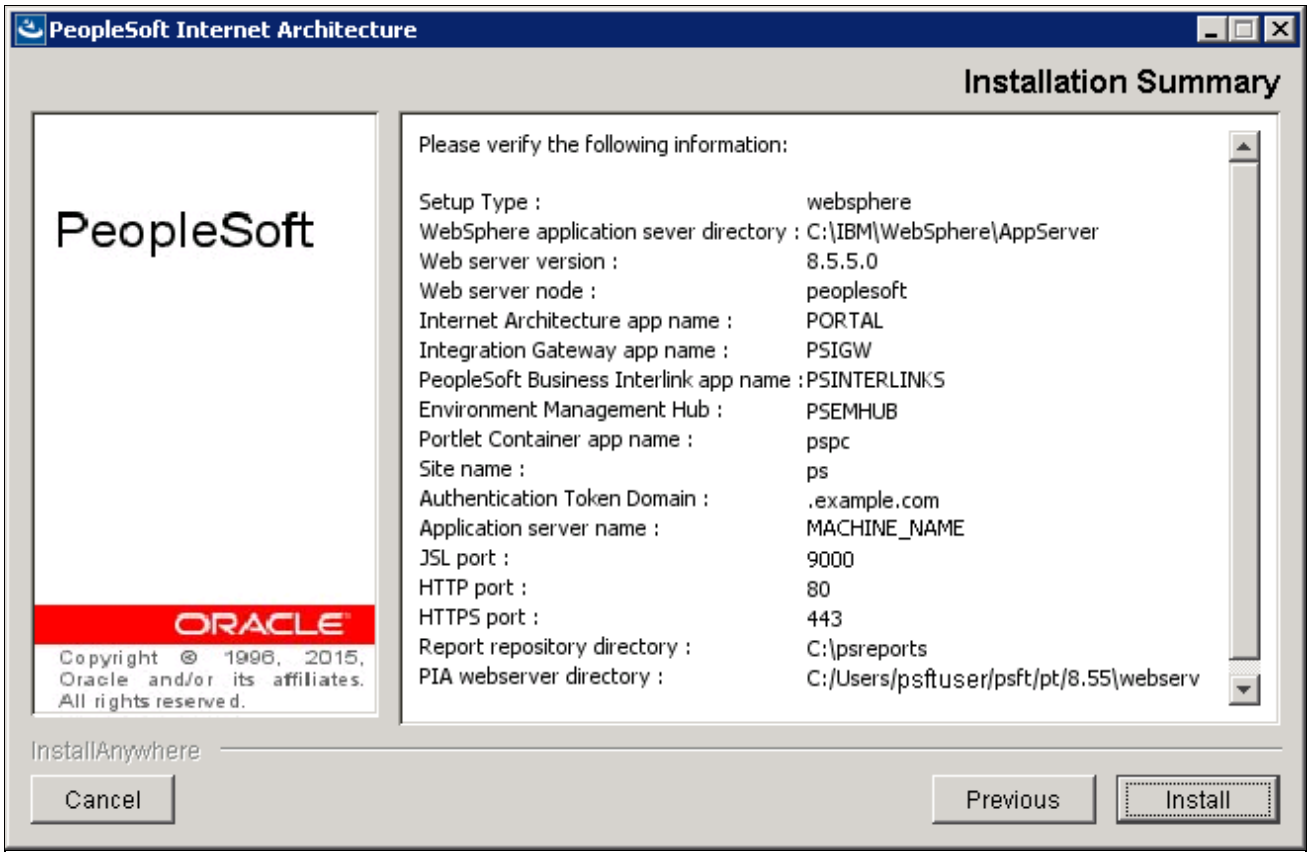
17. Verify all your selections on the summary window.

    The window lists the installation information, such as the web server type, directory, version, and so on. Click Back if you need to make any changes and click Next to begin the installation. An indicator shows the progress of your installation.



PeopleSoft Internet Architecture Installation Summary window

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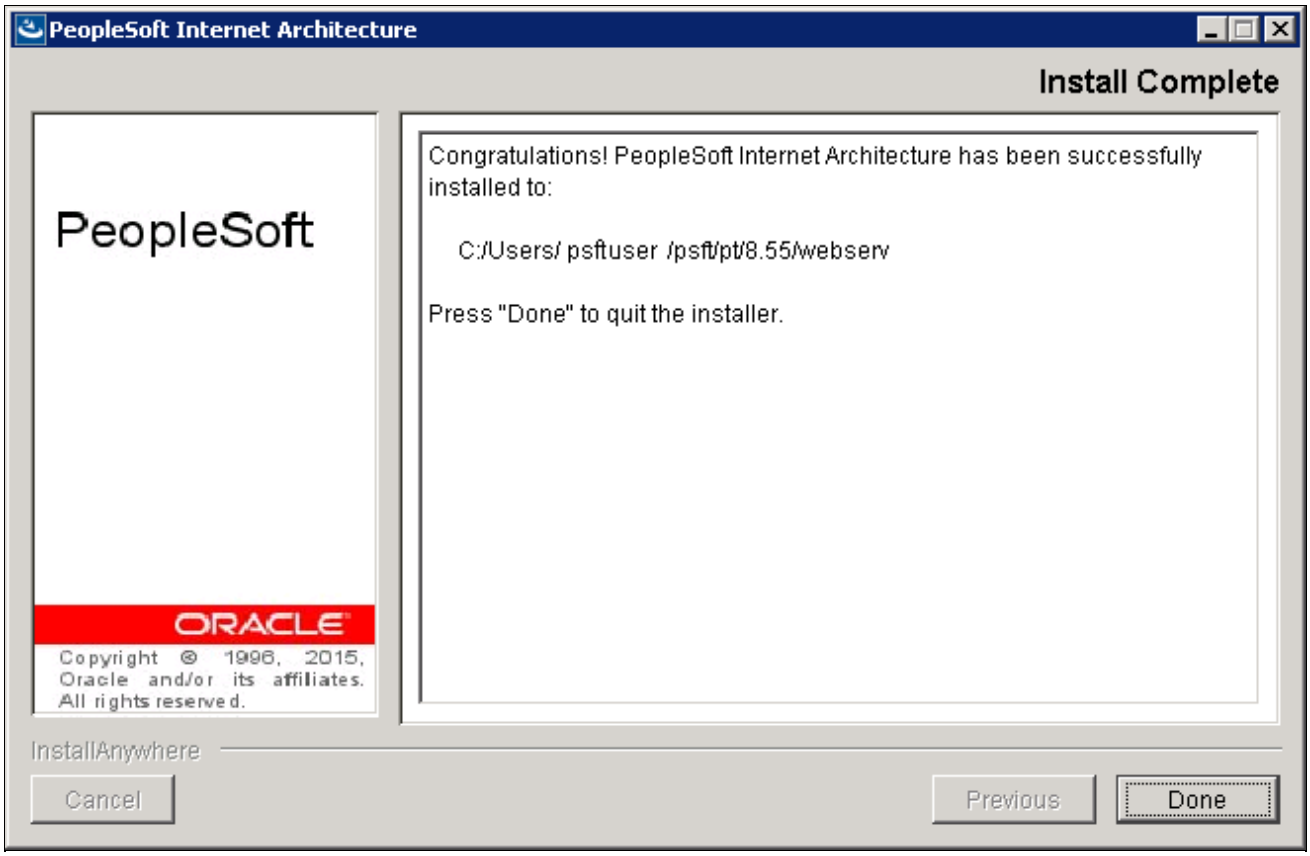
18. Click Done to complete the installation.

    The default installation directory for a specific PIA profile is <*PIA_HOME*>\webserv\<*profile_name*>. The Install Complete window displays the parent installation directory for the domain. In this example, this is C:/Users/psftuser/psft/pt/8.55/webserv.



PeopleSoft Internet Architecture Install Complete window

Task 9A-3-2: Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

You cannot uninstall PeopleSoft Pure Internet Architecture simply by deleting <*PIA_HOME*>\webserv\<*profile_name*>, without uninstalling it from IBM WebSphere Administration Console. If you do so, the IBM WebSphere registry becomes corrupt, and subsequent attempts to install PeopleSoft Pure Internet Architecture will fail. Instead, if necessary, you must uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere as described here.

To uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Open the IBM WebSphere Administration Console by entering the following URL in a browser:

   http://<*machine-name*>:<*administrative_console_port*>/ibm/console

   To find the value for <*administrative_console_port*>, refer to <*PIA_HOME*>\webserv\<*profile_name*>\logs\AboutThisProfile.txt.

2. Log in as any user.
3. Choose Applications, Application Types, Websphere enterprise applications.
4. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and

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click Stop.

5. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Uninstall.
6. Save your configuration.
7. Log out of the IBM WebSphere Administration Console.
8. Stop WebSphere server using one of the following commands:

   On Microsoft Windows:

   ```
   <PIA_HOME>\webserv\<profile_name>\bin\stopServer.bat server1
   ```

   On UNIX or Linux:

   ```
   <PIA_HOME>/webserv/<profile_name>/bin/stopServer.sh server1
   ```

9. In addition to uninstalling the application, you need to remove the WebSphere Application Server profile, which was created during PIA install, to complete the PIA uninstallation.

   To uninstall the WebSphere Application Server profile, run the following steps:

   a. Go to <*PIA_HOME*>\webserv\<*profile_name*>\bin
   b. Run one of the following commands, where <*profile_name*> indicates the application name that you have selected during the PIA install.

      On Microsoft Windows:

      ```
      manageprofiles.bat -delete -profileName <profile_name>
      ```

      On UNIX or Linux:

      ```
      manageprofiles.sh -delete -profileName <profile_name>
      ```

   c. Delete the directory <*PIA_HOME*>\webserv\<*profile_name*>

Task 9A-4: Testing and Administering the PeopleSoft Pure Internet Architecture Installation

This section discusses:

- Verifying the PeopleSoft Pure Internet Architecture Installation
- Starting and Stopping Oracle WebLogic
- Starting and Stopping IBM WebSphere Application Servers
- Using PSADMIN to Start and Stop Web Servers
- Accessing the PeopleSoft Signon

Verifying the PeopleSoft Pure Internet Architecture Installation

After installing the PeopleSoft Pure 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.) This section includes procedures to start and stop the Oracle WebLogic or IBM WebSphere web servers whenever necessary.

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Task 9A-4-1: Starting and Stopping Oracle WebLogic

If you are using the Oracle WebLogic web server, you need to sign on to Oracle WebLogic before using these commands. If you are using IBM WebSphere instead, go on to the next section. Use the following commands in the Oracle WebLogic domain directory.

Note. Starting from Oracle WebLogic 9.2 and later releases, all the Life-cycle management scripts and other batch scripts for the PIA server on Oracle WebLogic are located in <*PIA_HOME*>\webserv\<*domain_name*>\bin folder.

- To start Oracle WebLogic Server as a Windows service, use the following command:

  Single Server:

  ```
  installNTservicePIA.cmd
  ```

  Multiple Servers or Distributed Servers:

  ```
  installNTservice.cmd ServerName
  ```

  The resulting Windows service name will be *WebLogicDomain-WebLogicServer*. For example, to install a server named *PIA* as a Windows service in a domain named *peoplesoft*, run `installNTservice.cmd PIA` and you will see "peoplesoft-PIA" as a service.
- To remove an Oracle WebLogic server Windows service, use the following command:

  ```
  uninstallNTservicePIA.cmd Server Name
  ```

  Note. If you modify setenv.cmd, then you must uninstall the service using `uninstallNTServicePIA.cmd ServerName`, and then re-run `installNTServicePIA.cmd ServerName`.

- To start Oracle WebLogic Server as a foreground process on a single server, use the following commands:

  ```
  startPIA.cmd (on Windows)
  startPIA.sh (on UNIX)
  ```

- To start Oracle WebLogic Server as a foreground process on multiple-servers or distributed servers, use the following commands:

  1. Execute:

     ```
     startWebLogicAdmin.cmd (on Windows)
     startWebLogicAdmin.sh (on UNIX)
     ```

  2. Then execute:

     ```
     startManagedWebLogic.cmd ManagedServerName (on Windows)
     startManagedWebLogic.sh ManagedServerName (on UNIX)
     ```

- To stop the server, use the following commands:

  - Single Server:

    ```
    stopPIA.cmd (on Windows)
    stopPIA.sh (on UNIX)
    ```

  - Multiple Servers or Distributed Servers:

    ```
    stopWebLogic.cmd ManagedServerName (on Windows)
    ```

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```
stopWebLogic.sh ManagedServerName (on UNIX)
```

For more information on working with Oracle WebLogic multiple servers or distributed servers, see the *PeopleTools: System and Server Administration* product documentation.

Note. For more information on working with Oracle WebLogic multiple or distributed servers, search My Oracle Support.

Task 9A-4-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

- Starting and Stopping IBM WebSphere Application Servers on Windows
- Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux
- Verifying the IBM WebSphere Installation

Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 8.5.5.0 (WebSphere ND), use the WebSphere First Steps utility:

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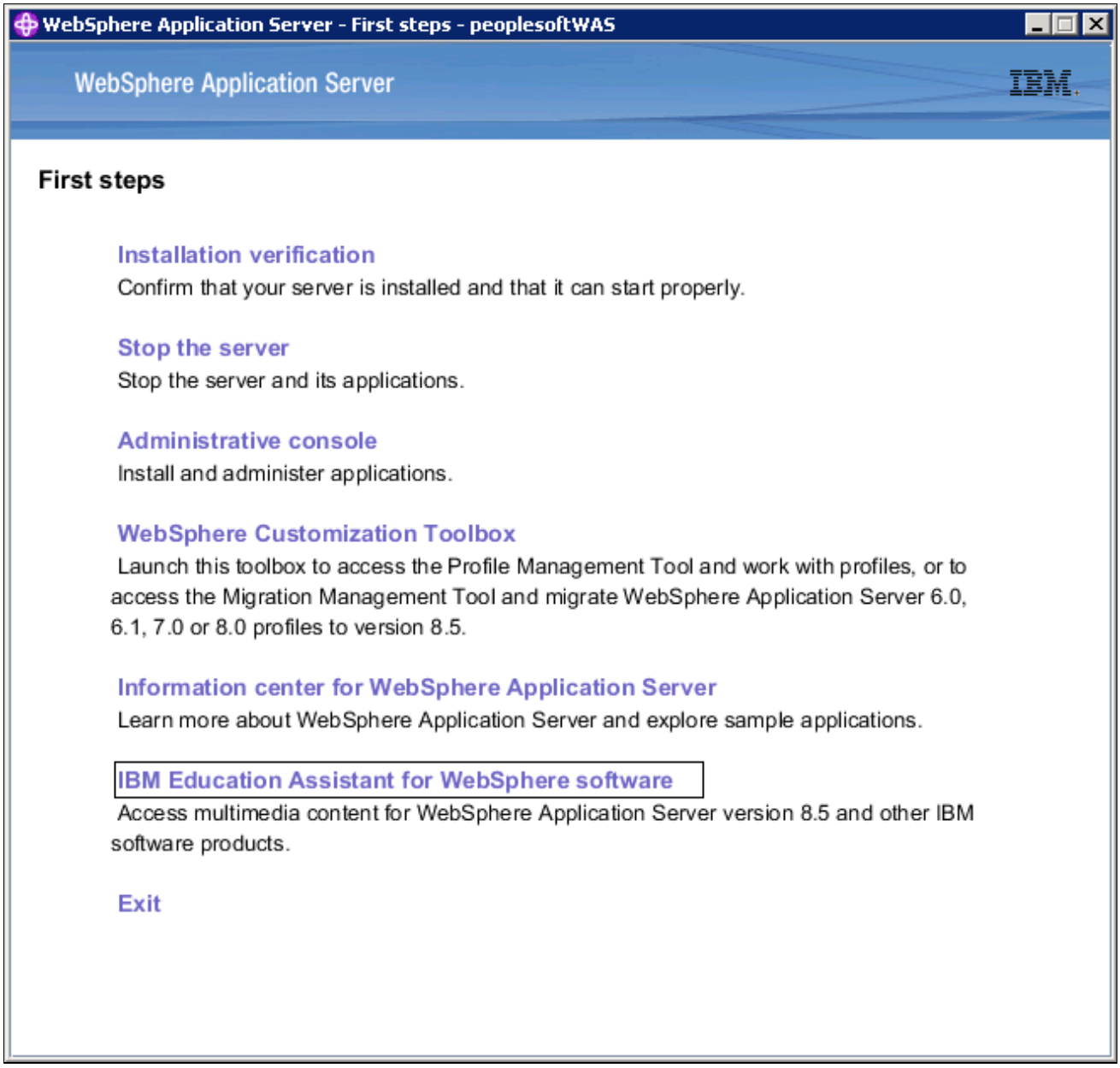
1. On Microsoft Windows 7, select Start, Programs, IBM WebSphere, IBM WebSphere Application Server V8.5, Profiles, *profile_name*, First steps.

   On Microsoft Windows 8 or 2012 R2, access the Apps screen and locate the First steps utility in the IBM WebSphere category.

   The following example shows the First steps window for the profile *peoplesoftWAS*:



WebSphere Application Server First Steps window

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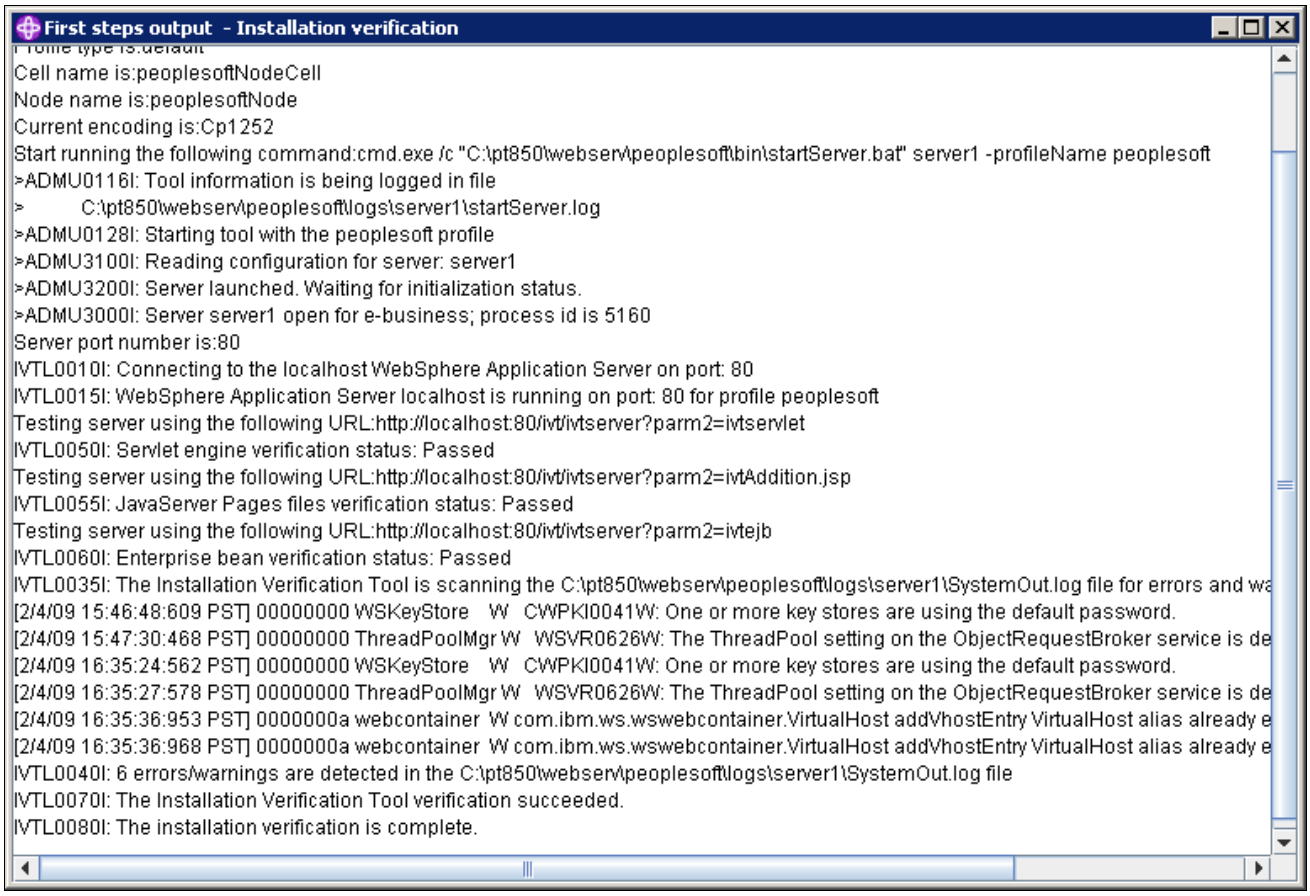
2. Select the link Start the server.

   If the server starts properly, a verification window appears with several messages about the initialization process, as in this example:



First steps output - Installation verification window

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window.

Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux

To start WebSphere ND on UNIX or Linux, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/startServer.sh <server_name>
```

For example:

```
/home/pt855/webserver/peoplesoft/bin/startServer.sh server1
```

To stop WebSphere ND, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/stopServer.sh <server_name>
```

Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Microsoft Windows and UNIX.

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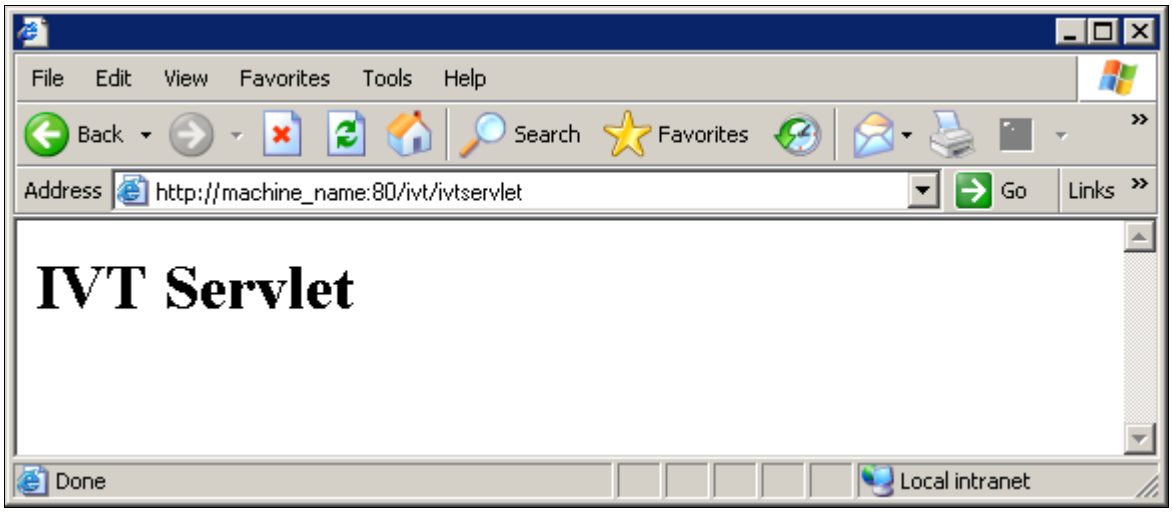
To verify the WebSphere ND and PIA installation, copy the following URL into a browser address bar, substituting your machine name and the http port number:

`http://<machine_name>:<http_port>/ivt/ivtservlet`

You should see the text "IVT Servlet" in the browser, as in this example:



IVT Servlet window

You should also sign into the PeopleSoft application, as described in a later section, to verify the installation.

See Accessing the PeopleSoft Signon.

Task 9A-4-3: Using PSADMIN to Start and Stop Web Servers

In addition to the methods given in the previous sections for starting and stopping Oracle WebLogic and IBM WebSphere web servers, in PeopleSoft PeopleTools 8.52 and later releases you can use PSADMIN to administer a web server domain.

See *PeopleTools: System and Server Administration.*

To start and stop web servers:

1. Go to the *PS_HOME*/appserv directory and run the command `psadmin`.
2. Specify *4* for Web (PIA) Server.

```
--------------------------------
PeopleSoft Server Administration
--------------------------------

  PS_HOME:    :  C:\pt855
  PS_CFG_HOME:  C:\psft_AppServ

  1) Application Server
  2) Process Scheduler
  3) Search Server
  4) Web (PIA) Server
  5) Switch Config Home
  6) Service Setup
  7) Replicate Config Home
```

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```
  q) Quit

Command to execute (1-7, q): 4
```

The location of Config Home is the current working directory. The PSADMIN utility determines the Config Home directory by checking for the PS_CFG_HOME environment variable. If that is not set, it checks for the presence of domains in the default *PS_CFG_HOME* location. If none exists, it uses the *PS_HOME* location from which it was launched.

See "Preparing for Installation," Defining Installation Locations.

3. Select *1* for Administer a domain.

```
-----------------------------
PeopleSoft PIA Administration
-----------------------------

  PIA Home:   C:\psft_WebServ

  1) Administer a domain
  2) Create a domain
  3) Delete a domain

  q) Quit

Command to execute: 1
```

The PSADMIN utility determines the PIA Home location displayed here by first checking for a PIA_HOME environment variable. If none is set, it checks for the PS_CFG_HOME environment variable. If neither is set, it uses the default PS_CFG_HOME directory.

4. Select the domain you want to administer by entering the appropriate number.

```
-------------------------------------------------------
PeopleSoft PIA Domain Administration - Choose a Domain
-------------------------------------------------------
1) psftTST
2) peoplesoft

q) Quit

Command to execute: 2
```

5. To start a web server domain, enter *1*, Boot this domain.

```
------------------------------------
PeopleSoft PIA Domain Administration
------------------------------------

  PIA Home:      C:\psft_WebServ
  PIA Domain:    peoplesoft
  Domain Status: stopped

  1) Boot this domain
  2) Shutdown this domain
  3) Get the status of this domain
  4) Configure this domain
```


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```
  5) Edit configuration files
  6) View log files
  7) Administer a site
  8) Delete a site
  9) Windows Service Setup

  q) Quit

Command to execute: 1
```

The boot command invokes the startPIA.cmd script, and you see the progress and a status message on the console window.

```
Starting the domain..................
...
Verifying domain status..
The domain has started.
```

6. To stop a web server domain, select *2*, Shutdown this domain.

   The shutdown command invokes the stopPIA.cmd script, and you see the progress and a status message on the console window.

```
Stopping the domain.....
.....
Verifying domain status..........
The domain has stopped.
```

7. To set up a Windows service, select *9*, Windows Service Setup.
8. Select *1* to install a service, or *2* to remove it.

   This command invokes the installNTservice script, and creates a service named *WebLogicDomain-WebLogicServer*.

```
---------------------
Windows Service Setup
---------------------

  PIA Home:      C:\psft_websrv
  PIA Domain:    peoplesoft
  Domain status: started

  1) Install Service
  2) Uninstall Service

  q) Quit

Command to execute:
```

Task 9A-4-4: Accessing the PeopleSoft Signon

To access the PeopleSoft signon:

1. Open your web browser.

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2. Enter the name of the site you want to access—for example (the default value for <*site_name*> is ps):

   `http://<machine_name>:<http_port>/<site_name>/signon.html`

Note. PeopleSoft Pure Internet Architecture installed on IBM WebSphere server listens at the HTTP/HTTPS ports specified during the PeopleSoft Pure Internet Architecture install. Invoke PeopleSoft Pure Internet Architecture through a browser by using the specified HTTP or HTTPS ports—that is, http://<*WebSphere_machine_name*>:<*server_port*>/<*site_name*>/signon.html (if AuthTokenDomain is not specified) or http://<*WebSphere_machine_name.mycompany.com*>:<*server_port*>/<*site_name*>/signon.html (if you specified .mycompany.com as the AuthTokenDomain). You can find the HTTP and HTTPS ports in the file <*PIA_HOME*>/webserv/<*domain_name*>/logs/AboutThisProfile.txt.

This will take you to the sign-in window corresponding to your browser's language preference, as shown in this example:

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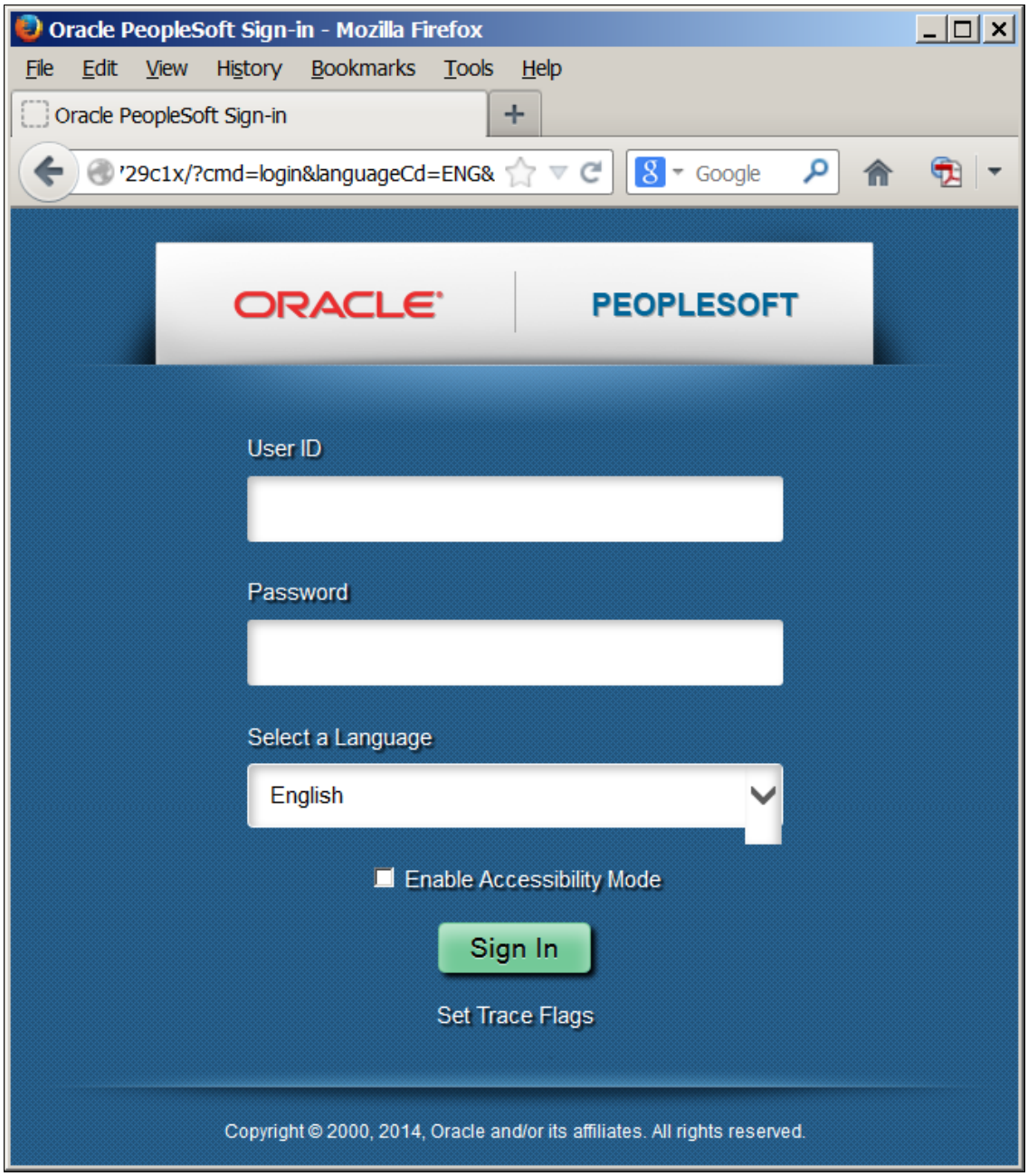

Oracle PeopleSoft Enterprise Sign in window

Note. If you do not 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.

   The user ID and password are case sensitive.

Note. The user ID and password were set during the database configuration and also used to boot the application server.

The PeopleSoft PeopleTools and PeopleSoft applications include various default user IDs. For information on using the user IDs delivered with your PeopleSoft application demo database, see the application-specific

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installation instructions. For information on using and securing PeopleSoft PeopleTools default user IDs, see the information on administering user profiles in the *PeopleTools: Security Administration* product documentation.

Task 9A-5: Completing Post-Installation Steps

This section discusses:

- Using Fluid User Interface
- Updating the Installation Table
- Setting Options for Multilingual Databases
- Updating PeopleTools Options
- Updating Database Information

Task 9A-5-1: Using Fluid User Interface

When you sign in to your PeopleSoft application, you may see the PeopleSoft Fluid User Interface by default. To access the menu items, as seen in the classic user interface, from the PeopleSoft Fluid User Interface:

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1. On the PeopleSoft Fluid User Interface, shown in this example, select (press) the NavBar button at the top right (diamond inside a circle).

PeopleSoft Fluid User Interface home page

The Navigation bar (NavBar) side page appears.

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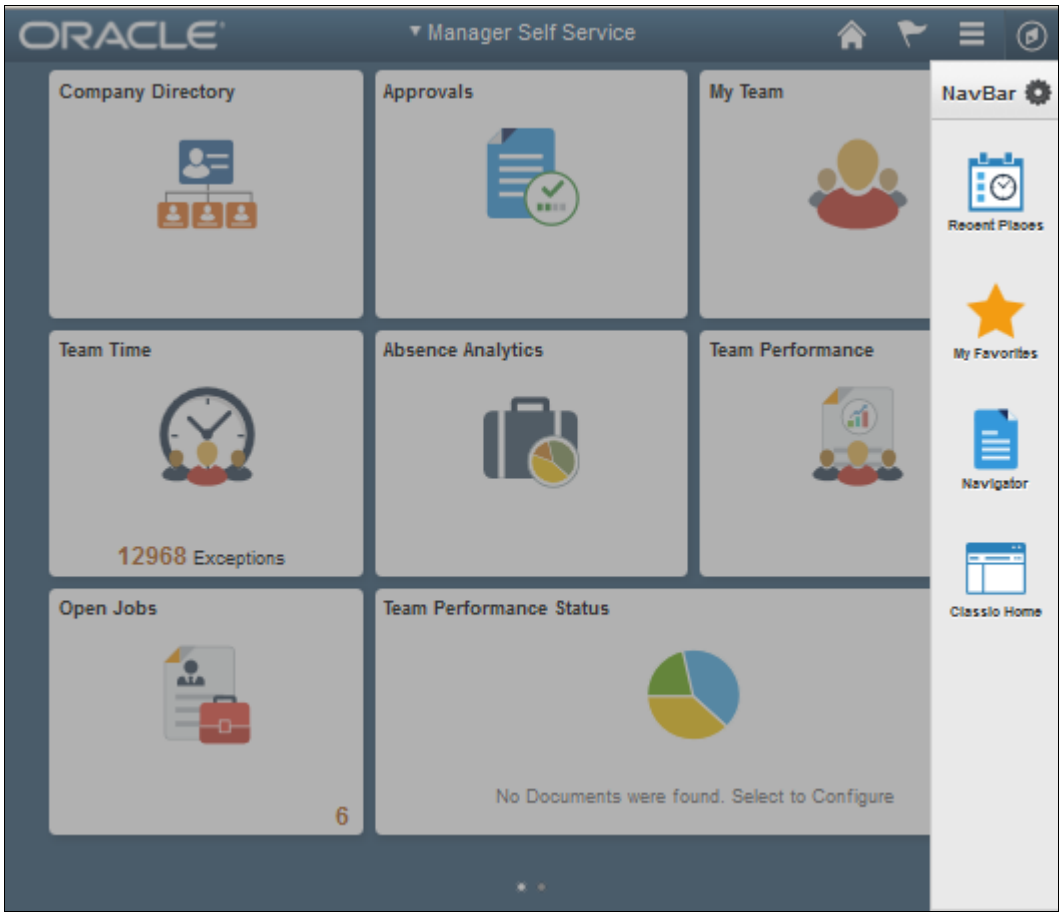
2. Select (press) Navigator.



NavBar side page

The menu structure appears.

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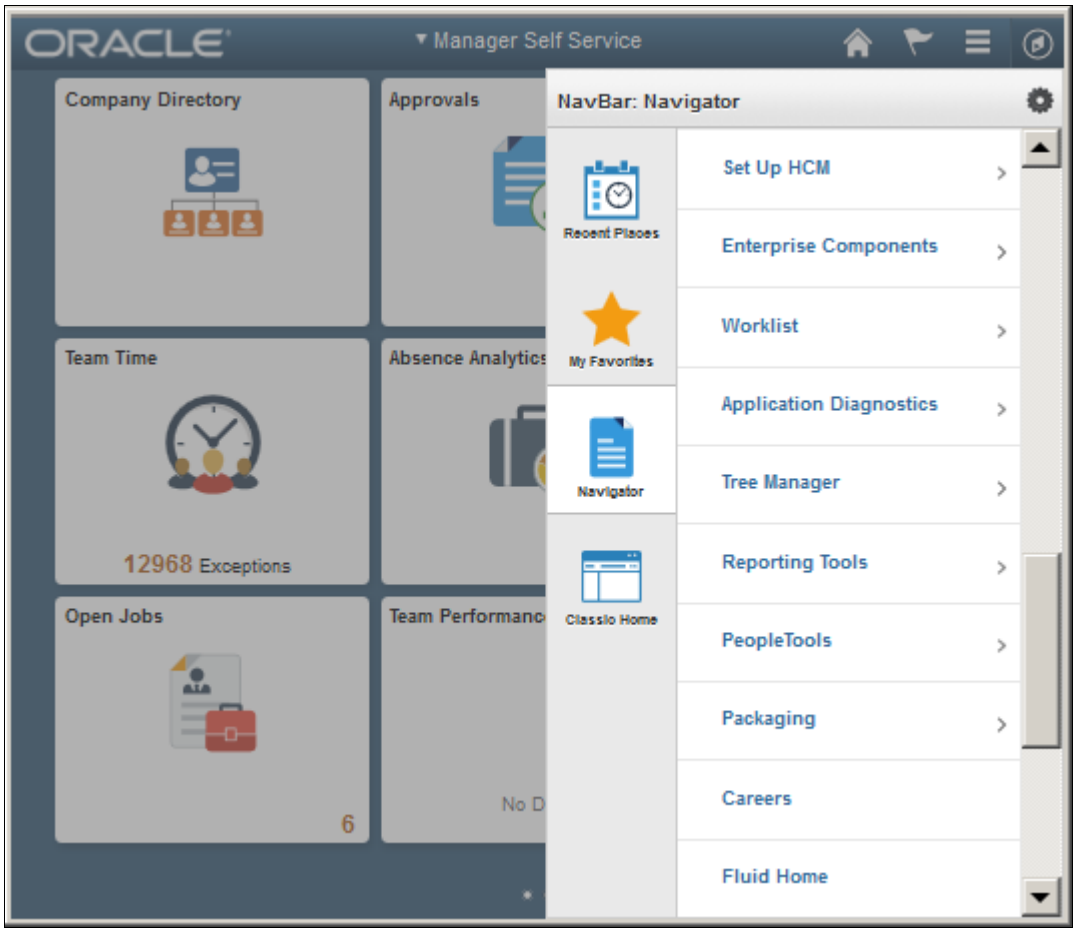
3. Navigate to the desired item, such as Set Up HCM or PeopleTools.



Navigator side page with PeopleSoft menu items

See Also

PeopleTools: Applications User's Guide, "Working With Fluid Homepages"

PeopleTools: Fluid User Interface Developer's Guide

Task 9A-5-2: Updating the Installation Table

After you complete the installation process, creating the database, installing the Application Server, and installing the PeopleSoft Pure Internet Architecture, you must complete this additional step. The license codes from the Oracle license code site mentioned earlier install all products available in the installation package. This post-installation step ensures that only the products for which you are licensed are active in the installation. The location of the installation table in the PeopleSoft system varies depending upon the PeopleSoft application that you installed.

To update the installation table:

1. Sign on to the PeopleSoft system.
2. Select Set Up *Application_name* (where Application_name is the PeopleSoft application you installed), Install, Installation Table.

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Select the Products tab.

3. Clear the check boxes for the products for which you have not obtained a license.

See Also

"Using the PeopleSoft Installer," Obtaining License Codes

Accessing the PeopleSoft Signon

Task 9A-5-3: Setting Options for Multilingual Databases

Setting the Data Field Length Checking Option

The value to specify data field length checking must be set correctly in order for PeopleSoft applications to perform correctly in a browser. Use one of these methods to set the data field length checking option:

- Select PeopleTools, Utilities, Administration, PeopleTools Options, and select the Data Field Length Checking option from the drop-down list.
- Alternatively, use the SQL tool for your database platform to modify the DBLENGTHTYPE parameter in the PSOPTIONS table.

See *PeopleTools: Global Technology,* "Setting Data Field Length Checking."

See *PeopleTools: Global Technology,* "Selecting Character Sets."

Use the guidelines in this table to select the correct option for your environment:

Environment	PeopleTools Option Page Selection	PSOPTIONS.DBLENGTHTYPE Value
Unicode-encoded database or a non-Unicode SBCS database	Others	N
Japanese database on DB2 LUW	DB2 MBCS	D
Non-Unicode Japanese database **Note.** If your installation uses the Shift-JIS character set for Japanese, you must use this option.	MBCS **Note.** The MBCS option is not supported for DB2 z/OS.	M

Setting the Unicode Enabled Option

If you are running a Unicode database, verify that the UNICODE_ENABLED parameter in the PSSTATUS table is set correctly. For example:

- For non-Unicode databases, including those using the Shift-JIS character set for Japanese, set UNICODE_ENABLED=0.
- For Unicode databases, set UNICODE_ENABLED=1.

See the information on converting to Unicode in the *PeopleTools: Global Technology* product documentation.

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Task 9A-5-4: Updating PeopleTools Options

You can set the following options on the PeopleTools Options page:

- Multi-Currency — Select this check box if you plan to use currency conversion.

  See *PeopleTools: Global Technology*, "Using System-Wide Multicurrency Settings."
- Base Time Zone — Enter a value for the base time zone for your PeopleTools database.

  See *PeopleTools: Global Technology*, "Setting the Base Time Zone."
- Sort Order Option — If you specified a non-binary sort order for your database, choose the Sort Order Option that most closely approximates your database sort order.

  See *PeopleTools: Global Technology*, "Setting the Sort Order."

Task 9A-5-5: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
   - Environment Long Name — Customer HR Demo Database
   - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.

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Chapter 9B

Setting Up the PeopleSoft Pure Internet Architecture in Console Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode
- Installing the PeopleSoft Pure Internet Architecture in Silent Mode
- Testing and Administering the PeopleSoft Pure Internet Architecture Installation
- Completing Post-Installation Steps

Understanding PeopleSoft Pure Internet Architecture

This chapter explains how to install and configure the components of the PeopleSoft Pure Internet Architecture in console mode and in silent mode. It includes instructions for installing the PeopleSoft files on Oracle WebLogic and IBM WebSphere. Only complete the instructions for the web server product that you installed.

Note. The console mode installation is typically used on UNIX platforms.

See "Installing Web Server Products."

The setup program for the PeopleSoft Pure Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option.

See "Using the PeopleSoft Installer."

Oracle only supports customer installations that use web servers that are certified for PeopleSoft PeopleTools. *You must install the web server before you install the PeopleSoft Pure Internet Architecture.* Before you install the PeopleSoft Pure Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The location where you install the PeopleSoft Pure Internet Architecture is referred to in this documentation as *PIA_HOME.* You can specify different locations for *PS_HOME* and *PIA_HOME.* After you complete the PeopleSoft Pure Internet Architecture installation, you can locate the installation files in the directory *PIA_HOME/*webserv.

For PeopleSoft PeopleTools 8.51 and later, if you are setting up the PeopleSoft Pure Internet Architecture on a Microsoft Windows platform, the directory and path that you specify for *PIA_HOME* may include spaces. However, parentheses in the directory name (for example, "C:\Program Files (x86)") are *not* allowed for *PIA_HOME.*

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See "Preparing for Installation," Defining Installation Locations.

Before performing the steps in this chapter, verify that Sun's international version of JRE version 7 or higher is properly installed on the system and its path is in the system's environment variable PATH.

If your web server is on a different machine than your application server, you need to make sure you have JRE installed on your web server to run the PeopleSoft Pure Internet Architecture installation.

Note. If you encounter the error message "No Matching JVM," you need to specify the absolute path to the Java Runtime Environment (JRE) executable (including the executable file name) using the –javahome command line parameter; for example: `<PS_HOME>/setup/PsMpPIAInstall/setup.sh -tempdir <temporary_directory> -javahome <jredir>/bin/java`.

The initial PeopleSoft Pure Internet Architecture setup automatically creates the default PeopleSoft site named ps. In subsequent PeopleSoft Pure Internet Architecture setups, change the 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.

The URL that you use to invoke the PeopleSoft Pure Internet Architecture must conform to ASN.1 specifications. That is, it may contain only alphanumeric characters, dots ("."), or dashes ("-"). The URL must not begin or end with a dot or dash, or contain consecutive dots (".."). If the URL includes more than one portion, separated by dots, do not use a number to begin a segment if the other segments contain letters. For example, "mycompany.second.country.com" is correct, but "mycompany.2nd.country.com" is wrong.

Review the following additional notes before beginning the PeopleSoft Pure Internet Architecture installation:

- If you want to connect between multiple application databases, you need to implement single signon.
- If the PeopleSoft Pure Internet Architecture installation encounters an error, it will indicate which log files to refer to.

  See "Installing Web Server Products."
- The machine on which you run the PeopleSoft Pure Internet Architecture install must be running in *256 color mode.* This is not necessary for UNIX or console mode.

The PeopleSoft Pure Internet Architecture installation includes the following products:

- *PeopleSoft Pure 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. The portal packs and PeopleSoft Portal Solutions have their own installation instructions, which are available on My Oracle Support. For an overview of the various types of portals, consult the *PeopleTools: Portal Technology* product documentation.
- *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.

  Important! For PeopleSoft PeopleTools 8.50 and later, review the product documentation concerning security properties for Integration Gateway. When setting the properties in the integrationGateways.properties file, the property secureFileKeystorePasswd must be encrypted, and the secureFileKeystorePath must be set.

  See *PeopleTools: Integration Broker Administration.*
- *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.

  See *PeopleTools: MultiChannel Framework.*

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- *Environment Management Hub.* The Environment Management hub is a web application that is installed with the PeopleSoft Pure Internet Architecture and portal. It is started along with the rest of the web applications when the user boots the web server. You cannot start the Environment Management Hub on a server that is configured to run HTTPS; in other words, if you plan to run Environment Management, your PIA server needs to be configured in HTTP mode.

  See *PeopleTools: Change Assistant and Update Manager*.

See Also

PeopleTools: Security Administration

PeopleTools: System and Server Administration

Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation

You have the option to specify an authentication domain when you install the PeopleSoft Pure Internet Architecture on Oracle WebLogic or IBM WebSphere.

Note. The authentication domain was referred to as the Authentication Token Domain in previous releases, and that term is still seen in the software.

When an authentication domain is specified during the PeopleSoft Pure Internet Architecture installation, 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 does not imply that you must have a DNS, but you do need some type of naming service such as DNS or some managed ../etc/hosts file that contains a list of the servers with their domain name.
- The cookie domain value being set must begin with a dot (.ps.com is valid, ps.com is NOT valid).
- The cookie domain value being set must contain at least 1 embedded dot (.ps.com is valid, .corp.ps.com is valid, .com is NOT valid).
- The cookie domain value can only be a single domain name. It cannot be a delimiter-separated list of domains.

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.

Specifying the authentication domain may be necessary in certain cases. For example, if you plan to use the PeopleSoft portal technology, be sure to read the supporting documentation on configuring the portal environment, to determine whether setting the authentication domain is required for correct operation.

See *PeopleTools: Portal Technology.*

Specify an authentication 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 *PeopleTools: MultiChannel Framework.*

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If you use the PeopleSoft Mobile Application Platform (MAP), you must specify the same authentication domain during the PeopleSoft Pure Internet Architecture installation, for MAP, and for Integration Broker and integration hubs.

See *PeopleTools: Mobile Application Platform.*

See *PeopleTools: Integration Broker.*

Task 9B-1: Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade

When performing the installation of the PeopleSoft Pure Internet Architecture system using the separate upgrade *PS_HOME* (which is different than your old release *PS_HOME*), you may install and configure your PeopleSoft Pure Internet Architecture system at this point in time of the installation, but do not start your PeopleSoft Pure Internet Architecture system until directed to do so within the upgrade.

If you are installing into an existing *PS_HOME* or *PIA_HOME* after completing a PeopleTools-only upgrade, perform the following instructions to remove any obsolete files.

See "Preparing for Installation," Preparing for the PeopleTools-Only Upgrade.

Stop the web server before performing the PeopleSoft Pure Internet Architecture installation or uninstallation.

Depending on your web server platform, complete the following steps to clean up previous PeopleSoft Pure Internet Architecture sites:

- Oracle WebLogic

  Shut down Oracle WebLogic and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform. Alternatively, delete the contents of one of the following directories:

  - For PeopleSoft PeopleTools 8.43.x or earlier: <*weblogic_home*>\wlserver6.1\config\<*domain_name*>*
  - For PeopleSoft PeopleTools 8.44.x to 8.49.x: <*PS_HOME*>\webserv\<*domain_name*>*
  - For PeopleSoft PeopleTools 8.50.x or later: <*PIA_HOME*>\webserv\<*domain_name*>*
- IBM WebSphere

  Shut down IBM WebSphere and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform.

Task 9B-2: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on a New Oracle WebLogic Domain in Console Mode
- Installing the PeopleSoft Pure Internet Architecture on an Existing Oracle WebLogic Domain in Console Mode
- Uninstalling the PeopleSoft Pure Internet Architecture from Oracle WebLogic

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Task 9B-2-1: Prerequisites

This section describes how to install the PeopleSoft Pure Internet Architecture on Oracle WebLogic. Before you install the PeopleSoft Pure Internet Architecture (PIA) on Oracle WebLogic, you must have installed the Oracle WebLogic software. PeopleSoft PeopleTools 8.55 supports Java 7 enabled 64-bit Oracle WebLogic 12.1.3.0.

See "Installing Web Server Products," Installing Oracle WebLogic Server.

See the information on working with Oracle WebLogic in the *PeopleTools: System and Server Administration* product documentation.

Task 9B-2-2: Installing the PeopleSoft Pure Internet Architecture on a New Oracle WebLogic Domain in Console Mode

To install the PeopleSoft Pure Internet Architecture on Oracle WebLogic:

1. Change directory to *PS_HOME/*setup/PsMpPIAInstall and run one of these commands:

   ```
   setup.sh -tempdir <temporary_directory>
   ```

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

   See "Using the PeopleSoft Installer," Prerequisites.

   A welcome message appears.

2. Press ENTER at the Welcome prompt to continue.

   ```
   Welcome to the InstallShield Wizard for PeopleSoft Internet⇒
    Architecture.
   Using the InstallShield Wizard you will install PeopleSoft Internet⇒
    Architecture on your computer.
   Version: 8.55
   Note: If installing onto an Oracle WebLogic Server, make sure to⇒
    shutdown any running⇒
    webservers to avoid web server configuration.
   Press 1 for Next, 3 to Cancel, or 5 to Redisplay [1]:
   ```

3. Enter the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as *PIA_HOME*.

   ```
   Choose the directory where you wish to deploy the PeopleSoft Pure⇒
    Internet Architecture:

     Please specify a directory name or press Enter
   [/home/PT855]:
   ```

4. Enter *1* to select the Oracle WebLogic Server.

   ```
   Choose the installation type that best suits your needs
     ->1- Oracle WebLogic Server
       2- IBM WebSphere Server

   To select an item enter its number, or 0 when you are finished [0]:
   ```

5. Enter the top-level directory where Oracle WebLogic is installed.

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```
Select the web server root directory [/opt/oracle]: /data4/WLS_HOME

Detected web server version: WebLogic 12.1.3
```

Note. You will get an error message if you specify a directory that does not contain Oracle WebLogic, or that contains an incorrect Oracle WebLogic version.

---

6. Select *1*, Create New WebLogic Domain, at the following prompt:

```
->1- Create New WebLogic Domain
  2- Existing WebLogic Domain
```

Note. If the PIA installer cannot detect any existing Oracle WebLogic domains, only the option Create New WebLogic Domain is available. The installation on an existing domain is described in the following section.

See Installing the PeopleSoft Pure Internet Architecture on an Existing Oracle WebLogic Domain in Console Mode.

---

7. The installation process automatically generates a valid domain name, which is peoplesoft in the following sample prompt.

   If you attempt to enter an invalid domain name, you see a prompt asking you to enter a new domain name or choose an existing domain.

```
Enter domain name or click Next to select default [peoplesoft]:
```

8. Enter the administrator login, or accept the default value. Enter and re-enter the password for your Oracle WebLogic domain.

   Press ENTER to continue.

   The default login ID is system. The password must be at least 8 alphanumeric characters with at least one number or special character.

```
Please enter the administrator login and password for WebLogic domain.
Login ID [system]:
Password []:
Re-type Password []:
```

9. Select the type of domain to create—single server, multi server, or distributed managed server.

```
Please select the configuration to install.

  ->1- Single Server Domain
    2- Multi Server Domain
    3- Distributed Managed Server
```

   There are three domain configuration options:

   - *Single Server Domain*

     This domain configuration contains one server, named PeopleSoft Pure Internet Architecture and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, non-production environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

   - *Multi Server Domain*

     This domain configuration is contains seven unique server definitions, a Oracle WebLogic cluster, and the PeopleSoft Application split across multiple servers. This configuration is the intended for a production

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environment.

- *Distributed Managed Server*

  This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

10. Enter the Integration Gateway User and password.

    The password must be at least 8 alphanumeric characters.

    See *PeopleTools: Integration Broker Administration.*

```
Please enter the Integration Gateway User and Password.

   Integration Gateway User [administrator]:
   Password []:
   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

11. Enter the AppServer Domain Connection password (optional).

    If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank. This password will be propagated to the Integration Gateway.

    See the information on setting Application Server domain parameters in the *PeopleTools: System and Server Administration* product documentation.

```
Please enter the AppServer Domain Connection Password.

   Password []:
   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

12. Enter a PeopleSoft web site name; the default is ps.

    Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).

```
Please specify a name for the PeopleSoft web site:
Website name [ps]:
```

13. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional).

```
Enter port numbers and summaries.

AppServer name [APPSRVNAME]:

JSL Port [9000]:

HTTP Port [80]:

HTTPS Port [443]:

Authentication Token Domain (optional) []:
```

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- *AppServer name*

  For the AppServer name setting, enter the name of your application server.

  See "Configuring the Application Server on UNIX."

  See "Configuring the Application Server on Windows."

  See Understanding the PeopleSoft Pure Internet Architecture.

- *JSL Port*

  For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

- *HTTP and HTTPS Port*

  The values for the HTTP and HTTPS ports should be greater than 1024. Any port number less than 1024 is reserved and only Root has access to it.

- *Authentication Token Domain*

  The value you enter for the Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

  See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

  If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName/ps/signon.html. If you do enter a value for authentication domain (for example, .myCompany.com), the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName.myCompany.com/ps/signon.html. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example http://MachineName:8080/ps/signon.html if there is no authentication domain, or http://MachineName.myCompany.com:8080/ps/signon.html if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

14. Enter the details for the web profile, PROD, or enter another name.

    The example below shows the default web profile name, PROD, and default user ID, PTWEBSERVER. The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security in the *PeopleTools: Portal Technology* product documentation.

```
Please enter the Name of the Web Profile used to configure the web⇒
 server. The user id and password will be used to retrieve the web⇒
 profile from the database. (NOTE: Other available preset web profile⇒
 names are "TEST", "DEV", and "KIOSK".)

Web Profile Name [PROD]:
User ID [PTWEBSERVER]:
Password []:
Re-type Password []:
```


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Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step, as shown in this example. The password must be at least 8 alphanumeric characters.

See the *PeopleTools: Security Administration* product documentation for the steps required to add a User Profile.

15. Specify the root directory for the Report Repository.

    The default directory is <*user_home*>/PeopleSoft Internet Architecture/psreports, where <user_home> is the home directory for the current user.

    You must have write access to the specified directory.

    Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

    See "Setting Up Process Scheduler," Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.

```
Select the Report Repository location:
Please specify a directory name or press Enter [/ds1/home/PeopleSoft⇒
 Internet Architecture/psreports]:
```

16. Verify all of your selections and press Enter to begin the installation.

```
Setup Type : weblogic

Web server root directory : /data4/WLS1213

Web server version : 12.1

Web server domain : peoplesoft

Internet Architecture app name : PORTAL

Integration Gateway app name : PSIGW

PeopleSoft Business Interlink app name : PSINTERLINKS

Environment Management Hub : PSEMHUB

Portlet Container app name : pspc

Site name : ps

Authentication Token Domain :

Application server name : APPSRVNAME

JSL port : 9000

Report repository directory : /ds1/home/PeopleSoft Internet⇒
```

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```
 Architecture/psreports

PIA webserver directory : /home/psftuser/psft/pt/8.55/webserv
```

You see a progress indicator showing the progress of your installation.

17. When the installation is complete, exit from the console window.

    The default installation directory is for the PIA domain <*PIA_HOME*>/webserv/<*domain_name*>/, where <*domain*> is the web server domain (peoplesoft by default).

Task 9B-2-3: Installing the PeopleSoft Pure Internet Architecture on an Existing Oracle WebLogic Domain in Console Mode

To install the PeopleSoft Pure Internet Architecture on Oracle WebLogic:

1. Change directory to *PS_HOME*/setup/PsMpPIAInstall and run one of these commands:

   ```
   setup.sh -tempdir <temporary_directory>
   ```

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

   See "Using the PeopleSoft Installer," Prerequisites.

   A welcome message appears.

2. Press ENTER at the Welcome prompt to continue.

   ```
   Welcome to the InstallShield Wizard for PeopleSoft Internet⇒
    Architecture.
   Using the InstallShield Wizard you will install PeopleSoft Internet⇒
    Architecture on your computer.
   Version: 8.55
   If installing onto an Oracle WebLogic Server, make sure to shutdown any⇒
    running⇒
    webservers to avoid web server configuration.
   Press 1 for Next, 3 to Cancel, or 5 to Redisplay [1]:
   ```

3. Enter the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as *PIA_HOME*.

   ```
   Choose the directory where you wish to deploy the PeopleSoft Pure⇒
    Internet Architecture:

     Please specify a directory name or press Enter
   [/home/PT855]:
   ```

4. Enter *1* to select the Oracle WebLogic Server.

   ```
   Choose the installation type that best suits your needs
     ->1- Oracle WebLogic Server
       2- IBM WebSphere Server

   To select an item enter its number, or 0 when you are finished [0]:
   ```

5. Enter the top-level directory where Oracle WebLogic is installed.

   ```
   Select the web server root directory [/opt/oracle]: /data4/WLS_HOME
   ```


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```
Detected web server version: WebLogic 12.1.3
```

Note. You will get an error message if you specify a directory that does not contain Oracle WebLogic, or that contains an incorrect Oracle WebLogic version.

6. Select *2*, Existing WebLogic Domain, at the following prompt:

Note. You only see the option Existing WebLogic Domain if there is already a domain in *PIA_HOME.*

```
  1- Create New WebLogic Domain
 ->2- Existing WebLogic Domain
```

7. Select the domain name from the list:

```
Select application name from list:
->1- ptwls
  2- ptwls2
```

8. Select one of these options for operations to run at the following prompt:

```
Select application name from list:

  ->1- Install additional PeopleSoft site
    2- Redeploy PeopleSoft Internet Architecture
    3- Re-create WebLogic domain and redeploy PeopleSoft Internet⇒
 Architecture
    4- Deploy additional PeopleSoft application extensions

To select an item enter its number, or 0 when you are finished [0] : 1
```

- *Install additional PeopleSoft site*

  This option is relevant only to the PeopleSoft PORTAL web application, and does not modify or revert any other configuration settings. Select this option to install only the necessary files for defining an additional PeopleSoft site onto an existing Oracle WebLogic configuration. The new site will be accessed using its name in the URL. A site named "CRM" would be accessed using a URL similar to http://<mywebserver_machine>/CRM. To reset or re-create an existing PeopleSoft site, simply enter that site's name as the site to create. On your web server, a PeopleSoft site is comprised of the following directories within the PORTAL web application:

  <*WEBLOGIC_DOMAIN*>/applications/peoplesoft/PORTAL/<*site*>/*

  <*WEBLOGIC_DOMAIN*>/applications/peoplesoft/PORTAL/WEB-INF/psftdocs/<*site*>/*

- *Redeploy PeopleSoft Internet Architecture*

  This option affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to redeploy all of the web components of the PeopleSoft Pure Internet Architecture. The redeployment process updates all of the web components of the PeopleSoft Pure Internet Architecture, without modifying the configuration files or scripts that belong to the Oracle WebLogic server domain.

- *Re-create WebLogic domain and redeploy PeopleSoft Internet Architecture*

  This option affects Oracle WebLogic Server domain configuration and all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to completely remove an existing Oracle WebLogic domain and deploy the PeopleSoft Pure Internet Architecture components to create the newly specified PeopleSoft site.

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Warning! Re-creating an existing domain will delete everything previously installed into that domain.

See *PeopleTools: Portal Technology*.

- *Deploy additional PeopleSoft application extensions*

  This option is solely for use with PeopleSoft applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see if this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

9. If there are application packages in the archives directory, select whether you want to deploy them. (If you are using an existing domain, you see a prompt for this only if you elected to Deploy Additional PeopleSoft Extensions.)
10. Enter the administrator login and password that you specified for the existing Oracle WebLogic domain. Press ENTER to continue.

    The default login ID is system. The password must be at least 8 alphanumeric characters with at least one number or special character.

    ```
    Please enter the administrator login and password for WebLogic domain.
    Login ID [system]:
    Password []:
    ```

11. Select the type of domain to create—single server, multi server, or distributed managed server.

    Note. Depending upon the operation you are carrying out for an existing domain, you may not see this prompt.

    ```
    Please select the configuration to install.

      ->1- Single Server Domain
        2- Multi Server Domain
        3- Distributed Managed Server
    ```

    There are three domain configuration options:

    - *Single Server Domain*

      This domain configuration contains one server, named PeopleSoft Pure Internet Architecture and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, non-production environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

    - *Multi Server Domain*

      This domain configuration is contains seven unique server definitions, a Oracle WebLogic cluster, and the PeopleSoft Application split across multiple servers. This configuration is the intended for a production environment.

    - *Distributed Managed Server*

      This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

12. Enter the Integration Gateway User and password.

    The password must be at least 8 alphanumeric characters.

    See *PeopleTools: Integration Broker Administration.*

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```
Please enter the Integration Gateway User and Password.

   Integration Gateway User [administrator]:
   Password []:
   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

13. Enter the AppServer Domain Connection password (optional).

    If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank. This password will be propagated to the Integration Gateway.

    See the information on setting Application Server domain parameters in the *PeopleTools: System and Server Administration* product documentation.

```
Please enter the AppServer Domain Connection Password.

   Password []:
   Re-type Password []:

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

14. If you selected Deploy additional PeopleSoft application extensions, enter the location where you installed the PeopleSoft application software, *PS_APP_HOME*.

```
Choose the directory where you previously installed PeopleSoft⇒
 Applications, commonly known as "PS_APP_HOME".

Note: If you have installed PeopleSoft Applications outside PeopleTools⇒
 PS_HOME then choose the PeopleSoft Applications home "PS_APP_HOME",⇒
 else leave the default PS_HOME.

Please specify a directory name or press Enter [/home/FSCM92]
```

15. For the option Deploy additional PeopleSoft application extensions, select the application packages to deploy, EL PeopleSoft Enterprise Learning Mgmt in this sample prompt:

```
Please select the application package to deploy:

  ->1- EL PeopleSoft Enterprise Learning Mgmt
    2- FIN-SCM PeopleSoft eProcurement
```

16. Enter a PeopleSoft web site name; the default is ps.

    Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).

```
Please specify a name for the PeopleSoft web site:
Website name [ps]:
```

17. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional).

    Note. This prompt may differ depending upon the type of operation you are carrying out for an existing domain.

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```
Enter port numbers and summaries.

AppServer name [APPSRVNAME]:

JSL Port [9000]:

HTTP Port [80]:

HTTPS Port [443]:

Authentication Token Domain (optional) []:
```

- *AppServer name*

  For the AppServer name setting, enter the name of your application server.

  See "Configuring the Application Server on UNIX."

  See "Configuring the Application Server on Windows."

  See Understanding the PeopleSoft Pure Internet Architecture.

- *JSL Port*

  For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

- *HTTP and HTTPS Port*

  The values for the HTTP and HTTPS ports should be greater than 1024. Any port number less than 1024 is reserved and only Root has access to it.

- *Authentication Token Domain*

  The value you enter for the Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

  See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

  If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName/ps/signon.html. If you do enter a value for authentication domain (for example, .myCompany.com), the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName.myCompany.com/ps/signon.html. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example http://MachineName:8080/ps/signon.html if there is no authentication domain, or http://MachineName.myCompany.com:8080/ps/signon.html if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

18. Enter the details for the web profile, PROD, or enter another name.

    The example below shows the default web profile name, PROD, and default user ID, PTWEBSERVER. The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security in the *PeopleTools: Portal Technology* product documentation.

```
Please enter the Name of the Web Profile used to configure the web⇒
 server. The user id and password will be used to retrieve the web⇒
 profile from the database. (NOTE: Other available preset web profile⇒
```

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```
 names are "TEST", "DEV", and "KIOSK".)

Web Profile Name [PROD]:
User ID [PTWEBSERVER]:
Password []:
Re-type Password []:
```

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step, as shown in this example. The password must be at least 8 alphanumeric characters.

See the *PeopleTools: Security Administration* product documentation for the steps required to add a User Profile.

---

19. Specify the root directory for the Report Repository.

    The default directory is <*user_home*>/PeopleSoft Internet Architecture/psreports, where <user_home> is the home directory for the current user.

    You must have write access to the specified directory.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

See "Setting Up Process Scheduler," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.

```
Select the Report Repository location:
Please specify a directory name or press Enter [/ds1/home/PeopleSoft⇒
 Internet Architecture/psreports]:
```

20. Verify all of your selections and press Enter to begin the installation.

```
Setup Type : weblogic

Web server root directory : /data4/WLS1213

Web server version : 12.1

Web server domain : peoplesoft

Internet Architecture app name : PORTAL

Integration Gateway app name : PSIGW

PeopleSoft Business Interlink app name : PSINTERLINKS

Environment Management Hub : PSEMHUB

Portlet Container app name : pspc

Site name : ps
```

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```
Authentication Token Domain :

Application server name : APPSRVNAME

JSL port : 9000

Report repository directory : /ds1/home/PeopleSoft Internet⇒
 Architecture/psreports

PIA webserver directory : /home/psftuser/psft/pt/8.55/webserv
```

You see a progress indicator showing the progress of your installation.

21. When the installation is complete, exit from the console window.

    The default installation directory is for the PIA domain <*PIA_HOME*>/webserv/<*domain_name*>/, where <*domain*> is the web server domain (peoplesoft by default).

Task 9B-2-4: Uninstalling the PeopleSoft Pure Internet Architecture from Oracle WebLogic

To remove a PIA domain deployed on Oracle WebLogic, delete the <*PIA_HOME*>/webserv/<*domain_name*> directory. If there is more than one PIA domain, delete the *domain_name* directory for every domain you want to remove.

Task 9B-3: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND
- Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

Prerequisites

The information in this section applies to the installation of PeopleSoft Pure Internet Architecture (PIA) on an IBM WebSphere Application Server. PeopleSoft PeopleTools 8.55 requires a 64-bit IBM WebSphere 8.5.5.0 installation. Review these points before you begin the installation:

- Before installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server, you must have installed the IBM WebSphere ND software.

  See "Installing Web Server Products," Installing IBM WebSphere Application Server.
- Each IBM WebSphere Application Server runs one PeopleSoft Pure Internet Architecture application. If you need to install more than one PeopleSoft Pure Internet Architecture application on your WebSphere Application Server, you must run the PIA installation again.
- When installing PIA on IBM WebSphere ND, you must work with a local copy of the PIA installation software; you cannot install remotely. If you are doing the installation on a machine other than the one on which you installed PeopleSoft PeopleTools, copy the *PS_HOME*/setup/PsMpPIAInstall directory to the local machine.

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- Both IBM WebSphere Application Server Network Deployment and PeopleSoft Pure Internet Architecture must be installed and deployed using the same user id. Following this restriction avoids any security and profile management issues.

See Also

"Installing Web Server Products," Installing IBM WebSphere Application Server

Task 9B-3-1: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND

To install the PeopleSoft Pure Internet Architecture on IBM WebSphere ND:

1. Change directory to *PS_HOME/*setup/PsMpPIAInstall and run this command:

   ```
   setup.sh
   ```

   A welcome message appears.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.
2. Select Enter to continue.
3. Choose the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA_HOME*.
4. Enter *2*, to select the IBM WebSphere Application Server:

   ```
   ->1- Oracle WebLogic Server
     2- IBM WebSphere Server
   ```

5. Enter the directory where you installed IBM WebSphere ND, or press ENTER to accept the default:

   ```
   Select the WebSphere Application Server directory:
   Directory Name: [/opt/IBM/WebSphere/AppServer]
   ```

6. Choose whether to create a new application, or use an existing application:

   ```
   ->1- Create New WebSphere Application
     2- Existing WebSphere Application
   ```

7. If you specify *1*, Create New WebSphere Application, enter an application name for this web server.

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8. Select the type of server you want to install, and press ENTER to continue:

```
Select the server install type:
 ->1- Single Server Installation
   2- Multi Server Installation
```

The Single Server Installation option creates one IBM WebSphere Application Server profile to hold all the PeopleSoft web applications. The installer uses the Application Name you enter for the new profile's name.

The Multi Server Installation option creates a single profile with the name you entered above, *application_name*. The *application_name* profile includes two servers, which deploy discrete functionality and are found on different ports, as specified in the following table:

Server Name	Purpose	HTTP or HTTPS Port Number
server1	PORTAL applications	X
psemhub	PeopleSoft Environment Management Framework applications (PSEMHUB)	X+1

See the information on working with IBM WebSphere in the *PeopleTools: System and Server Administration* product documentation.

9. If you specify *2*, Existing WebSphere Application, select a domain name from the list:

```
Select domain name from list

->1- AppSrv01
  2- ptwas
  3- peoplesoftA
  4- hcdmo
```

10. After specifying an existing domain, select one of the options below and press ENTER to continue.

```
The PeopleSoft application "peoplesoftA" already exists.
Select from the following:
 ->1- Install additional PeopleSoft site
   2- Redeploy PeopleSoft Internet Architecture
   3- Deploy additional PeopleSoft application extensions
```

Note. Make sure the server is up and running before choosing any of these options.

- *Install additional PeopleSoft site*

  Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing IBM WebSphere web server configuration.

- *Redeploy PeopleSoft Internet Architecture*

  This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local IBM WebSphere Application Server profile. The redeployment process updates all of the web components of the PeopleSoft Pure Internet Architecture.

- *Deploy additional PeopleSoft application extensions*

  This option is solely for use with PeopleSoft product applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see whether this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

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11. Enter the administrator login and password for the IBM WebSphere Application profile, or accept the default values.

    The default login ID is system. The password must be at least 8 alphanumeric characters with at least one number or special character.

    ```
    Please enter the administrator login ID and password for WebSphere⇒
     profile.
    Login ID [system]:
    Password []:
    Retype Password []:
    ```

    If you selected the option Existing WebSphere Application, enter the same Login ID and password as you entered for the original IBM WebSphere profile creation. If the Login ID and password do not match the original values, you will not be able to continue with the PIA installation.

12. If you select the option Deploy additional PeopleSoft application extension, select the application packages you want to deploy:

    ```
    ->1- EMP PeopleSoft Activity Based Mgmt
    ```

13. Enter the Integration Gateway User and Password.

    The password must be at least 8 alphanumeric characters .

    ```
    Please enter the Integration Gateway User and Password.

       Integration Gateway User [administrator]:
       Password []:
       Re-type Password []:

    Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
    ```

14. Enter the AppServer Domain Connection Password (optional).

    If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank. This password will be propagated to the Integration Gateway.

    See "Configuring the Application Server on UNIX," Creating, Configuring, and Starting an Initial Application Server Domain.

    See the information on setting Application Server domain parameters in the *PeopleTools: System and Server Administration* product documentation.

    ```
    Please enter the AppServer Domain Connection Password.

       Password []:
       Re-type Password []:

    Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
    ```

15. Enter a web site name; the default is ps.

    Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).

16. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the authentication token domain (optional).

    ```
    Enter port numbers and summaries.
    ```

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```
AppServer name:

    [<App Server Machine Name>]

JSL Port:

    [9000]

HTTP Port:

    [80]

HTTPS Port:

    [443]

Authentication Token Domain:(optional) []
```

- For the AppServer name setting, enter the name of your application server. For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

  See "Configuring the Application Server on UNIX."
- The HTTP/HTTPS port numbers are reset to those that you just specified when you restart your IBM WebSphere server.
- The value you enter for the Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain. See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.
- If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName/ps/signon.html. If you do enter a value for the authentication domain (for example, .myCompany.com), the URL to invoke PeopleSoft Pure Internet Architecture is http://MachineName.myCompany.com/ps/signon.html. In addition, if the web server for the database is using an HTTP port other than the default port of 9080, the URL must include the port number, for example http://MachineName:8080/ps/signon.html if there is no authentication domain, or http://MachineName.myCompany.com:8080/ps/signon.html if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

  See Understanding PeopleSoft Pure Internet Architecture.

17. Enter the details for the web profile, PROD, or enter another name.

    The sample prompt shows the default web profile name, PROD, and default User ID, PTWEBSERVER. The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security in the *PeopleTools: Portal Technology* product documentation.

```
Please enter the Name of the Web Profile used to configure the web⇒
 server. The user id and password will be used to retrieve the web⇒
 profile from the database. (NOTE: Other available preset web profile⇒
 names are "TEST", "DEV", and "KIOSK".)

   Web Profile Name [PROD]:
```


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```
User ID : PTWEBSERVER
Password []:
Re-type Password []
```

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step. The password must be at least 8 alphanumeric characters. See the *PeopleTools: Security Administration* product documentation for the steps required to add a User Profile.

18. Specify the root directory for the Report Repository.

    You can install to any location, but the directory must have write access. The default directory is *user_home/* PeopleSoft Internet Architecture/psreports, where *user_home* is the home directory for the current user.

    Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

    See "Setting Up Process Scheduler on UNIX," Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.

19. Verify your selections and press Enter to start the installation. You see an indicator showing the progress of your installation.
20. When the installation is complete, exit from the console window.

    The default installation directory for a specific PIA profile is <*PIA_HOME*>/webserv/<*profile_name*>.

Task 9B-3-2: Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

You cannot uninstall PeopleSoft Pure Internet Architecture simply by deleting the directory <*PIA_HOME*>/ webserv/<*profile_name*>, without uninstalling it from IBM WebSphere Administration Console. If you do so, the IBM WebSphere registry becomes corrupt, and subsequent attempts to install PeopleSoft Pure Internet Architecture will fail. Instead, if necessary, you must uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere ND as described here:

To uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Open the IBM WebSphere Administration Console by entering the following URL in a browser:

   http://<*machine-name*>:<*administrative_console_port*>/ibm/console

   To find the value for <*administrative_console_port*>, refer to <*PIA_HOME*>\webserv\<*profile_name*>\ logs\AboutThisProfile.txt.

2. Log in as any user.
3. Choose Applications, Application Types, Websphere enterprise applications.
4. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Stop.
5. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Uninstall.
6. Save your configuration.
7. Log out of the IBM WebSphere Administration Console.

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8. Stop IBM WebSphere server using one of the following commands:

   On Microsoft Windows:

   ```
   <PIA_HOME>\webserv\<profile_name>\bin\stopServer.bat server1
   ```

   On UNIX or Linux:

   ```
   <PIA_HOME>/webserv/<profile_name>/bin/stopServer.sh server1
   ```

9. In addition to uninstalling the application, you need to remove the IBM WebSphere Application Server profile (that was created during PIA install) to complete the PIA uninstallation.

   To uninstall profile run the following steps:

   a. Go to <*PIA_HOME*>/webserv/<*profile_name*>/bin

   b. Run one of the following commands, where *profile_name* indicates the application name that you have selected during the PIA install.

      On Microsoft Windows:

      ```
      manageprofiles.bat -delete -profileName profile_name
      ```

      On UNIX or Linux:

      ```
      manageprofiles.sh -delete -profileName profile_name
      ```

   c. Delete the directory <*PIA_HOME*>/webserv/<*profile_name*>

Task 9B-4: Installing the PeopleSoft Pure Internet Architecture in Silent Mode

This section discusses:

- Understanding the Silent Installation and the Response File
- Editing the Response File
- Running the Silent Mode Installation

Understanding the Silent Installation and the Response File

You can carry out a silent installation of the PeopleSoft Pure Internet Architecture by providing all the required settings in a response file. With silent installation there is no user interaction. Silent mode installation of PeopleSoft Pure Internet Architecture is supported for both Microsoft Windows and UNIX operating systems platforms, and for both Oracle WebLogic and IBM WebSphere web servers.

Task 9B-4-1: Editing the Response File

You need a response file to start the installer in silent mode. The PeopleSoft Pure Internet Architecture installer comes with a response file template (resp_file.txt) that can be found under *PS_HOME*\setup\PsMpPIAInstall\scripts. Modify the values in the response file according to your installation requirements. For information on the parameters, see the previous sections that discuss the installation in GUI and console mode.

For information on the optional PSSERVER parameter, see the information on configuring Jolt failover and load balancing in the *PeopleTools: System and Server Administration* production documentation.

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The response file should contain all the input parameters that are needed for deploying PeopleSoft Pure Internet Architecture, such as PS_CFG_HOME, DOMAIN_NAME, SERVER_TYPE, and so on. For example:

- Specify `SERVER_TYPE=weblogic` to deploy on Oracle WebLogic.
- Specify `SERVER_TYPE=websphere` to deploy on IBM WebSphere.

Note. When specifying paths on Microsoft Windows operating systems, use forward slashes (/), as shown in the examples in the response file.

Sample Response file template:

```
#Following inputs are required in response file for silent installation

# Location of PIA_HOME directory.  For windows path should have front⇒
 slash '/' instead of back slash '\'
# Set the below variable to the location where you want to install PIA.
# PLEASE NOTE this variable could be ANY DIRECTORY on your machine. It⇒
 includes but is definitely not limited to PeopleTools Home.
PS_CFG_HOME=C:/PT8.50

# Name of the PIA domain
DOMAIN_NAME=peoplesoft

# Web server type. Possible values are "weblogic", "websphere"
SERVER_TYPE=weblogic

# WebLogic home, the location where Oracle WebLogic is installed (for Web⇒
Logic deployment only)
BEA_HOME=c:/bea

# WebSphere Home, the location where IBM WebSphere is installed (for Web⇒
Sphere deployment only)
WS_HOME=C:/IBM/WebSphere/AppServer

# admin console user id/password for securing WebLogic/WebSphere admin⇒
 console credential
USER_ID=system
USER_PWD=
USER_PWD_RETYPE=

# Install action to specify the core task that installer should perform.
# For creating new PIA domain - CREATE_NEW_DOMAIN.
# For redeploying PIA - REDEPLOY_PSAPP.
# For recreating PIA domain - REBUILD_DOMAIN.
# For installing additional PSFT site - ADD_SITE
# For installing Extensions - ADD_PSAPP_EXT
INSTALL_ACTION=CREATE_NEW_DOMAIN

# Domain type to specify whether to create new domain or modify existing⇒
 domain. Possible values are "NEW_DOMAIN", "EXISTING_DOMAIN".
DOMAIN_TYPE=NEW_DOMAIN

# App home is required only when you are installaing extensions from a⇒
```

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```
 decoupled Apps home, please leave it commented otherwise.
# Silent installer can detect the deployable application extensions from⇒
 the PS_APP_HOME
# PS_APP_HOME=D:/CR9.2

# Install type to specify whether the installation is a single server or⇒
 multi server deployment. Possible values are "SINGLE_SERVER_⇒
INSTALLATION", "MULTI_SERVER_INSTALLATION"
INSTALL_TYPE=SINGLE_SERVER_INSTALLATION

# WebSite Name
WEBSITE_NAME=ps

# To enable jolt failover and load balancing, provide a list of⇒
 application server domains in the format of;  PSSERVER=AppSrvr:JSLport,...
# For example:  PSSERVER=SERVER1:9000,SERVER2:9010,SERVER3:9020
# PSSERVER is optional, but if set will have precedence over APPSERVER_⇒
NAME & JSL_PORT.
PSSERVER=

# AppServer Name
APPSERVER_NAME=

# Appserver JSL Port
JSL_PORT=

# HTTP Port
HTTP_PORT=80

# HTTPS Port
HTTPS_PORT=443

# Authentication Domain (optional)
AUTH_DOMAIN=

# Web Profile Name Possible Values are "DEV","TEST","PROD","KIOSK"
WEB_PROF_NAME=PROD

# Web Profile password for User "PTWEBSERVER"
WEB_PROF_PWD=
WEB_PROF_PWD_RETYPE=

# Integration Gateway user profile.
IGW_USERID=administrator
IGW_PWD=
IGW_PWD_RETYPE=

# AppServer connection user profile
APPSRVR_CONN_PWD=
APPSRVR_CONN_PWD_RETYPE=

# Directory path for reports
```


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```
REPORTS_DIR=
```

Task 9B-4-2: Running the Silent Mode Installation

Use the response file that you modified for your configuration. Substitute the location where you saved the response file for *<path_to_response_file>* in the following procedures:

To install the PeopleSoft Pure Internet Architecture in silent mode on Microsoft Windows:

1. In a command prompt, go to *PS_HOME*\setup\PsMpPIAInstall.
2. Run the following command, using forward slashes (/) to specify the path:

   ```
   setup.bat -i silent -DRES_FILE_PATH=<path_to_response_file>
   ```

   For example:

   ```
   setup.bat -i silent -DRES_FILE_PATH=D:/PT8.55
   ```

To install the PeopleSoft Pure Internet Architecture in silent mode on UNIX or Linux:

1. Go to *PS_HOME/*setup/PsMpPIAInstall.
2. Run the following command, using forward slashes (/) to specify the path:

   ```
   setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
   ```

   For example:

   ```
   setup.bat -i silent -DRES_FILE_PATH=/home/PT855
   ```

Task 9B-5: Testing and Administering the PeopleSoft Pure Internet Architecture Installation

This section discusses:

- Verifying the PeopleSoft Pure Internet Architecture Installation
- Starting and Stopping Oracle WebLogic
- Starting and Stopping IBM WebSphere Application Servers
- Using PSADMIN to Start and Stop Web Servers
- Accessing the PeopleSoft Signon

Verifying the PeopleSoft Pure Internet Architecture Installation

After installing the PeopleSoft Pure 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.) This section includes procedures to start and stop the Oracle WebLogic or IBM WebSphere web servers whenever necessary.

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Task 9B-5-1: Starting and Stopping Oracle WebLogic

If you are using the Oracle WebLogic web server, you need to sign on to Oracle WebLogic before using these commands. If you are using IBM WebSphere instead, go on to the next section. Use the following commands in the Oracle WebLogic domain directory.

Note. Starting from Oracle WebLogic 9.2 and later releases, all the Life-cycle management scripts and other batch scripts for the PIA server on Oracle WebLogic are located in <*PIA_HOME*>\webserv\<*domain_name*>\bin folder.

- To start Oracle WebLogic Server as a foreground process on a single server, use the following commands:

  ```
  startPIA.cmd (on Windows)
  startPIA.sh (on UNIX)
  ```

- To start Oracle WebLogic Server as a foreground process on multiple-servers or distributed servers, use the following commands:

  1. Execute:

     ```
     startWebLogicAdmin.cmd (on Windows)
     startWebLogicAdmin.sh (on UNIX)
     ```

  2. Then execute:

     ```
     startManagedWebLogic.cmd ManagedServerName (on Windows)
     startManagedWebLogic.sh ManagedServerName (on UNIX)
     ```

- To stop the server, use the following commands:

  - Single Server:

    ```
    stopPIA.cmd (on Windows)
    stopPIA.sh (on UNIX)
    ```

  - Multiple Servers or Distributed Servers:

    ```
    stopWebLogic.cmd ManagedServerName (on Windows)
    stopWebLogic.sh ManagedServerName (on UNIX)
    ```

For more information on working with Oracle WebLogic multiple servers or distributed servers, see the *PeopleTools: System and Server Administration* product documentation.

Note. For more information on working with Oracle WebLogic multiple or distributed servers, search My Oracle Support.

Task 9B-5-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

- Starting and Stopping IBM WebSphere Application Servers on Windows
- Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux
- Verifying the IBM WebSphere Installation

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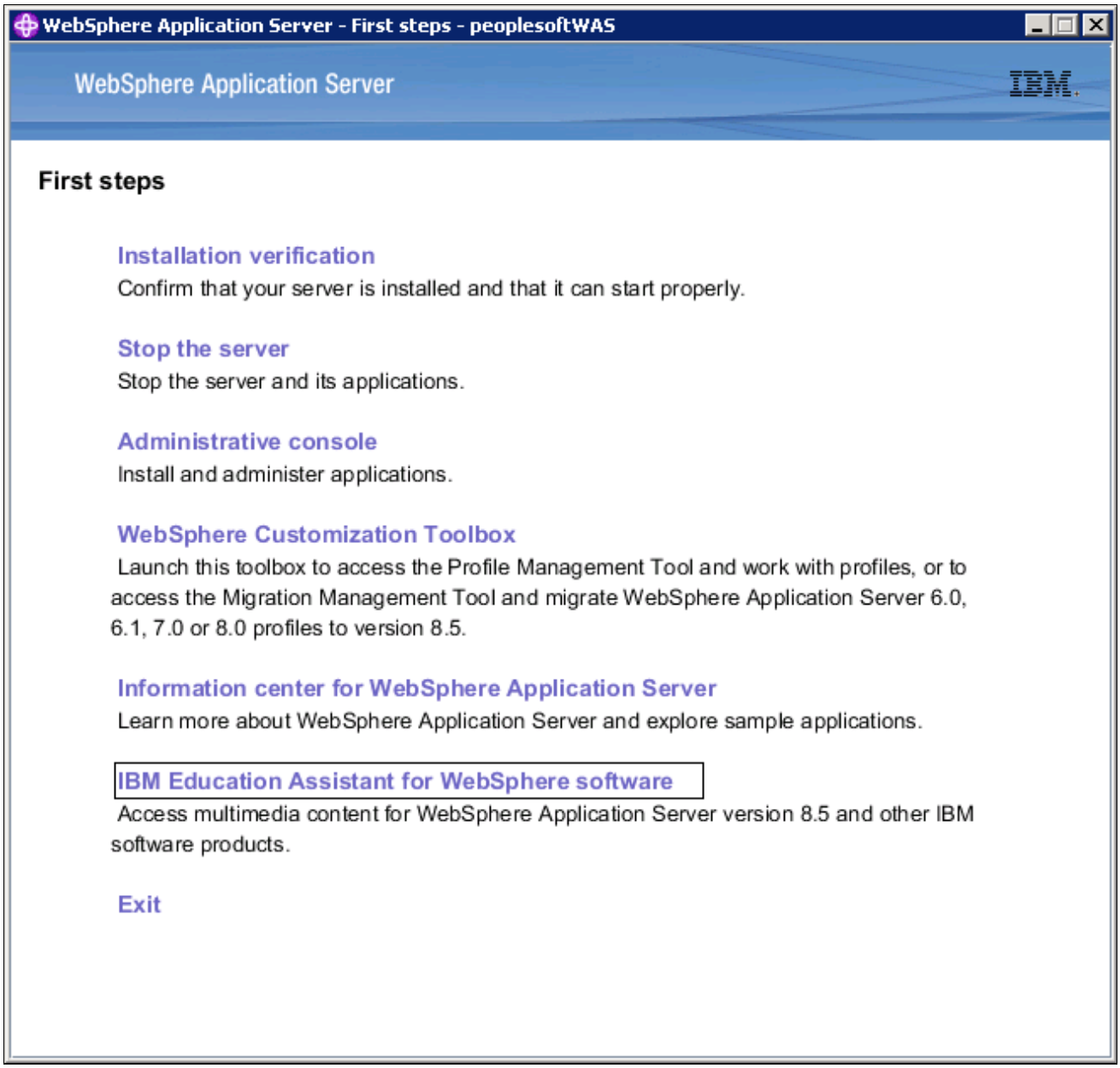
Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 8.5.5.0 (WebSphere ND), use the WebSphere First Steps utility:

1. On Microsoft Windows 7, select Start, Programs, IBM WebSphere, IBM WebSphere Application Server V8.5, Profiles, *profile_name*, First steps.

   On Microsoft Windows 8 or 2012 R2, access the Apps screen and locate the First steps utility in the IBM WebSphere category.

   The following example shows the First steps window for the profile *peoplesoftWAS*:



WebSphere Application Server First Steps window

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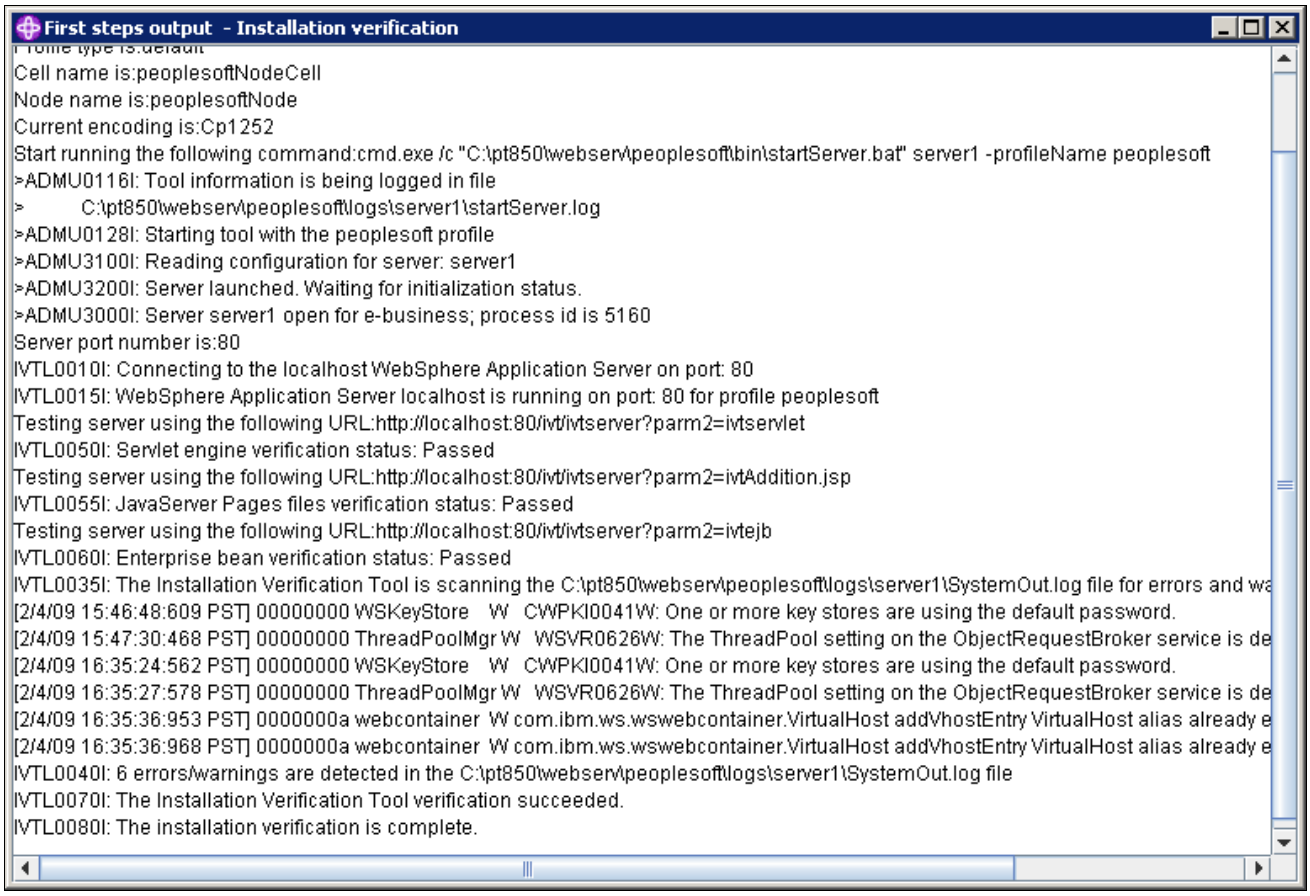
2. Select the link Start the server.

   If the server starts properly, a verification window appears with several messages about the initialization process, as in this example:



First steps output - Installation verification window

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window.

Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux

To start WebSphere ND on UNIX or Linux, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/startServer.sh <server_name>
```

For example:

```
/home/pt855/webserver/peoplesoft/bin/startServer.sh server1
```

To stop WebSphere ND, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/stopServer.sh <server_name>
```

Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Microsoft Windows and UNIX.

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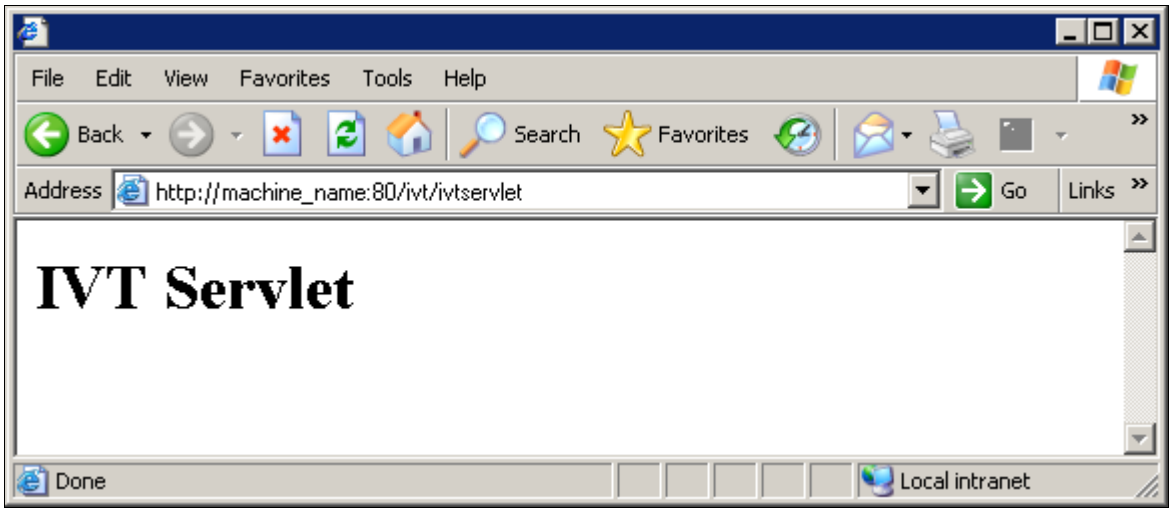
To verify the WebSphere ND and PIA installation, copy the following URL into a browser address bar, substituting your machine name and the http port number:

`http://<machine_name>:<http_port>/ivt/ivtservlet`

You should see the text "IVT Servlet" in the browser, as in this example:



IVT Servlet window

You should also sign into the PeopleSoft application, as described in a later section, to verify the installation.

See Accessing the PeopleSoft Signon.

Task 9B-5-3: Using PSADMIN to Start and Stop Web Servers

In addition to the methods given in the previous sections for starting and stopping Oracle WebLogic and IBM WebSphere web servers, in PeopleSoft PeopleTools 8.52 and later releases you can use PSADMIN to administer a web server domain.

See *PeopleTools: System and Server Administration.*

To start and stop web servers:

1. Run the `psadmin` command.
2. Specify *4* for Web (PIA) Server.

```
--------------------------------
PeopleSoft Server Administration
--------------------------------

  PS_HOME:       /home/pt855
  PS_CFG_HOME:   /home/psft_AppServ

  1) Application Server
  2) Process Scheduler
  3) Search Server
  4) Web (PIA) Server
  5) Switch Config Home
  6) Replicate Config Home
  q) Quit
```

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```
Command to execute (1-6, q): 4
```

The location of Config Home is the current working directory. The PSADMIN utility determines the Config Home directory by checking for the PS_CFG_HOME environment variable. If that is not set, it checks for the presence of domains in the default *PS_CFG_HOME* location. If none exists, it uses the *PS_HOME* location from which it was launched.

See "Preparing for Installation," Defining Installation Locations.

3. Select *1* for Administer a domain.

```
-----------------------------
PeopleSoft PIA Administration
-----------------------------

  PIA Home:   /home/psft_WebServ

  1) Administer a domain
  2) Create a domain
  3) Delete a domain

  q) Quit

Command to execute: 1
```

The PSADMIN utility determines the PIA Home location displayed here by first checking for a PIA_HOME environment variable. If none is set, it checks for the PS_CFG_HOME environment variable. If neither is set, it uses the default PS_CFG_HOME directory.

4. Select the domain you want to administer by entering the appropriate number.

```
-------------------------------------------------------
PeopleSoft PIA Domain Administration - Choose a Domain
-------------------------------------------------------
1) psftTST
2) peoplesoft

q) Quit

Command to execute: 2
```

5. To start a web server domain, enter *1*, Boot this domain.

```
------------------------------------
PeopleSoft PIA Domain Administration
------------------------------------

  PIA Home:      /home/psft_websrv
  PIA Domain:    peoplesoft
  Domain Status: stopped

  1) Boot this domain
  2) Shutdown this domain
  3) Get the status of this domain
  4) Configure this domain
  5) Edit configuration files
  6) View log files
```


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```
  7) Administer a site
  8) Delete a site

  q) Quit

Command to execute: 1
```

The boot command invokes the startPIA.sh script, and you see the progress and a status message on the console window.

```
Starting the domain..................
...
Verifying domain status..
The domain has started.
```

6. To stop a web server domain, select *2*, Shutdown this domain.

   The shutdown command invokes the stopPIA.sh script, and you see the progress and a status message on the console window.

```
Stopping the domain.....
.....
Verifying domain status..........
The domain has stopped.
```

7. Select *1* to install a service, or *2* to remove it.

   This command invokes the installNTservice script, and creates a service named *WebLogicDomain-WebLogicServer*.

```
---------------------
Windows Service Setup
---------------------

  PIA Home:      C:\psft_websrv
  PIA Domain:    peoplesoft
  Domain status: started

  1) Install Service
  2) Uninstall Service

  q) Quit

Command to execute:
```

Task 9B-5-4: Accessing the PeopleSoft Signon

To access the PeopleSoft signon:

1. Open your web browser.

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2. Enter the name of the site you want to access—for example (the default value for <*site_name*> is ps):

   `http://<machine_name>:<http_port>/<site_name>/signon.html`

Note. PeopleSoft Pure Internet Architecture installed on IBM WebSphere server listens at the HTTP/HTTPS ports specified during the PeopleSoft Pure Internet Architecture install. Invoke PeopleSoft Pure Internet Architecture through a browser by using the specified HTTP or HTTPS ports—that is, http://<*WebSphere_machine_name*>:<*server_port*>/<*site_name*>/signon.html (if AuthTokenDomain is not specified) or http://<*WebSphere_machine_name.mycompany.com*>:<*server_port*>/<*site_name*>/signon.html (if you specified .mycompany.com as the AuthTokenDomain). You can find the HTTP and HTTPS ports in the file <*PIA_HOME*>/webserv/<*domain_name*>/logs/AboutThisProfile.txt.

This will take you to the sign-in window corresponding to your browser's language preference, as shown in this example:

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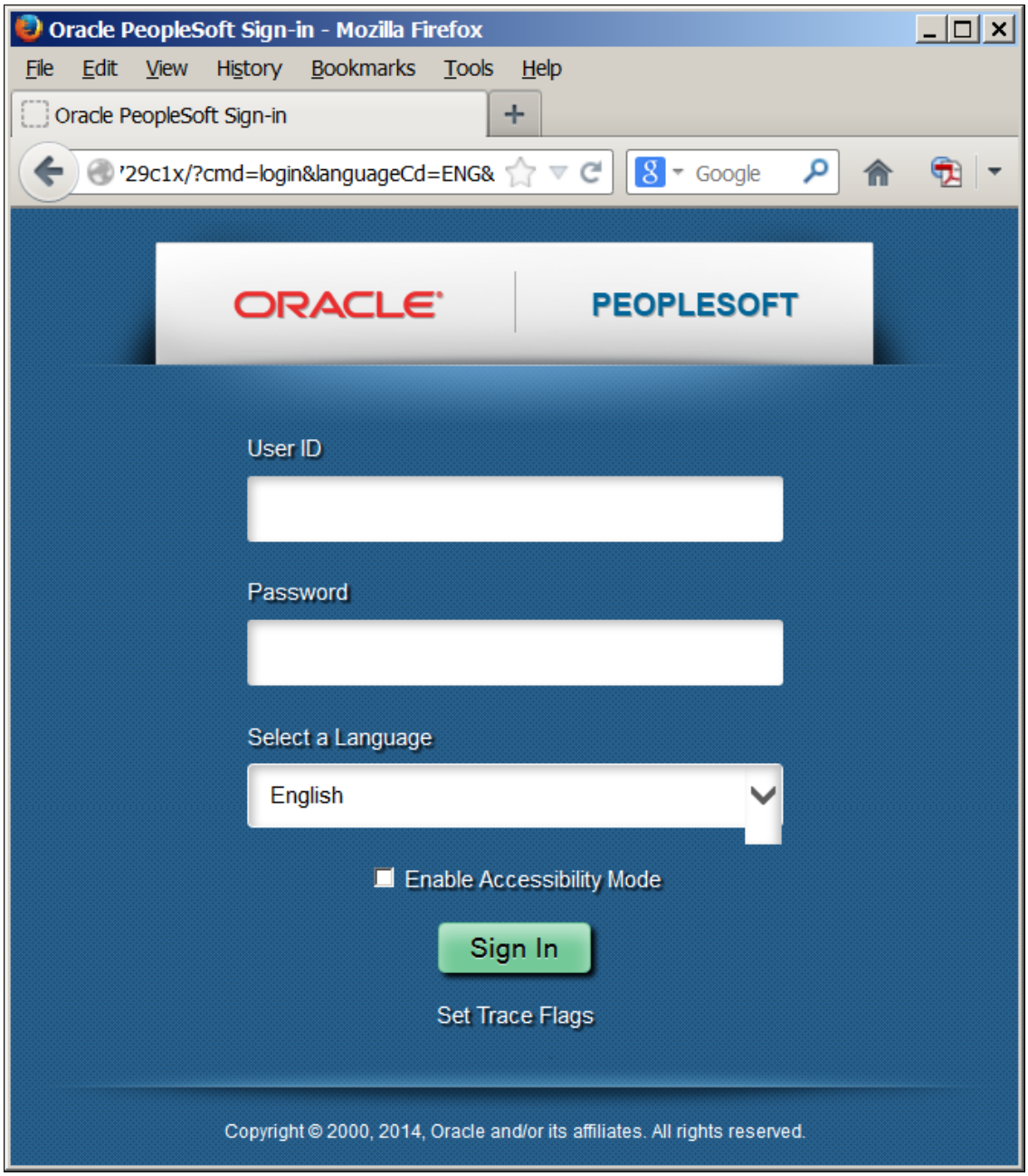

Oracle PeopleSoft Enterprise Sign in window

Note. If you do not 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.

   The user ID and password are case sensitive.

Note. The user ID and password were set during the database configuration and also used to boot the application server.

The PeopleSoft PeopleTools and PeopleSoft applications include various default user IDs. For information on using the user IDs delivered with your PeopleSoft application demo database, see the application-specific

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installation instructions. For information on using and securing PeopleSoft PeopleTools default user IDs, see the information on administering user profiles in the *PeopleTools: Security Administration* product documentation.

Task 9B-6: Completing Post-Installation Steps

This section discusses:

- Using Fluid User Interface
- Updating the Installation Table
- Setting Options for Multilingual Databases
- Updating PeopleTools Options
- Updating Database Information

Task 9B-6-1: Using Fluid User Interface

When you sign in to your PeopleSoft application, you may see the PeopleSoft Fluid User Interface by default. To access the menu items, as seen in the classic user interface, from the PeopleSoft Fluid User Interface:

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1. On the PeopleSoft Fluid User Interface, shown in this example, select (press) the NavBar button at the top right (diamond inside a circle).

PeopleSoft Fluid User Interface home page

The Navigation bar (NavBar) side page appears.

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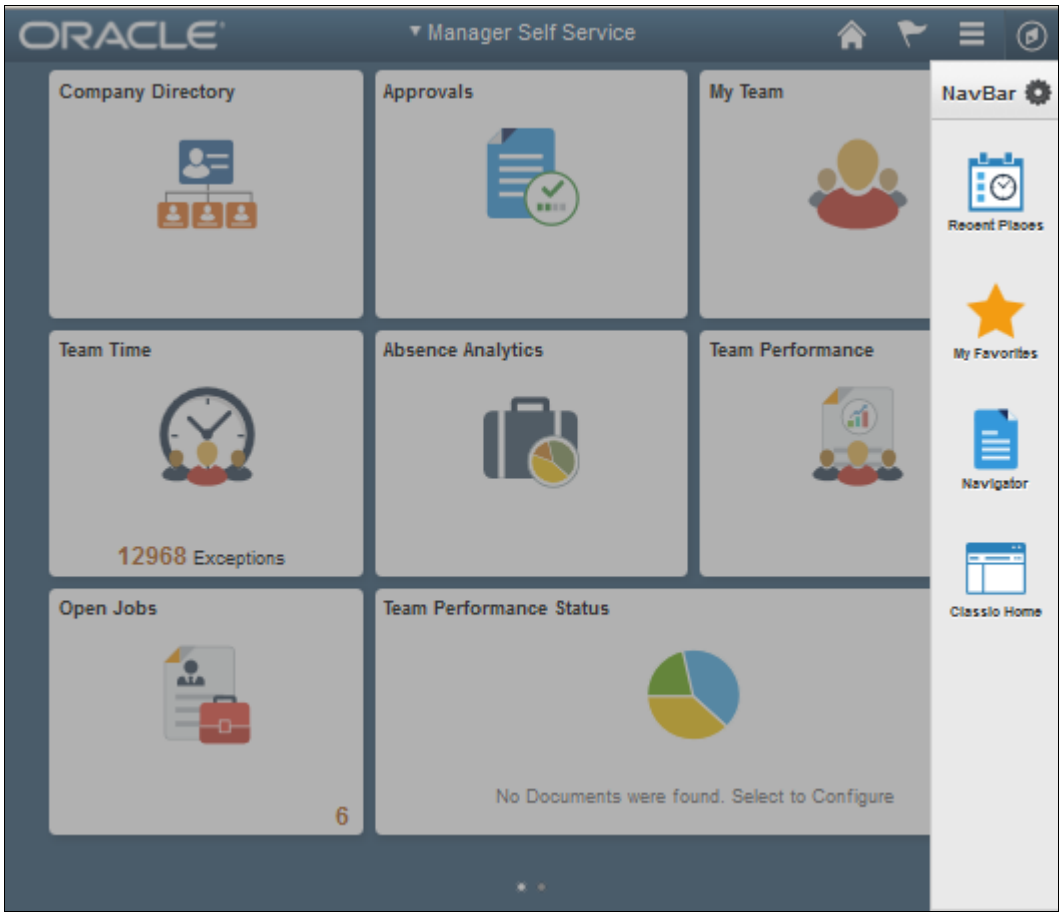
2. Select (press) Navigator.



NavBar side page

The menu structure appears.

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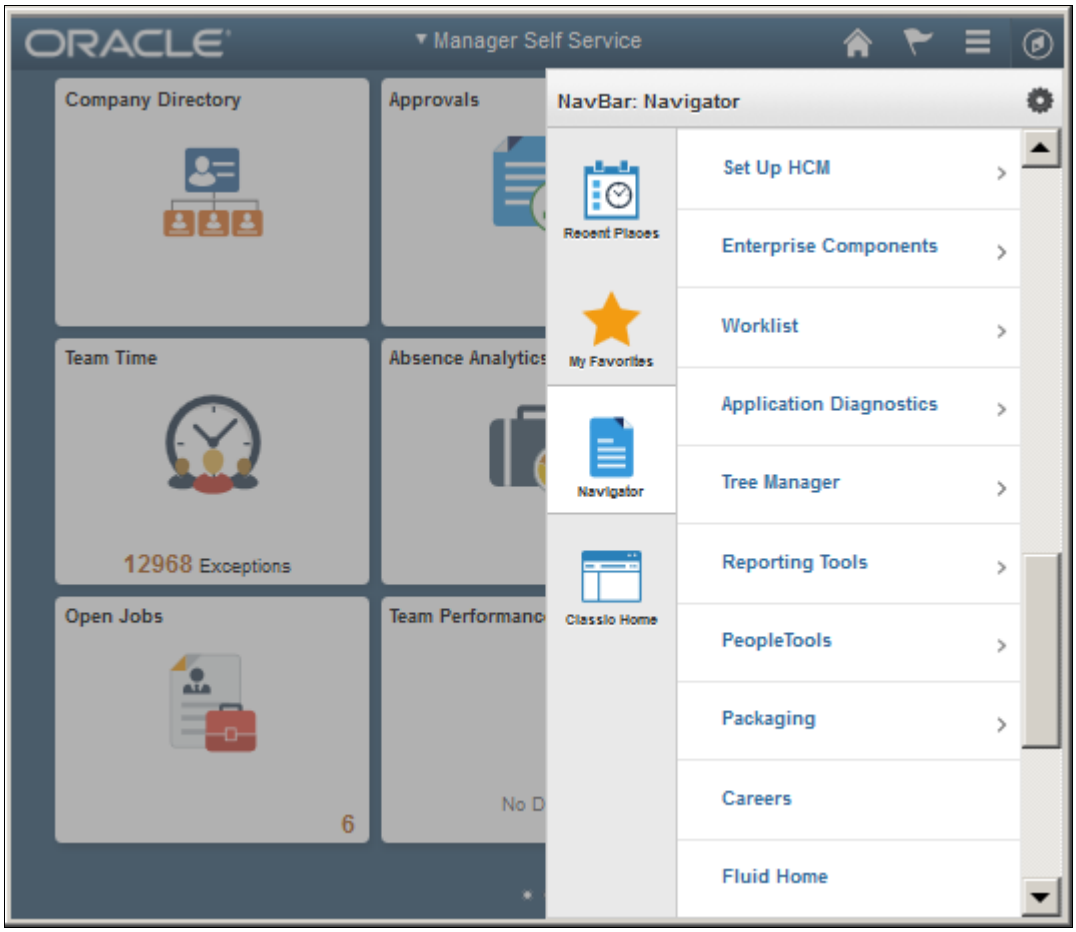
3. Navigate to the desired item, such as Set Up HCM or PeopleTools.



Navigator side page with PeopleSoft menu items

See Also

PeopleTools: Applications User's Guide, "Working With Fluid Homepages"

PeopleTools: Fluid User Interface Developer's Guide

Task 9B-6-2: Updating the Installation Table

After you complete the installation process, creating the database, installing the Application Server, and installing the PeopleSoft Pure Internet Architecture, you must complete this additional step. The license codes from the Oracle license code site mentioned earlier install all products available in the installation package. This post-installation step ensures that only the products for which you are licensed are active in the installation. The location of the installation table in the PeopleSoft system varies depending upon the PeopleSoft application that you installed.

To update the installation table:

1. Sign on to the PeopleSoft system.
2. Select Set Up *Application_name* (where Application_name is the PeopleSoft application you installed), Install, Installation Table.

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Select the Products tab.

3. Clear the check boxes for the products for which you have not obtained a license.

See Also

"Using the PeopleSoft Installer," Obtaining License Codes

Accessing the PeopleSoft Signon

Task 9B-6-3: Setting Options for Multilingual Databases

Setting the Data Field Length Checking Option

The value to specify data field length checking must be set correctly in order for PeopleSoft applications to perform correctly in a browser. Use one of these methods to set the data field length checking option:

- Select PeopleTools, Utilities, Administration, PeopleTools Options, and select the Data Field Length Checking option from the drop-down list.
- Alternatively, use the SQL tool for your database platform to modify the DBLENGTHTYPE parameter in the PSOPTIONS table.

See *PeopleTools: Global Technology,* "Setting Data Field Length Checking."

See *PeopleTools: Global Technology,* "Selecting Character Sets."

Use the guidelines in this table to select the correct option for your environment:

Environment	PeopleTools Option Page Selection	PSOPTIONS.DBLENGTHTYPE Value
Unicode-encoded database or a non-Unicode SBCS database	Others	N
Japanese database on DB2 LUW	DB2 MBCS	D
Non-Unicode Japanese database **Note.** If your installation uses the Shift-JIS character set for Japanese, you must use this option.	MBCS **Note.** The MBCS option is not supported for DB2 z/OS.	M

Setting the Unicode Enabled Option

If you are running a Unicode database, verify that the UNICODE_ENABLED parameter in the PSSTATUS table is set correctly. For example:

- For non-Unicode databases, including those using the Shift-JIS character set for Japanese, set UNICODE_ENABLED=0.
- For Unicode databases, set UNICODE_ENABLED=1.

See the information on converting to Unicode in the *PeopleTools: Global Technology* product documentation.

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Task 9B-6-4: Updating PeopleTools Options

You can set the following options on the PeopleTools Options page:

- Multi-Currency — Select this check box if you plan to use currency conversion.

  See *PeopleTools: Global Technology*, "Using System-Wide Multicurrency Settings."
- Base Time Zone — Enter a value for the base time zone for your PeopleTools database.

  See *PeopleTools: Global Technology*, "Setting the Base Time Zone."
- Sort Order Option — If you specified a non-binary sort order for your database, choose the Sort Order Option that most closely approximates your database sort order.

  See *PeopleTools: Global Technology*, "Setting the Sort Order."

Task 9B-6-5: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
   - Environment Long Name — Customer HR Demo Database
   - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.

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Chapter 10A

Setting Up Process Scheduler on Windows

This chapter discusses:

- Prerequisites
- Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Environment Variables
- Setting Up Process Scheduler Server Agent
- Starting Process Scheduler as a Windows Service (Optional)
- Configuring the Process Scheduler for Microsoft Word (Optional)
- Configuring Setup Manager
- Installing Products for PS/nVision

Prerequisites

Before setting up your Process Scheduler, you must:

- Install Tuxedo (except for z/Linux).

  See "Installing Additional Components."
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).

  See "Preparing for Installation."
- Set up the web server with the PeopleSoft Pure 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. 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. Consult My Oracle Support for the details on whether your application requires COBOL.

  See "Preparing for Installation," Planning Your Initial Configuration.
- Install the Microsoft Office products Microsoft Word and Microsoft Excel.
- Have both your application server and the PeopleSoft Pure 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 Pure Internet Architecture.

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In PeopleSoft PeopleTools 8.50 and later, the configuration and log files for Process Scheduler server domains reside in *PS_CFG_HOME.* If you do not set a PS_CFG_HOME environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

`%USERPROFILE%\psft\pt\<peopletools_version>`

See "Preparing for Installation," Defining Installation Locations.

See the product documentation *PeopleTools: System and Server Administration* for more information on the PS_CFG_HOME environment variable and working with server domain configuration.

See Also

PeopleTools: Process Scheduler

My Oracle Support, Certifications

Task 10A-1: Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade

When performing the installation of the separate upgrade *PS_HOME* or *PS_CFG_HOME* (which is different than your old release *PS_HOME),* you may configure your Process Scheduler at this point in time of the installation, but do not boot your Process Scheduler until directed to do so within the upgrade.

If you are installing into an existing *PS_HOME* or *PS_CFG_HOME* after completing a PeopleTools-only upgrade, review your old *PS_HOME* or *PS_CFG_HOME* for configuration files that you may want to reuse for the new PeopleSoft PeopleTools release. While you may configure your Process Scheduler at this point in time of the installation, do not boot your Process Scheduler until directed to do so within the upgrade.

See "Preparing for Installation," Preparing for the PeopleTools-Only Upgrade.

Task 10A-2: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Changing User Account to Start ORACLE ProcMGR V12.1.3.0.0_VS2012
- Granting Process Scheduler Administrative Rights

Understanding Process Scheduler Security

This task—in which you 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—guarantees that security is set up properly both in Microsoft Windows and within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

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In the next section you set up ORACLE ProcMGR V12.1.3.0.0_VS2012 with a network user ID. When you install Oracle Tuxedo, the ORACLE ProcMGR V12.1.3.0.0_VS2012 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 Microsoft Windows utilities such as XCOPY that may access UNC paths, you need to change the user account used to start ORACLE ProcMGR V12.1.3.0.0_VS2012 with a network user account.

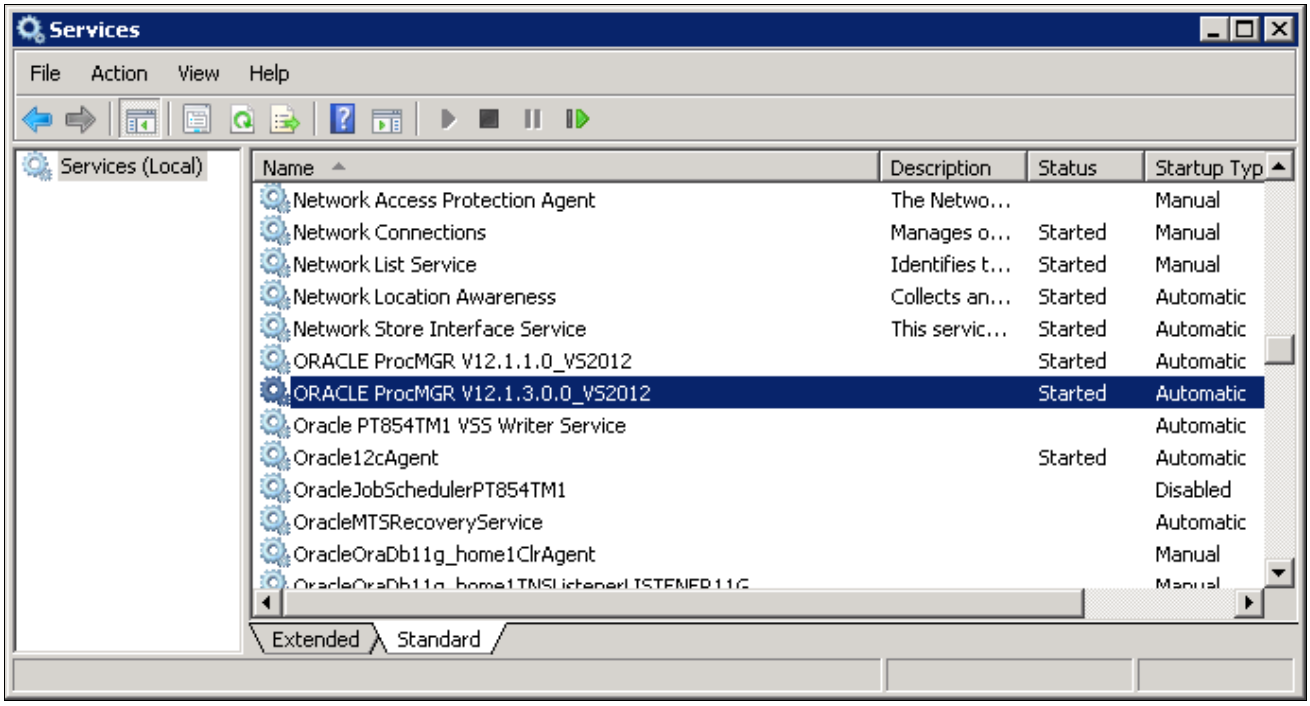
Task 10A-2-1: Changing User Account to Start ORACLE ProcMGR V12.1.3.0.0_VS2012

To change User Account to start ORACLE ProcMGR V12.1.3.0.0_VS2012:

1. Launch the Services dialog box; for example, on Microsoft Windows 7, select Start, All Programs, Administrative Tools, Services.

   On Microsoft Windows 8 or 2012 R2, click the Start button, and then click Administrative Tools, Services.

   In the Services dialog box, find the service labeled *ORACLE ProcMGR V12.1.3.0.0_VS2012.* This service is installed automatically when you install Tuxedo, and is highlighted in this example.



   Microsoft Windows Services dialog box with ORACLE ProcMGR service highlighted

2. If the Stop button is enabled, click it to stop the current ORACLE ProcMGR V12.1.3.0.0_VS2012 process.
   a. Click Yes when a message informs you of the status change.
   b. Double-click ORACLE ProcMGR V12.1.3.0.0_VS2012.

      The Properties dialog box appears.

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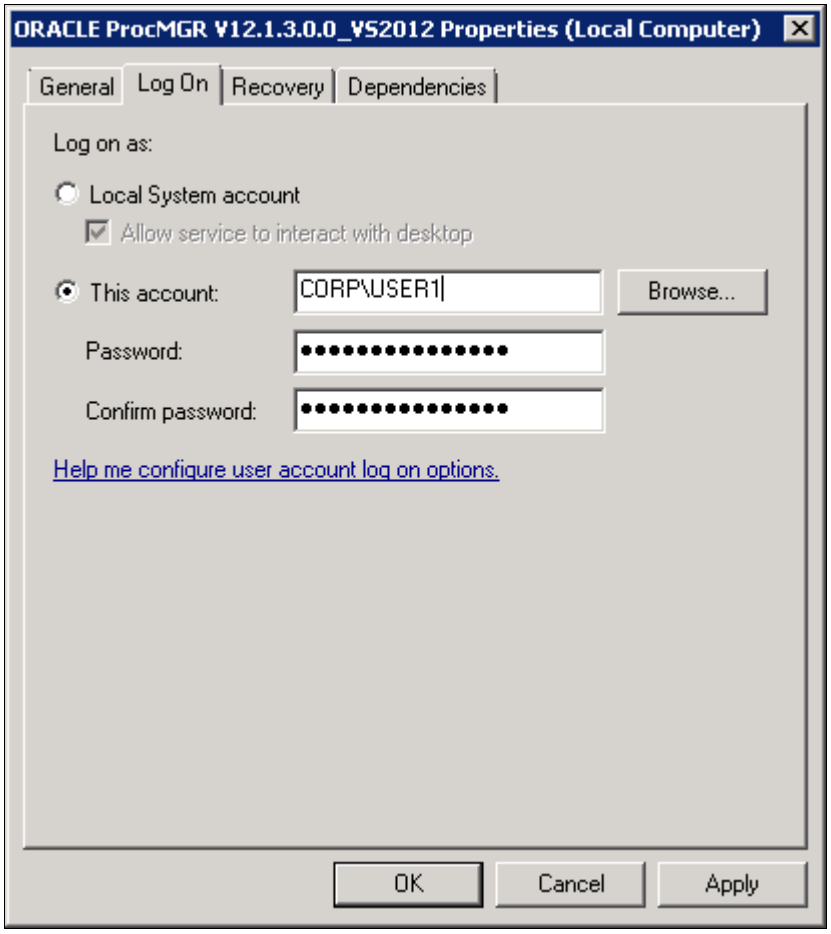
3. Select the option This account on the Log On tab.

   Enter an account name and password. In this example, the account name is CORP\USER1.



ORACLE ProcMGR V12.1.3.0.0_VS2012 Properties dialog box: Log On tab

---

Note. When you configure your Oracle Tuxedo server as outlined in the chapter, "Configuring the Application Server on Windows," 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:\oracle\tuxedo1.2.1.3.0.0_VS2012.

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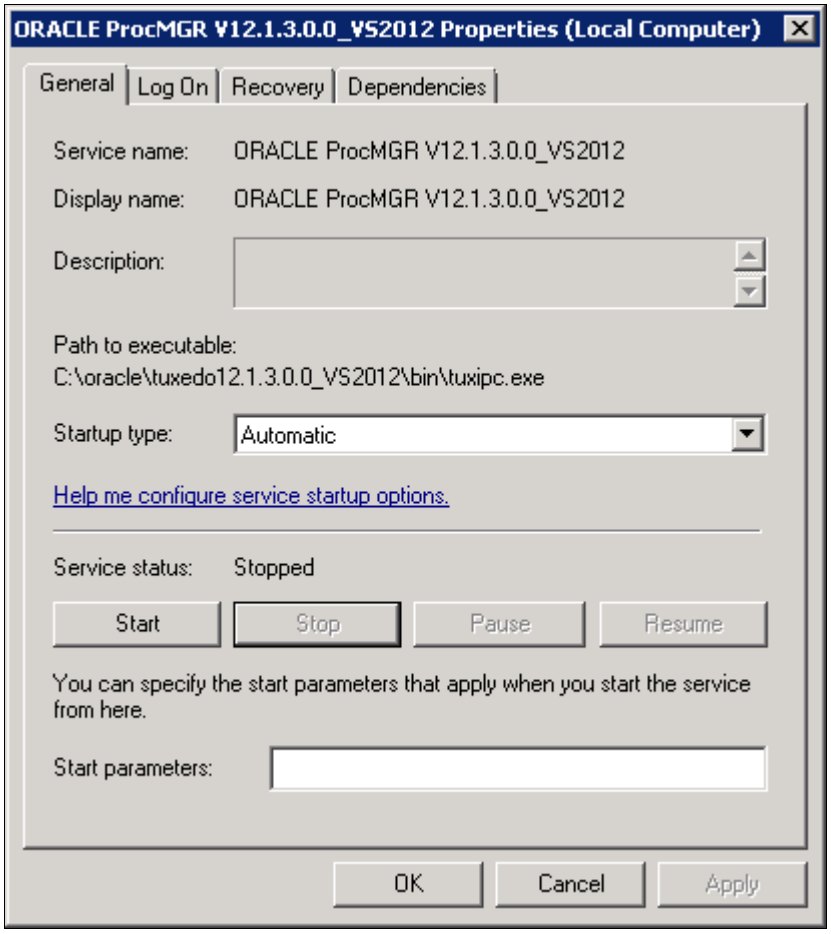
4. Select the General tab.

   Make sure that Startup Type is set to Automatic, as shown in this example, and click OK.



ORACLE ProcMGR V12.1.3.0.0_VS2012 Properties dialog box: General tab

5. Click Start.

   A message in the Properties dialog box will indicate the "Started" status. You also see the status in the Services dialog box. Click OK to close the dialog box.

Task 10A-2-2: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

1. Log onto your PeopleSoft database through the PeopleSoft Pure 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.

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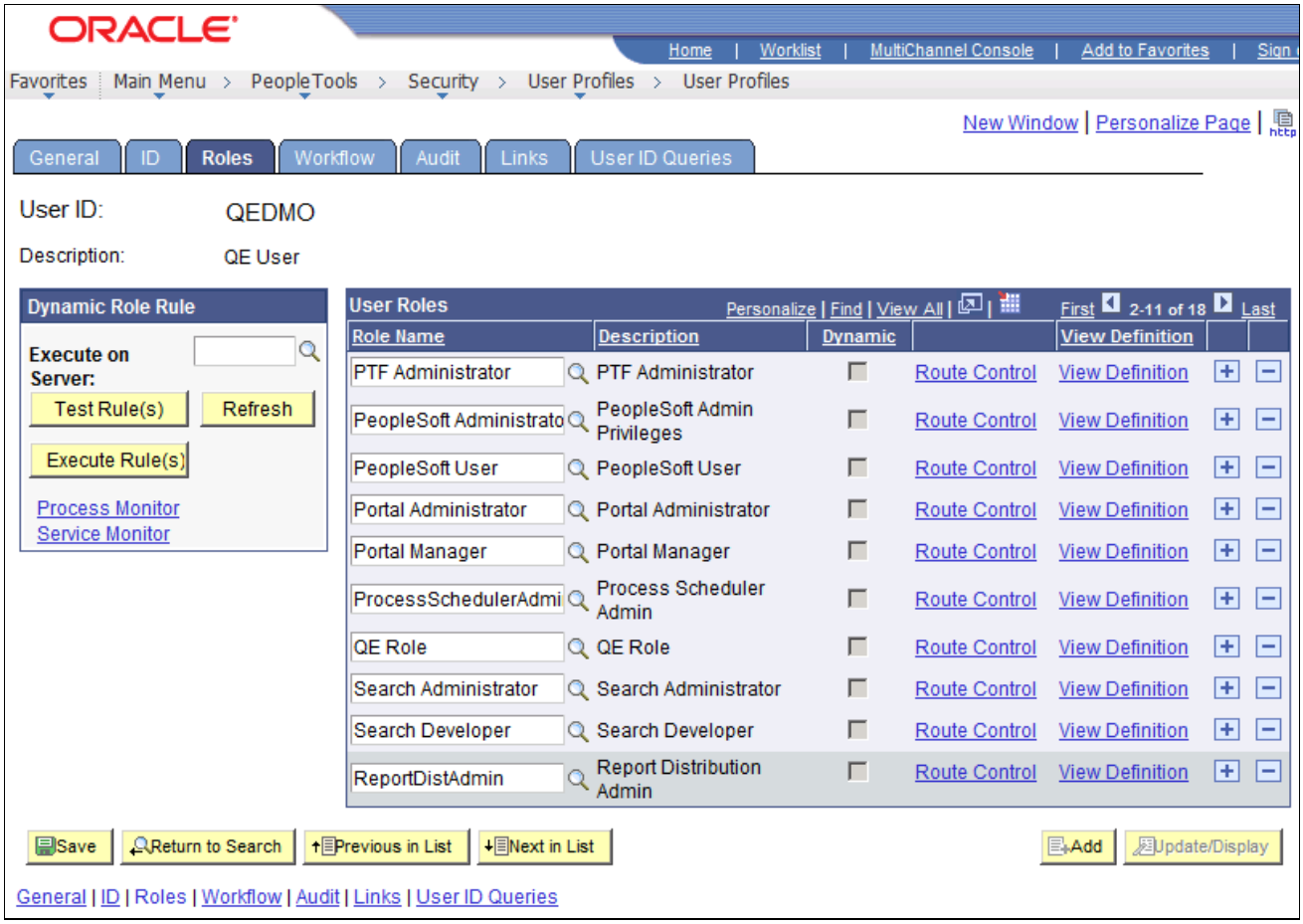
4. Click the Roles tab, click the plus icon to insert a new row, and there enter the *ProcessSchedulerAdmin* role to grant the user ID with administrative rights in the Process Scheduler components.



Process Scheduler window: Roles tab

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. Carry out this step only if the same user is also responsible for maintaining the content of Report Manager.
6. Click Save to save your changes.
7. Select the General tab and jot down the Permission List name 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 List you noted in step 7.
10. Select the Can Start Application Server check box.
11. Click Save to save your changes.

Task 10A-3: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution

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- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent
- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server
- Setting Up Sending and Receiving of Report Folders in the Report Manager

Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure 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/Window*.

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 *Posting* upon completion of the program associated with the process request. The distribution status of Posting signals that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As 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 yyyymmdd>\<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/Window, 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. The diagram includes the following items:

- The web browser gives access to the Process Request dialog and the Report or Log Viewer.
- The Report Repository is part of the PeopleSoft Pure Internet Architecture.

Note. The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Report Repository.

- The Process Scheduler Server includes the Process Scheduler Server Agent and the Distribution Agent.
- The transfer protocol between Process Scheduler and the Report Repository may be FTP/FTPS, XCOPY, HTTP/HTTPS, or SFTP.

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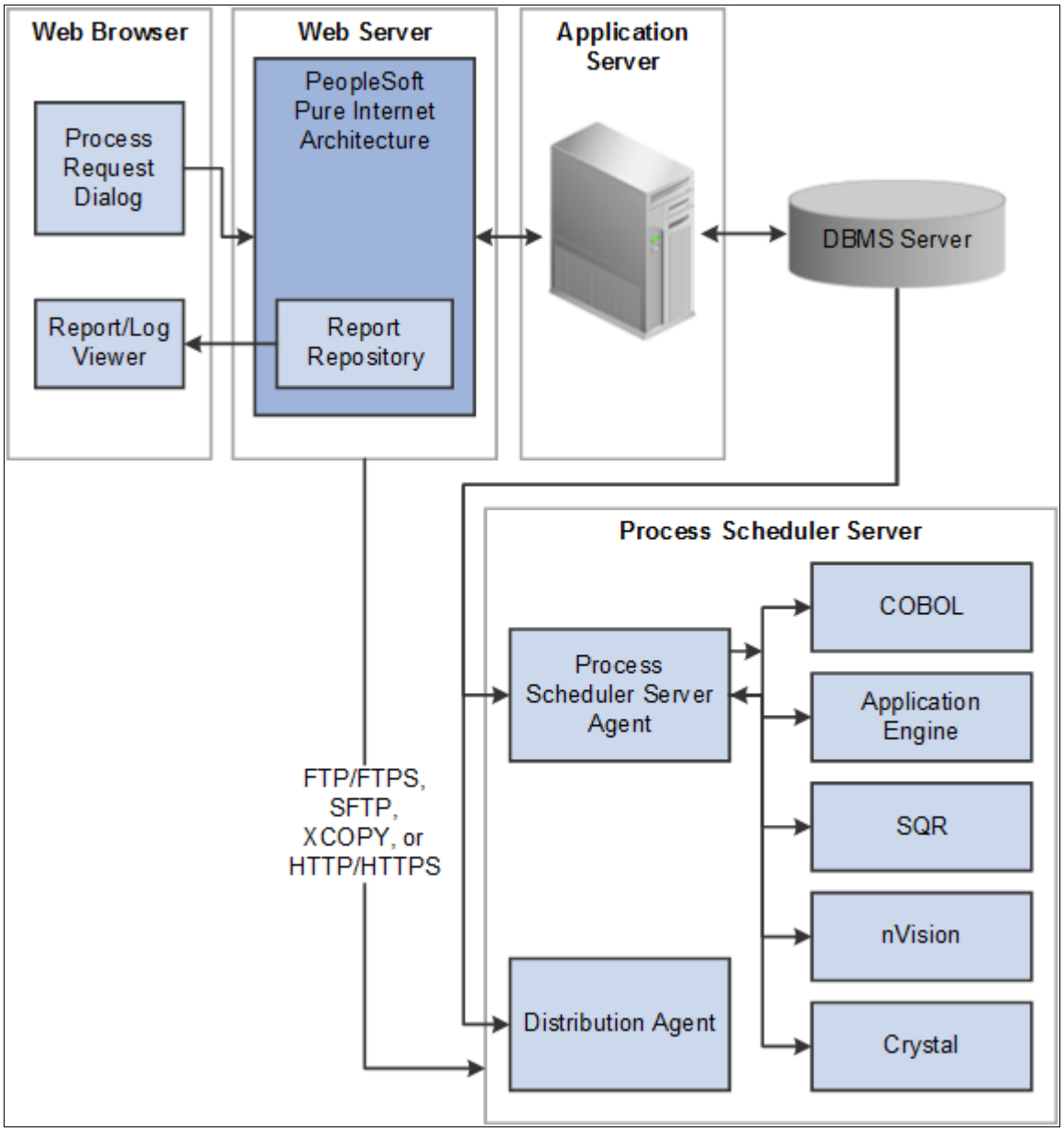

Process Scheduler and Report Repository Architecture

Before users can view a report, they are authenticated against the PeopleSoft database.

You should set up single signon if you do not 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, consult the security documentation.

See *PeopleTools: Security Administration.*

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Task 10A-3-1: 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 PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. This section includes some considerations for setting up single signon to navigate from PIA to Report Repository.

If Report Repository resides on the same web server as PIA, 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 PIA, do the following:

- Make sure your Local Message Node is set up 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/*<site_name>*/signon.html instead of http://*<machineName>*/*<site_name>*/signon.html.
- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

  See the information on implementing single signon in the *PeopleTools: Security Administration* product documentation.
- Set up single signon with a password, like this:
  - Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
  - 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.
  - Enter the user ID for which you are setting up single signon in the Default User ID field.
  - Save the Node Definition.
  - Sign out from the PeopleSoft application.
  - Reboot your application server.

See Also

PeopleTools: Security Administration

Task 10A-3-2: Determining the Transfer Protocol

We recommend using HTTP as your transfer protocol.

Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Microsoft Windows Process Scheduler and a Microsoft Windows web server, you can use either an XCOPY, FTP/FTPS, SFTP, or HTTP/HTTPS protocol. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have a PeopleSoft Process Scheduler on Microsoft Windows and a UNIX web server, you can use FTP/FTPS, SFTP, or HTTP/HTTPS.

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Note. If you are using FTP/FTPS or SFTP, the corresponding service must be set up in your web server.

Note. JRE is installed automatically on your Process Scheduler server.

Task 10A-3-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle 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." After a node is defined for the Process Scheduler server, in the next cycle the Process Scheduler server checks the state of the system, and the Distribution Agent dynamically sets up its environment.

Task 10A-3-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS
- Defining the Report Node to Use XCOPY
- Defining the Report Node to Use FTP
- Defining the Report Node to Use FTPS
- Defining the Report Node to Use SFTP

Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *PeopleTools: Portal Technology,* "Configuring Web Profiles."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash ('/') in both cases:

- *Microsoft Windows*: ReportRepositoryPath=c:/psreports
- *UNIX*: ReportRepositoryPath=<*user_home*>/PeopleSoft Internet Architecture/psreports

  For <user_home> substitute the home directory for the current user.

Defining the Report Node to Use HTTP/HTTPS

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.

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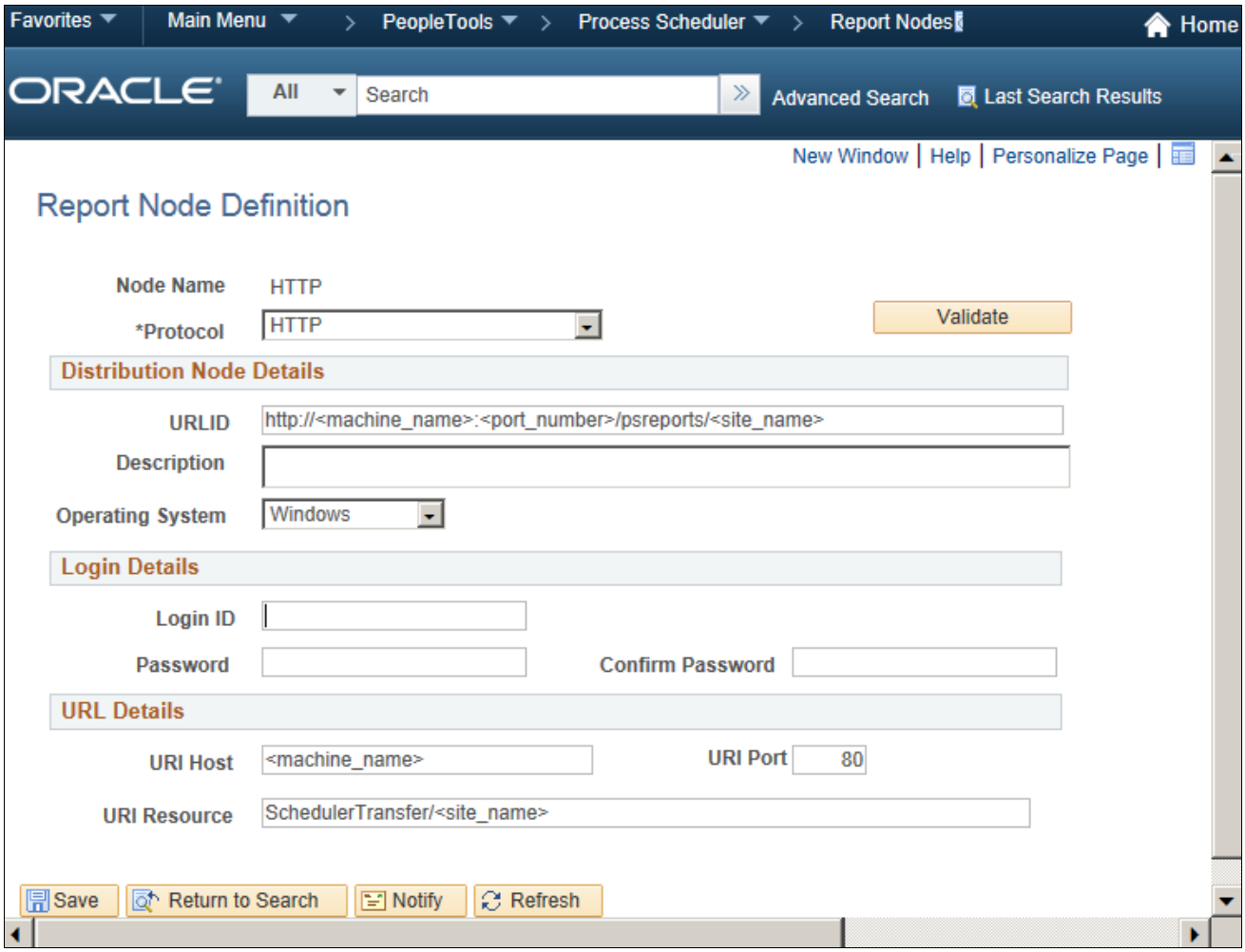
3. On the Report Node Definition page, select HTTP or HTTPS from the Protocol drop-down list.

   Select the HTTP option if you are *not* using SSL. Select the HTTPS option if you are using SSL. The pages for HTTP and HTTPS have the same fields. These examples show HTTP.

   Note that if you are using SSL you need to have Client Certificates installed on your web server.



Report Node Definition page for the HTTP protocol

4. Enter the following information in the Distribution Node Details area:

   - *URLID*: 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. Use the fully qualified host name for your web server. If you are using an HTTP or HTTPS port other than the defaults, you need to specify the port number.

     Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

   - *Description:* Enter a description of the server (optional).
   - *Operating System:* Select the web server operating system, Windows or UNIX.

5. Enter the following information in the Login Details area:

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- *Login ID*: Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Password and Confirm Password*: Enter the password, and confirm it, for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.

Note. The setup of authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For information on setting up authentication on the web server where the Report Repository resides, refer to the *PeopleTools: Security Administration* product documentation.

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6. Enter the following information in the URI Details area:
   - *URI Host:* Enter the machine name for the report repository.

     Note. In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

   - *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*>.
7. Click Save to save your entries.
8. Click Validate to confirm that your entries are complete and correct.

   The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
9. To add additional report nodes, click Add to return to the Search page.

Defining the Report Node to Use XCOPY

Both the Process Scheduler machine and the Report Repository machine must be Microsoft Windows machines for XCOPY to be used.

To define the report node to use XCOPY:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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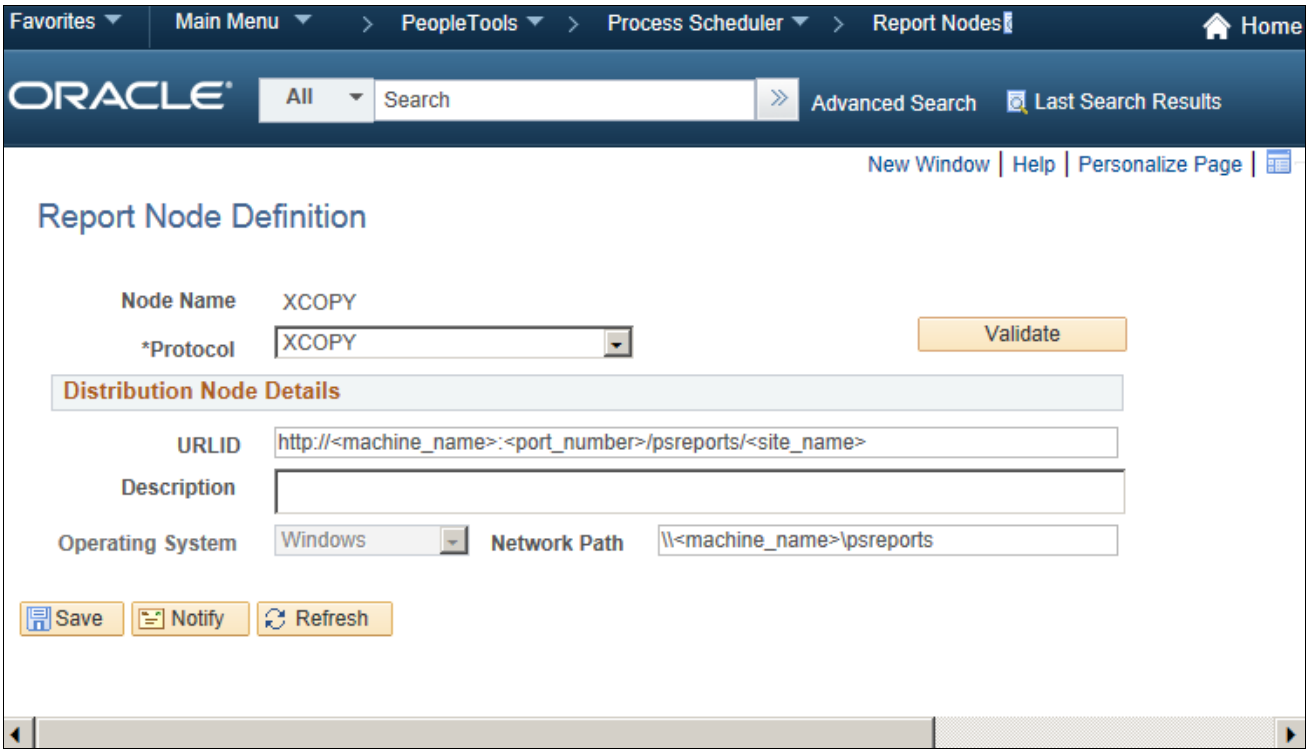
3. On the Report Node Definition page, select XCOPY from the Protocol drop-down list.



Report Node Definition page for the XCOPY protocol

4. Enter the following information in the Distribution Node Details area:
   - *URLID*: 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. Replace *<site name>* with the directory where you installed the PIA files.

     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.
   - *Description*: Enter an optional description for the node.
   - *Network Path*: Enter the path that points to your Report Repository share, using this format (where *<machine_name>* refers to the web server machine):

     `\\<machine_name>\psreports`

     Make sure that this directory is shared with the login accounts used to start Process Scheduler. Use UNC format instead of mapped drive format.
5. Select Save to save your entries.
6. Click Validate to confirm that your entries are correct.

   The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
7. To add additional report nodes, select Add to return to the Search page.

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Defining the Report Node to Use FTP

If you use the FTP report node protocol, note that:

- If your FTP server is a Microsoft Windows server, you may have to set up the FTP service.
- 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 completed, it is critical that the value entered in the URL is accurate. Verify that the machine name, port number, and site number that you specify are correct.

  If this setup is not completed, 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."

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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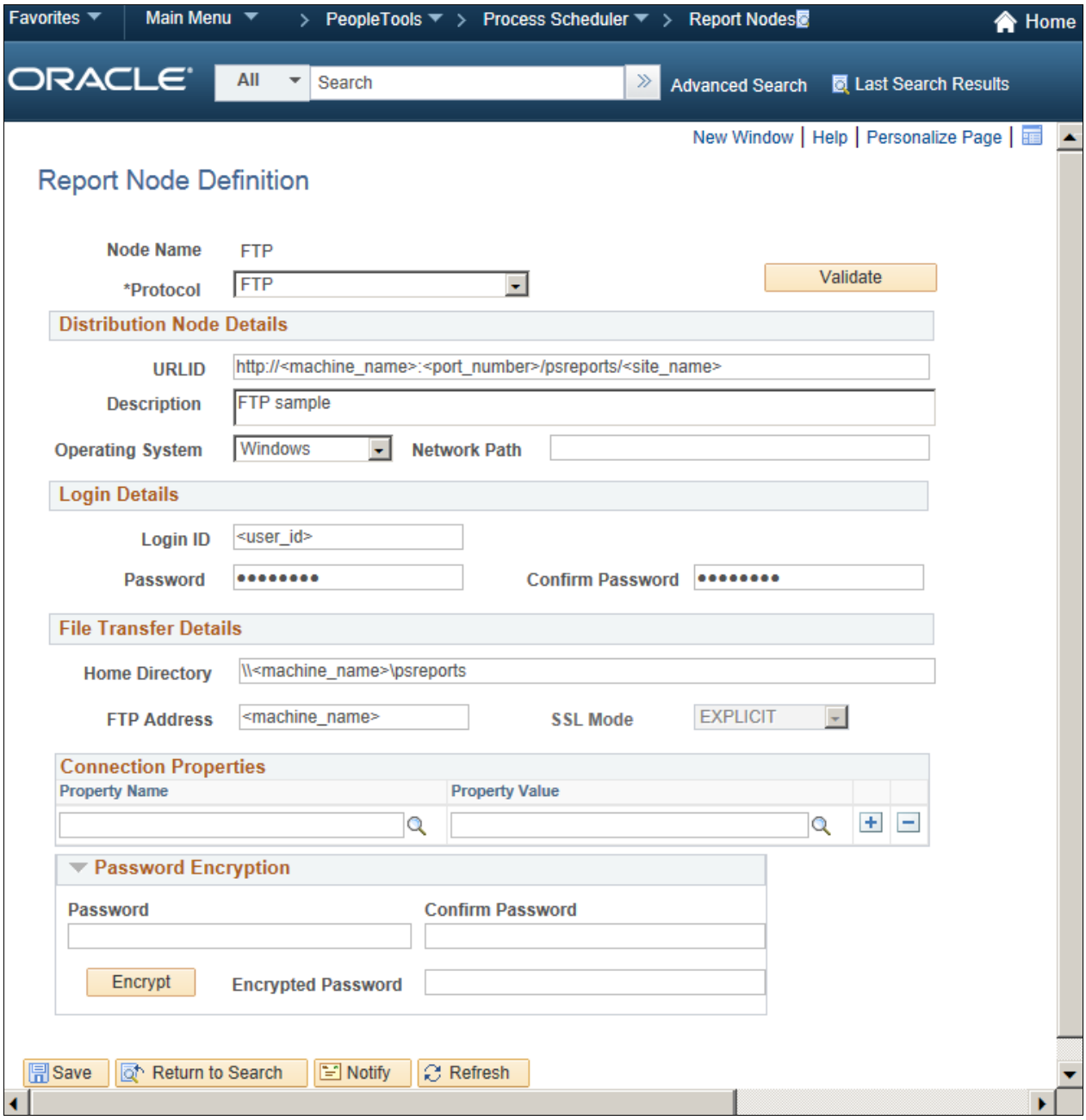
3. On the Report Node Definition page, select FTP from the Protocol drop-down list.



Report Node Definition page for the FTP protocol

4. In the Distribution Node Details area, enter the following information:

- *URLID*: 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. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

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Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

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.

- *Description*: Enter a description of the server (optional).
- *Operating System*: Select the operating system of the Report Repository, Windows or UNIX.
- *Network Path*: This information is not required for the FTP protocol

5. In the Login Details area, enter the following information:
   - *Login ID*: Enter the FTP User ID.
   - *Password and Confirm Password*: Enter the password, and enter it a second time, for the FTP User ID specified in the Login ID field.
6. In the File Transfer Details area, enter the following information:
   - *Home Directory:* Enter the directory specified during the PIA installation as the Report Repository. The FTP User ID must have write access to this directory. Note that this is not a required field for FTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

     For Microsoft Windows operating systems, the directory needs to match the Report Repository path. Make sure that you do not include any drive information—as in c:\psreports\—because you are using the FTP protocol to interpret this parameter.
   - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.

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7. If you need to specify additional properties, use the Connection Properties area. Specifying the Connection Properties is optional.

   Click the lookup button (magnifying glass) and select one of the properties in the following table. Click the plus sign to add another connection property.

Property Name	**Property Value**
ACTIVEMODE	To enable active mode, add the ACTIVEMODE property to the URL and set it to *Y*. The default FTP connection mode is extended passive mode.
ACTIVEPORTOPTION	This property can be used along with ACTIVEMODE. When active mode is enabled, you can use ACTIVEPORTOPTION to specify the IP address and port on which the FTP server can be accessed. This is useful when the server is behind a firewall. By default, ACTIVEPORTOPTION uses the default IP address of your system. If you want to use a particular IP address, set the ACTIVEPORTOPTION value to either the full IP address, a host name to resolve to an IP address, or a local network interface name. You can also specify a port range. For example: *10.176.147.111:10000-13000*
ENABLEEPRT	This option can be used only with Active Mode. If Active Mode is enabled and ENABLEEPRT is set to *N*, then the system will use a PORT (IPv4) Active Mode connection. By default, ENABLEEPRT is Y, if Active Mode is set to Y.
EXTENDEDPASSIVEMODE	• *0*: Disable EPSV • *1*: Enable EPSV This property enables you to control whether extended passive mode (EPSV) will be used by FTP. EPSV is used by default. That is, by default, this value is considered to be 1. If the client fails to connect to the server with EPSV, then the system will try passive mode (PASV). To use PASV only, add EXTENDEDPASSIVEMODE to the URL Properties and set it to 0.
JKSPASSWORD	Specify the Java keystore (JKS) password.
JKSPATH	Specify the Java keystore (JKS) path.
PASSWORD	Specify the password associated with the USER property, which identifies the FTP User ID.
USER	Specify the FTP User ID used for authentication when accessing the FTP site.

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8. If you need to specify an encrypted password in any of the property fields, use the Password Encryption area to generate the encrypted password, as follows:
   a. In the Password field, enter a password.
   b. In the Confirm Password field, enter the password again.
   c. Click Encrypt.

      The encrypted password is displayed in the Encrypted Password field.
   d. From the Encrypted Password field, cut the encrypted password and then copy the encrypted value to the appropriate location.
9. Select Save to save your entries.
10. Click Validate to confirm that your entries are correct.

    The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
11. To add additional report nodes, click Add to return to the Search page.

Defining the Report Node to Use FTPS

To define the report node to use FTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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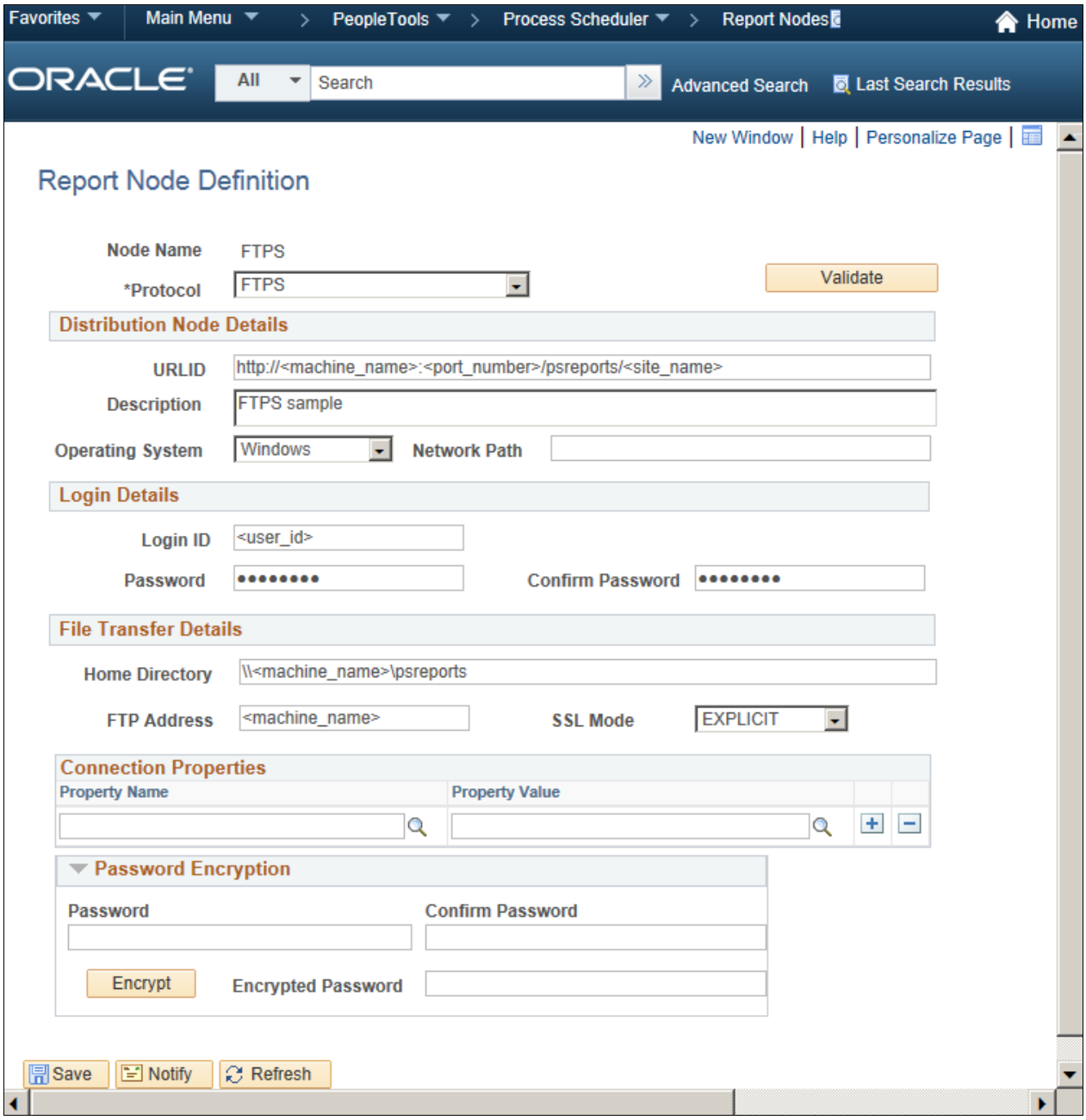
3. On the Report Node Definition page, select FTPS from the Protocol drop-down list.



Report Node Definition page for the FTPS protocol

4. In the Distribution Node Details area, enter the following information:

- *URLID*: 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. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

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Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

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.

- *Description*: Enter a description of the server (optional).
- *Operating System*: Select the operating system of the Report Repository, Windows or UNIX.
- *Network Path*: This information is not required for the FTPS protocol.

5. In the Login Details area, enter the following information:
   - *Login ID*: Enter the FTP User ID.
   - *Password and Confirm Password*: Enter the password, and enter it a second time, for the user ID specified in the Login ID field.
6. In the File Transfer Details area, enter the following information:
   - *Home Directory:* Enter the directory specified during the PIA installation as the Report Repository. The FTP User ID must have write access to this directory. Note that this is not a required field for FTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

     For Microsoft Windows operating systems, the directory needs to match the Report Repository path. Make sure that you do not include any drive information—as in c:\psreports\—because you are using the FTP protocol to interpret this parameter.
   - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
   - *SSL Mode*: Select Explicit or Implicit from the drop-down list.

     These are two separate methods developed to invoke the client security for use with FTP clients. With the explicit mode, FTPS-aware clients can invoke security with an FTPS-aware server without breaking overall FTP functionality with non-FTPS-aware clients. The implicit method requires that all clients of the FTPS server be aware that SSL is to be used on the session, and thus is incompatible with non-FTPS-aware clients.

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7. In the Connection Properties area, click the lookup button (magnifying glass) and select one of the properties in the following table:

   Click the plus sign to add another connection property.

Property Name	Property Value
ACTIVEMODE	To enable active mode, add the ACTIVEMODE property to the URL and set it to *Y*. The default FTPS connection mode is extended passive mode.
ACTIVEPORTOPTION	This property can be used along with ACTIVEMODE. When active mode is enabled, you can use ACTIVEPORTOPTION to specify the IP address and port on which the FTP server can be accessed. This is useful when the server is behind a firewall. By default, ACTIVEPORTOPTION uses the default IP address of your system. If you want to use a particular IP address, set the ACTIVEPORTOPTION value to either the full IP address, a host name to resolve to an IP address, or a local network interface name. You can also specify a port range. For example: *10.176.147.111:10000-13000*
CERTALIAS	Certificate Alias: The Certificate Alias must be an alias name of a certificate stored in the database (using the PeopleSoft PeopleTools Digital Certificates page). **Note.** Currently, only PEM certificates are supported for FTPS.
ENABLEEPRT	This option can be used only with Active Mode. If Active Mode is enabled and ENABLEEPRT is set to *N*, then the system will use a PORT (IPv4) Active Mode connection. By default, ENABLEEPRT is Y, if Active Mode is set to Y.
EXTENDEDPASSIVEMODE	• *0*: Disable EPSV • *1*: Enable EPSV This property enables you to control whether extended passive mode (EPSV) will be used by FTP. EPSV is used by default. That is, by default, this value is considered to be 1. If the client fails to connect to the server with EPSV, then the system will try passive mode (PASV). To use PASV only, add EXTENDEDPASSIVEMODE to the URL Properties and set it to 0.
JKSPASSWORD	Specify the Java keystore (JKS) password.
JKSPATH	Specify the Java keystore (JKS) user.

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Property Name	Property Value
KEYSTOREPASSWORD	This property is required for FTPS and HTTPS repositories. For attachments transferred from the PeopleSoft system to the FTPS or HTTPS repository, the system retrieves the key pair for the client certificate from the digital certificate store and writes the pair to a file in PKCS12 format with password protection. The value of this property will be used as the password for the PKCS12 file. The PKCS12 file enables connection and file transfer, and it exists only temporarily in <PS_SERVDIR>\files\<CERT ALIAS NAME> for the duration of the file transfer. The system deletes the file after the file transfer transaction. **Note.** If the system fails to delete the certificate alias file, a message will be written to the application server log. The maximum number of files that can exist at any time is equal to the total number of FTPS and HTTPS URL identifiers defined in the system. For information on setting the PS_SERVDIR environment variable, see the *PeopleTools: Integration Broker* product documentation.
PASSWORD	Specify the password associated with the USER property, which identifies the FTP User ID.
SSLUAGELEVEL	• *0 - No SSL*: No SSL will be used. • *1 - Try SSL*: Try using SSL, but proceed as normal otherwise. • *2 - Control*: Require SSL for the control connection. • *3 - SSL Only*: (Default) Require SSL for all communication.
USER	Specify the FTP User ID used for authentication when accessing the FTP site.
VERIFYHOST	• *0:* Do not verify the server for host name. • *1*: Check if there exists any value in the common name field in the server certificate. This check does not verify if it matches with what the client specifies. • *2*: (Default) Check for a match with the host name in the URL with the common name or Subject Alternate field in the server certificate.
VERIFYPEER	• *False*: Do not verify the peer. • *True*: (Default) Verify the peer by authenticating the certificate sent by the server.

8. If you need to specify an encrypted password in any of the property fields, use the Password Encryption area to generate the encrypted password, as follows:

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a. In the Password field, enter a password.
b. In the Confirm Password field, enter the password again.
c. Click Encrypt.

   The encrypted password is displayed in the Encrypted Password field.
d. From the Encrypted Password field, cut the encrypted password and then copy the encrypted value to the appropriate location.

9. Select Save to save your entries.
10. Click Validate to confirm that your entries are correct.

    The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
11. To add additional report nodes, click Add to return to the Search page.

Defining the Report Node to Use SFTP

To define the report node to use SFTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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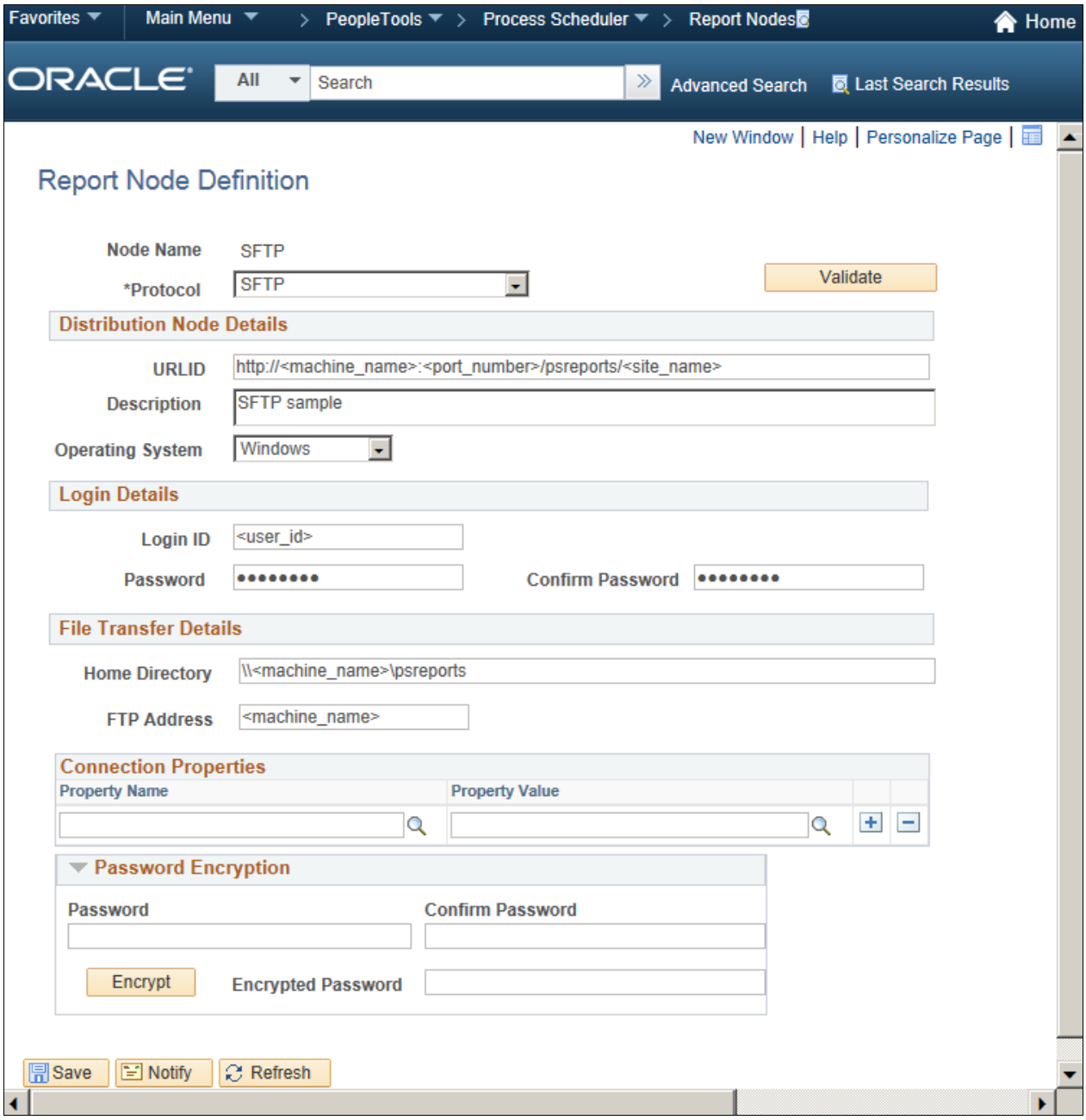
3. On the Report Node Definition page, select SFTP from the Protocol drop-down list.



Report Node Definition page for the SFTP protocol

4. In the Distribution Node Details area, enter the following information:

- *URLID*: 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. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

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Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

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.

- *Description*: Enter a description of the server (optional).
- *Operating System*: Select the operating system of the Report Repository, Windows or UNIX.
- *Network Path*: This information is not required for the SFTP protocol.

5. In the Login Details area, enter the following information:
   - *Login ID*: Enter the FTP User ID.
   - *Password and Confirm Password*: Enter the password, and enter it a second time, for the user ID specified in the Login ID field.
6. In the File Transfer Details area, enter the following information:
   - *Home Directory:* Enter the directory specified during the PIA installation as the Report Repository. The FTP User ID must have write access to this directory. Note that this is not a required field for FTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

     For Microsoft Windows operating systems, the directory needs to match the Report Repository path. Make sure that you do not include any drive information—as in c:\psreports\—because you are using the FTP protocol to interpret this parameter.
   - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.

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7. In the Connection Properties area, click the lookup button (magnifying glass) and select one of the properties in the following table.

   Click the plus sign to add additional connection properties.

Property Name	Property Value
AUTHTYPE	Select one of the following the authentication types: • *PUBLICKEY* • *PASSWORD* • *ANY*
PASSWORD	Specify the user password. You can enter the password in the Password Encryption box, click Encrypt, and then copy the encrypted value to the Password property.
PASSWORDKEY	Enter the password for the private key.
PRIVATEKEY	Select the private key.
PUBLICKEY	Select the public key.
SSHKEYALIAS	Select the SSH certificate saved to the database using the PeopleTools Security, Digital Certificates page (select PeopleTools, Security, Security Objects, Digital Certificates). The SSH certificate added through the Digital Certificates page contains both the public and private key data, identified by the Alias column value on the Digital Certificates page. If using the SSHKEYALIAS URL property, the Property Value prompt displays only the list of SSH certificates that have been added to the Digital Certificates page. If you have added the SSH certificate using the Digital Certificates page, and you have assigned an SSH certificate to the SSHKEYALIAS URL property, the system ignores the PUBLICKEY and PRIVATEKEY properties, regardless of whether they refer to valid key files in the file system. If you provided a password (or passphrase) when generating your SSH certificate, specify that value using the PASSWORDKEY URL property. See *PeopleTools: Security Administration,* "Configuring Digital Certificates."
USER	Specify the user ID to be authenticated.

8. If you need to specify an encrypted password in any of the property fields, use the Password Encryption area to generate the encrypted password, as follows:
   a. In the Password field, enter a password.
   b. In the Confirm Password field, enter the password again.
   c. Click Encrypt.

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The encrypted password is displayed in the Encrypted Password field.

d. From the Encrypted Password field, cut the encrypted password and then copy the encrypted value to the appropriate location.

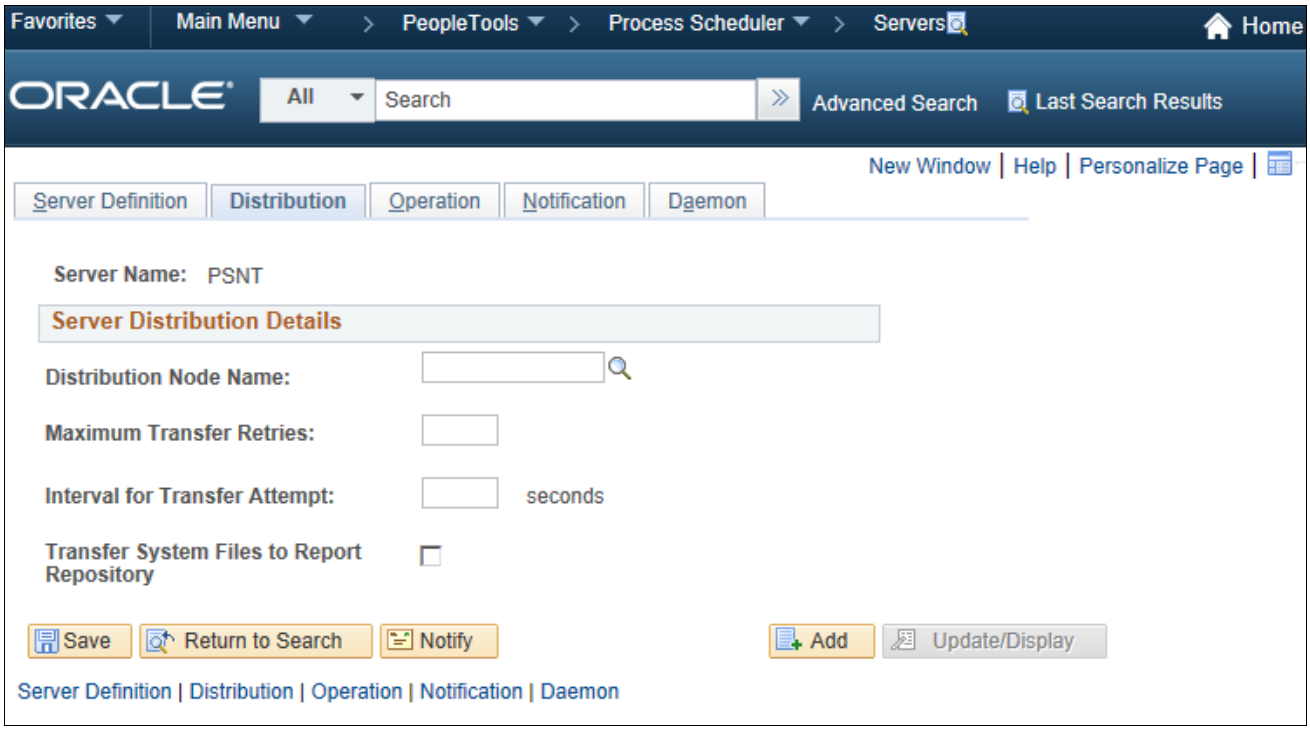
9. Select Save to save your entries.
10. Click Validate to confirm that your entries are correct.

    The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
11. To add additional report nodes, click Add to return to the Search page.

Task 10A-3-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Select PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSNT). The Server Definition page appears.
3. Select the Distribution tab.



Server Definition page for PSNT: Distribution tab

4. Click the lookup button for Distribution Node Name 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.

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7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not 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 set up single signon in order to avoid getting a prompt for a second signon.

Task 10A-3-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *PeopleTools: Integration Broker.*

See *PeopleTools: Integration Broker Service Operations Monitor.*

Task 10A-4: Setting Environment Variables

To set the appropriate Tuxedo environment variables, carry out these steps. (If you have already set these variables on the machine you are using as your Process Scheduler Server, you can skip this task.)

See "Installing Additional Components," Installing Oracle Tuxedo on Microsoft Windows.

To set the variables:

1. Choose Start, Settings, Control Panel.
2. Double-click the System icon.
3. Make sure that the NLSPATH environment variable is set.

   NLSPATH does not need to be explicitly set since Oracle Tuxedo sets NLSPATH in its own registry tree. This value can be displayed using Control Panel, Tuxedo, on the Environment tab. However, the installation of certain products, such as IBM DB2 connectivity (DB2 for z/OS and DB2 for Linux, UNIX, and Windows) sets NLSPATH to a value that causes Oracle Tuxedo to fail. The solution is to either set NLSPATH=c:\tuxedo\locale\c, or to delete it entirely and let Oracle Tuxedo pick up the value from its registry tree. If you are running DB2 for Linux, UNIX, and Windows, the solution instead is to append the c:\tuxedo\locale\c directory in the NLSPATH directory.

Search the Oracle Tuxedo documentation for additional information on NLSPATH.

Task 10A-5: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Creating and Configuring a Process Scheduler Server
- Reconfiguring a Process Scheduler Server

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- Verifying the Process Scheduler Server Status

Understanding 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	Microsoft Windows

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to the *PeopleTools: Process Scheduler* product documentation.

Note. When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

Task 10A-5-1: Creating and Configuring a Process Scheduler Server

This section describes how to create and configure a Process Scheduler server.

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_CFG_HOME*\appserv\prcs*database name* directory. The following steps assume you are using PSADMIN to specify parameter settings.

Note. For Cube Builder users, if Essbase Server is installed on a different machine than the Process Scheduler, you must install Essbase Client 11.1.2.1 on the process scheduler server machine. You must also ensure that the %ESSBASEPATH% and %ARBORPATH% environmental variables are properly set in the Process Scheduler.

Note. If you use the configuration file psprcs.cfg, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

To create and configure a Process Scheduler Server:

1. From *PS_HOME*\appserv on the batch server, type `psadmin`.

   You see the PeopleSoft Server Administration menu, as in this example:

```
---------------------------------------------
PeopleSoft Server Administration
--------------------------------
PS_CONFIG_HOME       C:\User\JSMITH\psft\pt\8.55
PS_HOME              C:\PT8.55
PS_APP_HOME          C:\HC9.2

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
```

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```
5) Switch Config Home
6) Service Setup
7) Replicate Config Home
8) Refresh Config Home
q) Quit

Command to execute (1-8 q):
```

2. Depending on your environment, you may see a message after the menu selection, which indicates that PSADMIN has modified the *PS_CFG_HOME*/peopletools.properties file with the current *PS_HOME* location:

```
************************************************************
PS_CFG_HOME/peopletools.properties file has been updated.
You should use the Config Home Refresh feature in PSAdmin
to ensure that all of your domains are current.
Alternatively, you may recreate all of your domains.
Please press any key to continue...
************************************************************
```

   This indicates that one of these situations exists:

   - The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
   - You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME*/peopletools.properties file. Continue with the next step.
3. Select *2* to access the Process Scheduler submenus.
4. Select *2* for Create a domain from the PeopleSoft Process Scheduler Administration menu.

```
-----------------------------------------
PeopleSoft Process Scheduler Administration
-----------------------------------------
1) Administer a domain
2) Create a domain
3) Delete a domain
4) Import domain configuration

q) Quit

Command to execute (1-4, q) : 2
```

5. When prompted for the name of the database that your server will access, enter the name of the database, such as HRDMO in this example, and press ENTER:

```
Please enter name of Database that server will access : HRDMO
```

6. After the system creates the domain, the Quick-configure menu appears:

```
------------------------------------------------------------
Quick-configure menu -- domain: HRDMO
------------------------------------------------------------
     Features                      Settings
    ==========                    ==========
  1) App Engine        : Yes    9) DBNAME     :[HRDMO]
```


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```
  2) Master Scheduler  : Yes   10) DBTYPE     :[ORACLE]
  3) Perf Collator     : No    11) PrcsServer :[PSNT]
  4) Domains Gateway   : No    12) UserId     :[PS]
  5) Push Notifications: No    13) UserPswd   :[]
                               14) ConnectID  :[people]
                               15) ConnectPswd:[]
                               16) Log/Output Dir:[%PS_SERVDIR%\log_⇒
output]
                               17) SQRBIN     :[%PS_HOME%\bin\sqr\ORA⇒
\binw]
                               18) AddToPATH  :[%WINDIR%;%WINDIR%⇒
\SYSTEM32]
                               19) DBBIN      :[C:\<connectivity⇒
 directory>]
                               20) DomainConnectPswd:[]
     Actions
    =========
  6) Load config as shown
  7) Custom configuration
  8) Edit environment settings
  h) Help for this menu
  q) Return to previous menu

HINT: Enter 9 to edit DBNAME, then 6 to load

Enter selection (1-20, h, or q):
```

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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. This table lists the parameters and gives brief descriptions.

Parameter	Description
Master Scheduler	Select this option to enable the Master Scheduler Server (PSMSTPRC). The default is to enable the server. See *PeopleTools: Process Scheduler.*
App Engine	Select this option to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). The default is set to run AE using PSAESRV. See *PeopleTools: Process Scheduler.*
Perf Collator	Select this option to enable the PSPPMSRV server process. See *PeopleTools: Performance Monitor,* "Enabling the Required Elements on the Monitoring System."
Domain Gateways	Select this option to enables inter domain communication, for example between Application Server and Process Scheduler domains. See *PeopleTools: Fluid User Interface Developer's Guide,* "Setting Up Push Notification Configurations."
Push Notifications	Select this option to enables pushing server events from PeopleSoft PeopleTools server runtime, such as Application Server and Process Scheduler, to browser clients and other PeopleSoft PeopleTools server runtime components. See *PeopleTools: Fluid User Interface Developer's Guide,* "Setting Up Push Notification Configurations."
Load config as shown	Load the selections you made in the Quick Configure menu.
Custom configuration	Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.
Edit environment settings	Edit, add, remove, comment out, and review domain-level environment variables.
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: ORACLE.
PrcsServer	Specify the process server name. This must match the name defined in the Server Definition table, such as *PSNT* or *PSUNX*.

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Parameter	Description
UserId	Enter the user ID, such as VP1 or PS.
UserPswd	Enter the password for the user ID, as you specified during the database configuration. The password is hidden by masking characters as you type, in the Quick-configure menu after entry.
ConnectID	Enter the connect ID. This value is required.
ConnectPswd	Enter the connect password, as you specified during the database configuration. This value is required. The password is hidden by masking characters as you type, in the Quick-configure menu after entry.
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 XRFWIN that ran with process instance 20 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.
SQRBIN	Enter the path to the SQR executables.
AddToPATH	(Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable. Add the paths to the 64-bit connectivity software. For example: C:\oracle\product\11.2.0\dbhome_1\BIN. **Note.** If the PATH environment variable contains the path for the 64-bit connectivity software, then you do not need to change the setting for AddToPATH.
DBBIN	Enter the path to the database drivers; that is, your connectivity software. For an Oracle installation, this should indicate the 64-bit connectivity software, for example C:\oracle\product\11.2.0\dbhome_1\BIN.

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Parameter	Description
DomainConnectPswd	If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank. The password is hidden by masking characters as you type, and in the Quick-configure menu after entry. See the information on setting Application Server Domain Parameters in the *PeopleTools: System and Server Administration* product documentation.

For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, see the information on using PSADMIN in the *PeopleTools: Process Scheduler* product documentation. For a basic installation, in most cases you can accept the defaults.

8. When you have updated the settings as needed, choose *5, Load config as shown,* from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, pstuxcfg.
9. To start Process Scheduler, choose *1,* for Administer Domain.
10. On the PeopleSoft Process Scheduler Administration menu, choose *1* for Boot this domain.

```
--------------------------------
PeopleSoft Process Scheduler Administration
--------------------------------

Domain Name: HRDMO

1) Boot this domain
2) Domain shutdown menu
3) Domain status menu
4) Configure this domain
5) TUXEDO command line (tmadmin)
6) Edit configuration/log files menu
7) Clean IPC resources of this domain
q) Quit

Command to execute (1-7, q) :
```

11. Choose *1,* Boot (Serial Boot), or *2,* Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

12. If you want to stop Process Scheduler Server, from the PeopleSoft Domain Administration menu, choose *2,* for Domain Shutdown menu, and then enter the number corresponding to the name of the appropriate database.

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Note. If you see the following message, then the server is already down:

```
Command to execute (1-2, q) [q]: 1 Loading command line administration
utility ... tmadmin - Copyright (c) 2007-2008, Oracle. Portions *
Copyright 1986-1997 RSA Data Security, Inc. All Rights Reserved.
Distributed under license by Oracle. Tuxedo is a registered trademark. No
bulletin board exists. Entering boot mode. > TMADMIN_CAT:111: ERROR: No
such command.
```

Task 10A-5-2: Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. Alternatively, you can use PSADMIN as described in this section. Feel free to skip this procedure if you have 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.

To reconfigure a Process Scheduler Server:

1. Go to *PS_HOME*\appserv and enter:

   ```
   psadmin
   ```

2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME/*peopletools.properties file with the current *PS_HOME* location:

   ```
   ************************************************************
   PS_CFG_HOME/peopletools.properties file has been updated.
   You should use the Config Home Refresh feature in PSAdmin
   to ensure that all of your domains are current.
   Alternatively, you may recreate all of your domains.
   Please press any key to continue...
   ************************************************************
   ```

   This indicates that one of these situations exists:

   - The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
   - You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.
3. Select *2* for Process Scheduler in the PeopleSoft Server Administration menu.
4. In the PeopleSoft Process Scheduler Administration menu, select *1* for Administer a domain.
5. Select the database for which the Process Scheduler needs to be configured.
6. You see the following 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.
7. Specify the configuration parameters one by one.

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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=
  StandbyDBName=
  StandbyDBType=
  StandbyUserId=
  StandbyUserPswd=
  InMemoryDBName=
  InMemoryDBType=
Do you want to change any values (y/n)? [n]:
```

- Specify *y* to change any parameter values 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.
- The parameters StandbyDBName, StandbyDBType, StandbyUserID, and StandbyUserPswd are used for a standby database in an Oracle database environment.

  See the information on implementing Oracle Active Data Guard in the *PeopleTools: Data Management,* product documentation.
- The parameters InMemoryDBName and InMemoryDBType are reserved for internal use.
- If you do not want to change any values, specify *n* and you are prompted for the next configuration section.

8. After you have selected all your parameters, you see this message:

```
You will need to shut down and start up the server to read the new⇒
 settings.
```

For descriptions of the Process Scheduler options in the PSADMIN, see the *PeopleTools: Process Scheduler* product documentation. In most cases you can accept the defaults.

Task 10A-5-3: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, choose option *3*, for Domain status menu.

```
--------------------------------
PeopleSoft Process Scheduler Administration
--------------------------------

Domain Name: HRDMO

1) Boot this domain
```

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```
2) Domain shutdown menu
3) Domain status menu
4) Configure this domain
5) TUXEDO command line (tmadmin)
6) Edit configuration/log files menu
7) Clean IPC resources of this domain
q) Quit

Command to execute (1-7, q) : 3
```

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

Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008 Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.

> Prog Name      Queue Name  Grp Name      ID RqDone Load Done Current⇒
 Service
---------      ----------  --------      -- ------ --------- -----------⇒
----
BBL.exe        46845       PSSERVER+      0      9       450 (  IDLE )
PSMONITORSRV.e MONITOR     MONITOR        1      0         0 (  IDLE )
PSAESRV.exe    00101.00001 AESRV          1      0         0 (  IDLE )
PSAESRV.exe    00101.00002 AESRV          2      0         0 (  IDLE )
PSAESRV.exe    00101.00003 AESRV          3      0         0 (  IDLE )
PSPRCSRV.exe   SCHEDQ      BASE         101      0         0 (  IDLE )
PSMSTPRC.exe   MSTRSCHQ    BASE         102      0         0 (  IDLE )
PSDSTSRV.exe   DSTQ        BASE         103      0         0 (  IDLE )
>
```

You can also verify the status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to 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 Setting Up Process Scheduler Security.

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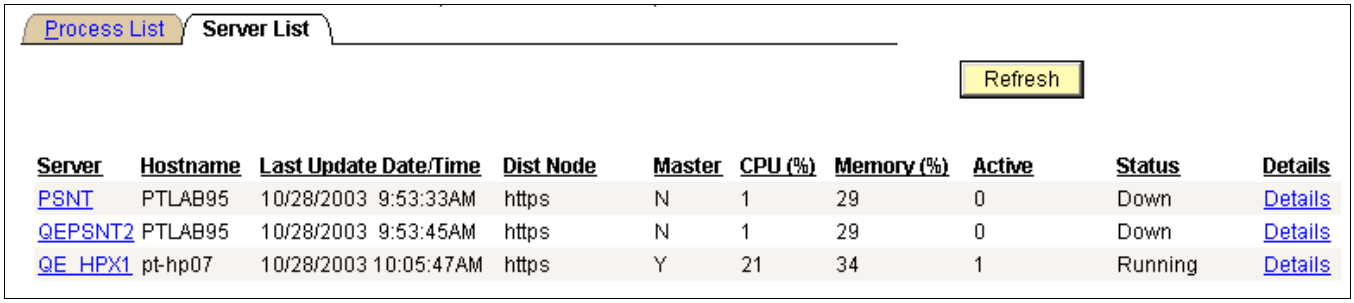
This example of the Server List page shows two Process Scheduler servers with status Down, and one with status Running.



Server	Hostname	Last Update Date/Time	Dist Node	Master	CPU (%)	Memory (%)	Active	Status	Details
PSNT	PTLAB95	10/28/2003 9:53:33AM	https	N	1	29	0	Down	Details
QEPSNT2	PTLAB95	10/28/2003 9:53:45AM	https	N	1	29	0	Down	Details
QE_HPX1	pt-hp07	10/28/2003 10:05:47AM	https	Y	21	34	1	Running	Details

Process Monitor page: Server List tab

Task 10A-6: Starting Process Scheduler as a Windows Service (Optional)

You can start the Process Scheduler server as a Windows service. This means that administrators do not need to manually boot each Process Scheduler server that runs on a Microsoft Windows machine. Instead, each time you boot the Microsoft Windows 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 Microsoft Windows server.

Note. If you have set up TUXDIR and TEMP as new SYSTEM variables, you need to reboot your machine before any Windows services will pick up the value of these environment variables.

Note. You can also set up application servers and search servers as a Windows service using the instructions provided here.

The following directions assume that the Process Scheduler is already configured on the Microsoft Windows server.

To set up the Windows Service for a Process Scheduler Server:

1. Open the System utility within the Control Panel, and set the variables, listed with a brief explanation in the following table, in the System Variables section of the Environment tab.

   Note. Even if the following variables are in the User Variables section, they must also be in the System Variables section because the Windows service will be started under the System Account.

Variable	Value
TEMP	Specify the location of the TEMP directory on the Windows server, as in C:\TEMP.
TUXDIR	Specify the location of the Tuxedo directory on the Windows server, as in C:\tuxedo.

2. Reboot the Windows 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), and press ENTER.

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4. Select *6* for Service Setup from the PeopleSoft Server Administration menu.

```
 --------------------------------
PeopleSoft Server Administration
 --------------------------------
  PS_CFG_HOME             C:\Users\JSMITH\psftuser\psft\pt\8.55
  PS_HOME                 C:\PT8.55
  PS_APP_HOME             C:\HC9.2

  1) Application Server
  2) Process Scheduler
  3) Search Server
  4) Web (PIA) Server
  5) Switch Config Home
  6) Service Setup
  7) Replicate Config Home
  8) Refresh Config Home
  q) Quit

Command to execute (1-8, q): 6
```

5. Select *1* from the PeopleSoft Services Administration menu.

```
-------------------------------------------
PeopleSoft Services Administration
-------------------------------------------
 1) Configure Windows Service
 2) Install Windows Service
 3) Delete Windows Service
 4) Edit 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 service.

```
Values for config section - NT Services
  Service Start Delay=60
  Application Server Domains=HRDMO
  Process Scheduler Databases=HRDMO
  Search Server Domains=HRDMO

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.

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Note. You can use PSADMIN to set up Process Scheduler Servers, application servers, or search servers as a Windows service. The Windows Service psntsrv.exe automatically starts application servers, Process Scheduler servers, and search servers that reside on the same Microsoft Windows machine. Occasionally, psntsrv.exe would attempt to initiate a connection between an application server, Process Scheduler server, or search server and a database on the same machine that was not ready to receive requests. As a result the connection would fail. When you set up these servers as a Windows Service, you can specify a Service Start Delay, in seconds, that elapses before a service attempts to start any application server domains, Process Scheduler servers, or search servers. This allows the RDBMS 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 psntsrv.cfg file located in the *PS_CFG_HOME*\appserv directory. You can edit this file manually by selecting *4, Edit 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 Windows Service
   2) Install Windows Service
   3) Delete Windows Service
   4) Edit 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_CFG_HOME>
   ```

   For example:

   ```
   PeopleSoft C:\Users\JSMITH\psftuser\psft\pt\8.55
   ```

   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 *Local System Account*. Then click OK.

    Note. The *Log On As* setting needs to reflect that which you set for your ORACLE ProcMGR V12.1.3.0.0_VS2012 and Tlisten processes. Oracle recommends that you set these services to *Local 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 Additional Components" for more information on installing Tuxedo, and refer to the chapter "Configuring the Application Server on Windows" 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.

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For the Process Scheduler, make sure that the psprcsrv.exe is running. If you have customized the name of psprcsrv.exe, make sure the appropriate executable is running.

Task 10A-7: Configuring the Process Scheduler for Microsoft Word (Optional)

This section discusses:

- Configuring Process Scheduler
- Executing Winword on Mapped Drive

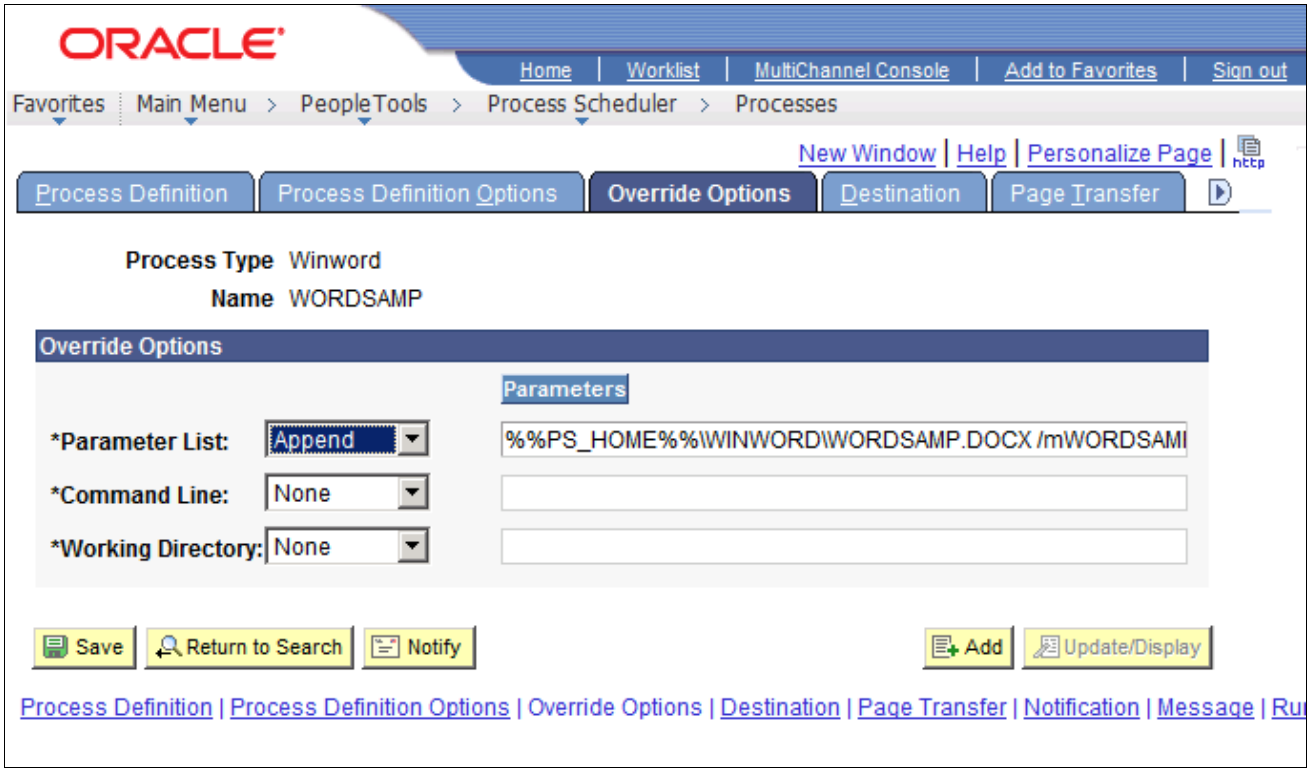
Task 10A-7-1: Configuring Process Scheduler

Some applications process documents using Microsoft Word. Here is how to configure Microsoft Word to work with the Process Scheduler.

Note. Microsoft Word must already be installed on the server; it is not included with the PeopleSoft PeopleTools install.

To configure Process Scheduler for Microsoft Word:

1. Log in to the PeopleSoft application in a browser and select PeopleTools, Process Scheduler, Processes.
2. Search for Process Type *Winword* and select a process.
3. On the Process Definition page, select Override Options, as shown in this example.



Process Definition page: Override Options

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4. In the Parameter List field, enter %%PS_HOME%%\WINWORD\WORDSAMP.DOCX/mWORDSAMP and save.
5. Locate the Process Scheduler configuration file psprcs.cfg in *PS_CFG_HOME*\appserv\prcs\ <*database_name*> directory and open it for editing.
6. 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:\Program Files\Microsoft Office\OFFICE 12" (include the quotes in the entry).
7. If spaces exist in the WINWORD path in the Process Scheduler configuration file (psprcs.cfg), Microsoft Word reports will fail. You will need to modify the Process Type Definition and add quotes around the entry in the Command Line field, for example " %%WINWORD%%\winword.exe".
8. 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.
9. If you are running on Microsoft Windows 2008, modify your macros to include the following line:

   ```
   Application.AutomationSecurity=msoAutomationSecurityLow
   ```

   You can see an example by viewing the macros in *PS_HOME*\winword\Wordsamp.doc.
10. Make sure that all the servers (that is, Application Server and Process Scheduler servers) are running in the context of the logged-in user, as WinWord is executed in the same context.

Task 10A-7-2: Executing Winword on Mapped Drive

If you encounter a problem in executing the WinWord process on a mapped drive, there are a couple of solutions to try. If the first solution does not work, try the second one. Try the following workaround suggestions in the order given.

To perform the first workaround:

1. Copy the file WORDSAMP.dotm from *PS_HOME*\WINWORD\.
2. Locate the WinWord templates folder and place the file WORDSAMP.dotm there.

   In general, you can find the templates folder under the logged-in user's directory. For example, for user psftuser, this would be:

   C:\Users\psftuser\Microsoft\Templates
3. Open the WinWord.docx file under *PS_HOME*\WINWORD folder and verify macro is present.
4. Sign in to the PeopleSoft application to execute the WinWord process and verify its status in Process Monitor.

To perform the second workaround:

1. In Microsoft Word, click the Microsoft Office button, and click Word Options.
2. Select Trust Center, and then click Trust Center Settings, Trusted Locations.
3. Select the check box for Allow Trusted Locations on my network, and clear the check box Disable all Trusted Locations.

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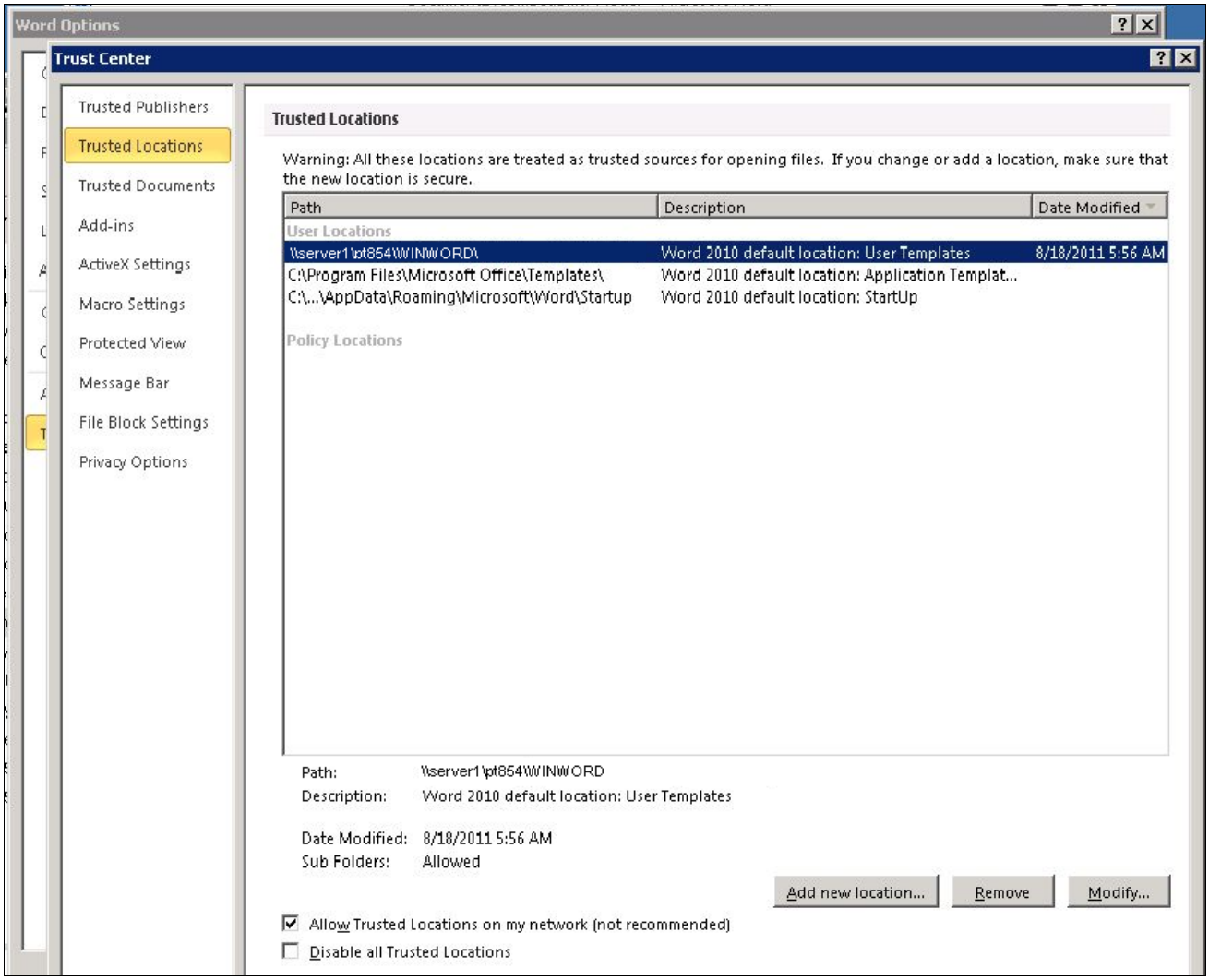
4. Create a new trusted location with path pointing to the *PS_HOME*\WINWORD folder on your mapped drive. In this example, the trusted location is \\server1\pt854\WINWORD:



Microsoft Word Trusted Locations window

Task 10A-8: Configuring Setup Manager

Before you can use Setup Manager, you must fulfill these requirements:

- To use the Excel to CI template-generation feature of Setup manager, the Process Scheduler must be PSNT. That is, Process Scheduler must be installed on a Microsoft Windows machine.
- Process Scheduler must be running.
- Any Process Scheduler environment variables (especially %PS_FILEDIR%) must be specified.
- A supported version Microsoft Office must be present on the process scheduler server, and Microsoft Excel must be installed.
- The MSXML COM object for Microsoft Excel, msxml4.dll, must be present on the system.

  For confirmation, navigate to %SystemRoot%\system32\msxml4.dll. Right-click and select Properties. On the

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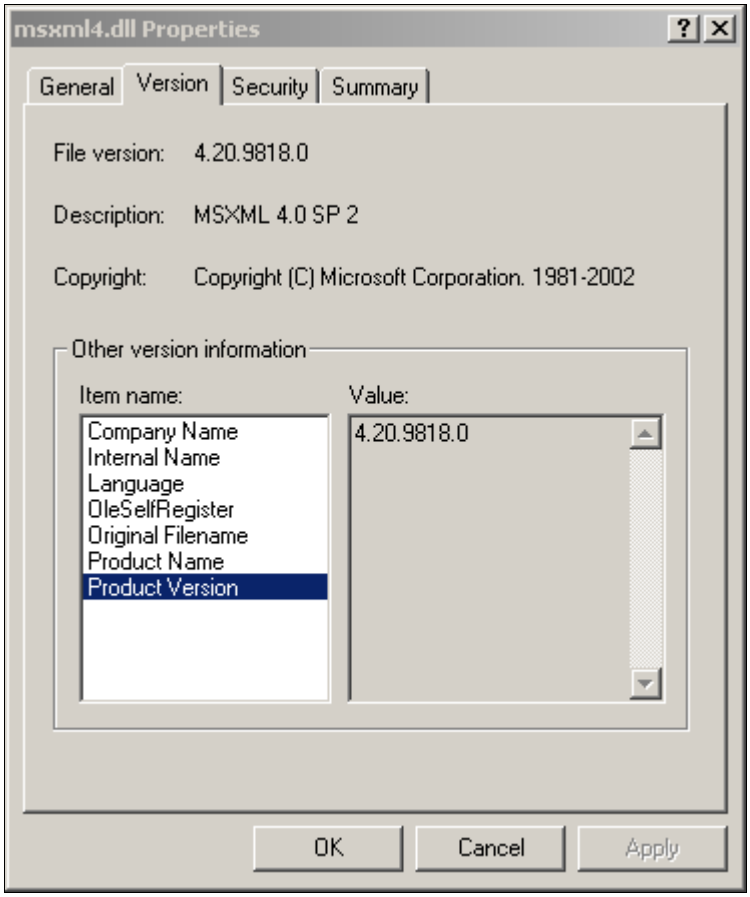
msxml4.dll Properties dialog box, select the Version tab, and then Product Version. As shown on this example of the msxml4.dll Properties dialog box, the version number must be 4.20 or above.



msxml4.dll Properties dialog box: Version tab

See Also

PeopleTools: Setup Manager

Microsoft support, support.microsoft.com

Task 10A-9: Installing Products for PS/nVision

This section discusses:

- Understanding the PS/nVision Setup
- Installing Products for PS/nVision in Excel Automation Mode
- Installing Microsoft .NET Framework Products for PS/nVision
- Installing Microsoft Open XML SDK for PS/nVision

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Understanding the PS/nVision Setup

PS/nVision can operate in the following three modes for PS/nVision:

- OpenXML mode

  OpenXML is the default mode for PeopleSoft PeopleTools.
- Excel automation mode
- Cross-platform mode

  Cross Platform is the only supported mode on the UNIX platforms that are certified for executing PS/nVision Reports on the web.

The different modes of executing PS/nVision are enabled by setting the UseExcelAutomation parameter in the Process Scheduler configuration file (psprcs.cfg) as follows:

- 0 - OpenXML mode
- 1 - Excel Automation mode
- 2 - Cross Platform mode

See Also

PeopleTools: PS/nVision

PeopleTools: Process Scheduler

Task 10A-9-1: Installing Products for PS/nVision in Excel Automation Mode

To set up PS/nVision in Excel automation mode:

- For all batch servers, install Microsoft Excel on the batch server. PeopleSoft PeopleTools supports 64–bit versions of Microsoft Excel 2010 and Excel 2013.

  Note. The 32–bit version of Microsoft Excel should not be installed on the machine where PS/nVision needs to run in Excel Automation Mode, as that would cause issues with running PS/nVision with 64–bit Microsoft Excel.

- If the batch server is on a 64–bit Microsoft Windows 2008 machine, create an empty "Desktop" folder with this path:

  C:\Windows\System32\config\systemprofile\Desktop

Task 10A-9-2: Installing Microsoft .NET Framework Products for PS/nVision

This section discusses:

- Installing Microsoft .NET Framework 3.5
- Verifying the Microsoft .NET Framework Installation on Microsoft Windows 2008 R2
- Installing Microsoft .NET Framework 4.0

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Installing Microsoft .NET Framework 3.5

Before setting up PS/nVision in OpenXML mode, use these instructions to install Microsoft .NET Framework. Microsoft Open XML SDK 2.0 requires Microsoft .NET Framework versions 3.5 and version 4.0.

Note. If your operating system is Microsoft Windows 2008 R2, see the following section.

See Verifying the Microsoft .NET Framework Installation on Microsoft Windows 2008 R2.

To install Microsoft .NET Framework 3.5 SP1:

1. If there are any versions of Microsoft .NET Framework installed on your computer:
   a. Select Start, Programs, Control Panel, Add/Remove Programs
   b. Locate the existing Microsoft .NET Framework installations and remove them.
2. Go to *PS_HOME*\setup\dotnetredist.
3. Run the dotnetfx35.exe.file.

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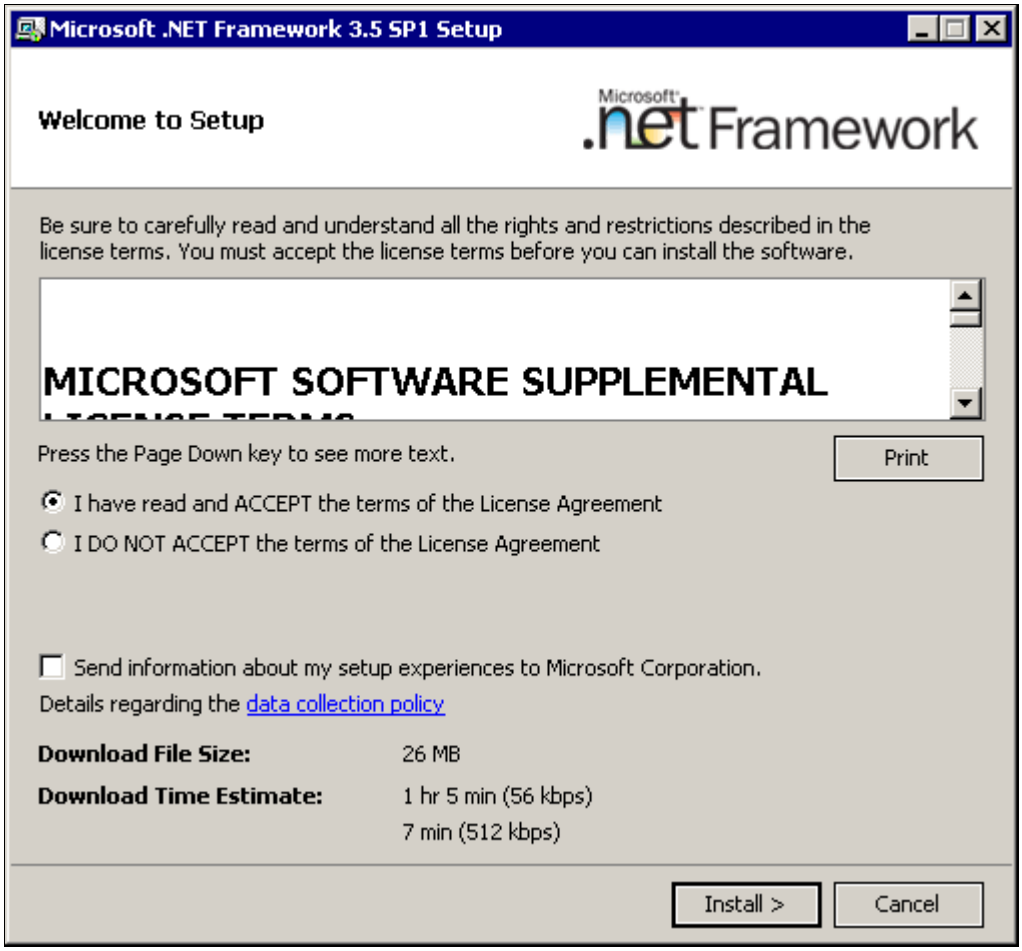
4. Review the license agreement, select the option I have read and ACCEPT the terms of the License Agreement, and then click Install.



Microsoft .NET Framework 3.5 SP1 Setup Welcome to Setup window

A progress window appears. Do *not* close the installer window when you see this message: "Download complete. You can now disconnect from the Internet," as the installation continues after this point.

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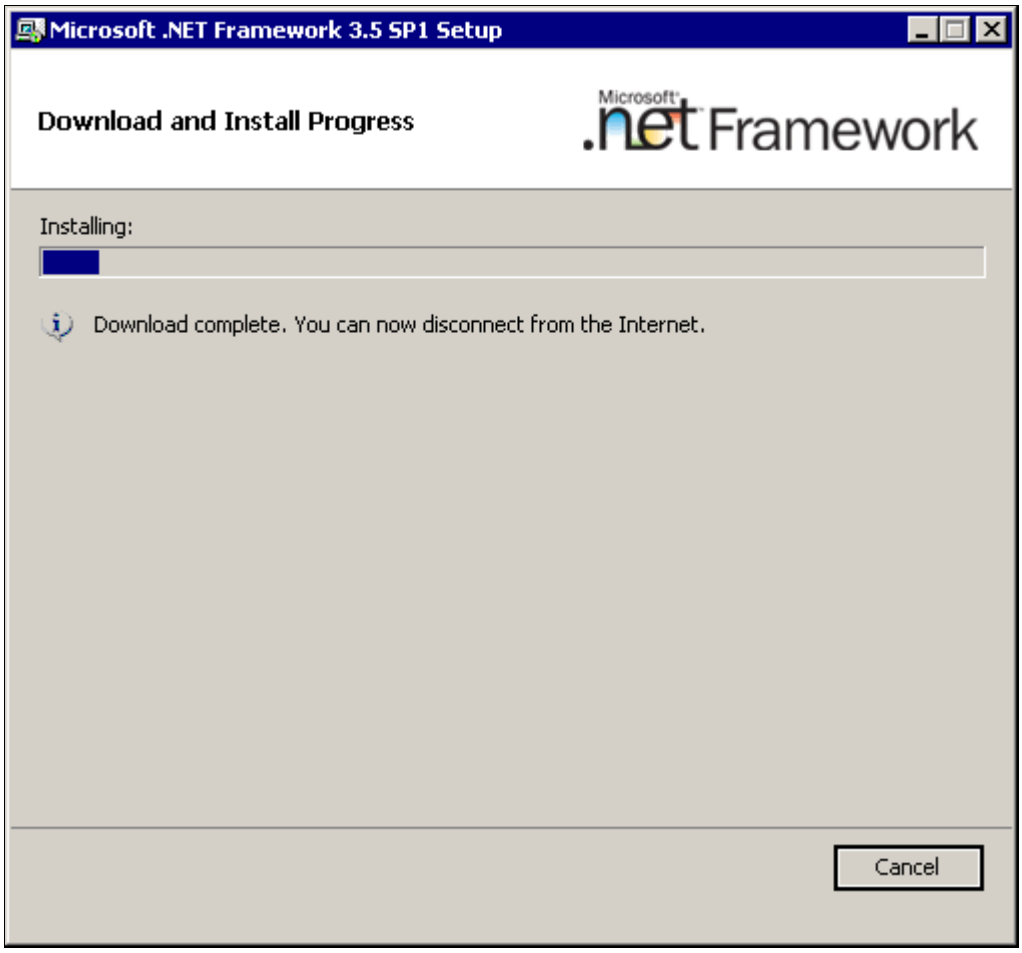

Microsoft .NET Framework 3.5 SP1 Setup Download and Install window

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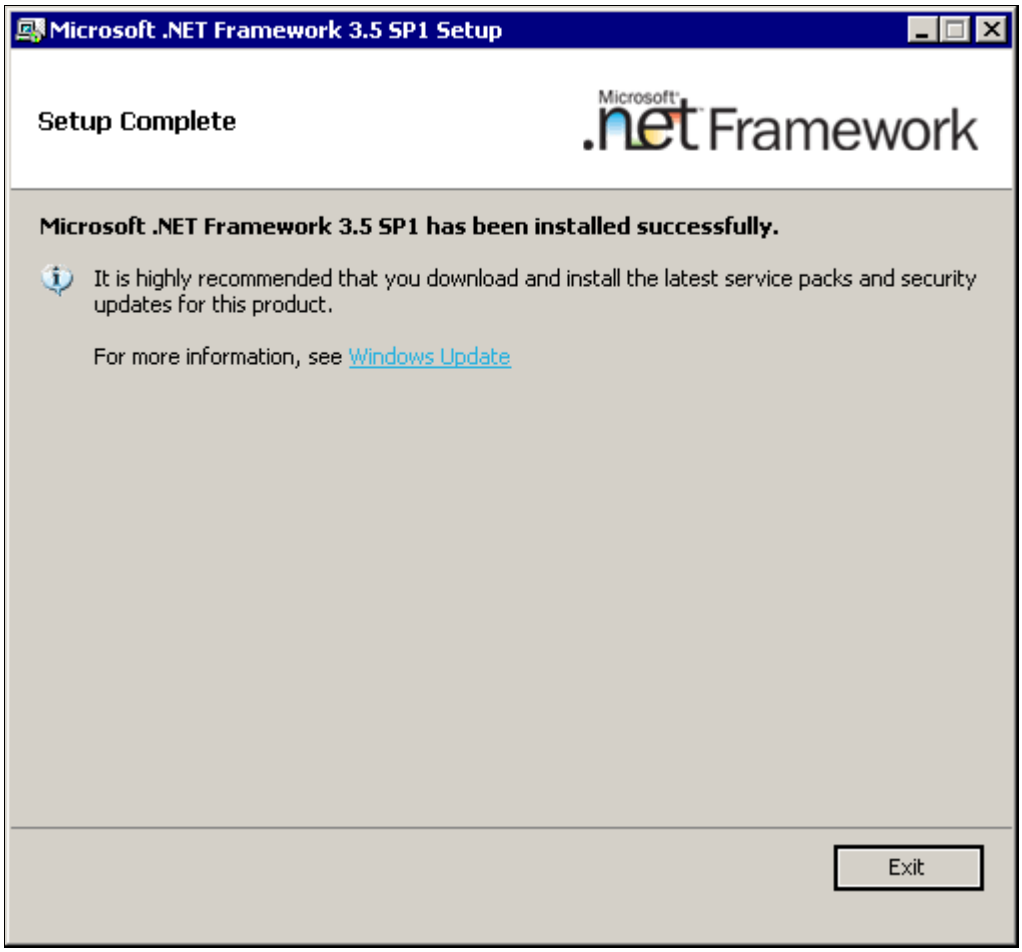
5. Click Exit when the installation is complete.

   The Setup Complete window includes the message "Microsoft .NET Framework 3.5 SP1 has been installed successfully."



Microsoft .NET Framework 3.5 SP1 Setup Complete window

Verifying the Microsoft .NET Framework Installation on Microsoft Windows 2008 R2

If your operating system is Microsoft Windows 2008 R2, Microsoft .NET Framework 3.5 SP1 is included as a feature. To verify that Microsoft .NET Framework 3.5 SP1 is installed and enabled:

1. Open Server Manager.

   Note. Server Manager is found under Administrative Tools.

2. Verify if Microsoft .NET Framework 3.5 SP1 is listed as a feature in the Feature Summary section.

   If yes, then Microsoft .NET Framework 3.5 SP1 is already installed on this computer and it is enabled.

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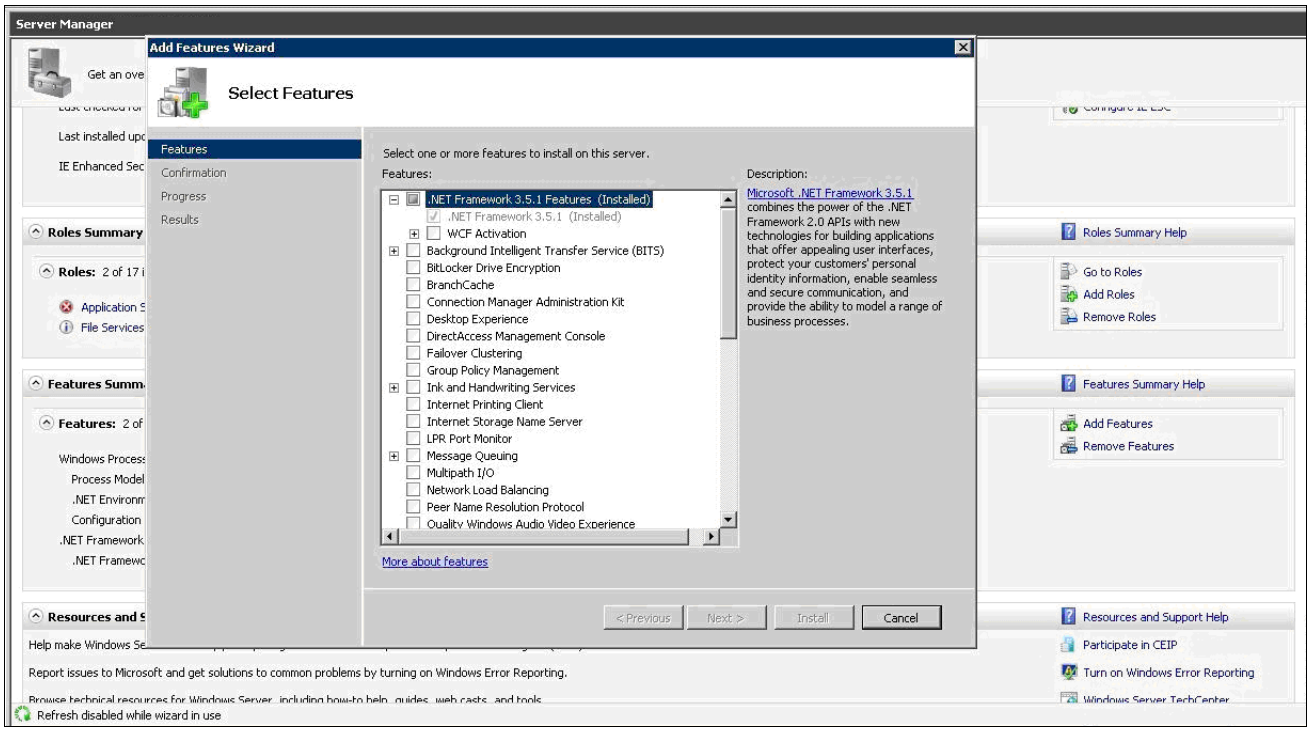
3. If Microsoft .NET Framework 3.5 SP1 is not listed in the feature summary, then click Add Features to open the Add Feature wizard.

   In this example, Microsoft .NET Framework 3.5 SP1 is listed as .NET Framework 3.5.1 (Installed).



Add Features Wizard dialog box

4. If Microsoft .NET Framework 3.5 SP1 is listed in the list of features, it means it is installed on this computer, but not enabled.

   To enable this feature, select the check box for Microsoft .NET Framework 3.5 SP1 and complete the Add Feature process. Consult the Microsoft Windows documentation for information on completing the process.

5. If Microsoft .NET Framework 3.5 SP1 is not listed in the list of features, then it is *not* installed on this box. Refer to the previous section to install Microsoft .NET Framework 3.5 SP1.

   See Installing Microsoft .NET Framework 3.5 SP1.

Installing Microsoft .NET Framework 4.0

To install Microsoft .NET Framework 4.0:

1. If there is an existing installation of Microsoft .NET Framework 4.0 installed on your computer:
   a. Select Start, Programs, Control Panel, Add/Remove Programs
   b. Locate the existing Microsoft .NET Framework installation and remove it.
2. Go to *PS_HOME*\setup\dotnetredist.
3. Run the dotNetFx40_Full_x86_x64.exe.file.

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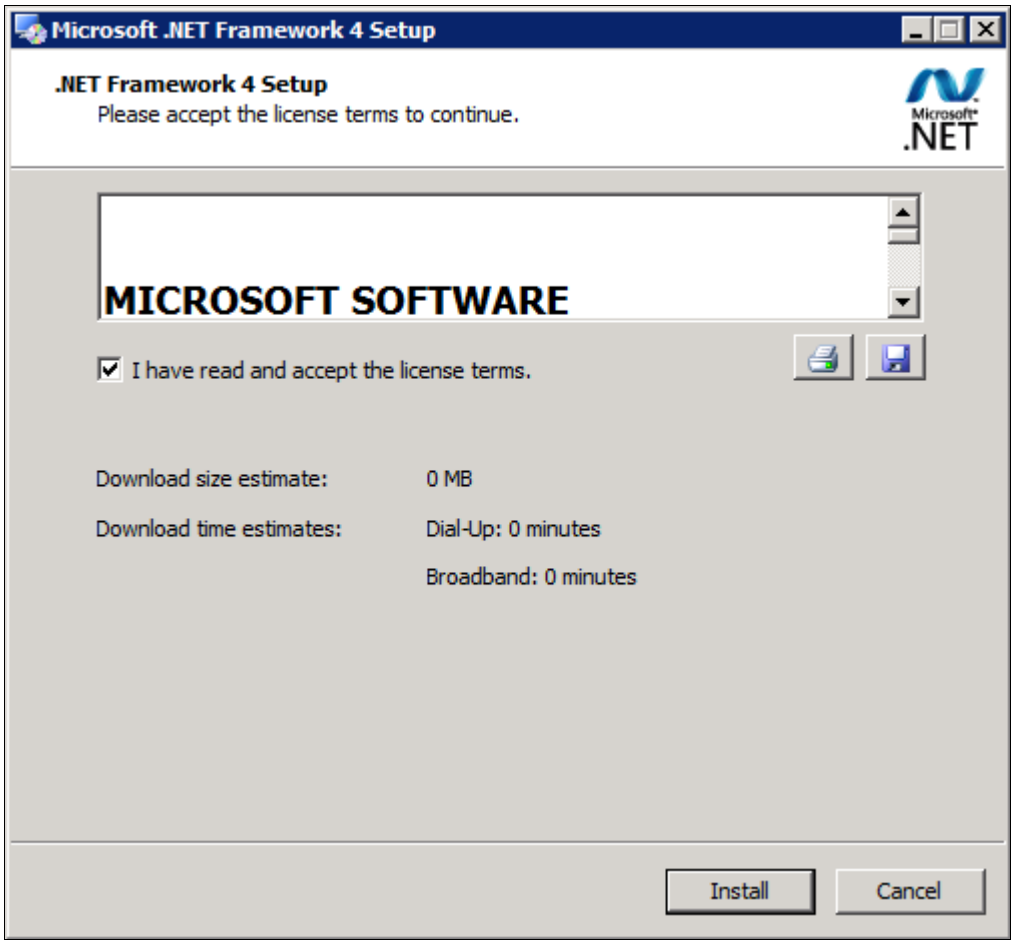
4. Review the license agreement, select the option I have read and accept the license terms, and then click Install.



Microsoft .NET Framework 4 Setup window with license agreement

A progress indicator appears

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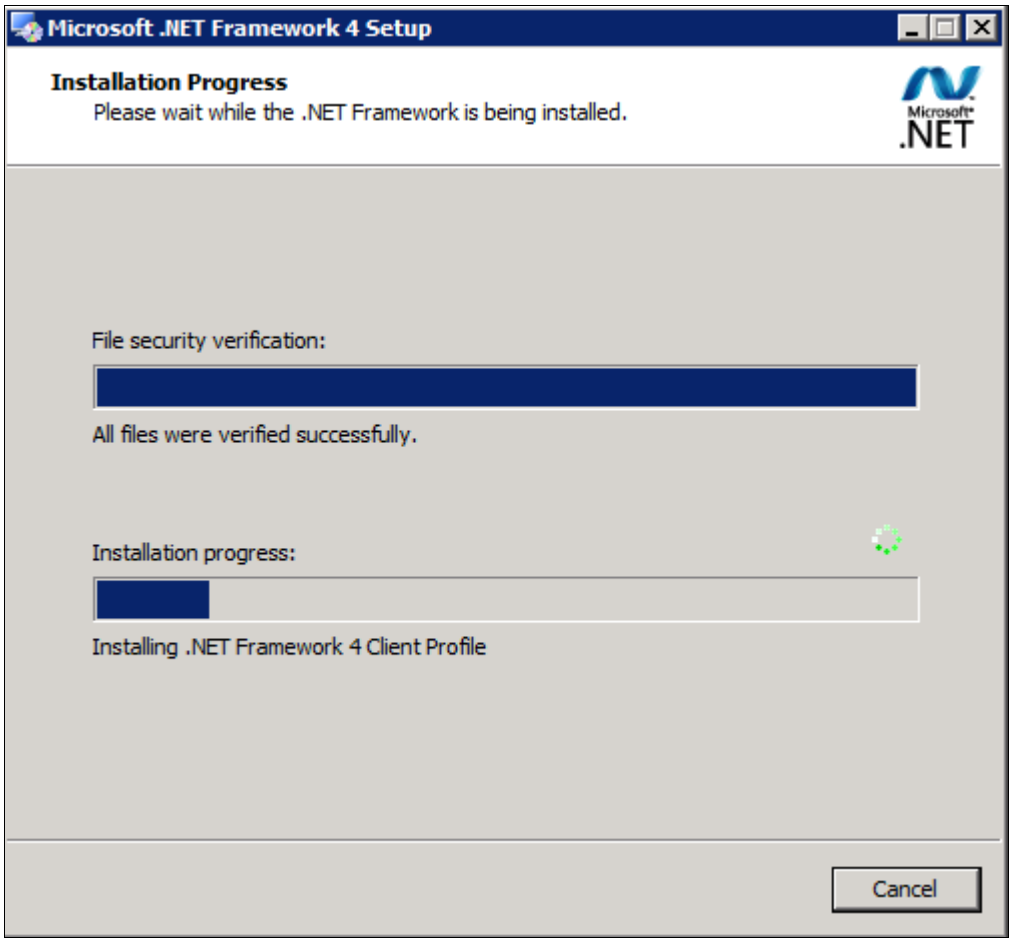

Microsoft .NET Framework 4 Setup progress indicator

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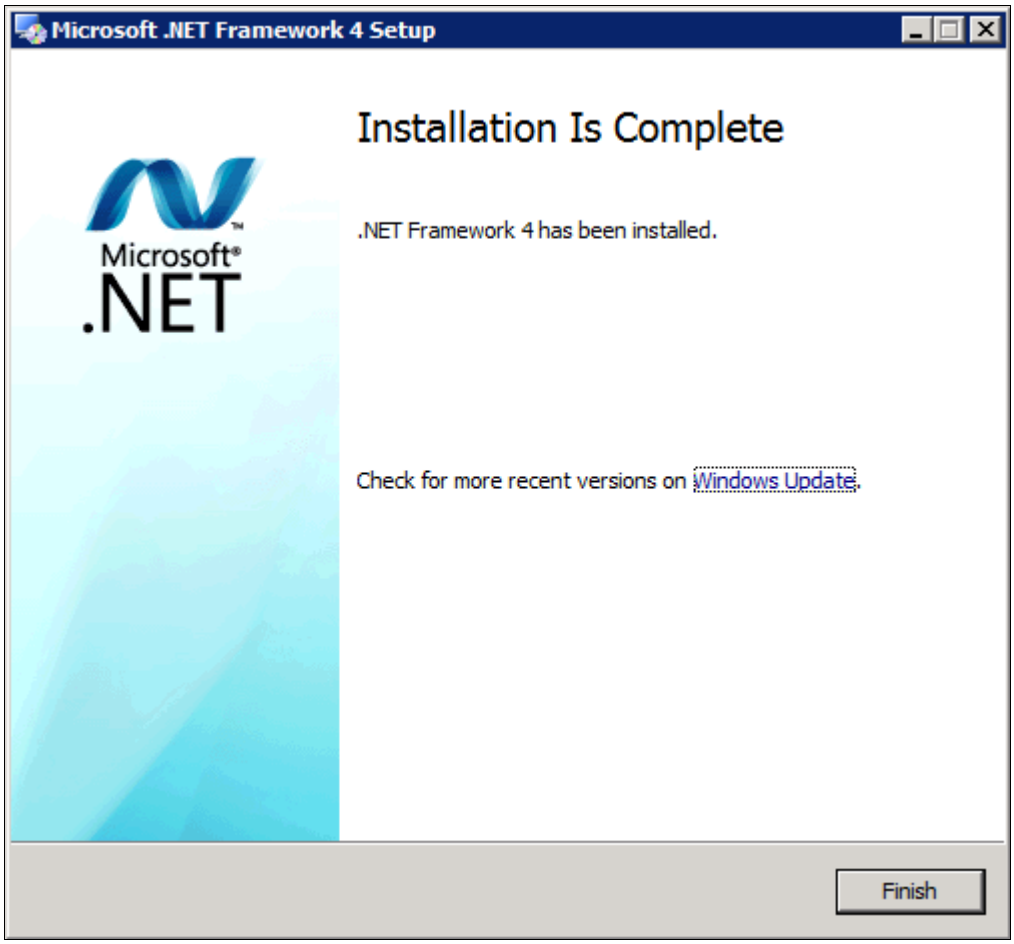
5. Click Finish when the installation is complete.



Microsoft .NET Framework 4 Installation Complete window

Task 10A-9-3: Installing Microsoft Open XML SDK for PS/nVision

As described in the previous section, you must have installed Microsoft .NET Framework versions 3.5 and 4.0 before beginning this installation.

To install Microsoft Open XML SDK V2.0:

1. Go to *PS_HOME*\setup\OpenXmlSDK.
2. Run the OpenXMLSDKv2.msi file.

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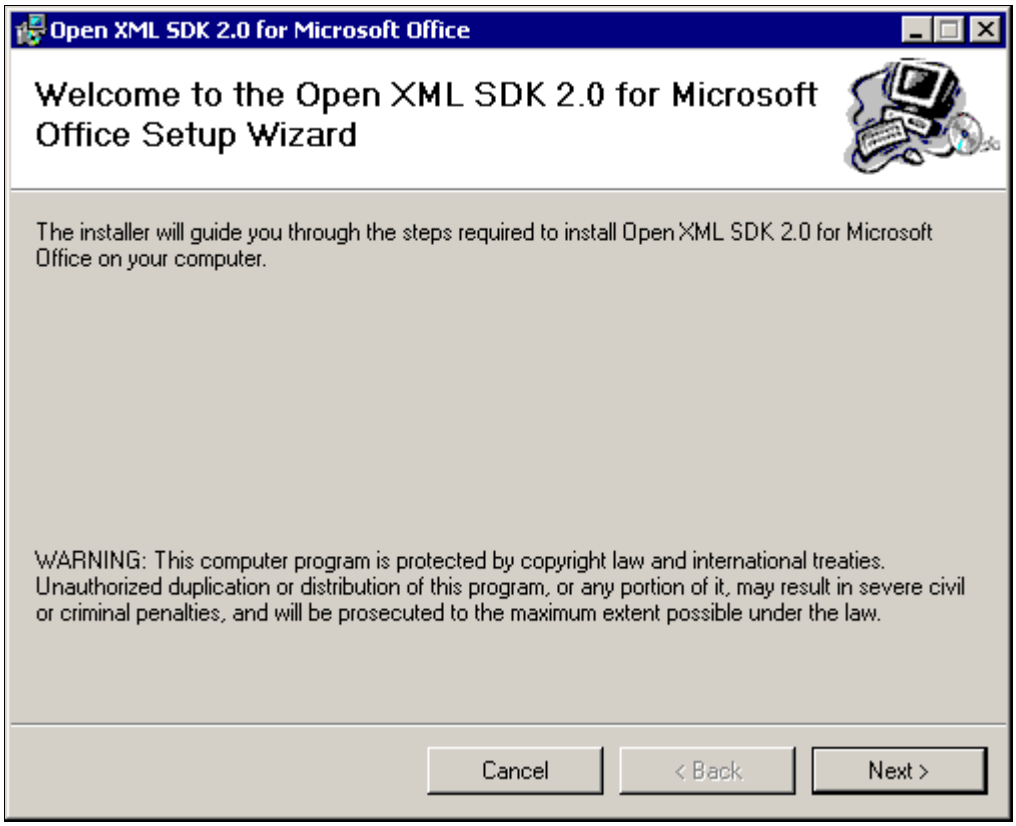
3. Click Next on the welcome window.



Microsoft Open XML SDK 2.0 welcome window

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4. Review the license agreement, select the option I agree, and then click Next.

Microsoft Open XML SDK 2.0 License Agreement window

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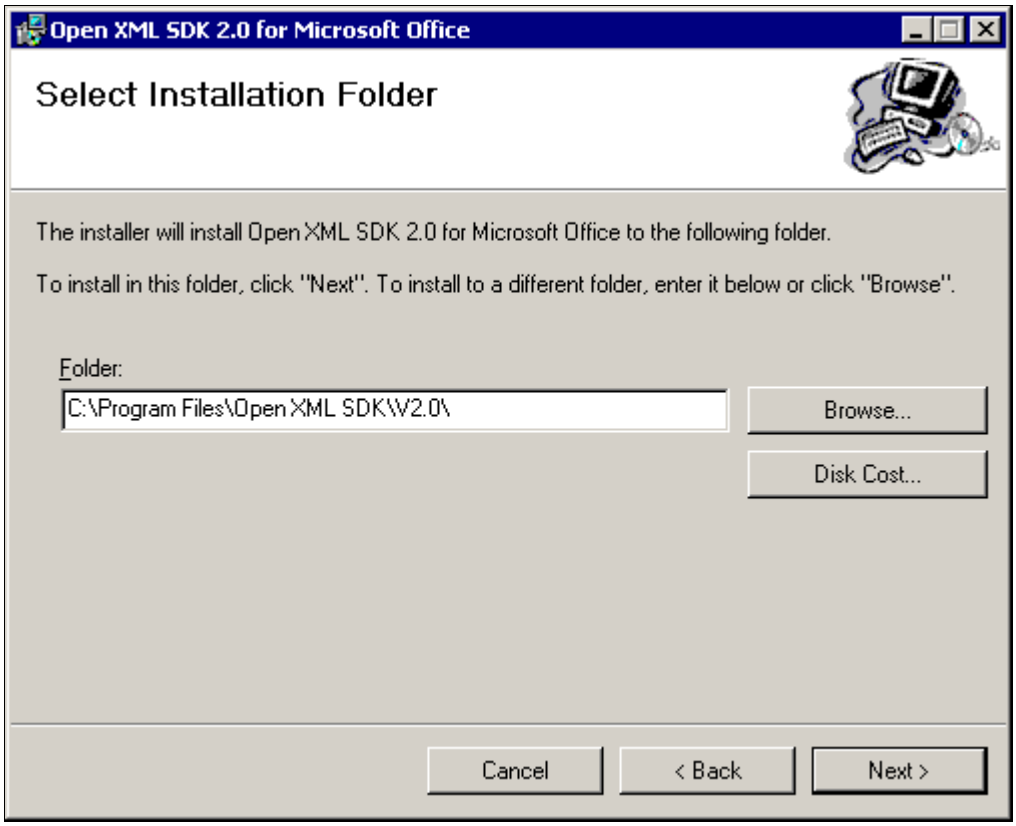
5. Accept the default location for the installation, C:\Program Files\Open XML SDK\V2.0, and then click Next.



Microsoft Open XML SDK 2.0 Select Installation Folder window

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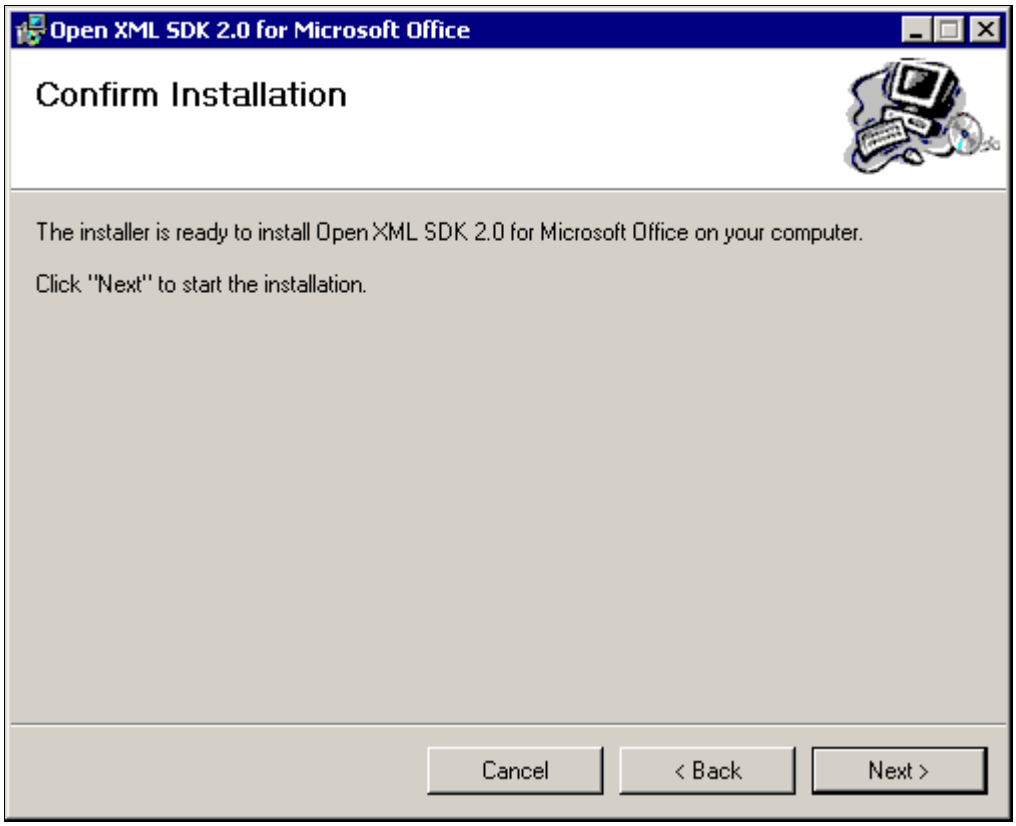
6. Click Next on the Confirm Installation window to begin the installation.



Microsoft Open XML SDK 2.0 Confirm Installation window

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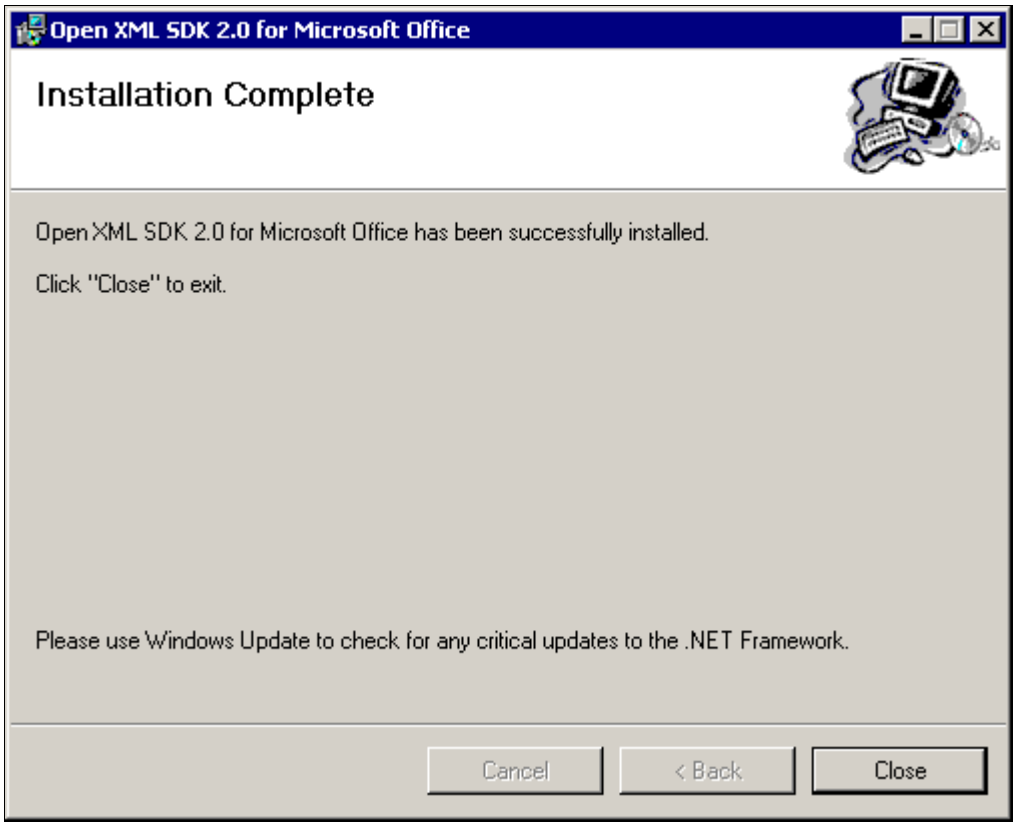
7. Click Close when the installation is complete.



Microsoft Open XML SDK 2.0 Installation Complete window

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Chapter 10B

Setting Up Process Scheduler on UNIX

This chapter discusses:

- Prerequisites
- Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Up Process Scheduler Server Agent

Prerequisites

If your database runs on UNIX, you need to set up a Microsoft Windows batch environment on a Microsoft Windows application server or on a dedicated Microsoft Windows workstation for Microsoft Windows-specific batch processes, such as nVision reports, Cube Builder, or Microsoft Word. These processes are Microsoft Windows-specific applications that cannot be executed by the Process Scheduler on UNIX.

Before setting up your Process Scheduler, you must:

- Install Tuxedo (except for z/Linux).

  See "Installing Additional Components."
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).

  See "Preparing for Installation."
- Set up the web server with the PeopleSoft Pure 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. 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. Consult My Oracle Support for the details on whether your application requires COBOL.

  See "Preparing for Installation," Planning Your Initial Configuration.
- Have both your application server and the PeopleSoft Pure 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 Pure Internet Architecture.

In PeopleSoft PeopleTools 8.50 and later, the configuration and log files for Process Scheduler server domains reside in *PS_CFG_HOME*. If you do not set a PS_CFG_HOME environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

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`$HOME/psft/pt/<peopletools_version>`

See "Preparing for Installation," Defining Installation Locations.

See the product documentation *PeopleTools: System and Server Administration* for more information on the PS_CFG_HOME environment variable and working with server domain configuration.

See Also

PeopleTools: Process Scheduler

My Oracle Support, Certifications

Task 10B-1: Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade

When performing the installation of the separate upgrade *PS_HOME* or *PS_CFG_HOME* (which is different than your old release *PS_HOME),* you may configure your Process Scheduler at this point in time of the installation, but do not boot your Process Scheduler until directed to do so within the upgrade.

If you are installing into an existing *PS_HOME* or *PS_CFG_HOME* after completing a PeopleTools-only upgrade, review your old *PS_HOME* or *PS_CFG_HOME* for configuration files that you may want to reuse for the new PeopleSoft PeopleTools release. While you may configure your Process Scheduler at this point in time of the installation, do not boot your Process Scheduler until directed to do so within the upgrade.

See "Preparing for Installation," Preparing for the PeopleTools-Only Upgrade.

If you were using PeopleSoft PeopleTools 8.50 or earlier, remove *PS_HOME/*appserv/PSADMIN prior to installing the new release. If you have any customized configuration files (such as psappsrv.cfg, psconfig.sh, pscbl.mak, psrun.mak, psprcs.cfg, and so on), copy them to another directory so that they are not overwritten during the upgrade process. This enables you to preserve any tuned variables.

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

Task 10B-2: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Granting Process Scheduler Administrative Rights

Understanding Process Scheduler Security

This task—in which you 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—guarantees that security is set up properly within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

Task 10B-2-1: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

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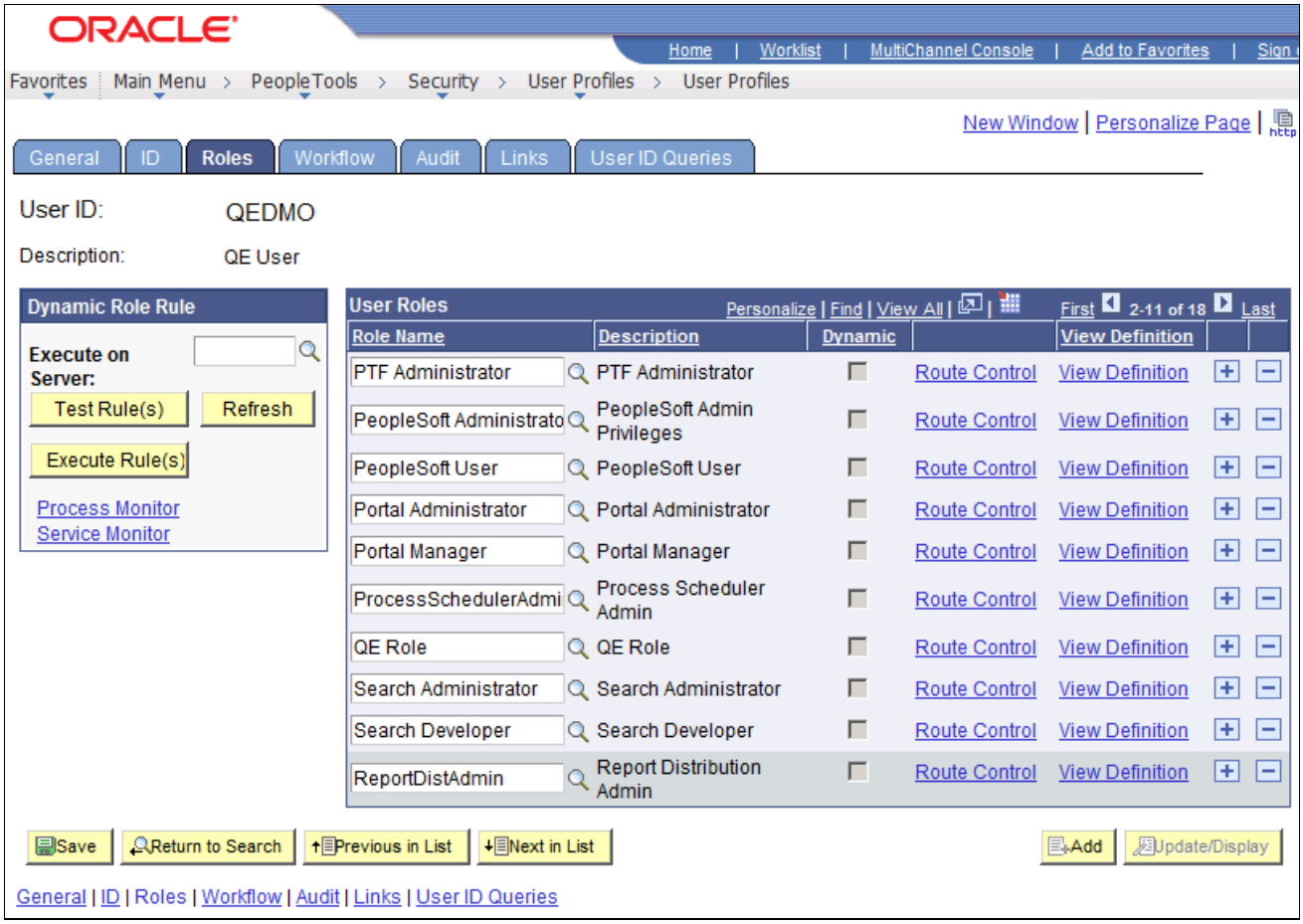
1. Log onto your PeopleSoft database through the PeopleSoft Pure Internet Architecture.
2. Select PeopleTools, Security, User Profiles.
3. Select the User Profiles component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the Roles tab, click the plus 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.



Process Scheduler window: Roles tab

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. Carry out this step only if the same user is also responsible for maintaining the content of Report Manager.
6. Click Save to save your changes.
7. Select the General tab and jot down the Permission List name 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 List you noted in step 7.
10. Select the Can Start Application Server check box.
11. Click Save to save your changes.

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Task 10B-3: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution
- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent
- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server
- Setting Up Sending and Receiving of Report Folders in the Report Manager

Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure 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/Window*.

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 *Posting* upon completion of the program associated with the process request. The distribution status of Posting signals that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As 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 yyyymmdd>\<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/Window, 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. The diagram includes the following items:

- The web browser gives access to the Process Request dialog and the Report or Log Viewer.

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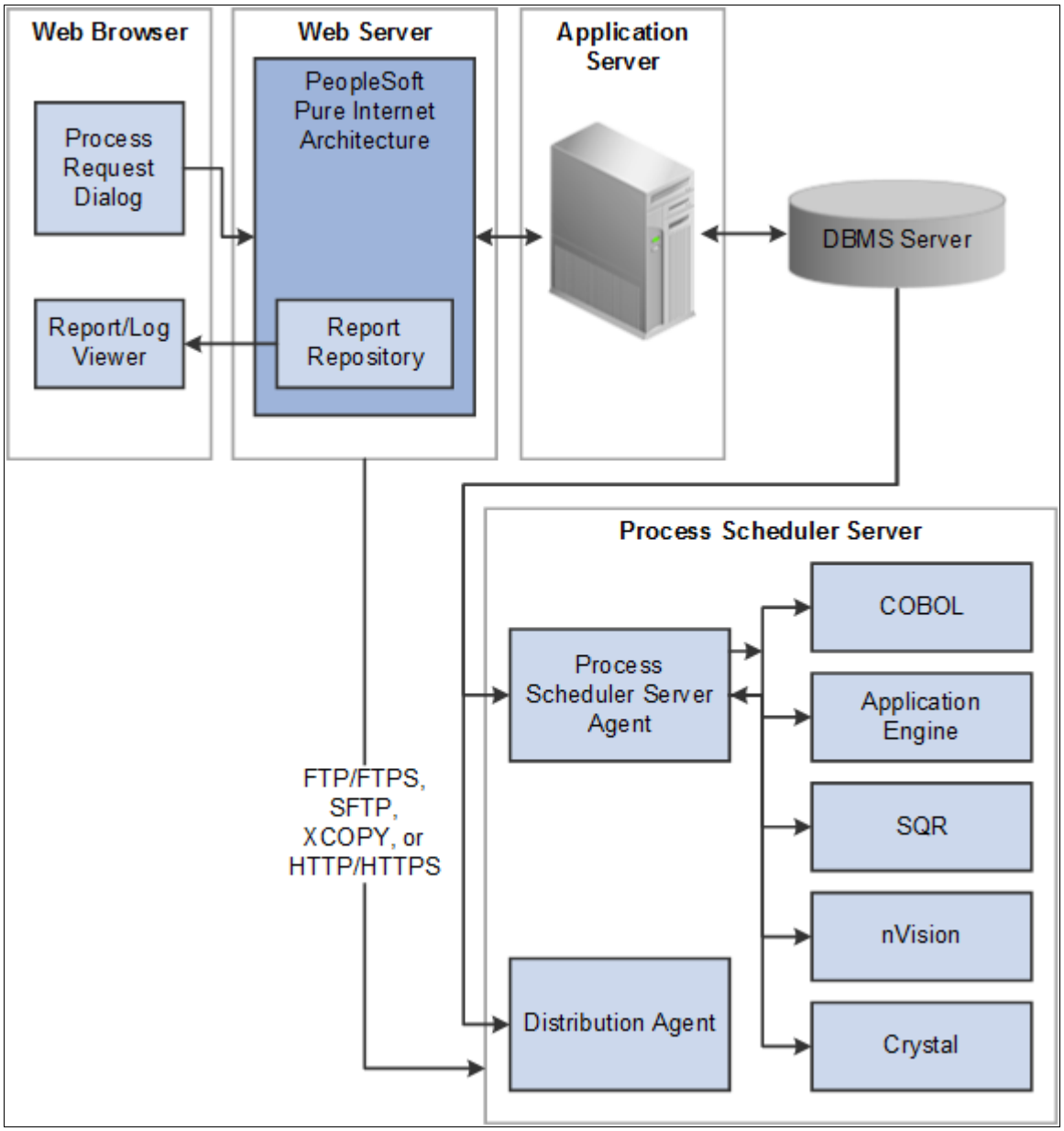
- The Report Repository is part of the PeopleSoft Pure Internet Architecture.

  Note. The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Report Repository.

- The Process Scheduler Server includes the Process Scheduler Server Agent and the Distribution Agent.
- The transfer protocol between Process Scheduler and the Report Repository may be FTP/FTPS, XCOPY, HTTP/HTTPS, or SFTP.



Process Scheduler and Report Repository Architecture

Before users can view a report, they are authenticated against the PeopleSoft database.

You should set up single signon if you do not 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, consult the security documentation.

See *PeopleTools: Security Administration.*

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Beginning with PeopleSoft PeopleTools 8.53, you can use Oracle Database File System (DBFS) for your Report Repository.

See *PeopleTools: Data Management,* "Implementing the Oracle Database File System."

Task 10B-3-1: 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 PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. This section includes some considerations for setting up single signon to navigate from PIA to Report Repository.

If Report Repository resides on the same web server as PIA, 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 PIA, do the following:

- Make sure your Local Message Node is set up 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/<*site_name*>/signon.html instead of http://<*machineName*>/<*site_name*>/signon.html.
- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

  See the information on implementing single signon in the *PeopleTools: Security Administration* product documentation.
- Set up single signon with a password, like this:
  - Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
  - 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.
  - Enter the user ID for which you are setting up single signon in the Default User ID field.
  - Save the Node Definition.
  - Sign out from the PeopleSoft application.
  - Reboot your application server.

See Also

PeopleTools: Security Administration

Task 10B-3-2: Determining the Transfer Protocol

We recommend using HTTP as your transfer protocol.

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Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Microsoft Windows Process Scheduler and a Microsoft Windows web server, you can use either an XCOPY, FTP/FTPS, SFTP, or HTTP/HTTPS protocol. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have a PeopleSoft Process Scheduler on Microsoft Windows and a UNIX web server, you can use FTP/FTPS, SFTP, or HTTP/HTTPS.

Note. If you are using FTP/FTPS or SFTP, the corresponding daemon must be set up in your web server.

Note. JRE is installed automatically on your Process Scheduler server.

Task 10B-3-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle 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." After a node is defined for the Process Scheduler server, in the next cycle the Process Scheduler server checks the state of the system, and the Distribution Agent dynamically sets up its environment.

Task 10B-3-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS
- Defining the Report Node to Use FTP
- Defining the Report Node to Use FTPS
- Defining the Report Node to Use SFTP

Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *PeopleTools: Portal Technology,* "Configuring Web Profiles."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash ('/') in both cases:

- *Microsoft Windows*: ReportRepositoryPath=c:/psreports
- *UNIX*: ReportRepositoryPath=*<user_home>/*PeopleSoft Internet Architecture/psreports

  For <user_home> substitute the home directory for the current user.

Defining the Report Node to Use HTTP/HTTPS

To define the report node to use HTTP/HTTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.

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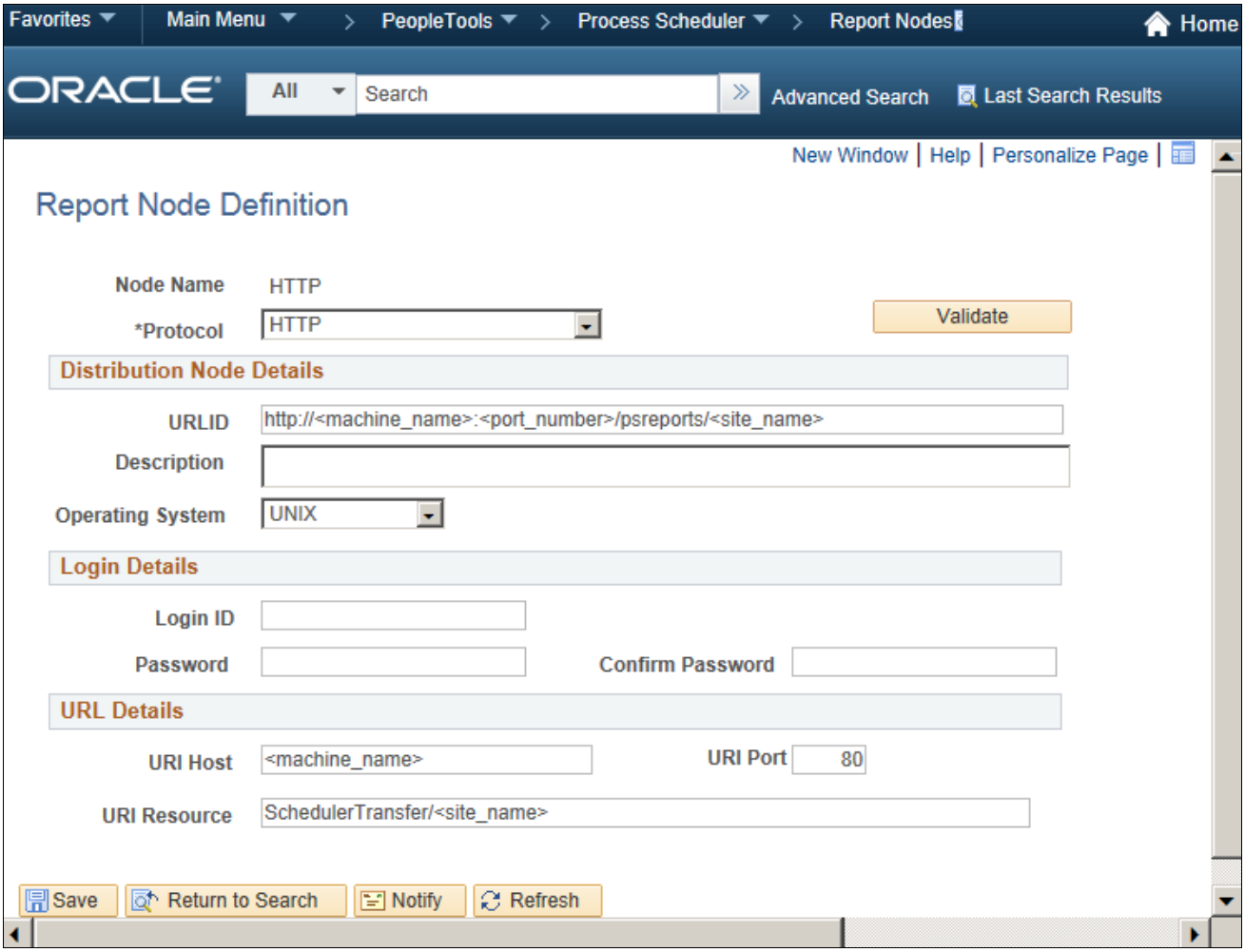
2. Select the Add a New Value link and enter the Report node name.
3. On the Report Node Definition page, select HTTP or HTTPS from the Protocol drop-down list.

   Select the HTTP option if you are *not* using SSL. Select the HTTPS option if you are using SSL. The pages for HTTP and HTTPS have the same fields. These examples show HTTP.

   Note that if you are using SSL you need to have Client Certificates installed on your web server.



Report Node Definition page for the HTTP protocol

4. Enter the following information in the Distribution Node Details area:
   - *URLID*: 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. Use the fully qualified host name for your web server. If you are using an HTTP or HTTPS port other than the defaults, you need to specify the port number.

     Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

   - *Description:* Enter a description of the server (optional).
   - *Operating System:* Select the web server operating system, Windows or UNIX.

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5. Enter the following information in the Login Details area:
   - *Login ID*: Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
   - *Password and Confirm Password*: Enter the password, and confirm it, for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.

   Note. The setup of authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For information on setting up authentication on the web server where the Report Repository resides, refer to the *PeopleTools: Security Administration* product documentation.

6. Enter the following information in the URI Details area:
   - *URI Host:* Enter the machine name for the report repository.

     Note. In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

   - *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*>.
7. Click Save to save your entries.
8. Click Validate to confirm that your entries are complete and correct.

   The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
9. To add additional report nodes, click Add to return to the Search page.

Defining the Report Node to Use FTP

If you use the FTP report node protocol, note that:

- If your FTP server is a Microsoft Windows server, you may have to set up the FTP service.
- 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 completed, it is critical that the value entered in the URL is accurate. Verify that the machine name, port number, and site number that you specify are correct.

  If this setup is not completed, 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."

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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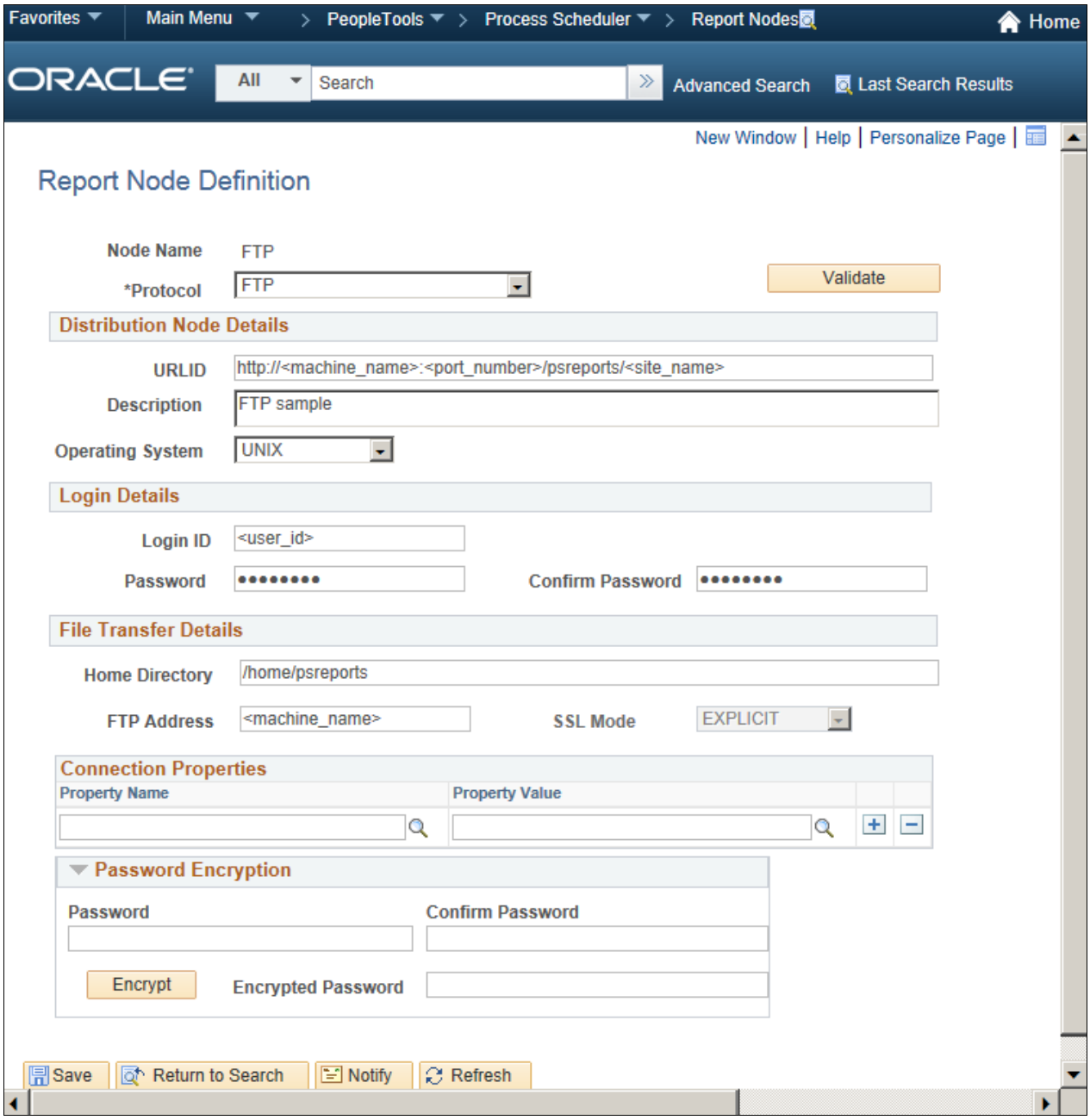
3. On the Report Node Definition page, select FTP from the Protocol drop-down list.



Report Node Definition page for the FTP protocol

4. In the Distribution Node Details area, enter the following information:

- *URLID*: 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. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

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Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

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.

- *Description*: Enter a description of the server (optional).
- *Operating System*: Select the operating system of the Report Repository, Windows or UNIX.
- *Network Path*: This information is not required for the FTP protocol

5. In the Login Details area, enter the following information:
   - *Login ID*: Enter the FTP User ID.
   - *Password and Confirm Password*: Enter the password, and enter it a second time, for the FTP User ID specified in the Login ID field.
6. In the File Transfer Details area, enter the following information:
   - *Home Directory:* Enter the directory specified during the PIA installation as the Report Repository. The FTP User ID must have write access to this directory. Note that this is not a required field for FTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

     For UNIX, the default directory is <*user_home*>/PeopleSoft Internet Architecture/psreports/.
   - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.

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7. If you need to specify additional properties, use the Connection Properties area. Specifying the Connection Properties is optional.

   Click the lookup button (magnifying glass) and select one of the properties in the following table. Click the plus sign to add another connection property.

Property Name	**Property Value**
ACTIVEMODE	To enable active mode, add the ACTIVEMODE property to the URL and set it to *Y*. The default FTP connection mode is extended passive mode.
ACTIVEPORTOPTION	This property can be used along with ACTIVEMODE. When active mode is enabled, you can use ACTIVEPORTOPTION to specify the IP address and port on which the FTP server can be accessed. This is useful when the server is behind a firewall. By default, ACTIVEPORTOPTION uses the default IP address of your system. If you want to use a particular IP address, set the ACTIVEPORTOPTION value to either the full IP address, a host name to resolve to an IP address, or a local network interface name. You can also specify a port range. For example: *10.176.147.111:10000-13000*
ENABLEEPRT	This option can be used only with Active Mode. If Active Mode is enabled and ENABLEEPRT is set to *N*, then the system will use a PORT (IPv4) Active Mode connection. By default, ENABLEEPRT is Y, if Active Mode is set to Y.
EXTENDEDPASSIVEMODE	• *0*: Disable EPSV • *1*: Enable EPSV This property enables you to control whether extended passive mode (EPSV) will be used by FTP. EPSV is used by default. That is, by default, this value is considered to be 1. If the client fails to connect to the server with EPSV, then the system will try passive mode (PASV). To use PASV only, add EXTENDEDPASSIVEMODE to the URL Properties and set it to 0.
JKSPASSWORD	Specify the Java keystore (JKS) password.
JKSPATH	Specify the Java keystore (JKS) path.
PASSWORD	Specify the password associated with the USER property, which identifies the FTP User ID.
USER	Specify the FTP User ID used for authentication when accessing the FTP site.

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8. If you need to specify an encrypted password in any of the property fields, use the Password Encryption area to generate the encrypted password, as follows:
   a. In the Password field, enter a password.
   b. In the Confirm Password field, enter the password again.
   c. Click Encrypt.

      The encrypted password is displayed in the Encrypted Password field.
   d. From the Encrypted Password field, cut the encrypted password and then copy the encrypted value to the appropriate location.
9. Select Save to save your entries.
10. Click Validate to confirm that your entries are correct.

    The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
11. To add additional report nodes, click Add to return to the Search page.

Defining the Report Node to Use FTPS

To define the report node to use FTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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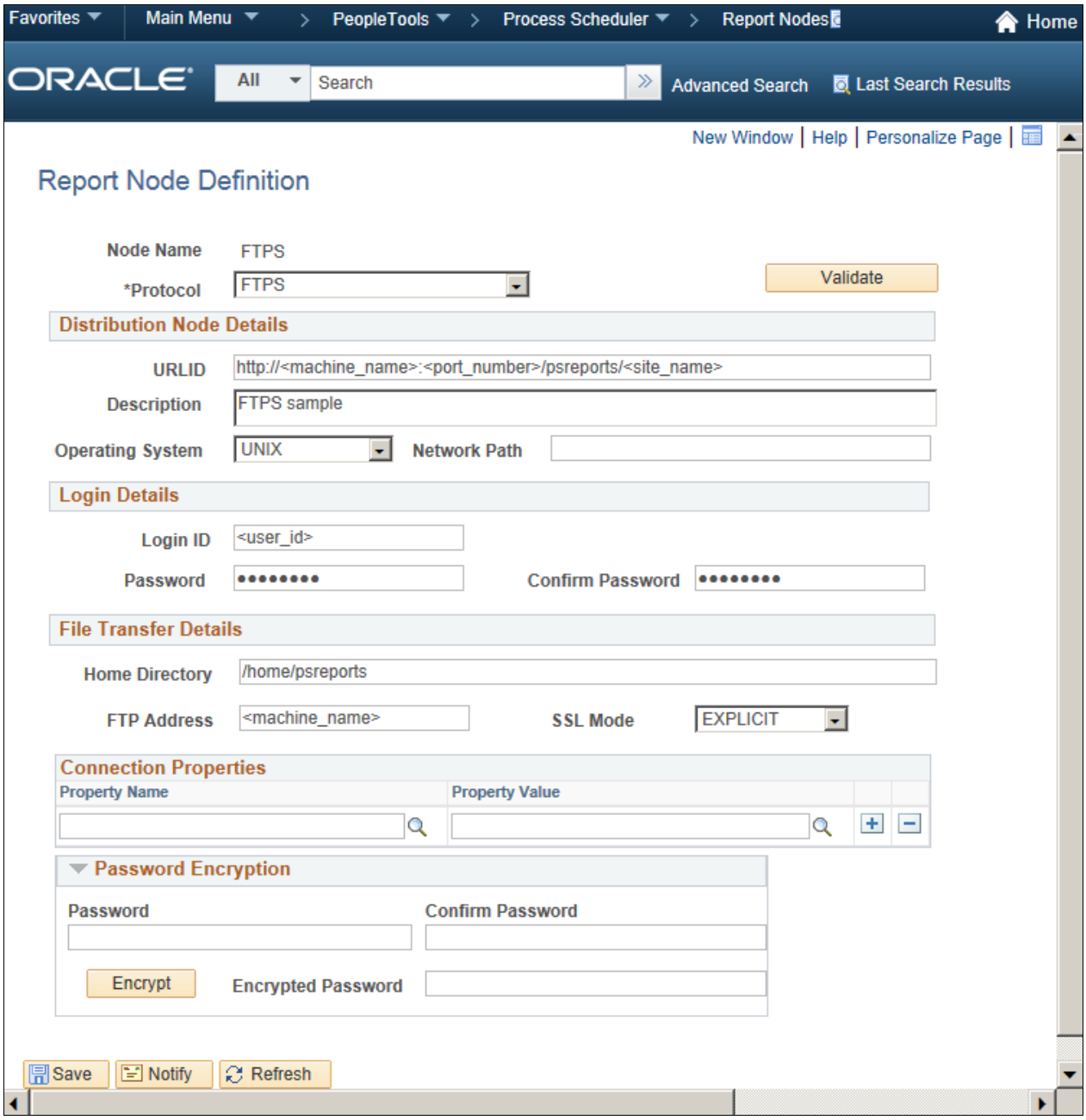
3. On the Report Node Definition page, select FTPS from the Protocol drop-down list.



Report Node Definition page for the FTPS protocol

4. In the Distribution Node Details area, enter the following information:

- *URLID*: 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. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

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Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

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.

- *Description*: Enter a description of the server (optional).
- *Operating System*: Select the operating system of the Report Repository, Windows or UNIX.
- *Network Path*: This information is not required for the FTPS protocol.

5. In the Login Details area, enter the following information:
   - *Login ID*: Enter the FTP User ID.
   - *Password and Confirm Password*: Enter the password, and enter it a second time, for the user ID specified in the Login ID field.
6. In the File Transfer Details area, enter the following information:
   - *Home Directory:* Enter the directory specified during the PIA installation as the Report Repository. The FTP User ID must have write access to this directory. Note that this is not a required field for FTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

     For UNIX, the default directory is <*user_home*>/PeopleSoft Internet Architecture/psreports/.
   - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
   - *SSL Mode*: Select Explicit or Implicit from the drop-down list.

     These are two separate methods developed to invoke the client security for use with FTP clients. With the explicit mode, FTPS-aware clients can invoke security with an FTPS-aware server without breaking overall FTP functionality with non-FTPS-aware clients. The implicit method requires that all clients of the FTPS server be aware that SSL is to be used on the session, and thus is incompatible with non-FTPS-aware clients.

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7. In the Connection Properties area, click the lookup button (magnifying glass) and select one of the properties in the following table:

   Click the plus sign to add another connection property.

Property Name	Property Value
ACTIVEMODE	To enable active mode, add the ACTIVEMODE property to the URL and set it to *Y*. The default FTPS connection mode is extended passive mode.
ACTIVEPORTOPTION	This property can be used along with ACTIVEMODE. When active mode is enabled, you can use ACTIVEPORTOPTION to specify the IP address and port on which the FTP server can be accessed. This is useful when the server is behind a firewall. By default, ACTIVEPORTOPTION uses the default IP address of your system. If you want to use a particular IP address, set the ACTIVEPORTOPTION value to either the full IP address, a host name to resolve to an IP address, or a local network interface name. You can also specify a port range. For example: *10.176.147.111:10000-13000*
CERTALIAS	Certificate Alias: The Certificate Alias must be an alias name of a certificate stored in the database (using the PeopleSoft PeopleTools Digital Certificates page). **Note.** Currently, only PEM certificates are supported for FTPS.
ENABLEEPRT	This option can be used only with Active Mode. If Active Mode is enabled and ENABLEEPRT is set to *N*, then the system will use a PORT (IPv4) Active Mode connection. By default, ENABLEEPRT is Y, if Active Mode is set to Y.
EXTENDEDPASSIVEMODE	• *0*: Disable EPSV • *1*: Enable EPSV This property enables you to control whether extended passive mode (EPSV) will be used by FTP. EPSV is used by default. That is, by default, this value is considered to be 1. If the client fails to connect to the server with EPSV, then the system will try passive mode (PASV). To use PASV only, add EXTENDEDPASSIVEMODE to the URL Properties and set it to 0.
JKSPASSWORD	Specify the Java keystore (JKS) password.
JKSPATH	Specify the Java keystore (JKS) user.

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Property Name	Property Value
KEYSTOREPASSWORD	This property is required for FTPS and HTTPS repositories. For attachments transferred from the PeopleSoft system to the FTPS or HTTPS repository, the system retrieves the key pair for the client certificate from the digital certificate store and writes the pair to a file in PKCS12 format with password protection. The value of this property will be used as the password for the PKCS12 file. The PKCS12 file enables connection and file transfer, and it exists only temporarily in <PS_SERVDIR>\files\<CERT ALIAS NAME> for the duration of the file transfer. The system deletes the file after the file transfer transaction. **Note.** If the system fails to delete the certificate alias file, a message will be written to the application server log. The maximum number of files that can exist at any time is equal to the total number of FTPS and HTTPS URL identifiers defined in the system. For information on setting the PS_SERVDIR environment variable, see the *PeopleTools: Integration Broker* product documentation.
PASSWORD	Specify the password associated with the USER property, which identifies the FTP User ID.
SSLUAGELEVEL	• *0 - No SSL*: No SSL will be used. • *1 - Try SSL*: Try using SSL, but proceed as normal otherwise. • *2 - Control*: Require SSL for the control connection. • *3 - SSL Only*: (Default) Require SSL for all communication.
USER	Specify the FTP User ID used for authentication when accessing the FTP site.
VERIFYHOST	• *0:* Do not verify the server for host name. • *1*: Check if there exists any value in the common name field in the server certificate. This check does not verify if it matches with what the client specifies. • *2*: (Default) Check for a match with the host name in the URL with the common name or Subject Alternate field in the server certificate.
VERIFYPEER	• *False*: Do not verify the peer. • *True*: (Default) Verify the peer by authenticating the certificate sent by the server.

8. If you need to specify an encrypted password in any of the property fields, use the Password Encryption area to generate the encrypted password, as follows:

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a. In the Password field, enter a password.
b. In the Confirm Password field, enter the password again.
c. Click Encrypt.

   The encrypted password is displayed in the Encrypted Password field.
d. From the Encrypted Password field, cut the encrypted password and then copy the encrypted value to the appropriate location.

9. Select Save to save your entries.
10. Click Validate to confirm that your entries are correct.

    The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.
11. To add additional report nodes, click Add to return to the Search page.

Defining the Report Node to Use SFTP

To define the report node to use SFTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.

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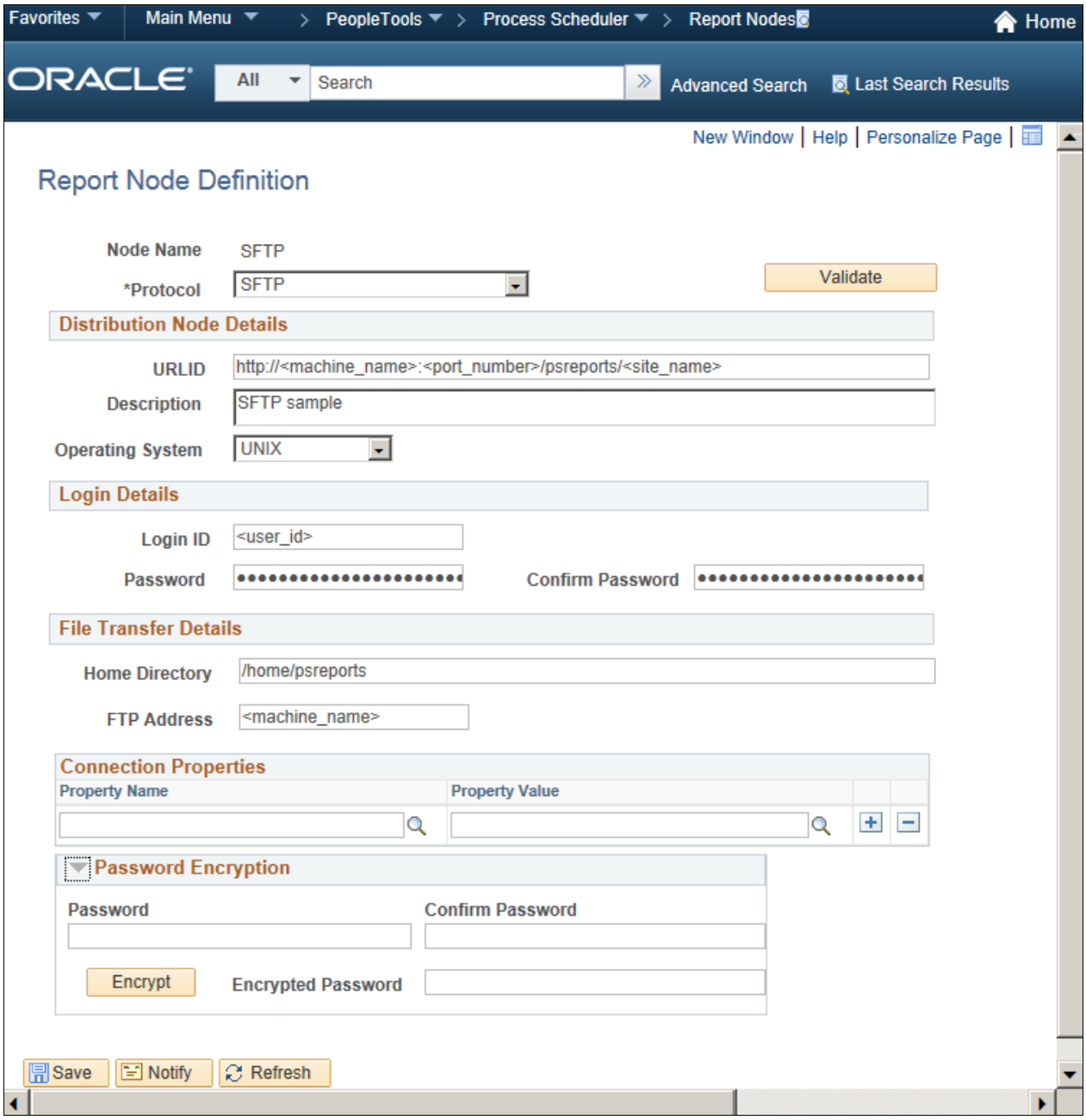
3. On the Report Node Definition page, select SFTP from the Protocol drop-down list.



Report Node Definition page for the SFTP protocol

4. In the Distribution Node Details area, enter the following information:

- *URLID*: 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. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

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Note. If you specify the Authentication Token Domain name during the PIA installation, you must include a fully qualified domain name for the URL instead of the IP address.

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.

- *Description*: Enter a description of the server (optional).
- *Operating System*: Select the operating system of the Report Repository, Windows or UNIX.
- *Network Path*: This information is not required for the SFTP protocol.

5. In the Login Details area, enter the following information:
   - *Login ID*: Enter the FTP User ID.
   - *Password and Confirm Password*: Enter the password, and enter it a second time, for the user ID specified in the Login ID field.
6. In the File Transfer Details area, enter the following information:
   - *Home Directory:* Enter the directory specified during the PIA installation as the Report Repository. The FTP User ID must have write access to this directory. Note that this is not a required field for FTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

     For UNIX, the default directory is <*user_home*>/PeopleSoft Internet Architecture/psreports/.
   - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.

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7. In the Connection Properties area, click the lookup button (magnifying glass) and select one of the properties in the following table.

   Click the plus sign to add additional connection properties.

Property Name	Property Value
AUTHTYPE	Select one of the following the authentication types: • *PUBLICKEY* • *PASSWORD* • *ANY*
PASSWORD	Specify the user password. You can enter the password in the Password Encryption box, click Encrypt, and then copy the encrypted value to the Password property.
PASSWORDKEY	Enter the password for the private key.
PRIVATEKEY	Select the private key.
PUBLICKEY	Select the public key.
SSHKEYALIAS	Select the SSH certificate saved to the database using the PeopleTools Security, Digital Certificates page (select PeopleTools, Security, Security Objects, Digital Certificates). The SSH certificate added through the Digital Certificates page contains both the public and private key data, identified by the Alias column value on the Digital Certificates page. If using the SSHKEYALIAS URL property, the Property Value prompt displays only the list of SSH certificates that have been added to the Digital Certificates page. If you have added the SSH certificate using the Digital Certificates page, and you have assigned an SSH certificate to the SSHKEYALIAS URL property, the system ignores the PUBLICKEY and PRIVATEKEY properties, regardless of whether they refer to valid key files in the file system. If you provided a password (or passphrase) when generating your SSH certificate, specify that value using the PASSWORDKEY URL property. See *PeopleTools: Security Administration,* "Configuring Digital Certificates."
USER	Specify the user ID to be authenticated.

8. If you need to specify an encrypted password in any of the property fields, use the Password Encryption area to generate the encrypted password, as follows:
   a. In the Password field, enter a password.
   b. In the Confirm Password field, enter the password again.
   c. Click Encrypt.

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The encrypted password is displayed in the Encrypted Password field.

d. From the Encrypted Password field, cut the encrypted password and then copy the encrypted value to the appropriate location.

9. Select Save to save your entries.
10. Click Validate to confirm that your entries are correct.

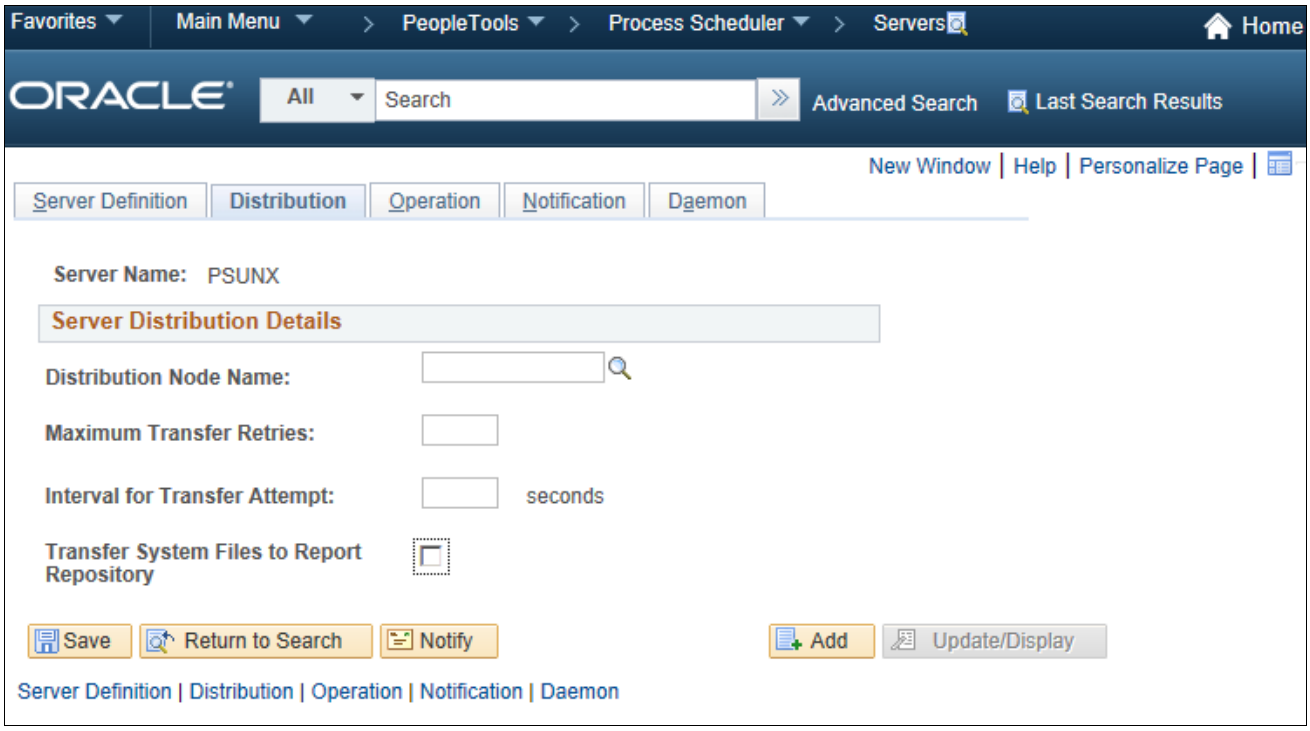
    The validation confirms that the necessary parameters are present and correct, and simulates a file transfer with the entered information. You either see a message that confirms the success of the validation, or a message that displays an error for missing parameters or an unsuccessful transfer simulation.

11. To add additional report nodes, click Add to return to the Search page.

Task 10B-3-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Select PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSUNX). The Server Definition page appears.
3. Select the Distribution tab.



Server Definition page for PSUNX: Distribution tab

4. Click the lookup button for Distribution Node Name 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.

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7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not 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 set up single signon in order to avoid getting a prompt for a second signon.

Task 10B-3-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *PeopleTools: Integration Broker.*

See *PeopleTools: Integration Broker Service Operations Monitor.*

Task 10B-4: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Changing the Default Operating System
- Setting Up Your Environment
- Creating and Configuring a Process Scheduler Server
- Reconfiguring a Process Scheduler Server
- Verifying the Process Scheduler Server Status

Understanding 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
PSUNX	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 the *PeopleTools: Process Scheduler* product documentation.

Note. When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

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Task 10B-4-1: 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 Microsoft Windows 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 Microsoft Windows-based programs (such as nVision) from UNIX, you must change the default operating system.

Note. If you do not change the default operating system from Windows to UNIX and you do not plan to set up a Process Scheduler Server Agent in Microsoft Windows, process requests that are created will be directed to a Microsoft Windows-based operating system and will remain in the "Queued" status.

To change the default operating system for process requests that were not assigned a Process Scheduler Server Name:

1. Select 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.*

Task 10B-4-2: Setting Up Your Environment

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately:

Note. The environment variables for Tuxedo must be set explicitly; they are not set by running psconfig.sh. These can be also set using the .profile file in the user's home directory.

- $TUXDIR must be set to the correct Oracle Tuxedo installation directory; for example:

  ```
  TUXDIR=/home/user/Oracle/tuxedo12cR1; export TUXDIR
  ```

- $TUXDIR/lib must be prepended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform; for example:

  ```
  LD_LIBRARY_PATH=$TUXDIR/lib:$LD_LIBRARY_PATH; export  LD_LIBRARY_PATH
  ```

- $TUXDIR/bin must be prepended to PATH; for example:

  ```
  PATH=$TUXDIR/bin:$PATH; export PATH
  ```

Alternatively, make sure the following environment variables are set in the profile file in the user's home directory:

If your application does not contain COBOL programs, you do not need to set the $COBDIR environment variables.

See "Preparing for Installation," Installing Supporting Applications.

- $ORACLE_HOME must point to the correct Oracle installation; for example:

  ```
  ORACLE_HOME=/products/oracle/11.2.0;export ORACLE_HOME
  ```

- $ORACLE_HOME/bin must be added to PATH; for example:

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```
PATH=$PATH:$ORACLE_HOME/bin;export PATH
```

- $ORACLE_HOME/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.
- $ORACLE_SID must be set to the correct Oracle instance; for example:

  ```
  ORACLE_SID=hdmo;export ORACLE_SID
  ```

- $COBDIR must be set to the Micro Focus Server Express installation; for example:

  ```
  COBDIR=/cobol/prod/svrexp-5.1_wp6;export COBDIR
  ```

- $COBDIR/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.

  ```
  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
  ```

- $COBDIR/bin must be appended to the PATH; for example:

  ```
  PATH=$PATH:$COBDIR/bin;export PATH
  ```

To set the required PeopleSoft environment variables, run psconfig.sh. Go to the *PS_HOME* directory and enter the following command:

```
. ./psconfig.sh
```

Note. After running psconfig.sh, you can invoke the PSADMIN utility from any location.

Task 10B-4-3: Creating and Configuring a Process Scheduler Server

This section describes how to create and configure a Process Scheduler server.

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_CFG_HOME/*appserv/prcs/*database name* directory. The following steps assume you are using PSADMIN to specify parameter settings.

Note. If you use the configuration file psprcs.cfg, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

To create and configure a Process Scheduler Server:

1. Run the `psadmin` command.

   You see the PeopleSoft Server Administration menu, as in this example:

   ```
   -------------------------------------------
   PeopleSoft Server Administration
   ---------------------------------
   PS_CONFIG_HOME       /home/JSMITH/psft/pt/8.55
   PS_HOME              /home/PT855
   PS_APP_HOME          /home/HC9.2

   1) Application Server
   ```

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```
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Replicate Config Home
7) Refresh Config Home
q) Quit

Command to execute (1-7 q):
```

2. Depending on your environment, you may see a message after the menu selection, which indicates that PSADMIN has modified the *PS_CFG_HOME/*peopletools.properties file with the current *PS_HOME* location:

```
************************************************************
PS_CFG_HOME/peopletools.properties file has been updated.
You should use the Config Home Refresh feature in PSAdmin
to ensure that all of your domains are current.
Alternatively, you may recreate all of your domains.
Please press any key to continue...
************************************************************
```

   This indicates that one of these situations exists:

   - The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
   - You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.
3. Select *2* to access the Process Scheduler submenus.
4. Select *2* for Create a domain from the PeopleSoft Process Scheduler Administration menu.

```
-----------------------------------------
PeopleSoft Process Scheduler Administration
-----------------------------------------
1) Administer a domain
2) Create a domain
3) Delete a domain
4) Import domain configuration

q) Quit

Command to execute (1-4, q) : 2
```

5. When prompted for the name of the database that your server will access, enter the name of the database, such as HRDMO in this example, and press ENTER:

```
Please enter name of Database that server will access : HRDMO
```

6. After the system creates the domain, the Quick-configure menu appears:

```
------------------------------------------------------------
Quick-configure menu -- domain: HRDMO
------------------------------------------------------------
      Features                      Settings
```


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```
     ==========                    ==========
  1) App Engine        : Yes     9) DBNAME     :[HRDMO]
  2) Master Scheduler  : Yes    10) DBTYPE     :[ORACLE]
  3) Perf Collator     : No     11) PrcsServer :[PSUNX]
  4) Domains Gateway   : No     12) UserId     :[QEDMO]
  5) Push Notifications: No     13) UserPswd   :[]
                                14) ConnectID  :[people]
                                15) ConnectPswd:[]
                                16) Log/Output Dir:[%PS_SERVDIR%/log_⇒
output]
                                17) SQRBIN     :[%PS_HOME%/bin/sqr/ORA⇒
/bin]
                                18) AddToPATH  :[%PS_HOME%/cblbin]
                                19) DomainConnectPswd: []

     Actions
    =========
  6) Load config as shown
  7) Custom configuration
  8) Edit environment settings
  h) Help for this menu
  q) Return to previous menu

HINT: Enter 9 to edit DBNAME, then 6 to load

Enter selection (1-18, h, or q):
```

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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. This table lists the parameters and gives brief descriptions.

Parameter	Description
Master Scheduler	Select this option to enable the Master Scheduler Server (PSMSTPRC). The default is to enable the server. See *PeopleTools: Process Scheduler.*
App Engine	Select this option to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). The default is set to run AE using PSAESRV. See *PeopleTools: Process Scheduler.*
Perf Collator	Select this option to enable the PSPPMSRV server process. See *PeopleTools: Performance Monitor,* "Enabling the Required Elements on the Monitoring System."
Domain Gateways	Select this option to enables inter domain communication, for example between Application Server and Process Scheduler domains. See *PeopleTools: Fluid User Interface Developer's Guide,* "Setting Up Push Notification Configurations."
Push Notifications	Select this option to enables pushing server events from PeopleSoft PeopleTools server runtime, such as Application Server and Process Scheduler, to browser clients and other PeopleSoft PeopleTools server runtime components. See *PeopleTools: Fluid User Interface Developer's Guide,* "Setting Up Push Notification Configurations."
Load config as shown	Load the selections you made in the Quick Configure menu.
Custom configuration	Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.
Edit environment settings	Edit, add, remove, comment out, and review domain-level environment variables.
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: ORACLE.
PrcsServer	Specify the process server name. This must match the name defined in the Server Definition table, such as *PSNT* or *PSUNX*.

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Parameter	Description
UserId	Enter the user ID, such as VP1 or PS.
UserPswd	Enter the password for the user ID, as you specified during the database configuration. The password is hidden by masking characters as you type, in the Quick-configure menu after entry.
ConnectID	Enter the connect ID. This value is required.
ConnectPswd	Enter the connect password, as you specified during the database configuration. This value is required. The password is hidden by masking characters as you type, in the Quick-configure menu after entry.
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 XRFWIN that ran with process instance 20 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.
SQRBIN	Enter the path to the SQR executables.
AddToPATH	(Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.
DomainConnectPswd	If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank. The password is hidden by masking characters as you type, and in the Quick-configure menu after entry. See the information on setting Application Server Domain Parameters in the *PeopleTools: System and Server Administration* product documentation.

For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, see the information on using PSADMIN in the *PeopleTools: Process Scheduler* product documentation. For a basic installation, in most cases you can accept the defaults.

8. When you have updated the settings as needed, choose *5, Load config as shown,* from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, pstuxcfg.
9. To start Process Scheduler, choose *1,* for Administer Domain.
10. On the PeopleSoft Process Scheduler Administration menu, choose *1* for Boot this domain.

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```
---------------------------------
PeopleSoft Process Scheduler Administration
---------------------------------

Domain Name: HRDMO

1) Boot this domain
2) Domain shutdown menu
3) Domain status menu
4) Configure this domain
5) TUXEDO command line (tmadmin)
6) Edit configuration/log files menu
7) Clean IPC resources of this domain
q) Quit

Command to execute (1-7, q) :
```

11. Choose *1*, Boot (Serial Boot), or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

12. If you want to stop Process Scheduler Server, from the PeopleSoft Domain Administration menu, choose *2*, for Domain Shutdown menu, and then enter the number corresponding to the name of the appropriate database.

Note. If you see the following message, then the server is already down:

```
Command to execute (1-2, q) [q]: 1 Loading command line administration
utility ... tmadmin - Copyright (c) 2007-2008, Oracle. Portions *
Copyright 1986-1997 RSA Data Security, Inc. All Rights Reserved.
Distributed under license by Oracle. Tuxedo is a registered trademark. No
bulletin board exists. Entering boot mode. > TMADMIN_CAT:111: ERROR: No
such command.
```

Task 10B-4-4: Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. Alternatively, you can use PSADMIN as described in this section. Feel free to skip this procedure if you have 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.

To reconfigure a Process Scheduler Server:

1. Run the command:

   ```
   psadmin
   ```

2. Depending on your environment, you may see a message after the initial menu, which indicates that PSADMIN has modified the *PS_CFG_HOME/*peopletools.properties file with the current *PS_HOME* location:

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```
************************************************************
PS_CFG_HOME/peopletools.properties file has been updated.
You should use the Config Home Refresh feature in PSAdmin
to ensure that all of your domains are current.
Alternatively, you may recreate all of your domains.
Please press any key to continue...
************************************************************
```

This indicates that one of these situations exists:

- The *PS_CFG_HOME* that you are working with was used previously from a different *PS_HOME*. In this case, you should recreate any existing Application Server, Process Scheduler, Search, or PIA domains in this *PS_CFG_HOME*.
- You configured your environment such that *PS_CFG_HOME* is the same as *PS_HOME*. The first time you use PSADMIN to create a domain, it updates the *PS_CFG_HOME/*peopletools.properties file. Continue with the next step.

3. Select *2* for Process Scheduler in the PeopleSoft Server Administration menu.
4. In the PeopleSoft Process Scheduler Administration menu, select *1* for Administer a domain.
5. Select the database for which the Process Scheduler needs to be configured.
6. You see the following 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.
7. Specify the 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=
     StandbyDBName=
     StandbyDBType=
     StandbyUserId=
     StandbyUserPswd=
     InMemoryDBName=
     InMemoryDBType=
   Do you want to change any values (y/n)? [n]:
   ```

   - Specify *y* to change any parameter values 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.
   - The parameters StandbyDBName, StandbyDBType, StandbyUserID, and StandbyUserPswd are used for a standby database in an Oracle database environment.

     See the information on implementing Oracle Active Data Guard in the *PeopleTools: Data Management*, product documentation.

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- The parameters InMemoryDBName and InMemoryDBType are reserved for internal use.
- If you do not want to change any values, specify *n* and you are prompted for the next configuration section.

8. After you have selected all your parameters, you see this message:

```
You will need to shut down and start up the server to read the new⇒
 settings.
```

For descriptions of the Process Scheduler options in the PSADMIN, see the *PeopleTools: Process Scheduler* product documentation. In most cases you can accept the defaults.

Task 10B-4-5: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, choose option *3*, for Domain status menu.

```
--------------------------------
PeopleSoft Process Scheduler Administration
--------------------------------

Domain Name: HRDMO

1) Boot this domain
2) Domain shutdown menu
3) Domain status menu
4) Configure this domain
5) TUXEDO command line (tmadmin)
6) Edit configuration/log files menu
7) Clean IPC resources of this domain
q) Quit

Command to execute (1-7, q) : 3
```

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

Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008 Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.

> Prog Name      Queue Name  Grp Name      ID RqDone Load Done Current⇒
```


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```
 Service
---------      ----------  --------      -- ------ --------- -----------⇒
----
DDL            46845       pt-ibm20       0      9       450 (  IDLE )
PSMONITORSRV   MONITOR     MONITOR        1      0         0 (  IDLE )
PSAESRV        00101.00001 AESRV          1      0         0 (  IDLE )
PSAESRV        00101.00002 AESRV          2      0         0 (  IDLE )
PSAESRV        00101.00003 AESRV          3      0         0 (  IDLE )
PSPRCSRV       SCHEDQ      BASE         101      0         0 (  IDLE )
PSMSTPRC       MSTRSCHQ    BASE         102      0         0 (  IDLE )
PSDSTSRV       DSTQ        BASE         103      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 status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to PeopleTools, Process Scheduler, Process Monitor, and select *Server List.*

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Part II

Discretionary Installation

The second part of the installation guide includes optional tasks, tasks that are only required by certain environments, and those that you may decide to defer until after the initial installation.

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Chapter 11

Configuring Integration Between PeopleSoft PeopleTools and Oracle SES

This chapter discusses:

- Understanding PeopleSoft PeopleTools and SES Integration
- Preparing for the Integration of PeopleSoft PeopleTools and SES
- Configuring SES for the Search Framework
- Setting Up the PeopleSoft Application Server for the Search Framework
- Setting Up Search Framework User IDs
- Using the Search Administration Activity Guide
- Verifying PeopleSoft PeopleTools and SES Connectivity

Understanding PeopleSoft PeopleTools and SES Integration

The PeopleSoft Search Framework provides a standard, declarative method for creating, deploying, and maintaining search indexes for all of your PeopleSoft applications. Oracle Secure Enterprise Search (SES) is the search engine on which the PeopleSoft Search Framework relies.

Before you can set up integration between PeopleSoft PeopleTools and Oracle Secure Enterprise Search, you must first have SES installed and running successfully. Then you need to ensure that various elements on the PeopleSoft Application Server and PeopleSoft Integration Broker are set appropriately. Integration Broker is the vital link between PeopleSoft PeopleTools and SES. As such, it is essential to make sure that the gateway, domains, nodes, services, and WSDL elements are activated and configured properly.

Important! Before installing Oracle's Secure Enterprise Search (SES) we highly recommend that you review our deployment and sizing recommendations provided in "Oracle Secure Enterprise Search Deployment Considerations for PeopleSoft 9.2" (Doc ID: 1684035.1) found on My Oracle Support. This article provides information regarding the essential hardware for SES and information to help ensure capacity for peak concurrent usage of your PeopleSoft 9.2 environment. Failing to follow these recommendations can impact the performance and stability of your PeopleSoft 9.2 environment.

See Also

PeopleTools: Search Technology

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Task 11-1: Preparing for the Integration of PeopleSoft PeopleTools and SES

This section discusses:

- Installing Oracle Secure Enterprise Search
- Reviewing the PeopleSoft PeopleTools Prerequisites

Task 11-1-1: Installing Oracle Secure Enterprise Search

Before you begin the tasks in this chapter to integrate PeopleSoft PeopleTools and Oracle SES for the PeopleSoft Search Framework, you must obtain Oracle SES from the Oracle Software Delivery Cloud portal, and complete the installation. Use the Oracle Secure Enterprise Search documentation for hardware and software requirements, and installation instructions.

See Installation and upgrade guide, Oracle Secure Enterprise Search Documentation 11g Release 2 (11.2.2.0.0), http://docs.oracle.com/cd/E35215_01/index.htm.

PeopleSoft PeopleTools 8.55 supports Oracle SES 11.2.2.2. Be sure to check My Oracle Support Certifications for up-to-date certification information. Check My Oracle Support for any patches, updates, or fixes you need to apply for your Oracle SES installation.

After you complete the Oracle SES installation, make sure to record the following information, as it will be required when configuring the integration between Oracle SES and PeopleSoft PeopleTools:

- SES server host name, and the port on which SES is listening.

  For example: sesserver.example.com:7777
- SES administrator user ID and password, as in the credentials you use to sign on to the SES administration console.

Task 11-1-2: Reviewing the PeopleSoft PeopleTools Prerequisites

Before you begin the tasks in this chapter to integrate PeopleSoft PeopleTools and Oracle SES for the PeopleSoft Search Framework, the following items need to be installed, configured, and functional:

- PeopleSoft PeopleTools

  You need to have installed PeopleSoft PeopleTools and have at least the following items configured, as described in the previous chapters of this installation documentation:

  - PeopleSoft database
  - Application server
  - Process Scheduler server
  - Integration Broker

    See *PeopleTools: Integration Broker Administration.*
- PeopleSoft Application

  Because the searching feature is intended primarily for your end users, having your PeopleSoft application database installed and available is recommended. This will allow you to define realistic search objects for your testing and production environments.

  See your PeopleSoft application installation documentation.

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Record the PeopleSoft Pure Internet Architecture signon URL as it will be required when carrying out the tasks in this chapter:

For example: http://hostname.example.com:80/ps/signon.html

See "Setting Up the PeopleSoft Pure Internet Architecture," Accessing the PeopleSoft Signon.

Task 11-2: Configuring SES for the Search Framework

This section discusses:

- Understanding the Oracle SES Configuration
- Creating a Federated Trusted Entity
- Activating the Identity Plug-in
- Configuring SES Authentication Timeout Settings
- Enabling Character Set Detection
- Activating the Document Service Plugin
- Using a Proxy with Oracle SES

Understanding the Oracle SES Configuration

After you have Oracle SES installed and running, you need to carry out the post-installation procedures in this section to prepare the Oracle SES instance for integration with a PeopleSoft application system.

To complete these steps you will need access to the Oracle SES administration console, using the following URL syntax:

http://*<host>:<port>*/search/admin/index.jsp

See Also

Administrator's Guide, Oracle Secure Enterprise Search Documentation 11g Release 2 (11.2.2.0.0), http://docs.oracle.com/cd/E35215_01/index.htm

Task 11-2-1: Creating a Federated Trusted Entity

To create a federated trusted entity:

1. Sign on to the Oracle SES administration console.
2. Select the Global Settings tab.
3. In the Search list, select the Federation Trusted Entities link.
4. In the Entity Name edit box, enter the entity you want to create.
5. For Entity Password enter a password to associate with the trusted entity.

   Note. Make note of the entity name and password, as you will be required to submit these credentials when defining the Oracle SES instance in the PeopleSoft Search Framework administration interface.

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Note. The Identity Plug-in check box does not need to be selected, nor does the Authentication Attribute edit box have to be populated.

6. (Recommended) In the Description edit box, add text to distinguish this entity.
7. Click Add.

Task 11-2-2: Activating the Identity Plug-in

To activate the identity plug-in:

1. Sign on to the Oracle SES administration console.
2. Select the Global Settings tab.
3. Under System, select the Identity Management Setup link.
4. On the Identity Management Setup page, select PeopleSoft source type from the Available Identity Plug-ins list and click the Activate button.

   Note. Only one identity plug-in can be active.

5. Specify the following parameters:
   - HTTP endpoint for authentication: Enter the URL to your PeopleSoft listening connector using the following syntax:

     http://*<machine_name>:<port>*/PSIGW/PeopleSoftServiceListeningConnector

     Note. If you need to specify an end point on a node other than the default node, then specify that node name in the URL. For example, for node name PS_HR:

     http://sesserver12:7779/PSIGW/PeopleSoftServiceListeningConnector/PS_HR

   - User ID: Enter the user ID that is the Search Framework administrator on the PeopleSoft side. That is, specify the user with Search Framework permission lists associated with it.
   - Password: Enter the password associated with your Search Framework administrator user ID.
   - ToolsRelease: Enter the PeopleSoft PeopleTools version number, for example 8.55.
6. Click Finish.

See Also

PeopleTools: Security Administration

Setting Up Search Framework User IDs

Task 11-2-3: Configuring SES Authentication Timeout Settings

The default Oracle SES timeout settings may not be suitable for contacting the PeopleSoft system and retrieving authentication and authorization data. To ensure that the two systems interact successfully, it is recommended that you modify these settings to avoid authentication or authorization timeout scenarios. In general, the timeout setting should be high enough to allow for the Oracle SES instance to contact the PeopleSoft web service operation endpoint to retrieve the authentication data.

To configure Oracle SES authentication timeout settings:

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1. Sign on to the Oracle SES administration console.
2. Select the Global Settings tab, and click the Query Configuration link under Search.
3. In the General area, set Maximum Number of Results to 999999.
4. Scroll down to the Query-time Authorization Configuration section and set the Timeout Threshold setting to at least 120000 milliseconds.
5. In the Secure Search Configuration section under the Security Filter Configuration subsection, set these similar to the following:
   - Security Filter Lifespan: 1440
   - Authentication Timeout: 1200000
   - Authorization Timeout: 180000
6. Click Apply.

Task 11-2-4: Enabling Character Set Detection

The character set detection feature enables the crawler to automatically detect character set information for HTML, plain text, and XML files. Character set detection allows the crawler to properly cache files during crawls, index text, and display files for queries. This is important when crawling multibyte files (such as files in Japanese or Chinese).

This feature is currently accessible from the Oracle SES Administration console. It is turned on by default.

Task 11-2-5: Activating the Document Service Plugin

Use the following steps to activate the PeopleSoft search-specific document service plugin, which is delivered with the Oracle SES installation. Activating the document service plugin is required to access all types of indexes.

To activate the document service plugin:

1. Log in to the SES administration console with your administration credentials.
2. Select the Global Settings page.
3. Click Document Services under Sources.
4. Click the Edit icon on the Default pipeline.
5. Select Create New Manager, and click Next.
6. Select the instance *Default PeopleSoft Doc Service Instance* in the Available Services pane, and click Move to make the service appear in the Used in pipeline pane.
7. Click Apply.

Task 11-2-6: Using a Proxy with Oracle SES

To use an HTTP proxy with the Oracle SES search framework,

- Follow the instructions for registering a proxy in the Oracle SES administrator's guide.

  See *Secure Enterprise Search Administrator's Guide*, Oracle Secure Enterprise Search Documentation 11g Release 2 (11.2.2.2), http://docs.oracle.com/cd/E35215_01/admin.11222/e35070/tuning002.htm#BENRI10055.
- Follow the instructions in this section to set up the PeopleSoft Integration Broker.

  See Using the Search Administration Activity Guide.

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- Specify the proxy in the integrationGateways.properties file.

  See *PeopleTools: Integration Broker Administration,* "Running Integration Gateways Behind Proxy Servers."

Task 11-3: Setting Up the PeopleSoft Application Server for the Search Framework

Your application server domain may be set up as per your site's typical specifications, however, make sure your domain meets these Search Framework requirements:

- At least two PSAPPSRV server processes are set to start in the domain.
- The Pub/Sub Servers (Publish/Subscribe) feature is enabled for the domain.

See *PeopleTools: System and Server Administration.*

Task 11-4: Setting Up Search Framework User IDs

Depending on the user, you will need to set up different permissions for Search Framework tasks. PeopleSoft PeopleTools provides the permission lists described in the following table. To enable Search Framework tasks for a user, your PeopleSoft Security Administrator should verify that these roles exist. If not, the Security Administrator should add the roles as follows:

1. Select PeopleTools, Security, User Profiles, User Profiles.
2. Select a User ID.
3. On the User Profiles page, select the Roles tab.
4. Add the roles, as listed in the following table.

Permission List	Role	Description
PTPT3100	Search Administrator	Provides access to the Search Framework development pages used for managing searchable objects within the PeopleSoft database.
PTPT3200	Search Developer	Provides access to the Search Framework administrative pages used for managing searchable objects on the search engine. **Note.** In addition, set up security such that the Search Administrator has access to the records on which the queries are built. For more information, see your PeopleSoft application installation documentation.

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Permission List	Role	Description
PTPT3300	Search Server	Used by the search engine for accessing the Search Framework web services on the PeopleSoft system. This permission list would be passed as the "call-back ID" specified on the Search Instance administration page. **Note.** In addition, set up security such that the Search Server user has access to the records on which the queries are built. For more information, see your PeopleSoft application installation documentation.

See Also

PeopleTools: Security Administration

Task 11-5: Using the Search Administration Activity Guide

This section discusses:

- Understanding the Search Administration Activity Guide
- Setting Up the Local Nodes
- Specifying the Integration Gateway
- Verifying the Service Configuration
- Defining a Search Instance in the PeopleSoft System

Task 11-5-1: Understanding the Search Administration Activity Guide

The Search Administration Activity guide organizes the tasks required to configure the PeopleSoft Integration Broker and define a search instance. The activity guide includes a list of tasks that are linked to transactions for the required and optional procedures. As the tasks are marked as complete, the activity guide progress is updated.

See *PeopleTools: Portal Technology,* "Understanding Activity Guides."

In order for the Search Framework to interact with the Oracle SES server, various elements of the PeopleSoft Integration Broker architecture need to be configured for your search environment. This section assumes you have a working knowledge of the PeopleSoft Integration Broker architecture and the associated administrative tasks.

See *PeopleTools: Integration Broker.*

See *PeopleTools: Integration Broker Administration.*

Task 11-5-2: Setting Up the Local Nodes

Use this procedure to configure the default local node and all other local nodes. To set up the local nodes:

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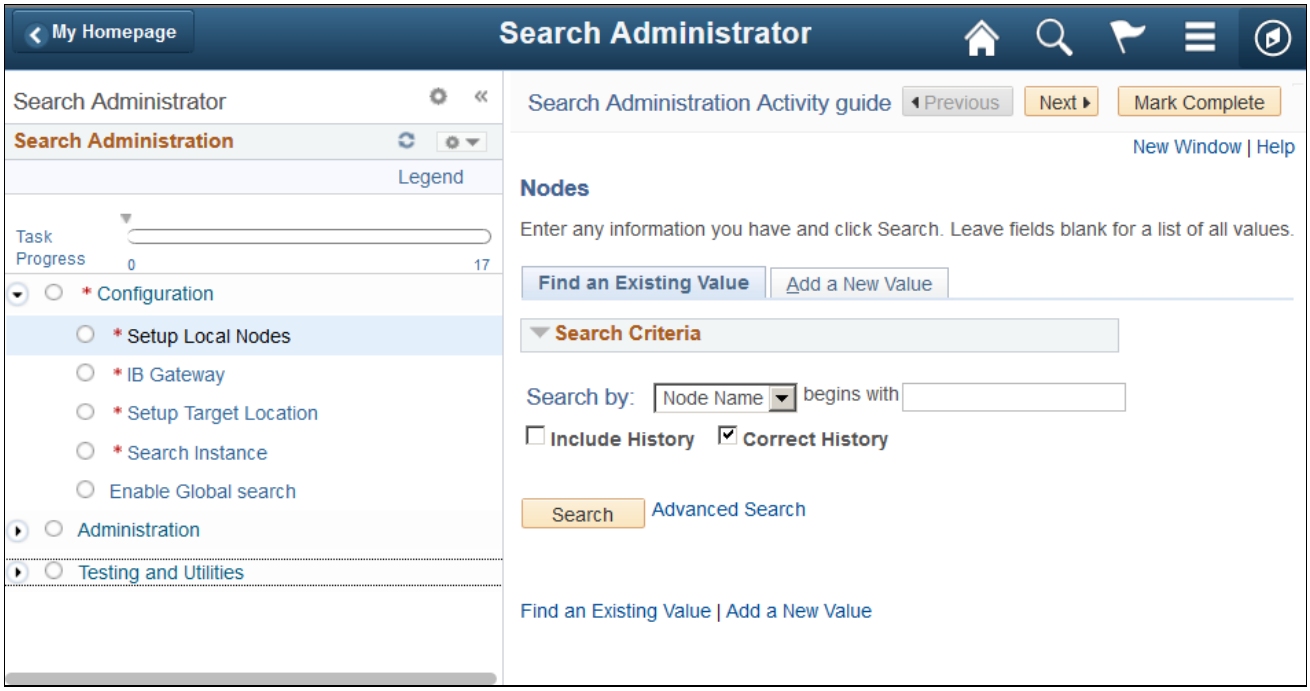
1. Select PeopleTools, Search Framework, Search Administrator to access the Search Administration Activity guide.



Search Administration Activity guide menu

2. Select Configuration, Setup Local Nodes.

   Locate and open the Default Local Node (in the list of results, Local Node = 1 and Default Local Node = Y).

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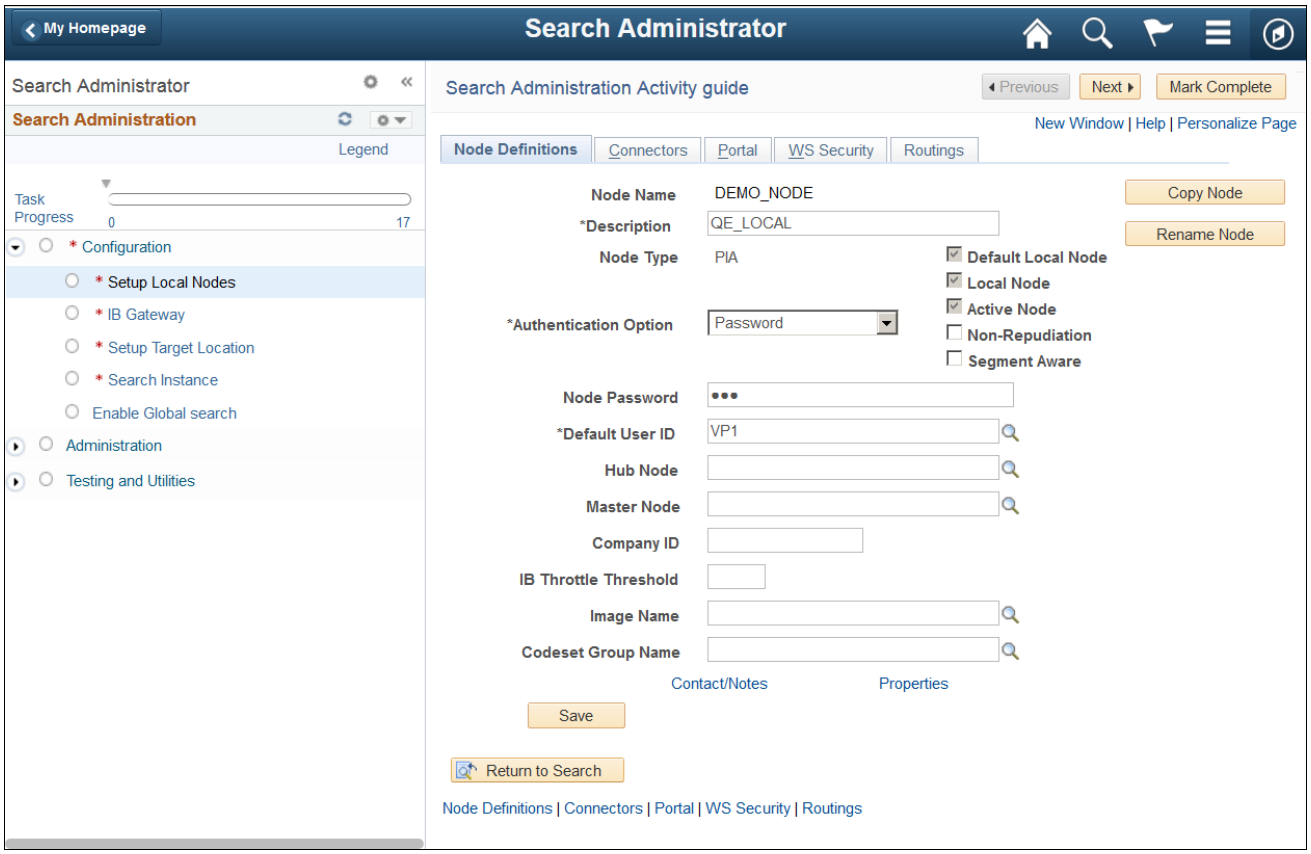
3. For the Default Local Node select the Node Definitions page, as shown in this example:



Setup Local Nodes: Node Definitions page

4. Select one of the following values for Authentication Option:
   - Password
   - Certificate

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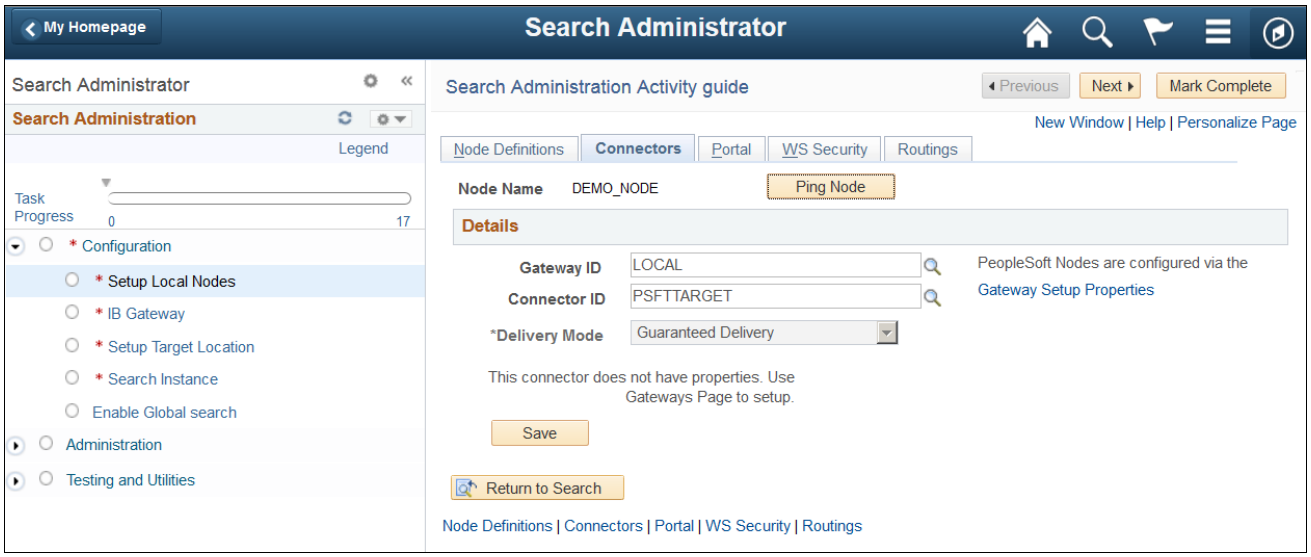
5. Select the Connectors page, shown in this example:



Setup Local Nodes: Connectors page

6. On the Connectors page make sure the following options are set:
   - Gateway ID = Local
   - Connector ID = PSFTTARGET

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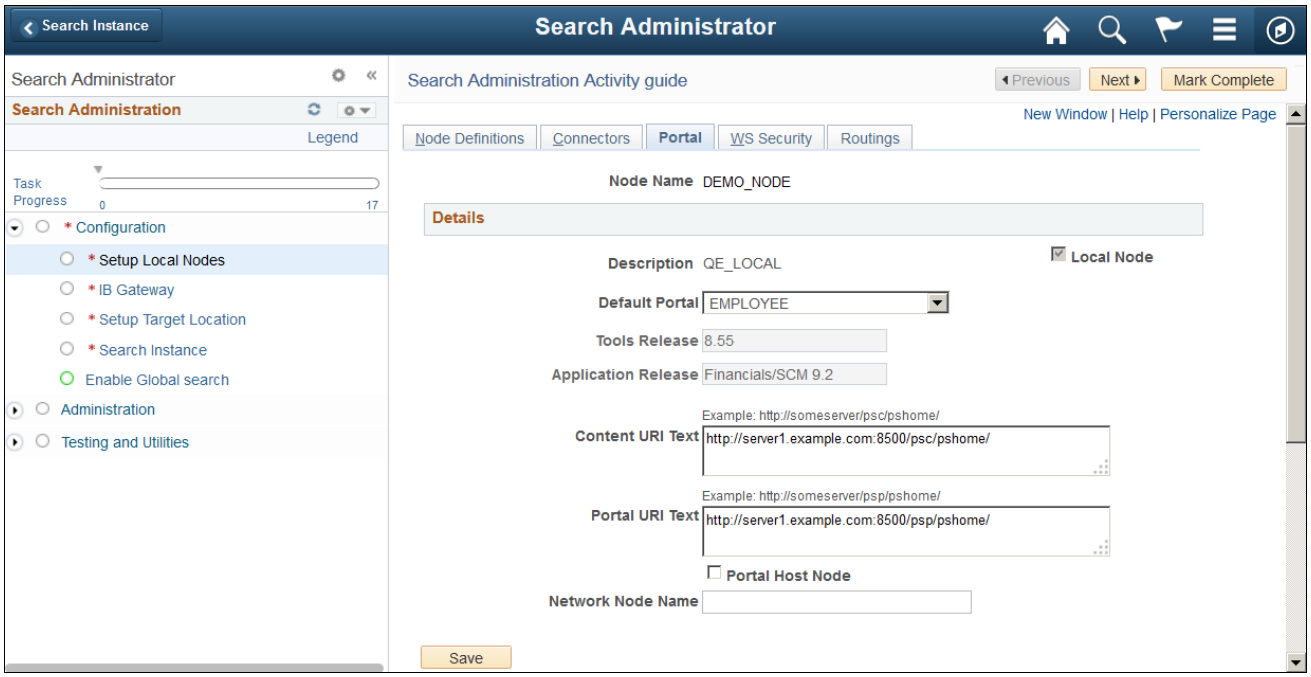
7. On the Nodes page, select the Portal page, shown in this example:



Setup Local Nodes: Portal page

Make sure the following items are specified:

- Default Portal
- Tools Release

  For example 8.55
- Application Release

  For example Financials/SCM 9.2
- Content URI Text

  For example http://*<host>*:*<port>*/psc/pshome/

  Note. The forward slash (/) at the end of the URL is required. The port value is optional.
- Portal URI Text

  For example http://*<host>*:*<port>*/psp/pshome/

  Note. The forward slash (/) at the end of the URL is required. The port value is optional.

8. Click Save.
9. After you configure the default local node, return to the search results and locate all other local nodes (Local Node = 1 and Default Local Node = N).
10. Open each local node.
11. On the node page, select the Portal tab and make sure the following items are specified:
    - Content URI Text

      For example http://*<host>*:*<port>*/psc/pshome/

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Note. The forward slash (/) at the end of the URL is required. The port value is optional.

- Portal URI Text

  For example http://*<host>:<port>*/psp/pshome/

Note. The forward slash (/) at the end of the URL is required. The port value is optional.

12. Click Save.
13. To track your progress in the activity guide, click Mark Complete.

See Also

PeopleTools: Integration Broker Administration, "Configuring Nodes"

Task 11-5-3: Specifying the Integration Gateway

To set up the PeopleSoft Integration Broker for the Search Framework:

1. In the Search Administration Activity guide, select Configuration, IB Gateway, and locate the local gateway.
2. Specify the Integration Gateway URL using the following syntax:

   http://*<machine_name>:<port>*/PSIGW/PeopleSoftListeningConnector

   The *<machine_name>* refers to the web server hosting the gateway, and *<port>* is the HTTP or HTTPS port.
3. Click Ping Gateway to make sure the gateway is active and available.

   See *PeopleTools: Integration Broker Administration,* "Administering Integration Gateways."
4. Click Save.
5. If prompted to load connectors, click Yes.
6. Select the Gateways Setup Properties link.

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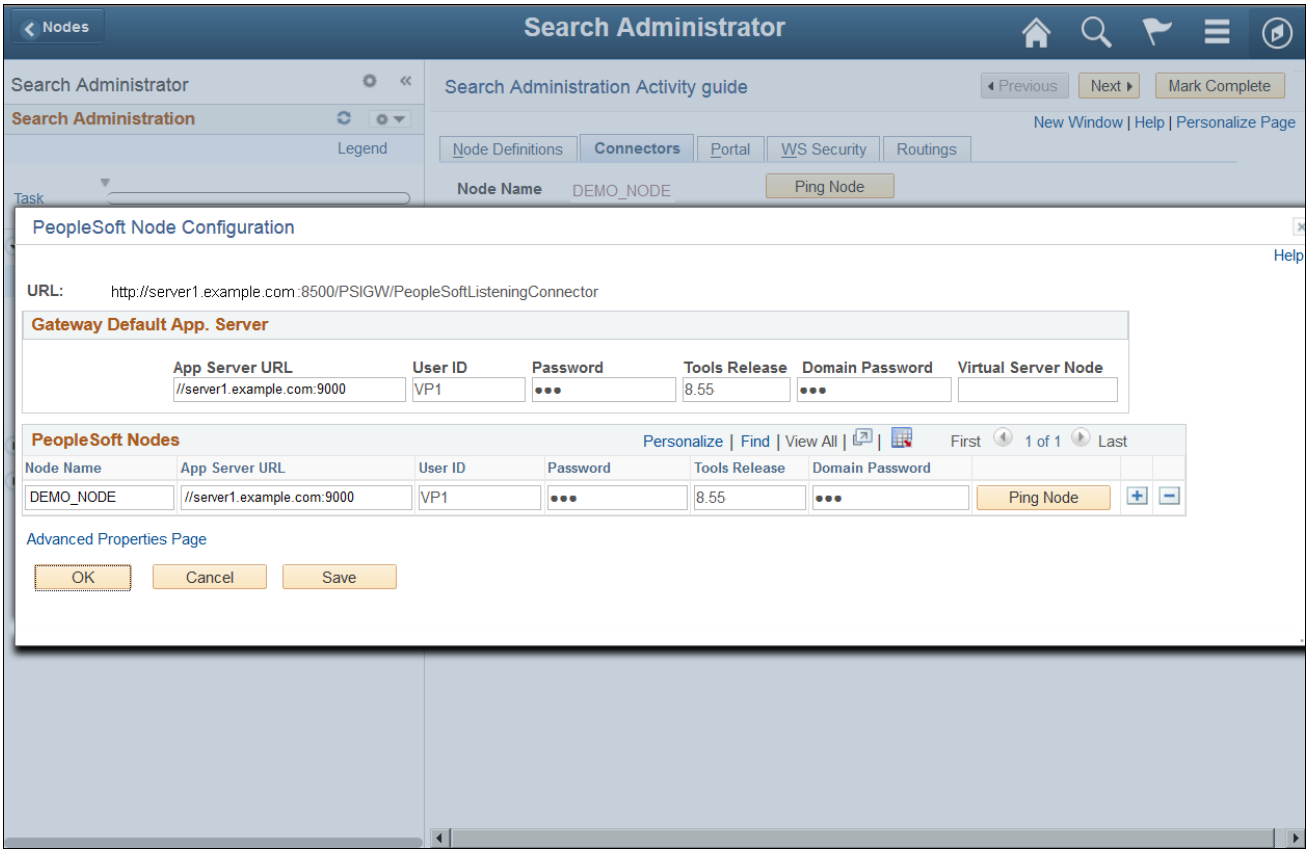
7. Enter the user ID and password to sign on in the Gateway Properties dialog box.

   The PeopleSoft Node Configuration page opens, shown in this example:



PeopleSoft Node Configuration page

   Set the following Gateway Default App. Server values:

   - Application Server URL

     For example, *<machine_name>:<Jolt_port>*
   - User ID
   - Password
   - Tools Release
   - Domain Password
   - Virtual Server Node

8. Set the PeopleSoft Nodes values for your local node.
9. Select the Advanced Properties Page link.

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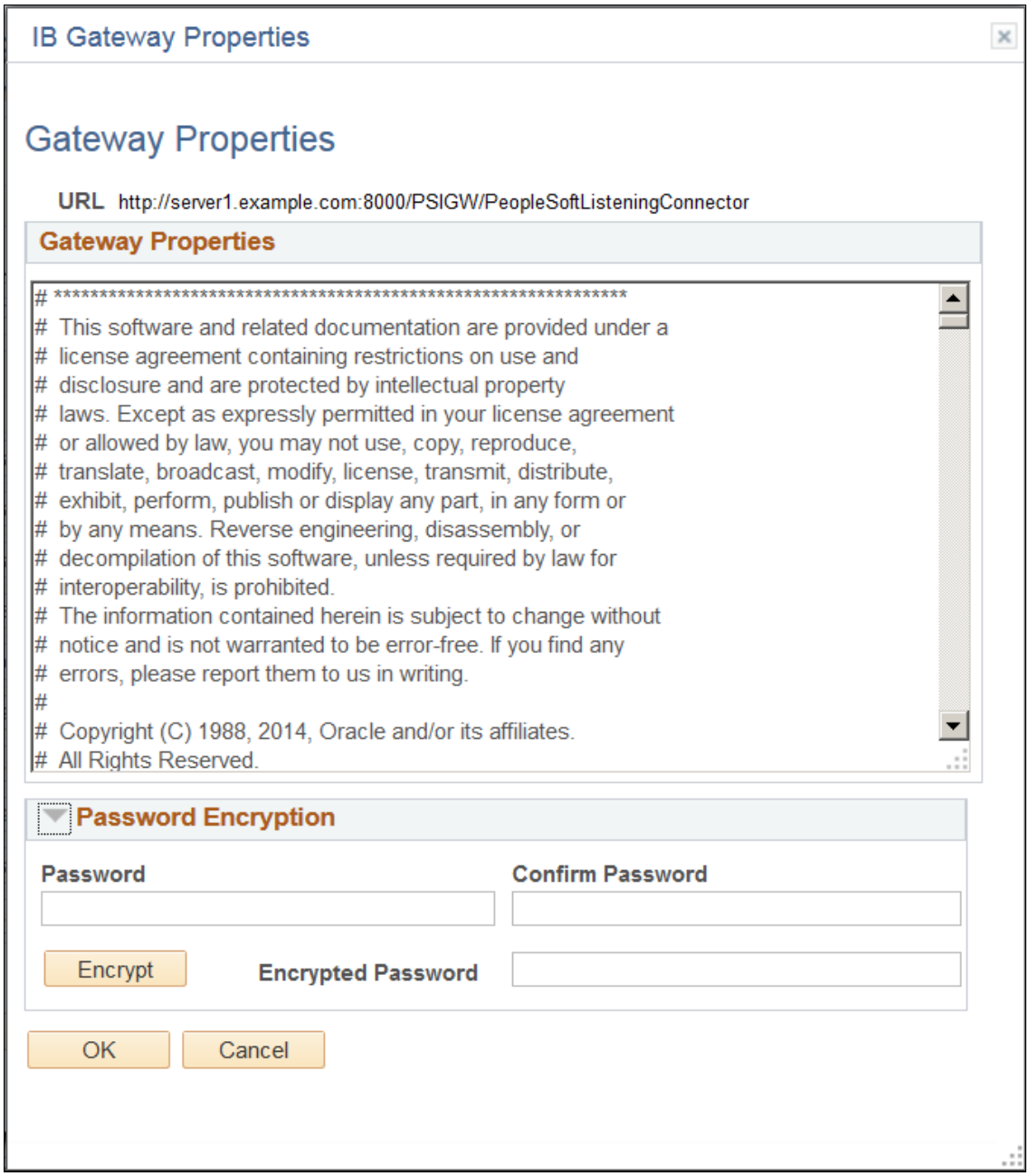
10. Expand the Password Encryption section on the Gateway Properties window, shown in this example, if necessary.

    Specify the password in the Password and Confirm Password fields.



IB Gateway Properties window

11. Click Encrypt Password, and copy the resulting encrypted password.
12. In the Gateway Properties box, locate the secureFileKeystorePasswd parameter, and paste in the encrypted password. For example:

    ```
    secureFileKeystorePasswd={V1.1}7m4OtVwXFNyLc1j6pZG69Q==
    ```

13. Click OK.
14. On the PeopleSoft Node Configuration window, click Ping Node to confirm the node is accessible and active.

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15. Click Save and OK.
16. To track your progress in the activity guide, click Mark Complete.

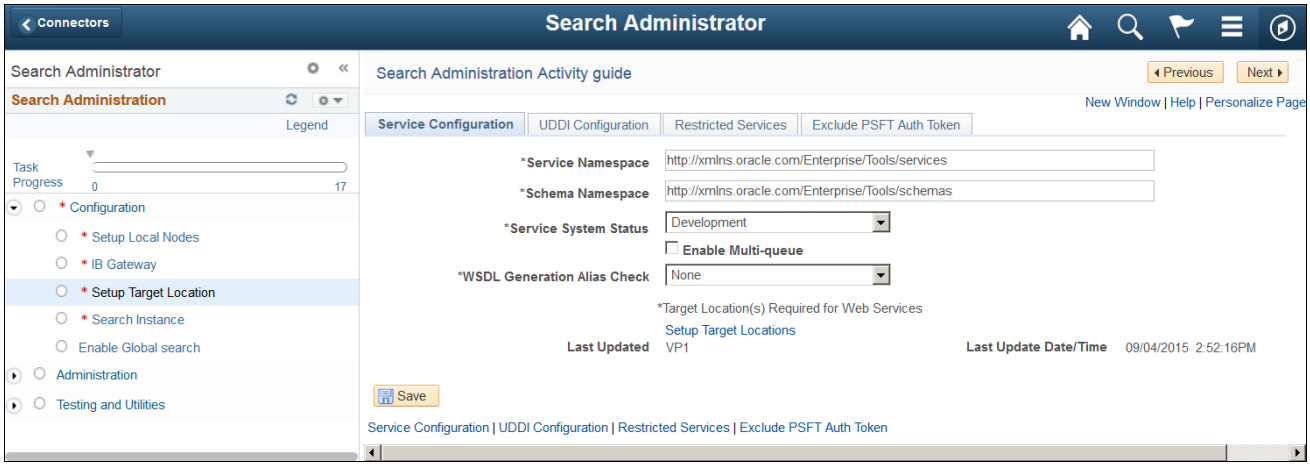
Task 11-5-4: Verifying the Service Configuration

Verify these key elements of the service configuration:

- The Service Operation should be set to the correct target location (end point URL).
- The Oracle SES search engine exposes administration and search APIs as web service operations. To make use of those web services you need to verify the appropriate counterpart PeopleSoft services exist on your system.

To verify the service configuration:

1. In the Search Administration Activity guide, select Configuration, Setup Target Location.



Setup Target Location: Service Configuration page

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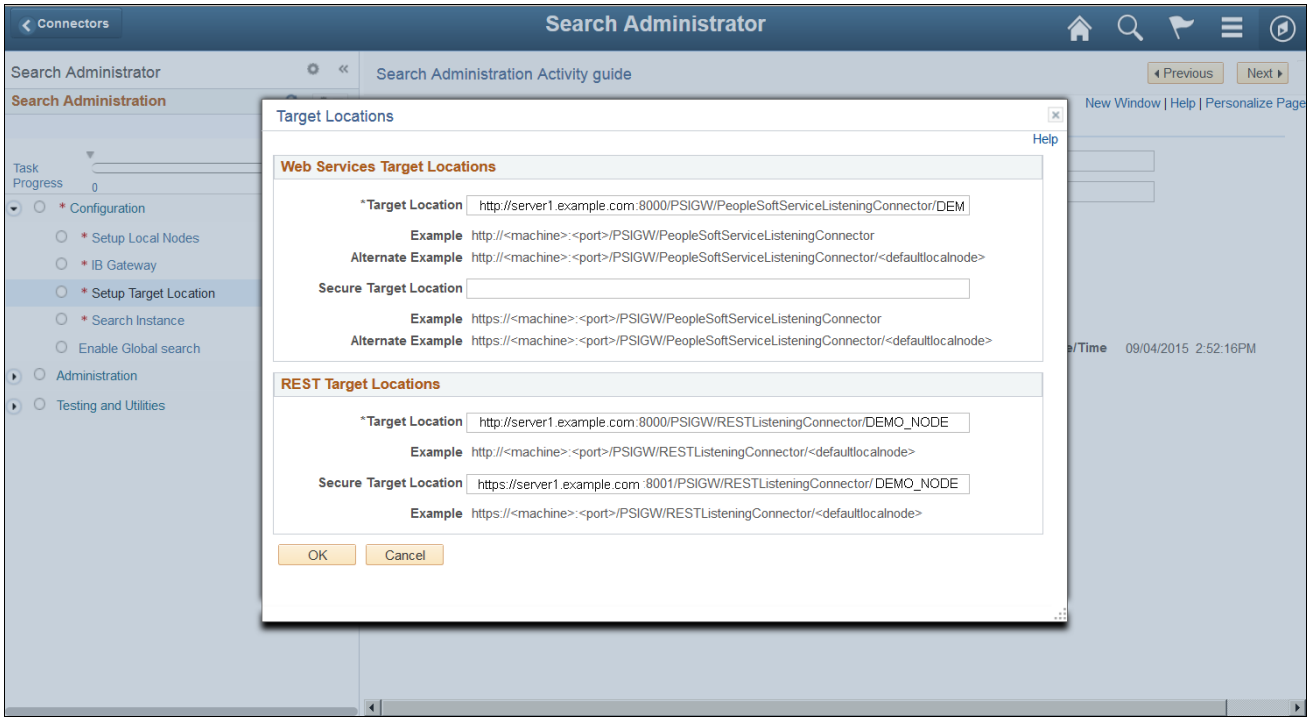
2. On the Service Configuration page, update the Target Location by clicking Setup Target Locations.

   The Target Locations window opens, as shown in this example:



Target Locations window

3. In the Web Services Target Locations area, update the Target Location setting to reflect your environment.

   For example, http://*<machine_name>:<port>*/PSIGW/PeopleSoftServiceListeningConnector
4. In the REST Target Locations area, update the Target Location setting to reflect your environment.

   For example, http://*<machine_name>:<port>*/PSIGW/RESTListeningConnector/*<default_local_node>*
5. Click OK to close the window.
6. On the Service Configuration page, click Save.
7. To track your progress in the activity guide, click Mark Complete.

Task 11-5-5: Defining a Search Instance in the PeopleSoft System

To define a search instance:

1. In the Search Administration Activity guide, select Configuration, Search Instance.

   Click Add new value to define a search instance.

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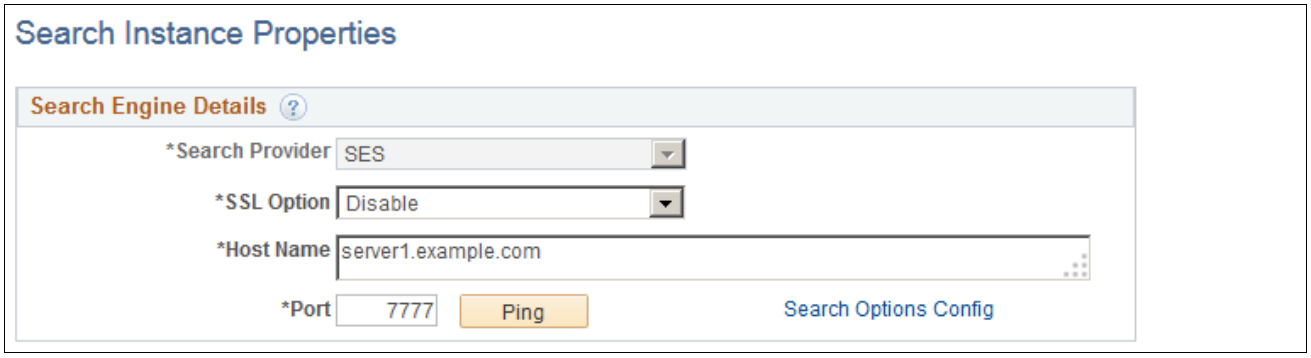
2. On the Search Instance Properties page, provide search engine details.

   The search engine values enable connectivity between the PeopleSoft system and Oracle SES.

Note. The examples show the appearance after information has been entered and the page saved. Some of the buttons and links on the page are not visible until the page is saved.



Search Engine Details area of Search Instance Properties page

- Search Provider

  This field is set to SES by default.

- SSL Option

  Select one of these options for Oracle SES:

  DISABLE. Select if you do not have SSL configured between Oracle SES and your PeopleSoft system, as shown in the example.

  ENABLE. Select if you do have SSL configured between Oracle SES and your PeopleSoft system.

- Host Name

  Enter the server name of the host where Oracle SES is running, including the domain. For example, server1.example.com. To specify the host, you may use the host name or an IP address.

- Port

  Enter the port on which Oracle SES listens for request, for example, 7777.

- Ping

  After you enter information in the required fields on the Search Instance Properties page, and save the page, the Ping button, as shown in the example, appears. Click the Ping button to verify access to the Oracle SES system. If the test is successful, you see a message displaying the current version of the Oracle SES administrative service.

- Search Options Config

  Select this link to specify global settings for the search configuration.

  See *PeopleTools: Search Technology*, "Managing General Search Options."

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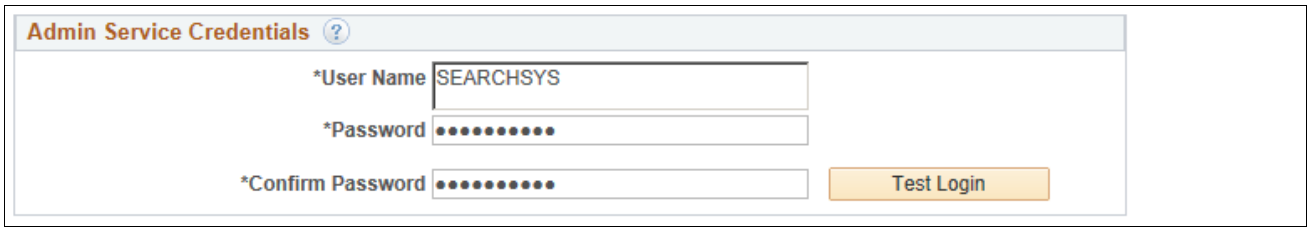
3. Specify the following Oracle SES administrative credentials so that your PeopleSoft system has the appropriate access to connect to the Oracle SES server and perform various administrative tasks, such as deploying search objects, building indexes, scheduling crawling, and so on.



Admin Service Credentials area of Search Instance Properties page

- User Name

  Enter the user name for logging into the Secure Enterprise Search Administration GUI. The default administrator user name is SEARCHSYS, as shown in the example.

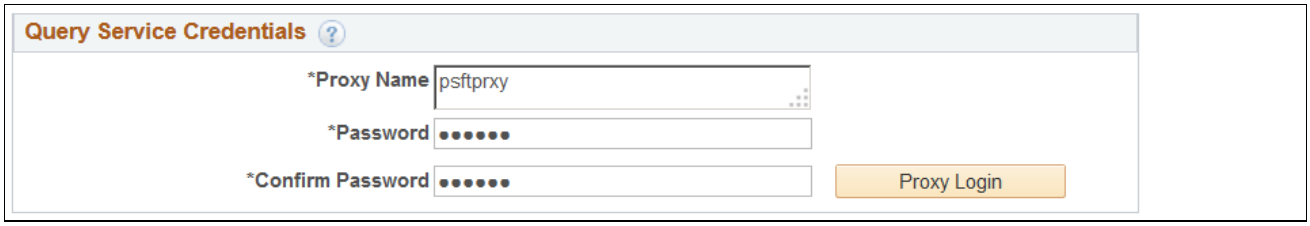
- Password/Confirm Password

  Enter and confirm the password associated with the administrative user name.

- Test Login

  After you enter information in the required fields on the Search Instance Properties page, and save the page, the Test Login button, as shown in the example, appears. Click this button to confirm that the PeopleSoft system can access the Oracle SES server. You should see a login success message.

4. Enter the following values in the Query Service Credentials area:



Query Service Credentials area of Search Instance Properties page

- Proxy Name

  Enter a trusted entity, psftprxy in this example, from the list on the Federation Trusted Entities page in the Oracle SES Administration interface. (Global Settings, Federation Trusted Entities)

- Password/Confirm Password

  Enter and confirm the password associated with the trusted entity.

- Proxy Login

  After you enter information in the required fields on the Search Instance Properties page, and save the page, the Proxy Login button appears. Click this button to verify whether:

  The Identity plug-in has been configured on Oracle SES

  The Proxy Name user (also know as Federation Trusted Entities) has been configured on Oracle SES

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5. Enter the following values in the Call Back Properties area.

   At times, Oracle SES will need to call back to the PeopleSoft system to access services, such as authentication services, so you need to provide the URL and password for access.

Call Back Properties area of Search Instance Properties page

- URL

  Enter the URL for the PeopleSoft system listening connector, using the following syntax: http://*<host>:<port>*/PSIGW/PeopleSoftServiceListeningConnector/*<local_node>*

  See Setting Up the Local Nodes.

- User Name

  Enter the PeopleSoft user name, PSFTUSER in this example.

- Password/Confirm Password

  Enter and confirm the password associated with the PeopleSoft user name.

- Validate

  After you enter information in the required fields on the Search Instance Properties page, and save the page, the Validate button appears. Click this button to verify the Call Back Properties entries, as follows:

  The call-back URL matches the Integration Broker target URL

  The call-back user exists.

  The call-back user has the role of Search Server assigned.

- Update deployed definitions

  After you enter information in the required fields on the Search Instance Properties page, and save the page, the Update deployed definitions link appears. Select this link to use the information entered on this page to update the deployed definitions.

- Set Namespace Aliases

  Select this link to go to the Namespace Alias Settings page. When you clone an environment, the Namespace Alias Settings page allows you to map the database name, node name, and URI of the original environment to the cloned environment. This mapping enables you to use the deployed indices from the original environment on the cloned environment.

6. To track your progress in the activity guide, click Mark Complete.

See the *PeopleTools: Search Technology* production documentation for information on the remainder of the activity guide.

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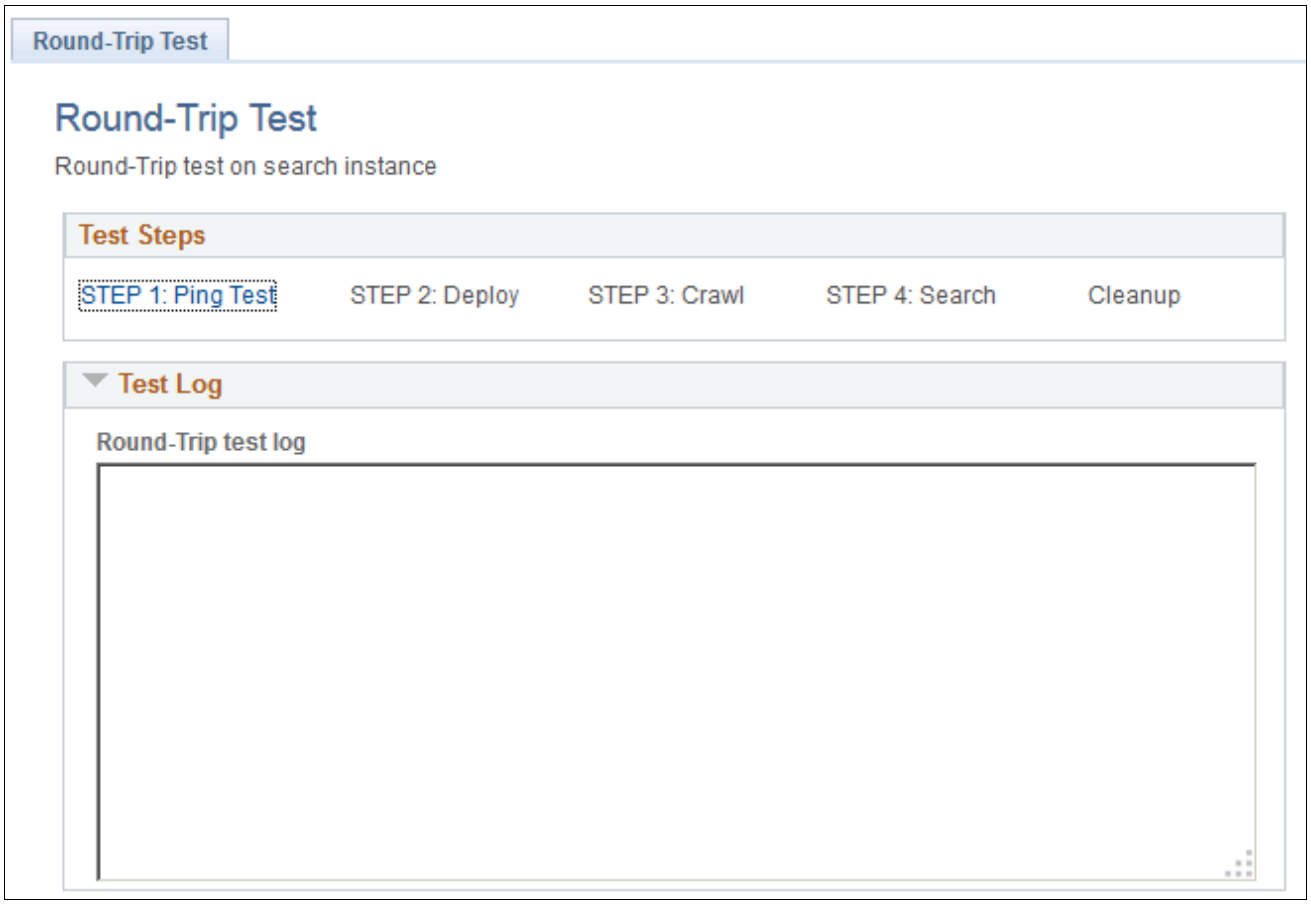
Task 11-6: Verifying PeopleSoft PeopleTools and SES Connectivity

To verify that the required elements are set up correctly on the PeopleTools side and that the PeopleTools system can connect to the SES instance, run a ping test against the SES server.

To run a ping test:

1. Select PeopleTools, Search Framework, Search Administrator, Testing and Utilities, Round Trip Test.



Round-Trip Test page

2. On the Round-Trip Test page, select STEP 1: Ping Test.

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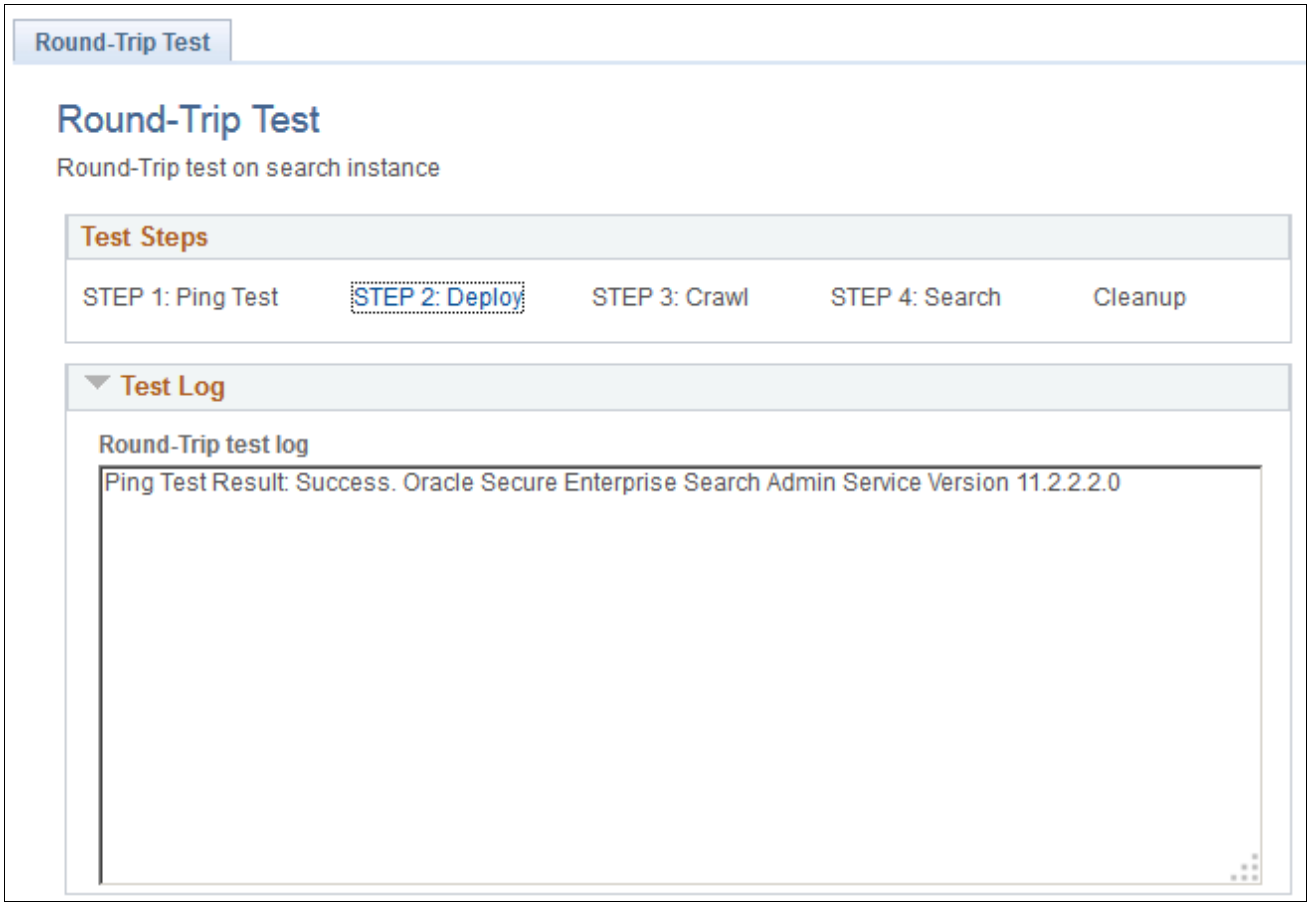
3. Ensure that the message received displays the current version of the SES admin service.

   In this example, the version is Oracle Secure Enterprise Search Admin Service Version 11.2.2.2.0.



Round-Trip Test page showing successful ping test result

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Chapter 12

Installing the Verity Integration Kit

This chapter discusses:

- Understanding the Verity Installation
- Installing the Verity Integration Kit in GUI Mode
- Installing the Verity Integration Kit in Console Mode

Understanding the Verity Installation

The software that is supported for searches depends upon which PeopleSoft application version you are running.

For PeopleSoft applications 9.2 or later, and for PeopleSoft Interaction Hub 9.1 built with PeopleTools 8.53, you must install and configure Oracle SES, and configure the PeopleSoft Search Framework. For these cases, Oracle SES is mandatory and replaces Verity. For previous versions, Verity software is required and continues to be supported.

See "Configuring Integration Between PeopleSoft PeopleTools and Oracle SES."

See *PeopleTools: Search Technology,* "PeopleSoft Search Framework Versus Verity Search Engine."

See the installation documentation for your PeopleSoft application.

If you use Verity, install the Verity for PeopleSoft Enterprise Integration kit after you install PeopleSoft PeopleTools, and before you create the database. Install Verity on the machines on which you set up the application server, batch server, and the web server.

The installation files for Verity are part of the PeopleSoft PeopleTools installation files that you downloaded from Oracle Software Delivery Cloud. This section assumes that you have already downloaded and extracted the files into a directory referred to as *PS_INSTALL.*

For more information on configuring search and building indexes with Verity, see the *PeopleTools: System and Server Administration* product documentation.

See Also

Obtaining the PeopleSoft Installation Files from Oracle Software Delivery Cloud

Task 12-1: Installing the Verity Integration Kit in GUI Mode

GUI mode is typically used for installation on Microsoft Windows.

To install the Verity Integration Kit in GUI mode:

1. Go to *PS_INSTALL*\Verity\Disk1.

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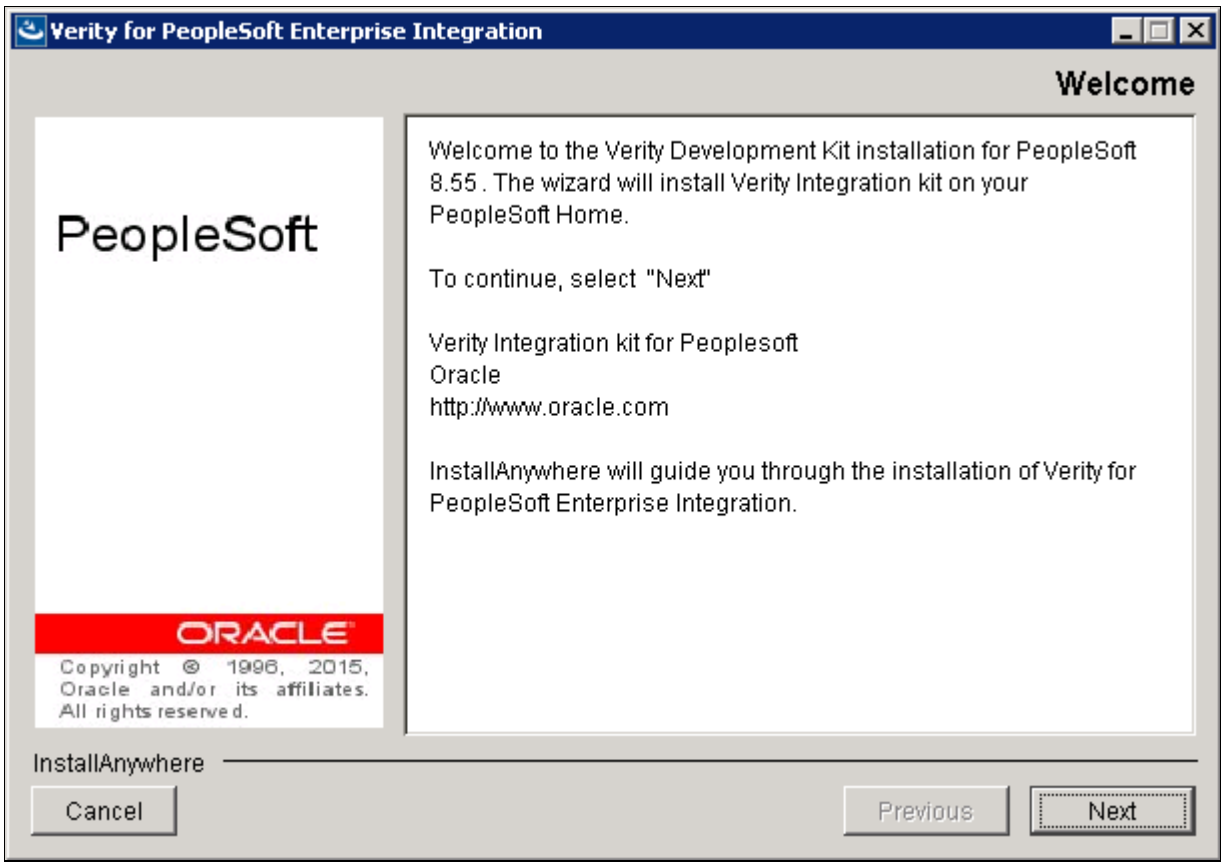
2. Double-click `setup.bat`.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

   The Welcome window appears, as shown in this example. Click Next.



Verity for PeopleSoft Enterprise Integration Welcome window

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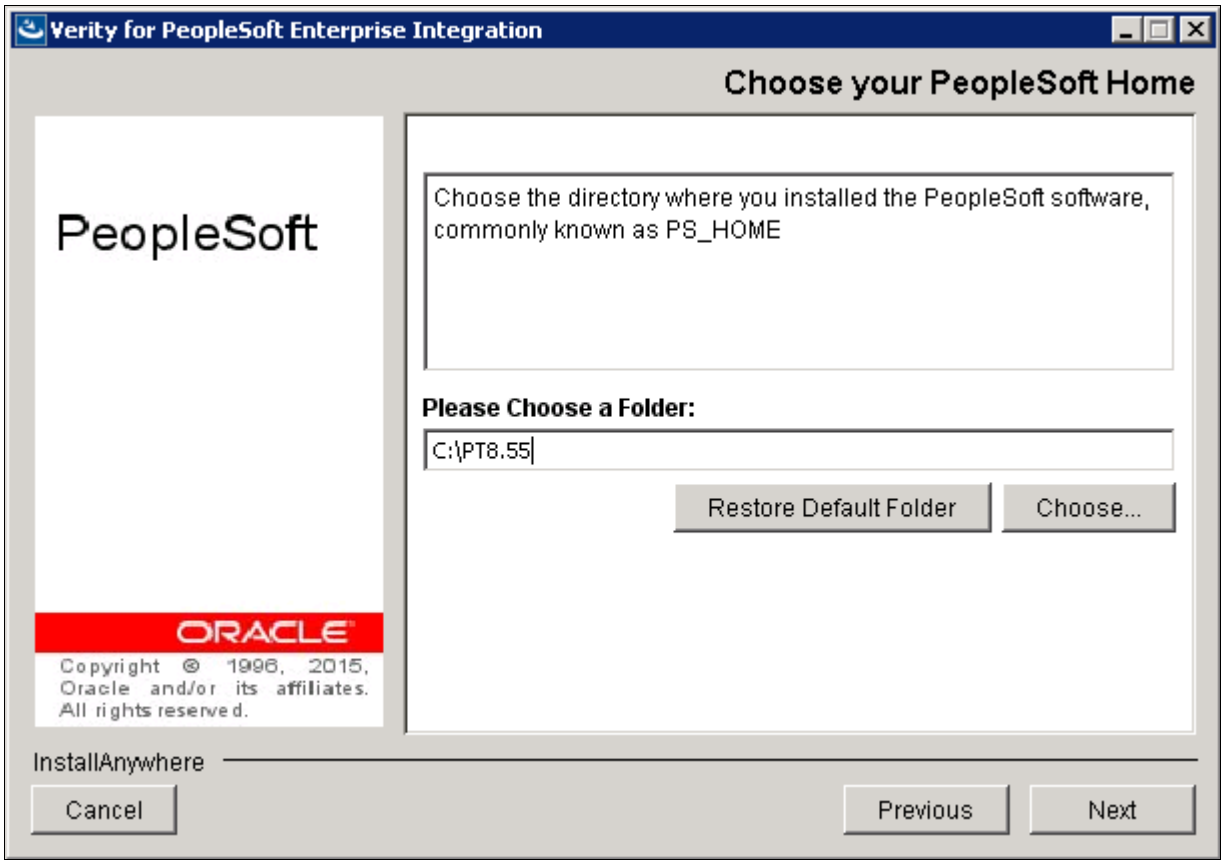
3. Specify the directory where you installed PeopleSoft PeopleTools, referred to as *PS_HOME*, in the Please Choose a Folder field, and then click Next.

   In the following example, *PS_HOME* is C:\PT8.55.



Verity for PeopleSoft Enterprise Integration Choose your PeopleSoft Home window

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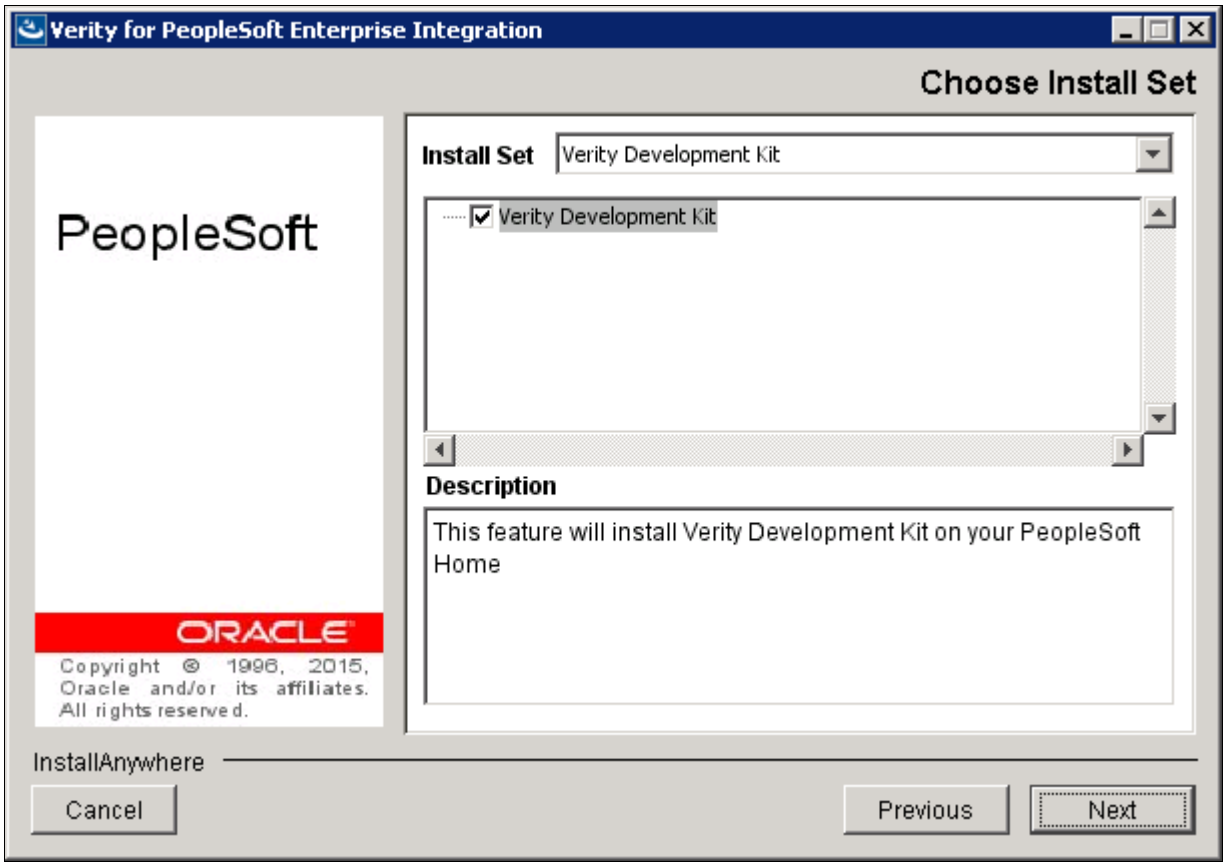
4. Accept the default Install Set option to install the Verity Development Kit, and click Next.



Verity for PeopleSoft Enterprise Integration Choose Install Set window

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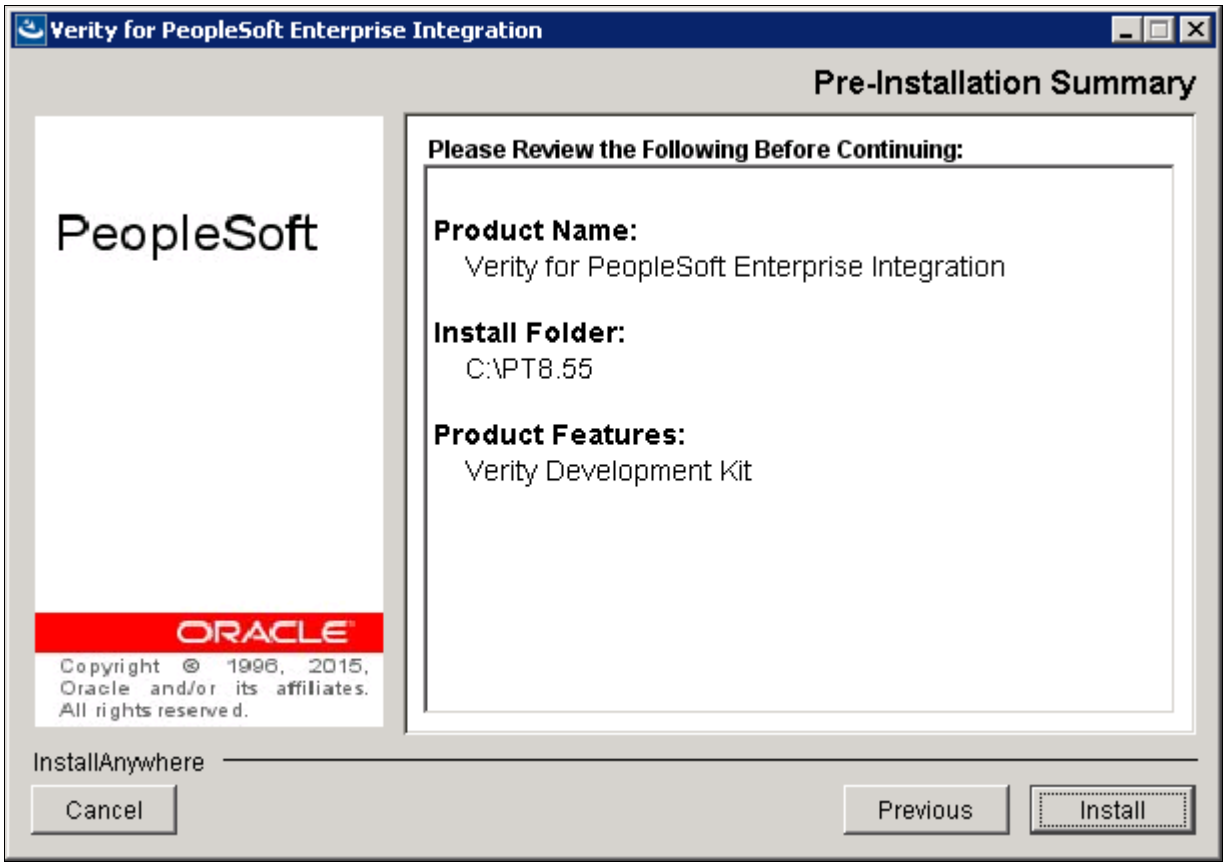
5. Review the pre-installation summary and click Install.

   If you want to change any options, click Previous to return to an earlier window. The summary includes the product name, installation location, and product features.

   The installation requires a few minutes.



Verity for PeopleSoft Enterprise Integration Pre-Installation Summary window

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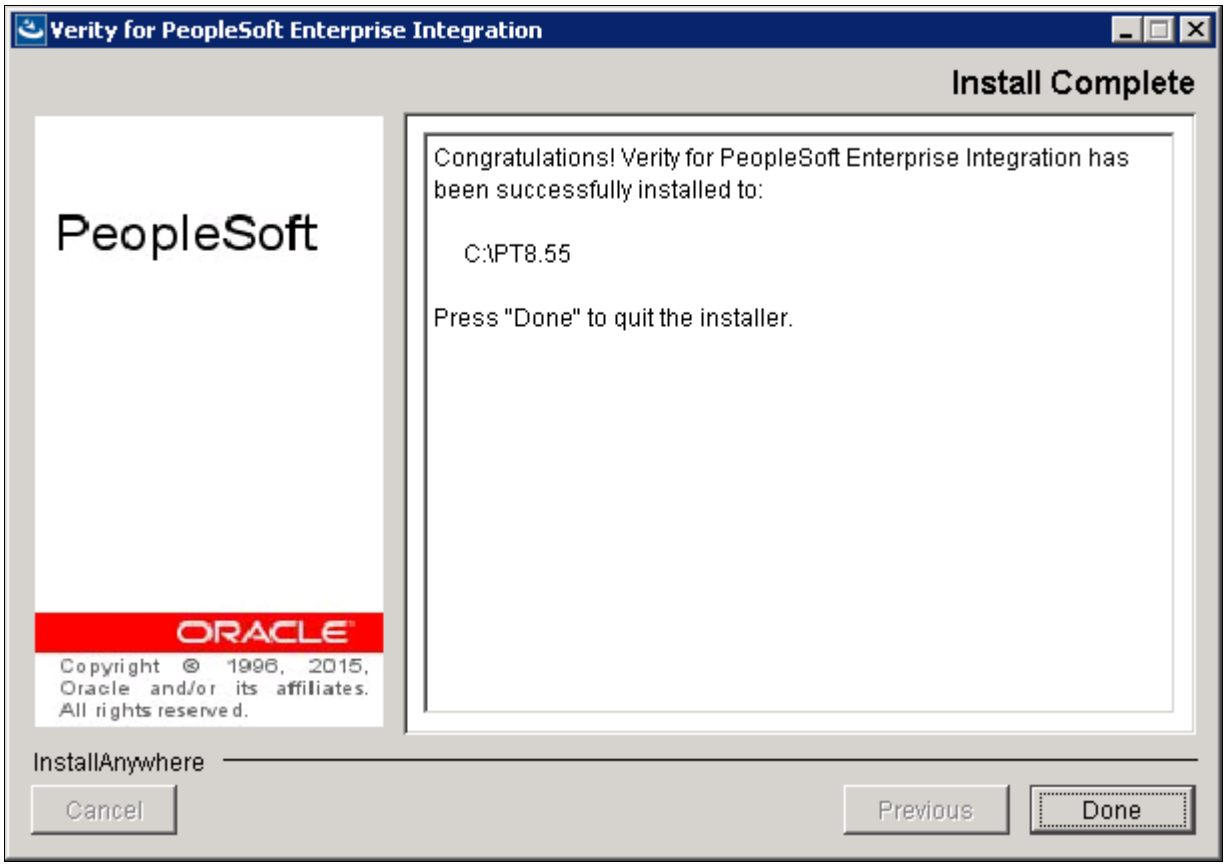
6. Click Done to exit the installer.

   The window displays a message indicating that the installation is complete, and including the installation location.



Verity for PeopleSoft Enterprise Integration Install Complete window

Task 12-2: Installing the Verity Integration Kit in Console Mode

Console mode is typically used for installation on UNIX and Linux.

To install the Verity Integration Kit in console mode:

1. Go to *PS_HOME* and source psconfig.sh:

   ```
   ../psconfig.sh
   ```

2. Go to *PS_INSTALL/*Verity/Disk1.

3. Run `setup.sh` and specify a temporary directory with the –tempdir option:

   ```
   ./setup.sh -tempdir temporary_directory
   ```

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

4. Press ENTER after reading the welcome statement:

   ```
   Preparing to install...
   Extracting the installation resources from the installer archive...
   Configuring the installer for this system's environment...
   ```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```
Launching installer...
Preparing CONSOLE Mode Installation...
===========================================================================⇒
====
Verity for PeopleSoft Enterprise Integration(created with Install⇒
Anywhere by Macrovision)
---------------------------------------------------------------------------⇒
----
===========================================================================⇒
====
Welcome
-------
Welcome to the Verity Development Kit installation for PeopleSoft 8.55.
The wizard will install Verity Integration kit on your Peoplesoft Home.
Respond to each prompt to proceed to the next step in the installation.
Oracle (http://www.oracle.com)
PRESS <ENTER> TO CONTINUE:
===========================================================================⇒
====
```

5. Specify the full path to the directory where you installed PeopleSoft PeopleTools, referred to as *PS_HOME*:

```
Select your PeopleSoft Home
Enter an absolute path, or press <ENTER> to accept the default (DEFAULT:
   /home/user1/PT8.55):
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

6. Enter *0* (zero) to install the Verity Development Kit, and *1* for Next:

```
Select the verity features for PeopleTools 8.55 you would like to
install:
  ->1- Verity Development Kit
To select an item enter its number, or 0 when you are finished [0] :
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

7. Review the installation summary.

   Enter *2* if you want to go back to a previous prompt to make changes:

```
PeopleTools Verity Installer 8.55 will be installed in the following
location:
/home/user1/PT8.55 with the following features:
Verity
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :
```

8. Press ENTER to exit the installer:

```
Installation Complete
---------------------
Congratulations. Verity for PeopleSoft Enterprise Integration has been
successfully installed to:
   /home/user1/PT8.55
PRESS <ENTER> TO EXIT THE INSTALLER:
```

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Chapter 13

Creating a Database Manually on UNIX

This chapter discusses:

- Understanding Database Creation
- Preparing for the PeopleSoft Database Installation
- Using SQL Tools
- Editing Database Scripts (non-Multitenant)
- Setting NLS_LANG in the Windows Registry
- Creating an Oracle Instance (non-Multitenant)
- Creating Catalog Views and Utility Tablespaces (non-Multitenant)
- Creating PS.PSDBOWNER Table (non-Multitenant)
- Creating Application-Specific Dbspaces and Tablespaces (non-Multitenant)
- Creating PeopleSoft Database Roles (non-Multitenant)
- Creating the PeopleSoft Database Owner ID (non-Multitenant)
- Setting Up Connect ID (non-Multitenant)
- Editing Database Scripts (Multitenant Architecture)
- Creating an Oracle Instance (Multitenant Architecture)
- Creating Catalog Views and Utility Tablespaces (Multitenant Architecture)
- Creating PS.PSDBOWNER Table (Multitenant Architecture)
- Creating Application-Specific Dbspaces and Tablespaces (Multitenant Architecture)
- Creating PeopleSoft Database Roles (Multitenant Architecture)
- Creating the PeopleSoft Database Owner ID (Multitenant Architecture)
- Setting Up Connect ID (Multitenant Architecture)
- Updating Connection Information
- Creating Data Mover Import Scripts
- Running Data Mover Import Scripts
- Checking the Log Files and Troubleshooting
- Changing the Base Language

Understanding Database Creation

This section 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.

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- *System:* The System (SYS) database has no company specific data, and can be used to load your data and begin development of your production database.
- *Demo:* The Demo (DMO) 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 section's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

Remember, you need to have the PeopleTools Development Environment set up to create your database.

This section includes tasks to create pluggable databases and for non-pluggable databases, as well as tasks that apply to both types. The pluggable database tasks create an Oracle Container Database (CDB) and a Pluggable Database (PDB), and are labelled "(Multitenant Architecture)." The tasks specific to non-pluggable databases are labelled "(non-Multitenant)." Choose which tasks to use according to the RDBMS you installed, as follows:

- If you installed Oracle 12c Enterprise Edition RDBMS, you can choose to create either CDBs or non-CDBs.
- If you installed Oracle 11gR2 RDBMS, you can create only a non-CDB. For installations on Oracle 11gR2, pluggable databases are not supported. In this case, use the non-multitenant sections.

Important! Do not 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 PeopleSoft PeopleTools installation guide and any additional instructions provided by CRM. Search in My Oracle Support for the installation documentation specific to your application.

Important! If you are installing the PeopleSoft software on an Oracle RAC database, there are additional configuration procedures that you must follow.

See *PeopleTools: Data Management,* "Setting Up the PeopleSoft Installation with Oracle RAC."

After you complete the tasks in this chapter, read the chapter "Completing the Database Setup." Depending upon your environment, you may not need to carry out every task in that chapter. However it is important that you evaluate the requirements and perform the necessary tasks.

See Also

"Preparing for Installation," Planning Database Creation

"Setting Up the Install Workstation"

Task 13-1: Preparing for the PeopleSoft Database Installation

This section discusses:

- Installing the PeopleSoft Database Sever Components on the Database Server
- Installing the Oracle RDBMS Software
- Identifying the Trace and Alert File Locations
- Setting Environment Variables for the PeopleSoft Database
- Creating an INIT<SID>.ORA File
- Creating an INIT<SID>.ORA FIle (Multitenant Architecture)

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Task 13-1-1: Installing the PeopleSoft Database Sever Components on the Database Server

To create a PeopleSoft Database you must have installed the PeopleSoft software on your database server by running the PeopleSoft Installer and choosing the Database Server option, as described in a previous chapter. In addition, you need to install your application software to your database server before loading the database.

See "Using the PeopleSoft Installer."

Note. Remember, you need to have the PeopleTools Development Environment set up to create your database.

See "Setting Up the Install Workstation."

See the information on using PeopleSoft Configuration Manager in the *PeopleTools: System and Server Administration* product documentation.

Task 13-1-2: Installing the Oracle RDBMS Software

The rest of this chapter assumes that the Oracle RDBMS software is installed on your database server. If you have not already done so, install the Oracle RDBMS software now. During the database creation process, we refer to an existing Oracle RDBMS installation. Specifically:

ORACLE_HOME and *ORACLE_HOME*/bin

Note. If you are creating pluggable databases, you must install Oracle 12c Enterprise Edition.

Task 13-1-3: Identifying the Trace and Alert File Locations

For Oracle 11gR2 and later releases, all diagnostic data, including the alert log, are stored in the Automatic Diagnostic Repository (ADR), whose location is set by the DIAGNOSTIC_DEST initialization parameter. Due to this change, the initialization parameter settings for background dump (BACKGROUND_DUMP_DEST), core dump (CORE_DUMP_DEST), and user dump (USER_DUMP_DEST) are replaced by the diagnostic destination parameter DIAGNOSTIC_DEST. For information on the DIAGNOSTIC_DEST parameter and the default location for the ADR, see the Oracle RDBMS documentation.

See the information on managing diagnostic data in the Oracle Database Administrator's Guide.

Task 13-1-4: Setting Environment Variables for the PeopleSoft Database

Log on to the server as the Oracle owner, and set these environment variables:

- Set the ORACLE_SID value to point to the database you are going to set up, and then export the value.

  From the Bourne or Korn shell, enter the following:

  ```
  $ ORACLE_SID=hdmo; export ORACLE_SID
  ```

- Set the NLS_LANG environment variable to indicate the Oracle language and character set.

  The PeopleSoft Application Server and reporting tools run in Unicode regardless of the database character set or the NLS_LANG character set component. However, the NLS_LANG character set component does affect the transmission of data in non-PeopleTools connections, such as SQLPlus and direct COBOL. 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.AL32UTF8. See the Oracle National

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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.AL32UTF8:

```
$ NLS_LANG=<language>_<territory>.AL32UTF8; export NLS_LANG
```

Alternatively, from the C shell, enter the following:

```
$ setenv NLS_LANG <language>_<territory>
```

Task 13-1-5: Creating an INIT<SID>.ORA File

Create an initialization file by copying and editing the init.ora file that is delivered with the Oracle database software and typically resides in $ORACLE_HOME/dbs.

```
cd $ORACLE_HOME
cd dbs
cp init.ora init<SID>.ora
```

Add or modify the following parameters in the init<SID>.ora:

- DB_NAME = <SID>
- DB_FILES

  Specify the maximum allowed for your operating system, typically 1021.
- CONTROL_FILES

  Specify the control files for your database, such as `/filesystem1/cntrl1<SID>,/filesystem2/cntrl2<SID>`.
- OPEN_CURSORS = 1000

  This is a minimum value; you may choose to set it higher.
- DB_BLOCK_SIZE = 8192

Note. PeopleSoft PeopleTools supports Oracle 11g and Oracle 12c. The PeopleSoft scripts are delivered to work across all versions of the Oracle RDBMS that Oracle will support for this release of PeopleSoft PeopleTools.

Review the following parameters and make any necessary edits for your environment:

DB_BLOCK_SIZE

For UNIX the default DB_BLOCK_SIZE in the init<SID>.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 AL32UTF8), a DB_BLOCK_SIZE value of 8K is required.

NLS_LENGTH_SEMANTICS

Use these guidelines to set the `NLS_LENGTH_SEMANTICS` init<SID>.ora parameter:

- Set `NLS_LENGTH_SEMANTICS=CHAR` if you are installing a Unicode database with PeopleSoft application 9.0 or higher releases on PeopleTools 8.48 or higher.
- Set `NLS_LENGTH_SEMANTICS=BYTE` if you are installing any non-Unicode database (such as a Western European or Shift-JIS database).
- Set `NLS_LENGTH_SEMANTICS=BYTE` if you are installing a Unicode database with PeopleSoft application

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prior to release 9.0 on PeopleSoft PeopleTools prior to release 8.48.

If necessary, verify the PeopleTools release for your PeopleSoft application using this SQL query:

```
select TOOLSREL from PSSTATUS
```

Unicode databases on PeopleSoft PeopleTools 8.48 and later, with PeopleSoft application 9.0 or later, use character length semantics. When character length semantics is used, a field of VARCHAR2(10) will store 10 characters. Prior to PeopleSoft PeopleTools 8.48 and PeopleSoft applications 9.0, byte length semantics was used, meaning a VARCHAR2(10) stored 10 bytes. If you are upgrading from a release before PeopleSoft PeopleTools 8.48 and PeopleSoft Application 9.0 to one after 8.48 and 9.0, a database conversion is necessary for utilizing CHARACTER LENGTH SEMANTICS. This conversion process is covered in all PeopleSoft application 9.0 or higher upgrade paths.

It is very important that you set this parameter at the correct point during database creation. Database creation consists of running several scripts before loading the database with Data Mover, as follows:

- CREATEDB.SQL
- UTLSPACE.SQL
- *XX*DDL.SQL
- DBOWNER.SQL
- PSROLES.SQL
- PSADMIN.SQL
- CONNECT.SQL

Set the parameter `NLS_LENGTH_SEMANTICS` at the beginning of database creation or right before the Data Mover load.

To do this, modify the init<SID>.ora to add the `NLS_LENGTH_SEMANTICS` parameter, and then shut down and restart the database instance.

Oracle Password

If you choose to use an Oracle Password file, create one using the ORAPWD utility, as illustrated in this example:

```
export ORACLE_SID=FDMO
orapwd file=$ORACLE_HOME/dbs/pwdtemp2.ora password=manager entries=5
```

If you choose not to use an Oracle Password file, you must make one of the following changes to the init<SID>.ora file before running the CREATEDB.SQL script:

- Remove the line beginning with remote_login_passwordfile, or add a comment character at the beginning, as shown in this example:

  ```
  #remote_login_passwordfile=EXCLUSIVE
  ```

- Set the parameter to *NONE,* as shown in this example:

  ```
  remote_login_passwordfile=NONE
  ```

For more parameters that may be required for the init<SID>.ora file, consult My Oracle Support.

See Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools, My Oracle Support (search for the article title and release).

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Task 13-1-6: Creating an INIT<SID>.ORA FIle (Multitenant Architecture)

If you are creating pluggable databases, set <SID> to the database name for the CDB (root database). This documentation uses PDB_SERVICE_NAME to refer to the PDB.

Create an init<SID>.ora file as described in Creating an INIT<SID>.ORA File, and append the following line in the init<SID>.ora:

```
enable_pluggable_database=true
```

Note. It is strongly advisable to set the value of the parameter MEMORY_TARGET, otherwise you may get the error "ORA-04031: unable to allocate *string* bytes of shared memory" (where string represents the memory size) while creating the database. For information on MEMORY_TARGET, see the Oracle Database documentation.

Task 13-2: Using 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 version of the Oracle RDBMS that is supported by Oracle for PeopleSoft installations.

There are various ways to connect to the database with SQL*Plus. For information on using SQL*Plus, see the Oracle database documentation.

Task 13-3: Editing Database Scripts (non-Multitenant)

This section discusses:

- Understanding Database Scripts
- Modifying Database Scripts

Understanding Database Scripts

The scripts required for creating the database were installed on the server using the PeopleSoft Installer described in the chapter "Using the PeopleSoft Installer." 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.

Task 13-3-1: Modifying Database Scripts

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

     Edit CREATEDB.SQL to remove the REMARK from the following line:

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

Note. When editing CREATEDB.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by the PeopleSoft software. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to either AL32UTF8 or UTF8.

- CONNECT.SQL.

  Edit CONNECT.SQL only if you do not wish to use the default CONNECT_ID.
- UTLSPACE.SQL.
- *XX*DDL.SQL, where XX is a two-letter code for your product line or PeopleSoft PeopleTools, as listed in the table below

Code	Description
CS	PeopleSoft Campus Solutions
CR	PeopleSoft Customer Relationship Management
LM	PeopleSoft Enterprise Learning Management
PF	PeopleSoft Enterprise Performance Management
EP	PeopleSoft Financials / Supply Chain Management
EA	PeopleSoft Financials / Supply Chain Management Argentina
EB	PeopleSoft Financials / Supply Chain Management Brazil
HC	PeopleSoft Human Capital Management
PA	PeopleSoft Portal Solutions
PT	PeopleSoft PeopleTools

Note. This is a complete list of available product lines for PeopleSoft PeopleTools 8.55. Note that not all products go out on all PeopleSoft 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. Search My Oracle Support to confirm that the product is supported for a specific release and database platform.

See My Oracle Support, Certifications.

Note. Compare the sizes of the PeopleTools tablespaces in *XX*DDL.SQL with the tablespaces in PTDDL.SQL. If the tablespace sizes in PTDDL.SQL are larger, increase the PeopleTools tablespace sizes in *XX*DDL.SQL to be at least as large as those in PTDDL.SQL.

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.

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See Also

"Using the PeopleSoft Installer"

Task 13-4: Setting NLS_LANG in the Windows Registry

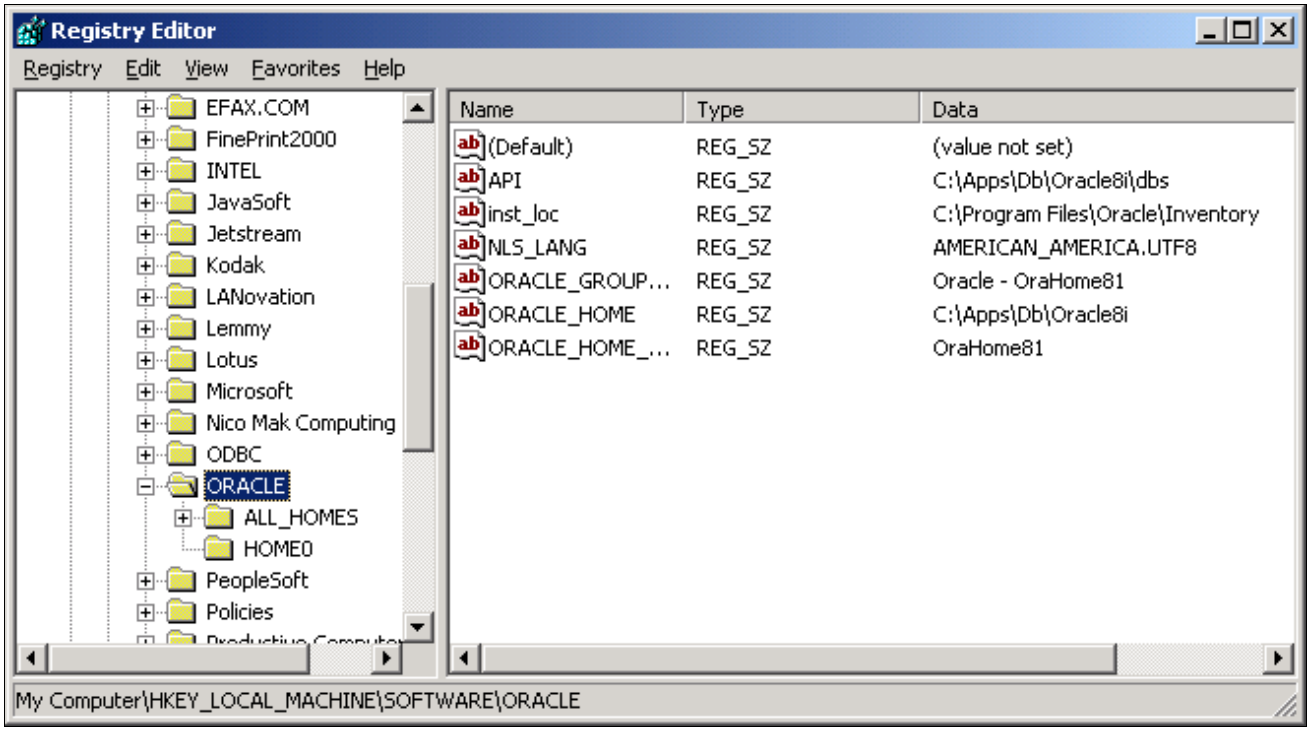
You must set the NLS_LANG Oracle registry key to indicate the Oracle language and character set. The PeopleSoft Application Server and reporting tools run in Unicode regardless of the database character set or the NLS_LANG character set component. However, the NLS_LANG character set component does affect the transmission of data in non-PeopleTools connections, such as SQL*Plus and direct COBOL. 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 a PeopleSoft installation would be AMERICAN_AMERICA.AL32UTF8. See the Oracle National Language Support guide for full details.

The NLS_LANG parameter should be set on *each* workstation you use to access the PeopleSoft application in two-tier mode, and on your application server machine.

Note. When using SQL*Plus to query data, set NLS_LANG on the client side to match the OS character set rather than the database character set.

To set NLS_LANG in the Windows registry:

1. Open the Windows Registry Editor by selecting *Run* from the Microsoft Windows Start menu.
2. Type REGEDIT in the Run dialog.
3. Navigate to the key HKEY_LOCAL_MACHINE\Software\Oracle.



Navigating to NLS_LANG

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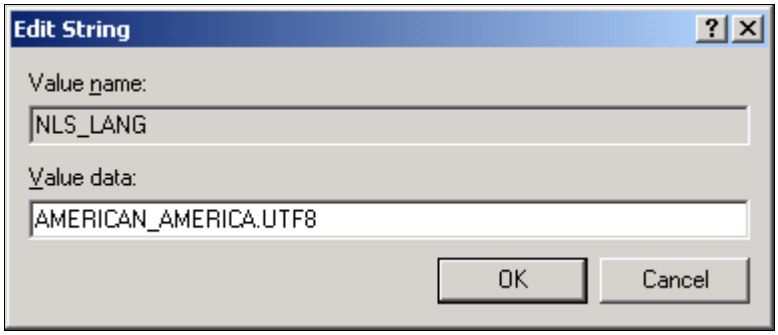
4. Double-click on the NLS_LANG key in the right hand side of the window.

   The Edit String dialog box appears as in this example.



Entering the Value data

5. Enter <*language*>_<*territory*>.AL32UTF8 in the Value Data field, substituting <language> and <territory> for your preferred language and territory settings.

   If unsure, use AMERICAN_AMERICA.AL32UTF8.

6. Click *OK* and close the Registry Editor.

Task 13-5: Creating an Oracle Instance (non-Multitenant)

Run the CREATEDB.SQL script from SQL*Plus to create an Oracle database, as follows:

1. Invoke SQL*PLUS (sqlplus), connecting as sysdba.

   ```
   $sqlplus '/as sysdba'
   ```

2. Run the CREATEDB.SQL script using the following example as a guide:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/createdb.sql
   ```

Note. When editing CREATEDB.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by Oracle. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to either AL32UTF8 or UTF8.

Task 13-6: Creating Catalog Views and Utility Tablespaces (non-Multitenant)

Run the UTLSPACE.SQL script from SQL*Plus to create catalog views and utility tablespaces, as follows:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the UTLSPACE.SQL script:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/utlspace.sql
   ```

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Task 13-7: Creating PS.PSDBOWNER Table (non-Multitenant)

Run the DBOWNER.SQL script from SQL*Plus to create the PS.PSDBOWNER table, as follows:

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/unix/dbowner.sql
   ```

Task 13-8: Creating Application-Specific Dbspaces and Tablespaces (non-Multitenant)

To create tablespaces for the product you are installing, run the appropriate *XX*DDL.SQL scripts, logged on as the system user, where *XX* stands for your product line or PeopleSoft PeopleTools, as listed in the table in the section Editing Database Scripts.

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/unix/epddl.sql
   ```

Task 13-9: Creating PeopleSoft Database Roles (non-Multitenant)

Run the PSROLES.SQL script from SQL*Plus to create the PeopleSoft database roles, as follows:

1. Log on to SQL*Plus, connecting as sysdba.

   ```
   sqlplus / as sysdba
   ```

2. Run the PSROLES.SQL script:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/psroles.sql
   ```

Task 13-10: Creating the PeopleSoft Database Owner ID (non-Multitenant)

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.

Note. You must 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.

To create the PeopleSoft database owner ID:

1. Log on to SQL*Plus, connecting as the System user.

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```
sqlplus system/manager
```

2. Run the PSADMIN.SQL script.

   SQLPLUS>@<*PS_HOME*>/scripts/unix/psadmin.sql

3. Supply values for Access ID, Access ID password, and the default tablespace name when prompted.

   Note. The password for Access ID must be between 6 and 30 characters.

Task 13-11: Setting Up Connect ID (non-Multitenant)

This section discusses:

- Understanding Connect ID
- Understanding Connect ID and the Login Process
- Creating the Connect ID

Understanding Connect ID

With the current PeopleSoft PeopleTools release, you establish connections to a database simply by using the connect ID, 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>;
grant select on PSACCESSPROFILE to <CONNECT_ID>;
```

In order to work, the connect ID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

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Understanding Connect ID and the Login Process

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. This table lists the steps and related database SQL operations associated with logging in.

Log-in Processing Steps	Related Database SQL Operations
The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/<*ConnectID*>/<*ConnectIDPassword*>
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTTM, 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 PSACCESSPROFILE 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.

Task 13-11-1: Creating the Connect ID

To create connect ID:

1. Log on to SQL*Plus as the System user.
2. Run the connect.sql script.

   ```
   sqlplus>@<PS_HOME>/scripts/unix/connect.sql
   ```

3. Supply values for the connect ID and connect ID password when prompted.

   The connect ID password must be between 6 and 30 characters.
4. The script will then create the connect ID and grant it CREATE Session privileges only.

Task 13-12: Editing Database Scripts (Multitenant Architecture)

Edit the scripts listed in this section for your environment before you execute them and continue with the procedure to create a database. You can locate the *XX*DDL.SQL scripts in the *PS_HOME/*scripts/unix directory on the file server. The remainder of the scripts listed here reside in the *PS_HOME/*scripts/unix/pdb directory on the file server.

- CONNECT.SQL

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No changes are required.

- CREATEDBCDB.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <mount> variable with the UNIX mount point; for example, ds1.

Note. When editing CREATEDBCDB.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by the PeopleSoft software. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to AL32UTF8.

- CREATEPDB.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
  - Replace the <mount> variable with the UNIX mount point; for example, ds1.
- DBOWNER.SQL
  - Replace the <MANAGERPWD> variable with the System user password.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
- PSADMIN.SQL
  - Replace the <MANAGERPWD> variable with the System user password.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
- PSROLES.SQL

  No changes are required.
- PSROLES2.SQL

  Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
- PTDDL.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
  - Replace the <mount> variable with the UNIX mount point; for example, ds1.
  - Remove the REMARK from the line for Autoextend.
- UTLSPACE.SQL
  - Replace the <SID> variable with ORACLE_SID, that is, the CDB database name.
  - Replace the <PDB_SERVICE_NAME> variable with the PDB database name.
  - Replace the <mount> variable with the UNIX mount point; for example, ds1.
- *XX*DDL.SQL, where *XX* is a two-letter code for your PeopleSoft Application product line.

  See the section Editing Database Scripts for a table listing the codes with the PeopleSoft product lines.
  - Replace <SID> with the combined name *<SID>/<PDB_SERVICE_NAME>*.

    In this combined name, specify ORACLE_SID, that is, the CDB database name, for *<SID>*, and the PDB database name for *<PDB_SERVICE_NAME>*.
  - Replace the <mount> variable with the UNIX mount point; for example, ds1.
  - Remove the REMARK from all the lines for Autoextend.

After you edit the scripts, continue with the steps in this chapter to run these scripts and to run the Data Mover import.

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Task 13-13: Creating an Oracle Instance (Multitenant Architecture)

This section discusses:

- Creating a Root Container Database
- Creating a PDB

Task 13-13-1: Creating a Root Container Database

To create a (root container database) CDB for pluggable databases:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba:

   ```
   sqlplus / as sysdba
   ```

2. Run the createdbcdb.sql script, using the following example as a guide:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/createdbcdb.sql
   ```

3. Exit from SQL*Plus.
4. Open the script ptperlcat.sh for editing, and make the following changes for PDBs:
   - Replace the <SID> variable with ORACLE_SID
   - Replace the <mount> variable with the UNIX mount point.
5. Run the script ptperlcat.sh.

   This scripts runs the scripts catalog.sql and catproc.sql.
6. To verify that the database was created successfully, log in to SQL*Plus again and run the following command

   ```
   select name,cdb from v$database;
   ```

   If the value of CDB is "YES" in the response, it means that the database with ID <SID> (FSDMO855 in this example) can be used as a pluggable database:

   ```
   NAME      CDB
   --------  ---
   FSDMO855  YES
   ```

Task 13-13-2: Creating a PDB

To create a PDB:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba:

   ```
   sqlplus / as sysdba
   ```

2. Run the createpdb.sql script, using the following example as a guide:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/createpdb.sql
   ```

   You should see a message "Pluggable database created".
3. Execute the following command:

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```
sqlplus>select name, open_mode from v$pdbs;
```

The following response indicates that the PDB is open and is ready to use:

```
NAME                OPEN_MODE
----------------    ---------
PDB$SEED            READ ONLY
PDB_SERVICE_NAME    READ WRITE
```

The PDB_SERVICE_NAME is created by the Oracle server for a new PDB.

4. To verify the service name for the PDB, execute the following command:

```
lsnrctl status;
Service "PDB_SERVICE_NAME" has 1 instance(s).
Instance "PDB_SERVICE_NAME", status READY, has 1 handler(s) for this⇒
 service.
```

5. Add an entry for the PDB service name to the tnsnames.ora file.

   This example shows a portion of the tnsnames.ora file. Replace <*PDB_SERVICE_NAME*> with the PDB database name:

```
<PDB_SERVICE_NAME> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = servername.com)(PORT = 1521))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <PDB_SERVICE_NAME>)
    )
  )
```

6. Log in to the PDB in SQL*Plus with the following command:

```
sqlplus / as sysdba
SQL> ALTER SESSION SET CONTAINER = <PDB_SERVICE_NAME>
```

Task 13-14: Creating Catalog Views and Utility Tablespaces (Multitenant Architecture)

To create catalog views and utility tablespaces:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.

```
sqlplus / as sysdba
```

2. Run the UTLSPACE.SQL script:

```
sqlplus>@<PS_HOME>/scripts/unix/pdb/utlspace.sql
```

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Task 13-15: Creating PS.PSDBOWNER Table (Multitenant Architecture)

Run the DBOWNER.SQL script from SQL*Plus to create the PS.PSDBOWNER table, as follows:

1. Log on to SQL*Plus (sqlplus), connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>:

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the DBOWNER.SQL script, using the following example as a guide:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/dbowner.sql
   ```

Task 13-16: Creating Application-Specific Dbspaces and Tablespaces (Multitenant Architecture)

To create tablespaces for the product you are installing, run the appropriate *XX*DDL.SQL scripts, logged on as the system user, where *XX* stands for your product line or PeopleSoft PeopleTools, as listed in the table in the section Editing Database Scripts (Multitenant Architecture).

To create application-specific tablespaces:

1. Log on to SQL*Plus (sqlplus), connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>:

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the appropriate DDL scripts.

   For example, for PeopleSoft Financials/Supply Chain Management:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/epddl.sql
   ```

Task 13-17: Creating PeopleSoft Database Roles (Multitenant Architecture)

To create the roles for your PeopleSoft database:

1. Log on to SQL*Plus, connecting as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>:

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the PSROLES.SQL script:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/psroles.sql
   ```

3. Log out of SQL*Plus.
4. Log on to SQL*Plus, connecting as sysdba.

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```
sqlplus / as sysdba
```

5. Run the PSROLES2.SQL script:

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/psroles2.sql
   ```

Task 13-18: Creating the PeopleSoft Database Owner ID (Multitenant Architecture)

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.

Note. You must run the PSADMIN.SQL script for each pluggable 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.

To create the PeopleSoft database owner ID:

1. Log on to SQL*Plus, connecting as the System user to the PDB.

   The PDB name in this example is *<PDB_SERVICE_NAME>*.

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the PSADMIN.SQL script.

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/psadmin.sql
   ```

3. Supply values for Access ID, Access ID password, and the default tablespace name when prompted.

   Note. The password for Access ID must be between 6 and 30 characters.

Task 13-19: Setting Up Connect ID (Multitenant Architecture)

This section discusses:

- Understanding Connect ID
- Understanding Connect ID and the Login Process
- Creating the Connect ID

Understanding Connect ID

With the current release of PeopleSoft PeopleTools, you establish connections to a database simply by using the connect ID, 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 do not have to maintain access for all PeopleSoft users, just for the connect ID.

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The connect ID is granted access using the *Connect.sql* script. This script 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 through 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>;
grant select on PSACCESSPROFILE to <CONNECT_ID>;
```

In order to work, the connect ID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

Understanding Connect ID and the Login Process

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. This table lists the steps and related database SQL operations associated with logging in.

Log-in Processing Steps	Related Database SQL Operations
The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/<*ConnectID*>/<*ConnectIDPassword*>
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTTM, 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 PSACCESSPROFILE 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.

Task 13-19-1: Creating the Connect ID

To create connect ID:

1. Log on to SQL*Plus as the System user to the PDB.

   The PDB name in this example is <*PDB_SERVICE_NAME*>.

   ```
   sqlplus system/manager@<PDB_SERVICE_NAME>
   ```

2. Run the connect.sql script.

   ```
   sqlplus>@<PS_HOME>/scripts/unix/pdb/connect.sql
   ```


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3. Supply values for the connect ID and connect ID password when prompted.

   The connect ID password must be between 6 and 30 characters.
4. The script will then create the connect ID and grant it CREATE Session privileges only.

Task 13-20: Updating Connection Information

You must update connection information on the client. To do this, update the connection information in TNSNAMES.ORA on your client to reflect your Database Name, Oracle SID, and Server Name.

Note. If you are creating pluggable databases, create an entry for the CDB, using the SID. Create another entry for the PDB, using the PDB_SERVICE_NAME.

Task 13-21: Creating Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts
- Working with Multilingual Databases
- Running Database Setup to Create Data Mover Import Scripts

Understanding Data Mover Import Scripts

The Data Mover Import scripts are used to populate the PeopleSoft database with data. You use the Database Setup feature of the PeopleSoft Data Mover utility to create the Data Mover import scripts.

Note. This task and the next one (Running Data Mover Import Scripts) should be executed from a Microsoft Windows client machine. Before you can load PeopleSoft data from a Microsoft Windows client machine, you need to install PeopleSoft PeopleTools and your PeopleSoft Application to the Microsoft Windows client machine and be sure to select File Server and Database Server.

To complete the database creation procedure you must supply information on various authorization IDs and passwords, including Access ID, Connect ID, Symbolic ID, and User IDs. Before beginning this procedure, review the information in the section Planning Database Creation and make a note of the authorization information for your environment. For PeopleSoft PeopleTools 8.53 and later releases, the user profiles in PeopleTools demo databases are delivered disabled. During the procedure to create Data Mover import scripts you will choose whether to enable the delivered user profiles, and how to assign passwords for the profiles. In addition, you will supply several passwords that were previously provided as defaults. Be sure to note the passwords that you supply, as they will be needed for subsequent installation procedures.

See the information on administering user profiles in the *PeopleTools: Security Administration* product documentation.

See "Preparing for Installation," Planning Database Creation.

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Task 13-21-1: Working with Multilingual Databases

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. After the installation is complete, you can change the database's base language to the language that you plan to use most frequently, or leave the base language as English.

Read the section Planning Multilingual Strategy for information on installing multiple languages and changing your base language.

See "Preparing for Installation," Planning Multilingual Strategy.

If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.

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.

Note. During the database setup process, you have the option to select the database's base language. Select the language that you plan to use most frequently. If the database's base language is different than that set in this database setup process, generate the SWAP_BASE_LANGUAGE command in the Data Mover Import script to swap the language.

See *PeopleTools: Global Technology.*

Task 13-21-2: Running Database Setup to Create Data Mover Import Scripts

To create the import scripts using Data Mover:

See *PeopleTools: Data Management.*

1. Run Configuration Manager by using one of the following methods:
   - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Configuration Manager.
   - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Configuration Manager.
   - Run *PS_HOME*\bin\client\winx86\pscfg.exe.

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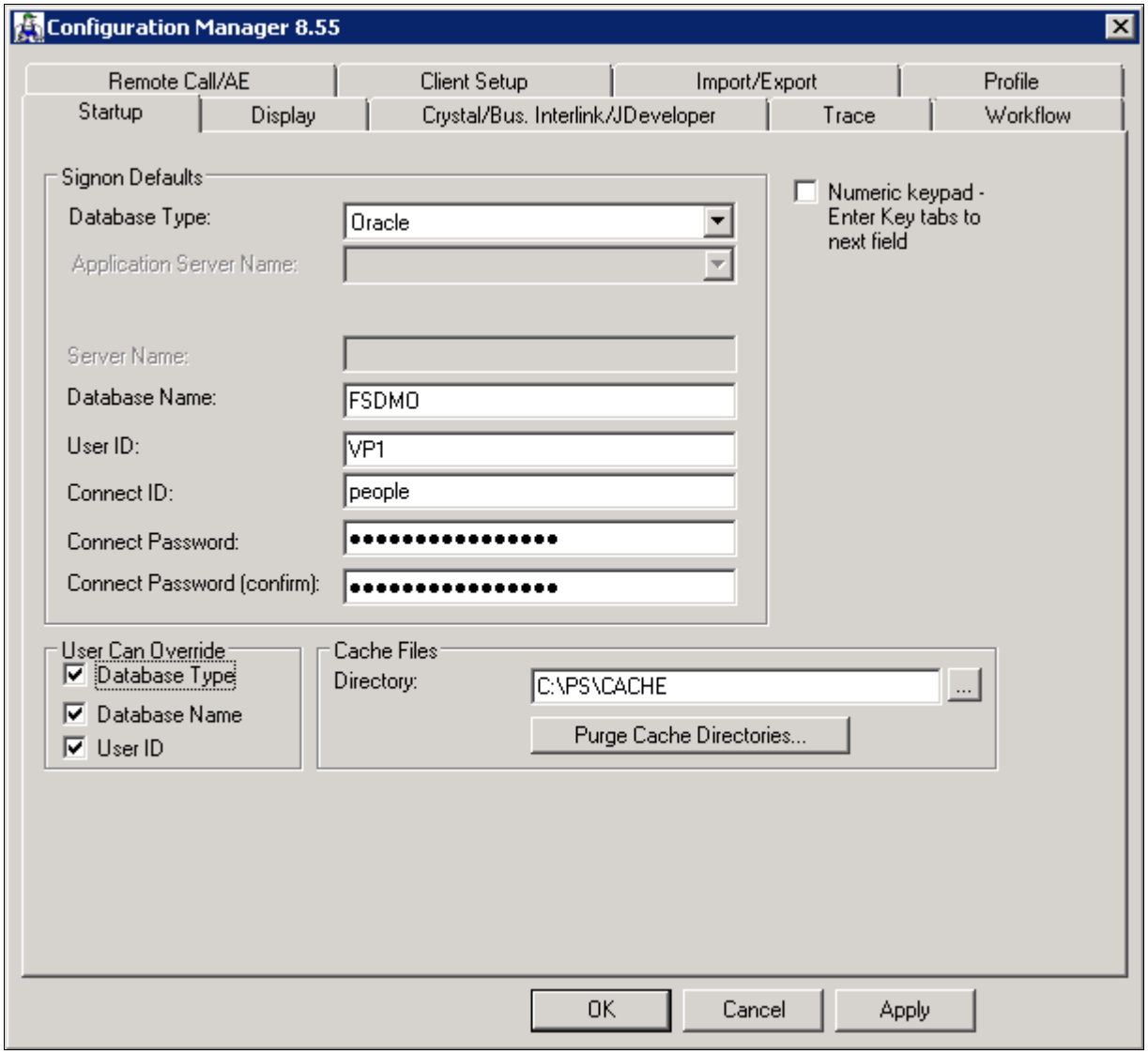
2. Verify in the Signon Defaults on the Startup page that the Database Type of Oracle is selected, as shown in the example.



Startup tab on the Configuration Manager dialog box

3. Verify that the connect ID is correct.

   If you accepted all defaults, the connect ID is people. Enter and confirm a value for the connect ID password.

4. If the *PS_APP_HOME* location is not the same as *PS_HOME*, make sure it is set in Configuration Manager, as follows:

   a. In Configuration Manager, select Profile.

   b. Highlight the Default Profile and select Edit.

   c. On the Edit Profile dialog box, select the Process Scheduler tab.

   d. Verify that the *PS_APP_HOME* value is correct.

   See "Setting Up the Install Workstation," Editing the Default Profile.

5. Run Data Mover by using one of these methods:

   - On Microsoft Windows 7, select Start, Programs, PeopleTools 8.55, Data Mover.

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- On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.55, Data Mover.
- Run *PS_HOME*\bin\client\winx86\psdmt.exe.

6. Log on using the access ID as the user id to start Data Mover in bootstrap mode; this should be the user that creates the database.

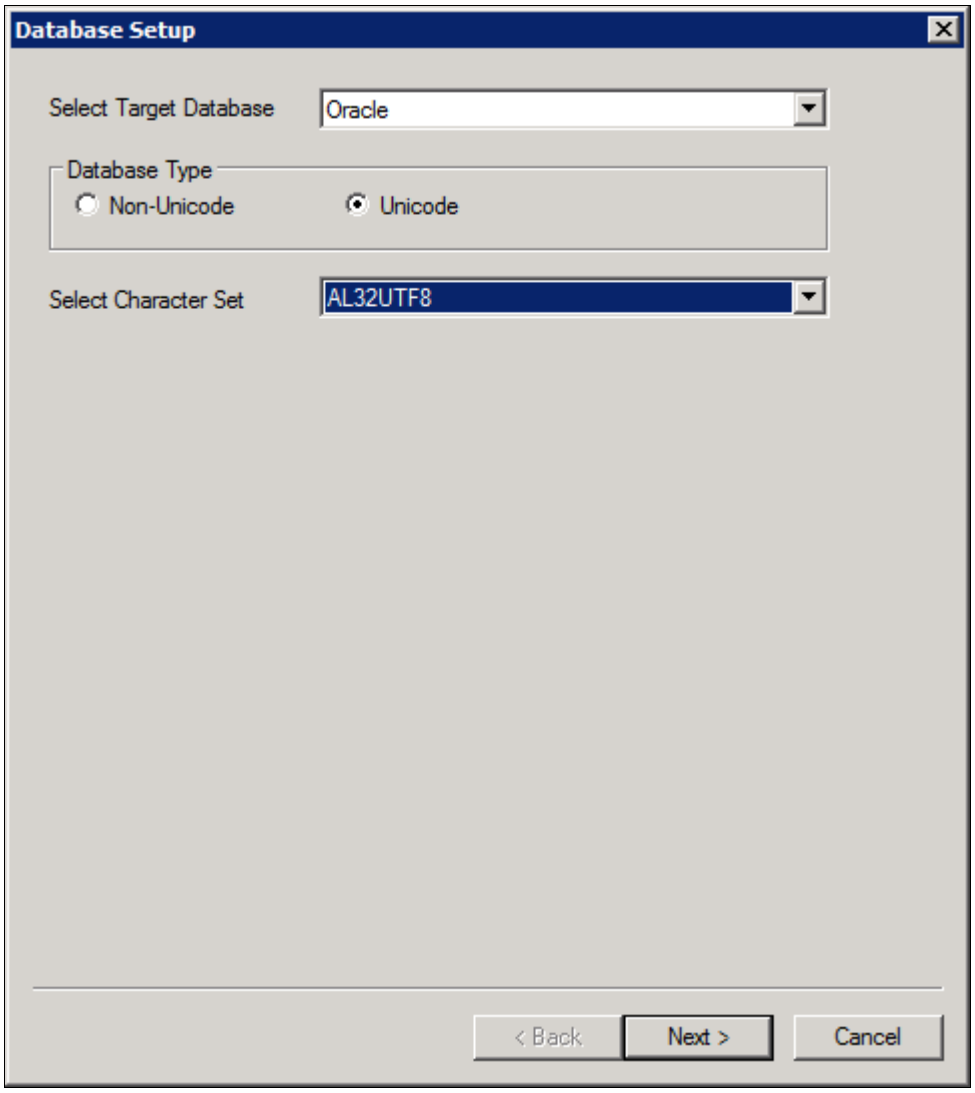
   See Checking the Log Files and Troubleshooting, Running Data Mover.

Note. You must limit the access ID to eight characters or less. You must limit the access password to 30 characters or less.

---

7. Select File, Database Setup.

   The Database Setup dialog box appears, as shown in this example:



Selecting target database and character set on the Database Setup dialog box

8. Select your database platform from the Select Target Database drop-down list.
9. Select your database type, Unicode or non-Unicode, and character set.

   Choose the Database Type—Unicode or Non-Unicode—that you selected in the section on multilingual

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strategy. If you choose Non-Unicode, select the character set that you decided upon in that section from the drop-down list.

Note. When you select a non-Unicode character set, only the characters within that character set can be stored in your database. Oracle recommends that you create your database using Unicode.

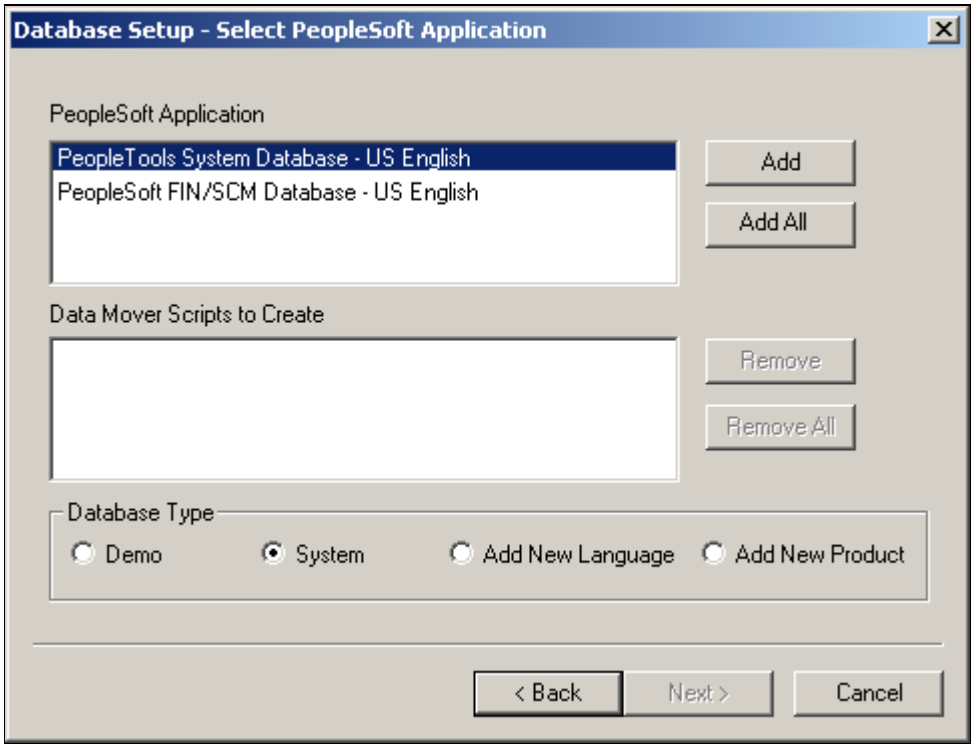
See "Preparing for Installation," Planning Multilingual Strategy.

The character set you select here must match the character set you used to create your database in the task Creating an Oracle Database. If you choose to create a Unicode database, you must have created your instance using the AL32UTF8 or UTF8 character set in the step Creating an Oracle Instance.

Note. The database setup does not actually modify the character set of your database. That is done by the DBA during database creation. The database setup process only creates customized scripts based on your selection.

---

10. Select the Demo or System radio button, depending on which type of PeopleSoft database you are installing.



Selecting a PeopleSoft application in the Database Setup dialog box

11. Select the Products for which you want to create a Data Mover script from the PeopleSoft Application list box, and move the items 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 software, each application will be listed several times, once for each language. 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.

    See "Preparing for Installation," Planning Multilingual Strategy.

    If you are installing an application in any language other than English, you must also select the English component of the application. For example, if you select PeopleSoft Fin/SCM - French, you must also select PeopleSoft Fin/SCM Database - US English. This ensures that you install the necessary base-language

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components.

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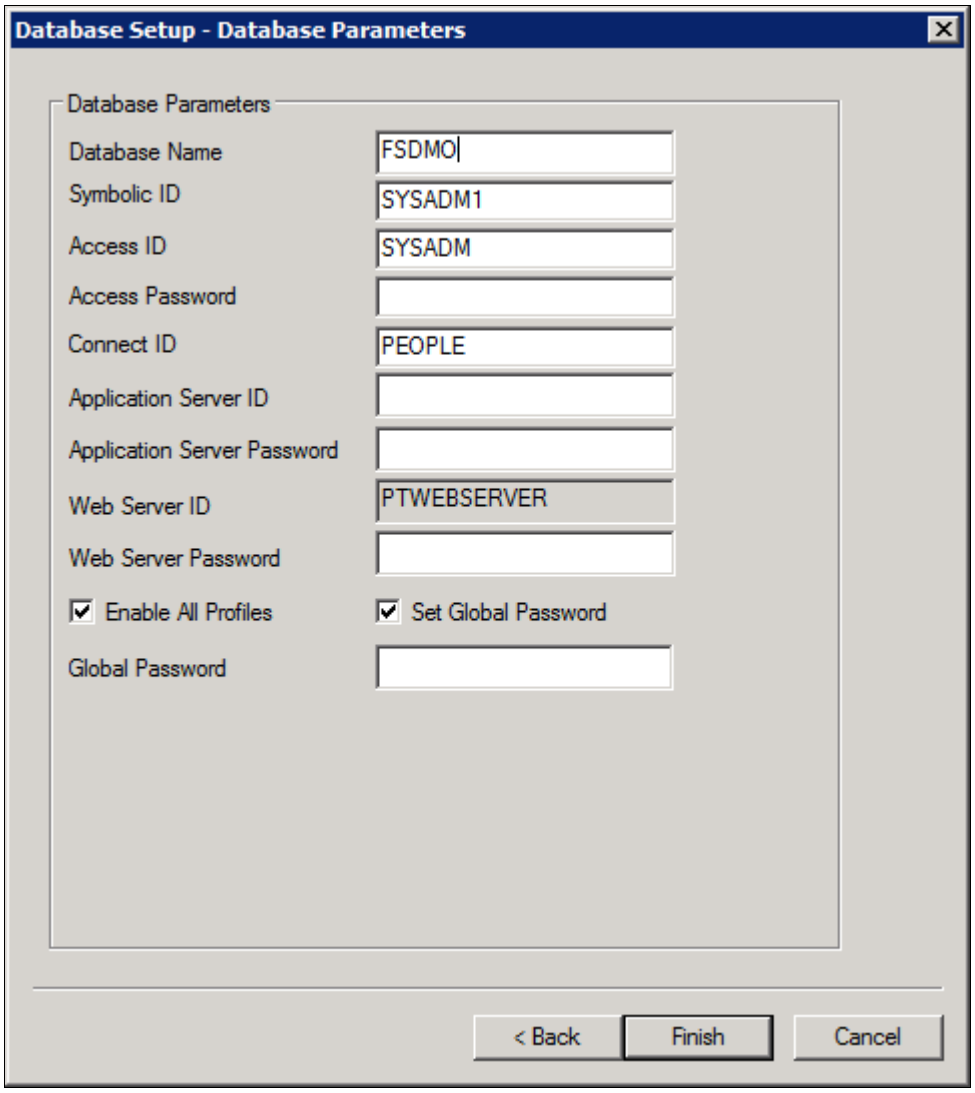
12. Set the database parameters described below and then click Finish.



Specifying Database Parameters on the Database Setup dialog box

- *Database Name:* Specify 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 PSACCESSPROFILE.

  For initial installation set it equal to the Database Name. The symbolic ID cannot be longer than eight characters.
- *Access ID:* Specify the user you used to create the database. Limit this to eight characters or less.

  This value is case sensitive. You will use the access ID every time you want to sign on to Data Mover in bootstrap mode. Limit this to eight characters or less.
- *Access Password:* This is the PeopleSoft access ID password defined in the chapter "Preparing for Installation." Limit this to 30 characters or less.
- *Connect ID:* For Oracle, this is the connect ID that is used for the initial connection to Oracle. This ID is used for connecting to the database. Limit this to eight characters or less.
- *Application Server ID*: The Application Server ID has privileges to start or shut down the Application

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Server domain. It is also used during the Application Server configuration. Enter one of the delivered PeopleSoft user IDs.

- *Application Server Password*: Specify a password for the Application Server ID.
- *Web Server Password*: Specify a password for the Web Server ID.

  The default Web Server ID, as displayed in the example, is PTWEBSERVER. The Web Server ID, also referred to in this documentation as Web Profile User ID, is used to access the web profile information from the database through the Application Server Jolt service.
- *Enable All Profiles*: Select this option to leave the User profiles (other than the Application Server profile and the Web Server User profiles) unchanged.

  If you do not select this option, all of the User profiles in the database, with the exception of the Application Server profile and Web Server User profiles, remain disabled as delivered.
- *Set Global Password*: If you enabled all profiles, you can choose to set the same password for all of the profiles.

  Note. This option is enabled when the Enable All Profiles option is selected, as shown in the example.

- *Global Password*: Enter the password to be used for all user profiles.

  Note. This option is enabled when the Set Global Password option is selected, as shown in the example.

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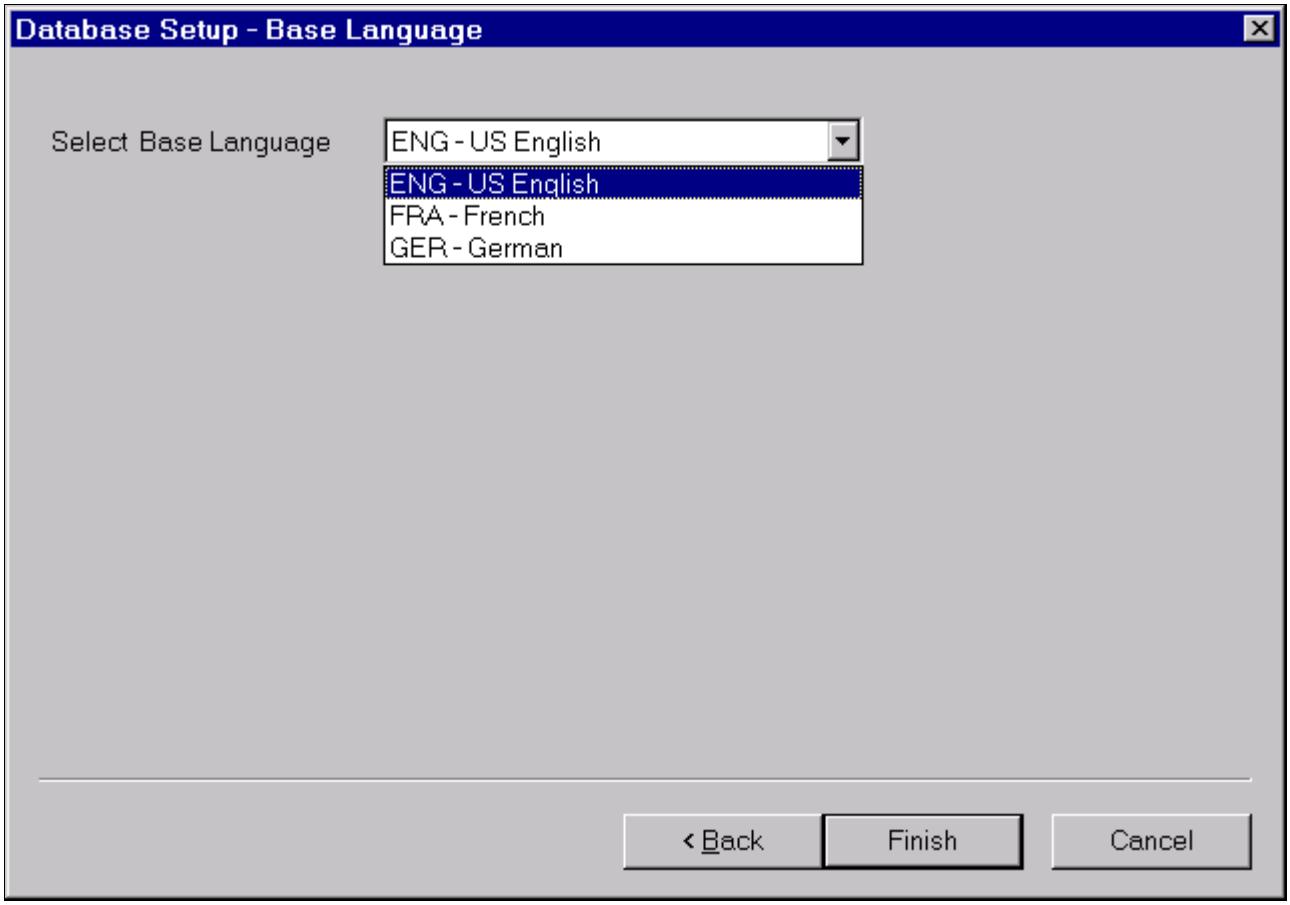
13. Select your database's base language.

Note. This window appears only if you selected a database for a language other than English. If you see this window it is 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.

See "Preparing for Installation," Planning Multilingual Strategy.

See Working with Multilingual Databases.



Selecting a base language in the Database Setup dialog box

Use the following information in making your selection:

- If you have not already done so, read the earlier section on multilingual strategy before determining whether to install multiple languages and whether to change your base language.
- If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.
- 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.
- If you are creating a non-Unicode database, you must ensure that the languages you select are all

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supported by the character set you used to create your database.

14. Click Finish.

Note. If the Database Setup - Base Language window does not appear, click Finish after supplying the parameters on the Database Setup - Database Parameters window.

At this point you are in Data Mover, with the DMS script you just created ready to run.

See Also

PeopleTools: Data Management

PeopleTools: Security Administration, "PeopleSoft Authorization IDs"

Task 13-22: Running Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts
- Populating Tables in the PeopleSoft Database

Understanding Data Mover Import Scripts

Now you will run the Data Mover scripts (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 with the Access ID and password, using bootstrap mode. 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.

See *PeopleTools: Data Management.*

See Also

Checking the Log Files and Troubleshooting, Running Data Mover

Task 13-22-1: Populating Tables in the PeopleSoft Database

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 performs the following actions:

- IMPORT *

  Create all the PeopleTools and application tables with their indexes.

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- 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.

Task 13-23: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover
- Troubleshooting
- Improving Performance

Task 13-23-1: Checking the Log Files

After running each Data Mover script, examine the .LOG files to make sure that all the commands were executed successfully. The log files are located in the directory you specified in the Data Mover script.

See "Setting Up the Install Workstation," Editing the Default Profile.

Task 13-23-2: Running Data Mover

Use one of these methods to run Data Mover.

On UNIX, run *PS_HOME/*bin/psdmtx from the command line.

If you use the access ID that you specified during the database configuration to log on, you log on in "bootstrap mode." When you start Data Mover in bootstrap mode, the word "BootStrap" appears in the Data Mover status bar.

If you use a valid PeopleSoft Operator ID, such as PS for Human Capital Management or VP1 for Financials/Supply Chain Management, you log on in "user mode." In this mode, no designation appears in the Data Mover status bar.

To run Data Mover on the command line:

Note. You can run `psdmtx` by supplying arguments on the command line, or by passing the arguments from a text file. This section describes the text file method.

---

1. Go to *PS_HOME/*bin.

   ```
   cd $PS_HOME/bin
   ```

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2. Use the following command to view the help for `psdmtx`:

```
$ psdmtx /help
Usage:  psdmtx  [-CT DB2|DB2ODBC|DB2UNIX|MICROSFT|ORACLE]
                [-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]
```

To capture the output in a file, use a greater-than symbol ("pipe", >) followed by a filename. For example:

```
psdmtx [arguments] > filename.txt
```

Use the following list of commands and descriptions for the `psdmtx` arguments:

Command Argument	Description
-CT <DB type>	The type of database to connect to: ORACLE.
-CD <DBNAME>	Your selected Database Name.
-CO <ACCESSID>	Use the <DBNAME> Access ID to run Data Mover in bootstrap mode.
-CP <ACCESSPWD>	The password for <DBNAME> Access ID.
-CI <CONN ID>	The ID used to connect to the database server.
-CW <CONN PSWD>	The password for the specified connection ID.
-FP <filename>	The filename for the Data Mover import script (DMS) to run.

3. To set up Data Mover to rerun the Data Mover import script in bootstrap mode, do the following:
   a. Change directory to *PS_HOME/*setup.
   b. Copy parmfile to parm<DBNAME>. For example, *parmPT855*.
   c. Edit parm<DBNAME>.

      Use the information in the table above to edit the file for your configuration.

      Use ORACLE for <DB type>.

      For example:

      Before

```
-CT <DB type> -CD <DBNAME> -CO <ACCESSID> -CP <ACCESSPWD> -CI <CONN⇒
 ID> -CW⇒
 <CONN PSWD> -FP <filename>
```


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After

```
-CT ORACLE -CD HRDMO -CO HRDMO -CP HRDMO -CI people -CW people -FP⇒
 $PS_HOME⇒
/scripts/pt855ora.dms
```

4. To launch Data Mover in bootstrap mode, do the following:
   - Change directory (cd) to *PS_HOME/*bin
   - Run the psdmtx command with the edited parm<DBNAME> file.

     ```
     pt-sun20:$ psdmtx ../setup/parmPT855
     ```

     You see Data Mover log messages tracking the progress.

See Also

PeopleTools: Data Management

Task 13-23-3: Troubleshooting

If the DMS 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, and use the following guidelines to edit and rerun the DMS scripts.

   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 statement, add the SET START statement before the first IMPORT *; statement.
   - If the failure occurred during a subsequent IMPORT statement, comment out all statements preceding the IMPORT *; statement where the failure occurred 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 "Building required indexes" section, 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. Start Data Mover by running psdmtx on the command line.
3. Log on using the Access ID to start Data Mover in *bootstrap mode.*

   Use the Access ID you specified when you created the Data Mover scripts with the Database Setup utility.

   The input window should display the DMS import script for the database. The script has the format <dbname>ora.dms.
4. If necessary, select File, Open, and browse to the *PS_HOME/*scripts directory to find the appropriate DMS script.
5. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

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```
SET START <RECORD NAME>;
```

<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 command will begin the Data Mover import at the specified record name.

Note. It is 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.

For 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 (for example, 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. 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. The SET START statement will begin the Data Mover import at the specified <RECORD NAME>.

Example of the original script:

```
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 ON;
IMPORT *;
```

Example of script after modification, with changes in bold font:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs2.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE ON;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;
```

For the DROP statement, for records with a recname without a leading PS, add PS_ to the beginning of the

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recname; otherwise the table will not be found. For example, PS_<RECNAME>.

6. To restart the script, use the `psdmtx` command to execute Data Mover on the command line.

Task 13-23-4: Improving 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 that 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 are 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.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the UNDO tablespace or the number of UNDO Segments.
- Use asynchronous read and write.
- Use multiple db_writers.

Task 13-24: Changing the Base Language

The information in the earlier task Planning Multilingual Strategy will help you determine whether you should change your base language, and lists the currently supported languages.

See "Preparing for Installation," Planning Multilingual Strategy.

See PeopleTools Certifications — Supported Languages, My Oracle Support (search for article name).

This task applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. It gives a performance boost to the language you designate as the base language, but requires more administrative overhead than leaving English as the base language. The details are spelled out in the *PeopleTools: Global Technology* product documentation.

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Chapter 14A

Installing and Compiling COBOL on Windows

This chapter discusses:

- Understanding COBOL
- Prerequisites
- Preparing COBOL for a PeopleTools-only Upgrade
- Installing Micro Focus Net Express on Microsoft Windows
- Managing Micro Focus Net Express Compiler Licenses
- Using the Micro Focus COBOL Compiler on Microsoft Windows

Understanding COBOL

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

COBOL is not needed for PeopleSoft PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for PeopleSoft applications that contain no COBOL programs. See My Oracle Support for the details on whether your application requires COBOL.

The chapter includes instructions for the Micro Focus Net Express COBOL compiler.

See Also

"Preparing for Installation," Installing Supporting Applications

PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers, My Oracle Support, (search for the article name)

PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler, My Oracle Support, (search for the article name)

PeopleTools Certifications - Suggested Fixes COBOL, My Oracle Support, (search for the article name and select the current release)

PeopleTools: Global Technology, "Understanding COBOL in a Unicode Environment"

Prerequisites

Before you attempt to run COBOL from the command line you should do the following:

- Make sure the variable PS_SERVER_CFG points to a valid psprcs.cfg file.

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- Make sure %PS_HOME%\bin\server\winx86 is in your path. It should appear before %PS_HOME%\bin\client\winx86 if that also appears in the path.
- Before compiling COBOL, you must obtain and install Perl on the machine used to compile COBOL.

  Perl is used to perform conversions on COBOL source files. Make sure the Perl installation location is included in the system's PATH environment variable. Contact the Perl vendor for installation and reference documentation.

Task 14A-1: Preparing COBOL for a PeopleTools-only Upgrade

When performing a PeopleTools-only upgrade, if you have COBOL modules, recompile all PeopleSoft PeopleTools and PeopleSoft application COBOL programs, as explained in a later section.

Ensure that the following COBOL runtime files in your client and server bin directories match those of your Micro Focus Net Express installation:

- CBLINTS.DLL
- CBLRTSS.DLL
- CBLVIOS.DLL
- COB32API.DLL

See Recompiling COBOL on Microsoft Windows.

Task 14A-2: Installing Micro Focus Net Express on Microsoft Windows

This section discusses:

- Prerequisites
- Obtaining Installation Files for Micro Focus Net Express from Oracle Software Delivery Cloud
- Installing Micro Focus Net Express Wrap Pack 6
- Installing Micro Focus Net Express Wrap Pack 11

Prerequisites

Micro Focus® Net Express™ 5.1 Wrap Pack 11 is the supported COBOL compiler on Microsoft Windows for PeopleSoft PeopleTools 8.55. Micro Focus Net Express 5.1 Wrap Pack 11 updates earlier versions—Wrap Pack 6, Wrap Pack 7, Wrap Pack 8, Wrap Pack 9, and Wrap Pack 10. If you are running a Wrap Pack prior to Wrap Pack 6 or have no Net Express version installed, install Wrap Pack 6 before installing Wrap Pack 11.

See Installing Micro Focus Net Express Wrap Pack 6.

Check the certification information on My Oracle Support for the supported version for Microsoft Windows operating systems.

The installation available from Oracle Software Delivery Cloud includes a 30-day license. Contact your Micro Focus vendor to obtain a permanent license for the COBOL compiler.

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See Also

Using the Micro Focus COBOL Compiler on Microsoft Windows

Task 14A-2-1: Obtaining Installation Files for Micro Focus Net Express from Oracle Software Delivery Cloud

The Micro Focus Net Express installation files are available on Oracle Software Delivery Cloud. At this point you may have already downloaded the necessary files. This section includes additional information on finding and using the files for Micro Focus Net Express if necessary.

See "Preparing for Installation," Using Oracle Software Delivery Cloud to Obtain Installation Files.

See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

To obtain the files for the Micro Focus Net Express installation:

1. After logging in to Oracle Software Delivery Cloud, read the information about export restrictions, and then click Accept.
2. Enter Micro Focus in the type-ahead Product field, and select Micro Focus International Ltd. Net Express COBOL for Windows.
3. Select the operating system you are running on from the Select Platform drop-down list, and click Select.
4. Click Continue.
5. Click Continue.
6. Read the license agreement, select the check box to acknowledge that you accept the agreement, and then click Continue.
7. Click one of the filenames to download an individual zip file, or click Download All to obtain all of the files listed.

   The files include software, wrap packs, and documentation. Save the zip files to a temporary directory on your local system. The directory where you save the zip files for both versions is referred to in this documentation as *NE_INSTALL*. You must extract (unzip) each file on the platform for which it is intended. For example, if you download the zip file for Microsoft Windows, you must unzip it on Microsoft Windows to avoid problems.

Task 14A-2-2: Installing Micro Focus Net Express Wrap Pack 6

The following procedure assumes that you saved the installation files from Oracle Software Delivery Cloud in the directory *NE_INSTALL*.

To install Micro Focus Net Express Wrap Pack 6:

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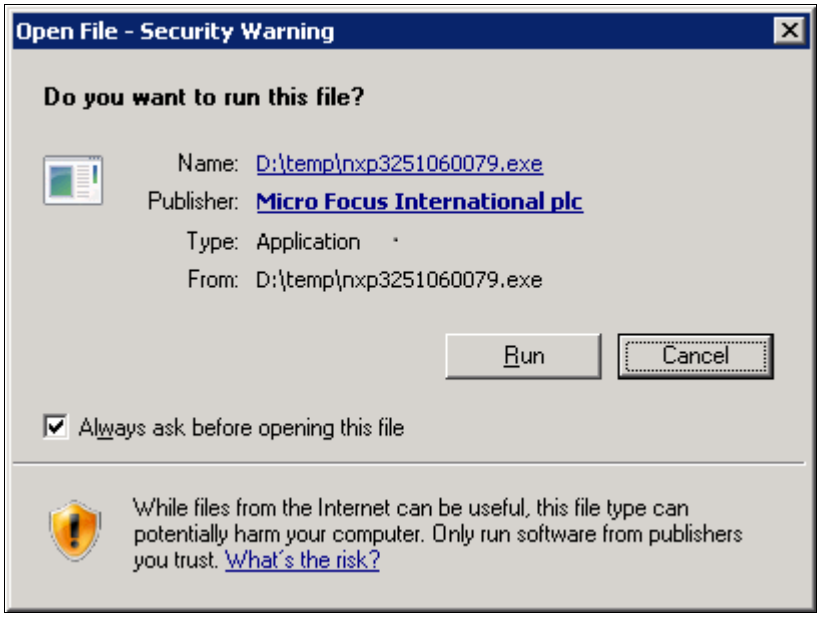
1. Double-click *NE_INSTALL*/nxp3251060079.exe.

   If a security screen appears, click Run to launch the installer.



Open File - Security Warning for the Micro Focus installation executable

The Install Shield Wizard starts extracting files. This may take a few minutes until the files are extracted, and then the Installation Wizard dialog box appears.

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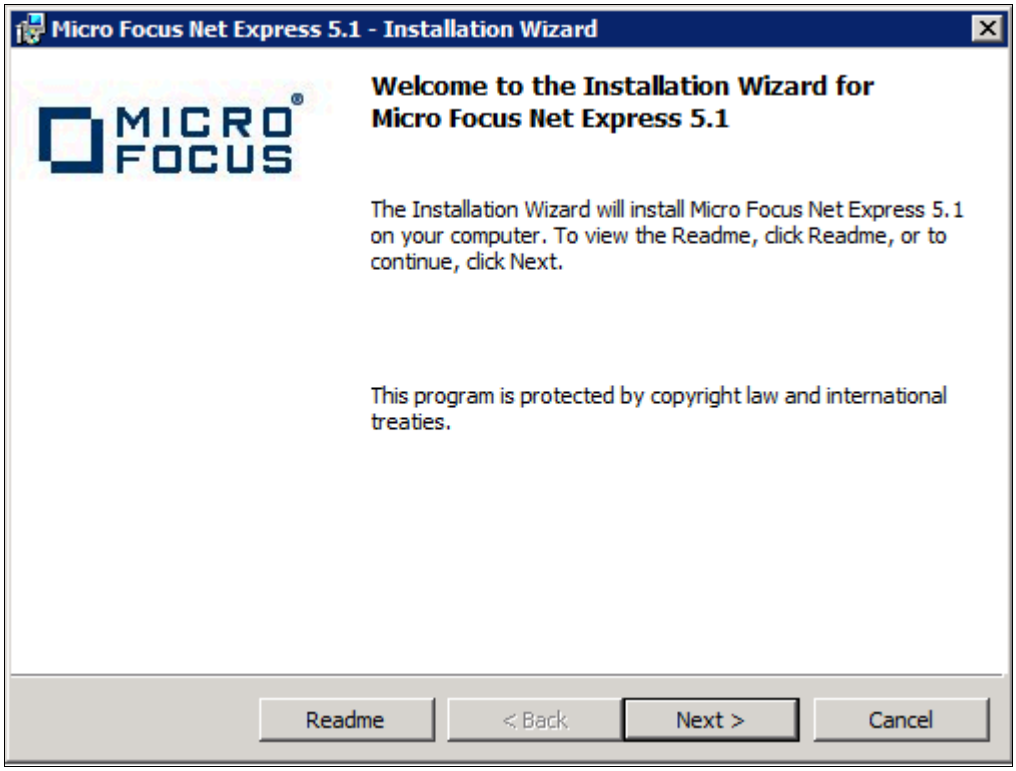
2. Click Next on the welcome window.

   The screen includes a button to open a Readme file.



Micro Focus Net Express Installation Wizard Welcome window

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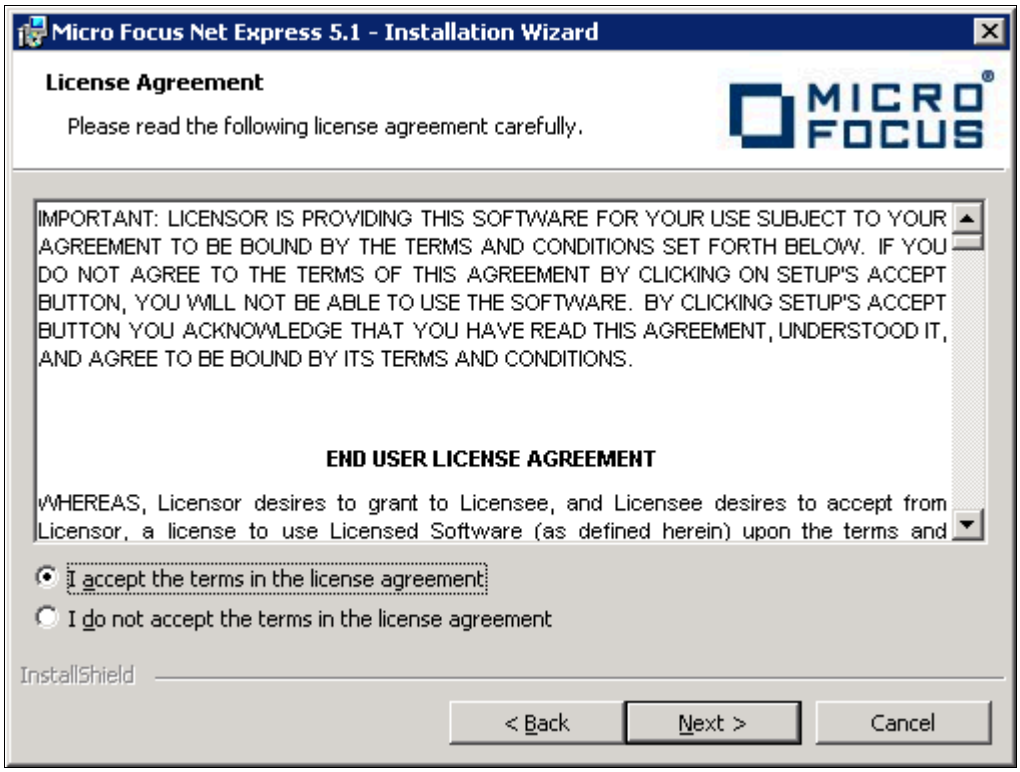
3. Read the terms of the License Agreement, select the option to accept the terms, and click Next.



License Agreement window for Micro Focus Express

4. Complete the Customer Information window:
   a. Enter your name in the User Name field, and enter your Company Name.

      In the example shown below, the user name is USER NAME, and the Company Name is ORACLE.
   b. Leave the Serial Number and W.O. Number fields blank. Oracle does not provide these numbers to you and they are not required.

Note. The message at the top of the window reads "We STRONGLY recommend you enter your Serial Number and Works Order (W.O.) number here. You will need them later to obtain a full license key." The example here leaves these fields blank.

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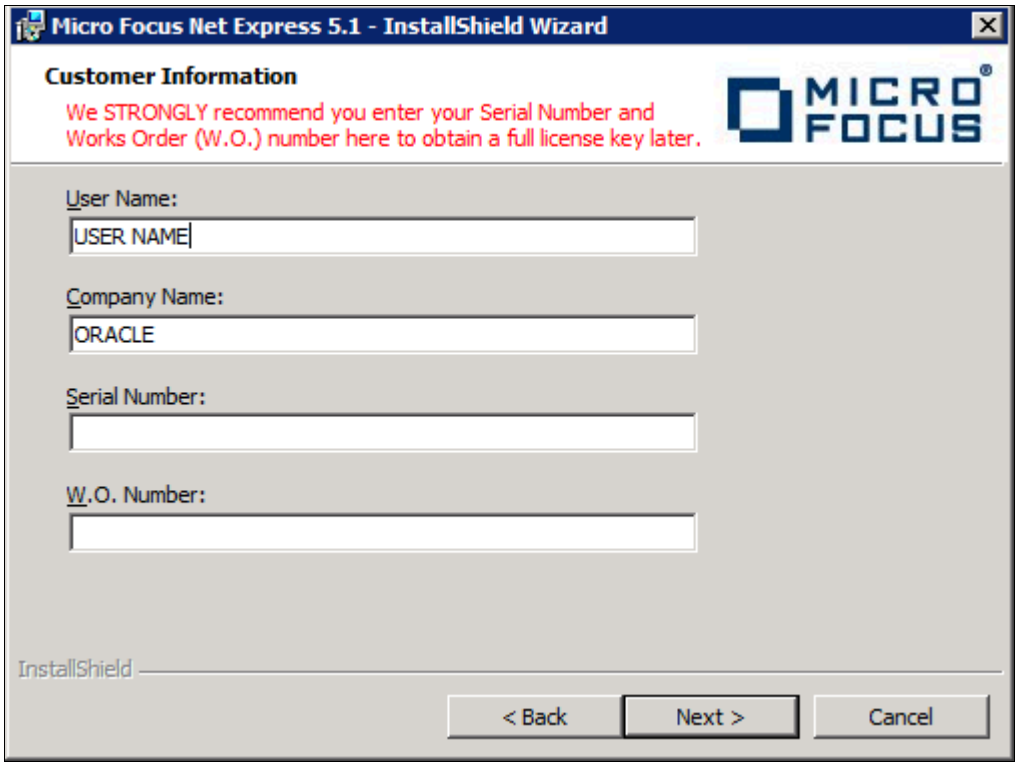
c. Click Next.



Customer Information window

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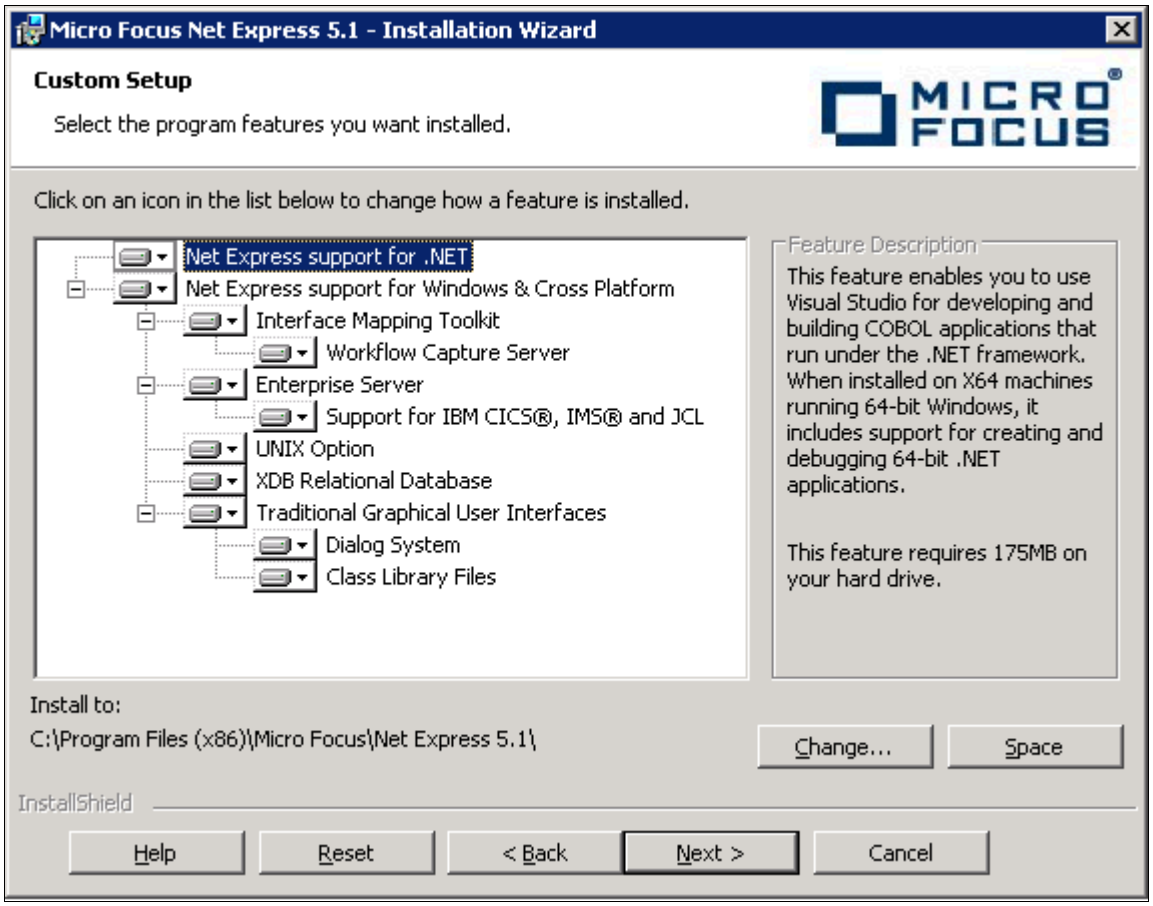
5. The Custom Setup window appears as in this example, with all of the options selected initially:



Custom Setup window before selecting features

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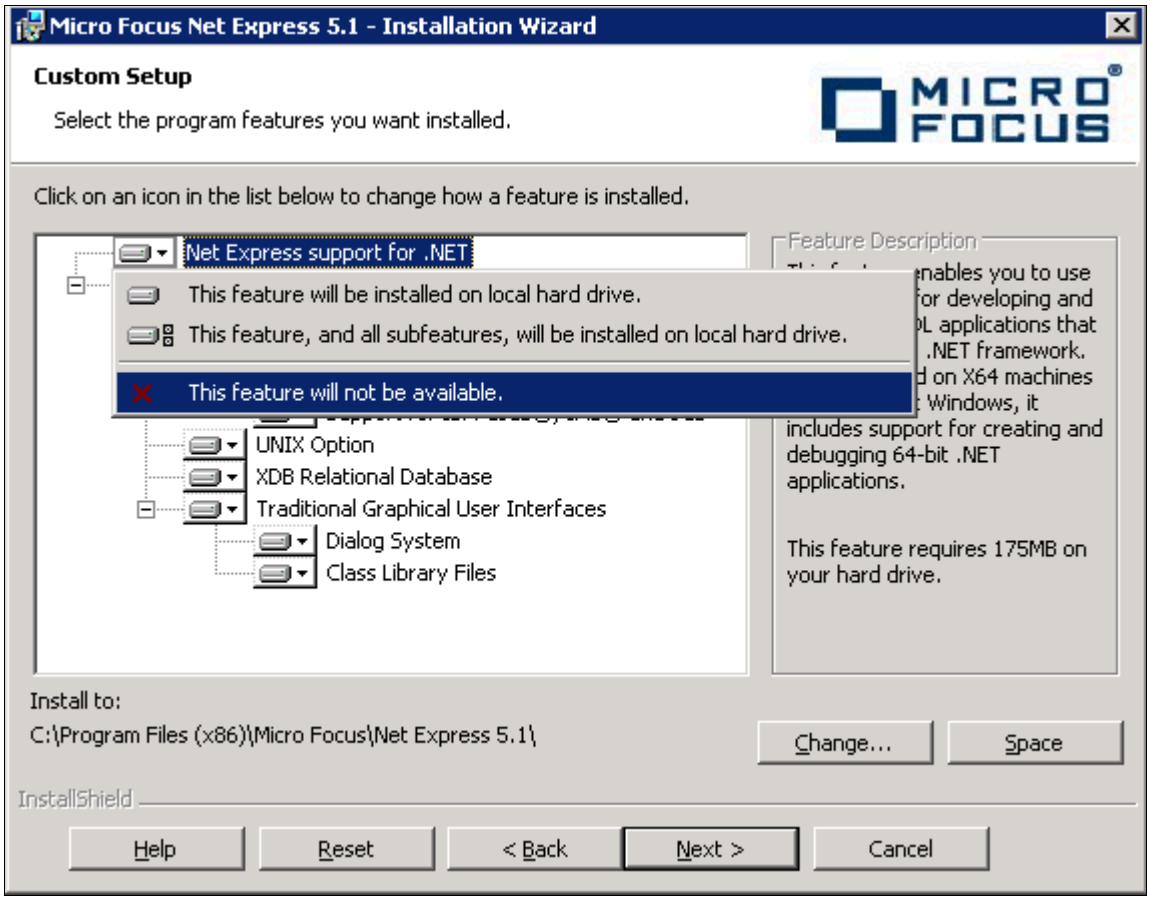
6. You must clear several features on the Custom Setup window before proceeding.

   You can turn off a feature by clicking on the drop-down button beside the feature and selecting the option "X This feature will not be available," as shown in this example:



Custom Setup window displaying selection and deselection options

The Traditional Graphical User Interfaces feature is the only feature required for the PeopleSoft installation. (The Traditional Graphical User Interfaces feature also includes Dialog System and Class Library Files.) Clear the following features:

- Net Express support for .NET

  Note. Microsoft .NET framework is not required for compiling and running COBOL applications in PeopleSoft architecture. Neither is .NET required for successful installation of MicroFocus Net Express 5.1.

- Interface Mapping Toolkit

  When you clear this feature, the Workflow Capture Server option is automatically cleared also.

- Enterprise Server
- UNIX Option
- XDB Relational Database

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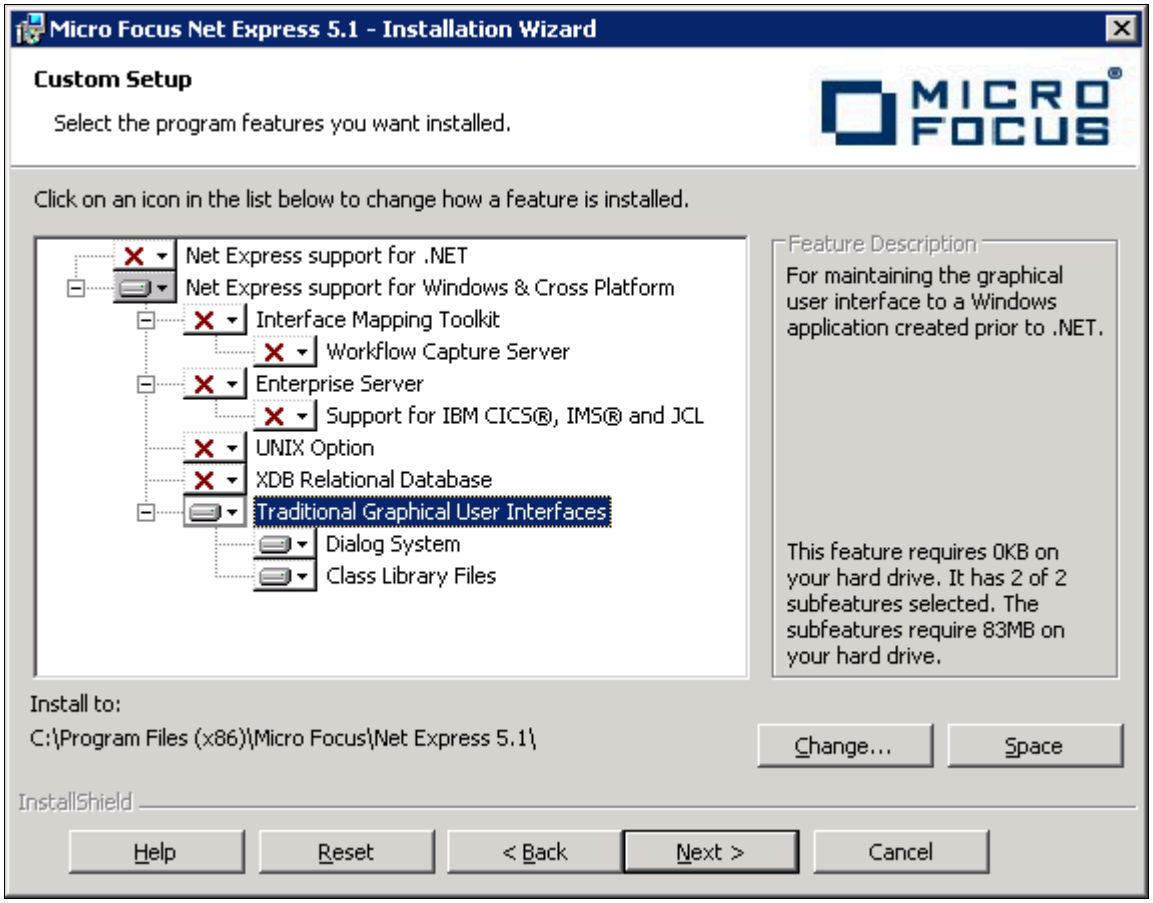
7. Verify that your final selection matches this example, with only Traditional Graphical User Interfaces, Dialog System, and Class Library Files, selected:



Custom Setup window with options selected for PeopleSoft applications

8. Highlight Traditional Graphical User Interfaces.

   The installation directory is listed below the feature list. If you want to install to another location, click Change. If not, click Next.

   This documentation refers to the installation directory as *NE_HOME*. The Micro Focus Net Express 5.1 default installation directory, for 64-bit systems, is:

   C:\Program Files (x86)\Micro Focus\Net Express 5.1

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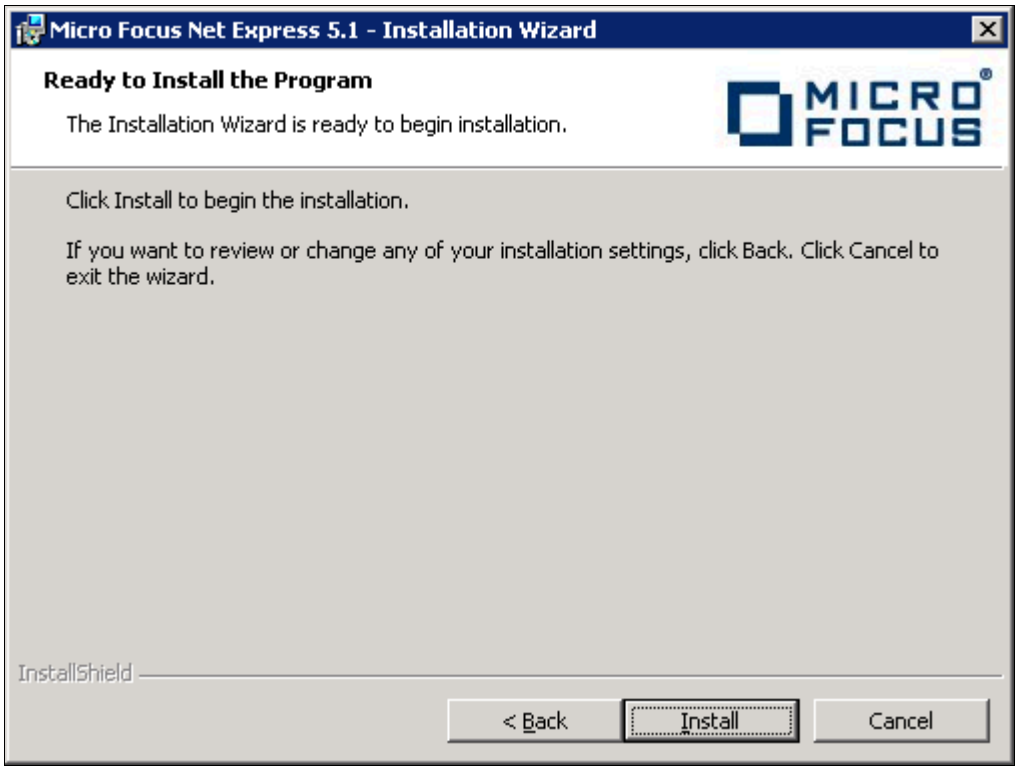
9. Click Install.



Micro Focus Net Express Installation window: Ready to Install the Program

The installation status window appears, tracking the installation progress.

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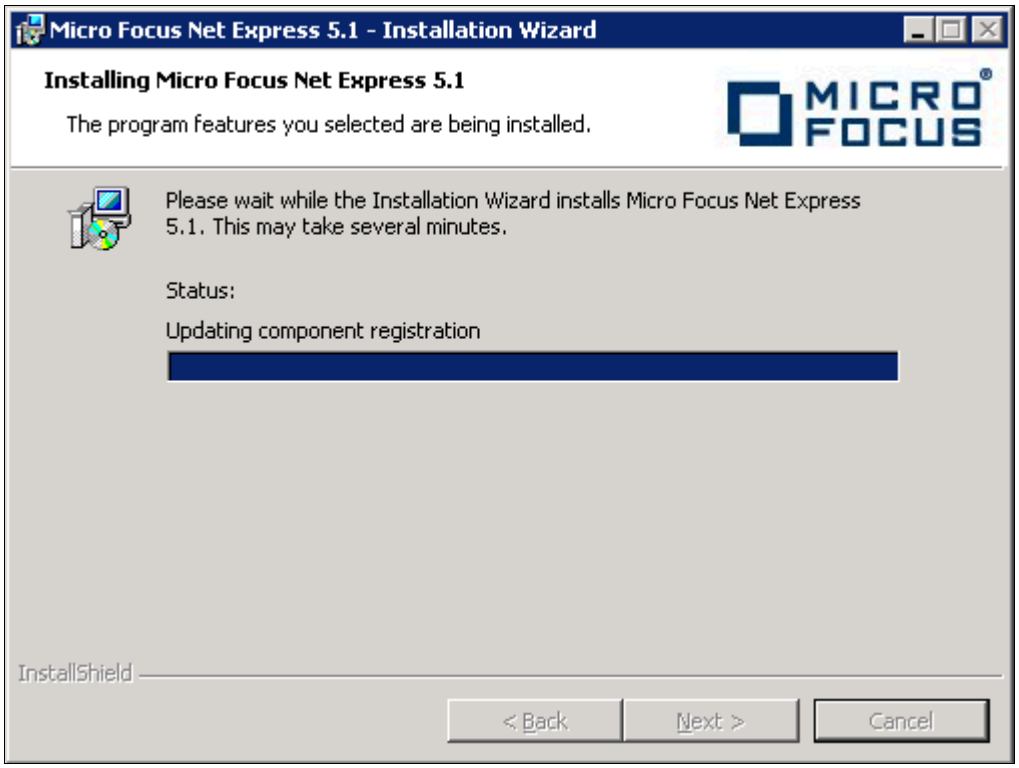
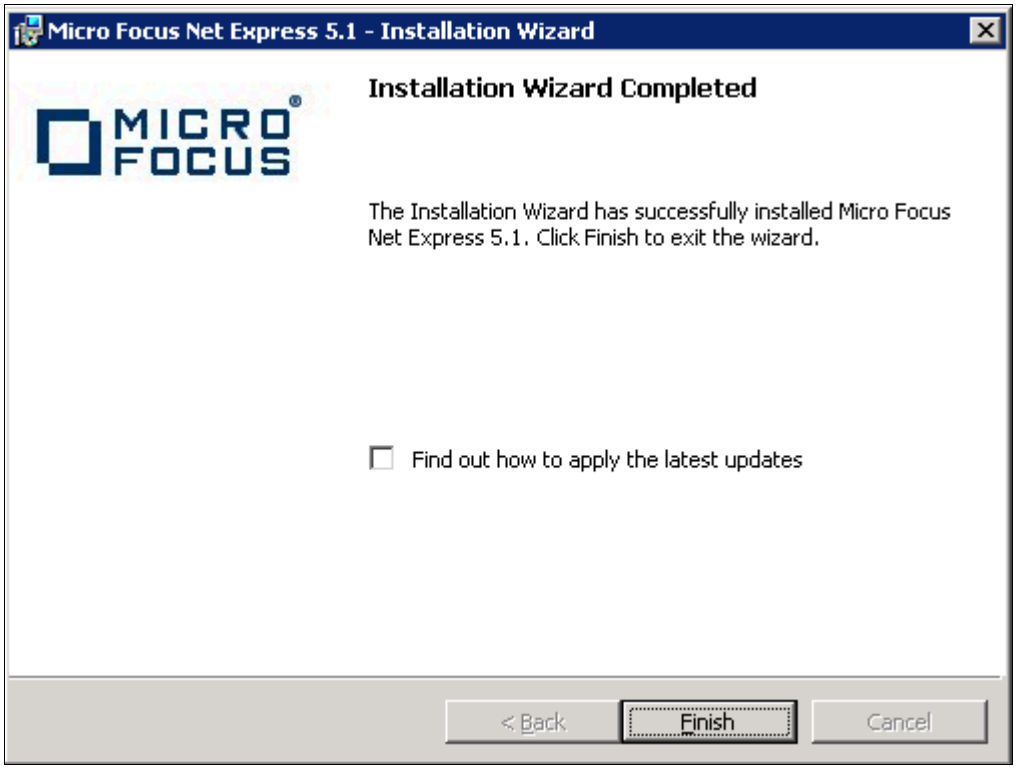


Installation status for the Micro Focus Net Express Installation

10. Click Finish.



Installation Wizard Completed window

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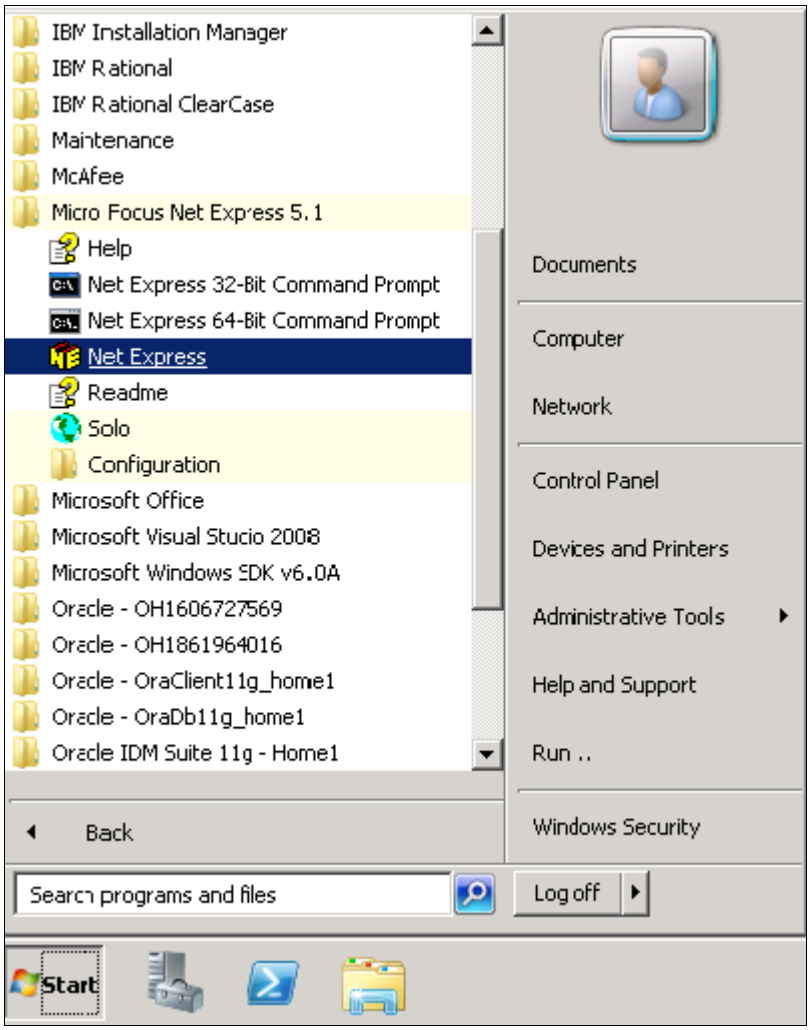
11. To confirm the installation, select Start, All Programs, Micro Focus Net Express 5.1, Net Express.



Selecting Micro Focus Net Express from the Microsoft Windows Start menu

The Net Express Integrated Development Environment (IDE) appears.

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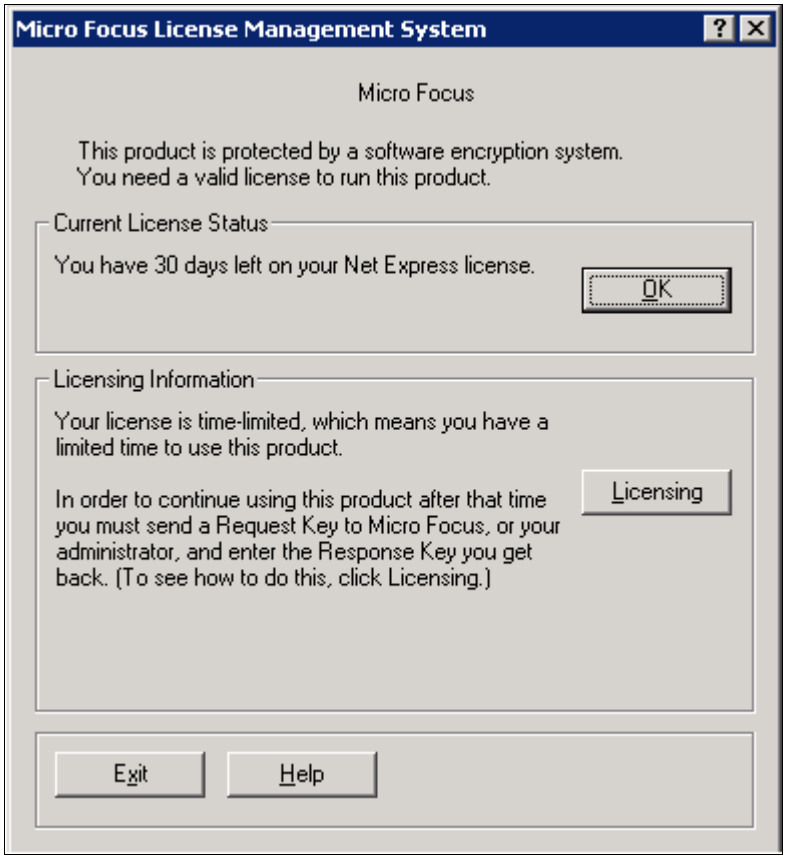
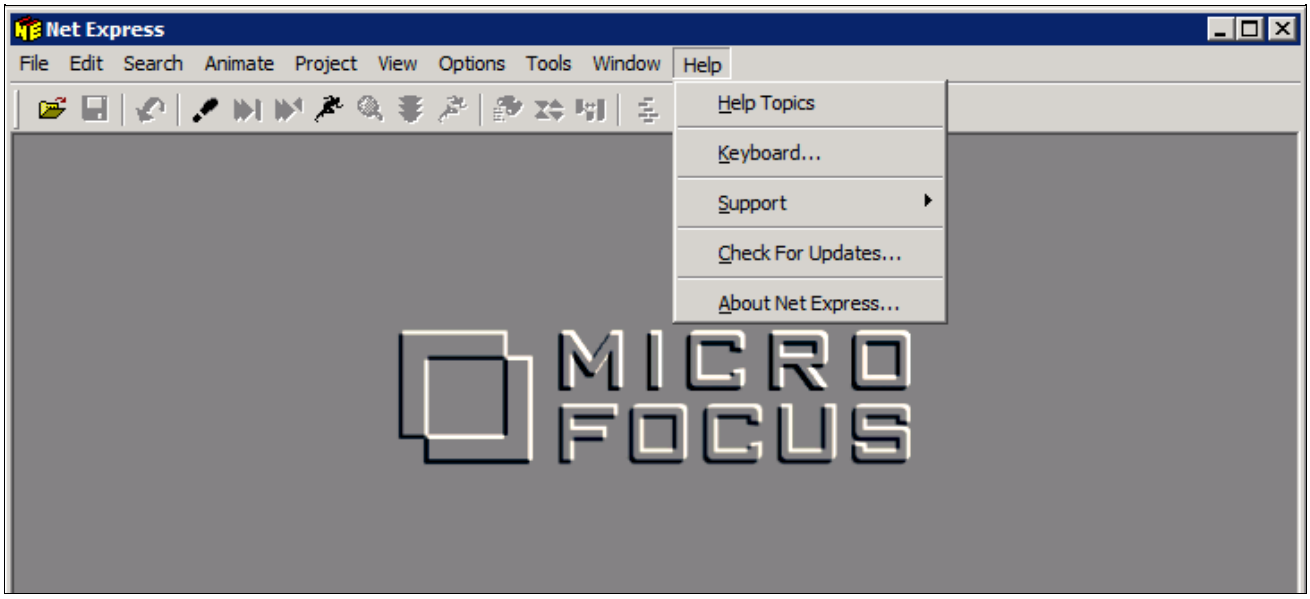
12. On the Micro Focus Management System dialog box, read the information under Current License Status, indicating that there is a 30-day license for the compiler that you installed.



Micro Focus License Management System dialog box

13. Click Help, About Net Express.



Micro Focus Net Express Integrated Development Environment Help menu

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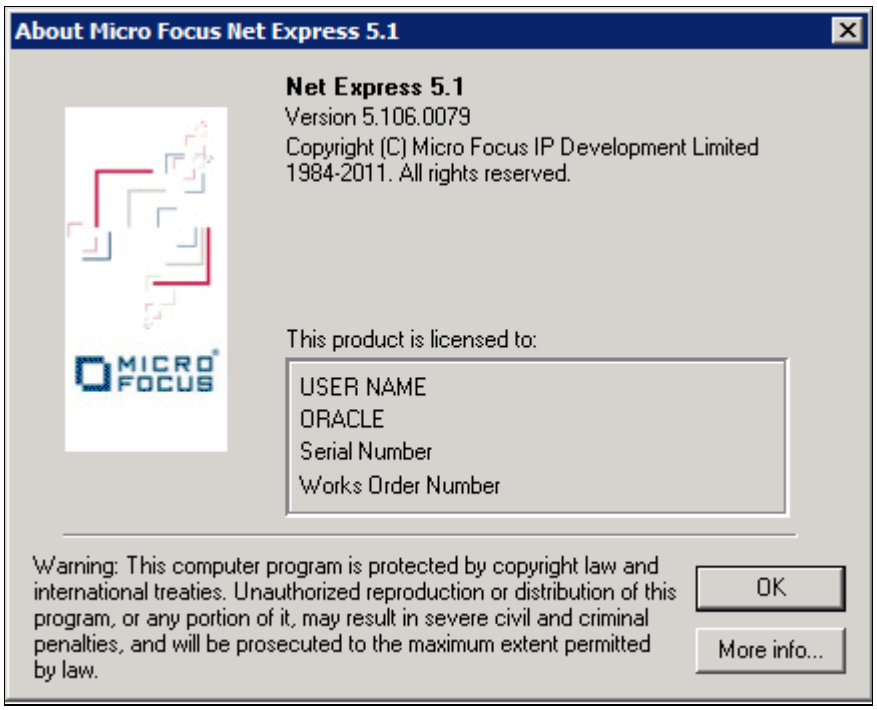
14. Verify that the following information is included on the message box that appears:

    Net Express 5.1

    Version: 5.106.0079



About Micro Focus Net Express window with version number

Task 14A-2-3: Installing Micro Focus Net Express Wrap Pack 11

The following procedure assumes that you saved the installation files from Oracle Software Delivery Cloud in the directory *NE_INSTALL,* and that Micro Focus Net Express Wrap Pack 6 is installed.

To update to Micro Focus Net Express Wrap Pack 11:

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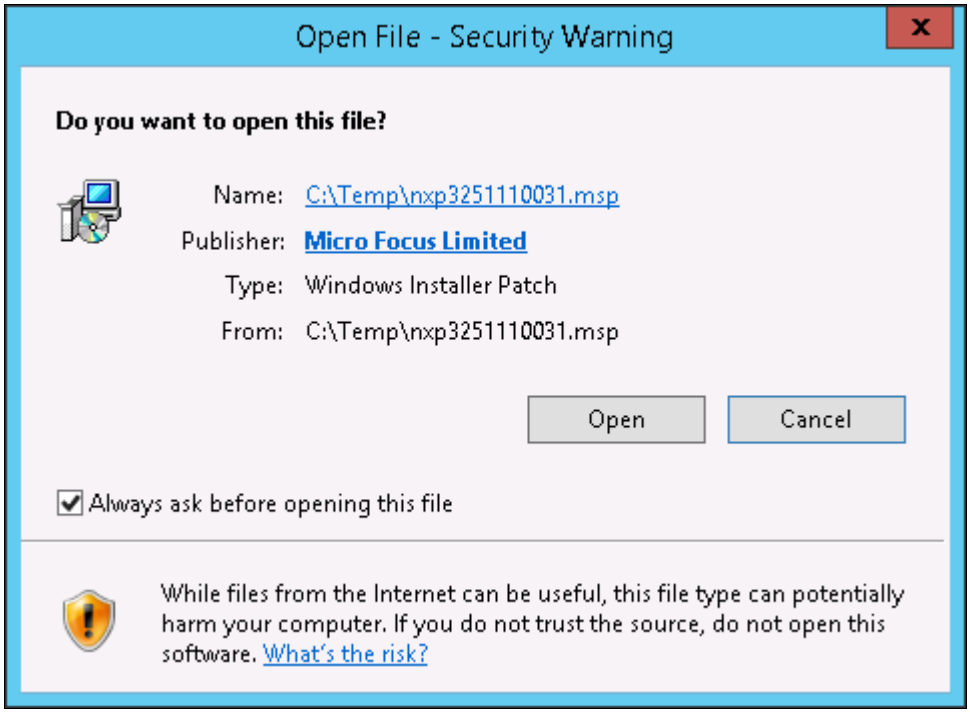
1. Double-click *NE_INSTALL*/nxp3251110031.msp.

   If a security screen appears, as in this example, click Open to launch the installer.



Open File - Security Warning dialog box

A Welcome window appears.

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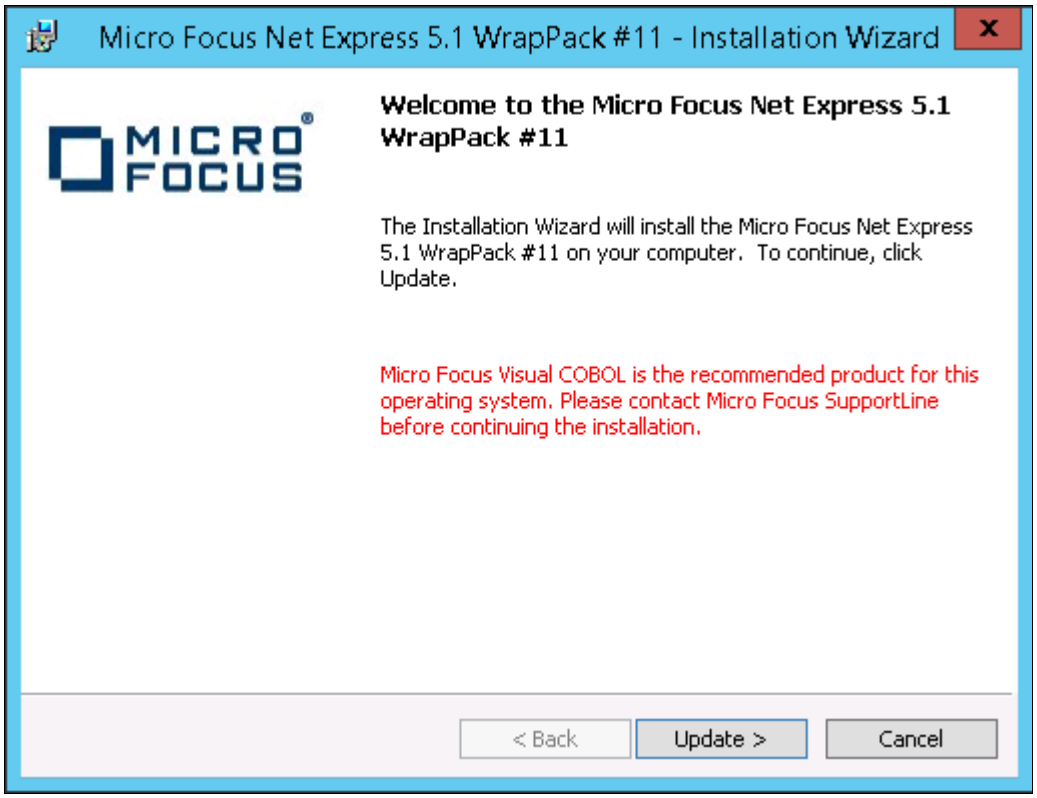
2. Click Update to continue, as in this example:



Welcome to the Micro Focus Net Express 5.1 WrapPack #11 window

You see a window indicating the progress of the installation.

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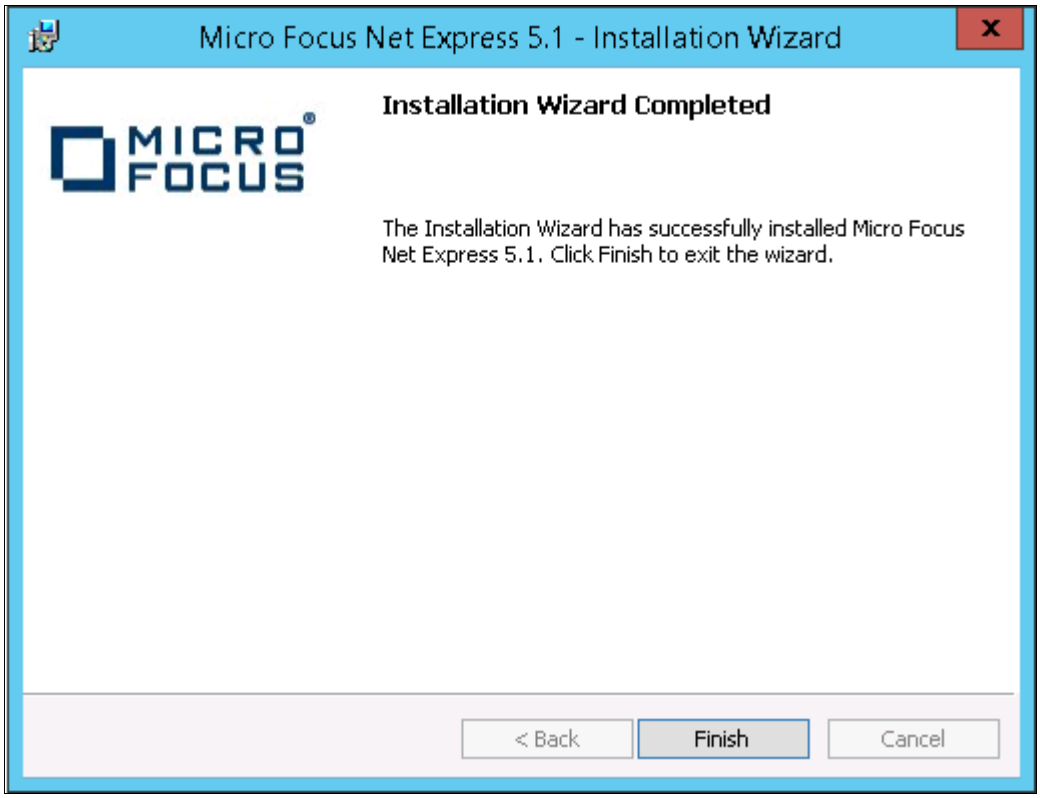
3. After the installation is complete, click Finish on the completion window, as in this example:



Installation Wizard Completed window

4. To verify the installation, select Start, All Programs, Micro Focus Net Express 5.1, Net Express.

   Alternatively, you can run *NE_HOME*\Base\Bin\MFNETX.EXE, where *NE_HOME* refers to the directory where you installed Micro Focus Net Express, such as C:\Program Files\Micro Focus.

   The Micro Focus Net Express 5.1 Integrated Development Environment (IDE) opens.

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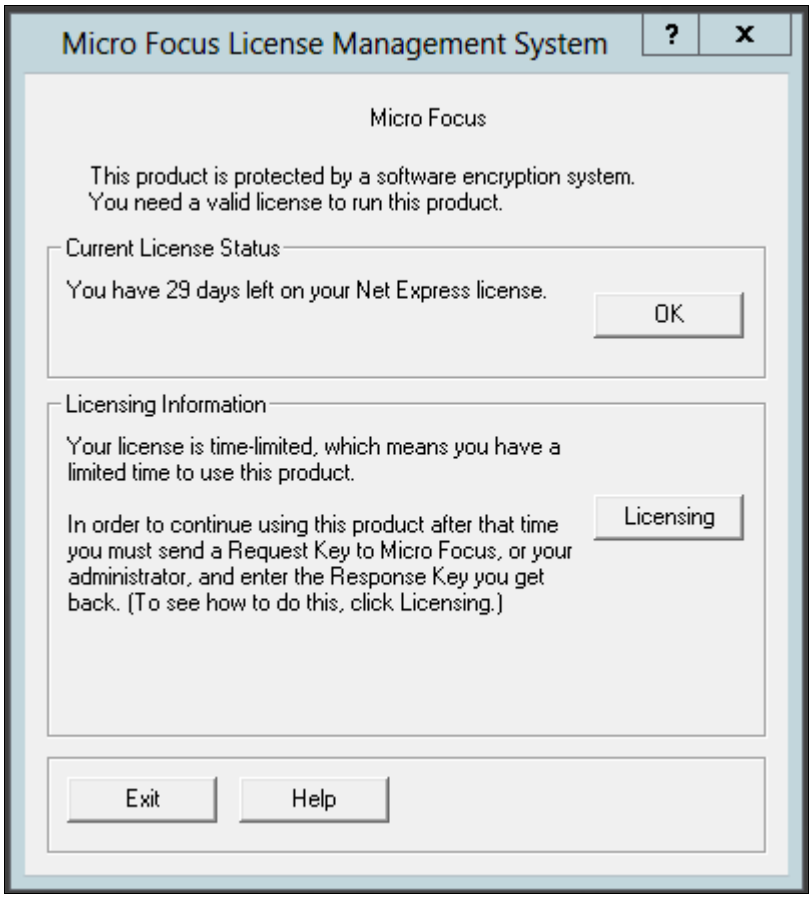
5. On the Micro Focus License Management System dialog box, read the information under Current License Status.

   In this example, the current license status indicates 29 days remaining on the license. Click OK.



Micro Focus License Management System dialog box

6. Click Continue on the Welcome to Micro Focus Net Express window.

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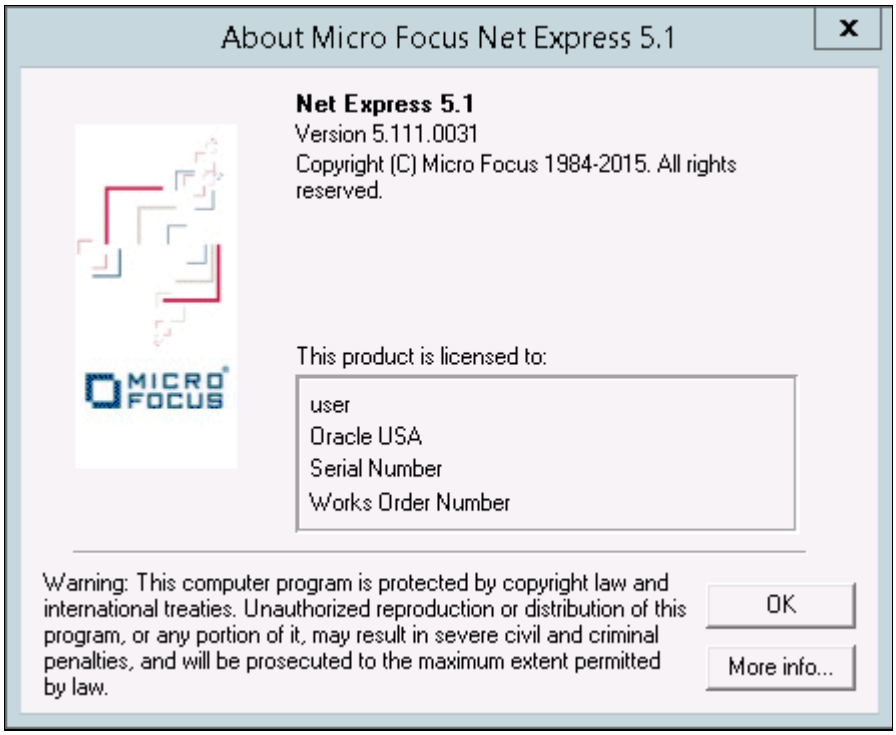
7. Select Help, About Net Express.

   Verify that the following information is included on the message box that appears:

   Net Express 5.1

   Version 5.111.0031



About Micro Focus Net Express 5.1 message box

Task 14A-3: Managing Micro Focus Net Express Compiler Licenses

This section discusses:

- Understanding Micro Focus Net Express Compiler Licenses
- Configuring a Full License with the License Server
- Configuring a Timed License with the License Server
- Revoking the License Using the License Management System
- Revoking the License by Removing the Installation

Understanding Micro Focus Net Express Compiler Licenses

The Micro Focus Net Express 5.1 Wrap Pack 11 compiler can be licensed with a Micro Focus License Server or with the Request Key/Response Key mechanism. This section discusses the License Server method, which Oracle recommends because it is more flexible and licensing is immediate. For more details, see the Micro Focus documentation.

There are two types of Micro Focus Net Express licenses. Here is a brief comparison:

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- Timed License
  - Timed Licenses expire after the specified duration and can be renewed over the network.
  - Timed Licenses are the default given by the license server.
  - There are two types of Timed Licenses; one is valid for seven days, and other for one day.
- Full License
  - Full Licenses do not expire.
  - The user can request and revoke Full Licenses using the License Management System.

It is a good idea to use Timed Licenses, unless you have a compelling demand. Mostly developers who work with COBOL on a daily basis should use a Full License. If you require COBOL for a few compiles, and only for some days, use a Timed License. When the Timed License expires, you can renew it again.

Task 14A-3-1: Configuring a Full License with the License Server

To configure a Full License for permanent use:

1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.

   Note. Alternatively, run *NE_HOME*\Base\Bin\protcfg.exe, where *NE_HOME* is the directory where you installed Micro Focus Net Express.

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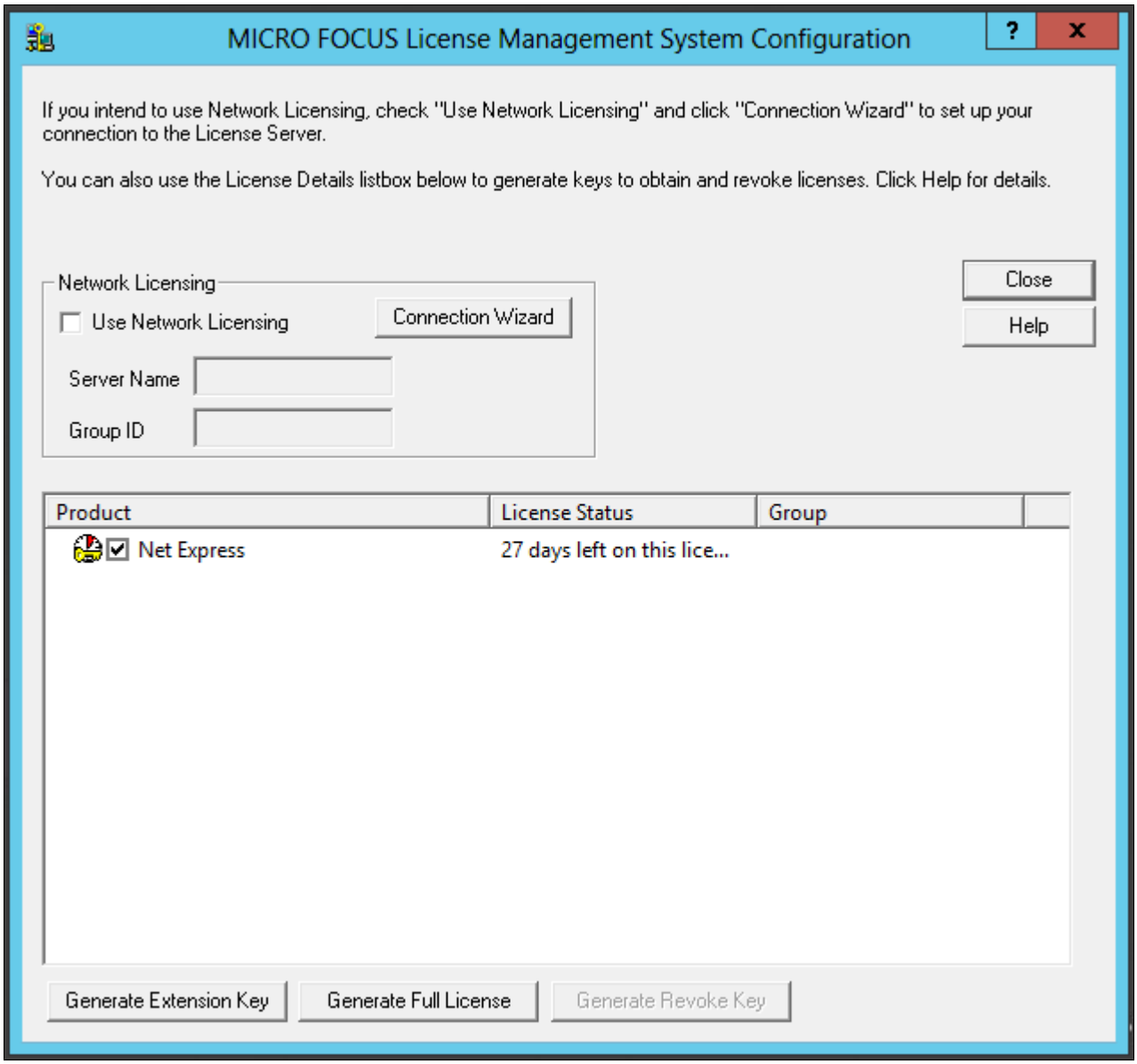
2. Select the option Use Network Licensing, and click Connection Wizard, as shown in this example:



MICRO FOCUS License Management System Configuration window

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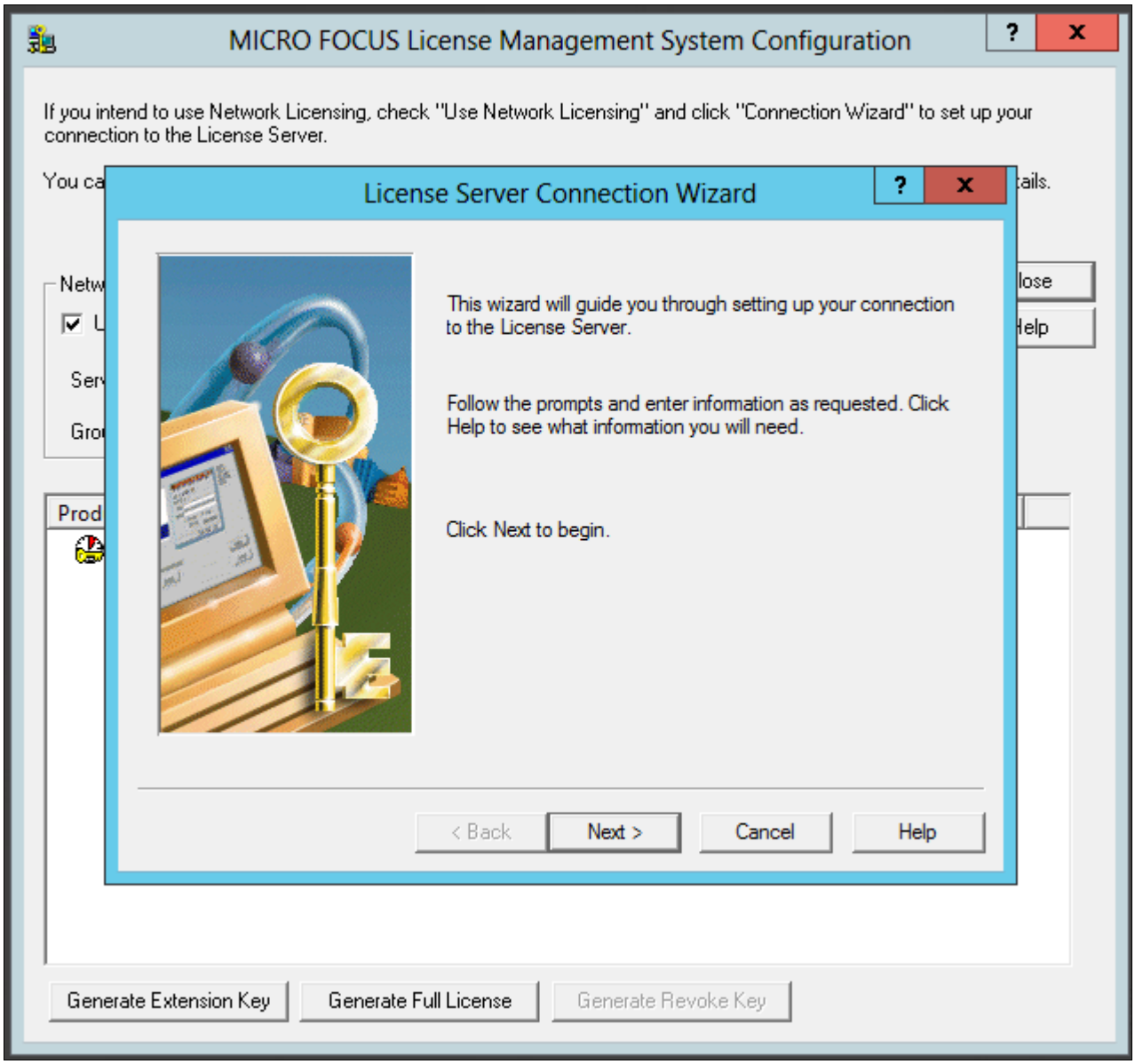
3. Click Next on the License Server Connection Wizard window, shown in this example:



License Server Connection Wizard window

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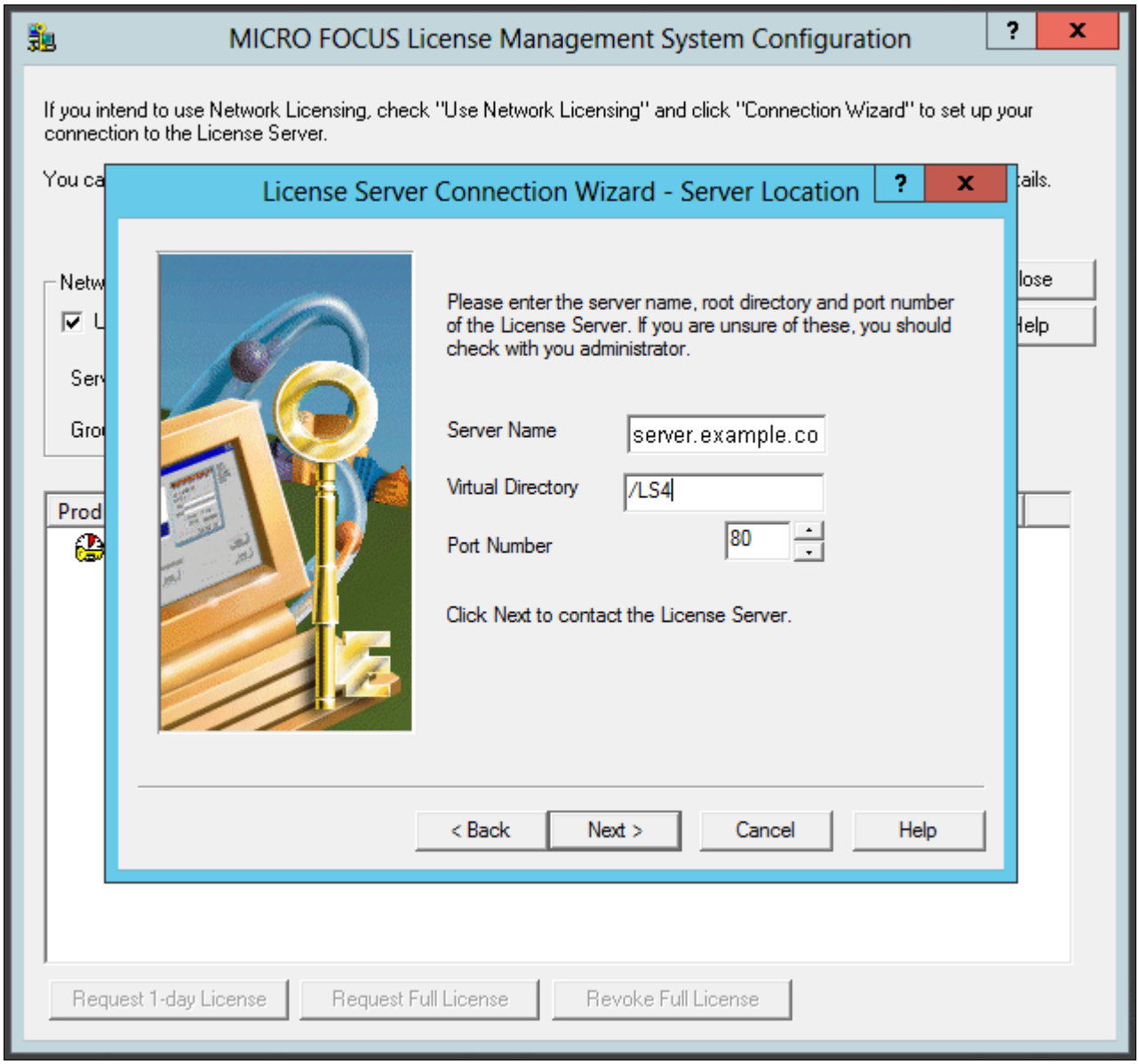
4. Enter information for the server location, and then click Next.



License Server Connection Wizard - Server Location window

- Server Name—Enter the name of the license server; for example, server.example.com.
- Virtual Directory; for example, /LS4.
- Port Number—The default is 80, as shown in the example.

  Select a port that is not in use by another application.

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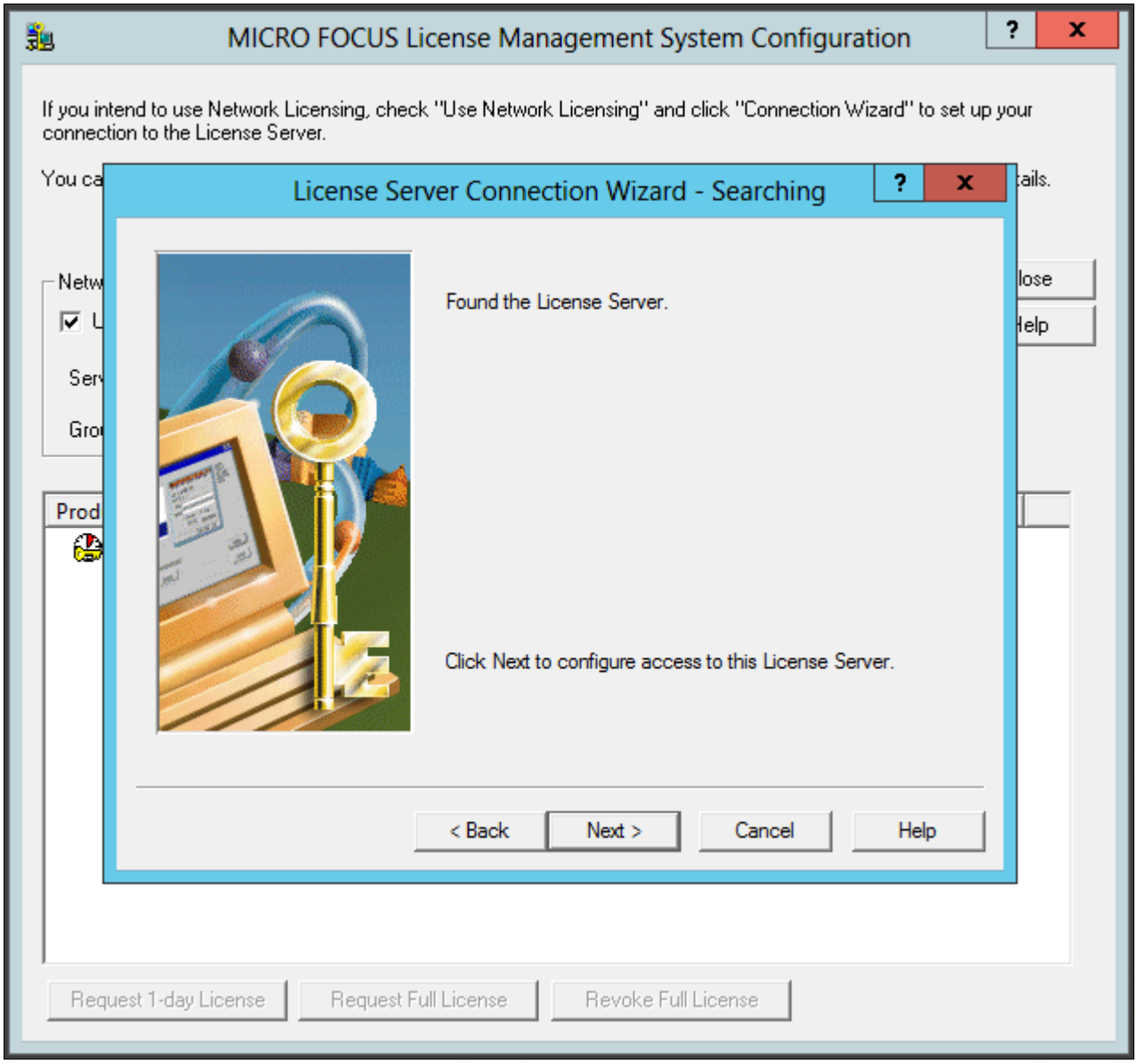
5. You see a message saying the wizard found the server, as in this example.
   Click Next.



License Server Connection Wizard - Searching window

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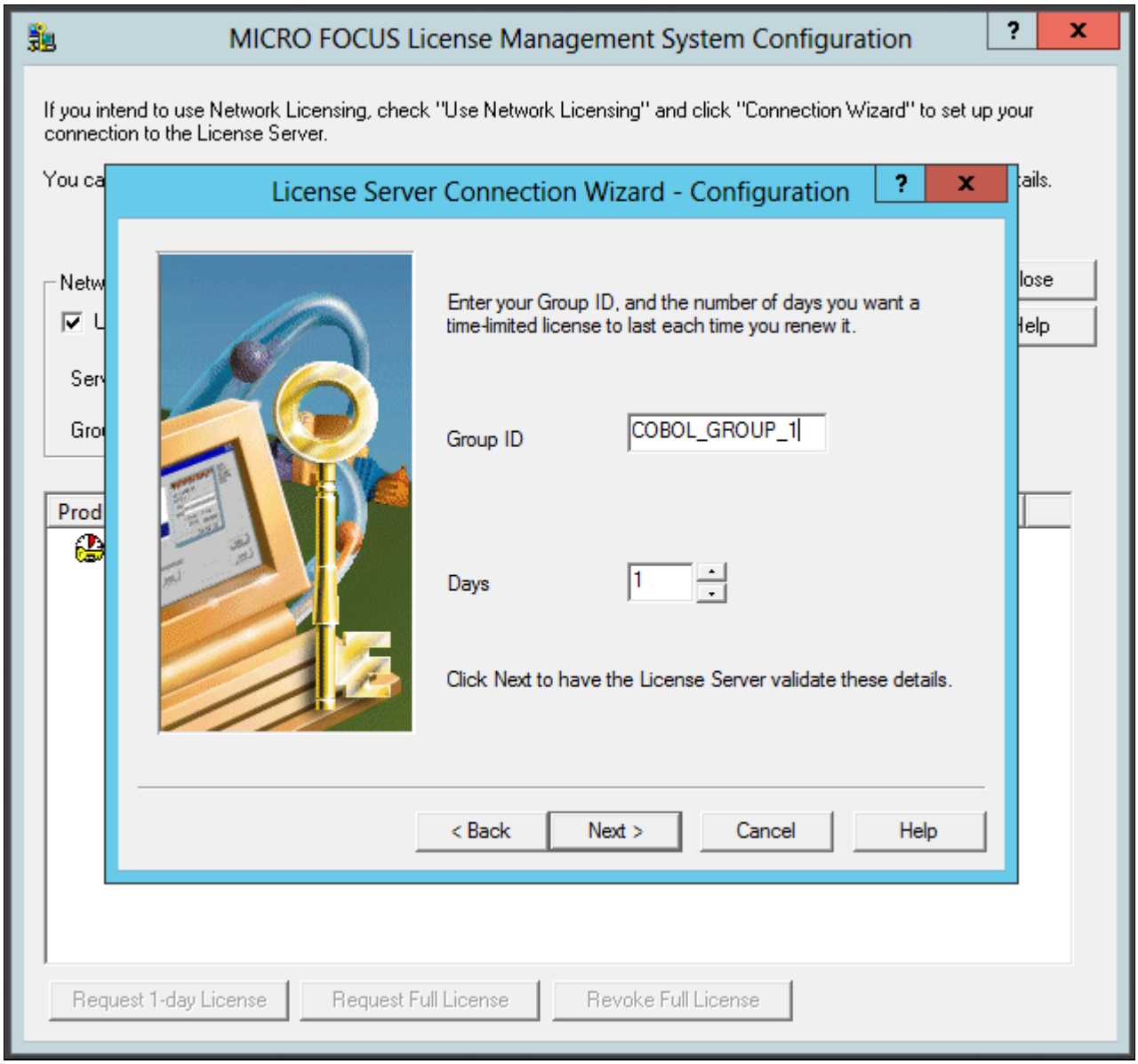
6. Enter your group ID, which is COBOL_GROUP_1 in this example, and 1 for the number of days before you have to renew the license.

Note. Although you enter one day here, you complete a step later that requests permanent license status.

Click Next.



License Server Connection Wizard - Configuration window

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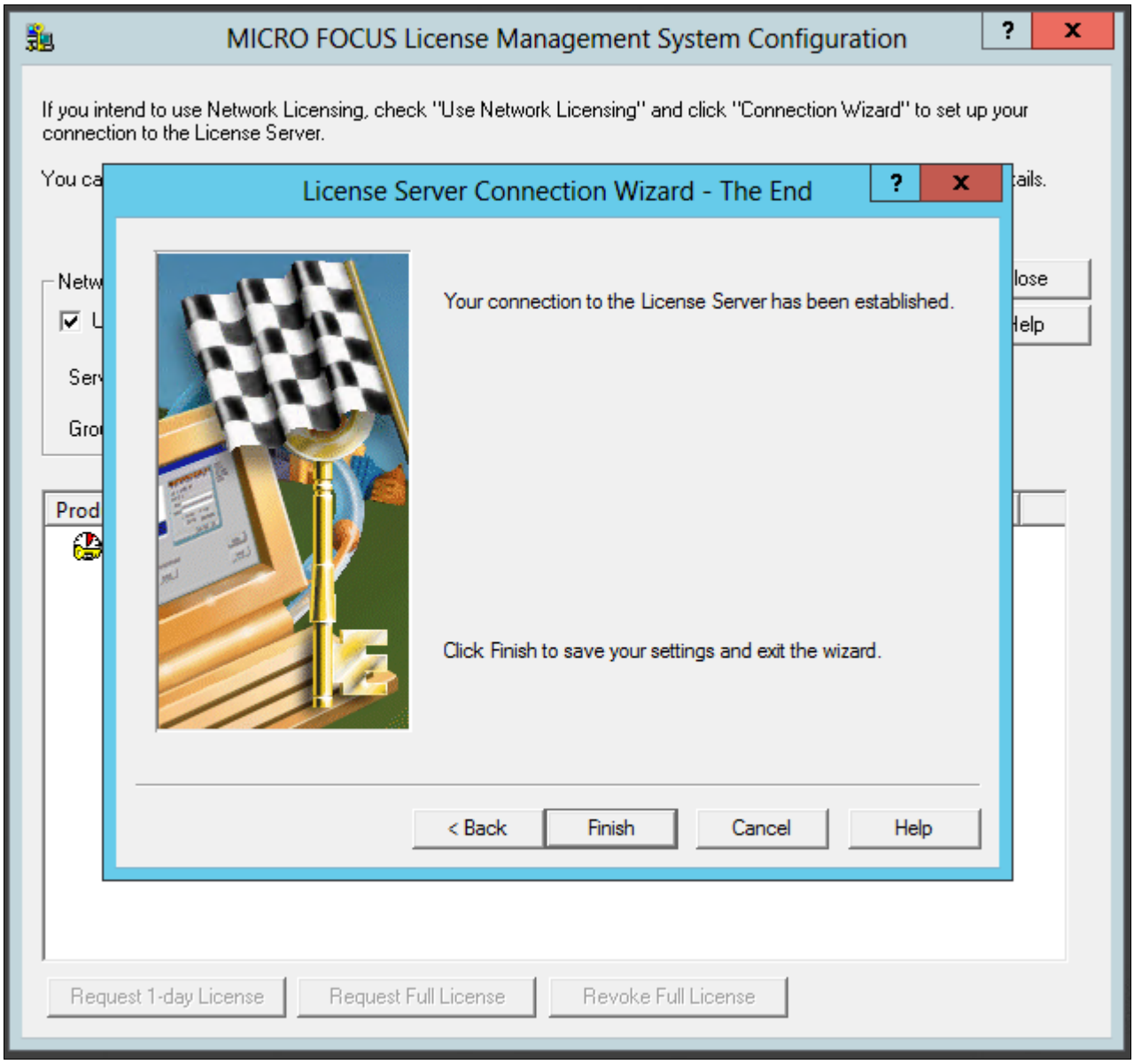
7. Click Finish to exit the wizard, as shown in this example:



License Server Connection Wizard - The End window

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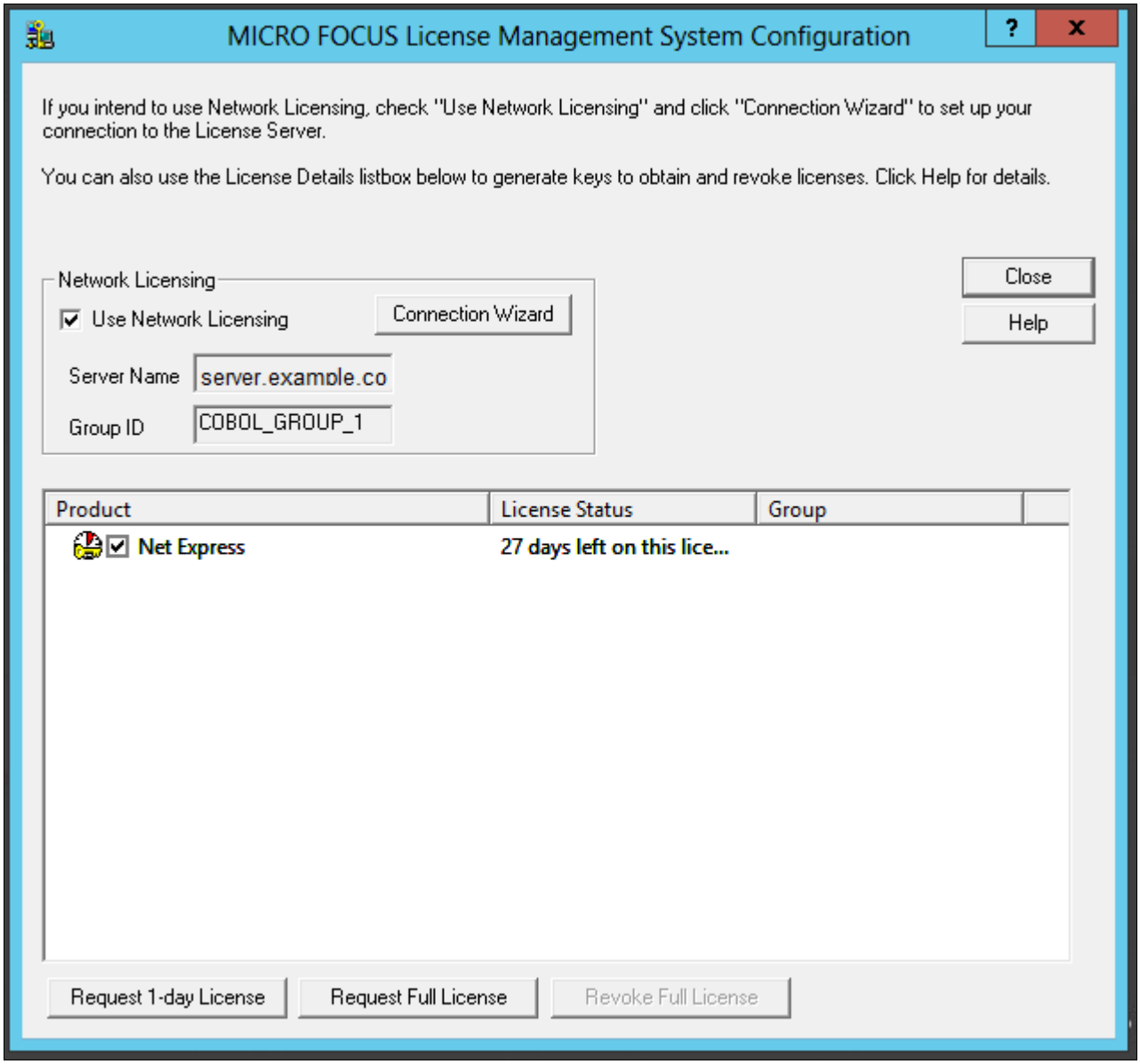
8. In the details list on the MICRO FOCUS License Management System Configuration dialog box, select the check box for Net Express, and then click Request Full License, as shown in this example:



MICRO FOCUS License Management System Configuration window

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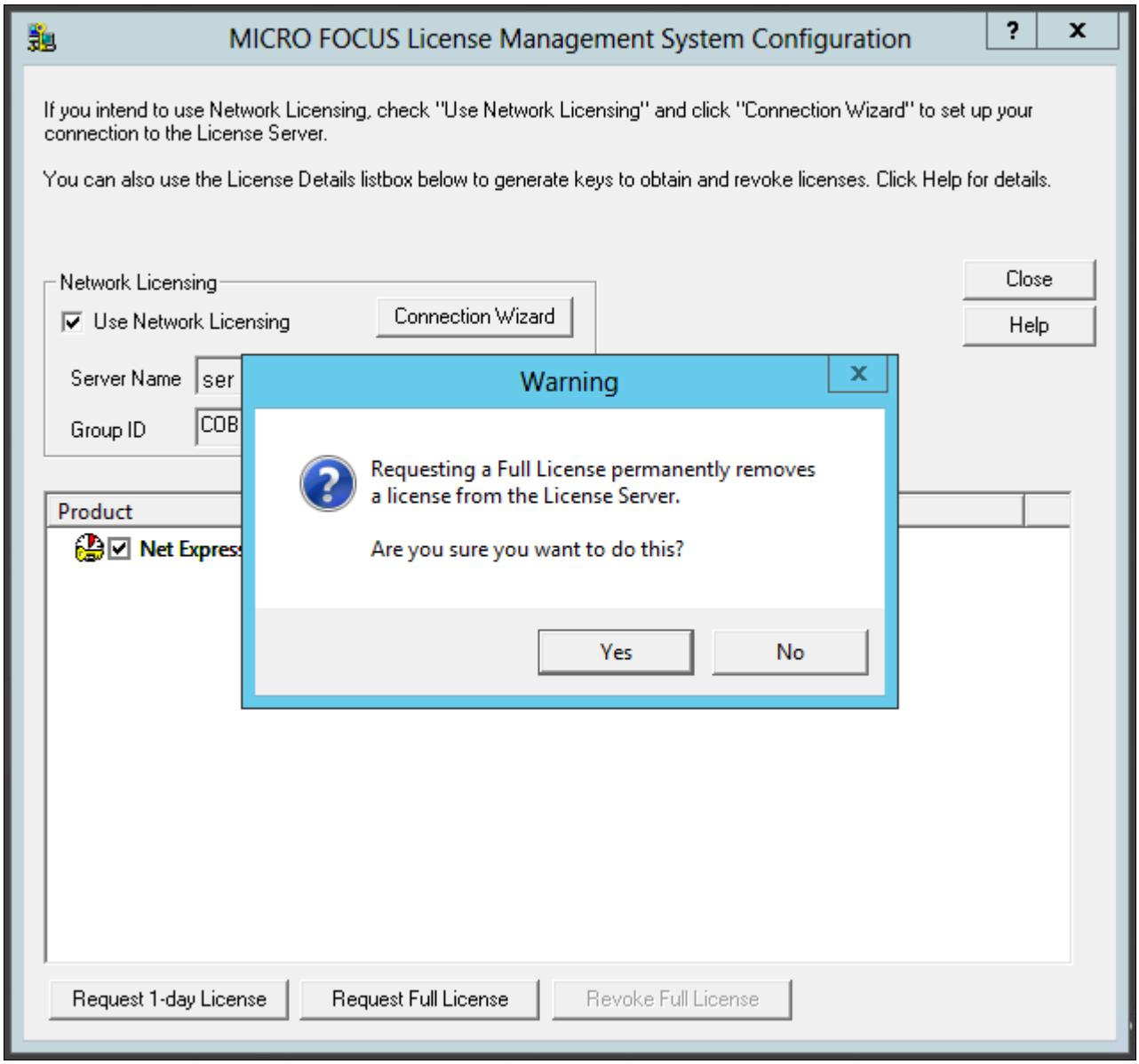
9. Click Yes to confirm that you want to request a full license, as shown in this example.

   The warning message says that requesting a full license permanently removes a license from the license server.



Warning message box when requesting a Full License

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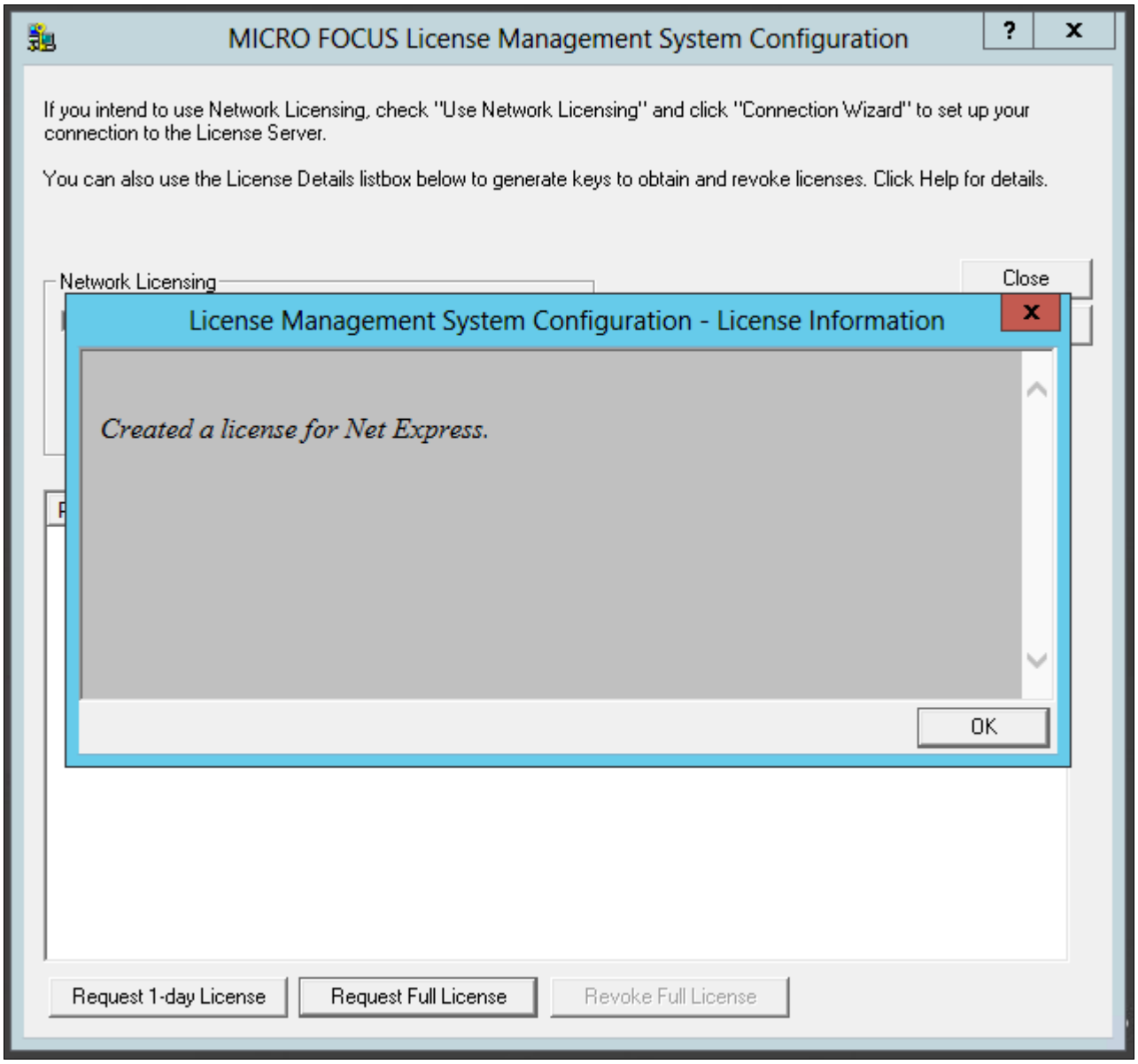
10. Click OK on the License Information dialog box.



License Management System Configuration - License Information window

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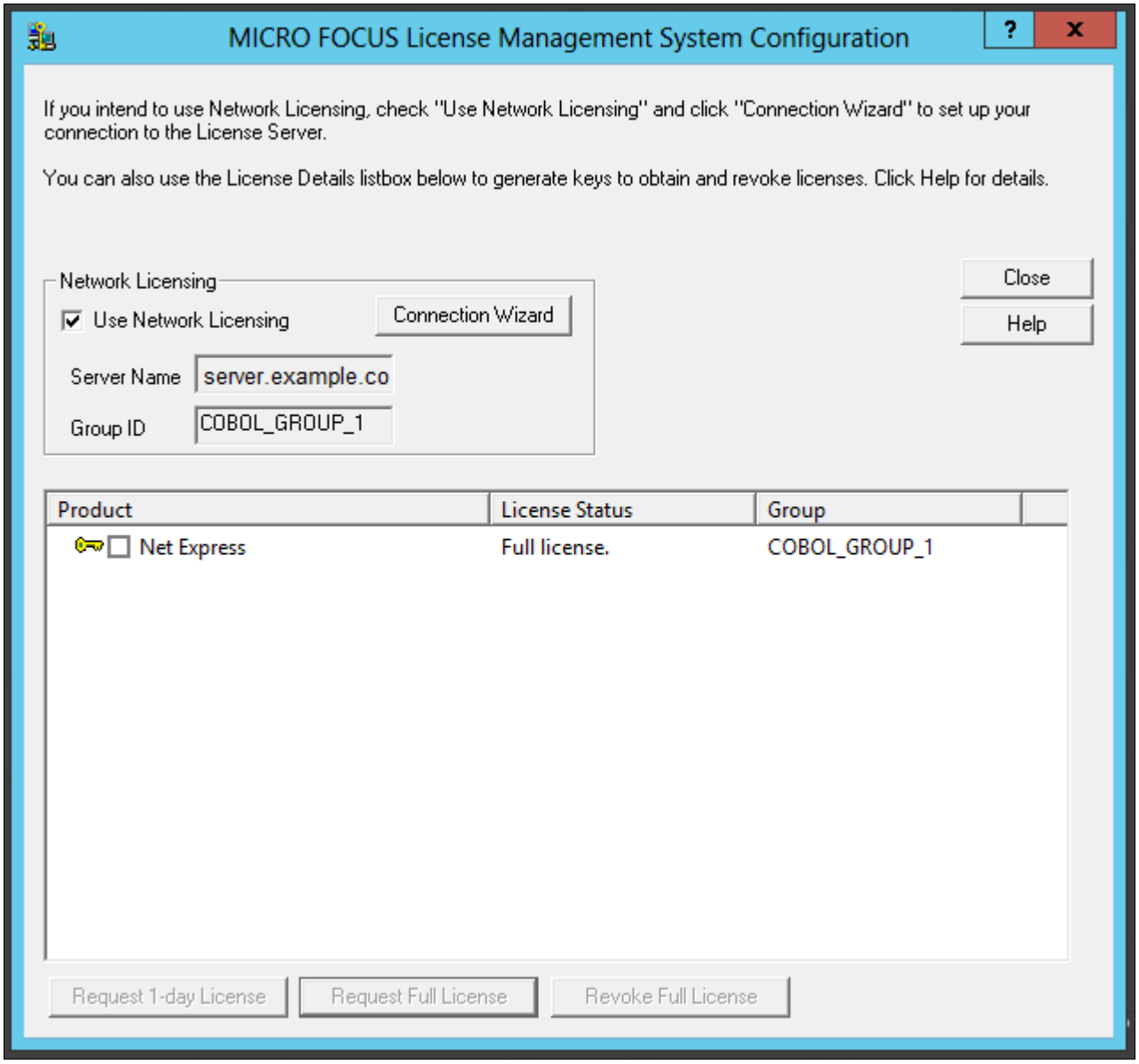
11. Verify that the License Status for Net Express has changed to Full License, as shown in this example, and click Close.



MICRO FOCUS License Management System Configuration window with Full License status

Task 14A-3-2: Configuring a Timed License with the License Server

To configure a Timed License for temporary use:

1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.

Note. Alternatively, run *NE_HOME*\Base\Bin\protcfg.exe, where *NE_HOME* is the directory where you installed Micro Focus Net Express.

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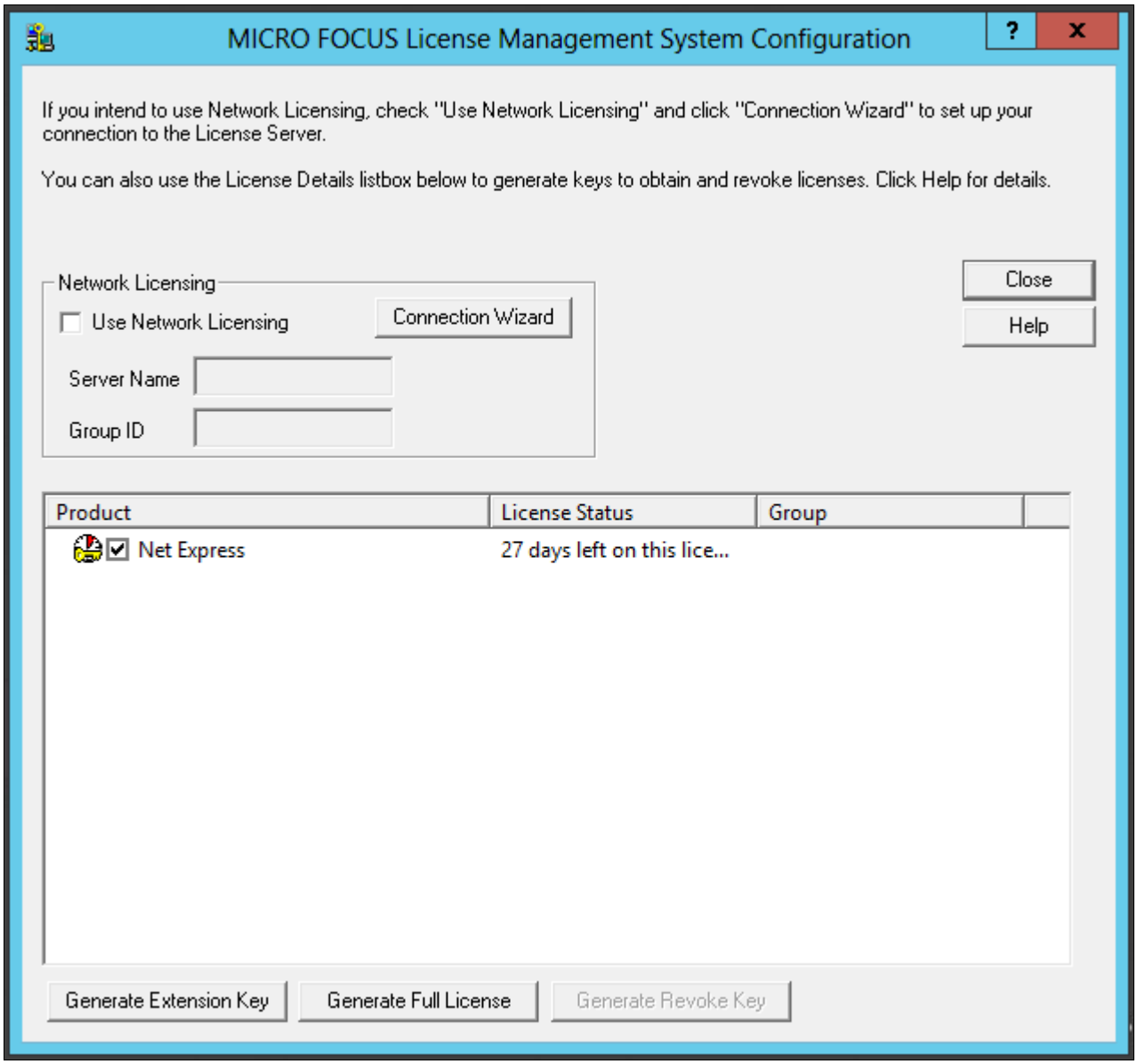
2. Select the option Use Network Licensing, and click Connection Wizard, as shown in this example:



MICRO FOCUS License Management System Configuration window

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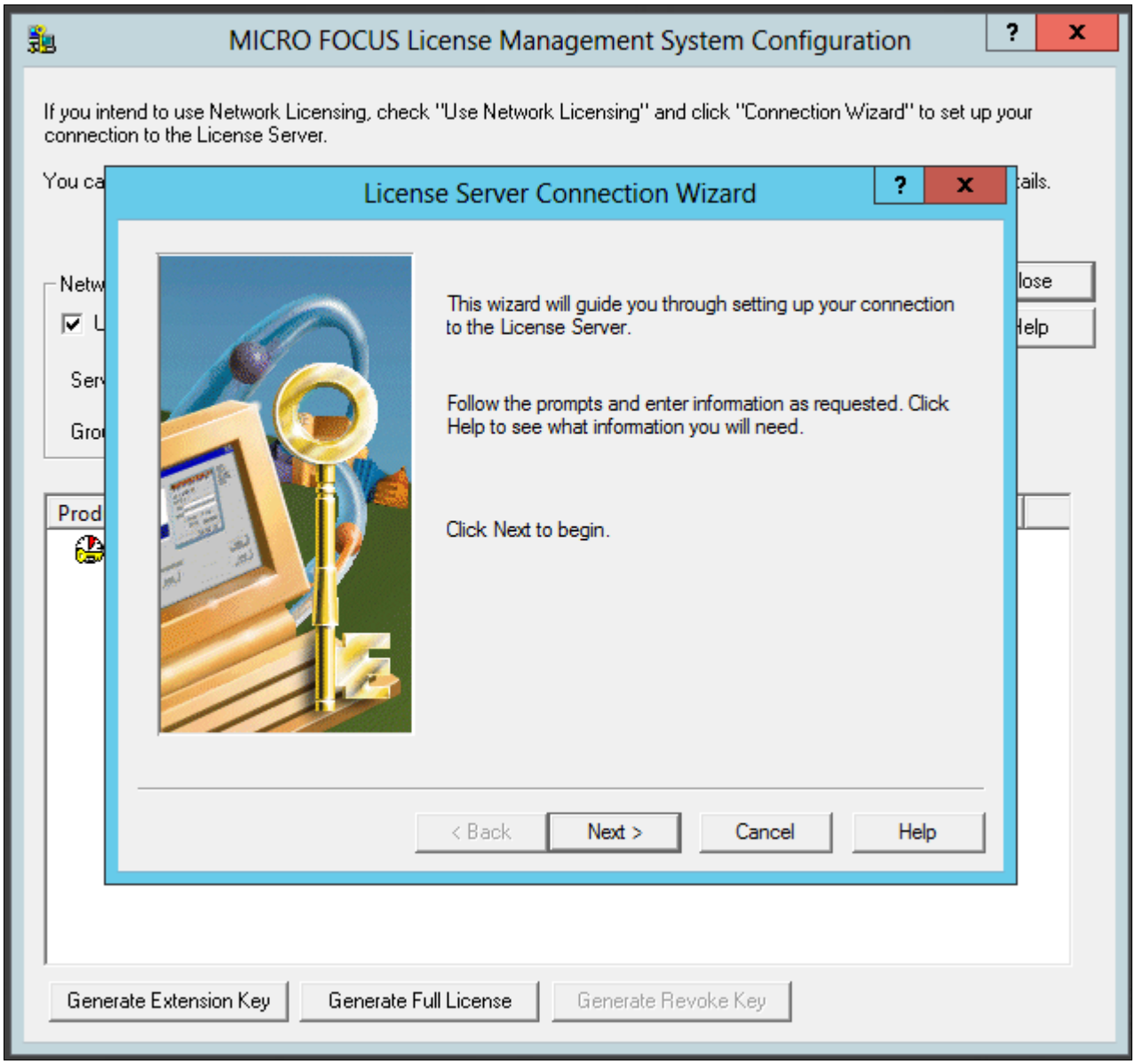
3. Click Next on the License Server Connection Wizard window, shown in this example:



License Server Connection Wizard window

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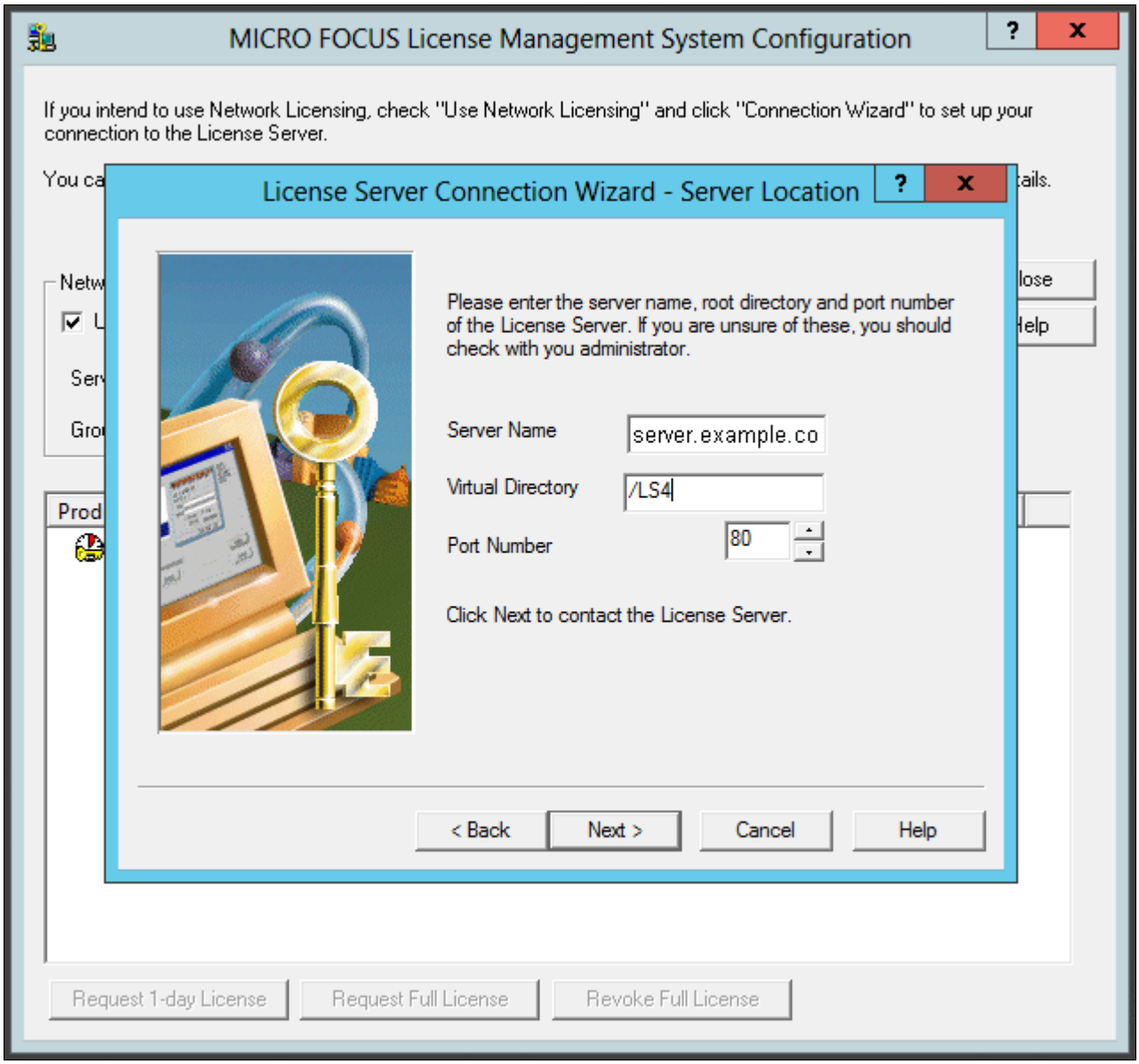
4. Enter information for the server location, and then click Next.



License Server Connection Wizard - Server Location

- Server Name—Enter the name of the license server; for example, server.example.com.
- Virtual Directory; for example, /LS4.
- Port Number—The default is 80, as shown in the example.

  Select a port that is not in use by another application.

5. You see a message saying the wizard found the server.

   Click Next.

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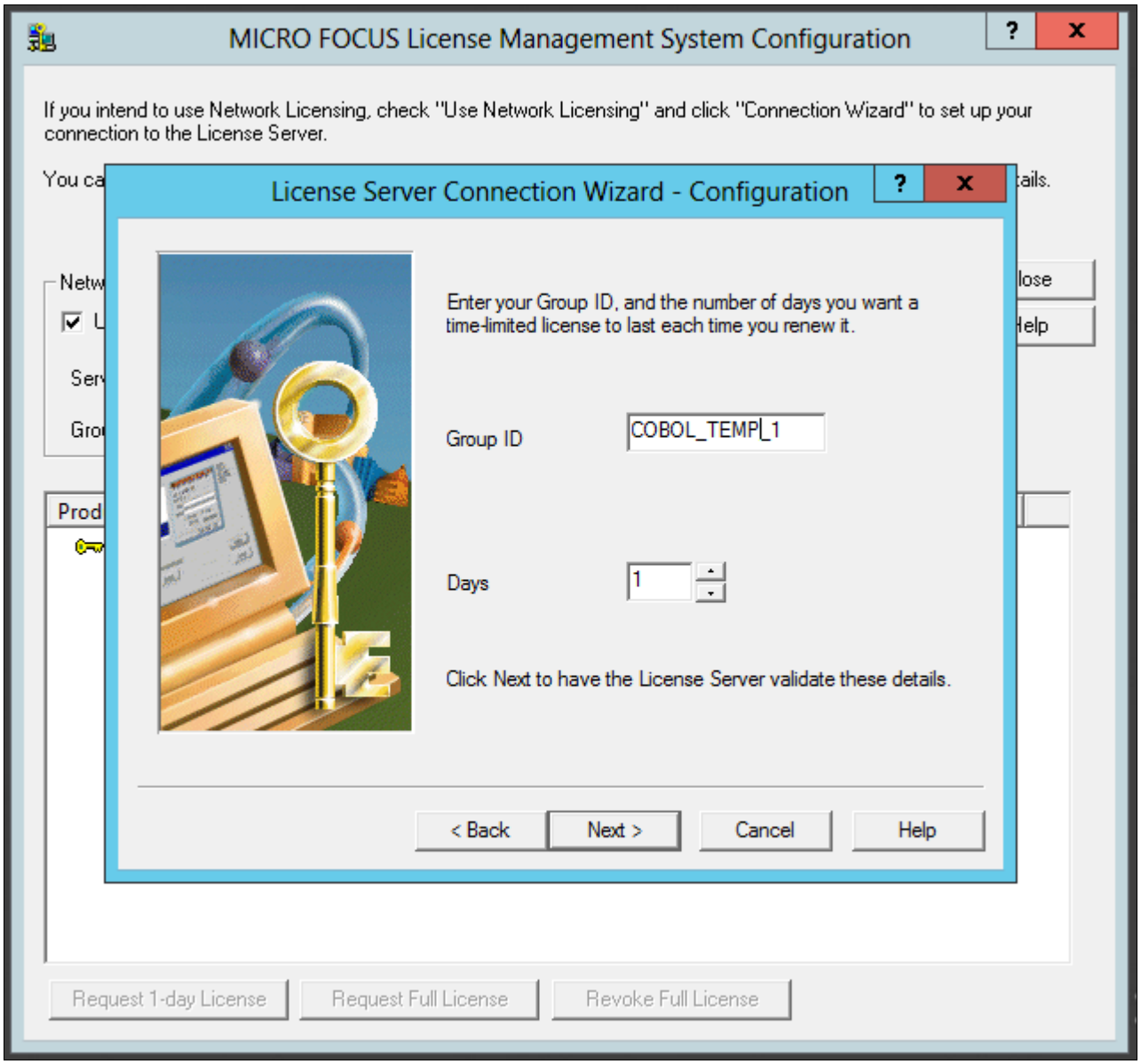
6. Enter your group ID, which is COBOL_TEMP_1 in this example, and specify the number of days before you have to renew the license, which is 1 (one) day in this example.

   Click Next.



License Server Connection Wizard - Configuration window

7. Click Finish to exit the wizard.
8. In the details list on the MICRO FOCUS License Management System Configuration dialog box, select the check box for Net Express, and then click Request 1-day License.

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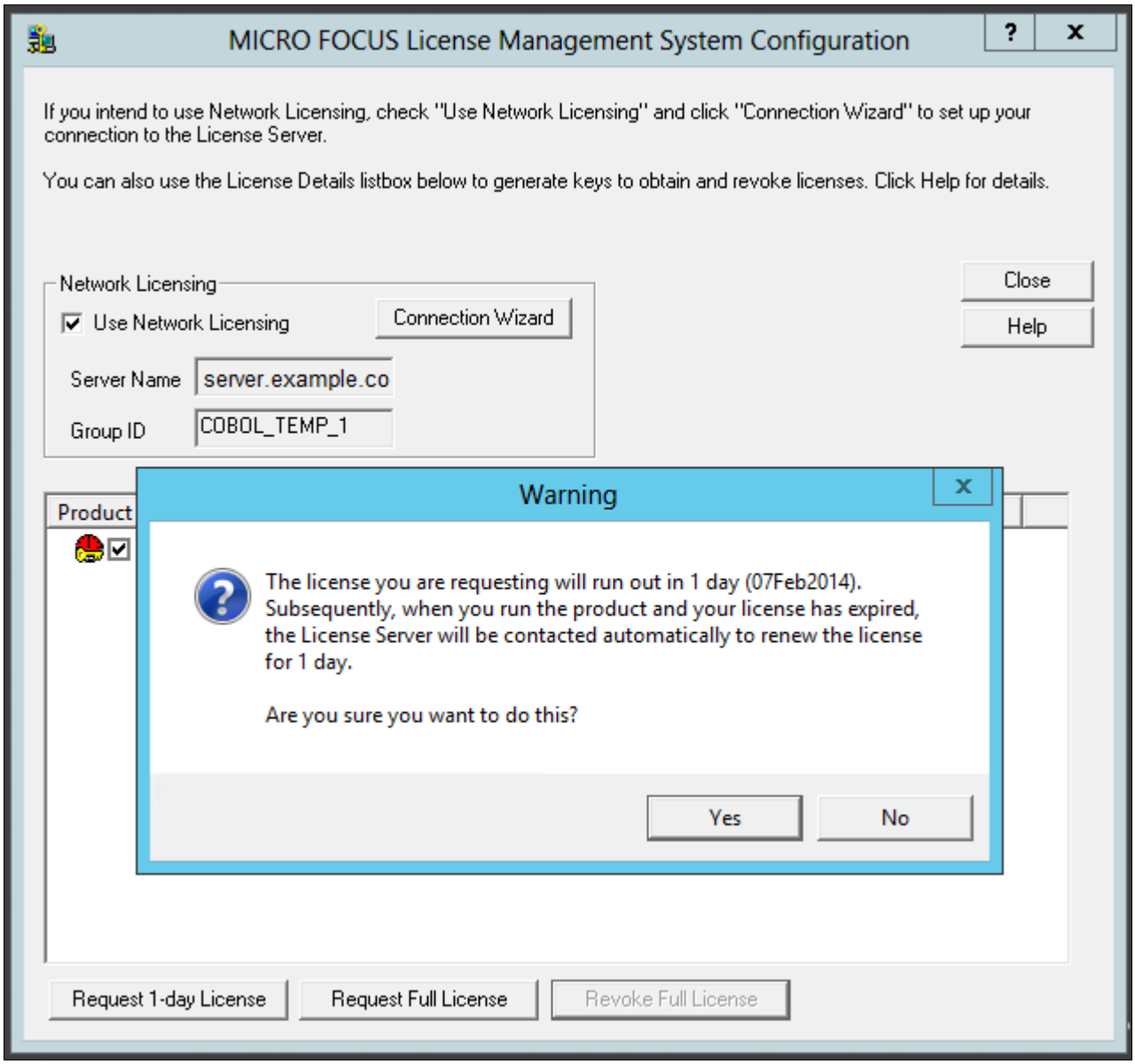
9. Click Yes to confirm that you want to request a timed (temporary) license, as shown in this example.

   The warning message says that the license will run out in one day. When you run the product after the license has expired, the License Server will be contacted automatically to renew the license for one day.



Warning message box when requesting a timed license

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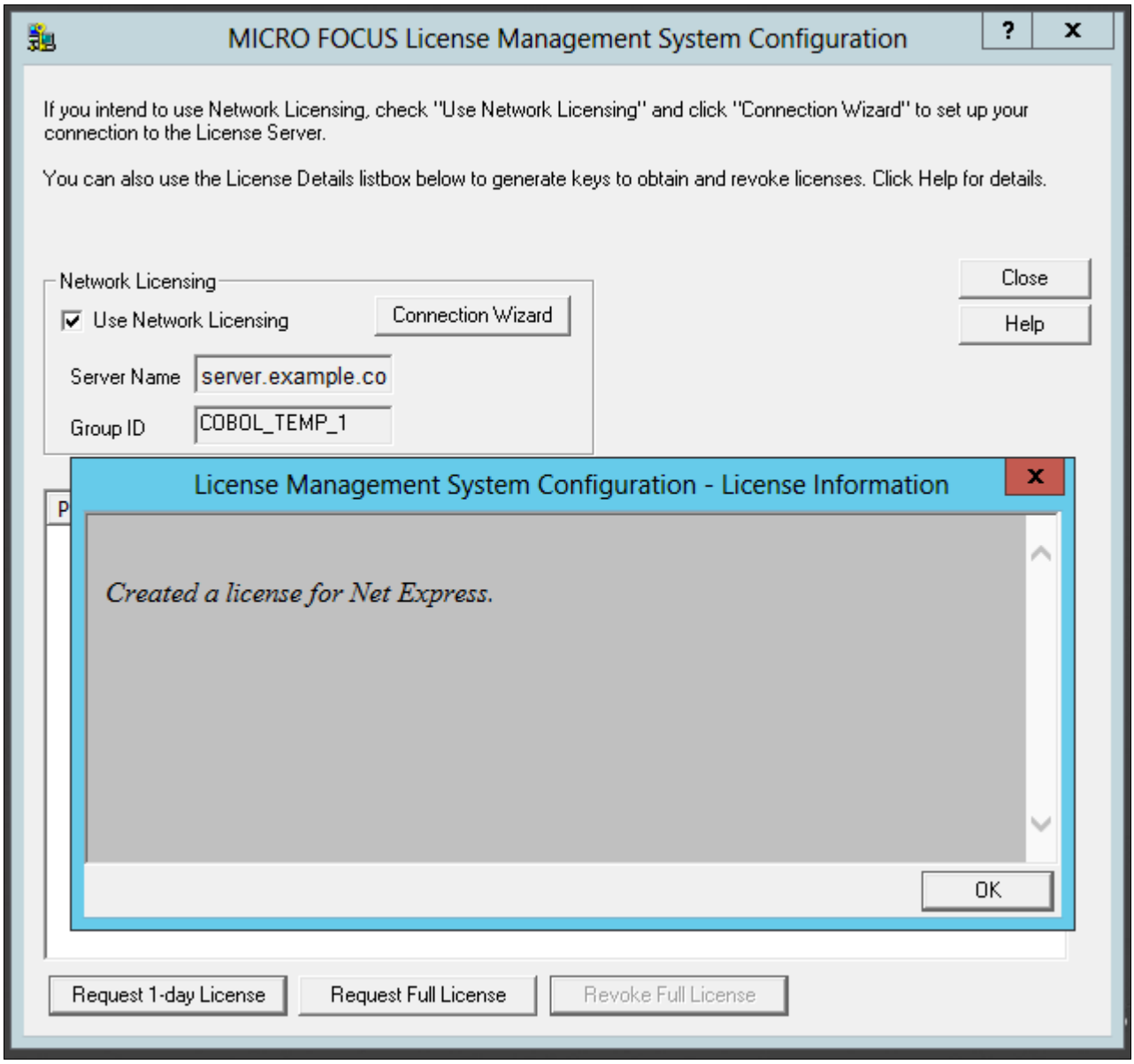
10. Click OK on the License Information message box.



License Management System Configuration - License Information window

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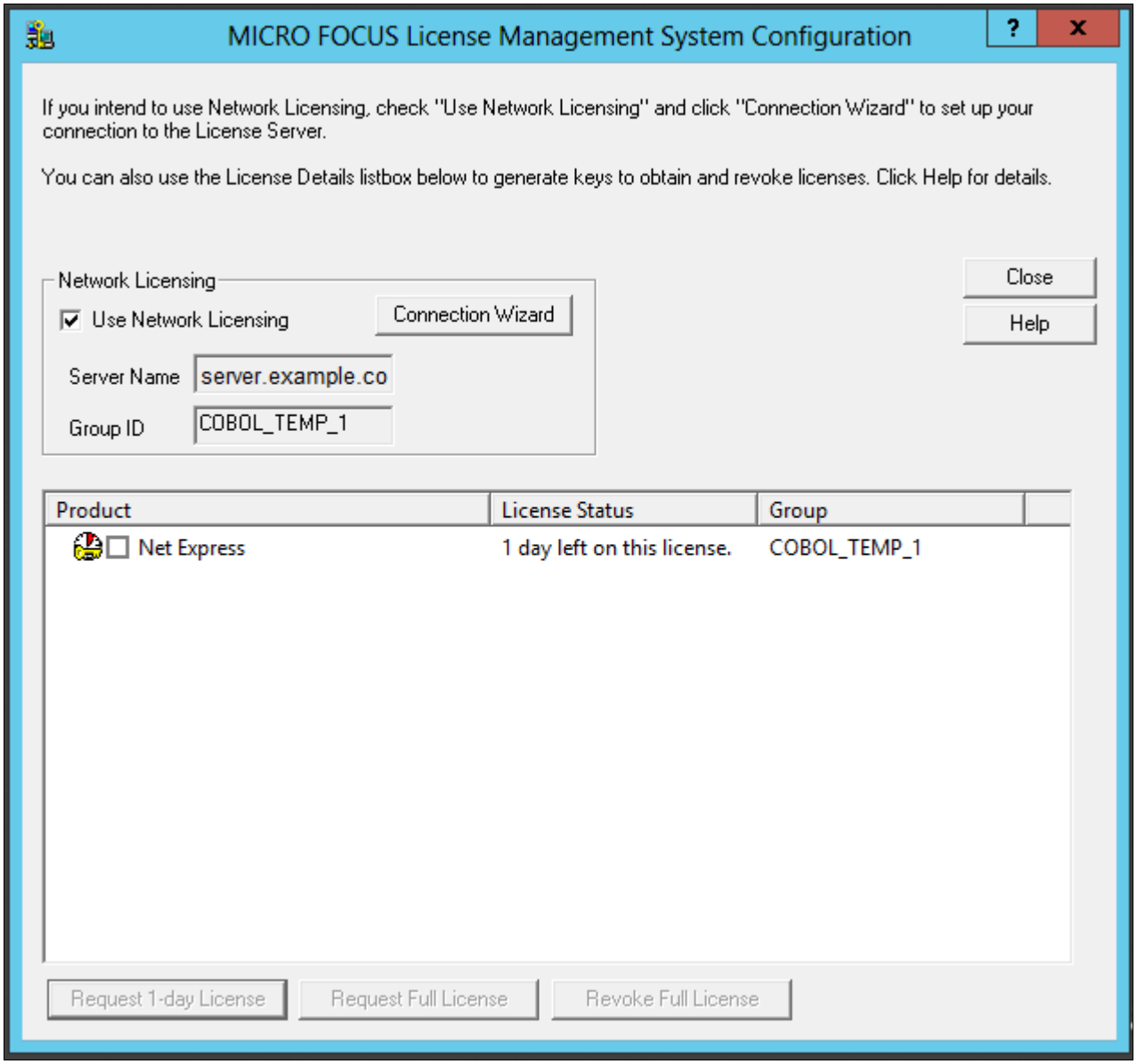
11. Verify that the license status has changed to "1 day left on this license," as shown in this example, and click Close.



MICRO FOCUS License Management System Configuration window showing Timed License

Task 14A-3-3: Revoking the License Using the License Management System

Revoking (unallocating) the compiler license returns it to the license pool, and makes it available for re-use, either by you or another user. This section describes how to use the Micro Focus License Management System to revoke a compiler license. For information on revoking the license by completely removing the Micro Focus Net Express installation, see the following section.

See Revoking the License by Removing the Installation.

To revoke a Full License using the Micro Focus License Management System:

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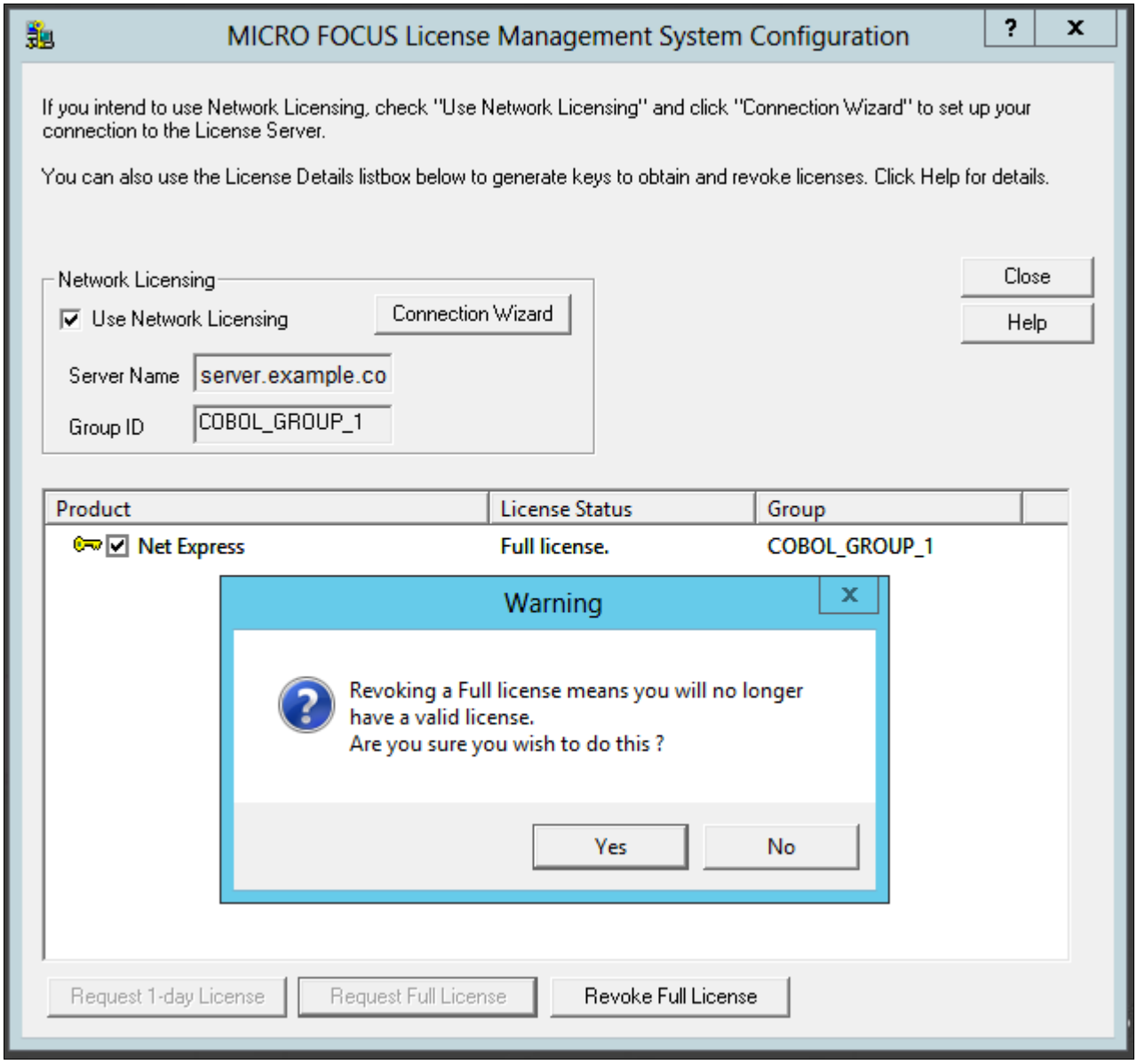
1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.
2. Select the check box for Net Express under Product in the details list, and click Revoke Full License.
3. Click Yes on the warning message box to confirm that you want to revoke a full license, as shown in this example.

   The warning message says that revoking a full license means that you will no longer have a valid license.



Warning message box on Revoking a Full License

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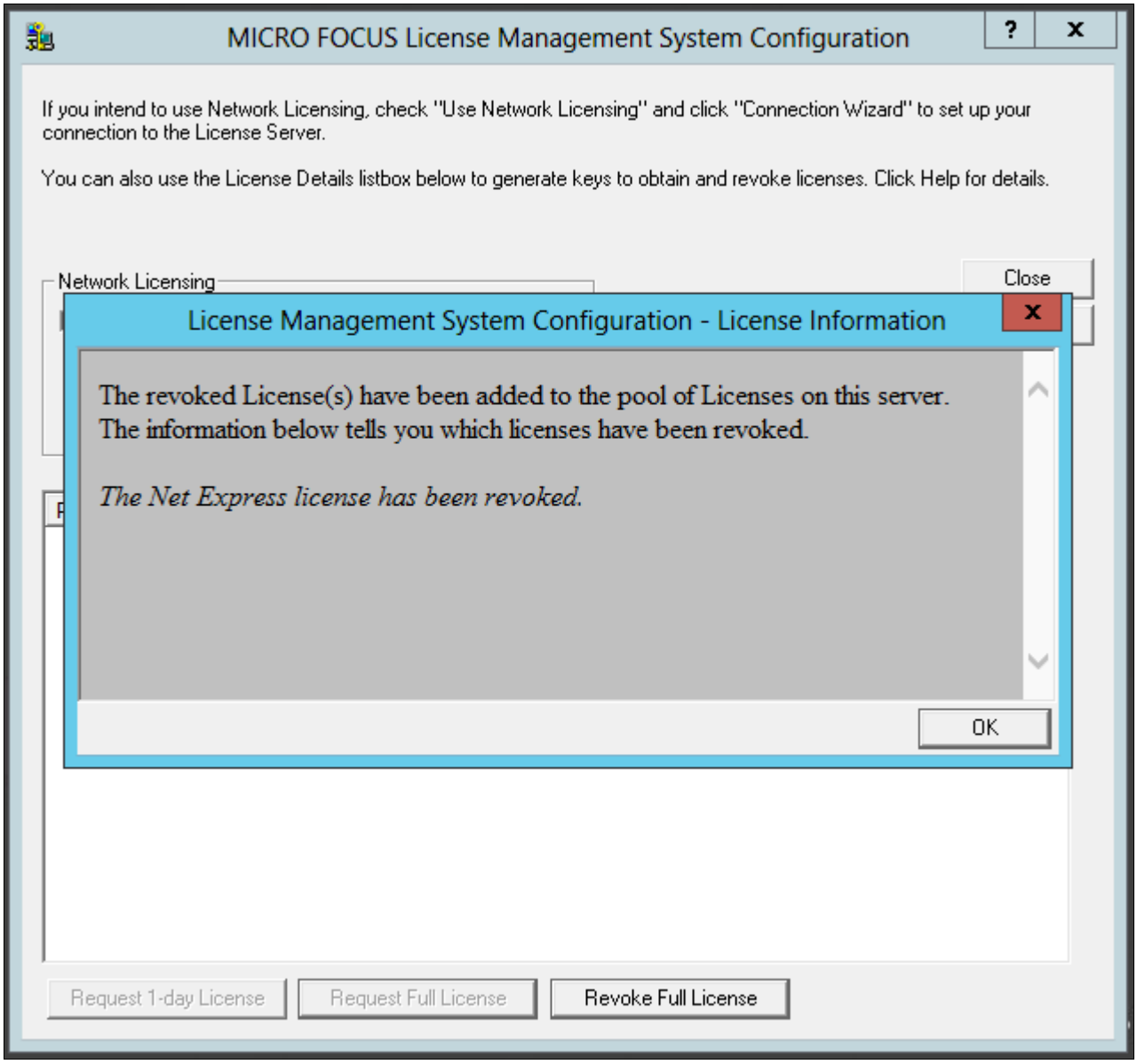
4. Click OK.

   The License Information message box says that the Net Express license has been revoked.



License Management System Configuration - License Information

5. Verify that the license status has changed to "license has expired" and click Close.

Task 14A-3-4: Revoking the License by Removing the Installation

Revoking (unallocating) the compiler license returns it to the license pool, and makes it available for re-use, either by you or another user. This section describes how to revoke the license by completely removing the Micro Focus Net Express 5.1 installation. For information on using the Micro Focus License Management System to revoke a compiler license, see the previous section.

See Revoking the License Using the License Management System.

To remove the installation and revoke the license:

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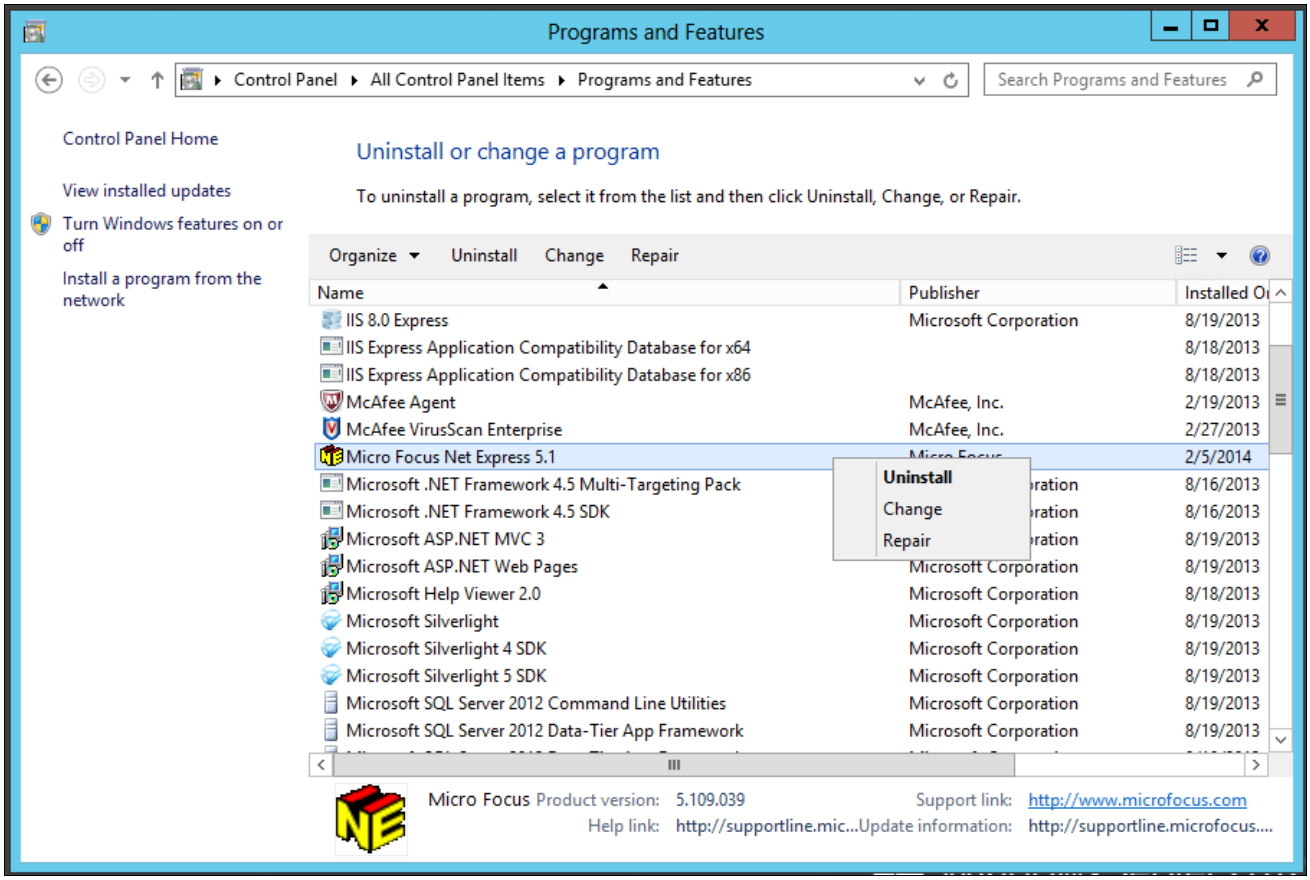
1. Select Start, All Programs, All Control Panel Items, Programs and Features.
2. Highlight Micro Focus Net Express 5.1 in the list of programs.
3. Right-click and select Uninstall, as shown in this example:



Microsoft Windows Control Panel Programs and Features

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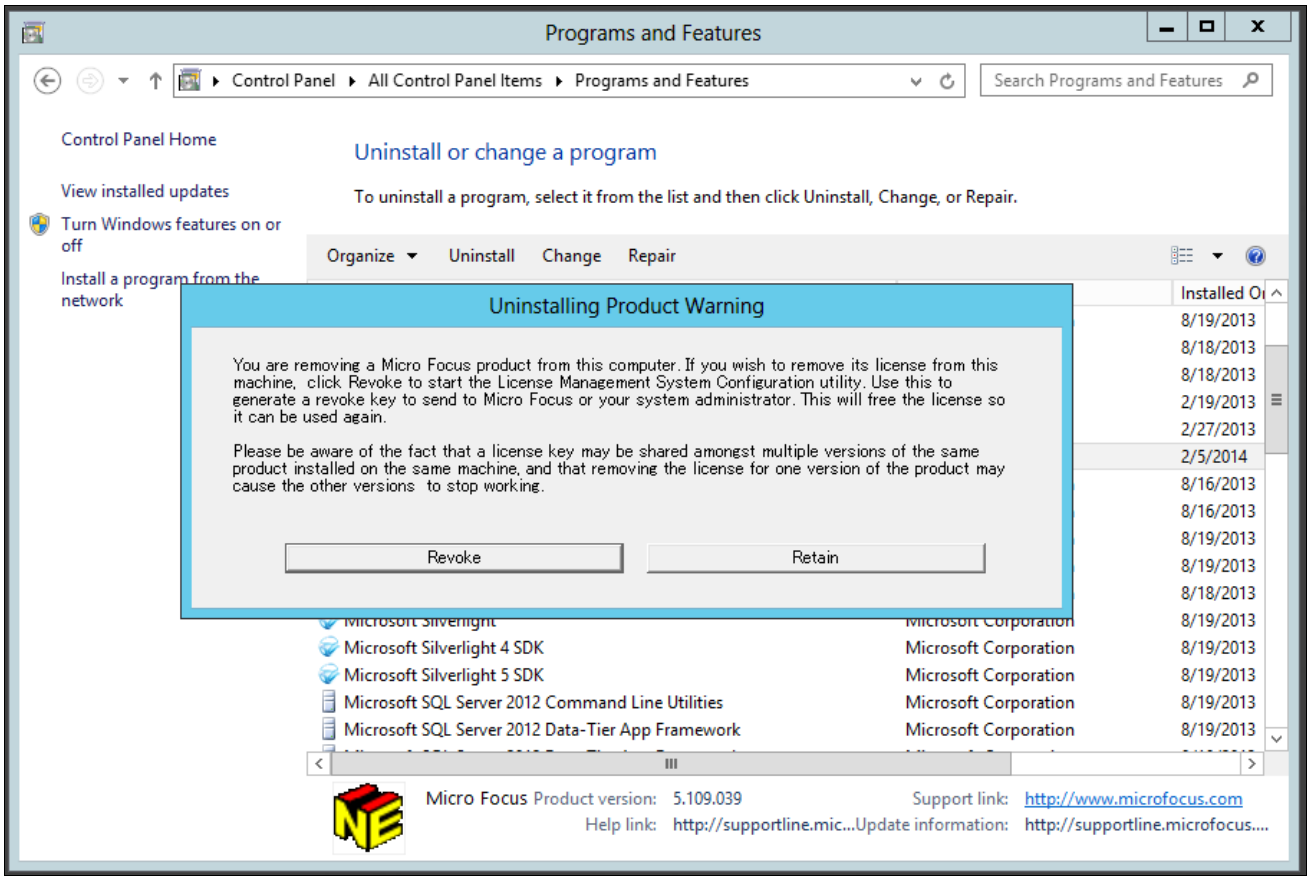
4. Click Revoke on the Uninstalling Product Warning message box, as shown in this example:



Uninstalling Product Warning message box

The MICRO FOCUS License Management System Configuration window appears.

5. Follow the instructions in the previous section to revoke the license.

   See Revoking the License Using the License Management System.

6. When the process to revoke the license is complete, close the MICRO FOCUS License Management System Configuration window, and complete the process to remove Micro Focus Net Express 5.1.

Task 14A-4: Using the Micro Focus COBOL Compiler on Microsoft Windows

This section discusses:

- Understanding COBOL Compilation
- Compiling COBOL on Microsoft Windows with a PS_HOME Setup
- Compiling COBOL on Microsoft Windows with a PS_APP_HOME Setup
- Compiling COBOL on Microsoft Windows with a PS_CUST_HOME Setup
- Recompiling COBOL on Microsoft Windows
- Setting Up the Micro Focus Net Express Runtime

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- Defining the GNT and INT Files
- Distributing COBOL Binaries

Understanding COBOL Compilation

With PeopleSoft PeopleTools 8.50 and higher, your COBOL always needs to be compiled on Microsoft Windows. (This is a change from previous versions of PeopleSoft PeopleTools, which delivered compiled COBOL for Microsoft Windows.) This section assumes that you are carrying out the compile process from your file server. (The COBOL compiler itself does not 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.) The recommended approach for the PeopleSoft installation is to use CBLBLD.BAT to compile all your COBOL source files at once. Another alternative is CBLMAKE.BAT, which you can use to compile selected COBOL files.

The way that you set up your installation environment determines how you compile COBOL. This section includes different procedures for the different installation environments, as follows:

- *PS_HOME Setup*

  If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is the same as the *PS_HOME* location where you installed the PeopleSoft PeopleTools software, follow the instructions in these sections:

  - Compiling COBOL on Microsoft Windows with a PS_HOME Setup
  - Defining the GNT and INT Files
- *PS_APP_HOME Setup*

  As described earlier, for PeopleSoft PeopleTools 8.52 and later, you have the option to install the PeopleSoft Application software to a location outside *PS_HOME*. If the PS_APP_HOME environment variable is defined and is different from PS_HOME, the COBOL build scripts behave differently under certain build options. There are also some new build options under certain environments which would be recognized if PS_APP_HOME is defined.

  If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is different from the *PS_HOME* location where you installed the PeopleSoft PeopleTools software, follow the instructions in these sections:

  - Compiling COBOL on Microsoft Windows with a PS_APP_HOME Setup
  - Defining the GNT and INT Files
- *PS_CUST_HOME Setup*

  For PeopleSoft PeopleTools 8.53 and later, you have the option to place customized COBOL baseline sources into a location referenced by the environment variable PS_CUST_HOME.

  The *PS_CUST_HOME* directory structure must replicate that of *PS_HOME* or *PS_APP_HOME*; that is, any COBOL source file that is customized should be placed in the same relative path as was present in the original location.

  If your environment includes customized files in a *PS_CUST_HOME* directory, follow the instructions in these sections:

  - Compiling COBOL on Microsoft Windows with a PS_CUST_HOME Setup
  - Defining the GNT and INT Files

For those systems on which you only need to run COBOL, but do not need to compile it, you must install and license the Micro Focus Net Express Runtime.

See Setting Up the Micro Focus Net Express Runtime.

Make certain to check whether you need to apply any late-breaking patches.

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See My Oracle Support, Patches & Updates.

See Also

"Preparing for Installation," Defining Installation Locations.

Task 14A-4-1: Compiling COBOL on Microsoft Windows with a PS_HOME Setup

This section discusses:

- Prerequisites
- Compiling with CBLBLD.BAT with a PS_HOME Setup
- Compiling with CBLMAKE.BAT with a PS_HOME Setup

Prerequisites

This section assumes that you installed both PeopleSoft PeopleTools and PeopleSoft Application software to *PS_HOME,* and that you have not set *PS_CUST_HOME.*

Compiling with CBLBLD.BAT with a PS_HOME Setup

To compile 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 command prompt window. This table gives the environment variables and their purposes.

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 in the DOS command prompt:

   ```
   set PS_HOME=C:\HR92
   set COBROOT="C:\Program Files\Micro Focus\Net Express 5.1\base"
   ```

2. Open a command prompt window if you do not have one open already, and change directories to *PS_HOME*\setup.
3. Execute CBLBLD.BAT as follows:

   ```
   cblbld <compile drive>  <compile directory>
   ```

   In this command, *<compile drive>* is the drive where the compile takes place, and *<compile directory>* is the temp directory where the compile takes place.

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The CBLBLD.BAT file will create the compile directory for you if it does not 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 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:

```
cblbld 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 will need to examine.

4. After you have successfully compiled your source code, all of the executables should have been placed in your <*PS_HOME*>\CBLBIN<*X*> directory (this directory will be named CBLBINA or CBLBINU, depending on whether you are using ANSI or Unicode). 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*>\CBLBIN<*X*> 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 DLLs (CBLINTS.DLL, CBLRTSS.DLL, CBLVIOS.DLL, COB32API.DLL) from the Microfocus compiler directory (identified by %COBROOT% setting) into the appropriate CBLBIN directory (CBLBINA or CBLBINU) 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 command line (they reside in *PS_HOME*\setup). For CBLRTCPY.BAT you need to specify a target directory.

Compiling with CBLMAKE.BAT with a PS_HOME Setup

CBLBLD.BAT compiles all your COBOL source files 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 source file or a selected group of COBOL source files. Unlike CBLBLD.BAT, however, CBLMAKE.BAT does not 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]] [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 PT*C* SQLRT.CBL.

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The following table describes the various options for CBLMAKE.BAT.

Option	Purpose
Cblmake	Compiles all source
Cblmake all	Compiles all source
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 command prompt window.
3. Make sure the compile directory exists; it may already exist if you've run CBLBLD.BAT. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.

   Note. Make sure you have write permission to <*compile directory*> as the compile process will take place 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.

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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*\CBLBIN*X* directory (CBLBINA or CBLBINU).

```
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 are not copied automatically, as when you use CBLBLD.

Task 14A-4-2: Compiling COBOL on Microsoft Windows with a PS_APP_HOME Setup

This section discusses:

- Prerequisites
- Compiling with CBLBLD.BAT with a PS_APP_HOME Setup
- Compiling with CBLMAKE.BAT with a PS_APP_HOME Setup

Prerequisites

This section assumes that you installed PeopleSoft application software to a *PS_APP_HOME* directory that is different from the *PS_HOME* directory where you installed PeopleSoft PeopleTools. It also assumes that there is no separate *PS_CUST_HOME* directory with customized COBOL source files.

Compiling with CBLBLD.BAT with a PS_APP_HOME Setup

The usage for running CBLBLD.BAT is:

```
cblbld <compile drive>  <compile directory> [BUILD_option] [BUILD_home]
```

Substitute the appropriate values as follows:

- <compile drive>

  Enter the drive letter for the drive containing the directory where the compile takes place.
- <compile directory>

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Enter the directory where the compile takes place. Be sure to include a space between <compile drive> and <compile directory>.

- BUILD_option

  The allowed values are nothing (blank), ASCII or Unicode.

  BUILD_option refers to the encoding scheme of your PeopleSoft installation. This parameter is optional.

- BUILD_home

  The allowed values are nothing (blank), PS_HOME or PS_APP_HOME.

  Note. The values PS_HOME and PS_APP_HOME are case-insensitive.

  BUILD_home refers to the directory from which the COBOL source files will be compiled.

  This parameter is optional.

  - If the option is PS_HOME, the COBOL source files placed under %PS_HOME%\src\cbl will be compiled.
  - If the option is PS_APP_HOME, the COBOL source files placed under %PS_APP_HOME%\src\cbl will be compiled.
  - If the option is blank, the COBOL source files under %PS_HOME%\src\cbl and COBOL source files under %PS_APP_HOME%\src\cbl will be compiled one after the other.

To compile COBOL sources on Microsoft Windows:

1. In a command prompt, set the environment variables described in this table:

Environment Variable	Purpose
PS_HOME	PeopleSoft PeopleTools home directory—that is, the drive letter and high-level directory where you installed PeopleSoft PeopleTools.
COBROOT	Drive letter and root directory of the COBOL compiler.
PS_APP_HOME	PeopleSoft Application home directory—that is, the drive letter and high-level directory where you installed the PeopleSoft Application software.

   For example:

```
set PS_HOME=C:\PTcompile
set COBROOT="C:\Program Files\Micro Focus\Net Express 5.1\base"
set PS_APP_HOME=C:\HRcompile
```

2. Change directory to *PS_HOME*\setup:

```
cd %PS_HOME%\setup
```

3. Run CBLBLD.BAT, using one of these methods:

   - To compile all the COBOL source files under your PeopleSoft application, that is, all PeopleSoft PeopleTools source files and all PeopleSoft Application source files, run this command:

     ```
     cblbld <compile drive> <compile directory>
     ```

     For example:

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```
cblbld c: \temp\PTcompile
```

- To compile only PeopleSoft PeopleTools COBOL source files, run this command:

  ```
  cblbld <compile drive> <compile directory> PS_HOME
  ```

  For example:

  ```
  cblbld c: \temp\PTcompile PS_HOME
  ```

- To compile only PeopleSoft Application COBOL source files, run this command:

  ```
  cblbld <compile drive> <compile directory> PS_APP_HOME
  ```

  For example:

  ```
  cblbld c: \temp\HRcompile PS_APP_HOME
  ```

PeopleSoft PeopleTools COBOL compiled executables will be placed under the <*PS_HOME*>\CBLBIN<*X*> directory. PeopleSoft Application COBOL compiled executables will be placed under the <*PS_APP_HOME*>\CBLBIN<*X*> directory. CBLBIN<X> will be one of the following:

- CBLBINA if you are using ANSI encoding scheme
- CBLBINU if you are using Unicode encoding scheme

Compiling with CBLMAKE.BAT with a PS_APP_HOME Setup

CBLBLD.BAT compiles all your COBOL source files 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 source file or a selected group of COBOL source files. The procedure is slightly different depending upon whether the file that you want to compile is a PeopleSoft Application or PeopleSoft PeopleTools COBOL file. Both procedures are covered in this section.

Note. The options for CBLMAKE.BAT are defined in a table in the previous section Compiling with CBLMAKE.BAT with a *PS_HOME* Setup.

To compile a PeopleSoft Application COBOL file with CBLMAKE.BAT:

1. Open a command prompt window.
2. Verify that the PS_HOME, COBROOT, and PS_APP_HOME environment variables are set, as previously defined.

   See Compiling with CBLBLD.BAT with a PS_APP_HOME Setup.
3. Verify that the environment variable PS_compile_apps is set, as follows:

   ```
   set PS_compile_apps=Y
   ```

   Important! This variable setting is required for individual file compilation with CBLMAKE.BAT.

   ---

4. Make sure the compile directory, <*compile directory*>, exists, and that you have write permission to it.

   This directory may already exist if you have run CBLBLD.BAT before. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.
5. Change to the *PS_HOME*\setup directory.
6. If the installation is Unicode, run CBL2UNI (with no parameters).
7. Execute the following command to copy all the COBOL source files from the *PS_APP_HOME* directory to the compile directory:

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```
cblsrc <source directory>    <compile directory>
```

Here <*source directory*> is the drive and directory where the source resides (it should be the same as *PS_APP_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_APP_HOME* and copy all the necessary files to the location where the compile process will take place, c:\temp\HRcompile in this example:

```
cblsrc %PS_APP_HOME% c:\temp\HRcompile
```

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.

---

8. 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.

   For example, to compile a file named GPPDPRUN, run this command:

   ```
   cblmake GPPDPRUN
   ```

9. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate <*PS_APP_HOME*>\CBLBIN<*X*> directory (CBLBINA for ANSI or CBLBINU for Unicode).

   These examples use the ANSI encoding:

   ```
   copy *.exe %PS_APP_HOME%\cblbina
   copy *.gnt %PS_APP_HOME%\cblbina
   copy *.int %PS_APP_HOME%\cblbina
   ```

Note. You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they are not copied automatically, as when you use CBLBLD.

---

10. Verify that the compiler runtime files (CBLINTS.DLL, CBLRTSM.DLL, CBLRTSS.DLL, CBLVIOM.DLL, CBLVIOS.DLL, COB32API.dll, MFLANGDF.lbr) are present in the <*PS_APP_HOME*>\CBLBIN<*X*> directory.

    If they are not present, then you will have to run %PS_HOME%\setup\cblrtcpy.bat as follows:

    ```
    cblrtcpy %PS_APP_HOME%\cblbina
    ```

The procedure to compile a PeopleSoft PeopleTools COBOL file with CBLMAKE.BAT is similar, but the environment variable PS_compile_apps must *not* be set.

1. Open a command prompt window.
2. Verify that the PS_HOME, COBROOT, and PS_APP_HOME environment variables are set, as previously defined.

   See Compiling with CBLBLD.BAT with a PS_APP_HOME Setup.
3. Verify that the environment variable PS_compile_apps is *not* set, as follows:

   ```
   set PS_compile_apps=
   ```

Important! Unsetting this environment variable is required for individual file compilation with CBLMAKE.BAT for PeopleSoft PeopleTools files.

---

4. Make sure the compile directory, <*compile directory*>, exists, and that you have write permission to it.

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This directory may already exist if you have run CBLBLD.BAT before. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.

5. Change to the *PS_HOME*\setup directory.
6. If the installation is Unicode, run CBL2UNI (with no parameters).
7. 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, c:\temp\PTcompile in this example:

   ```
   cblsrc %PS_HOME% c:\temp\PTcompile
   ```

8. 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.

   For example, to compile a file named PTPDBTST, run this command:

   ```
   cblmake PTPDBTST
   ```

9. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate <*PS_HOME*>\CBLBIN<*X*> directory (CBLBINA for ANSI or CBLBINU for Unicode).

   These examples use the ANSI encoding:

   ```
   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 are not copied automatically, as when you use CBLBLD.

10. Verify that the compiler runtime files (CBLINTS.DLL, CBLRTSM.DLL, CBLRTSS.DLL, CBLVIOM.DLL, CBLVIOS.DLL, COB32API.dll, MFLANGDF.lbr) are present in the <*PS_HOME*>\CBLBIN<*X*> directory.

    If they are not present, then you will have to run %PS_HOME%\setup\cblrtcpy.bat as follows:

    ```
    cblrtcpy %PS_HOME%\cblbina
    ```

Note. If you plan to use cblmake.bat to compile a single (or a set) of PeopleSoft PeopleTools or PeopleSoft Application COBOL program at the same time, it would be a good idea to use two different command prompts and two different compile directories—one for PeopleSoft PeopleTools COBOL programs and the other for the PeopleSoft Application COBOL programs. This avoids setting and unsetting the PS_compile_apps environment variable.

Task 14A-4-3: Compiling COBOL on Microsoft Windows with a PS_CUST_HOME Setup

This section discusses:

- Prerequisites
- Compiling with CBLBLD.BAT with a PS_CUST_HOME Setup

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- Compiling with CBLMAKE.BAT with a PS_CUST_HOME Setup

Prerequisites

This section assumes that you installed PeopleSoft application software to a *PS_APP_HOME* directory that is different from the *PS_HOME* directory where you installed PeopleSoft PeopleTools. It also assumes that you have set up a PS_CUST_HOME environment variable for customized COBOL source files.

Compiling with CBLBLD.BAT with a PS_CUST_HOME Setup

The usage for running CBLBLD.BAT is:

```
cblbld <compile drive>  <compile directory> [BUILD_option] [BUILD_home]
```

Substitute the appropriate values as follows:

- <compile drive>

  Enter the drive letter for the drive containing the directory where the compile takes place.
- <compile directory>

  Enter the directory where the compile takes place. Be sure to include a space between <compile drive> and <compile directory>.
- BUILD_option

  The allowed values are nothing (blank), ASCII or Unicode.

  BUILD_option refers to the encoding scheme of your PeopleSoft installation. This parameter is optional.
- BUILD_home

  The allowed values are nothing (blank), PS_HOME, PS_APP_HOME, or PS_CUST_HOME.

  Note. The values PS_HOME, PS_APP_HOME, and PS_CUST_HOME are case-insensitive.

  BUILD_home refers to the directory from which the COBOL source files will be compiled.

  This parameter is optional.

  - If the option is PS_HOME, the COBOL source files placed under %PS_HOME%\src\cbl will be compiled.
  - If the option is PS_APP_HOME, the COBOL source files placed under %PS_APP_HOME%\src\cbl will be compiled.
  - If the option is PS_CUST_HOME, the COBOL source files placed under %PS_CUST_HOME%\src\cbl will be compiled.
  - If the option is blank, the COBOL source files under %PS_HOME%\src\cbl, under %PS_APP_HOME%\src\cbl (if PS_APP_HOME is different from PS_HOME), and under %PS_CUST_HOME%\src\cbl will be compiled one after the other.

To compile COBOL sources on Microsoft Windows:

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1. In a command prompt, set the environment variables described in this table:

Environment Variable	Purpose
PS_HOME	PeopleSoft PeopleTools home directory—that is, the drive letter and high-level directory where you installed PeopleSoft PeopleTools.
PS_APP_HOME (if different from PS_HOME)	PeopleSoft Application home directory—that is, the drive letter and high-level directory where you installed the PeopleSoft Application software.
PS_CUST_HOME	PeopleSoft Application customized home directory—that is, the drive letter and high-level directory containing your customized PeopleSoft COBOL programs.
COBROOT	Drive letter and root directory of the COBOL compiler.

   For example:

```
set PS_HOME=C:\PTcompile
set COBROOT="C:\Program Files\Micro Focus\Net Express 5.1\base"
set PS_CUST_HOME=C:\CUSTcompile

set PS_APP_HOME=C:\HRcompile
```

2. Change directory to *PS_HOME*\setup:

```
cd %PS_HOME%\setup
```

3. Run CBLBLD.BAT, using one of these methods:

   - To compile all the COBOL source files under your PeopleSoft application, that is, all PeopleSoft PeopleTools source files, all PeopleSoft Application source files, and all customized PeopleSoft source files, run this command:

     ```
     cblbld <compile drive> <compile directory>
     ```

     For example:

     ```
     cblbld c: \temp\PTcompile
     ```

   - To compile only PeopleSoft PeopleTools and PeopleSoft Application COBOL source files, run this command:

     ```
     cblbld <compile drive> <compile directory> PS_HOME
     ```

     For example:

     ```
     cblbld c: \temp\PTcompile PS_HOME
     ```

   - To compile only customized PeopleSoft Application or PeopleSoft PeopleTools COBOL source files, run this command:

     ```
     cblbld <compile drive> <compile directory> PS_CUST_HOME
     ```

     For example:

     ```
     cblbld c: \temp\CUSTcompile PS_CUST_HOME
     ```

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Delivered (that is, non-customized) PeopleSoft PeopleTools and PeopleSoft Application COBOL compiled executables will be placed under the <*PS_HOME*>\CBLBIN<*X*> directory. Customized PeopleSoft Application or PeopleSoft PeopleTools COBOL compiled executables will be placed under the <*PS_CUST_HOME*>\CBLBIN<*X*> directory. CBLBIN<X> will be one of the following:

- CBLBINA if you are using ANSI encoding scheme
- CBLBINU if you are using Unicode encoding scheme

Compiling with CBLMAKE.BAT with a PS_CUST_HOME Setup

CBLBLD.BAT compiles all your COBOL source files 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 source file or a selected group of COBOL files. The procedure is slightly different depending upon whether the file that you want to compile is a PeopleSoft Application, PeopleSoft PeopleTools, or customized COBOL source file. Both procedures are covered in this section.

Note. The options for CBLMAKE.BAT are defined in a table in the previous section Compiling with CBLMAKE.BAT with a *PS_HOME* Setup.

To compile a customized COBOL file with CBLMAKE.BAT:

1. Open a command prompt window.
2. Verify that the PS_HOME, COBROOT, PS_APP_HOME (if not the same as PS_HOME), and PS_CUST_HOME environment variables are set, as previously defined.

   See Compiling with CBLBLD.BAT with a PS_CUST_HOME Setup.
3. Verify that the environment variable PS_compile_cust is set, as follows:

   ```
   set PS_compile_cust=Y
   ```

   Important! This variable setting is required for individual file compilation with CBLMAKE.BAT.

   ---
4. Ensure that the compile directory, <*compile directory*>, exists, and that you have write permission to it.

   This directory may already exist if you have run CBLBLD.BAT before. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.
5. Change to the *PS_HOME*\setup directory.
6. If the installation is Unicode, run CBL2UNI (with no parameters).
7. Execute the following command to copy all the COBOL source files from the *PS_CUST_HOME* directory to the compile directory:

   ```
   cblsrc <source directory>    <compile directory>
   ```

   Here <*source directory*> is the drive and directory where the source resides (it should be the same as *PS_CUST_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 files from *PS_CUST_HOME* and copy all the necessary files to the location where the compile process will take place, c:\temp\CUSTcompile in this example:

   ```
   cblsrc %PS_CUST_HOME% c:\temp\CUSTcompile
   ```


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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.

8. 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.

   For example, to compile a file named GPPDPRUN, run this command:

   ```
   cblmake GPPDPRUN
   ```

9. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate <*PS_CUST_HOME*>\CBLBIN<*X*> directory (CBLBINA for ANSI or CBLBINU for Unicode).

   These examples use the ANSI encoding:

   ```
   copy *.exe %PS_CUST_HOME%\cblbina
   copy *.gnt %PS_CUST_HOME%\cblbina
   copy *.int %PS_CUST_HOME%\cblbina
   ```

   Note. You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they are not copied automatically, as when you use CBLBLD.

10. Verify that the compiler runtime files (CBLINTS.DLL, CBLRTSM.DLL, CBLRTSS.DLL, CBLVIOM.DLL, CBLVIOS.DLL, COB32API.DLL, MFLANGDF.lbr) are present in the <*PS_CUST_HOME*>\CBLBIN<*X*> directory.

    If they are not present, then you will have to run %PS_HOME%\setup\cblrtcpy.bat as follows:

    ```
    cblrtcpy %PS_CUST_HOME%\cblbina
    ```

The procedure to compile a PeopleSoft PeopleTools COBOL file with CBLMAKE.BAT is similar, but the environment variable PS_compile_cust must *not* be set.

1. Open a command prompt window.
2. Verify that the PS_HOME, COBROOT, and PS_APP_HOME environment variables are set, as previously defined.

   See Compiling with CBLBLD.BAT with a PS_APP_HOME Setup.
3. Verify that the environment variable PS_compile_cust is *not* set, as follows:

   ```
   set PS_compile_cust=
   ```

   Important! Unsetting this environment variable is required for individual file compilation with CBLMAKE.BAT for PeopleSoft PeopleTools files.

4. Make sure the compile directory, <*compile directory*>, exists, and that you have write permission to it.

   This directory may already exist if you have run CBLBLD.BAT before. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.
5. Change to the *PS_HOME*\setup directory.
6. If the installation is Unicode, run CBL2UNI (with no parameters).
7. Execute the following command to copy all the COBOL source files from the *PS_HOME* directory to the compile directory:

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```
cblsrc <source directory>    <compile directory>
```

Here <*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, c:\temp\PTcompile in this example:

```
cblsrc %PS_HOME% c:\temp\PTcompile
```

8. 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.

   For example, to compile a file named PTPDBTST, run this command:

   ```
   cblmake PTPDBTST
   ```

9. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate <*PS_HOME*>\CBLBIN<*X*> directory (CBLBINA for ANSI or CBLBINU for Unicode).

   These examples use the ANSI encoding:

   ```
   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 are not copied automatically, as when you use CBLBLD.

10. Verify that the compiler runtime files (CBLINTS.DLL, CBLRTSM.DLL, CBLRTSS.DLL, CBLVIOM.DLL, CBLVIOS.DLL, COB32API.DLL, MFLANGDF.lbr) are present in the <*PS_HOME*>\CBLBIN<*X*> directory.

    If they are not present, then you will have to run %PS_HOME%\setup\cblrtcpy.bat as follows:

    ```
    cblrtcpy %PS_HOME%\cblbina
    ```

Note. If you plan to use cblmake.bat to compile a single (or a set) of PeopleSoft PeopleTools or PeopleSoft Application COBOL program at the same time, it would be a good idea to use two different command prompts and two different compile directories—one for PeopleSoft PeopleTools COBOL programs and the other for the PeopleSoft Application COBOL programs. This avoids setting and unsetting the PS_compile_cust environment variable.

Task 14A-4-4: Recompiling COBOL on Microsoft Windows

You always need to compile at installation, so you will only need to recompile COBOL in the following situations:

- You are installing PeopleSoft software for the first time.
- The supported COBOL compiler changes.
- You change the version of your RDBMS.
- You change the version of your operating system.
- You apply a PeopleSoft PeopleTools upgrade, patch, or fix.

You can recompile selected COBOL files by using CBLMAKE.BAT, or recompile all your COBOL source files by using CBLBLD.BAT.

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Note. If you want to recompile all your COBOL, you can follow the appropriate procedure for compiling COBOL, as described earlier.

See Compiling COBOL on Microsoft Windows with a PS_HOME Setup, Compiling COBOL on Microsoft Windows with a PS_APP_HOME Setup, or Compiling COBOL on Microsoft Windows with a PS_CUST_HOME Setup.

Task 14A-4-5: Setting Up the Micro Focus Net Express Runtime

This section discusses:

- Understanding the Micro Focus Net Express Runtime
- Installing the Runtime Files and Setting Up the License
- Removing the Runtime License
- Troubleshooting

Understanding the Micro Focus Net Express Runtime

The Micro Focus Net Express 5.1 Runtime provides the COBOL runtime environment required for COBOL programs to run. Install and license the runtime on each system that will run PeopleSoft COBOL applications. Typically, PeopleSoft COBOL application programs are run on PeopleSoft application server systems and PeopleSoft batch (Process Scheduler) systems.

The Micro Focus Net Express 5.1 Runtime consists of the following components:

- Six DLLs
  - CBLINTS.DLL
  - CBLRTSM.DLL
  - CBLRTSS.DLL
  - CBLVIOM.DLL
  - CBLVIOS.DLL
  - COB32API.DLL
- A Microsoft Windows registry entry for ASLMF

  For 64-bit Microsoft Windows systems, the entry is:

  HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\MICRO FOCUS\ASLMF
- The directory that contains the runtime license database, C:\psft-mf-nx-as-license, which contains the following files:
  - mfasdb
  - prodfile
  - semfile
- The Application Server License Manager Service

The Micro Focus Net Express 5.1 Runtime DLLs installation is done automatically as part of the COBOL compilation process. When CBLBLD.bat is run, it invokes CBLRTCPY.bat to copy the COBOL runtime DLLs listed above, from the %COBROOT%\bin directory to %PS_HOME%\CBLBIN*x* directory.

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CBLBIN*x* is CBLBINA, CBLBINE or CBLBINU, based on the compilation mode of ASCII, EBCDIC or Unicode respectively.

If you have already set up the Micro Focus Net Express COBOL compiler on a system, there is no explicit installation necessary for the runtime. For those systems where you only want to run COBOL, but have no need to compile it, use the following instructions in the section Installing the Runtime Files and Setting Up the License.

Installing the Runtime Files and Setting Up the License

The license files are included with the files that you downloaded from Oracle Software Delivery Cloud. The Micro Focus Net Express 5.1 Wrap Pack 11 Runtime Licensing files are contained in the self-extracting zip file, MFLicense_51WP11.exe. This executable provides the COBOL runtime system with unlimited runtime Net Express licenses specifically for PeopleSoft installations.

Always use the runtime files created for the version of the compiler that you used in compiling the COBOL files. For example, use the MFLicense_51WP11.exe runtime license file for the Micro Focus Net Express 5.1 Wrap Pack 11 compiler.

This section assumes that:

- You installed and compiled the PeopleSoft COBOL application files on the runtime system.
- You saved the files from Oracle Software Delivery Cloud in a directory referred to as *NE_INSTALL*.

To set up the runtime license:

1. Set the environment variable PS_HOME to the directory where your PeopleSoft software is installed.

   For example, use this command in a command prompt window:

   ```
   set PS_HOME=C:\HR92
   ```

2. Delete the following Microsoft Windows registry entry if it exists:

   \HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Micro Focus\ASLMF
3. Delete the directory C:\psft-mf-nx-as-license if it exists.
4. Go to *NE_INSTALL*, and run the self-extracting zip file MFLicense_51WP11.exe.
5. Specify the directory to save the files, for example C:\MFLicense-Extract-51WP11.
6. Change directory to C:\MFLicense-Extract-51WP11 and run the script setupMF.bat.

   This script makes the following changes:

   - Installs the Micro Focus Net Express Application Server License Database.
   - Creates the Microsoft Windows registry entry \HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Micro Focus\ASLMF, which point to the directory c:\psft-mf-nx-as-license.
   - Adds the files mfasdb, prodfile, and semfile to the directory C:\psft-mf-nx-as-license.
7. Run the command MFLMWin with the option to install, as follows:

   ```
   MFLMWin.exe -i
   ```

8. To verify that the Micro Focus license manager was installed, run Microsoft Windows Services.

   For example, run the following command in the command prompt window:

   ```
   services.msc
   ```

   You should see the service Micro Focus License Manager with status Started, and the Startup type should be Automatic.

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Removing the Runtime License

To uninstall the runtime license:

- Delete the Microsoft Windows registry key:

  \HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Micro Focus\ASLMF
- Delete the C:\psft-mf-nx-as-license directory and its contents.

Troubleshooting

If you install the Micro Focus Net Express 5.1 Runtime License on a system where the Micro Focus Net Express 5.1 compiler is already installed, you see an error message that mentions that Runtime DLL CBLRRSS is not found. Use one of the following solutions:

- If the system where you are installing the license will be used only for running COBOL programs, but not compiling, remove the Micro Focus Net Express 5.1 COBOL compiler installation, and then re-install the Micro Focus Net Express 5.1 Runtime License.
- If the system where you are installing the license will be used for both compiling and running COBOL programs, just ignore the error message. The Net Micro Focus Express 5.1 COBOL compiler is already installed, and has an embedded runtime, which will be used to execute the COBOL programs. Thus there is no need to install and license the Micro Focus Net Express 5.1 Runtime.

If you see an error "ASLM: Errno 1000" it means the runtime license is not installed. Use the instructions in the earlier section to install the license.

See Installing the Runtime Files and Setting Up the License.

Task 14A-4-6: Defining 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 Micro Focus 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
```

Task 14A-4-7: Distributing COBOL Binaries

After you have compiled your COBOL, you must transfer it to the needed locations. The required action depends upon how you set up *PS_HOME, PS_APP_HOME,* and *PS_CUST_HOME.*

- *PS_HOME* Setup

  If the *PS_APP_HOME* location is the same as the *PS_HOME* location:

  Copy the contents of <*PS_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) directory into <*PS_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) on your batch and application server machines.

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- *PS_APP_HOME* Setup

  If the *PS_APP_HOME* location is different than the *PS_HOME* location:

  1. Copy the contents of <*PS_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) directory into <*PS_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) on your batch and application server machines.
  2. Copy the contents of <*PS_APP_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) directory into <*PS_APP_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) on your batch and application server machines.

- *PS_CUST_HOME* Setup

  If you have customized files in *PS_CUST_HOME*:

  1. Copy the contents of <*PS_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) directory into <*PS_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) on your batch and application server machines.
  2. If *PS_APP_HOME* is different from *PS_HOME*, copy the contents of <*PS_APP_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) directory into <*PS_APP_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) on your batch and application server machines.
  3. Copy the contents of <*PS_CUST_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) directory into <*PS_CUST_HOME*>\CBLBIN<*X*> (CBLBINA or CBLBINU) on your batch and application server machines.

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Chapter 14B

Installing and Compiling COBOL on UNIX

This chapter discusses:

- Understanding COBOL
- Prerequisites
- Preparing COBOL for a PeopleTools-only Upgrade
- Installing Micro Focus Server Express for UNIX and Linux
- Using the Micro Focus COBOL Compiler on UNIX
- Installing IBM COBOL on IBM AIX
- Using the IBM COBOL Compiler on IBM AIX

Understanding COBOL

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

COBOL is not needed for PeopleSoft PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for PeopleSoft applications that contain no COBOL programs. See My Oracle Support for the details on whether your application requires COBOL.

The chapter includes instructions for Micro Focus Net Express COBOL compiler, sometimes referred to here as "Micro Focus COBOL", and the IBM COBOL compiler for IBM AIX, sometimes referred to here as "IBM COBOL."

See Also

"Preparing for Installation," Installing Supporting Applications

PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers, My Oracle Support, (search for the article name)

PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler, My Oracle Support, (search for the article name)

PeopleTools Certifications - Suggested Fixes COBOL, My Oracle Support, (search for the article name and select the current release)

PeopleTools: Global Technology, "Understanding COBOL in a Unicode Environment"

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Prerequisites

Before you attempt to run COBOL from the command line you should make sure the variable PS_SERVER_CFG points to a valid psprcs.cfg file.

Task 14B-1: Preparing COBOL for a PeopleTools-only Upgrade

When performing a PeopleTools-only upgrade, if you have COBOL modules, you must recompile all COBOL.

For Micro Focus Server Express COBOL, recompile and relink all COBOL programs for PeopleSoft PeopleTools and PeopleSoft applications, as described in a later section.

See Using the Micro Focus COBOL Compiler on UNIX.

Task 14B-2: Installing Micro Focus Server Express for UNIX and Linux

This section discusses:

- Understanding Micro Focus Server Express
- Prerequisites
- Obtaining the Installation Files for Micro Focus Server Express from Oracle Software Delivery Cloud
- Installing Micro Focus Server Express

Understanding Micro Focus Server Express

Micro Focus® Server Express™ 5.1 Wrap Pack 11 is the supported COBOL compiler on UNIX and Linux for the current PeopleSoft PeopleTools release. This section provides installation instructions for Micro Focus Server Express 5.1 Wrap Pack 11 COBOL compiler and the License Management Facility used to manage product licenses. These instructions are specifically for installing the Server Express COBOL compiler to use with PeopleSoft software. For more general installation instructions or other supporting documentation concerning Server Express, consult the documentation that comes with the installation software.

See Also

Micro Focus web site: http://supportline.microfocus.com/

Server Express Documentation

Using the Micro Focus COBOL Compiler on UNIX

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Prerequisites

Each application created using a Server Express product that will be deployed in a UNIX environment must include a Micro Focus Application Server for Server Express license from Micro Focus or from your Micro Focus licensed supplier. Micro Focus Application Server must be installed on the machine on which the application is to run. Contact your Micro Focus Account Representative or your Micro Focus licensed supplier for details on purchasing Application Server licenses.

Note. Consult the Server Express Extras Install Documentation, included with the software on Oracle Software Delivery Cloud, for information on how to add licenses (development and ULP runtime).

If you have a previous Micro Focus COBOL product installed we recommend that you make a backup of any COBOL systems files that you have changed. Examples include cobkeymp, ADISCTRL, cobopt and cobconfig. After you have installed Server Express you might want to apply to the new COBOL product the changes previously applied to these files.

If you are installing a COBOL system over an existing COBOL system, you must first delete the existing system. Alternatively, you might prefer to move your existing COBOL system to another directory until you have verified the new installation.

If you have installed, or plan to install, Micro Focus Application Server or any other Micro Focus product on the same machine as this product, you must install them in different directories.

This Micro Focus product is managed by a License Management Facility (LMF). This facility helps you keep track of the number of licenses you have for the product. In order to use this product it is necessary for you to install the License Management Facility (which is provided with the Server Express software). This software should not be installed in the same directory as Server Express. The default directory depends upon the operating system; for example:

- /opt/lib/mflmf for HP-UX Itanium
- /usr/lib/mflmf for RS/6000 and PowerPC systems running AIX
- /opt/lib/mflmf on other systems

If /opt/lib does not exist, use /usr/lib/mflmf instead.

Task 14B-2-1: Obtaining the Installation Files for Micro Focus Server Express from Oracle Software Delivery Cloud

The Micro Focus Server Express installation files are available on Oracle Software Delivery Cloud. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Micro Focus Server Express if necessary.

See "Preparing for Installation," Using Oracle Software Delivery Cloud to Obtain Installation Files.

See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

To obtain the files for the Micro Focus Server Express installation:

1. After logging in to Oracle Software Delivery Cloud, read the information about export restrictions, and then click Accept.
2. Enter Micro Focus in the type-ahead Product field, and select Micro Focus International Ltd. Server Express COBOL for UNIX from the drop-down list.
3. Click Select Platform, select the operating system you are running on, and then click Select.
4. Click Continue.

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5. Click Continue.
6. Read the license agreement, select the check box to acknowledge that you accept the terms, and then click Continue.
7. Click one of the file names to download an individual zip file, or click Download All to obtain all of the files listed.

   The files include software, wrap packs, and documentation. Save the zip files to a temporary directory on your local system. You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Oracle Solaris, you must unzip it on Oracle Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to an Oracle Solaris computer, the stage area files may be corrupt.

Task 14B-2-2: Installing Micro Focus Server Express

The following section is provided as an example installation and illustrates a typical Micro Focus Server Express 5.1 Wrap Pack 11 installation for PeopleSoft application, as outlined in the overview section above.

The answers to the prompts provided in the following example are recommended by Oracle for PeopleSoft installations, with the exception of the installation directory for the Micro Focus License Management Facility. For this step, you can use the default directory names or choose directory names based on your site's naming conventions.

It is recommended by Micro Focus and Oracle to install LMF in its own directory, instead of in a sub-directory of the Server Express install.

Important! Make sure to select the *correct* bit mode for your UNIX platform.

With PeopleSoft PeopleTools 8.55, enter *64* for all UNIX platforms.

The following example was done on a Red Hat Linux x86-64 operating system platform. Installation prompts will vary slightly with respect to specifics of the different UNIX platforms.

1. Log in as root.
2. Create a directory (if it does not exist) where you want to install the Micro Focus Server Express 5.1 Wrap Pack 11. For example:

   ```
   $ mkdir -p /products/mf/svrexp-5.1_wp11-64bit
   ```

3. Change directory to the one you created in the previous step.

   ```
   $ cd /products/mf/svrexp-5.1_wp11-64bit
   ```

4. Copy or ftp the Micro Focus Server Express 5.1 Wrap Pack 11 tar file that you obtained from Oracle Software Delivery Cloud to this directory.

   In this example, the file name is sx51_wp11_redhat_x86_64_dev.tar.
5. List the items in the directory with the following command:

   ```
   $ ls -l /products/mf/svrexp-5.1_wp11-64bit
   total 409600
   -rwxr-xr-x   1 root   root      209295360 Feb 03 19:23 sx51_wp11_redhat_⇒
   x86_64_dev.tar
   ```

6. Extract the tar file:

   ```
   $ tar -xvf sx51_wp11_redhat_x86_64_dev.tar
   ```

7. List the items in the directory with the following command:

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```
$ ls
ADISCTRL  bin     demo    dialog  dynload    es          etc     ⇒
 install  lib  snmp  sx51_ws6_redhat_x86_64_dev.tar  xdb aslmf    ⇒
 cpylib  deploy  docs    dynload64  eslmf-mess  include  lang     lmf ⇒
 src   terminfo
```

8. To begin the installation, type:

```
$sh ./install
```

9. Read the text and follow the instructions to review the readme.txt file:

```
This script will install Micro Focus Server Express 5.1 on this⇒
 computer.

The readme.txt file included in this delivery contains details of new⇒
 features, enhancements and any restrictions of which you should be⇒
 aware. This file is located in :

 /products/mf/svrexp-5.1_wp11-64bit/docs

We strongly recommend you read this file once the installation is⇒
 complete.

Do you wish to continue (y/n): y
```

10. Read the following License Agreement and type *y* (yes) to accept it:

```
Before installing and using this software product you must agree to be⇒
 bound by the terms and conditions of the end user license agreement ⇒
("License Agreement") which accompanies this product. Please take⇒
 this time to read the License Agreement. If you are not in agreement⇒
 with the terms and conditions of the License Agreement, please return⇒
 the product to your Account Representative and your money will be⇒
 refunded.  If you require a replacement copy of the License Agreement,⇒
 please contact your Account Representative before proceeding with the⇒
 install process.
Do you agree to the terms of the License Agreement? (y/n): y
```

11. If you are installing on an operating system platform that Micro Focus has not built the product on, you see the following message. Type *y* (yes) at the prompt:

```
                  Micro Focus Install

This product was not built or tested on this version of the Operating⇒
 System.
This product was built on Operating System:
RedHatEnterpriseServer 2.6.18-348.el5 x86_64
Red Hat Enterprise Linux Server release 5.9 (Tikanga)
and you are installing it on Operating System:
Linux 3.8.13-16.2.1.el6uek.x86_64
Any product issues you report will only be corrected if they can be⇒
 reproduced on one of our systems running:
```

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```
RedHatEnterpriseServer 2.6.18-348.el5 x86_64
Red Hat Enterprise Linux Server release 5.9 (Tikanga)
OracleServer 3.8.13-35.3.5.el6uek.x86_64 x86_64
Red Hat Enterprise Linux Server release 6.5 (Santiago)
RedHatEnterpriseServer 2.6.18-398.el5 x86_64
Red Hat Enterprise Linux Server release 5.11 (Tikanga)
RedHatEnterpriseServer 2.6.32-504.el6.x86_64 x86_64
Red Hat Enterprise Linux Server release 6.6 (Santiago)

Please confirm that you want to continue with this installation (y/n): y
```

12. After reading the following information press ENTER to continue:

```
When you press return you will be shown details of the reference⇒
 environment (and any compatibility environments).

Please press return when you are ready:
```

13. Type *y* (yes) to continue after reading the listing of the reference environment. For the sake of brevity, the text has been truncated, as indicated by [...].

```
This product is certified on the following reference environment:
The command(s) used to gather the information is given following each⇒
 entry.
Operating System
----------------
RedHatEnterpriseServer 2.6.18-348.el5 x86_64
Red Hat Enterprise Linux Server release 5.9 (Tikanga)

lsb_release -si
uname -r
uname -m
cat /etc/redhat-release

C Compiler
----------
cc gcc version 4.1.2 20080704 (Red Hat 4.1.2-54)

gcc -v 2>&1 | tail -1

C++ Compiler
------------
/usr/bin/g++ gcc version 4.1.2 20080704 (Red Hat 4.1.2-54)

g++ -v 2>&1 | tail -1

Assembler
---------
as GNU assembler version 2.17.50.0.6-20.el5_8.3 (x86_64-redhat-linux)⇒
 using BFD version 2.17.50.0.6-20.el5_8.3 20061020

as -v 2>&1 < /dev/null

Linker
```


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```
------
ld GNU ld version 2.17.50.0.6-20.el5_8.3 20061020

ld -V 2>&1 | head -1

Supported versions of Java
--------------------------
Java version = 1.6.0_15
Java vendor = Sun Microsystems Inc.
Java OS name = Linux
Java OS arch = amd64
Java OS version = 2.6.18-348.el5

Java version = 1.6.0_15
Java vendor = Sun Microsystems Inc.

Java OS name = Linux
Java OS arch = amd64
Java OS version = 2.6.18-348.el5

Java version = 1.7.0_05
Java vendor = Oracle Corporation
Java OS name = Linux
Java OS arch = i386
Java OS version = 2.6.18-348.el5

Java version = 1.7.0_05
Java vendor = Oracle Corporation
Java OS name = Linux
Java OS arch = amd64
Java OS version = 2.6.18-348.el5

$JAVA_HOME/bin/java -classpath $COBDIR/lib  WhatJava

Unicode
-------
Unicode mapping tables must be installed for J2EE and Web Services to
function correctly. These tables are required for converting between
any combination of UTF-16/UCS-2, UTF-8 and other installed locales.

[...]

Please confirm your understanding of the above reference environment⇒
 details (y/n): y
If you require this support, you will need to install the TCP/IP⇒
 Development System libraries prior to installation of your COBOL⇒
 system.
```

14. Answer *n* (no) to the following prompt:

```
Do you want to make use of COBOL and Java working together? (y/n): n
Skipping Java setup
Should you want to use Java with COBOL later on as super user, run the⇒
```

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```
 command /products/mf/svrexp-5.1_wp11-64bit/bin/java_setup to select⇒
 the version of Java you want to use.
```

Note. PeopleSoft COBOL implementations do not require COBOL and Java to work together.

15. Answer *y* (yes) to the following prompt concerning the License Management Facility:

```
This product is protected using the Micro Focus License Management⇒
 Facility (LMF). Please refer to the Development System Licensing Guide⇒
 for information relating to the installation of the licensing system⇒
 and licenses.
If you do not have LMF installed or want to upgrade to the latest⇒
 version, we recommend that you install it now.

Would you like to install LMF now? (y/n): y
```

16. At the following prompt, enter the directory name where you want to install License Manager.

Note. Micro Focus and Oracle recommend that you install LMF in its own directory, instead of a sub-directory of the Server Express installation.

```
Enter the directory name where you wish to install License Manager.
(Press Enter for default directory /opt/microfocus/mflmf)

/products/mf/mflmf-svrexp-5.1_wp11-64bit
```

17. Enter *y* (yes) to restrict access to the License Admin System to the superuser account:

```
Do you want only superuser to be able to access the License Admin⇒
 System? (y/n) y
```

18. Enter *y* (yes) to start license manager automatically at boot time:

```
It is recommended that you let license manager autostart at boot time.
Do you want license manager to be automatically started at boot time? ⇒
(y/n) y
LMF installation complete.
```

19. If you want to consult the documentation on how to install licenses, follow the instructions in this prompt:

```
Please consult the Development Licensing Guide for detailed information⇒
 on how to install licenses.

This may be done by running the mflicense tool.
-----------------------------------------------------------
To run your applications you need a deployment license installed using⇒
 Apptrack.
See your Deployment Licensing Guide for details.
Installing Apptrack...

Access permissions on directory /var/mfaslmf have changed on this⇒
 release
Write access permission has been removed except for superuser use
Apptrack installation complete
```


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20. Enter *64* for the system default bit mode:

```
This product can be used in either 32-bit or 64-bit modes.
Please enter either 32 or 64 to set the system default mode: 64
System default COBMODE has been set to 64.
```

21. Wait for the documentation to be installed:

```
Installing documentation. Please wait...
```

22. Enter *n* (no) at the following prompt:

```
Enterprise Server provides a scalable, managed, and high-performance⇒
 transactional environment for the deployment of COBOL applications and⇒
 services, COBOL/J2EE applications and direct COBOL Web Services.

Your Enterprise Server requires configuration. You can either do it now⇒
 or later. To do it now, you need to know the alphanumeric user ID of⇒
 the Enterprise Server System Administrator.
To do it later, enter the following commands whilst logged in as root:

/products/mf/svrexp-5.1_wp11-64bit/bin/eslminstall
/products/mf/svrexp-5.1_wp11-64bit/bin/casperm

Do you wish to configure Enterprise Server now? (y/n): n
```

23. Review the information concerning setting the COBDIR, LD_LIBRARY_PATH, and PATH environment variables in the concluding prompt:

```
(Remember to set COBDIR to /products/mf/svrexp-5.1_wp11-64bit, include ⇒
/products/mf/svrexp-5.1_wp11-64bit/lib in LD_LIBRARY_PATH, and include ⇒
/products/mf/svrexp-5.1_wp11-64bit/bin on your PATH.)

WARNING: Any executables (whether a Run-Time System or an application)⇒
 must be relinked using this new release. Otherwise, the results of⇒
 running the older executables with this new release are undefined.

Installation completed successfully.

The COBOL system is ready to use.
```

Task 14B-3: Using the Micro Focus COBOL Compiler on UNIX

This section discusses:

- Understanding COBOL Compilation
- Setting Environment Variables
- Modifying the Liblist64 File (IBM AIX)
- Modifying the Cobopt File (SuSE Linux Enterprise Server Only)
- Compiling COBOL on UNIX with a PS_HOME Setup
- Compiling COBOL on UNIX with a PS_APP_HOME Setup

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- Compiling COBOL on UNIX with a PS_CUST_HOME Setup
- Linking COBOL
- Recompiling COBOL on UNIX

Understanding COBOL Compilation

On UNIX and Linux operating systems, you always need to compile your COBOL programs at installation time. After you run the PeopleSoft Installer to set up your application or batch server, perform the steps discussed in this section.

You have two options for compiling:

- You can treat one application or batch server as your compile server, compile all your COBOL programs 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 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 customizations from the file server to all of these servers before carrying out the compile.

Note. You should have read/write access to the directory *PS_HOME/*cblbin to be able to compile the COBOL programs.

Note. To copy a compiled COBOL program from one UNIX server to another, they must be on the same operating system that the compile took place on. For example, if you compile on Oracle Solaris 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 machine).

The way that you set up your installation environment determines how you compile COBOL. This section includes different procedures for the different installation environments, as follows:

- *PS_HOME Setup*

  If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is the same as the *PS_HOME* location where you installed PeopleSoft PeopleTools, follow the instructions in the section Compiling COBOL on UNIX with a PS_HOME Setup.

- *PS_APP_HOME Setup*

  As described earlier, for PeopleSoft PeopleTools 8.52 and later, you have the option to install the PeopleSoft Application software to a location outside *PS_HOME*. If the PS_APP_HOME environment variable is defined and is different from PS_HOME, the COBOL build scripts behave differently under certain build options. There are also some new build options under certain environments which would be recognized if PS_APP_HOME is defined.

  If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is different from the *PS_HOME* location where you installed PeopleSoft PeopleTools, follow the instructions in the section Compiling COBOL on UNIX with a PS_APP_HOME Setup.

- *PS_CUST_HOME Setup*

  For PeopleSoft PeopleTools 8.53 and later, you have the option to place customized COBOL baseline sources into a location referenced by the environment variable PS_CUST_HOME.

  The *PS_CUST_HOME* directory structure must replicate that of *PS_HOME* or *PS_APP_HOME*; that is, any COBOL source file that is customized should be placed in the same relative path as was present in the original location. If your environment includes customized files in a *PS_CUST_HOME* directory, follow the instructions in the section Compiling COBOL on UNIX with a PS_CUST_HOME Setup.

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See Also

"Preparing for Installation," Defining Installation Locations.

Task 14B-3-1: Setting Environment Variables

On your UNIX system, you need to 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:

- $ORACLE_HOME must point to the correct Oracle installation; for example:

  ```
  ORACLE_HOME=/products/oracle/11.2.0;export ORACLE_HOME
  ```

- $ORACLE_HOME/bin must be added to PATH; for example:

  ```
  PATH=$PATH:$ORACLE_HOME/bin;export PATH
  ```

- $ORACLE_HOME/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.
- $ORACLE_SID must be set to the correct Oracle instance; for example:

  ```
  ORACLE_SID=hdmo;export ORACLE_SID
  ```

- $COBDIR must be set to the Micro Focus Server Express installation; for example:

  ```
  COBDIR=/products/mf/svrexp-51_wp6;export COBDIR
  ```

- $COBDIR/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.

  ```
  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
  ```

- $COBDIR/bin must be appended to the PATH; for example:

  ```
  PATH=$PATH:$COBDIR/bin;export PATH
  ```

To set the required PeopleSoft environment variables, source the script psconfig.sh. Enter the following command from the *PS_HOME* directory:

```
. ./psconfig.sh
```

Task 14B-3-2: Modifying the Liblist64 File (IBM AIX)

Understanding Liblist Modifications

If you are compiling COBOL on AIX, modify the liblist64 file as described here. Check My Oracle Support for additional information about modifications that need to be made in the liblist64 file for COBOL.

See My Oracle Support, Certifications.

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Modifying the Liblist64 File for AIX

To modify the liblist64 file for AIX:

1. cd to $COBDIR/lib.
2. Add the following line to the liblist file:

   ```
   x:*:s!t:-lC
   ```

The following listing shows where to make the changes (in bold font):

```
#       More emulation of cc (MUST be after MF/user libraries):
x:*:st:-L/usr/lib/threads
x:*:st:-lpthreads
x:*:s!t:-lC                    <=== Add this line
x:*:s:-lc
```

Task 14B-3-3: Modifying the Cobopt File (SuSE Linux Enterprise Server Only)

If you are compiling COBOL on a SuSE Linux Enterprise Server operating system, you must update the $COBDIR/etc/cobopt64 file to point to the correct GCC compiler object files. Without these changes the Server Express product cannot compile correctly.

Note. Check whether the gcc directory exists in your system. If not, then install the gcc lib as directed in the $COBDIR/docs/env.txt file.

Change the following line in the $COBDIR/etc/cobopt64 file:

From	To
-C nolist set GCC_LIB=/usr/lib64/gcc/x86_64-suse-linux/4.1.2	-C nolist set GCC_LIB=/usr/lib64/gcc/x86_64-suse-linux/4.3

Task 14B-3-4: Compiling COBOL on UNIX with a PS_HOME Setup

This section assumes that you installed the PeopleSoft Application software to a *PS_APP_HOME* directory that is the same as the *PS_HOME* directory where you installed PeopleSoft PeopleTools. It also assumes that there is no separate *PS_CUST_HOME* directory with customized COBOL source files.

To compile COBOL on UNIX:

1. If you haven't already done so, download all required patches to your file server, and from there 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 copy patches over from the file server, the files need to have a lowercase cbl extension and an uppercase program name, as in PATCH.cbl.

   ---

2. Source the script psconfig.sh from *PS_HOME* to set up environment variables correctly on your application or batch server.

   ```
   . ./psconfig.sh
   ```


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3. Change to the *PS_HOME/*setup directory:
   ```
   cd $PS_HOME/setup
   ```
4. To compile all the COBOL source dynamically, issue the command:
   ```
   ./pscbl.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

Warning! Proposed ISO 2000 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.

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 a warning. This should not be considered a compilation error.

Task 14B-3-5: Compiling COBOL on UNIX with a PS_APP_HOME Setup

This section assumes that you installed the PeopleSoft Application software to a *PS_APP_HOME* directory that is different from the *PS_HOME* directory where you installed PeopleSoft PeopleTools. It also assumes that there is no separate *PS_CUST_HOME* directory with customized COBOL source files.

Use the shell script pscbl.mak, found in *PS_HOME/*setup, to do the PeopleSoft COBOL compilation. This table describes the allowed arguments for pscbl.mak:

Command	Description
pscbl.mak	Use this command, with no argument, to compile all the COBOL programs.
pscbl.mak PS_HOME	Use this argument to compile only the PeopleSoft PeopleTools COBOL programs.
pscbl.mak PS_APP_HOME	Use this argument to compile only the PeopleSoft Application COBOL programs.
pscbl.mak <*COBOL_PROGRAM*>	Enter the name for a valid PeopleSoft PeopleTools or PeopleSoft Application COBOL program to compile a specific program.

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If you specify any argument other than the ones mentioned above, you will get the following usage display message:

```
echo Correct usage of the program is:
    echo 1. pscbl.mak
    echo 2. pscbl.mak PS_HOME
    echo 3. pscbl.mak PS_APP_HOME
    echo 4. pscbl.mak PTPDBTST (or any tools/apps program, Note Peoplesoft⇒
 COBOL programs are 6, 7 or 8 characters long)
```

To compile COBOL programs on UNIX:

1. Set PS_HOME environment variable in the UNIX shell prompt from which you want to run the COBOL compile.

   You can run *PS_HOME*/psconfig.sh with the following command to set the PS_HOME environment variable in the shell.

   ```
   cd <PS_HOME>
   . ./psconfig.sh
   ```

   Verify if PS_HOME is set with this command:

   ```
   $ echo $PS_HOME
   $ /home/<user>/PTcompile
   ```

2. Set the PS_APP_HOME environment variable (PS_APP_HOME refers to the location where you have installed the PeopleSoft Application software) with this command:

   ```
   PS_APP_HOME=/home/<user>/HRcompile; export PS_APP_HOME
   ```

3. Run pscbl.mak, using one of these methods:

   - To compile all PeopleSoft COBOL programs, that is, those for PeopleSoft PeopleTools and PeopleSoft Application, run this command:

     ```
     pscbl.mak
     ```

     This will compile the programs that are under *PS_HOME*/src/cbl and *PS_APP_HOME*/src/cbl.

   - To compile only PeopleSoft PeopleTools COBOL programs, run this command:

     ```
     pscbl.mak PS_HOME
     ```

   - To compile only PeopleSoft Application COBOL programs, run this command:

     ```
     pscbl.mak PS_APP_HOME
     ```

   - To compile a single COBOL program, run the command with the COBOL program name excluding the .cbl extension.

     For example, for a PeopleSoft PeopleTools COBOL program PTPDBTST.CBL, or a PeopleSoft Application COBOL program GPPDPRUN.CBL, run:

     ```
     pscbl.mak PTPDBTST
     pscbl.mak GPPDPRUN
     ```

PeopleSoft PeopleTools compiled COBOL programs will be placed under the *PS_HOME*\cblbin directory. PeopleSoft Application compiled COBOL programs will be placed under the *PS_APP_HOME*\cblbin directory.

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Task 14B-3-6: Compiling COBOL on UNIX with a PS_CUST_HOME Setup

This section assumes that you have set up a PS_CUST_HOME environment variable for customized COBOL source files.

To compile COBOL programs on UNIX:

1. Set PS_HOME environment variable in the UNIX shell prompt from which you want to run the COBOL compile.

   You can run *PS_HOME/*psconfig.sh with the following command to set the PS_HOME environment variable in the shell:

   ```
   cd <PS_HOME> . ./psconfig.sh
   ```

   Verify if the PS_HOME environment variable is set with this command:

   ```
   $ echo $PS_HOME $ /home/<user>/PTcompile
   ```

2. If *PS_APP_HOME* is different from *PS_HOME*, set the PS_APP_HOME environment variable with this command:

   ```
   PS_APP_HOME=/home/<user>/HRcompile; export PS_APP_HOME
   ```

3. Set the PS_CUST_HOME environment variable with this command:

   ```
   PS_CUST_HOME=/home/<user>/CUSTcompile; export PS_CUST_HOME
   ```

4. To compile all the COBOL source under *PS_CUST_HOME* dynamically, issue the command:

   ```
   ./pscbl.mak PS_CUST_HOME
   ```

PeopleSoft PeopleTools compiled COBOL programs and PeopleSoft Application compiled COBOL programs will be placed under the *PS_CUST_HOME*\cblbin directory.

Task 14B-3-7: Linking COBOL

This section discusses:

- Understanding COBOL Linking
- Linking COBOL Components on UNIX

Understanding COBOL Linking

PSRUN is the PeopleSoft procedure that connects the COBOL batch programs with the RDBMS API. PSRUNRMT is the PeopleSoft procedure that connects the remote COBOL programs with the RDBMS API.

Both PSRUN and PSRUNRMT are compiled uniquely for each platform and consist of modules provided with PeopleSoft software, the RDBMS platform, and the operating system.

You need to create the PSRUN and PSRUNRMT programs in the following situations:

- You are installing PeopleSoft software for the first time.
- Any COBOL programs have changed.
- The version of the RDBMS running the PeopleSoft system has changed.
- The COBOL compiler has changed.
- One of the C programs supplied with the PeopleSoft system has changed.

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Note. The PeopleSoft system only supports dynamic linking of COBOL. Static linking is not an option.

Linking COBOL Components on UNIX

To link COBOL components on UNIX:

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 files PSRUN and PSRUNRMT will now exist in the *PS_HOME/*bin directory. If you encounter errors, check *PS_HOME/*setup/psrun.err and *PS_HOME/*setup/psrunrmt.err

If you are running on an Oracle 11.2.0.4 database platform, you may see the following error when you attempt to compile:

"Undefined symbol nzosSCSP_SetCertSelectionParams referenced in file /products/oracle/11.2.0.4.0-64bit/lib/libclntsh.so.11.1"

To resolve this problem:

1. Edit the LD_LIBRARY_PATH environment variable so that $ORACLE_HOME/lib comes before $TUXDIR/lib.
2. Execute psrun.mak again.
3. Reverse the change you made in step 1.

Task 14B-3-8: Recompiling COBOL on UNIX

You always need to compile at installation, so you will only need to recompile COBOL in the following situations:

- You are installing PeopleSoft software for the first time.
- The supported COBOL compiler changes.
- You change the version of your RDBMS.
- You change the version of your operating system.
- You apply a PeopleSoft PeopleTools upgrade, patch, or 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.

You can compile a *single* COBOL program dynamically by using this command syntax:

```
./pscbl.mak <PROGRAM NAME WITHOUT "cbl" EXTENSION>
```

For example, the following command compiles the lone file PTPDBTST.

```
./pscbl.mak PTPDBTST
```

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Note. If you want to recompile all your COBOL, you can follow the appropriate procedure as described earlier.

See Compiling COBOL on UNIX with a PS_HOME Setup, Compiling COBOL on UNIX with a PS_APP_HOME Setup, or Compiling COBOL on UNIX with a PS_CUST_HOME Setup.

The compile should run without errors until it completes. After the script is complete, check the destination directories for the newly created files. They should have a length greater than zero as well as a current date and time stamp. You can find the files in the following locations:

- For PS_HOME Setup: *PS_HOME/*src/cbl/int, *PS_HOME/*src/cbl/lst, and *PS_HOME/*cblbin
- For PS_APP_HOME Setup: *PS_APP_HOME/*src/cbl/int, *PS_APP_HOME/*src/cbl/lst, and *PS_APP_HOME/*cblbin
- For PS_CUST_HOME Setup: *PS_CUST_HOME/*src/cbl/int, *PS_CUST_HOME/*src/cbl/lst, and *PS_CUST_HOME/*cblbin

Note. You can also use pscbl.mak PTP*** to compile all source files that start with PTP.

Task 14B-4: Installing IBM COBOL on IBM AIX

This section discusses:

- Understanding the IBM COBOL for AIX Installation
- Prerequisites
- Installing IBM COBOL for AIX v4.1.1.1

Understanding the IBM COBOL for AIX Installation

The IBM COBOL for AIX compiler version 4.1.1.1 is supported for the current PeopleSoft PeopleTools release. This section includes the installation of the IBM COBOL Compiler on IBM AIX.

Prerequisites

To install and use IBM COBOL for AIX 4.1.1.1, you must have the following:

- PeopleSoft PeopleTools

  We recommend that you take the latest available PeopleSoft PeopleTools patch level. You should install PeopleSoft PeopleTools and your PeopleSoft application software before you compile the IBM COBOL for AIX source files.
- IBM COBOL for AIX version 4.1.1.1.

  You must obtain IBM COBOL for AIX compiler from your IBM vendor. Obtain the installation documentation and review the information on system prerequisites and installation methods. The following installation instructions assume that you have the IBM installation files and installation documentation. Review the information on planning your installation, but use the instructions in this document to carry out the installation. Contact your IBM representative to obtain the software.

  See http://www-01.ibm.com/software/awdtools/cobol/aix/

  See http://www-01.ibm.com/software/awdtools/cobol/aix/library/
- The IBM COBOL compiler uses the system temporary space for some steps. Be sure the space is not full before beginning the compilation.

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See Using the IBM COBOL Compiler on IBM AIX, Troubleshooting the IBM COBOL Compiler.

- Documentation for IBM System Prerequisites

  Refer to the "System Prerequisites" section in the IBM Installation guide for COBOL for AIX 4.1, before installing and running the software.

Task 14B-4-1: Installing IBM COBOL for AIX v4.1.1.1

This procedure assumes that you obtained the installation file from your IBM vendor and saved the compressed installation file in a local directory, referred to here as *CBL_INSTALL*. The compressed installation file includes several filesets. All of the filesets listed must be installed. This table lists the filesets for IBM COBOL for AIX compiler v4.1.1.1, and the locations where they will be installed:

Fileset Name	Fileset Description	Installation Locations*	Required Fileset Level
cobol.cmp	IBM COBOL for AIX compiler	/usr/lpp/cobol/ /usr/lpp/cobol/bin/ /usr/lpp/cobol/samples/ /usr/lpp/cobol/include/ /usr/bin/	4.1.1.1
cobol.dbg	IBM COBOL for AIX debugger	/usr/lpp/cobol/lib /usr/lib/	4.1.1.1
cobol.lic	IBM COBOL for AIX license files	/usr/lpp/cobol/lib/	4.1.1.0
cobol.license	IBM COBOL for AIX license	NONE	4.1.1.0
cobol.man	IBM COBOL for AIX compiler manual pages	/usr/share/man/ /usr/lpp/cobol/man/	4.1.1.1
cobol.msg.*LANG*	IBM COBOL for AIX compiler messages	/usr/lpp/cobol/lib/nls/msg/*LANG/* *LANG* = [en_US, ja_JP, Ja_JP]	4.1.1.0
cobol.rte	IBM COBOL for AIX Runtime	/usr/lpp/cobol/ /usr/lpp/cobol/lib/ /usr/lib/ /etc/	4.1.1.0

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Fileset Name	Fileset Description	Installation Locations*	Required Fileset Level
cobol.rte.msg.LANG	IBM COBOL for AIX runtime messages	/usr/lpp/cobol/ /usr/lpp/cobol/lib/ /usr/lib/ /etc/	4.1.1.0
cobol.tools	IBM COBOL for AIX tools	/usr/lpp/cobol/	4.1.1.1

* If more than one location is listed, the fileset is copied into all the locations.

To extract and install:

1. Go to the location where you saved the compressed installation file:

   ```
   cd CBL_INSTALL
   ```

2. Uncompress and unpack the downloaded file with this command:

   ```
   zcat cobol.411.aix.GM.tar.Z | tar -xvf
   Note: The name of the compressed file you downloaded may be different⇒
    than what is mentioned above.
   ```

3. Change directory to *CBL_INSTALL*/usr/sys/inst.images, and use the inutoc command to generate a list of the files in this directory:

   ```
   cd usr/sys/inst.images
   inutoc .
   ```

4. Use the AIX command `installp` to install.

   For information on using the options for `installp`, see the IBM COBOL for AIX documentation. For example:

   - To install all available filesets to the locations specified in the table at the beginning of this procedure, and write an installation log, use this command:

     ```
     installp -aXYgd <CBL_INSTALL>/usr/sys/inst.images -e <LOG_DIR/logfile_⇒
     name> all
     ```

   - To install a specific fileset, and write an installation log, use this command:

     ```
     installp -aXYgd <CBL_INSTALL>/usr/sys/inst.images -e <LOG_DIR/logfile_⇒
     name>  <fileset_name>
     ```

5. Download the required maintenance packs for IBM COBOL 4.1.1.1 from the IBM web site:
   a. Go the IBM Support Fix Central web site: http://www-933.ibm.com/support/fixcentral/
   b. Select the Product Group as Rational, Product as COBOL for AIX, Installed Version as 4.1.1.0 and Platform as AIX. Click Continue.
   c. Select the Browse for fixes radio button. Click Continue.
   d. Select the fix pack 4.1.1.1 or higher. Click Continue.
   e. Download the fix pack using one of the download options available.
6. Install the filesets included in the fix pack using the `installp` command as described above.
   - You must install all the available filesets for 4.1.1.1.

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- For the fileset cobol.msg.*LANG* (where *LANG* = [en_US, ja_JP, Ja_JP]), choose to install only the filesets relevant to your desired language and location.

  Note. The LANG environment variable determines which message catalogs are used. The en_US (English) message catalogs are installed by default. If LANG is not defined or is assigned an unsupported locale, en_US message catalogs are used.

7. Use the lslpp command to check the status of the installed COBOL filesets:

```
lslpp -L cobol*
```

Task 14B-5: Using the IBM COBOL Compiler on IBM AIX

This section discusses:

- Setting Environment Variables for IBM COBOL
- Compiling COBOL on AIX with a PS_HOME Setup
- Compiling COBOL on AIX with a PS_APP_HOME Setup
- Compiling COBOL on AIX with a PS_CUST_HOME Setup
- Troubleshooting the IBM COBOL Compiler
- Setting Up the IBM COBOL Runtime
- Removing the IBM COBOL Installation

Setting Environment Variables for IBM COBOL

Before compiling the IBM COBOL for AIX, or before installing the files on machines where the COBOL will be run, you must specify environment variables as described in this section. This procedure assumes that the installation directory for PeopleSoft PeopleTools is *PS_HOME.*

To set the environment variables for IBM COBOL for AIX, go to the PeopleSoft PeopleTools installation directory and source the psconfig.sh script:

```
cd <PS_HOME>
. ./psconfig.sh
```

This section includes different procedures depending upon how you set up your installation environment.

- *PS_HOME Setup*

  If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is the same as the *PS_HOME* location where you installed the PeopleSoft PeopleTools software, follow the instructions in the section Compiling COBOL on AIX with a PS_HOME Setup.

- *PS_APP_HOME Setup*

  If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is different from the *PS_HOME* location where you installed the PeopleSoft PeopleTools software, follow the instructions in the section Compiling COBOL on AIX with a PS_APP_HOME Setup.

- *PS_CUST_HOME Setup*

  For PeopleSoft PeopleTools 8.53 and later, you have the option to place customized COBOL baseline sources into a location referenced by the environment variable PS_CUST_HOME.

  The *PS_CUST_HOME* directory structure must replicate that of *PS_HOME* or *PS_APP_HOME*; that is, any

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COBOL source file that is customized should be placed in the same relative path as was present in the original location. If you set up a *PS_CUST_HOME* directory for your customized COBOL source files, follow the instructions in the section Compiling COBOL on AIX with a PS_CUST_HOME Setup.

See Also

"Preparing for Installation," Defining Installation Locations.

Task 14B-5-1: Compiling COBOL on AIX with a PS_HOME Setup

This section assumes that you have installed the PeopleSoft Application software in the same directory *(PS_APP_HOME)* where you installed the PeopleSoft PeopleTools software *(PS_HOME),* and that you do not have customized COBOL source files in a *PS_CUST_HOME* directory. In addition, this procedure assumes that you have set the environment variables as described in the previous section.

This section is only required for those who need to compile the COBOL sources, not for those who only need to run the compiled COBOL.

To compile the COBOL source files:

1. Change the directory to *PS_HOME/*setup; for example:

   ```
   cd $PS_HOME/setup
   ```

2. Depending on the character encoding type that your installation uses, set the environment variable PS_ENCODING, as specified in this table:

Database Encoding	Command
ANSI	`export PS_ENCODING=ansi`
Unicode	`export PS_ENCODING=unicode`

   Make sure that you are giving the correct value of this environment variable. You will receive errors if the wrong value of this environment variable is specified.

   - If your setup includes the file $PS_HOME/setup/unicode.cfg, indicating that the character encoding for your installation is Unicode, but you set the value of PS_ENCODING to ansi with the commands above, you will get the following error

     ```
     pscblibm.mak : ERROR : <PS_HOME>/unicode.cfg EXISTs, but INCOMPATIBLE⇒
      encoding of $PS_ENCODING was specified, EXITING!!!
     ```

   - If your setup does not have the file $PS_HOME/setup/unicode.cfg, indicating that the character encoding for your installation is non-Unicode, but you set the value of PS_ENCODING to unicode, you will get the following error

     ```
     pscblibm.mak : ERROR : <PS_HOME>/setup/unicode.cfg does not EXIST,⇒
      but INCOMPATIBLE encoding of $PS_ENCODING was specified, EXITING!!!
     ```

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3. Use this command to compile:

   ```
   ./pscblibm.mak apps
   ```

   The optional parameter *apps* determines the location of the work area where the compilation takes place. The allowed values and compilation location for PeopleSoft product lines are listed in this table:

Product Line	Apps Parameter	Location
PeopleSoft PeopleTools	pt (default)	*PS_HOME*/sdk/cobol/pscblpt/src
Human Capital Management	hcm	*PS_HOME*/sdk/cobol/pscblhrms/src
Financials/Supply Chain Management	fscm	*PS_HOME*/sdk/cobol/pscblfscm/src

The compiled COBOL programs will be placed under <*PS_HOME*>/CBLBIN_IBM<*X*>.

<X> is A for ANSI or U for Unicode.

Note. If you see the following output during the compilation, you can ignore it:

```
Preprocessing COBOL files ls: 0653-341 The file *.cfg does not exist.
Preprocessing the file PSPBASCH.cbl Can't open input file
```

Task 14B-5-2: Compiling COBOL on AIX with a PS_APP_HOME Setup

This section assumes that you have installed the PeopleSoft Application software in a directory *(PS_APP_HOME)* which is different than the PeopleSoft PeopleTools software installation directory *(PS_HOME*) and that you do not have customized COBOL source files in a *PS_CUST_HOME* directory. In addition, this procedure assumes that you have set the environment variables as described earlier.

This section is only required for those who need to compile the COBOL sources, not for those who only need to run the compiled COBOL.

To compile the COBOL source files:

1. Ensure that the directory sdk/cobol/pscbl*apps* is present under *PS_APP_HOME* directory for the application you are trying to compile.

   For example if the installed PeopleSoft Application is Human Capital Management *(apps* = hcm), then the following directory structure should be present and the user must have write access to it:

   sdk/cobol/pscblhcm

2. Set the environment variable for *PS_HOME*, the directory where you installed the PeopleSoft software; for example:

   ```
   PS_HOME = ~/PTcompile; export PS_HOME
   ```

3. Set the environment variable for *PS_APP_HOME*, the directory where you installed the PeopleSoft Application software; for example:

   ```
   PS_APP_HOME = ~/HRcompile; export PS_APP_HOME
   ```

4. Change the directory to *PS_HOME/*setup; for example:

   ```
   cd $PS_HOME/setup
   ```


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5. Depending on the character encoding type that your installation uses, set the environment variable PS_ENCODING, as specified in this table:

Database Encoding	Command
ANSI	`export PS_ENCODING=ansi`
Unicode	`export PS_ENCODING=unicode`

Make sure that you are giving the correct value of this environment variable. You will receive errors if the wrong value of this environment variable is specified, as follows:

- If your setup includes the file $PS_HOME/setup/unicode.cfg, indicating that the character encoding for your installation is Unicode, but you set the value of PS_ENCODING to ansi with the commands above, you will get the following error:

```
pscblibm.mak : ERROR : <PS_HOME>/unicode.cfg EXISTs, but INCOMPATIBLE⇒
 encoding of $PS_ENCODING was specified, EXITING!!!
```

- If your setup does not have the file $PS_HOME/setup/unicode.cfg, indicating that the character encoding for your installation is non-Unicode, but you set the value of PS_ENCODING to unicode, you will get the following error:

```
pscblibm.mak : ERROR : <PS_HOME>/setup/unicode.cfg does not EXIST,⇒
 but INCOMPATIBLE encoding of $PS_ENCODING was specified, EXITING!!!
```

6. Use this command to compile:

```
./pscblibm.mak apps
```

The optional parameter *apps* determines the location of the work area where the compilation takes place. The allowed values and compilation locations are listed in this table:

Product Line	Apps Parameter	Location
PeopleSoft PeopleTools	pt (default)	*PS_HOME*/sdk/cobol/pscblpt/src
Human Capital Management	hcm	*PS_APP_HOME*/ sdk/cobol/pscblhrms/src
Financials/Supply Chain Management	fscm	*PS_APP_HOME*/ sdk/cobol/pscblfscm/src

The PeopleSoft PeopleTools compiled COBOL programs will be placed under <*PS_HOME*>/CBLBIN_IBM <*X*> and the PeopleSoft Application compiled COBOL programs will be placed under <*PS_APP_HOME*>/ CBLBIN_IBM<*X*>.

<X> is A for ANSI or U for Unicode.

Task 14B-5-3: Compiling COBOL on AIX with a PS_CUST_HOME Setup

This section assumes that you have set up a PS_CUST_HOME environment variable for customized COBOL source files. Furthermore, it assumes that you have set the environment variables as described earlier.

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This section is only required for those who need to compile the COBOL sources, not for those who only need to run the compiled COBOL.

1. Ensure that the directory sdk/cobol/pscblapps is present under the *PS_APP_HOME* directory for the application you are trying to compile.

   For example if the installed PeopleSoft Application is Human Capital Management *(apps* = hcm), then the following directory structure should be present and the user must have write access to it:

   sdk/cobol/pscblhcm

2. Set the environment variable for *PS_HOME*, the directory where you installed the PeopleSoft PeopleTools software; for example:

   ```
   PS_HOME = ~/PTcompile; export PS_HOME
   ```

3. If *PS_APP_HOME* is different from *PS_HOME*, set the environment variable for *PS_APP_HOME*, the directory where you installed the PeopleSoft Application software; for example:

   ```
   PS_APP_HOME = ~/HRcompile; export PS_APP_HOME
   ```

4. Set the environment variable for *PS_CUST_HOME*, the directory where you installed the PeopleSoft Application software; for example:

   ```
   PS_CUST_HOME = ~/CUSTcompile; export PS_CUST_HOME
   ```

5. Change the directory to *PS_HOME/*setup; for example:

   ```
   cd $PS_HOME/setup
   ```

6. Depending on the character encoding type that your installation uses, set the environment variable PS_ENCODING, as specified in this table:

Database Encoding	Command
ANSI	`export PS_ENCODING=ansi`
Unicode	`export PS_ENCODING=unicode`

   Make sure that you are giving the correct value of this environment variable. You will receive errors if the wrong value of this environment variable is specified, as follows:

   - If your setup includes the file $PS_HOME/setup/unicode.cfg, indicating that the character encoding for your installation is Unicode, but you set the value of PS_ENCODING to ansi with the commands above, you will get the following error:

     ```
     pscblibm.mak : ERROR : <PS_HOME>/unicode.cfg EXISTs, but INCOMPATIBLE⇒
      encoding of $PS_ENCODING was specified, EXITING!!!
     ```

   - If your setup does not have the file $PS_HOME/setup/unicode.cfg, indicating that the character encoding for your installation is non-Unicode, but you set the value of PS_ENCODING to unicode, you will get the following error:

     ```
     pscblibm.mak : ERROR : <PS_HOME>/setup/unicode.cfg does not EXIST,⇒
      but INCOMPATIBLE encoding of $PS_ENCODING was specified, EXITING!!!
     ```

   - Use this command to compile:

     ```
     ./pscblibm.mak cust
     ```


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The customized PeopleSoft PeopleTools and PeopleSoft Application COBOL programs will be placed under <*PS_CUST_HOME*>/CBLBIN_IBM<*X*>.

<X> is A for ANSI or U for Unicode.

Task 14B-5-4: Troubleshooting the IBM COBOL Compiler

This section discusses:

- Understanding Troubleshooting for the IBM COBOL Compiler
- Reviewing Screen Output from pscblibm.mak
- Reviewing erroribm.lst
- Reviewing the LISTOUT.LST file
- Reviewing COBOL_PROGRAM.LST files
- Reviewing temporary space errors

Understanding Troubleshooting for the IBM COBOL Compiler

You can find the error and list files discussed in this section in the following locations, depending upon your installation setup:

- If *PS_APP_HOME* and *PS_CUST_HOME* are the same as *PS_HOME* or both *PS_APP_HOME* and *PS_CUST_HOME* are undefined, all error and list files mentioned here are placed in directories under *PS_HOME*.
- If *PS_APP_HOME* is different from *PS_HOME*, and you compile PeopleSoft PeopleTools COBOL source files, the error and list files mentioned here are placed in directories under *PS_HOME*.
- If *PS_APP_HOME* is different from *PS_HOME*, and you compile PeopleSoft Application COBOL source files, the error and list files mentioned here are placed in directories under *PS_APP_HOME*.
- If *PS_CUST_HOME* is different from *PS_HOME*, and you compile PeopleSoft Application COBOL source files, the error and list files mentioned here are placed in directories under *PS_CUST_HOME*.

When compiling COBOL programs on AIX using the IBM COBOL compiler, compiler and linker informational messages are reported in the following locations:

- screen output from pscblibm.mak
- erroribm.lst

  PS_HOME/setup/erroribm.lst
- LISTOUT.lst file

  <*PS_HOME*>/sdk/cobol/pscbl<*APPS*>/src/LISTOUT.lst

  <*APPS*> is the PeopleSoft product family, such as hcm.

  See Compiling COBOL on AIX with a PS_HOME Setup
- COBOL_PROGRAM.lst

  <*PS_HOME*>/sdk/cobol/pscbl<*APPS*>/lst/<*COBOL_PROGRAM*>.lst

Initially, either review the screen output or the erroribm.lst file in *PS_HOME/*setup. The erroribm.lst file will contain the names of the programs that failed to compile. You can examine the file LISTOUT.lst to find the COBOL program names listed in erroribm.lst to review the cause of the failures. Then review the *COBOL_PROGRAM*.lst file to analyze the COBOL error in context of the COBOL source code. After you have corrected the compile or linker errors, you can simply start a complete re-compile.

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Depending on the relevancy of the failing compiled modules to your project mission, you can decide to resolve all compile and linker errors or continue without the failed modules.

The programs PTPPSRUN and PTPPSRMT must be compiled correctly. If these programs do not compile correctly, none of the COBOL programs will run. These programs are located at *PS_HOME/*src/cbl/ibm/unix.

If these programs fail to compile, you will get the following errors:

```
./pscblibm.mak : Error : Critical program PTPPSRUN did not compile
./pscblibm.mak : Error : This error must be fixed prior to running any⇒
 cobol programs...

./pscblibm.mak : Error : Critical program PTPPSRMT did not compile
./pscblibm.mak : Error : This error must be fixed prior to running any⇒
 cobol programs via RemoteCall
```

Be sure to resolve the errors for these programs before proceeding.

Reviewing Screen Output from pscblibm.mak

The screen output is the first place you should look to determine if there is a compilation or linking error. Errors including the phrase "fail to compile/link" will be displayed at the end of the screen output. For example:

```
./pscblibm.mak: Error : The list of file(s) failed to compile/link.
CEPCROLL fail to compile/link
ENPBTRNS fail to compile/link
ENPMMAIN fail to compile/link
GLPJEDT2 fail to compile/link
SFPCRELS fail to compile/link
SFPREVAL fail to compile/link
./pscblibm.mak : The list of file(s) that failed to compile/link can be⇒
 found at /data1/home/easa/pt854/setup/erroribm.lst
./pscblibm.mak : The compilation log is generated at /data1/home/easa⇒
/pt854/sdk/cobol/pscblpt/src/LISTOUT.lst
./pscblibm.mak : The compile listing of the COBOL programs can be seen at ⇒
/data1/home/easa/pt854/sdk/cobol/pscblpt/lst
```

Reviewing erroribm.lst

The erroribm.lst file is located in the *PS_HOME/*setup directory, and contains a list of the programs that failed to compile. For example:

```
CEPCROLL fail to compile/link
ENPBTRNS fail to compile/link
ENPMMAIN fail to compile/link
GLPJEDT2 fail to compile/link
SFPCRELS fail to compile/link
SFPREVAL fail to compile/link
```

Reviewing the LISTOUT.LST file

The LISTOUT.lst file is located in the <*PS_HOME*>/sdk/cobol/pscbl<*APPS*>/src directory and contains compiler and linker informational, warning and error messages.

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For example, the following error is related to program PTPDBTST:

```
exec: /usr/bin/ld -b64 -bpT:0x100000000 -bpD:0x110000000 -bhalt:5 /lib⇒
/crt0_64.o -lg -bexport:/usr/lib/libg.exp -o PTPCURND PTPCURND.o -brtl -bE:⇒
symlist.
exp -lpthreads -ldl -lnsl -L/home/sphilli2/852-803-I1-AIX-ORAU-DEBUG/bin -⇒
lpscompat_ansi -lpssqlapi_ansi -lpsuser_ansi -lpspetssl -lpsora_ansi -⇒
lpscobnet_ansi -L/usr/lpp/cobol/lib -L/usr/lpp/SdU/vsam/lib -L/usr/lpp/Sd⇒
U/sfs/lib -lcob2s -lsmrtlite -lC128 -lC -lc
unlink: PTPCURND.o
exec: /usr/lpp/cobol/bin/IGYCCOB2 -qtest -qdynam -qaddr(64),flag(w),trunc⇒
(bin),arith(extend) -qADDR(64) PTPDBTST.cbl
PP 5724-V62 IBM COBOL for AIX  3.1.0 in progress ...
LineID  Message code  Library phase message text
        IGYLI0090-W   4 sequence errors were found in this program.
Messages    Total    Informational    Warning    Error    Severe   ⇒
 Terminating
Printed:       1                          1
LineID  Message code  Message text
        IGYSC0205-W   Warning message(s) were issued during library phase⇒
 processing.  Refer to the beginning of the listing.
   588  IGYPA3007-S   "ZZ000-SQL-ERROR-ROUTINE" was not defined as a
                      procedure-name.  The statement was discarded.
Messages    Total    Informational    Warning    Error    Severe   ⇒
 Terminating
Printed:       2                          1                  1
Suppressed:    6           6
End of compilation 1,  program PTPDBTST,  highest severity: Severe.
Return code 12
PTPDBTST fail to compile/link
```

Reviewing COBOL_PROGRAM.LST files

The COBOL_PROGRAM.lst files are located in <*PS_HOME*>/sdk/cobol/pscbl<*APPS*>/lst directory and contain the compiler output for a specific program.

For example, a portion of the PTPDBTST.lst file contains this compilation error found for program PTPDBTST, where the ZZ000-SQL-ERROR-ROUTINE was not defined:

```
       588  IGYPA3007-S   "ZZ000-SQL-ERROR-ROUTINE" was not defined as a⇒
 procedure-name.  The statement was discarded.
-Messages    Total    Informational    Warning    Error    Severe   ⇒
 Terminating
0Printed:       2                          1                  1
0Suppressed:    6           6
-* Statistics for COBOL program PTPDBTST:
 *    Source records = 805
 *    Data Division statements = 213
 *    Procedure Division statements = 52
```

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Reviewing temporary space errors

IBM COBOL compiler uses the system temporary space to do some steps of the compilation. Like other UNIX processes, the compiler may give errors when the system temporary space is full.

To avoid or correct this problem, clean up the system temporary space on your machine.

Here is a sample of errors seen during compilation, when the system temporary space (/tmp) was full in a development AIX machine:

```
pscblibm.mak : Compiling EGPPRCTL.cbl ...
IGYDS5247-U   An error occurred while attempting to write a compiler work⇒
 file, "SYSUT7".
Compiler aborted with code 1247
IGYSI5258-U   Error removing WCode file.: A file or directory in the path⇒
 name does not exist.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path⇒
 name does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer⇒
 to an open file.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path⇒
 name does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer⇒
 to an open file.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path⇒
 name does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer⇒
 to an open file.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path⇒
 name does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer⇒
 to an open file.
```

Task 14B-5-5: Setting Up the IBM COBOL Runtime

This section discusses:

- Installing the IBM COBOL for AIX Runtime Files
- Setting Environment Variables for a PS_APP_HOME or PS_CUST_HOME Setup
- Configuring the Application Server Domain
- Configuring the Process Scheduler Domain

Installing the IBM COBOL for AIX Runtime Files

For those machines that only need to run the compiled COBOL files, you must install the runtime filesets for IBM COBOL for AIX. You do not need to install the compiler. You must also configure the PeopleSoft Application Server and Process Scheduler domains.

This procedure assumes that you have downloaded the runtime filesets to *CBL_INSTALL,* and have set the environment variables as described earlier.

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See Setting Environment Variables for IBM COBOL.

The runtime filesets will be installed into the locations as specified in this table:

Fileset Name	Fileset Description	Installation Locations	Fileset Level Required
cobol.rte	IBM COBOL for AIX runtime libraries	/usr/lpp/cobol/ /usr/lpp/cobol/lib/ /usr/lib/ /etc/	4.1.1.0
cobol.msg.*LANG*	IBM COBOL for AIX runtime messages *LANG* = [en_US, ja_JP, Ja_JP]	/usr/lib/nls/msg/*LANG*	4.1.1.0

To install the runtime filesets:

1. Use the AIX command `installp` to install these filesets. For example:

   ```
   installp -aYg -d CBL_INSTALL/usr/sys/inst.images cobol.rte cobol.msg.en_⇒
   US
   ```

2. Download the required maintenance packs for IBM COBOL 4.1.1.1 from the IBM support web site.

   http://www-933.ibm.com/support/fixcentral/

3. Install the filesets included in the maintenance packs using the `installp` command as described above.

Setting Environment Variables for a PS_APP_HOME or PS_CUST_HOME Setup

This section applies to those installations in which:

- You have several Application Server or Process Scheduler domains.
- Each of those domains is going to be associated with a particular *PS_APP_HOME* or *PS_CUST_HOME* directory.

In this case it is a good idea to define *PS_APP_HOME* or *PS_CUST_HOME* in *PS_HOME/*psconfig.sh. For example, edit psconfig.sh to add one of these lines:

```
PS_APP_HOME="/home/psft/HRcompile"; export PS_APP_HOME
PS_CUST_HOME="/home/psft/CUSTcompile"; export PS_CUST_HOME
```

After making this change, you must source the *PS_HOME/*psconfig.sh file again.

This way you would not need to add the PS_APP_HOME or PS_CUST_HOME environment variable through the "Edit environment variable" Application Server and Process Scheduler administration menus in PSADMIN each time you create a new domain.

Configuring the Application Server Domain

This section assumes that you have created an Application Server domain, as described in the chapter "Configuring the Application Server on UNIX." The configuration and log files for application server domains reside in a directory referred to as *PS_CFG_HOME.*

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See the information on working with *PS_CFG_HOME* in the *PeopleTools: System and Server Administration* product documentation.

Note. You must create a new domain to configure the environment for running IBM COBOLs. You will not be able to reuse an existing domain for the same.

To create and configure the Application Server domain:

1. Go to the *PS_HOME/*appserv directory and run psadmin.
2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Enter *2* for Create a Domain, and press ENTER.
4. Specify the domain name. For example:

   ```
   Please enter name of domain to create : HCM92
   ```

   Note. If you have already set the environment variables PS_APP_HOME and/or PS_CUST_HOME, as explained in the section Setting Environment Variables for a PS_APP_HOME or PS_CUST_HOME Setup, you can skip the steps 5 through 10.

   ---

5. On the Quick-configure menu, select *16*, Edit environment settings.
6. If *PS_APP_HOME* is different from *PS_HOME,* carry out steps a and b below.

   Note. If *PS_APP_HOME* is the same as *PS_HOME,* skip these two steps and continue with step 7.

   ---

   a. On the PeopleSoft Domain Environment Settings, select *2* to add environment variable.
   b. Enter PS_APP_HOME as the name of the environment variable, and installation directory where you installed your PeopleSoft Application software as the value of the environment variable. For example:

      ```
      Enter name of environment variable: PS_APP_HOME
      Enter value: /home/psft/HRcompile
      ```

You will see an asterisk (*) in front of the modified environment variables, because these variables have not been saved.

7. If your *PS_CUST_HOME* is defined and is different from *PS_HOME*, carry out the following two steps:

   Note. If *PS_CUST_HOME* is the same as *PS_HOME,* skip these two steps and continue with step 8.

   ---

   a. On the PeopleSoft Domain Environment Settings, select *2* to add environment variable.
   b. Enter PS_CUST_HOME as the name of the environment variable, and the installation directory where you installed the customized COBOL files as the value of the environment variable.

      For example:

      ```
      Enter name of environment variable: PS_CUST_HOME
      Enter value: /home/psft/CUSTcompile
      ```

      You will see an asterisk in front of the PS_APP_HOME and PS_CUST_HOME environment variables, indicating that these variables have not been saved.
8. Specify *6* to save the environment variables.
9. Press ENTER to continue at the following message:

   ```
   Your changes have been saved.
   Please be aware these changes will not take effect until you complete⇒
   ```


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```
 the domain configuration process.
Press Enter to continue...
```

10. Enter *q* for return to the previous menu.
11. On the Quick-configure menu, enter *15*, for Custom configuration.
12. Answer *n* (no) when asked if you want to change the values, until you see the section Remote Call.

    ```
    Values for config section - RemoteCall
    COBOL Platform=
    RCCBL Redirect=0
    RCCBL PRDBIN=%PS_HOME%\cblbin%PS_COBOLTYPE%
    Do you want to change any values (y/n/q)? [n]: y
    ```

    Enter *y* (yes) to make a change, as shown in this example.
13. Enter *IBM* as the COBOL platform and ignore the remaining options.

    ```
    COBOL Platform [] : IBM
    ```

14. Answer n (no) when asked if you want to change any of the remaining sections.
15. Enter *1* to boot the domain.
16. Enter *1* for Boot (Serial Boot), or *2* for Parallel Boot.

Configuring the Process Scheduler Domain

To create and configure the Process Scheduler domain:

Note. You must create a new domain to configure the environment for running IBM COBOLs. You will not be able to reuse an existing domain for the same.

1. Go to the *PS_HOME/*appserv directory and run psadmin.
2. When the menu appears, specify *2* for Process Scheduler and press ENTER.
3. Enter *2* for Create a Domain.
4. Specify the domain name. For example:

   ```
   Please enter name of domain to create : HCM92
   ```

   Note. Domain names are case-sensitive and must be eight characters or less.

   Note. If you have already set the environment variables PS_APP_HOME and/or PS_CUST_HOME, as explained in the section Setting Environment Variables for a PS_APP_HOME or PS_CUST_HOME Setup, you can skip the steps 5 through 10.

5. On the Quick-configure menu, select *7*, Edit environment settings.
6. If *PS_APP_HOME* is different from *PS_HOME*, carry out steps a and b below.

   Note. If *PS_APP_HOME* is the same as *PS_HOME,* skip these two steps and continue with step 7.

   a. On the PeopleSoft Domain Environment Settings, select *2* to add environment variable.
   b. Enter PS_APP_HOME as the name of the environment variable, and the installation directory where you installed your PeopleSoft Application software as the value of the environment variable.

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For example:

```
Enter name of environment variable: PS_APP_HOME
Enter value: /home/psft/HRcompile
```

7. If your *PS_CUST_HOME* is different from *PS_HOME*, carry out the following two steps.

Note. If *PS_CUST_HOME* is the same as *PS_HOME,* skip these two steps and continue with step 8.

   a. On the PeopleSoft Domain Environment Settings, select *2* to add an environment variable.
   b. Enter PS_CUST_HOME as the name of the environment variable, and the installation directory where you installed your PeopleSoft Application software as the value of the environment variable.

      For example:

```
Enter name of environment variable: PS_CUST_HOME
Enter value: /home/psft/CUSTcompile
```

8. Enter *6* to save the environment variables.
9. Press ENTER to continue at the following message:

```
Your changes have been saved.
Please be aware these changes will not take effect until you complete⇒
 the domain configuration process.
Press Enter to continue...
```

10. Enter *q* to return to the previous menu.
11. On the Quick-configure menu, enter *6*, for Custom configuration.
12. Answer n (no) when asked if you want to change the values, until you see the section Remote Call.

```
Values for config section - RemoteCall
COBOL Platform=
RCCBL Redirect=0
RCCBL PRDBIN=%PS_HOME%\cblbin%PS_COBOLTYPE%
Do you want to change any values (y/n/q)? [n]: y
```

    Enter *y* (yes) to make a change, as shown in this example.

13. Enter *IBM* as the COBOL Platform and ignore the remaining options.

```
COBOL Platform []:IBM
```

14. Answer *n* (no) when asked if you want to change any of the remaining sections.
15. Enter *1* to boot the domain.

Task 14B-5-6: Removing the IBM COBOL Installation

Keep the following information in mind before removing the IBM COBOL compiler on IBM AIX:

- You must have root user access to uninstall this product.
- Some filesets may not be uninstalled if they are required by other installed products.
- As uninstalling dependent packages automatically may introduce problems, it is recommended that you preview uninstallation to ensure that all dependent filesets are no longer required.

  See the IBM COBOL compiler documentation for more information.

To remove the IBM COBOL compiler:

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1. Run the following command:

```
installp -u cobol*
```

Here are typical responses:

```
$ installp -u cobol*
+-----------------------------------------------------------------------⇒
------+
                    Pre-deinstall Verification...
+-----------------------------------------------------------------------⇒
------+
Verifying selections...done
Verifying requisites...done
Results...
WARNINGS
--------
  Problems described in this section are not likely to be the source of⇒
 any
  immediate or serious failures, but further actions may be necessary or
  desired.
  Not Installed
  -------------
  No software could be found on the system that could be deinstalled⇒
 for the
  following requests:
    cobol.msg.Ja_JP
    cobol.msg.ja_JP
  (The fileset may not be currently installed, or you may have made a
   typographical error.)
  << End of Warning Section >>
SUCCESSES
---------
  Filesets listed in this section passed pre-deinstall verification
  and will be removed.
  Selected Filesets
  -----------------
  cobol.cmp 4.1.1.0                          # IBM COBOL for AIX⇒
 Compiler
  cobol.dbg 4.1.1.0                          # IBM COBOL for AIX⇒
 Debugger
  cobol.lic 4.1.1.0                          # COBOL for AIX Licence⇒
 Files
  cobol.license 4.1.1.0                      # COBOL for AIX License⇒
 Agreem...
  cobol.man 4.1.1.0                          # IBM COBOL Set for AIX⇒
 Man Pages
  cobol.msg.en_US 4.1.1.0                    # IBM COBOL for AIX⇒
 Runtime Me...
  cobol.rte 4.1.1.0                          # IBM COBOL for AIX⇒
 Runtime
  << End of Success Section >>
```

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```
FILESET STATISTICS
------------------
    9  Selected to be deinstalled, of which:
        7  Passed pre-deinstall verification
        2  FAILED pre-deinstall verification
  ----
    7  Total to be deinstalled
+----------------------------------------------------------------------⇒
------+
                           Deinstalling Software...
+----------------------------------------------------------------------⇒
------+
installp:  DEINSTALLING software for:
        cobol.lic 4.1.1.0
Filesets processed:  1 of 7  (Total time:  0 secs).
installp:  DEINSTALLING software for:
        cobol.license 4.1.1.0
Filesets processed:  2 of 7  (Total time:  0 secs).
installp:  DEINSTALLING software for:
        cobol.dbg 4.1.1.0
Filesets processed:  3 of 7  (Total time:  1 secs).
installp:  DEINSTALLING software for:
        cobol.man 4.1.1.0
Filesets processed:
  4 of 7  (Total time:  1 secs).
installp:  DEINSTALLING software for:
        cobol.msg.en_US 4.1.1.0
Filesets processed:  5 of 7  (Total time:  2 secs).
installp:  DEINSTALLING software for:
        cobol.cmp 4.1.1.0
Filesets processed:  6 of 7  (Total time:  3 secs).
installp:  DEINSTALLING software for:
        cobol.rte 4.1.1.0
Finished processing all filesets.  (Total time:  5 secs).
+----------------------------------------------------------------------⇒
------+
                                Summaries:
+----------------------------------------------------------------------⇒
------+
Pre-installation Failure/Warning Summary
----------------------------------------
Name                      Level           Pre-installation Failure⇒
/Warning
----------------------------------------------------------------------⇒
-------
cobol.msg.Ja_JP                           Nothing by this name to⇒
 deinstall
cobol.msg.ja_JP                           Nothing by this name to⇒
 deinstall
Installation Summary
--------------------
```


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```
Name                        Level           Part        Event      ⇒
 Result
---------------------------------------------------------------------⇒
-------
cobol.lic                   4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
cobol.license               4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
cobol.dbg                   4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
cobol.man                   4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
cobol.msg.en_US             4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
cobol.cmp                   4.1.1.0         ROOT        DEINSTALL  ⇒
 SUCCESS
cobol.cmp                   4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
cobol.rte                   4.1.1.0         USR         DEINSTALL  ⇒
 SUCCESS
```

2. To remove any currently unused modules in kernel and library memory, enter the following on the command line:

```
slibclean
```

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Chapter 15

Installing PeopleSoft Change Assistant

This chapter discusses:

- Understanding PeopleSoft Change Assistant
- Removing or Upgrading PeopleSoft Change Assistant Installations
- Installing PeopleSoft Change Assistant in GUI Mode
- Installing PeopleSoft Change Assistant in Silent Mode
- Configuring and Using PeopleSoft Change Assistant
- Validating Change Assistant Settings

Understanding PeopleSoft Change Assistant

Oracle's PeopleSoft Change Assistant is a standalone tool, provided with PeopleSoft PeopleTools, that enables you to assemble and organize the steps necessary to apply patches and fixes for maintenance updates as well as perform PeopleSoft upgrades. You use different modes of PeopleSoft Change Assistant to carry out maintenance both for PeopleSoft applications using the PeopleSoft Update Manager, and those using the classic patching method. PeopleSoft Change Assistant is a Java-based tool that runs only on Microsoft Windows-based operating systems.

Beginning with PeopleSoft PeopleTools 8.55, the PeopleSoft Change Assistant installation includes the following features:

- You can install multiple instances of PeopleSoft Change Assistant from the current release on one physical machine.

  Note. You cannot run more than one instance at a time. That is, you cannot run multiple instances in parallel.

- You must remove installations of PeopleSoft Change Assistant from PeopleSoft PeopleTools 8.54 or earlier before installing from the current release. PeopleSoft Change Assistant from PeopleSoft PeopleTools 8.55 cannot co-exist with that from earlier releases.
- You must install each PeopleSoft Change Assistant instance in a separate installation location.
- You can remove or upgrade each PeopleSoft Change Assistant instance separately.
- When you remove an installation instance, you have the option to save the existing configuration information in a group of files gathered in a zip archive. You can configure Change Assistant at a later time by importing the zip file.

For more information on using PeopleSoft Change Assistant for updates and for software upgrades, see the PeopleSoft product documentation.

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See Also

PeopleTools: Change Assistant and Update Manager

PeopleTools: Application Designer Lifecycle Management Guide

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows

Task 15-1: Removing or Upgrading PeopleSoft Change Assistant Installations

This section discusses:

- Removing PeopleSoft Change Assistant Installations from Previous Releases
- Removing PeopleSoft Change Assistant Instances in the Current Release
- Upgrading PeopleSoft Change Assistant Instances

Task 15-1-1: Removing PeopleSoft Change Assistant Installations from Previous Releases

If there is a PeopleSoft Change Assistant installation from PeopleSoft PeopleTools 8.54 or earlier release present when you begin the installation, the installer instructs you to remove it, and then exits. You must remove the previous installation and then run the installer for the current release again.

Note. When using silent mode installation, however, installations from PeopleSoft PeopleTools 8.54 or earlier are removed by the installer.

See the section Installing PeopleSoft Change Assistant in Silent Mode.

Use one of the following methods to remove PeopleSoft Change Assistant from a previous release:

- Use the Microsoft Windows function for adding or removing a program. For example:
  - Select Microsoft Windows Control Panel, Programs and Features, Uninstall or change a program.
  - Highlight Change Assistant in the list of programs and select Uninstall.
- Run the PeopleSoft Change Assistant installer from the previous release in *PS_HOME/*setup/PsCA/setup.exe.

  The setup utility detects the existing installation and allows you to remove it.

Task 15-1-2: Removing PeopleSoft Change Assistant Instances in the Current Release

If there is a PeopleSoft Change Assistant installation from the current PeopleSoft PeopleTools release present when you begin the installation, the installer gives you the option to remove or upgrade it. To use the installer to remove the installation:

1. From the *PS_HOME*\setup\PsCA directory, run `setup.exe`.

   If there is an existing installation of PeopleSoft Change Assistant, the Existing Installed Instances Detected window appears with a list of the instances present.

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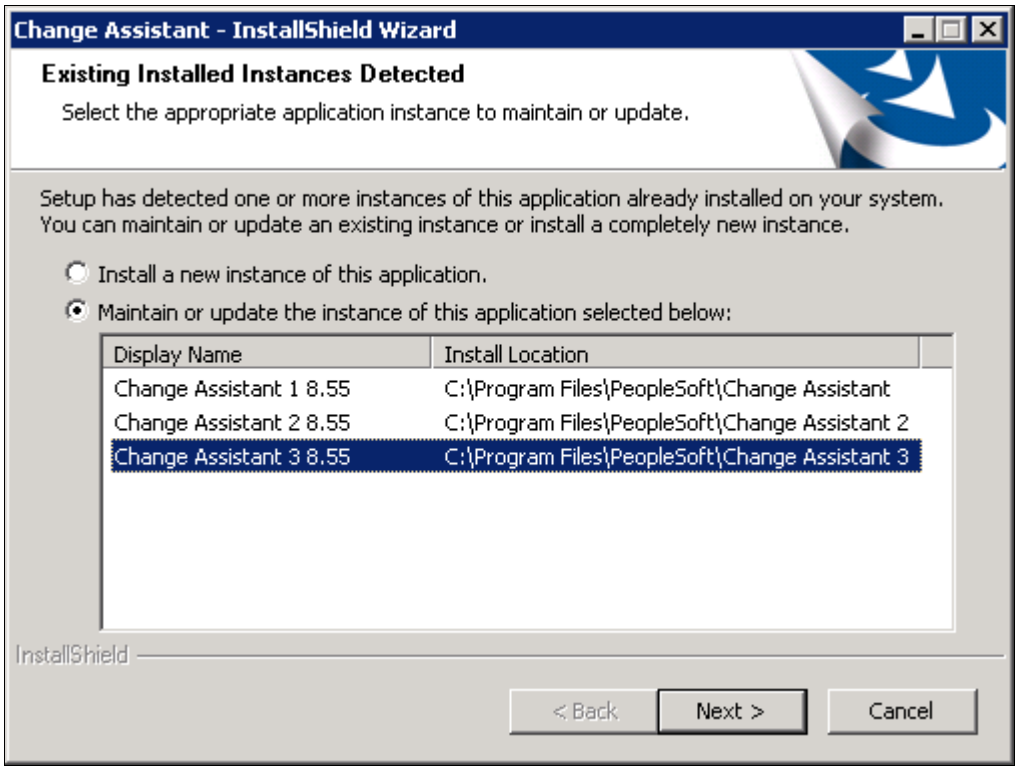
2. Select the option Maintain or update the instance of this application selected below.

   Highlight the instance that you want to remove. In this example, Change Assistant 3 is highlighted. Click Next.



Existing Installed Instances Detected window

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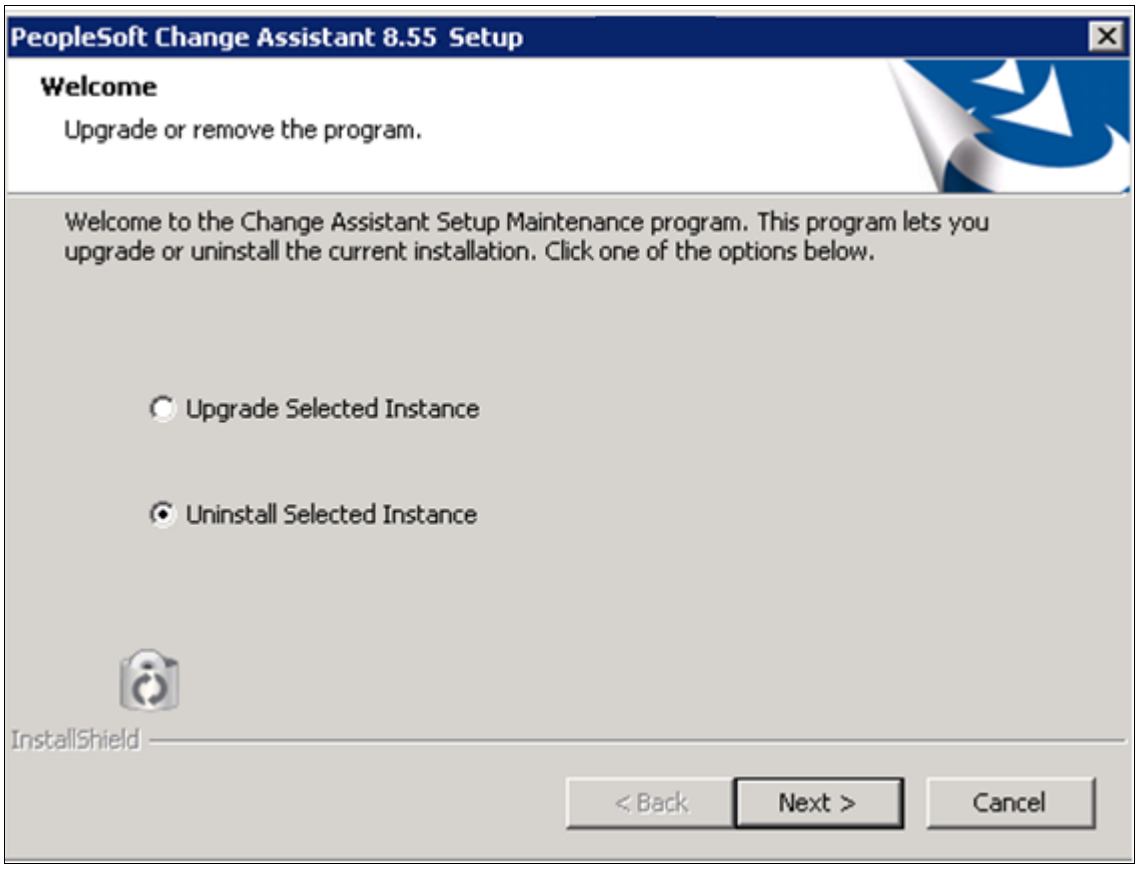
3. Select the option Uninstall Selected Instance, as shown in this example, and click Next.



Upgrade or remove the program window

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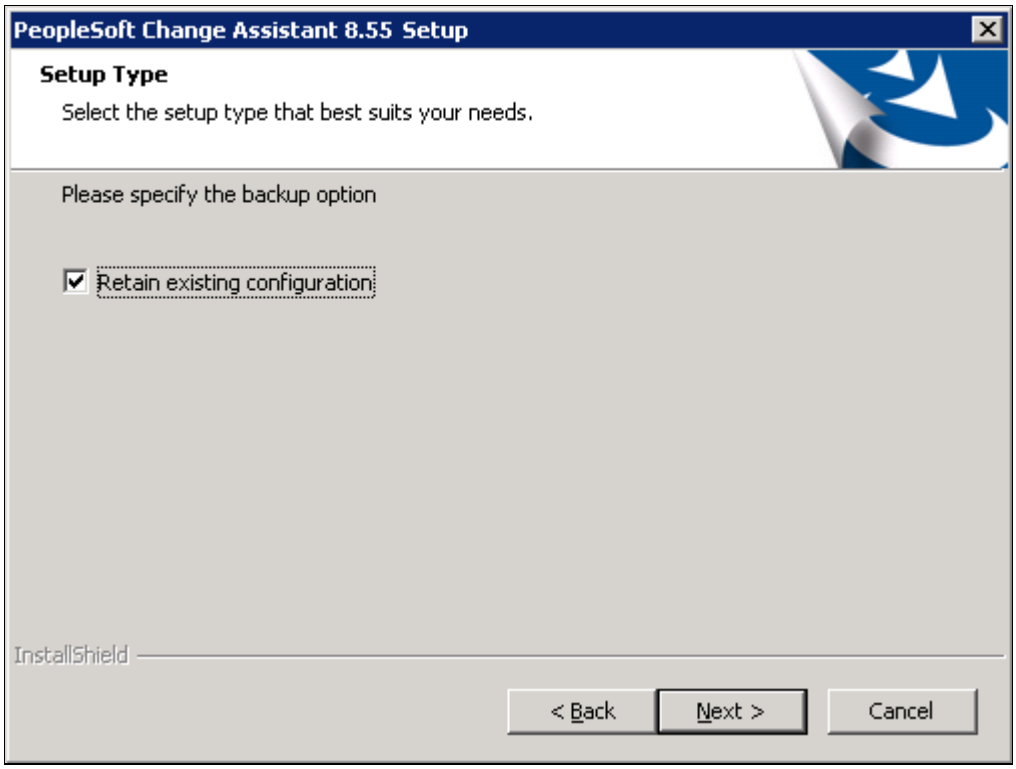
4. On the Setup Type window, select Retain existing configuration, as shown in this example, if you want to save a file with the existing Change Assistant configuration.

Note. If there is no configuration information available, you see an error message.



Setup Type window

5. Click Next.

   If you selected the option to retain the existing configuration, you see a message that gives the name of the backup log file, such as backupLogUninstall.log, and the installation location where you can find it, for example C:\Program Files\PeopleSoft\Change Assistant 3. The log file is a text file that includes the name and location of the configuration zip file.

   The process also saves a zip file, changeassistantcfgbak.zip, in the same directory. The zip file includes several XML files with configuration information. Click OK to close the message box.

   You see another message asking if you want to proceed with removing the instance and saving the existing configuration. Click OK to continue.

   See *PeopleTools: Change Assistant and Update Manager*, "Exporting and Importing Change Assistant Settings."

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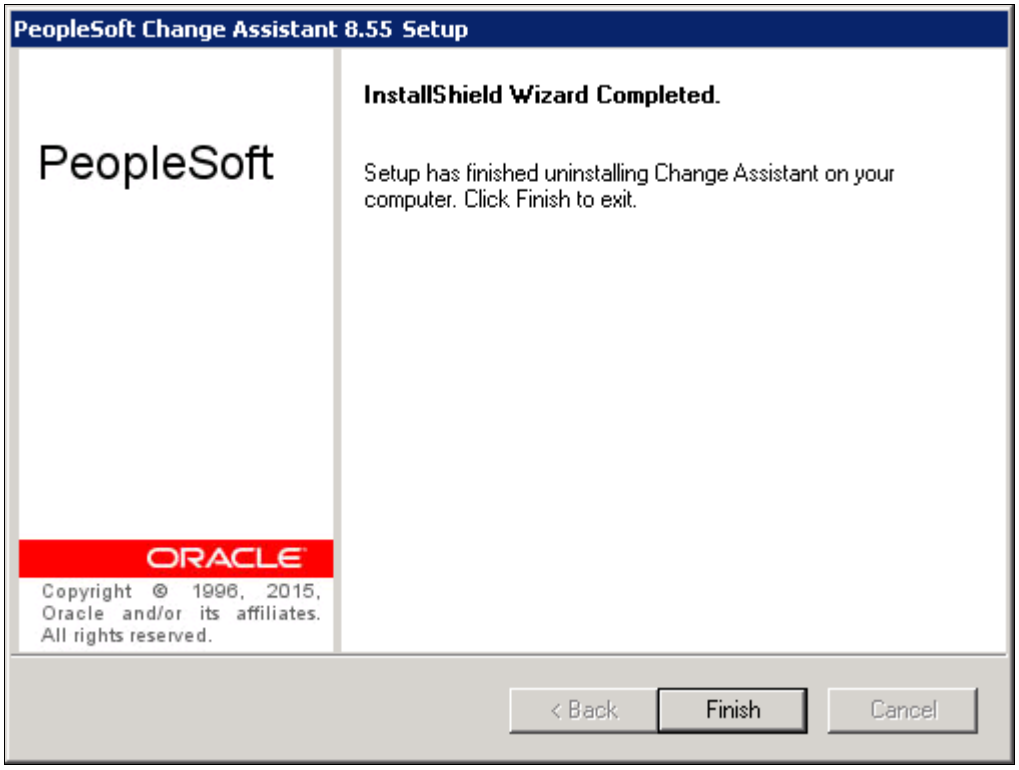
6. When the removal process is complete, click Finish on the window showing a completion message, as shown in this example.



InstallShield Wizard Completed window

7. Install the current release.

   See Installing PeopleSoft Change Assistant in GUI Mode.

   See Installing PeopleSoft Change Assistant in Silent Mode.

You can also use one of the following methods to remove an installation from the current release:

- Go to the Microsoft Window Start menu, locate the PeopleSoft Change Assistant instance, such as PeopleSoft Change Assistant 8.55 1, and select Uninstall CA.
- Go to the installation location, for example C:\Program Files\PeopleSoft\Change Assistant, and run `uninstall.bat`.
- Select Microsoft Windows Control Panel, Programs and Features, Uninstall or change a program.

  Highlight Change Assistant in the list of programs and select Uninstall.

Task 15-1-3: Upgrading PeopleSoft Change Assistant Instances

If there is a PeopleSoft Change Assistant installation from the current PeopleSoft PeopleTools release present when you begin the installation, the installer gives you the option to remove or upgrade it. To use the installer to upgrade the installation:

1. From the *PS_HOME*\setup\PsCA directory, run `setup.exe`.

   If there is an existing installation of PeopleSoft Change Assistant, the Existing Installed Instances Detected window appears with a list of the instances present.

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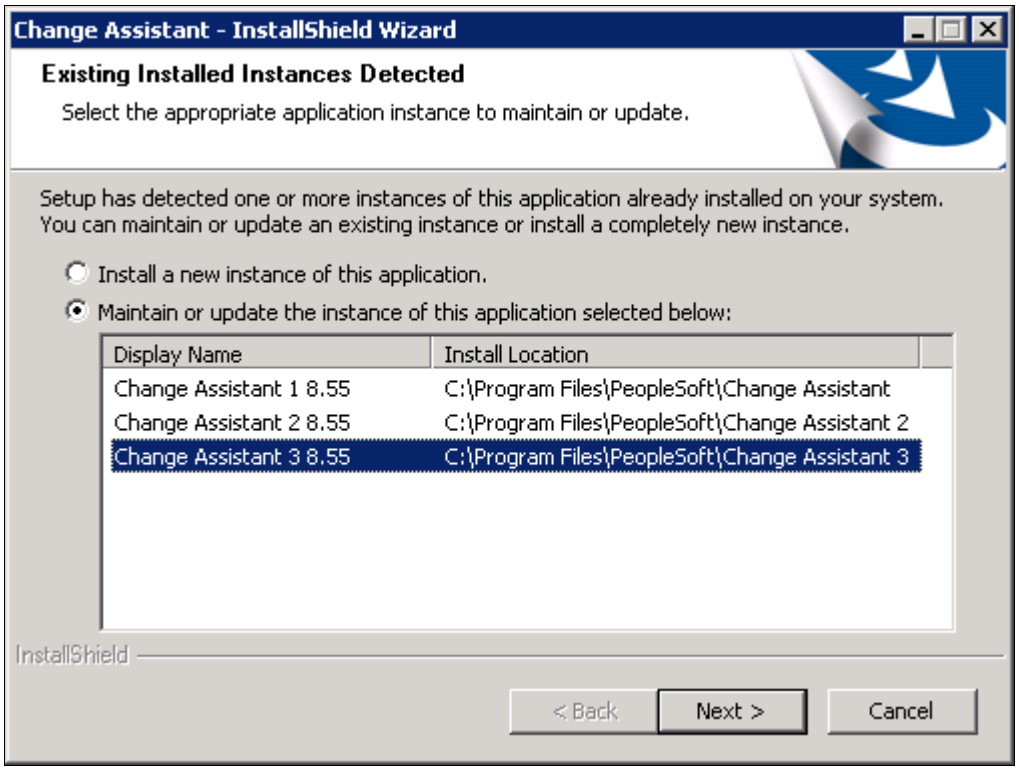
2. Select the option Maintain or update the instance of this application selected below.

   Highlight the instance that you want to upgrade. In this example, Change Assistant 3 is highlighted. Click Next.



Existing Installed Instances Detected window

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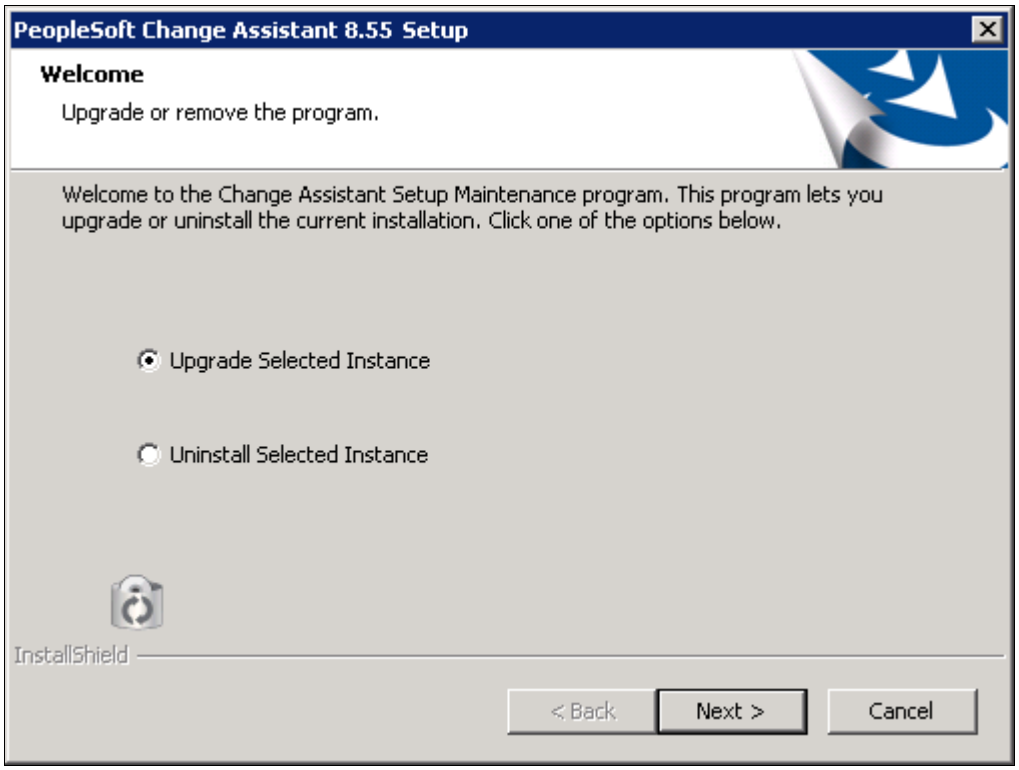
3. Select the option Upgrade Selected Instance, as shown in this example, and click Next.



Upgrade or remove the program window

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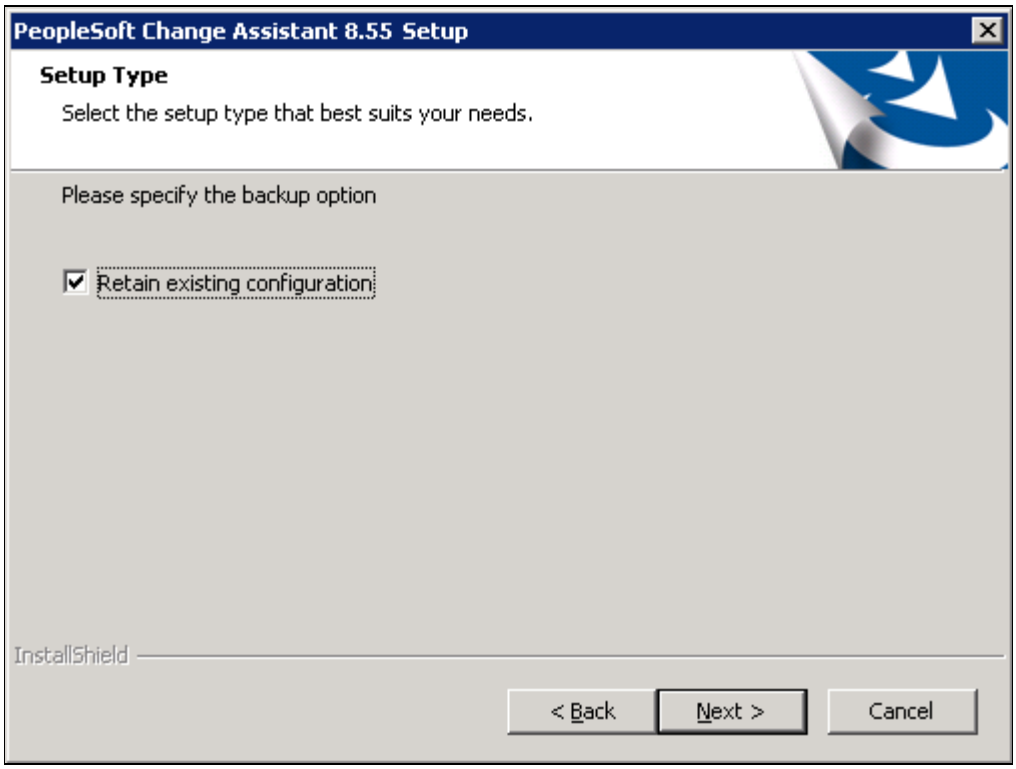
4. On the Setup Type window, select Retain existing configuration, as shown in this example, if you want to save a file with the existing Change Assistant configuration.

   When you select the option to retain the configuration for an instance that does not include a configuration zip file, the installer creates one. If you are upgrading an instance that does include a configuration file, the installer deletes the previous configuration zip file and creates a new one.



Setup Type window

5. Click Next.

   If you selected the option to retain the existing configuration, you see a message that gives the name of the backup log file, such as backupLogInstall.log, and the installation location where you can find it, for example C:\Program Files\PeopleSoft\Change Assistant 3. The log file is a text file that includes the name and location of the configuration zip file.

   The process also saves a zip file, changeassistantcfgbak.zip, in the same directory. The zip file includes several XML files with configuration information. Click OK to close the message box.

   You see another message asking if you want to proceed with upgrading and saving the existing configuration. Click OK to continue.

   See *PeopleTools: Change Assistant and Update Manager*, "Exporting and Importing Change Assistant Settings."

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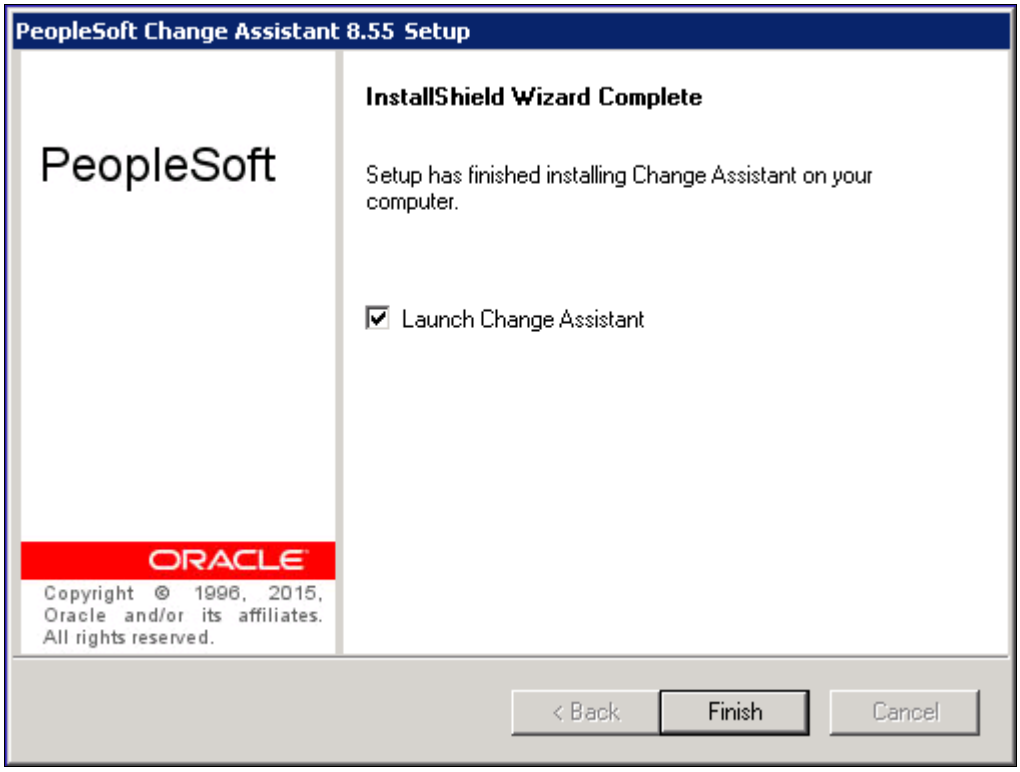
6. When the upgrade process is complete, select the option Launch Change Assistant if you want to start Change Assistant when you exit the installer, and then click Finish, as shown in this example.



InstallShield Wizard Complete window

Task 15-2: Installing PeopleSoft Change Assistant in GUI Mode

A Microsoft Windows-based operating system is required to use PeopleSoft Change Assistant. This section gives the instructions for the GUI installation. For the silent-mode installation, see Installing PeopleSoft Change Assistant in Silent Mode.

If you installed PeopleSoft PeopleTools on a UNIX or Linux computer, you can copy setup.exe to a Microsoft Windows machine to install PeopleSoft Change Assistant.

To install PeopleSoft Change Assistant:

1. From the *PS_HOME*\setup\PsCA directory, run `setup.exe`.

   If there is an existing installation from a previous release, you see a message saying you must remove it. Click OK to close the message box, use one of the methods previously discussed, and then re-start the installation.

   See Removing PeopleSoft Change Assistant Installations from Previous Releases.

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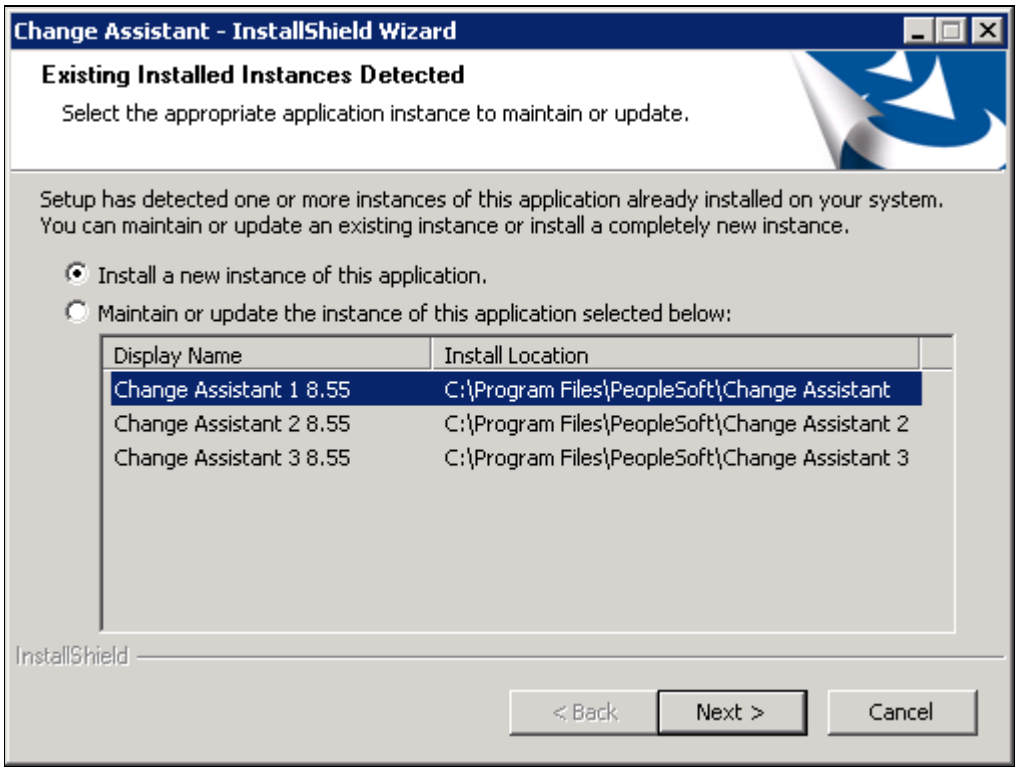
2. If there is an existing installation from the current release, the Existing Installed Instances Detected window appears with a list of the instances detected and their installation locations, as shown in the following example.

   The instance display names are numbered sequentially — Change Assistant 1, Change Assistant 2, and so on.

   If there is no PeopleSoft Change Assistant installation present, this window does not appear.

   Note. If you want to remove an installation from the current release using the option Maintain or update the instance of this application selected below, see the previous section.

   See Removing PeopleSoft Change Assistant Instances in the Current Release.



Existing Installed Instances Detected window

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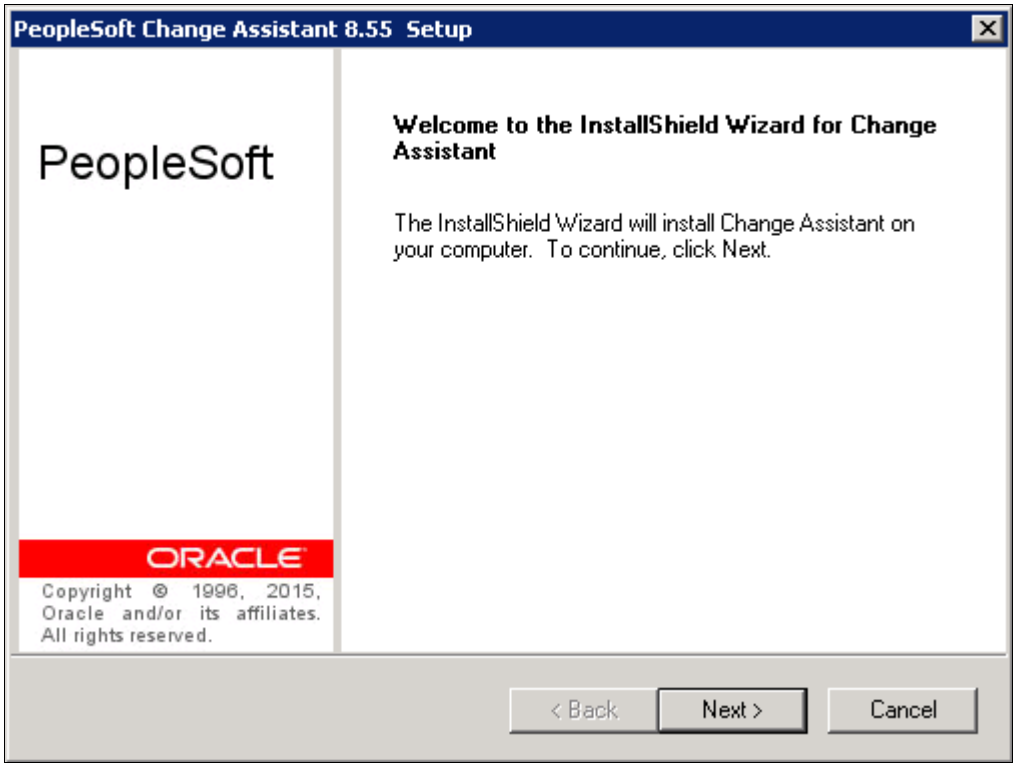
3. Select the option Install a new instance of this application and click Next.

   The Welcome window appears, as in this example. Click Next.



PeopleSoft Change Assistant Setup Welcome window

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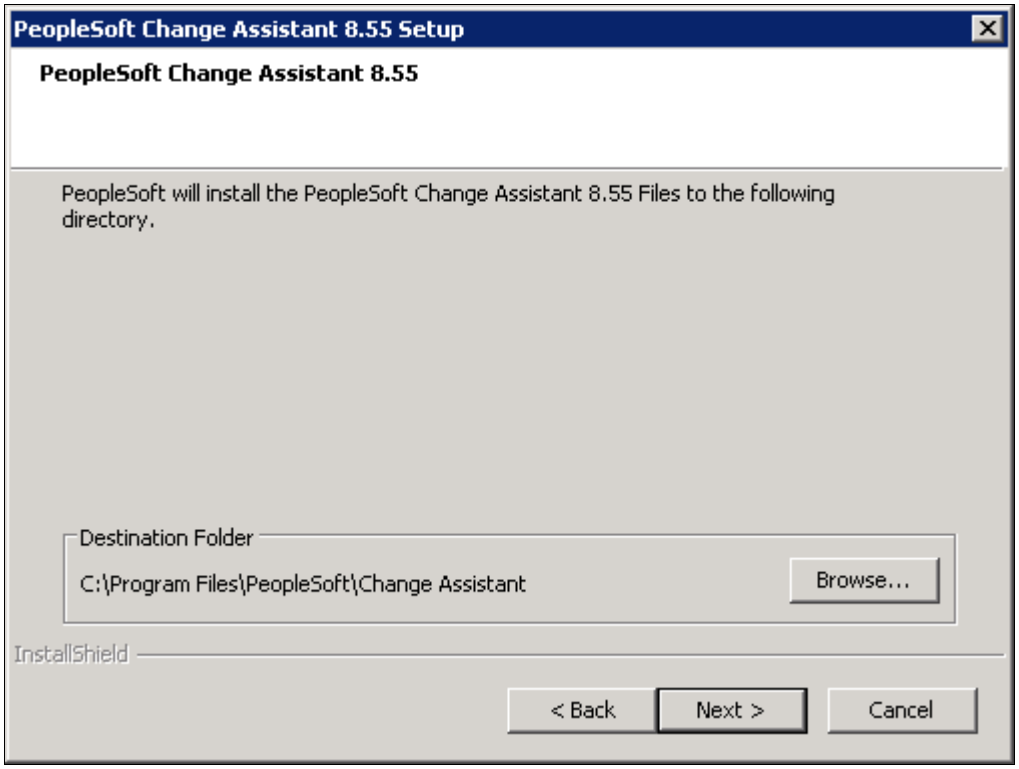
4. Accept the default Destination Folder or click the Browse button to specify another Destination Folder.

   The default destination folder is C:\Program Files\PeopleSoft\Change Assistant, as shown in this example.



PeopleSoft Change Assistant Setup Destination Folder window

5. If the installer detects an existing installation in the destination folder that you specified, you see a message telling you to change the installation location, or re-run the installation in upgrade mode.

   Click OK to exit the message, and select one of these methods:

   - Click Back to return to the previous window and change the destination folder.
   - Click Cancel to exit the installation. Run the installation again and select the option to upgrade.

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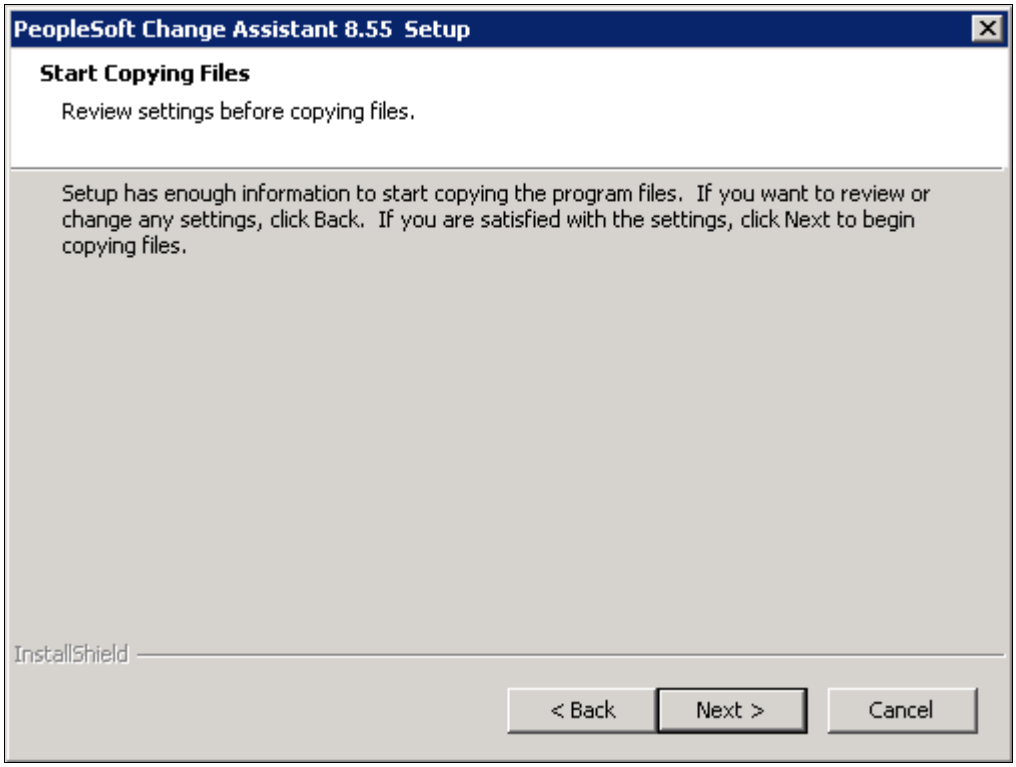
6. Select Next.

   The Start Copying Files screen appears.



PeopleSoft Change Assistant Setup Start Copying Files window

7. Click Back to review or change any settings.

   If you are satisfied with your settings, click Next to begin copying files. PeopleSoft Change Assistant copies files to the designated directory.

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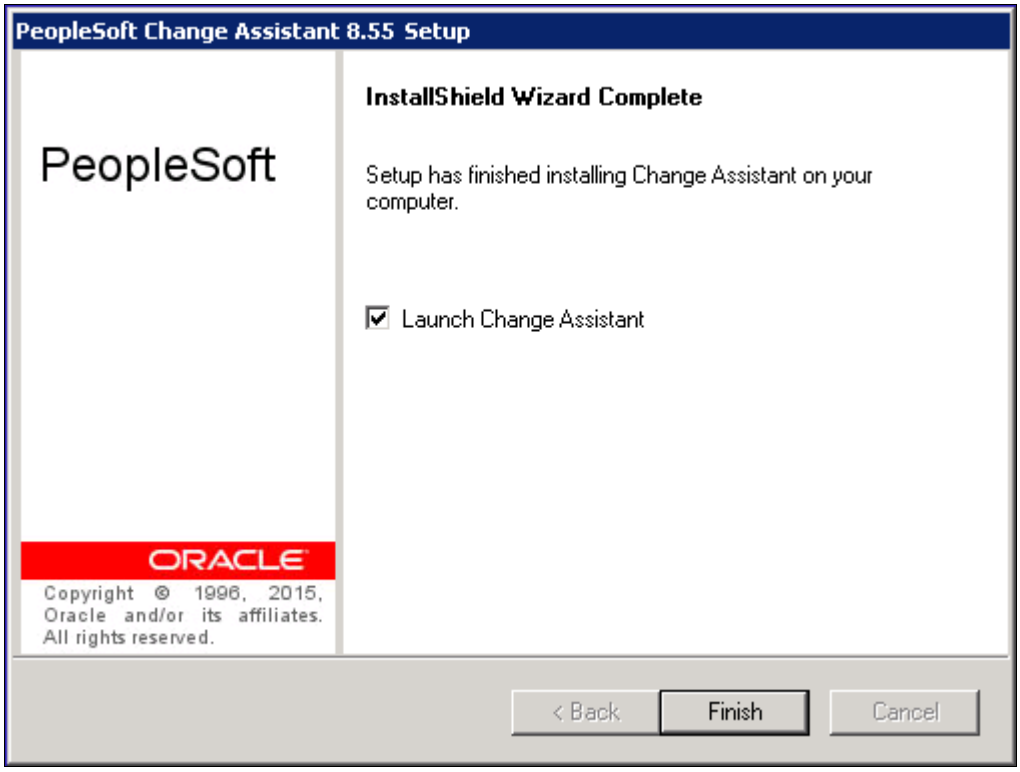
8. Click Finish to complete the installation process at the window with the text "Setup has finished installing Change Assistant on your computer."



InstallShield Wizard Complete window

9. Reboot your machine after the installation process is complete.
10. To start PeopleSoft Change Assistant, select Start, Programs, PeopleSoft Change Assistant 8.55, Change Assistant.

    On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleSoft Change Assistant 8.55, Change Assistant.

Note. If you are running on a Microsoft Windows operating system with User Account Control (UAC), such as Microsoft Windows 7, you must have administrative privileges to run Change Assistant. Right-click changeassistant.exe and select Run as administrator.

When you first start Change Assistant, you see a welcome window. After you click Next, you see the Select Action page.

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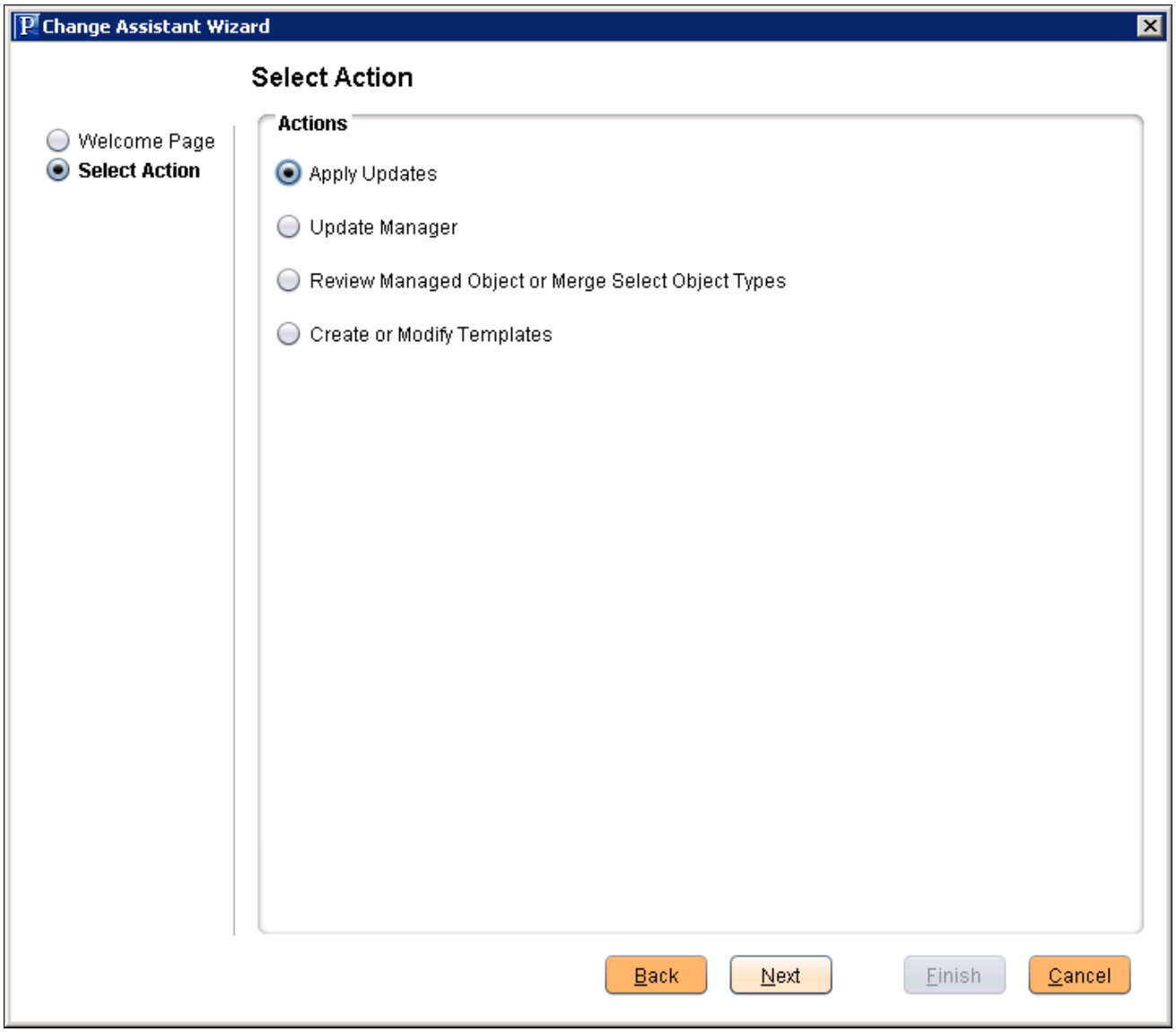
11. Select one of the actions on the Select Action page, as shown on this example, and click Next.



Change Assistant Wizard Select Action window

See the information on opening Change Assistant for the first time in the *PeopleTools: Change Assistant and Update Manager* product documentation for descriptions of these selections:

- Apply Updates
- Update Manager
- Review Managed Object or Merge Select Object Types
- Create or Modify Templates

Task 15-3: Installing PeopleSoft Change Assistant in Silent Mode

This section discusses:

- Understanding Silent Mode for PeopleSoft Change Assistant

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- Using the Silent Mode Script

Understanding Silent Mode for PeopleSoft Change Assistant

You can carry out a silent installation of PeopleSoft Change Assistant by supplying command-line parameters to a script. With silent installation there is no user interaction after you begin the installation.

You can use install and upgrade PeopleSoft Change Assistant instances in silent mode for the current PeopleSoft PeopleTools release. In addition, you can use silent mode to remove installations from the current or earlier PeopleSoft PeopleTools releases. For example, running the silent mode installation from PeopleSoft PeopleTools 8.55 will remove a Change Assistant installation from PeopleSoft PeopleTools 8.54 or earlier, and also install the 8.55 version of Change Assistant.

The PeopleSoft Change Assistant installer includes the following files in the directory *PS_HOME*\setup\PsCA:

- silentInstall.bat — Use this script to upgrade or remove an existing PeopleSoft Change Assistant instance or install a new instance.

  Do not edit this file. The file includes instructions in the header portion.

  See Using the Silent Mode Script.
- CA-silentInstall-ResultCodes.rtf — Review this file to interpret the results seen in the *PS_HOME*\setup\psCA\setup.log file after installation.

  The file is in Rich Text Format (RTF), and is most easily read if you open it with word processing software such as Microsoft Word.

Task 15-3-1: Using the Silent Mode Script

The PeopleSoft Change Assistant silent mode script requires the following command-line parameters:

- Install Home

  Specify the installation location for the PeopleSoft Change Assistant instance. If the location includes spaces, surround it with double quotes, such as "C:\Program Files\PeopleSoft\Change Assistant".

  As mentioned earlier in this chapter, beginning with PeopleSoft PeopleTools 8.55 you can install multiple instances of PeopleSoft Change Assistant. You must specify a different installation location for each instance.
- Install Type
  - Specify *new* to create a new PeopleSoft Change Assistant instance.
  - Specify *upgrade* to upgrade an existing instance that was installed from the current PeopleSoft PeopleTools release.
  - Specify *uninstall* to remove an existing PeopleSoft Change Assistant instance.
- Backup Config
  - Specify *backup* to create a zip file containing files with configuration information. The backup file, changeassistantcfgbak.zip, is saved in the installation location.
  - Specify *nobackup* if you do not want to create a backup file with the configuration information.

To use the PeopleSoft Change Assistant silent installation script:

1. In a command prompt, go to *PS_HOME*\setup\PsCA.

   Note. Do not move the file to another location.

2. Run the following command:

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```
silentInstall.bat [Install Home] [Install Type] [Backup Config]
```

You must include all three parameters. For example:

- To install a new instance without retaining a configuration file

```
silentInstall.bat "C:\Program Files\PeopleSoft\Change Assistant" new⇒
 nobackup
```

- To upgrade an existing instance, and retain a configuration file:

```
silentInstall.bat "C:\Program Files\PeopleSoft\Change Assistant 3"⇒
 upgrade backup
```

- To remove an existing instance, and retain a configuration file:

```
silentInstall.bat D:\CA uninstall backup
```

Task 15-4: Configuring and Using PeopleSoft Change Assistant

This section discusses:

- Verifying the Path Variable
- Specifying Options
- Scanning the Workstation
- Exporting Jobs to XML, HTML, or Microsoft Excel Format

Task 15-4-1: Verifying the Path Variable

After installing PeopleSoft Change Assistant, verify that the following values are the first entries in the PATH environment variable:

- *PS_HOME*\bin\client\winx86
- *PS_HOME*\jre\bin

See *PeopleTools: Change Assistant and Update Manager,* "Setting Up Change Assistant."

Task 15-4-2: Specifying Options

You can configure PeopleSoft Change Assistant modes to carry out updates, upgrades, work with upgrade templates, or access PeopleSoft Update Manager. The mode selection determines which menu options you see when you use PeopleSoft Change Assistant.

See Also

PeopleTools: Change Assistant and Update Manager

PeopleSoft Update Manager Home Page, My Oracle Support, Doc ID 1641843.2

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Task 15-4-3: Scanning the Workstation

The first time you use PeopleSoft Change Assistant, it automatically scans your workstation for applications that it will use in order to automate the steps. For example, it automatically finds the SQL Query tool and uses it to run SQL commands or scripts.

If you add a new application or update an existing application, PeopleSoft Change Assistant must perform a scan of the system in order to discover the changes. To perform this scan, select Tools, Scan Configuration.

Task 15-4-4: Exporting Jobs to XML, HTML, or Microsoft Excel Format

Change Assistant allows users to export jobs to XML, HTML, or Microsoft Excel file formats. Do this by selecting File, Export Job in Change Assistant. Then, enter the desired exported filename and select the desired file type format.

Task 15-5: Validating Change Assistant Settings

After you have set up and configured PeopleSoft Change Assistant and the Environment Management components, you should validate your PeopleSoft Change Assistant and environment settings.

PeopleSoft Change Assistant validates settings by:

- Locating valid SQL query tools required to run SQL scripts.
- Testing the Environment Management hub and ensuring that PeopleSoft Change Assistant can communicate with it.
- Testing My Oracle Support and ensuring that PeopleSoft Change Assistant can communicate with it.

  PeopleSoft Change Assistant sends a ping to My Oracle Support and then tests the connection. In order for the validation to succeed, the machine where you have PeopleSoft Change Assistant installed must have the ping feature enabled.

You can also print a summary of your environment, which can facilitate the diagnosis of problems by OracleSoftware Support.

To validate your environment, select Tools, Options, Validate. Click Start Validation.

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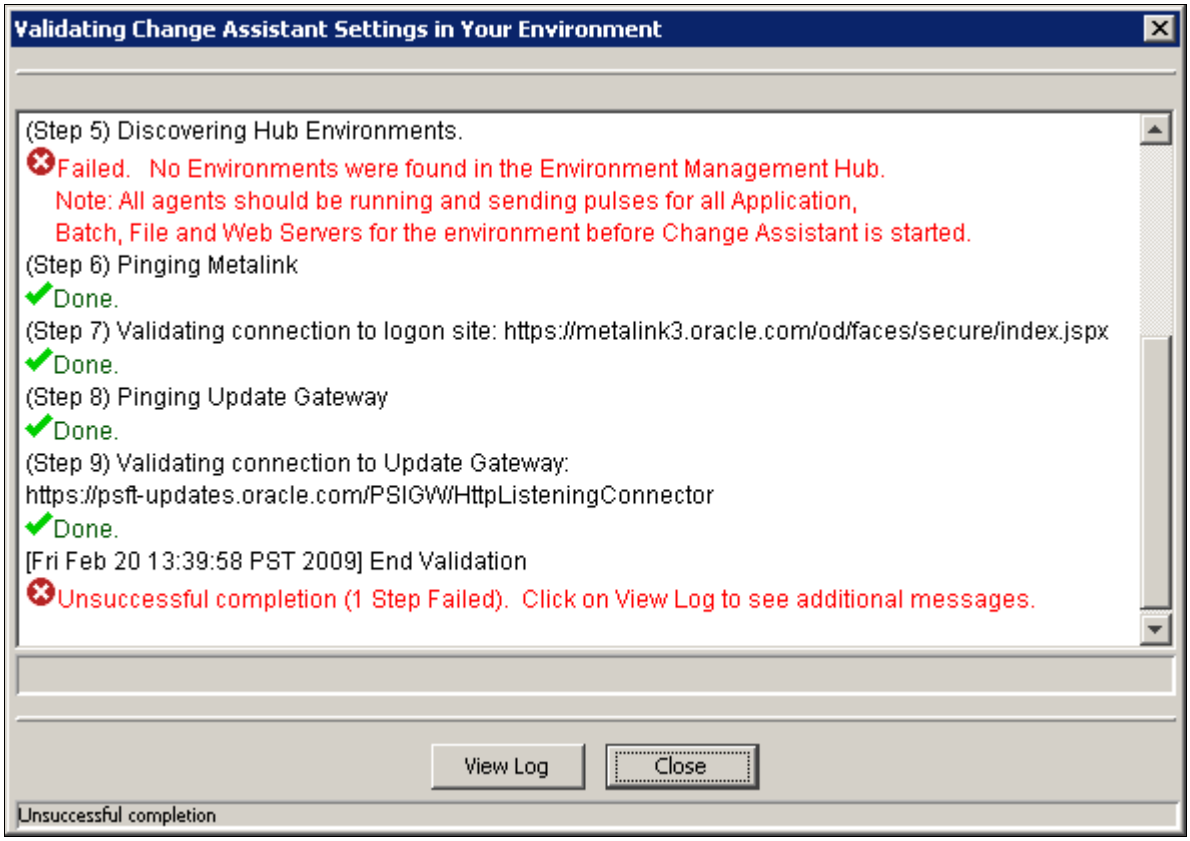
If any of the steps were unable to complete successfully, open the log file to determine the cause. This example shows a summary with both successful messages ("Done") and unsuccessful ("Failed" or "Unsuccessful completion"):



Validating Change Assistant Settings in Your Environment

Note. If you use proxy servers, the system will ping those and prompt for proxy server user ID and password. In this case, the validation step numbers would be different from the example.

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To review the log file, click the View Log button at the bottom of the screen. This example shows the first several lines of a log file:

validate_2009_2_20_13_39.log - Notepad

File Edit Format View Help

```
[Fri Feb 20 13:39:46 PST 2009] Begin Validation
output written to: C:\Program Files\PeopleSoft\Change
Assistant\validate\validate_2009_2_20_13_39.log
(Step 1) Creating a Summary of Your Environment
PS_HOME: C:\pt850\
Output Directory: C:\pt850_Output\
Staging Directory: C:\pt850_Staging\
Path: C:\Program Files\PeopleSoft\Change
Assistant\jre\bin;.;C:\WINDOWS\Sun\Java\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\pt850
\bin\client\winx86;C:\oracle\product\10.2.0\db_1
\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\apps\db\oracle102\bin;C:\Program
Files\Microsoft SQL Server\80\Tools\BINN;C:\bea\tuxedo9.1_VS2005_v2\bin
CLASSPATH: C:\Program Files\PeopleSoft\Change Assistant\changeassistant.jar;C:\Program
Files\PeopleSoft\Change Assistant\mx4j-jmx.jar;C:\Program Files\PeopleSoft\Change
Assistant\xercesImpl.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-apis.jar;C:\Program
Files\PeopleSoft\Change Assistant\xalan_2_7_0.jar;C:\Program Files\PeopleSoft\Change
Assistant\serializer.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-logging-
1.0.1.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-httpclient-2.0-rc1.jar;C:\Program
Files\PeopleSoft\Change Assistant\commons-codec-1.1.jar;C:\Program Files\PeopleSoft\Change
Assistant\xmldb-api-20021118.jar;C:\Program Files\PeopleSoft\Change Assistant\xmldb-
common.jar;C:\Program Files\PeopleSoft\Change Assistant\xmldb-xupdate-20040205.jar;C:\Program
Files\PeopleSoft\Change Assistant\xindice-1.1b5-dev.jar;C:\Program Files\PeopleSoft\Change
Assistant\psemf.jar;C:\Program Files\PeopleSoft\Change Assistant\AbsoluteLayout.jar;C:\Program
Files\PeopleSoft\Change Assistant\log4j-1.2.8.jar;C:\Program Files\PeopleSoft\Change
Assistant\jxl.jar;C:\Program Files\PeopleSoft\Change Assistant\j2ee.jar
Current Working Directory: C:\Program Files\PeopleSoft\Change Assistant
Done.
(Step 2) Validating your SQL Query Tools
Found Microsoft SQL Query Tool at c:\Program Files\Microsoft SQL Server\80\Tools\Binn\OSQL.exe
Found Oracle SQL Query Tool at c:\Apps\db\oracle102\bin\sqlplus.exe
Done.  2 SQL Query Tools found.
(Step 3) Pinging Environment Management Hub
Pinging PLE-INFODEV-11
Done.
(Step 4) Connecting to Hub: http://PLE-INFODEV-11:80/PSEMHUB/hub
Done.
(Step 5) Discovering Hub Environments.
Failed.   No Environments were found in the Environment Management Hub.
```

Validation log

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Chapter 16

Installing PeopleSoft Change Impact Analyzer

This chapter discusses:

- Prerequisites
- Removing PeopleSoft Change Impact Analyzer Installations
- Installing PeopleSoft Change Impact Analyzer
- Installing and Removing PeopleSoft Change Impact Analyzer in Silent Mode

Prerequisites

Oracle's PeopleSoft Change Impact Analyzer is a tool you can use to evaluate the effect of changes you make on your installation. PeopleSoft Change Impact Analyzer can help you monitor the impact a Change Package has on your system, as well as monitor the impact from other changes such as customizations.

Ensure that your system meets the following requirements before you begin this installation:

- PeopleSoft Change Impact Analyzer runs on Microsoft Windows platforms. For database platforms that do not run on Microsoft Windows, install PeopleSoft Change Impact Analyzer on the Windows client.
- You can install PeopleSoft Change Impact Analyzer from downloaded files as a standalone application, or as a part of your PeopleSoft PeopleTools installation. These instructions assume you have installed PeopleSoft PeopleTools on the machine on which you want to run PeopleSoft Change Impact Analyzer, and have completed the PeopleSoft Change Assistant installation.
- PeopleSoft Change Impact Analyzer uses Type 4 JDBC drivers by default. These drivers are automatically installed for you.

See Also

PeopleTools: Change Impact Analyzer

Task 16-1: Removing PeopleSoft Change Impact Analyzer Installations

To uninstall an existing installation of PeopleSoft Change Impact Analyzer, use the setup utility for the current release, as follows:

1. From the *PS_HOME*\setup\PsCIA directory, run `setup.exe`.

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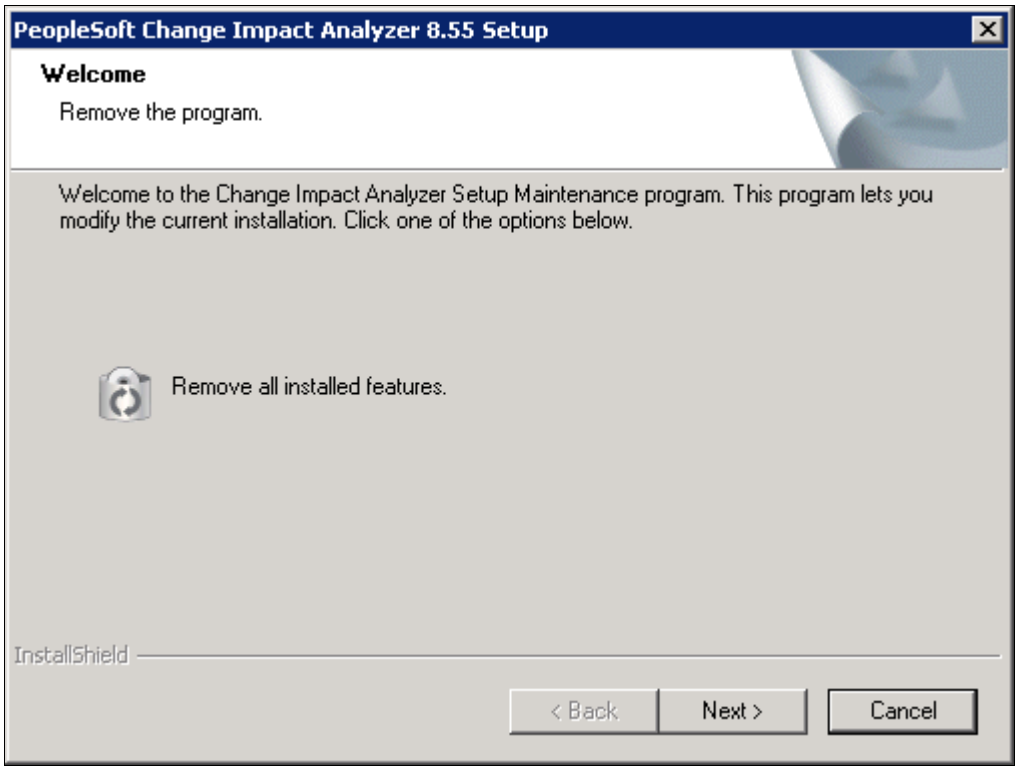
2. If there is an existing installation of PeopleSoft Change Impact Analyzer on your machine, the Remove the program window appears.

   Click Next to remove all installed features.



PeopleSoft Change Impact Analyzer Remove the program window

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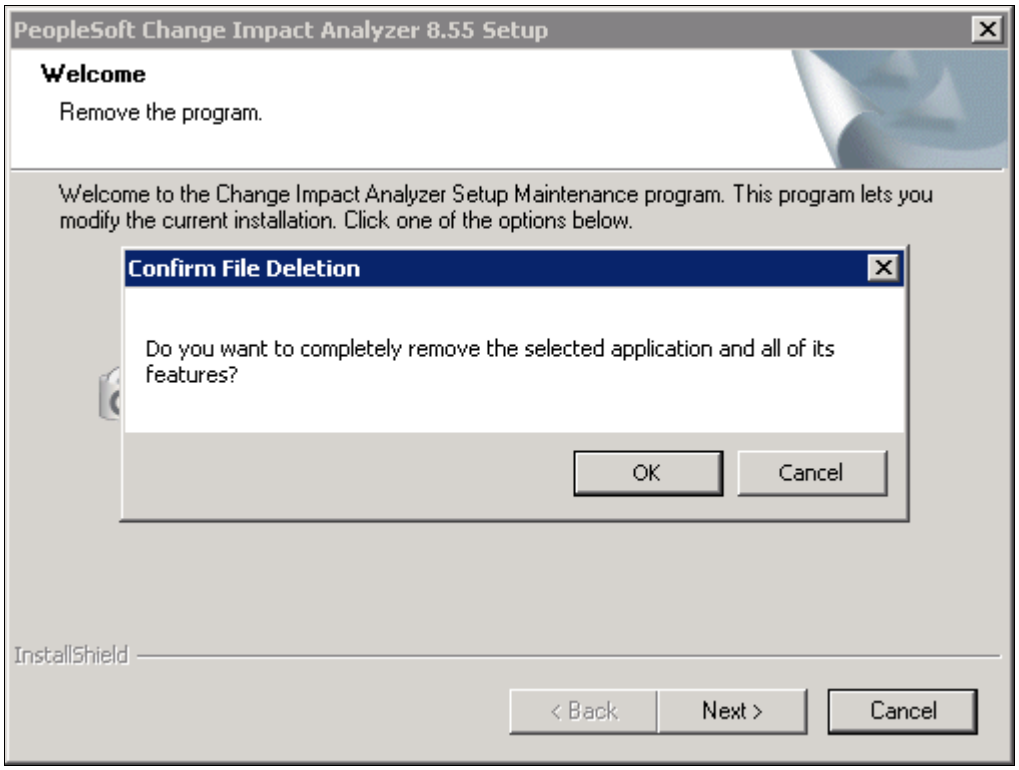
3. Click OK to confirm that you want to remove the previous PeopleSoft Change Impact Analyzer installation.



Confirm File Deletion message dialog box

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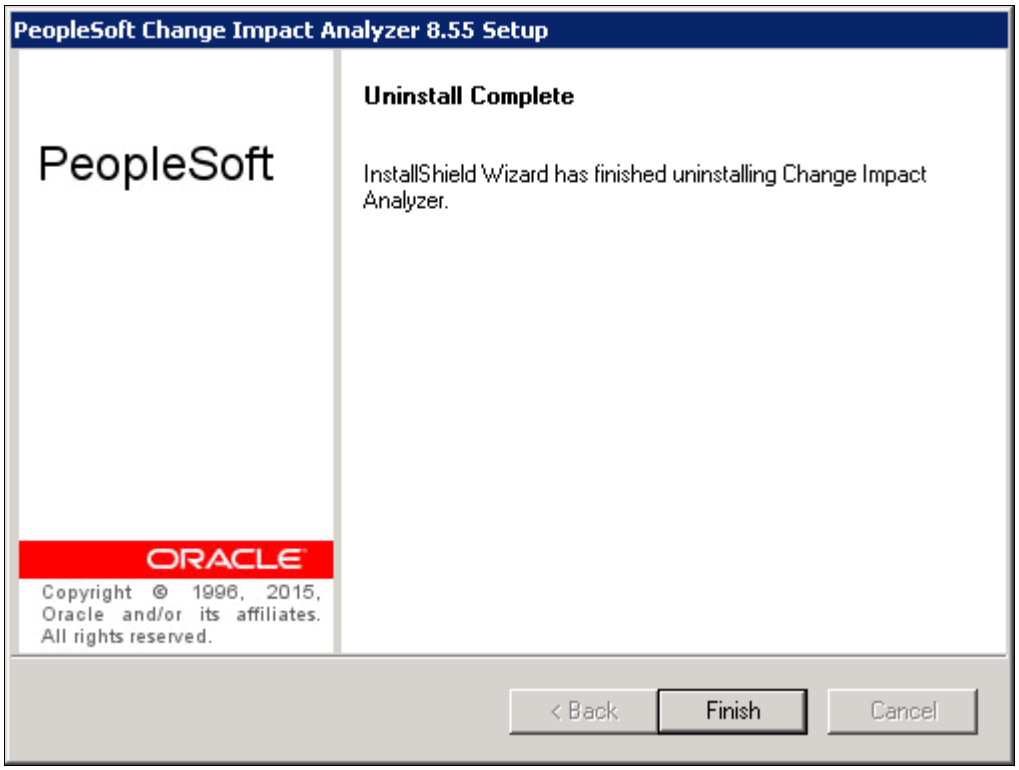
4. When the removal process is complete, click Finish on the Uninstall Complete window.



PeopleSoft Change Impact Analyzer Uninstall Complete window

5. Use the instructions in the next section, Installing PeopleSoft Change Impact Analyzer, to install the current release.

Task 16-2: Installing PeopleSoft Change Impact Analyzer

To install PeopleSoft Change Impact Analyzer and Rules Editor:

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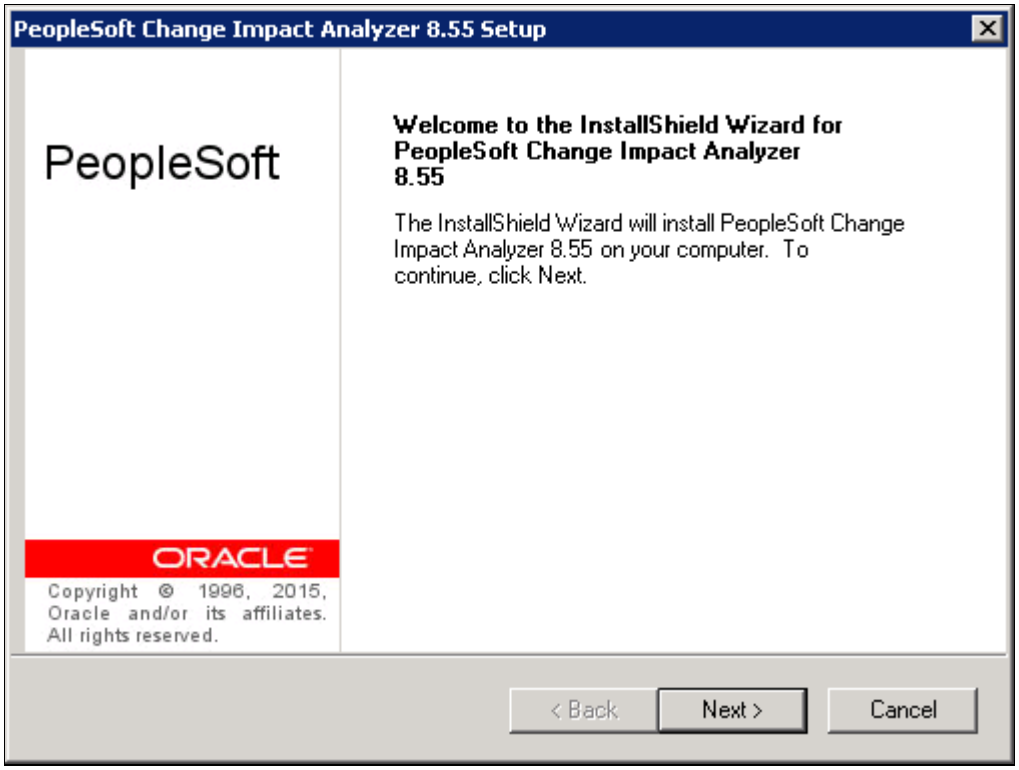
1. From the *PS_HOME*\setup\PsCIA directory, run `setup.exe`.

Note. If you installed PeopleSoft PeopleTools on a UNIX or Linux computer, you can copy setup.exe to a Microsoft Windows machine to install.

The Welcome window appears, as in this example. Click Next.



PeopleSoft Change Impact Analyzer Setup Welcome window

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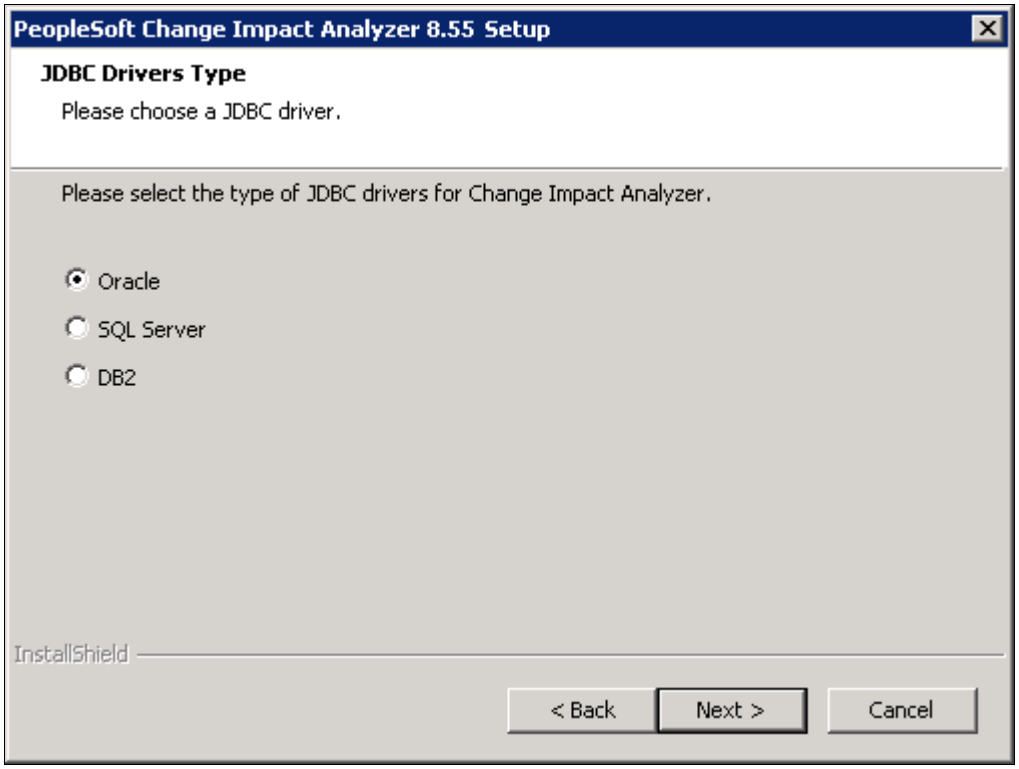
2. Select the type of JDBC drivers for your database platform.

   In this example the option for Oracle is selected.



PeopleSoft Change Impact Analyzer Setup JDBC Drivers Type window

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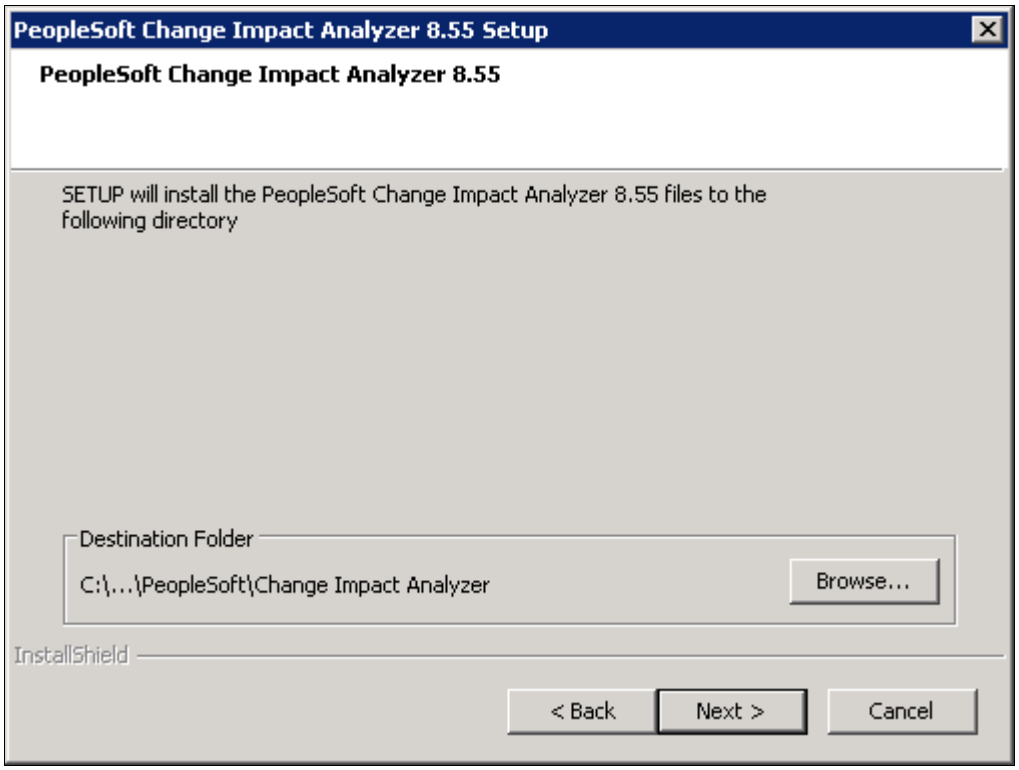
3. Browse to select the directory where PeopleSoft Change Impact Analyzer will be installed, or accept the default directory.

   The default directory, which is truncated in this example, is C:\Program Files\PeopleSoft\Change Impact Analyzer.



PeopleSoft Change Impact Analyzer Setup window with default destination folder

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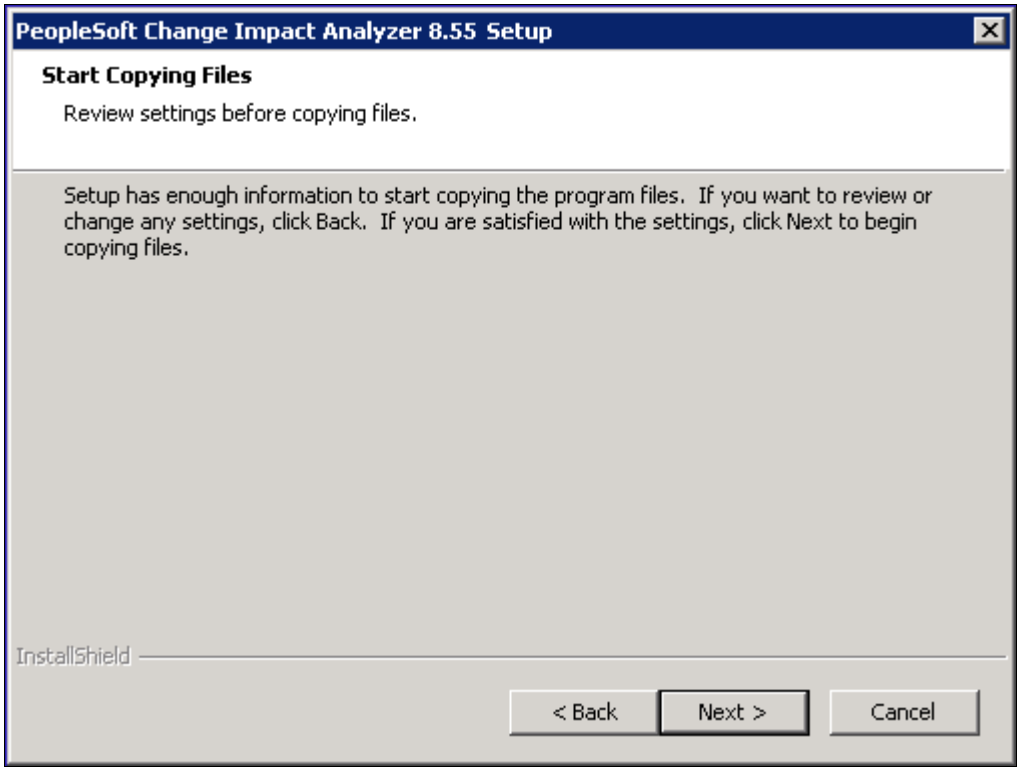
4. Click Back to review or change any settings.

   If you are satisfied with your settings, click Next to begin copying files to the designated directory.



PeopleSoft Change Impact Analyzer Setup Start Copying Files window

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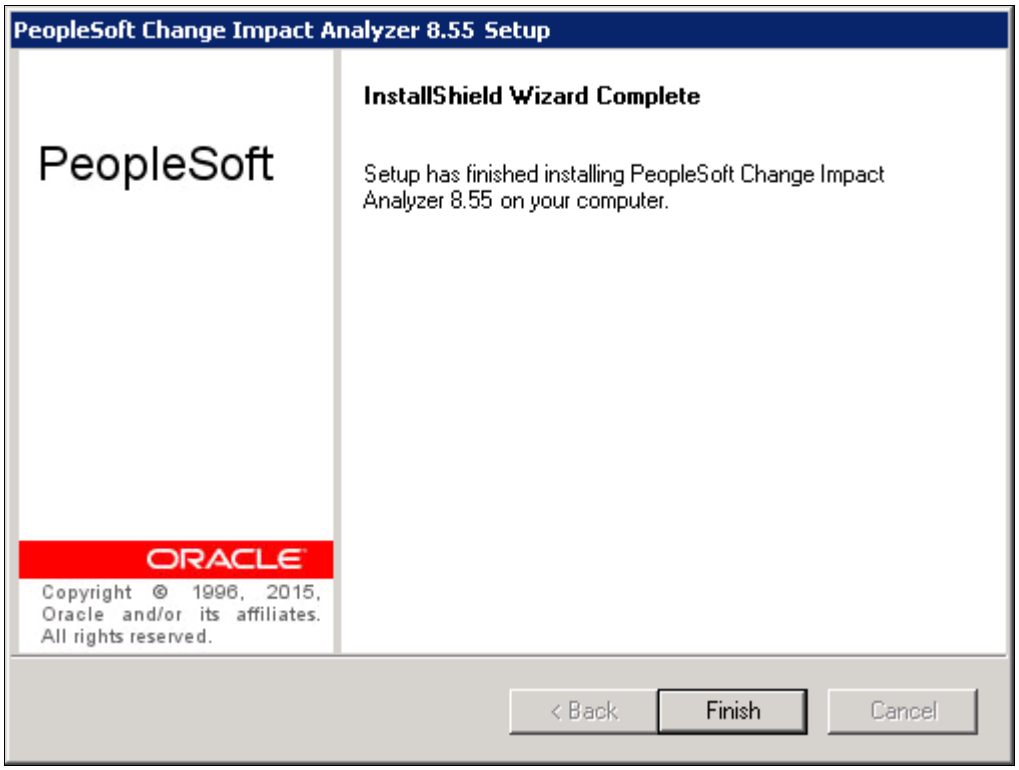
5. Click Finish to exit when the installation is complete, on the InstallShield Wizard Complete window.



PeopleSoft Change Impact Analyzer Setup InstallShield Wizard Complete window

6. To start PeopleSoft Change Impact Analyzer, on Microsoft Windows 7, select Start, Programs, PeopleSoft 8.55, Change Impact Analyzer.

   On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleSoft 8.55, Change Impact Analyzer.

Task 16-3: Installing and Removing PeopleSoft Change Impact Analyzer in Silent Mode

This section discusses:

- Understanding Silent Mode for PeopleSoft Change Impact Analyzer
- Installing PeopleSoft Change Impact Analyzer in Silent Mode
- Removing the PeopleSoft Change Impact Analyzer Installation in Silent Mode
- Removing and Installing PeopleSoft Change Impact Analyzer in Silent Mode

Understanding Silent Mode for PeopleSoft Change Impact Analyzer

You can carry out a silent installation or removal of PeopleSoft Change Impact Analyzer by editing a response file to correspond to your installation requirement. When you work in silent mode there is no user interaction after you begin the installation or removal.

The PeopleSoft Change Impact Analyzer installer includes the following files in the directory *PS_HOME*\setup\PsCIA:

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- CIA-silent-install-response-file.txt — Use this response file to install PeopleSoft Change Impact Analyzer.
- CIA-silent-uninstall-response-file.txt — Use this response file to remove PeopleSoft Change Impact Analyzer installations.
- silentInstall.bat — Use this script to remove an existing PeopleSoft Change Impact Analyzer installation, and install a new instance.
- silentInstall-ResultCodes.rtf — Review this file to interpret the results seen in the setup.log file after installation.

  The file is in Rich Text Format (RTF), and is most easily read if you open it with an authoring tool, such as Microsoft Word.

Task 16-3-1: Installing PeopleSoft Change Impact Analyzer in Silent Mode

This section discusses:

- Editing the Response File
- Running the Silent Mode Installation

Editing the Response File

Review the header portion at the top of the response file for instructions on running the silent installation. Modify the response file according to your installation requirement. The sections labelled NOTE TO USER include items to be modified.

Open the file *PS_HOME*\setup\PsCIA\CIA-silent-install-response-file.txt for editing, modify the following items, and then save the file:

- JDBC driver type

  Enter 1 to specify your RDBMS platform, and 0 for the other selections. The options are: Oracle (default), MSS (Microsoft SQL Server), or DB2 (DB2 z/OS or DB2/LUW).

  ```
  ################# NOTE TO USER ##############################
  # the following option is for DB type for JDBC driver
  # the default is Sel-0=1, for Oracle
  # set the Sel-1=1 for MSS
  # set the Sel-2=1 for DB2
  # NOTE: the options are mutually exclusive
  Sel-0=1
  Sel-1=0
  Sel-2=0
  ```

- Path to JDBC driver

  This information is not required for Oracle RDBMS, because the JDBC drivers are automatically installed.

  ```
  ################## NOTE TO USER ##############################
  # For MSS & DB2 please enter the path to JDBC driver for "szPath" below
  szPath=c:\jdbcDrivers
  ```

- Installation location

  The default location is C:\Program Files\PeopleSoft\Change Impact Analyzer. If you want to install to a different location, enter the location for szDir.

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```
################## NOTE TO USER ##############################
# For "szDir" enter the path where you want to install the Change Impact⇒
 Analyzer
szDir=C:\Program Files\PeopleSoft\Change Impact Analyzer
```

Running the Silent Mode Installation

To run the silent mode installation with the modified response file:

1. In a command prompt, go to *PS_HOME*\setup\PsCIA.
2. Run the following command, substituting your *PS_HOME* location for %PS_HOME% in the command:

   ```
   setup.exe /s /f1"%PS_HOME%\setup\PsCIA\CIA-silent-install-response-⇒
   file.txt"
   ```

3. After the installation is complete, review the result status in the file *PS_HOME*\setup\PsCIA\setup.log.

   Result code 0 means a successful installation. The result codes are described in the file *PS_HOME*\setup\PsCIA\silentInstall-ResultCodes.rtf.

Task 16-3-2: Removing the PeopleSoft Change Impact Analyzer Installation in Silent Mode

Review the header portion at the top of the response file for instructions. The process will search for and remove an existing installation of PeopleSoft Change Impact Analyzer. You do not need to edit the file before running. The file must be located in *PS_HOME*\setup\PsCIA.

1. In a command prompt, go to *PS_HOME*\setup\PsCIA.
2. Run the following command, substituting your *PS_HOME* location for %PS_HOME% in the command

   ```
   setup.exe /s /f1"%PS_HOME%\setup\PsCIA\CIA-silent-uninstall-response-⇒
   file.txt"
   ```

3. After the installation is complete, review the result status in the file *PS_HOME*\setup\PsCIA\setup.log.

   Result code 0 means a successful installation. The result codes are described in the file *PS_HOME*\setup\PsCIA\silentInstall-ResultCodes.rtf.

Task 16-3-3: Removing and Installing PeopleSoft Change Impact Analyzer in Silent Mode

Use the silentInstall.bat script to remove an existing installation of PeopleSoft Change Impact Analyzer and install a new installation. This script runs commands using CIA-silent-uninstall-response-file.txt followed by CIA-silent-install-response-file.txt. Refer to the previous sections for information on those response files.

To remove an existing installation and reinstall:

1. In a command prompt, go to *PS_HOME*\setup\PsCIA.
2. Run the following command:

   ```
   silentInstall.bat
   ```

3. After the installation is complete, review the result status in the file *PS_HOME*\setup\PsCIA\setup.log.

   Result code 0 means a successful installation. The result codes are described in the file *PS_HOME*\

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setup\PsCIA\silentInstall-ResultCodes.rtf.

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Chapter 17

Adding New Product Modules

Task 17-1: Adding New Modules to PeopleSoft 8.4 Installations

This task explains how to add new application modules to an existing PeopleSoft installation. Follow this procedure if, for example, you already installed HCM Benefits Administration and now you need to install Pension Administration.

When you add new application modules to an existing installation, you may overwrite files that were included as part of a patch or fixes, or customizations that you applied. For example, suppose you customize a report that is updated in a subsequent PeopleSoft release. If you install the update into your current working directory, your customized report will be overwritten with the newly installed, updated report.

The PeopleSoft system does not currently provide an automated way to notify you before overwriting customized modules or patch files. You can make preparations to protect important files from being overwritten. For your customized modules, you need to maintain a backup of any customizations. It is also a good idea to make a copy of your *PS_HOME* directory before beginning this process, so that you can find and restore necessary patch files. Check My Oracle Support to identify any patches or fixes required for your installation.

See My Oracle Support, Patches & Updates.

To add new module(s) to PeopleSoft 8.4 installations:

1. Back up the database, file server, application server, Process Scheduler Server, and web 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).

   See "Using the PeopleSoft Installer," Obtaining License Codes.
3. Install the PeopleSoft Application software 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 by logging on with the access ID and password).

   Data Mover is located in *PS_HOME*\bin\client\winx86\psdmt.exe.

   See Checking the Log Files and Troubleshooting, Running Data Mover, in the chapters on creating a database.
6. Select File, Database Setup and choose your database type in the resulting dialog.
7. Select Next and select add new product.
8. Select Finish and a Data Mover script that updates the license code will be generated in Data Mover.
9. Select File, Run script and your database updates are complete.
10. Install software to your batch server.

    See the chapters on setting up Process Scheduler in this documentation.

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11. Reapply all code customizations if needed.

    Note. Remember to maintain backup copies of your customizations.

12. Compile and link COBOL.

    See the chapters on installing and compiling COBOL in this documentation.

13. Verify that the appropriate Installation Records are selected.

    If they are not checked, check them and save the page. To open the page, select Set Up <*apptype*>, Install, Installation Options, where <*apptype*> is CRM, Financials/Supply Chain Management, and so on. For example, Set Up CRM, Install, Installation Options. (For HCM the navigation is Set Up HCM, Install, Installation Table.)

14. Run the dddaudit and sysaudit SQR reports.

    If you are swapping the base language, also run swpaudit.sqr.

    See "Completing the Database Setup," Checking the Database.

15. Shut down all application servers.
16. Install software to your application server.

    See the chapters on configuring the Application Server in this documentation.

17. Restart all required application servers.
18. Shut down all web servers.
19. Install software to your web server.

    See the chapters on setting up the PeopleSoft Pure Internet Architecture in this documentation.

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Chapter 18

Installing PeopleSoft Online Help

This chapter discusses:

- Understanding PeopleSoft Online Help (PeopleBooks)
- Using the PeopleSoft Online Help Web Site for Context-Sensitive Help
- Installing PeopleSoft Online Help LocalIy
- Configuring Context-Sensitive Help with Local Installations
- Using Oracle Secure Enterprise Search for Full-Text Searches
- Setting Up Oracle Secure Enterprise Search for Multiple Product Line Libraries

Understanding PeopleSoft Online Help (PeopleBooks)

The documentation for PeopleSoft PeopleTools and PeopleSoft software applications, formerly known as PeopleBooks, is now available in a dynamic, interactive, accessible HTML version, the hosted PeopleSoft Online Help Web site. The PeopleSoft Online Help documentation that is accessed with the Help link in the PeopleSoft navigation bar, and the Oracle's PeopleSoft Online Help Web site, are developed for advanced users, administrators, and implementers of the application. End users should utilize embedded help or licensed UPK content for more specific help assistance.

PeopleSoft software applications will include translated embedded help. With the PeopleSoft 9.2 release, PeopleSoft documentation aligned with the other Oracle applications by focusing on embedded help. We offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations. This means that the software and embedded help translation footprint are identical, something we were never able to accomplish in the past.

The PeopleSoft Online Help is delivered with PeopleSoft PeopleTools and every PeopleSoft application. You have several options for deploying PeopleSoft Online Help to benefit your organization. This chapter describes the methods for accessing, installing, and configuring PeopleSoft Online Help.

- *Hosted PeopleSoft Online Help Web site:* Use PeopleSoft Online Help over the Internet with the hosted content on the hosted PeopleSoft Online Help Web site.
- *Local installation:* Install and configure PeopleSoft Online Help so you can deploy the documentation at your site.
- *Full-text Search:* Install and configure a search tool to take advantage of full-text search in your local installation. This documentation describes how to set up full-text search using Oracle Secure Enterprise Search (SES).
- *Context-sensitive help:* Configure PeopleSoft PeopleTools to call PeopleSoft Online Help as context-sensitive help from both Internet applications and Microsoft Windows-based programs. For instance, when a user clicks the Help link in a browser or presses F1 in Windows, the appropriate documentation appears. You can set up context-sensitive help for both local installations and to access the hosted content on the PeopleSoft Online Help Web site.

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Note. The F1 button accesses PeopleSoft Online 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, users need to click the Help link to call PeopleSoft Online Help.

- *PDF format*: You can download a PDF version of PeopleSoft Online Help, organized in the traditional PeopleBooks format, from the Oracle Technology Network (OTN).

See Also

Oracle Documentation, Oracle Technology Network, http://www.oracle.com/technetwork/documentation/index.html

"Preparing for Installation," Planning Multilingual Strategy

PeopleTools: Applications User's Guide, "Accessing Embedded Help"

Task 18-1: Using the PeopleSoft Online Help Web Site for Context-Sensitive Help

This section discusses:

- Understanding the PeopleSoft Online Help Web Site
- Setting Up Context-Sensitive Help with the PeopleSoft Online Help Web Site
- Setting Up F1 Help with the PeopleSoft Online Help Web Site

Understanding the PeopleSoft Online Help Web Site

PeopleSoft Online Help is immediately available for use over the Internet at the PeopleSoft Online Help Web site. To configure context-sensitive help with the PeopleSoft Online Help web site, you must have an Internet connection available to your server where PeopleSoft PeopleTools is installed.

See PeopleSoft Online Help, www.peoplesoftonlinehelp.com.

Alternatively, you can install PeopleSoft Online Help to a file server hosting web server software, as described in the section Installing the PeopleSoft Online Help Locally. For full-text searching capability, you must also set up Oracle SES or another search tool.

Task 18-1-1: Setting Up Context-Sensitive Help with the PeopleSoft Online Help Web Site

You can configure your PeopleSoft server to use the hosted documentation from the PeopleSoft Online Help Web site for context-sensitive help. Each page in your PeopleSoft applications includes a Help icon that, when clicked, opens a new browser window displaying help topics that discuss that page. To enable the Help link from application pages:

1. Log in to your PeopleSoft application in a browser.
2. Select PeopleTools, Web Profile, Web Profile Configuration.
3. Click Search and select the Profile Name you specified during your PeopleSoft Pure Internet Architecture installation, for example, PROD.

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4. On the General page in the Help URL field, enter the URL for one or more products.

   You can access the URLs from the PeopleSoft Online Help Web site. Under Setting Up Context-Sensitive Help, select the link Enabling the Help Link from the Application Pages.

   See PeopleSoft Online Help, http://docs.oracle.com/cd/E17566_01/epm91pbr0/eng/psbooks/EnablingtheHelpLinkfromApplicationPages.pdf.

   The URLs have the following format, where UlinkID1, UlinkID2, ...UlinkID*n* refer to universal linking product line codes:

   http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=UlinkID1&ctx=UlinkID2....&ctx=UlinkID*n*

   The URL for the PeopleTools documentation must come before the URLs for PeopleSoft application documentation, as in this example:

   http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt855pbr0&ctx=hcm92pbr7

   This example shows the Web Profile Configuration page with a sample help URL for PeopleSoft PeopleTools 8.55 and PeopleSoft HCM 9.2:

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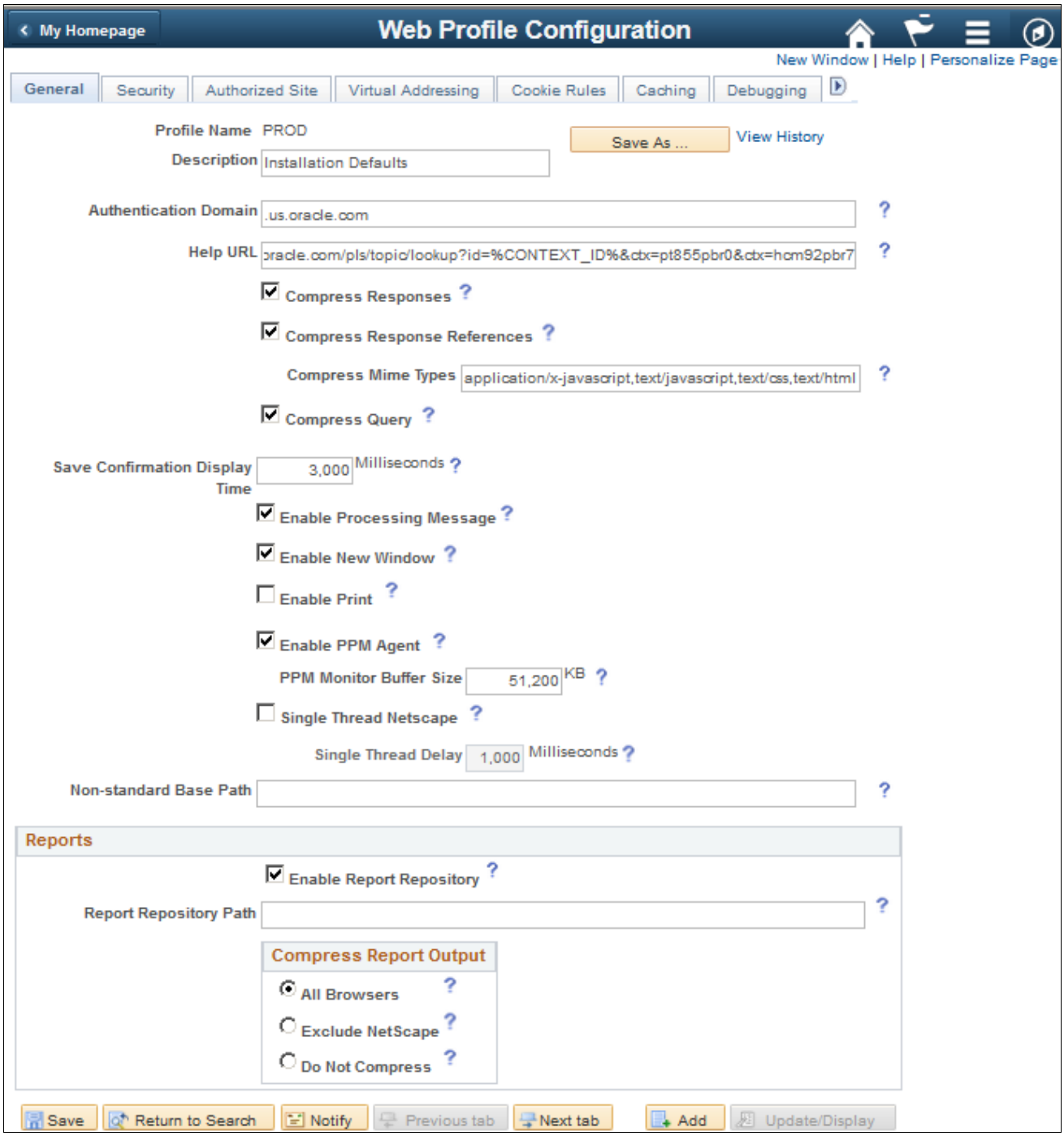

Web Profile Configuration General page with a sample PeopleSoft Hosted Documentation URL

5. Save and exit the Web Profile Configuration page.
6. Restart the following servers:
   - If your PeopleSoft Pure Internet Architecture (PIA) is running on Oracle WebLogic, restart the PIA and admin web servers.
   - If your PIA is running on IBM WebSphere, restart the PIA server.
   - If the Help link does not appear in the next step, it may be necessary to also stop and restart the application server.

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7. Test the help functionality by clicking the Help icon on a PeopleSoft application page.

Task 18-1-2: Setting Up F1 Help with the PeopleSoft Online Help Web Site

PeopleTools Application Designer also has context-sensitive help available through the user's F1 key. To enable this help functionality, the PeopleTools Options must be configured to access the hosted content on the PeopleSoft Online Help Web site as follows:

1. In your PeopleSoft application, select PeopleTools, Utilities, Administration, PeopleTools Options.
2. Scroll down to the Help Options group.
3. Enter the value for the F1 URL field.

   Specify the URL for the PeopleSoft PeopleTools online help for your release. The URL should be similar to the following:

   http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt855pbr0

   You can access the URL from the PeopleSoft Online Help Web site. Under Setting Up Context-Sensitive Help, select the link Enabling the Help Link from the Application Pages.

   See PeopleSoft Online Help, http://docs.oracle.com/cd/E17566_01/epm91pbr0/eng/psbooks/EnablingtheHelpLinkfromApplicationPages.pdf.
4. Save and exit the PeopleTools Options page.
5. Stop and restart the application server each time you update the help URL.
6. Open Application Designer. Press F1 to display the online help content.
7. For context-sensitive help, open an object, such as a panel or PeopleCode, then press F1.

Task 18-2: Installing PeopleSoft Online Help Locally

This section discusses:

- Obtaining PeopleSoft Online Help Installation Files from Oracle Software Delivery Cloud
- Installing the PeopleSoft Online Help to a Local Machine

Task 18-2-1: Obtaining PeopleSoft Online Help Installation Files from Oracle Software Delivery Cloud

This section explains locating and using the installation files for PeopleSoft Online Help, if you have not already done so. The files are included in the installation files for PeopleSoft applications and PeopleSoft PeopleTools.

See "Preparing for Installation," Using Oracle Software Delivery Cloud to Obtain Installation Files.

See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

To obtain files for the PeopleSoft Online Help installation from Oracle:

1. After logging in to Oracle Software Delivery Cloud, read the information about export restrictions, and then click Accept.
2. Enter the name of a specific PeopleSoft application product in the type-ahead Product field.

   For example, for PeopleSoft Human Capital Management, enter and select PeopleSoft Enterprise Human Resources. For PeopleSoft Financials and Supply Chain Management, enter and select PeopleSoft Enterprise

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Financials.

Note. The installation files for PeopleSoft PeopleTools are included with the PeopleSoft application installation files. If you want to obtain the files for PeopleSoft PeopleTools only, enter PeopleSoft Enterprise PeopleTools in the Product field, and select PeopleSoft Enterprise PeopleTools - Enterprise Development from the drop-down list.

---

3. Click Select Platform, select the operating system you are running on, and then click Select.

   Note that you must unzip the zip files on the platform for which they are intended. For example, if you download the file for Oracle Solaris, you must unzip the file on an Oracle Solaris operating system. If you unzip the file on a Microsoft Windows machine into a staging directory, and then move the directory to an Oracle Solaris machine, the staging area files may be corrupted.
4. Click Continue.
5. Click the arrow to view and select from the list of products selected.
6. Click Continue.
7. Read the license agreement, select the check box to acknowledge that you accept the agreement, and then click Continue.
8. On the File Download window, select the link for the online help zip file.
9. Download the online help zip file into a convenient local directory.

Task 18-2-2: Installing the PeopleSoft Online Help to a Local Machine

PeopleSoft Online Help can be installed directly to a Microsoft Windows, Linux, or UNIX machine. The machine hosting the help must have web server software set up. You may use the web server software supported for PeopleSoft PeopleTools, Oracle WebLogic and IBM WebSphere, or another software of your choosing.

The PeopleSoft Online Help delivered for PeopleSoft PeopleTools 8.55 must be installed separately from installations of the PeopleSoft Online Help from any earlier releases. However, you can use previous PeopleBooks releases in these ways:

- You can add a link to the PeopleSoft Online Help home page to access PeopleBooks from prior PeopleSoft releases. See the product documentation *Managing Locally Installed PeopleSoft Online Help* for information. To access this documentation, select About This Help in the Contents sidebar.
- If your local installation of the PeopleSoft Online Help is set up for full-text search, you can include previous PeopleBooks releases in a search source group. See the section Using Oracle Secure Enterprise Search for Full-text Searches for information on setting up source groups.

To install the PeopleSoft Online Help software on a file server with web server software:

1. Go to the directory where you downloaded the PeopleSoft Online Help installation files.

   See Obtaining PeopleSoft Online Help Installation Files from Oracle Software Delivery Cloud.
2. Extract the contents of the zip file.

   The zip file contains a folder with the same name as the zip file. For example, if the zip file is named elm92pbr3.zip, the folder after extraction will be named elm92pbr3. The folder contains these files:

   - buildindex.bat: Batch file used on Microsoft Window to create a context-sensitive help index for the online help for several products.

     See Creating the Help Index for Multi-Product Installations.
   - buildindex.sh: Shell script file used on UNIX and Linux to create a context-sensitive help index for the online help for several products.

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See Creating the Help Index for Multi-Product Installations.

- online-help.zip: The PeopleSoft Online Help content files
- psHelpIndexBuilder.jar: Jar file that is invoked by buildindex.bat or buildindex.sh to generate a context-sensitive help index.
- README.txt

3. Extract the contents of the online-help.zip file to your web server root, where you want the PeopleSoft Online Help to reside.

   After the extraction, there will be a folder with the sku number, such as pt855pbr0. This documentation refers to this folder as *help_folder*.

   For example, *PS_HOME*\webserv\peoplesoft\applications\peoplesoft\PORTAL.war is the web root folder of an Oracle WebLogic-based PeopleSoft PeopleTools web server installation. If you extract to the Oracle WebLogic web server root, the help installation files will be found in the PORTAL.war\pt855pbr0 folder.

   Note. The context-sensitive processor needs to access files with extensions .json and .dat on the web server. However, some web servers, such as Microsoft Internet Information Server (IIS) 7.0 are not configured to handle .json and .dat extensions by default. Add MIME types application/json and text/plain for extensions .json and .dat respectively for those servers.

   ---

4. To view PeopleSoft Online Help, open a browser and navigate to an URL with the following format:

   http://<*server_name*>:<*port_number*>/<*help_folder*>/eng/<*product_line*>/index.html

   For example:

   http://mywebserver:5080/pt855pbr0/eng/pt/index.html

   The URL is comprised of these components:

   - <*server_name*> — the web root of your server
   - <*port_number*> — the port for the web root server
   - <*help_folder*> — the downloaded folder name, based on the sku number, such as pt855pbr0
   - <*product_line*> — an abbreviation for the product line, such as pt for PeopleSoft PeopleTools and hcm for PeopleSoft Human Capital Management
5. For full-text search, see the section Using Oracle Secure Enterprise Search for Full-Text Searches.

Task 18-3: Configuring Context-Sensitive Help with Local Installations

This section discusses:

- Enabling the Help Link from the Application Pages with Local Installations
- Enabling F1 Help with Local Installations
- Creating the Help Index for Multi-Product Installations

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Task 18-3-1: Enabling the Help Link from the Application Pages with Local Installations

You can configure your PeopleSoft installation so that each page in your PeopleSoft software applications includes a Help link. Clicking the Help link opens a new browser window displaying help topics that discuss that page. Use the instructions in this section to enable the Help link for locally-installed PeopleSoft Online Help only.

To enable the Help link from application pages:

1. In your PeopleSoft application, navigate to the PeopleTools, Web Profile, Web Profile Configuration page.
2. Click Search and select the Profile Name you specified during your PeopleSoft Pure Internet Architecture installation.
3. Specify the value for the Help URL field as follows:

   ```
   http://<server_name>:<port_number>/<help_folder>/help.html?ContextID=⇒
   %CONTEXT_ID%&LangCD=%LANG_CD%
   ```

   Note. If you do not want the Help icon to display in your applications, clear the Help URL field value.

   For example, if your web server is called myserver, you are using port 5080, and your *help_folder* is pt855pbr0, the Help URL value would be:

   ```
   http://myserver:5080/pt855pbr0/help.html?ContextID=%CONTEXT_ID%&LangCD=⇒
   %LANG_CD%
   ```

   - Enter your web server name for <*server_name*>.
   - Enter the web server port for <*port_number*>.
   - Enter the folder where you installed the help system files for <*help_folder*>.
   - 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.
4. Save and exit the Web Profile Configuration page.
5. Before testing help functionality, purge the browser cache on the client and close all web browsers.

   Restart the application server and web server for PIA.
6. Test the help functionality by clicking the Help link on a PeopleSoft application page.

Task 18-3-2: Enabling F1 Help with Local Installations

This procedure describes how to enable F1 help for Application Designer, PeopleCode Editor, and other Microsoft Windows-based PeopleSoft programs.

To enable F1 help:

1. Sign on to your PeopleSoft application using your browser.
2. Select the PeopleTools, Utilities, Administration, PeopleTools Options page.
3. Enter the same URL as in the previous procedure (where <*server_name*>, <*port_number*>, and <*help_folder*> reflect your installation) into the F1 Help URL field:

   ```
   http://<server_name>:<port_number>/<help_folder>/help.html?ContextID=⇒
   %CONTEXT_ID%&LangCD=%LANG_CD%
   ```


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For example:

```
http://myserver:5080/pt855pbr0/help.html?ContextID=%CONTEXT_ID%&LangCD=⇒
%LANG_CD%
```

4. Save the page.

Task 18-3-3: Creating the Help Index for Multi-Product Installations

The PeopleSoft Online Help site contains a precompiled context-sensitive help index containing all context IDs for the product family. To have the help processor deliver help pages from other product families, you need to re-create this help index to include the context IDs for all applicable product families.

Note that this procedure does not support help sites for PeopleSoft 9.1 and PeopleTools 8.52 and earlier. To include help sites for those releases, select About This help in the PeopleSoft PeopleTools product documentation.

See *Managing Locally Installed PeopleSoft Online Help,* "Including Multiple Online Help Sites for PeopleSoft 9.1 and PeopleTools 8.52 and Earlier."

To re-create the context-sensitive help index follow the instructions "Creating Index for multi-domain online help site" described in the README.txt file included with the downloaded zip files.

See *Managing Locally Installed PeopleSoft Online Help,* "Including Multiple Online Help Sites for PeopleSoft 9.2 and PeopleTools 8.53 and Later."

Task 18-4: Using Oracle Secure Enterprise Search for Full-Text Searches

This section discusses:

- Understanding Oracle Secure Enterprise Search and PeopleSoft Online Help
- Prerequisites
- Crawling a Source to Generate Full-Text Search

Understanding Oracle Secure Enterprise Search and PeopleSoft Online Help

Using Oracle Secure Enterprise Search (SES) for full-text searches allows you to build full-text search for your PeopleSoft Online Help installation and perform advanced searches.

Note. Oracle SES is used for the PeopleSoft Search Framework. You have the option to install a separate instance of Oracle SES, including the database and WebLogic server, for use in carrying out full-text searches for PeopleSoft Online Help.

Prerequisites

Prior to implementing full text search with Oracle SES, you must first implement Oracle SES. Record the following information, as it will be required when configuring integration between Oracle SES and PeopleSoft Online Help:

- Oracle SES server host name, and the port on which Oracle SES is listening.

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For example, sesserver.example.com:5720

- Oracle WebLogic administration console port; the default port is 7001.
- Oracle SES administrator user ID and password, that is, the credentials you use to sign on to the Oracle SES administration console.
- PeopleSoft Online Help documentation URL

  http://*<server_name>*:*<port_number>*/*<help_folder>*/eng/*<product_line>*/index.html

See Also

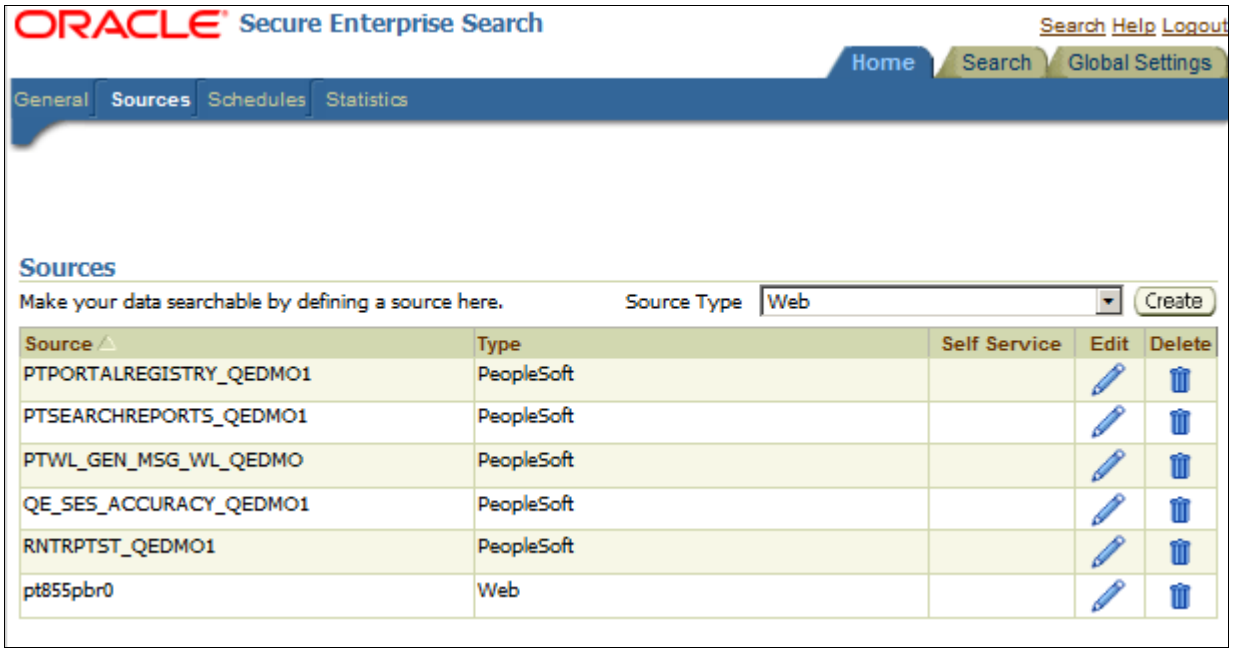
Oracle® Secure Enterprise Search Installation and Upgrade Guide 11g Release 2 (11.2.2.2.0)

"Configuring Integration Between PeopleSoft PeopleTools and Oracle SES"

Task 18-4-1: Crawling a Source to Generate Full-Text Search

To configure Oracle SES for full-text search:

1. Log in to your Oracle SES portal.
2. Select Sources at the top left.
3. Select Web from the Source Type drop-down box, as shown in this example, and then click the Create button.



Oracle Secure Enterprise Search Sources page with Source Type Web

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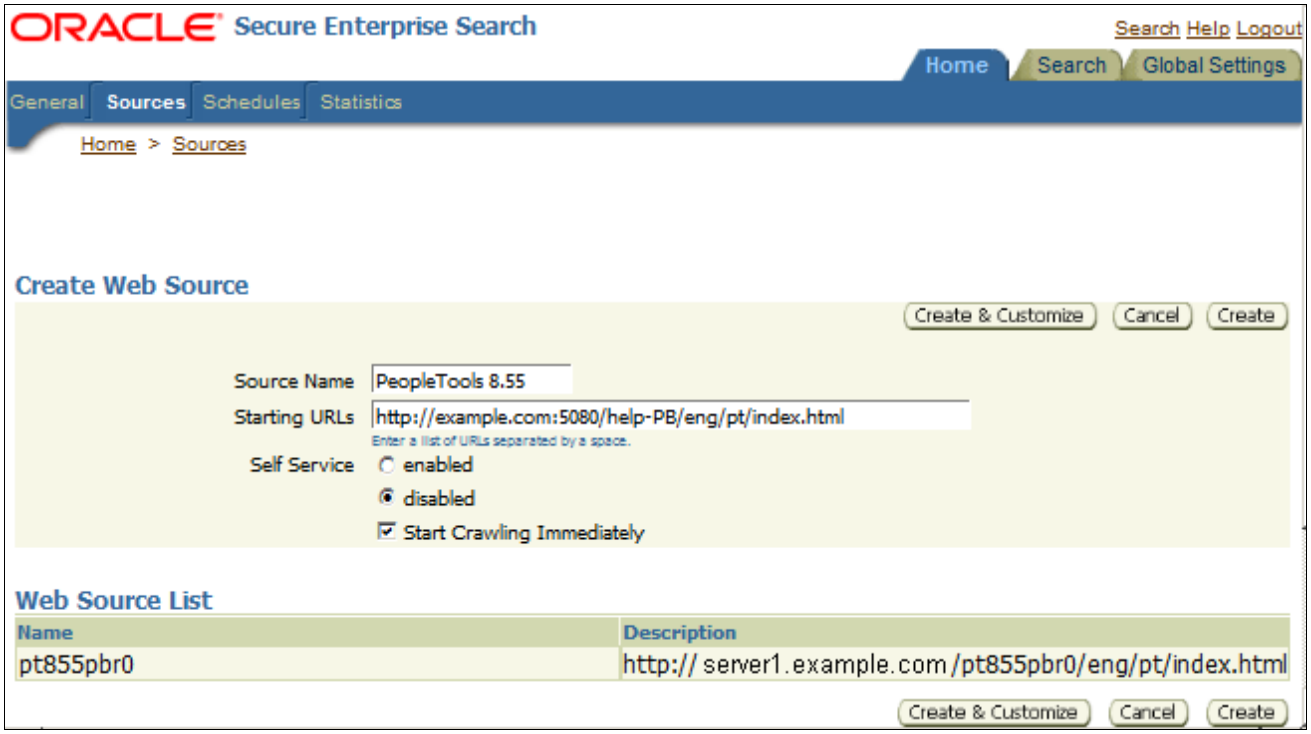
4. Enter a value for Source Name.

   This may be any name you like. In this example, the source name is PeopleTools 8.55.



Create Web Source page

5. In the Starting URLs field, enter the URL for your PeopleSoft Online Help folder, followed by index.html.

   For example: http://<*server_name*>:<*port_number*>/<*help_folder*>/eng/pt/index.html. In the example shown in the previous step, this is http://example.com:5080/help-PB/eng/pt/index.html.

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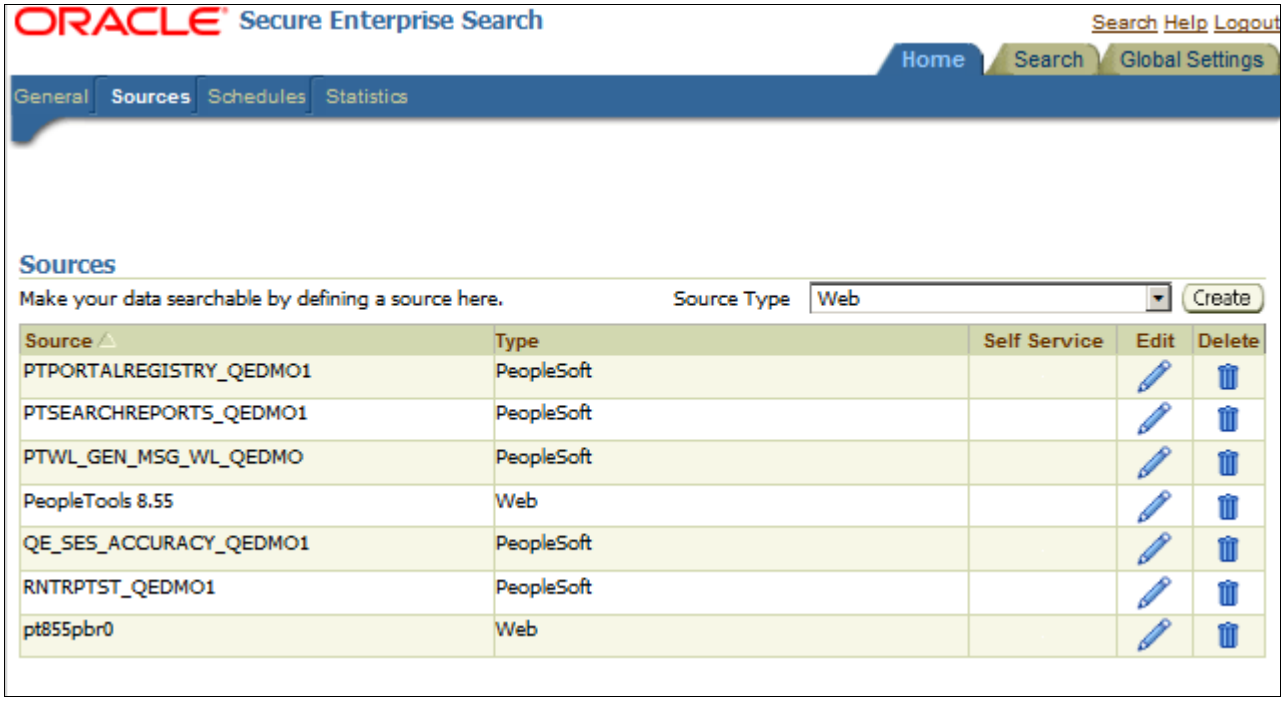
6. Click the Create button.

   You return to the Sources page, which now includes the new source, as shown in this example.



Sources page including added source

7. Select Schedules at the top.

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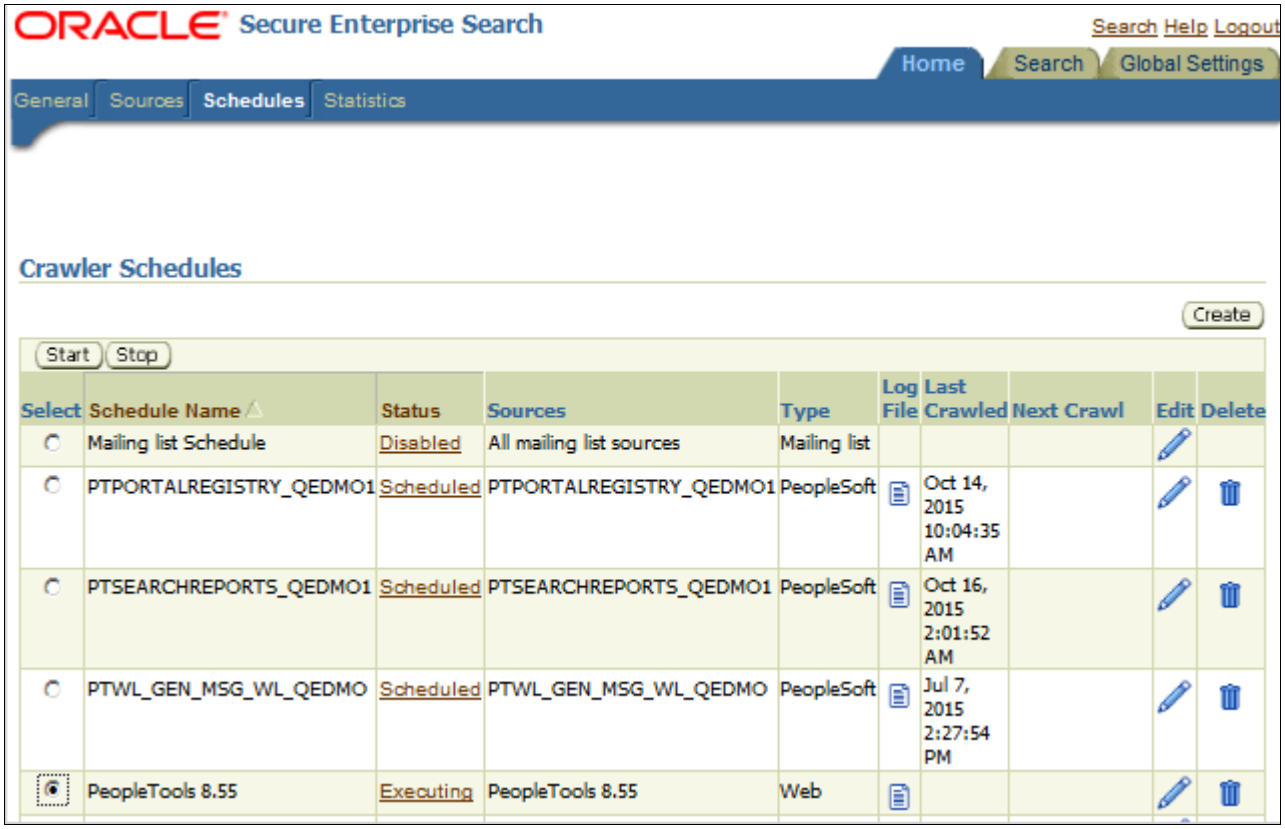
8. Locate the search index name in the Schedule Name column.

   In this example, PeopleTools 8.55 is the last entry in the list.



Crawler Schedules page

9. Select the Edit icon (pencil) in the row for the search index you added.

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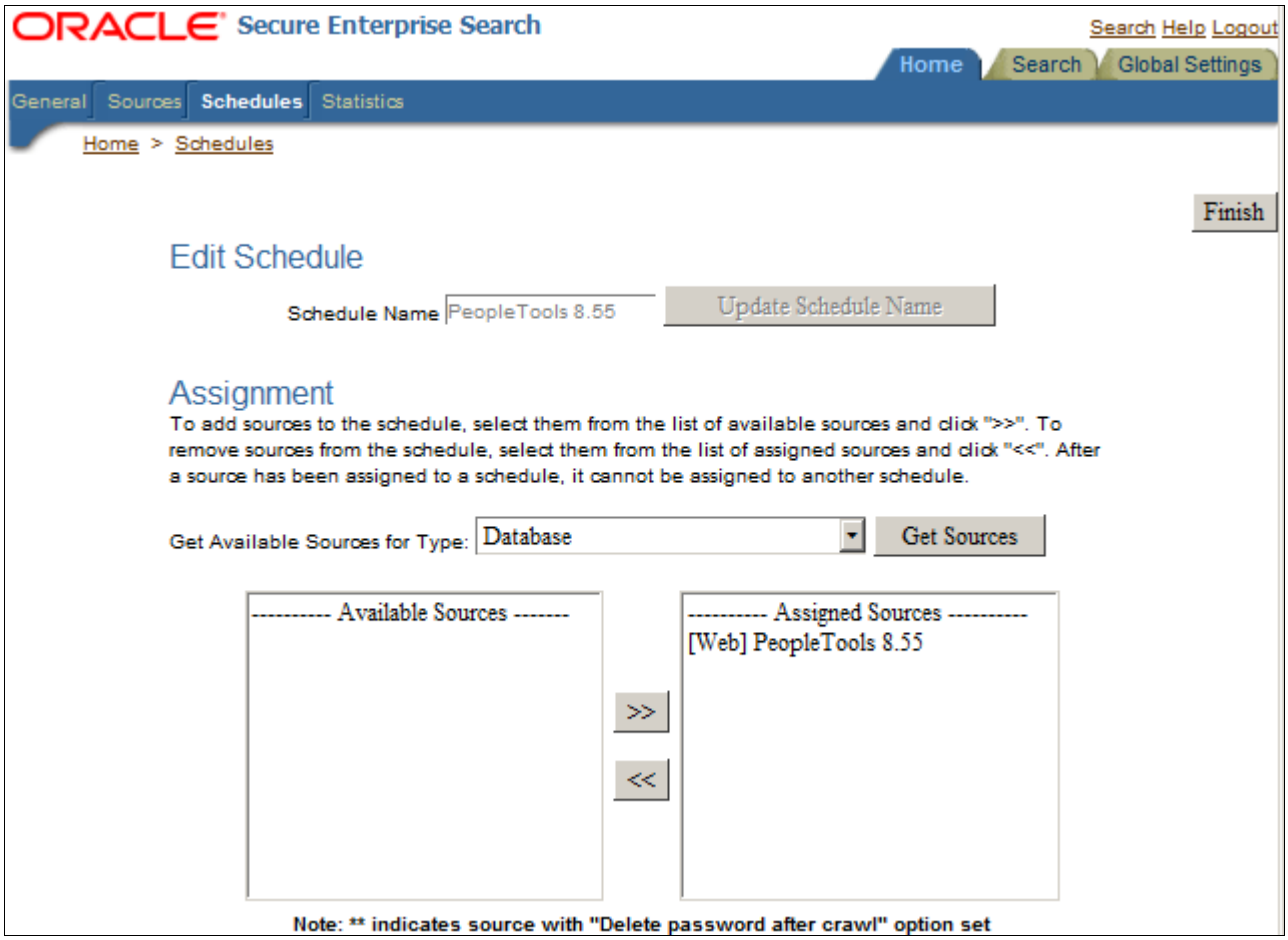
10. On the Edit Schedule page, under Update Crawler Recrawl Policy, make sure that you have selected the Process All Documents radio button near the bottom of the page.

    Click Update Recrawl Policy, and then click the Finish button near the top of the page.



Edit Schedule page: Part 1

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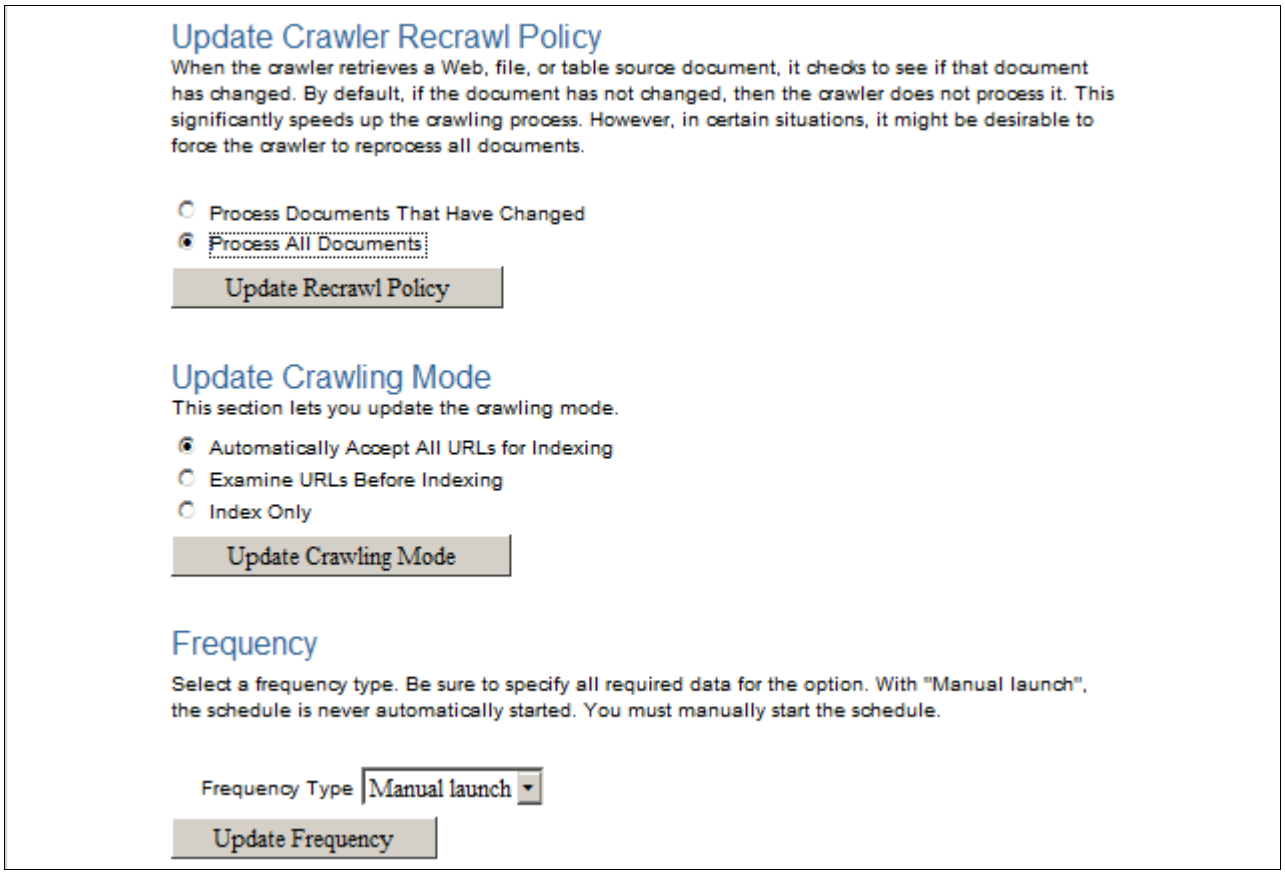

Edit Schedule page: Part 2

11. On the Crawler Schedulers page, click the link in the Status column for your index.

    In the example in step 9, the status for the search index PeopleTools 8.55 is Executing.

Note. When the status on this page is Scheduled, you can select the radio button and then click the Start button. The status will change to Launching, then Executing.

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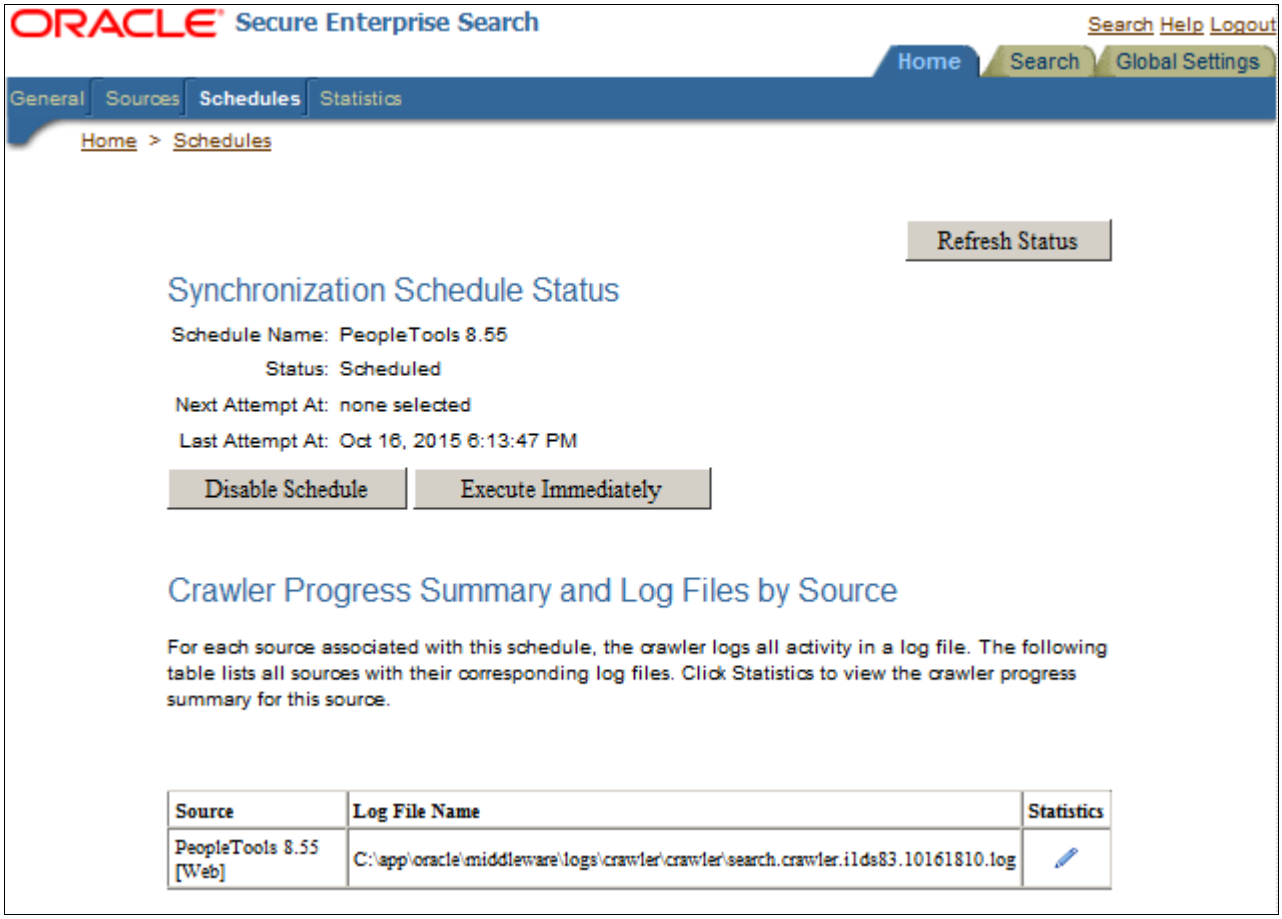
12. On the Synchronization Schedule Status page, click the Refresh Status button to monitor job progress.

    To see detailed information, click the Statistics icon when it appears in the log file table, as shown below.



Synchronization Schedule Status page

13. Create a Source Group.

    Search source groups allow the user to select which index(es) to search. To create a search group:

    a. Click the Search tab at the top right of the Synchronization Schedule Status page.

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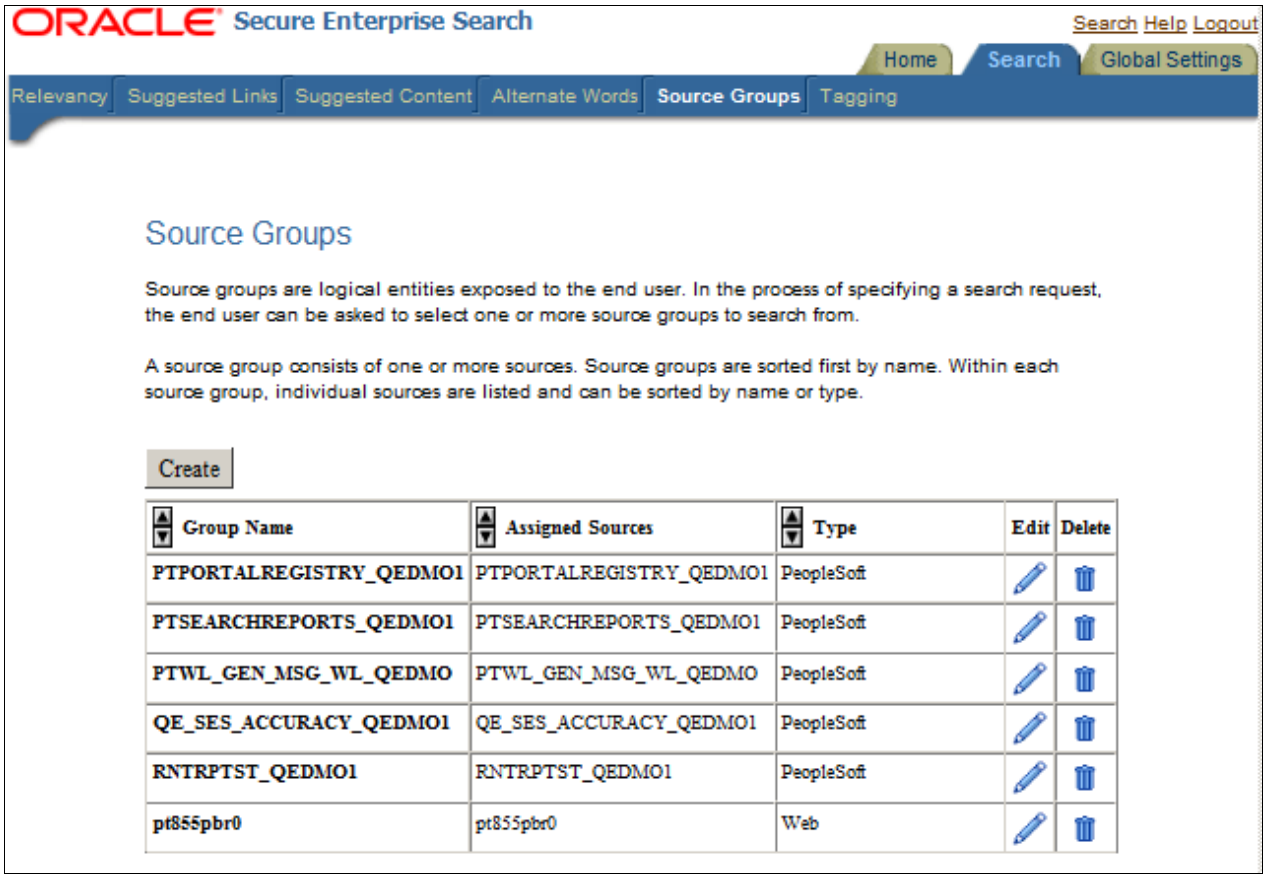
b. Select Source Groups in the banner at the top, and click Create.



Source Groups page

c. Enter a meaningful name to represent the index group.

The name, PeopleTools 8.55 in this example, will be visible to end users. Click Proceed to Step 2.

Create New Source Group: Step 1 page

d. Confirm that the source type Web is selected.

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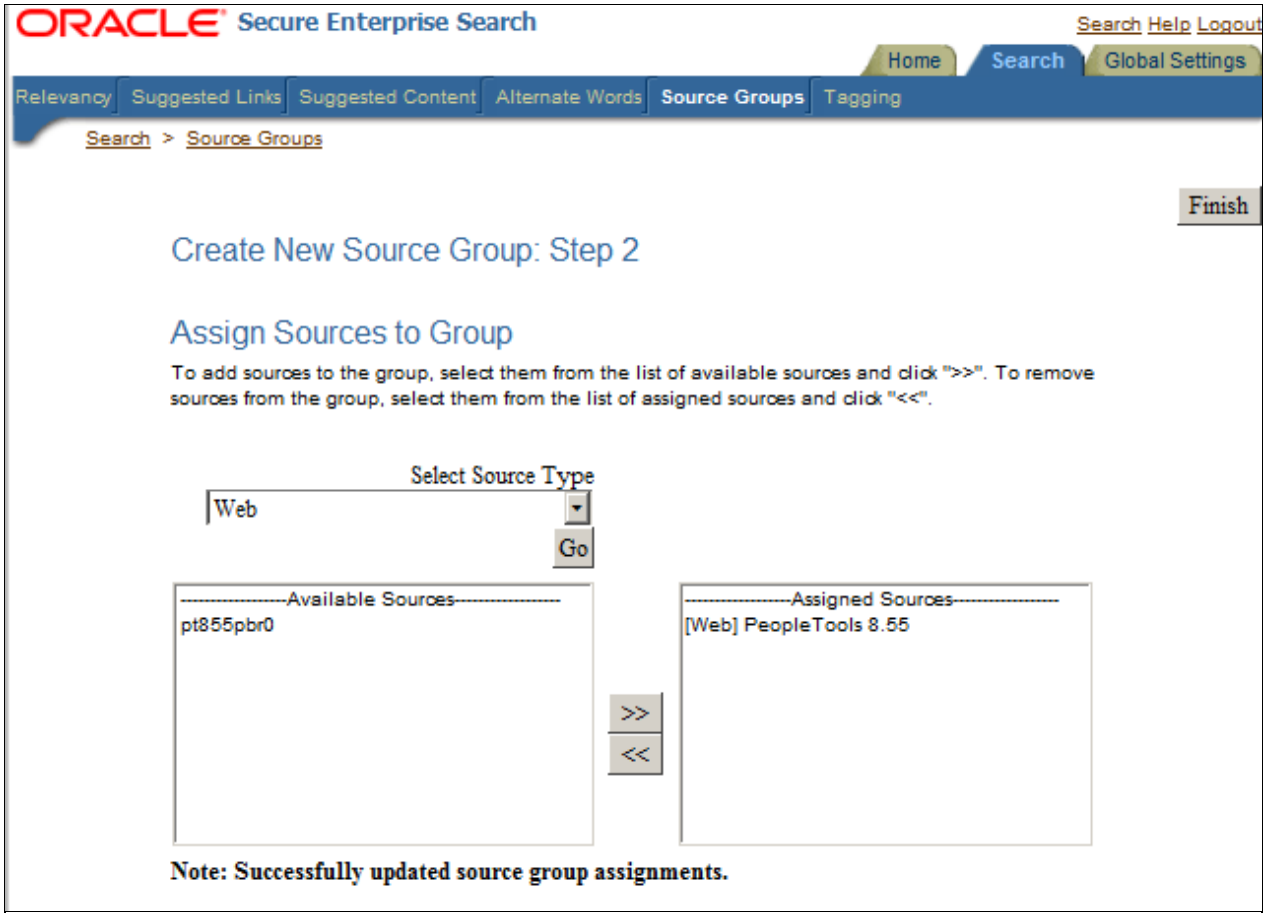
e. From the Available Sources column, highlight the index you just created, then click the double right arrow between the two columns to move the index to the Assigned Sources column.



Create New Source Group: Step 2 page

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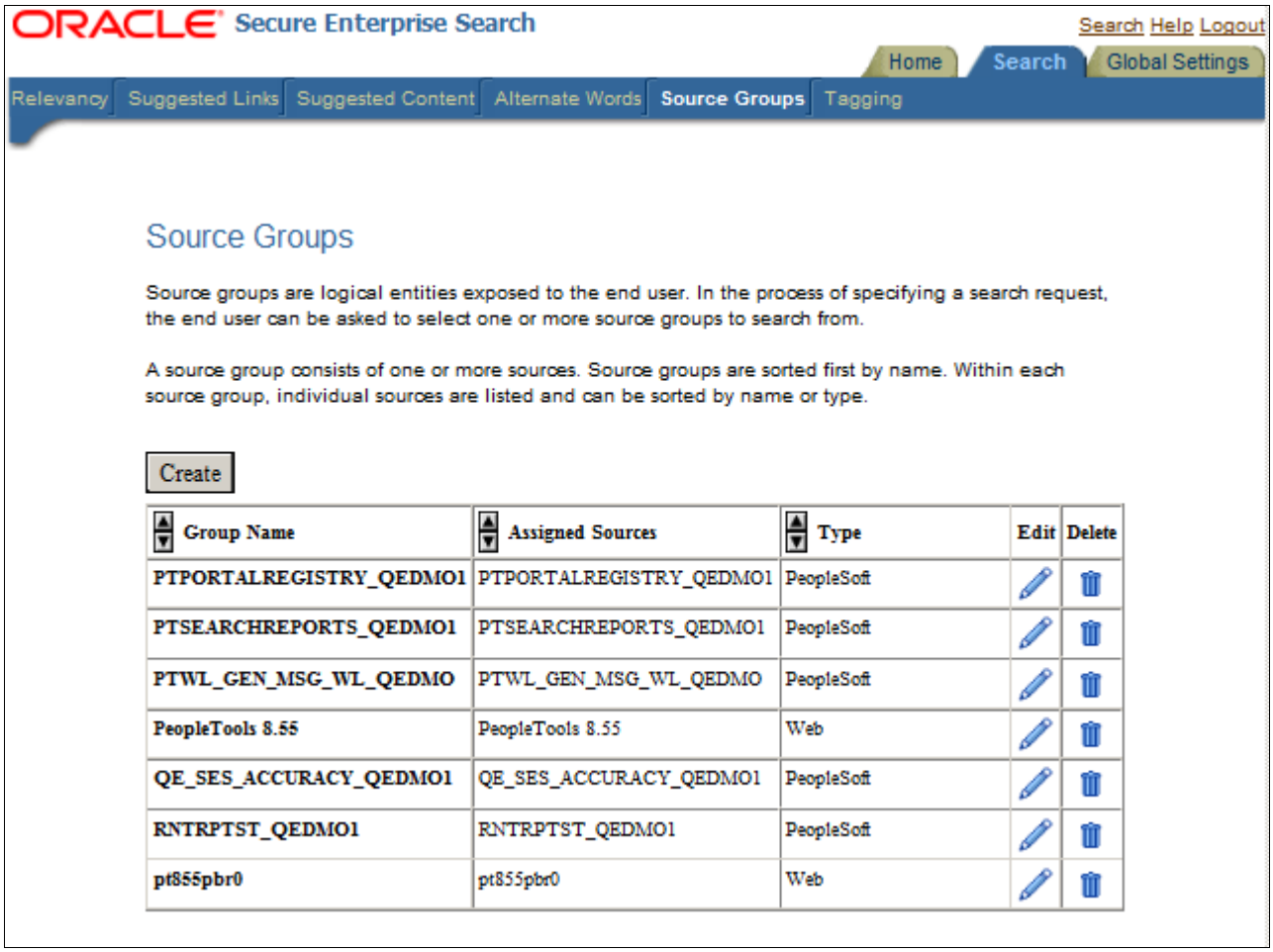
14. Click the Finish button and it will return you to the list of source group names.



Source Groups page with newly created group

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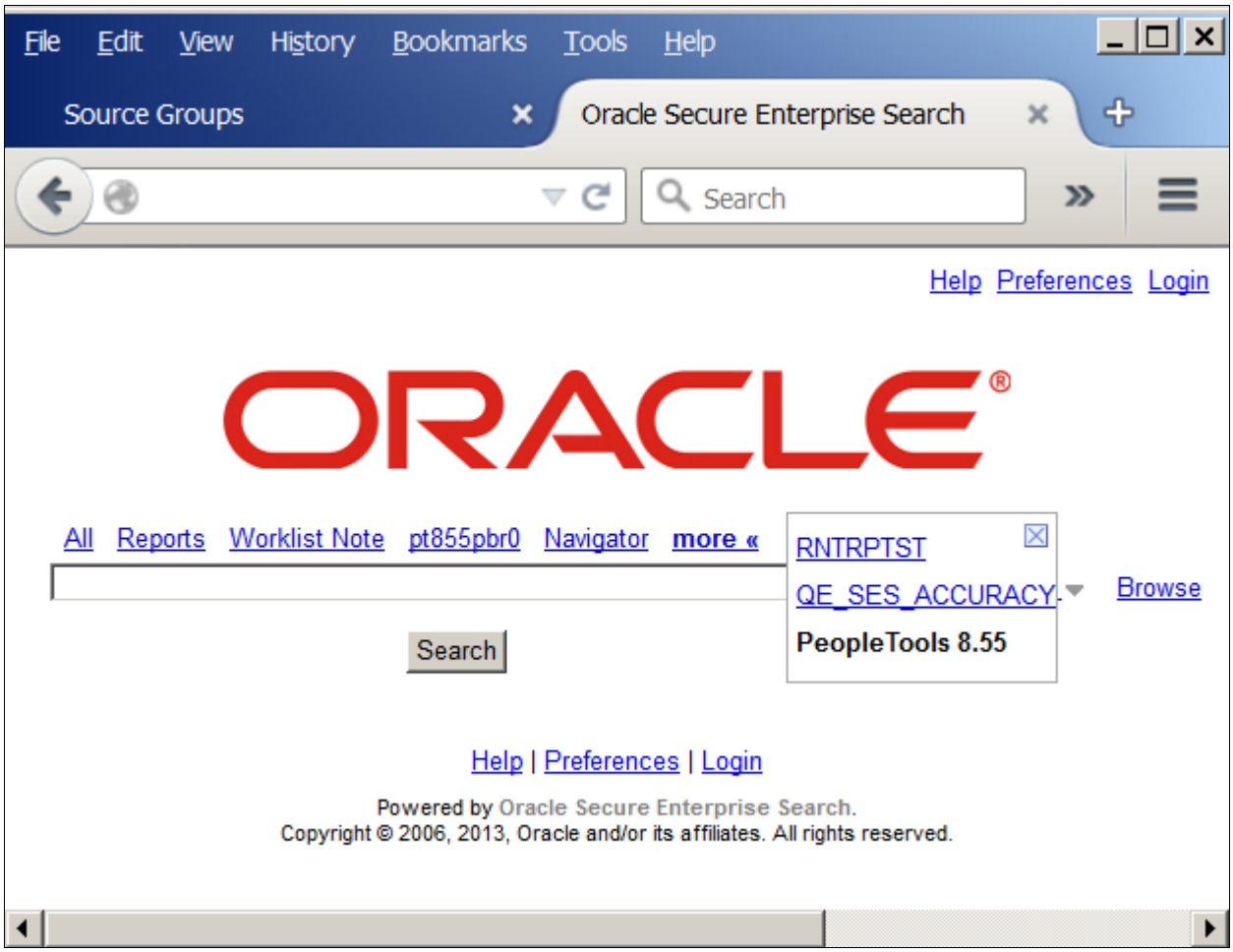
15. To test the search index, click the Search link, not tab, at the top right of the screen.

    On the browser window that opens, click the name of the Search Source group you created (if applicable) and note the resulting URL, which will serve as the search home for the PeopleSoft Online Help. In this example PeopleTools 8.55 has been selected.



Browser window with Oracle SES Source groups

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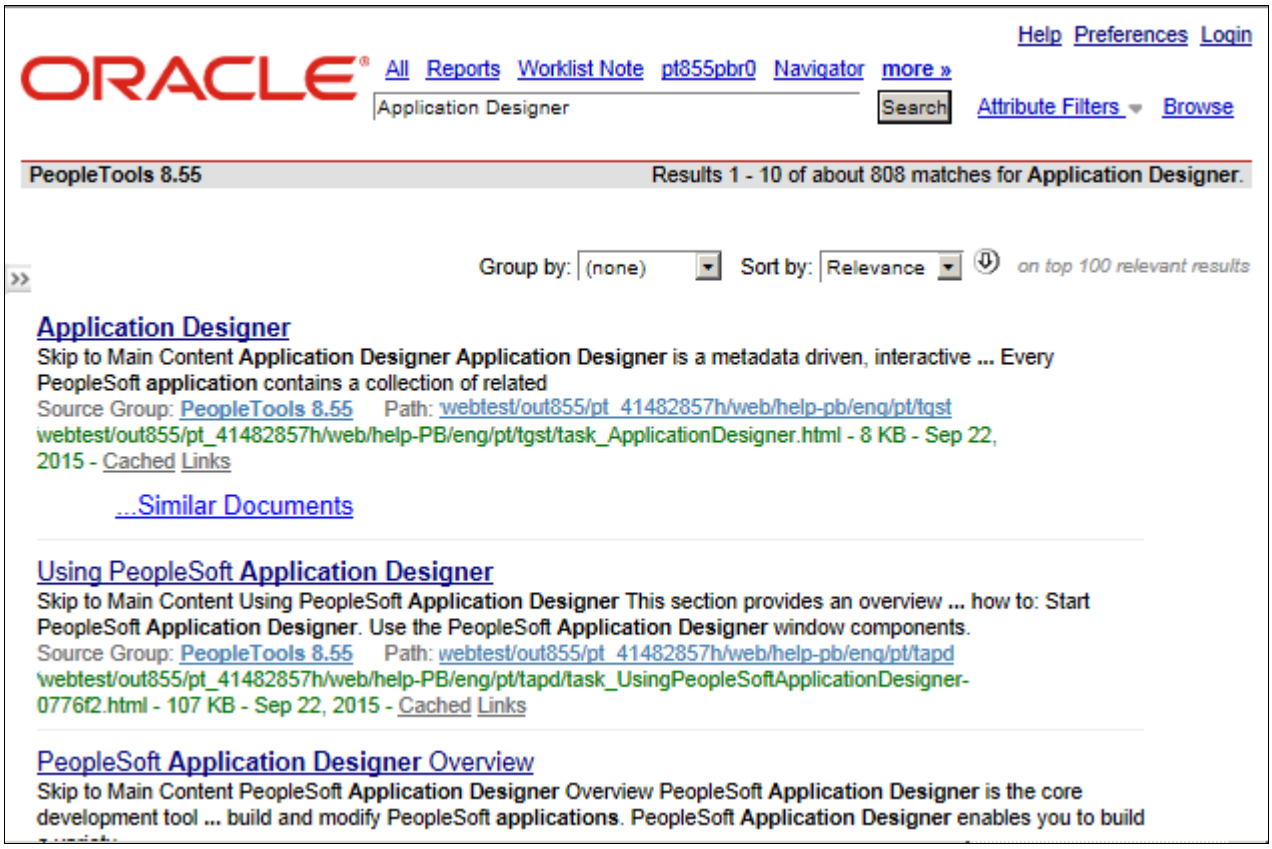
16. Test the index by entering some criteria in the search box and clicking the Search button.

    In this example, the Search Source PeopleTools 8.55 is selected and displays results for the search phrase "Application Designer".



Results of full-text search

Click the double-arrow icon at the top left of the results page to display filtering options.

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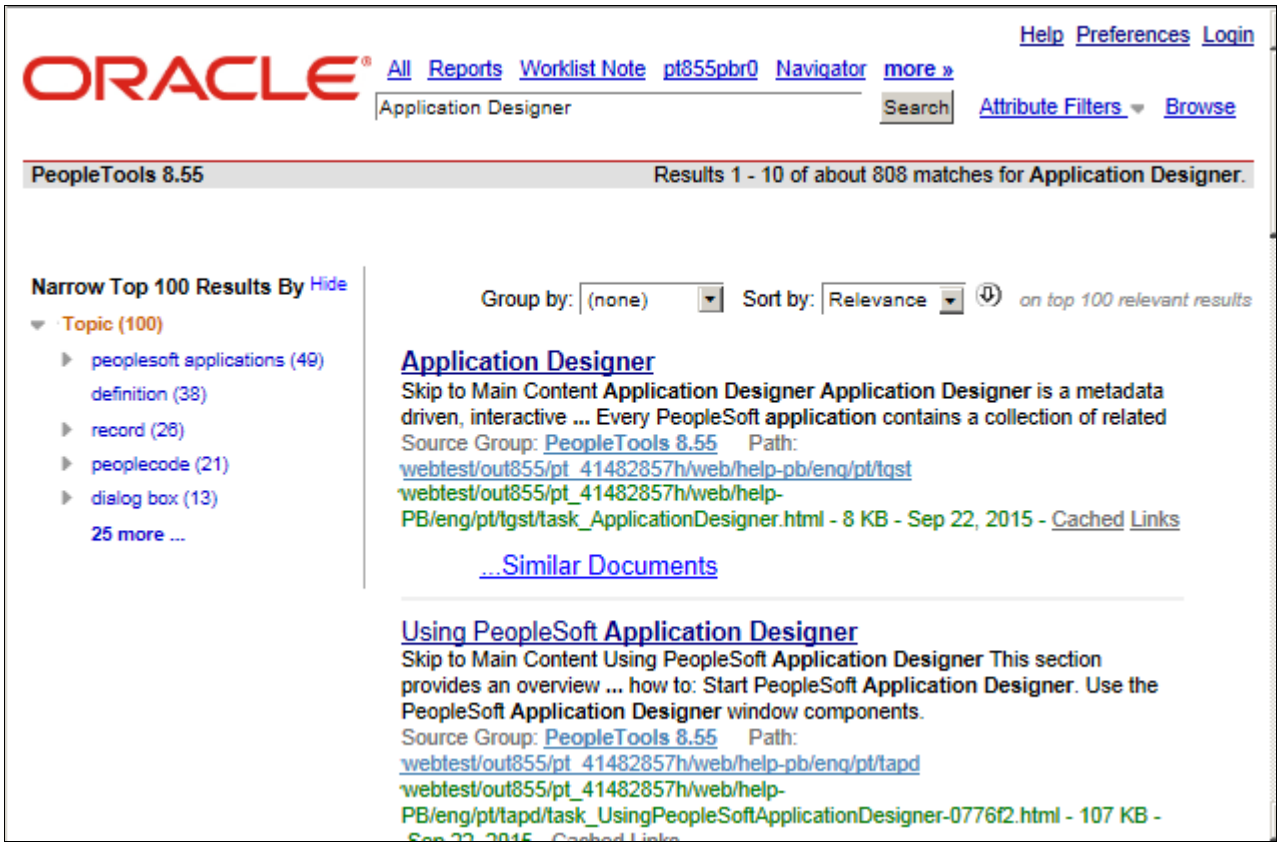

Search Results with filtering options

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17. Select a result title to see the online help topic, such as this example for Application Designer.

Online Help Topic

When the Search link on the top of an online help topic is enabled, it allows you to return to the selected Source Group on the Oracle SES Search portal. To enable this Search link, see the information on modifying the <*help_folder*>/js/common.js file in the PeopleSoft product documentation. To access this product documentation, select About This Help in the Contents sidebar.

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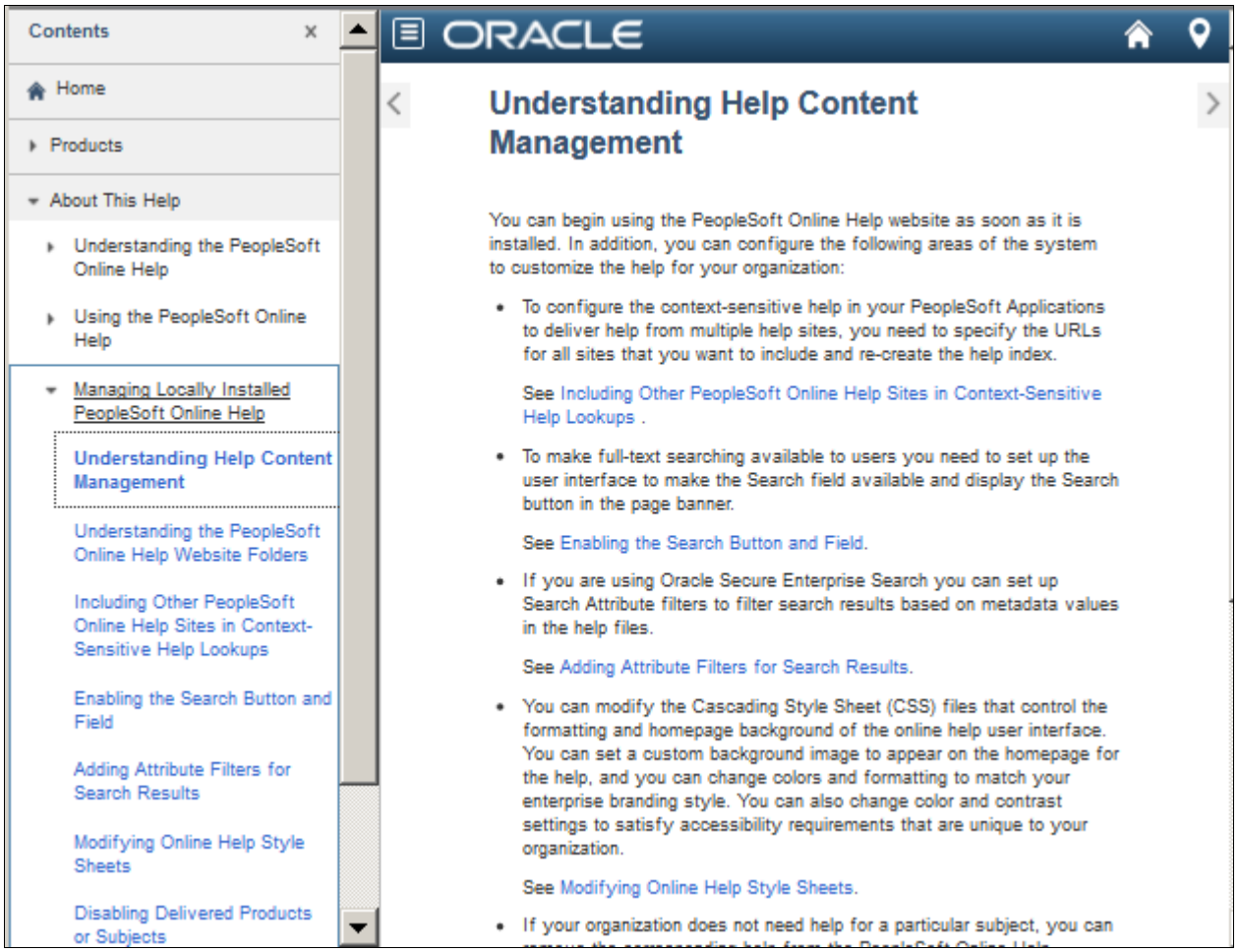

About This Help

Task 18-5: Setting Up Oracle Secure Enterprise Search for Multiple Product Line Libraries

This section discusses:

- Understanding the Multiple Product Line Setup
- Setting Up the Product Line Libraries
- Creating Web Sources for the Individual Product Line Libraries
- Creating a Web Source for the Combined Library

Understanding the Multiple Product Line Setup

Use the instructions in this section if you want to carry out a local installation of more than one PeopleSoft online library and configure with Oracle SES for full-text searching. This section assumes that you have set up the Oracle SES server as described earlier in this chapter.

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Task 18-5-1: Setting Up the Product Line Libraries

To download and extract the product line libraries:

1. Go to the Oracle Software Delivery Cloud and download the help libraries for PeopleSoft PeopleTools and all of the PeopleSoft applications that you want to include.

   See Obtaining PeopleSoft Online Help and Installation Files from Oracle Software Delivery Cloud.

2. Extract and save all of the product line libraries to the same local directory.

   Install the product line libraries in the following sequence. You should always install the PeopleSoft PeopleTools online help first. Each library should overwrite the preceding library:

   a. PeopleSoft PeopleTools 8.55 Online Help

   b. PeopleSoft Human Capital Management 9.2 Online Help

   c. PeopleSoft Financials and Supply Chain Management 9.2 Online Help

   d. PeopleSoft Portal Solutions 9.1 Online Help

   e. PeopleSoft Customer Relationship Management 9.2 Online Help

3. Set up a web site for each product line library.

   See Installing PeopleSoft Online Help Locally.

4. Set up a web site for the combined online library.

   This documentation refers to the combined web site as *Psoft2*.

Task 18-5-2: Creating Web Sources for the Individual Product Line Libraries

To create Oracle SES web sources:

See Using Oracle Secure Enterprise Search for Full-Text Searches.

1. Create web sources for all the individual product line libraries; for example, pt855, hcm92; fscm92; ps91 and crm92.
2. Use the web site that you created for each product line in the previous section as the related web source.
3. Schedule and index each web source.
4. Create a web group to access each product line web source, and test.

Task 18-5-3: Creating a Web Source for the Combined Library

To create the combined web source:

1. Create a web source for the combined libraries, for example, Psoft2.
2. Configure the combined web source to access all of the individual product line libraries.
3. Schedule and index the combined web source.

The search should include all of the product line libraries.

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Chapter 19

Installing Software for PS/nVision Drilldowns

This chapter discusses:

- Understanding PS/nVision DrillDown Add-ins
- Installing the DrillToPIA Add-In
- Installing the nVisionDrill Add-In
- Installing the nVisionDrill Add-Ins for Multi-Language Installations
- Setting Up PeopleSoft Integration Broker for Using Web Service Capability with nVisionDrill Add-in

Understanding PS/nVision DrillDown Add-ins

When you use PS/nVision to view reports, you can use the DrillDown feature to select a cell in your report and expand it according to criteria contained in a special DrillDown layout.

See *PeopleTools: PS/nVision,* "Using DrillDown."

To use the PS/nVision DrillDown feature with Microsoft Excel reports, you need to install one of the following add-ins, as described in this chapter:

Note. DrillToPIA and nVisionDrill VSTO add-ins do not coexist. You can use only one add-in at a time.

- DrillToPIA add-in
- nVisionDrill VSTO add-in (Visual Studio tools for Microsoft Office SE Runtime).

See *PeopleTools: PS/nVision,* "Understanding PS/nVision Reporting on the Web."

Here is the way the two drilldown add-ins work with the supported version of Microsoft Excel:

If the nVisionDrill VSTO add-in was installed, the nVisionDrill add-in runs and the nVisionDrill VSTO drilldown menu is available when Microsoft Excel opens.

Optionally, you can disable the nVisionDrill VSTO add-in and run the DrillToPIA add-in.

Note. To disable the nVisionDrill VSTO add-in and use the DrillToPIA add-in, access the Add-Ins dialog box and select the DrillToPIA check box. This selection replaces the nVisionDrill VSTO add-in with the DrillToPIA add-in, and the DrillToPIA drilldown menu appears until you reinstall the nVisionDrill VSTO add-in.

To reinstall the nVisionDrill VSTO, double-click the setup.exe file and select the Repair option.

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Task 19-1: Installing the DrillToPIA Add-In

This section discusses:

- Understanding Drilldown with DrillToPIA Add-in
- Installing the DrillToPIA Add-in on the Microsoft Excel Environment

Understanding Drilldown with DrillToPIA Add-in

DrillDowns are run on the PS/nVision report server – like Report Requests and Report Books – and are accessible through Report Manager. You can also select to run the DrillDown using the output type of *Window,* which automatically delivers the results to a new browser window. A copy of the results will also be accessible through Report Manager.

You can drill down on individual cells within the report by selecting the cell and using Drill from the nVisionDrill menu for a Microsoft Excel report.

Note. A drilldown result report inherits the output format of its parent report. So, if the parent instance is in Excel format, then the drilldown result is in Excel format.

DrillDown in a web browser does not include the AutoDrill, Drill-to-Query, and Drill-to-Panel options.

Task 19-1-1: Installing the DrillToPIA Add-in on the Microsoft Excel Environment

To drill down on Microsoft Excel reports, the Microsoft Visual Basic Application (VBA) add-in DrillToPIA.xla file needs to be installed on the Microsoft Excel environment. This file is stored in the *PS_HOME*\Excel directory on the Application Server. Your System Administrator needs to distribute a copy of this file to all users who need to drill down on Microsoft Excel reports on the Web.

Note. If a non-English version of Microsoft Excel is used, translated versions of DrillToPIA.xla can be found in the <*PS_HOME*>\Excel\<*Language*> directory on the Application Server.

In Apple Macintosh systems, PS/nVision DrillToPIA add-in launches Microsoft Internet Explorer for the drilldown page when drilling is performed on a Microsoft Excel report, regardless of the browser from which the original report is opened.

To install the add-in DrillToPIA.xla file into the Microsoft Excel environment:

1. Copy the *PS_HOME*\Excel\DrillToPIA.xla file, and paste it into the Excel add-in directory.

   If Microsoft Office is installed in the directory *MS_OFFICE,* the Excel add-ins directory is *MS_OFFICE*\Office\Library.
2. Launch Microsoft Excel and select Tools, Add-ins from Excel toolbar.
3. Select the DrillToPIA option in the Add-ins dialog box.

   The nVisionDrill menu appears in the Excel menu bar.

Note. To remove the add-in from the Excel menu, clear the DrillToPIA option from the Add-Ins dialog box.

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Task 19-2: Installing the nVisionDrill Add-In

This section discusses:

- Understanding PS/nVision DrillDown Using Web Services
- Understanding Security for DrillDown Using nVisionDrill VSTO Add-in
- Installing the nVisionDrill Add-in for Microsoft Excel

Understanding PS/nVision DrillDown Using Web Services

For PeopleSoft PeopleTools 8.50 and later releases, you are able to use the web service capability when drilling from summarized to detailed PS/nVision reports using the nVisionDrill VSTO add-in.

PeopleSoft PeopleTools supports 64-bit Microsoft Excel 2010 and Excel 2013 for the nVisionDrill VSTO add-in.

Note. During the installation for the nVisionDrill VSTO add-in, if there is a message that pre-requisites are not found, run PIARedist.exe and vstor_redist.exe available in the *PS_HOME*\setup\nVisionDrill folder.

In addition, take note of the following requirements:

- You must set up and configure Integration Broker to use the nVision Drilldown feature as a web service.

  See Setting Up Integration Broker for Using Web Service Capability with nVisionDrill Add-in.
- The web servers should be SSL enabled.

  This is because all the web service calls happen through secure channels.

  When you create the SSL-enabled web server domain, you need to provide the optional parameter Authentication Token Domain with the appropriate domain name.

Note. The new nVisionDrill VSTO add-in is mainly designed for remote standalone file drilldown (where the end user doesn't have access to the PeopleSoft Pure Internet Architecture system). For all other purposes and Web drilldown, the nVision users are still encouraged to use the DrillToPIA add-in.

Understanding Security for DrillDown Using nVisionDrill VSTO Add-in

The nVisionDrill VSTO Add-in allows users to perform drilldown without having to access the PeopleSoft Pure Internet Architecture pages. This necessitates that the end users of nVisionDrill must sign in to the PeopleSoft system to be able to submit the drilldown process and access the subreports. The users of nVisionDrill VSTO add-in will be prompted to enter a user ID and password for the first time. This user ID and password are validated. If the users have access, they are taken to the menu with the list of DrillDown layouts for further drilldown operation.

When the users attempt another drilldown using the same parent report instance which is already open, the system does not prompt for the credentials, and the credentials of the first login are re-used. But for each new report instance or new drilldown report instance, the credentials must be entered again.

Note. All web service calls between the Microsoft Excel and PeopleSoft applications are SSL-enabled.

Task 19-2-1: Installing the nVisionDrill Add-in for Microsoft Excel

To install the nVisionDrill VSTO add-in for Microsoft Excel:

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1. Go to *PS_HOME*\setup\nVisionDrill.
2. Run the nVisionDrillSetup.msi file.

   If all required software items have been installed, the nVisionDrill add-in installation will run to success.

   During the installation, if you see a message that pre-requisites are not found, run PIARedist.exe and vstor_redist.exe available in the *PS_HOME*\setup\nVisionDrill folder.
3. Ensure that the web server domain's SSL Root certificate is installed on the machine where the nVisionDrill VSTO add-in is installed.

   The Root Certificate should be installed correctly on the default browser of the machine. For example, on Microsoft Internet Explorer 8 the SSL Root Certificate should be installed under Trusted Root Certification Authorities.

Task 19-3: Installing the nVisionDrill Add-Ins for Multi-Language Installations

If you have a multi-language installation, first install NVisionDrillSetup.msi for English, as described above, and then install the NVisionDrillSetup_*xxx*.msi for the desired languages, where the extension *xxx* is the three-letter language code.

See *PeopleTools: Global Technology.*

Task 19-4: Setting Up PeopleSoft Integration Broker for Using Web Service Capability with nVisionDrill Add-in

To set up Integration Broker for using web service capability with PS/nVision DrillDown:

1. Select PeopleTools, Integration Broker, Configuration, Gateways.
2. Select the Integration Gateway ID for which the Local Gateway is enabled from the search results.

   An enabled Local Gateway is marked as "Y" in the search results.

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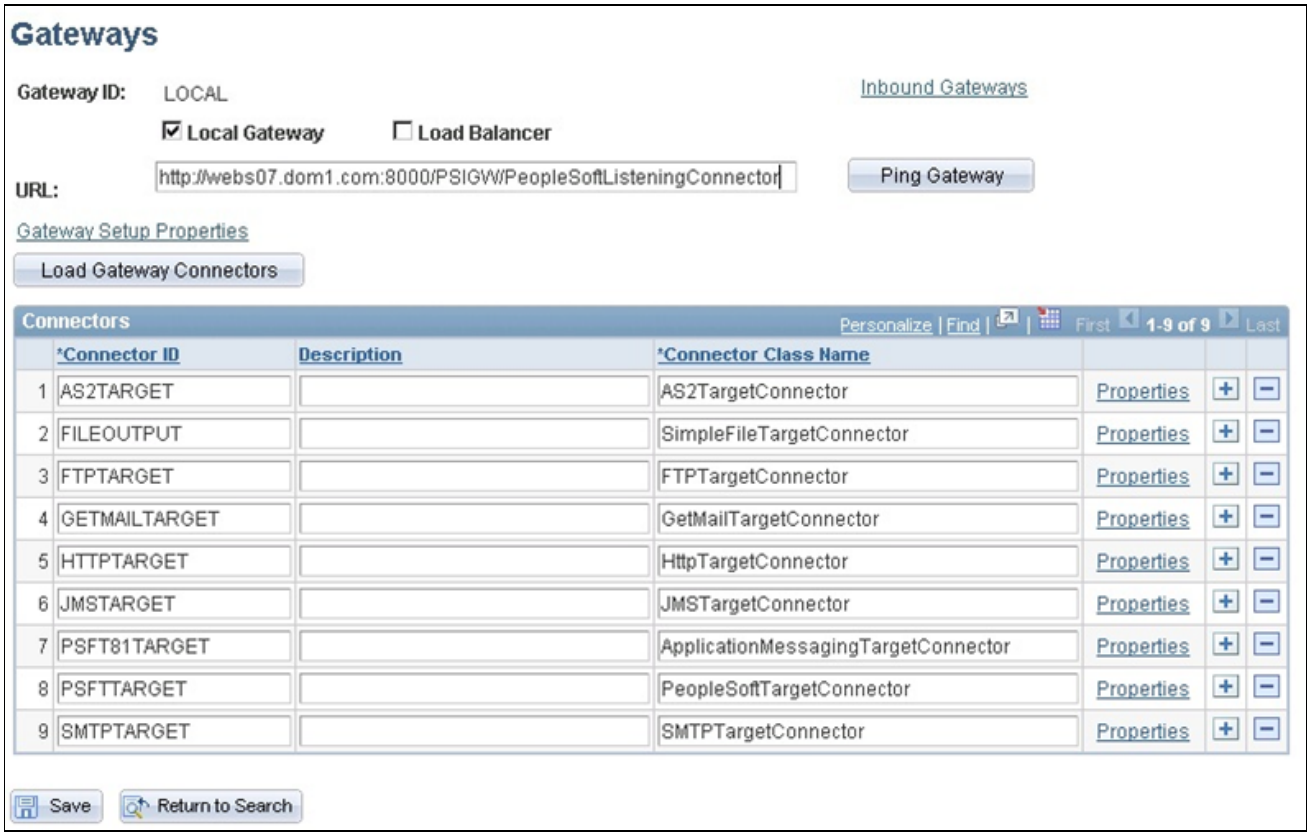
3. In the URL field, enter the following value, where <machine_name> is the Web server machine name, including the domain name, and <port> is the HTTP port number of the PeopleSoft web server:

   http://*<machine_name>*:*<port>*/PSIGW/PeopleSoftListeningConnector

   This example shows the Integration Broker Gateways page with the URL http://webs07.dom1.com:8000/PSIGW/PeopleSoftListeningConnector, where webs07.dom1.com is the combined machine name and domain name, and 8000 is the HTTP port:



Integration Broker Gateways page

4. Click Ping Gateway.

   A message appears saying "Gateway URL has changed. Existing connector information will be cleared". Click OK on this message.

   You should see a message with the status ACTIVE, indicating a successful connection. Close this message.

5. On the Gateways page, click the Load Gateway Connectors button to load the list of connectors, and then click Save.

   If the ping is unsuccessful, check the Web server URL entered, and also make sure Pub/Sub servers are enabled in the Application Server configuration.

6. Select PeopleTools, Integration Broker, Service Operations Monitor, Administration, Domain Status.

7. Purge the unnecessary domains and enable the required domain.

   You should be able to see at least three dispatchers under Dispatcher Status. This is required for running asynchronous requests through Integration Broker.

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Note. PeopleSoft Integration Broker must process all nVision web service requests that are sent from nVisionDrill VSTO add-in, so the Local PeopleSoft Node of PeopleSoft Integration Broker gateway must include at least three dispatchers.

8. Select PeopleTools, Integration Broker, Configuration, Gateways.

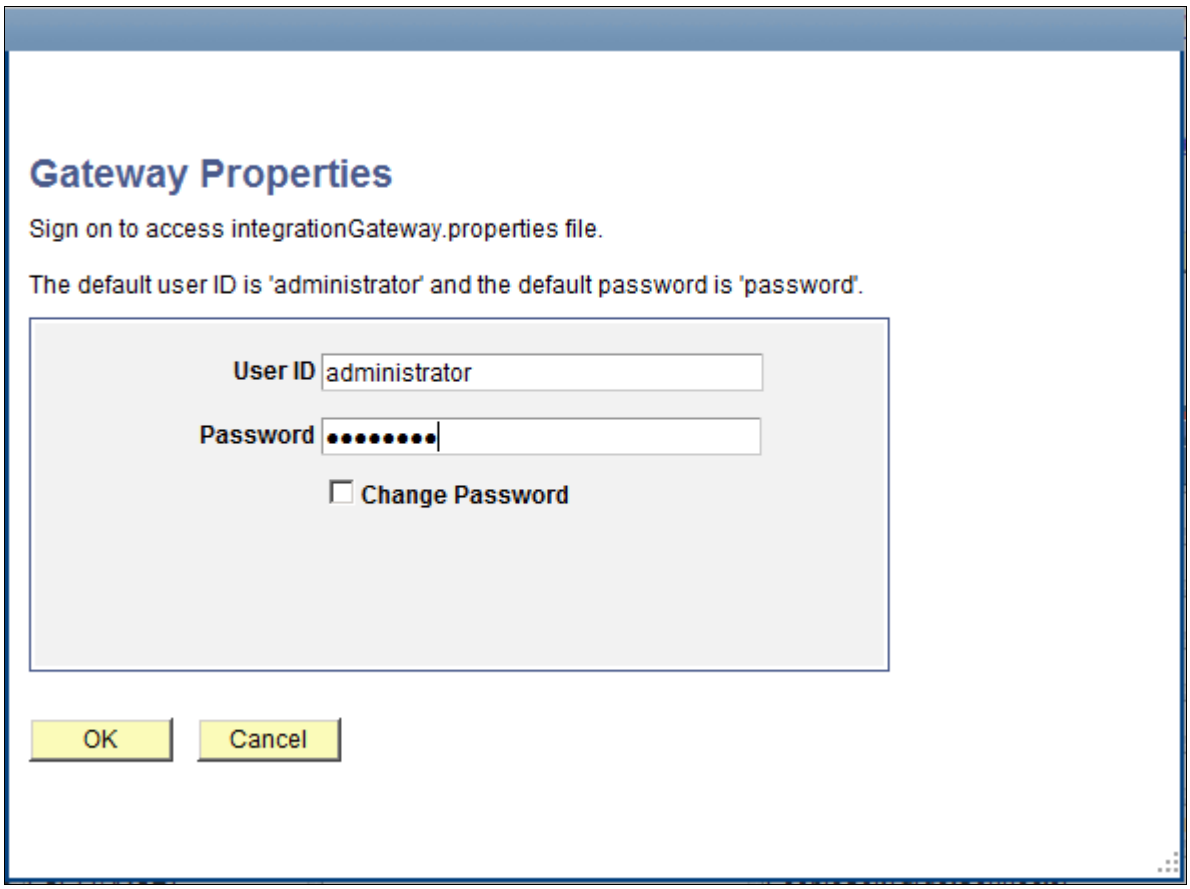
   Select the same Integration Gateway ID that you chose in step 1.

9. On the Gateways page, select the link Gateway Setup Properties.

   The Gateways Properties page appears.

10. Enter the Integration Gateway administrator user ID and password.

    The default User ID is administrator, as shown in this example. Enter the password that you specified when setting up the PeopleSoft Pure Internet Architecture.



Gateway Properties sign on page

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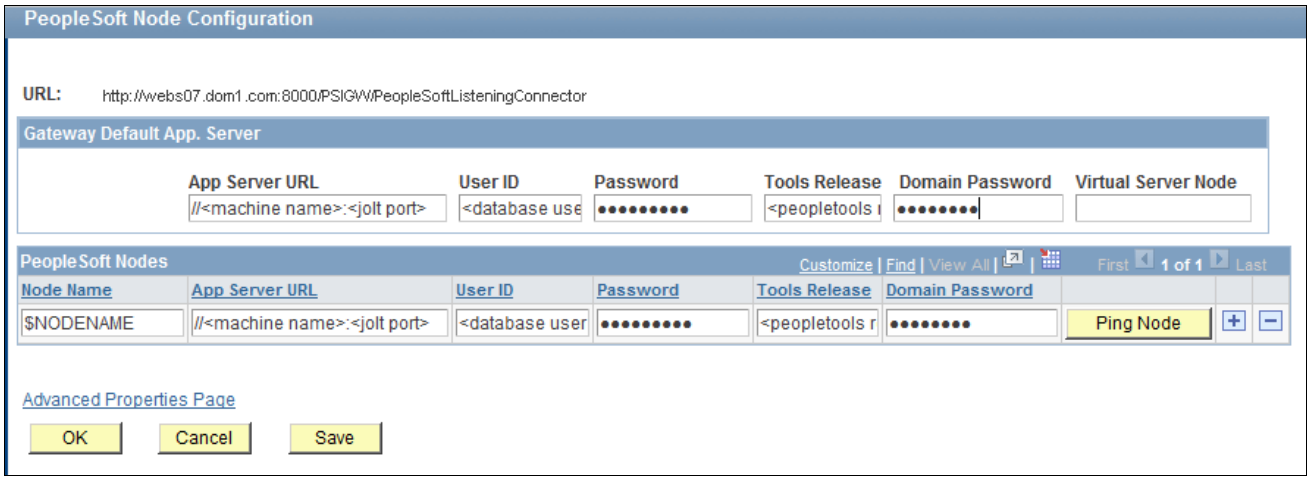
11. Add a new node in the PeopleSoft Node Configuration page.



PeopleSoft Node Configuration page

Node Name: Enter the name of the active default node.

This example uses $NODENAME.

To find the active default node, navigate to Integration Broker, Integration Setup, Nodes. Do a search, and choose the node for which the Local Node value is "1" and the Default Local Node value is "Y".

Enter the following values to complete the page:

Note. The following information can be retrieved by pressing CTRL+J on the PeopleSoft Node Configuration page.

- App Server URL: Enter the application server machine name and the Jolt port.
- User ID: Enter PeopleSoft user ID
- Password: Enter the password for the PeopleSoft user ID specified in the User ID field.
- Tools Release: Provide the exact PeopleSoft PeopleTools release that your application server is using.

12. Click Save.
13. Click Ping Node to be sure the node is accessible, and then exit.

    See *PeopleTools: Integration Broker Administration.*

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Chapter 20

Installing Web Application Deployment Tools

This chapter discusses:

- Prerequisites
- Installing the Web Application Deployment Tool on Oracle WebLogic in GUI Mode
- Installing the Web Application Deployment Tool on IBM WebSphere in GUI Mode
- Installing the Web Application Deployment Tool on Oracle WebLogic in Console Mode
- Installing the Web Application Deployment Tool on IBM WebSphere in Console Mode
- Installing the Web Application Deployment Tool in Silent Mode
- Testing and Troubleshooting the Web Application Deployment

Prerequisites

This chapter includes instructions for installing the Web Application Deployment tool on Oracle WebLogic and IBM WebSphere. Complete the instructions for the web server you selected when you carried out the PeopleSoft PeopleTools installation. Typically, you would choose GUI mode for Microsoft Windows platforms and console mode for UNIX or Linux platforms.

When you install your PeopleSoft application, consult the product-specific installation guide to determine whether the Web Application Deployment tool is required. If the Web Application Deployment tool is not referenced in the product-specific installation guide, you can skip this chapter.

Before you install the Web Application Deployment tool, confirm that you have completed the following requirements.

If you use Oracle WebLogic as your web server, you must fulfill these requirements:

- Java 7 must be installed and working properly. Your PATH environment variable must include an entry for Java 7 (for example, <java7>/bin). If you do not install Java 7 the deployment will fail due to the absence of a Java compiler.
- The PeopleSoft web server must be installed during the PeopleSoft PeopleTools installation.
- Oracle WebLogic 12.1.3 must be installed.

If you use IBM WebSphere as your web server, you must fulfill these requirements:

- Java 7 or above must be installed and working properly. You can use the Java software that is supplied with the PeopleSoft PeopleTools installation.
- The PeopleSoft web server must be selected for installation during the PeopleSoft PeopleTools installation.
- IBM WebSphere 8.5.5.0 must be installed. The web server must be up and running when you carry out the Web Application Deployment tool installation.

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- The PeopleSoft Pure Internet Architecture must be installed on IBM WebSphere.
- If you are running on UNIX or Linux, run the Web Application Deployment installation with a user who owns IBM WebSphere, and who owns *PS_HOME*. Here are two examples:
  - If IBM WebSphere is owned by "root" and group "system", the Web Application Deployment installation must be run with "root" and group "system."
  - If WebSphere is owned by user "wsadmin" and group "wsadmin", then the Web Application Deployment installation must be run with wsadmin and wsadmin as the user and group.

See Also

"Installing Web Server Products"

"Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode"

"Setting Up the PeopleSoft Pure Internet Architecture in Console Mode"

"Using the PeopleSoft Installer"

PeopleTools: System and Server Administration

PeopleSoft Customer Relationship Management Installation

Task 20-1: Installing the Web Application Deployment Tool on Oracle WebLogic in GUI Mode

Use these instructions to install the Web Application Deployment tool on Oracle WebLogic in GUI mode.

1. Navigate to *PS_HOME/*setup/PsMpWebAppDeployInstall.
2. Double-click on `setup.bat`.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

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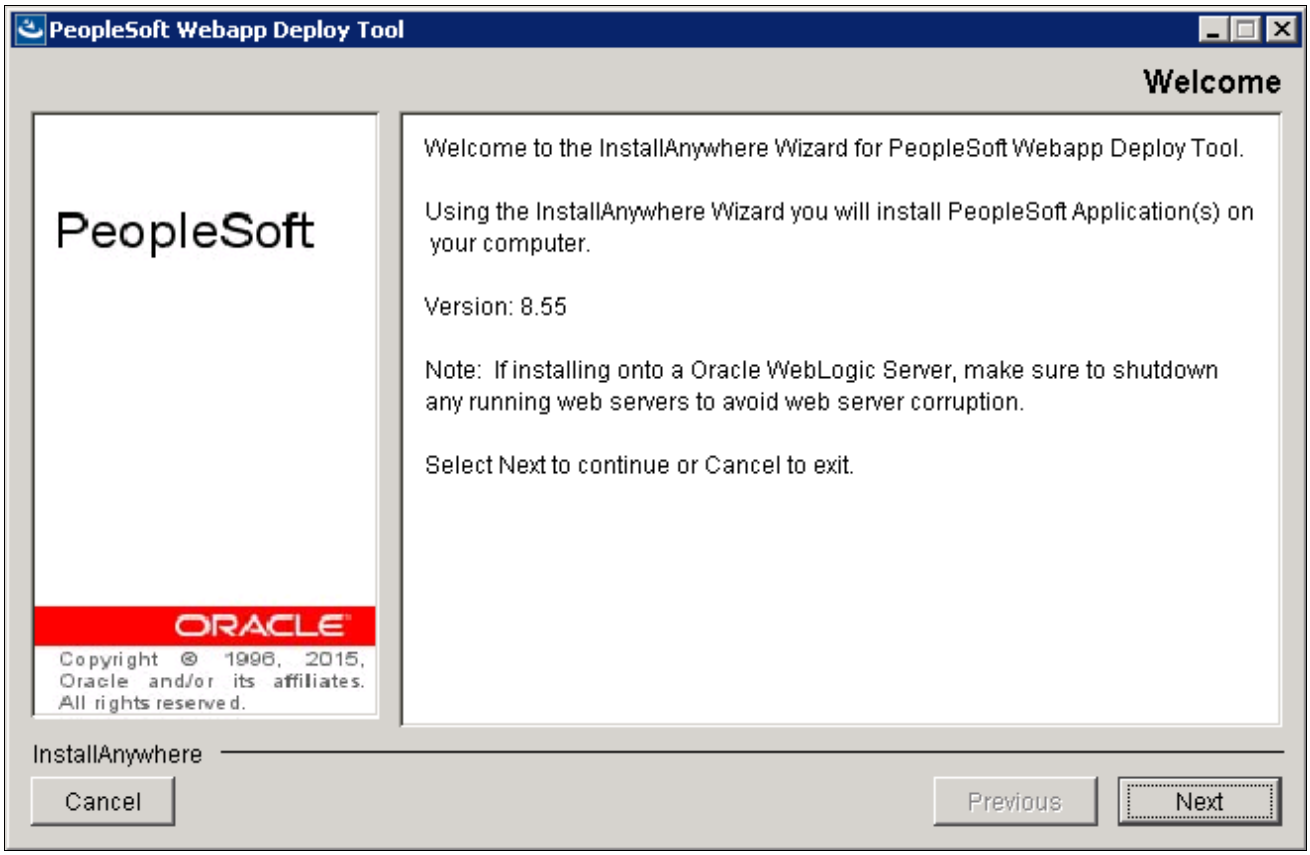
3. Click Next on the Welcome window.

   The window displays the PeopleSoft PeopleTools version, which is 8.55 in this example, and includes the note: "If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption."



PeopleSoft Webapp Deploy Tool Welcome window

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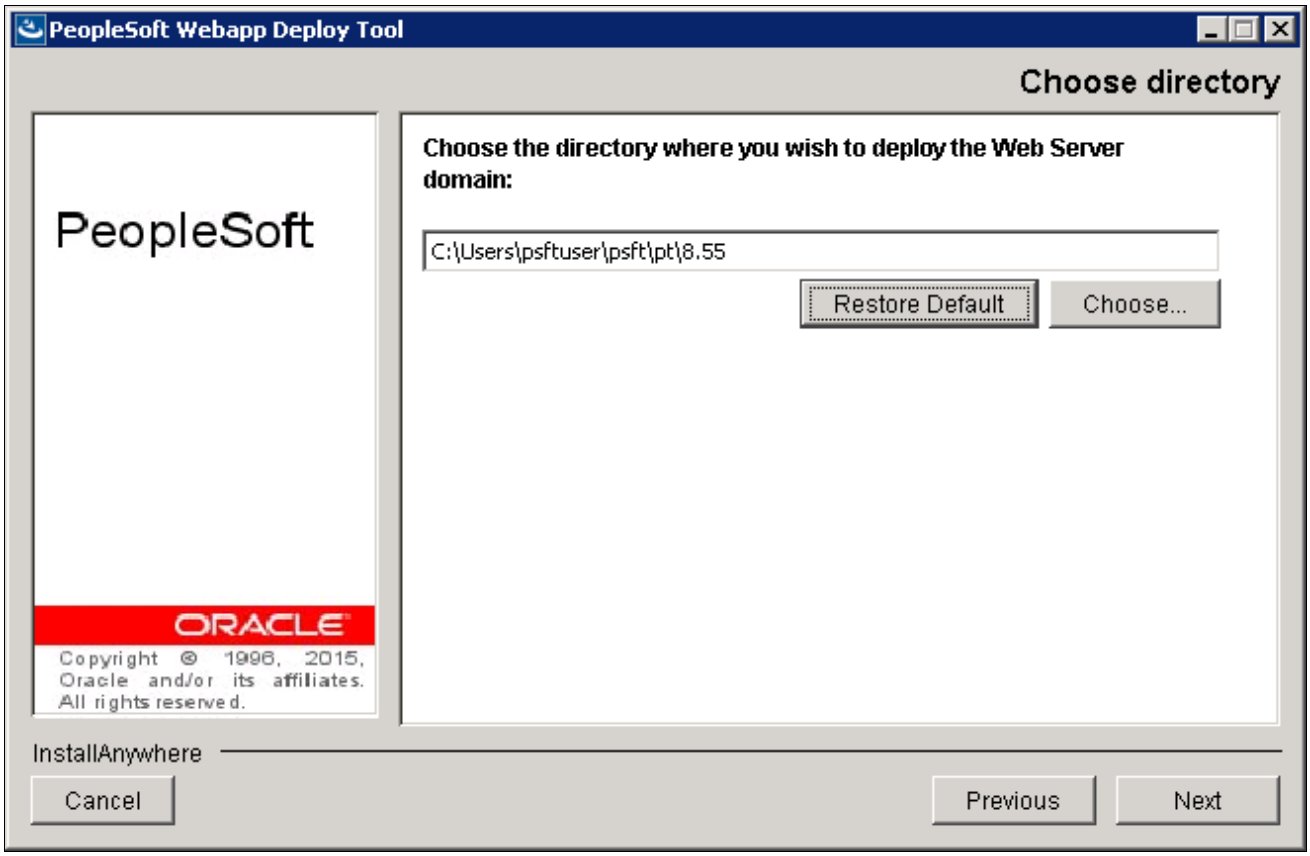
4. Enter the directory where you want to deploy the web server domain for the Web Application Deployment.

   The default directory is *PS_CFG_HOME*. In this example, the deployment directory is C:\Users\psftuser\psft\pt\8.55.



PeopleSoft Webapp Deploy Tool Choose directory window

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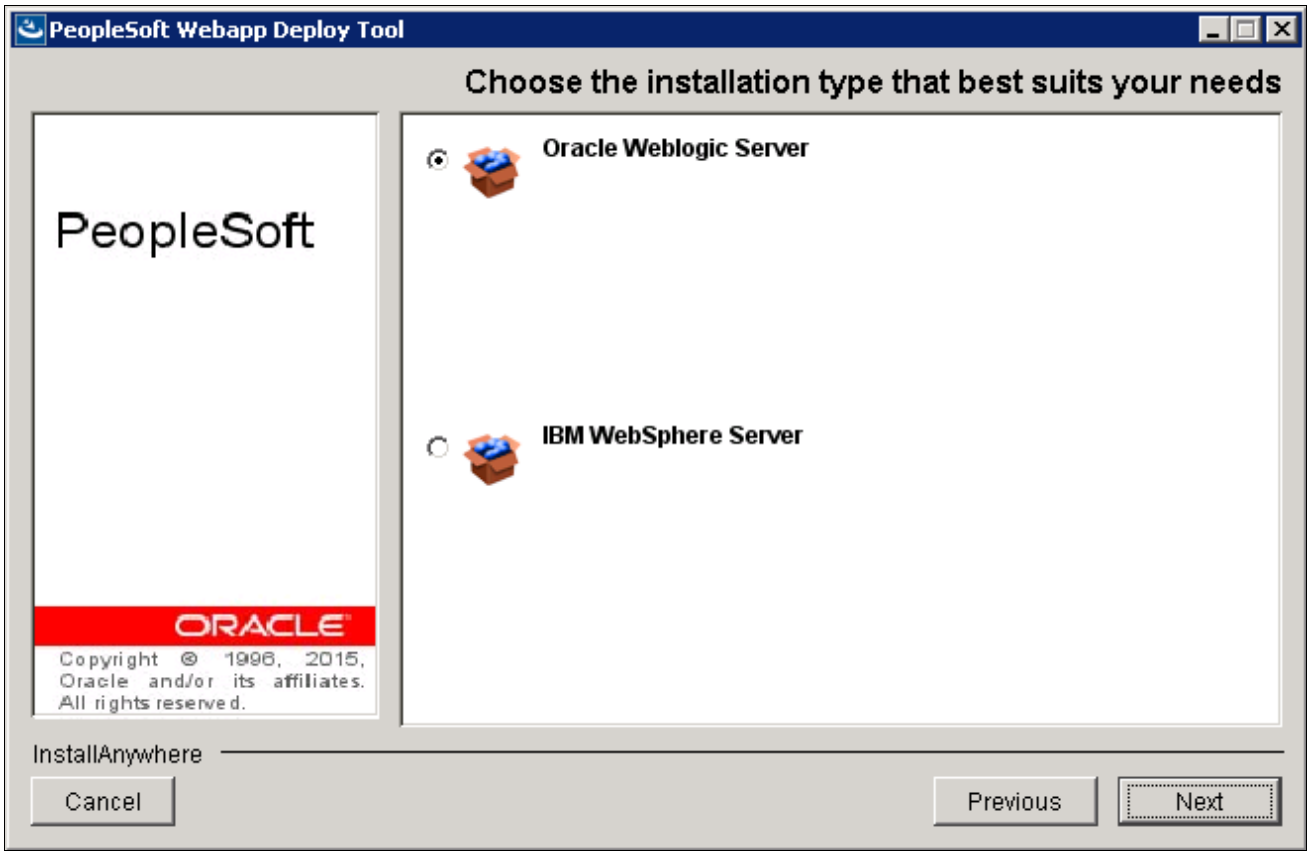
5. Select Oracle Weblogic Server as the installation type, as shown in this example, and click Next.



PeopleSoft Webapp Deploy Tool Choose the installation type that best suits your needs window

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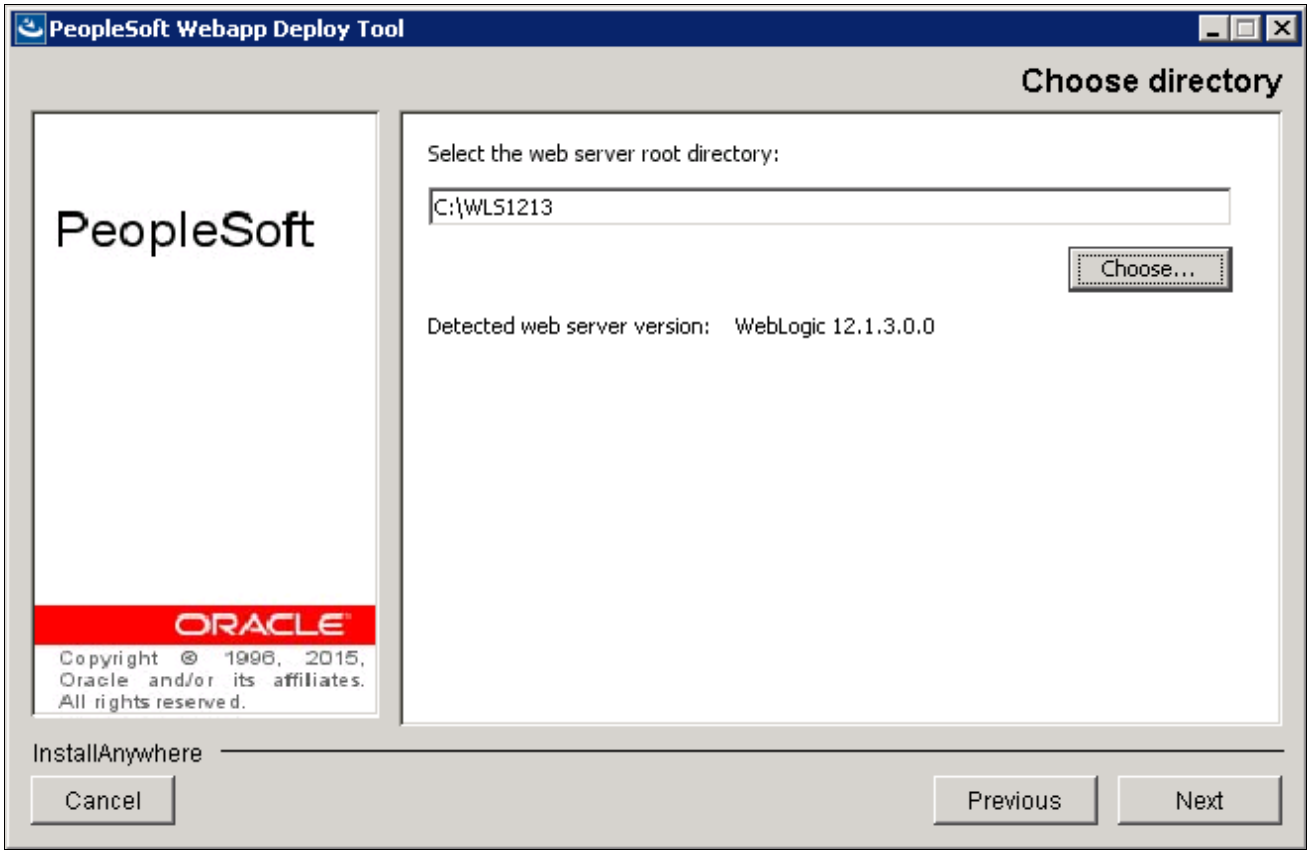
6. Specify the root directory where you installed Oracle WebLogic, and click Next.

   In this example, the web server root directory for Oracle WebLogic 12.1.3 is C:\WLS1213.



PeopleSoft Webapp Deploy Tool Choose directory window

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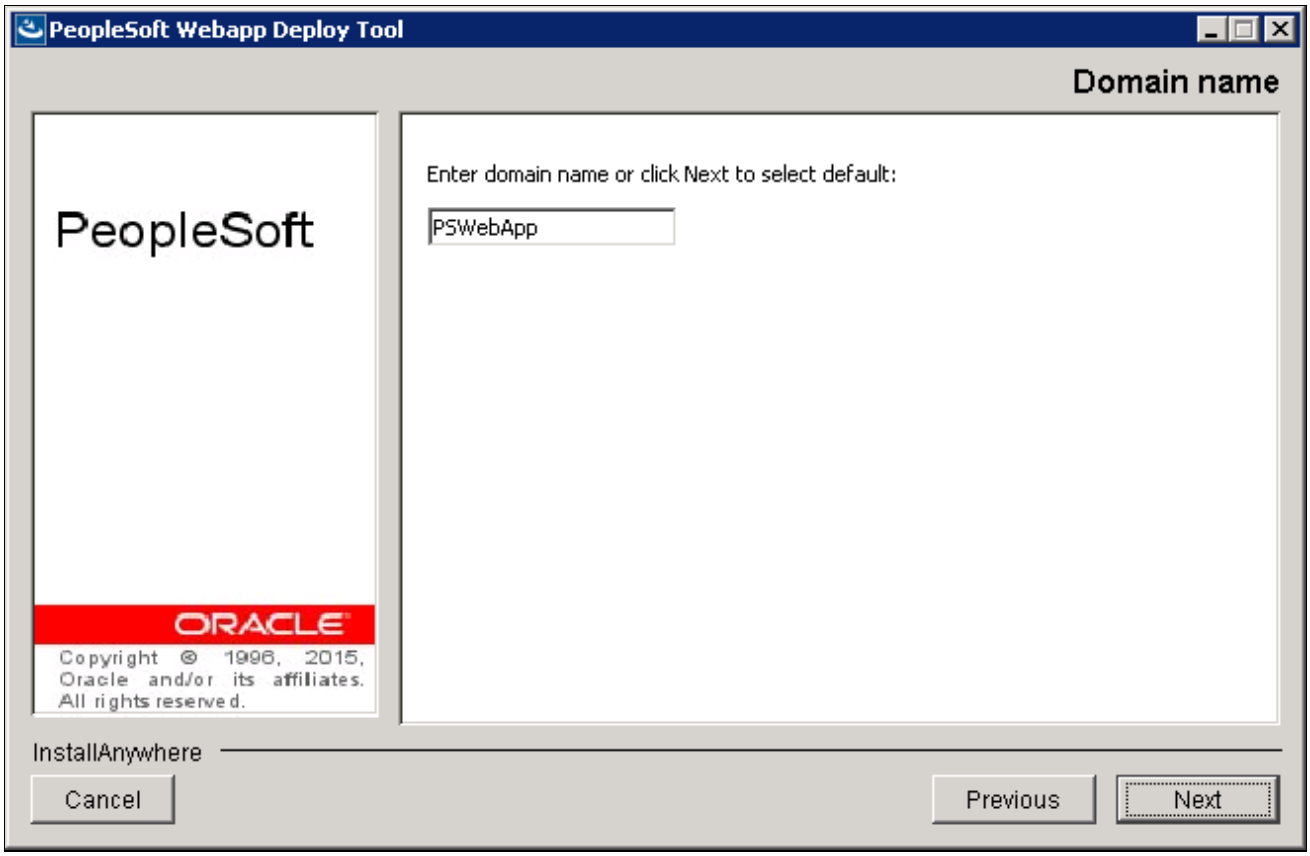
7. Enter a name for the Web Application Deployment domain, or accept the default name, PSWebApp, as shown in this example.

   Use a fully qualified domain name, and do not use an IP address. Click Next to continue.

   Important! The domain that you create for the Web Application Deployment cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.



PeopleSoft Webapp Deploy Tool Domain name window

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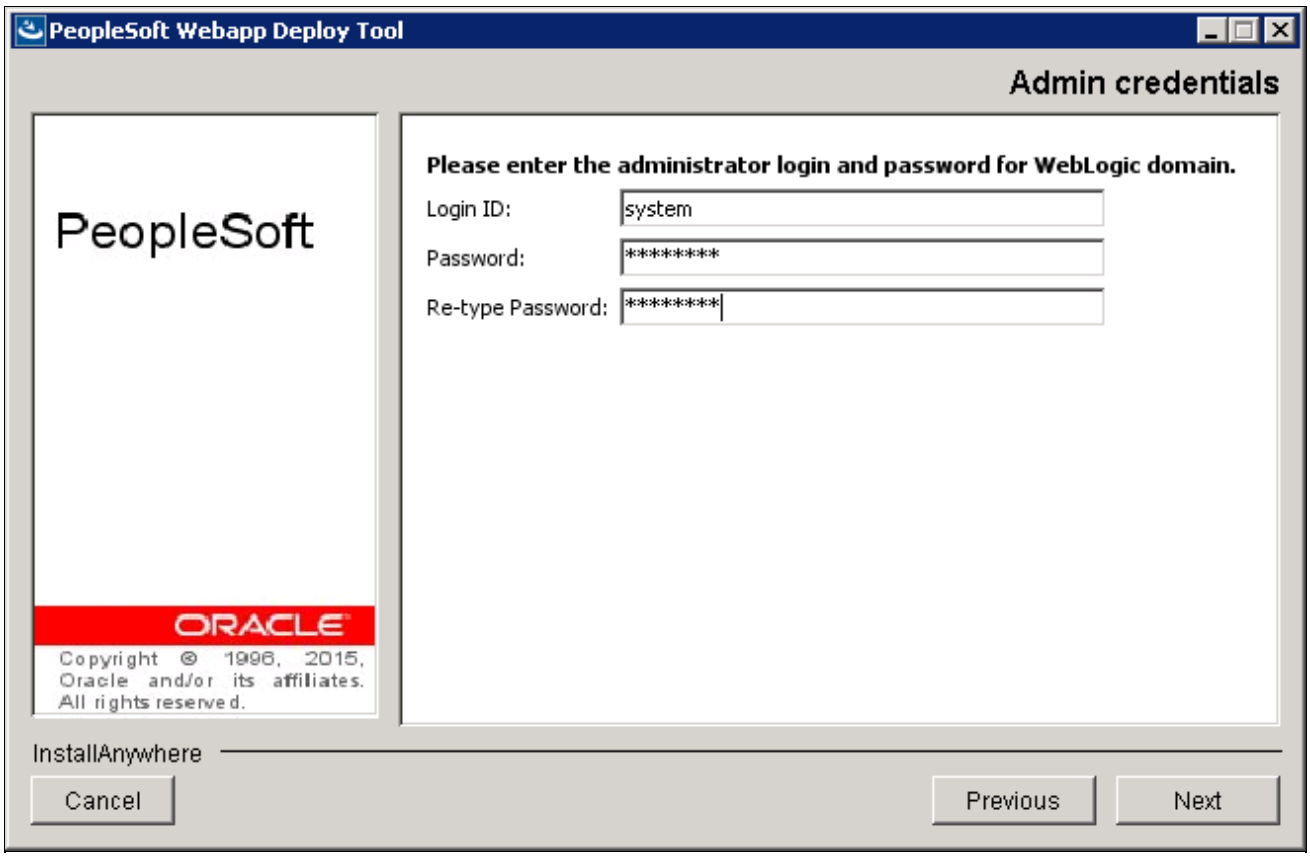
8. Enter the login ID and enter the password twice for the new web server domain that you are creating, and then click Next to continue.

Note. The default login ID is system, as shown on this example. The password, which you specified during the PeopleSoft Pure Internet Architecture setup, must be at least 8 alphanumeric characters with at least one number or special character.



PeopleSoft Webapp Deploy Tool Admin credentials window

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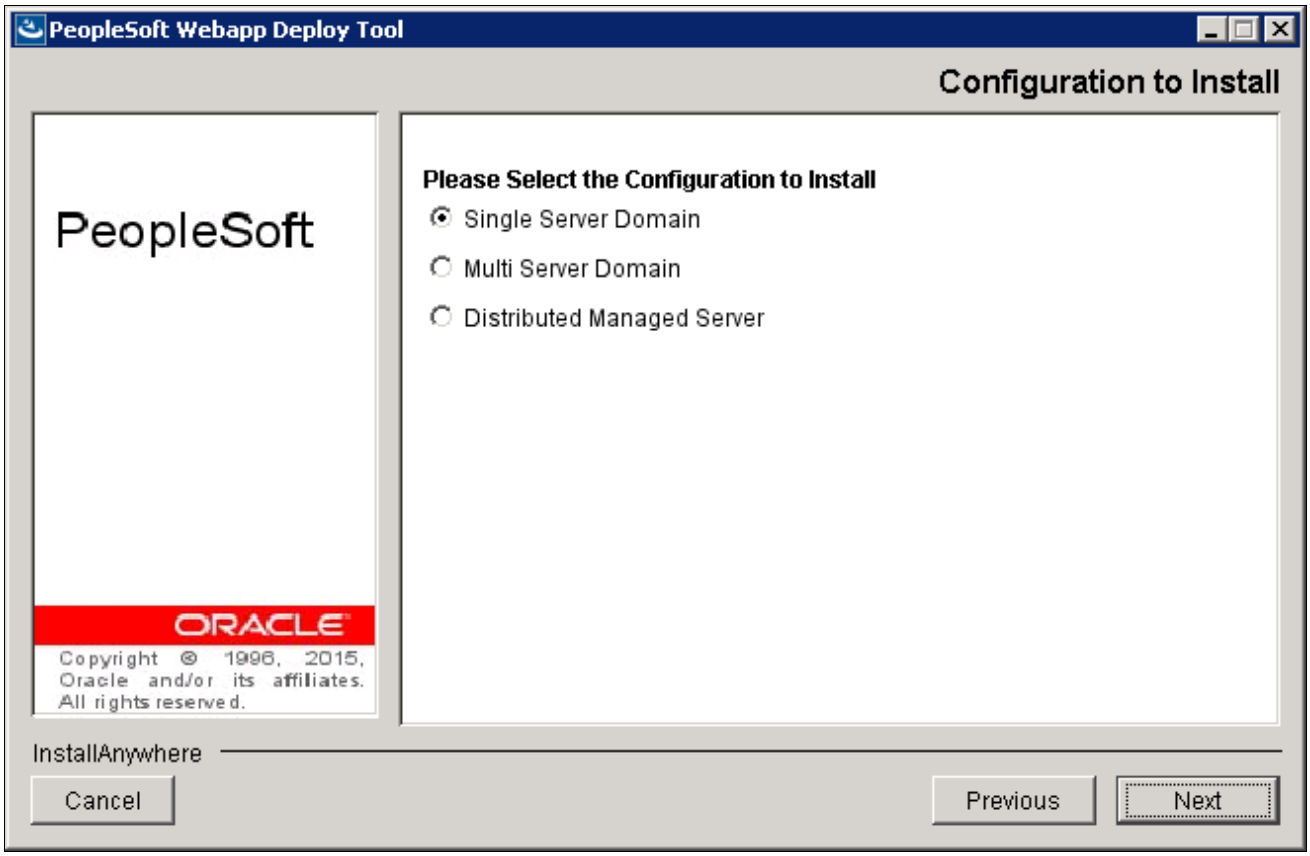
9. Select the configuration from the options Single Server Domain, Multi Server Domain, or Distributed Manager Server.

   In this example the Single Server Domain option is selected.



PeopleSoft Webapp Deploy Tool Configuration to Install window

- *Single Server Domain*

  This configuration is intended for single user or very small scale, non-production environments.

- *Multi-Server Domain*

  This configuration is intended for a production environment.

- *Distributed Managed Server*

  This option is an extension of the Multi-Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

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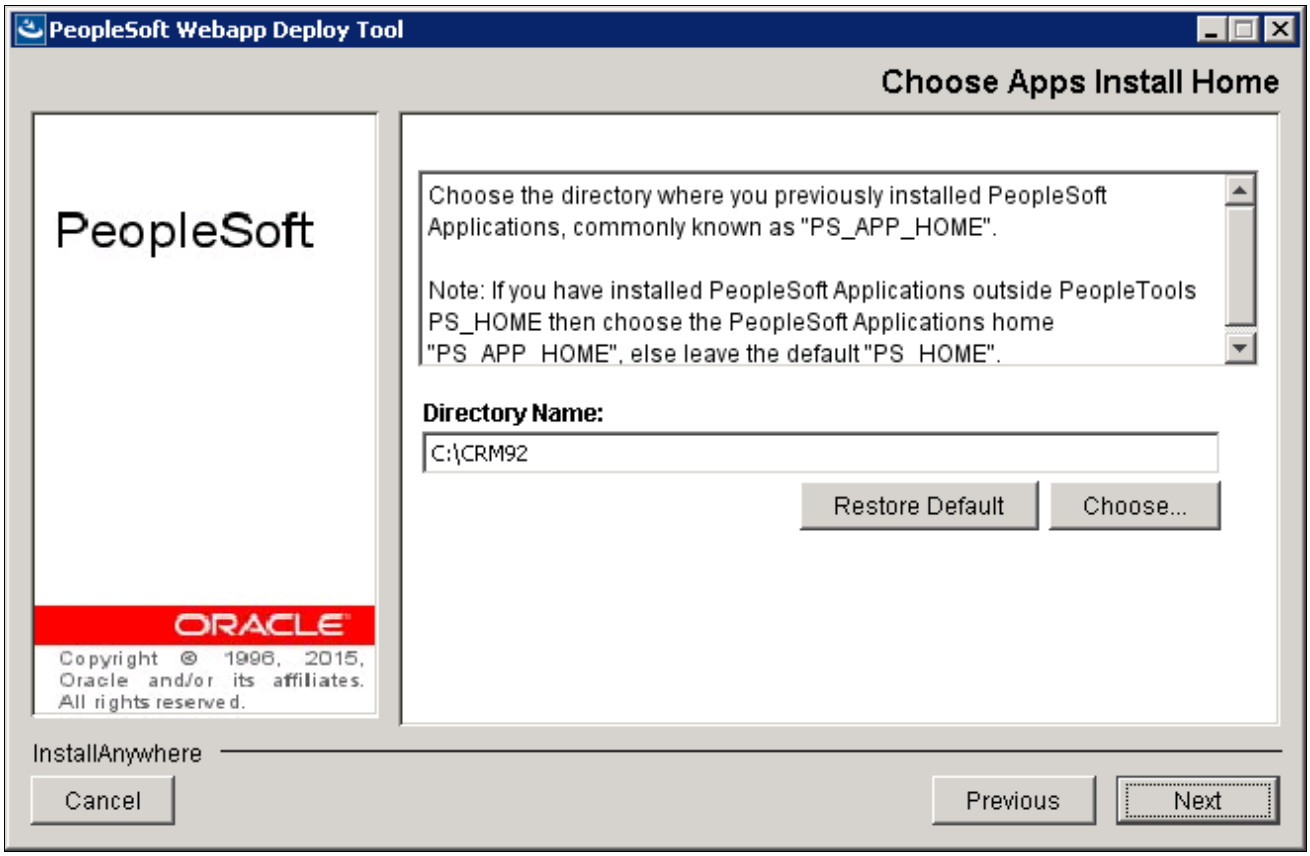
10. Enter the *PS_APP_HOME* directory that you specified when you installed the PeopleSoft application software using the PeopleSoft PeopleTools installer.

    In this example, *PS_APP_HOME* is C:\CRM92.



PeopleSoft Webapp Deploy Tool Choose Apps Install Home window

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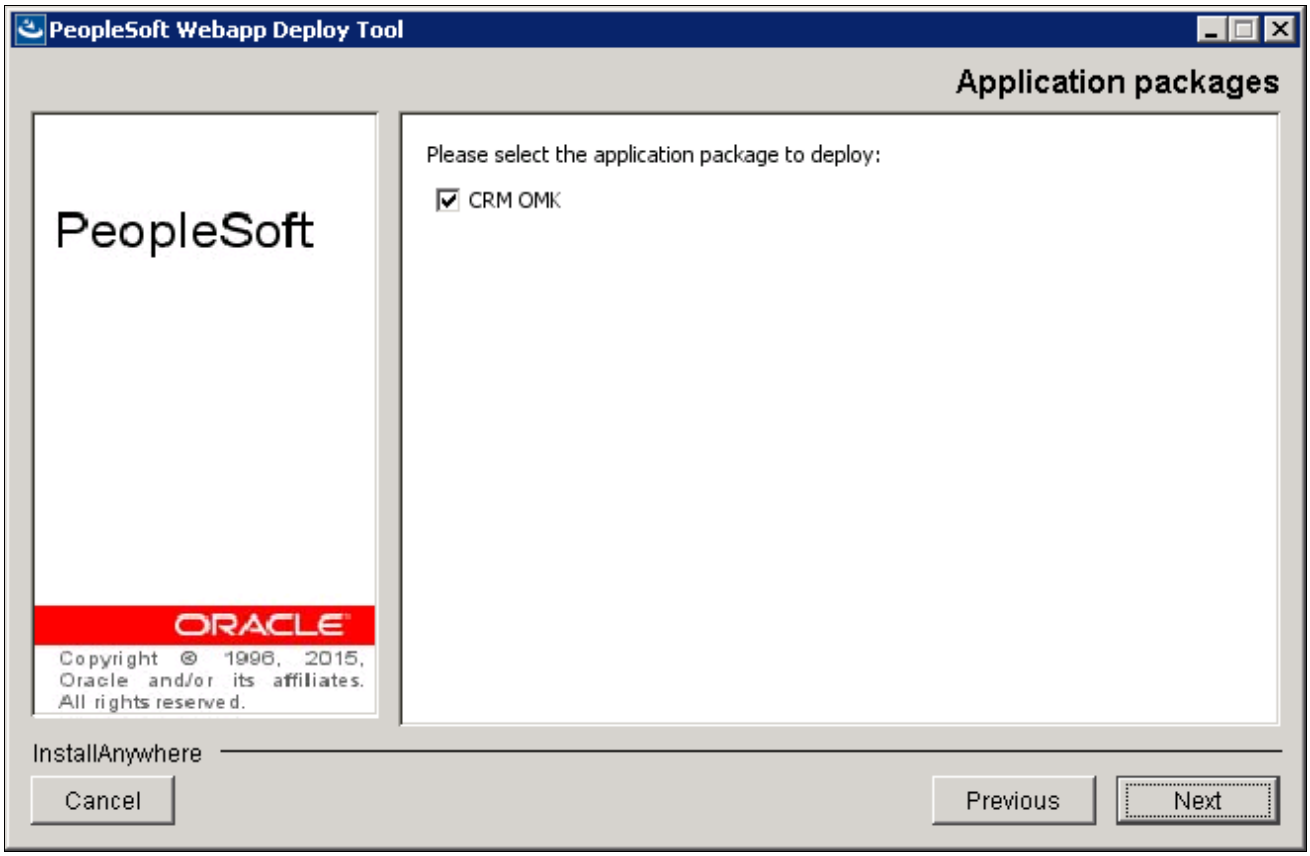
11. The next window lists all of the available application packages (EAR files).

    Select the packages you want to install. *You must select at least one application package from the list.* In this example the CRM OMK package is selected.



PeopleSoft Webapp Deploy Tool Application packages window

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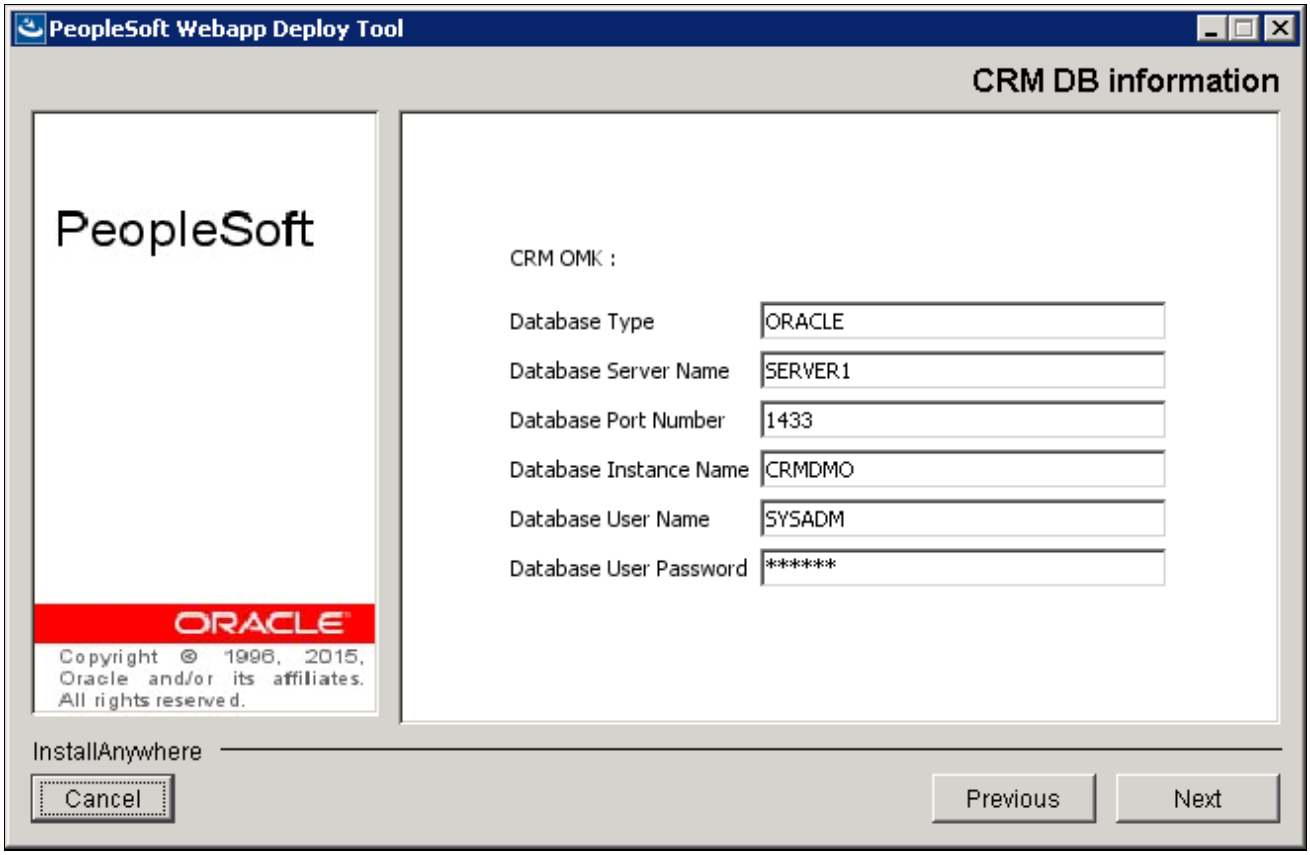
12. If the application(s) you selected requires additional information, a window appears with entry fields for the required information.



PeopleSoft Webapp Deploy Tool CRM DB information window

The information required for the application in this example includes:

- Database Type

  Enter the RDBMS type, which is ORACLE in the example.
- Database Server Name

  Enter the name of the machine that is hosting the database, which is SERVER1 in the example.
- Database Port Number

  Consult with your database administrator for the correct port number. The port number shown in the example is 1433.
- Database Instance Name

  Enter the database name, which is CRMDMO in the example.
- Database User Name

  Enter the user name for the database. The example shows the Access ID for Oracle, SYSADM
- Database User Password

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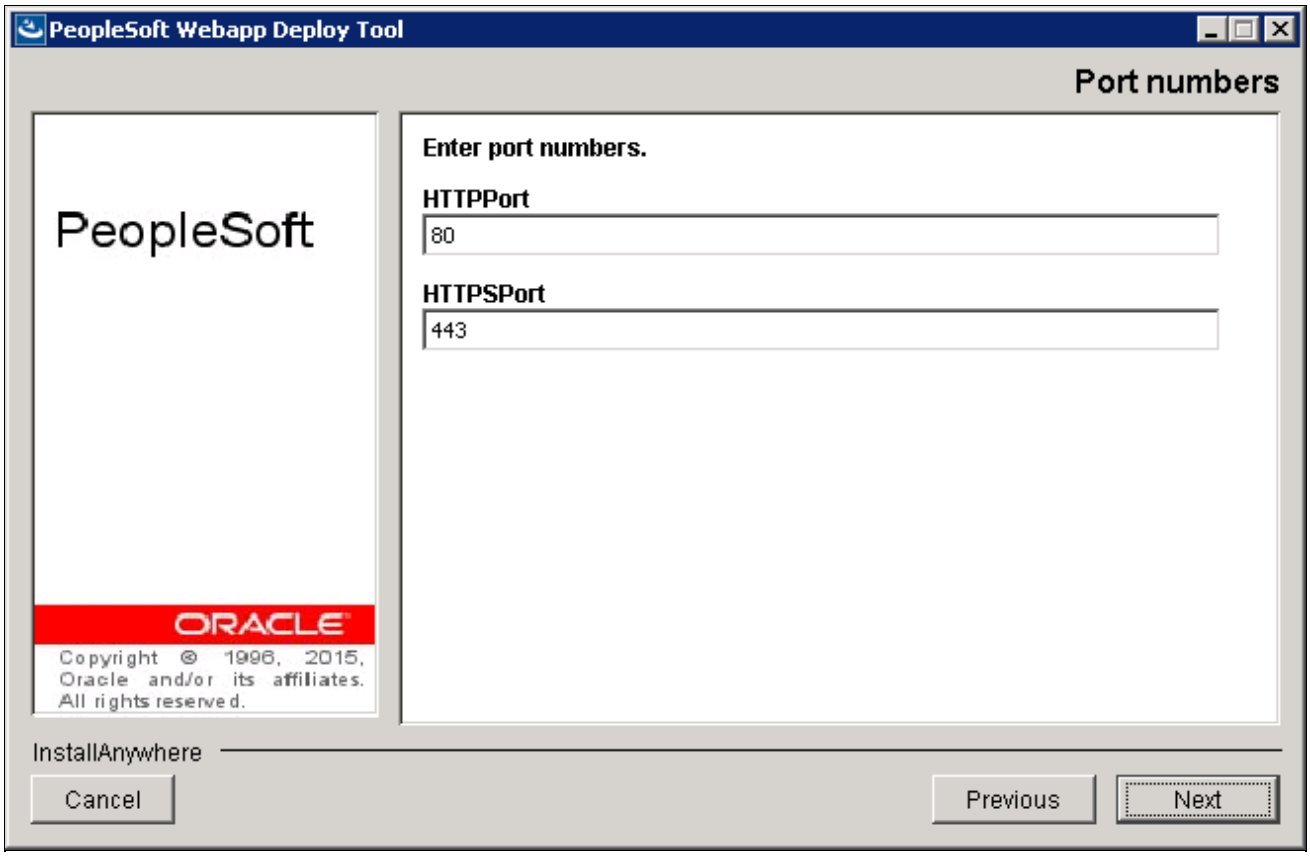
13. Enter HTTP and HTTPS port numbers, and then click Next to continue.

    Do not use the same values that you used for the HTTP and HTTPS ports when setting up the PeopleSoft Pure Internet Architecture. This example shows the default numbers; 80 for the HTTPPort and 443 for the HTTPSPort.



PeopleSoft Webapp Deploy Tool Port numbers window

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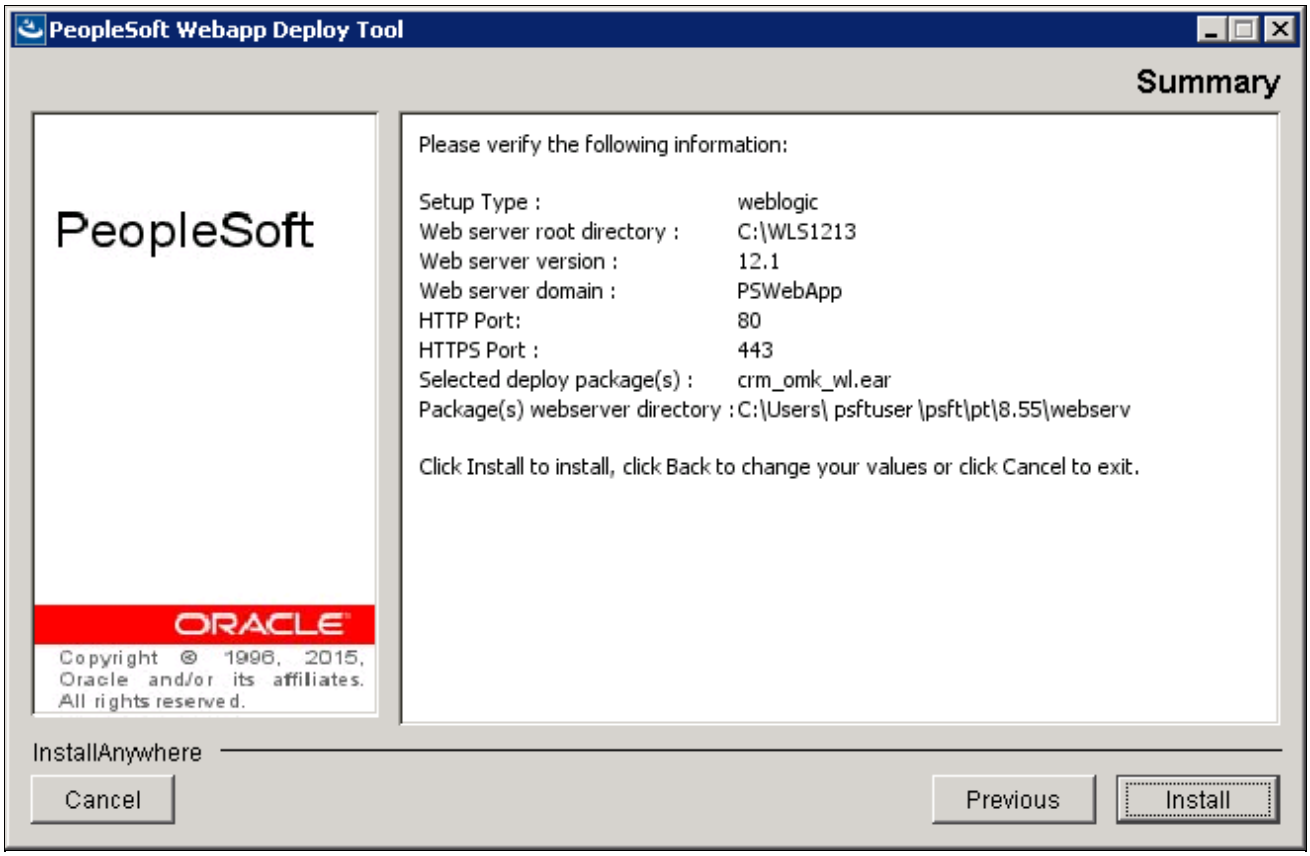
14. Verify your installation information, such as web server information, HTTP and HTTPS port, and application deployment package, on the summary screen that appears, as shown in this example.

    Click Install to begin the installation, Previous to go back to make changes on an earlier window, or Cancel to exit the installation.



PeopleSoft Webapp Deploy Tool Summary window

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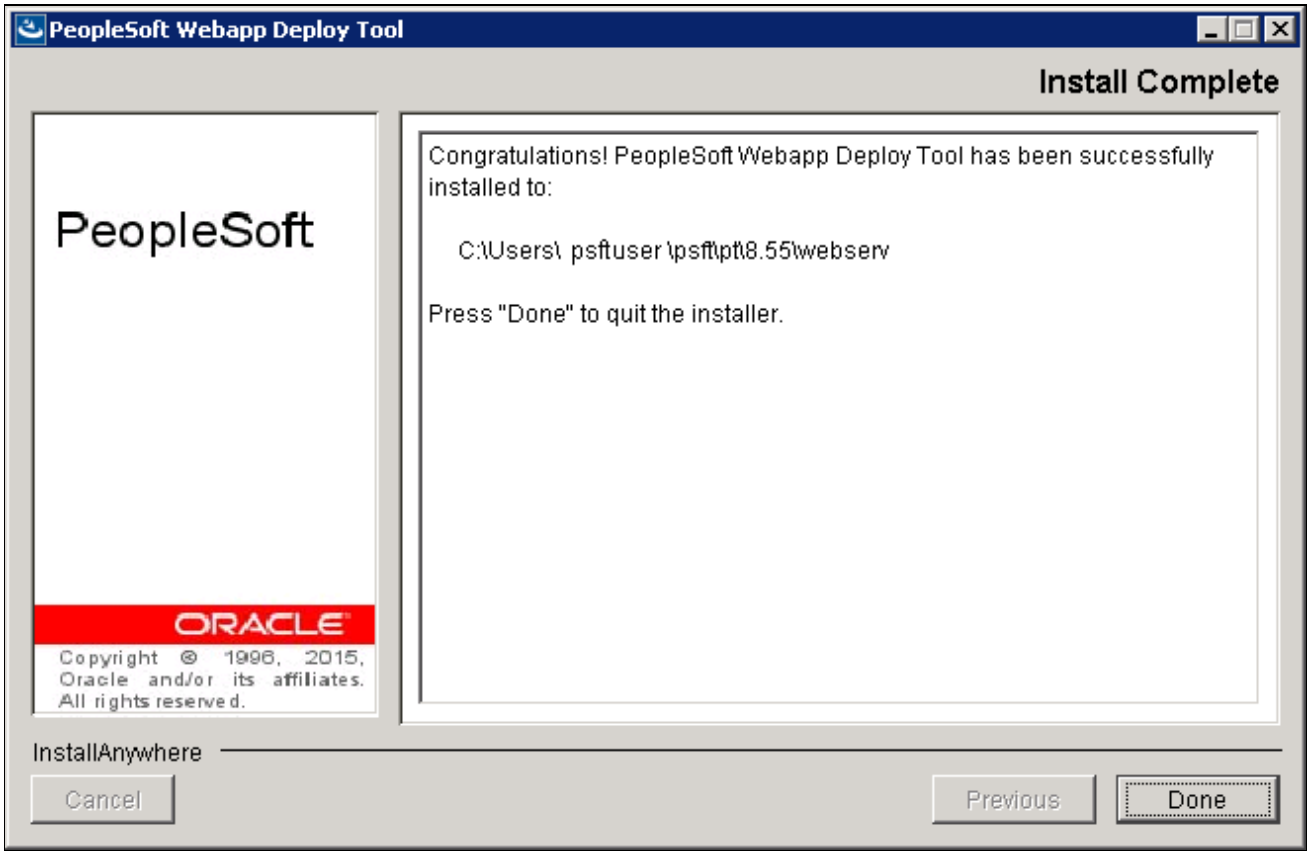
15. A confirmation screen appears, which displays the installation location, C:\Users\psftuser\psft\pt\8.55\webserv in this example, when the installation completes.

    The Web Application Deployment tool is deployed to the webserv\<*domain_name*> folder in the installation location. For example, for the default domain PSWebApp, this would be C:\Users\psftuser\psft\pt\8.55\webserv\PSWebApp.

    Click Done to exit.



PeopleSoft Webapp Deploy Tool Install Complete window

Task 20-2: Installing the Web Application Deployment Tool on IBM WebSphere in GUI Mode

Use these instructions to install the Web Application Deployment tool on IBM WebSphere in GUI mode.

1. Start WebSphere on the server on which you plan to deploy the Web Application Deployment tool.
   a. On Microsoft Windows 7, select Start, Programs, IBM WebSphere, IBM WebSphere Application Server V8.5, Profiles,<*profile_name*>, First steps.

      On Microsoft Windows 8 or 2012 R2, access the Apps screen and locate the First steps utility in the IBM WebSphere category.

      Use the <*profile_name*> that you created for the PeopleSoft Pure Internet Architecture installation.

      See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Testing and Administering the PeopleSoft Pure Internet Architecture.

   b. Select the link Start the server.

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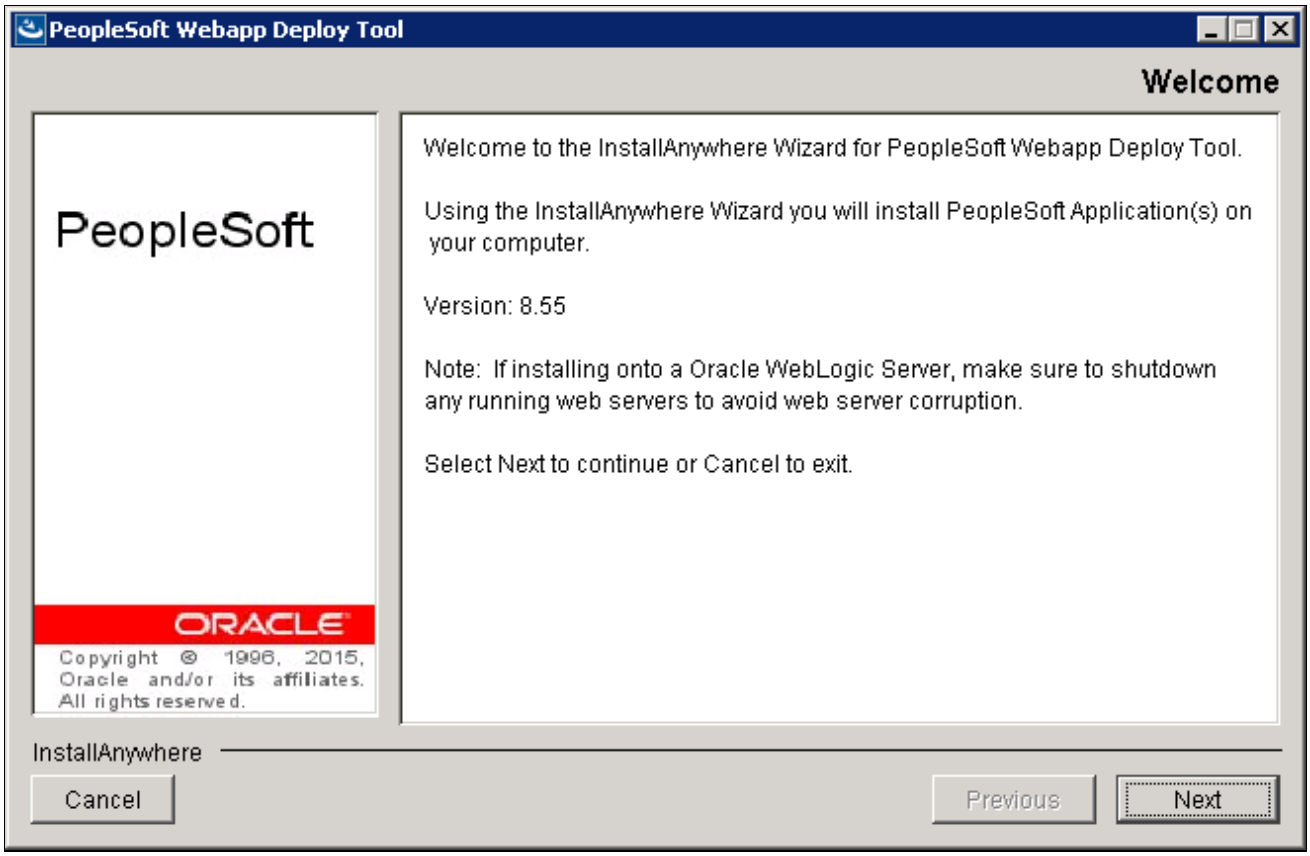
2. Navigate to *PS_HOME*\setup\PsMpWebAppDeployInstall.
3. Double-click on `setup.bat`.

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.
4. Click Next on the Welcome window.

   The window includes the PeopleSoft PeopleTools version number, which is 8.55 in this example.

Note. The window also includes a message to shut down running Oracle WebLogic servers.



PeopleSoft Webapp Deploy Tool Welcome window

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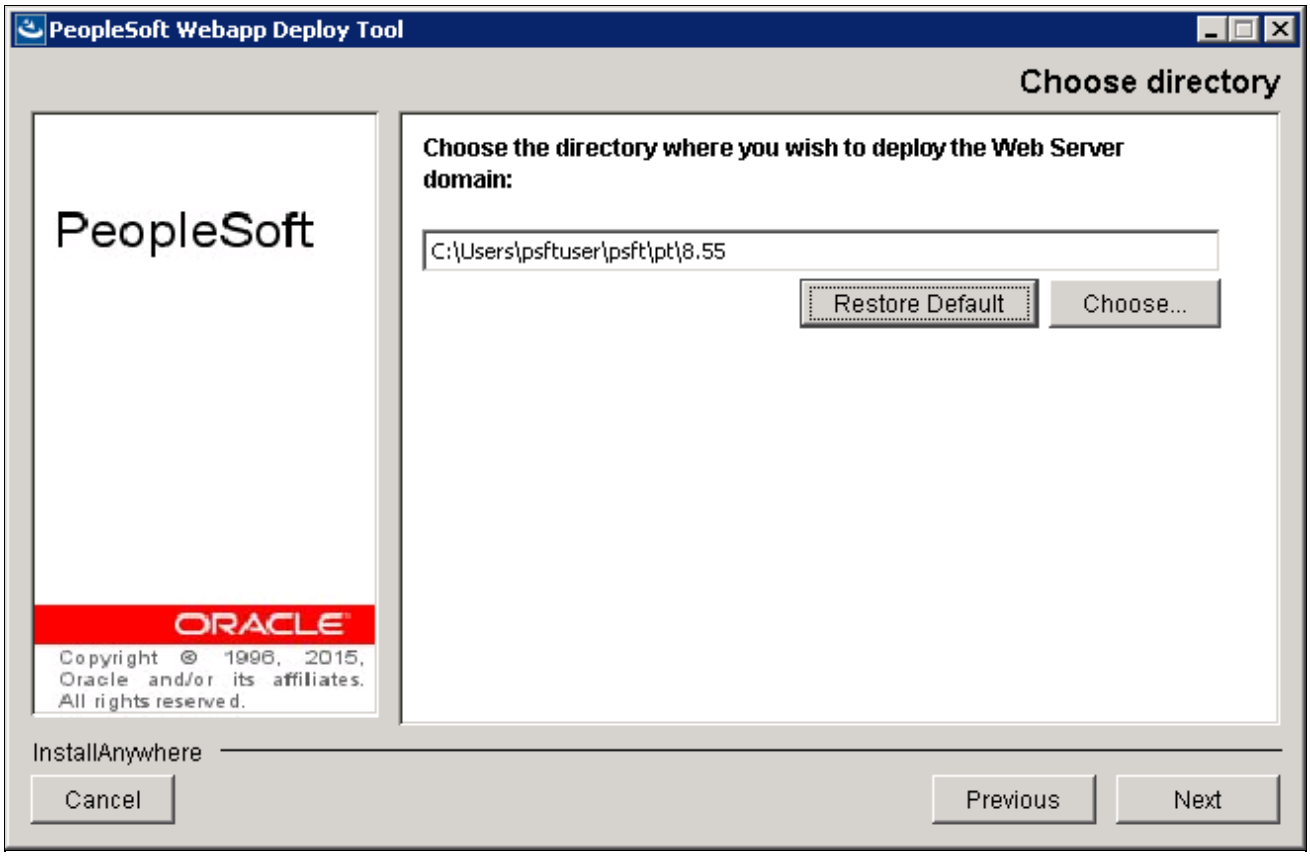
5. Enter the directory where you want to deploy the domain for the Web Application Deployment, and then click Next.

   The default directory is *PS_CFG_HOME*. In this example, the deployment directory is C:\Users\psftuser\psft\pt\8.55.



PeopleSoft Webapp Deploy Tool Choose directory window

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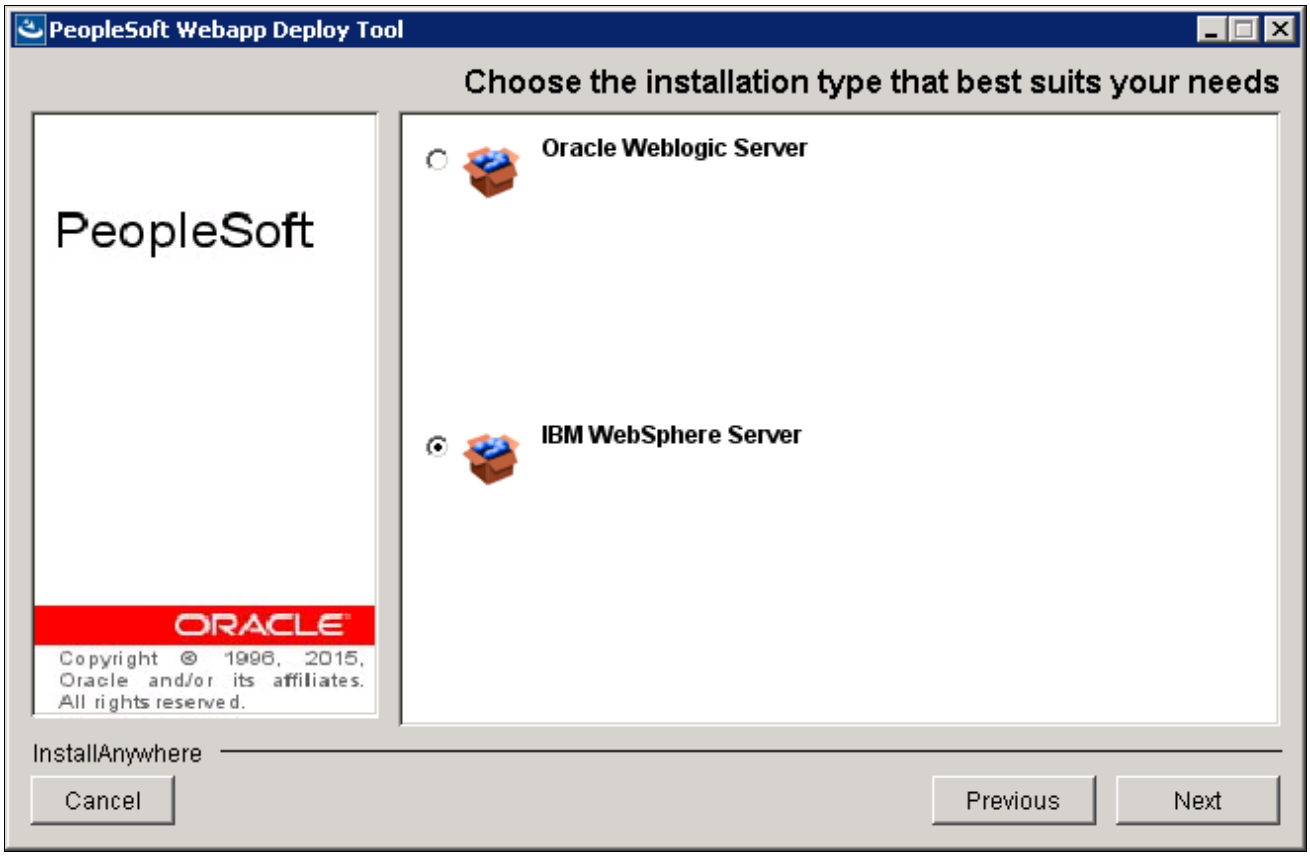
6. Select IBM WebSphere Server, as shown in this example, and click Next.



PeopleSoft Webapp Deploy Tool Choose the installation type that best suits your needs window

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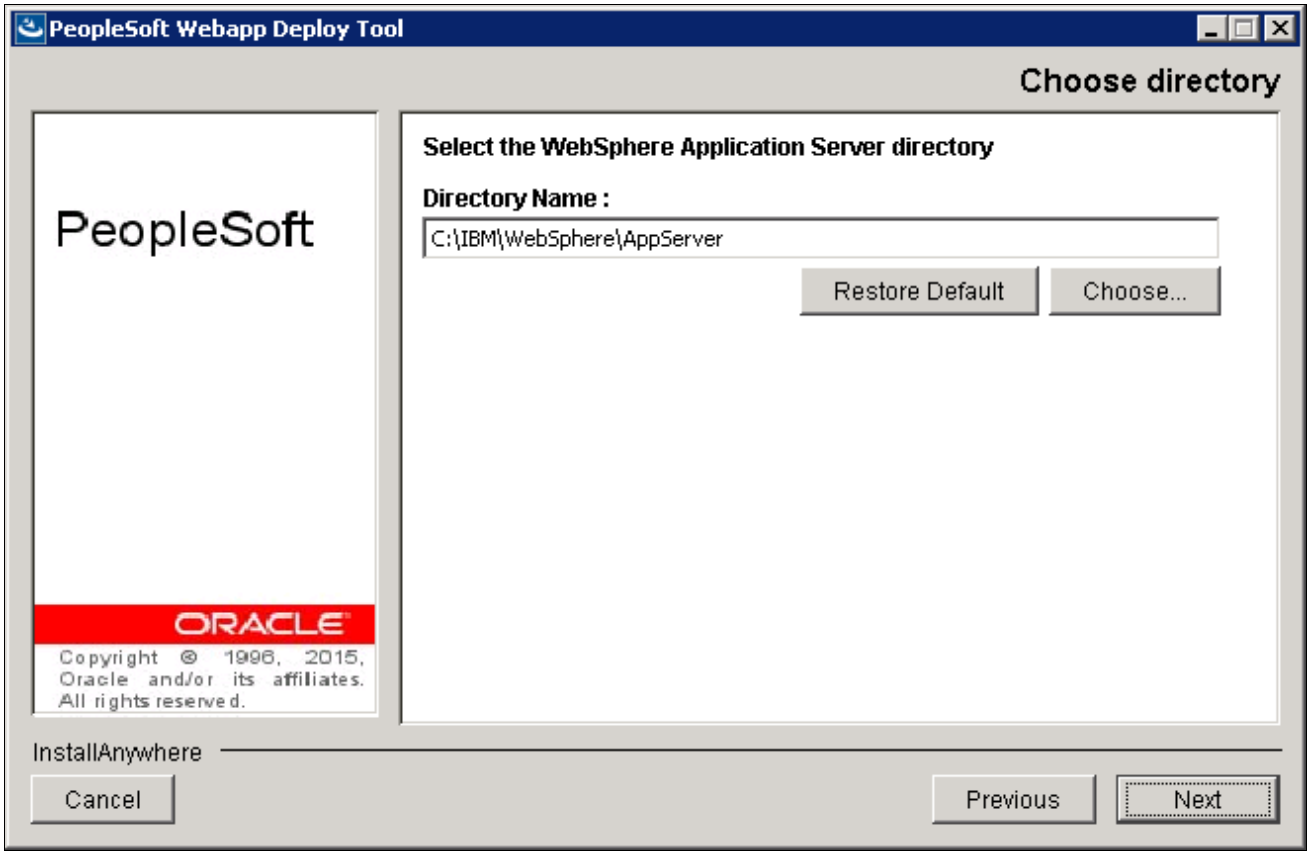
7. Specify the root directory where you installed the IBM WebSphere Application server.

   In this example, the root directory is C:\IBM\WebSphere\AppServer.



PeopleSoft Webapp Deploy Tool Choose directory window

Note. If the web server on which you are installing the Web Application Deployment tool is not up and running, you receive an error message at this point instructing you to start your web server.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Testing and Administering the PeopleSoft Pure Internet Architecture Installation.

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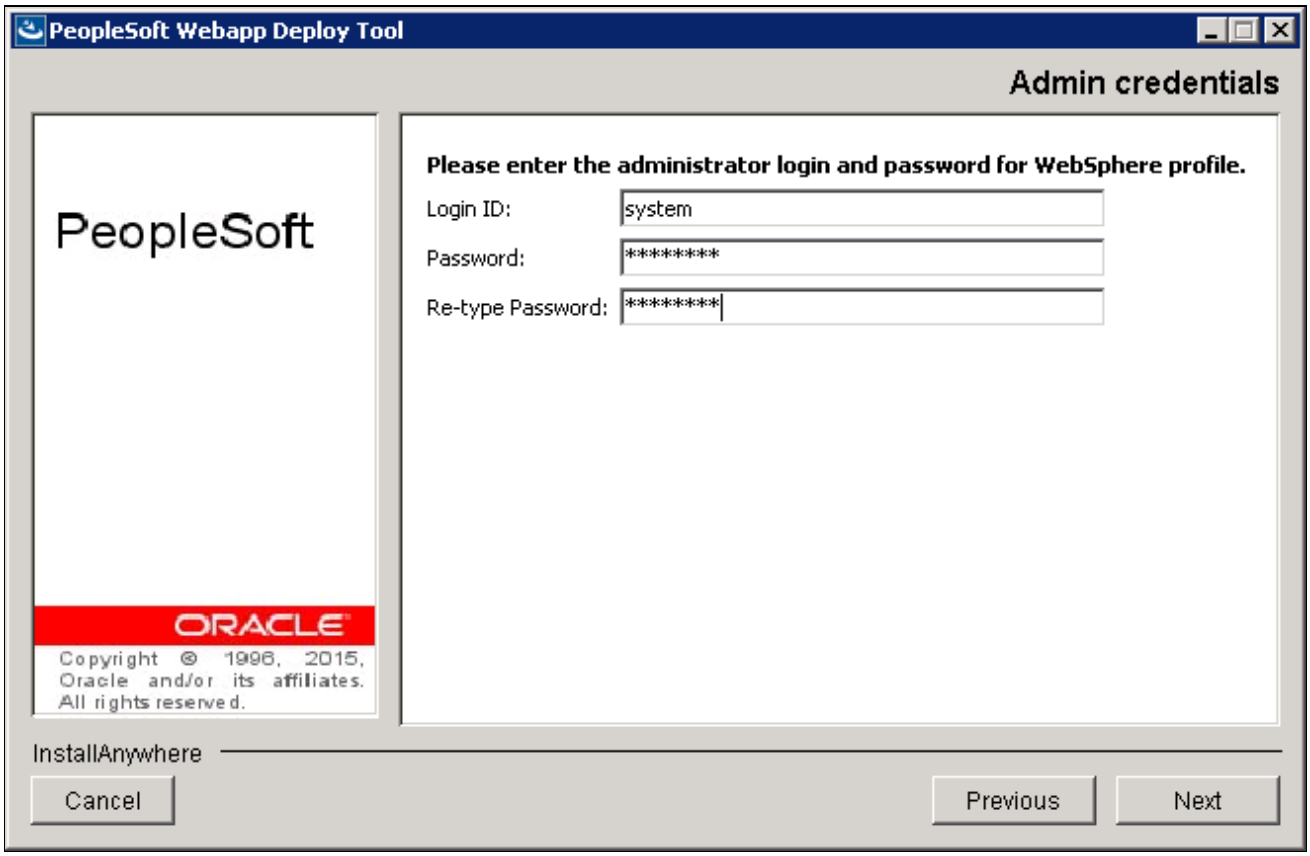
8. Enter the login ID and enter the password twice for the new web server domain that you are creating, and then click Next to continue.

   The default login ID, as shown in this example, is system. The password, which you specified during the PeopleSoft Pure Internet Architecture setup, must be at least 8 alphanumeric character with at least one number or special character.



PeopleSoft Webapp Deploy Tool Admin credentials window

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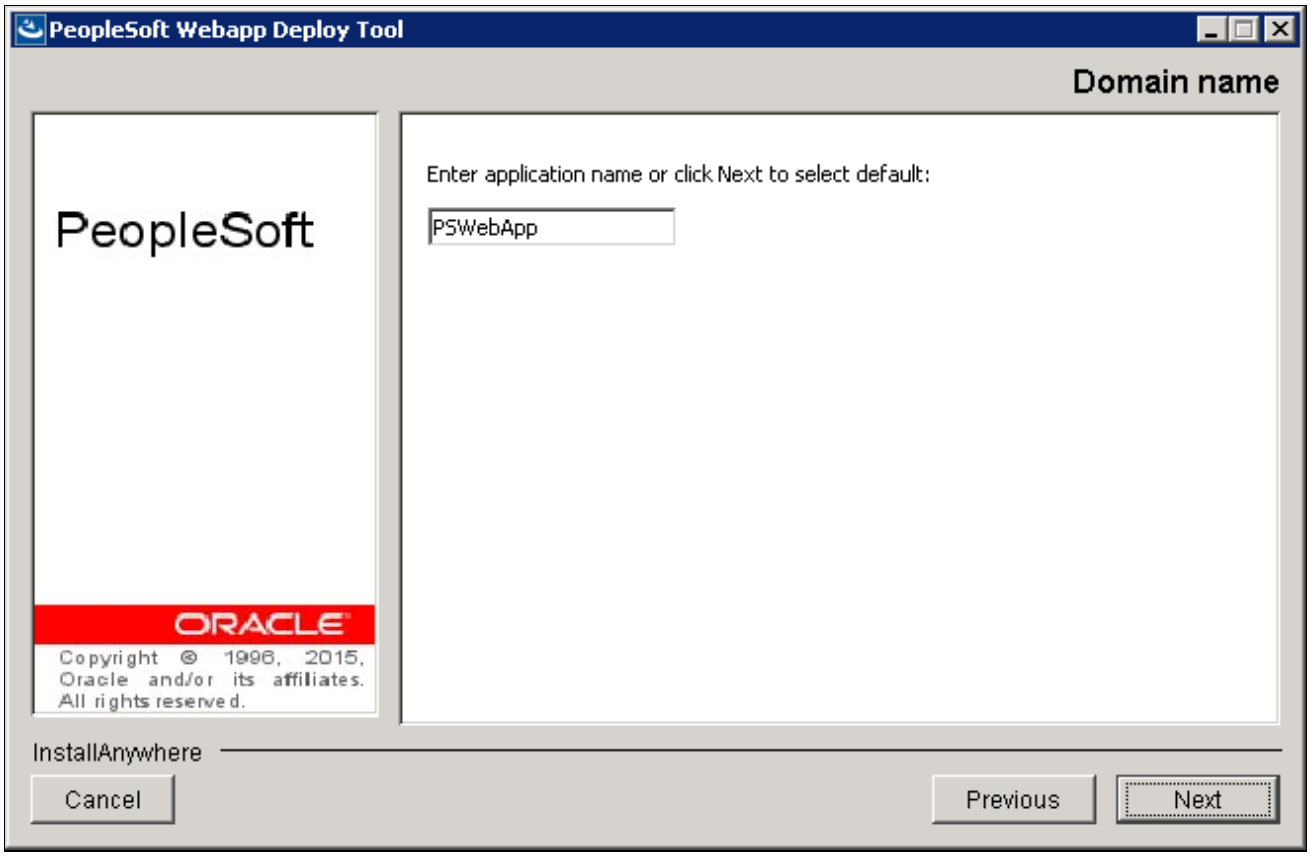
9. Enter a name for the Web Application Deployment domain, or accept the default name, PSWebApp, as in this example.

   Use a fully qualified domain name, and do not use an IP address. Click Next to continue.

Important! The domain that you create for the Web Application Deployment cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.



PeopleSoft Webapp Deploy Tool Domain name window

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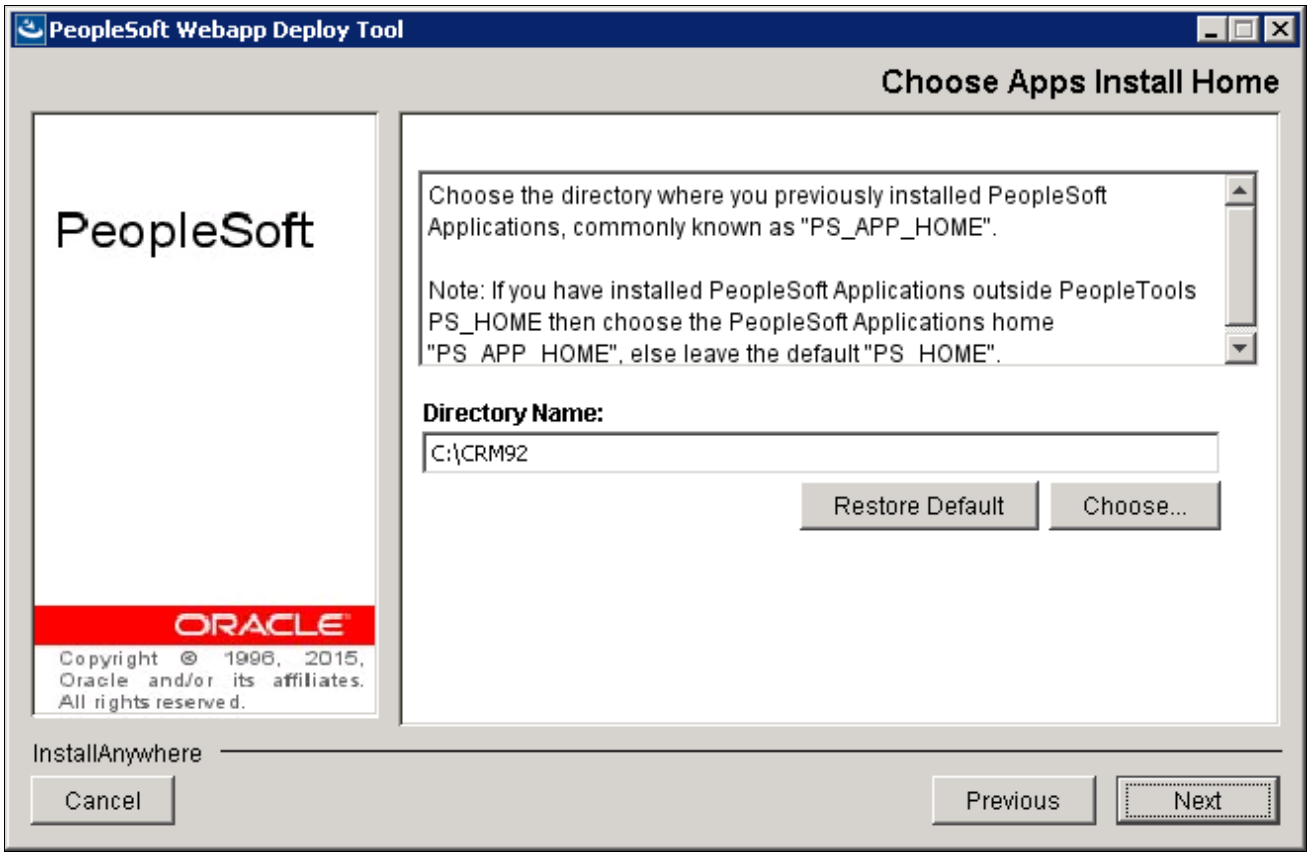
10. Enter the *PS_APP_HOME* directory that you specified when you installed the PeopleSoft application software using the PeopleSoft PeopleTools installer.

    In this example, *PS_APP_HOME* is C:\CRM92.



PeopleSoft Webapp Deploy Tool Choose Apps Install Home window

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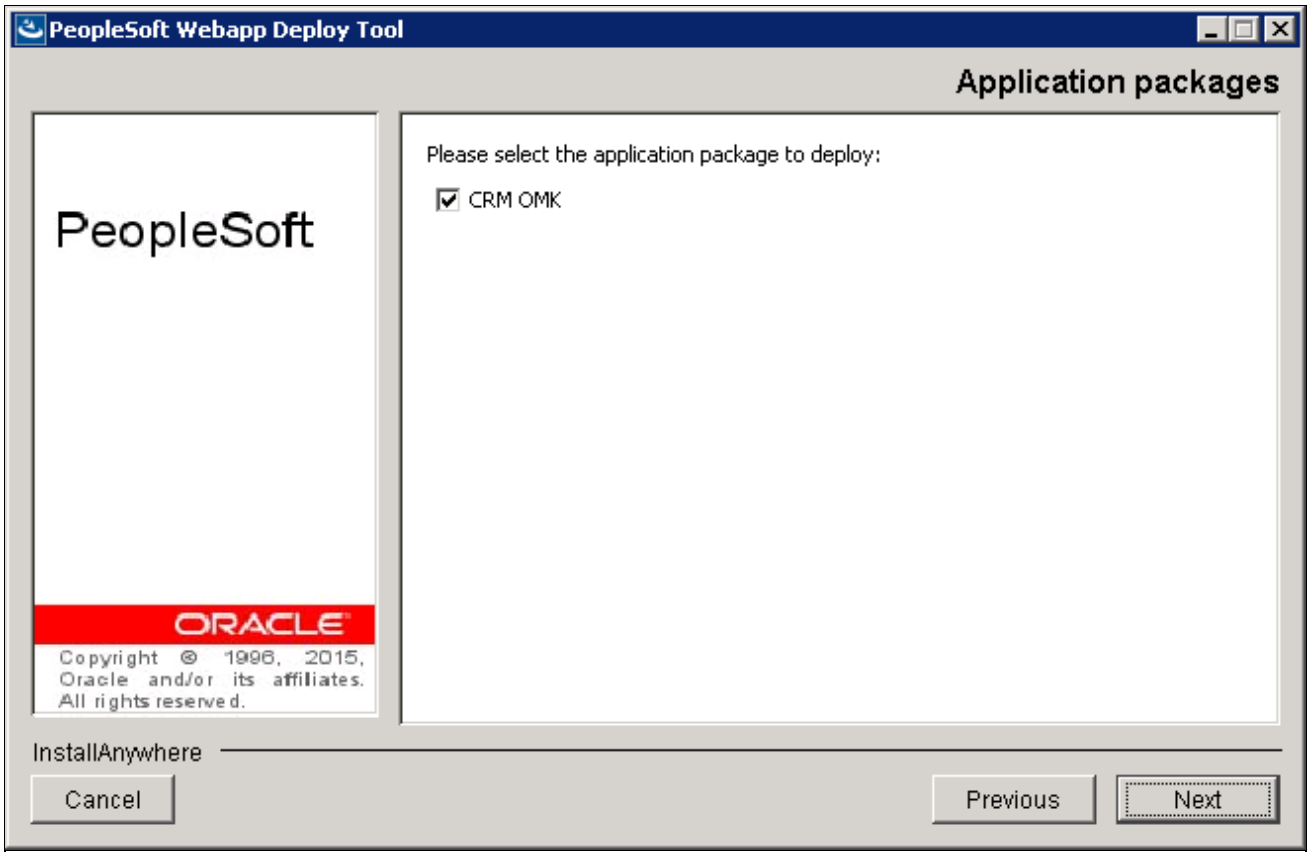
11. The next window lists all of the available application packages (EAR files). Select the packages you want to install.

    You must select at least one application package from this list. In this example, the application package CRM OMK is selected.



PeopleSoft Webapp Deploy Tool Application packages window

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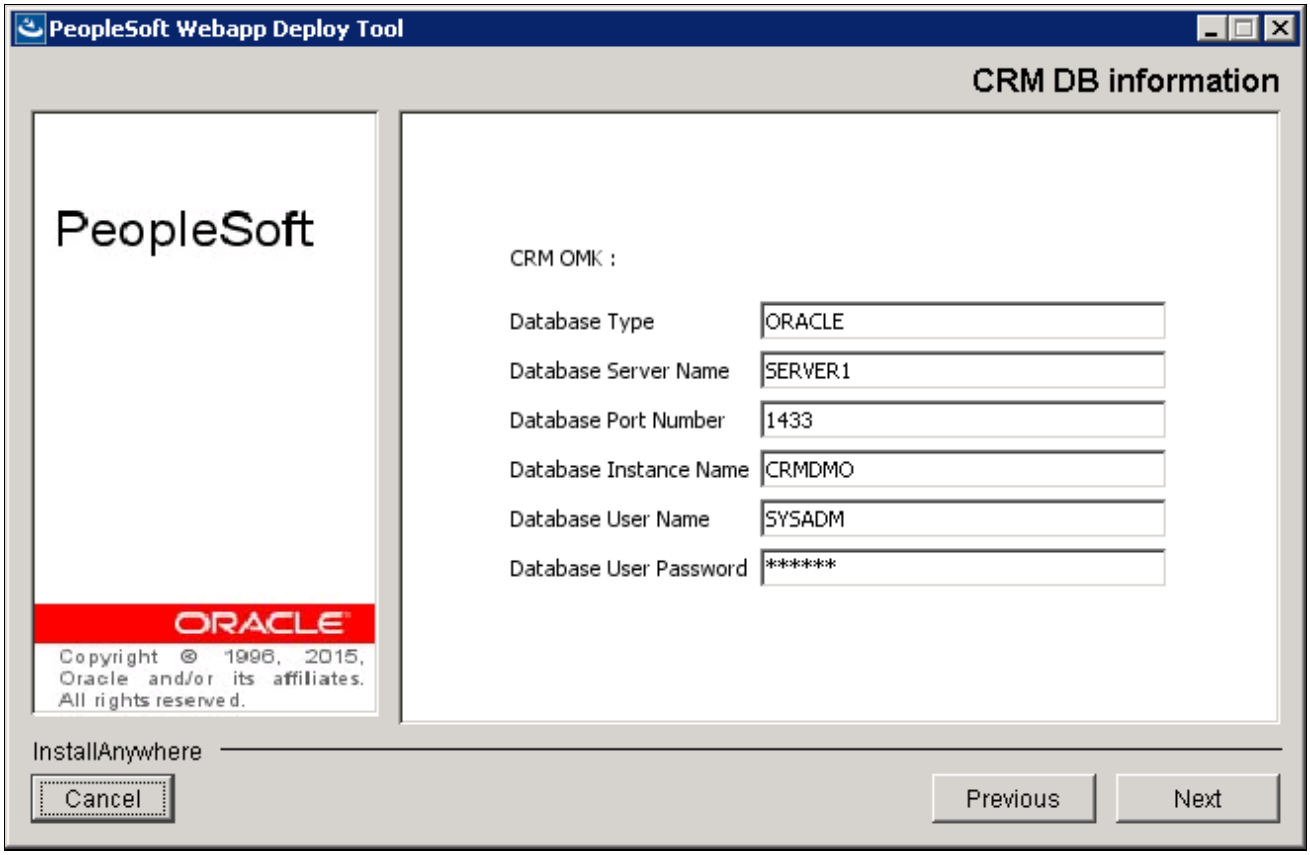
12. If the application(s) you selected in the previous step requires additional information, a window appears with entry fields for the required information.



PeopleSoft Webapp Deploy Tool CRM DB information window

In this example, the required information includes:

- Database Type

  Enter the RDBMS type; the example uses ORACLE.
- Database Server Name

  Enter the name of the machine that is hosting the database, SERVER1 in the example.
- Database Port Number

  Consult with your database administrator for the correct port number. The port number shown in the example is 1433.
- Database Instance Name

  Enter the database name, which is CRMDMO in the example.
- Database User Name

  Enter the user name for the database. The example shows the Access ID for Oracle, SYSADM.
- Database User Password

  Enter the password for the database user.

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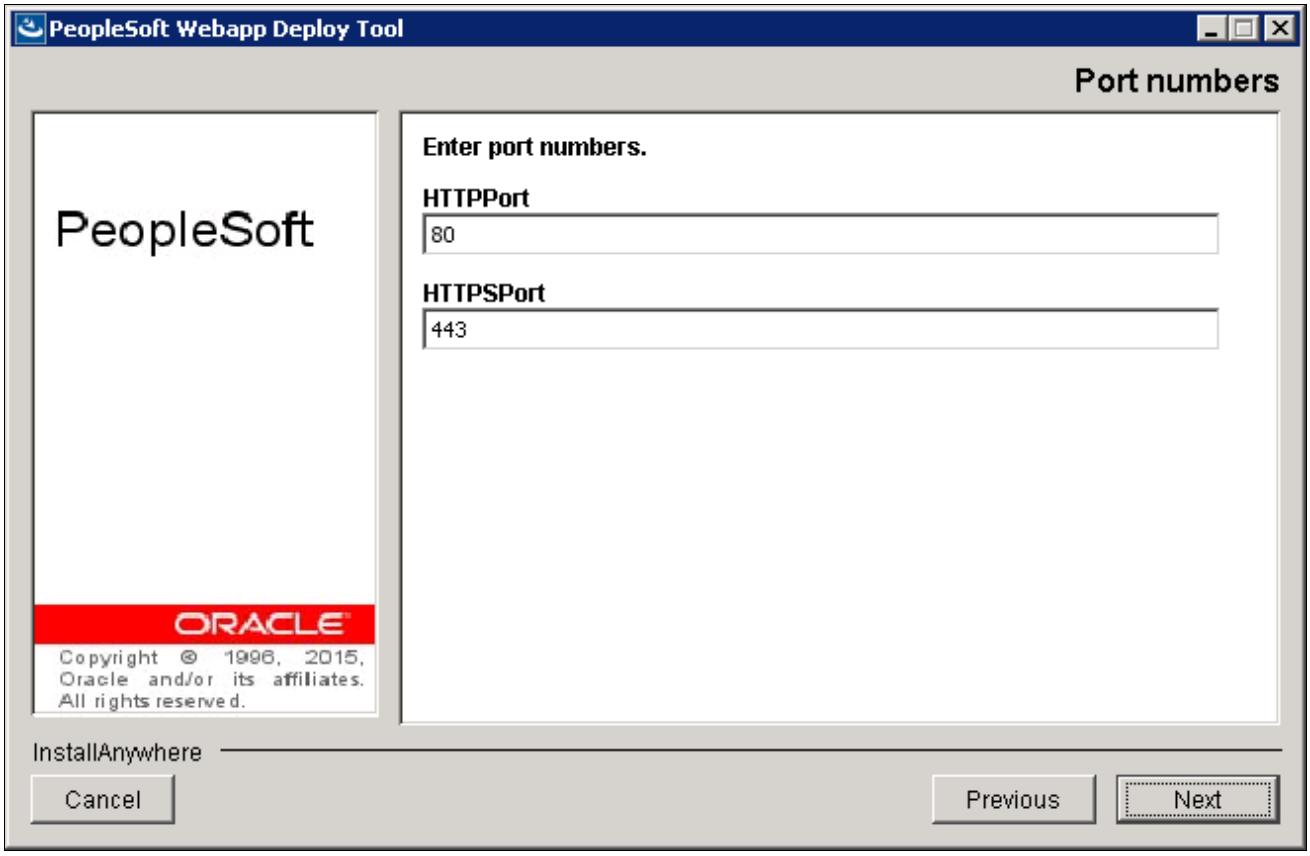
13. Enter HTTP and HTTPS port numbers, and then click Next to continue.

    This example shows the default port numbers for HTTP = 80 and HTTPS = 443.



PeopleSoft Webapp Deploy Tool Port numbers window

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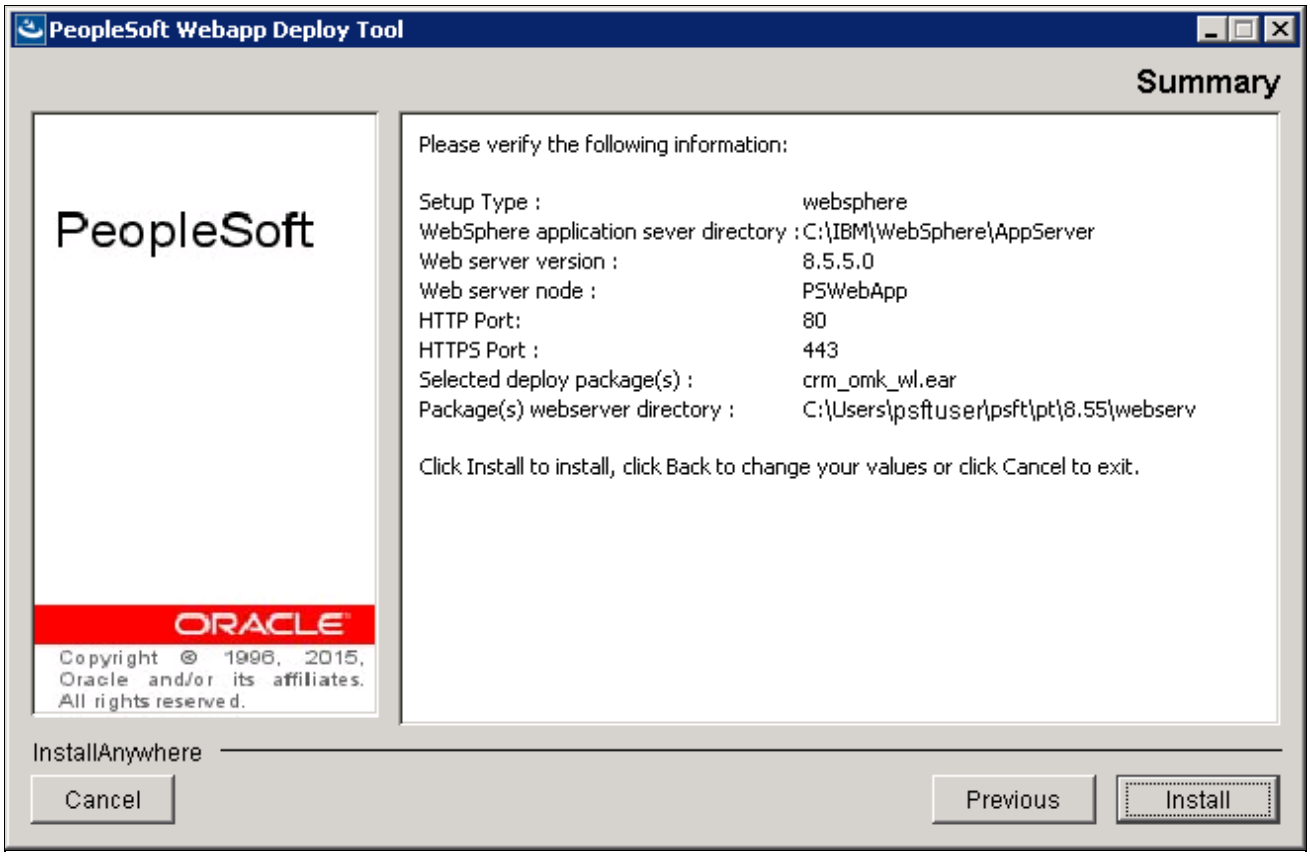
14. Verify your installation information, such as the web server information, HTTP and HTTPS port numbers, and deployment packages, on the summary screen that appears, as in this example.

    Click Install to begin the installation, Previous to go back to make changes on an earlier window, or Cancel to exit the installation.



PeopleSoft Webapp Deploy Tool Summary window

A window appears with a progress indicator.

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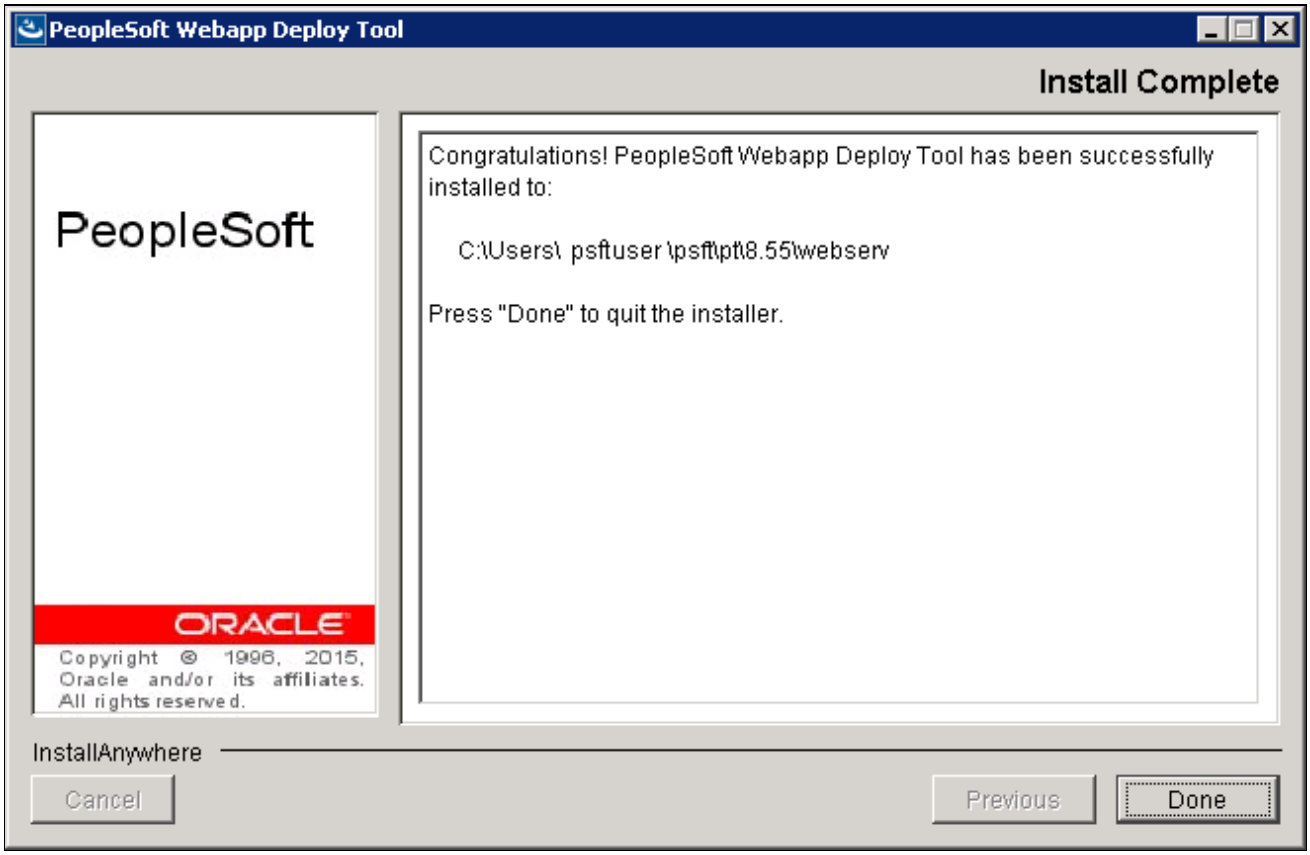
15. A confirmation screen appears when the installation completes, which includes the installation directory, C:\Users\psftuser\psft\pt\8.55\webserv in this example.

    The Web Application Deployment tool is deployed to the webserv\<*domain_name*> folder in the installation location. For example, for the default domain PSWebApp, this would be C:\Users\psftuser\psft\pt\8.55\webserv\PSWebApp.

    Click Done to exit.



PeopleSoft Webapp Deploy Tool Install Complete window

Task 20-3: Installing the Web Application Deployment Tool on Oracle WebLogic in Console Mode

Use these instructions to install the Web Application Deployment tool on Oracle WebLogic in console mode.

Note. The console mode installation is typically used on UNIX platforms.

1. Set up the PeopleSoft environment by going to *PS_HOME* and running the following command:

   ```
   ../psconfig.sh
   ```

2. To run the installer, go to *PS_HOME*/setup/PsMpWebAppDeployInstall, and run the following command:

   ```
   setup.sh -tempdir <temporary_directory> -javahome <absolute_java_path>
   ```

   Use the optional flag `-javahome` if you installed the JRE/JDK files in a directory that is different than the vendor-defined JRE search path. Specify the full absolute path to the JRE/JDK executable; for example:

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```
setup.sh -tempdir /home/user/temp -javahome /prod/java7/bin/java
```

See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

3. You see a welcome message. Enter *1* to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Webapp Deploy Tool.

Using the InstallShield Wizard you will deploy PeopleSoft Application⇒
(s) on⇒
 your computer.
Note: If installing onto a Oracle WebLogic Server, make sure to⇒
 shutdown any⇒
 running web servers to avoid web server corruption.

Select Next to continue or Cancel to exit.

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

4. Enter the directory where you want to deploy the web server domain for the Web Application Deployment, and then enter *1* to continue.

   The default directory is *PS_CFG_HOME*.

```
Choose the directory where you wish to deploy the Web Server domain:

Please specify a directory name or press Enter [/home/psftuser/psft/pt⇒
/8.55]

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

5. Enter *1* to select Oracle WebLogic Server, at the following prompt, and then enter *1* to continue.

```
Choose the installation type that best suits your needs.
  ->1- Oracle WebLogic Server
    2- IBM WebSphere Server
To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

6. Enter the directory where you installed Oracle WebLogic, and press ENTER to continue at the following prompt.

```
Select the web server root directory:
Please specify a directory name or press ENTER [/opt/oracle]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

Note. The installer displays the supported Oracle WebLogic version. You receive an error message if the correct Oracle WebLogic version is not found in the directory you enter.

---

7. Enter a name for the Web Application Deployment domain, or accept the default name, PSWebApp in this example.

   Use a fully qualified domain name, and do not use an IP address.

```
Enter domain name or click Next to select default:
```


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```
[PSWebApp]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

Important! The domain that you create for the Web Application Deployment cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.

---

8. Enter the administrator login and password for your Oracle WebLogic domain, and press ENTER to continue.

Note. The default login ID is system. The password, which you specified during the PeopleSoft Pure Internet Architecture setup, must be at least 8 alphanumeric characters with at least one number or special character. The system does not display the password or any masking characters as you type.

```
Please enter the administrator login and password for WebLogic domain.

Login ID: [system]

Password: [password]

Re-type Password: [password]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

9. Select the type of domain to create—single server, multi server, or distributed managed server.

   See "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode," Installing the PeopleSoft Pure Internet Architecture in Console Mode.

```
Please select the configuration to install.

  ->1- Single Server Domain
    2- Multi Server Domain
    3- Distributed Managed Server
To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

   - *Single Server Domain*

     This configuration is intended for single user or very small scale, non-production environments.
   - *Multi-Server Domain*

     This configuration is intended for a production environment.
   - *Distributed Managed Server*

     This option is an extension of the Multi-Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

10. Enter the *PS_APP_HOME* directory that you specified when you installed the PeopleSoft Application software using the PeopleSoft PeopleTools installer.

```
Choose the directory where you previously installed PeopleSoft⇒
 Applications, commonly know as "PS_APP_HOME".
Note: If you have installed PeopleSoft Applications outside PeopleTools⇒
```

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```
 PS_HOME then choose the PeopleSoft Applications home "PS_APP_HOME",⇒
 else leave the default "PS_HOME".

Please specify a directory name or press Enter [/opt/PS_HOME]

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

11. The next prompt lists all of the available application packages (EAR files). Enter the numbers beside the packages you want to install. *You must select at least one application package from this list.*

```
Please select the application package to deploy:

  ->1- CRM OMK

To select an item enter its number, or 0 when you are finished [0]:

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

12. If the application(s) you selected in step 12 requires additional information, supply the necessary information at the next prompt. For example:

```
CRM OMK :

Database Type:  [ORACLE]

Database Server Name:  [SERVER1]

Database Port Number:  [1431]

Database Instance Name:  [CRMDMO]

Database User Name:  [SYSADM]

Database User Password:  [*]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

13. Enter HTTP and HTTPS port numbers.

```
Enter port numbers.

HTTP Port :  [80] 80

HTTPS Port :  [443] 443

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

14. Verify your installation information on the next prompt and press ENTER to begin the installation. An indicator shows your installation progress.

```
Please verify the following information:

Setup Type : weblogic

Web server root directory : /opt/WLS1213
```


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```
Web server version : 12.1

Web server domain : PSWebApp

HTTP Port : 80

HTTPS Port : 443

Selected deploy package(s) : crm_omk_wl.ear

Package(s) webserver directory : /home/psftuser/psft/pt/8.55/webserv

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

15. You see a message indicating the installation is complete; for example:

```
Installation Complete
---------------------

Congratulations! PeopleSoft Webapp Deploy Tool has been successfully⇒
 installed
to:

/home/psftuser/psft/pt/8.55/webserv

PRESS <ENTER> TO EXIT THE INSTALLER:
```

16. After the installation is complete, you must deploy the Web Application Deployment tool.
    a. Go to the directory where the web server domain was installed:

       `cd <WebAppDeploy_DIR>/webserv/<domain_name>`

       The <*WebAppDeploy_DIR*> is the directory where the web server domain for the Web Application Deployment was installed. The <*domain_name*> is the web server domain name you provided. For example, if you accepted the defaults:

       `cd /home/user/psft/pt/8.55/webserv/PSWebApp`

    b. Run this command:

       `startPSWEBAPPS.sh`

    c. If you want to deploy at a later time, use the same command.

Task 20-4: Installing the Web Application Deployment Tool on IBM WebSphere in Console Mode

Use these instructions to install the Web Application Deployment tool on IBM WebSphere in console mode.

Note. The console mode installation is typically used on UNIX platforms.

1. Set up the PeopleSoft environment by going to *PS_HOME* and using the following command:

   `../psconfig.sh`

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2. Start IBM WebSphere on the server on which you plan to deploy the Web Application Deployment tool.

   See "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode," Testing and Administering the PeopleSoft Pure Internet Architecture.

   Change directory to the bin directory under the directory where you installed IBM WebSphere, *WAS_HOME*. Use the following commands:

   ```
   cd WAS_HOME/bin
   startServer.sh server_name
   ```

3. To run the installer, go to *PS_HOME*/setup/PsMpWebAppDeployInstall and run the following command:

   ```
   setup.sh -javahome <absolute_java_path>
   ```

   Use the optional flag `-javahome` if you installed the JRE/JDK files in a directory that is different than the vendor-defined JRE search path. Specify the full absolute path to the JRE/JDK executable; for example:

   ```
   setup.sh -javahome /prod/java7/bin/java
   ```

   See "Using the PeopleSoft Installer," Running the PeopleSoft Installer, for setup command options.

4. You see a Welcome message. Enter *1* to continue.

   ```
   Welcome to the InstallShield Wizard for PeopleSoft Webapp Deploy Tool.
   Using the InstallShield Wizard you will deploy PeopleSoft Application⇒
   (s) on your⇒
    computer.

   Note: If installing onto a Oracle WebLogic Server, make sure to⇒
    shutdown any⇒
    running web servers to avoid web server corruption.

   Select Next to continue or Cancel to exit.

   Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
   ```

5. Enter the directory where you want to deploy the domain for the Web Application Deployment tool, and then enter *1* to continue.

   The default directory is *PS_CFG_HOME*.

   ```
   Choose the directory where you wish to deploy the Web Server domain:

   Please specify a directory name or press Enter [/home/user/psft/pt/8.55]

   Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
   ```

6. Enter *2*, to select the IBM WebSphere Server, at the following prompt:

   ```
   Choose the setup type that best suits your needs.

       1- Oracle WebLogic Server
     ->2- IBM WebSphere Server

   To select an item enter its number, or 0 when you are finished: [0]

   Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
   ```

7. Enter the root directory where you installed IBM WebSphere at the following prompt, and press ENTER to

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continue:

```
Select the WebSphere Application Server directory:

Directory Name:

Please specify a directory name or press Enter [/opt/IBM/WebSphere/App⇒
Server]:

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

Note. If the web server on which you are installing the Web Application Deployment tool is not up and running, you receive an error message at this point instructing you to start your web server.

---

8. Enter the administrator login, and then enter the password twice, for the IBM WebSphere profile. Enter *1* to continue.

```
Please enter the administrator login and password for WebSphere profile.

Login ID : [system]

Password : [password]

Re-type Password : [password]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

9. Enter a name for the Web Application Deploy domain, or accept the default name, PSWebApp. Use a fully qualified domain name, and do not use an IP address. Press *1* to continue.

```
Enter domain name or click Next to select default:

    [PSWebApp]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

Important! The domain that you create for the Web Application Deployment tool cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.

---

10. Enter the *PS_APP_HOME* directory that you specified when you installed the PeopleSoft application software using the PeopleSoft PeopleTools installer.

```
Choose the directory where you previously installed PeopleSoft⇒
 Applications, commonly known as "PS_APP_HOME".
Note: If you have installed PeopleSoft Applications outside PeopleTools⇒
 PS_HOME then choose the PeopleSoft Applications home "PS_APP_HOME",⇒
 else leave the default "PS_HOME".

Please specify a directory or press Enter [opt/PS_HOME]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

11. The next prompt lists all of the available application packages (EAR files). Enter the number corresponding to the packages you want to install. *You must select at least one application package from this list.*

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```
Please select the application package to deploy:

  ->1-  CRM Package
To select an item enter its number, or 0 when you are finished [0]:

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

12. If the application(s) you selected in the previous step requires additional information, supply the necessary information at the next prompt. For example:

```
CRM OMK :

Database Type : [ORACLE]

Database Server Name : [SERVER1]

Database Port Number : [1431]

Database Instance Name : [CRMDMO]

Database User Name : [Admin]

Database User Password : [*]

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

In this example, the required information includes:

- *Database Type*

  Enter the RDBMS type; the example uses ORACLE.
- *Database Server Name*

  Enter the name of the machine that is hosting the database, SERVER1 in the example.
- *Database Port Number*

  Consult with your database administrator for the correct port number. The port number shown in the example is 1431.
- *Database Instance Name*

  Enter the database name, for example CRMDMO.
- *Database User Name*

  Enter the user name for the database, for example sysadm or admin.
- *Database User Password*

  Enter the password for the database user.

13. Enter HTTP and HTTPS port numbers at the following prompt. Press *1* to continue.

```
Enter port numbers.

HTTP Port: [80]: 80

HTTPS Port: [443]: 443

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```


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14. Verify your installation information at the next prompt and press ENTER to begin the installation.

    An indicator shows your installation progress.

```
Please verify the following information:

Setup Type : websphere

WebSphere application server directory : /home/IBM/WebSphere/AppServer

Web server version : 8.5.5.0

Web server node : PSWebApp

HTTP Port : 80

HTTPS Port : 443

Selected deploy packages(s) : crm_omn_wl.ear

Packages(s) webserver directory : /home/user/psft/pt/8.55/webserv

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

15. A confirmation screen appears when the installation completes. Click Finish to exit the install shield wizard.
16. After the installation is complete, you must stop and start the IBM WebSphere server. Use the following commands, where *WAS_HOME* refers to the IBM WebSphere installation location, and *server_name* is the name of the IBM WebSphere server you used in step 2.

```
cd WAS_HOME/bin
../stopServer.sh server_name
../startServer.sh server_name
```

Task 20-5: Installing the Web Application Deployment Tool in Silent Mode

This section discusses:

- Understanding the Web Application Deployment Tool Silent Mode Installation and the Response File
- Editing the Web Application Deployment Tool Response File to Deploy DES
- Running the Web Application Deployment Tool Silent Mode Installation to Deploy DES

Understanding the Web Application Deployment Tool Silent Mode Installation and the Response File

You can carry out a silent installation of the Web Application Deployment tool by providing all the required settings in a response file. With silent installation there is no user interaction after the installation begins. Silent mode installation of the Web Application Deployment tool is supported for both Microsoft Windows and UNIX operating systems platforms, and for both Oracle WebLogic and IBM WebSphere web servers.

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Task 20-5-1: Editing the Web Application Deployment Tool Response File to Deploy DES

You need a response file to start the installer in silent mode. The Web Application Deployment tool installer comes with a response file template (responsefile.txt) that can be found under *PS_HOME*\setup\PsMpWebAppDeployInstall. Modify the values in the response file according to your installation requirements. The response file should contain all the input parameters that are needed for deploying Web Application Deployment tool.

For information on the parameters in the response file, see the previous sections in this chapter on installing the Web Application Deployment tool.

The response file includes the following sections:

- Comments and instructions, including the command to run the silent installation.
- Parameters needed for the installations, such as PS_CFG_HOME, DOMAIN_NAME, SERVER_TYPE.

Sample response file template:

```
# ************************************************************
#
# Response file for WebAppDeploy Installations
#
# 1. In Windows
#  use "\\" as file path seperator
#     Open a command prompt; go to PS_HOME\setup\PsMpWebAppDeployInstall⇒
 and run following commands
#     setup.bat -i silent -DRES_FILE_PATH=<path_to_response_file>
#
# 2. In UNIX
#  use "/" as file path seperator
#     Go to  PS_HOME/setup/PsMpWebAppDeployInstall and run following⇒
 commands
#     setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
#
#
#*******************************************************************

# Set the below variable to the location where you want to install DES.
# PLEASE NOTE this variable could be ANY DIRECTORY on your machine. It⇒
 includes but is definitely not limited to PeopleTools Home.
PS_CFG_HOME=

# Domain Name
DOMAIN_NAME=

# Web server type. Possible values are "weblogic", "websphere"
SERVER_TYPE=weblogic

# WebLogic home, the location where Oracle WebLogic is installed (for Web⇒
Logic deployment only)
BEA_HOME=C:\\oracle
```


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```
# WebSphere Home, the location where IBM WebSphere is installed (for Web⇒
Sphere deployment only)
#WS_HOME=

# admin console user id/password for securing WebLogic/WebSphere admin⇒
 console credential
USER_ID=system
USER_PWD=
USER_PWD_RETYPE=

HTTP_PORT=80
HTTPS_PORT=443

# DES support only NEW_DOMAIN , so please do not change the below variable.
DOMAIN_TYPE=NEW_DOMAIN

# DES support only CREATE_NEW_DOMAIN , so please do not change the below⇒
 variable.
INSTALL_ACTION=CREATE_NEW_DOMAIN

# Install type to specify whether the installation is a single server or⇒
 multi server deployment,
# possible valuses for INSTALL_TYPE are singleserver, multiserver,⇒
 distributedmanagedserver
INSTALL_TYPE=singleserver

# If your PeopleSoft Applications install is decoupled from PS_HOME then⇒
 PS_APP_HOME will be the actual path to PS_APP_HOME, else it should be the⇒
 path to PS_HOME.
PS_APP_HOME=

# Please enter the CRM specific DB information

# possible values for DB_TYPE are MSSQL,ORACLE,DB2UDB
DB_TYPE=MSSQL
DB_SERVER_NAME=
DB_PORT=1433
DB_SERVER_INSTANCE=
DB_USER=Admin
DB_PASSWORD=
```

Task 20-5-2: Running the Web Application Deployment Tool Silent Mode Installation to Deploy DES

To install the Web Application Deployment tool in silent mode, use the response file that you modified for your configuration. Substitute the location where you saved the response file for <*path_to_response_file*> in the following procedures:

1. Open *PS_HOME*\setup\PsMpWebAppDeployInstall\responsefile.txt for editing.
2. Modify the file for your environment, and then save the file.

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- If your web server is on Oracle WebLogic:

  Specify `SERVER_TYPE=weblogic` and the installation location for the Oracle WebLogic software, such as `BEA_HOME=C:\\WLS1213`.

- If your web server is on IBM WebSphere:

  Specify `SERVER_TYPE=websphere` and the installation location for the IBM WebSphere software, such as `WS_HOME=C:\\IBM\\WebSphere\\AppServer`. In addition, add a comment character (#, pound or hash sign) in front of the line `BEA_HOME=`.

- Enter values for the remaining installation parameters.

3. In a command prompt, go to *PS_HOME*\setup\PsMpWebAppDeployInstall.
4. On Microsoft Windows, run the following command, using "\\" as a separator in the file path:

   ```
   setup.bat -i silent -DRES_FILE_PATH=<path_to_response_file>
   ```

   For example:

   ```
   setup.bat -i silent -DRES_FILE_PATH=C:\\pt855\\setup\\PSMpWebAppDeploy⇒
   Install
   ```

5. On UNIX or Linux, run the following command, using "/" as a separator in the file path:

   ```
   setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
   ```

   For example:

   ```
   setup.sh -i silent -DRES_FILE_PATH=/home/pt855/setup/PsMpWebAppDeploy⇒
   Install
   ```

Task 20-6: Testing and Troubleshooting the Web Application Deployment

Check the log file for any problems encountered during installation. The log file is saved in the following location:

<*WebAppDeploy_DIR*>/webserv/webappinstall<*domain_name*>.log

The *WebAppDeploy_DIR* is the directory where the web server domain for the Web Application Deployment was installed. The <*domain_name*> is the name you specified for the Web Application Deployment web server domain, such as PSWebApp.

If you need to start or stop Oracle WebLogic or IBM WebSphere, use the commands given in the chapter on installing the PeopleSoft Pure Internet Architecture.

See Testing the PeopleSoft Pure Internet Architecture Installation in the chapters on setting up the PeopleSoft Pure Internet Architecture.

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Appendix A

Describing Debugger Requirements

This appendix discusses:

- Describing Debugger Requirements for the AIX Operating System
- Describing Debugger Requirements for the HP-UX Operating System
- Describing Debugger Requirements for the Linux Operating System
- Describing Debugger Requirements for the Oracle Solaris Operating System
- Describing Debugger Requirements for the z/OS Operating System

Describing Debugger Requirements for the AIX Operating System

If you are installing on an AIX platform, download and install the latest gdb RPM from IBM's website, and install it.

Describing Debugger Requirements for the HP-UX Operating System

If you are installing on an HP-UX platform, download and install the latest wdb from http://www.hp.com/go/wdb.

Describing Debugger Requirements for the Linux Operating System

If you are installing on a Linux platform, install the "glibc-debuginfo" RPM package. This requirement applies to both x86_64 and zSeries Linux installations.

There should be one "glibc-debuginfo" package for each installed "glibc" package and the version numbers must match exactly. Use the following commands to determine the packages installed:

- To see the installed "glibc" versions, run:

  ```
  rpm -q --queryformat "%{NAME}-%{VERSION}-%{RELEASE}-%{ARCH}\n" glibc
  ```

  For example, running this command on an Intel-based Linux system should produce output similar to this:

  ```
  glibc-2.5-24-i686
  glibc-2.5-24-x86_64
  ```

  Running this command on a zSeries Linux system should produce output similar to this:

  ```
  glibc-24-31.2-s390x
  ```

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- To see the installed "glibc-debuginfo" packages, run:

  ```
  rpm -q --queryformat "%{NAME}-%{VERSION}-%{RELEASE}-%{ARCH}\n" glibc-⇒
  debuginfo
  ```

Make sure that the "glibc-debuginfo" RPM version is exactly the same as the "glibc" version.

Describing Debugger Requirements for the Oracle Solaris Operating System

If you are installing on an Oracle Solaris platform, install dbx. No compiler license of any kind is needed for this. Download the latest Sun Studio, and on the Select Components page of the installer, expand the Compilers and Tools component and deselect all of the subcomponents except dbx. Also deselect the Performance Library and Third-Party Tools components. The installer will install the dbx subcomponent and the Support files subcomponent. The Support files subcomponent includes packages on which dbx depends.

Describing Debugger Requirements for the z/OS Operating System

If you are installing on a z/OS platform, dbx comes with z/OS UNIX. Starting with z/OS v1r5, dbx requires the Common Debug Architecture (CDA) libraries to be present. They must be accessible by dbx in order for it to run. The libraries are as follows:

Library	Description
CDAEED	Amode31 ELF/DWARF library
CDAEQED	Amode64 ELF/DWARF library
CDAEDPI	Amode31 DDPI library
CDAEQDPI	Amode64 DDPI library

Note. CDAEDPI and CDAEQDPI are only present on a z/OS v1r7 and higher systems.

Depending on the size of the program you are debugging with dbx, plus how many others are also using dbx on your system, you may run out of SQA and/or CSA storage on your z/OS system, because this storage is global z/OS storage. Consult the z/OS initialization and tuning guide for information on how to modify the z/OS parameters.

When diagnosing crashes, be aware that a crash is more strictly defined on z/OS as a program check that is handled by z/OS UNIX as a fatal signal (for example, SIGSEGV for PIC4; 10, 11, or SIGILL for PIC1). A crash would also occur because of a fault in the JVM, or because of a fault in native (JNI) code that is being run inside the Java process.

When one of these fatal signals occurs, obtain the following documents to help you debug:

- a formatted LE dump (CEEDUMP)

  The CEEDUMP shows the C-Stack (or native stack). The traceback from a CEEDUMP shows where a failure occurred for a C/C++ program

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- a JVM trace snap dump
- a formatted JVM dump (javacore)

The default action of the z/OS UNIX signal handler is to produce a transaction dump (through the BCP IEATDUMP service), CEEDUMP, JVM dump javacore.

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Appendix B

Relinking SQR on UNIX

This appendix discusses:

- Understanding SQR Relinking
- Relinking SQR on UNIX
- Relinking SQR on Oracle Solaris

Understanding SQR Relinking

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 this rule is if the PeopleSoft PeopleTools release spans multiple RDBMS versions and the database connectivity changes the names or functionality of required libraries in the new release. In addition, relinking may be required for invoking an external application's APIs using the UFUNC.C interface, as described in the PeopleSoft product documentation.

See *PeopleTools: SQR for PeopleSoft Developers,* "Invoking an External Application API by Using the UFUNC.C Interface."

For example, PeopleSoft PeopleTools is currently supported on Oracle 11g or Oracle 12c. Based on the timing of our release we built the SQR modules for a specific PeopleSoft release with the lowest supported RDBMS version. For the current PeopleSoft PeopleTools release, the minimum supported Oracle version is Oracle 11g (11.2.0.x). This means PeopleSoft SQR will work right out of the box on Oracle 11g (no relink required).

Task B-1: Relinking SQR on UNIX

Here's a high-level overview of what you need to do, on a UNIX platform, to relink SQR:

1. Export the following environment variables:
   - SQRDIR, the location of the SQR executable.
   - PS_HOME, the PeopleSoft home directory.
   - PS_DB, the platform identifier variable:

     ORA for Oracle
2. Export the database install home directory:

   ORACLE_HOME
3. Add SQRDIR to the library path.

   ```
   export LD_LIBRARY_PATH=$SQRDIR:$LD_LIBRARY_PATH
   ```

   or

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```
export SHLIB_PATH=$SQRDIR:$SHLIB_PATH
```

4. Change directory to <*PS_HOME*>/bin/sqr/<*PS_DB*>/lib
5. Run sqrmake.

Task B-2: Relinking SQR on Oracle Solaris

The following section is a step-by-step example illustrating how to relink SQR for an Oracle database on the Oracle Solaris platform. Other operating system/database platform combinations work in a similar fashion.

To relink SQR on Oracle Solaris:

1. If the psconfig.sh shell script has not been executed, check for SQR environment variables and set them as necessary.

   Note. If your *PS_HOME/*psconfig.sh correctly sets the environment variables described below, you can skip this step.

```
env | grep SQRDIR
SQRDIR=
export SQRDIR=/home/PT-SOL855/bin/sqr/ORA/bin

env | grep PS_HOME
PS_HOME=
export PS_HOME=/home/PT-SOL855

env | grep PS_DB
PS_DB=
export PS_DB=ORA

env | grep ORACLE_HOME
ORACLE_HOME=
export ORACLE_HOME=/products/oracle/11.2.0.4.0-64bit

export SHLIB_PATH=/home/PT-SOL855/bin/sqr/ORA/bin:$SHLIB_PATH
```

2. Recheck the SQR env:

```
st-sun06:$ env | grep -i sqr

SHLIB_PATH=/home/PT-SOL855/bin/sqr/ORA/bin:/lib:/usr/lib:/usr/local/lib:⇒
/usr/lib/X11:/home/user/Oracle/tuxedo12.1.3.0-j12-64bit/lib:/cobol⇒
/prod/svrexp-5.1_wp11-64bit/lib:/products/oracle/11.2.0.4.0-64bit/lib32:⇒
/products/oracle/11.2.0.4.0-64bit/lib:/pt/products/solaris-10-sparc⇒
/lib:/home/valg/lib

PATH=/home/PT-SOL855/jre/bin:/jre/prod/1.7.0/bin:/bin:/sbin:/usr/sbin:⇒
/usr/bin:/usr/local/bin:/usr/ccs/bin:/usr/local/etc:/usr/bin/X11:/usr⇒
/ucb:.:/home/user/Oracle/tuxedo12.1.3.0-j12-64bit/bin:/cobol/prod⇒
/svrexp-5.1_wp11-64bit/bin:/clrcase/prod/7.0.1/bin:/products/oracle⇒
/11.2.0.4.0-64bit/bin:/pt/bin:/pt/products/solaris-10-sparc/bin:/home⇒
```


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```
/valg/bin:/home/PT-SOL855/bin:/home/PT-SOL855/bin/sqr/ORA/bin:/home/PT-⇒
SOL855/verity/solaris/_ssol26/bin

SQRDIR=/home/PT-SOL855/bin/sqr/ORA/bin

SQR_HOME=/home/PT-SOL855/bin/sqr/ORA
```

3. Relink SQR using sqrmake file.

```
st-sun06:$ sqrmake

/usr/ccs/bin/ld -o sqr  -u __1cH__CimplKcplus_init6F_v_ -s -R/usr/ccs⇒
/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 crti.o CCrti.o crt1.o values-⇒
xa.o -Y P,/usr/ccs/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 -L⇒
/products/oracle/10.2.0.1/lib -L/products/oracle/10.2.0.1/rdbms/lib⇒
 sqr.o  rosette.o sqr.a  libsti64.a bcl.a pdf.a zlib.a -L. -⇒
lsqrbtunicode -lclntsh -lc /usr/lib/sparcv9/libCrun.so.1  /usr/lib⇒
/sparcv9/libCstd.so.1 -lm -lthread -lc CCrtn.o crtn.o -lkstat -lnsl -⇒
lsocket -lgen -ldl -lsched
/usr/ccs/bin/ld -o sqrp -u __1cH__CimplKcplus_init6F_v_ -s -R/usr/ccs⇒
/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 crti.o CCrti.o crt1.o values-⇒
xa.o -Y P,/usr/ccs/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 -L⇒
/products/oracle/10.2.0.1/lib -L/products/oracle/10.2.0.1/rdbms/lib⇒
 sqrp.o rosette.o sqrp.a libsti64.a bcl.a pdf.a zlib.a -L. -⇒
lsqrbtunicode -lc /usr/lib/sparcv9/libCrun.so.1  /usr/lib/sparcv9/lib⇒
Cstd.so.1 -lm -lthread -lc CCrtn.o crtn.o -lkstat -lnsl -lsocket -lgen -⇒
ldl -lsched
/usr/ccs/bin/ld -o sqrt -u __1cH__CimplKcplus_init6F_v_ -s -R/usr/ccs⇒
/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 crti.o CCrti.o crt1.o values-⇒
xa.o -Y P,/usr/ccs/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 -L⇒
/products/oracle/10.2.0.1/lib -L/products/oracle/10.2.0.1/rdbms/lib⇒
 sqrt.o rosette.o sqrt.a libsti64.a bcl.a pdf.a zlib.a -L. -⇒
lsqrbtunicode -lclntsh -lc /usr/lib/sparcv9/libCrun.so.1  /usr/lib⇒
/sparcv9/libCstd.so.1 -lm -lthread -lc CCrtn.o crtn.o -lkstat -lnsl -⇒
lsocket -lgen -ldl -lsched
cp -i sqr  /home/PT-SOL855/bin/sqr/ORA/bin/sqr
```

4. Validate the relinked SQR executable:

   Once linked, cd to $SQRDIR.

```
st-sun06:$ cd $SQRDIR
st-sun06:$ pwd
/home/PT-SOL855/bin/sqr/ORA/bin
```

   Validate SQR executable:

```
st-sun06:$ sqr -id

          SQR for PeopleSoft/8.53/Sun/SunOS/Oracle/Mar 23 2011

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```

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```
 restrictions
as set forth in subparagraph (c) (1) (ii) of DFARS 52.227-7013 for the⇒
 DOD
     and as set forth in FAR 52.227-19 (a) - (d) for civilian agencies.

                        SQR is a registered trademark.
     Any other brand and product names used herein may be trademarks
        or registered trademarks of their respective companies.

st-sun06:$ sqr
SQR for PeopleSoft V8.53

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 browswer 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:nn = 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
```


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```
                -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

st-sun06:$
```

5. Change directory (cd) to the actual location of $PS_HOME to set the PeopleSoft environment with the correct SQR environment.

```
st-sun06:$ . ./psconfig.sh
st-sun06:$
```

6. Test SQR from the UNIX command line, entering the access ID and password for the database <DBNAME>.

Note. Remember that this example is specifically for Oracle database platforms. The commands for other RDBMS platforms may be different.

```
st-sun06:$ sqr $PS_HOME/sqr/xrfwin <ACCESS_ID>/<ACCESS_PSWD>@<DBNAME> -⇒
ZIF$PS_⇒
HOME/sqr/pssqr.unx
SQR for PeopleSoft V8.53
Database Name (Optional, Press ENTER to continue):
Process Instance (Optional, Press ENTER to continue):

SQR for PeopleSoft: End of Run.
st-sun06:$
```

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