
PeopleSoft 9.2 Application Installation for Microsoft SQL Server (PeopleSoft PeopleTools 8.56)

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PeopleSoft 9.2 Application Installation
for Microsoft SQL Server (PeopleSoft PeopleTools 8.56)
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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.

Addenda to the recent PeopleTools installation guides are periodically posted in My Oracle Support on the same page as the initial posting.

This documentation includes the instructions for installing Oracle's PeopleSoft PeopleTools and PeopleSoft applications. You also need the installation instructions that are specific to your PeopleSoft application, which 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 this 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.

- 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.
<i>Italics</i>	Indicates field values, emphasis, and book-length publication titles. Italics is also used to refer to words as words or letters as letters, as in the following example: Enter the letter <i>O</i> . Italics are also used to indicate user-supplied information. For example, the term <i>domain</i> 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 <code><PS_CFG_HOME>/appserv/<domain></code> 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 <i>See</i> refer you to additional documentation that will help you implement the task at hand. We highly recommend that you reference this documentation. Cross-references under the heading <i>See Also</i> refer you to additional documentation that has more information regarding the subject.

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 <i>Note</i> . indicates information that you should pay particular attention to as you work with your PeopleSoft system.
Important! Important note text.	A note that begins with <i>Important!</i> is crucial and includes information about what you need to do for the system to function properly.
Warning! Warning text.	A note that begins with <i>Warning!</i> contains 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® 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
- 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.

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.

Chapter 1

Preparing for Installation

This chapter discusses:

- Understanding the PeopleSoft Installation
- Understanding the PeopleSoft Installation Using Deployment Packages
- Understanding the PeopleSoft Upgrade Source Deployment Packages
- Reviewing Hardware Requirements
- Reviewing Software Requirements
- Using Oracle Software Delivery Cloud to Obtain Installation Files
- Considering Project Planning
- Planning Your Initial Configuration
- Planning Database Creation
- Planning Multilingual Strategy
- Installing Supporting Applications
- Installing Microsoft SQL Server 2012 on the Database Server
- Starting and Stopping Microsoft SQL Server 2012
- Installing Microsoft SQL Server 2012 — Client Only
- Configuring the Connection to Use SQL Server Native Client for Microsoft SQL Server 2012
- Configuring an ODBC Data Source for 64-bit Connectivity Drivers
- Increasing the Size of Tempdb
- Installing Client Connectivity
- Performing Backups

Understanding the PeopleSoft Installation

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

- 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.

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.

- 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 Upgrade" incidents on the Patches and Updates page for the PeopleSoft PeopleTools version that you are installing.
- You will use the PeopleSoft application deployment packages (DPKs) for your PeopleSoft installation. The DPKs deliver pre-installed PeopleSoft components, which can be installed on virtualization platforms as well as directly on traditional, non-virtual machines ("bare-metal").

Review the known issues on the PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2, for any issues related to the PeopleSoft application DPK installation.

- 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. Check the PeopleSoft policy information 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.

See Lifetime Support Summary for PeopleSoft Releases, My Oracle Support, Doc ID 2238983.2.

- 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."

See Also

"Installing PeopleSoft Online Help"

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

"Installing PeopleSoft Change Assistant"

Understanding the PeopleSoft Installation Using Deployment Packages

This section discusses:

- Understanding the PeopleSoft Deployment Packages Required for Installation
- Reviewing the PeopleSoft PeopleTools DPKs
- Reviewing the PeopleSoft Application Images
- Reviewing the Installation Choices
- Reviewing the DPK Installation Process (Microsoft Windows)
- Reviewing the Installation Process with IBM WebSphere (AIX, Linux, Microsoft Windows, or Solaris)

Understanding the PeopleSoft Deployment Packages Required for Installation

To install PeopleSoft applications built on PeopleSoft PeopleTools 8.56 (PeopleSoft 9.2 applications as well as PeopleSoft Interaction Hub 9.1), you will use the PeopleSoft Application Images, which are comprised of deployment packages (DPKs). For most installation scenarios, you will also download the PeopleSoft PeopleTools DPKs separately.

The PeopleSoft DPKs are the delivery method for many PeopleSoft installation, upgrade, and maintenance products. This documentation refers to the set of DPKs that are used for a fresh installation of a PeopleSoft application environment as PeopleSoft Application Images. These images can also be deployed differently, and used for applying maintenance for PeopleSoft applications. In that use case, they are typically referred to as PeopleSoft Update Images, or PIs.

See PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2, for information on applying maintenance updates with the PIs.

See *PeopleSoft PeopleTools 8.56 Deployment Packages Installation*, "Learning About the PeopleSoft Deployment Process."

The PeopleSoft DPKs deliver pre-installed PeopleSoft components that can be deployed onto your environment. The PeopleSoft DPKs offer the flexibility of deployment on supported operating system platforms, both directly ("bare-metal") and on virtualization platforms. The DPKs are available on My Oracle Support and Oracle Software Delivery Cloud as zip files, and are delivered with a setup script that automates the procedure to set up a PeopleSoft environment. The script is an interactive script that verifies that the downloaded DPKs are correct, and prompts the user for the information required to set up the environment. The script also enables a user to choose various types of environments, such as a full tier, including a PeopleSoft database, or a mid-tier, with Application Server, web server and Process Scheduler, that connects to an existing database.

See "Installing the PeopleSoft Homes," Reviewing the DPK Setup Script Options.

The DPKs are delivered with the PeopleSoft Puppet modules, which are initialization and management scripts based upon the open-source Puppet software. In addition to the convenience of using the interactive DPK setup script, you can take advantage of the Puppet Hiera functionality to customize and control the installation. Note that some installation scenarios require customizations to complete the deployment.

See "Completing the DPK Initialization with Customizations."

This section describes the DPKs used in the PeopleSoft installation and overviews of the installation process for various scenarios. The PeopleSoft Application Images are available as Microsoft Windows, Linux, and Oracle VM VirtualBox DPKs. The VirtualBox DPKs are used for PUM maintenance, and are not covered in this documentation. The PeopleSoft PeopleTools 8.56 DPKs are available for IBM AIX, Linux, Microsoft Windows, and Oracle Solaris on SPARC operating systems. You can also install on an HP-UX operating system using PeopleSoft PeopleTools installation files in the non-DPK format.

See [Reviewing the Installation Choices](#).

Note. Oracle recommends that you use the Native OS for Linux or Native OS for Windows DPKs for a fresh installation, not the VirtualBox DPKs.

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 and brevity, the word UNIX is sometimes used to refer to all UNIX-like operating systems, including IBM AIX, Linux, HP-UX, and Oracle Solaris for SPARC. For the most up-to-date information on operating system support for your database platform, see the Certification information on My Oracle Support.

Reviewing the PeopleSoft PeopleTools DPKs

The PeopleSoft PeopleTools DPKs are delivered for each PeopleTools patch. The files are double-zipped. This table describes the downloaded zip files and the embedded zip files. When you follow the instructions provided in this documentation you will extract the first zip file to get the DPK setup script. When you run the setup script, it takes care of extracting the remaining zip files. Do not unzip before reading the instructions.

Downloaded Zip Files	Embedded Zip Files	Description
PEOPLETOOLS-<OS>-8.56.xx_1of4.zip	The setup folder and other files	Setup DPK
PEOPLETOOLS-<OS>-8.56.xx_2of4.zip	PT-DPK-<OS>-8.56.xx-1of2.zip	PeopleTools server, Part 1
PEOPLETOOLS-<OS>-8.56.xx_3of4.zip	PT-DPK-<OS>-8.56.xx-2of2.zip	PeopleTools server, Part 2
PEOPLETOOLS-<OS>-8.56.xx_4of4.zip	PTC-DPK-<OS>-8.56.xx-1of1.zip	PeopleTools Client for 8.56

The filenames include the following:

- <OS> is one of these operating systems:
 - AIX for IBM AIX
 - LNX for Linux
 - WIN for Microsoft Windows
 - SOL for Oracle Solaris for SPARC
- xx refers to the patch number.

Reviewing the PeopleSoft Application Images

The PeopleSoft application software is delivered in the PeopleSoft Application Images posted on My Oracle Support. The DPKs that comprise the PeopleSoft Application Images are double-zipped. When you follow the instructions provided in this documentation you will extract the first zip file to get the DPK setup script. When you run the setup script, it takes care of extracting the remaining zip files. Do not unzip before reading the instructions.

The first four zip files in the PeopleSoft Application Images are the same type as the four zip files in the PeopleTools patches; that is, two PeopleTools server DPKs, a PeopleTools client DPK, and a setup DPK. However, because the PeopleSoft Application Images and the PeopleTools patches follow different schedules, the patch releases will not be the same.

Note. The PeopleTools Client DPKs are specific to Microsoft Windows operating systems. The operating system for the PeopleTools server DPKs that are packaged with the PeopleSoft Application Image is the same as the other DPKs that make up the PeopleSoft Application Image.

This table describes the zip files that you download for the Native Linux and Windows DPKs, and the embedded zip files. Note that the content description is also available in the manifest that is posted on the same pages where you can find links to the most current image. On the PeopleSoft Update Image (PUM) Home Page, select the PeopleSoft Update Images tab, and then select the update image home page for your PeopleSoft application. The links and manifest are located in the Update Image Link section.

The VirtualBox version of the PeopleSoft Application Images have a slightly different set of DPK zip files; that is, the VirtualBox Shell OVA and the Elasticsearch DPK are included in the VirtualBox images. These DPKs are not included for the Native OS for Windows and Native OS for Linux DPKs. The current documentation does not describe the installation of the VirtualBox images.

See *PeopleSoft Deployment Packages for Update Images Installation (PeopleSoft PeopleTools 8.56)*, PeopleSoft Update Image (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

Downloaded Zip Files	Files After First Extraction ¹	Description
<Product>-920-UPD-<PI_Number>-<OS>_1of11.zip	The setup folder and other files	Setup DPK
<Product>-920-UPD-<PI_Number>-<OS>_2of11.zip	PT-DPK-<OS>-8.56.xx-1of2.zip	PeopleTools server, Part 1
<Product>-920-UPD-<PI_Number>-<OS>_3of11.zip	PT-DPK-<OS>-8.56.xx-2of2.zip	PeopleTools server, Part 2
<Product>-920-UPD-<PI_Number>-<OS>_4of11.zip	PTC-DPK-WIN8.54.xx-1of1.zip	PeopleTools Client for 8.54
<Product>-920-UPD-<PI_Number>-<OS>_5of11.zip	PTC-DPK-WIN8.55.xx-1of1.zip	PeopleTools Client for 8.55
<Product>-920-UPD-<PI_Number>-<OS>_6of11.zip	PTC-DPK-WIN8.56.xx-1of1.zip	PeopleTools Client for 8.56
<Product>-920-UPD-<PI_Number>-<OS>_7of11.zip	ODC-DPK-WIN-12.1.0.2-xxxxxx-1of1.zip	Oracle Database client

Downloaded Zip Files	Files After First Extraction ¹	Description
<Product>-920-UPD-<PI_Number>-<OS>_8of11.zip	ODS-DPK-<OS>-12.1.0.2-xxxxxx-1of1.zip	Oracle Database server
<Product>-920-UPD-<PI_Number>-<OS>_9of11.zip	APP-DPK-<OS>-<Product_Name>92-8.56.xx-1of3.zip	PeopleSoft Application DPK, Part 1
<Product>-920-UPD-<PI_Number>-<OS>_10of11.zip	APP-DPK-<OS>-<Product_Name>92-8.56.xx-2of3.zip	PeopleSoft Application DPK, Part 2
<Product>-920-UPD-<PI_Number>-<OS>_11of11.zip	APP-DPK-<OS>-<Product_Name>92-8.56.xx-3of3.zip	PeopleSoft Application DPK, Part 3

¹ The filenames will vary depending upon the date posted or the associated release and patch. Note that the DPK setup script will carry out the first extraction. The names are given here for information.

The filenames for the downloaded zip files have the following format:

<Product>-920-UPD-<PI_Number>-<OS>_#ofn.zip

For example:

HCM-920-UPD-024-LNX_1of11.zip

HCM-920-UPD-024-LNX_2of11.zip

[...]

HCM-920-UPD-024-LNX_11of11.zip

The files names are comprised of the following parts:

- <Product> is an abbreviation that represents the PeopleSoft application name, as described in the following table.

PeopleSoft Application	Product Name Abbreviation
PeopleSoft Customer Relationship Management	CRM
PeopleSoft Campus Solutions	CS
PeopleSoft Enterprise Learning Management	ELM
PeopleSoft Financials and Supply Chain Management	FSCM
PeopleSoft Human Capital Management	HCM
PeopleSoft Interaction Hub	IH

- <PI_Number> is the PI image number, such as 024.
- <OS> is one of these operating systems:
 - LNX for the Native OS DPKs for Oracle Linux
 - WIN for the Native OS DPKs for Microsoft Windows
 - OVA for the VirtualBox DPKs

- n represents the total number of zip files.

Reviewing the Installation Choices

This section includes overviews of the methods to install the PeopleSoft Application Images, depending upon your operating system and other components.

If you want to use the PeopleSoft 9.2 application PIs to create a PeopleSoft Update Manager (PUM) source for applying updates and fixes, see *PeopleSoft Deployment Packages for Update Images Installation*.

See PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

Installation Format	Operating System	Web Server	Overview Section
PeopleTools and PeopleSoft application DPKs	Microsoft Windows	Oracle WebLogic	Reviewing the DPK Installation Process (Microsoft Windows)
PeopleTools and PeopleSoft application DPKs	<ul style="list-style-type: none"> • AIX • Linux • Microsoft Windows • Solaris for SPARC 	IBM WebSphere	Reviewing the Installation with IBM WebSphere (AIX, Linux, Microsoft Windows, or Solaris)

Reviewing the DPK Installation Process (Microsoft Windows)

These are the high-level steps for using the PeopleSoft Application Images to perform a fresh installation (that is, you are not upgrading or updating an existing environment):

1. Locate the Native OS DPKs for your PeopleSoft 9.2 Application, and download the PeopleSoft Application DPK, Part 1.

For installations on Microsoft Windows, download the Native OS DPKs for Windows. Do not unzip the file. If you need to FTP the file, use binary mode.

See "Installing the PeopleSoft Homes," Obtaining the PeopleSoft Application and PeopleTools DPKs.

2. Download the PeopleTools 8.56 DPKs.
 - Select Microsoft Windows as the operating system.
 - Select the PeopleTools patch release specified for the PeopleSoft 9.2 application.
3. Before running the DPK setup script, review the setup script options. Certain installation situations require a customized procedure.

See "Installing the PeopleSoft Homes," Reviewing the DPK Setup Script Options.

4. Use the DPK setup script from the PeopleTools DPKs to carry out one of these steps:
 - Install *PS_HOME* and *PS_APP_HOME* only.
PS_HOME includes the PeopleTools utilities that you use in the next step. *PS_APP_HOME* includes the files needed to create an application database.
 - Install *PS_HOME*, *PS_APP_HOME*, Oracle Tuxedo, and Oracle WebLogic.
5. Create a DEMO or SYS database.
6. Use the PeopleTools DPK setup script to complete the setup of the PeopleSoft domains.

- If not installed in step 4, install Oracle Tuxedo and Oracle WebLogic.
 - Configure the application server, PeopleSoft Pure Internet Architecture (PIA) and Process Scheduler domains.
7. Complete optional tasks, such as installing and compiling COBOL.

Reviewing the Installation Process with IBM WebSphere (AIX, Linux, Microsoft Windows, or Solaris)

The PeopleTools DPKs install Oracle WebLogic as the web server. This section provides an overview of the steps needed to use IBM WebSphere as the web server with the PeopleSoft Application Images and the PeopleTools DPKs.

To install the PeopleSoft Application Images and use IBM WebSphere as the web server for your PeopleSoft installation:

1. Download the necessary DPK from the PeopleSoft Application Image, and the PeopleTools 8.56 DPKs.

For installations on IBM AIX, Linux, or Oracle Solaris, download the Native OS DPK for Linux. For installations on Microsoft Windows, download the Native OS DPK for Windows. Do not unzip the file. If you need to FTP the file, use binary mode.

Note. You must obtain and download the PeopleTools 8.56 DPKs separately.

See "Installing the PeopleSoft Homes," Obtaining the PeopleSoft Application and PeopleTools DPKs.

2. Use the DPK setup script command `psft-dpk-setup.bat --env_type midtier --deploy_only` on Microsoft Windows or `./psft-dpk-setup.sh --env_type midtier --deploy_only` on Linux to install the PeopleSoft PeopleTools installation directory, Oracle Tuxedo, and Oracle WebLogic software.

This option deploys the *PS_HOME* directory, as well as the Oracle Tuxedo and Oracle WebLogic software, but does not create the PeopleSoft Application Server, web server, and Process Scheduler domains. Because there is no script option to install Oracle Tuxedo alone, we install both, but do not use the Oracle WebLogic installation.

See "Installing the PeopleSoft Homes," Reviewing the DPK Script Options.

3. Obtain and install IBM WebSphere 9.0.0.0.

See "Installing Web Server Products," Installing IBM WebSphere Application Server.

4. Create a System or Demo application database.

See the chapters on creating database in this documentation.

5. Create the Application Server domain using PSADMIN.

See the chapters on configuring Application Server in this documentation.

6. Set up PeopleSoft Pure Internet Architecture (PIA). and specify IBM WebSphere in the silent mode response file.

For example:

```
# Web server type. Possible values are "weblogic", "websphere"
SERVER_TYPE=websphere

# WebSphere Home, the location where IBM WebSphere is installed (for=>
  WebSphere deployment only)
WS_HOME=C:/IBM/WebSphere/AppServer
```

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

7. Configure the Process Scheduler.

See the chapters on configuring Process Scheduler in this documentation.

8. Complete optional tasks, such as installing and compiling COBOL

Understanding the PeopleSoft Upgrade Source Deployment Packages

This section discusses:

- Reviewing the PeopleSoft Upgrade Source Image Usage
- Reviewing the PeopleSoft Upgrade Source Image
- Reviewing the PeopleSoft Upgrade Source Image Installation

Reviewing the PeopleSoft Upgrade Source Image Usage

The PeopleSoft Upgrade Source Images can be used during a PeopleSoft application upgrade to install a demo database, and are available for each PeopleSoft application. Keep in mind that the PeopleSoft Upgrade Source Images are not interchangeable with the PeopleSoft application images. Here is an overview of the differences:

- The PeopleSoft Upgrade Source Image is released on a different schedule, and the version numbering sequence is independent of both the PeopleSoft application images and the PeopleSoft PeopleTools patches.
- The PeopleSoft Upgrade Source Image zip file names include UPG rather than UPD.
See Reviewing the PeopleSoft Upgrade Source Image.
- The VirtualBox version of the PeopleSoft application image is not recommended for use with a fresh installation, but the VirtualBox version of the Upgrade Source Image can be used to install an upgrade demo database.
- The DPK setup script recognizes the type of DPK, and suppresses unnecessary prompts.
See Reviewing the PeopleSoft Upgrade Source Image Installation.

Reviewing the PeopleSoft Upgrade Source Image

The DPKs for the Upgrade Source Image are double-zipped. When you follow the instructions provided in this documentation you will extract the first zip file to get the DPK setup script. When you run the setup script, it takes care of extracting the remaining zip files. Do not unzip before reading the instructions.

The first four zip files in the Upgrade Source Image are the same type as the four zip files in the PeopleTools patches; that is, two PeopleTools server DPKs, a PeopleTools client DPK, and a setup DPK. However, because the Upgrade Source Image and the PeopleTools patches follow different schedules, the patch releases will not be the same.

This table describes the zip files that you download for the Native OS for Linux and Windows DPKs, and the embedded zip files. Note that the content description is also available in the manifest posted on the upgrade pages where you can find links to the most current Upgrade Source Image.

See Reviewing the PeopleSoft Upgrade Source Image Installation.

The VirtualBox DPKs have a slightly different set of zip files; that is, the VirtualBox Shell OVA and the Elasticsearch DPK are available for VirtualBox DPKs. These two DPKs are not included for the Native OS DPKs for Microsoft Windows and Linux. The current documentation does not describe the installation of the VirtualBox DPKs.

See *PeopleSoft Deployment Packages for Update Images Installation (PeopleSoft PeopleTools 8.56)*, PeopleSoft Update Image (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

Downloaded Zip Files	Files After First Extraction ¹	Description
<Product>-920-UPG-<Img_Number>-<OS>_1of11.zip	The setup folder and other files	Setup DPK
<Product>-920-UPG-<Img_Number>-<OS>_2of11.zip	PT-DPK-<OS>-8.56.xx-1of2.zip	PeopleTools server, Part 1
<Product>-920-UPG-<Img_Number>-<OS>_3of11.zip	PT-DPK-<OS>-8.56.xx-2of2.zip	PeopleTools server, Part 2
<Product>-920-UPG-<Img_Number>-<OS>_4of11.zip	PTC-DPK-WIN8.54.xx-1of1.zip	PeopleTools Client for 8.54
<Product>-920-UPG-<Img_Number>-<OS>_5of11.zip	PTC-DPK-WIN8.55.xx-1of1.zip	PeopleTools Client for 8.55
<Product>-920-UPG-<Img_Number>-<OS>_6of11.zip	PTC-DPK-WIN8.56.xx-1of1.zip	PeopleTools Client for 8.56
<Product>-920-UPG-<Img_Number>-<OS>_7of11.zip	ODC-DPK-WIN-12.1.0.2-xxxxxx-1of1.zip	Oracle Database client
<Product>-920-UPG-<Img_Number>-<OS>_8of11.zip	ODS-DPK-<OS>-12.1.0.2-xxxxxx-1of1.zip	Oracle Database server
<Product>-920-UPG-<Img_Number>-<OS>_9of11.zip	APP-DPK-<OS>-<Product_Name>92-8.56.xx-1of3.zip	PeopleSoft Application DPK, Part 1
<Product>-920-UPG-<Img_Number>-<OS>_10of11.zip	APP-DPK-<OS>-<Product_Name>92-8.56.xx-2of3.zip	PeopleSoft Application DPK, Part 2
<Product>-920-UPG-<Img_Number>-<OS>_11of11.zip	APP-DPK-<OS>-<Product_Name>92-8.56.xx-3of3.zip	PeopleSoft Application DPK, Part 3

¹ The filenames will vary depending upon the date posted or the associated release and patch. After you extract the first zip file manually, note that the DPK setup script will carry out the first extraction. The names are given here for information.

The filenames for the downloaded zip files have the following format:

<Product>-920-UPG-<Img_Number>-<OS>_#ofn.zip

For example:

HCM-920-UPG-003-LNX_1of11.zip

HCM-920-UPG-003-LNX_2of11.zip

[...]

HCM-920-UPG-003-LNX_11of11.zip

The files names are comprised of the following parts:

- *<Product>* is an abbreviation that represents the PeopleSoft application name, as described in the following table.

PeopleSoft Application	Product Name Abbreviation
PeopleSoft Customer Relationship Management	CRM
PeopleSoft Campus Solutions	CS
PeopleSoft Enterprise Learning Management	ELM
PeopleSoft Financials and Supply Chain Management	FSCM
PeopleSoft Human Capital Management	HCM
PeopleSoft Interaction Hub	IH

- *<Img_Number>* is the Upgrade Source Image version number, such as 03.
- *<OS>* is LNX for the Native OS DPKs for Oracle Linux, WIN for the Native OS DPKs for Microsoft Windows, or OVA for the VirtualBox DPKs.
- *n* represents the total number of zip files.

Reviewing the PeopleSoft Upgrade Source Image Installation

The installation process for the Upgrade Source Image is similar to the installation of the PeopleSoft application images, with a few differences outlined here.

Note. These instructions apply to the Upgrade Source Image that is created with PeopleSoft PeopleTools 8.56.

To install the PeopleSoft Upgrade Source Image for use as an upgrade demo database:

1. Download the Upgrade Source Image for your PeopleSoft 9.2 application.

See Reviewing the Upgrade Source Image for information on the naming convention for the downloaded DPKs.

To find usage information and the links to the latest Upgrade Source Image, select the Upgrade Source Image tab on the following upgrade home pages:

- Campus Solutions Upgrade Home Page, My Oracle Support, Doc ID 2078564.2
 - CRM Upgrade Home Page, My Oracle Support, Doc ID 1961844.2.
 - ELM Upgrade Home Page, My Oracle Support, Doc ID 1962959.2.
 - FSCM Upgrade Home Page, My Oracle Support, Doc ID 1963697.2
 - HCM Upgrade Home Page, My Oracle Support, Doc ID 1959519.2
2. Obtain the installation guide.
 - If you are installing the Native OS for Linux or Windows DPKs, use the installation guide you are currently reading.

See Oracle's PeopleSoft PeopleTools 8.56 Home Page, My Oracle Support, Doc ID 2259140.2. Select Installation and Upgrade, Installation Documentation, PeopleSoft 9.2 Application Deployment Packages.

- If you are installing the VirtualBox version of the Upgrade Source Image, use *PeopleSoft Deployment Packages for Update Images Installation (PeopleSoft PeopleTools 8.56)*.

You can find this installation guide on the PeopleSoft Update Manager Home Page. Select the Update image home page for your PeopleSoft application (for example, HCM Update Image Home Page), and locate the Installation Documentation section.

See PeopleSoft Update Image (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

3. Download the PeopleTools 8.56 DPKs.
 - Select the operating system you want to install on. The PeopleTools 8.56 DPKs are available for AIX, Linux, Microsoft Windows, and Solaris for SPARC.
 - Select the PeopleTools patch release specified for the PeopleSoft 9.2 application.
4. Use the PeopleTools DPK setup script to deploy the PeopleSoft environment.

When running the DPK setup script, you will not see the following prompt for the installation type, which is included when deploying the PeopleSoft application images.

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]:
```

Task 1-1: Reviewing Hardware Requirements

This section discusses:

- Reviewing Hardware Requirements for Microsoft Windows

Task 1-1-1: Reviewing Hardware Requirements for Microsoft Windows

You can install the PeopleSoft Application Image deployment packages (DPKs) directly on a system running a Microsoft Windows operating system. The PeopleSoft DPKs are certified to run on those Microsoft Windows operating systems that are certified for PeopleSoft PeopleTools 8.56. The Microsoft Windows system can be a physical computer or a virtual machine.

Oracle strongly recommends that you dedicate a Microsoft Windows machine for the PeopleTools client. This should be a machine that is not used for other PeopleSoft purposes.

See "Deploying the PeopleSoft PeopleTools Deployment Packages," Deploying the PeopleTools Client DPK in Standalone Mode, for information on installing the PeopleTools client utilities.

- *Host computer:* The PeopleSoft DPKs can be deployed on any supported Microsoft Windows host, bare-metal or virtual.

If you deploy on a virtual host computer, you are responsible for provisioning the virtual machine before beginning the deployment.

- *Host operating system:* The host operating system (OS) must be a 64-bit platform that is certified by Oracle for PeopleSoft systems.

Note. My Oracle Support Certification notes include information about the PeopleSoft PeopleTools components that are certified for each operating system. Some OSs are certified only for browsers and clients. If you want to deploy a full PeopleSoft environment, verify that the OS you want to use is certified for server installation.

See My Oracle Support, Certifications.

See PeopleSoft PeopleTools Certifications, My Oracle Support, Doc ID 747587.1, for help searching PeopleSoft Certifications.

- *RAM (Memory)*: A minimum of 8 GB RAM is required to run a PeopleSoft environment.
- *Disk space*: The disk space requirements vary depending upon the type of environment you set up.
See "Preparing to Deploy," Understanding PeopleSoft Components.
 - 25–35 GB free disk space for the downloaded zip files
You may remove these files after you have successfully initialized your virtual machine.
 - 150 GB free disk space is required to deploy and set up a full tier PeopleSoft environment.
 - 75 GB free disk space is required to deploy and set up a db-tier PeopleSoft environment.
 - 25 GB free disk space is required to deploy and set up a mid-tier PeopleSoft environment.

See Also

Tech Update - Main Page, My Oracle Support, Doc ID 764222.1

Task 1-2: Reviewing Software Requirements

This section discusses:

- Reviewing Software Requirements on Microsoft Windows
- Reviewing Requirements for the Puppet Software on Microsoft Windows

Task 1-2-1: Reviewing Software Requirements on Microsoft Windows

Here are the software requirements for using the PeopleSoft Deployment Packages on a Microsoft Windows machine:

- Administrative permission
- As of the PeopleSoft PeopleTools 8.56.06 patch release, the DPK setup script can be run from any drive, regardless of the drive where the Windows operating system is installed.
- Web Browser
You need a version certified for the current PeopleSoft PeopleTools release for end-users.
See My Oracle Support, Certifications.
- Zip utility
You need a utility that is able to extract (unzip) the DPK zip files for your operating system.
- Verify that the PATHEXT environment variable includes the extension .bat.

This is a requirement for running Puppet. For example:

```
PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
```

Task 1-2-2: Reviewing Requirements for the Puppet Software on Microsoft Windows

The PeopleSoft DPKs are delivered with the PeopleSoft Puppet modules, which are initialization and management scripts based upon open-source Puppet software.

- Installation requirements

In most cases, the Puppet software will be installed by the DPKs. In some scenarios it may be necessary for you to install either Puppet or its dependencies directly. If so, use these guidelines:

- The DPK deployment requires open-source Puppet software.

See the Puppet Labs Web site at www.puppetlabs.com to download the software.

- Customer installation of Puppet is supported for Microsoft Windows operating systems.
- These are the minimum requirements for the software versions associated with using Puppet with the PeopleSoft DPKs on Microsoft Windows operating systems:

- Puppet Agent 1.5.2
- Puppet 4.5.2
- Hiera 3.2.0
- Facter 3.2.0
- Ruby 2.1.9

- Operating system packages required for Puppet

The Puppet software used for the DPK deployment is dependent on certain OS-level packages, which may not be present in the delivered DPKs. In this case, you can use the information in the DPK setup log file to determine which packages are needed. It is the responsibility of the user to obtain and install the required packages.

See "Deploying the PeopleSoft PeopleTools Deployment Packages," Obtaining Operating System Packages Required for Puppet.

- Installation location

Puppet software is installed in a standard location by the DPKs. The DPK deployment checks for existing Puppet installations only in that standard location. If Puppet software was installed in a different location, for example for other business or development requirements, the DPK will not recognize or try to remove that existing Puppet installation. It will install to the standard location dictated by the DPK requirement, and the other Puppet installation may subsequently cause problems.

Task 1-3: 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 or My Oracle Support. 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>.

See My Oracle Support, <https://support.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.

See Also

Downloading Software from Oracle Software Delivery Cloud, My Oracle Support, Doc ID 2098595.1

Task 1-4: 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 1-5: 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
- Defining the Application Server
- Defining the Process Scheduler (Batch) Server
- Defining Installation Locations
- Defining the Web Server

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

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.

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

Here is a summary of the functionality included in the PeopleSoft servers and clients:

- *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 1-5-1: 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.

To install the PeopleTools Client, use the script included with the PeopleTools Client DPK. Keep in mind that the PeopleTools Client can be installed *only* on supported Microsoft Windows operating systems.

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

See "Deploying the PeopleTools Client DPK."

Task 1-5-2: 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.

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 1-5-3: 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.

Task 1-5-4: 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.

For Microsoft SQL Server the application server will run on a Windows-based server too. Oracle recommends a physical three-tier configuration for the PeopleSoft installation, which means the application server will reside on a separate server than the database server. If performance for both the database server and the application server is not an issue, you can run both on the same server—a logical three-tier configuration.

See SQL Server books online.

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 1-5-5: Defining the Process Scheduler (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.

For Microsoft SQL Server databases, a Process Scheduler located on the batch server can point to and invoke files that are physically located on the file server.

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

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

Task 1-5-6: Defining Installation Locations

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 the DPK Base Directory

When you use the PeopleSoft DPKs to install a PeopleSoft environment, you specify a base directory, referred to in this documentation as *BASE_DIR*. The DPK setup script creates the following directories under *BASE_DIR*:

- *BASE_DIR*/dpk
 - The script uses this directory to extract the archives from the PeopleSoft DPKs.
 - The Puppet YAML files for the installation configuration are installed in *BASE_DIR*/dpk/puppet/production.
- *BASE_DIR*/pt

The script deploys the PeopleSoft components to the following installation locations:

- *PS_HOME* is installed by default in *<BASE_DIR>/pt/ps_home<peopletools_patch_version>*, where *<peopletools_patch_version>* is the full release; for example, *ps_home8.56.12*.
- *PS_APP_HOME* is installed by default in *<BASE_DIR>/pt/<app>_app_home*, where *<app>* is the PeopleSoft product, such as *fscm_app_home*.

- The Oracle Tuxedo software is installed by default in *BASE_DIR*/pt/bea/tuxedo.
- The Oracle WebLogic software is installed by default in *BASE_DIR*/pt/bea/wlserver.
- The supported JDK software is installed by default in *<BASE_DIR>/pt/jdk<version>*, where *<version>* is the supported JDK version; for example, *jdk1.8.0_74*.
- For a full-tier installation, the files needed to install the supported version of the PeopleSoft PeopleTools client software are installed in *BASE_DIR*/pt/tools_client.
- *BASE_DIR*/db

This directory is used for an Oracle RDBMS full-tier installation.

- Oracle database server software is installed by default in *BASE_DIR*/db/oracle-server.
- For a full-tier installation, Oracle container database (CDB) and pluggable database (PDB) files and tables for the PeopleSoft application are installed by default in *BASE_DIR*/db/oradata.

Defining PS_HOME

The *PS_HOME* directory holds the PeopleSoft PeopleTools files. 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.
- 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, in a location that is separate from *PS_HOME*. The *PS_APP_HOME* location is sometimes referred to as "Application Home."

Note. The PeopleSoft DPK setup requires that *PS_APP_HOME* be installed to a different location than *PS_HOME*. In earlier PeopleSoft releases, it was possible to set up an environment with the *PS_APP_HOME* location the same as the *PS_HOME* location. This configuration is not supported for the DPK installations.

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

The DPK deployment creates the *PS_CFG_HOME* directory in the following locations:

Operating System	PS_CFG_HOME Default Location
UNIX	/home/psadm2/psft/pt/<peopletools_version>
Microsoft Windows	%USERPROFILE%\psft\pt\<peopletools_version>

For example, if USERPROFILE is C:\Users\psftuser and the PeopleTools version is 8.56, by default *PS_CFG_HOME* would be C:\Users\psftuser\psft\pt\8.56. 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. The DPK deployment process supports a single *PS_CFG_HOME* to be used for all domains for a given environment.

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. For installations using DPKs, use the Puppet customizations to change the *PS_CFG_HOME*.

Defining PS_CUST_HOME

The *PS_CUST_HOME* location holds customized file system objects (that is, objects you provide as opposed to being installed with the software).

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*.

To define a *PS_CUST_HOME* location, use the Puppet customizations.

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 using the Puppet customizations.

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 1-5-7: 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

The PeopleSoft DPKs install Oracle WebLogic. If you want to use IBM WebSphere for your environment, you must install it manually and set up the application server and Process Scheduler domains using the traditional method with PSADMIN.

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 1-6: Planning Database Creation

This section discusses:

- Understanding Database Creation
- Determining Databases and Database Names
- Defining Microsoft SQL Server and PeopleSoft 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.

Note. If you are using the PeopleSoft Upgrade Source Image, you must create a Demo database.

Task 1-6-1: 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.

Note. Microsoft SQL Server allows you to create database names that begin with a number (as in 8PTDMO). However, database names that begin with a number are not valid PeopleSoft database names and will result in errors.

Task 1-6-2: Defining Microsoft SQL Server and PeopleSoft Databases

The terms "Microsoft SQL Server database" and "PeopleSoft database" have essentially the same meaning. A PeopleSoft database is a set of SQL objects defined as having the same owner ID. These objects are always within a single Microsoft SQL Server database. A Microsoft SQL Server may hold more than one PeopleSoft database, but only one PeopleSoft database may reside in a Microsoft SQL Server database. A PeopleSoft database includes the PeopleSoft objects and application data for one or more products in a PeopleSoft product line. Each PeopleSoft database has a database owner, known as the access ID. Make sure that the access ID does not exceed eight characters in length, and make sure that the access password does not exceed 30 characters in length. These are PeopleSoft requirements for the access ID.

Note. When installing the PeopleSoft database do not use *sa* as your access ID. Instead use a login which does not have system administration privileges.

Note. Refer to your Microsoft SQL Server database platform documentation for information about access ID and password length requirements. The PeopleSoft system accepts access ID passwords between 8 and 30 characters in length to accommodate different database and operating system platforms.

If you are upgrading your database from pre-8.50 PeopleSoft PeopleTools to release 8.51 or later, see the appendix "Synchronizing the ACCESSID User" for instructions on configuring your access ID.

The levels of security provided by Microsoft are:

- The operating system
- The Microsoft SQL Server
- The server's databases
- The database's objects

All of the objects in a PeopleSoft database will be owned by the owner ID. Only the connect ID will be granted SELECT access to the signon tables. SELECT access will be granted on three tables—PSSTATUS, PSACCESSPROFILE, and PSOPRDEFN—for the PeopleSoft connect ID.

Note. The connect ID is explained in "Creating a Database," Running the Database Configuration Wizard.

Task 1-7: Planning Multilingual Strategy

This section discusses:

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

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 (Unicode recommended)

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 Collation](#).

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

Language Code	Language	Database Character Set
JPN	Japanese	Unicode recommended
KOR	Korean	Unicode only
NOR	Norwegian	Unicode recommended
POL	Polish	Unicode only
POR	Portuguese	Unicode recommended
ROM	Romanian	Unicode only
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

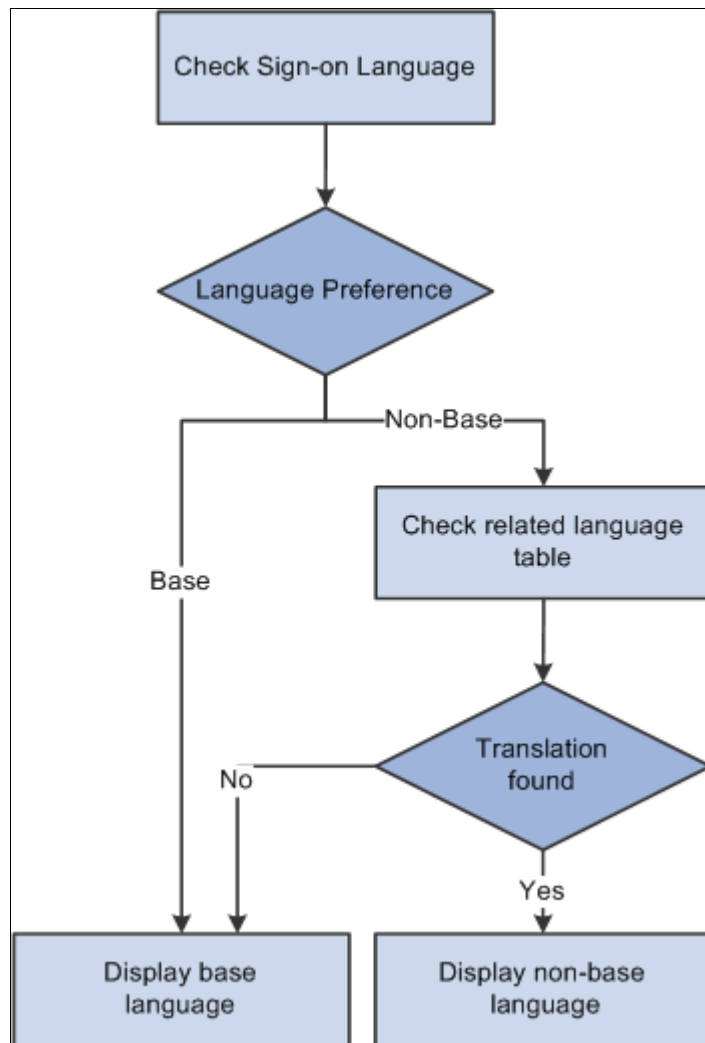
See Also

PeopleTools: Global Technology

Task 1-7-1: 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.

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.

Task 1-7-2: 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 1-7-3: Selecting a Database Collation

This section discusses:

- Understanding Database Collation
- Using Unicode Databases

Understanding Database Collation

Depending on the languages that you are planning to select for your PeopleSoft installation, you need to determine which collation you will use during the Microsoft SQL Server installation. First you must determine whether you need a Unicode database.

Using Unicode Databases

Unicode enables you to maintain data in virtually any modern language in a single database. Prior to Unicode, many languages could not coexist in one database, as they did not share a common character set. On Microsoft SQL Server, Unicode databases differ from non-Unicode databases because they use the NVARCHAR data type (or NCHAR data type if using PeopleSoft applications 8.9 or earlier) instead of CHAR for character data. Unicode databases are particularly important 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 unaccented 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. The primary disadvantage of a Unicode database is the disk space it requires. On Microsoft SQL Server, some characters require more disk space than a non-Unicode database, so the database size will be larger depending on the data content.

This table includes a list of collations you may want to use for supported languages:

Collation	Languages Supported
Arabic_BIN	Arabic, English
Chinese_PRC_BIN	Chinese, English

Collation	Languages Supported
Chinese_Taiwan_Stroke_BIN	Chinese, English
Cyrillic_General_BIN	Russian, English
Czech_BIN	Czech, English
Greek_BIN	Greek, English
Hebrew_BIN	Hebrew, English
Hungarian_BIN	Hungarian, English
Korean_Wansung_BIN	Korean, English
Latin1_General_Bin	Western European or Latin-1. (All Western Europe: English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Portuguese, Spanish, and Swedish)
Japanese_Bin	Japanese, English
Polish_BIN	Polish, English
Thai_BIN	Thai, English
Turkish_BIN	Turkish, English

Note. In addition to *_BIN collations, all the *_BIN2 and *_AS_CS_WS_KS collations are supported, where "*" can be any language listed above.

Remember that all characters required for English are defined in all Unicode and non-Unicode character sets.

See *PeopleTools: Global Technology*.

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.

For Microsoft Windows servers, install the appropriate version of Micro Focus Net Express.

See "Installing and Compiling COBOL on Windows."

- 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.

Note. The delivered releases before PeopleSoft PeopleTools 8.4 included both source and compiled COBOL for Windows users. From release 8.4 onwards, the delivered PeopleSoft PeopleTools includes source only. If your application requires COBOL, you will need to compile it.

If your application requires COBOL it is not necessary to install the COBOL runtime on every application and batch server. But it *is necessary* to install the COBOL runtime license on each application and batch server where COBOL programs will be executed.

- 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

- 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 Microsoft SQL Server 2012 on the Database Server

This section discusses:

- Understanding the Microsoft SQL Server 2012 Installation
- Installing Microsoft SQL Server 2012

Understanding the Microsoft SQL Server 2012 Installation

This section describes how to install Microsoft SQL Server 2012 for use with a PeopleSoft installation. For complete step-by-step instructions on installing Microsoft SQL Server 2012 and for prerequisite details, refer to the SQL Server 2012 Books Online (support.microsoft.com or Microsoft support services).

If you are upgrading from an existing installation on Microsoft SQL Server 2008 see the chapter "Upgrading to Microsoft SQL Server 2012" in this documentation.

Note. There are different editions of Microsoft SQL Server 2012. Make sure that the edition you install is appropriate for your requirements. Some editions are not compatible with certain operating systems. You can check the version and edition of your existing SQL Server installation by issuing the command 'SELECT @@VERSION' from SQL Server Management Studio. Consult the SQL Server Books Online and Microsoft support for more information about editions.

The Microsoft SQL Server 2012 setup has the following prerequisites:

- Microsoft .NET Framework 4.0
The .NET Framework 4.0 installation is a step in the Microsoft SQL Server 2012 installation.
- Microsoft .NET Framework 3.5 SP1
If you are installing on Microsoft Windows 2008 R2 SP1, you must enable Microsoft .NET Framework 3.5 SP1 before beginning the installation. On other operating system platforms, you must download and install Microsoft .NET Framework 3.5 SP1.
- Windows PowerShell 2.0
- Service Pack 1 or later for Microsoft Windows 2008 R2 or Microsoft Windows 7

See Also

Hardware and Software Requirements for Installing SQL Server 2012, MSDN Library,
<http://msdn.microsoft.com/en-us/library/ms143506.aspx>

Task 1-9-1: Installing Microsoft SQL Server 2012

This task describes how to install Microsoft SQL Server 2012 on the database server.

Note. You may need to reboot your server after the installation.

To install Microsoft SQL Server 2012 on the database server:

1. If you want to uninstall your previous Microsoft SQL Server software before installing Microsoft SQL Server 2012, you can use Control Panel, Add/Remove Programs.

Note. We recommend that you install only one SQL Server version per server. This should simplify the administration. However, in some instances you may need to install multiple versions, and it is possible to have side-by-side installations of Microsoft SQL Server 2008 and Microsoft SQL Server 2012.

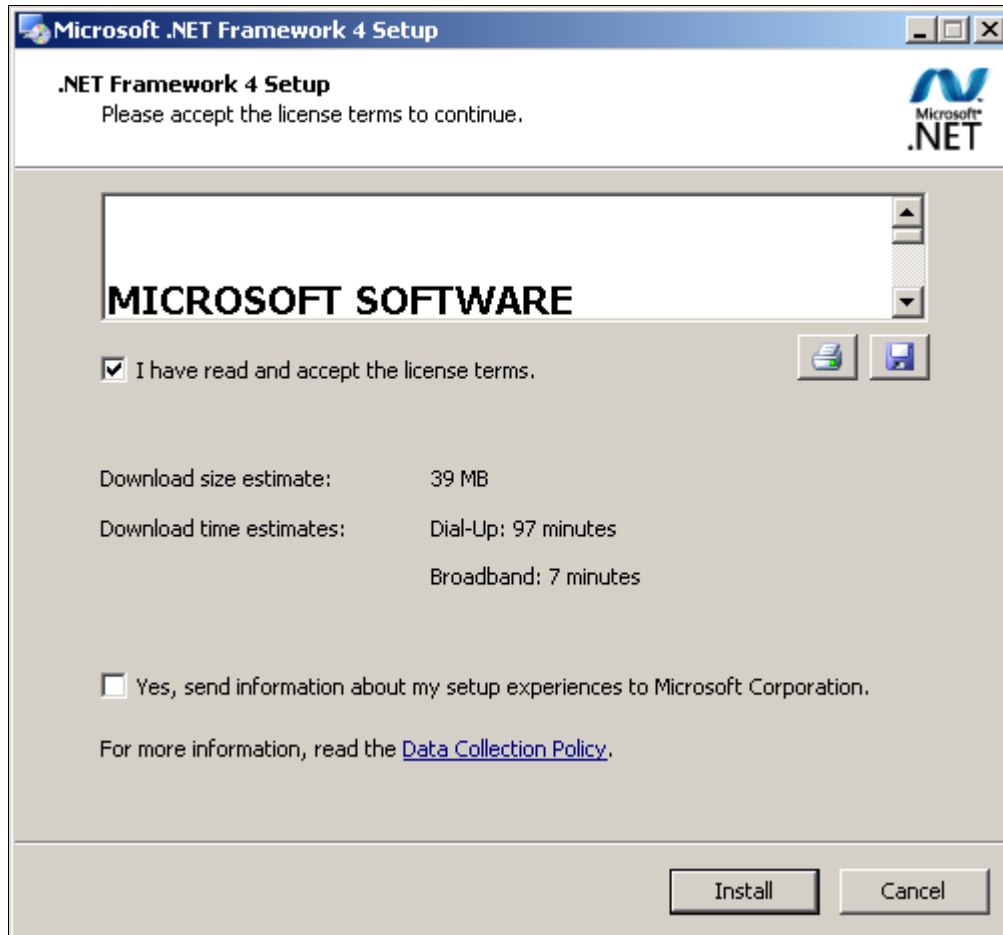
2. Insert the Microsoft SQL Server 2012 DVD into the DVD drive.

The installation should start automatically, but if it does not, run `setup.exe` from the DVD-ROM's directory.

If you downloaded the installation files, go to the directory where you saved the installation files and run `setup.exe`.

The first part of the installation procedure installs Microsoft .NET Framework 4, which is a prerequisite for the Microsoft SQL Server 2012 setup on Microsoft Windows 2008 R2.

3. In the Microsoft .NET Framework 4 Setup window, select the check box for I have read and accept the license terms, and then click Install.

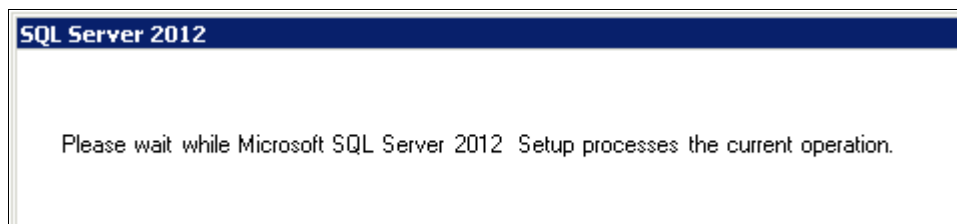


Microsoft .NET Framework 4 Setup dialog box

You see a progress indicator. Wait until the installation is complete.

4. After the Microsoft .NET Framework installation is complete, restart your computer.
5. Go to the directory containing the installation files, and select `setup.exe` again to install Microsoft SQL Server 2012.

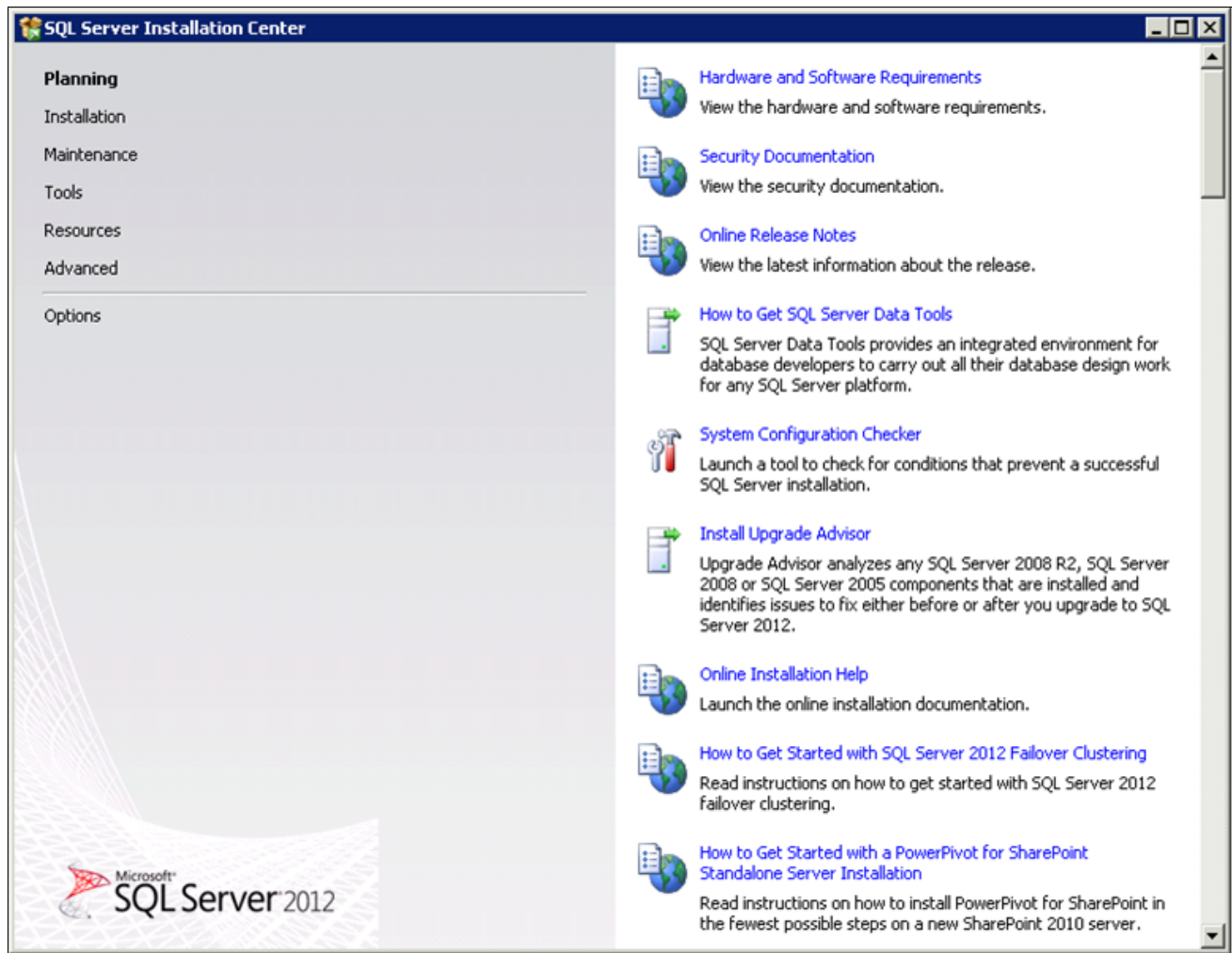
An initialization message box appears asking you to wait, as in this example.



Microsoft SQL Server 2012 initialization message box

After initialization is complete, the SQL Server Installation Center window appears.

6. Select the Installation link at the top left.



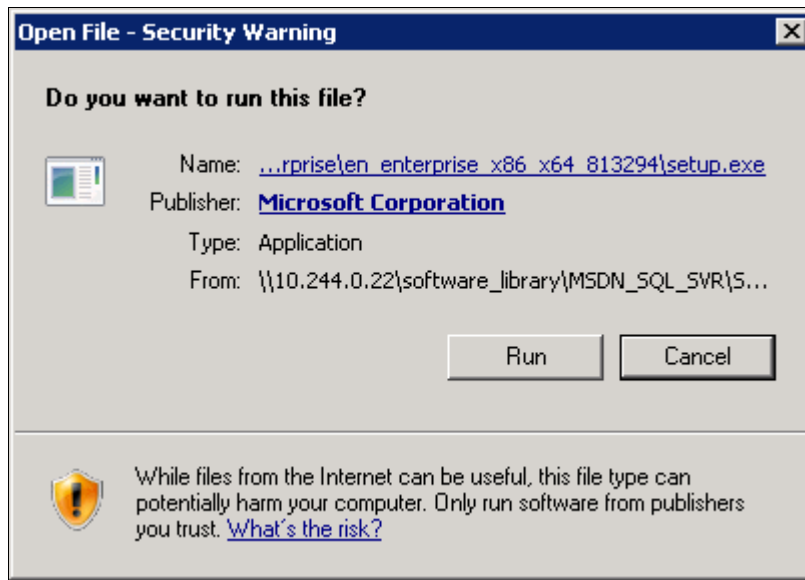
SQL Server Installation Center window for Microsoft SQL Server 2012

7. Select the link [New SQL Server stand-alone installation or add features to an existing installation](#).



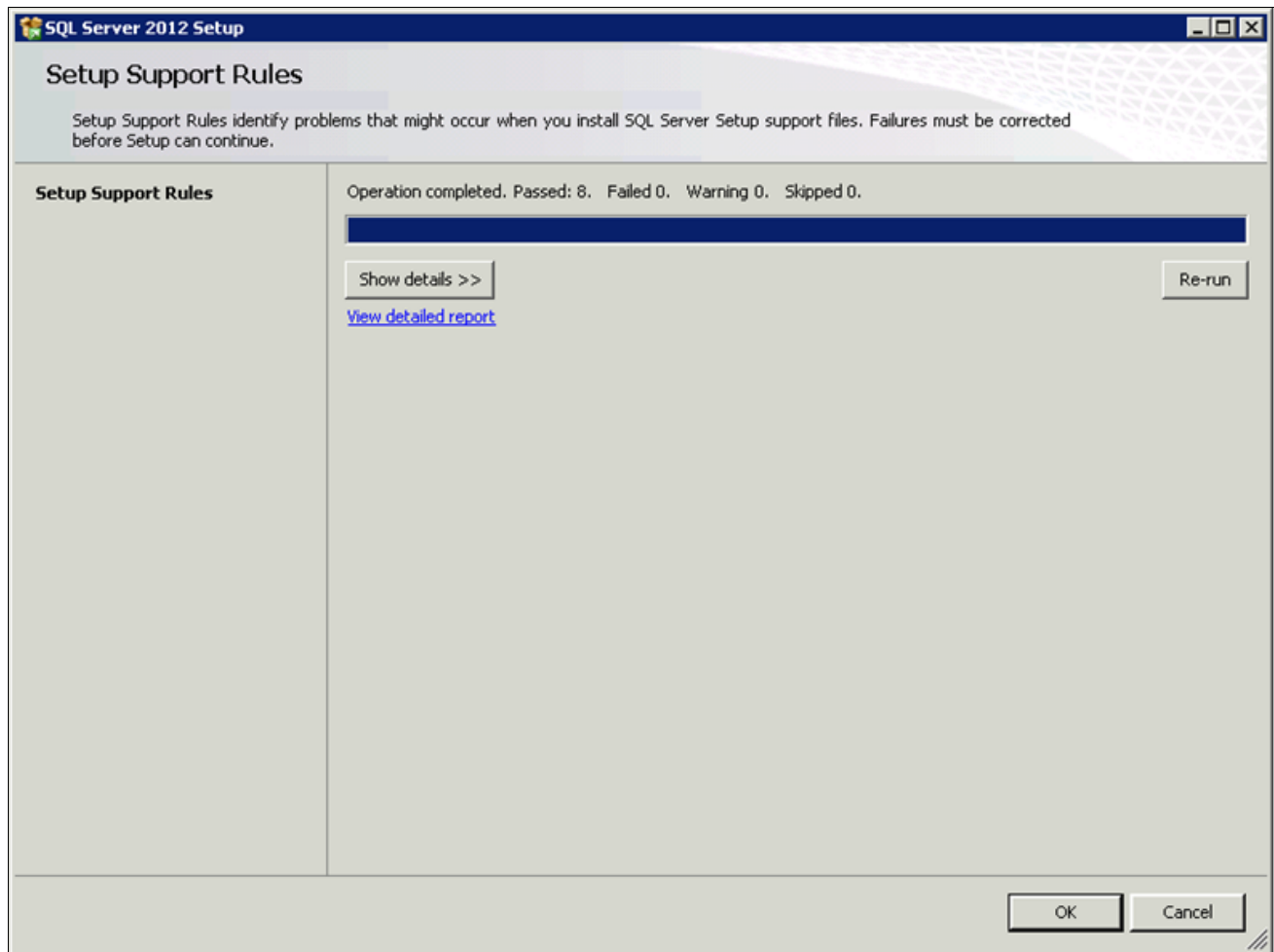
SQL Server Installation Center window with installation options

8. Click Run on the Open File - Security Warning dialog box.



Open File - Security Warning for Microsoft SQL Server 2012 installation

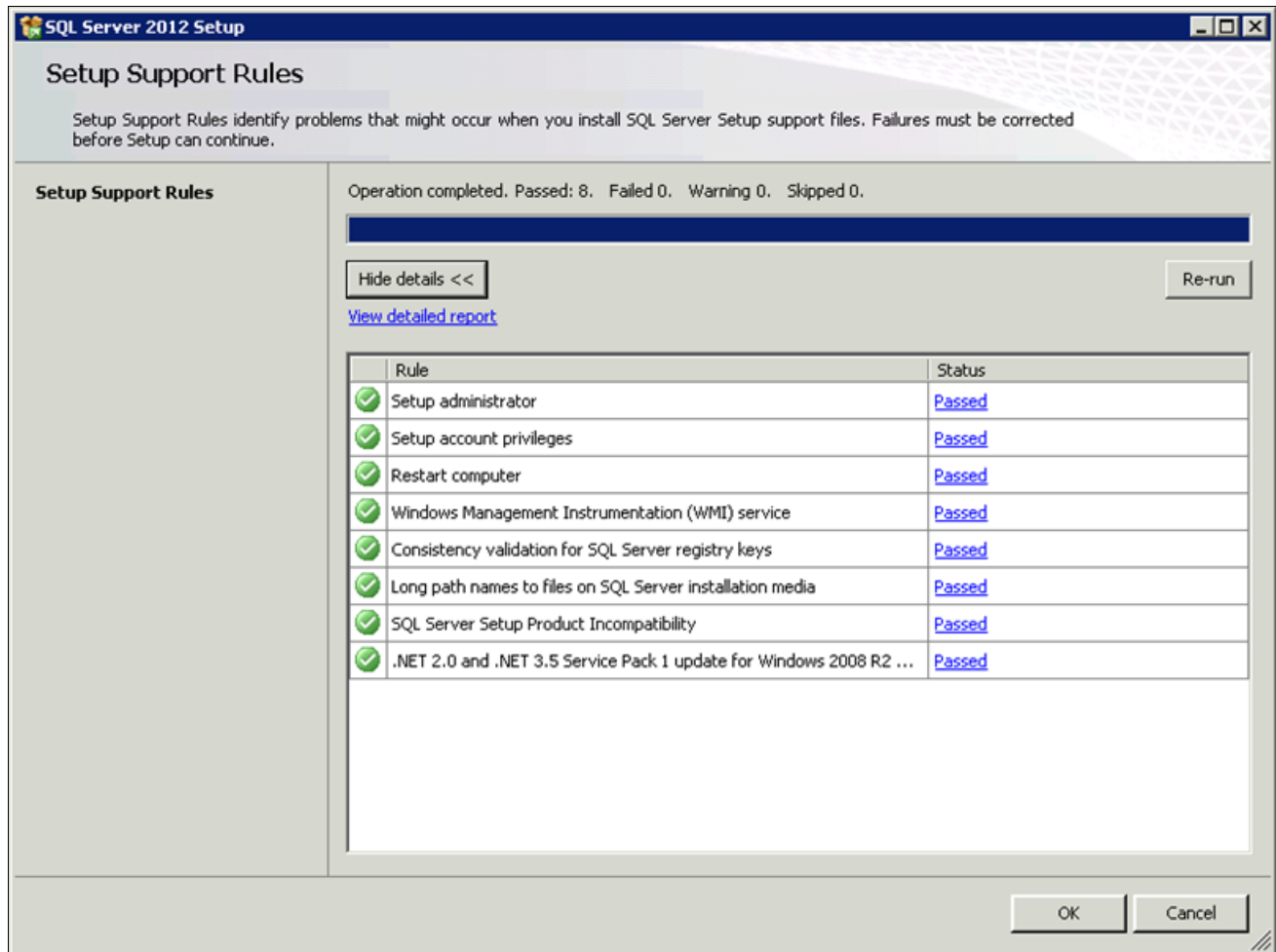
A message box appears asking you to wait. After the process is complete the Setup Support Rule window appears showing the progress of the initialization. Wait until the operation is complete, as shown in this example.



SQL Server 2012 Setup Support Rules progress indicator window

9. When the operation is complete, click Show details.

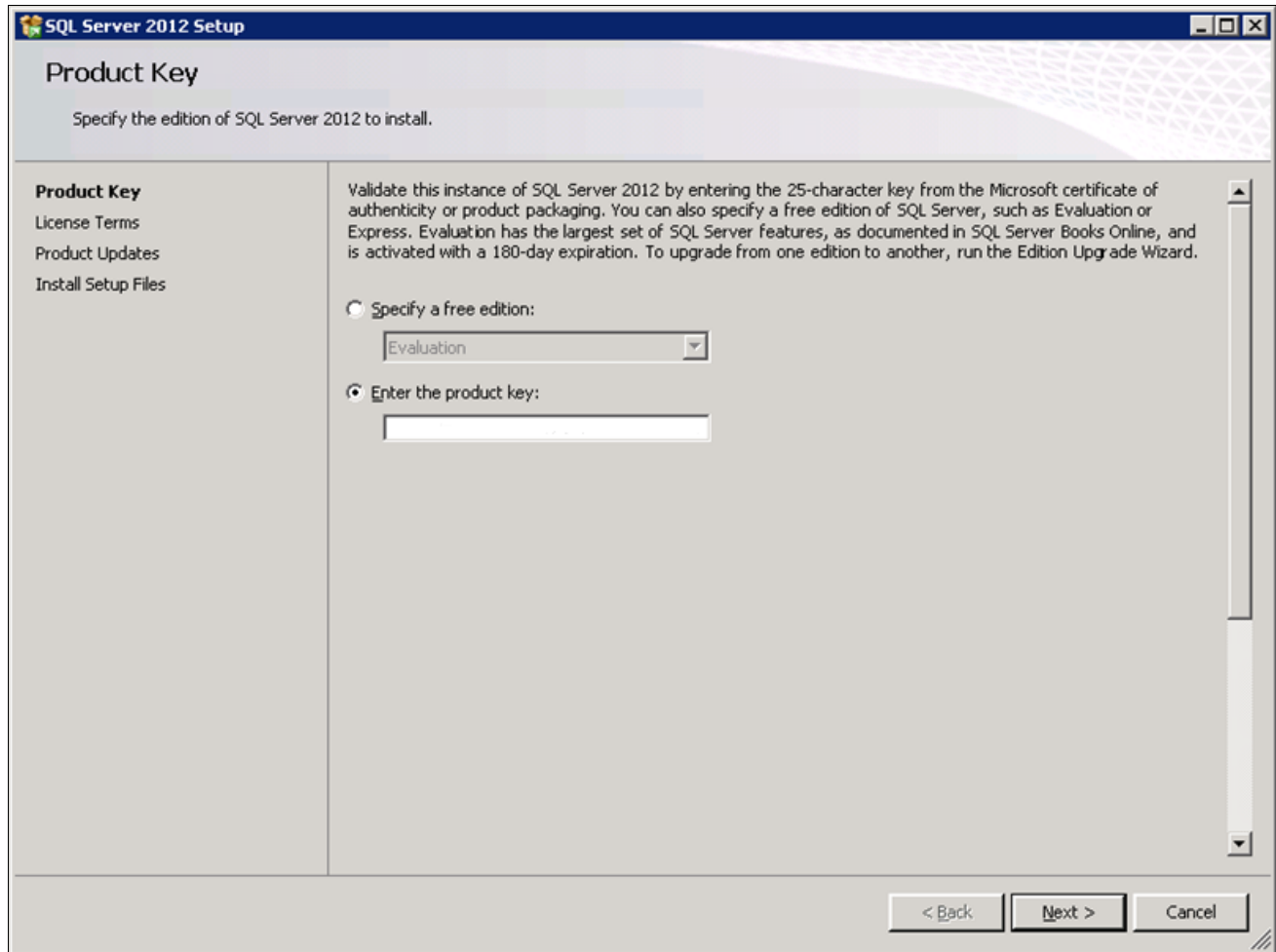
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Support Rules window showing detailed report

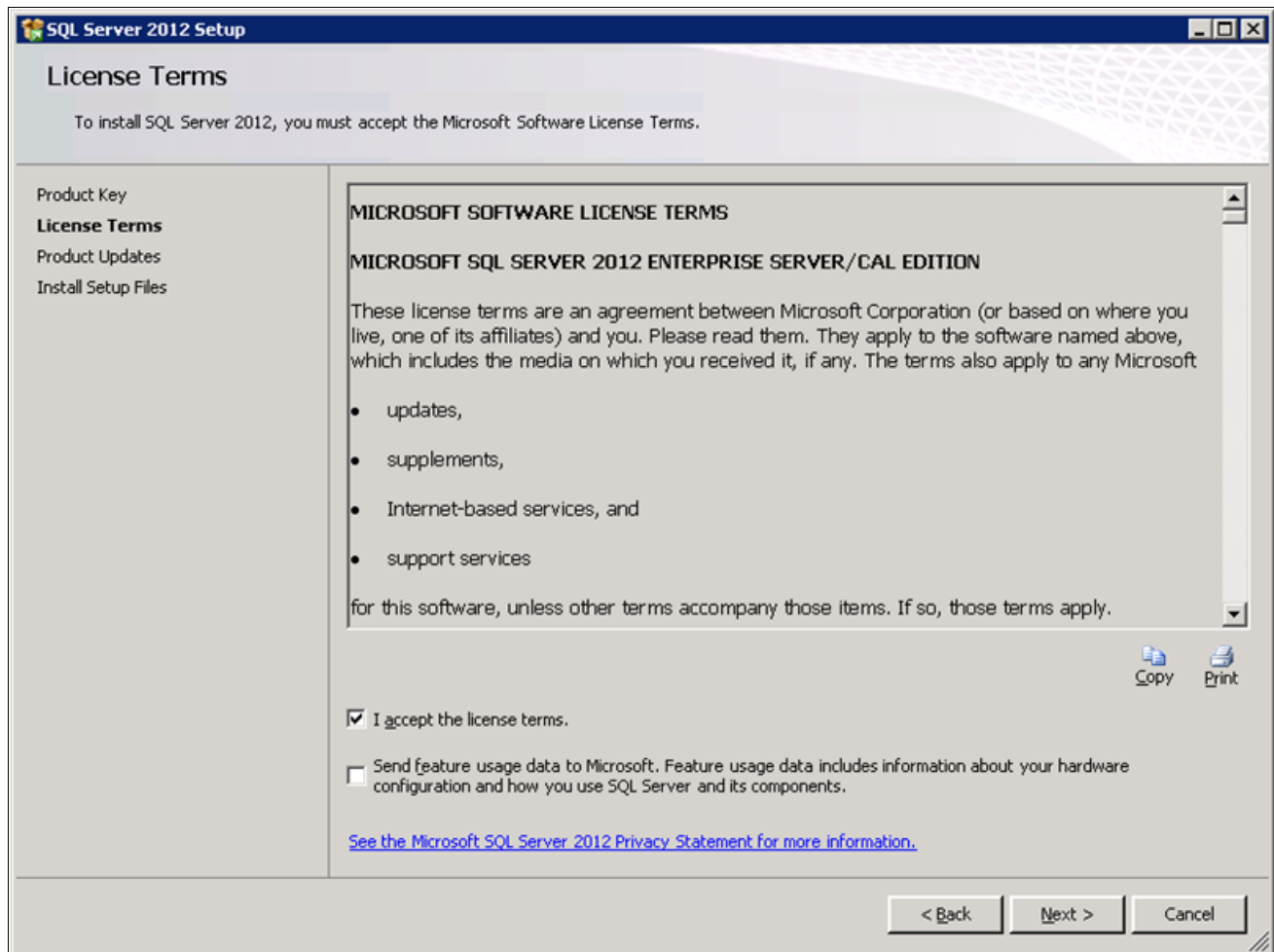
10. Click OK.

The Product Key window appears. Enter your product key value. If it is already populated, ignore this step and click Next to continue to the License Terms screen. In this example the field for Enter the product key is blank:



SQL Server 2012 Product Key window

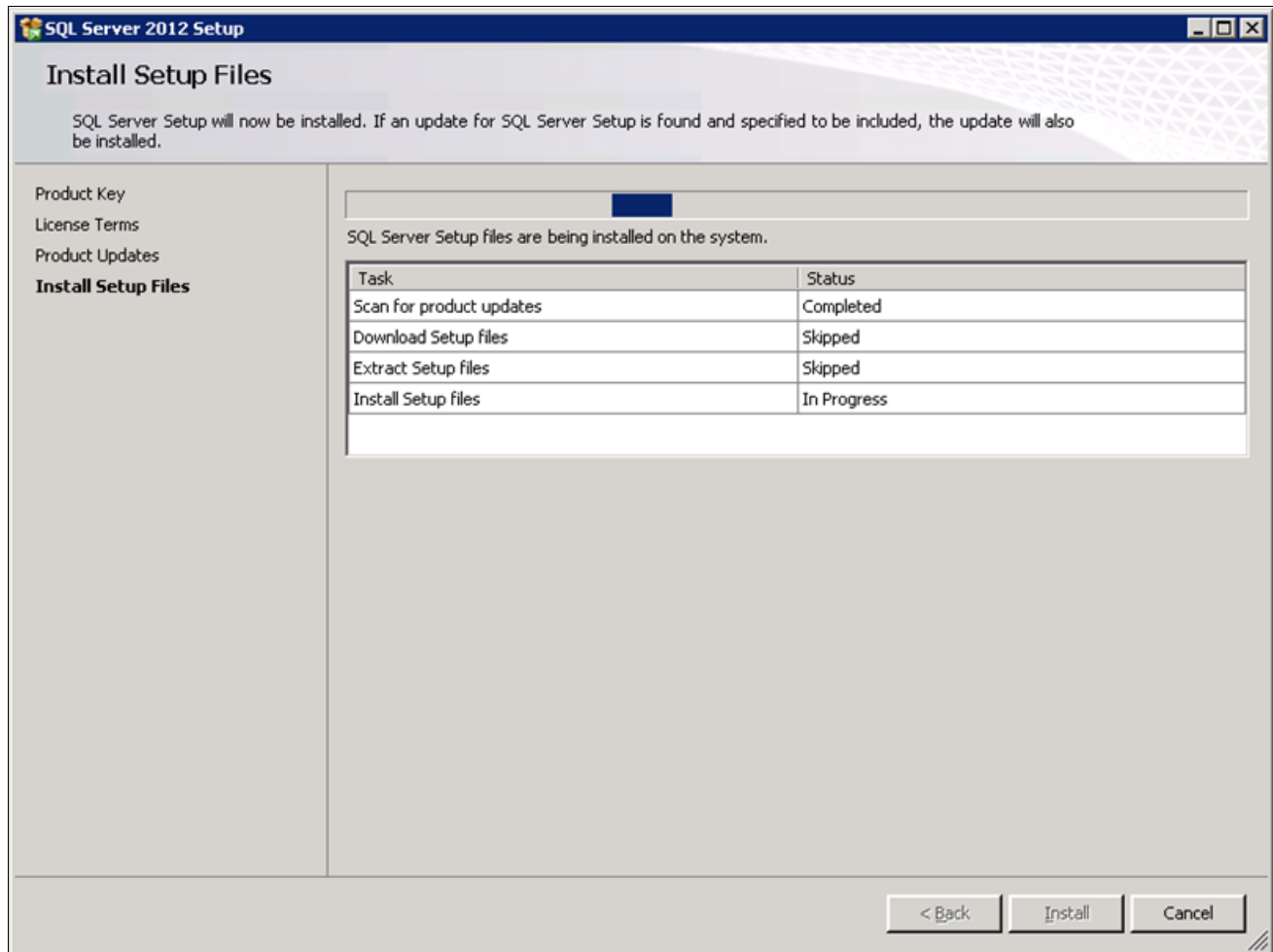
11. Read the terms and conditions carefully and select the check box I accept the license terms.



SQL Server 2012 Setup License Terms window

12. Click Next.

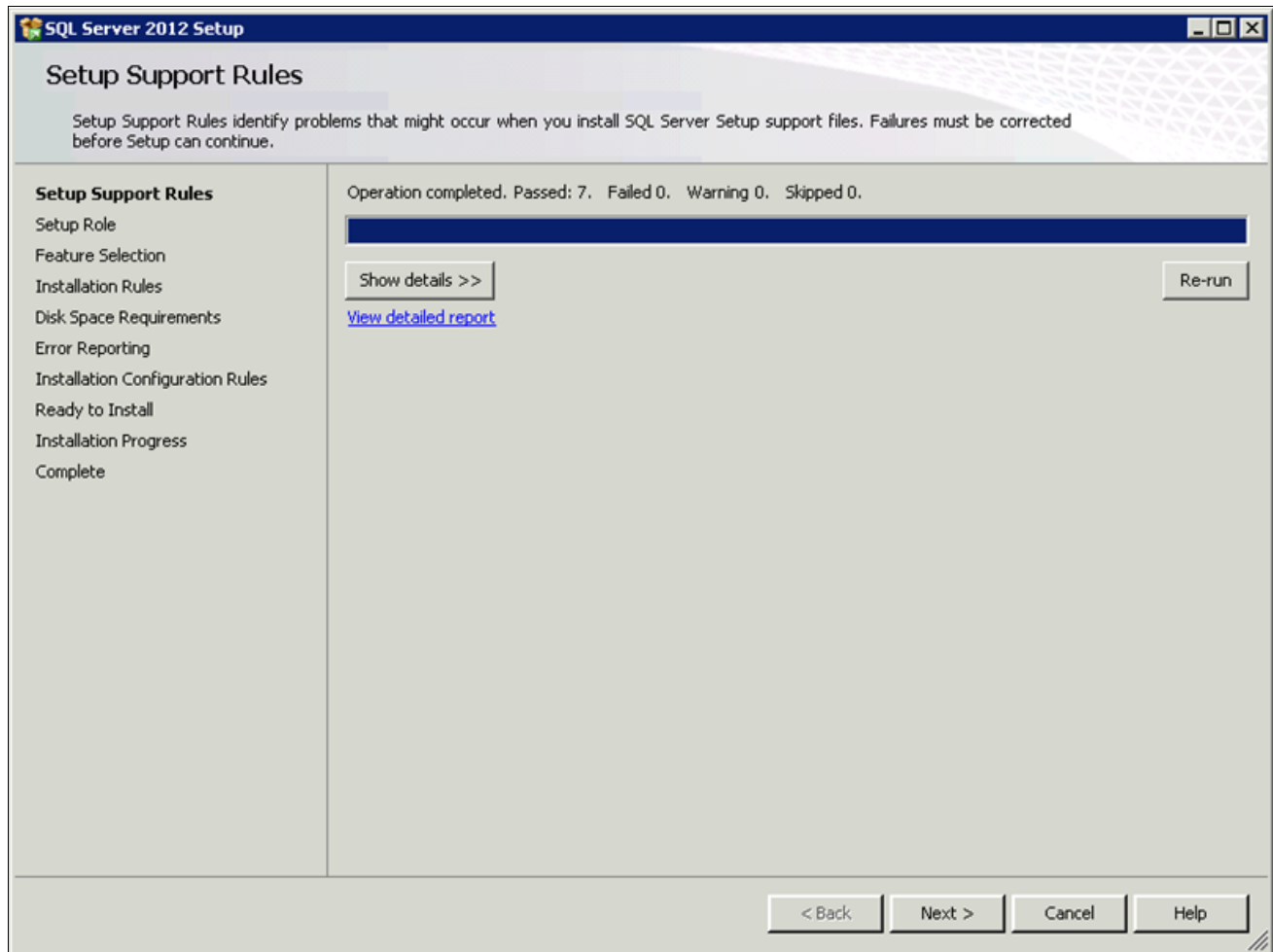
The Install Setup Files window appears. Wait for the process to install setup files and scan for product updates to complete, as shown in the Status column in this example.



SQL Server 2012 Install Setup Files progress window

13. When the operation is complete, the Setup Support Rules window appears.

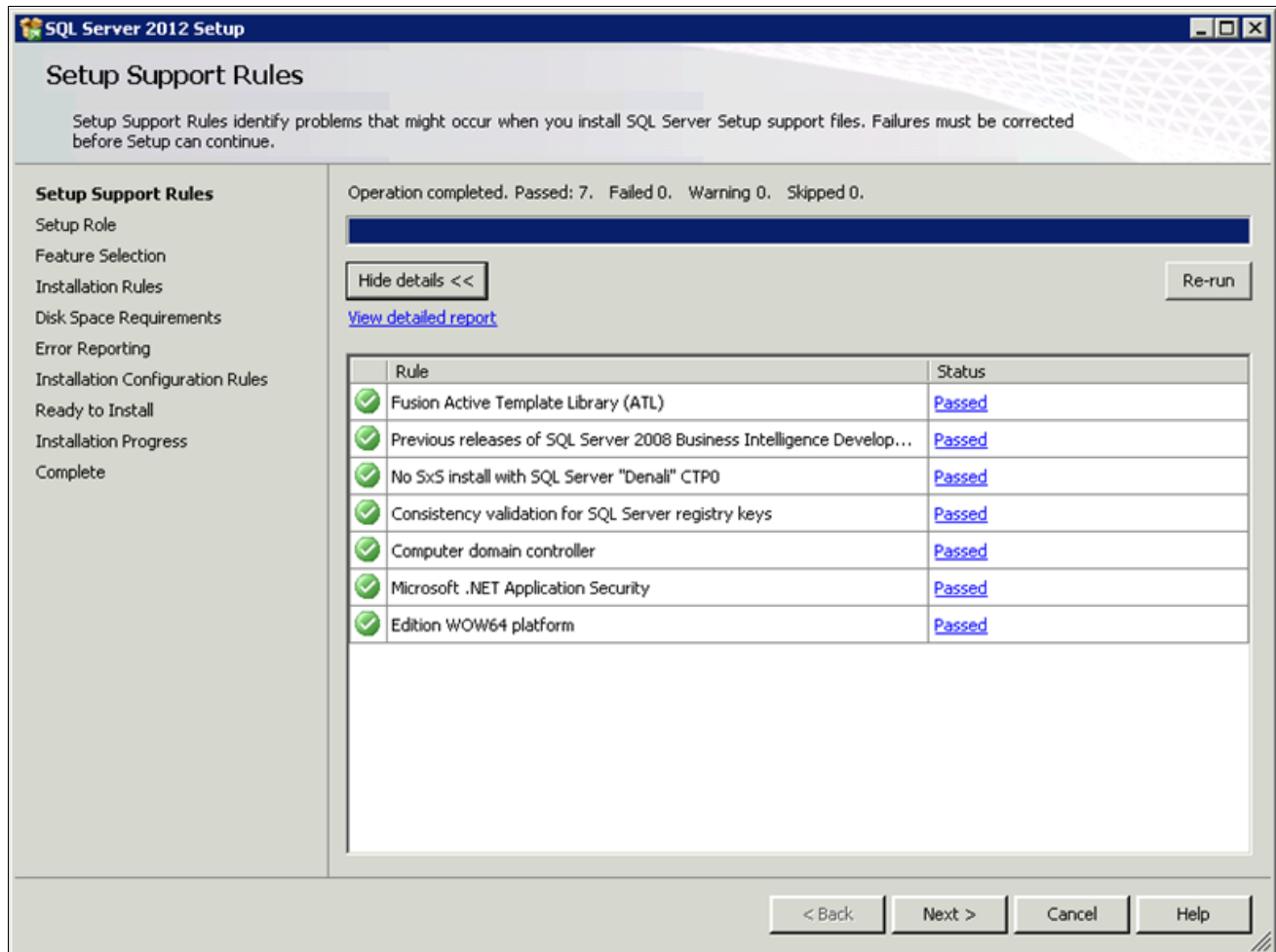
The setup operation checks for problems that might occur when you install support files. In this example all of the support rules have passed.



SQL Server 2012 Setup Support Rules window showing the operation completed

14. Click Show details.

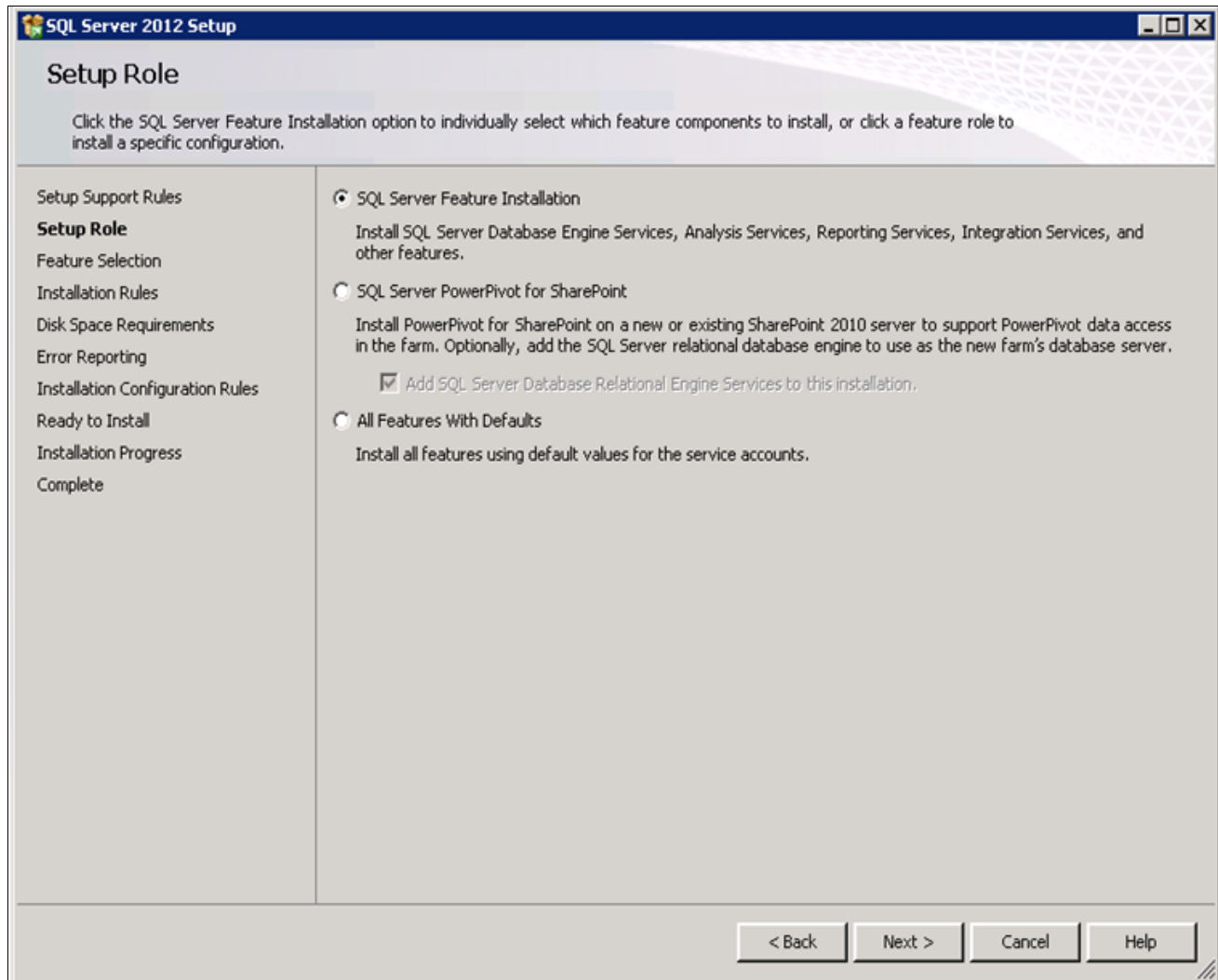
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Support Rules window showing report details

15. Click Next to proceed.

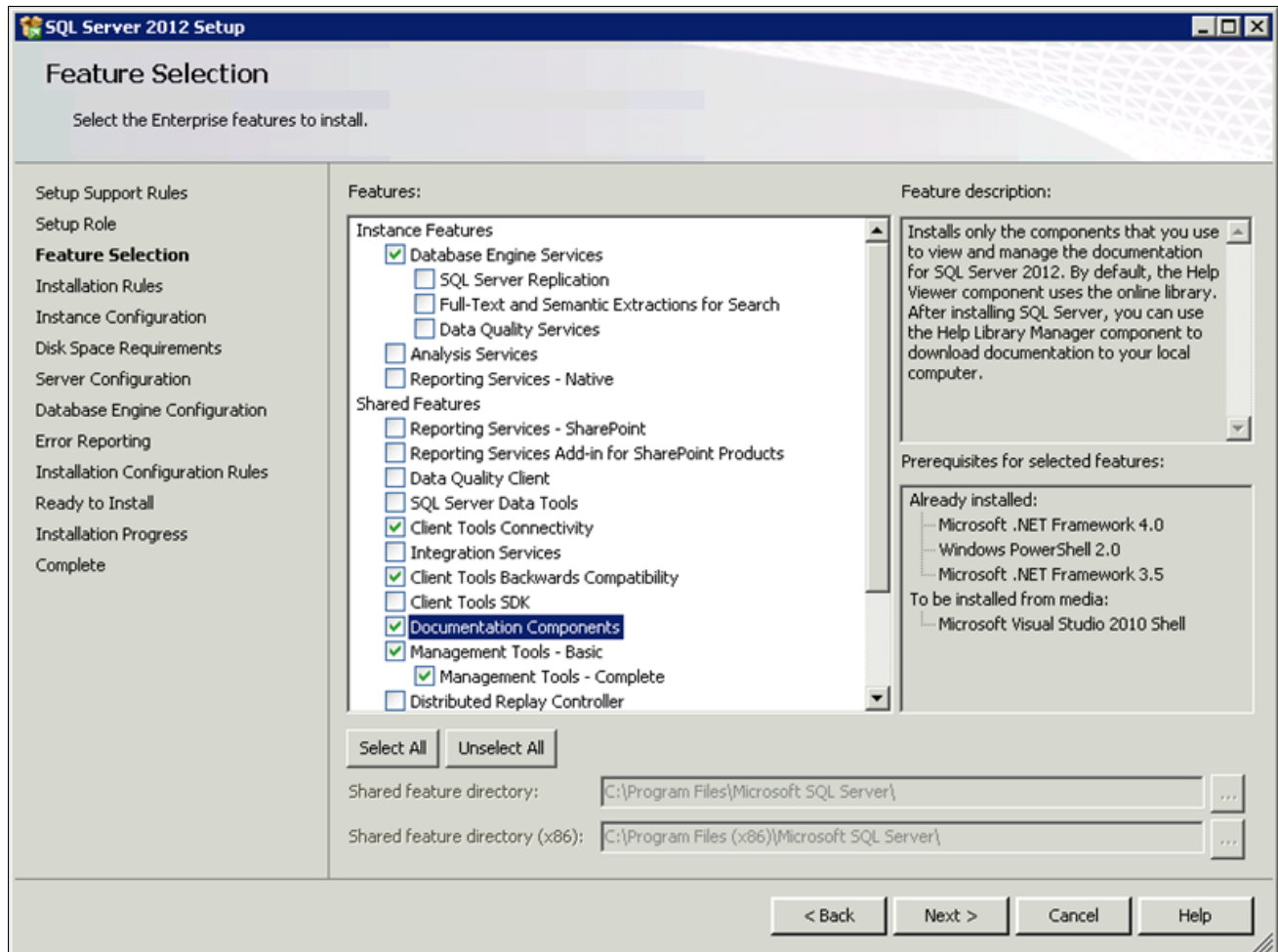
On the Setup Role window, select the option SQL Server Feature installation, as shown in this example, and click Next.



SQL Server 2012 Setup Role window with feature installation option selected

16. A Feature Selection window appears that lists all the features of Microsoft SQL Server 2012 that need to be installed.

This example shows the Feature Selection window with the features listed below selected.



SQL Server 2012 Feature Selection window with required options selected

For your PeopleSoft installation, select the following features (these are the minimum requirements):

- Database Engine Services
- Client Tools Connectivity
- Client Tools Backward Compatibility
- Management Tools - Basic
- Management Tools - Complete
- Documentation Components (Optional)

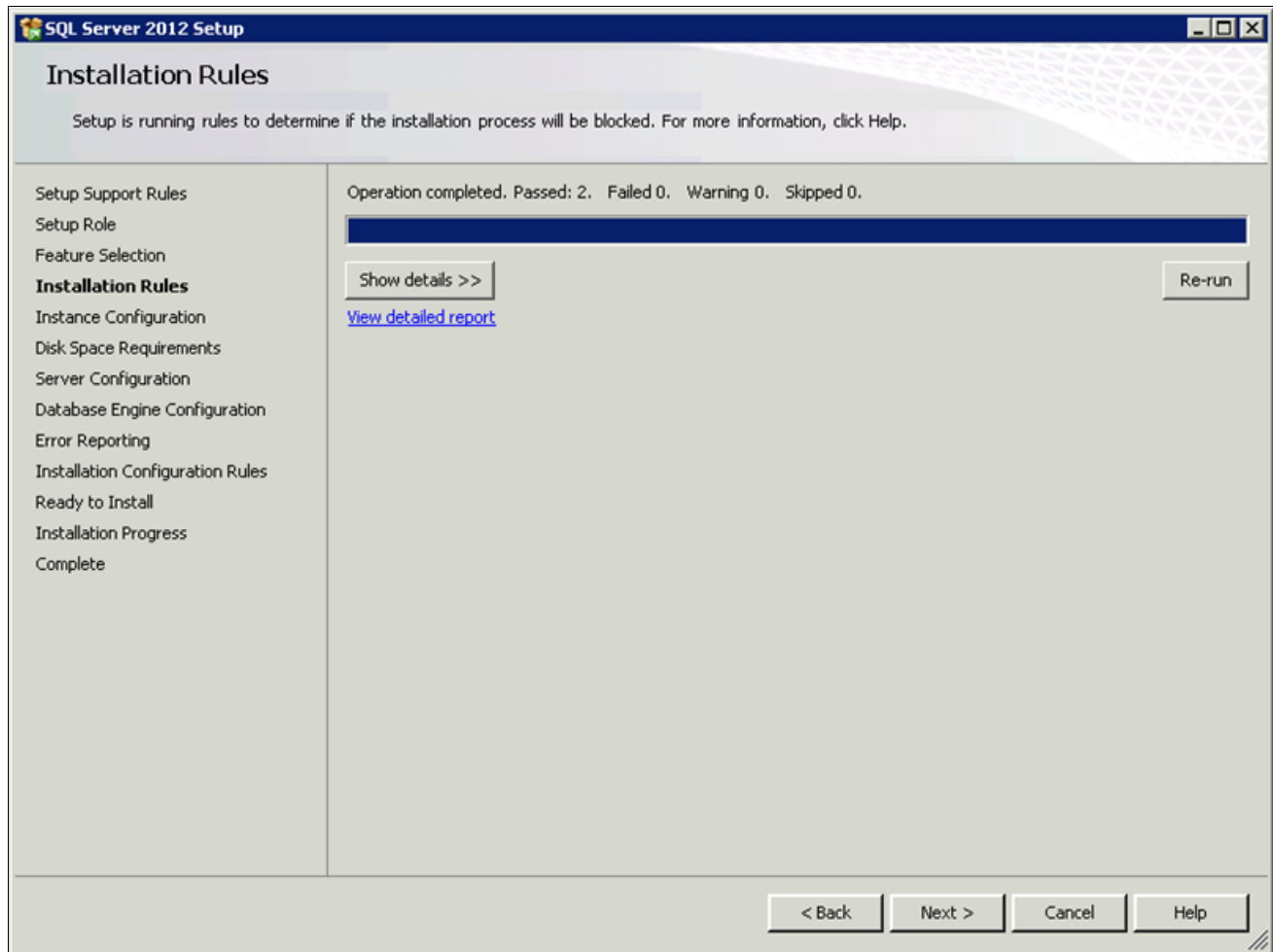
17. Clear the check boxes beside the following features:

- SQL Server Replication
- Full Text and Semantic Extractions for Search
- Data Quality Services
- Analysis Services
- Reporting Services - Native

- Reporting Services - SharePoint
- Reporting Services Add-in for SharePoint Products
- Data Quality Client
- SQL Server Data Tools
- Integration Services
- Client Tools SDK
- SQL Client Connectivity SDK
- Distributed Replay Controller
- Distributed Replay Client
- Master Data Services

18. Click Next.

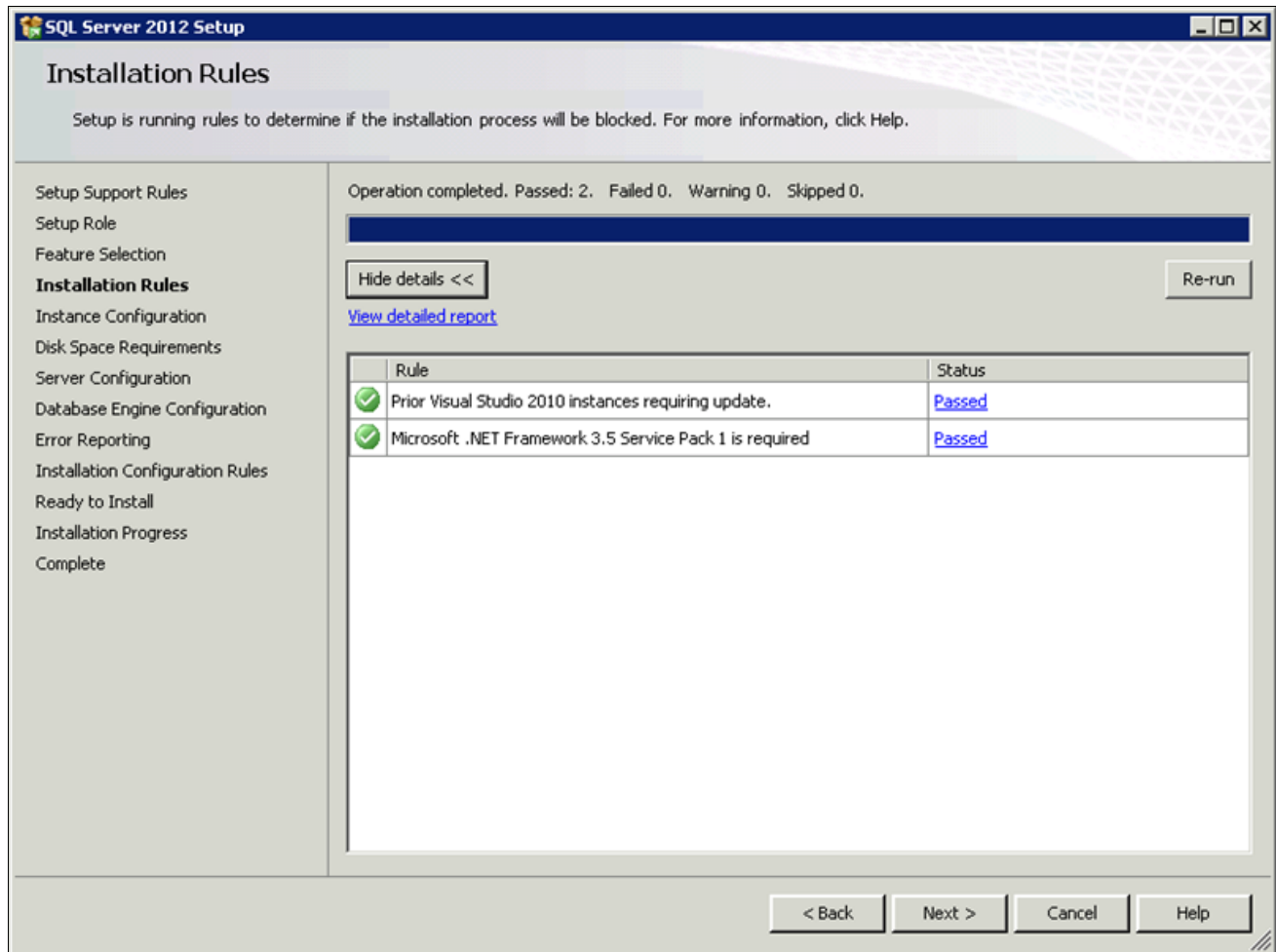
The Installation Rules window appears, and the setup operation runs rules to determine whether the installation will be blocked. The example below shows the operation is complete.



SQL Server 2012 Installation Rules window showing the operation completed

19. Click Show Details.

Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Installation Rules window showing report details

20. Click Next.

The Instance Configuration window appears. Enter *SQL2012* as the named instance, as shown in this example. In the Instance root directory field, accept the default path *C:\Program Files\Microsoft SQL Server*.

SQL Server 2012 Setup

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Setup Support Rules
Setup Role
Feature Selection
Installation Rules
Instance Configuration
Disk Space Requirements
Server Configuration
Database Engine Configuration
Error Reporting
Installation Configuration Rules
Ready to Install
Installation Progress
Complete

☐ Default instance
☒ Named instance:

Instance ID:

Instance root directory: ...

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL11.SQL2012

Installed instances:

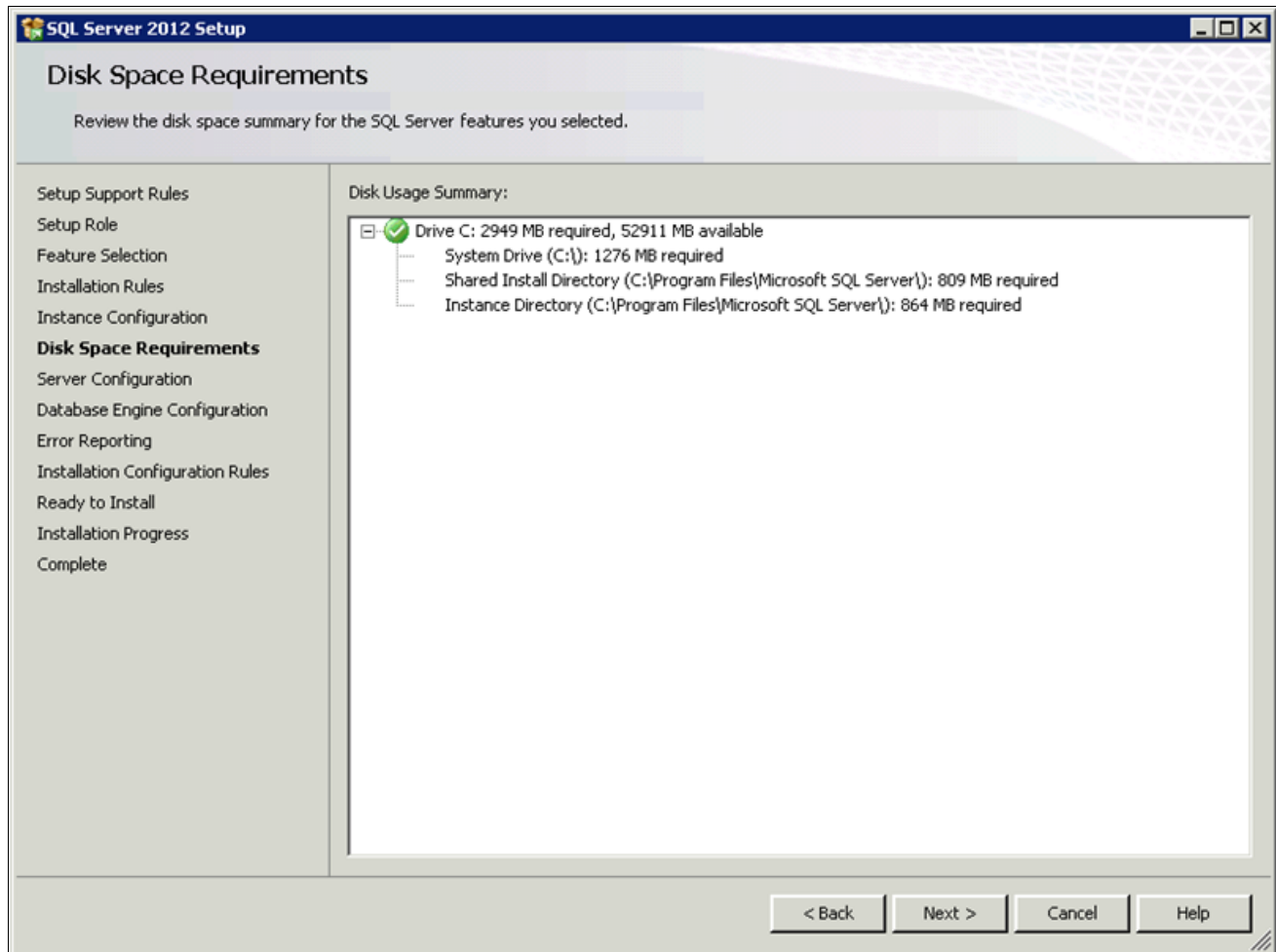
Instance Name	Instance ID	Features	Edition	Version
MSSQLSERVER	MSSQL10.SQL2008	SQLEngine	Enterprise	10.2.4064.0
SQL2005	MSSQL.1	SQLEngine, SQLEngin...	Developer	9.00.1399.06
<Shared Component...		SSMS, Adv_SSMS, C...		10.2.4064.0
<Shared Component...		Tools, Tools\ToolsCli...		9.00.1399.06

< Back Next > Cancel Help

SQL Server 2012 Setup Instance Configuration window with named instance and default path

21. Click Next.

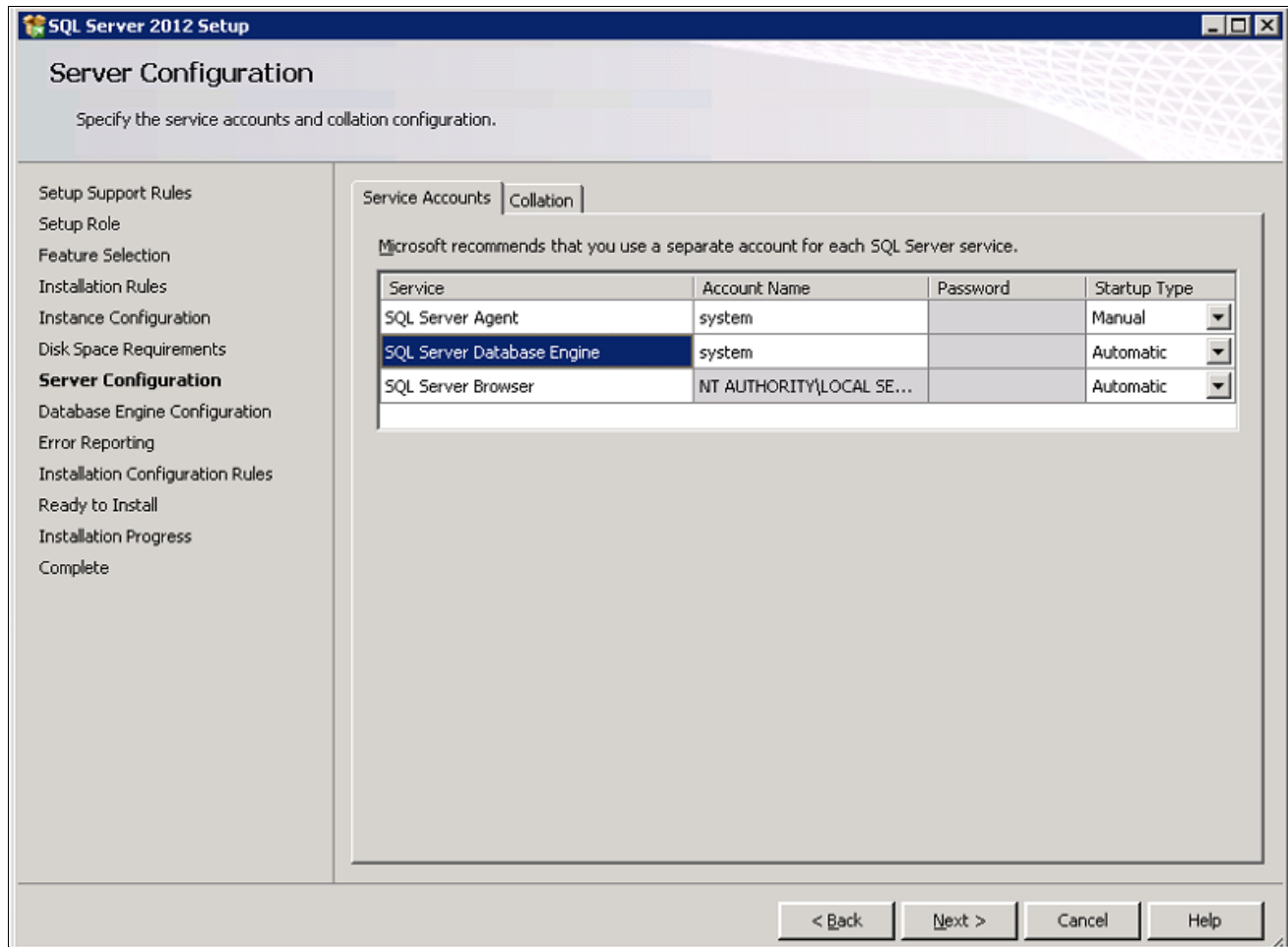
The Disk Space Requirements window appears, displaying the required and available disk space. The installation requires about 3 GB disk space, as shown in this example.



SQL Server 2012 Setup Disk Space Requirements window

22. Click Next.

The Server Configuration window appears. Microsoft recommends that you use a separate account for the SQL Server services. This example shows the window after making the recommended selections:

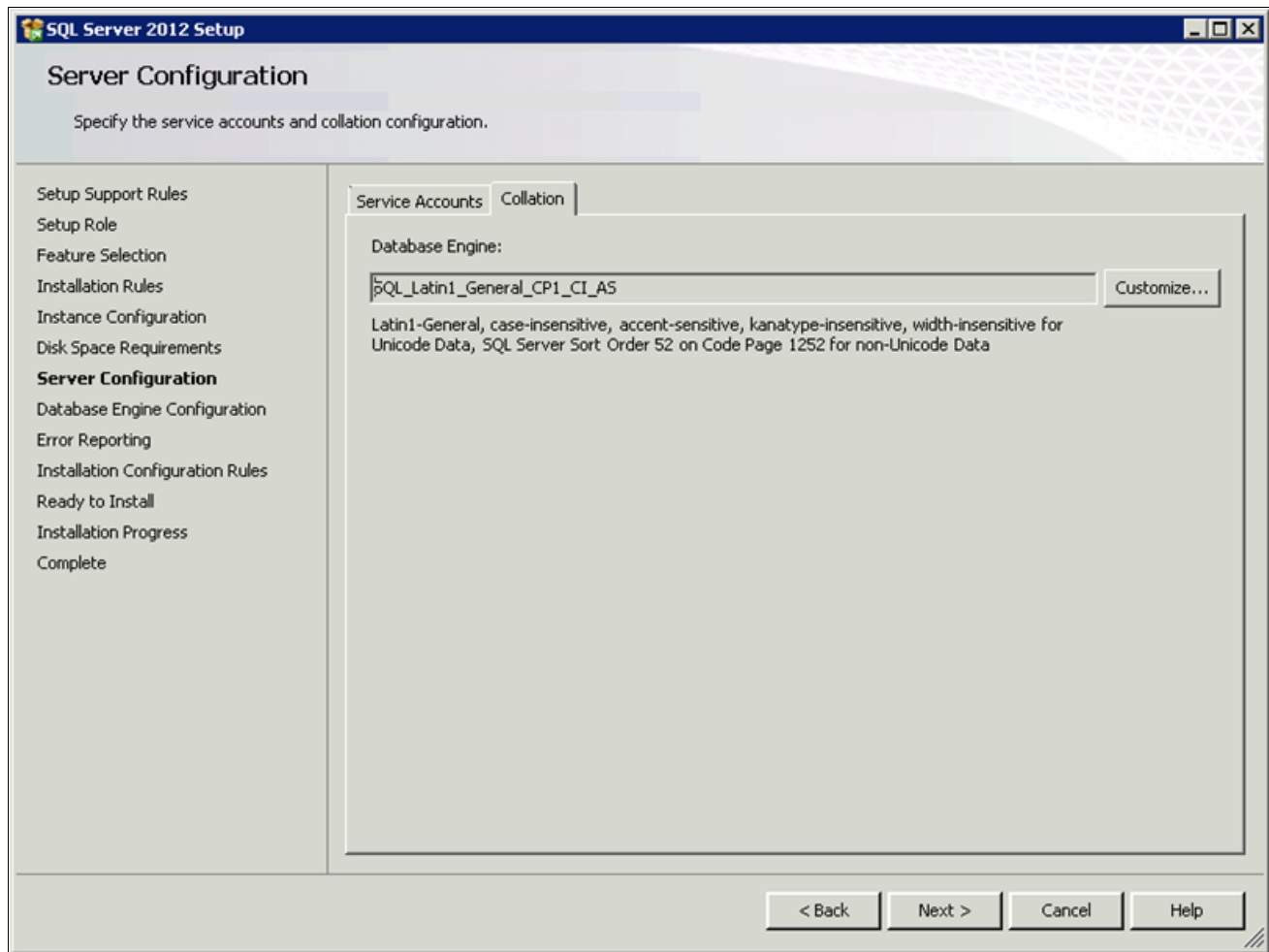


SQL Server 2012 Setup Server Configuration window after changing account names

- To use the local system account, enter *system* as the account name for SQL Server Agent and SQL Server Database Engine.
- Select Manual startup type for SQL Server Agent
- Select Automatic startup type for SQL Server Database Engine
- Select Automatic startup type for SQL Server Browser

23. Still on the Server Configuration window, select the Collation tab.

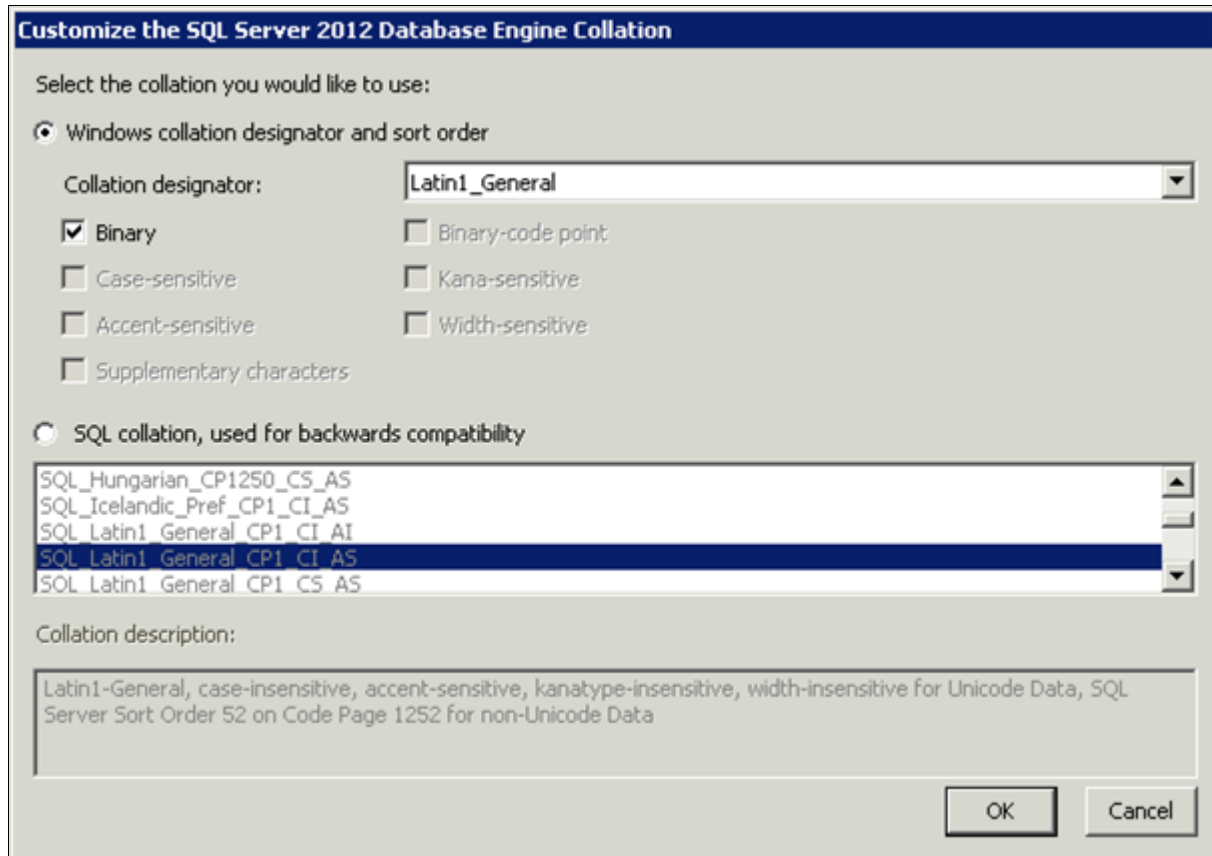
This example shows the default collation, SQL_Latin1_General_CP1_CI_AS.



SQL Server 2012 Setup Server Configuration window: Collation page with default

24. Click Customize to change the default collation.

On the Customize the SQL Server 2012 Database Engine Collation window, select the option Windows collation designator and sort order. Select *Latin1_General* as the Collation designator, and the Binary option, as shown in this example.

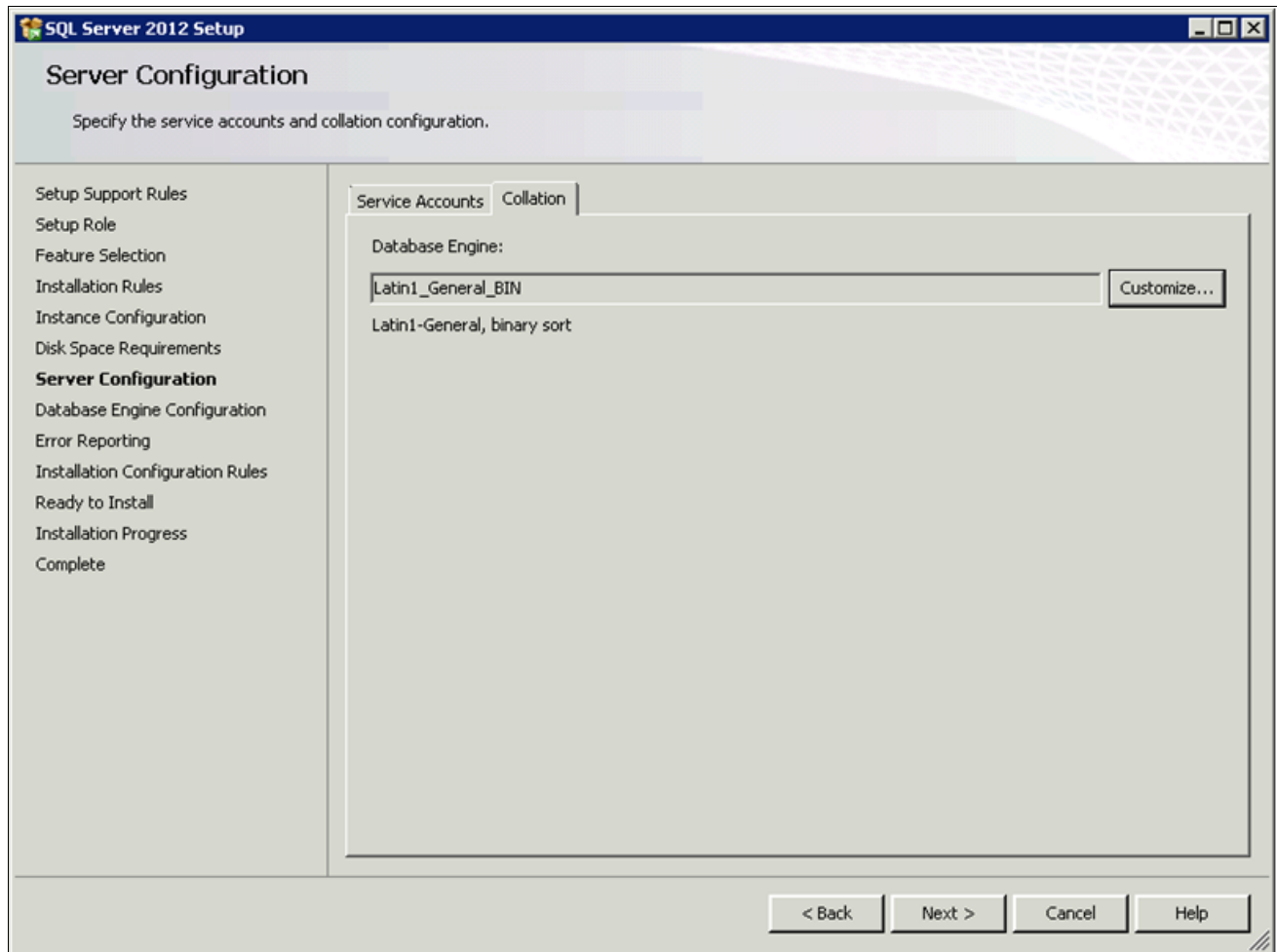


Customize the SQL Server 2012 Database Engine Collation window

Selecting these options changes the collation to *Latin1_General_Bin*. Your collation designation may vary if you are not using English.

25. Click OK.

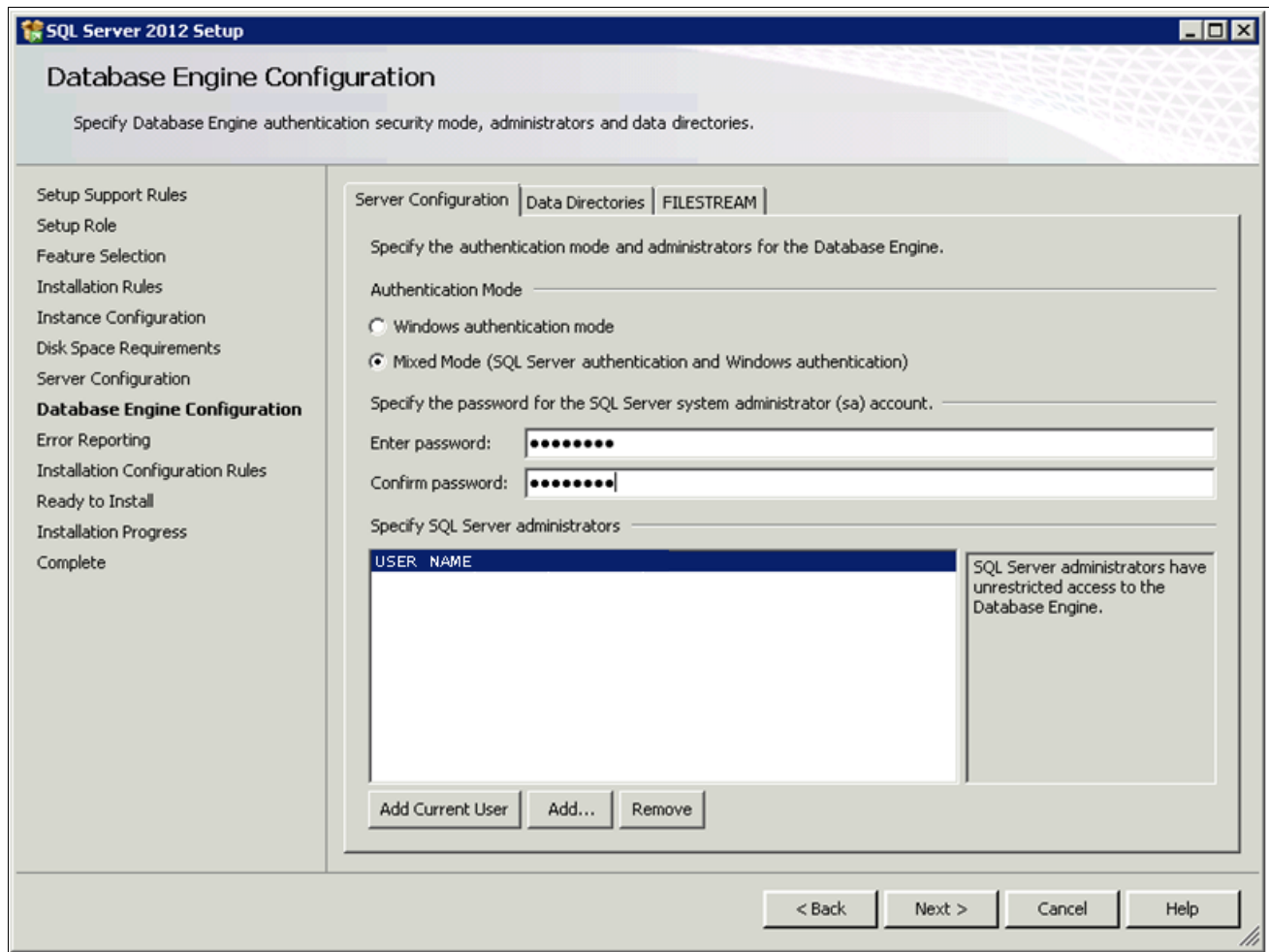
Verify on the Server Configuration Collation page that the collation is Latin1_General_BIN, Latin1-General, binary sort, as shown in this example.



SQL Server 2012 Setup Server Configuration: Collation page after making changes

26. Click Next.

The Database Engine Configuration window appears.

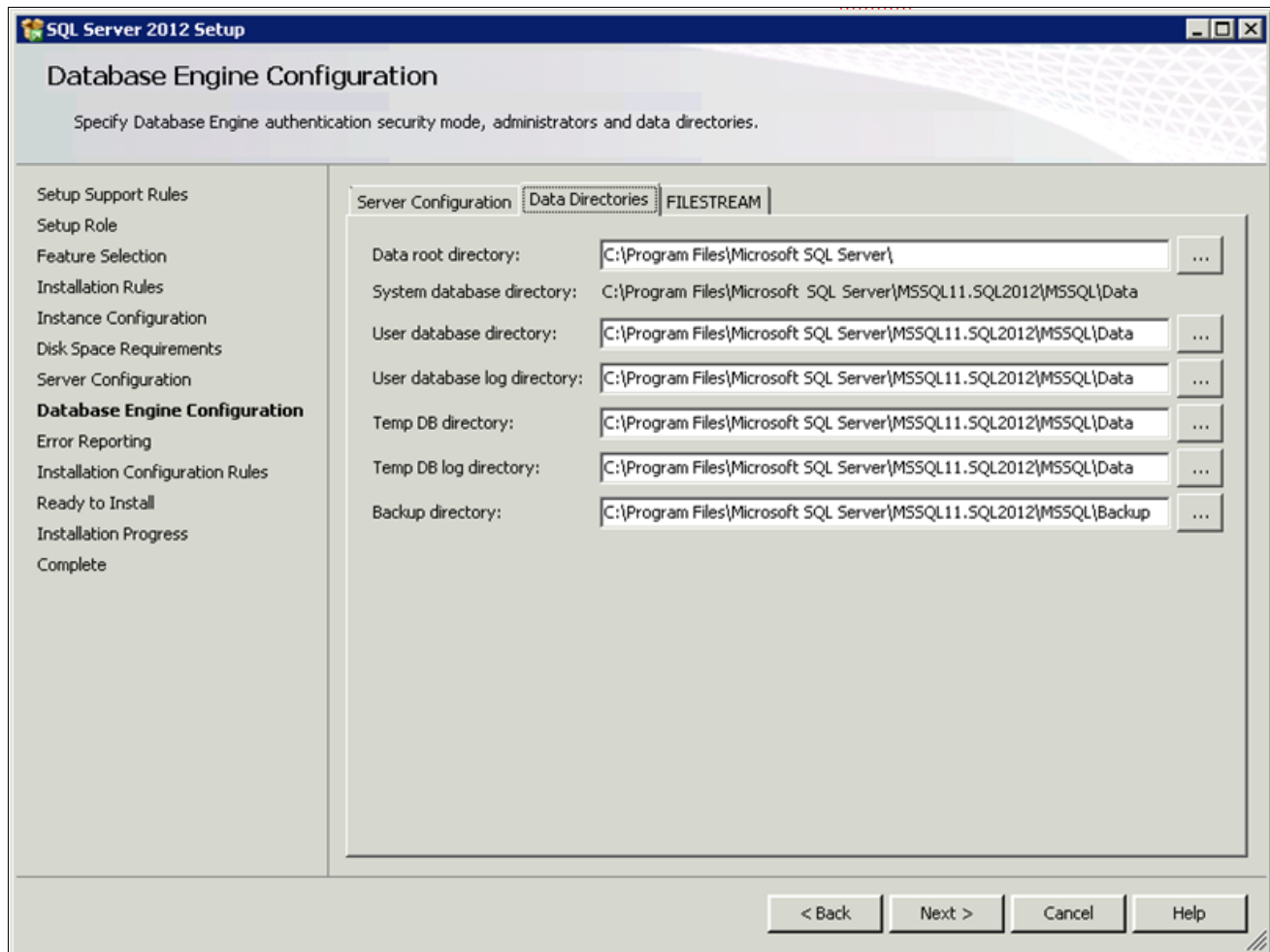


SQL Server 2012 Setup Database Engine Configuration window

Specify the following:

- Select the Mixed Mode option in the Authentication Mode area, as shown in this example.
- Enter and confirm a secure Microsoft SQL Server administrator (sa) password.
The password needs to meet password policy requirements given in the SQL Server 2012 Books Online.
- Click Add Current User and select the user under whose account the setup is running.
The current user shown in the example is USER NAME.

27. Select the Data Directories page.



SQL Server 2012 Setup Database Engine Configuration window: Data Directories page

This example of the Data Directories page shows all the directories on the same drive. However, Microsoft recommends that the directories included on this page reside on separate drives. Verify that the User database directory and the User database log directory are located in separate directories and on two different drives. In addition, the Temp DB directory and Temp DB log directory should be on a separate, third drive, and if possible, the Backup directory on a fourth drive.

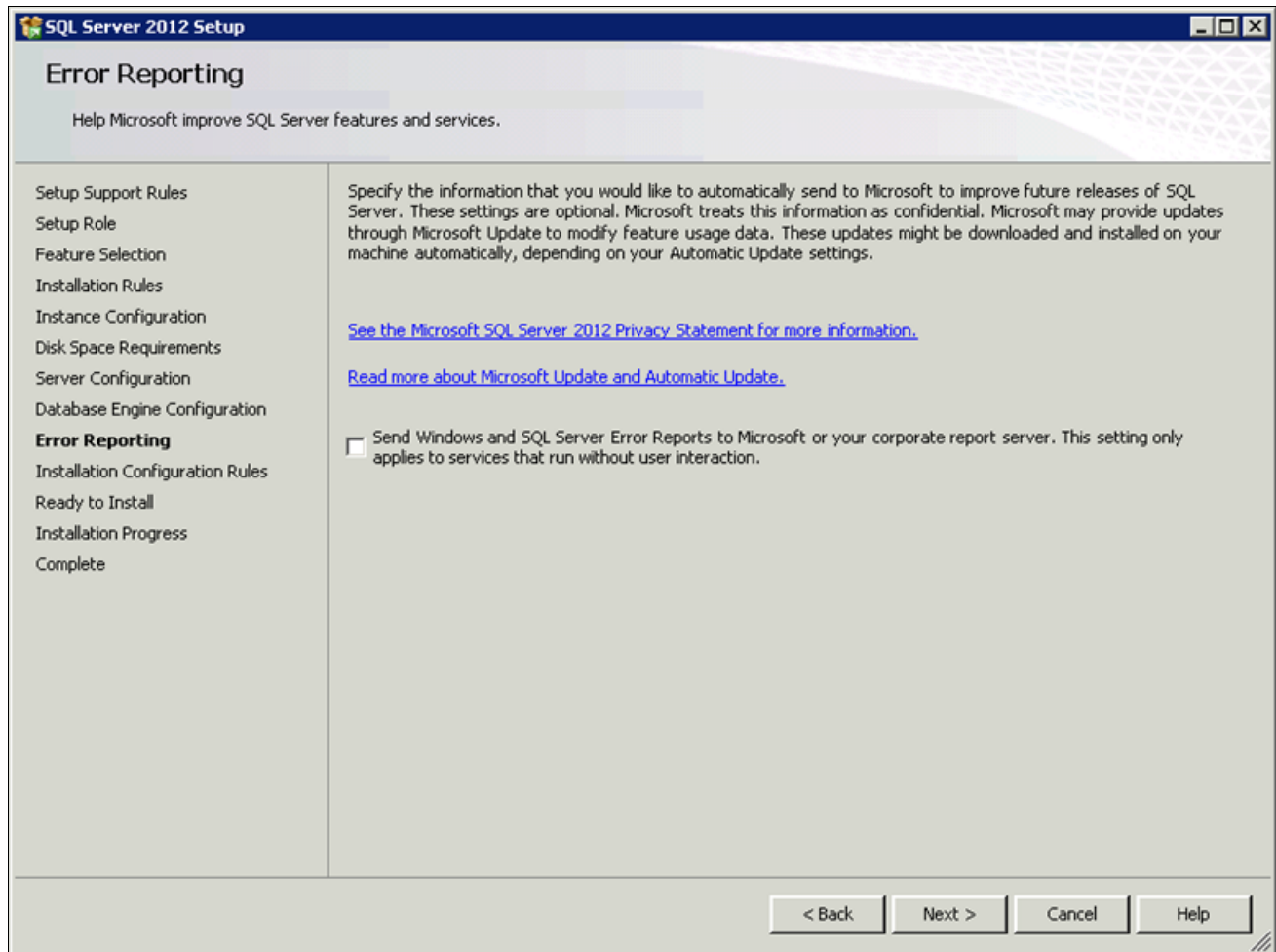
Consult the Microsoft support site, support.microsoft.com, for recommendations and best practices for the physical layout of database files, transaction log files, and temp DB.

See Microsoft SQL Server I/O subsystem requirements for the tempdb database, <http://support.microsoft.com/kb/917047/en-us>.

See SQL Server 2000 Operations Guide: Capacity and Storage Management, <http://www.microsoft.com/technet/prodtechnol/sql/2000/maintain/sqllops6.msp>.

28. Click Next.

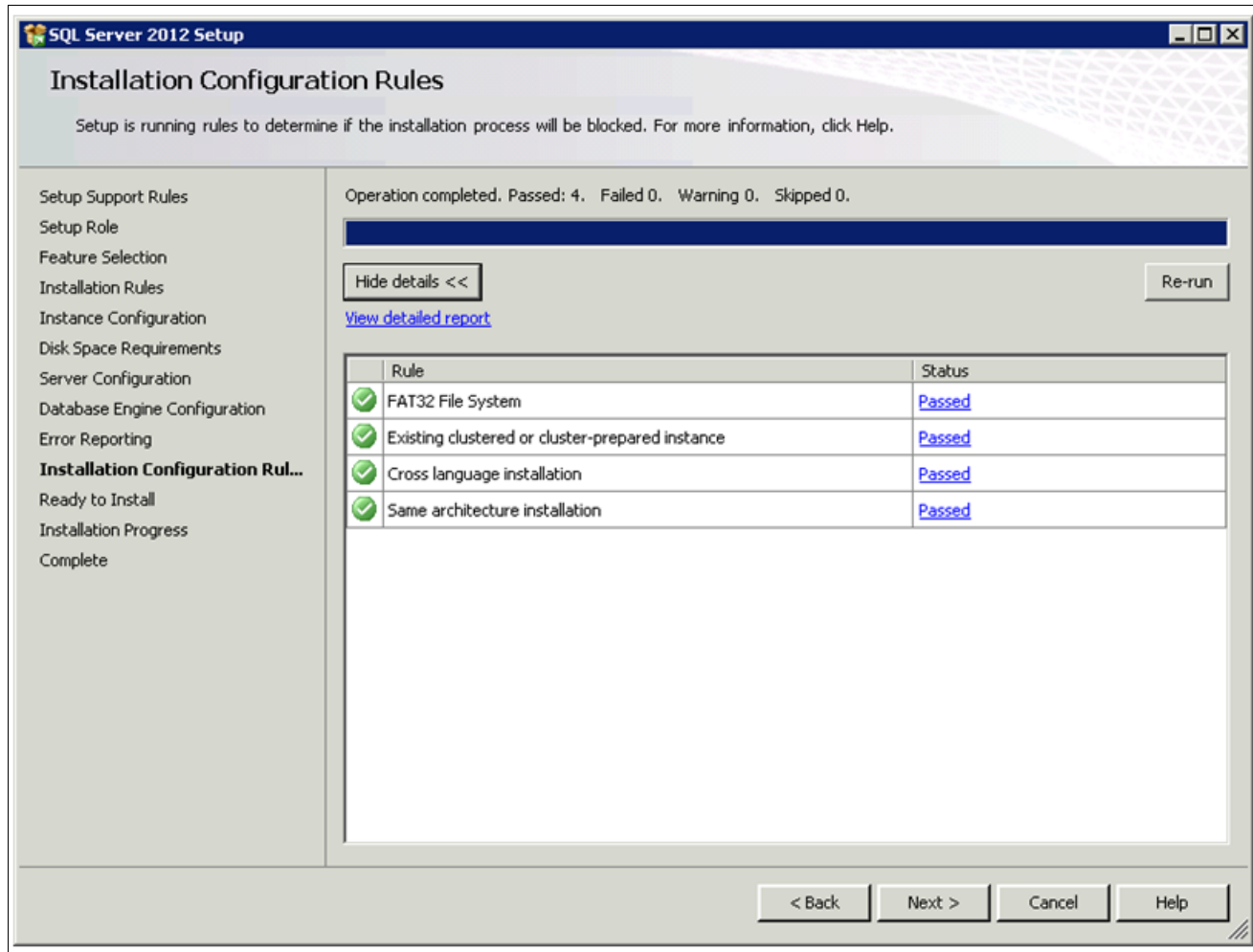
The Error Reporting window appears. If desired, select the options to send error reports to Microsoft. This example shows the option cleared.



SQL Server 2012 Setup Error Reporting window

29. Click Next.

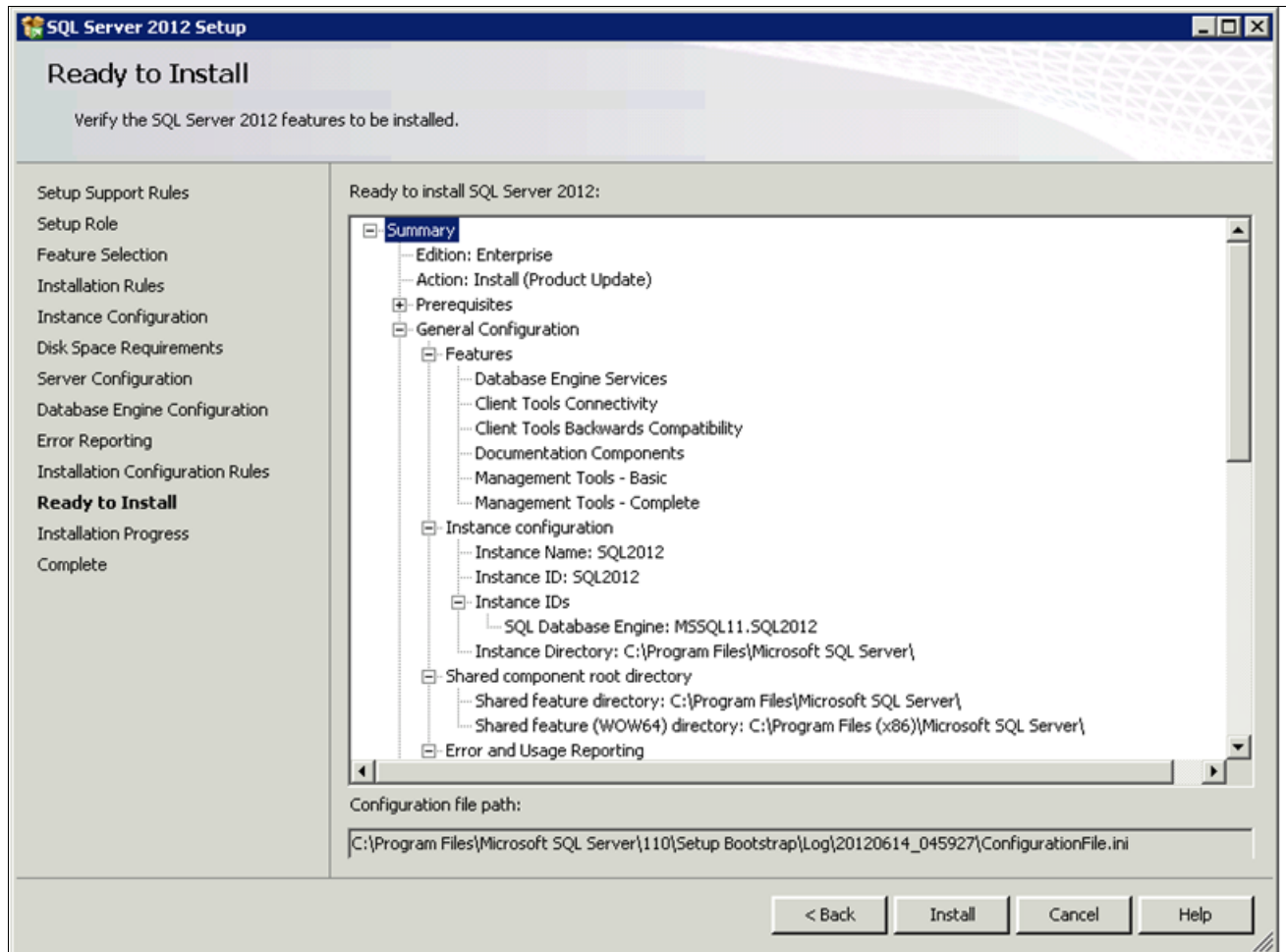
The Installation Configuration Rules window appears. The setup operation runs rules to determine whether the installation will be blocked. Wait until the operation is complete, and then click Show details. Verify that all of the rules have Passed in the Status column. If any rule does not pass, click the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Installation Configuration Rules window showing report details

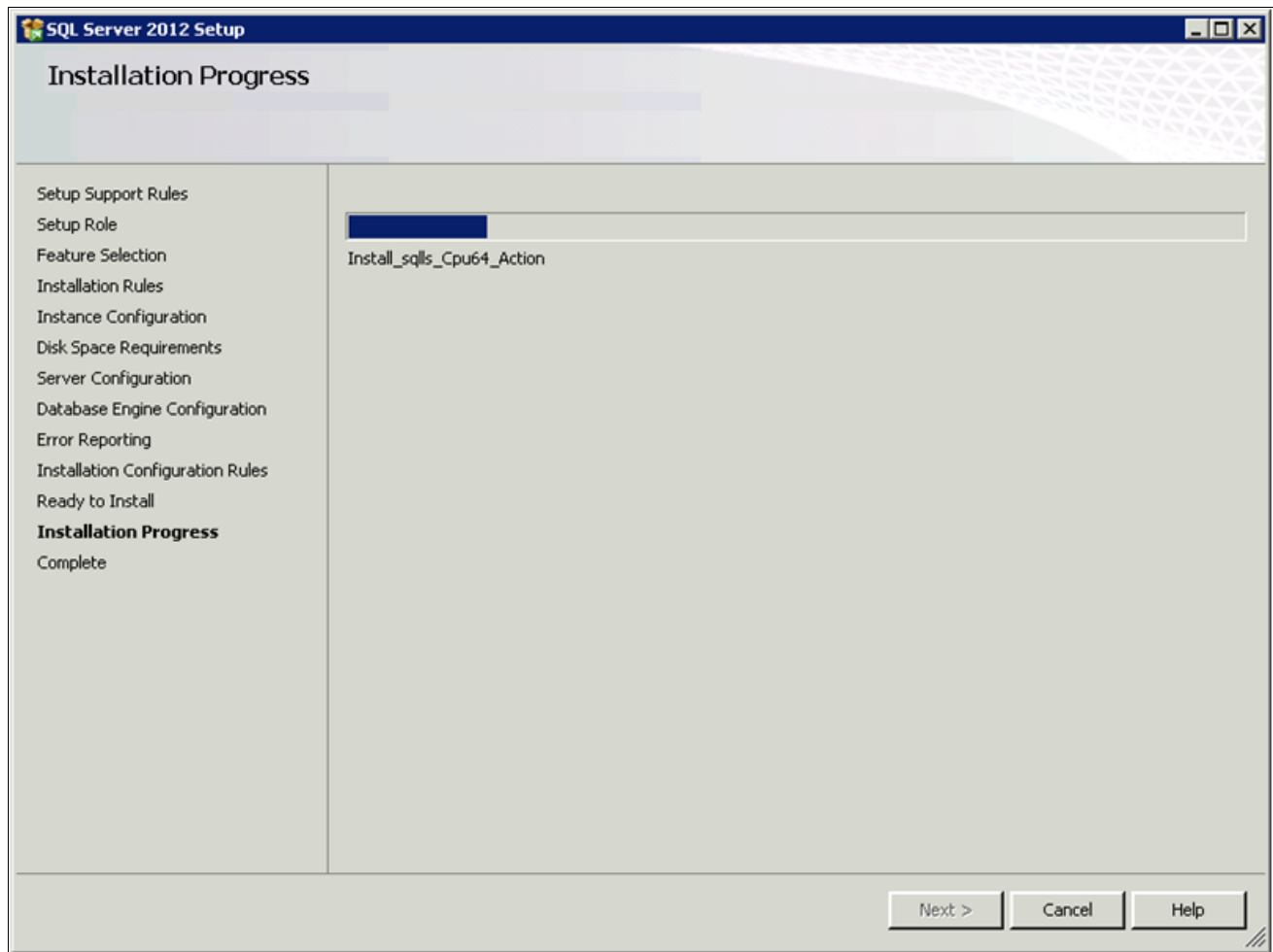
30. Click Next.

The Ready to Install window appears with a summary of the features and settings that you have selected. Select Install to proceed or Back to go back and correct a setting.



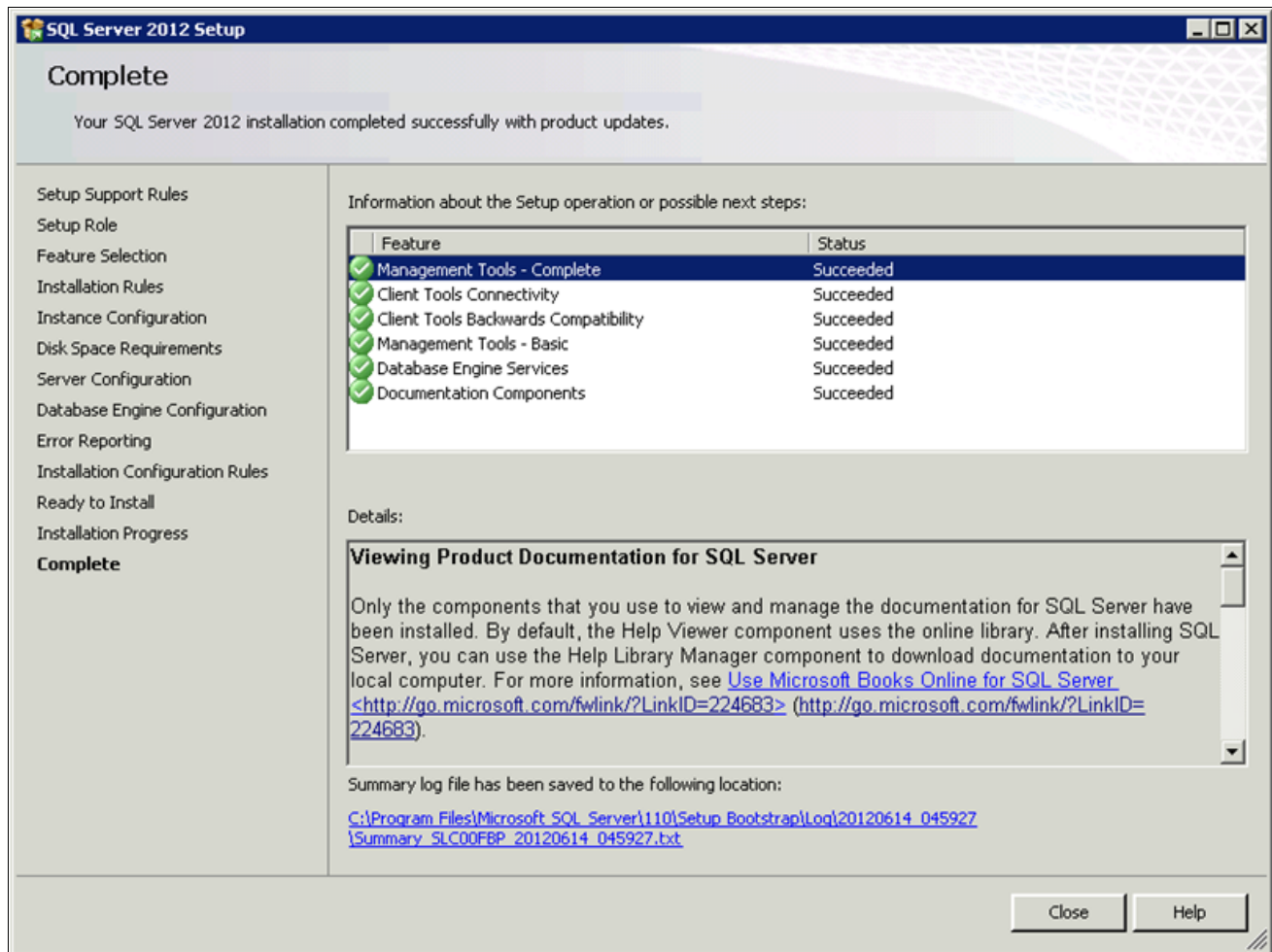
SQL Server 2012 Setup Ready to Install window

A window appears showing the progress of the installation, as shown in this example. The installation requires 10-15 minutes, and may depend upon your system configuration.



SQL Server 2012 Setup Installation Progress

Wait for all the components to install successfully. All of the components should show a status of Succeeded as shown in this example. If any one of them shows a status of Failed select the status link to check the reason for the failure



SQL Server 2012 Setup Complete window

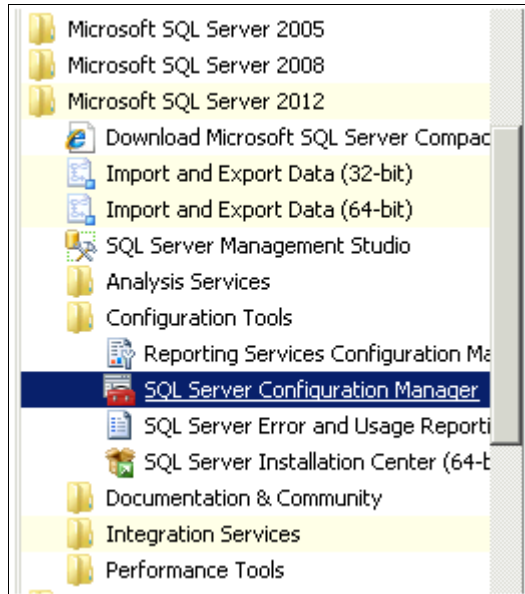
The window also includes the location of the setup log files (<identifier> is a string including a timestamp):

C:\Program Files\Microsoft SQL Server\110\Setup Bootstrap\Log\<identifier>\Summary<identifier>.txt

Task 1-10: Starting and Stopping Microsoft SQL Server 2012

To start or stop the server:

1. Select Start, Programs, Microsoft SQL Server 2012, Configuration Tools, SQL Server Configuration Manager, as shown in this example.

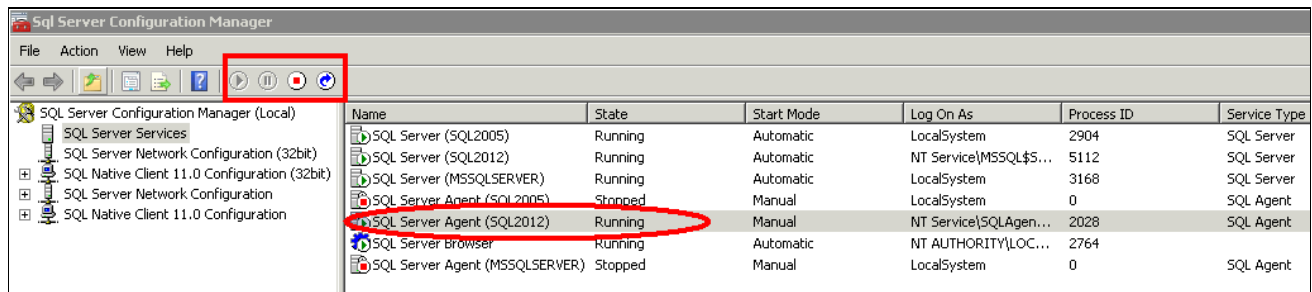


Starting SQL Server Configuration Manager

The Sql Server Configuration Manager window opens.

2. On the left side of the window select SQL Server Services, and on the right side select the server or instance name you want to start or stop.
3. If the service is running, highlight the service name and click the stop button on the top menu bar.

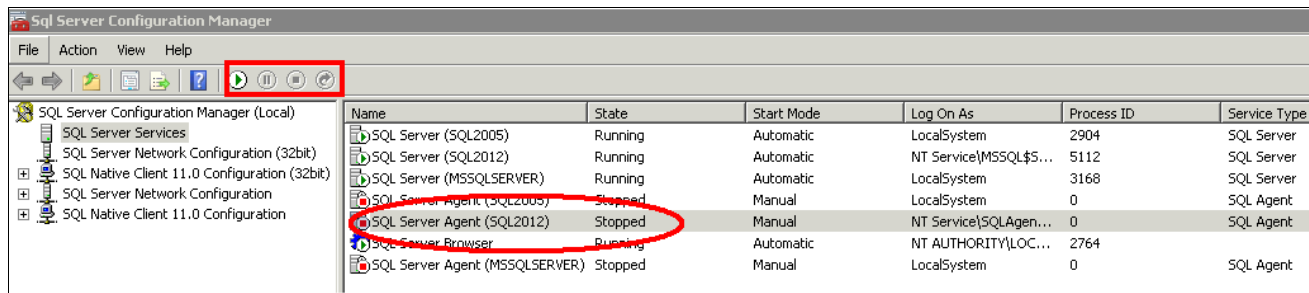
In this example, the running service SQL Server Agent (SQL2012) and the stop button are circled.



Sql Server Configuration Manager showing a running service and stop button

- If the service is stopped, highlight the name and click the start button on the top menu bar.

In this example, the stopped service SQL Server Agent (SQL2012) and the start button are circled.



Sql Server Configuration Manager showing a stopped service and start button

Task 1-11: Installing Microsoft SQL Server 2012 — Client Only

This section discusses:

- Understanding the Client-Only Microsoft SQL Server 2012 Installation
- Installing Microsoft SQL Server 2012 on a Client

Understanding the Client-Only Microsoft SQL Server 2012 Installation

Use these instructions to install only the client portion of Microsoft SQL Server 2012. You may use the client software, for example, when using a remote machine to connect to the database server on another machine.

The Microsoft SQL Server 2012 client installation on Microsoft Windows 7 operating system has these prerequisites:

- Service Pack 1 or later for Microsoft Windows 7 or Windows Server 2008 R2.
If your computer does not have at least Service Pack 1 for Microsoft Windows 7 or Microsoft Windows Server 2008 R2, you see this error message when you try to install Microsoft SQL Server 2012 client:
"The operating system on this computer does not meet the minimum requirements for SQL Server 2012. For Windows Vista or Windows Server 2008 operating systems, Service Pack 2 or later is required. For Windows 7 or Windows Server 2008 R2, Service Pack 1 or later is required. For more information, see Hardware and Software Requirements for installing SQL Server 2012 at: <http://go.microsoft.com/fwlink/?LinkID=195092>."
- Microsoft .NET Framework 4
The first part of the installation includes a step to install Microsoft .NET Framework 4.

Task 1-11-1: Installing Microsoft SQL Server 2012 on a Client

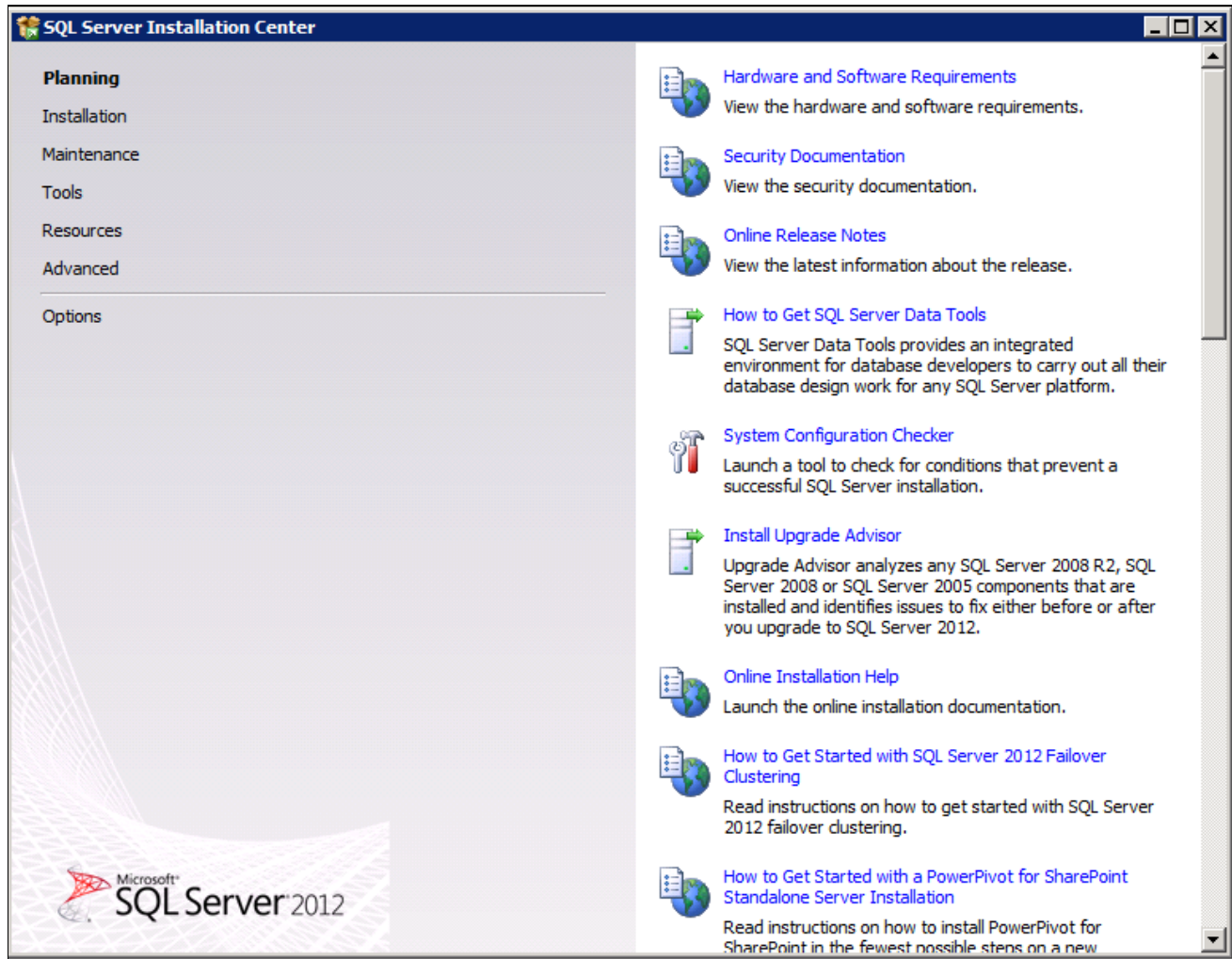
To install Microsoft SQL Server 2012 client software:

- If you want to uninstall your previous Microsoft SQL Server software before installing Microsoft SQL Server 2012, you can use Control Panel, Add/Remove Programs.

Note. Oracle recommends that you install only one SQL Server version per server. This should simplify the administration. However, in some instances you may need to install multiple versions, and it is possible to have side-by-side installations of Microsoft SQL Server 2008 and Microsoft SQL Server 2012.

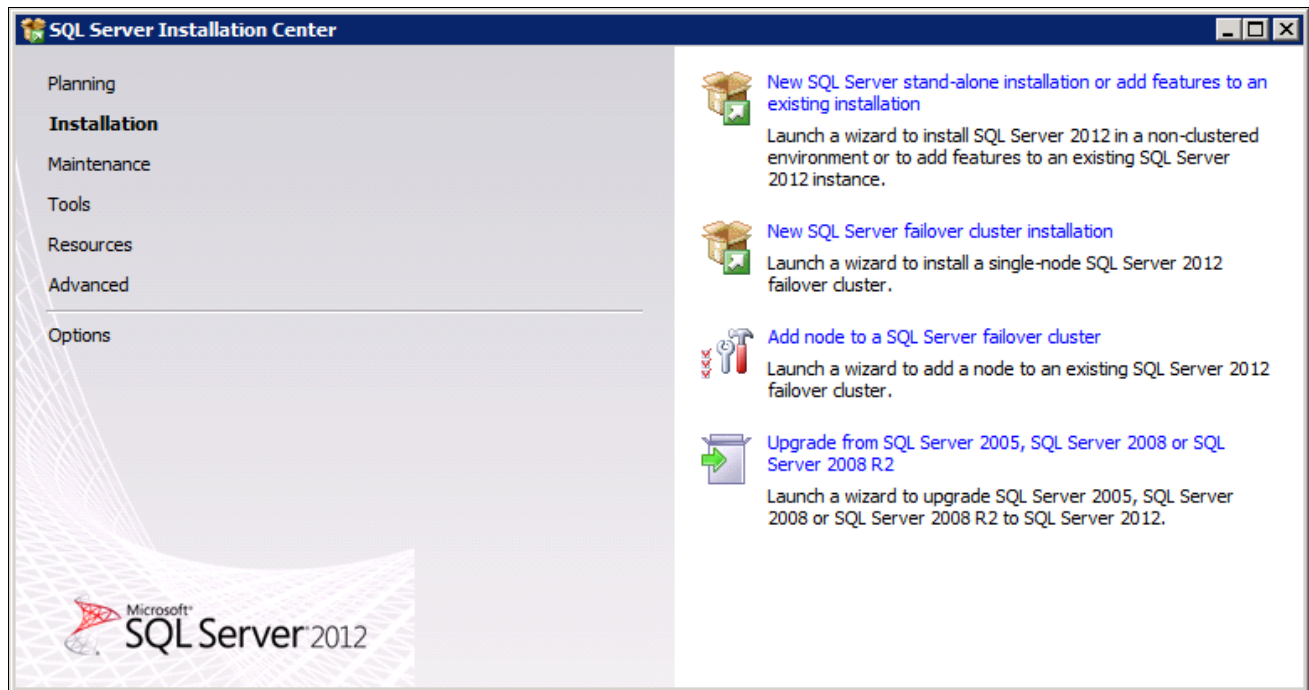
2. Download the Microsoft SQL Server 2012 Software from the Microsoft web site.
3. Install .NET Framework 4 and restart the system before installing SQL Server 2012.
See "Setting Up Process Scheduler on Windows," Installing Products for PS/nVision.
4. Select `setup.exe` from the directory where you downloaded the installation files.

An initialization window appears, followed by the SQL Server Installation Center window.



SQL Server Installation Center for Microsoft SQL Server 2012

5. Select the Installation link on the top left.

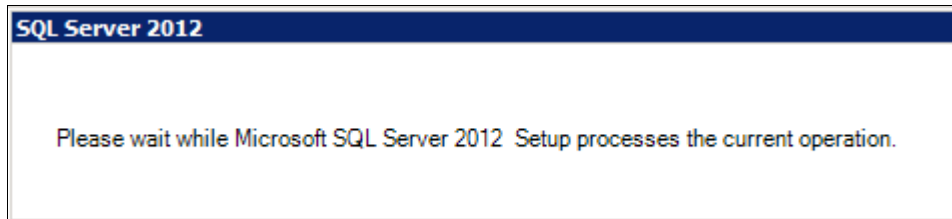


SQL Server Installation Center displaying Installation Links

6. Select the link "New SQL Server stand-alone installation or add features to an existing installation" to proceed.

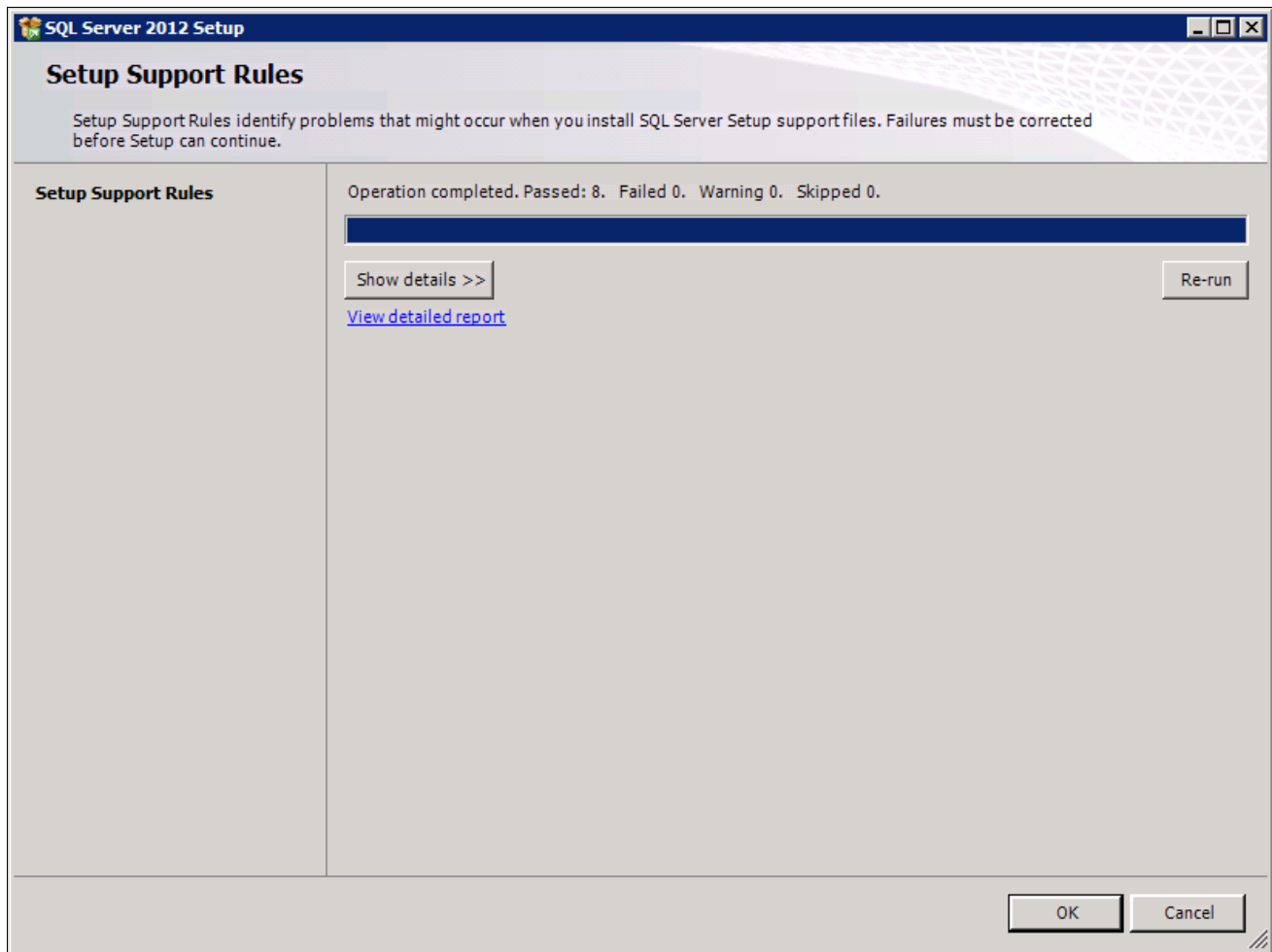
7. Click Run and choose Run Program.

A message box appears asking you to wait.



Please wait while Microsoft SQL Server 2012 Setup processes the current operation.

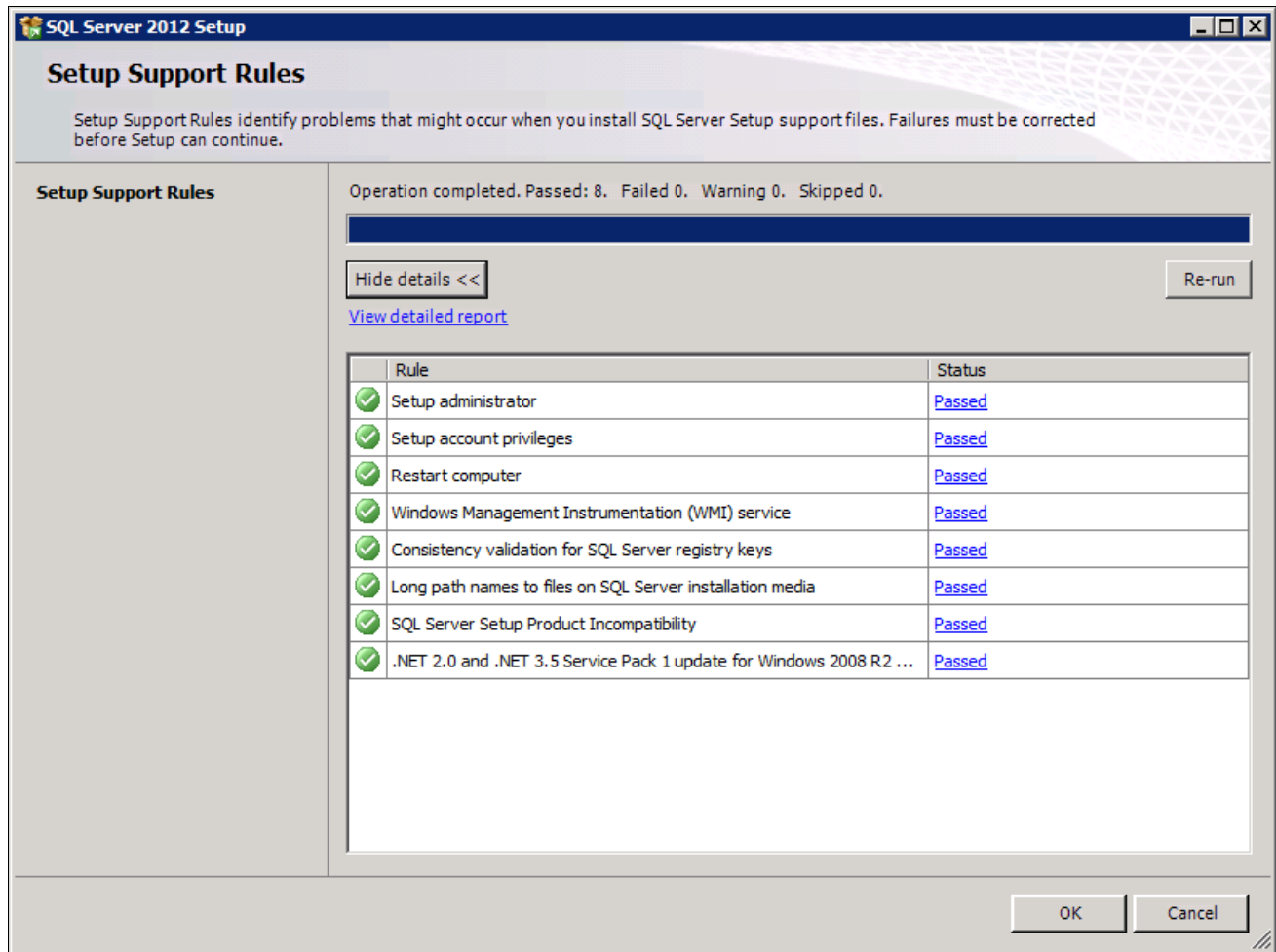
The Setup Support Rules window appears with a progress indicator.



SQL Server 2012 Setup Support Rules window

8. When the operation is complete, click Show details.

Verify that all the listed rules display *Passed* in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.

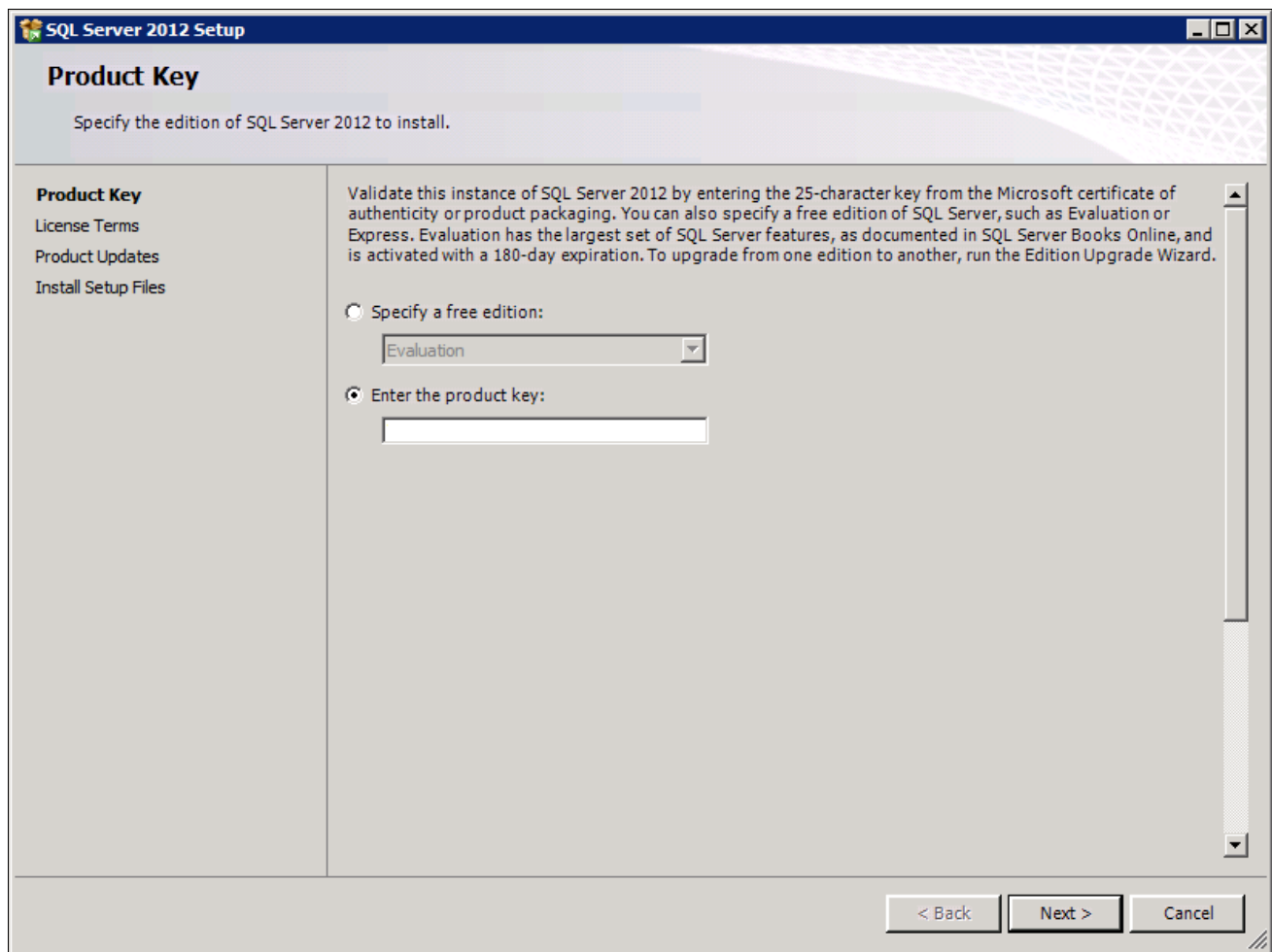


SQL Server 2012 Setup Support Rules windows with detailed report

9. Click OK to proceed.

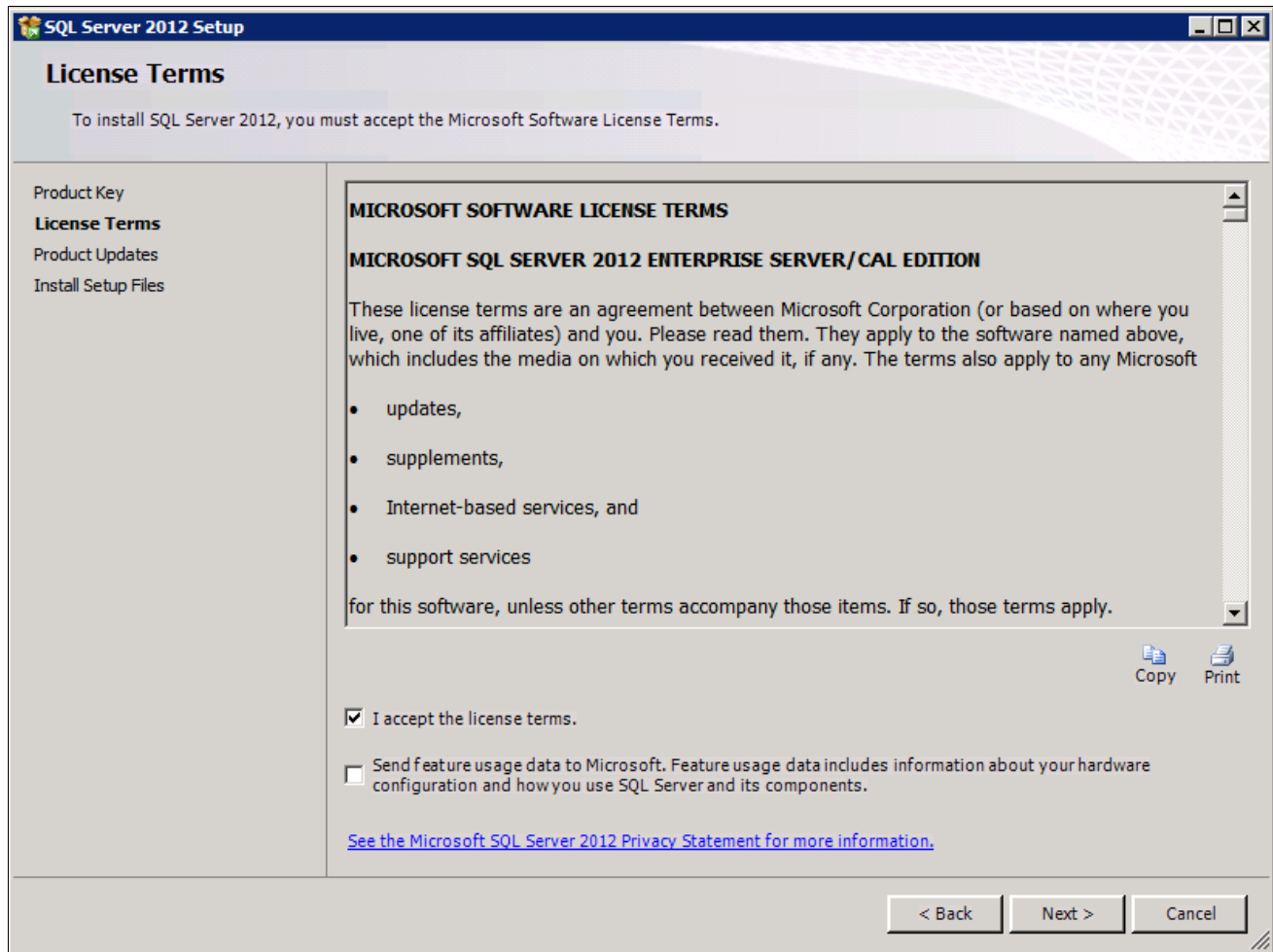
A Product Key window appears. Enter the product key.

If it is already populated ignore this step and Click Next. In this example, the product key field is empty.



SQL Server 2012 Setup Product Key window

10. On the License Terms window, read the Microsoft Software license terms and conditions carefully and select the check box labeled I accept the license terms, as shown in this example.

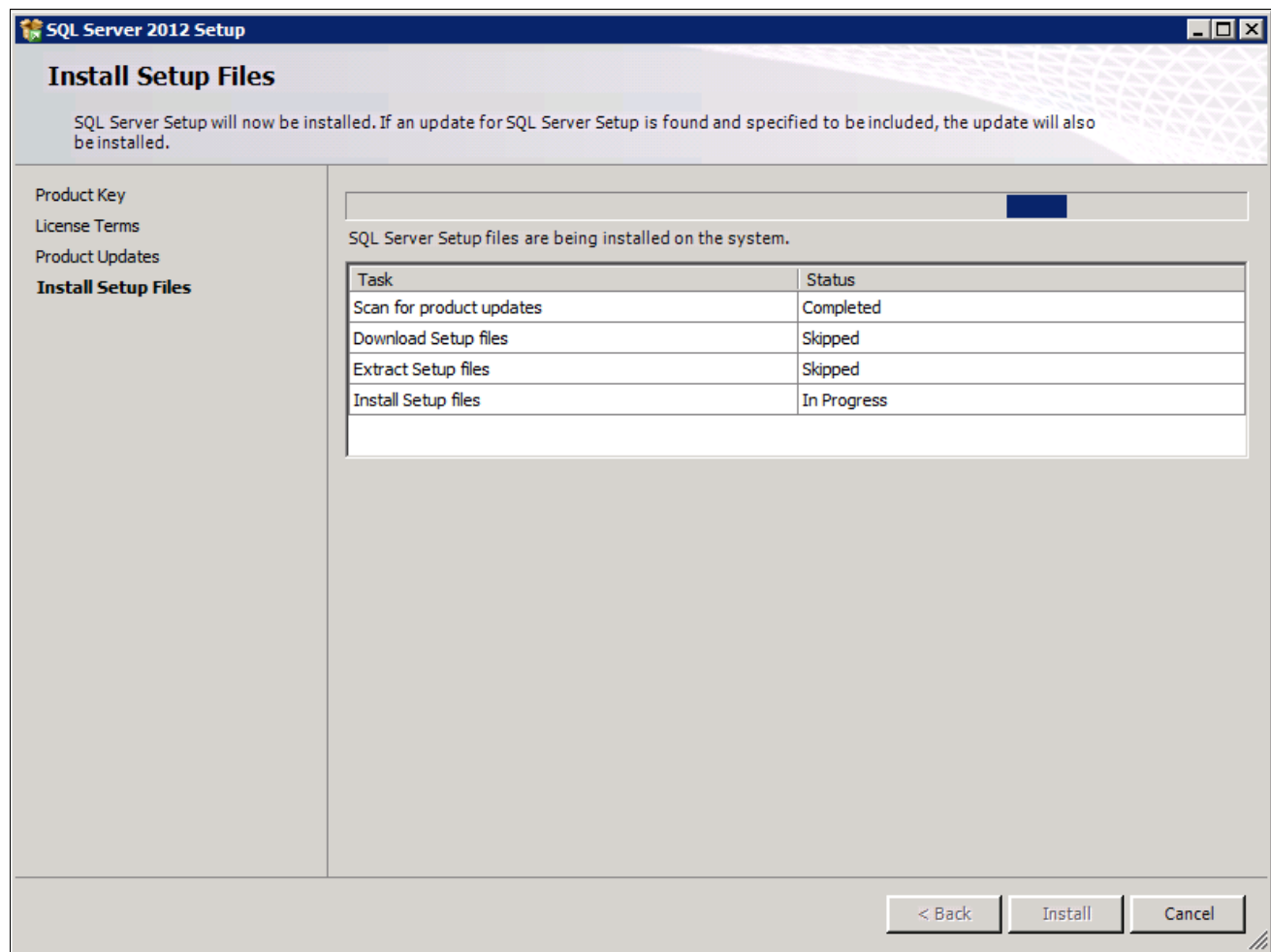


SQL Server 2012 License Terms window

11. Click Next

The Install Setup Files window appears.

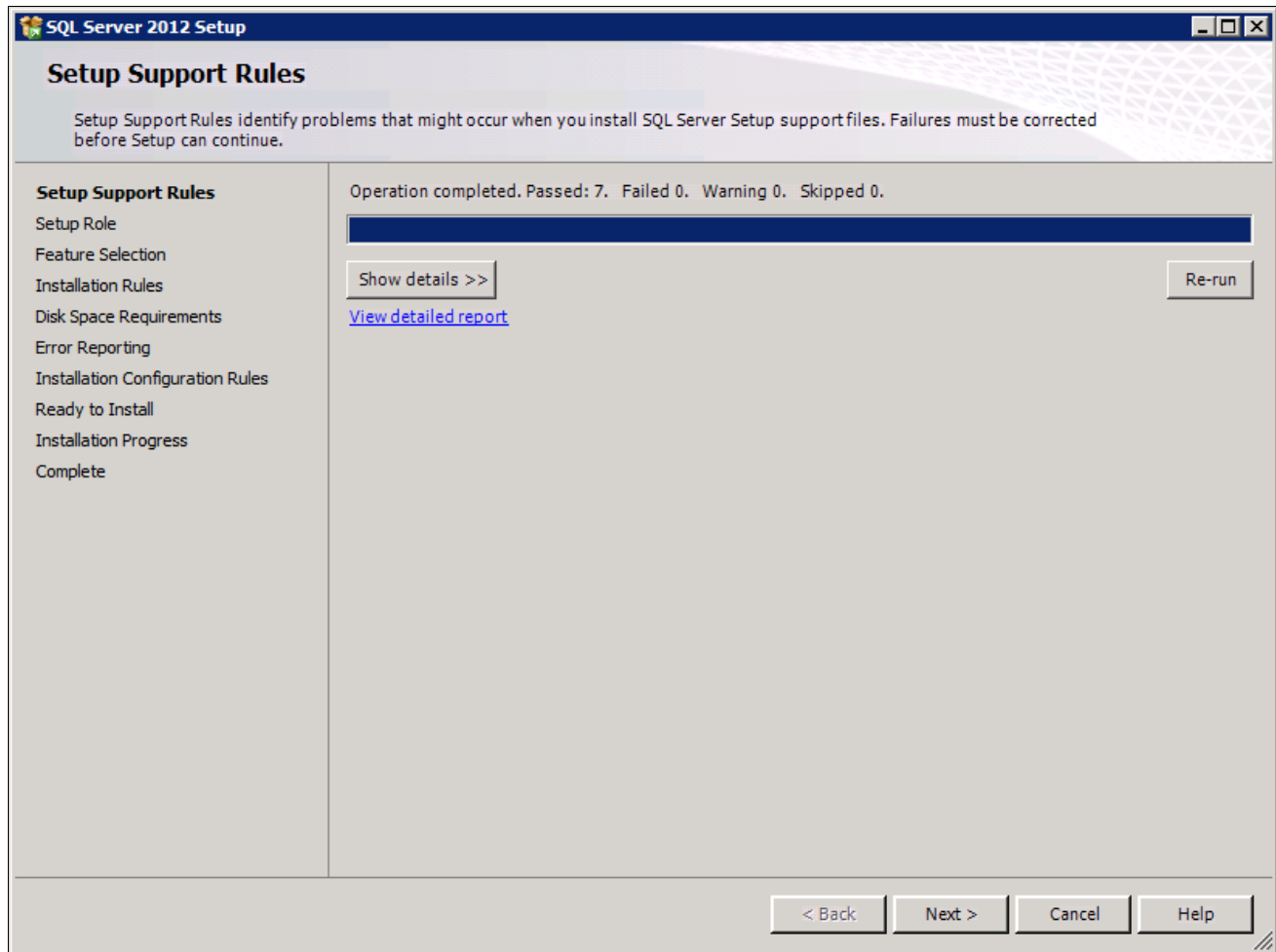
This example shows the Install Setup Files window during the process of installing the files.



SQL Server 2012 Setup Install Setup Files window

12. Click Next to begin installing the setup support files.

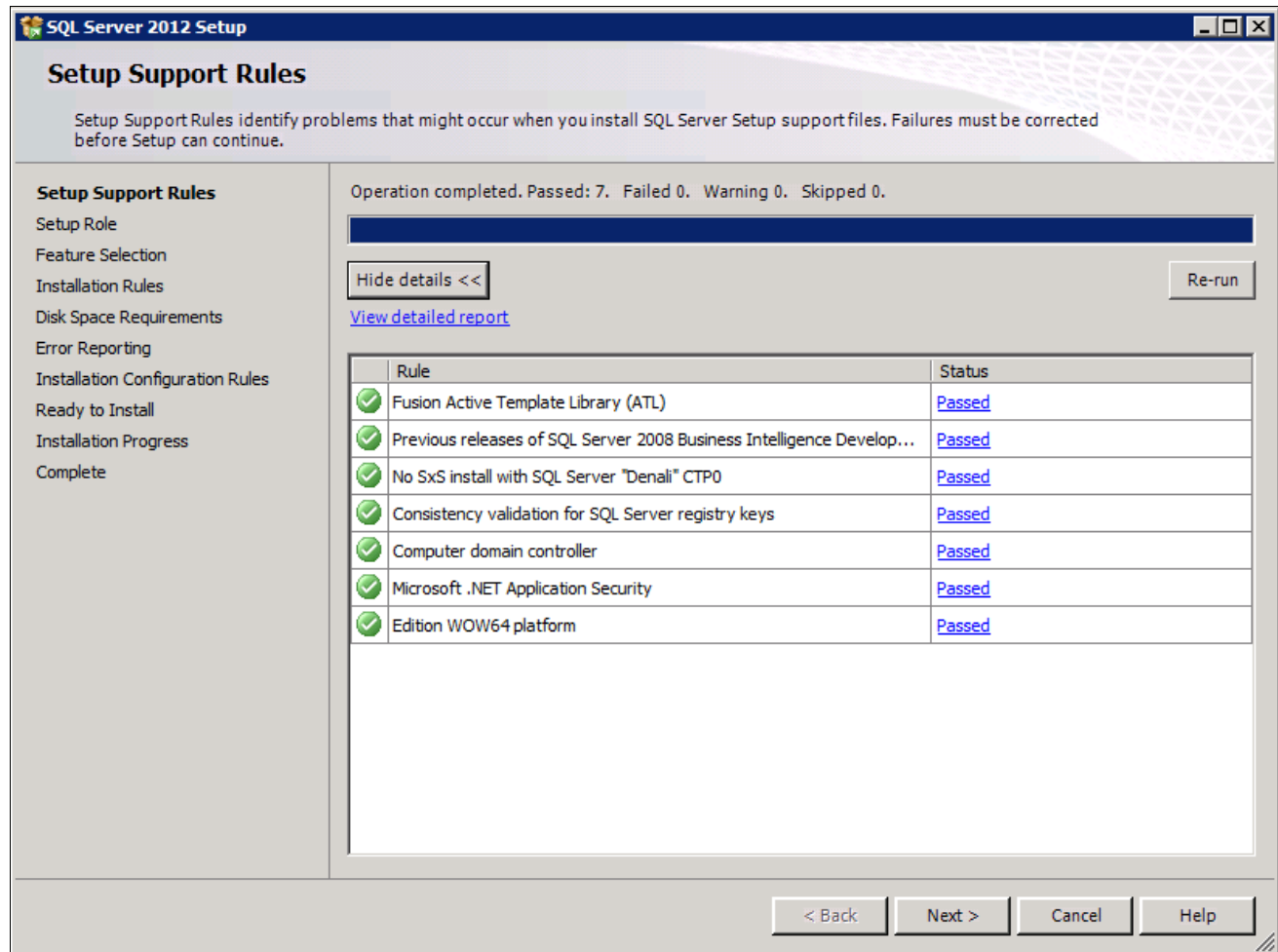
A progress bar appears at the bottom of the window. When the operation is complete, the Setup Support Rules window appears.



SQL Server 2012 Setup Support Rules window checking support files

13. Click Show details on the Setup Support Rules window.

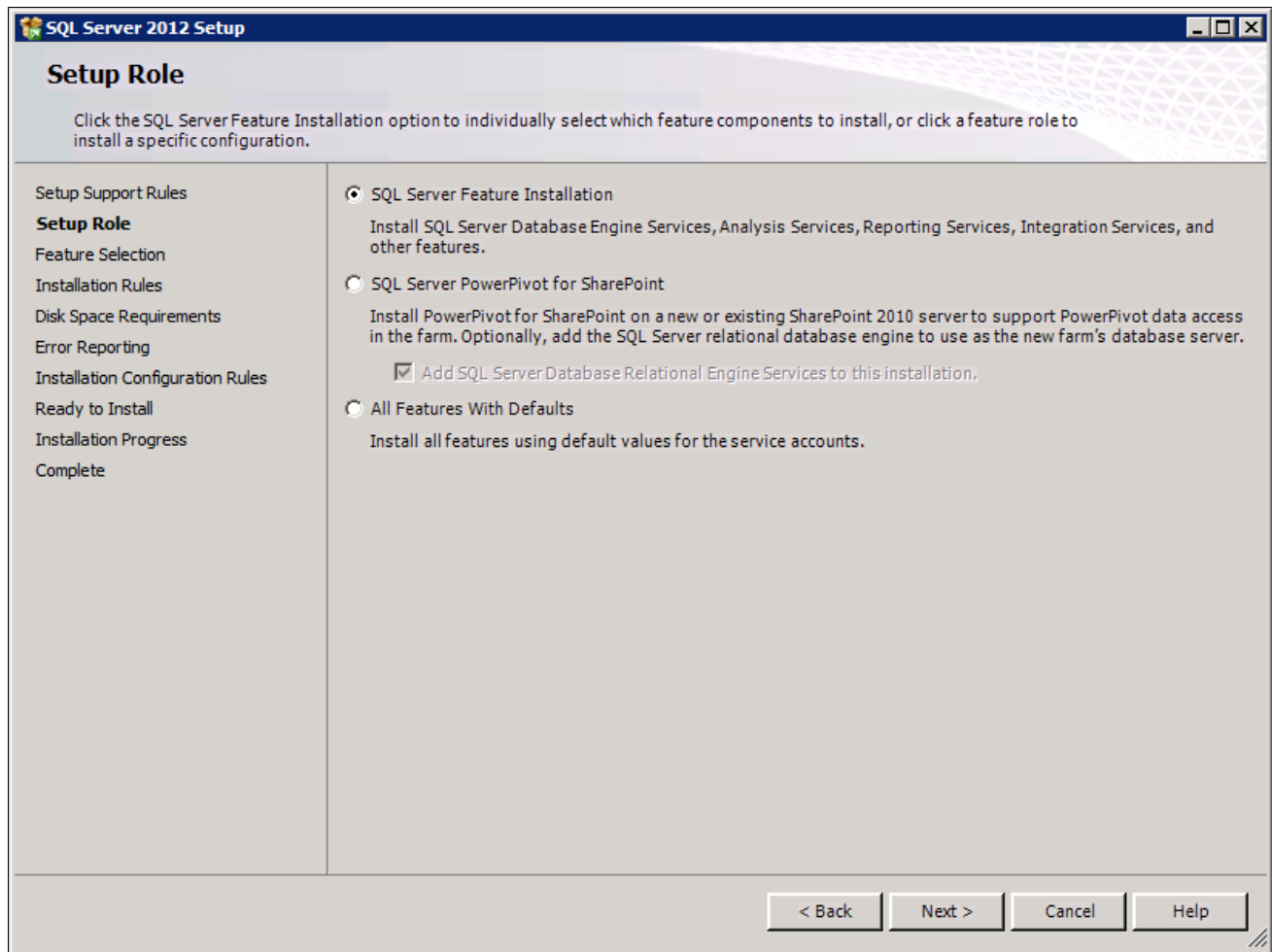
Verify that the status for all of the rules is *Passed*, as in this example. If any of the rules has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Support Rules window showing detailed report

14. Click Next.

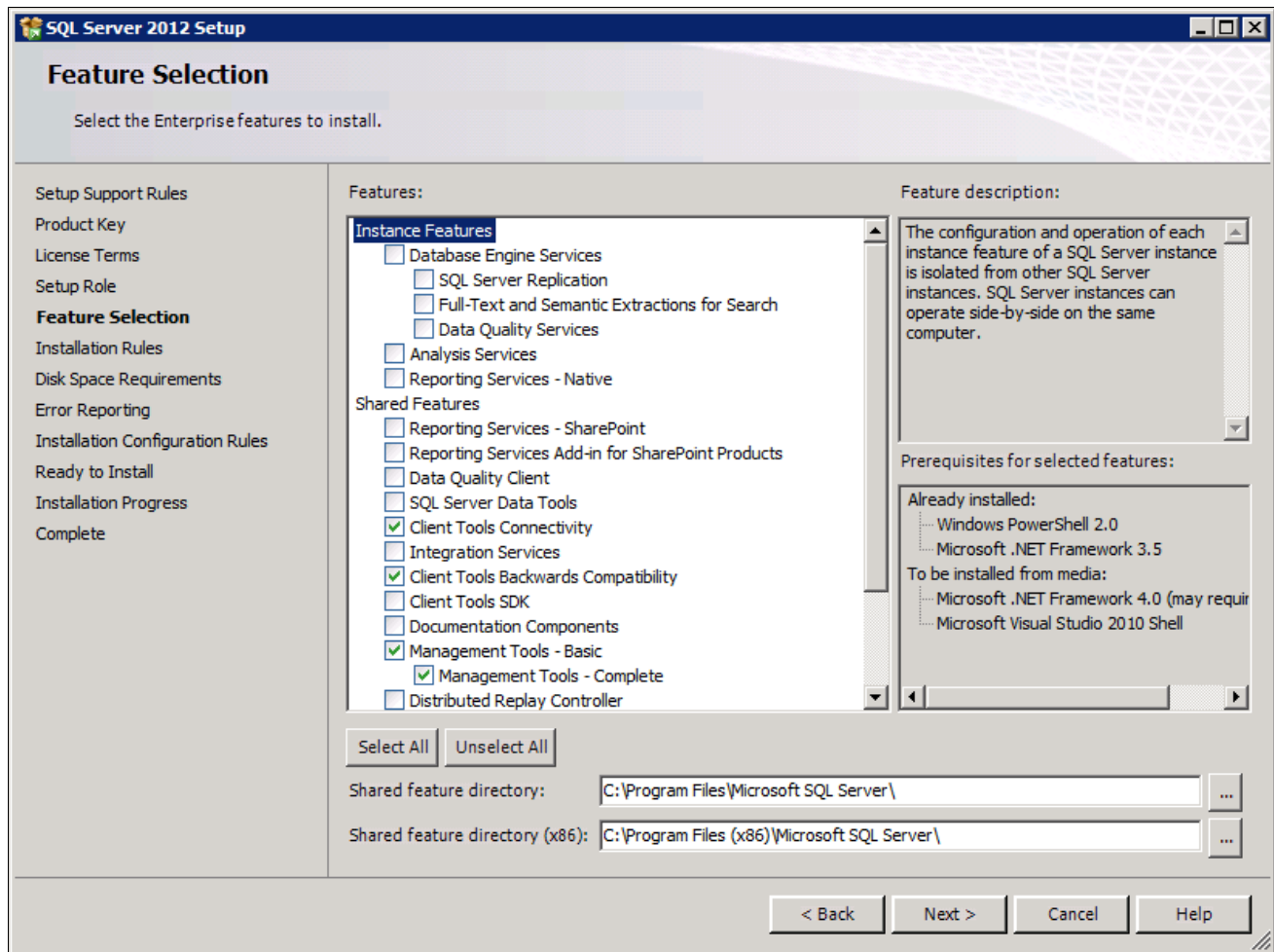
The Setup Role window appears.



SQL Server 2012 Setup Role window with SQL Server Feature Installation selected

15. Select the option SQL Server Feature Installation, and click Next.

16. A Feature Selection window appears which lists all the features of SQL Server 2012 that need to be installed.



SQL Server 2012 Feature Selection window with installation options selected

For a PeopleSoft installation, select the following features, as shown in the example:

- Client Tools Connectivity
- Client Tools Backward Connectivity
- Management Tools - Basic
- Management Tools - Complete

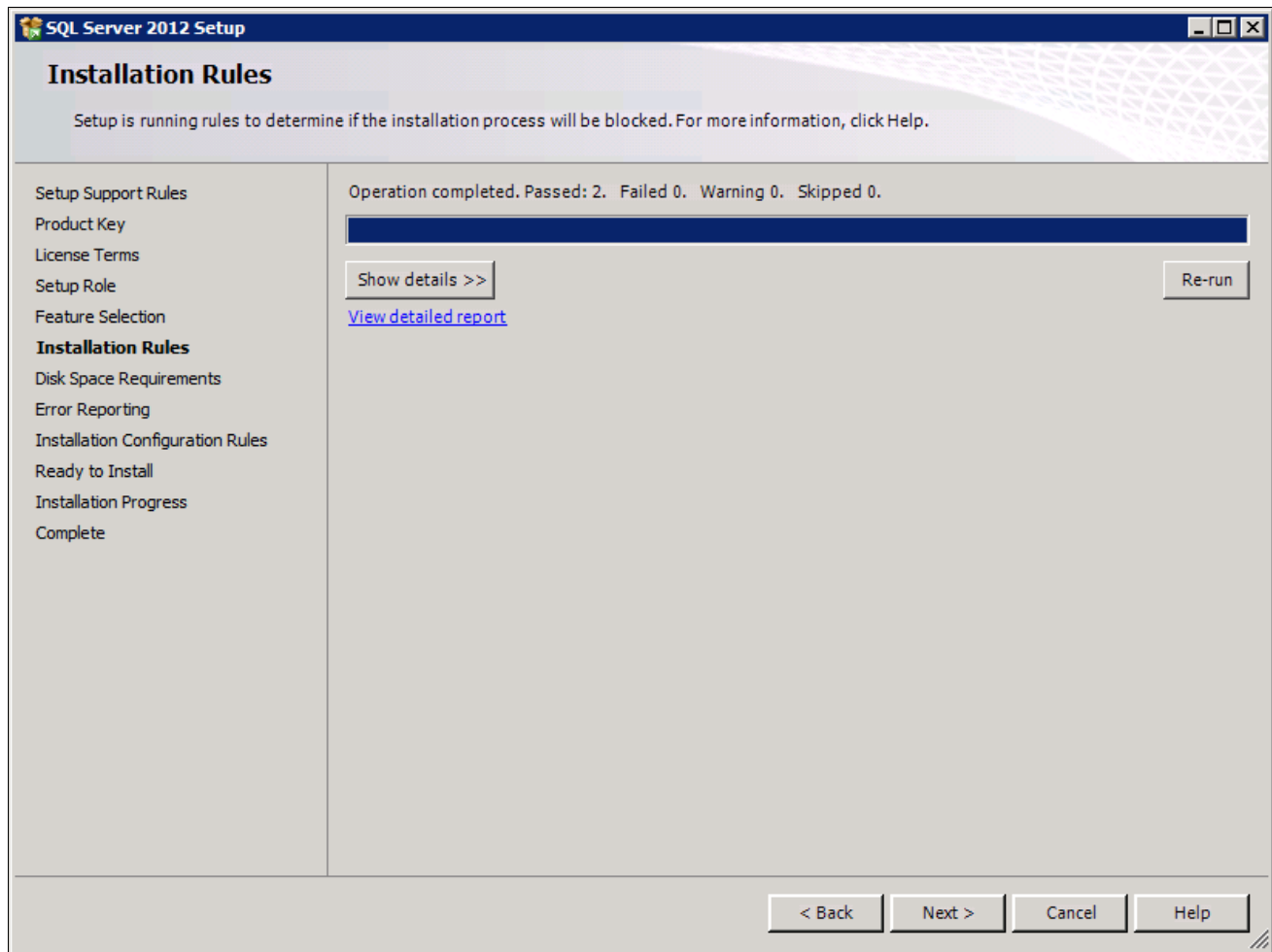
17. Clear the check boxes for the following features:

- Database Engine Services
- SQL Server Replication
- Full Text Search and Semantic Extraction for Search
- Data Quality Services
- Analysis Services
- Reporting Services - Native
- Shared Features
- Reporting Services - SharePoint

- Reporting Services Add-in for Share Point Products
- Data Quality Client
- SQL Server Data Tools
- Integration Services
- Client Tools SDK
- Documentation Components
- Distributed Replay Controller
- Distributed Replay Client
- SQL Client Connectivity SDK
- Master Data Services

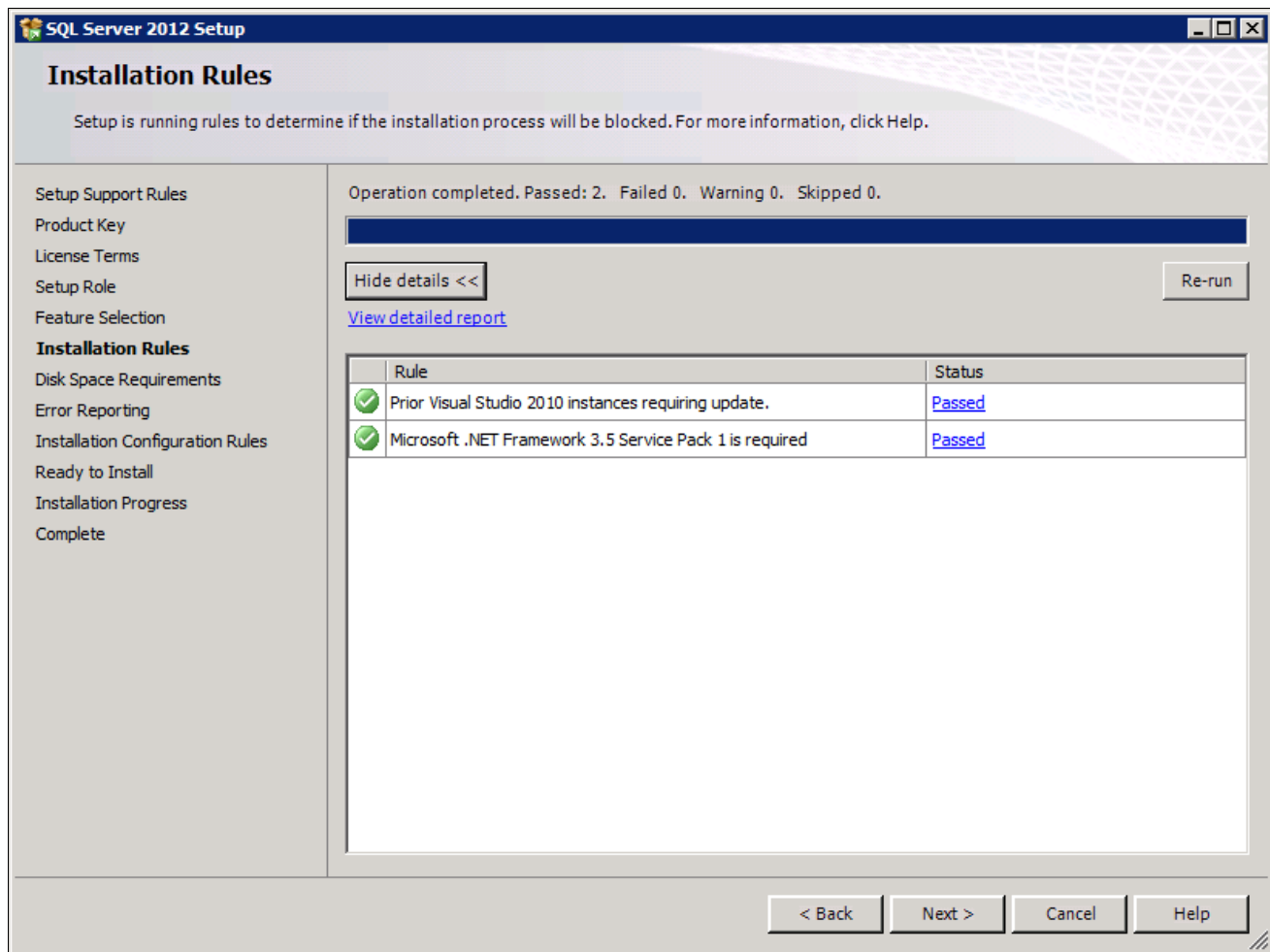
18. Click Next.

The Installation Rules window appears.



SQL Server 2012 Installation Rules window

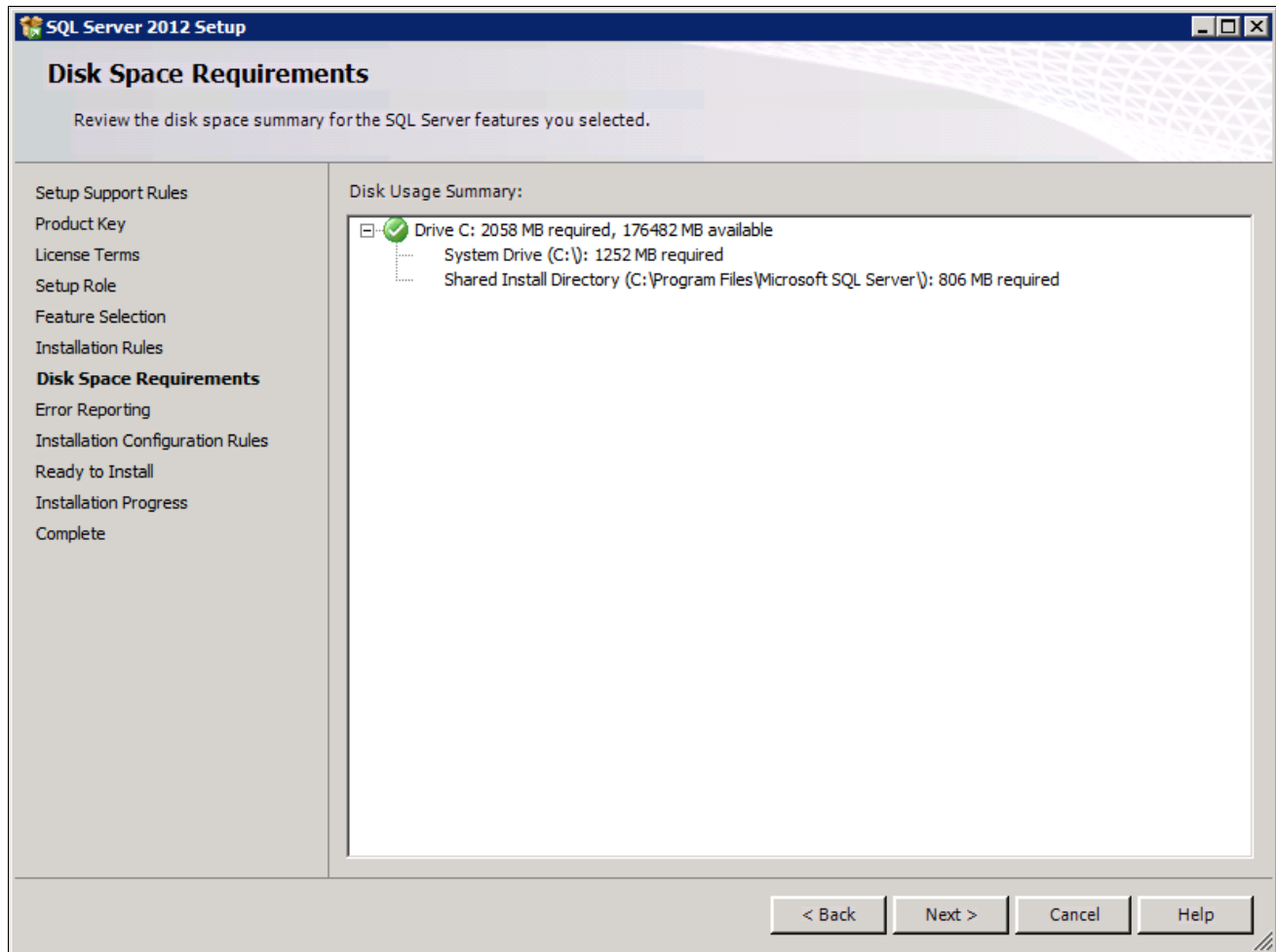
19. Wait for the operation to be complete, and then verify that all of the rules passed successfully. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



SQL Server 2012 Installation Rules showing report detail

20. Click Next.

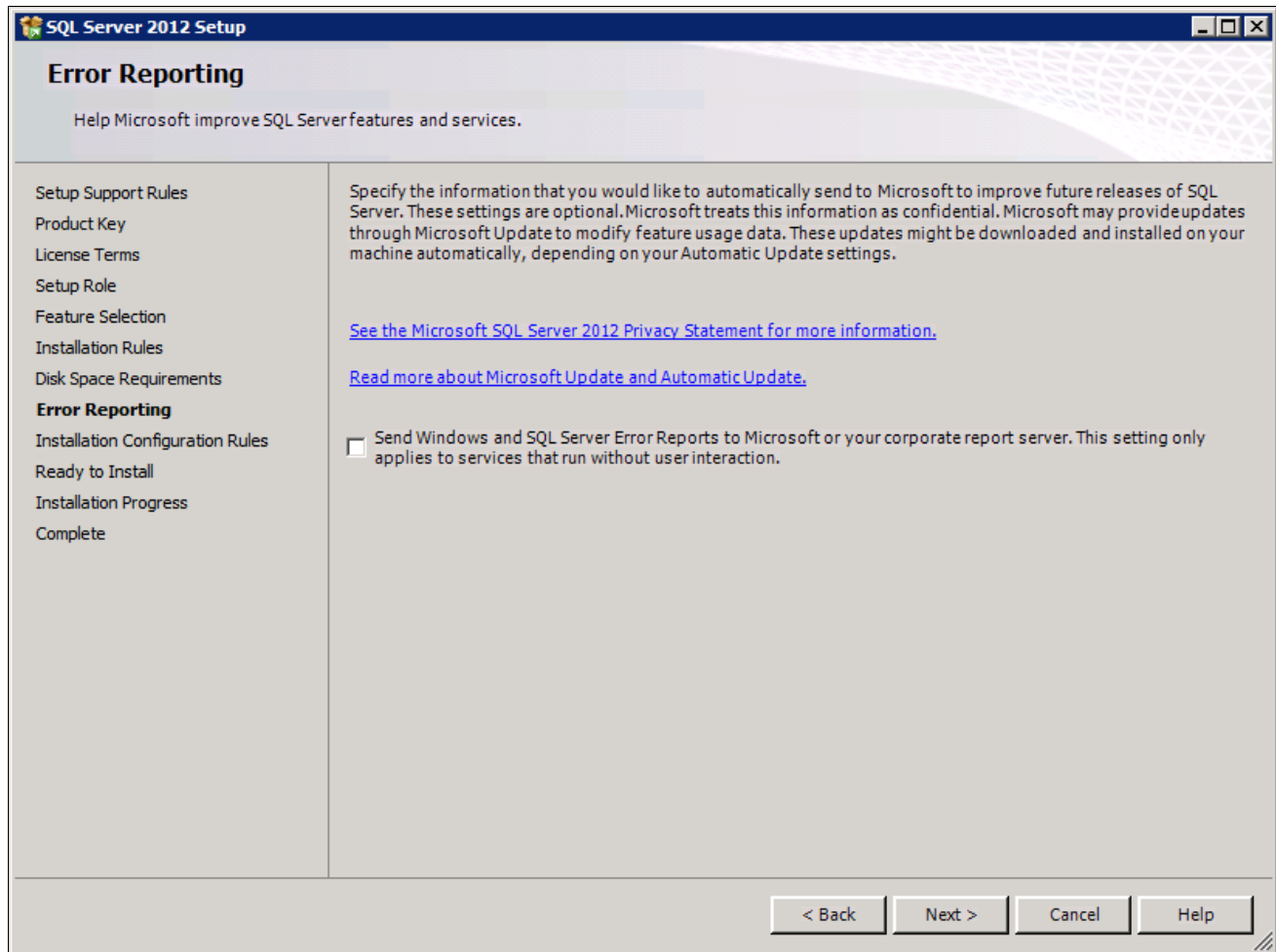
The Disk Space Requirements window appears showing the available and required disk space. Verify that you meet the disk space requirements.



SQL Server 2012 Disk Space Requirement window

21. Click Next to proceed.

The Error Reporting window appears. If desired, select the options to send error reports or anonymous feature usage data to Microsoft. In this example, the option is not selected.

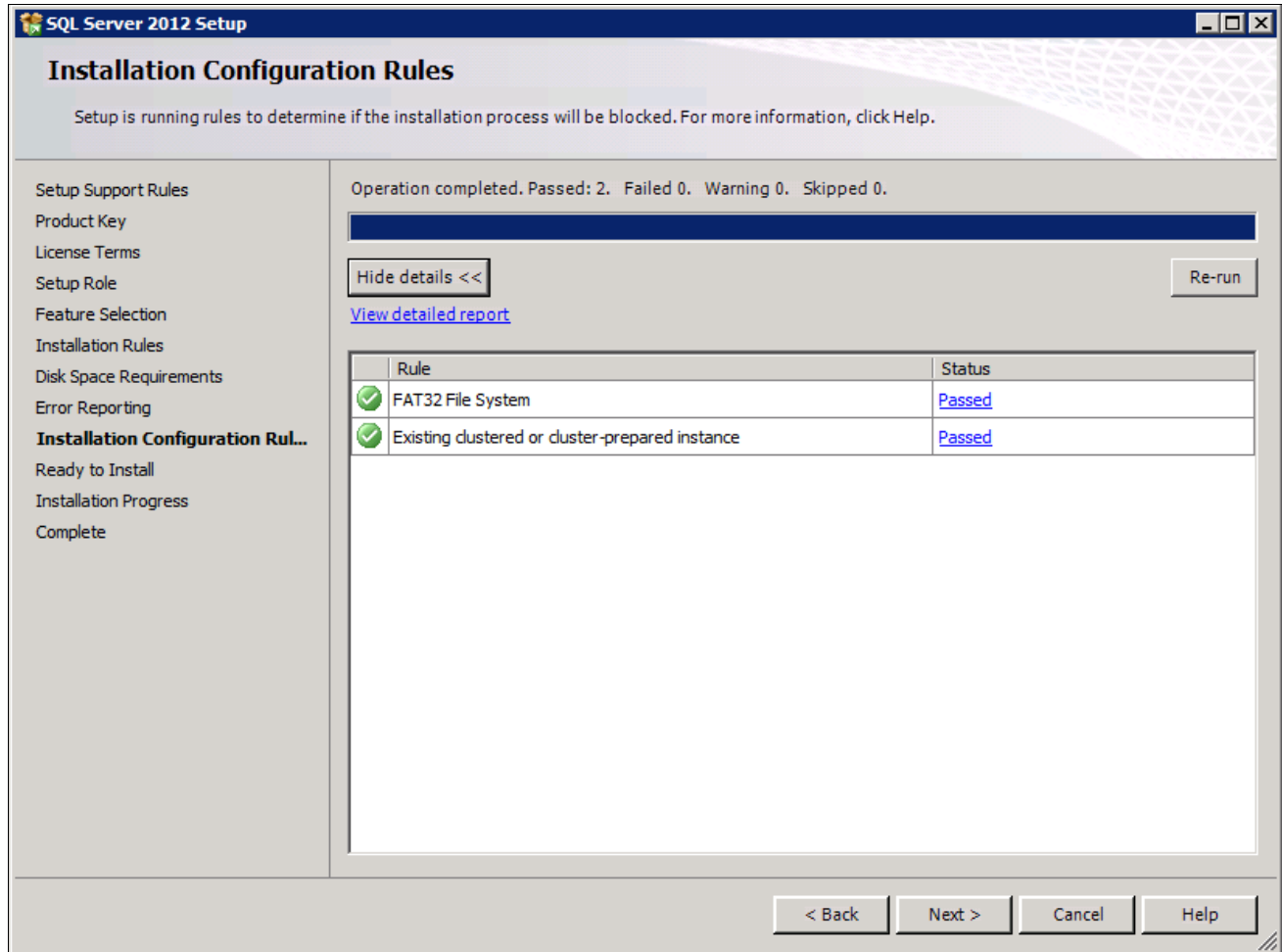


SQL Server 2012 Error Reporting window

22. Click Next.

The Installation Configuration Rules window appears.

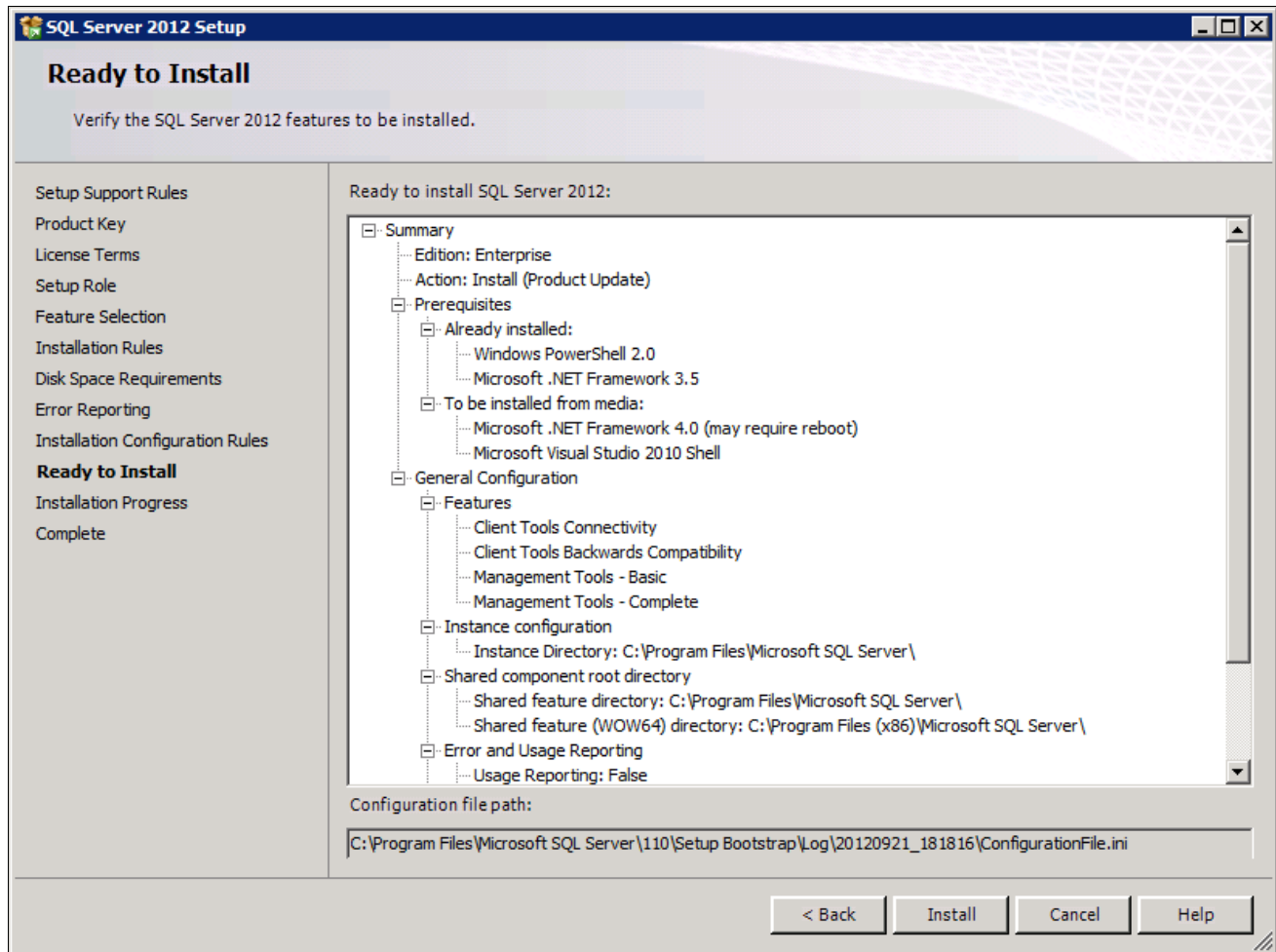
Wait for the operation to be complete. View the detailed report and verify that all of the rules passed successfully, as shown in this example. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



SQL Server 2012 Installation Configuration Rules window showing report detail

23. Click Next.

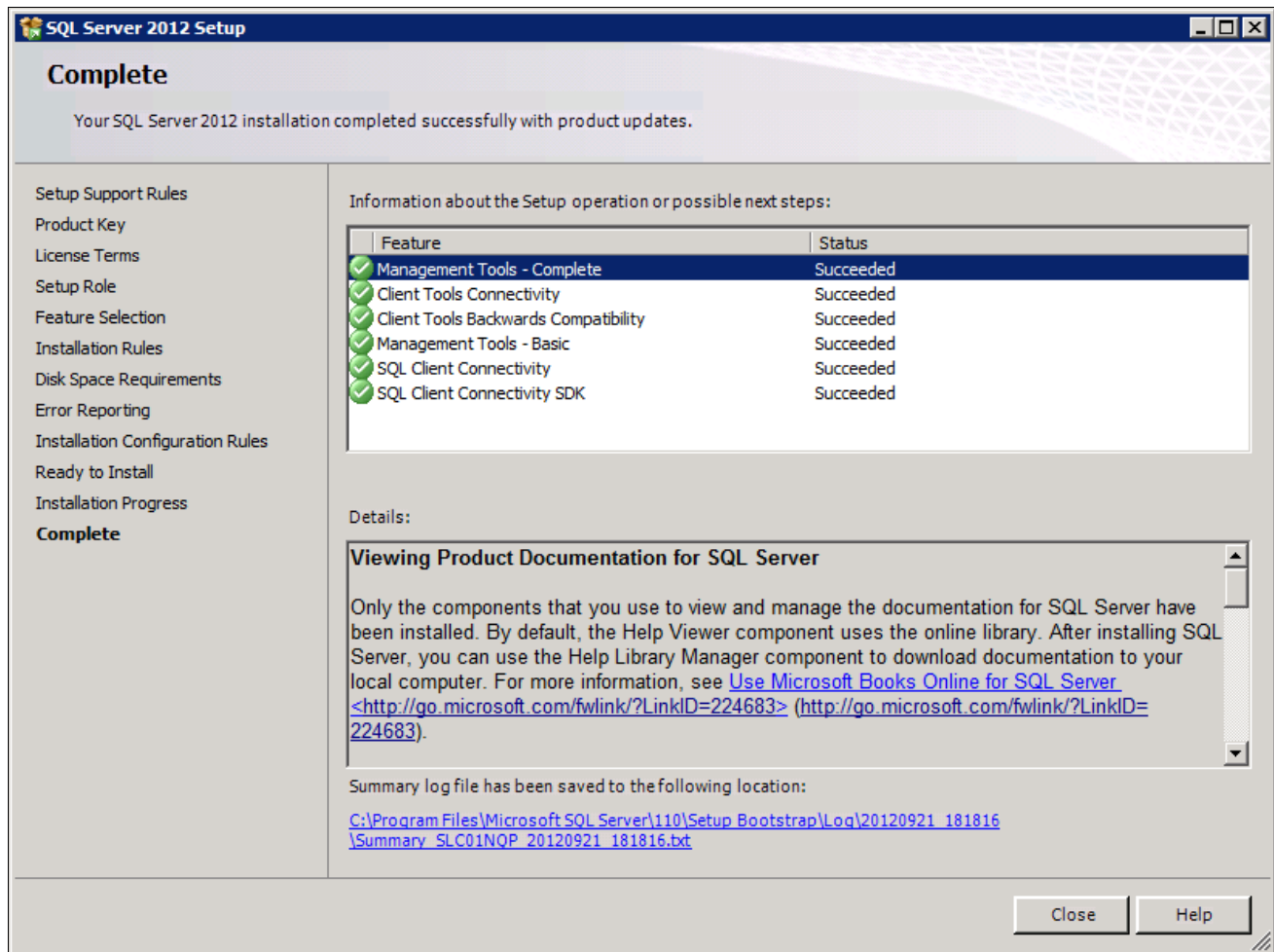
The Ready to Install window appears with a summary of the installation options that you have selected. Review the options, and then click Install to begin.



SQL Server 2012 Ready to Install window with installation options

After the installation is complete, a Complete screen appears which gives the location of the setup log files and other information. The log files are saved in this location, where *<identifier>* refers to a string including a timestamp:

C:\Program Files\Microsoft SQL Server\110\Setup Bootstrap\Log*<identifier>*\Summary*<identifier>*



SQL Server 2012 Setup Complete window

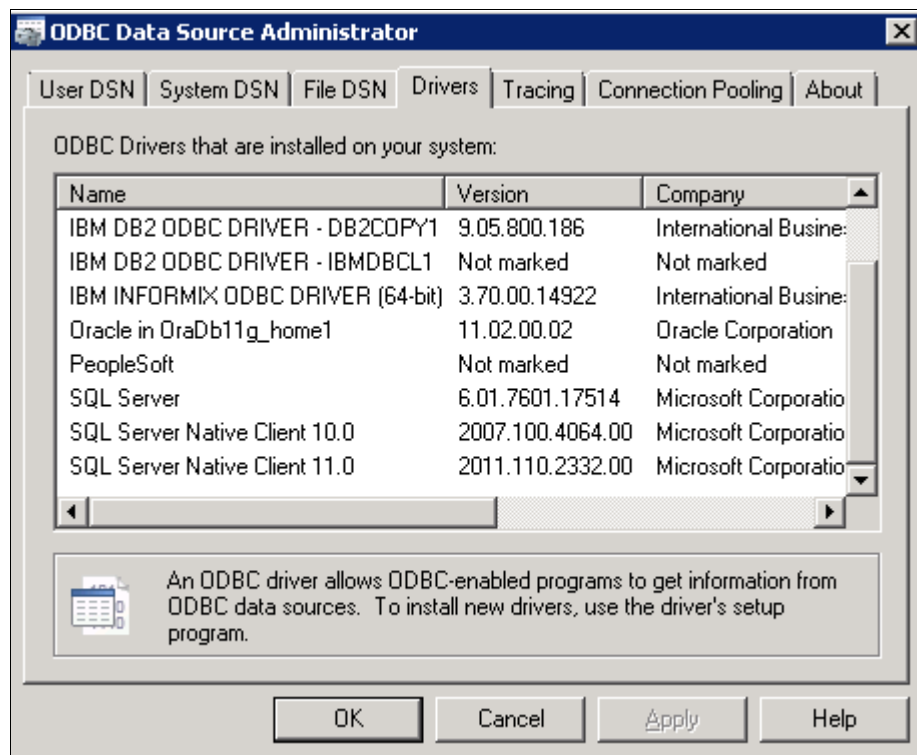
24. Click Close.

The SQL Server 2012 client setup is complete.

Task 1-12: Configuring the Connection to Use SQL Server Native Client for Microsoft SQL Server 2012

When configuring ODBC to connect to your SQL Server 2012 databases make sure you use SQL Server Native Client (SNAC) 11.0 version 2011.110.2332.00. The only certified configuration uses this client to connect to SQL Server 2012.

Select Start, Programs, Administrative Tools, Data Sources (ODBC), and select the Drivers tab to view the ODBC drivers. Confirm that the version of SQL Server Native Client 11.0 is 2011.110.2332.00, which is the last entry in the list in this example:



Drivers page on the ODBC Data Source Administrator

Task 1-13: Configuring an ODBC Data Source for 64-bit Connectivity Drivers

If you are running on a 64-bit machine, confirm that you are using the correct connectivity drivers. Beginning with the PeopleSoft PeopleTools 8.54 release, PeopleSoft PeopleTools client and server executables are 64-bit. To run on a 64-bit operating system you need only the 64-bit connectivity drivers for PeopleSoft PeopleTools.

On the ODBC Data Source Administrator dialog box, on the System DSN page, you need to create an ODBC Data Source for the 64-bit application.

The 64-bit version `odbcad32.exe` is found in `C:\windows\system32`. This is for 64-bit utilities running on a 64-bit operating system. This is the correct version for 64-bit PeopleSoft PeopleTools clients and servers such as the Application Server, Process Scheduler, Application Designer (`pside.exe`) and Data Mover (`psdmt.exe`).

When you run `odbcad32` on a 64-bit Microsoft Windows machine (Start, Programs, Control Panel, Administrative Tools, ODBC Data Administrator), the 64-bit version of `odbcad32.exe` (`C:\windows\system32`) is used by default.

Task 1-14: Increasing the Size of Tempdb

The Oracle-recommended configuration for PeopleSoft software includes increasing the size of tempdb. Microsoft SQL Server creates an 8.5 MB temporary database, tempdb, upon installation. Tempdb is a shared workspace used for temporary tables, sorting, and other temporary work storage needs. By default, in Microsoft SQL Server, tempdb is set to grow automatically. However, PeopleSoft software uses tempdb extensively and Oracle recommends increasing its size by a minimum of 15 percent to 20 percent the estimated final size of your database. Another good practice is to distribute tempdb into several data files of the same size; as a guideline you may want to have one per each processor assigned for SQL Server. If possible spread these datafiles on a high-performance disk array.

Because auto-grow on tempdb may affect the database overall performance it is important to assign the right size to tempdb. Auto-grow should never occur on a properly sized production environment.

Note. Make sure your tempdb resides on a different disk device than your data and your database log.

Task 1-15: Installing Client Connectivity

Install client connectivity on any Windows-based client workstation(s), any Windows batch servers, and any Windows application servers. You can find the client connectivity files on your Microsoft SQL Server CD.

Note. Remember that connectivity is only required for Windows-based client workstations that are being used as the PeopleTools Development Environment. Normal end users will not require database connectivity; they will just need a machine with a supported browser installed.

Note. Microsoft service packs often include updates to client connectivity files. When installing service packs, remember to update any client connecting to the database server, including development workstations, report servers, batch servers, application servers, and any other computer connecting directly to the database. Refer to your Microsoft SQL Server documentation for information on applying service packs.

Task 1-16: 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.

Chapter 2

Installing the PeopleSoft Homes

This chapter discusses:

- Obtaining the PeopleSoft Application Images and PeopleTools DPKs
- Obtaining the PeopleSoft Upgrade Source Images
- Reviewing the DPK Setup Script Options
- Running the DPK Setup Script to Install PS_HOME and PS_APP_HOME
- Running the DPK Setup Script to Install All Software
- Obtaining Operating System Packages Required by Puppet
- Removing a Deployed PeopleSoft Environment

Task 2-1: Obtaining the PeopleSoft Application Images and PeopleTools DPKs

If you have not already done so, this section describes how to locate and obtain the PeopleSoft Application Images and PeopleTools DPKs required for a fresh installation.

The PeopleSoft Application Images and PeopleTools DPKs are available on My Oracle Support. Contact Oracle if you need a user ID and password for My Oracle Support.

1. Go to the PeopleSoft Update Manager Home Page, My Oracle Support, Doc ID 1641843.2, to find the information on locating and downloading the current PeopleSoft Application Image.

Note. On the PeopleSoft Update Manager Home Page, the term PeopleSoft Update Image (PI) is used for the images.

2. Select the tab PeopleSoft Update Image Home Pages, and select the link for your PeopleSoft application.
3. Expand the Update Image Link section, and then select the link for Native OS to find the details for the current PeopleSoft Application Image for Microsoft Windows.
4. In the Update Image Link table on the PeopleSoft Update Image Home Page, download or open the Update Image Manifest, and note the following:
 - The PeopleTools patch release in the Software Version Included column.
 - The file name for Application DPK Zip 1, normally *FILENAME_9of11.zip*.
5. To obtain the PeopleTools DPK, in My Oracle Support, select the Patches & Updates tab.
6. Select Product or Family (Advanced).
7. Specify the following information, and then click Search:
 - PeopleSoft Enterprise PT PeopleTools as the Product
 - The current PeopleSoft PeopleTools 8.5x release, such as 8.56, as the Release

- Your operating system, IBM AIX, Linux, Microsoft Windows, or Oracle Solaris on SPARC, as the Platform
8. On the search results page, locate the PeopleTools patch corresponding to the patch release that you noted in step 4, and download the DPKs into a single directory, referred to in this documentation as *DPK_INSTALL*.

Note. You can also find links to the most recent PeopleTools patches on the PeopleSoft PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2.

9. To obtain the PeopleSoft Application DPK Zip1, return to the PeopleSoft Update Image Home Page, and in the Update Image Links table, select the link in the column *<Product> Update Image Link*.
10. From the patch page, download the zip file for Application DPK Zip 1 to the same *DPK_INSTALL* directory as in step 8.

For PeopleSoft installations on Linux, AIX, or Solaris, download the PeopleSoft Application DPK for Linux. Do not unzip the file at this point. If you download to a Windows computer and FTP to your Linux, AIX, or Solaris computer, FTP in binary mode.

The first Application DPK Zip 1 includes the content needed for the PeopleSoft application, *PS_APP_HOME*. The other Application DPK files are not needed for this installation.

See "Preparing for Installation," Understanding the PeopleSoft Installation to review a list of the contents of the DPKs and file name syntax.

Task 2-2: Obtaining the PeopleSoft Upgrade Source Images

If you have not already done so, this section describes how to locate and obtain the Upgrade Source Images from My Oracle Support. Contact Oracle if you need a user ID and password for My Oracle Support.

1. Go to the upgrade home page for your PeopleSoft application, and select the tab *<Product> Upgrade Source Images*.
2. In the Upgrade Source Image Link and Manifest table, locate the row Native OS for Microsoft Windows.
3. Download or open the software manifest, and note the following:
 - The PeopleTools patch release in the Software Version Included column.
 - The file name for Application DPK Zip 1, normally *FILENAME_9of11.zip*.
4. To obtain the PeopleTools DPK, in My Oracle Support, select the Patches & Updates tab.
5. Select Product or Family (Advanced).
6. Specify the following information, and then click Search:
 - PeopleSoft Enterprise PT PeopleTools as the Product
 - The current PeopleSoft PeopleTools 8.5x release, such as 8.56, as the Release
 - Your operating system, IBM AIX, Linux, Microsoft Windows, or Oracle Solaris on SPARC, as the Platform
7. On the search results page, locate the PeopleTools patch corresponding to the patch release that you noted in step 4, and download the DPKs into a single directory, referred to in this documentation as *DPK_INSTALL*.

Note. You can also find links to the most recent PeopleTools patches on the PeopleSoft PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2.

8. To obtain the PeopleSoft Application DPK, return to the PeopleSoft Upgrade Source Image page, and in the table, select the link in the column Link to Upgrade Source Image.

9. From the patch page, download the zip file for Application DPK Zip 1 to the same *DPK_INSTALL* directory as in step 8.

For PeopleSoft installations on Linux, AIX, or Solaris, download the PeopleSoft Application DPK for Linux. Do not unzip the file at this point. If you download to a Windows computer and FTP to your Linux, AIX, or Solaris computer, FTP in binary mode.

The first Application DPK Zip 1 includes the content needed for the PeopleSoft application, *PS_APP_HOME*. The other Application DPK files are not needed for this installation.

See "Preparing for Installation," Understanding the PeopleSoft Installation Using Deployment Packages to review a list of the contents of the DPKs and file name syntax.

Task 2-3: Reviewing the DPK Setup Script Options

The PeopleSoft PeopleTools DPK setup script alleviates the installation process by automating most of the manual tasks on a virtual or bare-metal host running a supported operating system. By convention, the setup DPK is the first zip file (*FILENAME_1ofn.zip*) in the group of PeopleSoft DPK zip files you download from My Oracle Support.

The DPK setup zip file includes two scripts, a Microsoft Windows script (*psft-dpk-setup.bat*) and a shell script for Linux, AIX, or Solaris, (*psft-dpk-setup.sh*). To set up a PeopleSoft environment, run the script pertinent to the host operating system (OS) platform on which the DPK setup script is invoked. The DPK setup script offers a variety of options for setting up mid-tier components, *PS_HOME* folder, and PeopleSoft domains, depending upon the options you supply. The script is an interactive script that detects the downloaded DPKs and verifies that they are correct. It also prompts the user for input, and once that information is gathered, will set up a complete functional PeopleSoft mid-tier environment connecting to an existing PeopleSoft database.

Note. The DPK setup script does not provide any default passwords. It is a good idea to be prepared to supply passwords such as user ID, PeopleSoft Connect ID, Application Server Domain Connection, and so on.

The following table lists the options available for the DPK setup script, *psft-dpk-setup.bat* for Microsoft Windows and *psft-dpk-setup.sh* for Linux, AIX, or Solaris. The suffix *<ext>* in the table refers to the operating system specific extension.

Note that the command options require two dashes when running on either Microsoft Windows, Linux, AIX, or Solaris.

Note. The commands in the table include line feeds to improve readability.

Deployment	DPK Setup Script Command
Perform the following: <ul style="list-style-type: none"> Install the software required for the mid-tier components, including Oracle Tuxedo, Oracle WebLogic, and Oracle database client. Deploy and set up the domains for the mid-tier components (Application Server, web server, Process Scheduler and Oracle database client). The deployment sets up one each of Application Server, web server, and Process Scheduler domains. <ul style="list-style-type: none"> Install the <i>PS_HOME</i> directory. 	<pre>psft-dpk-setup.<ext> --env_type midtier</pre>

Deployment	DPK Setup Script Command
Perform the following: <ul style="list-style-type: none"> Install the software required for the mid-tier components, including Oracle Tuxedo, Oracle WebLogic and Oracle database client, without setting up the mid-tier domains. Install the <i>PS_HOME</i> directory. 	<pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only</pre> or <pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type all</pre>
Deploy the <i>PS_HOME</i> directory only. This option does not set up any domains. *There is additional information following this table.	<pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type tools_home</pre>
Deploy the <i>PS_APP_HOME</i> directory only. This option does not set up any domains. This option requires the presence of PeopleSoft application DPK zip files, as well as the PeopleTools DPK zip files, in the deployment folder. *There is additional information following this table.	<pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type app_home</pre>
Deploy the <i>PS_HOME</i> and <i>PS_APP_HOME</i> directories only. This option does not set up any domains. This option requires the presence of PeopleSoft application DPK zip files, as well as the PeopleTools DPK zip files, in the deployment folder. *There is additional information following this table.	<pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type app_and_tools_home</pre>
Deploy and set up the domain for the Application Server only.	<pre>psft-dpk-setup.<ext> --env_type midtier --domain_type appserver</pre>
Deploy and set up the domain for the Process Scheduler only.	<pre>psft-dpk-setup.<ext> --env_type midtier --domain_type prcs</pre>
Deploy and set up the domain for PIA only. Note. Before beginning the PIA domain deployment, ensure that Application Server and Process Scheduler domains are available.	<pre>psft-dpk-setup.<ext> --env_type midtier --domain_type pia</pre>
Deploy and set up the domains for the Application Server and the Process Scheduler.	<pre>psft-dpk-setup.<ext> --env_type midtier --domain_type appbatch</pre>

Deployment	DPK Setup Script Command
Deploy and set up the domains for the Application Server, the Process Scheduler, and PIA.	<pre>psft-dpk-setup.<ext> --env_type midtier --domain_type all</pre>
Specify the full path of the downloaded DPKs. The script assumes that the downloaded DPKs are in the parent directory of the DPK setup script. If the DPKs are located in a different directory, use this option.	<pre>psft-dpk-setup.<ext> --env_type midtier --dpk_src_dir <full_DPK_path></pre>
Remove a deployed environment. See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment.	<pre>psft-dpk-setup.<ext> --cleanup</pre>
List the DPK setup script usage.	<pre>psft-dpk-setup.<ext> --help</pre>

* When you use the `--deploy_only` options on Linux, AIX, or Solaris operating systems, the deployment does not set environment variables needed for subsequent tasks. After the deployment is complete, you can set the environment variables using one of these methods:

- Change directory to `BASE_DIR/pt/ps_home8.56.xx` and run `./psconfig.sh`.
- Run the following command:

```
/opt/oracle/puppetlabs/bin/puppet apply --confdir=<BASE_DIR>/dpk/puppet
-e "include ::pt_profile::pt_psft_environment" --debug --trace
--detailed-exitcodes
--logdest <DPK_INSTALL>/pt_psft_environment.log
```

Note. The command text given here includes line feeds for readability.

Include the following decisions in preparing for the installation process:

- FRESH or PUM installation type

For this documentation, select a FRESH, or new installation, which enables you to make selections for RDBMS, Unicode, and multi-language support.

The PUM installation type is used with the PeopleSoft Update Image DPKs to create and set up a PeopleSoft environment to be used as the source for the PeopleSoft Update Manager. If you select the PUM installation type, the DPK setup script installs an Oracle DEMO multi-lingual database without other options.

See the documentation on the PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

Note. If you are using the PeopleSoft Upgrade Source DPKs to set up an environment for the Upgrade Source database, you do not see the prompt for FRESH or PUM installation type.

- Default or manual configuration

After extracting the DPKs, you are given the option to exit the process, create a customization file, and complete the configuration manually using the Puppet apply command with a user-written customization file. Use the manual configuration if you want to change installation locations and so on.

See "Completing the DPK Initialization with Customizations."

The following installation scenarios require manual configuration using the customizations:

- Installing on an AIX operating system

See Reviewing the Software Requirements on AIX

See Preparing the Customization File for JDK on AIX.

- Connecting to a non-Oracle RDBMS platform

See Preparing the Customization File for Mid-Tier Connection to a Microsoft SQL Server Database

- User IDs and password

The DPK setup script does not provide any default passwords. It is a good idea to be prepared to supply passwords such as user ID, PeopleSoft Connect ID, Application Server Domain Connection, and so on.

- Multi-language support

You are given the option to use the DPK setup script to deploy translated files to *PS_APP_HOME* for a multi-language installation.

- Unicode or non-Unicode

While running the DPK setup script, you can choose to install a Unicode or non-Unicode environment.

Alternatively, specify Unicode using the customizations and Puppet apply command.

See "Completing the DPK Initialization with Customizations," Preparing the Customization File for Unicode.

Task 2-4: Running the DPK Setup Script to Install PS_HOME and PS_APP_HOME

This section discusses:

- Understanding the PS_HOME and PS_APP_HOME Installation
- Installing PS_HOME and PS_APP_HOME on Microsoft Windows
- Reviewing the Deployment Results

Understanding the PS_HOME and PS_APP_HOME Installation

Use the DPK setup script to install the PeopleSoft PeopleTools software in *PS_HOME* and the PeopleSoft application software in *PS_APP_HOME*, using the `--deploy_only` `--deploy_type` `app_and_tools_home` option. This deployment requires the presence of PeopleSoft application DPKs in the deployment folder, *DPK_INSTALL*.

Note. You can also use the DPK setup script to deploy the PS_HOME and PS_APP_HOME individually. See Reviewing the DPK Setup Script Options.

This procedure assumes that you have downloaded all of the required PeopleSoft Application Image DPKs for Linux or Microsoft Windows, and saved them in a location referred to here as *DPK_INSTALL*.

Task 2-4-1: Installing PS_HOME and PS_APP_HOME on Microsoft Windows

To use the DPK setup script for deployment only:

1. Extract the first zip file (*FILENAME_1ofn.zip*).

Note. It is a good idea to extract into the same directory where you downloaded the zip files, *DPK_INSTALL*.

The extraction creates the *DPK_INSTALL/setup* folder and other files.

2. Open a command prompt with Run as Administrator.
 3. Change directory to *DPK_INSTALL/setup*.
 4. Run the script with the options for deployment only.
-

Note. If you see an error message similar to "The application has failed to start because its side-by-side configuration is incorrect," it indicates that your machine does not include the necessary Microsoft C++ runtime libraries. Go to the Microsoft Web site, locate the Microsoft Visual C++ redistributable package for your system, and install as directed.

- If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

```
psft-dpk-setup.bat --env_type midtier --deploy_only --deploy_type app_⇒
and_tools_home
```

- If you extracted the first zip file into a different directory, include the option *dpk_src_dir* to specify the location of the downloaded zip files, such as *DPK_INSTALL*, as follows:

```
psft-dpk-setup.bat --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
deploy_only --deploy_type app_and_tools_home
```

5. Wait while the script locates the valid PeopleSoft zip files and extracts them.

The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILED].

The script locates the valid PeopleSoft zip files and extracts them. After it completes the extraction, it deletes the original downloaded zip files.

See "Preparing for Installation," Understanding the PeopleSoft Installation Using Deployment Packages, for the filename syntax of the DPK zip files.

Starting the PeopleSoft Environment Setup Process:

```
Validating User Arguments:                [  OK  ]
Validating PeopleSoft Supported Platform:  [  OK  ]

Extracting the Zip File FILENAME_1of11.zip: [  OK  ]
Extracting the Zip File FILENAME_2of11.zip: [  OK  ]
...
Extracting the Zip File FILENAME_11of11.zip: [  OK  ]
```

6. Specify whether to install the Puppet software if necessary at the next prompt.

The script verifies if Puppet software is installed in the default location specified by the DPKs. If not, answer *y* (yes) to install the Puppet software and *n* to abort the PeopleSoft environment setup process. The default action (if nothing is entered at the prompt) is to install the software.

If there is any error during the Puppet software installation, the script aborts the setup process.

Verifying if Puppet Software is Installed:

Puppet Software is not installed on the Windows Host. If PeopleSoft

environment needs to be setup on this Host, Puppet software should be Installed.

Do you want to proceed with the Puppet Installation? [Y|n]: **y**

Installing Puppet Software on the Windows Host: [OK]

The script verifies whether the eYAML Hiera files are installed.

Verifying if eYAML Hiera Backend is Installed: [OK]

The script verifies if the DPKs are available in *DPK_INSTALL*, and aborts with the message [FAILED] if they are not.

Preparing the Windows 2012 Server VM for PeopleSoft Environment:

Checking if PeopleSoft DPKs are Present: [OK]

7. At the following prompt, enter a location that is accessible to the host to be used as the PeopleSoft base directory, referred to here as *BASE_DIR*.

The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script creates the base directory if it does not exist.

Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name that begins with a number.

The base folder is used to extract the PeopleSoft DPKs. It is also used to deploy the PeopleSoft components. This folder should be accessible on the Windows VM, must have write permissions and should have enough free space

Enter the PeopleSoft Base Folder: **C:/psft**

Are you happy with your answer? [Y|n|q]:

The script validates if there is enough free space available under the specified base directory for the PeopleSoft environment. The PeopleSoft environment setup is aborted if there is not enough free space.

Note. A mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

Checking if the Base Folder has Enough Free Space: [OK]

8. Review the status messages as the script validates the files found in the download directory, *DPK_INSTALL*.

The script carries out validations for the specified mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

Validating the PeopleSoft DPKs in the Windows VM:

Validating the PeopleSoft Application DPK: [OK]

Validating the PeopleSoft PeopleTools Server DPK: [OK]

Validating the PeopleSoft PeopleTools Client DPK: [OK]

Validating the Manifest Information in Peoplesoft DPKs: [OK]

9. Review the status messages as the script extracts the archives from the DPKs.

Note. The PeopleSoft application name will vary.

Extracting the PeopleSoft DPK Archives in the Windows VM:

```
Extracting the PeopleSoft <Product> Application DPK Archives:  [ OK ]
Extracting the PeopleSoft PeopleTools Server DPK Archives:    [ OK ]
```

10. Review the status messages as the script sets up the Puppet file system.

The script sets up Puppet on the host. It then copies the PeopleSoft Puppet modules to the standard location (*BASE_DIR*\dpk) and updates the YAML files to reflect the type of PeopleSoft environment setup.

```
Setting up Puppet on the Windows VM:
Generating eYAML Hiera Backend Encryption Keys:          [ OK ]
Updating the Puppet Hiera YAML Files in the Windows VM:  [ OK ]
Updating the Role in Puppet Site File for the Windows VM: [ OK ]
```

11. Enter FRESH as the installation type.

Note. If you are using the PeopleSoft Upgrade Source Image to set up an environment for the Upgrade Source database, you do not see this prompt.

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: FRESH
```

12. Specify the information for your database platform.

- a. For the database platform, enter MSSQL for Microsoft SQL Server.

```
Enter the PeopleSoft database platform [ORACLE]: MSSQL
```

- b. Enter y (yes) to indicate that the database you are connecting to is a Unicode database, or n (no) for a non-Unicode database.

```
Is the PeopleSoft database unicode? [Y|n]: y
```

13. Enter y if you want the script to include multi-language files in the installation.

```
Do you want Multi Language support in PeopleSoft database? [y|N]: y
```

14. Enter y to continue with the script.

```
Are you happy with your answers? [y|n]: y
Encrypting the Passwords in the User Data:          [ OK ]
Updating the Puppet Hiera YAML Files with User Data: [ OK ]
```

15. If you want to continue running the initialization script using the default configuration, answer y (yes) to the following prompt, and continue with the next step.

The components that are installed during a default initialization are described in the section *Reviewing the Installation Results*. The process for completing the initialization with customizations is described in the chapter "Completing the DPK Initialization with Customizations."

If you want to customize the PeopleSoft environment using the Puppet YAML files, answer n (no) to stop the script.

The bootstrap script is ready to deploy and configure the PeopleSoft environment using the default configuration defined in the Puppet Hiera YAML files. You can proceed by answering 'y' at the following prompt. And, if you want to customize the environment by overriding the default configuration, you can answer 'n'. If you answer 'n', you should follow the instructions in the PeopleSoft Installation Guide for creating the customization Hiera YAML file and running the Puppet 'apply' command directly to continue with the setup of the PeopleSoft environment

Do you want to continue with the default initialization process? [y|n]:

16. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

A message of [OK] indicates that the profile has been applied successfully while a message [FAILED] indicates that the profile application failed.

The script stops and exits the first time a profile application fails, and displays an error message. This example shows the error message after the first step failed:

Starting the Deployment of PeopleSoft Components:

Deploying Application Components: [FAILED]

The initialization of PeopleSoft environment setup failed. Check the log file [C:\DPK_INSTALL\setup\psft_dpk_setup.log] for the errors. After correcting the errors, run the following commands to continue with the setup of PeopleSoft environment.

1. cd /d C:\psft\dpk\puppet\production\manifests
2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>C:\psft\dpk\puppet site.pp --debug --trace

Exiting the PeopleSoft environment setup process.

Upon successful completion, the DPK setup script displays the following message:

Starting the Deployment of PeopleSoft Components:

Deploying Application Components: [OK]
Deploying PeopleTools Components: [OK]

The PeopleSoft Environment Setup Process Ended.

The complete setup log is written to the file psft_dpk_setup.log in the same location as the DPK setup script.

See Obtaining Operating System Packages Required by Puppet if you see messages about missing packages in the log.

Task 2-4-2: Reviewing the Deployment Results

This section describes some of the files and folders installed by the script. These are the standard default locations. If you want to change the installation locations, see "Completing the DPK Initialization with Customizations."

The script creates the following three sub-directories under the user-specified base directory, *BASE_DIR*:

- *BASE_DIR*/pt

The script uses this directory to deploy the *PS_HOME* and *PS_APP_HOME* utilities and scripts, including the following:

- *PS_HOME* installed to the default location under the DPK base directory, *BASE_DIR*/pt/ps_home8.56.xx.
- *PS_HOME*/appserv/PSADMIN.exe
- *PS_HOME*/bin/client/winx86/pscfg.exe (Configuration Manager)
- *PS_HOME*/bin/client/winx86/psdmt.exe (Data Mover)
- *PS_HOME*/bin/client/winx86/pside.exe (Application Designer)

- *PS_HOME/scripts*
- *PS_HOME/setup/PsMpPIAInstall* (PeopleSoft Pure Internet Architecture installer)
- *PS_HOME/setup/PsMpDbInstall* (Database installer)
- *PS_HOME/setup/PsCA* (Change Assistant installer)
- *PS_HOME/setup/PsCIA* (Change Impact Analyzer installer)
- *PS_HOME/setup/PsMpWebAppDeployInstall* (Web Application Deployment installer)
- *PS_APP_HOME* installed to the default location under the DPK base directory, *BASE_DIR/pt/<Product>_app_home*, where *<Product>* is the abbreviation for the PeopleSoft application; for example, *hcm_app_home* for PeopleSoft Human Capital Management.

Note. The DPK setup requires a decoupled *PS_APP_HOME*; that is, the installation location of *PS_APP_HOME* is different from *PS_HOME*.

Files for the specific PeopleSoft application, including files needed for database creation.

If you answered yes when asked whether you wanted multi-language support during the DPK setup script process, the files required for translations are installed under *BASE_DIR/pt/<Product>_app_home*.

- *BASE_DIR/dpk*

The script uses this directory to extract the archives from the PeopleSoft DPKs, and contains the Puppet YAML files for the deployment. Do not alter the installed Puppet YAML files.

See *Completing the DPK Initialization with Customizations* for information on creating a YAML file to customize the environment.

- *BASE_DIR/db*

This directory is not used for this deployment.

- Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

Task 2-5: Running the DPK Setup Script to Install All Software

This section discusses:

- Understanding the DPK Setup Deploying All Software
- Installing on Microsoft Windows
- Reviewing the Installed Software

Understanding the DPK Setup Deploying All Software

Use these instructions to install all software required to continue with the PeopleSoft installation. This deployment uses the DPK setup script `--env_type midtier --deploy_only --deploy_type all` options to install the PeopleSoft PeopleTools software in *PS_HOME*, the PeopleSoft application software in *PS_APP_HOME*, and the software required for the mid-tier components. This deployment does not set up the PeopleSoft domains; you will do that in a later chapter. If you plan to use the Database Configuration Wizard to create your PeopleSoft database on Linux, AIX, or Solaris platforms, Oracle Tuxedo is a prerequisite. Using the DPK setup script options in this section installs Oracle Tuxedo along with other software.

This procedure assumes that you have downloaded all of the required DPKs, and saved them in a location referred to here as *DPK_INSTALL*. This deployment requires the presence of the PeopleSoft application DPK (Application DPK, Part 1) in the deployment folder, *DPK_INSTALL*.

Task 2-5-1: Installing on Microsoft Windows

To use the DPK setup script to deploy the software required to set up a PeopleSoft environment:

1. Extract the first zip file (*FILENAME_1ofn.zip*).

Note. It is a good idea to extract into the same directory where you downloaded the zip files, *DPK_INSTALL*.

The extraction creates the *DPK_INSTALL/setup* folder and other files.

2. Open a command prompt with Run as Administrator.
3. Change directory to *DPK_INSTALL/setup*.
4. Run the script with the option for deployment only.

Note. If you see an error message similar to "The application has failed to start because its side-by-side configuration is incorrect," it indicates that your machine does not include the necessary Microsoft C++ runtime libraries. Go to the Microsoft Web site, locate the Microsoft Visual C++ redistributable package for your system, and install as directed.

- If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

```
psft-dpk-setup.bat --env_type midtier --deploy_only --deploy_type all
```
- If you extracted the first zip file into a different directory, include the option *dpk_src_dir* to specify the location of the downloaded zip files, such as *DPK_INSTALL*, as follows:

```
psft-dpk-setup.bat --dpk_src_dir DPK_INSTALL --env_type midtier -->
deploy_only --deploy_type all
```

5. Wait while the script locates the valid DPK zip files and extracts them.

The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILED].

After the script completes the extraction, it deletes the original downloaded zip files.

See "Preparing for Installation," Understanding the PeopleSoft Installation Using Deployment Packages, for the filename syntax of the DPKs zip files.

Starting the PeopleSoft Environment Setup Process:

```
Validating User Arguments:                [ OK ]
Validating PeopleSoft Supported Platform:  [ OK ]

Extracting the Zip File FILENAME_1of11.zip: [ OK ]
Extracting the Zip File FILENAME_2of11.zip: [ OK ]
...
Extracting the Zip File FILENAME_11of11.zip: [ OK ]
```

6. Specify whether to install the Puppet software if necessary at the next prompt.

The script verifies if Puppet software is installed in the default location specified by the DPKs. If not, answer *y* (yes) to install the Puppet software and *n* to abort the PeopleSoft environment setup process. The default

action (if nothing is entered at the prompt) is to install the software.

If there is any error during the Puppet software installation, the script aborts the setup process.

Verifying if Puppet Software is Installed:

Puppet Software is not installed on the Windows Host. If PeopleSoft environment needs to be setup on this Host, Puppet software should be Installed..

Do you want to proceed with the Puppet Installation? [Y|n]: **y**

Installing Puppet Software on the Windows Host: [OK]

The script verifies whether the eYAML Hiera files are installed.

Verifying if eYAML Hiera Backend is Installed: [OK]

The script verifies if the DPKs are available in the download directory, *DPK_INSTALL*, and aborts with the message [FAILED] if they are not.

Preparing the Windows 2012 Server VM for PeopleSoft Environment:

Checking if PeopleSoft DPKs are Present: [OK]

7. At the following prompt, enter a location that is accessible to the host to be used as the PeopleSoft base folder.

The base folder is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. The script creates the folder if it does not exist.

Use forward slashes (/) to specify the base folder location; for example, C:/psft. Do not use a name for the base folder that begins with a number.

The base folder is used to extract the PeopleSoft DPKs. It is also used to deploy the PeopleSoft components. This folder should be accessible on the Windows VM, must have write permissions and should have enough free space

Enter the PeopleSoft Base Folder: **C:/psft**

Are you happy with your answer? [Y|n|q]:

The script validates if there is enough free space available under the specified base folder for the PeopleSoft environment. The PeopleSoft environment setup is aborted if there is not enough free space.

Note. A mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

Checking if the Base Folder has Enough Free Space: [OK]

8. Review the status messages as the script validates the files found in the download location, *DPK_INSTALL*.

The script carries out validations for the mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

Validating the PeopleSoft DPKs in the Windows VM:

Validating the PeopleSoft <Product> Application DPK: [OK]

Validating the PeopleSoft PeopleTools Server DPK: [OK]

Validating the PeopleSoft PeopleTools Client DPK: [OK]

Validating the Manifest Information in Peoplesoft DPKs: [OK]

9. Review the status messages as the script extracts the archives from the DPKs.

```
Extracting the Peoplesoft DPK Archives in Windows VM:
Extracting the PeopleSoft <Product> Application DPK Archive:  [ OK ]
Extracting the PeopleSoft PeopleTools Server DPK Archives:    [ OK ]
```

10. Review the status messages as the script sets up the Puppet file system.

The script sets up Puppet on the host. It then copies the PeopleSoft Puppet modules to the standard location (*BASE_DIR\dpk*) and updates the YAML files to reflect the type of PeopleSoft environment setup.

```
Setting up Puppet on the Windows VM:
Generating eYAML Hiera Backend Encryption Keys:          [ OK ]
Updating the Puppet Hiera YAML Files in the Windows VM:  [ OK ]
Updating the Role in Puppet Site File for the Windows VM: [ OK ]
```

11. Specify whether this is a fresh (new) installation or an installation for PeopleSoft Update Manager (PUM):

Note. If you are using the PeopleSoft Upgrade Source Image to set up an environment for the Upgrade Source database, you do not see this prompt.

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: FRESH
```

12. Specify the information for your database platform.

- a. For the database platform, enter MSSQL for Microsoft SQL Server.

```
Enter the PeopleSoft database platform [ORACLE]: MSSQL
```

- b. Enter y (yes) to indicate that the database you are connecting to is a Unicode database, or n (no) if it is a non-Unicode database.

```
Is the PeopleSoft database unicode? [Y|n]: y
```

13. Enter y if you want the DPK setup script to install files required for a multi-lingual installation.

```
Do you want Multi Language support in PeopleSoft database? [y|N]: n
```

14. Enter y to continue with the script.

```
Are you happy with your answers? [y|n]: y
Encrypting the Passwords in the User Data:          [ OK ]
Updating the Puppet Hiera YAML Files with User Data: [ OK ]
```

15. If you want to continue running the initialization script with the default configuration, answer y (yes) to the following prompt, and continue with the next step.

If you want to customize the PeopleSoft environment using the Puppet YAML files, answer n (no) to stop the script.

The bootstrap script is ready to deploy and configure the PeopleSoft environment using the default configuration defined in the Puppet Hiera YAML files. You can proceed by answering 'y' at the following prompt. And, if you want to customize the environment by overriding the default configuration, you can answer 'n'. If you answer 'n', you should follow the instructions in the PeopleSoft Installation Guide for creating the customization Hiera YAML file and running the Puppet 'apply' command directly to continue with the setup of the PeopleSoft environment

```
Do you want to continue with the default initialization process? [y|n]:
```


16. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

A message of [OK] indicates that the profile has been applied successfully while a message [FAILED] indicates that the profile application failed.

The script stops and exits the first time a profile application fails, and displays an error message. This example shows the error message after the first step failed:

Starting the Deployment of PeopleSoft Components:

Setting Up System Settings: [FAILED]

The initialization of PeopleSoft environment setup failed. Check the log file [C:\DPK_INSTALL\setup\psft_dpk_setup.log] for the errors. After correcting the errors, run the following commands to continue with the setup of PeopleSoft environment.

```
1. cd /d C:\psft\dpk\puppet\production\manifests
2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>
C:\psft\dpk\puppet site.pp --debug --trace
```

Exiting the PeopleSoft environment setup process.

See "Completing the DPK Initialization with Customizations."

Upon successful completion, the DPK setup script displays the following message:

Starting the Deployment of PeopleSoft Components:

```
Setting Up System Settings: [ OK ]
Deploying Application Components: [ OK ]
Deploying PeopleTools Components: [ OK ]
```

The PeopleSoft Environment Setup Process Ended.

The complete setup log is written to the file psft_dpk_setup.log in the same location as the DPK setup script.

Task 2-5-2: Reviewing the Installed Software

This section describes some of the files and folders installed by the script. These are the standard default locations. If you want to change the installation locations, see "Completing the DPK Initialization with Customizations."

The script creates the following three sub-directories under the user-specified base directory, *BASE_DIR*:

- *BASE_DIR*/pt

The script uses this directory to deploy the *PS_HOME* and *PS_APP_HOME* utilities and scripts, including the following:

- *PS_HOME* installed to the default location under the DPK base directory, *BASE_DIR*/pt/ps_home8.56.xx.
- *PS_HOME*/appserv/PSADMIN.exe
- *PS_HOME*/bin/client/winx86/pscfcg.exe (Configuration Manager)
- *PS_HOME*/bin/client/winx86/psdmt.exe (Data Mover)
- *PS_HOME*/bin/client/winx86/pside.exe (Application Designer)
- *PS_HOME*/scripts

- *PS_HOME/setup/PsMpPIAInstall* (PeopleSoft Pure Internet Architecture installer)
- *PS_HOME/setup/PsMpDbInstall* (Database installer)
- *PS_HOME/setup/PsCA* (Change Assistant installer)
- *PS_HOME/setup/PsCIA* (Change Impact Analyzer installer)
- *PS_HOME/setup/PsMpWebAppDeployInstall* (Web Application Deployment installer)
- *PS_APP_HOME* installed to the default location under the DPK base directory, *BASE_DIR/pt/<Product>_app_home*, where *<Product>* is the abbreviation for the PeopleSoft application; for example, *hcm_app_home* for PeopleSoft Human Capital Management.

Note. The DPK setup requires a decoupled *PS_APP_HOME*; that is, the installation location of *PS_APP_HOME* is different from *PS_HOME*.

Files for the specific PeopleSoft application, including files needed for database creation.

If you answered yes when asked whether you wanted multi-language support during the DPK setup script process, the files required for translations are installed under *BASE_DIR/pt/<Product>_app_home*.

- Oracle Tuxedo software in the standard location, *<BASE_DIR>/pt/bea/tuxedo*
- Oracle Tuxedo services on Microsoft Windows:
ORACLE ProcMGR VS12.2.2.0.0_VS2015 and Tlisten VS12.2.2.0.0_VS2015
- Oracle WebLogic software in the standard location, *BASE_DIR/pt/bea/wlserver*
- Oracle database client software in the standard location, *BASE_DIR/pt/oracle-client*
- Java software in the standard location, *BASE_DIR/pt/jdk_1.8.0_xx*.

- *BASE_DIR/dpk*

The script uses this directory to extract the archives from the PeopleSoft DPKs, and contains the Puppet YAML files for the deployment. Do not alter the installed Puppet YAML files.

See *Completing the DPK Initialization with Customizations* for information on creating a YAML file to customize the environment.

- *BASE_DIR/db*

This directory is not used for this deployment.

- Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

Task 2-6: Obtaining Operating System Packages Required by Puppet

The Puppet software used for the DPK deployment is dependent on certain OS-level packages, which may not be present in the delivered DPKs. In this case, you can use the information in the log file that is generated when you run the DPK setup script to determine which packages are needed. It is the responsibility of the user to obtain and install the required packages.

This is a one-time requirement, for a specific Puppet version, the first time the host is set up. If you are using a virtual machine (VM), depending upon your organization's standards, you can add the missing packages to the standard OS from which you instantiate VMs, or create a custom OS image and re-use it later.

1. If you are using a virtual OS platform, create a new VM instance.
2. Use the DPK setup script, *psft-dpk-setup.bat* (Microsoft Windows), or *psft-dpk-setup.sh*

(Linux, AIX, or Solaris) to deploy on the host.

3. Review the deployment log file in *DPK_INSTALL\setup*.

The log file will list any missing OS packages.

4. Remove the PeopleSoft environment created by the DPK deployment, using `psft-dpk-setup.bat --cleanup` (Microsoft Windows) or `psft-dpk-setup.sh --cleanup` (Linux, AIX, or Solaris).
 5. If you are using a virtual OS platform, recreate the VM instance.
 6. Obtain and load the missing OS packages on the new OS instance.
 7. Rerun the DPK setup script.
- The log file should not list any missing packages.

Task 2-7: Removing a Deployed PeopleSoft Environment

This section discusses:

- Understanding the Removal Process
- Using the DPK Setup Script to Remove the PeopleSoft Environment on Microsoft Windows
- Using Puppet to Remove the PeopleSoft Environment on Microsoft Windows
- Troubleshooting the Removal Process on Microsoft Windows

Understanding the Removal Process

There will be times when an existing PeopleSoft environment needs to be completely removed. For example, applying a new PeopleSoft PeopleTools patch requires that an existing environment be cleaned up and a new one created. The cleanup process described here conducts an orderly shutdown and removal of all the configured runtime domains — Application Server, Process Scheduler, and PIA domains. Additionally, it will remove all the deployed components. The PeopleSoft environment can be cleaned up either using the PeopleSoft DPK setup script or using a Puppet `apply` command. You can use the PeopleSoft DPK setup script cleanup for environments created with the default initialization or with the `psft_customizations.yaml` file.

Note. The Puppet software that is installed by the DPK setup script is not removed by the cleanup process.

Task 2-7-1: Using the DPK Setup Script to Remove the PeopleSoft Environment on Microsoft Windows

Use these steps to remove a deployed PeopleSoft environment using the PeopleSoft DPK setup script on Microsoft Windows:

1. Open a command prompt window; for example:
 - Select Start, and navigate to Accessories, Command Prompt.
 - Right-click and select Run as Administrator.
2. Go to *DPK_INSTALL\setup* and run the following command:


```
psft-dpk-setup.bat --cleanup
```
3. Specify the base directory (*BASE_DIR*) that you want to remove.

Enter the PeopleSoft Base Folder specified during setup:

You see this prompt only when there is more than one deployment, and you are removing the most recent deployment. If there is a single deployment, or if you are removing a second deployment, the script does not display this prompt. For example:

- You carried out deployment A followed by deployment B.
- You removed the second deployment B. For the cleanup of deployment B, you do not see this prompt for the *BASE_DIR*.
- You run the script a second time. At the prompt, specify the *BASE_DIR* for deployment A.

4. Review the cleanup log file in *DPK_INSTALL\setup*.

The DPK setup script displays [OK] for each step of the process, and [FAILED] if any of the steps are not successful. After completing these steps, verify that the DPK installation directories (*BASE_DIR/pt* and *BASE_DIR/db*) have been cleared. On Microsoft Windows, verify that any services have been removed. If anything remains, the cleanup process was not successful. Try running the process again, and if it is still not successful, you may need to carry out advanced cleanup.

See Troubleshooting the Removal Process on Microsoft Windows.

Task 2-7-2: Using Puppet to Remove the PeopleSoft Environment on Microsoft Windows

Use the `puppet apply` command to remove the PeopleSoft environment manually. When you run the `puppet apply --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace` command, the debug and trace messages appear in the command prompt. If you want to save them as a file, see the Puppet Labs documentation for the correct options.

See Puppet Labs Documentation, <http://docs.puppetlabs.com>.

To remove the environment manually on Microsoft Windows:

1. Open the file *BASE_DIR/dpk/puppet/production/data/defaults.yaml* in a text editor, such as Notepad.

See "Using the Puppet Hiera YAML Files for Customization."

2. Change the value of the `ensure` attribute from `present` to `absent`.

3. Open a command prompt.

4. If the Puppet environment is not set, run the following command (optional):

```
C:\>"Program Files\Puppet Labs\Puppet\bin\puppet_shell.bat"
```

5. Change directory to the *BASE_DIR/dpk/puppet/production/manifests* folder.

6. Run the following command:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>
BASE_DIR/dpk/puppet site.pp --debug --trace
```

Note. The options require double dashes.

To redirect the output to a file, use the `logdest` option:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>
BASE_DIR/dpk/puppet site.pp --debug --trace --logdest "BASE_DIR/dpk=>
/dpk.log"
```

Task 2-7-3: Troubleshooting the Removal Process on Microsoft Windows

This section includes advanced steps to be used only if the previous procedures in this section failed. If the cleanup process on Microsoft Windows was not totally successful, the *BASE_DIR* folders may not be entirely cleared, or you may have trouble when carrying out another deployment. Before carrying out the advanced steps in this section:

1. Run the command `psft-dpk-setup.bat --cleanup`.
2. If the script displays a FAILED message, run it again.
3. If it succeeds, check the *BASE_DIR* folders to be sure everything has been deleted.
4. If the *BASE_DIR* folders are not clear, or if a subsequent deployment is not successful, carry out the steps below.

For the advanced manual cleanup on Microsoft Windows, there are several steps. The steps in this section should be performed by someone familiar with modifying the Microsoft Windows registry. Depending upon where the cleanup process failed, some of the items mentioned in these steps may have already been removed. The user should remove whatever remains in this order:

1. Start Services.
2. Stop the services OracleServiceCDB<*Product*> (for example, OracleServiceCDBFSCM) and OracleOraDB12cHomeTNSListener<*Listener_Name*> (for example, OracleOraDB12cHomeTNSListenerpsft_listener) by highlighting the names, right-clicking and selecting Stop.

Note. When you stop the service for the CDB (Oracle container database), you may see a message informing you that it will also stop the services for the PeopleSoft application server and Process Scheduler domains that were deployed for that database.

3. Stop the service for the PeopleSoft PIA domain.
4. Open a command prompt, running as administrator, and remove the two database services and the PeopleSoft domains services with the commands:

```
sc delete OracleServiceCDB<Product>
sc delete OracleOraDB12cHomeTNSListener<Listener_Name>
sc delete PsftAppServerDomain<Appserver_domain_name>Service
sc delete PsftPrsDomain<ProcSched_domain_name>Service
sc delete PsftPIADomain<PIA_domain_name>Service
```

5. In the Services window, stop ORACLE ProcMGR V12.2.2.0.0_VS2015 and TListen 12.2.2.0.0_VS2015(Port3050) by highlighting the names, right-clicking and selecting Stop.
6. In the Services window, right-click each of the services in step 5, select Properties, and copy the correct service name (rather than the alias).
7. Open a command prompt and remove the two preceding services with the command:


```
sc delete <service_name>
```
8. Open the Microsoft Windows registry; for example, select Start, Run, and enter regedit.
9. In the Registry Editor, locate the HKLM\SOFTWARE\ORACLE folder.

Select the following keys and verify that they contain references to the DPK installation locations in *BASE_DIR*:

- KEY_OraDB12cHome (*BASE_DIR*\db by default)

- KEY_OraTux1222Home (*BASE_DIR*\pt\bea\tuxedo by default)
- KEY_OraWL1213Home (*BASE_DIR*\pt\bea by default)

10. In the Registry Editor, locate the HKLM\SOFTWARE\ORACLE\TUXEDO folder.

Select the 12.2.2.0.0_VS2015 key and verify that it contains references to the DPK installation locations in *BASE_DIR* (*BASE_DIR*\pt\bea\tuxedo by default).

11. In the Registry Editor, only for the keys from step 9 and 10 that reference the DPK installation locations, right-click and select Delete.

12. Close the Registry Editor window.

13. Open the file C:\Program Files\Oracle\Inventory\ContentsXML\inventory.xml in a text editor.

14. Locate the three lines that reference the DPK deployment:

```
<HOME NAME="OraWL1213Home" LOC="C:/psft/pt/bea" TYPE="O" IDX="16"/>
<HOME NAME="OraTux1222Home" LOC="C:\psft\pt\bea\tuxedo" TYPE="O" IDX=>
"17"/>
<HOME NAME="OraDB12cHome" LOC="C:\psft\db\oracle-server\12.1.0.2" TYPE=>
"O" IDX="18"/>
```

15. Delete only the lines referencing the DPK deployment, and save the file.

16. Remove everything under the *BASE_DIR* folder (*BASE_DIR*\db, *BASE_DIR*\dpk, and *BASE_DIR*\pt).

Note. You may get a message that some of the file names are too big for the recycle bin. Click OK to accept.

17. Remove C:/User/<username>/psft/pt/8.56 (PS_CFG_HOME).

Chapter 3

Completing the DPK Initialization with Customizations

This chapter discusses:

- Understanding PeopleSoft Environment Customizations
- Preparing the Customization File for PeopleSoft Domain Definitions
- Preparing the Customization File to Create PeopleSoft Domains Without Configuration
- Preparing the Customization File for Component Software Locations
- Preparing the Customization File for Unicode
- Preparing the Customization File for the PeopleSoft Homes
- Preparing the Customization File for Jolt SSL and WSL SSL Ports
- Preparing the Customization File for Mid-Tier Connection to a Microsoft SQL Server Database
- Completing the Customized Deployment

Understanding PeopleSoft Environment Customizations

The PeopleSoft DPK setup script allows setup of a PeopleSoft environment quickly using the default data from the packaged Hiera YAML files. This section gives a few examples of ways to use the YAML files for customization, but is not meant to be an exhaustive list of the possible customizations.

Always use the documented procedures to make changes to your environment. Doing so will allow you to retain your customizations when removing a deployment before deploying a new patch or version.

Use these guidelines when customizing your environment:

- Do not change any of the original delivered YAML files.

This practice enables you to retain your customizations after deploying a new patch or update.

When you deploy the PeopleSoft DPKs, the YAML files associated with the deployment are installed in the following location:

- *BASE_DIR*/dpk/puppet/production/data/defaults.yaml
- *BASE_DIR*/dpk/puppet/production/data/psft_configuration.yaml
- *BASE_DIR*/dpk/puppet/production/data/psft_deployment.yaml
- *BASE_DIR*/dpk/puppet/production/data/psft_unix_system.yaml
- Start with the DPK setup script and choose not to continue with the default initialization.

Answer *no* at the prompt "Do you want to continue with the default initialization process? [y|n]:" to exit the script and bypass the default initialization process.

To set up a customized PeopleSoft environment, the DPK setup script can still be used to automate the tasks

of extracting the DPK zip files, installing Puppet (if not installed), and copying the Puppet modules and Hiera data YAML files from the DPK into the location where Puppet looks for these files during the orchestration process.

- Always use the customizations for these setups:
 - Installing on an AIX operating system
 - Connecting to a non-Oracle RDBMS platform.
- Always create a `psft_customizations.yaml` file to use for modified parameters.

Never modify the delivered YAML files. Instead, copying the parameters that you want to modify into the `psft_customizations.yaml` file gives you the option to save the customization.

- Verify the content of the delivered YAML files with each release.

The YAML files may have changed since this document was published. It is important that you copy the appropriate section of code from the YAML files you install with each new deployment, and use it as the basis for your `psft_customizations.yaml` file.

- Do not create new parameters for `psft_customizations.yaml`.

The deployment recognizes only those parameters in the delivered YAML files or given in the product documentation.

- Use a single `psft_customizations.yaml` file.

You can copy sections from more than one of the delivered YAML files and include them in a single `psft_customizations.yaml` file.

- Include the `remove: false` attribute to retain your customizations through the clean up process.

To ensure that your customizations are not removed when removing a deployed environment:

- For each segment of customization parameters in the `psft_customizations.yaml` file, include the `remove: false` attribute at the end of the segment.
- If you remove the environment using the `puppet apply` command, set the `ensure` attribute to *absent* in `default.yaml`.

If you remove the environment using the `--cleanup` option for the PeopleSoft DPK setup script, you do not need to set the attribute first because it is part of the script process.

- Remove the environment using the `--cleanup` option for the PeopleSoft DPK setup script, as described in this documentation.

See "Installing the PeopleSoft Homes," Removing a Deployed PeopleSoft Environment.

- Copy an entire section containing the parameter to be modified, and be sure to retain the indentation from the delivered YAML file.

The hierarchy and alignment of the YAML files are very important to the correct operation. In addition to the brief overview given here, review the information in the appendix "Using the Puppet Hiera YAML Files for Customization."

- The YAML files include scalar type and collection type parameters.

Scalar parameters are of the form `key: value`; for example:

```
db_platform: ORACLE
```

Collection type parameters include a parameter name followed by one or more indented lists of `key:value` pairs. In this case, the value of the collection parameter is defined by the indented list of values; for example:

```
ps_home:
  db_type:    "%{hiera('db_platform')}"
```



```
unicode_db: "%{hiera('unicode_db')}}"
location:   "%{hiera('ps_home_location')}}"
```

- When you locate a parameter that you want to modify, be sure to locate the section heading that begins at the first column of the YAML file. This ensures that the deployment operation modifies the correct parameter.
- Be sure to retain the indentation from the delivered YAML file.
Typically there is an indentation of 2 or 3 spaces for each successive subsection. This is necessary in order for the parameters to be correctly interpreted.

Note. Be sure when copying and pasting that you retain the indentation. Depending upon the authoring or editing tools you use, the desired indentation may be lost when you copy and paste. It is a good idea to double-check the final `psft_customizations.yaml` file, especially for the special cases where you copy a sample from this documentation.

- When copying and modifying collection type parameters, use only spaces, not tabs, to indent the subsections.
- Use the encrypted passwords from the generated YAML files.

The DPK setup script encrypts user-supplied passwords and includes them in the generated YAML files. If you copy a section of a YAML file with encrypted passwords, do not replace or remove the encrypted text.

The encrypted passwords are quite long. Be sure to copy the entire string, without adding spaces, tabs, or line feeds.

Note. For the majority of the customizations described in this documentation, you copy the encrypted passwords from the generated YAML files. If that is not possible, see the appendix "Encrypting Passwords for Customizations on Linux, AIX, or Solaris."

- Replace the entire attribute string.

The parameters in the delivered YAML files are written with Hieria interpolation functions that act as variables. To modify each parameter, you must replace the entire string after the colon, and enclose your new value in double quotes. For example, in the `psft_deployment.yaml` file, the location for an Oracle WebLogic installation is given by the following parameters

```
weblogic_location: "%{hiera('pt_location')}/bea"
weblogic:
  location:   "%{hiera('weblogic_location')}}"
```

The second Hieria function refers to the first. When `pt_location` is set as `C:/psft`, Oracle WebLogic will be installed in `C:/psft/bea`. To change this, remove both strings of text `"%{hiera('pt_location')}/bea"` and `"%{hiera('weblogic_location')}"`, and replace them with the full path to the new location. Retain the two-space indentation, and use a forward slash (/) for paths on Microsoft Windows, Linux; AIX, or Solaris; for example:

On Microsoft Windows:

```
weblogic_location: "C:/psft/weblogic"
weblogic:
  location: "C:/psft/weblogic"
```

- Do not use the customizations to set up a non-Unicode environment if you are deploying the PeopleSoft Update Image DPKs for use with PeopleSoft Update Manager.
The environments for the PeopleSoft Update Images are required to be Unicode.
- Verify existing installations before beginning deployment.

You have the option to use existing installations, for example for Oracle WebLogic, but you have the responsibility to ensure that the installation is supported, complete, and correct. The deployment script does not verify whether an installation directory includes a valid, working installation.

- Set the Puppet environment if necessary.

The last step in the examples given in this chapter is to run the `puppet apply` command. If you receive a message saying that the term "puppet" is not recognized when running this command, it probably means that the Puppet software is not included in your system's path. You should also set the Puppet environment if you need to run `puppet apply` after the script execution has ended with an error.

- On Microsoft Windows, to set the Puppet environment, run this command:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet_shell.bat"
```

- On Linux, specify the following environment variables before running the `puppet apply` command:

```
export PUPPET_DIR=/opt/puppetlabs
export PUPPET_BIN=${PUPPET_DIR}/bin
export PUPPET_LIB=${PUPPET_DIR}/lib
export PATH=${PUPPET_BIN}:${PATH}
export LD_LIBRARY_PATH=${PUPPET_LIB}:${LD_LIBRARY_PATH}
```

- On AIX, specify the following environment variables before running the `puppet apply` command:

```
export PUPPET_DIR=/opt/oracle/puppetlabs
export PUPPET_BIN=${PUPPET_DIR}/bin
export PUPPET_LIB=${PUPPET_DIR}/lib
export PATH=${PUPPET_BIN}:${PATH}
export LIBPATH=${PUPPET_LIB}:${LIBPATH}
```

- On AIX or Solaris operating systems, instead of using the export commands above, you can use the `pspuppet.sh` script to set the Puppet environment.

Use this method if the DPK setup script is interrupted, either intentionally to apply customizations, or by an error, and you need to proceed by running `puppet apply`. The script will set the Puppet PATH and LIBRARY environment variables. The `pspuppet.sh` script is installed by the DPK setup script in `/opt/oracle/puppetlabs`. Source the script by entering the following command:

```
. /opt/oracle/puppetlabs/pspuppet.sh
```

The dot, or period (".") at the beginning of the command is a source operator that ensures that the script commands persist in the shell environment that you are deploying from. After sourcing the script, continue with the deployment by running the `puppet apply` command.

- See the Puppet Labs documentation if you want to save the log files.

When you run the `--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace` command, the debug and trace messages appear in the command prompt. If you want to save them as a file, see the Puppet Labs documentation for the correct options.

See Puppet Labs Documentation, <http://docs.puppetlabs.com>.

Task 3-1: Preparing the Customization File for PeopleSoft Domain Definitions

This section discusses:

- Preparing the `psft_customizations.yaml` file

- Reviewing the Domain Definitions in `psft_configuration.yaml`
- Reviewing the Customization File for a Single Application Server Domain
- Reviewing the Customization File for an Application Server Domain with Custom `PS_CFG_HOME`
- Reviewing the Customization File for a PIA Domain on a Separate Host
- Reviewing the Customization File for Multiple Domains

Task 3-1-1: Preparing the `psft_customizations.yaml` file

Use this information if you want to customize the PeopleSoft domains — the application server, Process Scheduler, and PIA domains. For example, you may want to create multiple Application Server domains rather than a single domain.

1. Locate the `psft_configuration.yaml` file, which was installed by the deployment, in `BASE_DIR/dpk/puppet/production/data`.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

2. If necessary, create a `psft_customizations.yaml` using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the `psft_configuration.yaml` file.
If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (---).
3. Copy the sections that you want to customize from the `psft_configuration.yaml` file into the `psft_customizations.yaml` file and modify the values as needed.

The following sections include sample `psft_customizations.yaml` files.

4. Save the file.

Task 3-1-2: Reviewing the Domain Definitions in `psft_configuration.yaml`

To customize the PeopleSoft domains, you begin with the `psft_configuration.yaml` file, which lists the attributes pertinent to the PeopleSoft domains.

Note. The `psft_configuration.yaml` file includes definitions for Automated Configuration Manager (ACM) plugins, which configure components such as Integration Broker and Report Distribution. Depending upon the PeopleSoft domain being set up, certain ACM configurations will run as part of the deployment.

This sample shows a portion of a `psft_configuration.yaml` file, with annotations added (marked by ###) for the purposes of this explanation. The default application server name, APPDOM, is defined in the first portion of the file for the parameter `appserver_domain_name`, which is then referenced with an interpolation token `"%{hiera('appserver_domain_name')}"` in the `appserver_domain_list` section.

The DPK setup script encrypts user-supplied passwords and includes them in the generated YAML files. The encrypted text will be a long single line of letters and numbers. Be sure to copy the text in one unbroken line, with no spaces or line feeds. This sample includes short strings of text beginning with "ENC" to represent encrypted passwords.

```
---
db_name:          FS85606C
db_user:          VP1

#####
```

```

# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file #
#####
db_user_pwd:          ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

db_connect_id:        people

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file #
#####
db_connect_pwd:       ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

domain_user:          "%{hiera('psft_runtime_user_name')}}"
ps_config_home:       "C:/Users/%{::env_username}/psft/pt/8.56"
appserver_template:   small
appserver_domain_name: APPDOM
prcs_domain_name:     PRCSDOM
prcs_domain_id:       "PRCS%{::rand}"
report_node_name:     "%{hiera('prcs_domain_id')}}"
pia_domain_name:      peoplesoft
pia_site_name:        ps
pia_http_port:        8000
pia_https_port:       8443
jolt_port:            9033
wsl_port:             7000
db_port:              1521
gateway_node_name:    QE_LOCAL
pia_gateway_user:     administrator

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file #
#####
pia_gateway_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

webserver_type:        weblogic
pia_webprofile_name:   PROD
pia_psserver_list:     "%{::fqdn}:%{hiera('jolt_port')}}"
report_repository_dir: "%{hiera('ps_config_home')}/psreports"

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file #
#####
domain_conn_pwd:       ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

help_uri:              pt854pbh1

```

```

tns_dir:                "%{hiera('db_location')}}"
tns_admin_list:
  "%{hiera('db_name')}}" :
    db_host:             "%{::fqdn}"
    db_port:             "%{hiera('db_port')}}"
    db_protocol:         TCP
    db_service_name:     "%{hiera('db_name')}}"

db2_server_list:
  "%{hiera('db_name')}}" :
    db2_type:            "%{hiera('db_platform')}}"
    db2_host:            "%{::fqdn}"
    db2_port:            "%{hiera('db_port')}}"
    db2_node:            TCPLNX01
    db2_target_db:       "%{hiera('db_name')}}"

mssql_server_list:
  "%{hiera('db_name')}}" :
    mss_server_name:     "%{::fqdn}"
    mss_odbc_name:       "ODBC Driver 11 for SQL Server"

#####
# Copy the entire section beginning here for                               #
# application server customization.                                         #
#####

appserver_domain_list:
  "%{hiera('appserver_domain_name')}}" :
    os_user:             "%{hiera('domain_user')}}"
    ps_cfg_home_dir:     "%{hiera('ps_config_home')}}"
    template_type:       "%{hiera('appserver_template')}}"

db_settings:
  db_name:               "%{hiera('db_name')}}"
  db_type:               "%{hiera('db_platform')}}"
  db_opr_id:             "%{hiera('db_user')}}"
  db_opr_pwd:            "%{hiera('db_user_pwd')}}"
  db_connect_id:         "%{hiera('db_connect_id')}}"
  db_connect_pwd:        "%{hiera('db_connect_pwd')}}"

config_settings:
  Domain Settings/Domain ID:     "%{hiera('appserver_domain_name')}}"
  PSAPPSRV/Min Instances:         2
  PSAPPSRV/Max Instances:         2
  PSAPPSRV/Max Fetch Size:        15000
  Security/DomainConnectionPwd:   "%{hiera('domain_conn_pwd')}}"
  JOLT Listener/Port:             "%{hiera('jolt_port')}}"
  JOLT Listener/Address:           0.0.0.0
  Workstation Listener/Port:       "%{hiera('wsl_port')}}"

feature_settings:
  PUBSUB:                     "Yes"
  QUICKSRV:                   "No"

```

```

    QUERYSRV:      "No"
    JOLT:          "Yes"
    JRAD:          "No"
    WSL:           "Yes"
    DBGSRV:        "No"
    RENSrv:        "No"
    MCF:           "No"
    PPM:           "Yes"
    PSPMSRV:       "Yes"
    ANALYTICSRV:   "No"
    SERVER_EVENTS: "Yes"
    DOMAIN_GW:     "No"
#####
# End application server section.
#####

#####
# Copy the entire section beginning here for
# Process Scheduler customization
#####

prcs_domain_list:
    "%{hiera('prcs_domain_name')}":
        os_user:      "%{hiera('domain_user')}"
        ps_cfg_home_dir: "%{hiera('ps_config_home')}"

    db_settings:
        db_name:      "%{hiera('db_name')}"
        db_type:      "%{hiera('db_platform')}"
        db_opr_id:     "%{hiera('db_user')}"
        db_opr_pwd:    "%{hiera('db_user_pwd')}"
        db_connect_id: "%{hiera('db_connect_id')}"
        db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
        Process Scheduler/PrsServerName: "%{hiera('prcs_domain_id')}"
        Security/DomainConnectionPwd:    "%{hiera('domain_conn_pwd')}"

    feature_settings:
        MSTRSRV:      "Yes"
        APPENG:       "Yes"
#####
# End Process Scheduler section.
#####

#####
# Copy the entire section beginning here for PIA customization.
#####
pia_domain_list:
    "%{hiera('pia_domain_name')}":
        os_user:      "%{hiera('domain_user')}"
        ps_cfg_home_dir: "%{hiera('ps_config_home')}"
        gateway_user:  "%{hiera('pia_gateway_user')}"

```

```

gateway_user_pwd:      "%{hiera('pia_gateway_user_pwd')}}"
auth_token_domain:    "%{::domain}"

webserver_settings:
  webserver_type:      "%{hiera('webserver_type')}}"
  webserver_home:      "%{hiera('weblogic_location')}}"
  webserver_admin_user: system

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file                    #
#####
  webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

  webserver_admin_port:  "%{hiera('pia_http_port')}}"
  webserver_http_port:   "%{hiera('pia_http_port')}}"
  webserver_https_port:  "%{hiera('pia_https_port')}}"

site_list:
  "%{hiera('pia_site_name')}":
    appserver_connections: "%{hiera('pia_psserver_list')}}"
    domain_conn_pwd:       "%{hiera('domain_conn_pwd')}}"

    webprofile_settings:
      profile_name:        "%{hiera('pia_webprofile_name')}}"
      profile_user:        PTWEBSERVER

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file                    #
#####
    profile_user_pwd:     ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

    report_repository_dir: "%{hiera('report_repository_dir')}}"
#####
# End PIA section.                                           #
#####

ohs_domain:
  name:                ohsdom

#####
# Remaining text removed for brevity.                        #
#####

```

Task 3-1-3: Reviewing the Customization File for a Single Application Server Domain

This sample shows a `psft_customizations.yaml` file for a single application server domain with the domain name APPDOM1. Note that the indentation in the original `psft_configuration.yaml` file must be maintained when creating a `psft_customizations.yaml` file.

Note. Do not modify the `ps_cfg_home_dir` parameter. If you want to customize the *PS_CFG_HOME* location, see the next section.

```
---
appserver_domain_list:

### Custom domain name ###
"APPDOM1":
  os_user:           "%{hiera('domain_user')}}"
  template_type:     "%{hiera('appserver_template')}}"
  ps_cfg_home_dir:   "%{hiera('ps_config_home')}}"

  db_settings:
    db_name:          "%{hiera('db_name')}}"
    db_type:           "%{hiera('db_platform')}}"
    db_opr_id:         "%{hiera('db_user')}}"
    db_opr_pwd:        "%{hiera('db_user_pwd')}}"
    db_connect_id:     "%{hiera('db_connect_id')}}"
    db_connect_pwd:    "%{hiera('db_connect_pwd')}}"

  config_settings:
    Domain Settings/Domain ID:      IBUPG0
    PSAPPSRV/Min Instances:          3
    PSAPPSRV/Max Instances:          5
    JOLT Listener/Port:               "%{hiera('jolt_port')}}"
    Workstation Listener/Port:        "%{hiera('wsl_port')}}"

  feature_settings:
    PUBSUB:          "Yes"
    QUICKSRV:        "No"
    QUERYSRV:        "No"
    JOLT:             "Yes"
    JRAD:             "No"
    WSL:              "Yes"
    DBGSRV:           "No"
    RENSrv:           "No"
    MCF:              "No"
    PPM:              "Yes"
    PSPPMsRV:         "Yes"
    ANALYTICSrv:      "No"
    SERVER_EVENTS:    "Yes"
    DOMAIN_GW:        "No"
```


Task 3-1-4: Reviewing the Customization File for an Application Server Domain with Custom PS_CFG_HOME

If you want to create application server domains in a non-default PS_CFG_HOME location, you must also specify the value for `ps_config_home` above the `appserver_domain_list` section:

```
---
### Custom PS_CFG_HOME location ###
ps_config_home:      C:/user/psft_config/8.56
appserver_domain_list:
### Custom domain name ###
  "APPDOM2":
    os_user:          "%{hiera('domain_user')}}"
    template_type:    "%{hiera('appserver_template')}}"

### Custom PS_CFG_HOME location ###
ps_cfg_home_dir:    C:/user/psft_config/8.56

db_settings:
  db_name:           "%{hiera('db_name')}}"
  db_type:           "%{hiera('db_platform')}}"
  db_opr_id:         "%{hiera('db_user')}}"
  db_opr_pwd:        "%{hiera('db_user_pwd')}}"
  db_connect_id:     "%{hiera('db_connect_id')}}"
  db_connect_pwd:    "%{hiera('db_connect_pwd')}}"

config_settings:
  Domain Settings/Domain ID:    IBUPG0
  PSAPPSRV/Min Instances:       3
  PSAPPSRV/Max Instances:       5
  JOLT Listener/Port:           "%{hiera('jolt_port')}}"
  Workstation Listener/Port:    "%{hiera('wsl_port')}}"

feature_settings:
  PUBSUB:              "Yes"
  QUICKSRV:            "No"
  QUERYSRV:            "No"
  JOLT:                "Yes"
  JRAD:                "No"
  WSL:                 "Yes"
  DBGSRV:              "No"
  RENSrv:              "No"
  MCF:                 "No"
  PPM:                 "Yes"
  PSPPMsRV:            "Yes"
  ANALYTICSrv:         "No"
  SERVER_EVENTS:       "Yes"
  DOMAIN_GW:           "No"
```

Task 3-1-5: Reviewing the Customization File for a PIA Domain on a Separate Host

If you want to set up an environment in which the PIA domain and web server are not on the same machine as the application server domain, you must use customizations to specify the machine where the application server is installed. This customization is required for the Integration Broker configuration.

The generated `psft_configuration.yaml` includes the following parameter, which sets the host for Integration Broker to the PIA host, which by default is the machine where the DPK setup script is run:

```
env.ib_appserver_host:           "%{hiera('pia_host_name')}}"
```

If you use the DPK setup script to set up a PIA domain only, and the PIA domain is not on the same machine as your application server domain, the value for the `env.ib_appserver_host` parameter must be set to application server machine name.

See "Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script to Deploy a PIA Domain.

Copy the entire `component_postboot_setup_list` collection section from `psft_configuration.yaml` and paste it into `psft_customizations.yaml`. Change the value for `env.ib_appserver_host` to point to the host where the application server is set up, for example `ps_app_server1`.

This sample shows a sample `psft_customizations.yaml` file, with annotations added (marked by `###`) for the purposes of this explanation.

```
---
component_postboot_setup_list:
  integration_broker:
    run_control_id:          intbroker
    os_user:                 "%{hiera('domain_user')}}"

    db_settings:
      db_name:               "%{hiera('db_name')}}"
      db_type:               "%{hiera('db_platform')}}"
      db_opr_id:             "%{hiera('db_user')}}"
      db_opr_pwd:            "%{hiera('db_user_pwd')}}"
      db_connect_id:         "%{hiera('db_connect_id')}}"
      db_connect_pwd:        "%{hiera('db_connect_pwd')}}"

  acm_plugin_list:
    PTIBActivateDomain:
      domain.activate_retry_count: 10
      domain.activate_wait_time:   10

    PTIBConfigureGatewayNodes:
      env.gateway_host:           "%{hiera('pia_host_name')}}"
      env.gateway_port:           "%{hiera('pia_http_port')}}"
      env.gateway_ssl_port:       "%{hiera('pia_https_port')}}"
      env.use_ssl_gateway:        false
      env.default_local_node:     "%{hiera('gateway_node_name')}}"
      env.gateway_user:           "%{hiera('pia_gateway_user')}}"
      env.gateway_password:       "%{hiera('pia_gateway_user_⇒
pwd')}}"
```

```

###Custom application server name ###
    env.ib_appserver_host:          ps_app_server1
    env.ib_jolt_port:               "%{hiera('jolt_port')}}"
    env.ib_node_proxy_userid:       "%{hiera('db_user')}}"
    env.ib_node_proxy_password:     "%{hiera('db_user_pwd')}}"
    env.tools_release:              "%ToolsRelease"
    env.ib_appserver_domain_password: "%{hiera('domain_conn_pwd')}}"
    env.ib_set_as_default_node:     true

PTIBConfigureGatewayProperties:
    env.gateway_keystore_password:  password

PTWebServerConfigUpdate:
    env.domainname:                 "%{hiera('pia_domain_name')}}"
    env.sitename:                   "%{hiera('pia_site_name')}}"
    env.piahome:                    "%{hiera('ps_config_home')}}"
    env.psserver:                   ""
    env.KeyStorePwd:                 ""

acm_plugin_order:
- PTIBActivateDomain
- PTIBConfigureGatewayNodes
- PTIBConfigureGatewayProperties
- PTWebServerConfigUpdate

```

Task 3-1-6: Reviewing the Customization File for Multiple Domains

For multiple domains, duplicate the entire domain section, again maintaining the indentation from the original `psft_configuration.yaml` file. This sample shows a `psft_customizations.yaml` file for two application server domains, two PIA domains, and two Process Scheduler domains, with annotations added (marked by `###` characters) for the purposes of this explanation.

Follow these guidelines in creating a `psft_customizations.yaml` file for customized PeopleSoft domains. The letters correspond to those in the code sample above:

- (A) For more than one application server, include the `pia_psserver_list` entry at the top of the `psft_customizations.yaml` definitions. List the application server domains that are used by the PIA domains, using the format `<application_server_host>:<Jolt port>`. Separate the entries with a comma.
- (B) Copy the entire section for the domains that you want to customize.
- (C) Specify unique names for each domain.
- (D) Specify unique ports for each domain.
- (E) If specifying more than one application server domain, you must configure the REN server to use a unique port by setting the attribute `PSRENSRV/default_http_port` to a value other than the default, 7180 in the `psft_customizations.yaml`.

Note. The REN server setting is also a requirement for a traditional PeopleSoft installation when setting up more than one application server on a single machine.

- (F) If specifying more than one Process Scheduler domain, you must specify unique Process Scheduler server names.

In this sample, the first Process Scheduler server uses the default value, which is defined as an interpolation

token. The second Process Scheduler server has a different name, PRCS222.

(G) In addition, the Master Scheduler Server should be enabled for the first Process Scheduler domain (MSTRSRV: "Yes"), and disabled for subsequent Process Scheduler domains (MSTRSRV: "No").

See *PeopleTools: Process Scheduler*, "Understanding PeopleSoft Master Scheduler Server."

- (H) If specifying more than one PIA domain, you must specify different site names for each.

In this sample, the first PIA site name uses the default value, which is defined as an interpolation token. The second PIA site name has a different name, ps222.

```

---
pia_psserver_list:      "hostname.example.com:9033,hostname.example.com:9043"
### (A) ###

appserver_domain_list:
  "APPDOM111":          ### (B), (C) ###
    os_user:            "%{hiera('domain_user')}}"
    template_type:      "%{hiera('appserver_template')}}"
    ps_cfg_home_dir:    "%{hiera('ps_config_home')}}"

    db_settings:
      db_name:          "%{hiera('db_name')}}"
      db_type:          "%{hiera('db_platform')}}"
      db_opr_id:        "%{hiera('db_user')}}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}}"
      db_connect_id:    "%{hiera('db_connect_id')}}"
      db_connect_pwd:   "%{hiera('db_connect_pwd')}}"

    config_settings:
      Domain Settings/Domain ID:    IBUPG0
      PSAPPSRV/Min Instances:        3
      PSAPPSRV/Max Instances:        5
      JOLT Listener/Port:            9033          ### (D) ###
      Workstation Listener/Port:     7000          ### (D) ###

    feature_settings:
      PUBSUB:          "Yes"
      QUICKSRV:        "No"
      QUERYSRV:        "No"
      JOLT:             "Yes"
      JRAD:            "No"
      WSL:              "Yes"
      DBGSRV:          "No"
      RENSRV:          "No"
      MCF:              "No"
      PPM:              "Yes"
      PSPMSRV:         "Yes"
      ANALYTICSRV:     "No"
      SERVER_EVENTS:   "Yes"
      DOMAIN_GW:       "No"

  "APPDOM222":          ### (B), (C) ###
    os_user:            "%{hiera('domain_user')}}"
    template_type:      "%{hiera('appserver_template')}}"

```

```

ps_cfg_home_dir: "%{hiera('ps_config_home')}}"

db_settings:
  db_name:          "%{hiera('db_name')}}"
  db_type:          "%{hiera('db_platform')}}"
  db_opr_id:        "%{hiera('db_user')}}"
  db_opr_pwd:       "%{hiera('db_user_pwd')}}"
  db_connect_id:    "%{hiera('db_connect_id')}}"
  db_connect_pwd:   "%{hiera('db_connect_pwd')}}"

config_settings:
  Domain Settings/Domain ID:      IBUPG0
  PSAPPSRV/Min Instances:         3
  PSAPPSRV/Max Instances:         5
  JOLT Listener/Port:             9043          ### (D) ###
  Workstation Listener/Port:      7001          ### (D) ###
  PSRENSRV/default_http_port:     7191          ### (E) ###

feature_settings:
  PUBSUB:          "Yes"
  QUICKSRV:        "No"
  QUERYSRV:        "No"
  JOLT:            "Yes"
  JRAD:            "No"
  WSL:             "Yes"
  DBGSRV:          "No"
  RENSrv:          "No"
  MCF:             "No"
  PPM:             "Yes"
  PSPPMsRV:        "Yes"
  ANALYTICsRV:     "No"
  SERVER_EVENTS:   "Yes"
  DOMAIN_GW:       "No"

pia_domain_list:
  "PIADOM111":          ### (B), (C) ###
    os_user:            "%{hiera('domain_user')}}"
    ps_cfg_home_dir:    "%{hiera('ps_config_home')}}"
    gateway_user:       "%{hiera('pia_gateway_user')}}"
    gateway_user_pwd:   "%{hiera('pia_gateway_user_pwd')}}"
    auth_token_domain:  ".%{::domain}"

  webserver_settings:
    webserver_type:     "%{hiera('webserver_type')}}"
    webserver_home:     "%{hiera('weblogic_location')}}"
    webserver_admin_user: system

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file                  #
#####
    webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

```

```

webserver_admin_port:      8000                ### (D) ###
webserver_http_port:      8000                ### (D) ###
webserver_https_port:     8443                ### (D) ###

site_list:
  "%{hiera('pia_site_name')}":                ### (H) ###
    appserver_connections: "%{hiera('pia_psserver_list')}"
    domain_conn_pwd:       "%{hiera('domain_conn_pwd')}"

    webprofile_settings:
      profile_name:        "%{hiera('pia_webprofile_name')}"
      profile_user:        PTWEBSERVER

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file                    #
#####
    profile_user_pwd:      ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

    report_repository_dir: "%{hiera('report_repository_dir')}"

"PIADOM222":                                ### (B), (C) ###
  os_user:                                "%{hiera('domain_user')}"
  ps_cfg_home_dir:                       "%{hiera('ps_config_home')}"
  gateway_user:                           "%{hiera('pia_gateway_user')}"
  gateway_user_pwd:                       "%{hiera('pia_gateway_user_pwd')}"
  auth_token_domain:                      "%{::domain}"

  webserver_settings:
    webserver_type:                     "%{hiera('webserver_type')}"
    webserver_home:                     "%{hiera('weblogic_location')}"
    webserver_admin_user:                system

#####
# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file                    #
#####
    webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

    webserver_admin_port:      8002                ### (D) ###
    webserver_http_port:      8002                ### (D) ###
    webserver_https_port:     8445                ### (D) ###

site_list:
  "ps222":                                ### (H) ###
    appserver_connections: "%{hiera('pia_psserver_list')}"
    domain_conn_pwd:       "%{hiera('domain_conn_pwd')}"

    webprofile_settings:
      profile_name:        "%{hiera('pia_webprofile_name')}"
      profile_user:        PTWEBSERVER

#####

```

```

# Replace this password sample with encrypted text from the #
# generated psft_configuration.yaml file #
#####
profile_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

report_repository_dir: "${hiera('report_repository_dir')}}"

prcs_domain_list:
  "PRCSDOM111":
    os_user: "${hiera('domain_user')}}"
    ps_cfg_home_dir: "${hiera('ps_config_home')}}"

    db_settings:
      db_name: "${hiera('db_name')}}"
      db_type: "${hiera('db_platform')}}"
      db_opr_id: "${hiera('db_user')}}"
      db_opr_pwd: "${hiera('db_user_pwd')}}"
      db_connect_id: "${hiera('db_connect_id')}}"
      db_connect_pwd: "${hiera('db_connect_pwd')}}"

    config_settings:
      Process Scheduler/PrCsServerName: "${hiera('prcs_domain_id')}}" ###=>
(F) ###
      Security/DomainConnectionPwd: "${hiera('domain_conn_pwd')}}"

    feature_settings:
      MSTRSRV: "Yes" ### (G) ###
      APPENG: "Yes"

  "PRCSDOM222":
    os_user: "${hiera('domain_user')}}"
    ps_cfg_home_dir: "${hiera('ps_config_home')}}"

    db_settings:
      db_name: "${hiera('db_name')}}"
      db_type: "${hiera('db_platform')}}"
      db_opr_id: "${hiera('db_user')}}"
      db_opr_pwd: "${hiera('db_user_pwd')}}"
      db_connect_id: "${hiera('db_connect_id')}}"
      db_connect_pwd: "${hiera('db_connect_pwd')}}"

    config_settings:
      Process Scheduler/PrCsServerName: PRCs222 ### (F) ###
      Security/DomainConnectionPwd: "${hiera('domain_conn_pwd')}}"

    feature_settings:
      MSTRSRV: "No" ### (G) ###
      APPENG: "Yes"

```

Task 3-2: Preparing the Customization File to Create PeopleSoft Domains Without Configuration

The default DPK initialization includes pre-boot and post-boot processes that use Automated Configuration Manager (ACM) plug-ins to configure and start the PeopleSoft domains. The ACM configuration, for example, sets up Integration Broker and the report repository for the Process Scheduler.

Use this customization if you want to install the necessary software for the PeopleSoft Application Server, PIA, and Process Scheduler servers without configuring and running the domains. After you complete the DPK deployment with this customization, you can use the PSADMIN utility to set up and start the domains.

See *PeopleTools: System and Server Administration*, "Using the PSADMIN Utility."

The generated `psft_configuration.yaml` file includes the parameters for the ACM plug-ins. However, note that the two parameters specified in this section for this customization are not included in the generated `psft_configuration.yaml` file.

To prepare the customization file:

1. Create a `psft_customizations.yaml` using a standard editing tool such as Notepad for Microsoft Windows or vi for Linux, AIX, or Solaris, and save it in the same location as the generated YAML files.

By default, the DPK setup script installs the YAML files in `BASE_DIR/dpk/puppet/production/data`.

2. Use the sample below in creating the `psft_customizations.yaml` file, and modify the values as needed.

Ensure that the file begins with three dashes (`---`), and add the two parameters shown here.

```
---
run_preboot_config_setup: false
run_postboot_config_setup: false
```

3. Save the file.

Task 3-3: Preparing the Customization File for Component Software Locations

Use the information in this section if you want to customize an installation location, for example to use an existing installation of Oracle Tuxedo or Oracle WebLogic.

1. Locate the `psft_deployment.yaml` file in `BASE_DIR/dpk/puppet/production/data`.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

The installation locations for Oracle Tuxedo, Oracle WebLogic, and JDK are defined in the `psft_deployment.yaml` file that is installed with the deployment.

2. If necessary, create a `psft_customizations.yaml` using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the `psft_deployment.yaml` file.

If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (`---`).

3. Select one or more of the sections corresponding to the components that you want to customize, and copy them to the `psft_customizations.yaml` file.

As previously mentioned, setting the optional attribute `remove: false` means that the parameters in this section will not be deleted when the deployed environment is removed.

- For JDK, copy the `jdk_location` scalar parameter, and the entire `jdk` collection-type section from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file. Be sure to set the locations to the same value. Do not indent `jdk_location` or `jdk`, as shown in this example:

```
---
jdk_location:    C:/jdk
jdk:
  location:     C:/jdk
  remove:      false
```

- For Oracle Tuxedo, copy both the `tuxedo_location` scalar parameter and the entire `tuxedo` collection-type section from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file. Be sure to set the locations to the same value. Do not indent `tuxedo_location` or `tuxedo`, as shown in this example:

```
---
tuxedo_location: C:/psft/tuxedo
tuxedo:
  location:      C:/psft/tuxedo
  remove:      false
```

- For Oracle WebLogic, copy both the `weblogic_location` scalar parameter and the entire `weblogic` collection-type section from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file. Be sure to set the locations to the same value. Do not indent `weblogic_location` or `weblogic`, as shown in this example:

```
---
weblogic_location: C:/psft/weblogic
weblogic:
  location:        C:/psft/weblogic
  remove:         false
```

- If you want to customize JDK, Oracle Tuxedo, and Oracle WebLogic, add all three entries to `psft_customizations.yaml`; for example:

```
---

jdk_location:    C:/jdk
jdk:
  location:     C:/jdk
  remove:      false

tuxedo_location: C:/psft/tuxedo
tuxedo:
  location:      C:/psft/tuxedo
  remove:      false

weblogic_location: C:/psft/weblogic
weblogic:
  location:        C:/psft/weblogic
  remove:         false
```

4. Save the file.

Task 3-4: Preparing the Customization File for Unicode

Use these instructions if you want to change the Unicode designation for your database.

1. Locate the `psft_deployment.yaml` file.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

By default, the DPK setup script installs the YAML files in `BASE_DIR/dpk/puppet/production/data`.

The `unicode_db` parameter is part of the `ps_home` section.

```
ps_home:
  db_type:      "%{hiera('db_platform')}}"
  unicode_db:   "%{hiera('unicode_db')}}"
  location:     "%{hiera('ps_home_location')}}"
```

2. If necessary, create a `psft_customizations.yaml` using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the `psft_deployment.yaml` file.
If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (---).
3. Copy the entire `ps_home` section from `psft_deployment.yaml`, maintaining the indentation, into the `psft_customizations.yaml` file.

For a Unicode database, set the value for `unicode_db` to true:

```
---
ps_home:
  db_type:      "%{hiera('db_platform')}}"
  unicode_db:   true
  location:     "%{hiera('ps_home_location')}}"
```

For a non-Unicode database, set the value for `unicode_db` to false:

```
---
ps_home:
  db_type:      "%{hiera('db_platform')}}"
  unicode_db:   false
  location:     "%{hiera('ps_home_location')}}"
```

4. Save the file.

Task 3-5: Preparing the Customization File for the PeopleSoft Homes

This section discusses:

- Preparing the Customization File for the PS_HOME Location
- Preparing the Customization File for the PS_APP_HOME Location
- Preparing the Customization File for the PS_CFG_HOME Location

Task 3-5-1: Preparing the Customization File for the PS_HOME Location

By default, the DPK setup script creates the *PS_HOME* directory in *BASE_DIR/pt/ps_home<release>*, where *<release>* is the PeopleSoft PeopleTools patch release, such as 8.56.12. Use these steps to specify a different *PS_HOME* location.

1. Locate the *psft_deployment.yaml* file in *BASE_DIR/dpk/puppet/production/data*.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your *psft_customizations.yaml* file.

The *PS_HOME* installation location is specified by the *ps_home* section.

```
ps_home:
  db_type:      "%{hiera('db_platform')}}"
  unicode_db:   "%{hiera('unicode_db')}}"
  location:     "%{hiera('ps_home_location')}}"
```

2. If necessary, create a *psft_customizations.yaml* using a standard editing tool, such as Notepad on Microsoft Windows, and save it in the same location as the *psft_deployment.yaml* file.

If this is the first entry in the *psft_customizations.yaml* file, ensure that the file begins with three dashes (---).

3. Copy the entire section from the *psft_deployment.yaml* file into the *psft_customizations.yaml* file and modify the location value as needed.

For example, on Microsoft Windows:

```
---
ps_home:
  db_type:      "%{hiera('db_platform')}}"
  unicode_db:   "%{hiera('unicode_db')}}"
  location:     "C:/psft8.56.12"
```

4. Save the file.

Task 3-5-2: Preparing the Customization File for the PS_APP_HOME Location

By default, the DPK setup script creates the *PS_APP_HOME* directory in *BASE_DIR/pt/<Product>_app_home*, where *<Product>* is the abbreviation for the PeopleSoft application, such as *fscm* for PeopleSoft Financials and Supply Chain Management.

Here are two scenarios where you might use this customization:

- If you are performing a new installation using the PeopleSoft DPKs, and you do not want to use the default *PS_APP_HOME* location created by the DPK setup script, use this customization to specify and create the desired *PS_APP_HOME* directory.
- If you are performing a mid-tier deployment to connect to an existing environment, use this customization to specify the existing *PS_APP_HOME*.

Use these steps to specify the *PS_APP_HOME* location.

1. Locate the *psft_deployment.yaml* file in *BASE_DIR/dpk/puppet/production/data*.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

The `PS_APP_HOME` installation location is specified by the `ps_app_home` section.

```
ps_app_home:
  db_type: "%{hiera('db_platform')}}"
  include_ml_files: false
  location: "%{hiera('ps_apphome_location')}}"
```

2. If necessary, create a `psft_customizations.yaml` using a standard editing tool, such as Notepad on Microsoft Windows, and save it in the same location as the `psft_deployment.yaml` file.

If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (---).

3. To override the location, copy the entire section from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file and modify the location value as needed.

For example, on Microsoft Windows:

```
---
ps_app_home:
  db_type: "%{hiera('db_platform')}}"
  include_ml_files: false
  location: "C:/hcm92_home"
```

4. Save the file.

Task 3-5-3: Preparing the Customization File for the `PS_CFG_HOME` Location

By default, the DPK setup script creates the `PS_CFG_HOME` directory in `<user_profile>/psft/pt/8.56`, such as `C:/users/username/psft/pt/8.56` on Microsoft Windows, and `/home/psadm2/psft/pt/8.56` on Linux, AIX, or Solaris. Note that you cannot specify different `PS_CFG_HOME` locations for different PeopleSoft domains. The DPK installation requires the same `PS_CFG_HOME` be used for all domains. Use these steps to specify the `PS_CFG_HOME` location.

1. Locate the `psft_configuration.yaml` file in `BASE_DIR/dpk/puppet/production/data`.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

The `PS_CFG_HOME` installation location is specified by the `ps_config_home` parameter.

```
ps_config_home: "%{hiera('user_home_dir')}/%{hiera('domain_⇒
user')}/psft/pt/8.56"
```

2. If necessary, create a `psft_customizations.yaml` using a standard editing tool, such as Notepad on Microsoft Windows, and save it in the same location as the `psft_configuration.yaml` file.

If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (---).

3. Copy the entire section from the `psft_configuration.yaml` file into the `psft_customizations.yaml` file and modify the location value as needed.

For example, on Microsoft Windows:

```
---
ps_config_home:      "C:/pt856_config"
```

4. Save the file.

Task 3-6: Preparing the Customization File for Jolt SSL and WSL SSL Ports

You have the option to use the Secure Socket Layers/Transport Layer Security (SSL/TSL) protocol for Workstation Listener and Jolt Listener ports for the application server configuration. To use this protocol you must set up an Oracle wallet for the digital certificates.

See *PeopleTools: Integration Broker*, "Installing Web Server-Based Digital Certificates."

1. Locate the `psft_configuration.yaml` file in `BASE_DIR/dpk/puppet/production/data`.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

2. If necessary, create a `psft_customizations.yaml` using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the `psft_configuration.yaml` file.
If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (---).
3. Copy the entire `appserver_domain_list` section from `psft_configuration.yaml` to `psft_customizations.yaml`:
4. Add the following parameters to the `psft_customizations.yaml` file:

Note. These parameters are not included in the delivered `psft_configuration.yaml` file.

- Specify the SSL/TSL port for the Jolt listener; for example 9010.
JOLT Listener/SSL Port: 9010
- Specify the SSL/TSL port for the Workstation listener, for example 9010:
Workstation Listener/SSL Port: 9010
- Specify the location of the wallet containing the certificates:
Oracle Wallet/SEC_PRINCIPAL_LOCATION: test/security
- Specify the wallet name, for example psft:
Oracle Wallet/SEC_PRINCIPAL_NAME: psft
- Specify the wallet password:
Oracle Wallet/SEC_PRINCIPAL_PASSWORD:

5. Modify the `psft_customizations.yaml` file, including the added parameters from the previous step, with values for your environment.

Note. Be sure to retain the indentation shown in this example.

This sample `psft_customizations.yaml` file shows the parameters added from step 4 in bold font:

```

appserver_domain_list:
  "%{hiera('appserver_domain_name')}" :
    os_user:          "%{hiera('domain_user')}"
    ps_cfg_home_dir:  "%{hiera('ps_config_home')}"
    template_type:    "%{hiera('appserver_template')}"

db_settings:
  db_name:            "%{hiera('db_name')}"
  db_type:            "%{hiera('db_platform')}"
  db_opr_id:          "%{hiera('db_user')}"
  db_opr_pwd:         "%{hiera('db_user_pwd')}"
  db_connect_id:      "%{hiera('db_connect_id')}"
  db_connect_pwd:     "%{hiera('db_connect_pwd')}"

config_settings:
  Domain Settings/Allow Dynamic Changes:      Y
  Domain Settings/Domain ID:                   "%{hiera('appserver_domain_⇒
name')}"
  PSAPPSRV/Min Instances:                       2
  PSAPPSRV/Max Instances:                       2
  PSAPPSRV/Max Fetch Size:                     15000
  Security/DomainConnectionPwd:                "%{hiera('domain_conn_⇒
pwd')}"
  JOLT Listener/Port:                          "%{hiera('jolt_port')}"
  JOLT Listener/Address:                       0.0.0.0
  JOLT Listener/SSL Port:                   9010
  Workstation Listener/Port:                   "%{hiera('wsl_port')}"
  Workstation Listener/SSL Port:             9010

  Oracle Wallet/SEC_PRINCIPAL_LOCATION:      test/security

  Oracle Wallet/SEC_PRINCIPAL_NAME:          psft

  Oracle Wallet/SEC_PRINCIPAL_PASSWORD:

feature_settings:
  PUBSUB:          "Yes"
  QUICKSRV:        "No"
  QUERYSRV:        "No"
  JOLT:            "Yes"
  JRAD:            "No"
  WSL:             "Yes"
  DBGSRV:          "No"
  RENSrv:          "No"
  MCF:             "No"
  PPM:             "Yes"
  PSPPMSRV:        "Yes"
  ANALYTICSRV:     "No"
  SERVER_EVENTS:   "Yes"

```

```
DOMAIN_GW:      "No"
```

6. Save the file.

Task 3-7: Preparing the Customization File for Mid-Tier Connection to a Microsoft SQL Server Database

Use these steps to set up PeopleSoft mid-tier components to connect to a Microsoft SQL Server database. This section assumes that:

- You installed the Microsoft SQL Server client software on the Microsoft Windows host machine.
 - You know the Microsoft SQL Server client installation location, SQL Server name, and the name of the ODBC driver required to connect to the database.
 - When running the DPK setup script, you specified MSSQL as the database platform.
1. Locate the `psft_configuration.yaml` file, which was created by the deployment, in `BASE_DIR/dpk/puppet/production/data`.

Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your `psft_customizations.yaml` file.

The information for Microsoft SQL Server, which you will copy and modify, is given in the `mssql_server_list` section in this file:

```
mssql_server_list:
  "%{hiera('db_name')}":
    mss_server_name: "%{::fqdn}"
    mss_odbc_name:   "ODBC Driver 11 for SQL Server"
```

2. Locate the `psft_deployment.yaml` file, which was created by the deployment, in `BASE_DIR/dpk/puppet/production/data`.

The database platform text, which you will copy, is specified as:

```
db_platform:  MSSQL
```

3. If necessary, create a `psft_customizations.yaml` file using a standard editing tool, such as Notepad, and save it in the same location as the `psft_configuration.yaml` file.

If this is the first entry in the `psft_customizations.yaml` file, ensure that the file begins with three dashes (---).

4. Copy the `db_platform` line from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file.

Copy the entire section for `mss_server_list` from the `psft_configuration.yaml` file into the `psft_customizations.yaml` file and modify the values as needed.

For `mss_server_name`, specify the SQL Server name or named instance. For `mss_odbc_name`, specify the name for the ODBC driver needed for connectivity to the Microsoft SQL Server database.

For example:

```
---
db_platform: MSSQL

mss_server_list:
  <db_name>:
```

```
mss_server_name: <server_name>
mss_odbc_name:   <odbc_name>
remove:         false
```

For example:

```
---
db_platform: MSSQL

mss_server_list:
  FS92DEMO:
    mss_server_name: HOSTNAME\SQL2012
    mss_odbc_name:   "SQL Server Native Client 11.0"
    remove:         false
```

For information on the ODBC driver, see the chapters on installing the appropriate version of Microsoft SQL Server.

- Microsoft SQL Server 2012 uses SQL Server Native Client 11.0.
See "Preparing for Installation," Configuring the Connection to Use SQL Server Native Client for Microsoft SQL Server 2012.
- Microsoft SQL Server 2014 uses ODBC Driver 11 for SQL Server.
See "Installing Microsoft SQL Server 2014," Configuring the Connection to Use SNAC for Microsoft SQL Server 2014.
- Microsoft SQL Server 2016 uses ODBC Driver 13 for SQL Server.
See "Installing Microsoft SQL Server 2016," Configuring the Connection to Use SNAC for Microsoft SQL Server 2016.

5. Save the file.

Task 3-8: Completing the Customized Deployment

Use these steps to complete the customized deployment of the PeopleSoft environment:

1. Run the DPK setup script as previously described.
2. Answer *n* (no) to the following prompt:

```
Do you want to continue with the default initialization process? [y|n]: =>
n
```

The script stops.

3. Prepare the `psft_customizations.yaml` file as previously described and save it in `BASE_DIR/dpk/puppet/production/data`.
4. Open a command prompt, running as administrator, and change directory to the Puppet manifest directory, `BASE_DIR/dpk/puppet/production/manifests`.
5. Run the following command to set up the PeopleSoft environment using the modified YAML files.

The debug and trace messages appear in the window where you run the command. See the next step if you want to capture them.

Note. The `confdir`, `debug`, and `trace` options begin with two dashes.

On Microsoft Windows:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>
BASE_DIR/dpk/puppet site.pp --debug --trace
```

On Linux:

```
/opt/puppetlabs/bin/puppet apply --confdir=BASE_DIR/dpk/puppet site.pp =>
-debug --trace
```

On AIX or Solaris:

```
/opt/oracle/puppetlabs/bin/puppet apply --confdir=BASE_DIR/dpk/puppet=>
site.pp --debug --trace
```

6. To redirect the output to a log file, add the `logdest` option.

Note. Since these commands redirect the output to a log file, you cannot follow the progress. The process is complete when the prompt returns.

On Microsoft Windows:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>
BASE_DIR/dpk/puppet site.pp --debug --trace --logdest "BASE_DIR\dpk=>
\dpklog.log"
```

On Linux:

```
/opt/puppetlabs/bin/puppet apply --confdir=BASE_DIR/dpk/puppet site.pp =>
--debug --trace --logdest "BASE_DIR/dpk/dpklog.log"
```

On AIX or Solaris:

```
/opt/oracle/puppetlabs/bin/puppet apply --confdir=BASE_DIR/dpk/puppet=>
site.pp --debug --trace --logdest "BASE_DIR/dpk/dpklog.log"
```


Chapter 4

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 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

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 4-1: 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 8.56, 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 8.56 category, and select Configuration Manager.

Note. See the documentation for your operating system for information on accessing the Apps screen.

- If the *PeopleTools 8.56* program group was not installed on this workstation, run *pscfig.exe* directly from the *PS_HOME\bin\client\winx86* directory on the file server.

Task 4-2: 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 Microsoft SQL Server.

- *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.
- *Server Name* — The name of the MSS database server to connect to. This is used for setting up the ODBC connection later in this chapter.
- *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.

Task 4-3: 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.

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 - 'Default'

Database/Application Server | **Process Scheduler** | nVision | Common

General

PeopleSoft Home Directory (PS_HOME): C:\PT8.56\

PeopleSoft App Home Directory (PS_APP_HOME): C:\app_home\

PeopleSoft Customizations Home Directory (PS_CUST_HOME): C:\PT8.56\

Temp Directory (TEMP): c:\temp

Crystal Reports (CRWRPTPATH): C:\PT8.56\crw

Database Drivers (DBBIN): C:\Program Files\Microsoft SQL Server\110\T

Output Directory (OUTPUT): c:\temp\

Word Executables Directory (WINWORD):

Log Directory (LOG): c:\temp

☐ Redirect Output

Application Engine

☐ Debug

☐ Disable Restart

SQR

SQR Executables (SQRBIN): C:\PT8.56\bin\sqr\MSS\binw

PSSQR Path: C:\PT8.56\sqr

SQR Flags (PSSQRFLAGS): -ZIFC:\PT8.56\sqr\pssqr.ini

COBOL

COBOL Executables (CBLBIN): C:\PT8.56\cblbin

OK Cancel Apply

Edit Profile dialog box: Process Scheduler tab

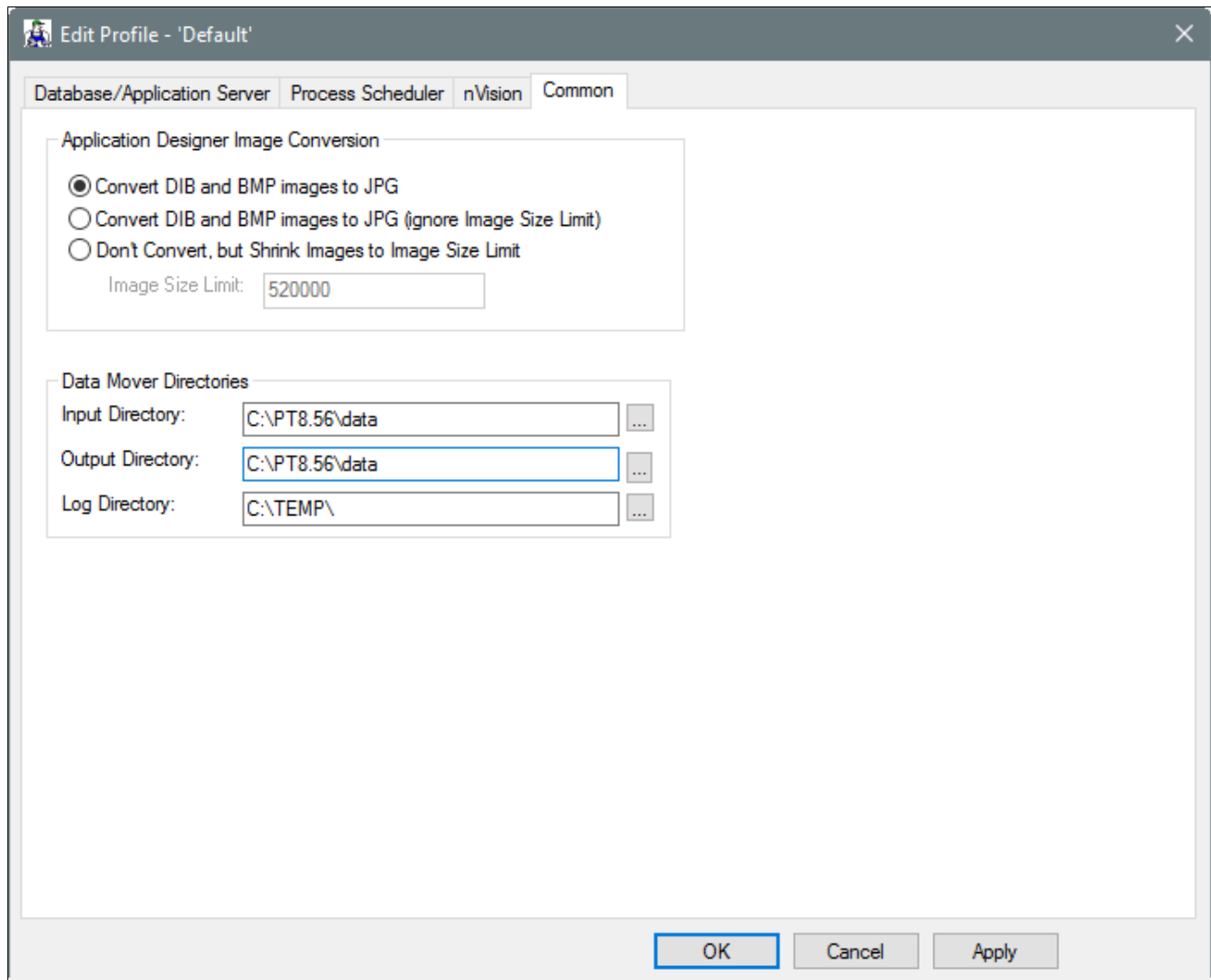
- Verify that the PeopleSoft Home Directory (PS_HOME) field is set to the path to *PS_HOME* on the file server.
- Verify that the PeopleSoft Apps Home Directory (PS_APP_HOME) field is set to the path to *PS_APP_HOME* on the file server, C:\app_home in this example.

Note. The installation using PeopleSoft DPKs requires that *PS_APP_HOME* and *PS_HOME* be different.

- Set the Database Drivers (DBBIN) field to the path for the database connectivity files, if necessary. The example shows the default for Microsoft SQL Server, C:\Program Files\Microsoft SQL Server\110\Tools\Binn.
- 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.

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 and .DAT files 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 4-4: Running Client Setup

The Client Setup tab does the following:

- Installs a PeopleSoft program group on the workstation.
- Installs system DLLs on the workstation.

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 8.56*.
3. If you do not have a PeopleTools 8.56 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 8.56 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 8.56 program group or install local DLLs.
 5. Click OK to run Client Setup and close Configuration Manager.

Chapter 5A

Creating a Database

This chapter discusses:

- Understanding the Database Configuration Wizard
- Fulfilling PeopleSoft Database Configuration Wizard Prerequisites
- Using the Database Configuration Wizard in Silent Mode
- Cleaning Up Orphaned Language Data
- 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).

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.

See "Creating a Database Manually on Microsoft Windows or UNIX."

Note. If you are using the PeopleSoft Upgrade Source Image, you must create a Demo database.

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 5A-1: Fulfilling PeopleSoft Database Configuration Wizard Prerequisites

This section discusses:

- Installing the PeopleSoft Database Server Components on the Database Server
- Obtaining Windows Administrator Authority

- Setting Up the Collation

Task 5A-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 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 run the Database Configuration Wizard at the database server.

See the information on PeopleSoft Configuration Manager in the *PeopleTools: System and Server Administration* product documentation.

See Also

"Using the PeopleSoft Installer"

"Setting Up the Install Workstation"

Task 5A-1-2: Obtaining Windows Administrator Authority

To run the Database Configuration Wizard, you must be a Windows administrator of the target server. This is necessary because the Database Configuration Wizard will start and stop the SQLServer service and create or modify several directories.

Task 5A-1-3: Setting Up the Collation

The default collation for PeopleSoft databases is Latin1_General_Bin. If you want to use a collation other than Latin1_General_Bin, you will need to modify the createdb.sql script in the *PS_HOME*\scripts directory and replace Latin1_General_Bin with the desired collation before running the Database Configuration Wizard. The PeopleSoft software supports any sort that is case-, accent-, width-, and kana-sensitive.

If you modify the collation for the database you may also have to modify the sort order option in PeopleSoft PeopleTools after you configure PIA. A modification in the collation usually impacts the sort order of the database.

See "Setting Up the PeopleSoft Pure Internet Architecture."

Some components of PeopleSoft PeopleTools cannot rely on the database to sort data and must do so in memory. The sort order option on the PeopleTools Options page enables you to select which sort order should be used by PeopleSoft PeopleTools when sorting data in memory.

You should set this option soon after you have completed the installation of the database and your PIA environment; choose the option that most closely approximates the sort order that you selected when creating the database.

To set the sort order:

1. Select PeopleTools, Utilities, Administration, PeopleTools Options.
2. Select an option from the Sort Order Option drop-down list box.
3. Click Save.

Task 5A-2: Using the Database Configuration Wizard in Silent Mode

This section discusses:

- Understanding the Database Configuration Wizard
- Preparing the Response File
- Running the Silent Mode Database Creation

Understanding the Database Configuration Wizard

When you run the Database Configuration Wizard, Data Mover typically performs the following actions:

1. **IMPORT *** 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. For the current release, 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.

Task 5A-2-1: Preparing the Response File

In the current release, the Database Configuration Wizard is run in silent mode. In silent mode, you provide the required information in a response text files and run the script without further interaction. After installation, you can find a sample response file, `mss_resp_file.txt`, in `PS_HOME/setup/PsMpDbInstall`.

The response file is organized with basic and RDBMS-specific sections, with explanations for many entries. Copy the file and modify the values for your environment. Save the file in a location referred to in this section as `<path_to_response_file>`. To exclude a line of text in the file, enter a pound sign (#) at the beginning of the line.

1. Review the comments and instructions.

Note the command to run the silent installation.

```
#
#Response file for Database Configuration Wizard (DCW)
#
```

```
# Notes:
# 1. In Windows:
#   Open a command prompt; go to PS_HOME\setup\PsMpDbInstall and run⇒
#   following command:
#   setup.bat -f <path_to_response_file>
#
# 2. Please use forward slashes( / ) for specifying Windows directories⇒
#   (like I:/install_mss)
# 3. Change the values for your environment.
```

2. Specify the location for the PeopleSoft application software, PS_APP_HOME.

Note that the DPK installation requires that the *PS_APP_HOME* location, where the PeopleSoft application is installed, is different than the *PS_HOME* location where the PeopleSoft PeopleTools software is installed. The *PS_HOME* location cannot be changed in the Database Configuration Wizard response file.

```
#####
```

BASIC Input

```
#####
```

```
#The following inputs are required in the response file for silent⇒
#installation.
#PS_HOME=Installation location.
#Do not change anything. It will be determined automatically by the⇒
#installer.
PS_APP_HOME=C:\fscm_app_home
```

```
#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.
```

3. To create a Microsoft SQL Server database, choose DB_SERVER_TYPE=MSS, and leave the comment characters in front of the other selections.

```
#DB_SERVER_TYPE=ORA
DB_SERVER_TYPE=MSS
#DB_SERVER_TYPE=DB2
#DB_SERVER_TYPE=DB2UNIX
#DB_SERVER_TYPE=DB2ODBC
```

4. Specify whether you want to create a Demo or System database for DB_TYPE.

```
# DB_TYPE=DMO/SYS
# This specifies the type of database you want to create. Specify DMO⇒
# for Demo Database or SYS for System Database.
#
CREATE_DB_TYPE=DMO
```

5. To create a Unicode database, specify 1 (one) for the UNICODE parameter, or 0 (zero) for non-Unicode.

Oracle recommends Unicode, but also supports non-Unicode (legacy) code sets, in PeopleSoft databases. Use the values listed previously to specify the character set for DB_CHARSET_CODE and description for DB_CHAR_DES.

See "Preparing for Installation," Planning Multilingual Strategy for information on allowed character sets.

For example, for a Unicode database:

```
#UNICODE=0
# This value is determined in unicode.cfg. Specify the value here to⇒
  override that setting.
#
UNICODE=1
DB_CHARSET_CODE=Latin1_General_BIN
DB_CHAR_DES=Latin1_General_BIN
```

For non-Unicode:

```
#UNICODE=0
# This value is determined in unicode.cfg. Specify the value here to⇒
  override that setting.
#
UNICODE=0
DB_CHARSET_CODE=Latin1_General_BIN
DB_CHAR_DES=Latin1_General_BIN
```

6. The base language selection (BASE_LANGUAGE) is used to determine what primary base language you want to run the 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*.

```
BASE_LANGUAGE=ENG
#APP_LANGUAGE = UKE
```

7. Specify the user name for the Connect ID, and the Connect ID password.

The Connect ID must be eight characters or less. The password for the Connect ID should contain only alphanumeric characters and must be between 6 and 30 characters.

```
DB_DB_NAME=FSDMO
PS_CONNECT_ID=people
PS_CONN_PWD=<password>
PS_CONN_PWD_RETYPE=<password>
```

8. Specify the Application Server User ID and password.

The password should contain only alphanumeric characters and is between 1 and 32 characters in length.

```
PS_APP_USER=PS
PS_APP_PWD=<password>
PS_APP_PWD_RETYPE=<password>
```

9. Specify the user ID and password for the PTWEBSEVER profile.

The default Web server user is PTWEBSEVER. 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.

The password should contain only alphanumeric characters and is between 6 and 32 characters in length.

```
PS_WEB_USER=PTWEBSEVER
PS_WEB_PWD=<password>
PS_WEB_PWD_RETYPE=<password>
```

10. Set the parameter `ENABLE_USERPROFILE` to 1 (one) to leave the User profiles (other than the Application Server User Profile and Web server User profiles) unchanged. Set this option to 0 (zero) to disable all the User profiles in the database except the Application Server User Profile and Web server User profiles.

```
ENABLE_USERPROFILE=1
```

11. Specify how to set the user passwords.

- Set the parameter `SET_GLOBAL_PWD` to 0 (zero) to specify a password that is the same as the User ID (for example, VP1/VP1).
- Set the parameter `PS_GLOBAL_PWD` to 1 (one) to set a common global password for all the User profiles in the database.

If you set the option to 1, for `PS_GLOBAL_PWD`, specify the password to be used for all user profiles.

```
SET_GLOBAL_PWD=0
#PS_GLOBAL_PWD=
```

12. Specify the path to the connectivity binaries.

The default path for Microsoft SQL Server 2012 is `C:\Program Files\Microsoft SQL Server\110\Tools\Binn`, as shown in the example.

If you are using SQL Server 2014, the default path is `C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\110\Tools\Binn`.

If you are using Microsoft SQL Server 2016, the default path is `C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\130\Tools\Binn`.

```
#####
```

```
MSS Input
```

```
#####
```

```
DIR_QUERY_TOOLS=C:\Program Files\Microsoft SQL Server\110\Tools\Binn
```

13. Specify the SQL Server name (default or named instance) of the server you are using to install the application.

This is the server that will host your database. You can use the name of a default instance or a named instance. Default instances only require the name of the SQL Server server. A named instance entry requires more details. Here is an example of a named instance entry: `SERVER1\SQL2012`, where "SERVER1" is the name of the SQL Server server and "SQL2012" is the named instance name.

```
DB_SERVER_NAME=SERVER1\SQL2012
```

14. Specify the PeopleSoft database name.

The name must be uppercase and can have no more than eight characters.

See "Preparing for Installation," Planning Database Creation.

```
DB_DATA_NAME=FSDMO
```

15. Choose whether to configure a server and create a database (`DB_CONFIG_SRVR=01`), or create a database on an existing server (`DB_CONFIG_SRVR=0`).

If this is your first time installing the application, select configure a server and create database. Otherwise, choose create a database on existing server.

```
DB_CONFIG_SRVR=0
```

16. Specify the full path and file name for the Microsoft SQL Server Data file name.

```
DB_DATA_FL_NME=C:\PS_HOME\FSDMO_data.mdf
```

17. Specify the Microsoft SQL Server Data File Size, the initial physical size in megabytes of the file that will host your database data.

```
DB_DATA_SIZE=3000
```

18. Specify the logical name of the log device, a name that identifies the physical device that allocates your database log.

```
DB_LOG_NME=FSDMOlog
```

19. Specify the full path and file name for the Microsoft SQL server log file.

```
LOG_FILE_NME=C:\PS_HOME\FSDMO_log.ldf
```

20. Specify the log file size, the initial amount of space in megabytes assigned to your database log.

```
DB_LOG_SIZE=700
```

21. Specify the PeopleSoft Symbolic ID.

Accept the default value provided or use the same value as the ACCESSID. This value will be used internally by your PeopleSoft application; for example, sa.

```
STRSYMBOLICID=sa
```

22. Specify ADMIN_USER.

The Database Configuration Wizard will use this server user to create the PeopleSoft database and all of its objects, and assign the access permissions to the ACCESSID and the CONNECTID. This user should have permissions to create databases and grant permissions to the objects created at the PeopleSoft database. This user could be used as a database administrator user which has the ability to back up and restore the database when necessary and also to perform other administrative tasks. This user is not the ACCESSID and will not be used by the applications to access the database.

```
ADMIN_USER=sa
```

23. Specify the password for the Admin User ID two times.

The password is necessary to be able to log in to the server and run the database installation during the installation process.

```
ADMIN_PASS=<password>
```

```
ADMIN_PASS_RETYPE=<password>
```

24. Specify the PeopleSoft ACCESSID and its password.

This is the PeopleSoft ACCESSID defined in the task "Planning Database Creation." You use it when signing on to Data Mover in "bootstrap mode." The ACCESSID value is case sensitive, and you must limit it to eight characters or less. The password must be between 6 and 30 characters, with no spaces.

See "Preparing for Installation," Planning Database Creation.

```
ACCESS_ID=satst
```

```
ACCESS_PWD=<password>
```

```
ACCESS_PWD_RETYPE=<password>
```

Task 5A-2-2: Running the Silent Mode Database Creation

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.

On Microsoft Windows:

1. In a command prompt, go to `PS_HOME\setup\PsmPdbInstall`.
2. Run the following command, using forward slashes (/) to specify the path:

```
setup.bat -f <path_to_response_file>
```

For example:

```
setup.bat -f D:/psftinstall
```

Task 5A-3: Cleaning Up Orphaned Language Data

Perform this task if you are a Multilingual customer and are installing non-English languages. This task assumes that you have loaded the necessary language files. If you have not yet loaded the language files, follow the instructions in the Global Technology product documentation.

See *PeopleTools: Global Technology*, "Adding Translations to an Existing Database on the Same PeopleTools Version."

The Application Engine program PTIACLEANLNG removes any orphaned related language objects that do not have a matching base language object.

1. Run the following SQL statement using the appropriate SQL query tool for your RDBMS.

For `<Log Path>`, specify the path where you want the log for the application engine program in step 2 to be generated, such as `c:\temp\`.

```
UPDATE PS_PTIASPDMPARAM SET PTIASPPROPVAL = '<Log Path>' WHERE
PTIASPPROPNM = 'DMLOGPATH';
```

2. Run the PTIACLEANLNG application engine program.

From the command line utility, the syntax is::

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> ->
CP <pswd> -R <run_control> -AI PTIACLEANLNG
```

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>`.

Task 5A-4: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover

- Troubleshooting
- Improving Performance

Task 5A-4-1: 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.*

Task 5A-4-2: Running Data Mover

If the Database Configuration Wizard does not complete successfully, you must run Data Mover manually, using one of the following methods.

Microsoft Windows

- On Microsoft Windows 2012 R2, access the Apps screen, and navigate to PeopleTools 8.56, Data Mover to run a graphical user interface (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

Task 5A-4-3: 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_APP_HOME/scripts* directory. The script conforms to the following naming convention:

<dbname>mss.dms

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 ACCESSID 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>mss.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 - PeopleSoft Database - US English
/
SET LOG epengs.log;
```

```

SET INPUT epengs.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 - PeopleSoft Database - US English
/
SET LOG epengs2.log;
SET INPUT epengs.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).

Task 5A-4-4: Improving Performance

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover on the database server.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all trace options.
Tracing during a DMS load will add considerable time to the process.
- Run Data Mover on the database server with the .db or .dat file located locally.

Chapter 5B

Creating a Database Manually

This chapter discusses:

- Understanding Database Creation
- Creating a Database
- Configuring an ODBC Data Source
- Running ADDOBJ.SQL
- Setting Up the CONNECTID
- Creating the ACCESSID
- Creating Data Mover Import Scripts
- Running Data Mover Import Scripts
- Cleaning Up Orphaned Language Data
- 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.

- *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.

Note. The PeopleTools System Database (PTSYS) is not available with the current release. As an alternative, install the latest PeopleSoft Interaction Hub database.

Note. If you are using the PeopleSoft Upgrade Source Image, you must create a Demo database.

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.

- You must have installed the Database component of your PeopleSoft application installation software to your database server.
- You must have the PeopleTools Development Environment set up to create your database.

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 documentation for the basic installation of PeopleSoft PeopleTools and the PeopleSoft Application, and any additional instructions provided by CRM. Search in My Oracle Support for the installation documentation specific to your application.

Important! For Microsoft SQL Server 2012 and above use the installation scripts with the following naming convention: <script name>.sql. Use these scripts when installing with Microsoft SQL Server 2012 or newer versions of Microsoft SQL Server.

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 5B-1: Creating a Database

You can use Microsoft's SQL Enterprise Manager or the delivered SQL script, *PS_HOME\scripts\createdb.sql*, to create your database. If you decide to use Enterprise Manager to create your database you still need to review the script provided by Oracle to create the database to make sure all the necessary options are selected. Regardless of the method you use, keep the following in mind:

- The name of the database must be in UPPERCASE, must not exceed eight characters, and must not start with a number.
- For performance reasons, we recommend placing the database data files and log files on separate physical drives (spindles) and using separate disk controllers.
- If you are creating the database remotely, confirm that you have installed client connectivity on the workstation.
- You will need a user with DB creation permissions to create your PeopleSoft database. This is a major difference from previous PeopleSoft PeopleTools releases, because this user will not be your ACCESSID anymore.
- You will need to create an ACCESSID user. Oracle provides the necessary scripts for this purpose as explained later in this chapter.
- Your ACCESSID and its password must be eight characters or less.

Please carefully review the *createdb.sql* script before running it. The script includes instructions, as well as several default statements that you can customize for your environment.

Collation and sort order

This script will create your database with the following collation:

```
COLLATE Latin1_General_BIN
```

The default collation for PeopleSoft databases is Latin1_General_BIN. If you want to use a collation other than Latin1_General_BIN, you will need to modify createdb.sql in the *PS_HOME*\scripts directory and replace Latin1_General_BIN with the desired collation before running the script. For further information on selecting a collation refer to the first chapter in this guide.

See "Preparing for Installation."

If you modify the collation for the database you may also have to modify the option in PeopleSoft PeopleTools that controls the sort order after you set up PIA. A modification in the collation usually impacts the sort order of the database.

See "Setting Up the PeopleSoft Pure Internet Architecture."

To set the appropriate sort order:

Some components of PeopleSoft PeopleTools cannot rely on the database to sort data and must do so in memory. The sort order option on the PeopleTools Options page enables you to select which sort order should be used by PeopleSoft PeopleTools when sorting data in memory.

See the information on sort order in the *PeopleTools: Global Technology* product documentation.

You should set this option soon after you have completed the installation of the database and your PIA environment (in the chapter "Setting Up the PeopleSoft Pure Internet Architecture"). Choose the option that most closely approximates the sort order that you selected when creating the database.

1. Select PeopleTools, Utilities, Administration, PeopleTools Options.
2. Select an option from the Sort Order Option drop-down list box.
3. Click Save.

Database options

The script will turn on several database options with the following commands:

```
ALTER DATABASE <DBNAME>
SET ARITHABORT ON
go
ALTER DATABASE <DBNAME>
SET QUOTED_IDENTIFIER ON
go
```

where <DBNAME> is your database name. The option QUOTED_IDENTIFIER can be changed at the connection properties section under the ODBC Administrator and as an option in SQL Server Management Studio. Make sure this option is enabled for any client connecting to your PeopleSoft database that will execute SQL.

Note. If you create your database through the Enterprise Manager be sure to turn ON both options in this section manually. You may run the previous commands through SQL Server Management Studio after creating the database.

See "Preparing for Installation," Installing Client Connectivity.

Maximum file size

Set the maximum file size for data files and transaction log to unrestricted file growth. Once your data is imported, file growth can be restricted as needed.

If you are using the createdb.sql script you can change the growth option for your database device files by modifying the portion of the script similar to that below. Remove the comment characters (" - ") and edit the statements to fit your environment:

```
-- ALTER DATABASE <DBNAME> MODIFY FILE (NAME = <DATANAME>, MAXSIZE =>
```

```
UNLIMITED)
-- go

-- ALTER DATABASE <DBNAME> MODIFY FILE (NAME = <LOGDATANAME>, MAXSIZE =>
UNLIMITED)
-- go
```

If you are using Enterprise Manager to create a PeopleSoft database, specify unrestricted file growth, but do not turn on any special options—unless you are using *Truncate Log on Checkpoint* for data import. You will set some database options by running the script ADDOBJ.SQL in a subsequent task.

Task 5B-2: Configuring an ODBC Data Source

Now that you have established your database name and location, you can set up an ODBC data source on the database client.

Note. With Microsoft SQL Server 2005 and above a new connectivity driver was delivered for Microsoft SQL Server databases named "Sql Native Client" or SNAC. Ensure that you use this driver during installation.

To run on a 64-bit machine, confirm that you are using the correct connectivity drivers. Beginning with the PeopleSoft PeopleTools 8.54 release, PeopleSoft PeopleTools client and server executables are 64-bit. If you are running on a 64-bit operating system you need only the 64-bit connectivity drivers for PeopleSoft PeopleTools.

You need to create the ODBC Data Source under System DSN for 64-bit applications only.

The 64-bit odbcad32.exe is found in C:\windows\system32. This is the correct version for 64-bit PeopleSoft PeopleTools clients and servers such as Application Server, Process Scheduler, Application Designer (pside.exe) and Data Mover (psdmt.exe).

When you run odbcad32 on a 64-bit Microsoft Windows machine (Start, Programs, Control Panel, Administrative Tools, ODBC Data Administrator), the 64-bit version of odbcad32.exe (C:\windows\system32) is used by default.

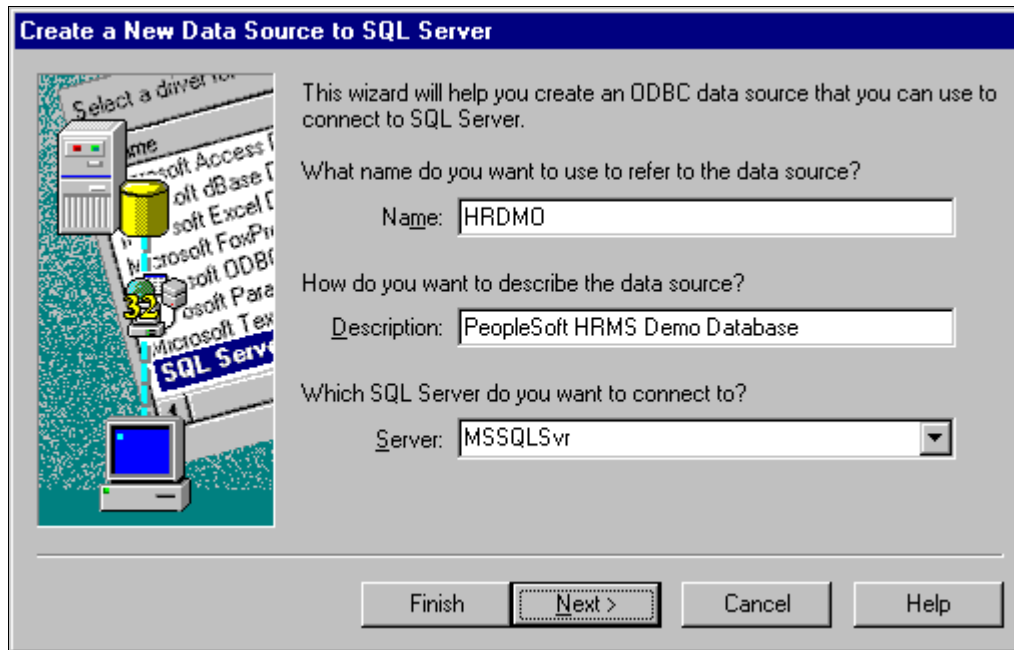
Note. You will need to configure a separate ODBC data source for each additional database that you create.

The following procedure shows how to set up a Data Source.

To configure an ODBC data source using ODBC Administrator:

1. In the Create a New Data Source to SQL Server dialog box, enter the database name in the Name text box and the server name in the Server text box.

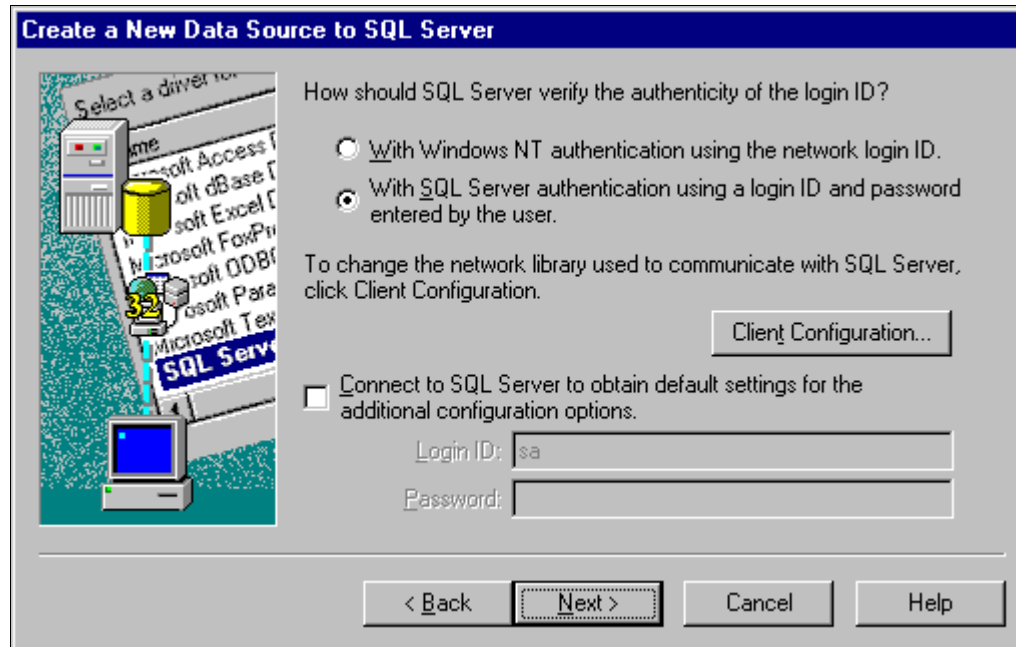
You must enter the data source name in uppercase. Filling in the Description text box is optional. Click Next.



Entering the Name, Description, and Server in the Create a New Data Source to SQL Server dialog box

2. Use SQL Server Authentication to verify the authenticity of the login ID and select the option Connect to SQL Server to obtain default settings for the additional configuration options.

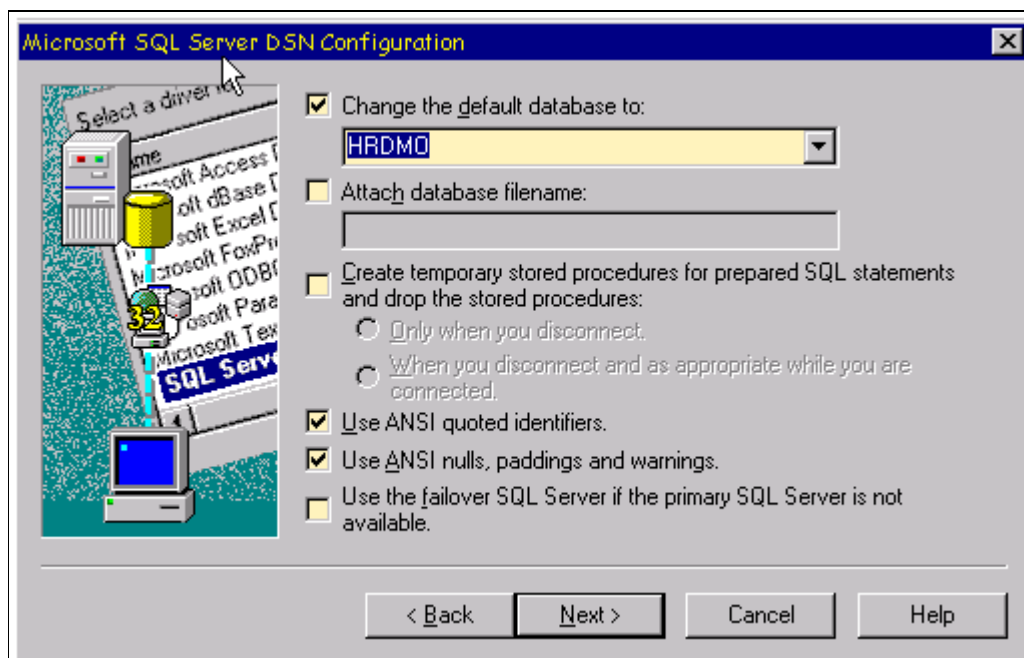
Click Next. For information on using different Client Configuration options consult the *PeopleTools: Data Management* product documentation.



Selecting the authentication type and configuration options in the Create a New Data Source to SQL Server dialog box

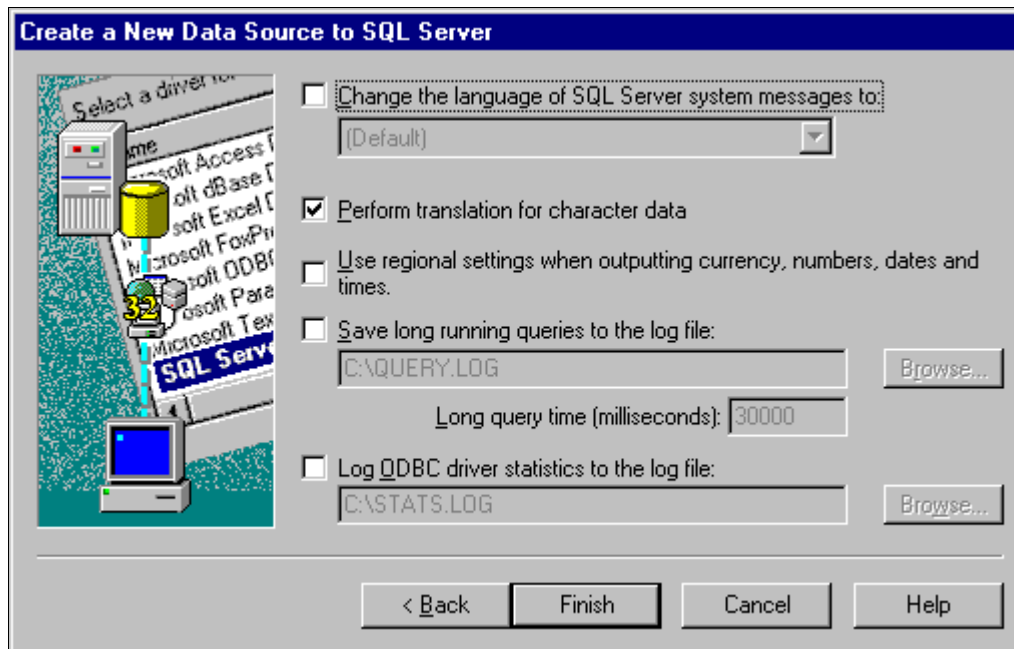
3. Select the option Change the default database to, and enter your database name—be sure to enter your database name in uppercase.

For PeopleSoft, the data source name and the database name must be the same. Leave the options Use ANSI quoted identifiers and Use ANSI nulls, padding and warnings selected. Make sure to deselect (unless it is grayed out) the option Create temporary stored procedure for Prepared SQL Statements and drop the stored procedures. We do not use temporary stored procedures with SQL Server to prepare execution plans. Click Next.



Entering the database name and select your ANSI options in the Create a New Data Source to SQL Server dialog box

- Click Finish at the next dialog box.



Finalizing the Data Source setup in the Create a New Data Source to SQL Server dialog box

Task 5B-3: Running ADDOBJ.SQL

For this step you will need a SQL Server login with the ability to create new datatypes and views on the PeopleSoft database created in the task "Creating a Database". You can use the same login utilized to create the database.

Use a query tool such as SQL Server Management Studio or something similar, to run the following SQL script while in the PeopleSoft database:

```
PS_HOME\SCRIPTS\ADDOBJ.SQL
```

Please read the instructions in the SQL script carefully and review it with your DBA before running it. You will need to edit certain parameters like the database name "<DBNAME>".

This script creates user-defined data types and system catalog views that both Data Mover and PeopleSoft PeopleTools use. It also enables the *ANSI Null Default* option.

Note. Make sure that you set the context of your session in your PeopleSoft database before you run the script. If this script is accidentally run in the master database, it will yield an error. See the script for more details. Running ADDOBJ.SQL is a prerequisite to running Data Mover against your database. To check that the *ANSI Null Default* option has been set, run the following T-SQL command with a query tool like the SQL Server Management Studio: `sp_dboption <databasename>`

Task 5B-4: Setting Up the CONNECTID

This section discusses:

- Understanding the CONNECTID
- Defining the CONNECTID
- Creating the CONNECTID

Understanding the CONNECTID

You establish connections to a database by using the CONNECTID, which allows you to associate multiple PeopleSoft operators to the same CONNECTID. The CONNECTID 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 user ID to control access to objects in the database. The PeopleSoft sign-on process validates the CONNECTID on the server, rather than the user ID. CONNECTID simplifies database security maintenance. You don't have to maintain access for all PeopleSoft users, just for the CONNECTID.

The CONNECTID is granted access using the following script:

Connect.sql: To run the script you must use a login with the ability to grant permissions and create users over the PeopleSoft database created in previous steps. You can use the same user utilized to create the database to run this script. Consult with your DBA and review the script to understand it before running it. A system administrator user has the necessary permissions to run this script.

The CONNECTID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

Task 5B-4-1: Defining the CONNECTID

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 gives the steps and related database operations:

Log-in Processing Steps	Related Database SQL Operations
The access to SQL Server and the PeopleSoft Database is established with the CONNECTID not the User ID.	Connect=PT84/<ConnectID>/<ConnectIDPassword>
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTM, LASTCHANGEDTTM FROM PSSTATUS
Validate the User ID and Password	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSOPRDEFN WHERE OPRID =1
Get the ACCESSID and Password	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSACCESSPROFILE WHERE SYMBOLICID =1
Disconnect CONNECTID	Disconnect
Login using the ACCESSID	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 5B-4-2: Creating the CONNECTID

To create the CONNECTID:

1. Start a query tool like SQL Server Management Studio and connect to the PeopleSoft database using a System Administrator login or the designated user chosen on the previous step.
2. Open the script *PS_HOME*\scripts\CONNECT.SQL.
3. Edit the script to use the desired CONNECTID and Connect Password.

Note. The PeopleSoft default for CONNECTID is "people" (with the letter "l").

Note. Your CONNECTID must follow the PeopleSoft naming convention—that is, the user name and password can't be longer than eight characters and do not use special characters. Also remember you may need to comply with the Microsoft Windows server password policies if they are enabled at your site.

4. Run the script. (Make sure you are executing the script against the PeopleSoft database, not the master database.)

Task 5B-5: Creating the ACCESSID

The ACCESSID is the database user utilized by the PeopleSoft system to run all the necessary SQL for the system to operate. For PeopleSoft PeopleTools 8.50 and later releases, the ACCESSID user is not required to be a system administrator; hence the ACCESSID will not have the ability to create or drop databases, create or drop databases users, run backups or restore them, grant privileges on the database and other administrator related tasks that are not required to run PeopleSoft applications.

You will need to create a database user and designate it as your ACCESSID utilizing the script *CREATE_ACCESSID.SQL* delivered under *PS_HOME*\scripts. To run this script you will need a user with sufficient security privileges to create the database user and assign it the appropriate rights specified in the script. A system administrator user has more than enough privileges to run this script.

To create the ACCESSID:

1. Start a query tool like SQL Server Management Studio and connect to the PeopleSoft database using a System Administrator login or the designated user chosen on the previous step.
2. Open the script *PS_HOME*\scripts\CREATE_ACCESSID.SQL.
3. Edit the script to use the desired ACCESSID and ACCESSID password.

Note. For PeopleSoft PeopleTools 8.50 and later releases the ACCESSID is not required to be a system administrator. Your ACCESSID must follow the PeopleSoft naming convention—user name cannot be longer than eight characters and cannot use special characters. Also remember you may need to comply with the Windows server password policies if they are enabled in the site.

4. Run the script. (Make sure you are executing the script against the PeopleSoft database, not the master database.)

Task 5B-6: 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.

Task 5B-6-1: 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 are installing. 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.

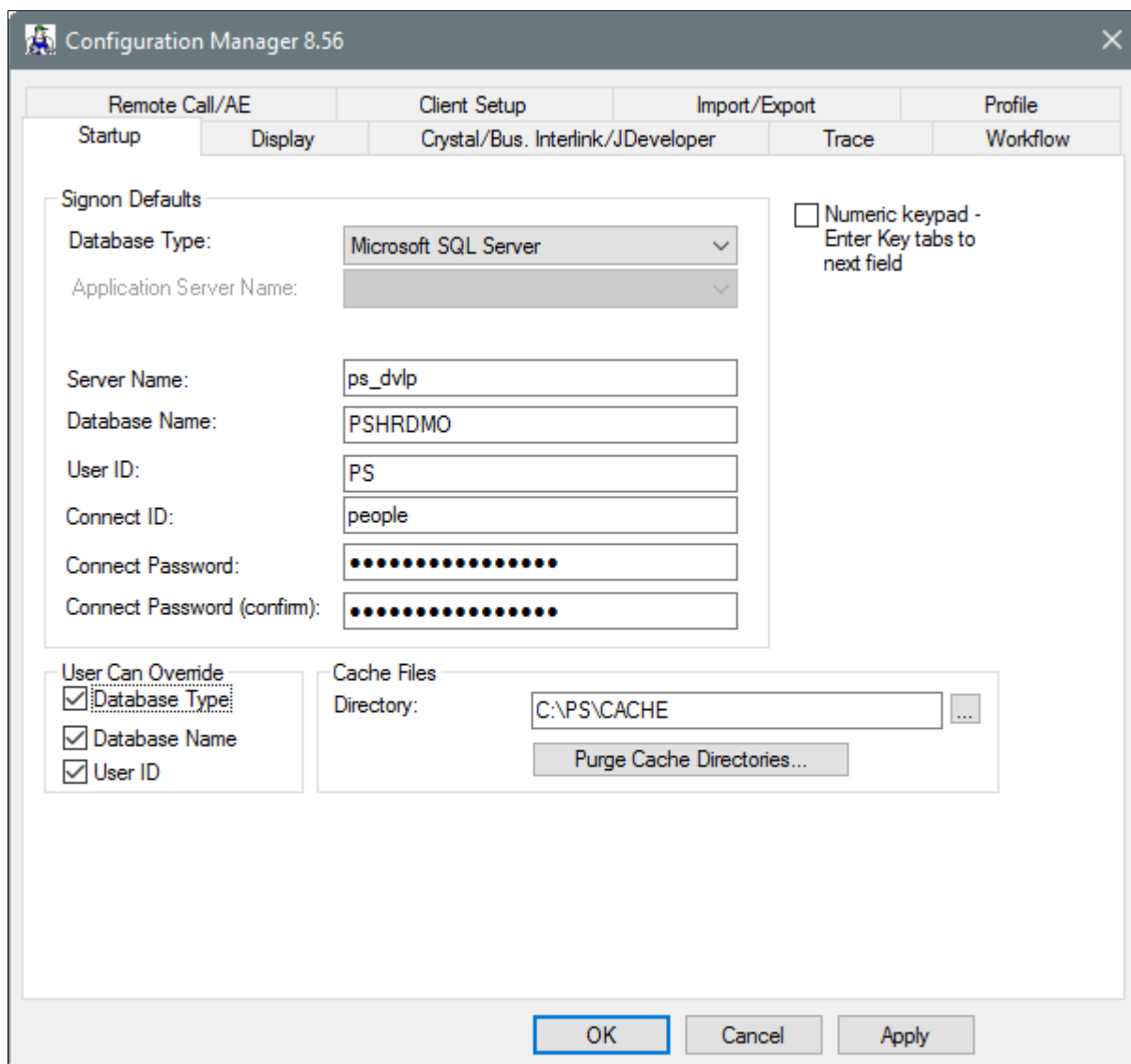
See *PeopleTools: Global Technology*.

Task 5B-6-2: 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 2012 R2, access the Apps screen and navigate to PeopleTools 8.56, Configuration Manager.
 - Run `PS_HOME\bin\client\winx86\pscfg.exe`.
2. Verify in the Signon Defaults on the Startup page that the Database Type of Microsoft SQL Server 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.

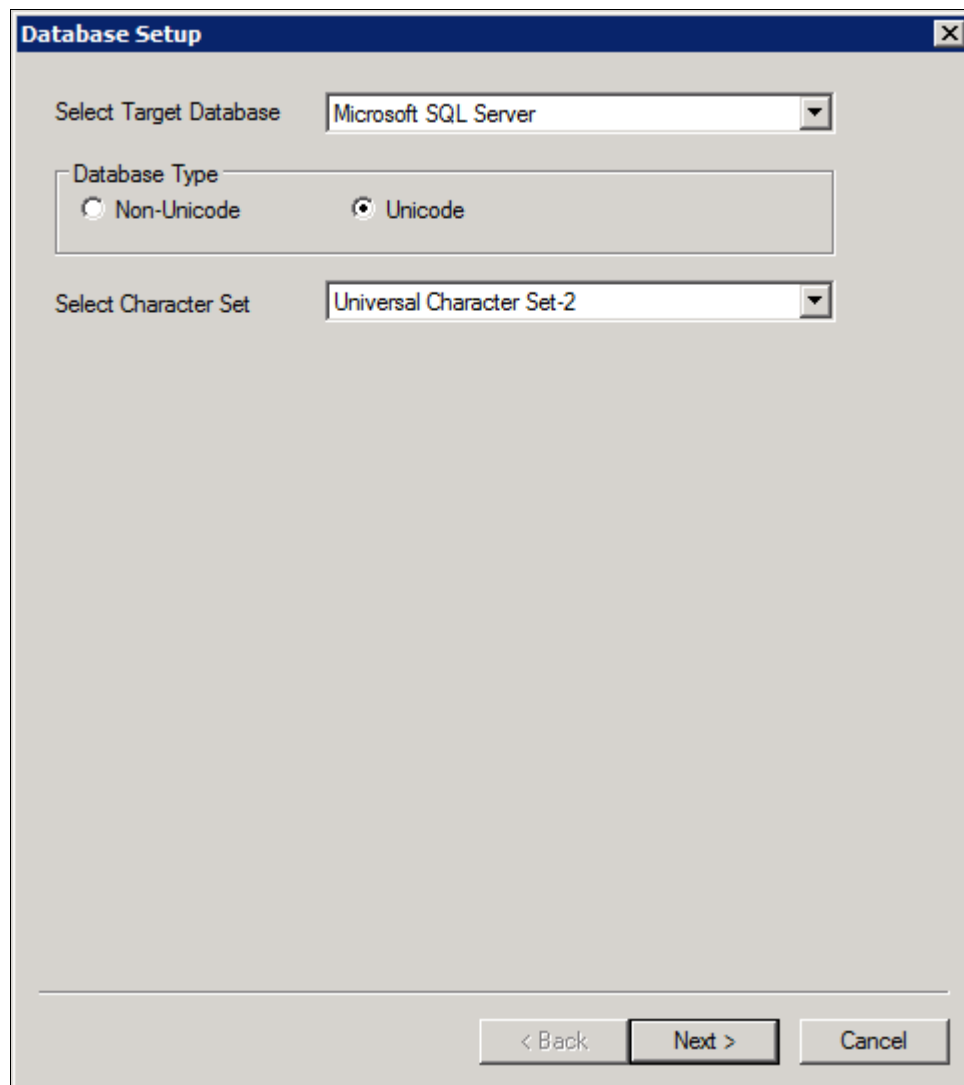
4. If the *PS_APP_HOME* location is not the same as *PS_HOME*, make sure it is set in Configuration Manager, as follows:
 - a. In Configuration Manager, select Profile.
 - b. Highlight the Default Profile and select Edit.
 - c. On the Edit Profile dialog box, select the Process Scheduler tab.
 - d. Verify 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 2012 R2, access the Apps screen and navigate to PeopleTools 8.56, Data Mover.
 - Run *PS_HOME\bin\client\winx86\psdmt.exe*.
6. Log on using the ACCESSID 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 ACCESSID to eight characters or less. You must limit the ACCESSID 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 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.

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.

Note. If you are using the PeopleSoft Upgrade Source Image, you must create a Demo database.

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 components.

12. Set the database parameters described below and then click Finish.

Database Setup - Database Parameters

Database Parameters

Database Name: PSHRDMO

Symbolic ID: sa1

Access ID: sa

Access Password:

Connect ID: people

Application Server ID:

Application Server Password:

Web Server ID: PTWEBSERVER

Web Server Password:

☒ Enable All Profiles ☒ Set Global Password

Global Password:

< Back Finish Cancel

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. This name must be the same as that of the ODBC data source.
- 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:* This is the ACCESSID user created with the CREATE_ACCESSID.SQL. (Note that this user is not a SQL Server system administrator.) 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.

Note. You must limit ACCESSID and CONNECTID to eight characters or less.

- Access Password:* This is the PeopleSoft ACCESSID password defined in the chapter "Preparing for

Installation."

- *Connect ID*: This is the CONNECTID that is used for the initial connection to SQL Server. The standard PeopleSoft configuration delivers people as the connect ID.
- *Application Server ID*: The Application Server ID 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.
- *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.

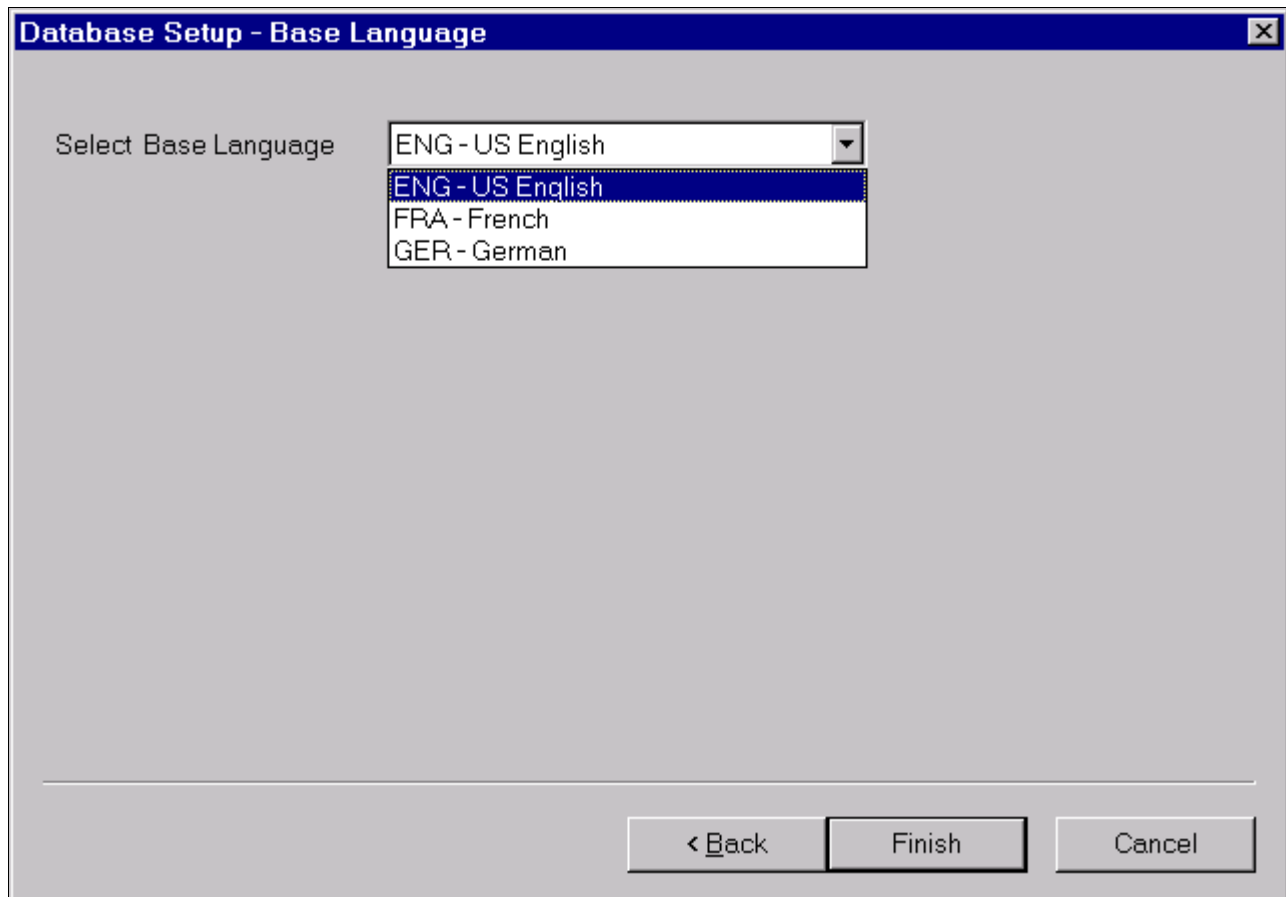
Note. This option is enabled when the Set Global Password option is selected, as shown in the example.

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 are installing. 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

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 5B-7: 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 ACCESSID 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 5B-7-1: 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.

- **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.

Note. When installing an application database, Data Mover may fail when creating the view PTLT_SCOMP_VW1 if the database was delivered on a PeopleSoft PeopleTools release prior to 8.48. This error may be ignored. The view will be created correctly in a later step.

Task 5B-8: Cleaning Up Orphaned Language Data

Perform this task if you are a Multilingual customer and are installing non-English languages. This task assumes that you have loaded the necessary language files. If you have not yet loaded the language files, follow the instructions in the Global Technology product documentation.

See *PeopleTools: Global Technology*, "Adding Translations to an Existing Database on the Same PeopleTools Version."

The Application Engine program PTIACLEANLNG removes any orphaned related language objects that do not have a matching base language object.

1. Run the following SQL statement using the appropriate SQL query tool for your RDBMS.

For <Log Path>, specify the path where you want the log for the application engine program in step 2 to be generated, such as c:\temp\.

```
UPDATE PS_PTIASPDMPARAM SET PTIASPPROPVAL = '<Log Path>' WHERE
PTIASPPROPNM = 'DMLOGPATH' ;
```

2. Run the PTIACLEANLNG application engine program.

From the command line utility, the syntax is::

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> ->
CP <pswd> -R <run_control> -AI PTIACLEANLNG
```

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>.

Task 5B-9: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover

- Troubleshooting
- Improving Performance

Task 5B-9-1: 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 5B-9-2: Running Data Mover

Use one of these methods to run Data Mover.

Microsoft Windows

- On Microsoft Windows 2012 R2, access the Apps screen, and navigate to PeopleTools 8.56, Data Mover to run a graphical user interface (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

Task 5B-9-3: 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 ACCESSID 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>mss.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 - PeopleSoft Database - US English
/
SET LOG epengs.log;
SET INPUT epengs.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 - PeopleSoft Database - US English
/
SET LOG epengs2.log;
SET INPUT epengs.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).

Task 5B-9-4: Improving Performance

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover on the database server.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all trace options.
Tracing during a DMS load will add considerable time to the process.
- Run Data Mover on the database server with the .db or .dat file located locally.

Task 5B-10: 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.

Chapter 6

Completing the Database Setup

This chapter discusses:

- Selecting the Necessary Tasks to Complete the Database Setup
- Running Additional Data Mover Scripts
- Running SQR Reports
- Checking the Database
- Cleaning and Backing Up the Database

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 6-1: 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 or *PS_APP_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.

Task 6-2: 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:\PT856
```

See Also

PeopleTools: SQR for PeopleSoft Developers

PeopleTools: SQR Language Reference for PeopleSoft

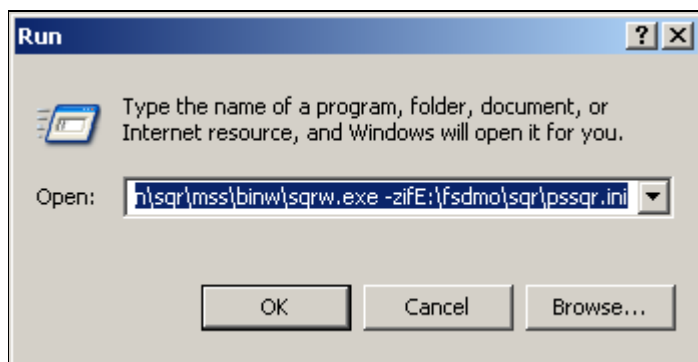
Task 6-2-1: Running SQRs on the Client Workstation

To run an SQR on the client workstation:

1. Select Start, Run, click Browse, and navigate to *PS_HOME*\bin\sqr\MSS\binw.
Select sqrw.exe and click Open.

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

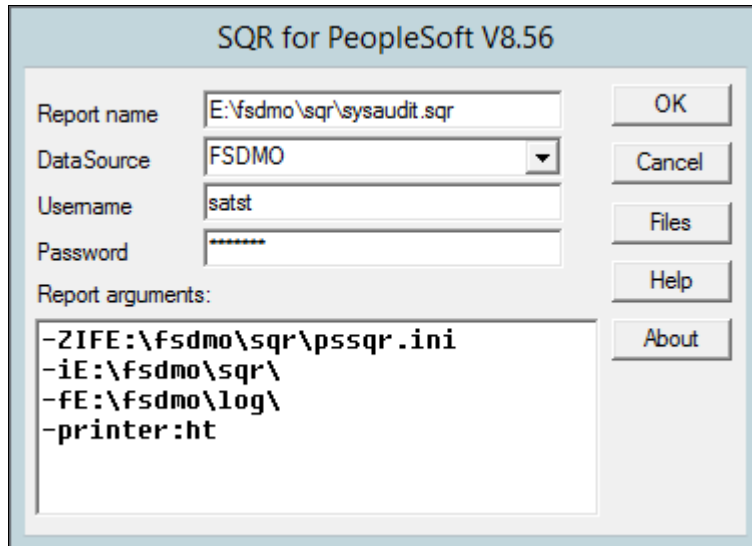
The following table summarizes the SQR report arguments used by PeopleSoft software. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog box.)

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 <code>-keep</code> flag, you must specify the directory with a trailing slash. If you use the <code>-printer</code> 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 <code>-ZIF</code> flag should point to your <code>PS_HOME\sqr\pssqr.ini</code> 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 <code>-f</code> flag.

3. Click OK.

The SQR for PeopleSoft V8.56 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 SYSAUDIT.SQR

4. Enter the following values:

- Enter the report name.
You must specify the full path.
- Enter the database name in the DataSource field.
- Enter the ACCESSID in the Username field.
- Enter the access password in the Password field.

5. Click OK to run the SQR report.

Task 6-2-2: 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\MSS\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.
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.

- Data Source
 - Username: Enter the ACCESSID.
 - Password: Enter the access password.
 - Report arguments: Make any necessary modifications to the saved arguments.
8. Click OK.

Task 6-3: 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."

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

Task 6-4: Cleaning and Backing Up the Database

This step involves running `sp_updatestats`, running some DBCC commands, and dumping your transaction log and database.

To clean and back up your database:

1. To check the integrity of the database, also run the following DBCC command through SQL Server Management Studio or `sqlcmd`:

`DBCC CheckDB`

Oracle recommends that you run this command before you do a dump of your database to confirm that everything is set up properly.

2. Back up the transaction log.

This step is not necessary if you previously enabled *Truncate Log On Checkpoint*. If you *did* enable *Truncate Log On Checkpoint*, you should turn it off at this point. You can use the *No_Log* or *Truncate_Only* option because you will not be saving your log at this time.

3. Back up the database.

Make sure you have a good backup schedule in place so you can recover your work in case of an emergency. This usually includes scheduling nightly backups of the transaction log and weekly backups of the database.

See Also

The SQL Server Books Online

Chapter 7

Deploying Mid-Tier Components

This chapter discusses:

- Understanding the Mid-Tier Deployment
- Running the DPK Setup Script for Mid-Tier Deployment
- Completing Installation Tasks

Understanding the Mid-Tier Deployment

After you complete the database creation, run the PeopleTools DPK setup script again to deploy the mid-tier components for the PeopleSoft environment. Specify the same *BASE_DIR* that you specified when you used the DPK setup script to install the software.

The default mid-tier deployment performs the following:

- Sets up a single application server domain, Process Scheduler domain, and PIA domain.
- On Microsoft Windows, sets up services for the PeopleSoft domains.

Note. On Microsoft Windows, when running the setup script to deploy mid-tier components for previously-created domains, first stop and delete services for configured domains to avoid errors.

- Installs Oracle Tuxedo and Oracle WebLogic software, unless the DPK setup script installed them in previous deployment to the same *BASE_DIR*/pt location.

The DPK installation does not support IBM WebSphere. If you want to use IBM WebSphere rather than Oracle WebLogic as the web server software, you must install it manually and use traditional methods to set up the domains.

Task 7-1: Running the DPK Setup Script for Mid-Tier Deployment

This section discusses:

- Understanding the Mid-Tier Deployment
- Prerequisites
- Running with the Mid-Tier Option on Microsoft Windows

Understanding the Mid-Tier Deployment

Use this procedure to install the PeopleSoft mid-tier components. The deployment includes the following:

- *PS_HOME* installed to the default location under the DPK base directory

- Oracle Tuxedo installed to the default location under the DPK base directory
- Oracle WebLogic installed to the default location under the DPK base directory
- Oracle database client installed to the default location under the DPK base directory
- Deployed and set up PeopleSoft domains. There is a single Application Server domain, single Process Scheduler domain, and single PIA domain.
- Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries

Prerequisites

Before performing the mid-tier deployment, ensure that you have fulfilled the following requirements:

- You have downloaded all of the required PeopleSoft PeopleTools DPKs, and saved them in a location accessible to the Microsoft Windows, Linux, AIX, or Solaris host, referred to here as *DPK_INSTALL*. See Obtaining the PeopleSoft PeopleTools DPKs.

Note. After the DPK setup script extracts the downloaded zip files, it will delete the original zip files in *DPK_INSTALL*. If you want to save the original zip files, make a backup copy in a different folder.

Note. If you want to have a PeopleSoft application-specific local node, for Integration Broker or Report Node, configured during the mid-tier creation, you must also download the first application DPK (normally zip file 9ofn.zip). If the application DPK is not present, the mid-tier deployment will create a PeopleTools-specific default local node.

See "Installing the PeopleSoft Homes," Obtaining the PeopleSoft Application and PeopleTools DPKs.

- Remove any previous installations of the same version of Oracle Tuxedo.
- You extracted the first zip file. The extraction gives a setup folder and other files. See "Deploying the PeopleSoft Homes."
- The user running the script *must have administrative permission* on Microsoft Windows, and *root access* on Linux, AIX, or Solaris.

Note. Restarting services for the deployed PeopleSoft environment, such as those for Oracle Tuxedo, must be performed by the same user (with administrative permission) who carried out the installation.

- There is enough space on the host for the PeopleSoft environment. See "Prerequisites," Reviewing Hardware Requirements on Microsoft Windows.
- For deployment on Linux, AIX, or Solaris, there is a writable directory available for the home for the users that own the PeopleSoft environment. The default is /home.
- For deployment with the AIX DPK, you have installed JDK. See Reviewing Software Requirements.
- You have installed database connectivity software for the database that you want to access on the machine on which you deploy the mid-tier components. See "Completing the DPK Initialization with Customizations."

Note. When installing mid-tier components for environments on Microsoft SQL Server, you must use customizations to complete the installation. The delivered YAML files may not include the necessary RDBMS client information for your environment. Create a `psft_customizations.yaml` file, and include the correct client information. See the chapter "Completing the DPK Initialization with Customizations."

- You have the information for the database to connect to, including:
 - RDBMS platform
 - Database name, service name, host, and listening port
 - Unicode or non-Unicode database
- You have the information for the user IDs and passwords needed for the deployment, including the following:
 - PeopleSoft Connect ID and password
 - PeopleSoft operator ID (such as PS or VP1) and password
 - Application Server Domain Connection password (optional)
 - PTWEBSEVER web profile user password
 - Oracle WebLogic server administrator password
 - Integration Gateway administrator

Task 7-1-1: Running with the Mid-Tier Option on Microsoft Windows

To deploy mid-tier components on physical or virtual Microsoft Windows hosts:

1. Open a command prompt window with Run as Administrator.
2. Change directory to the location where you extracted the first zip file, *DPK_INSTALL/setup*.
3. Run the script with the mid-tier option to set up the Application Server, PIA, and web server mid-tier components.

Note. If you see an error message similar to "The application has failed to start because its side-by-side configuration is incorrect," it indicates that your machine does not include the necessary Microsoft C++ runtime libraries. Go to the Microsoft Web site, locate the Microsoft Visual C++ redistributable package for your system, and install as directed..

- If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

```
psft-dpk-setup.bat --env_type midtier
```
 - If you extracted the first zip file into a different directory, include the option `dpk_src_dir` to specify the location of the downloaded zip files, such as *DPK_INSTALL*.

```
psft-dpk-setup.bat --dpk_src_dir DPK_INSTALL --env_type midtier
```
-

Note. Running the DPK setup script with the `--env_type midtier` option deploys all servers. If you want to deploy one of the servers (application server, Process Scheduler server, PIA, or application server and Process Scheduler server) see the command options in "Installing the PeopleSoft Homes," Reviewing the DPK Setup Script Options.

4. Wait while the script locates the valid PeopleSoft DPK zip files and extracts them.
 The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILED].

After the script completes the extraction, it deletes the original files. Make a backup copy if you want to keep them.

See "Preparing for Installation," Understanding the PeopleSoft Installation Using Deployment Packages, for the filename syntax of the DPK zip files.

Starting the PeopleSoft Environment Setup Process:

```
Validating User Arguments:                [ OK ]
Validating PeopleSoft Supported Platform: [ OK ]

Extracting the Zip File FILENAME_1of4.zip: [ OK ]
Extracting the Zip File FILENAME_2of4.zip: [ OK ]
Extracting the Zip File FILENAME_3of4.zip: [ OK ]
Extracting the Zip File FILENAME_4of4.zip: [ OK ]
```

5. Specify whether to install the Puppet software if necessary at the next prompt.

The script verifies if Puppet software is installed in the default location specified by the DPKs. If not, answer *y* (yes) to install the Puppet software and *n* to abort the PeopleSoft environment setup process. The default action (if nothing is entered at the prompt) is to install the software.

If there is any error during the Puppet software installation, the script aborts the setup process. Review the log file in *DPK_INSTALL/setup*. If there are missing operating system packages, you will need to carry out additional steps.

See Obtaining Operating System Packages Required for Puppet.

Starting the PeopleSoft Environment Setup Process:

```
Validating User Arguments:                [ OK ]
Validating PeopleSoft Supported Platform: [ OK ]

Verifying if Puppet Software is Installed: [ OK ]
```

Puppet Software is not installed on the Host. If this Host is used to setup a PeopleSoft environment, Puppet Software should be Installed.

Do you want to Install Puppet Software on this Host? [Y|n]: **y**

```
Installing Puppet Software on the Host:    [ OK ]
```

The script verifies the eYAML software.

```
Verifying if eYAML Hiera Backend is Installed: [ OK ]
```

The script verifies if the DPKs are available in *DPK_INSTALL*, and aborts with the message [FAILED] if they are not.

Preparing the Windows 2012Server VM for PeopleSoft Environment:

```
Checking if PeopleSoft DPKs are Present:    [ OK ]
```

6. At the following prompt, enter a location that is accessible to the host to be used as the PeopleSoft base directory.

The base folder is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. The script creates the folder if it is not present.

Note. When entering the path for the base folder, use forward slashes (/). For example, `C:/psft`. Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins with a number.

The base folder is used to extract the PeopleSoft DPKs. It is also used to deploy the PeopleSoft components. This folder should be accessible on the Windows VM, must have write permissions and should have enough free space.

Enter the PeopleSoft Base Folder: **C:/psft**
 Are you happy with your answer? [Y|n|q]:

The script validates if there is enough free space available under the specified base directory for the PeopleSoft environment. The PeopleSoft environment setup is aborted if there is not enough free space.

Note. A mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

Checking if the Base Folder has Enough Free Space: [OK]

The script creates the following three sub-directories under the user provided base directory, *BASE_DIR*:

- *BASE_DIR*\dpk
 The script uses this directory to extract the archives from the PeopleSoft DPKs, and contains the Puppet YAML files for the deployment.
- *BASE_DIR*\pt
 The script uses this directory to deploy PeopleSoft components.
- *BASE_DIR*\db
 This directory is not used for a mid-tier deployment.

7. Review the status messages as the script validates the files found in the download folder, *DPK_INSTALL*.

The script carries out validations for the mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

```
Validating the PeopleSoft DPKs in the Windows VM:
Validating the PeopleSoft PeopleTools Server DPK:      [ OK ]
Validating the PeopleSoft PeopleTools Client DPK:      [ OK ]
Validating the Manifest Information in PeopleSoft DPKs: [ OK ]
```

8. Review the status messages as the script extracts the archives from the DPKs.

```
Extracting the PeopleSoft DPK Archives in the Windows VM:
Extracting the PeopleSoft PeopleTools Server DPK Archives: [ OK ]
Extracting the 8.56 PeopleTools Client DPK Archive:      [ OK ]
```

9. Review the status messages as the script sets up the Puppet file system.

The script sets up Puppet on the host or VM. It then copies the PeopleSoft Puppet modules to the standard location under the base folder (*BASE_DIR*\dpk) and updates the YAML files to reflect the type of PeopleSoft environment setup.

```
Setting up Puppet on the Windows VM:
Generating eYAML Hiera Backend Encryption Keys:      [ OK ]
Updating the Puppet Hiera YAML Files in the Windows VM: [ OK ]
Updating the Role in Puppet Site File for the Windows VM: [ OK ]
```

10. Specify the installation type.

Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: **FRESH**

Note. You see this prompt only when PeopleSoft application DPKs that were built on the same PeopleTools release, are present in *DPK_INSTALL*.

Note. If you are using the PeopleSoft Upgrade Source Image to set up an environment for the Upgrade Source database, you do not see this prompt.

11. Specify the information for the database that you want to connect to.

- a. Enter MSSQL for a Microsoft SQL Server database platform.

Enter the PeopleSoft database platform [ORACLE]: **MSSQL**

- b. Enter y (yes) if the database you are connecting to is a Unicode database, or n (no) for a non-Unicode database.

Is the PeopleSoft database unicode? [Y|n]:

- c. Enter y (yes) if you want to install the files needed for multi-language support.

Note. You see this prompt only when PeopleSoft application DPKs that were built on the same PeopleTools release, are present in *DPK_INSTALL*.

Do you want Multi Language support in PeopleSoft database? [y|N]:

- d. Enter the database name.

If the database name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92".

Enter a new PeopleSoft database name. Ensure that the database name start with a letter and contains only uppercase letters and numbers and is no more than 8 characters in length [HCM92]:

- e. Enter the database server name, for example, server.example.com\sql2012.

Enter the PeopleSoft database server name: **server.example.com\sql2012**

12. Enter the PeopleSoft Connect ID at the following prompt:

The default is people.

Enter a new PeopleSoft database Connect ID. Ensure that the ID contains only alphanumeric characters and is at most 8 characters in length [people]:

13. Enter a password for the PeopleSoft Connect ID, and enter again on the next line, at the following prompt.

Enter the PeopleSoft database Connect ID [people] password: Ensure the password contains only alphanumeric characters and is between 6 and 30 characters in length:

Re-Enter the PeopleSoft database Connect ID password:

14. Enter the PeopleSoft Operator ID (user ID) at the next prompt:

Enter the PeopleSoft database Operator ID [PS]:

15. Enter the password twice for the PeopleSoft operator ID, such as PS or VP1.

Enter a new PeopleSoft database Operator ID [PS] password. Ensure the password contains only alphanumeric characters and is between 1 and 32 characters in length:

Re-Enter the PeopleSoft Operator ID password:

16. Enter the Application Server Domain Connection password, following the guidelines in the prompt.

The window does not display masking characters as you type. There is no default password.

Note. This is an optional password. If no password is entered, the connection between Web Server and Application Server will not be password protected.

[Optional] Enter a new Application Server Domain connection password. Ensure the password contains only alphanumeric characters and is between 8 and 30 characters in length:

Re-Enter the Application Server Domain connection password:

17. Enter the Oracle WebLogic Server Admin password, following the guidelines in the prompt.

The default Oracle WebLogic server administrator is system. The window does not display masking characters as you type. There is no default password.

Enter a new WebLogic Server Admin user [system] password. Ensure that the password is between 8 and 30 characters in length with at least one lowercase letter, one uppercase letter and one number or one special character (!@#\$%^&):

Re-Enter the WebLogic Server Admin user password:

18. Enter the password for the PTWEBSEVER web profile user.

Note. The guideline in the prompt for the PTWEBSEVER user password does not allow special characters. However, the PeopleSoft system does allow special characters for the PTWEBSEVER password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

See *PeopleTools: Security Administration*, "Working with Passwords."

Enter a new PeopleSoft WebProfile user [PTWEBSEVER] password. Ensure that the password contains only alphanumeric characters and is between 8 and 30 characters in length:

Re-Enter the PeopleSoft WebProfile user password:

19. Enter the Integration Gateway user ID and password at the following prompt.

The default user ID is administrator.

Note. The guideline in the prompt for the Integration Gateway user ID password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user ID password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

See *PeopleTools: Security Administration*, "Working with Passwords."

```
Enter the PeopleSoft Integration Gateway user [administrator]:
Enter the PeopleSoft Integration Gateway user [administrator] password.
Ensure the password contains only alphanumeric characters and is
between 8 and 30 characters in length:
Re-Enter the PeopleSoft Integration Gateway user password:
```

20. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

```
Are you happy with your answers? [y|n]:
```

21. Review the status messages as the script updates the Puppet YAML files with the user input.

```
Encrypting the Passwords in the User Data:          [ OK ]
Updating the Puppet Hiera YAML Files with User Data: [ OK ]
```

22. Answer *n* (no) to indicate that you do not want to continue running the initialization script using the default configuration.

The script stops. Follow the instructions for using customizations for mid-tier connectivity to complete the mid-tier deployment.

Note. The "cd /d" command included in the prompt changes to the correct drive in the command prompt.

See "Completing the DPK Initialization with Customizations."

The bootstrap script is ready to deploy and configure the PeopleSoft environment using the default configuration defined in the Puppet Hiera YAML files. You can proceed by answering 'y' at the following prompt. And, if you want to customize the environment by overriding the default configuration, you can answer 'n'. If you answer 'n', you should follow the instructions in the PeopleSoft Installation Guide for creating the customization Hiera YAML file and running the Puppet 'apply' command directly to continue with the setup of the PeopleSoft environment.

```
Do you want to continue with the default initialization process? [y|n]: =>
n
```

You have decided not to continue with the default PeopleSoft environment setup process. Any customizations to the PeopleSoft environment should be done in the Hiera YAML file 'psft_customizations.yaml' and place it under [c:\psft\dpk\puppet\production\data] folder. After making the necessary customizations, run the following commands to continue with the setup of PeopleSoft environment.

1. cd /d C:\psft\dpk\puppet\production\manifests
2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=>C:\psft\dpk\puppet site.pp --debug --trace

Exiting the PeopleSoft environment setup process.

The complete setup log is written to the file psft_dpk_setup.log in the same location as the DPK setup script.

Task 7-2: Completing Installation Tasks

After completing the installation process, be sure to go to the chapter "Completing the Installation." This chapter includes information on accessing the PeopleSoft environment, as well as post-installation steps.

It is important that you perform the tasks in the section Completing Post-Installation Steps that apply to your environment.

Chapter 8

Completing the Installation

This chapter discusses:

- Completing Post-Installation Steps
- Using the PeopleSoft Installation

Task 8-1: Completing Post-Installation Steps

This section discusses:

- Using Fluid User Interface
- Updating the Installation Table
- Setting Options for Multilingual Databases
- Updating PeopleTools Options
- Updating Time Zone Information
- Updating Database Information

Task 8-1-1: 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:

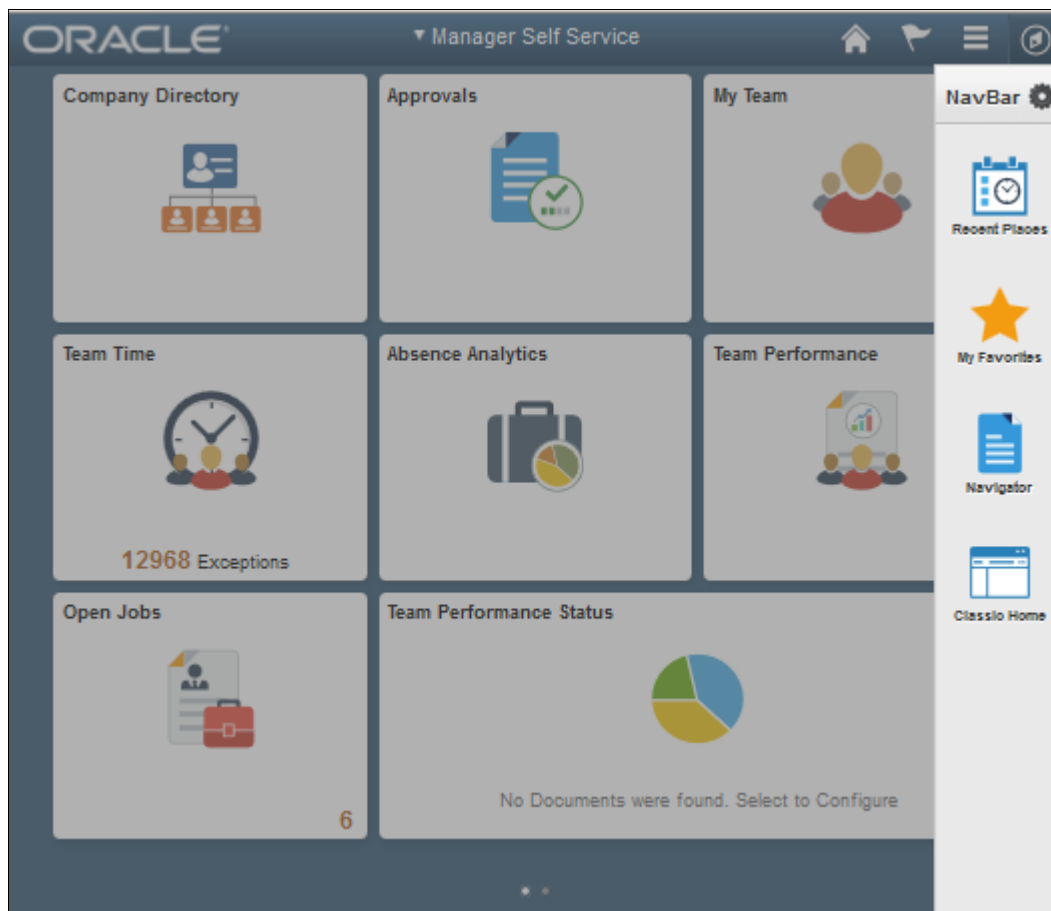
1. On the PeopleSoft Fluid User Interface, shown in this example, select (press) the NavBar button at the top right (diamond inside a circle).



PeopleSoft Fluid User Interface home page

The Navigation bar (NavBar) side page appears.

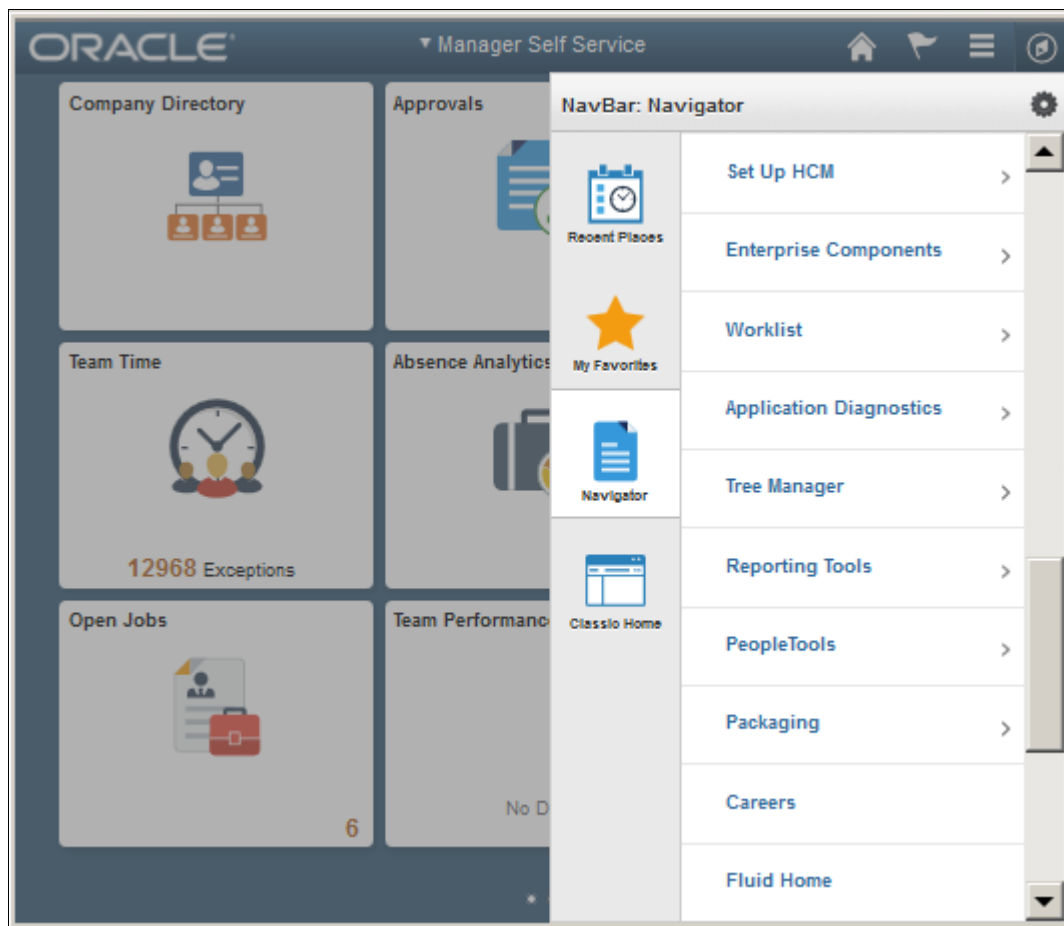
2. Select (press) Navigator.



NavBar side page

The menu structure appears.

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 8-1-2: 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. This postinstallation step ensures that only the products you are entitled to use are active in the installation. The location of the installation table in the PeopleSoft system varies depending upon the PeopleSoft application that you installed.

Note. For information on the products you are entitled to use, contact your Oracle Support representative.

1. Sign on to the PeopleSoft system in a browser.
2. Select Set Up *Application_name* (where *Application_name* is the PeopleSoft application you installed), Install, Installation Table.
3. Select the Products tab.

4. Clear the check boxes for the products that you are not entitled to use.

Task 8-1-3: 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.

Task 8-1-4: 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 8-1-5: Updating Time Zone Information

Additional steps may be required to configure your time zone after you complete the installation.

See *PeopleTools: Global Technology*, "Maintaining Time Zones."

Task 8-1-6: 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.

Task 8-2: Using the PeopleSoft Installation

This section discusses:

- Accessing the PeopleSoft Environment
- Reviewing the Deployment File System
- Reviewing the Deployed Users
- Managing PeopleTools Domains with PSADMIN

Task 8-2-1: Accessing the PeopleSoft Environment

After you complete the initialization of the virtual machine the PeopleSoft installation will be available. This section includes brief information to help you work with the PeopleSoft environment. For detailed definitions, and information on working with the components in a PeopleSoft installation, see the PeopleSoft documentation referenced earlier.

To sign in to the deployed PeopleSoft environment in a browser (that is, use the PeopleSoft Pure Internet Architecture, or PIA), use a URL with this format:

`http://<host_name>:<http_port>/<PIA_site_name>/signon.html`

For example, for a deployment with the default port, 8000, and default PIA site name, ps, the URL would be `http://server1.example.com:8000/ps/signon.html`.

Task 8-2-2: Reviewing the Deployment File System

The PeopleSoft installation deployed by the PeopleSoft DPKs sets up an environment comprised of several directories. This table lists the directories with the location, contents of the directory, and the owner.

Directory	Description	Default Location	Access
PS_HOME	The binary installation files are placed into a secure <i>ps_home</i> <peopletools_patch_version> directory, where <peopletools_patch_version> is the full release, for example 8.56.01.	<i>BASE_DIR</i> /pt/ <i>ps_home</i> <peopletools_patch_version>	This directory can only be written to by the PeopleSoft administrator, psadm1.
PS_CFG_HOME	The Application Server and Process Scheduler server configuration files are placed into a <i>PS_CFG_HOME</i> directory named <peopletools_major_version>, where <peopletools_major_version> does not include patch numbers; for example, 8.56.	<ul style="list-style-type: none"> On AIX, Linux, or Solaris, /home/psadm2/psft/pt/<peopletools_major_version> On Microsoft Windows, C:\%USERPROFILE%\psft\pt\<peopletools_major_version> <p>For example, if the USERPROFILE environment variable is C:\Users\username, the location is C:\Users\username\psft\pt\8.56.</p>	This directory is owned by psadm2.
PS_APP_HOME	The PeopleSoft application installation files are located in the <Product>_app_home directory, where <Product> is an abbreviation for the PeopleSoft application, such as hcm for PeopleSoft Human Capital Management.	<i>BASE_DIR</i> /pt/<Product>_app_home	This directory can only be written to by psadm3.

Directory	Description	Default Location	Access
ORACLE_HOME (Oracle RDBMS software)	<p>This includes the Oracle RDBMS database server and client connectivity software, including the SQL*Plus program.</p> <p>The Oracle RDBMS client installation is the 64-bit client used by PeopleSoft PeopleTools to connect from the PeopleSoft Application Server and Process Scheduler domains to the PeopleTools Database.</p> <p>Note. The default listener port is 1521.</p>	<i>BASE_DIR</i> /db/oracle-server	This directory is owned by user oracle2.
Oracle WebLogic	This includes the installation files for the Oracle WebLogic web server.	<i>BASE_DIR</i> /pt/bea/wlserver	This directory is owned by psadm1.
Oracle Tuxedo	This includes the installation files for Oracle Tuxedo.	<i>BASE_DIR</i> /pt/bea/tuxedo	This directory is owned by psadm1.
PeopleSoft database files (on Oracle RDBMS)	This includes the Oracle database files and tables for the PeopleSoft application.	<i>BASE_DIR</i> /db/oradata	<p>The owner of the database tables is oracle2 and its group is oinstall.</p> <p>Note. This is different from the users for the PeopleSoft installation and configuration.</p>

See Also

PeopleTools: System and Server Administration, "Securing PS_HOME and PS_CFG_HOME"

Task 8-2-3: Reviewing the Deployed Users

The deployed configuration includes the default users and default passwords described in the following table.

Important! All default, non-root passwords are set to expire immediately. On the first login of one of the non-root users, the system will prompt you to provide new passwords.

In the case of the passwords that expire immediately, such as those for psadm1 and so on, if you do not log in as the user specified in this table and change the password, the default passwords documented here remains in effect.

New passwords must include the following characteristics:

- At least 14 characters long

- At least one digit (0–9)
- At least one special character (for example, * or #)
- At least one lowercase letter (a–z)
- At least one uppercase letter (A–Z)

User Name	Default Password	Role Definition
psadm1	Oradmin (the first character is the number zero)	The PeopleSoft installation administrator who owns <i>PS_HOME</i> . This user cannot write into <i>PS_CFG_HOME</i> .
psadm2	Oradmin (the first character is the number zero)	The PeopleTools domain user who creates and configures the Application Server domain, Process Scheduler (batch server) domain, and the PIA. This user cannot write to <i>PS_HOME</i> , but has read-execute access.
psadm3	Oradmin (the first character is the number zero)	The PeopleSoft installation administrator who owns <i>PS_APP_HOME</i> .
oracle2	oracle	The Oracle Database Server user name.

See Also

"Completing the DPK Initialization with Customizations," Preparing the Customization File for Linux, AIX, or Solaris Users

Task 8-2-4: Managing PeopleTools Domains with PSADMIN

Use the PSADMIN utility to manage any of the PIA, Application Server, or Process Scheduler domains. You can find the PSADMIN utility in *PS_HOME/appserv*. You must first sign in with the PeopleTools domain user *psadm2*, described in the section *Reviewing the File System and Users*. When you sign in as the PeopleTools domain user, the *psconfig.sh* script is automatically invoked through the user's profile. This is referred to as sourcing the *psconfig.sh* script. This ensures that all of the required environment variables are set prior to working with PSADMIN. You can perform all the usual administrative options for PIA, Application Server, and Process Scheduler domains using PSADMIN. You may reconfigure the existing domains, shut them down, restart them and create additional domains if necessary. The environment as delivered has however been sufficiently configured to perform many of the activities for which this virtual machine has been created.

See Also

PeopleTools: System and Server Administration, "Using the PSADMIN Utility"

Chapter 9

Deploying the PeopleTools Client DPK

This chapter discusses:

- Deploying the PeopleTools Client DPK

Task 9-1: Deploying the PeopleTools Client DPK

This section discusses:

- Understanding the Standalone Mode Deployment
- Preparing for the PeopleTools Client DPK Deployment
- Deploying in Standalone Mode

Task 9-1-1: Understanding the Standalone Mode Deployment

Use the standalone mode (SA mode) deployment for the PeopleTools Client DPKs when deploying the DPKs alone, without first deploying the PeopleSoft application or PeopleSoft PeopleTools DPKs. Use this method, for example, when carrying out a PeopleTools-only upgrade.

Use SA mode deployment for the following tasks:

- PeopleTools Upgrade

The deployment process installs a PeopleTools client *PS_HOME* that includes the directories needed for a PeopleSoft PeopleTools-only upgrade, such as data, projects, and scripts directories.

- PeopleTools Patch

The deployment process installs a PeopleTools client *PS_HOME* that includes the directories needed for a PeopleSoft PeopleTools patch application, such as the PTP directory.

See "Learning About the PeopleSoft Deployment Process," Reviewing the PeopleTools Patch DPKs.

- PeopleTools Client

The deployment process installs a PeopleTools client *PS_HOME*. Choose the deployment type "None of the above" for this deployment.

- Change Assistant installation

You can install Change Assistant as part of the PeopleTools Client deployment, or as a separate installation. The deployment process installs, but does not configure Change Assistant. To use Change Assistant for a PeopleSoft PeopleTools-only upgrade or to apply a PeopleSoft PeopleTools patch, you must configure Change Assistant manually. See the PeopleTools upgrade or patch documentation for information.

If there is an existing Change Assistant installation, the deployment process removes or upgrades it to the current release, and saves a configuration file with the existing setup.

See the PeopleTools installation guide for your database platform, "Installing PeopleSoft Change Assistant."

- **Change Impact Analyzer**
You can install Change Impact Analyzer as part of the PeopleTools Client deployment, or as a separate installation.
- **PeopleSoft Test Framework (PTF) installation**
You can install PeopleSoft Test Framework as part of the PeopleTools Client deployment, or as a separate installation.
- **PeopleSoft Test Framework (PTF) configuration**
If you choose to configure PTF, the deployment process prompts you for setup parameters. You can configure PTF either at the same time that you install it or later. For example, you may choose to configure PTF separately if you install and configure it first, and then later the middle-tier components in your environment change. In this case, you do not need to install, but you can use the deployment process to reconfigure PTF.
- **Configuration Manager**
If you accept the option to configure the PeopleTools client, the information that you supply is used to configure Configuration Manager.
- **The PeopleTools Client deployment installs Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.**

Task 9-1-2: Preparing for the PeopleTools Client DPK Deployment

To deploy the PeopleTools Client DPK:

1. Go to the download location for the PeopleSoft PeopleTools DPKs, and download only the last zip file to a location known as *DPK_INSTALL* on a Microsoft Windows computer.
The last zip file, for example *Filename_4of4.zip*, is the PeopleSoft PeopleTools client DPK.
See Obtaining the PeopleSoft PeopleTools Patch DPKs.
2. Extract the downloaded zip file, which yields another zip file.
3. Extract the resulting zip file to a local or shared directory; for example *C:\tools-client*.

Task 9-1-3: Deploying in Standalone Mode

This section assumes that the user running the script has administrative permission.

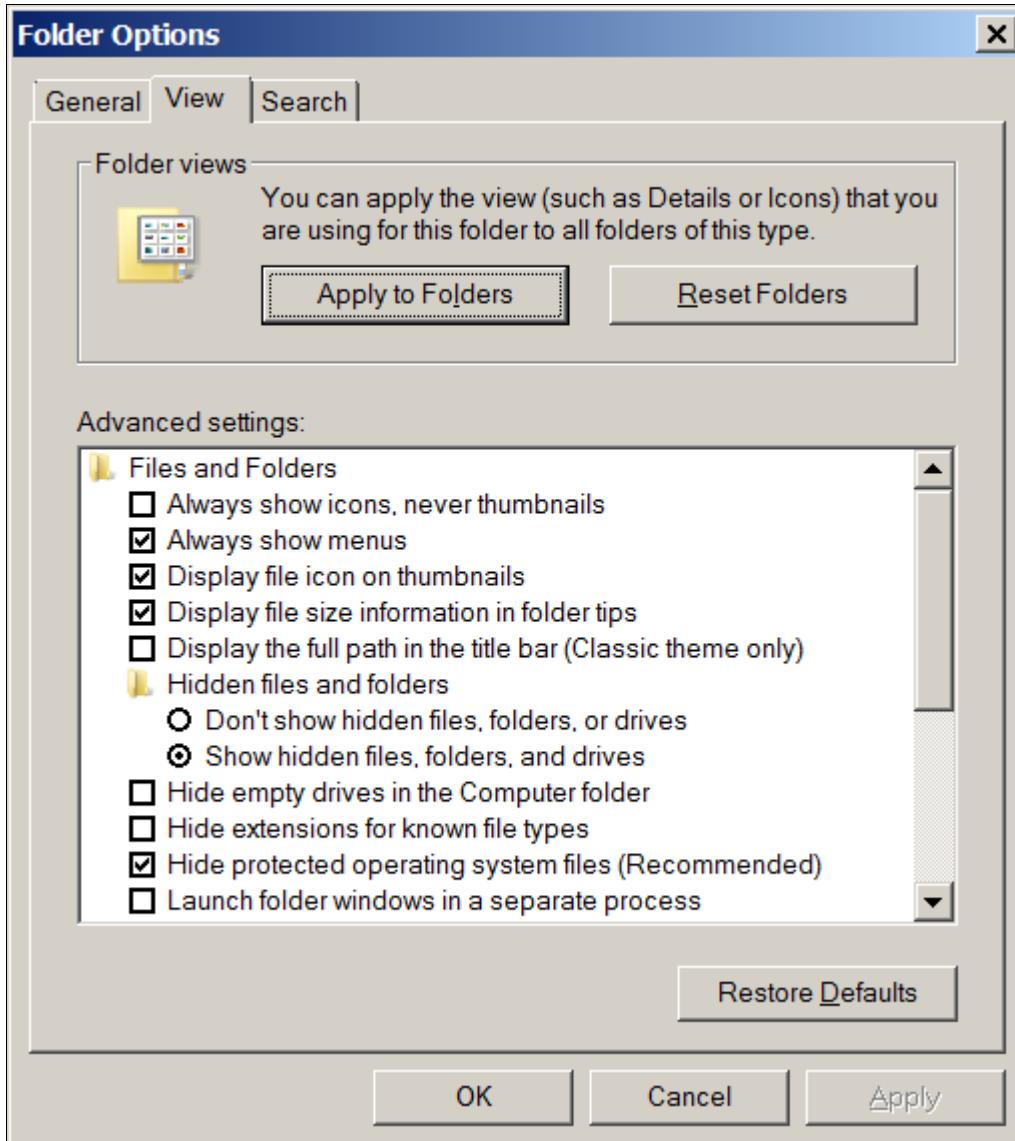
To deploy the PeopleTools Client DPK in SA mode:

1. Verify that the Microsoft Windows folders options are set to show known file extensions.
Hidden file extensions may interfere with the script. To show file extensions, for example:
 - a. Open Windows Explorer and select Tools, Folder Options.

Note. Depending upon the Microsoft Windows operating system, you may use a different method to set the folder options.

- b. On the Folder Options dialog box, select the View tab.

- c. Verify that the check box for Hide extensions for known file types is not selected, as shown in this example:



Folder Options dialog box: View tab

- d. Click OK to close the box.
2. Open a command prompt, running as administrator, and change directory to the C:\tools_client folder. The tools_client folder includes various sub-folders, and the following files:

- SetupPTClient.bat

The interactive script that installs the PeopleSoft PeopleTools components such as Application Designer, Change Assistant, Change Impact Analyzer, and PeopleSoft Test Framework.

- readme.txt

3. Run the setup script with the following command:

```
SetupPTClient.bat -t
```

Note. If you see an error message similar to "The application has failed to start because its side-by-side configuration is incorrect," it indicates that your machine does not include the necessary Microsoft C++ runtime libraries. Go to the Microsoft Web site, locate the Microsoft Visual C++ redistributable package for your system, and install as directed.

- The setup script deploys to drive C by default. To deploy to a different drive, you can use the option `-d <drive>`:

```
SetupPTClient.bat -t -d E
```

This option installs all specified software (Change Assistant, Change Impact Analyzer, PeopleSoft Test Framework), installation and temporary directories, and log files to the specified drive, E:\ in this example. The drive can be any valid local or mapped shared drive.

- To enable logging, include the option `-l` in the command:

```
SetupPTClient.bat -t -l
```

4. Answer *y* (yes) at the following prompt to deploy the PeopleTools Client.

If you are running the script after having deployed the PeopleTools Client previously, and you want to install Change Assistant, Change Impact Analyzer, or PeopleSoft Test Framework without deploying the PeopleTools Client again, answer *n* (no), and continue with step 9.

```
***** SetupPTClient started at 11:42:38.91 *****
set logger to true
Do you want to deploy PeopleTools client? [Y/N]: y
```

5. Specify the RDBMS type for the PeopleTools Client that you want to deploy.

In this example, the RDBMS is option 3, Microsoft SQL Server.

```
Please Select the Database Platform:
```

1. Oracle
2. DB2 for LUW
3. Microsoft SQL Server
4. DB2 for zOS

```
Enter your choice [1-4] : 3
```

6. Specify the installation directory, referred to as PSHOME, for the PeopleTools Client, or press ENTER to accept the default directory, C:\PT<release_number>_Client_<database_type>, for example C:\PT8.56.02_Client_MSS.

```
Please specify the PSHOME for the PeopleTools Client [C:\PT8.56.02_⇒
Client_MSS]:
```

7. Specify whether you want to supply configuration details at the following prompt.

```
Do you want to configure PeopleTools client? [Y/N]:
```

If you answer *n* (no), you do not want to configure the PeopleTools client, continue with step 9.

If you answer *y* (yes), specify the information for your environment at the following prompts:

```
Database Name: HCM92
Server Name: example.com
UserId: VP1
Connect ID: people
Connect Password:
Retype Connect Password:
```

Note. When you enter the password, the script does not echo the password or any masking characters as you type.

- Specify the database name and database server to connect to.
- The connect ID a valid database-level ID that the PeopleSoft system uses to make the initial connection to the database.
- For User ID, specify a PeopleSoft user ID, such as VPI or PS, that has permission to access the database from the PeopleTools client, Application Designer, and so on.

8. Select the type of deployment at the following prompt:

See the definitions in Understanding the Standalone Mode Deployment.

Please make your selection for the Tools Client deployment:

1. People Tools Full Upgrade
2. People Tools Patch
3. None of the above

Enter your choice [1-3]:

9. Specify whether you want to install Change Assistant at the following prompt:

Do you want to install Change Assistant? [Y/N]:

If you answer y (yes), specify the installation directory, or accept the default, C:\Program Files\PeopleSoft\Change Assistant:

Please specify the directory to install Change Assistant [C:\Program Files\PeopleSoft\Change Assistant]:

10. Specify whether you want to install Change Impact Analyzer at the following prompt:

Do you want to install Change Impact Analyzer? [Y/N]:

If you answer y (yes), specify the installation directory for Change Impact Analyzer, or accept the default, C:\Program Files\PeopleSoft\Change Impact Analyzer:

Please specify the directory to install Change Impact Analyzer [C:\Program Files\PeopleSoft\Change Impact Analyzer]:

11. Specify whether you want to install PeopleSoft Test Framework at the following prompt:

Do you want to install PeopleSoft Test Framework? [Y/N]:

If you answer y (yes), specify the installation directory for PeopleSoft Test Framework, or accept the default, C:\Program Files\PeopleSoft\PeopleSoft Test Framework:

Please specify the directory to install PeopleSoft Test Framework [C:\Program Files\PeopleSoft\PeopleSoft Test Framework]:

12. Specify whether you want to configure the PeopleSoft Test Framework at the following prompt:

Do you want to configure PeopleSoft Test Framework? [Y/N]:

If you answer y (yes), specify the information for your environment. For information on these parameters, see the PeopleTools Test Framework product documentation.

See *PeopleTools: Test Framework*, "Installing a PTF Client."

Database Name: **HCM92**

Server:Port: **example.com:443**

```

Node ID: node_name
User ID: VP1
Proxy [Y/N]: y
Proxy Server: proxyserver.com
Proxy Port: 5000
Proxy User: username
Proxy Password: *****
Retype Proxy Password: *****

```

13. Review the setup steps.

The messages you see depend upon your choices.

```

Starting Tools Client Deployment!
Deploying PeopleTools 8.56.02 Client in C:\PT8.56.02_Client_MSS
Configuring PeopleTools 8.56.02 Client
Deployment of PeopleTools Client Complete.
Tools Client Deployment Ended.
***** SetupPTClient ended at 11:35:08.91 *****
Please review C:\PeopleSoft\PTClientDeploy.log for additional⇒
information.

```

14. To review the log file for the setup process, go to %USERPROFILE%\AppData\Local\Temp\PeopleSoft\PTClientDeploy.log.

For example, if the USERPROFILE environment variable is C:\Users\username, the log file location is C:\Users\username\AppData\Local\Temp\PeopleSoft\PTClientDeploy.log.

Note. If you used the `-d <drive>` option to deploy to a drive other than drive C:\, the log file is found in `<drive>:\Users\<username>\AppData\Local\Temp\PeopleSoft\PTClientDeploy.log` and creates the directory if it does not exist.

The PTClientDeploy.log file includes a record of each of the steps in the PeopleTools Client deployment process. If any of the steps fail, a detailed error or warning message will be written to the same log file.

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.

Chapter 10

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.

- 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 10-1: 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 10-2: 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 14

Prerequisites

Micro Focus® Net Express™ 5.1 Wrap Pack 14 is the supported COBOL compiler on Microsoft Windows for the current PeopleSoft PeopleTools release. This Wrap Pack is a product update and does require a previous version of the product to be installed. Micro Focus Net Express 5.1 Wrap Pack 14 can upgrade any of the following releases or any combination of these releases:

- Micro Focus Net Express 5.1 Wrap Pack 6
- Micro Focus Net Express 5.1 Wrap Pack 7
- Micro Focus Net Express 5.1 Wrap Pack 8
- Micro Focus Net Express 5.1 Wrap Pack 9
- Micro Focus Net Express 5.1 Wrap Pack 10
- Micro Focus Net Express 5.1 Wrap Pack 11
- Micro Focus Net Express 5.1 Wrap Pack 12

- Micro Focus Net Express 5.1 Wrap Pack 13

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 14.

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.

Note that Oracle is the exclusive reseller of the Micro Focus COBOL compiler for use with PeopleSoft applications.

See Also

PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers, My Oracle Support, Doc ID 747059.1

Using the Micro Focus COBOL Compiler on Microsoft Windows

Task 10-2-1: 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. Log in to Oracle Software Delivery Cloud at <https://edelivery.oracle.com>.
2. Enter Micro Focus in the type-ahead Product field, and select Micro Focus International Ltd. Net Express COBOL for Windows.

The product is added to the Download Queue.

3. Click Continue.
4. Click Continue.
5. Read the license agreement, select the check box to acknowledge that you accept the agreement, and then click Continue.
6. 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 10-2-2: Installing Micro Focus Net Express Wrap Pack 6

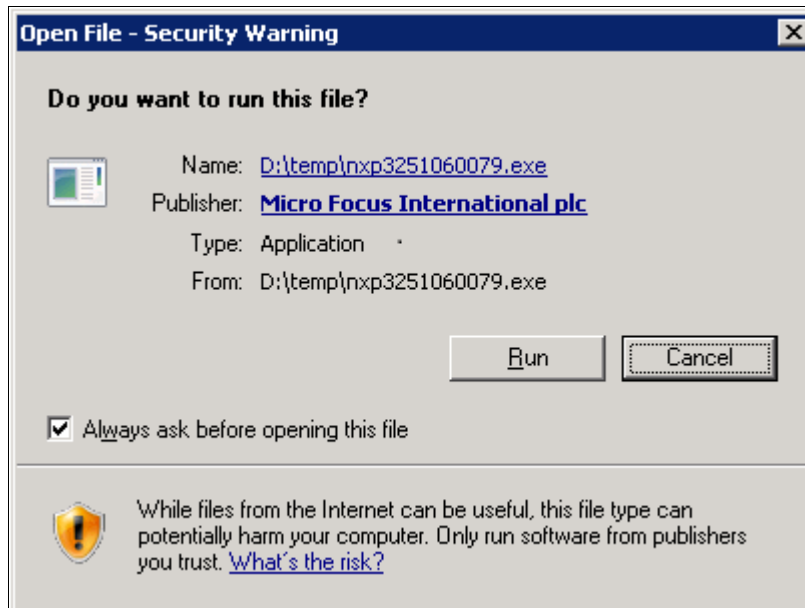
The following procedure assumes that you saved the installation files from Oracle Software Delivery Cloud in the directory *NE_INSTALL*.

Note. Micro Focus Net Express Wrap Pack 6 is a full product release and does not require a previous version of the product to be installed.

To install Micro Focus Net Express Wrap Pack 6:

1. Double-click *NE_INSTALL/nxp3251060079.exe*.

If a security screen appears, click Run to launch the installer.

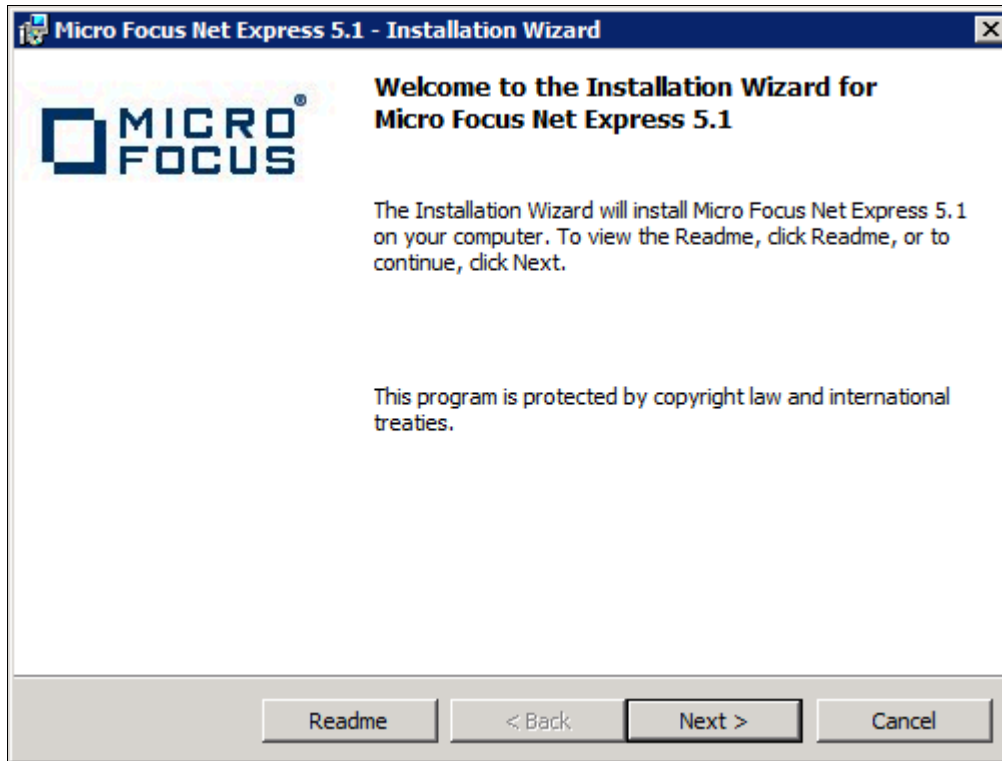


Open File - Security Warning for the Micro Focus installation executable

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.

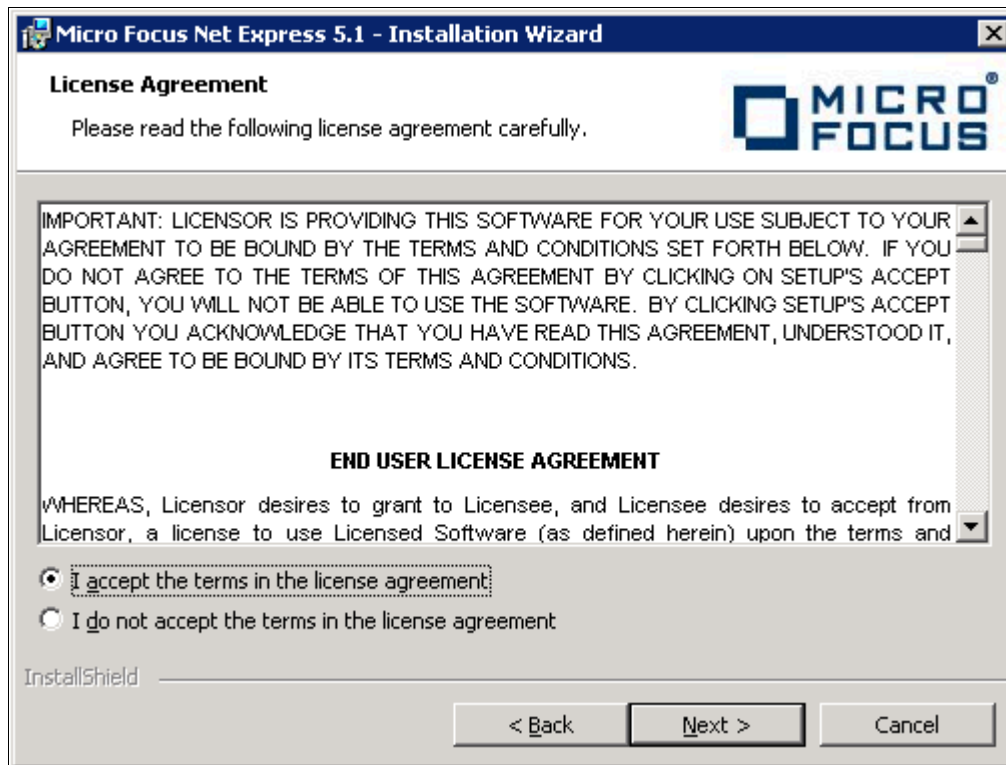
2. Click Next on the welcome window.

The screen includes a button to open a Readme file.



Micro Focus Net Express Installation Wizard Welcome window

3. Read the terms of the License Agreement, select the option to accept the terms, and click Next.

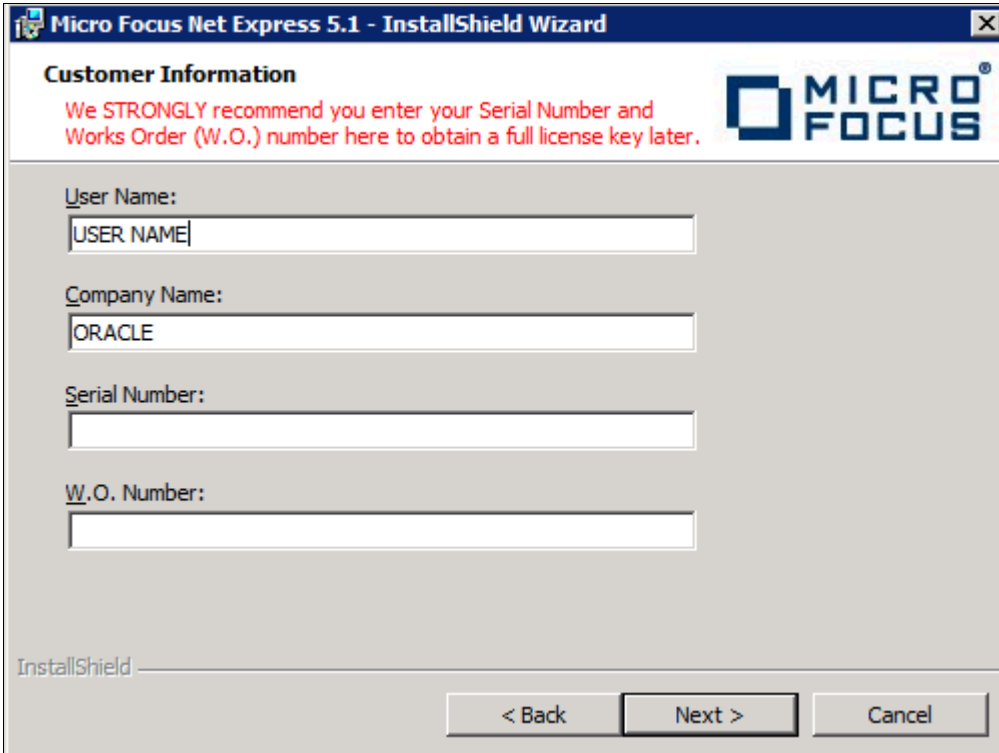


License Agreement window for Micro Focus Express

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.

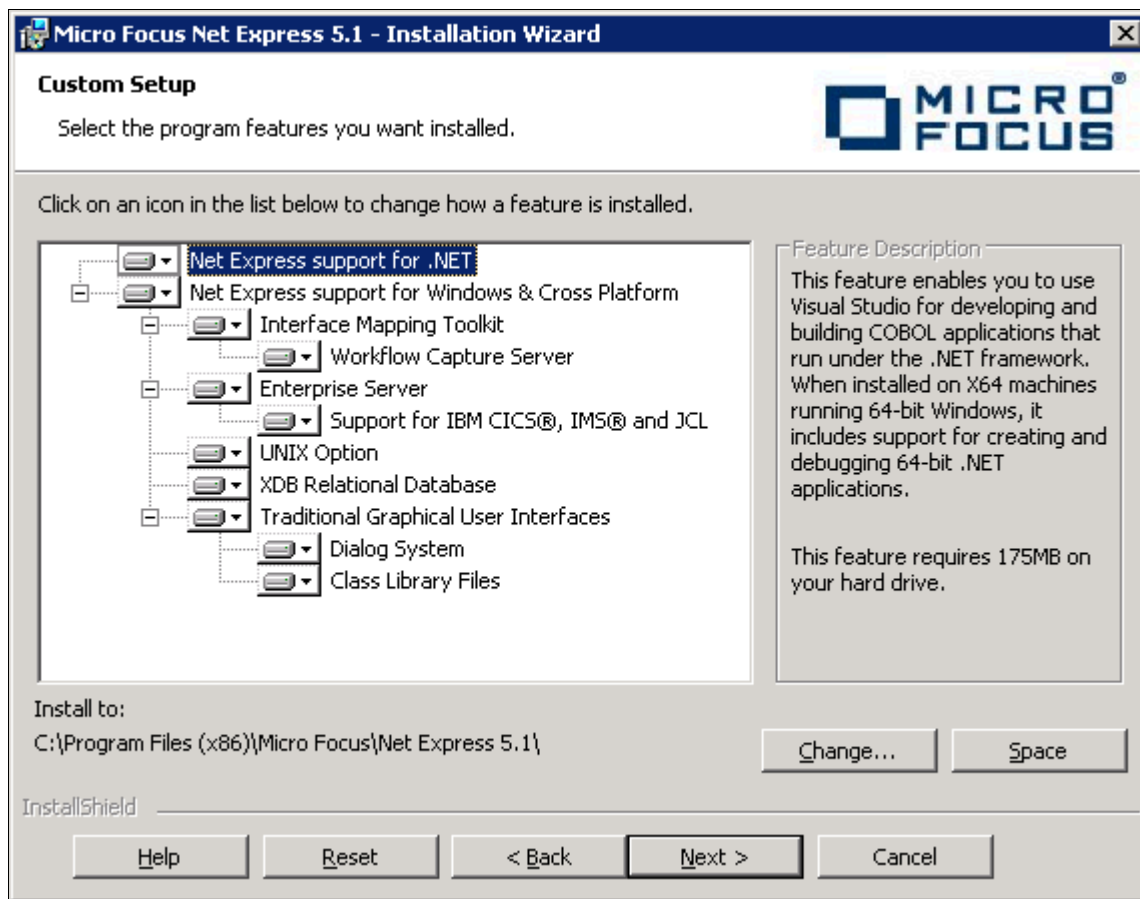
- c. Click Next.



The image shows a Windows installation window titled "Micro Focus Net Express 5.1 - InstallShield Wizard". The window has a blue title bar with a close button. Below the title bar, the text "Customer Information" is displayed in bold. To the right of this text is the Micro Focus logo. Below the logo, a red message states: "We STRONGLY recommend you enter your Serial Number and Works Order (W.O.) number here to obtain a full license key later." The main area of the window contains four input fields: "User Name:" with the text "USER NAME", "Company Name:" with the text "ORACLE", "Serial Number:" which is empty, and "W.O. Number:" which is empty. At the bottom left, the text "InstallShield" is visible. At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Customer Information window

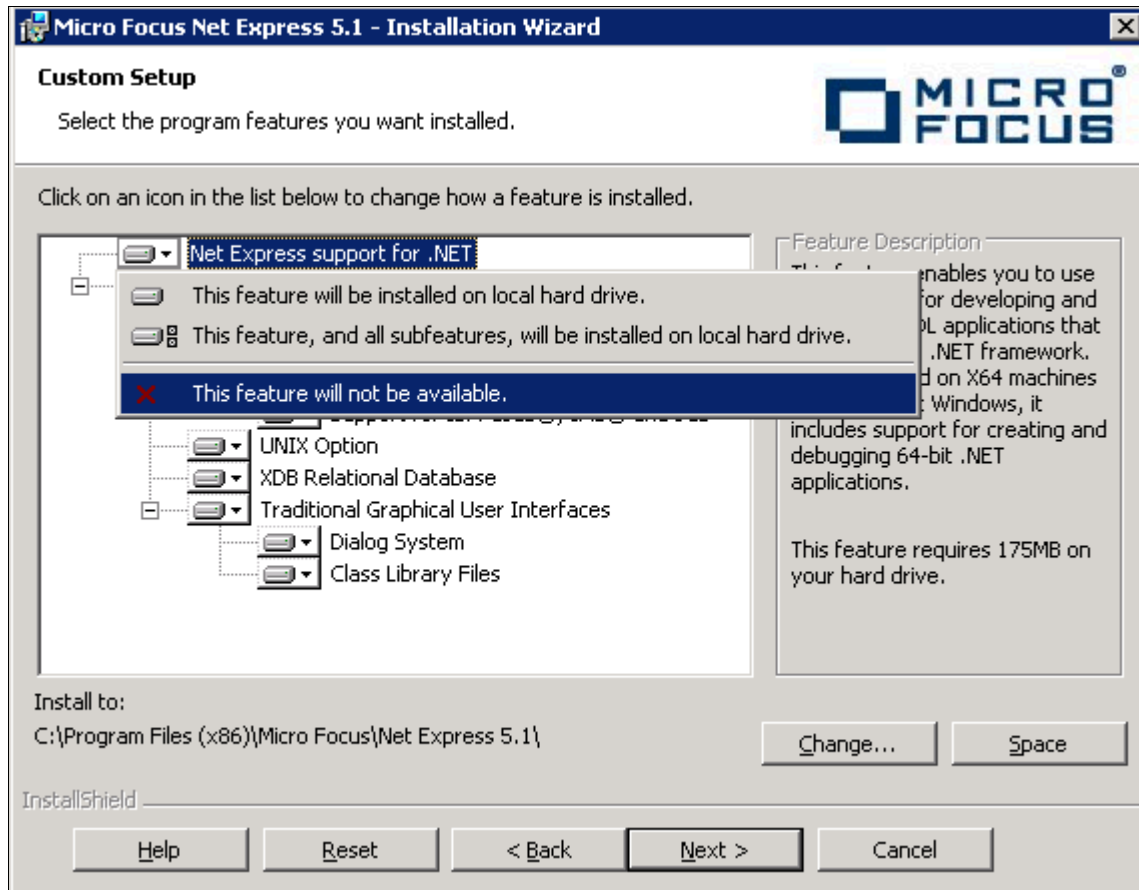
5. The Custom Setup window appears as in this example, with all of the options selected initially:



Custom Setup window before selecting features

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

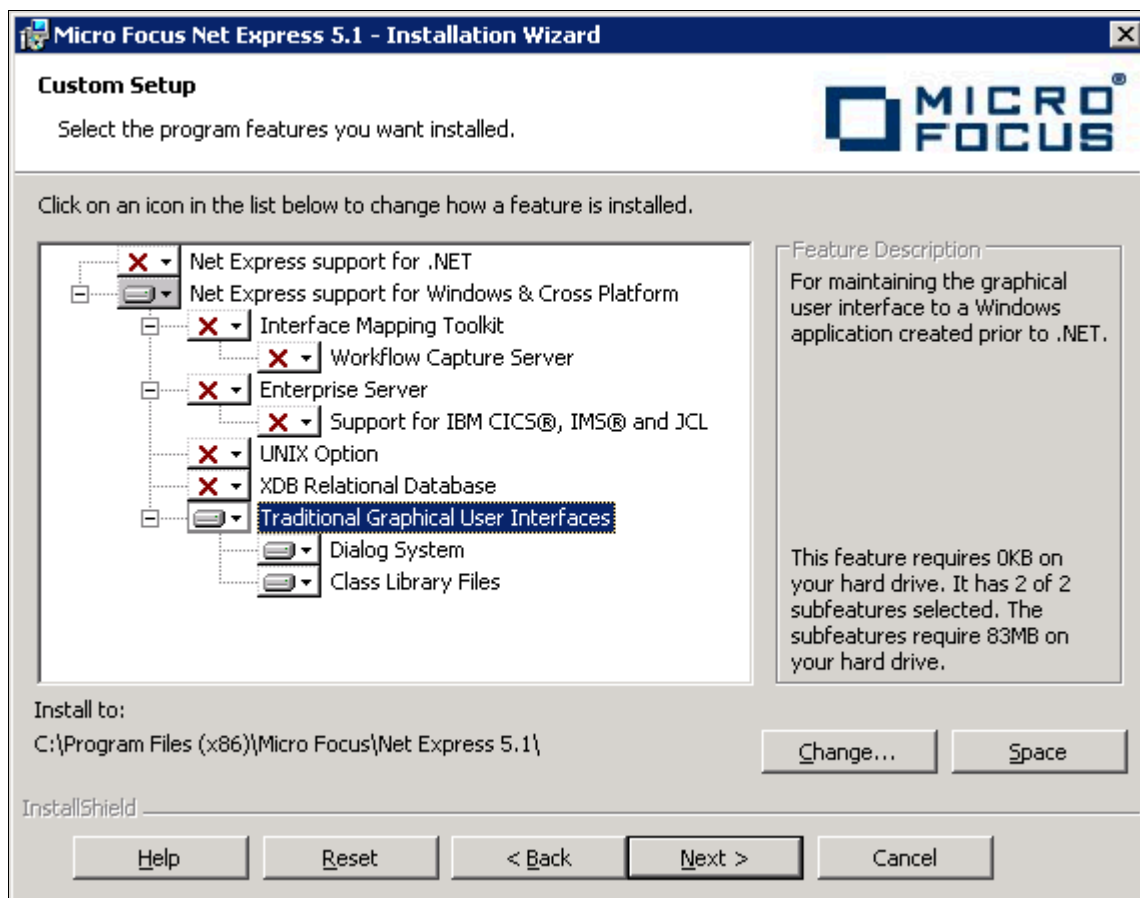
The Traditional Graphical User Interfaces feature is the only feature required for the PeopleSoft installation. (The Traditional Graphical User Interfaces feature also includes Dialog System and Class Library Files.) Clear the following features:

- 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

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

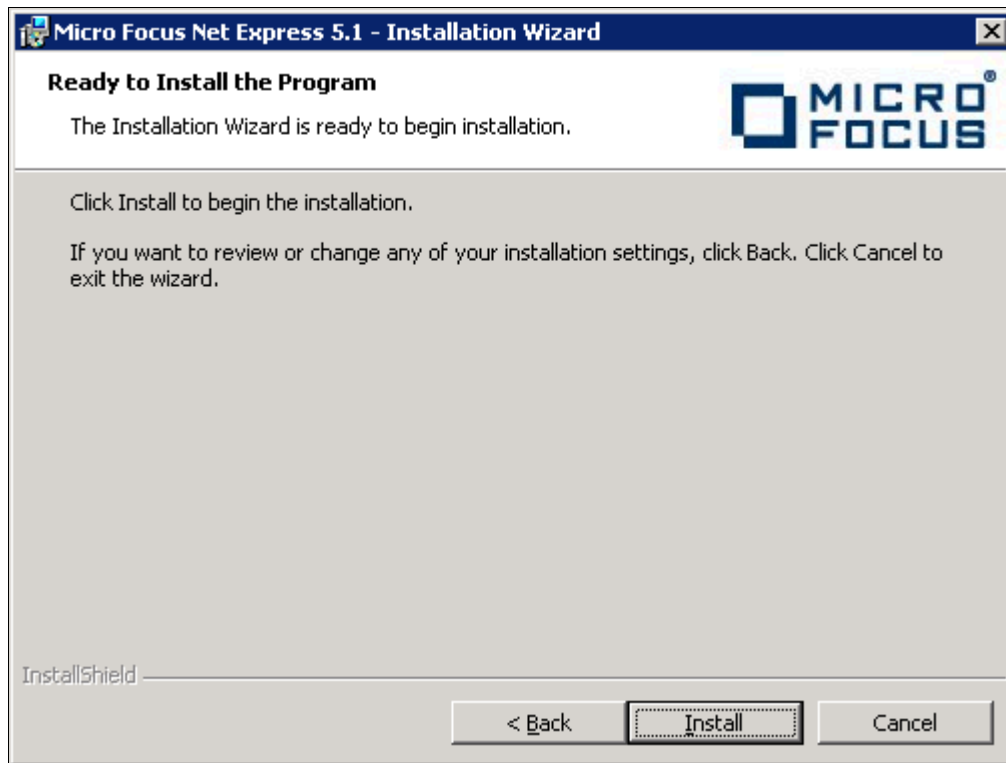
8. Highlight Traditional Graphical User Interfaces.

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:

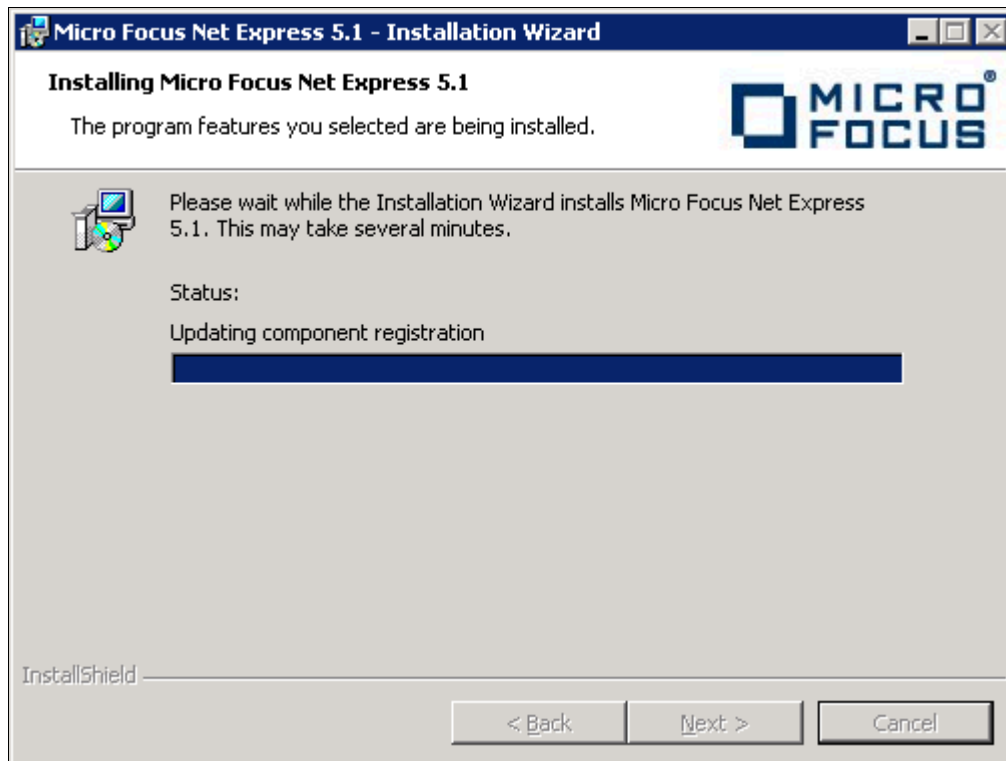
C:\Program Files (x86)\Micro Focus\Net Express 5.1

9. Click Install.



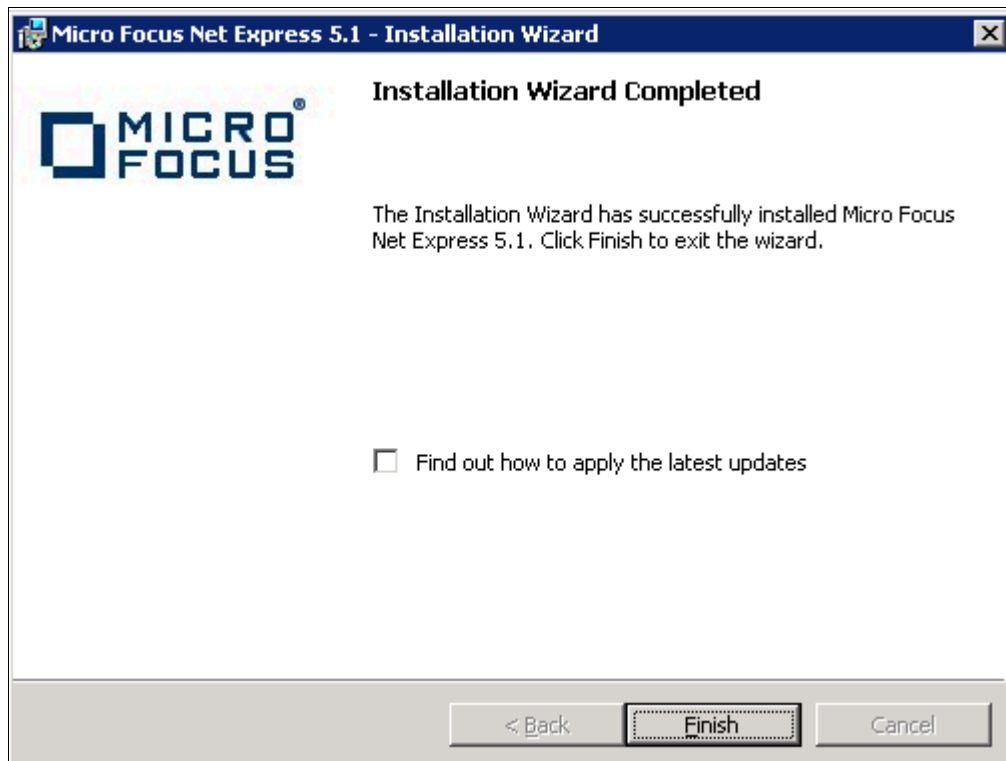
Micro Focus Net Express Installation window: Ready to Install the Program

The installation status window appears, tracking the installation progress.



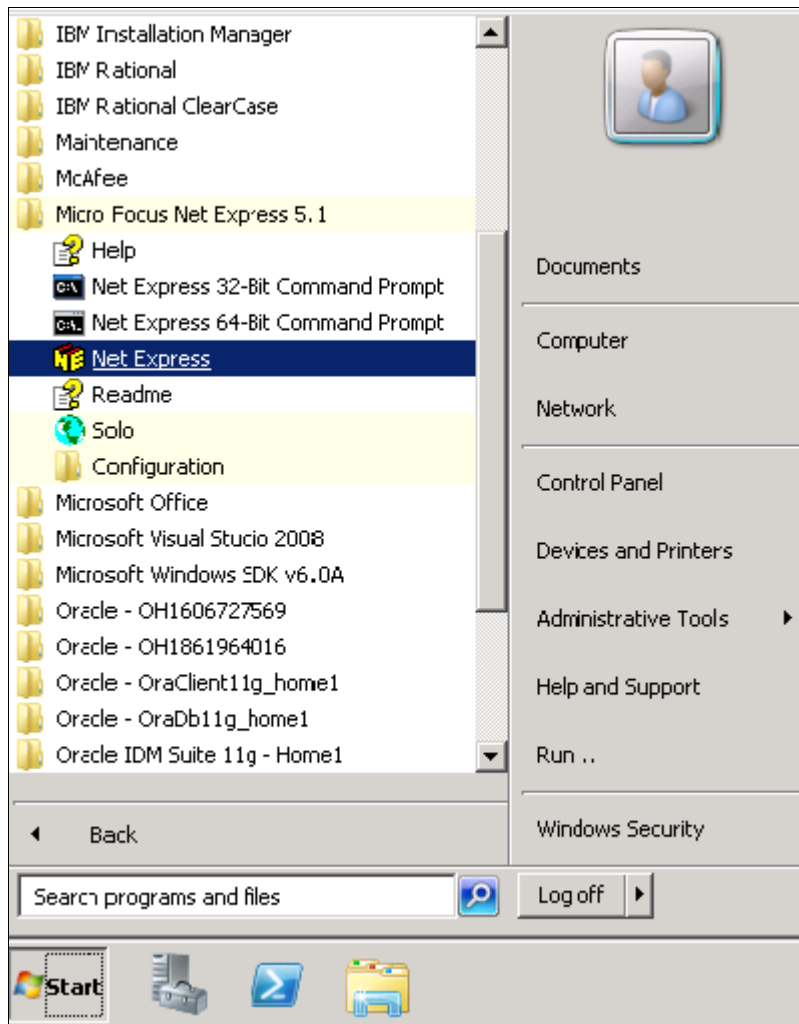
Installation status for the Micro Focus Net Express Installation

10. Click Finish.



Installation Wizard Completed window

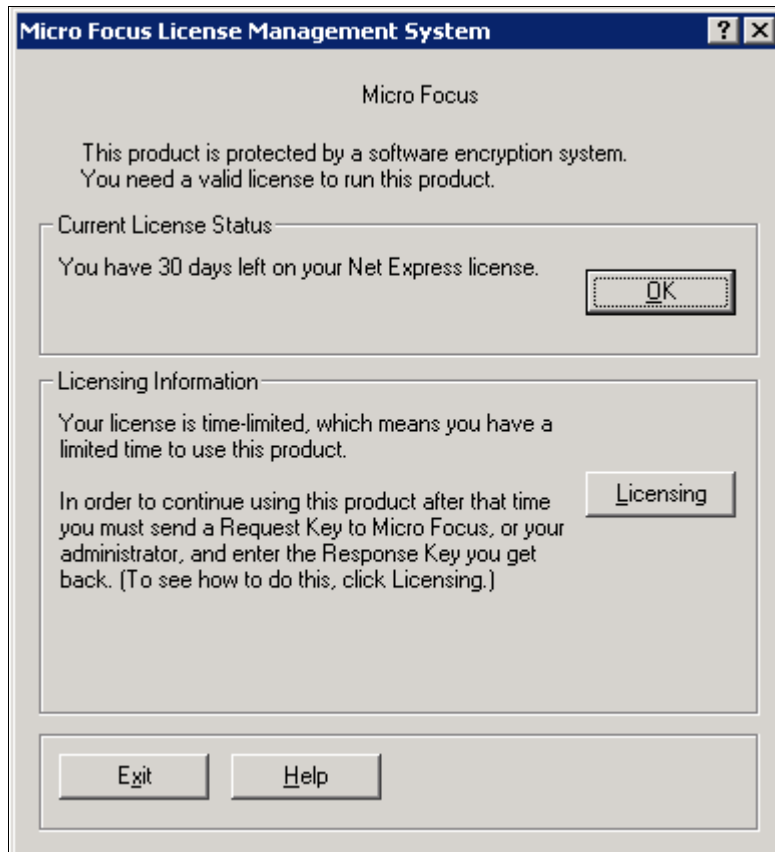
11. To confirm the installation, select Start, All Programs, Micro Focus Net Express 5.1, Net Express.



Selecting Micro Focus Net Express from the Microsoft Windows Start menu

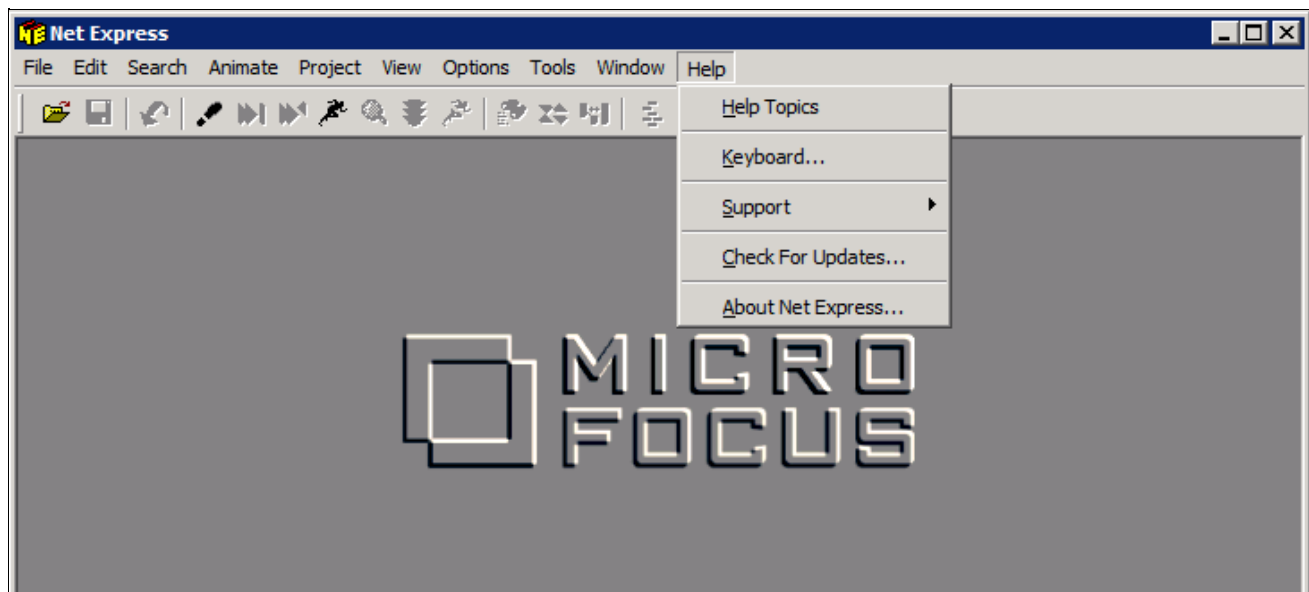
The Net Express Integrated Development Environment (IDE) appears.

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.

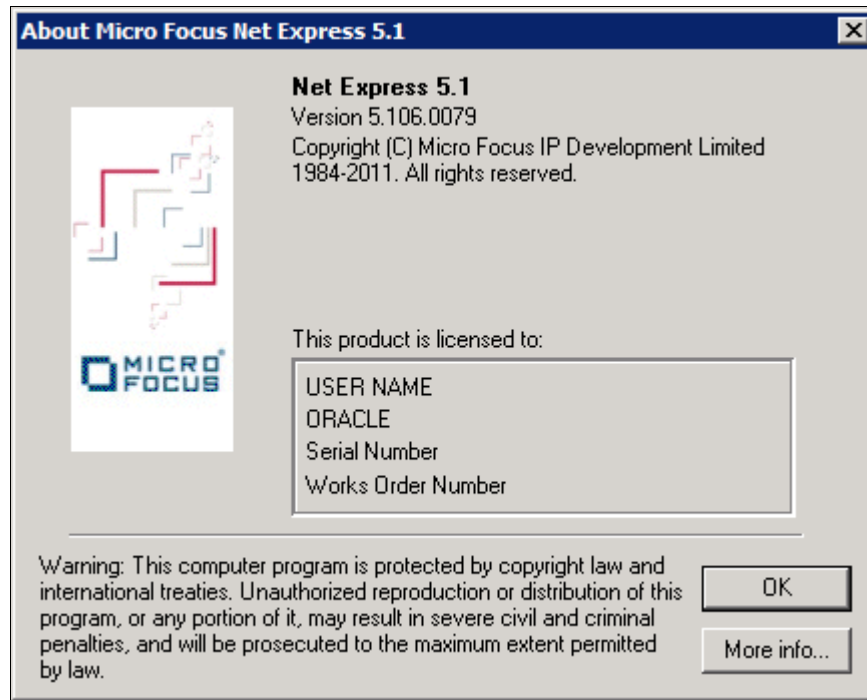


Micro Focus Net Express Integrated Development Environment Help menu

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

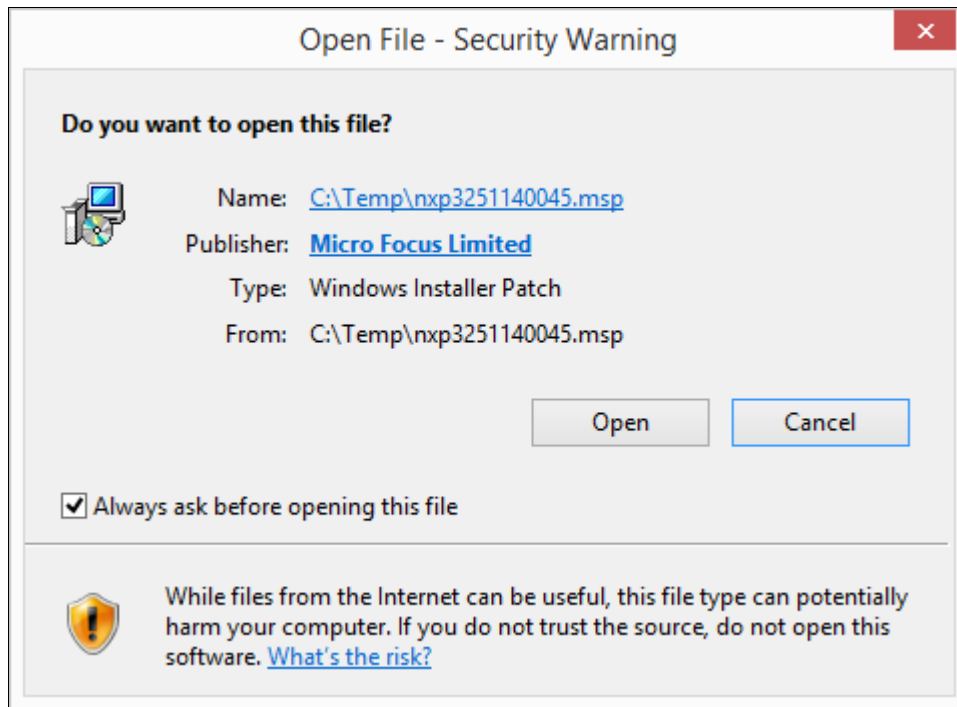
Task 10-2-3: Installing Micro Focus Net Express Wrap Pack 14

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 or later is installed.

To update to Micro Focus Net Express Wrap Pack 14:

1. Double-click *NE_INSTALL\nxp3251140045.msp*.

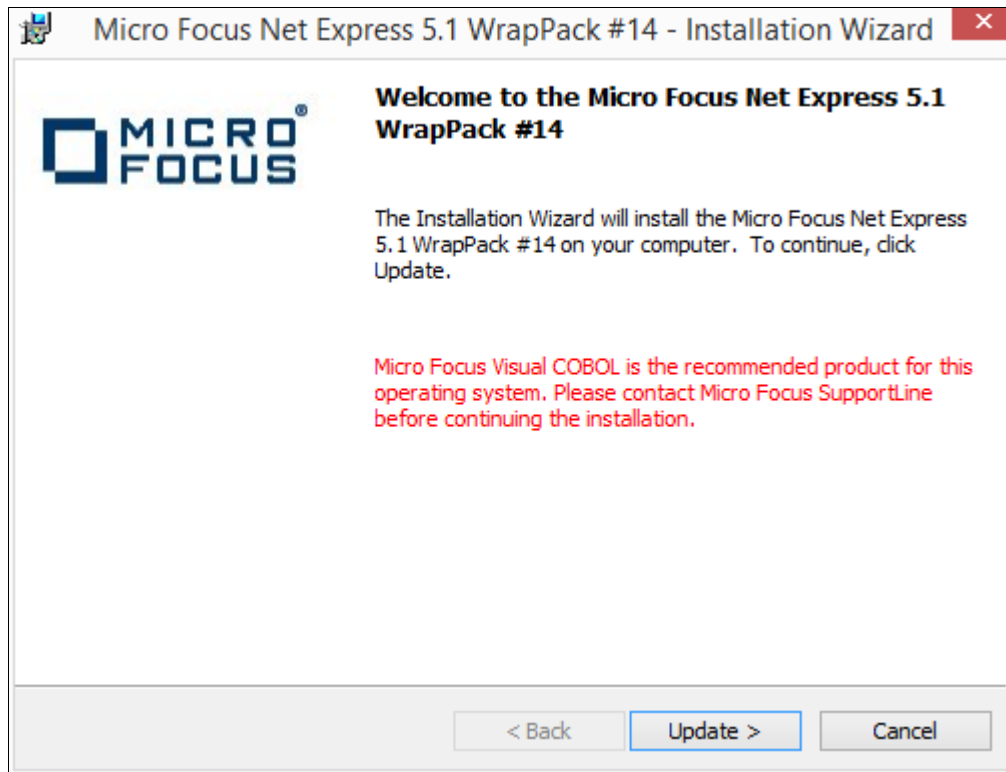
If a security screen appears, as in this example, click Open to launch the installer.



Open File - Security Warning dialog box

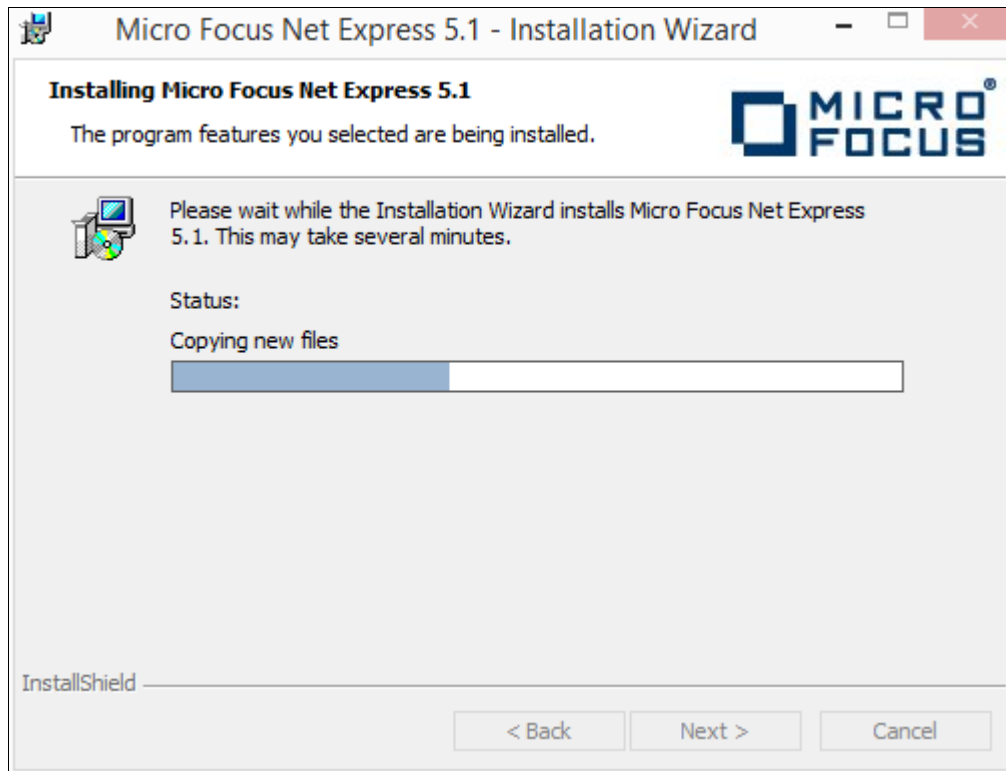
A Welcome window appears.

2. Click Update to continue, as in this example:



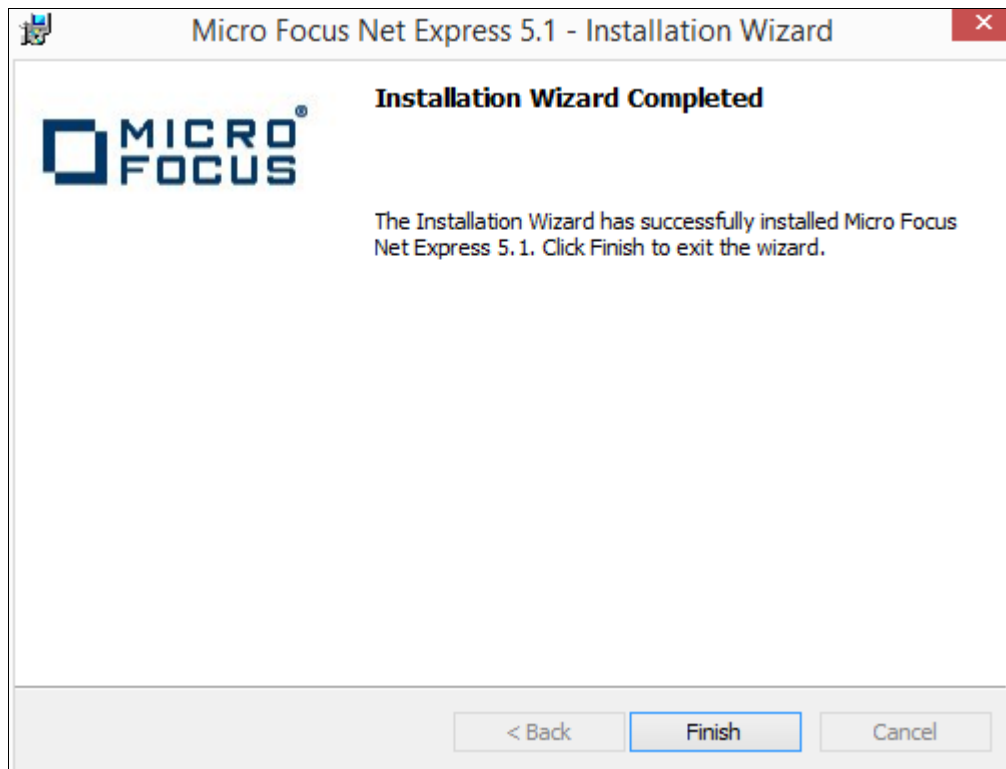
Welcome to the Micro Focus Net Express 5.1 WrapPack #14 window

You see a window indicating the progress of the installation.



Micro Focus Net Express 5.1 Installation Wizard progress indicator

3. After the installation is complete, click Finish on the completion window, as in this example:



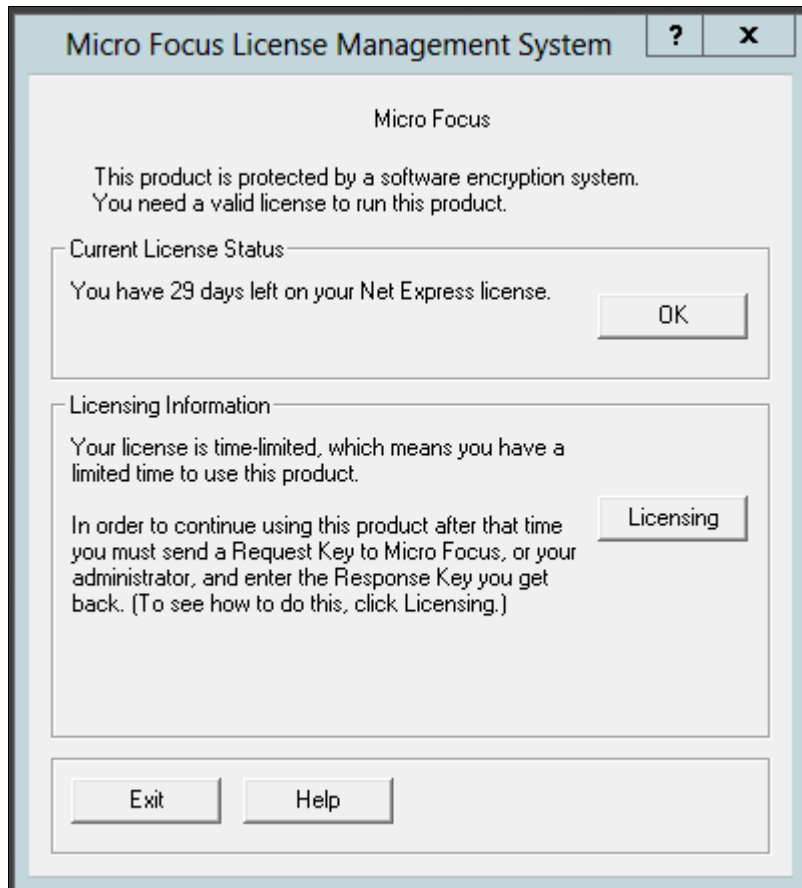
Installation Wizard Completed window

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.

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

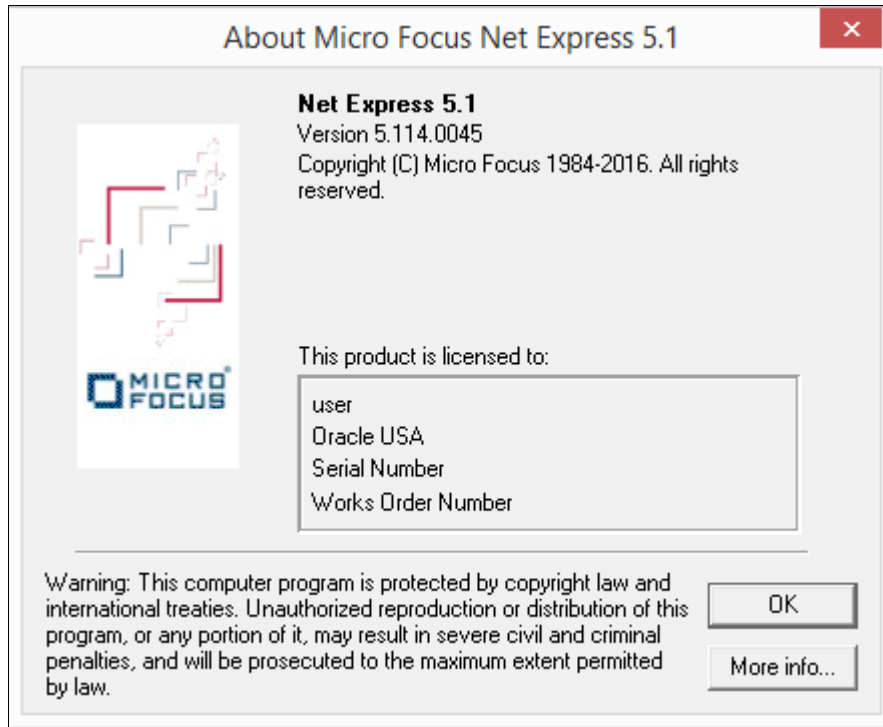
6. Click Continue on the Welcome to Micro Focus Net Express window.

7. Select Help, About Net Express.

Verify that the following information is included on the message box that appears:

Net Express 5.1

Version 5.114.0045



About Micro Focus Net Express 5.1 message box

Task 10-3: 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 14 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:

- 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.

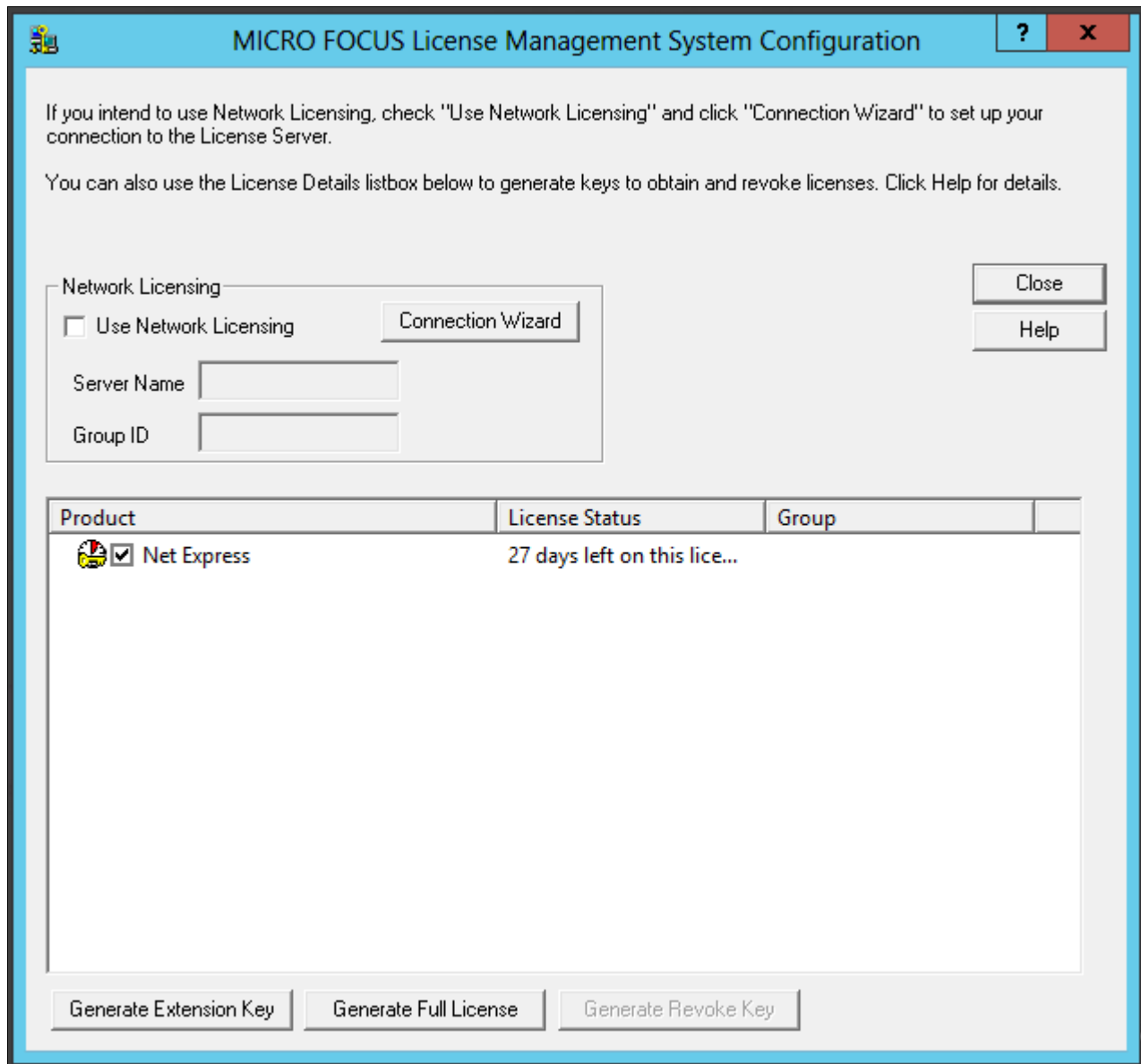
Task 10-3-1: Configuring a Full License with the License Server

To configure a Full License for permanent use:

1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.

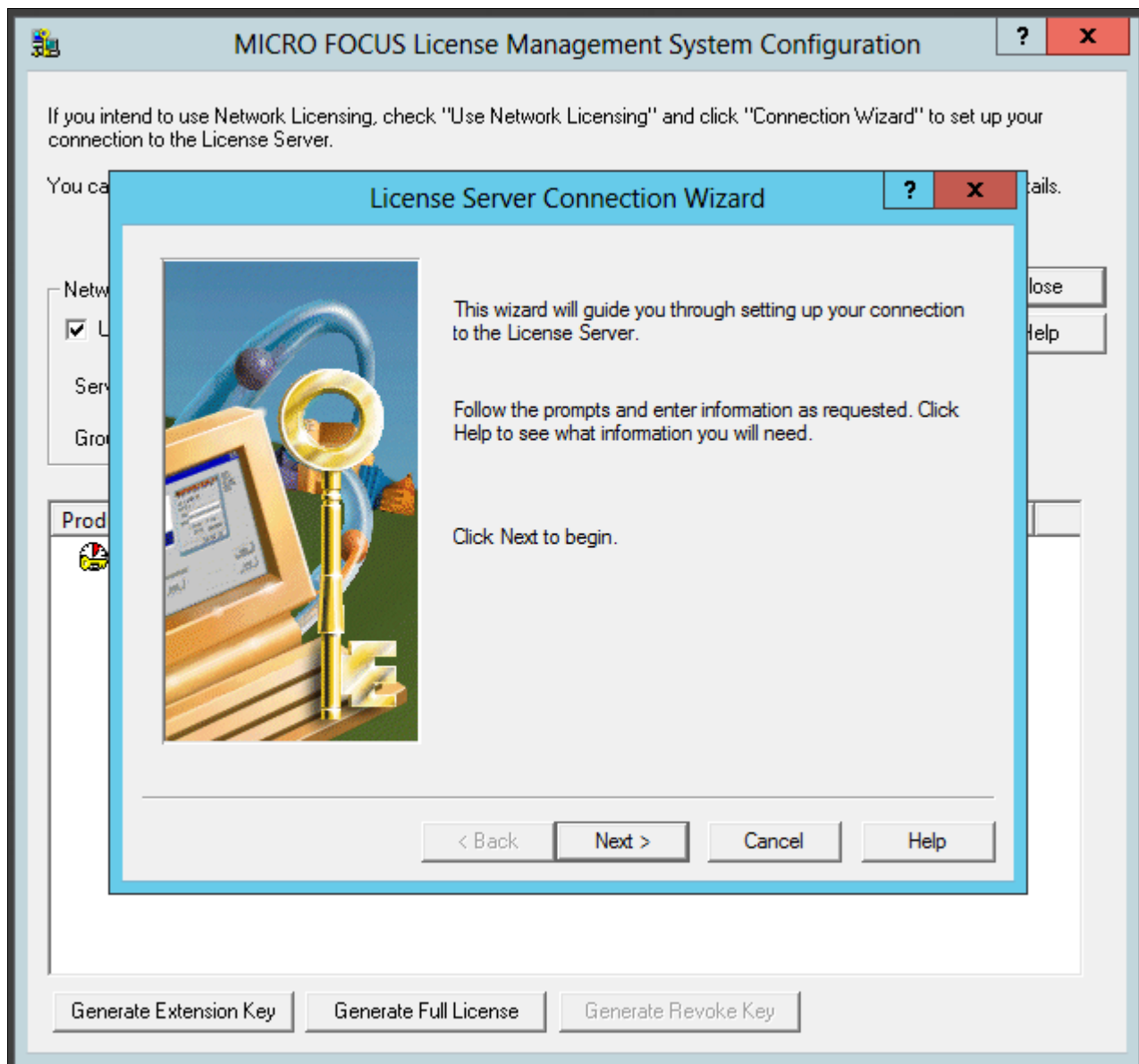
Note. Alternatively, run *NE_HOME*\Base\Bin\protcfg.exe, where *NE_HOME* is the directory where you installed Micro Focus Net Express.

2. Select the option Use Network Licensing, and click Connection Wizard, as shown in this example:



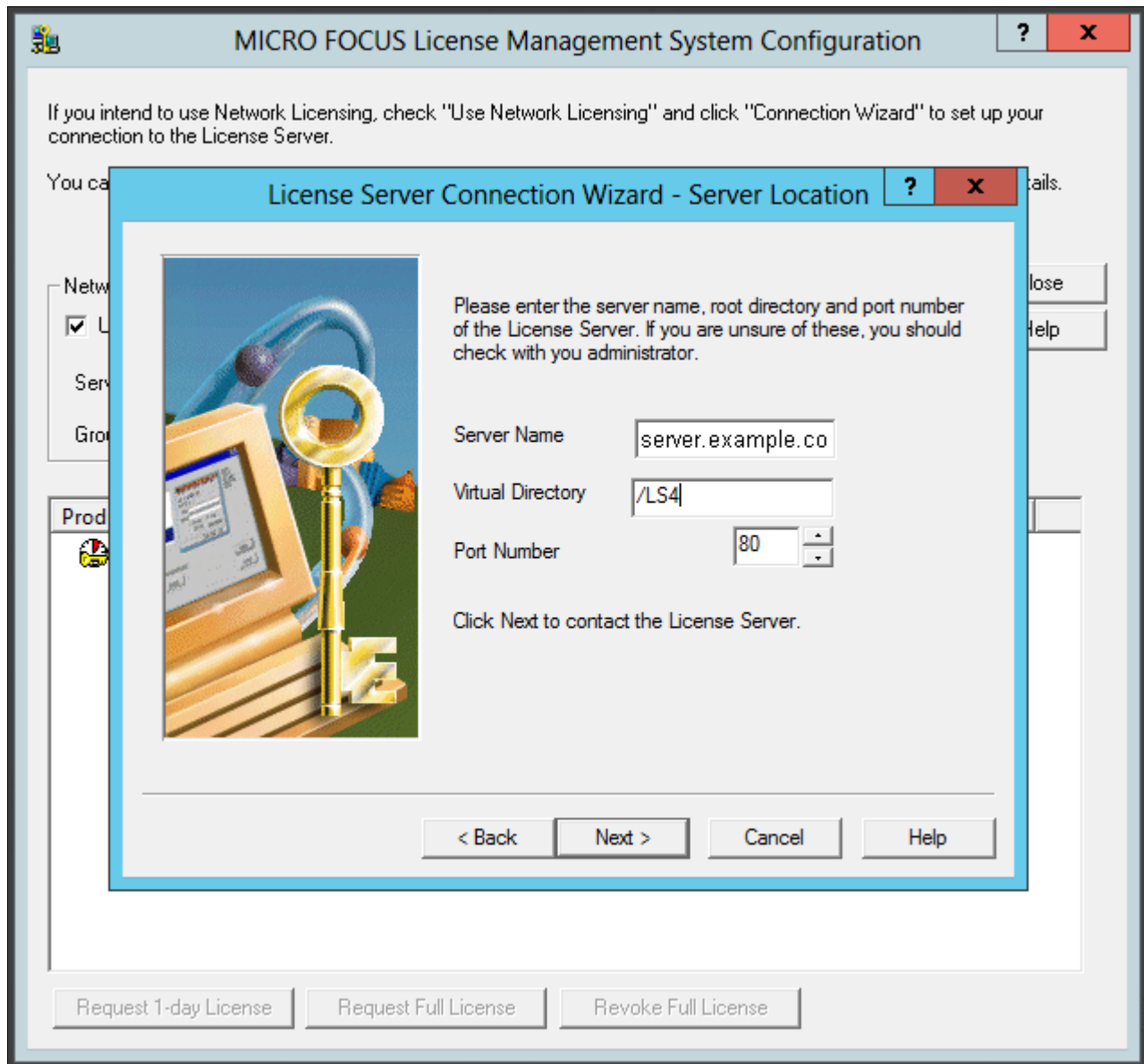
MICRO FOCUS License Management System Configuration window

3. Click Next on the License Server Connection Wizard window, shown in this example:



License Server Connection Wizard window

4. Enter information for the server location, and then click Next.

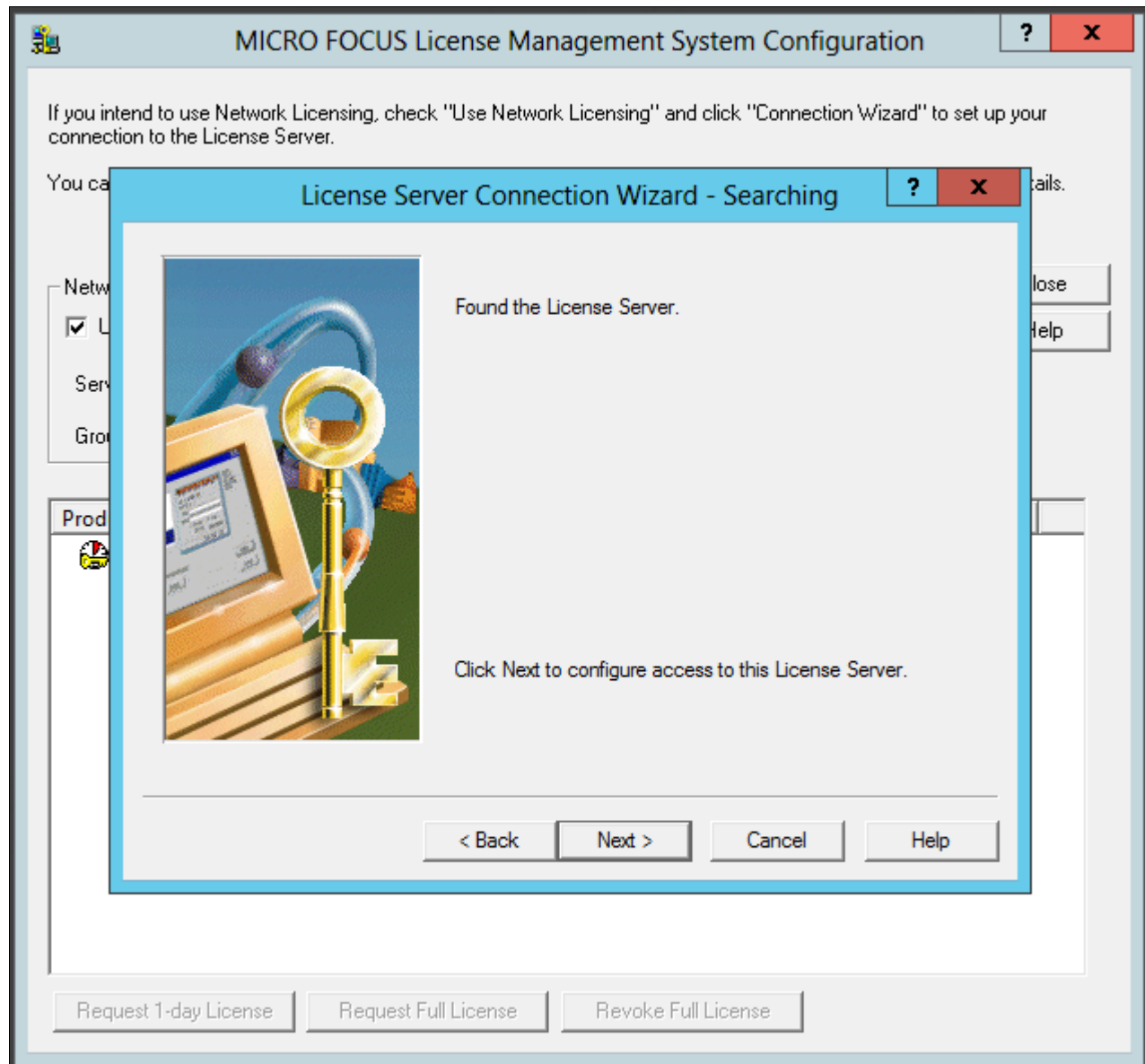


License Server Connection Wizard - Server Location window

- 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.

5. You see a message saying the wizard found the server, as in this example.

Click Next.

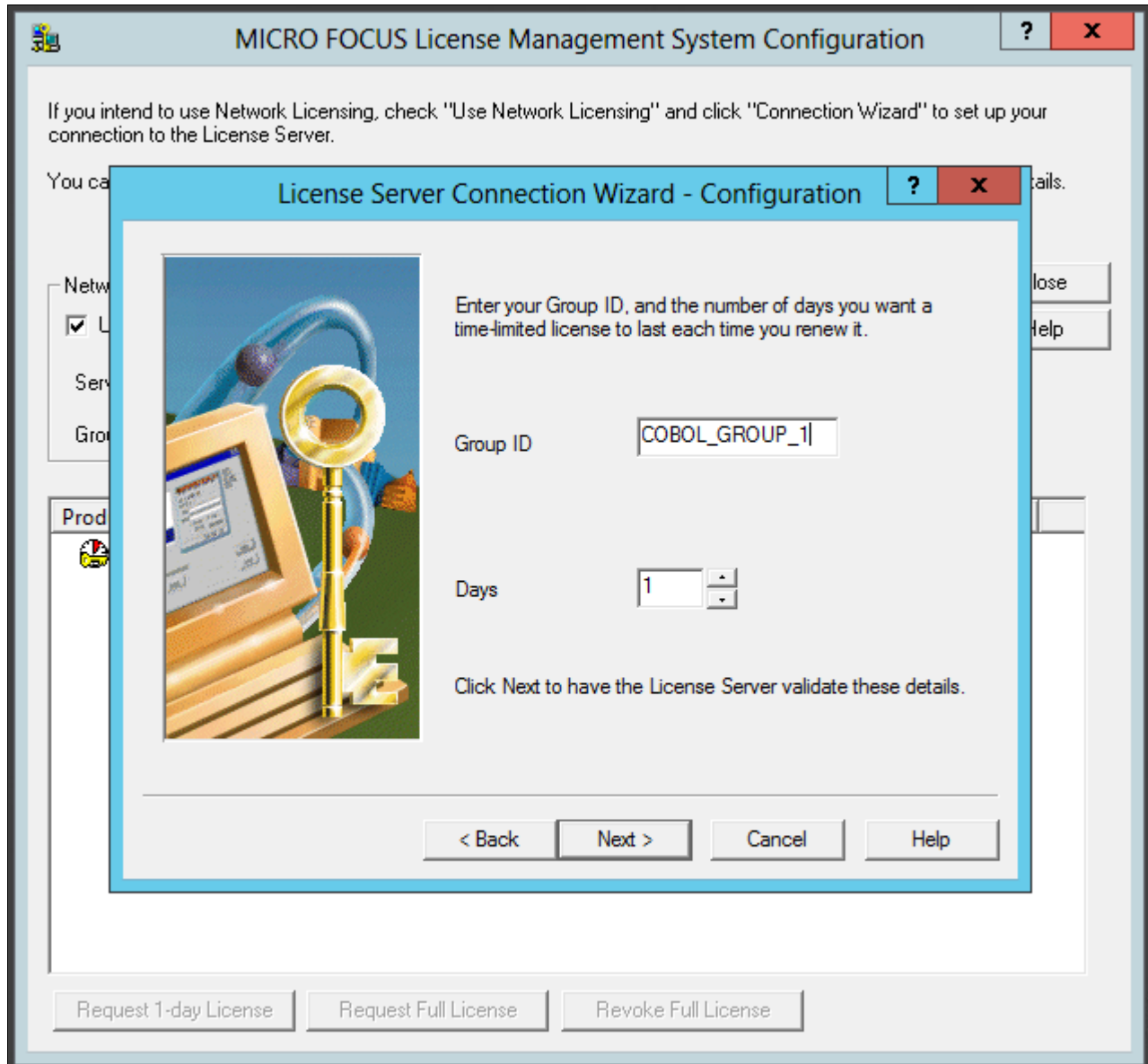


License Server Connection Wizard - Searching window

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.

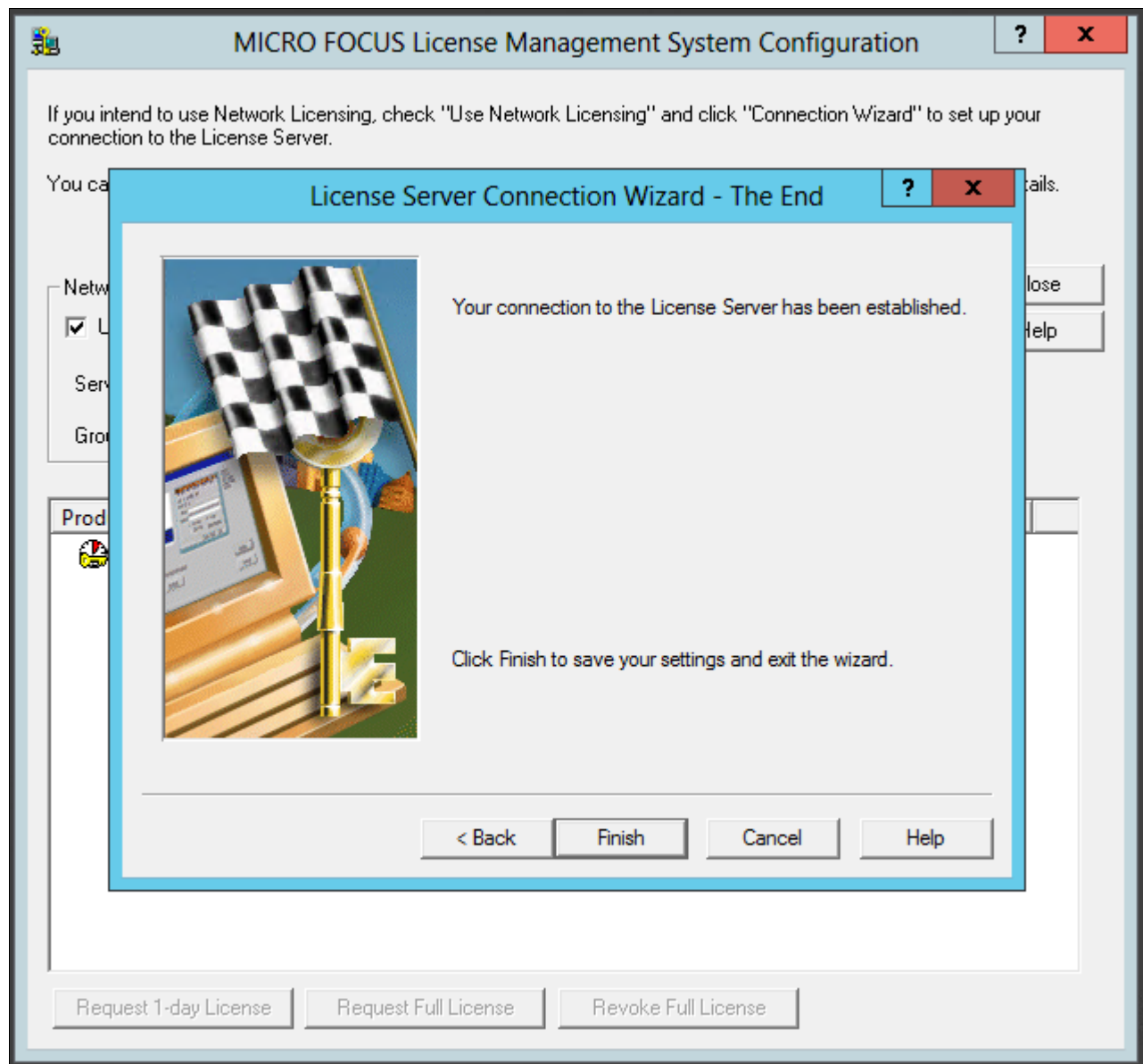
Note. Although you enter one day here, you complete a step later that requests permanent license status.

Click Next.



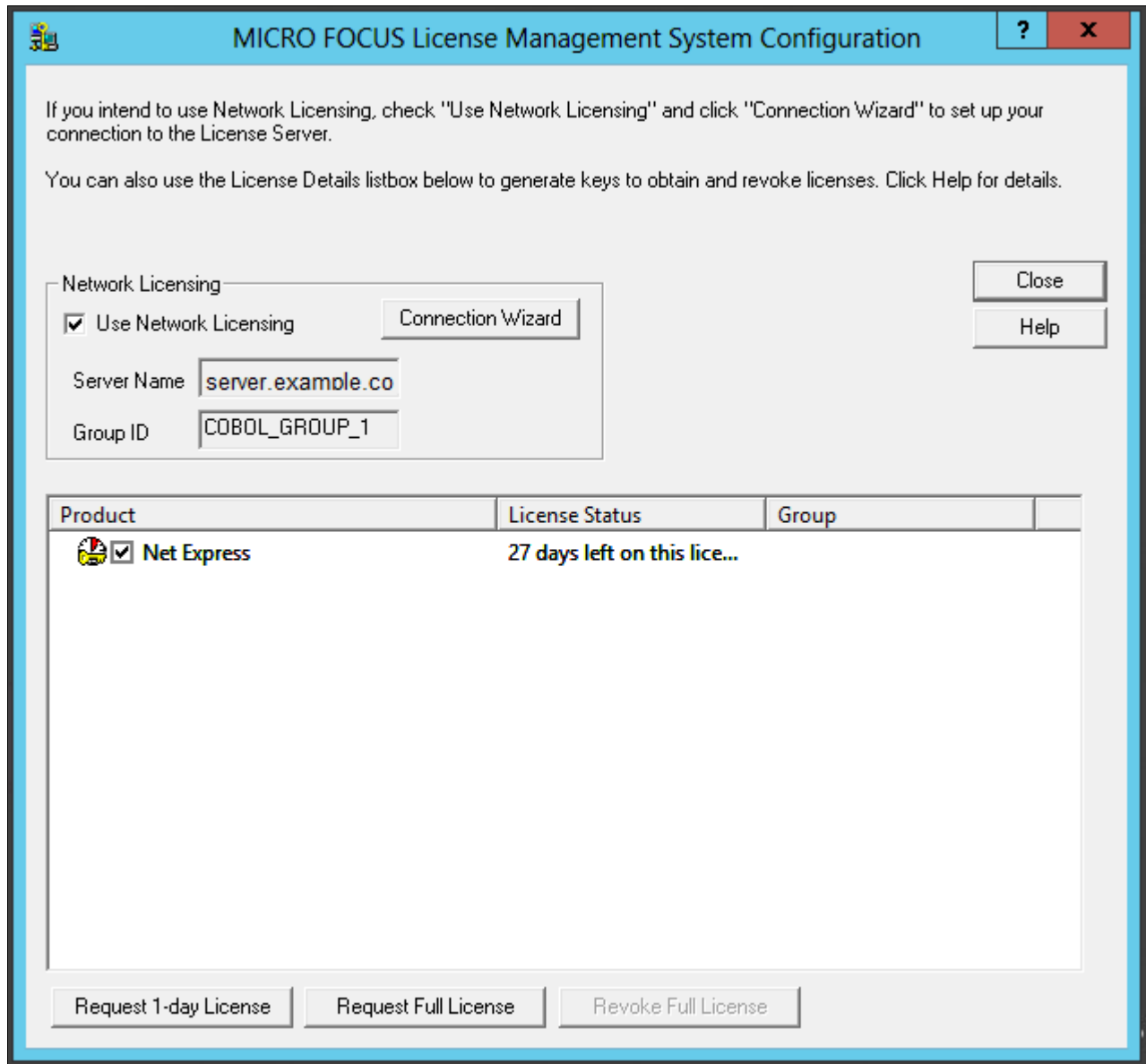
License Server Connection Wizard - Configuration window

7. Click Finish to exit the wizard, as shown in this example:



License Server Connection Wizard - The End window

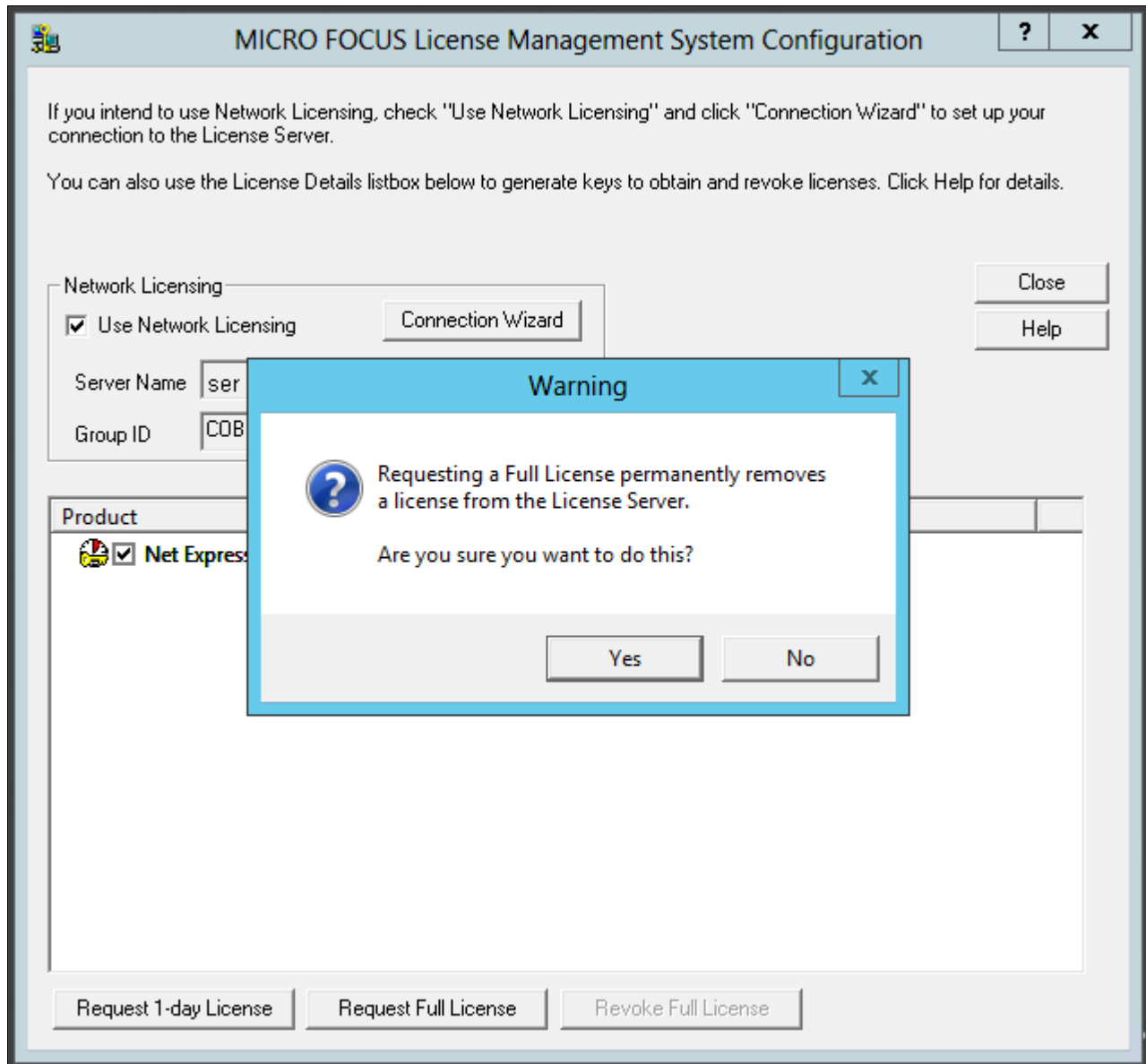
8. In the details list on the MICRO FOCUS License Management System Configuration dialog box, select the check box for Net Express, and then click Request Full License, as shown in this example:



MICRO FOCUS License Management System Configuration window

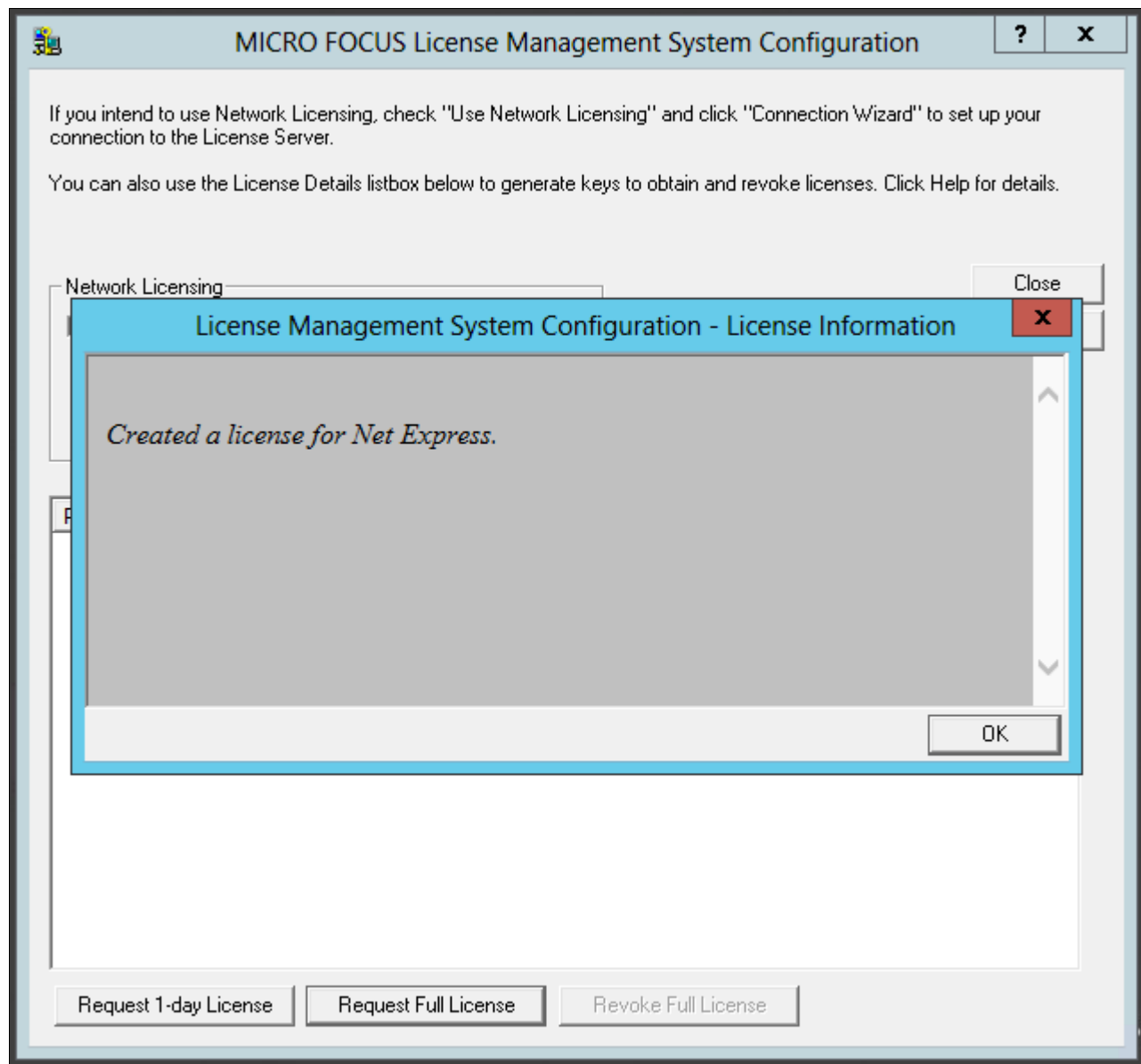
9. Click Yes to confirm that you want to request a full license, as shown in this example.

The warning message says that requesting a full license permanently removes a license from the license server.



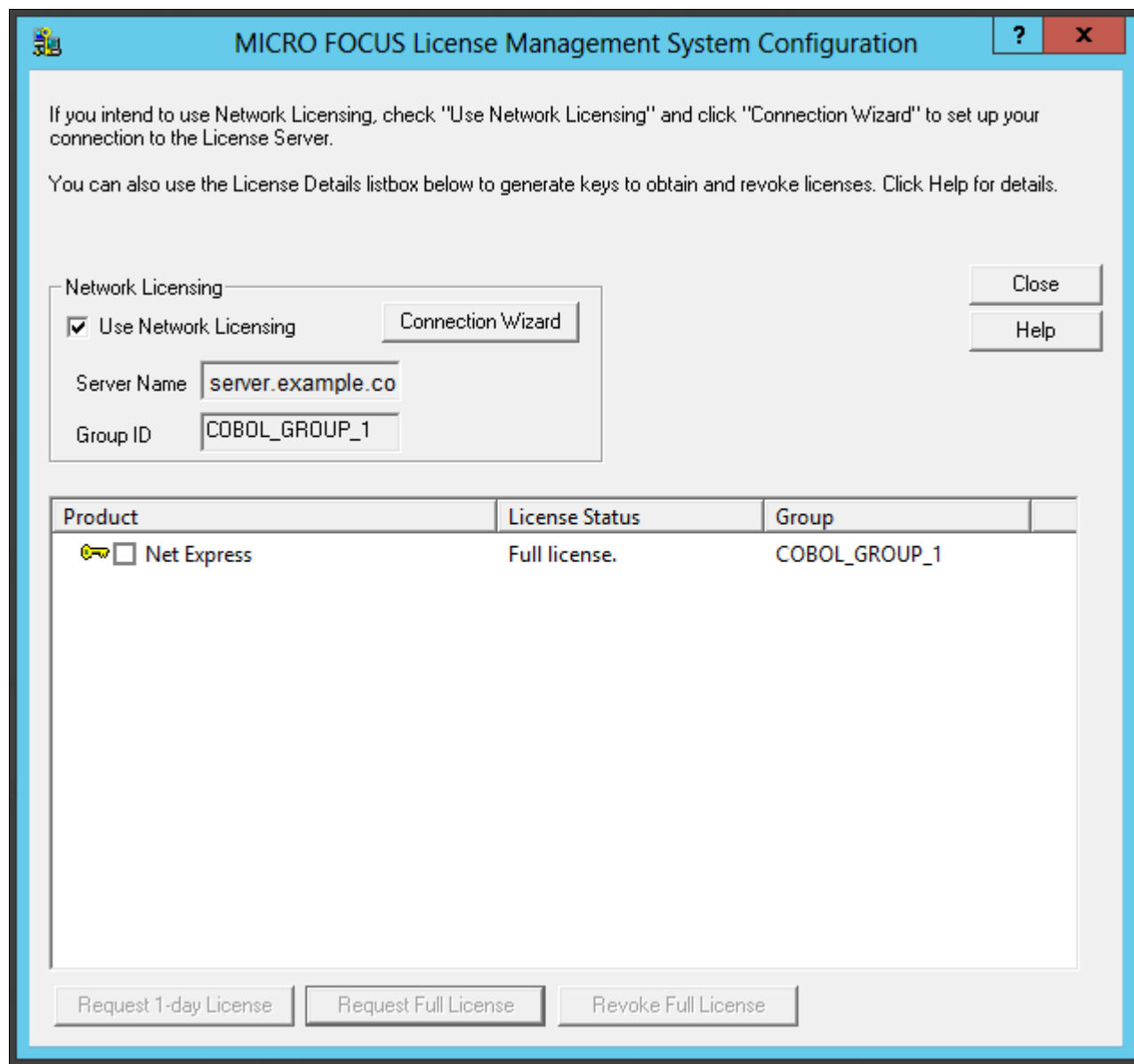
Warning message box when requesting a Full License

10. Click OK on the License Information dialog box.



License Management System Configuration - License Information window

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

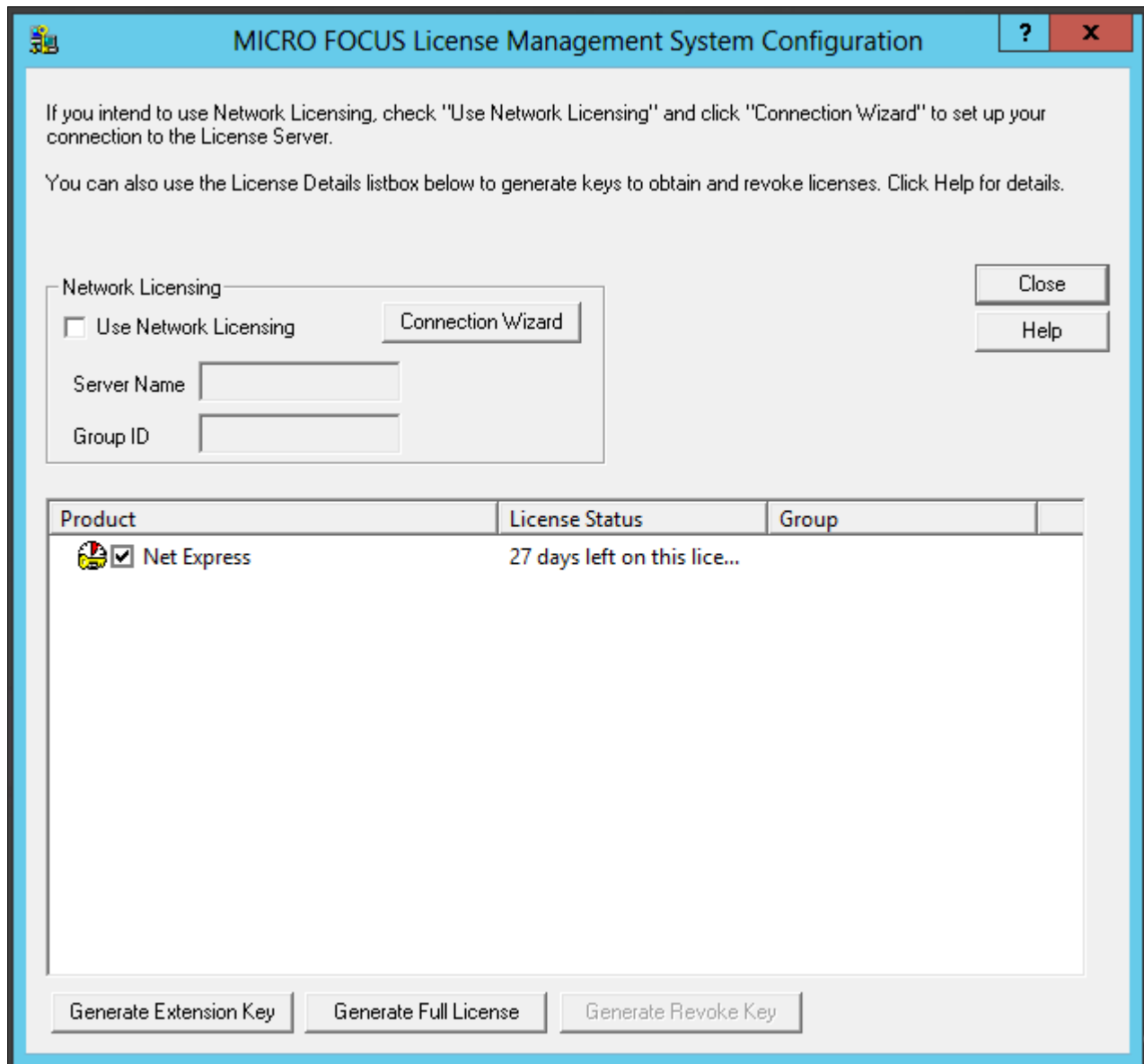
Task 10-3-2: Configuring a Timed License with the License Server

To configure a Timed License for temporary use:

1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.

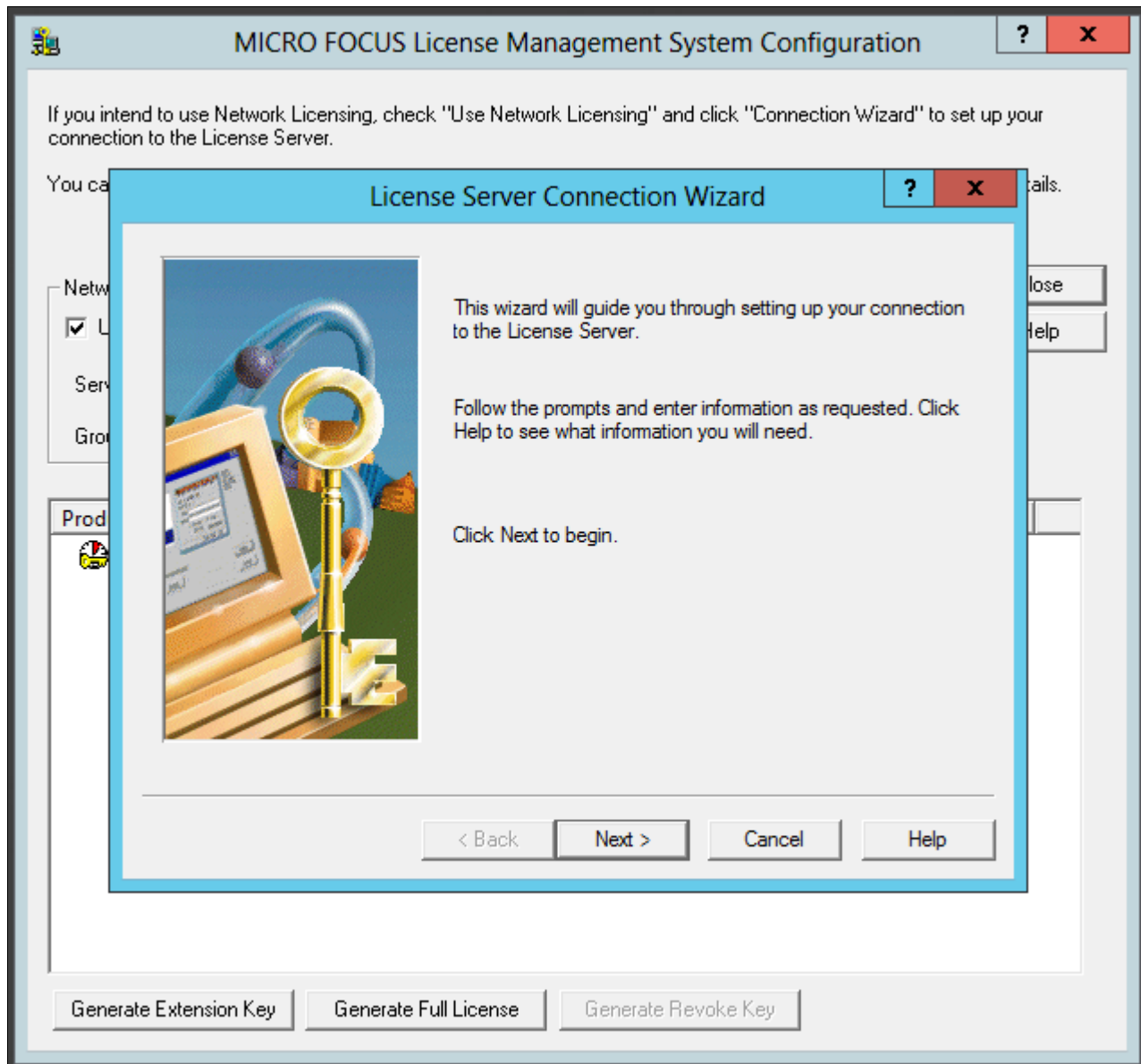
Note. Alternatively, run `NE_HOME\Bin\protcfg.exe`, where `NE_HOME` is the directory where you installed Micro Focus Net Express.

2. Select the option Use Network Licensing, and click Connection Wizard, as shown in this example:



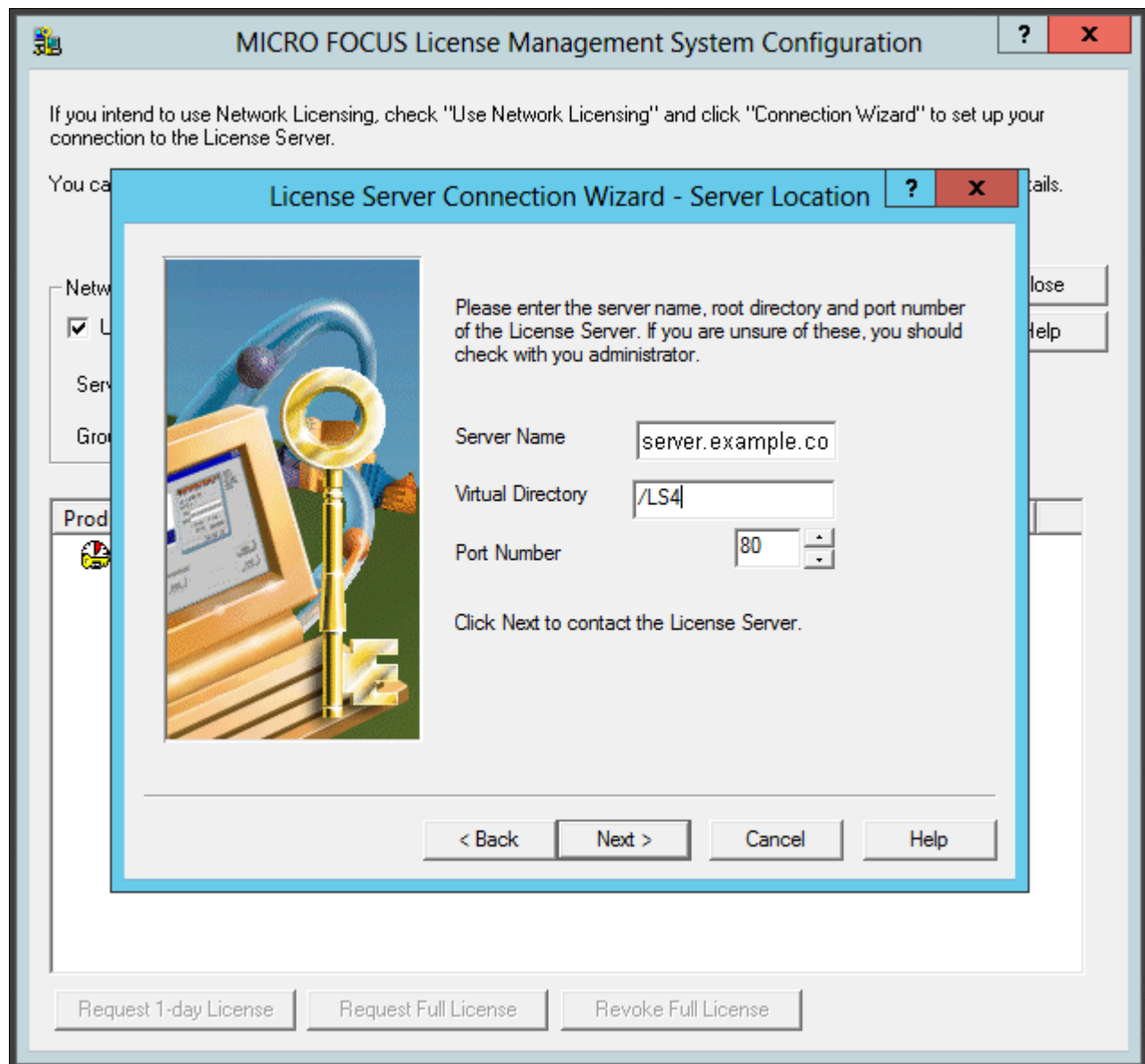
MICRO FOCUS License Management System Configuration window

3. Click Next on the License Server Connection Wizard window, shown in this example:



License Server Connection Wizard window

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.

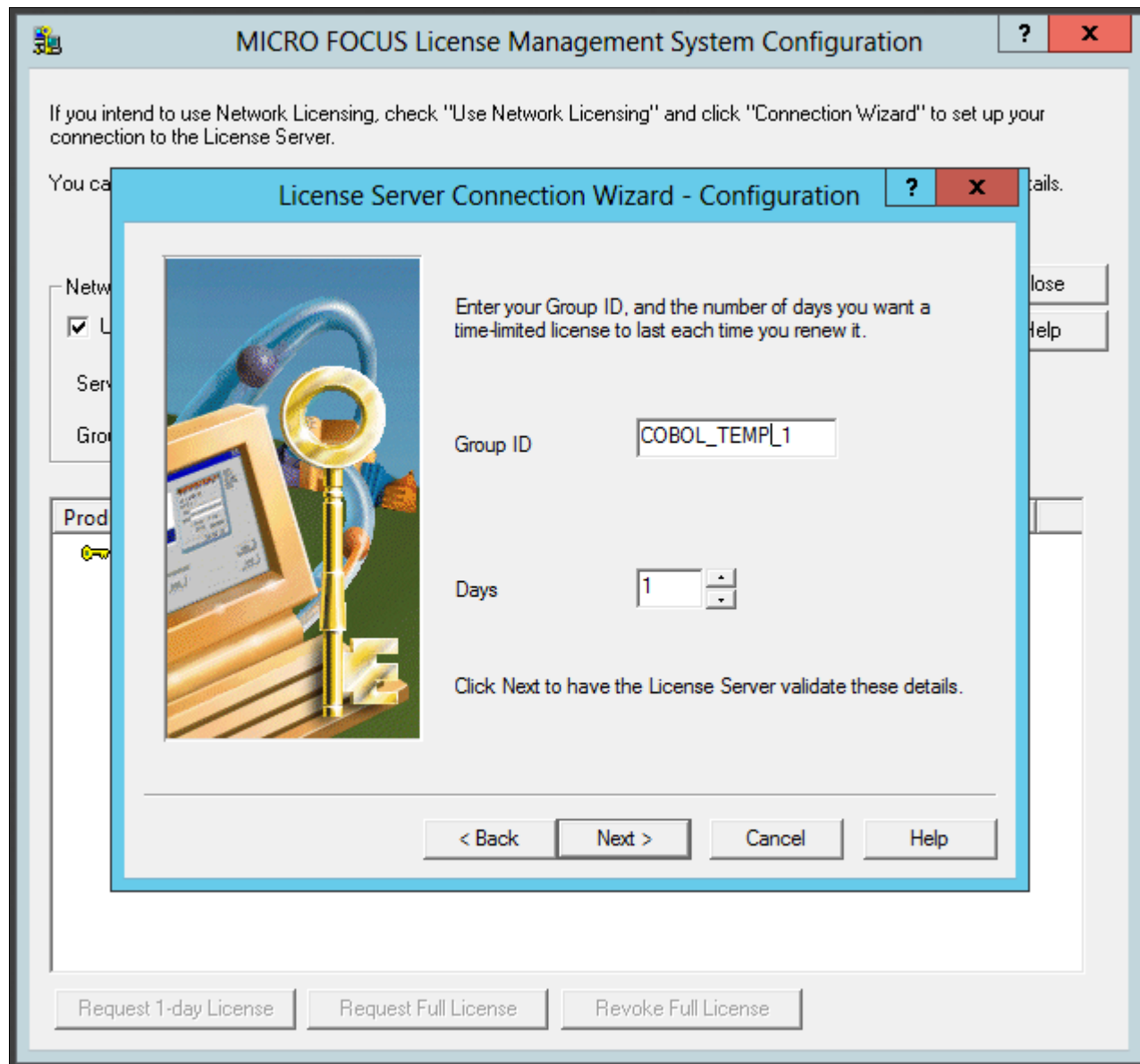
Select a port that is not in use by another application.

5. You see a message saying the wizard found the server.

Click Next.

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.

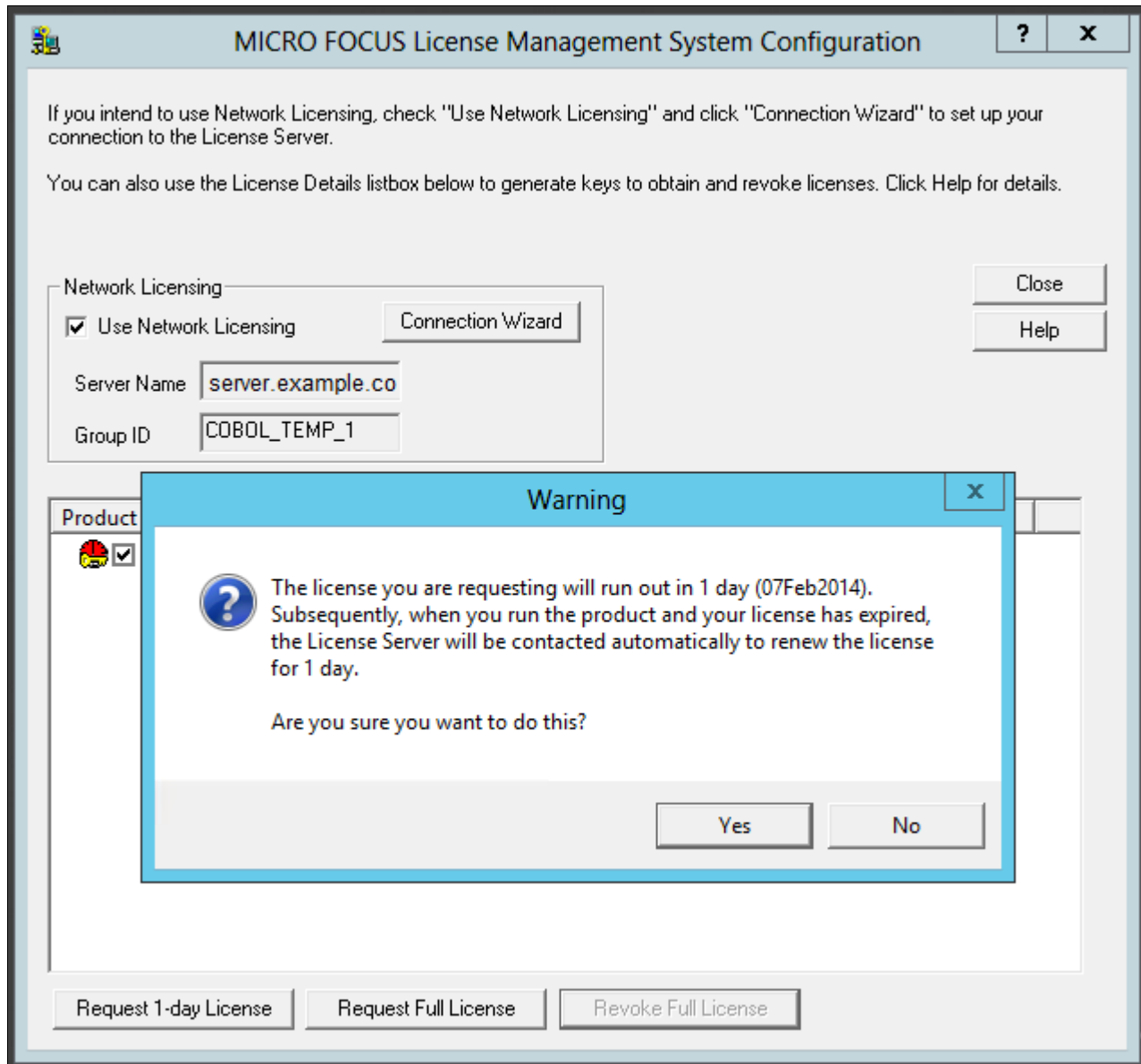


License Server Connection Wizard - Configuration window

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.

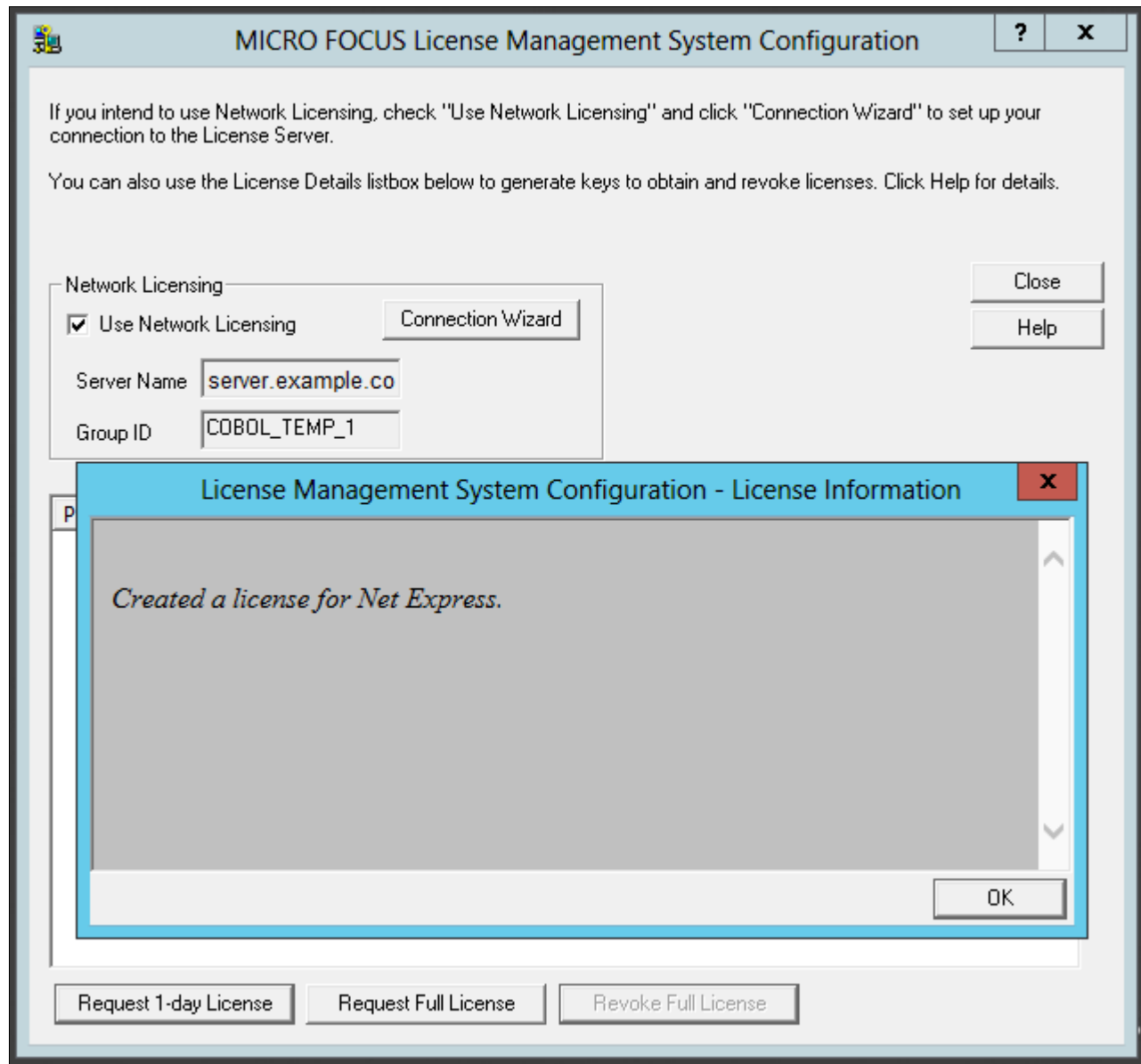
9. Click Yes to confirm that you want to request a timed (temporary) license, as shown in this example.

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.



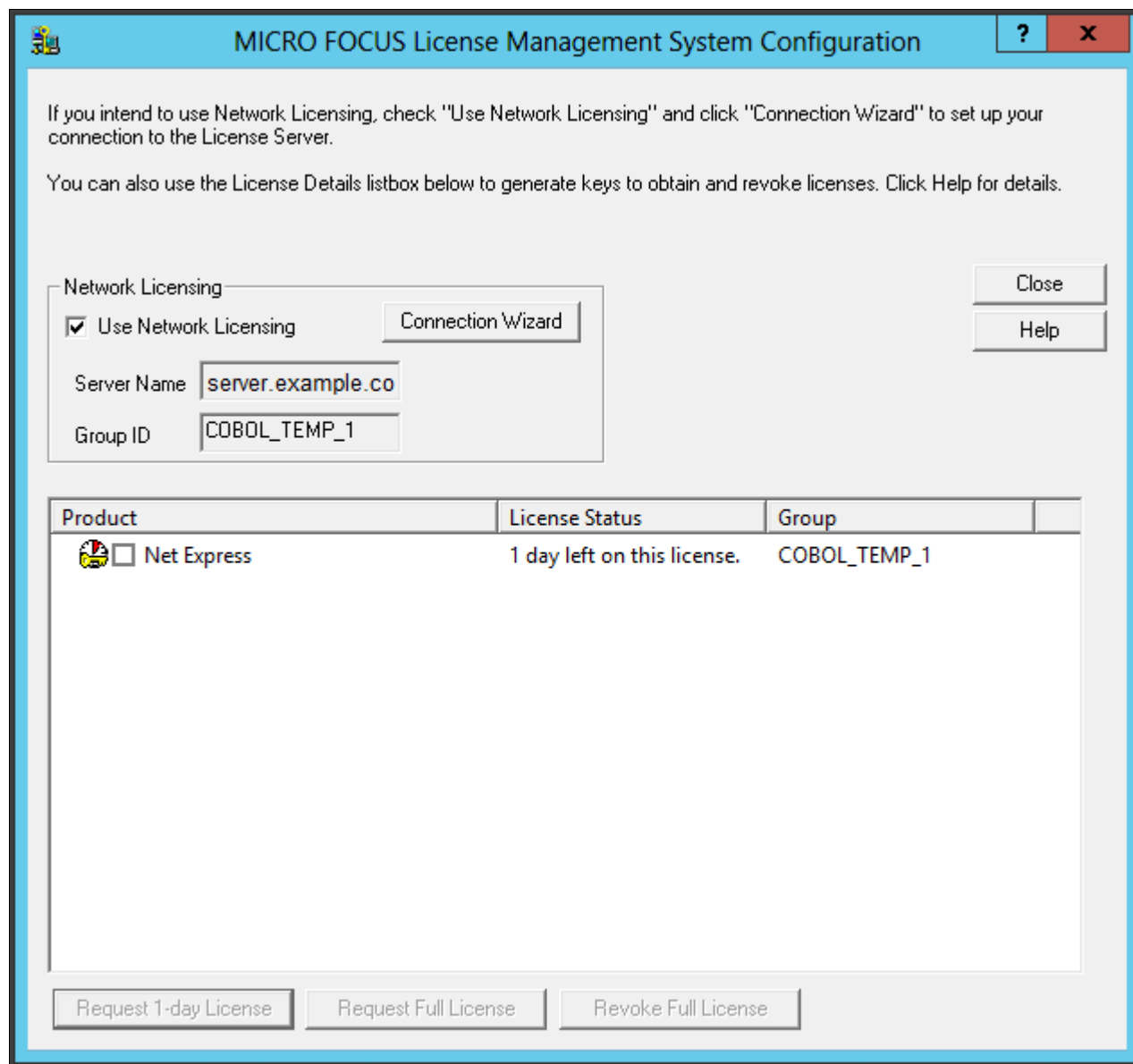
Warning message box when requesting a timed license

10. Click OK on the License Information message box.



License Management System Configuration - License Information window

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 10-3-3: Revoking the License Using the License Management System

Revoking (deallocating) 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.

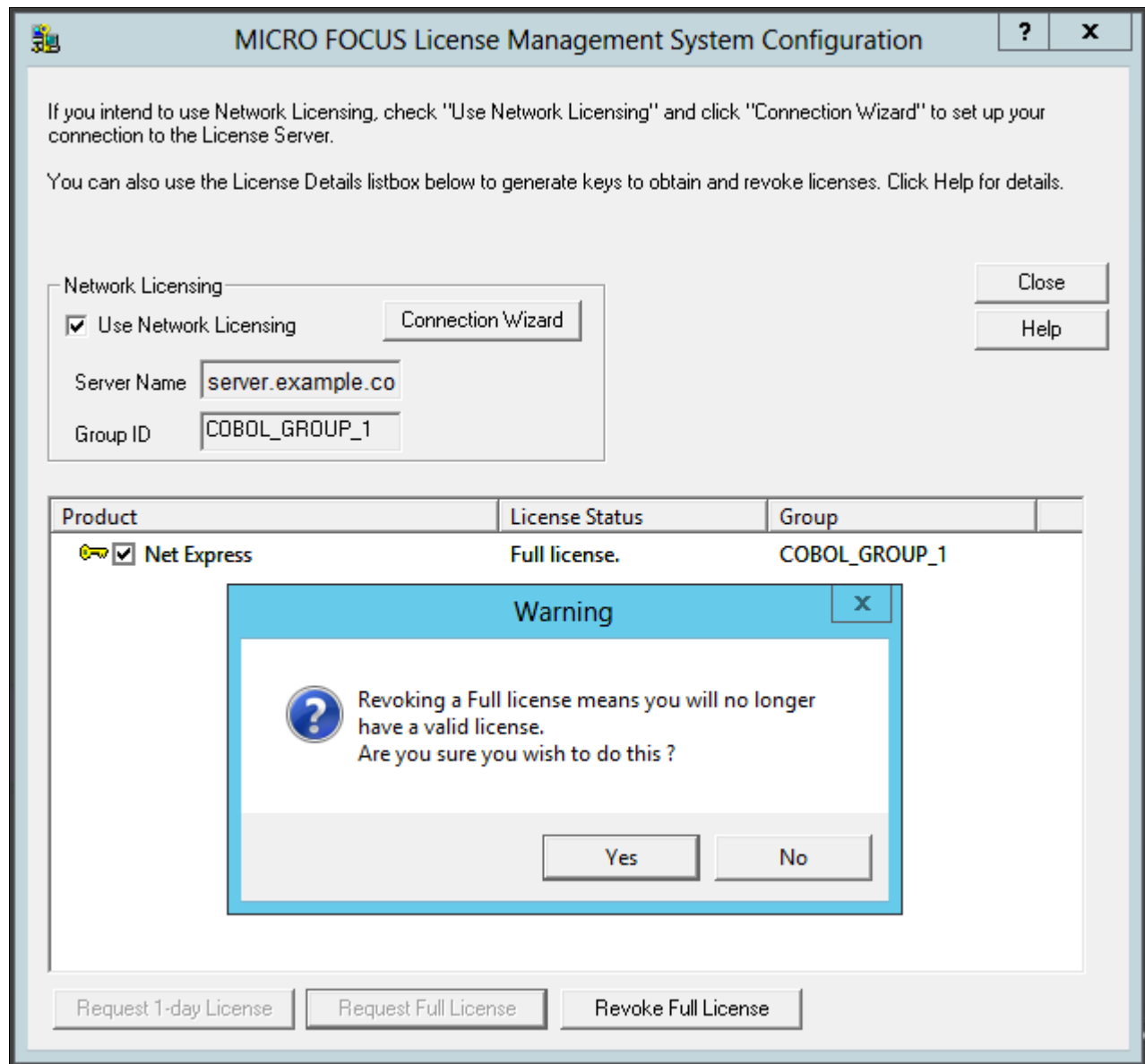
See Revoking the License by Removing the Installation.

To revoke a Full License using the Micro Focus License Management System:

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.

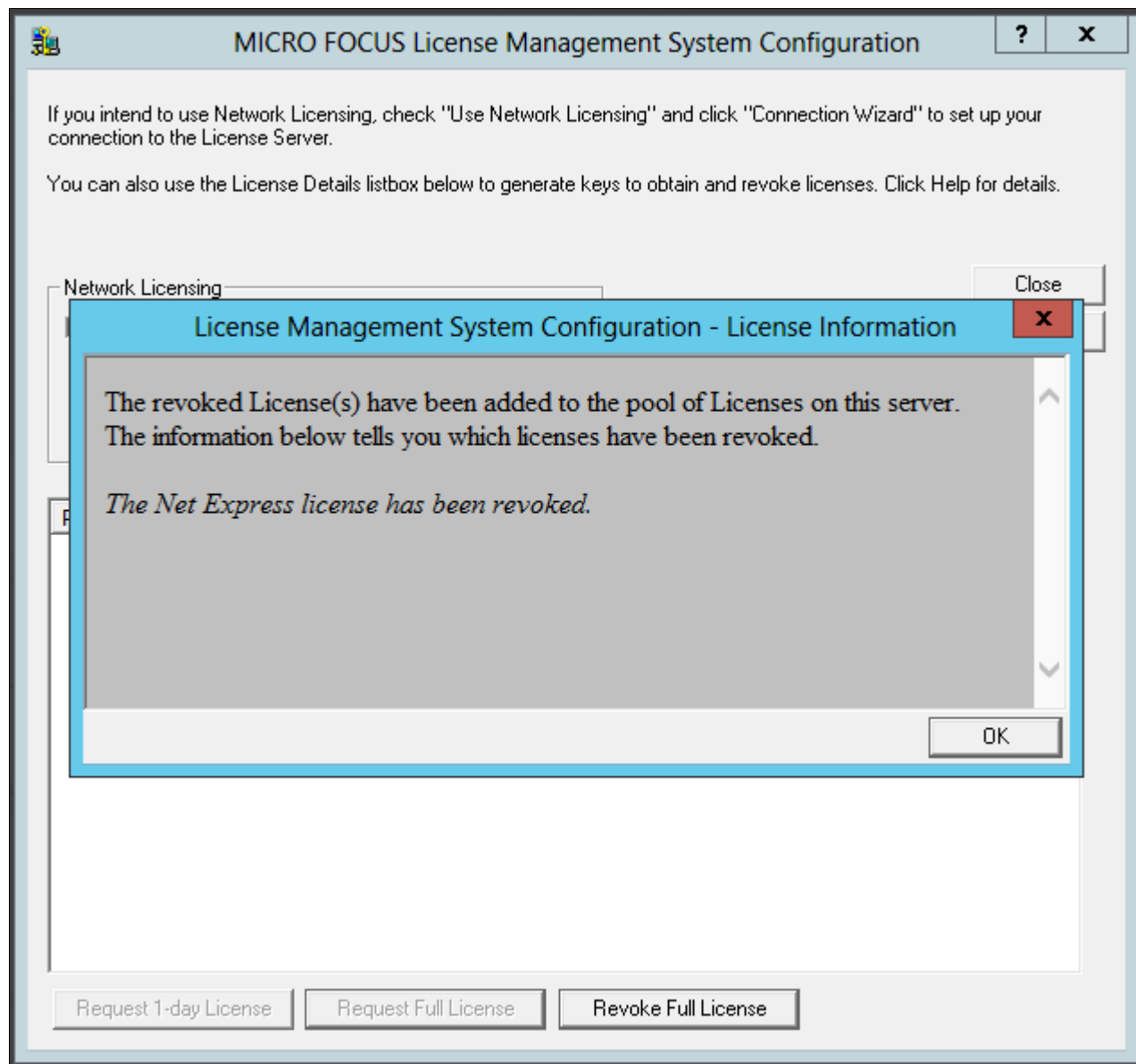
The warning message says that revoking a full license means that you will no longer have a valid license.



Warning message box on Revoking a Full License

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.

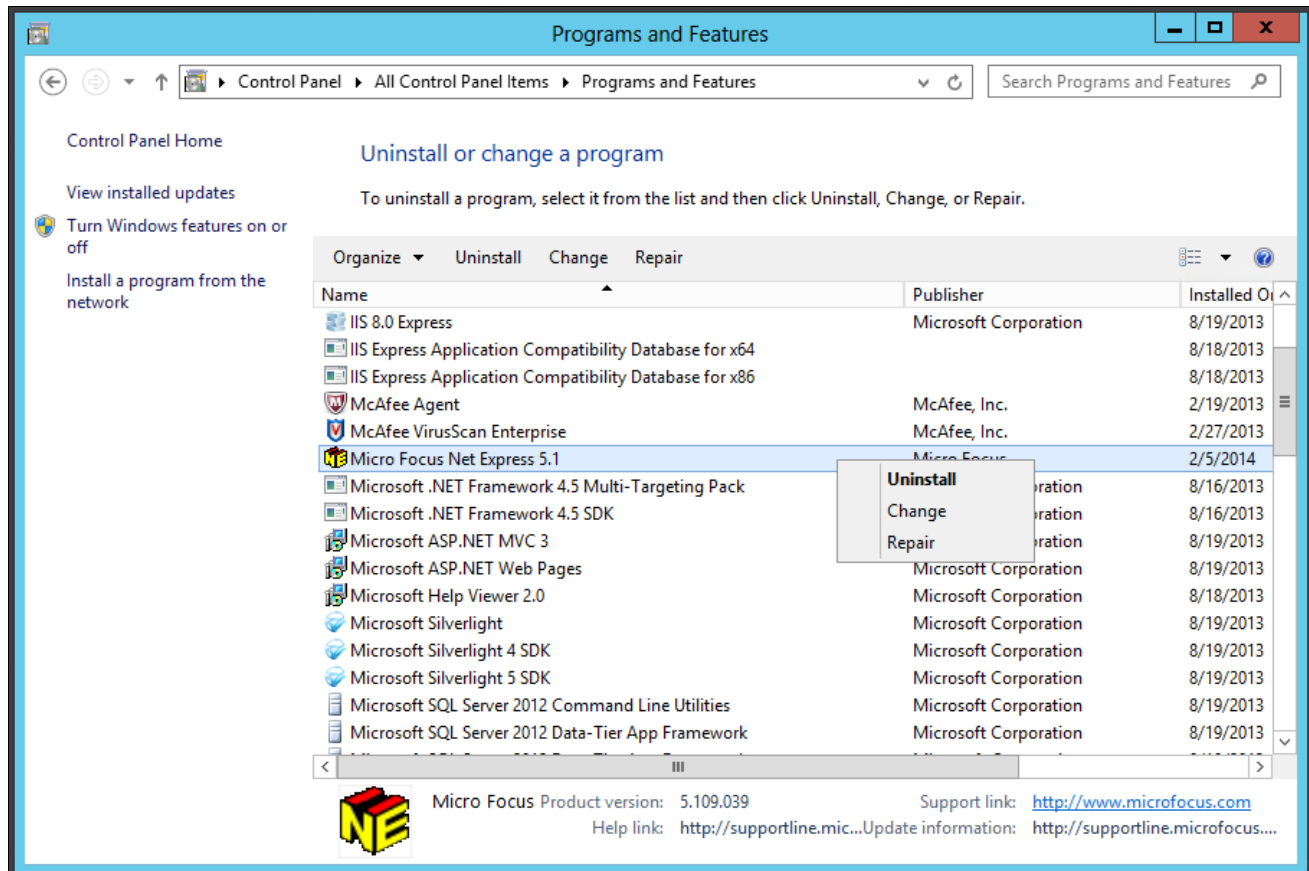
Task 10-3-4: Revoking the License by Removing the Installation

Revoking (deallocating) 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.

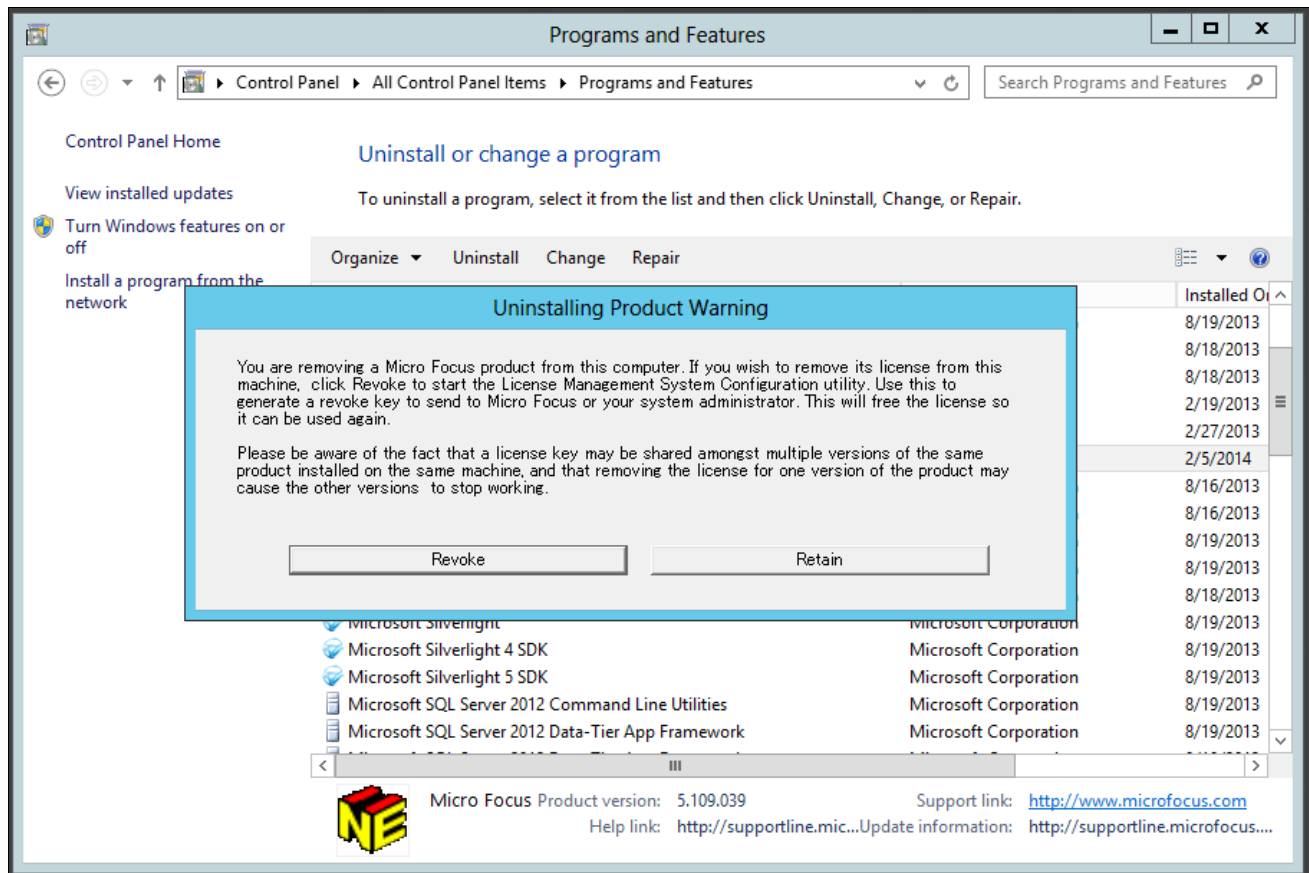
To remove the installation and revoke the license:

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

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 10-4: 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

- 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.

See My Oracle Support, Patches & Updates.

See Also

"Preparing for Installation," Defining Installation Locations.

Task 10-4-1: 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.

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 PTC SQLRT.CBL.

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.

For example, the following command will take the COBOL source from *PS_HOME* and copy all the necessary files to the location where the compile process will take place.

```
cblsrc PS_HOME c:\temp\compile
```

If the COBOL source that will be compiled is different from the one under *PS_HOME*, copy that COBOL source to *<compile directory>*.

Note. The compile in the next step will generate a GNT file unless the exception file, CBLINT.XX already exists (the XX represents the Product ID). CBLINT.XX contains the list of files that need to be compiled to the INT file. Make sure the intended CBLINT.XX is located under *<compile directory>* before executing CBLMAKE.

7. After CBLSRC completes, change directories to the compile directory, and run CBLMAKE.BAT, using the basic syntax as well as the CBLMAKE table shown earlier as your guide.
8. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate *PS_HOME\CBLBINX* directory (CBLBINA 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 10-4-2: 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>*

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:

```
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:

```
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.

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 10-4-3: 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

- 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:

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
```

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
```

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:

```
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 10-4-4: 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.

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 10-4-5: 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%\CBLBINx directory.

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 14 Runtime Licensing files are contained in the self-extracting zip file, MFLicense_51WP14.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_51WP14.exe runtime license file for the Micro Focus Net Express 5.1 Wrap Pack 14 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_51WP14.exe.
5. Specify the directory to save the files, for example C:\MFLicense-Extract-51WP14.
6. Change directory to C:\MFLicense-Extract-51WP14 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.

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: Erno 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 10-4-6: 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 10-4-7: 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.

- *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.

Chapter 11

Installing Web Server Products

This chapter discusses:

- Installing Oracle WebLogic Server
- Installing IBM WebSphere Application Server

Task 11-1: 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
- Installing Oracle WebLogic on Microsoft Windows
- Configuring JDK for Daylight Savings Time Change
- Removing the Oracle WebLogic Installation on Microsoft Windows

Understanding the Oracle WebLogic Installation

PeopleSoft PeopleTools 8.56 supports Java 8 enabled 64-bit Oracle WebLogic Server 12.2.1. You must install an operating-system specific Java Developers Kit (JDK) before beginning the Oracle WebLogic installation.

See Installing JDK for Oracle WebLogic.

This section describes a traditional installation of Oracle WebLogic. If you use the PeopleSoft DPKs, for either a full-tier installation using the PeopleSoft Application Images or for a mid-tier installation using the PeopleTools DPKs, Oracle WebLogic is installed as part of the installation, and you do not need to carry out the separate installation in this section. If you choose to install Oracle WebLogic independently of the DPK installation, you can obtain installation files for Oracle WebLogic on the Oracle Software Delivery Cloud portal and use the steps in this section.

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.

See Also

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

My Oracle Support, Certifications

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)

Oracle WebLogic Server 12.2.1 documentation, <http://docs.oracle.com/middleware/1221/wls/index.html>

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 UNIX in Silent Mode.

```
$JAVA_HOME/bin/java -jar -Djava.io.tmpdir=~/.temp ./fmw_12.2.1.0.0_>
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 12.2.1 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 12.2.1 installation directory and try the installation again.
- If you are installing onto a UNIX environment, in case of installation failure, refer to the log file `Wls1221Install.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 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 11-1-1: 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 WebLogic Server Enterprise Edition (FMW, WLS, WebLogic Server 12c), 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

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. Click Continue on the Download Queue page.
8. On the File Download window, download the zip files for Oracle WebLogic Server and Oracle 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

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.

9. Extract the files into *WLS_INSTALL*.

The Oracle WebLogic installer file is *fmw_12.2.1.0.0_wls.jar*.

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

Task 11-1-2: Installing JDK

This section discusses:

- Understanding the JDK Requirement for Oracle WebLogic
- Installing JDK for Microsoft Windows

Understanding the JDK Requirement for Oracle WebLogic

Before beginning the Oracle WebLogic installation you must install the 64-bit Java 8 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*
IBM AIX	IBM JDK 8.0	64-bit
HP-UX Itanium	Hewlett-Packard JDK 8.0	Mixed mode Use "-d64" to run in 64-bit mode.
Linux	Oracle JDK 1.8.0_65+	64-bit
Microsoft Windows	Oracle JDK 1.8.0_65+	64-bit
Oracle Solaris on SPARC	Oracle JDK 1.8.0_65+	64-bit

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

Installing JDK for Microsoft Windows

To install 64-bit JDK 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 8 64-bit JDK version 1.8.0_65 or higher for Microsoft Windows x86-64.
Refer to the JDK installation instructions at the following link:
http://docs.oracle.com/javase/8/docs/technotes/guides/install/windows_jdk_install.html#CHDEBCCJ
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 11-1-3: Installing Oracle WebLogic on Microsoft Windows

The following procedure assumes that you saved the installation file `fmw_12.2.1.0.0_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 MPX, and 10.3.X, can coexist with 12.2.1 on a single machine. The best practice is to install Oracle WebLogic 12.2.1 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 12.2.1:

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 1.8. For example, if you installed JDK to `D:\jdk1.8.0_65` use this command:

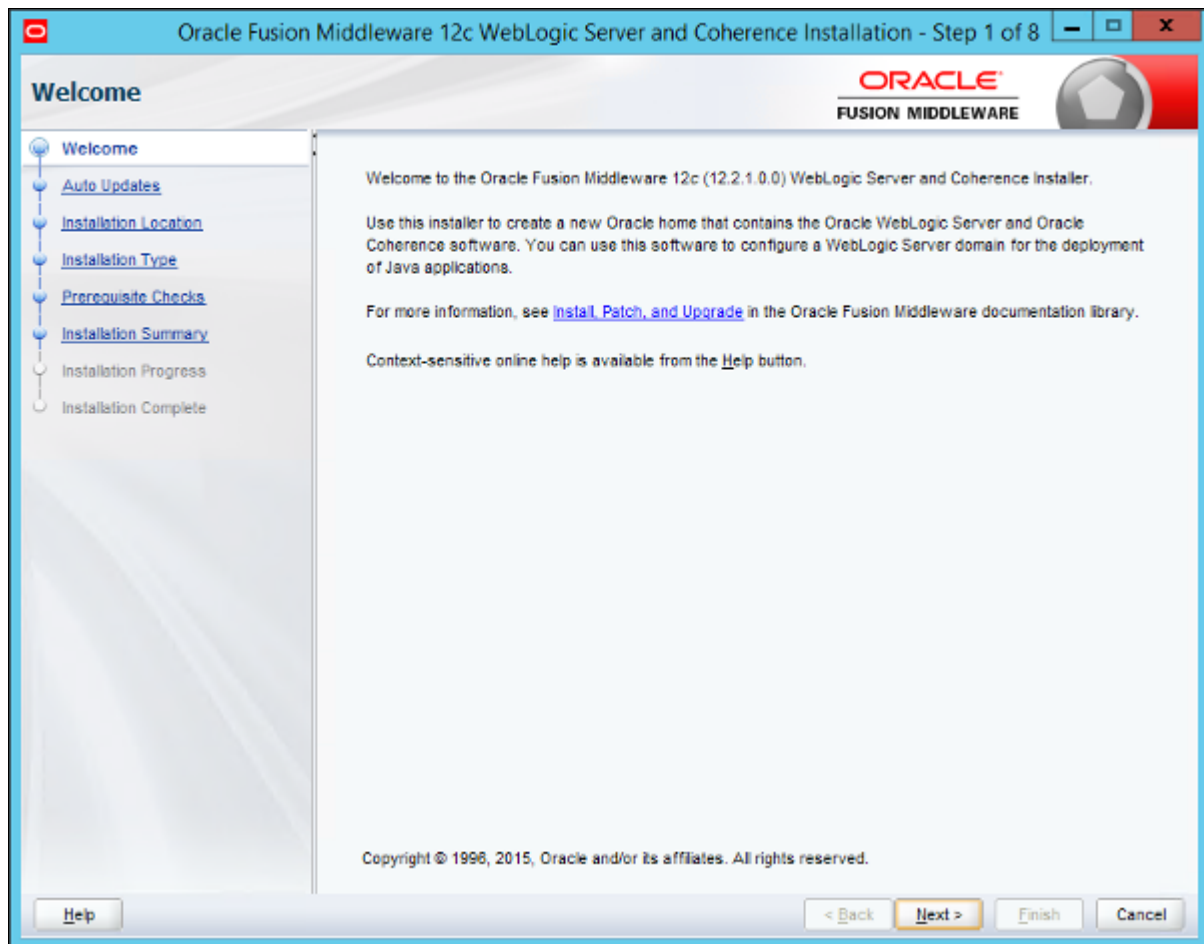
```
set JAVA_HOME=D:\jdk1.8.0_65
```

3. Use the following command to launch the installer:

```
%JAVA_HOME%\bin\java -jar fmw_12.2.1.0.0_wls.jar
```

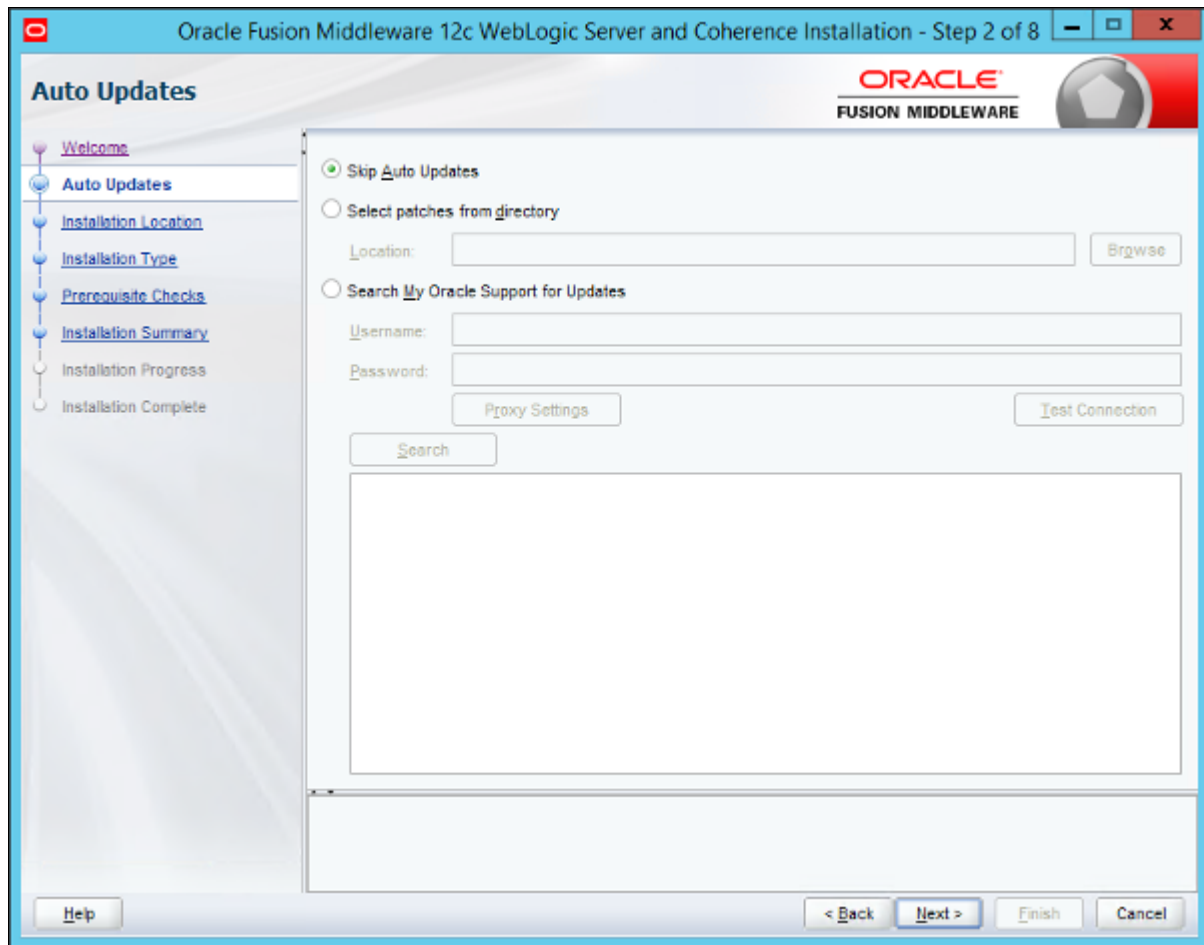
Note. It may take up to five minutes to extract the installer. You see system check messages during the extraction process. The Welcome window appears when the extraction is complete.

4. Click Next on the Welcome window for Oracle Fusion Middleware 12c (12.2.1.0.0) WebLogic Server and Coherence Installer.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 1 of 8

5. Select the Skip Auto Updates radio button.

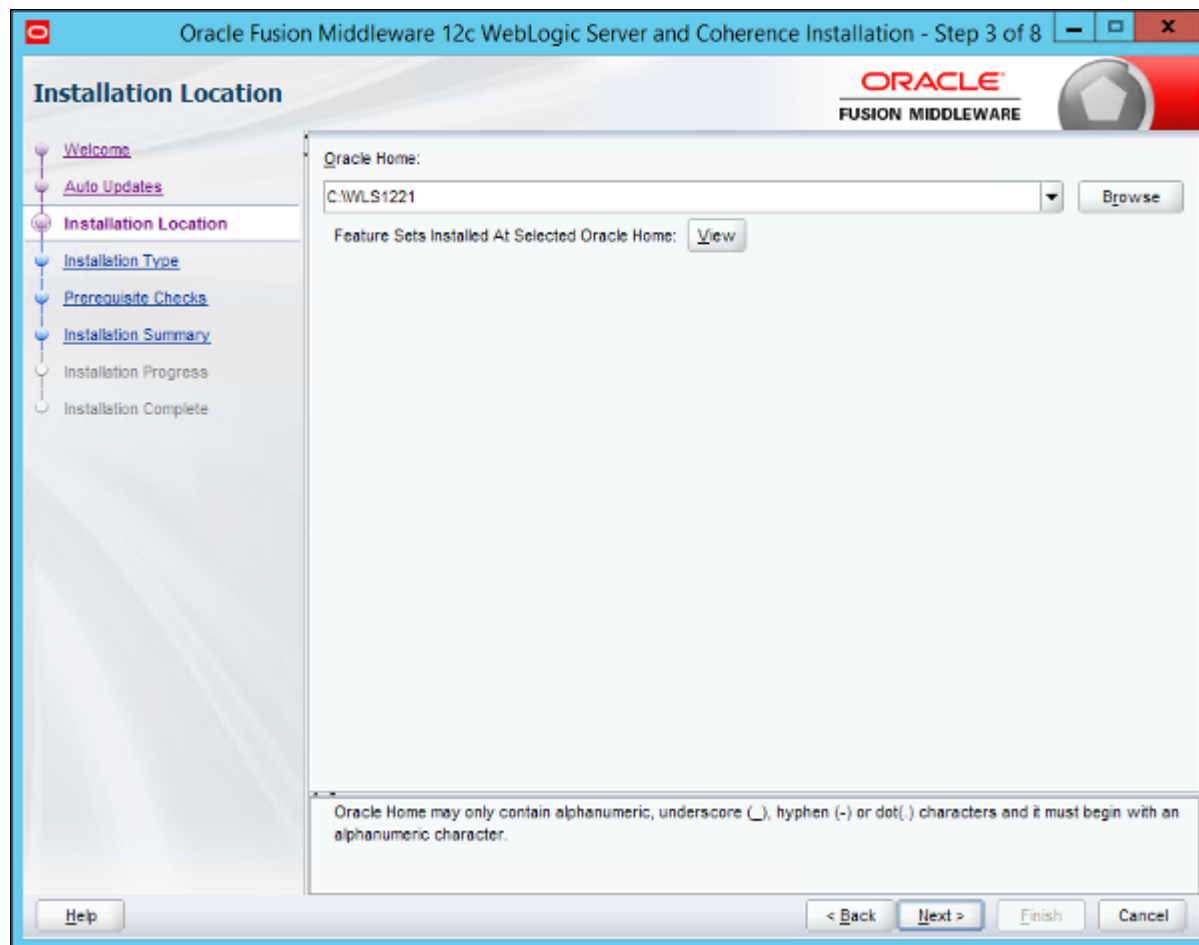


Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 2 of 8

6. 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.

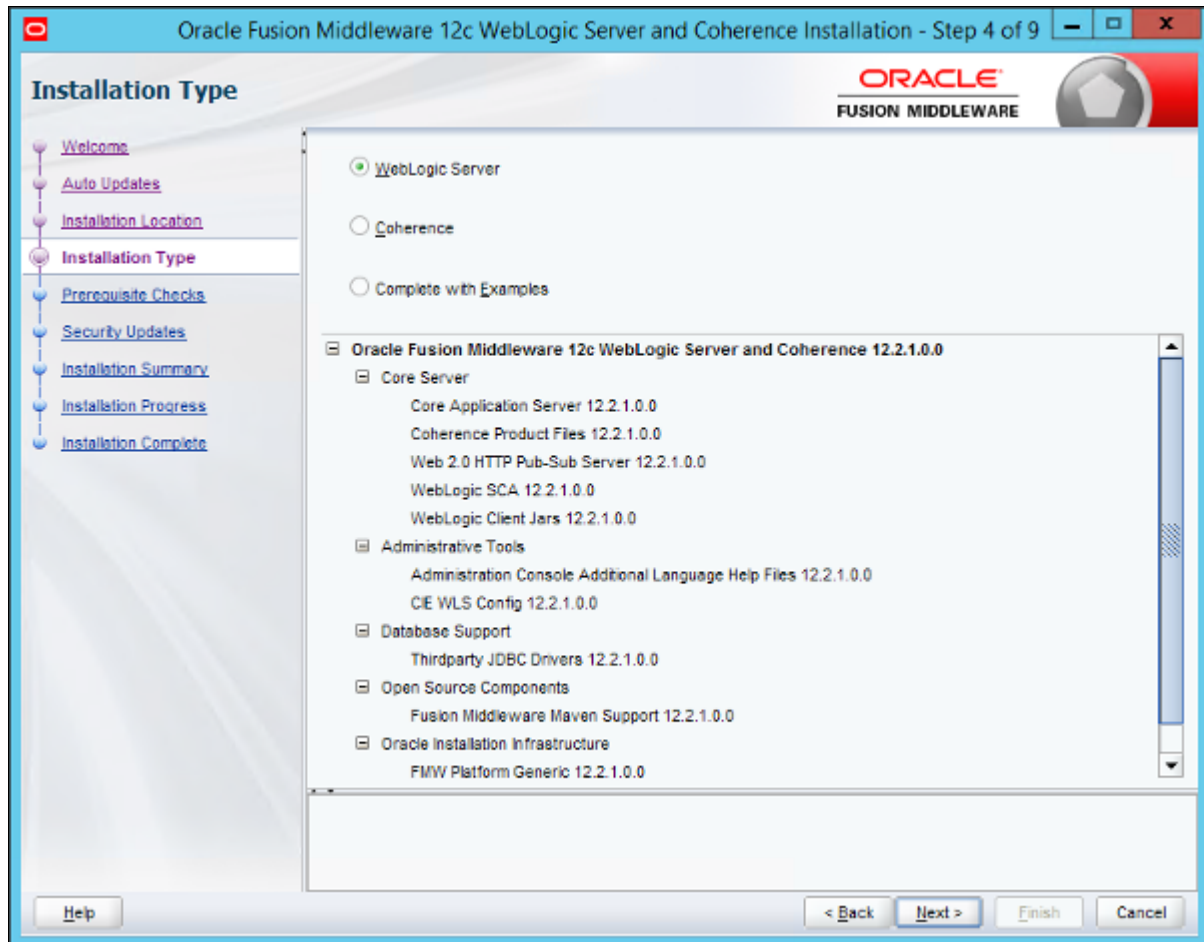
If the directory does not exist, the Oracle WebLogic installer creates it. The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. In this example *WLS_HOME* is C:\WLS1221.

Click Next to continue.



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

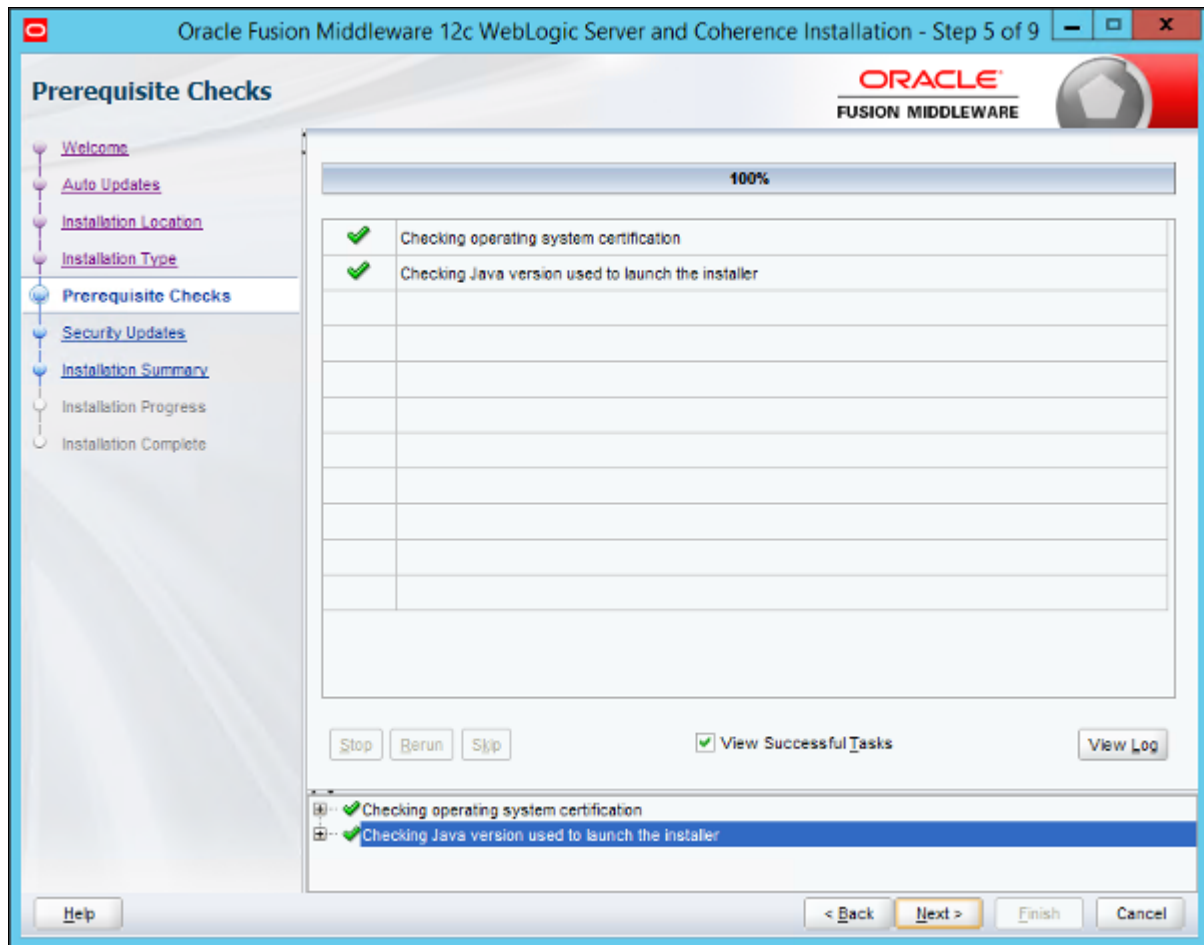
7. Accept the default WebLogic Server installation option on the Installation Type window, for WebLogic Server Installation, and then click Next.



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 4 of 9

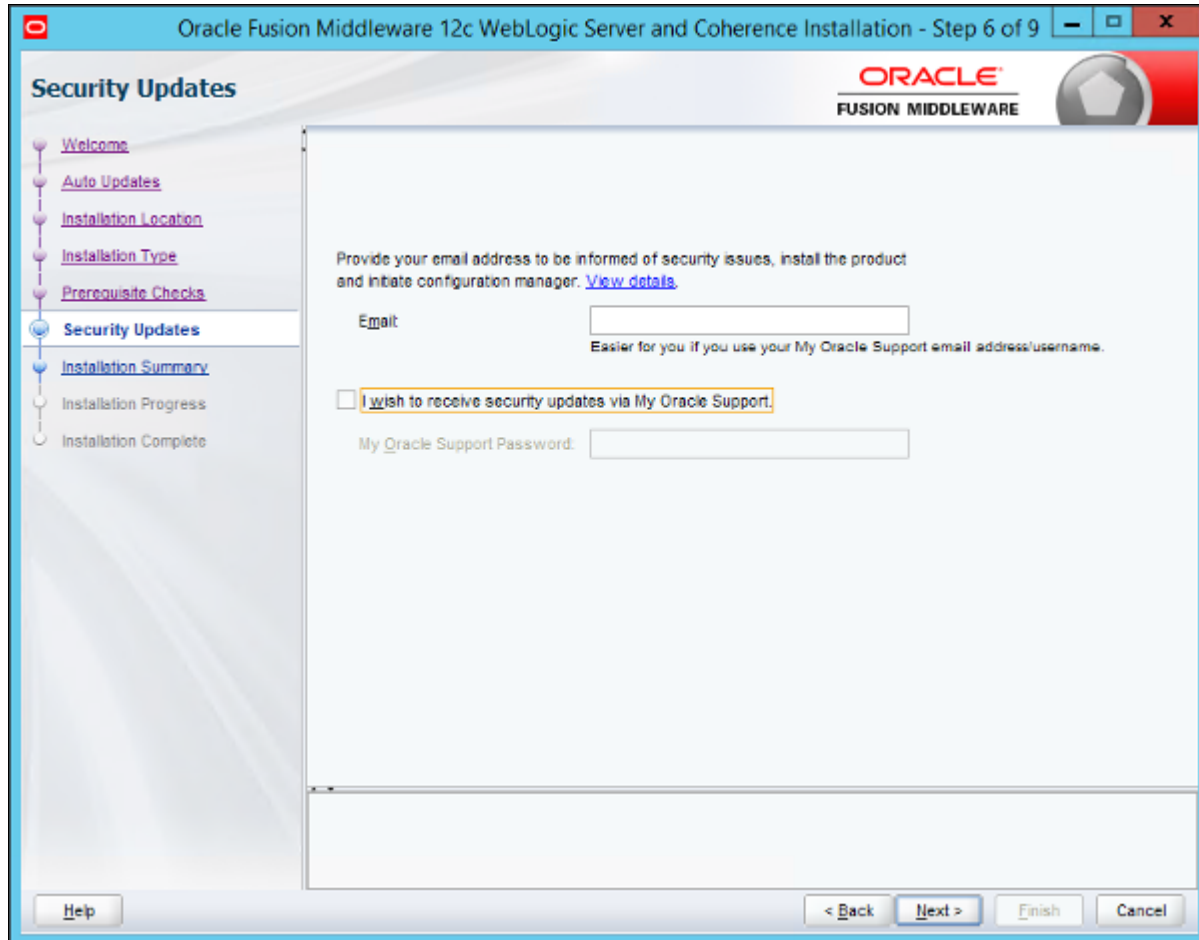
8. Wait while the installer carries out prerequisite checks, and then click Next.

In this example the system passed the prerequisite checks.



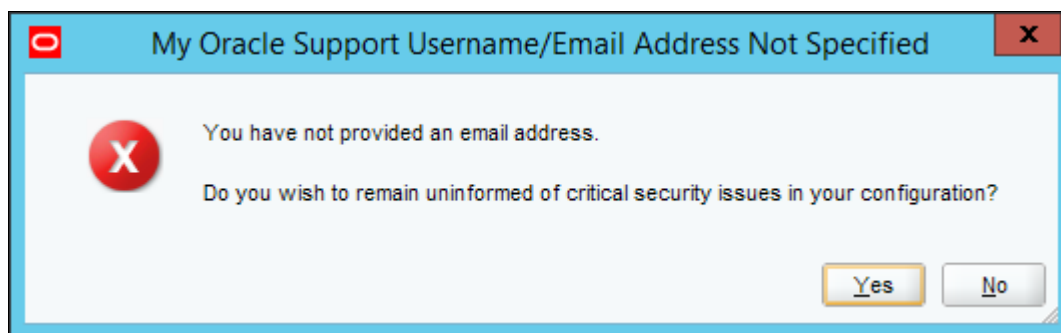
Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 5 of 9

9. 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 6 of 9

10. 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:

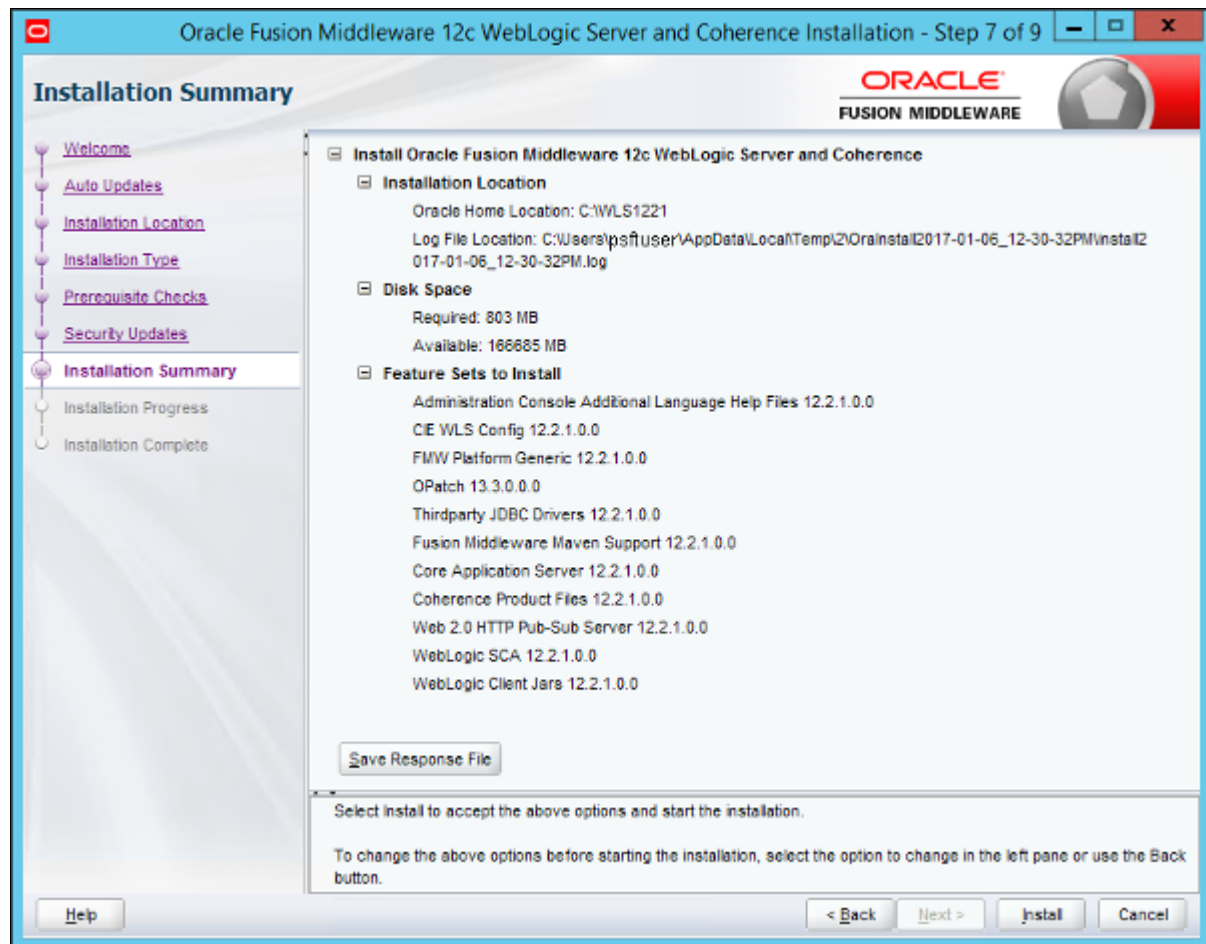


My Oracle Support Username/Email Address Not Specified dialog box

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

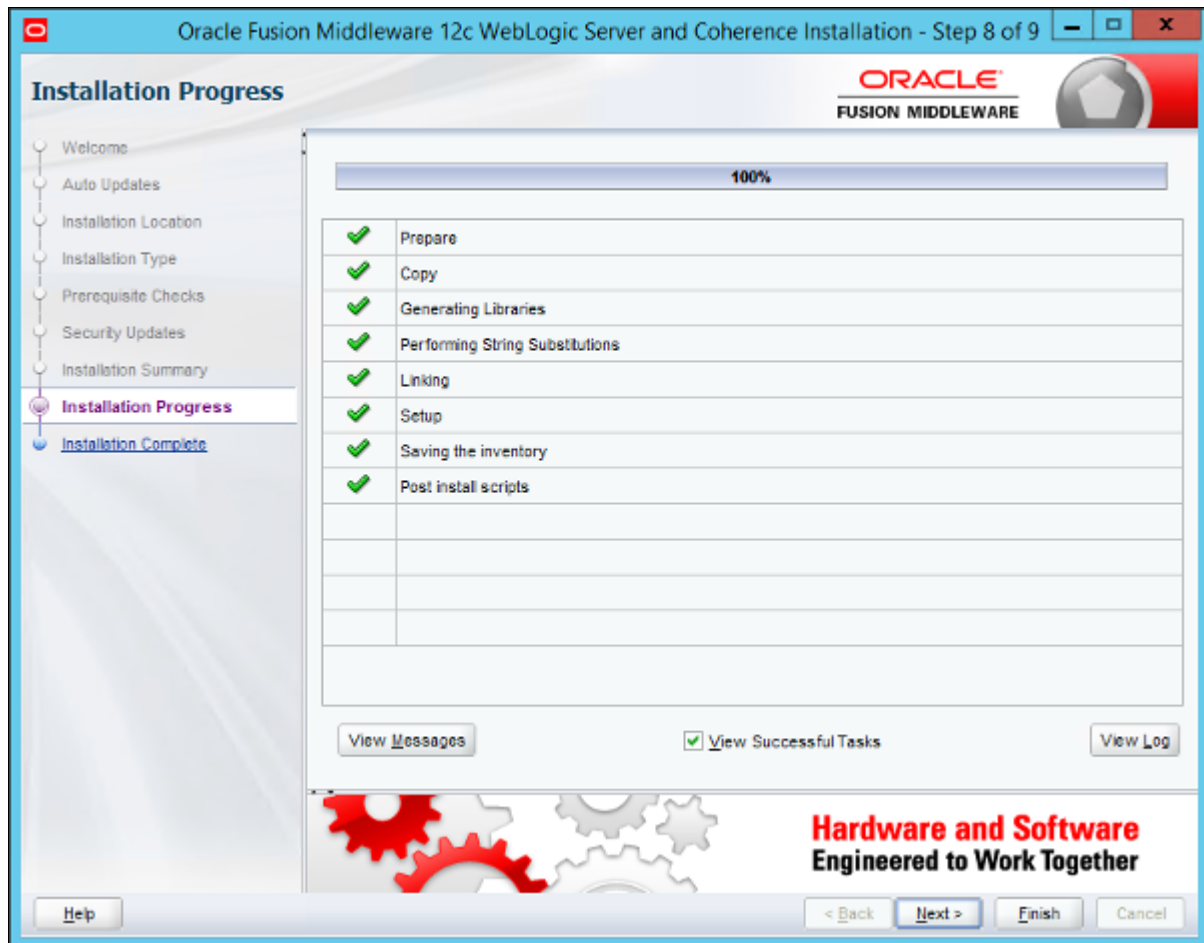
If you want to save a response file to be used in silent installation, click Save Response File and provide a location.

Click Install to begin the installation.



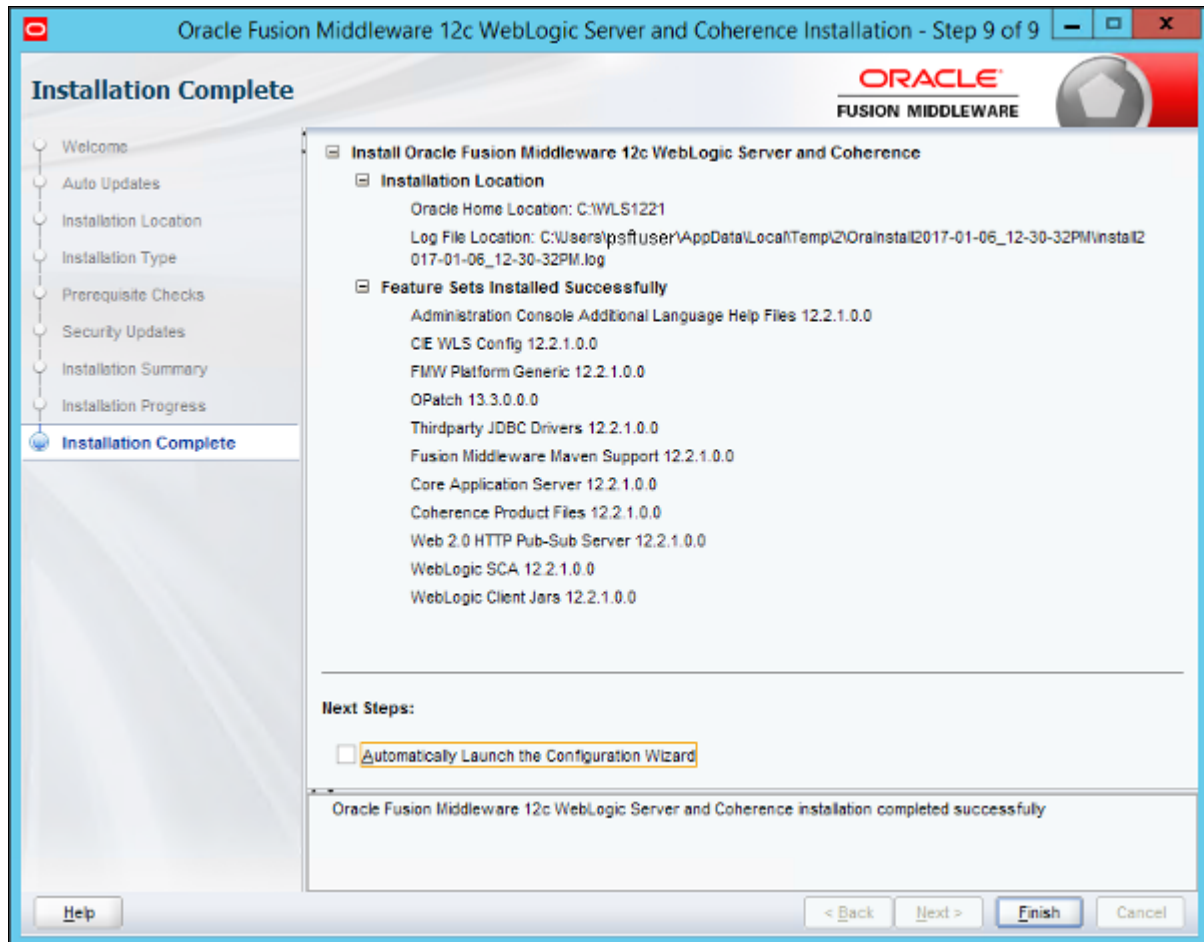
Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 7 of 9

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



Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 8 of 9

12. 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 9 of 9

Task 11-1-4: 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 12.2.1.0.0, refer to the `commBaseEnv.cmd` (for Microsoft Windows), or `commBaseEnv.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>

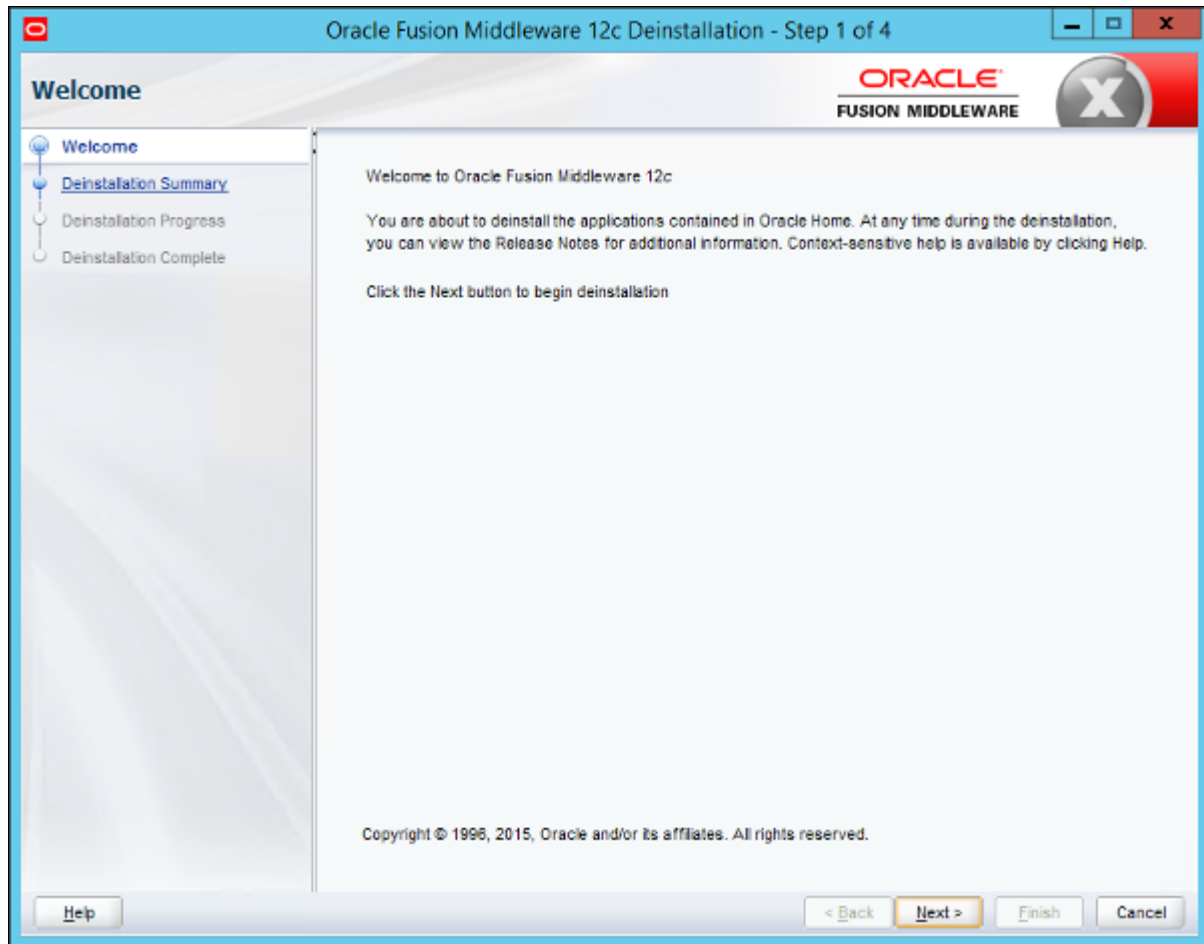
Task 11-1-5: Removing the Oracle WebLogic Installation on Microsoft Windows

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.

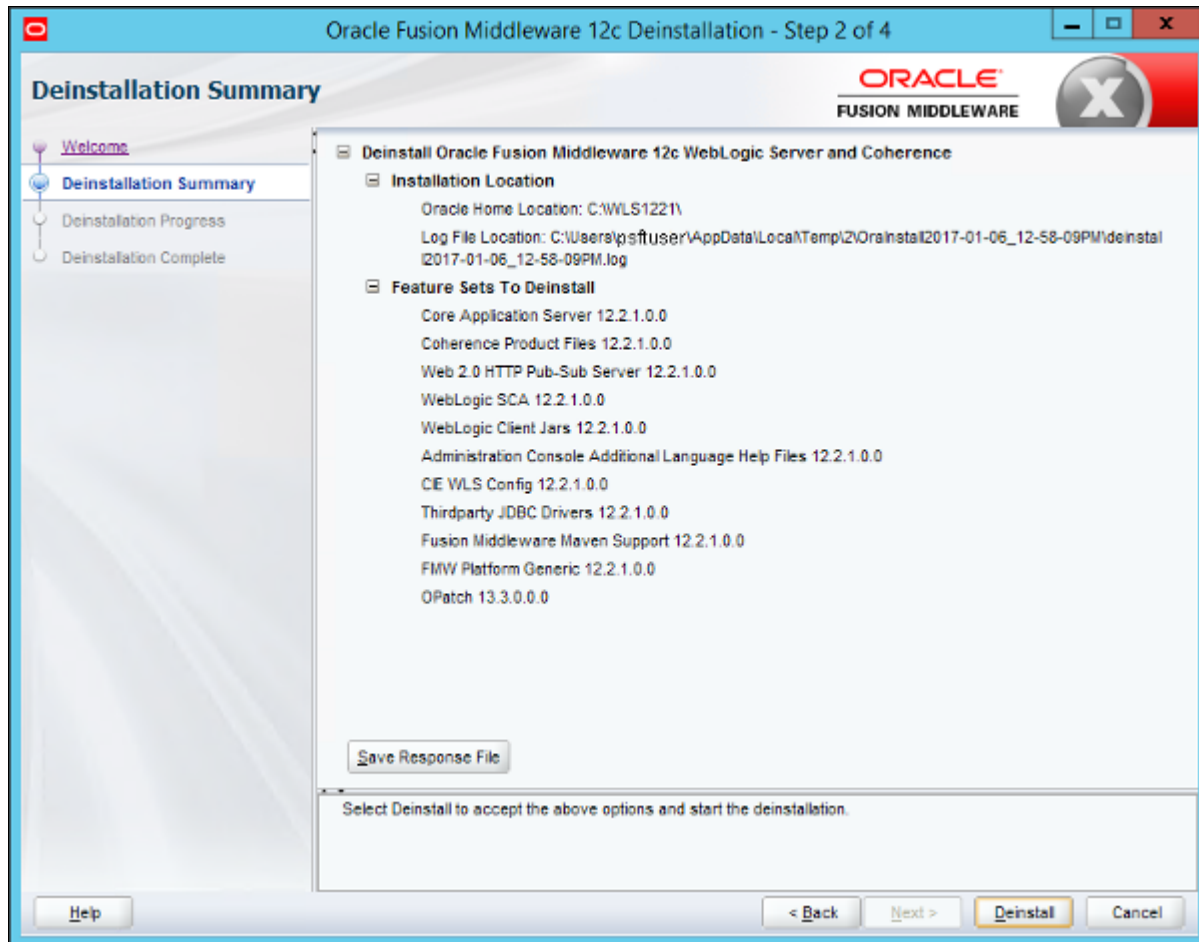
2. Change directory to the `WLS_HOME\oui\bin` folder and run the `deinstall.cmd` script.

`WLS_HOME` is the location where you installed your Oracle WebLogic 12.2.1.0.0, for example `C:\WLS1221`. Click Next on the Welcome window.



Oracle Fusion Middleware 12c Deinstallation - Step 1 of 4

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

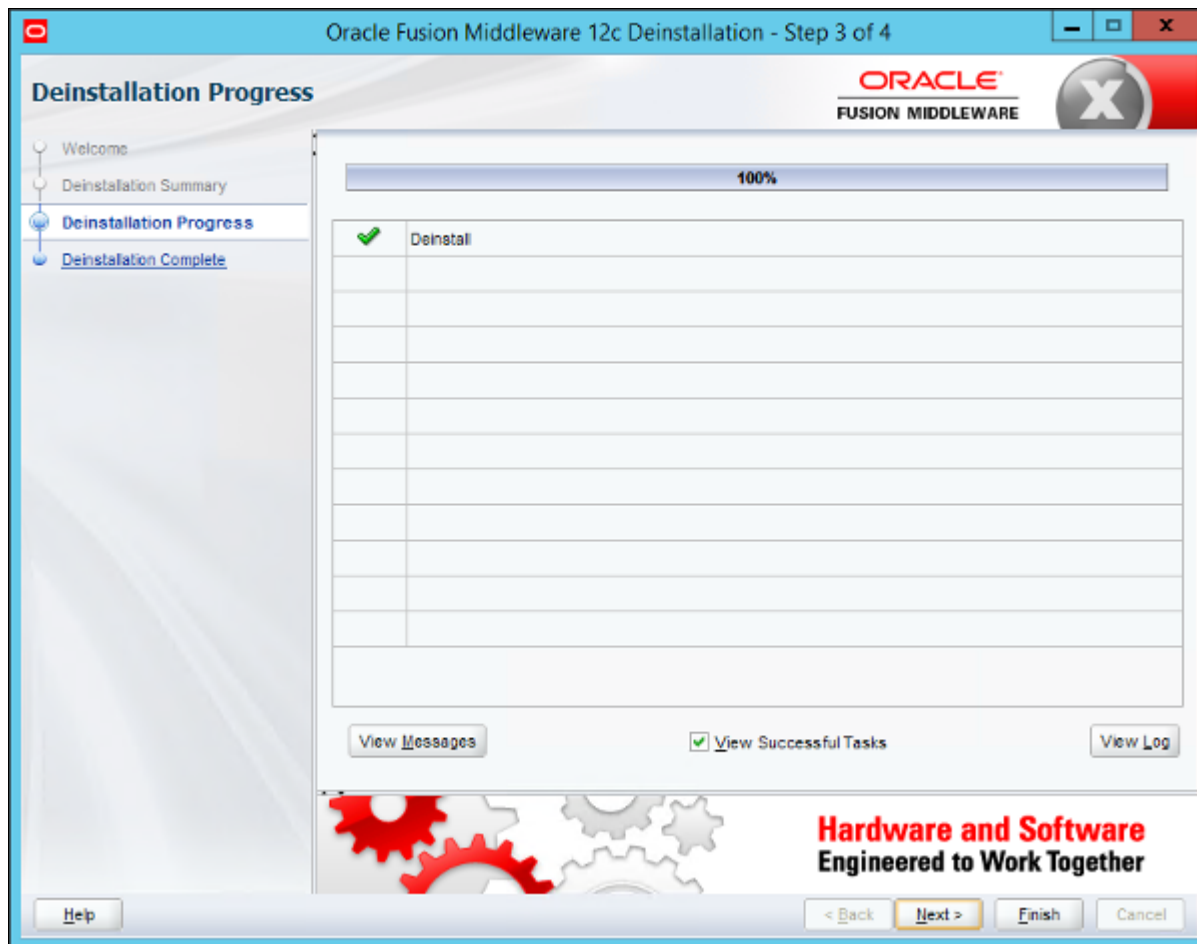


Oracle Fusion Middleware 12c Deinstallation - Step 2 of 4

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.

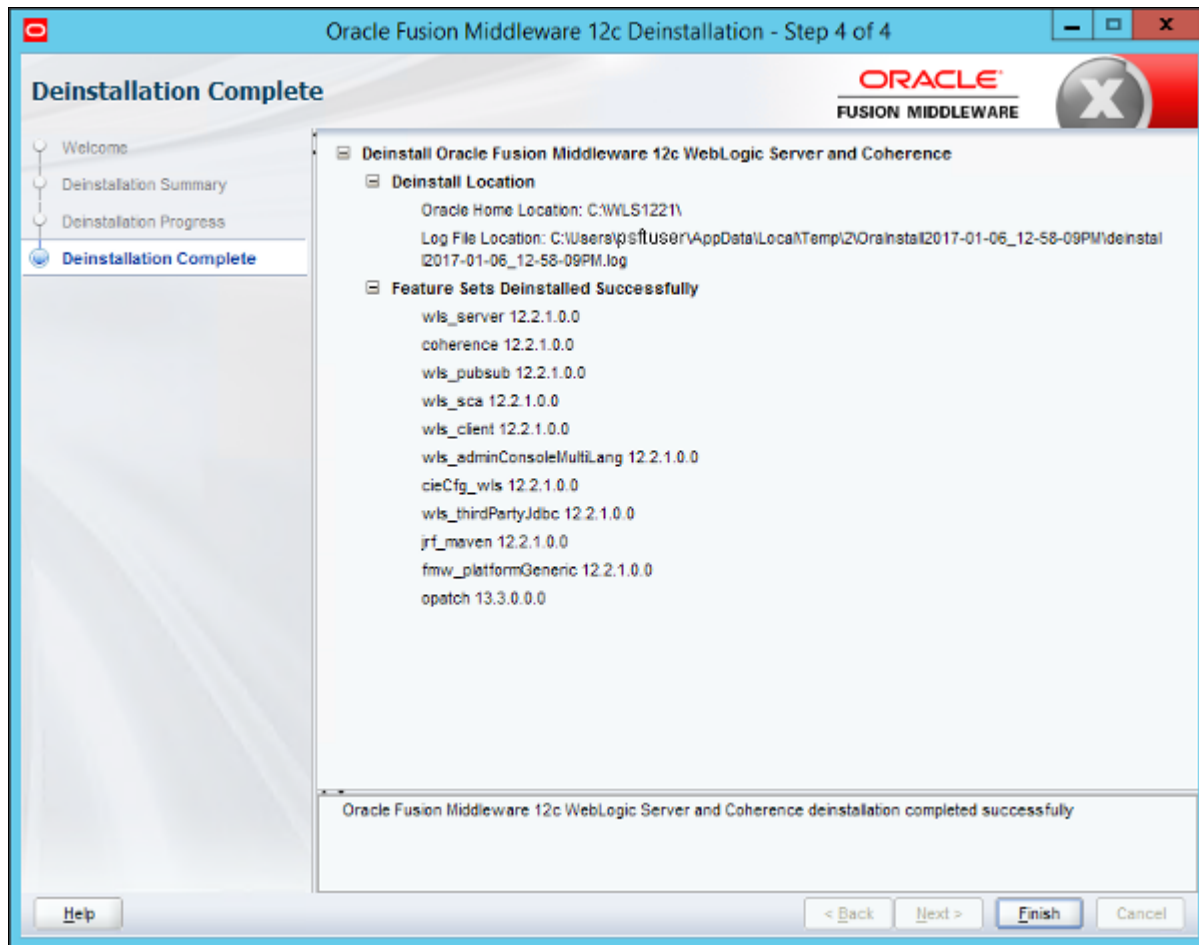
See Removing the Oracle WebLogic Installation on UNIX.

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



Oracle Fusion Middleware 12c Deinstallation - Step 3 of 4

- Click Finish on the Deinstallation Complete window.



Oracle Fusion Middleware 12c Deinstallation - Step 4 of 4

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

Task 11-2: Installing IBM WebSphere Application Server

This section discusses:

- Understanding IBM WebSphere Installation
- Prerequisites
- Obtaining IBM WebSphere Installation Files
- Installing IBM WebSphere 9.0.0.0 ND
- Installing IBM HTTP Server 9.0.0.0
- Installing IBM WebSphere Plug-ins 9.0.0.0

Understanding IBM WebSphere Installation

Oracle supports 64-bit IBM® WebSphere® Application Server Network Deployment 9.0.0.0 (referred to as IBM WebSphere ND in this documentation) for PeopleSoft PeopleTools 8.56. The IBM WebSphere ND requires IBM Runtime Environment, Java Technology Edition 8.

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 8.56 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 9.0.0.0 are available on the IBM website:

See <http://www-01.ibm.com/support/docview.wss?uid=swg27006921#9.0>

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 8.56 supports the IBM HTTP Server (IHS) 9.0.0.0 that is bundled with the IBM

WebSphere 9.0.0.0 installation. Use of an external remote proxy server (RPS) is optional.

Task 11-2-1: Obtaining IBM WebSphere Installation Files

For the current PeopleSoft PeopleTools release, 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 9.0.0.0 requires the download of the following components:

- IBM Installation Manager V1.8.5 or later
- WebSphere Application Server Network Deployment V9.0.0.0 64-bit
- Application Client for WebSphere Application Server
- IBM HTTP Server V9.0.0.0 64-bit
- Plug-ins V9.0.0.0 64-bit
- IBM SDK V8.0.3.10

The distribution is provided as operating-system-specific zip files. Download and extract the appropriate zip files for your operating system. The base binaries of IBM WebSphere 9.0.0.0, IHS 9.0.0.0, and Plug-in 9.0.0.0 have to be downloaded by providing an IBM partner ID and password.

Task 11-2-2: Installing IBM WebSphere 9.0.0.0 ND

For detailed information on installing IBM WebSphere 9.0.0.0 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 V1.8.5 or later
2. Install IBM WebSphere 9.0.0.0 64-bit
3. Install IBM WebSphere SDK Java (TM) Technology Edition V8.0.3.10

Task 11-2-3: Installing IBM HTTP Server 9.0.0.0

For detailed information on installing IHS 9.0.0.0, 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 9.0.0.0 64-bit, use IBM Installation Manager.

Task 11-2-4: Installing IBM WebSphere Plug-ins 9.0.0.0

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 9.0.0.0 64-bit for IBM WebSphere Application Servers, use IBM Installation Manager.

Chapter 12

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, Doc ID 747059.1.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support, Doc ID 1211907.1.

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."

- Elasticsearch

Elasticsearch is the search engine for the PeopleSoft Search Framework for the current release. Oracle provides Elasticsearch as deployment packages (DPKs) for Microsoft Windows and Linux that deliver the required Elasticsearch software version, Java-based plug-ins needed for integration with PeopleSoft environments, and customized code where required. Be sure to obtain and use the Elasticsearch DPKs provided for use with the PeopleSoft installation.

See Elasticsearch Home Page, My Oracle Support, Doc ID 2205540.2.

Note. Oracle Secure Enterprise Search (SES) and Verity are not supported for the current release.

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.

Task 12-1: 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
- 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 (12.2.2.0), 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 UNIX operating systems, and Oracle Tuxedo 12c Release 2 (64-bit) with MS Visual Studios 2015 for Microsoft Windows, with PeopleSoft PeopleTools 8.56.

The minimum patch level certified for running Oracle Tuxedo 12c Release 2 with PeopleSoft PeopleTools 8.56 is Rolling Patch 16 (RP016). 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 2015" to "Oracle Tuxedo 12cR2_VS2015."

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 Microsoft Windows, you may install into C:\oracle\tuxedo10gR3_VS2008 and C:\oracle\tuxedo12.2.2.0.0_VS2015.

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:

- Before beginning the Oracle Tuxedo installation you must install 64-bit Java 8 JDK.
The specific JDK required depends upon the operating system and vendor. Follow the instructions given earlier to install Java 8 JDK for your operating system.
See Installing JDK for Oracle WebLogic.
- TCP/IP connectivity (required for PeopleSoft PeopleTools 8.50 or higher) between the client machine and the application server
- 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 12-1-1: 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 12.2.2.0.0 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. Read the license agreement and select the check box to acknowledge that you accept the agreement.
6. Click Continue.
7. Click the filenames to download.

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

8. 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.
9. 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_VS2015 for Microsoft Windows (64-bit) to run with PeopleSoft PeopleTools 8.56.

Task 12-1-2: Obtaining the Oracle Tuxedo Patches from My Oracle Support

You can download the latest patch for Oracle Tuxedo 12cR2_VS2015 for Microsoft Windows or Oracle Tuxedo 12cR2 for UNIX operating systems from My Oracle Support.

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 12.2.2.0.0* 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 on SPARC
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 "VS2015" or "Visual Studio 2015" 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).
 - b. Execute the following command:

```
tmadmin -v
```

The command displays the patch level. For example:

```
INFO: Oracle Tuxedo, Version 12.2.2.0.0_VS2015, 64-bit, Patch Level⇒
016
```

Task 12-1-3: 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 8.56 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_VS2015 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.
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 12-1-4: 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 V12.2.2.0.0_VS2015—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\tuxedo12.2.2.0.0_VS2015). 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.
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 12-1-5: 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_VS2015 can coexist on a machine with other versions of Oracle Tuxedo.

To install Oracle Tuxedo on Microsoft Windows:

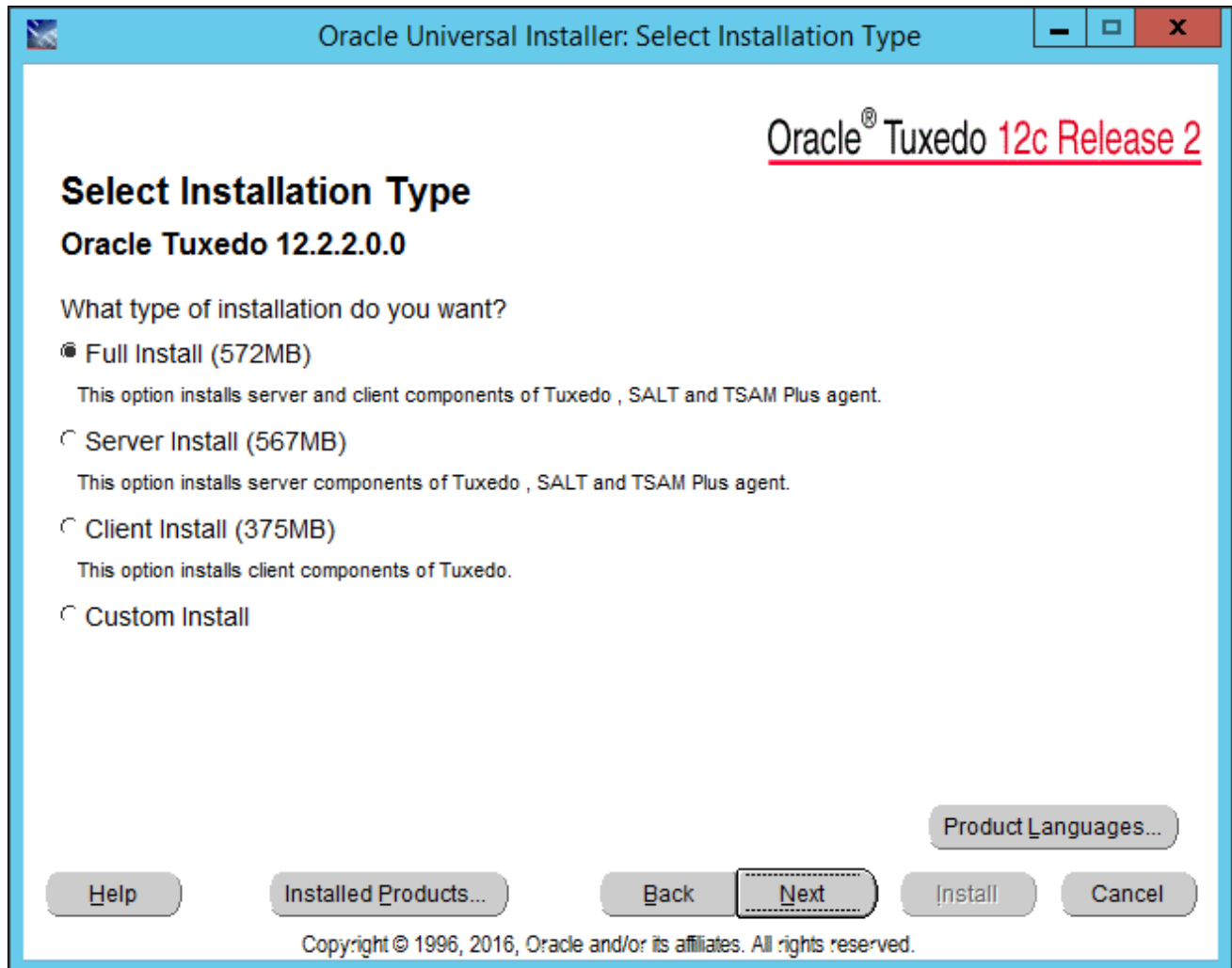
1. Double-click `TUX_INSTALL\Disk1\install\setup.bat` to begin the installation process.

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



Oracle Universal Installer: Welcome window for Oracle Tuxedo 12c Release 2

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



Oracle Universal Installer: Select Installation Type window

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 `tuxedo1222vs2015`.

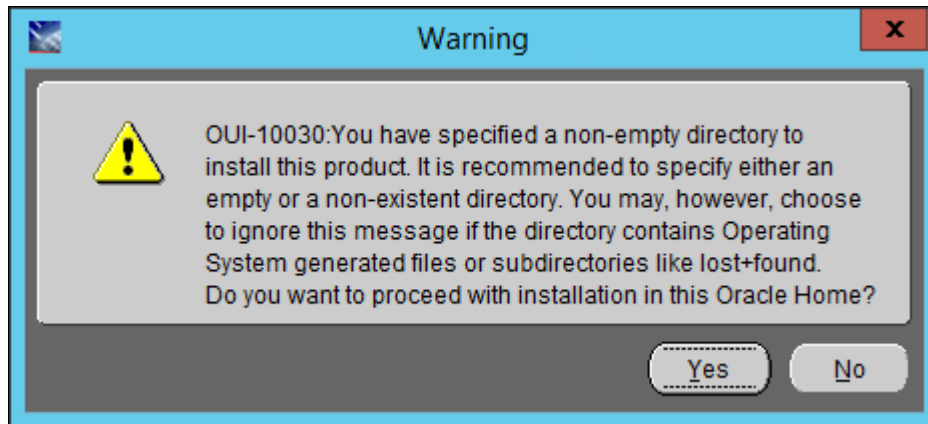
Specify the full path for the home directory. You can choose an existing path from the drop-down list. The Path refers to the location where the Oracle Tuxedo will be installed. The default is `ORACLE_HOME\tuxedo12.2.2.0.0_VS2015`. In this example, the path is `C:\oracle`, which is the recommended location, so the software will be installed to `C:\oracle\tuxedo12.2.2.0.0_VS2015`. 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.

Oracle Universal Installer: Specify Home Details window

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.



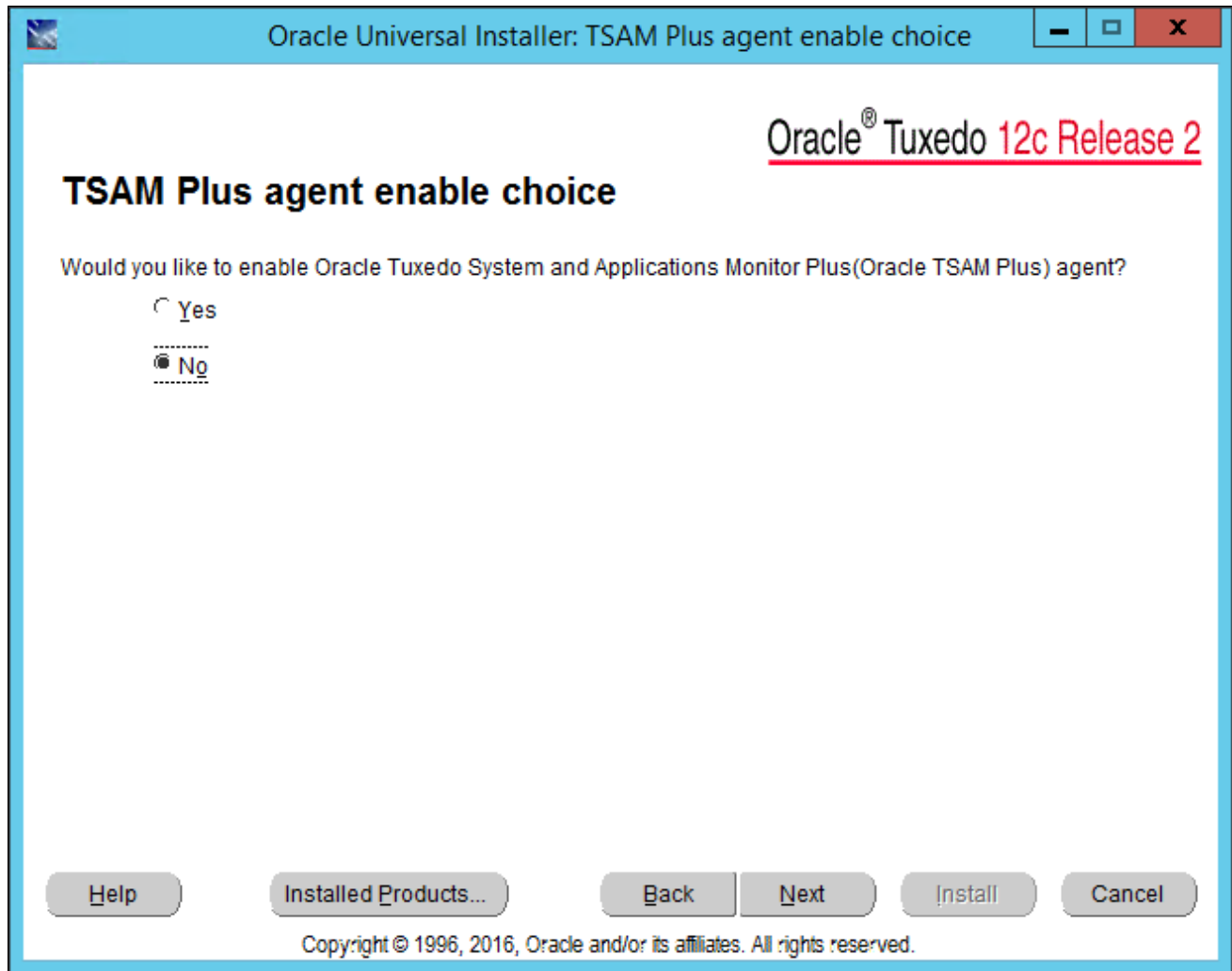
Warning message for a non-empty directory

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 directs you to the earlier Installation Guide for instructions for using more than one version of the software. Click Next to continue.

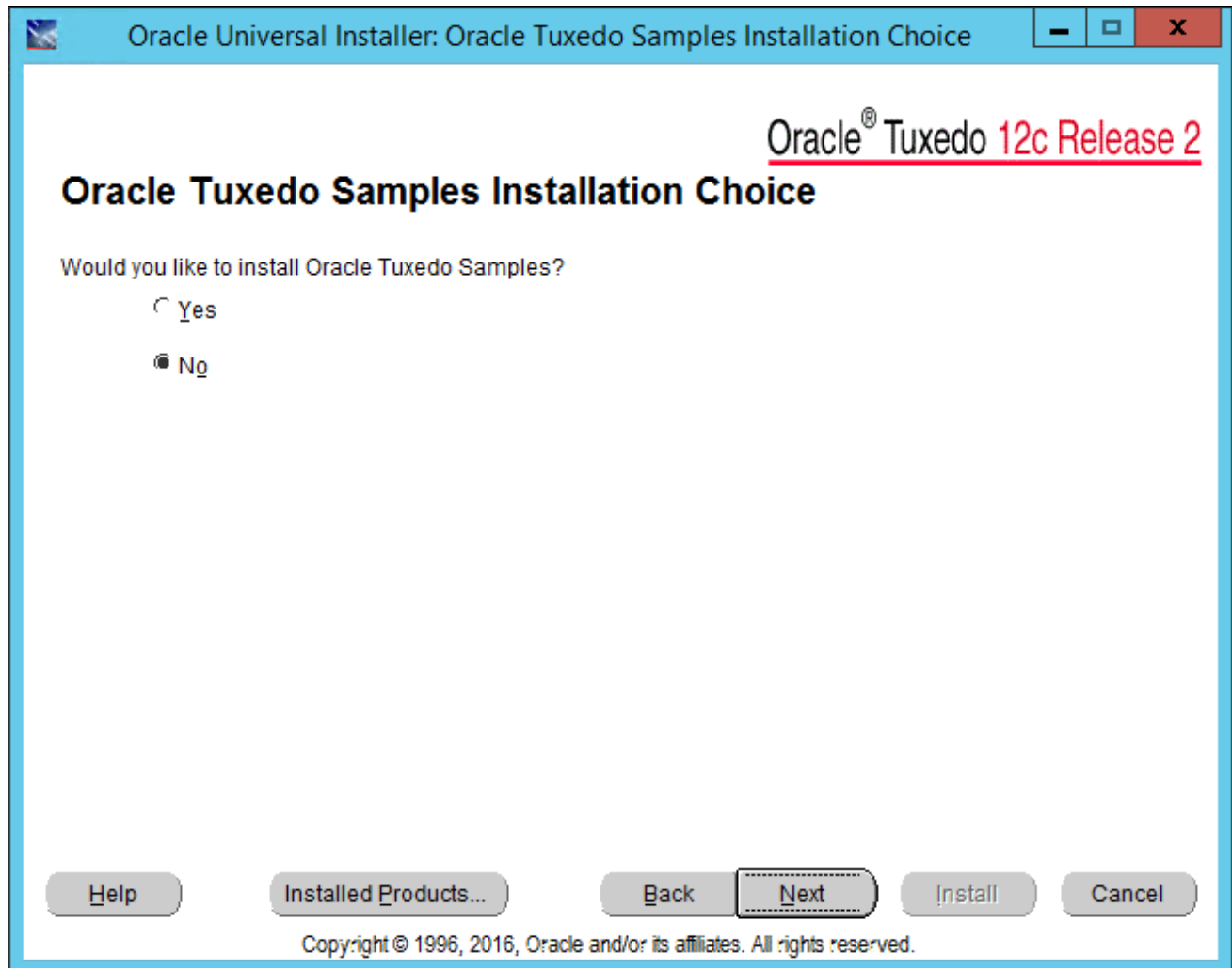
6. Select No on the TSAM Plus agent enable choice window, as shown in this example, and then click Next.

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



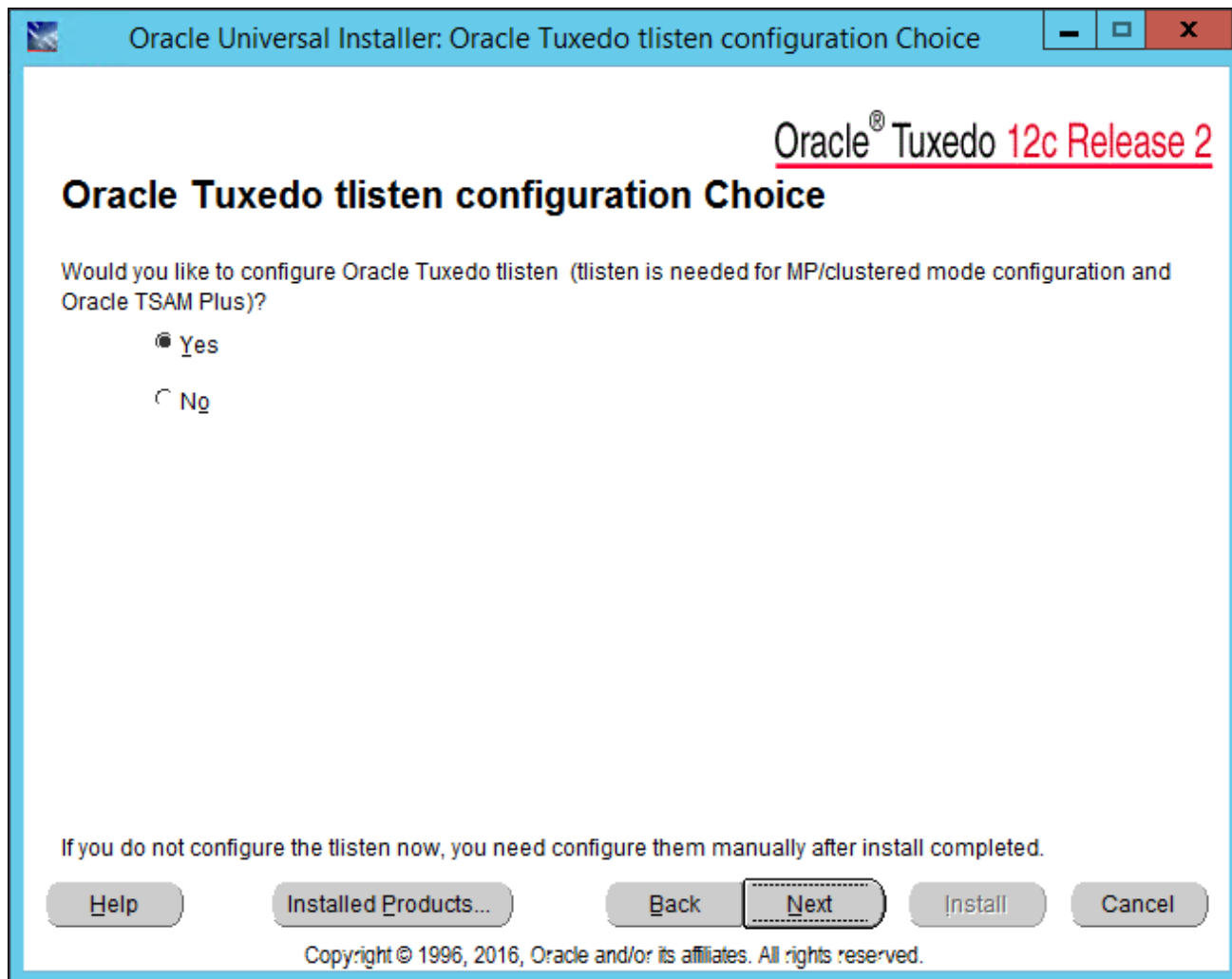
Oracle Universal Installer: TSAM Plus agent enable choice window

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



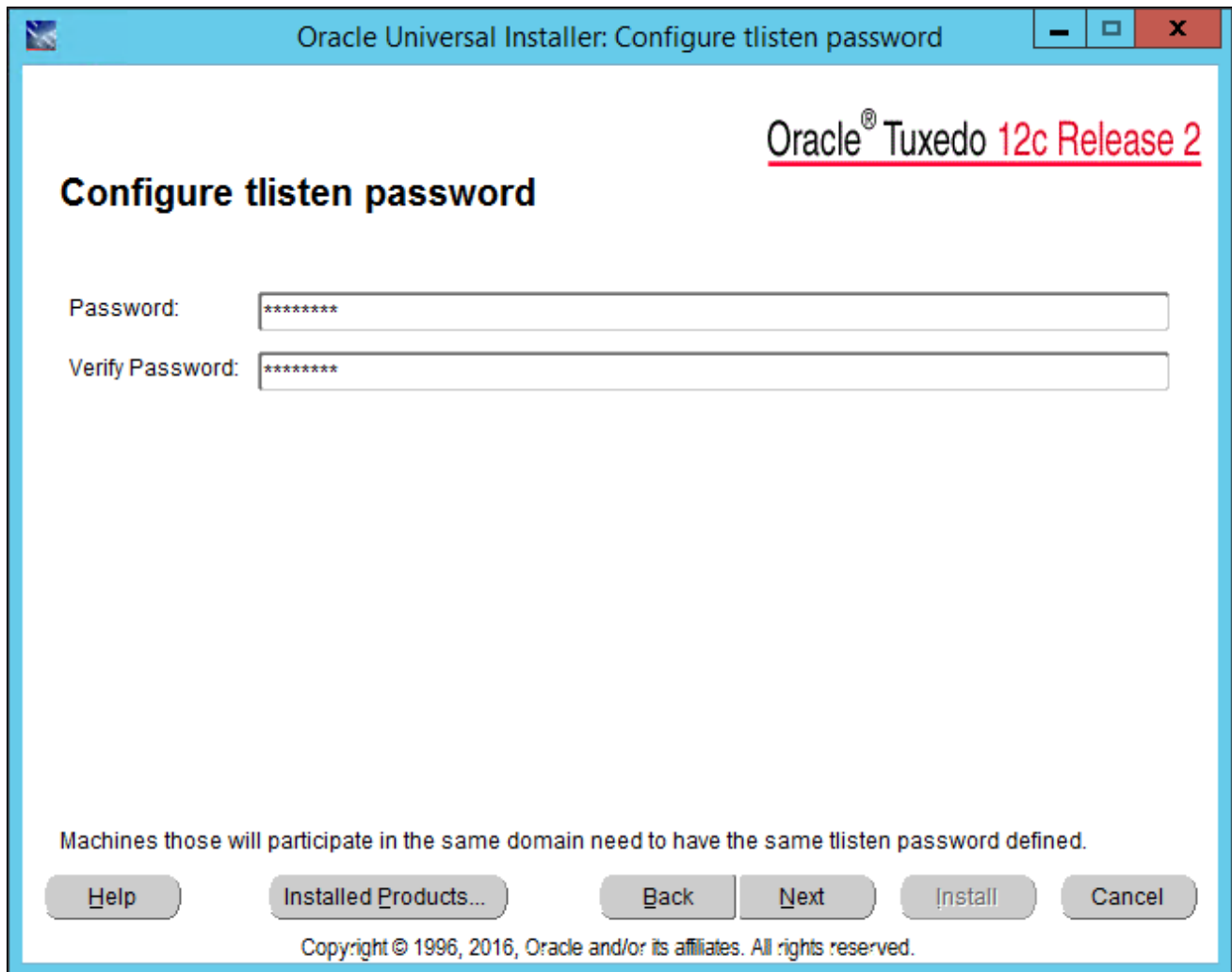
Oracle Universal Installer: Oracle Tuxedo Samples Installation Choice window

8. Select Yes to indicate that you want to configure Oracle Tuxedo tlisten, as shown in this example, and then click Next.



Oracle Universal Installer: Oracle Tuxedo tlisten configuration Choice window

9. Enter a password for Oracle Tuxedo tlisten.

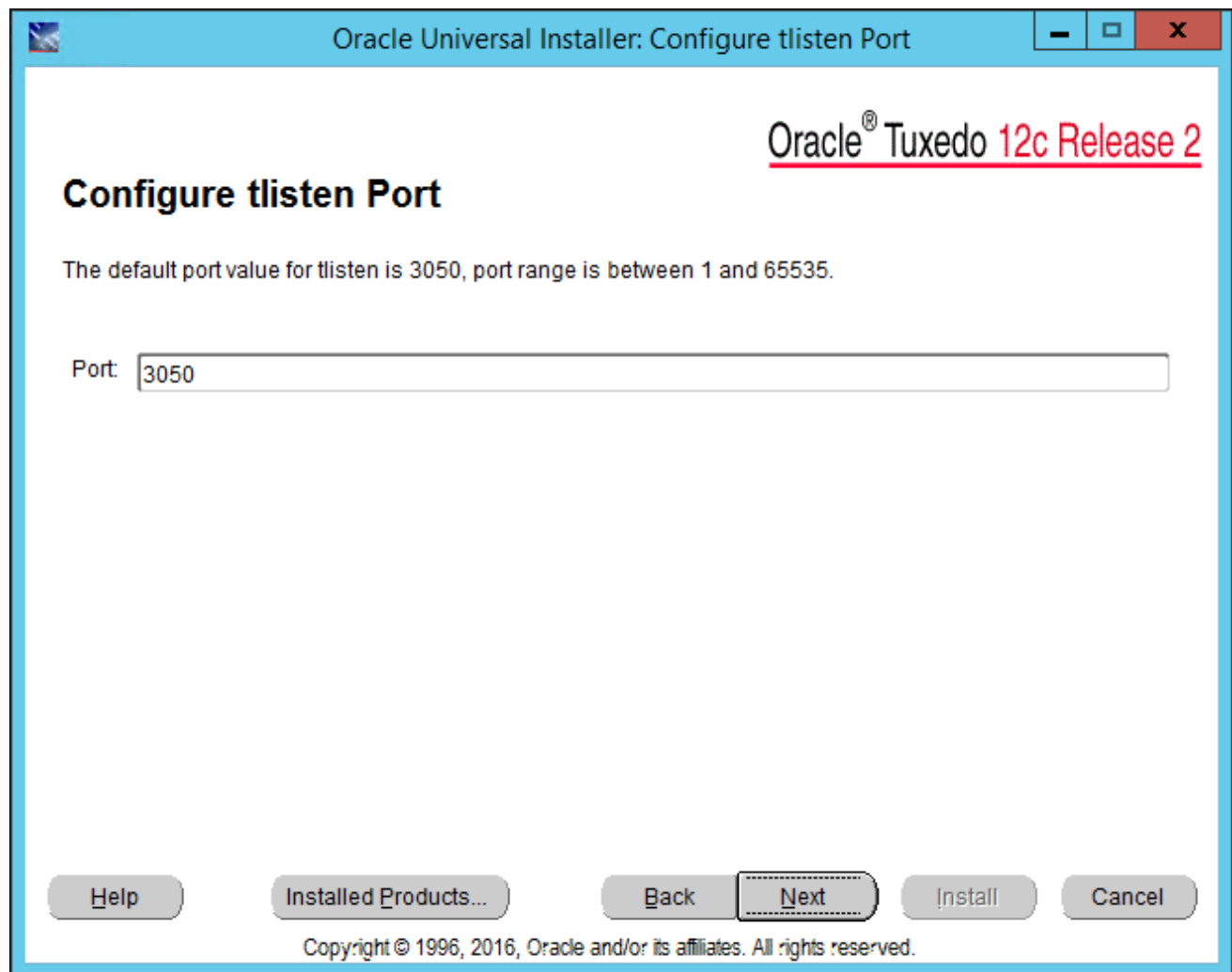


The screenshot shows a window titled "Oracle Universal Installer: Configure tlisten password". The window has a blue header bar with the title and standard window controls (minimize, maximize, close). The main content area is white and contains the following elements:

- Oracle[®] Tuxedo 12c Release 2** (text in red, underlined)
- Configure tlisten password** (text in bold)
- Password:** followed by a text input field containing "*****"
- Verify Password:** followed by a text input field containing "*****"
- A note: "Machines those will participate in the same domain need to have the same tlisten password defined."
- A row of buttons: **Help**, **Installed Products...**, **Back**, **Next**, **Install**, and **Cancel**.
- Copyright notice: "Copyright © 1996, 2016, Oracle and/or its affiliates. All rights reserved."

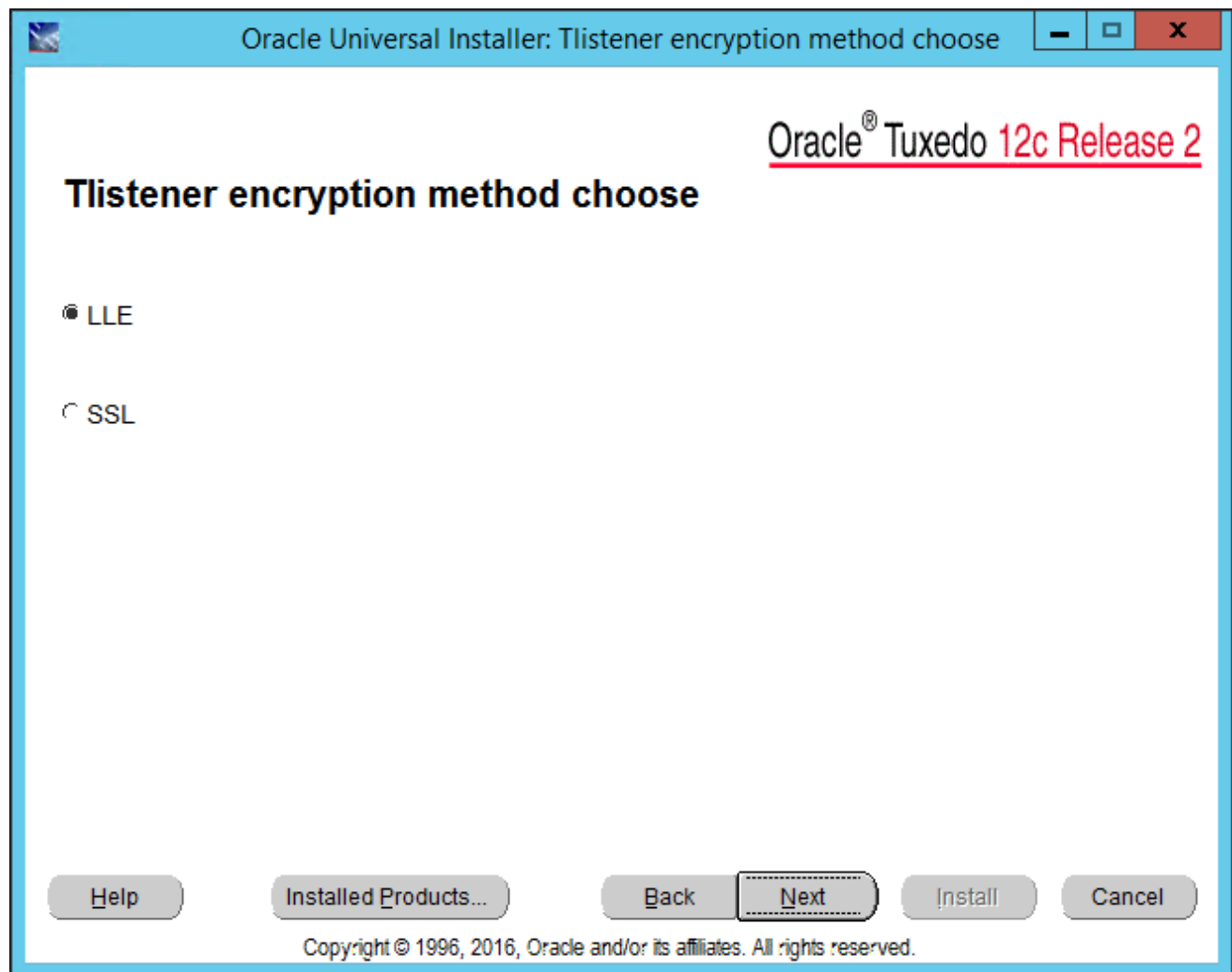
Oracle Universal Installer: Configure tlisten password window

10. Accept the default tlisten port, 3050, or enter another port number.



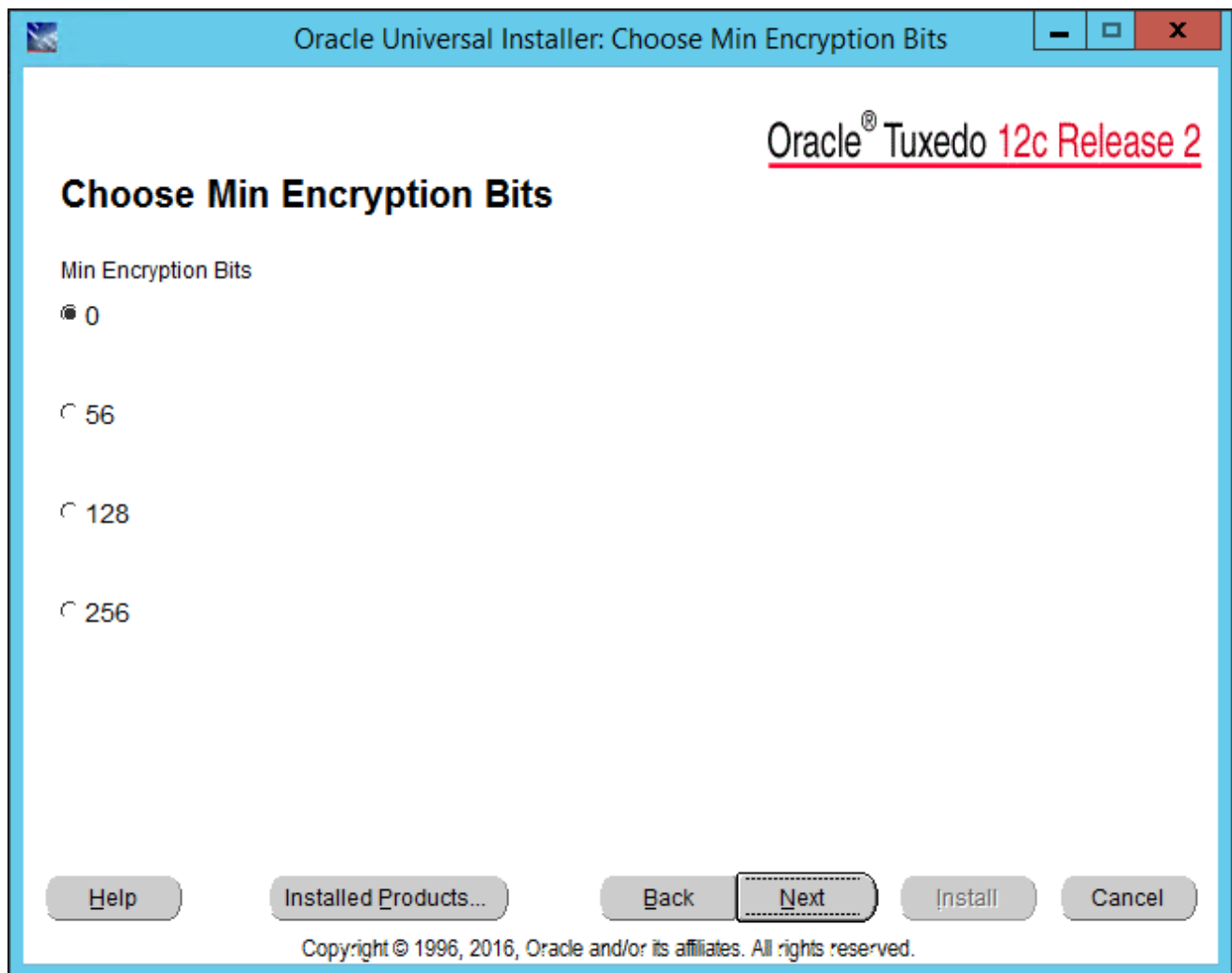
Oracle Universal Installer: Configure tlisten Port window

11. Select LLE as the Tlistener encryption method.



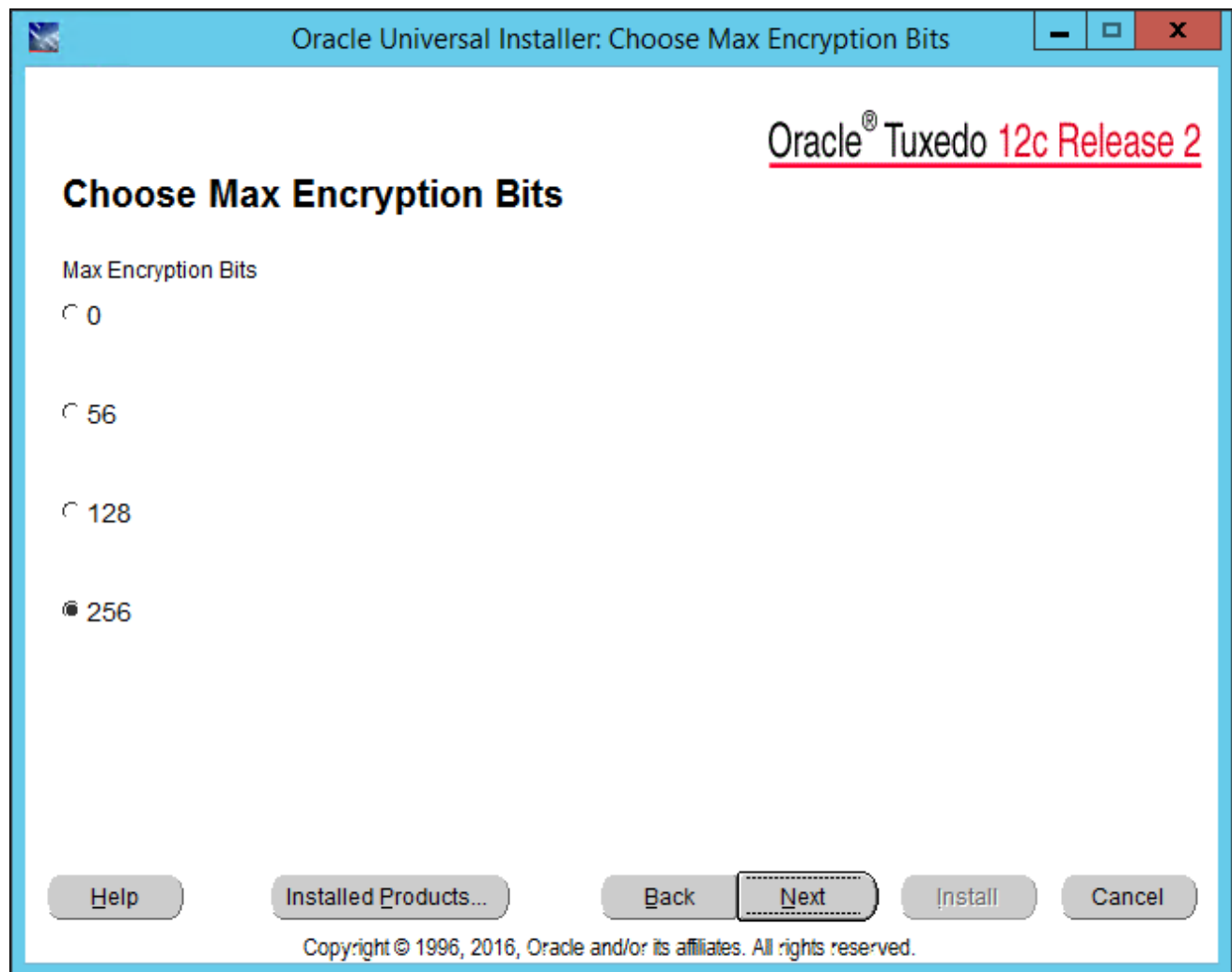
Oracle Universal Installer: Tlistener encryption method choose window

12. Accept the default value of 0 (zero) for the minimum encryption bits.



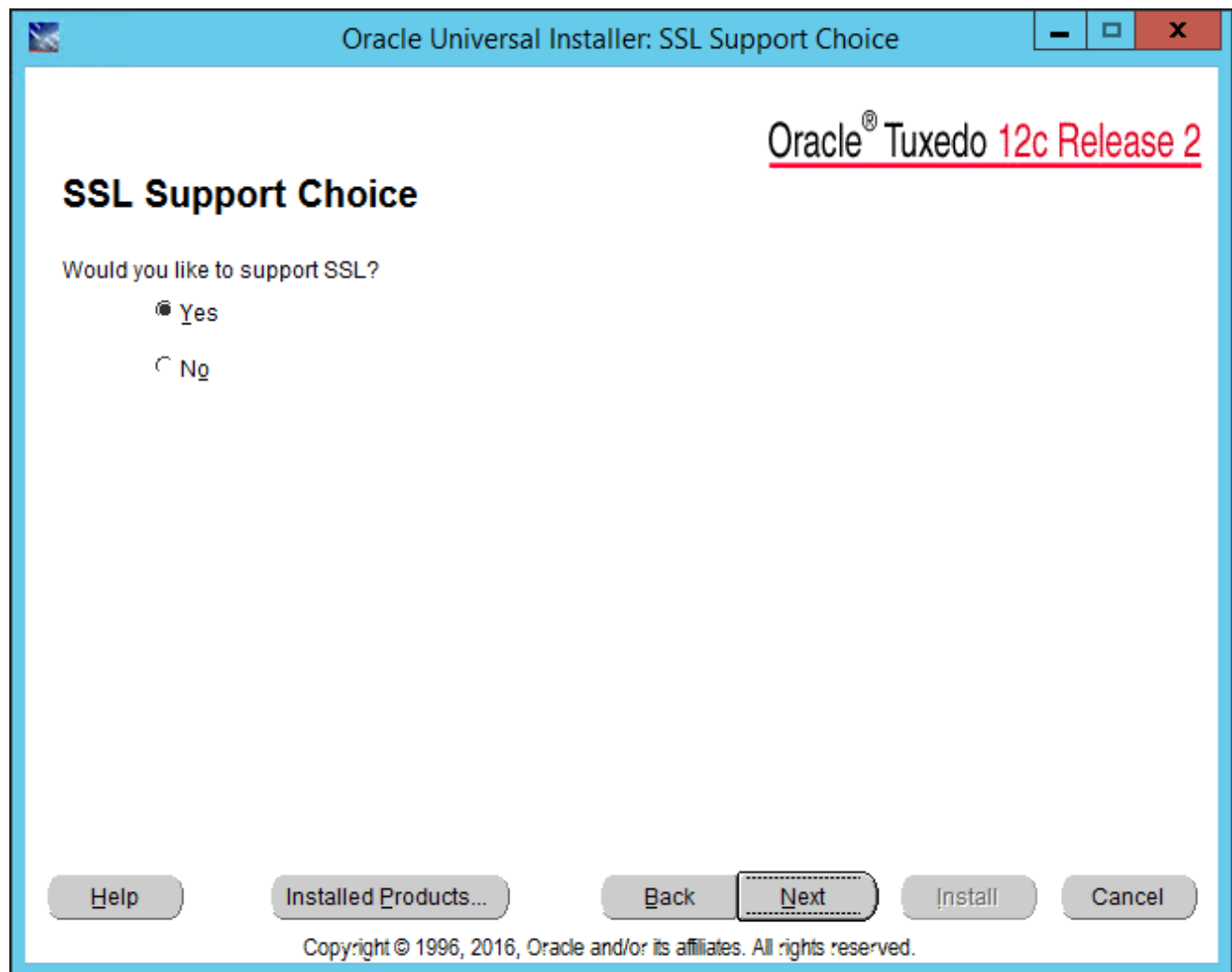
Oracle Universal Installer: Choose Min Encryption Bits window

13. Accept the default value of 256 as the default value of maximum encryption bits.



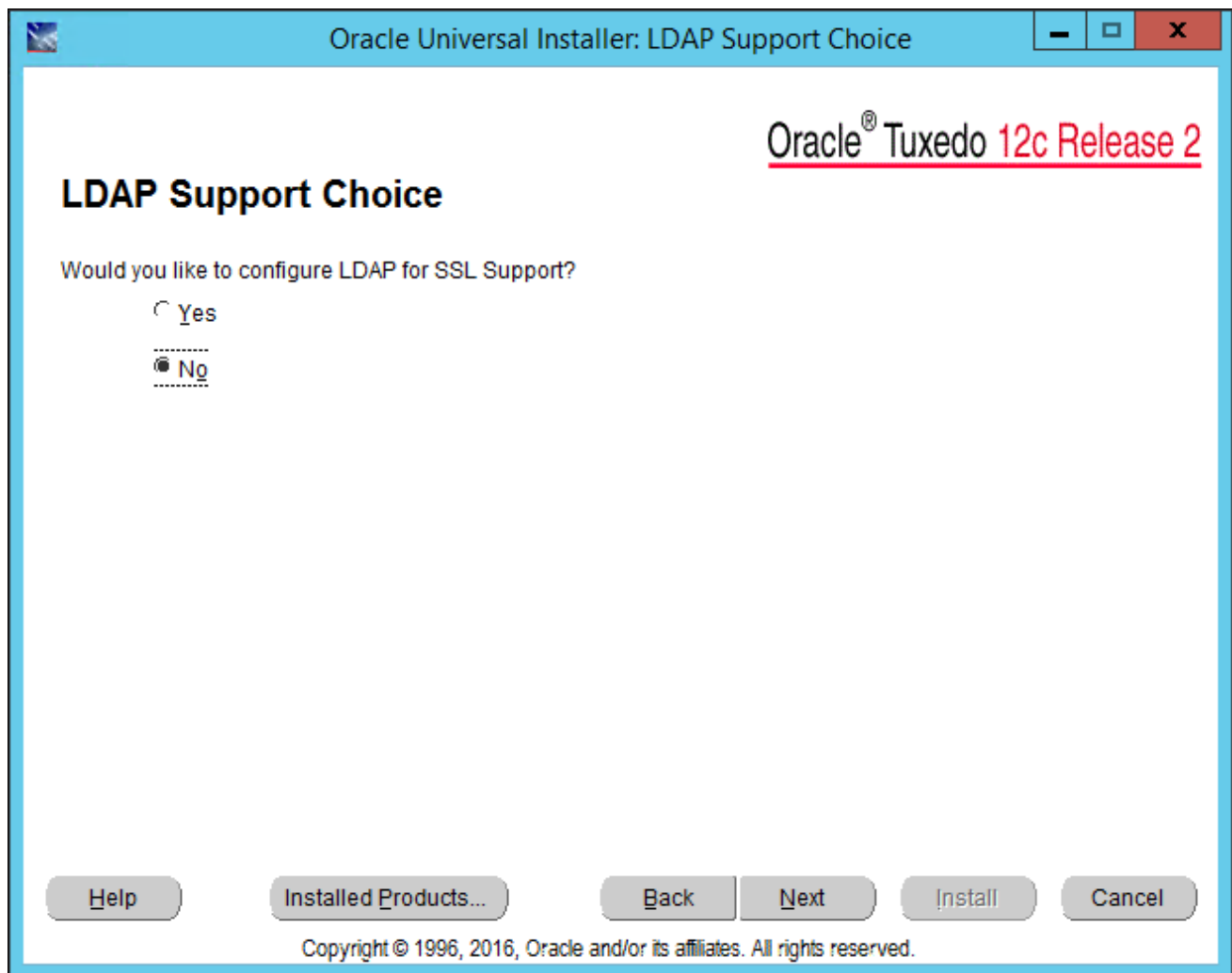
Oracle Universal Installer: Choose Max Encryption Bits window

14. Select Yes on the SSL Support Choice window, as shown in this example, and then click Next.



Oracle Universal Installer: SSL Support Choice window

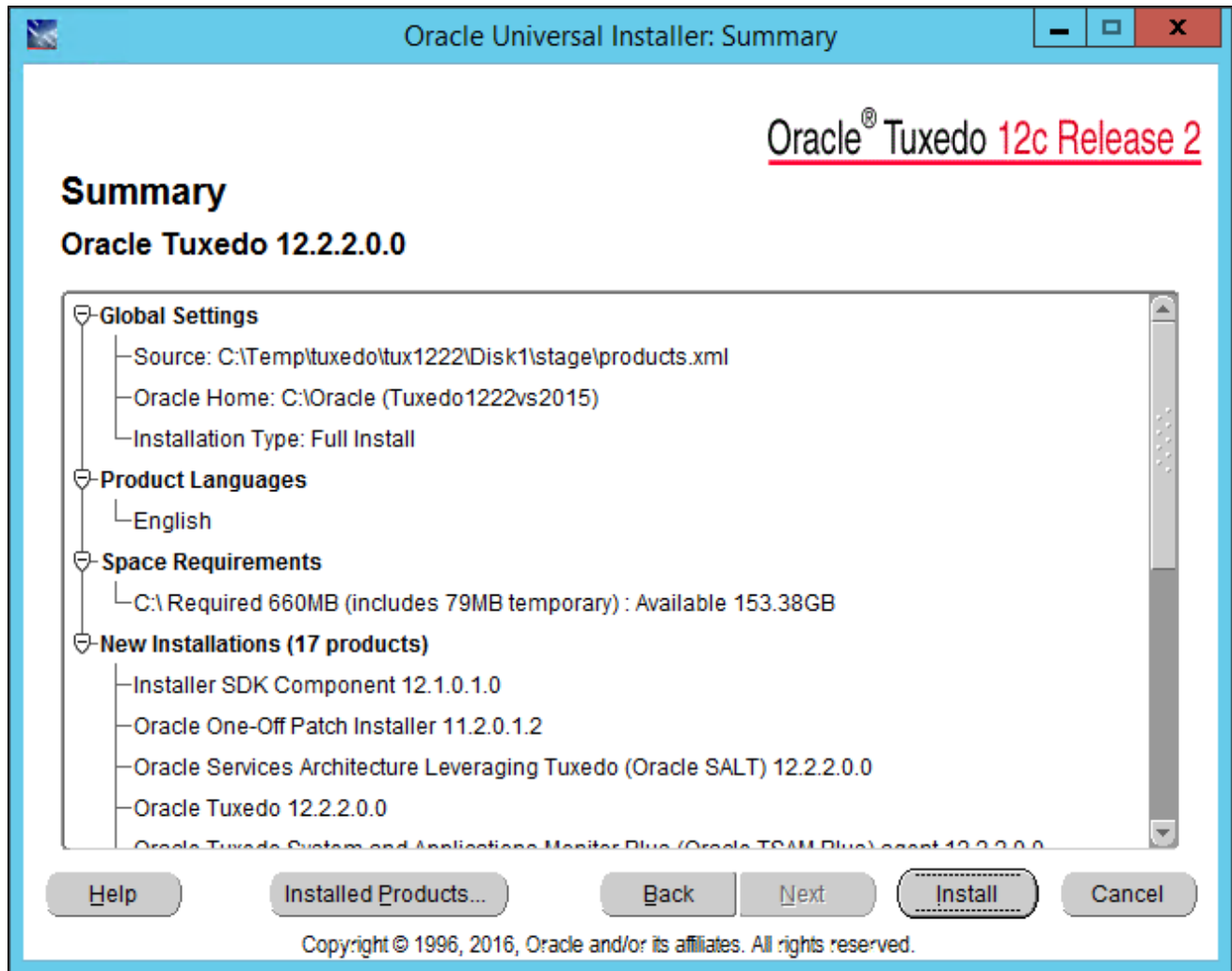
15. Select No for the option Would you like to configure LDAP for SSL Support? and then click Next.



Oracle Universal Installer: LDAP Support Choice window

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

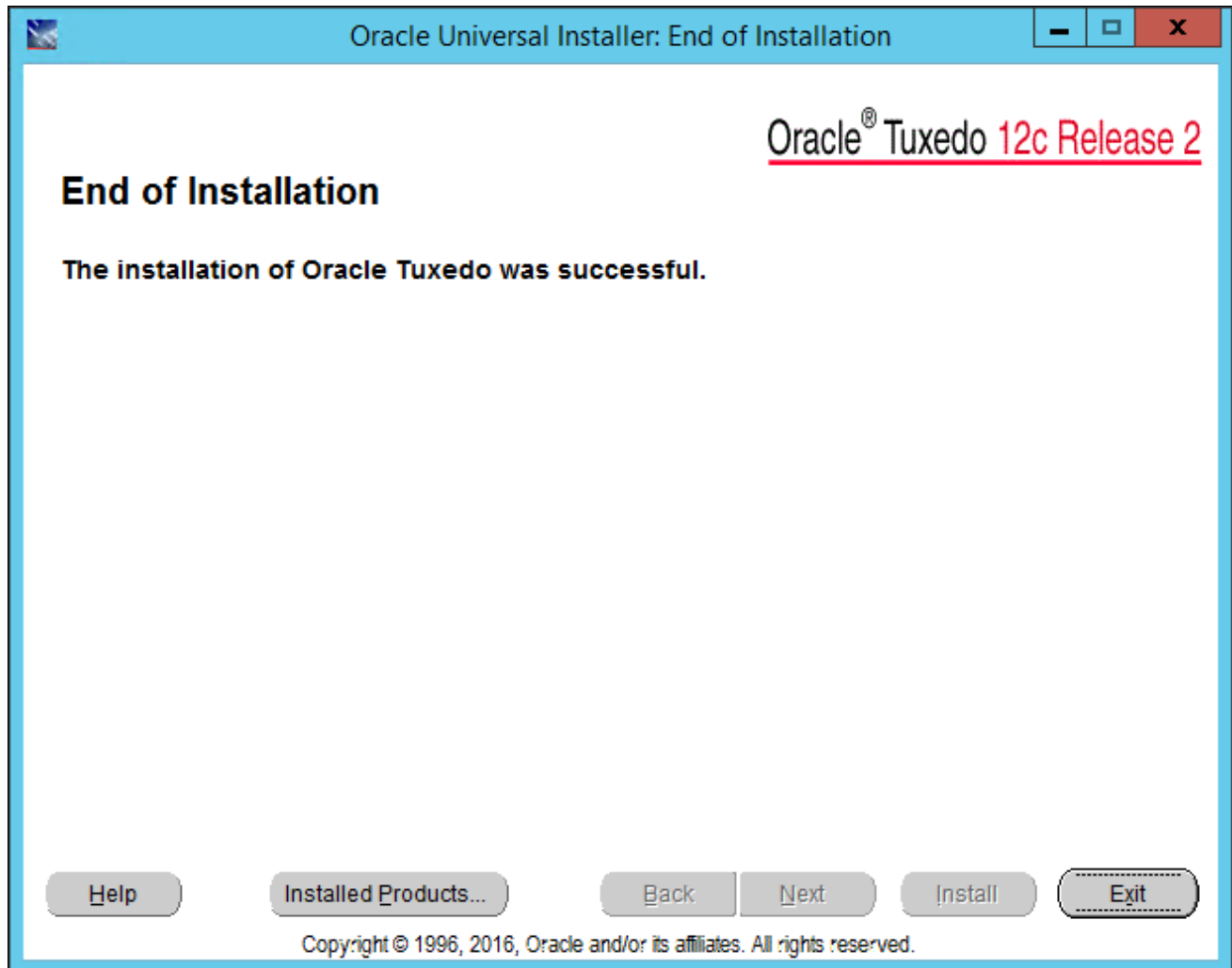
The summary information, shown in this example, includes the product name, install folder, installation type, and disk space information. If you want to change any of your choices, click Back.



Oracle Universal Installer: Summary window

A progress indicator appears during the installation.

17. Click Exit when you see the window indicating the installation completed successfully, as shown in this example.



Oracle Universal Installer: End of Installation window

Task 12-1-6: Installing the Oracle Tuxedo Patch on Microsoft Windows

These instructions assume that you have installed the base Oracle Tuxedo 12cR2_VS2015, and have downloaded the platform-specific version of the rolling patch to a directory referred to here as *TUX_INSTALL*. Carry out these steps as a user with administrative privileges.

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\tuxedo12.2.2.0.0_VS2015.

Note. The TUXDIR directory should include subdirectories bin and udataobj.

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.

Note. This is the parent directory for the Oracle Tuxedo installation. It should include subdirectories OPatch and oui.

4. Verify that the environment variable JAVA_HOME is set to the 64-bit JDK 1.8 directory, as mentioned in the prerequisites section.

5. 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.

6. Launch the Services window; for example, select Start, Administrative Tools, Services.
7. Select each of the following services, right-click, and select Stop:
 - ORACLE ProcMGR V12.2.2.0.0_VS2015
 - TListen 12.2.2.0.0_VS2015 (Port: 3050)

Note. The port number is variable.

8. Uninstall any existing patches.
9. 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 that includes a zip file named 25391869.zip with the patch.

10. Set the environment variable for the platform ID; for example:

```
set OPATCH_PLATFORM_ID=233
```

You can find the value for OPATCH_PLATFORM_ID in the file *ORACLE_HOME*/inventory/ContentsXML/oraclehomeproperties.xml.

11. Open a command prompt and go to the *TUX_INSTALL*/25391869 directory.

12. Run the following command:

```
%ORACLE_HOME%\OPatch\opatch.bat apply 25391869.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.

You see a message similar to the following:

```
Oracle Home       : C:\oracle
Central Inventory : C:\Program Files\Oracle\Inventory
    from          : n/a
OPatch version    : 12.2.0.1.0
OUI version       : 12.2.0.1.0
Log file location : C:\oracle\cfgtoollogs\opatch\opatch<datetime>.log
```

13. If OPatch cannot locate the Oracle inventory, you may see a messages such as the following:

```
Applying interim patch 25391869 to OH 'C:\Oracle'
Verifying environment and performing prerequisite checks.
OPatch system modification phase did not start
```


In this case, specify the full path to the Oracle inventory file oraInst.loc, with the `invPtrLoc` option:

```
%ORACLE_HOME%\OPatch\opatch.bat apply 25391869.zip -invPtrLoc <full_⇒
path_to_inventory_file>
```

Task 12-1-7: 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_VS20125 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="tuxedo1222_VS2015"

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\tuxedo12.2.2.0.0_VS2015`.
- **ORACLE_HOME_NAME:** The name of the current Oracle installation, for example `tuxedo1222_VS2015`.
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 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 12-1-8: 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\tuxedo12.2.2.0.0_VS2015*.
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 25391869
```

Task 12-1-9: Uninstalling Oracle Tuxedo in GUI Mode

To remove the Oracle Tuxedo 12cR2_VS2015 or 12cR2 installation, use Oracle Universal Installer (OUI).

1. Start Oracle Universal Installer (OUI).

The way that you access OUI may vary depending upon your environment. Use one of the following methods, for example:

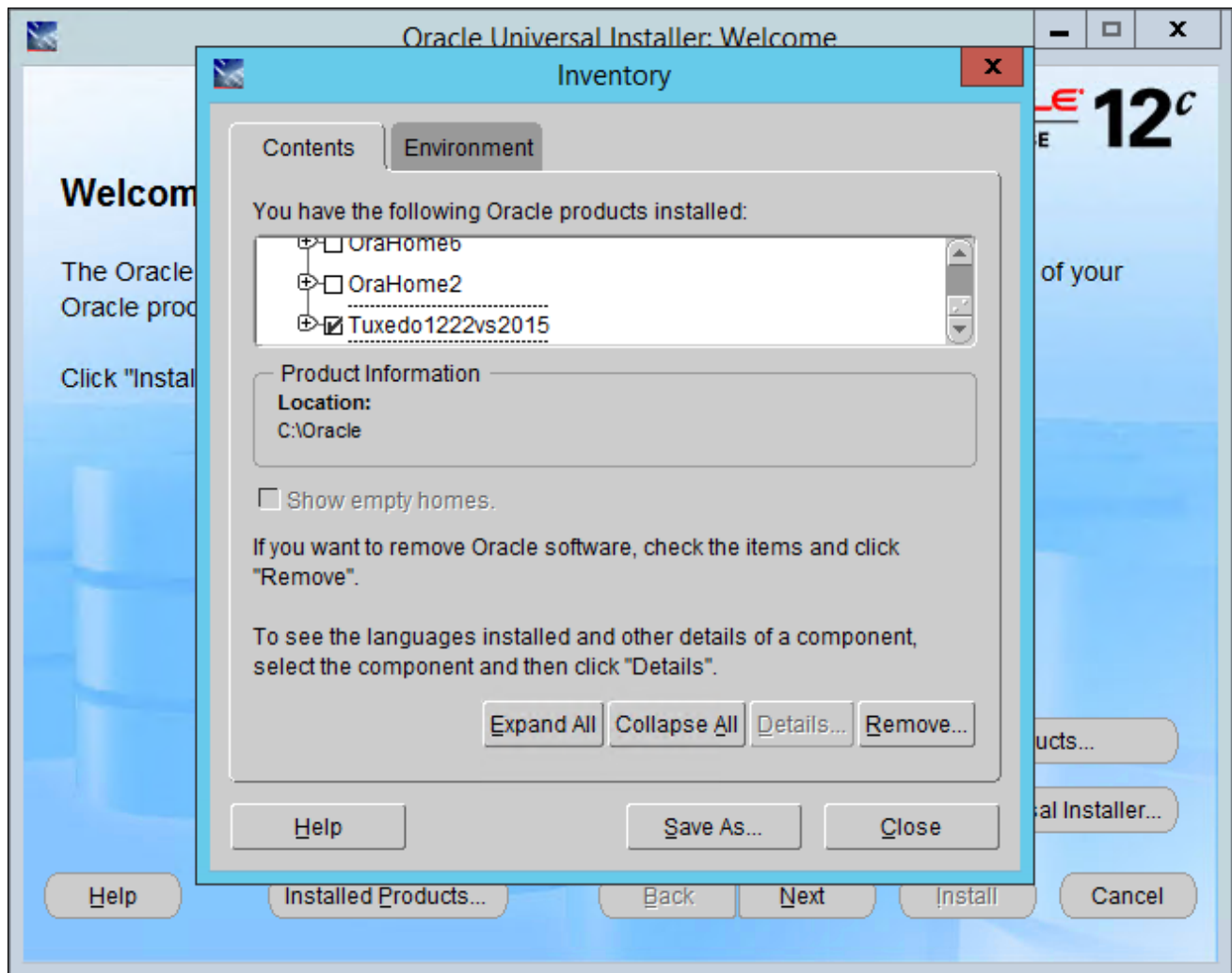
- On Microsoft Windows 2012 R2, access the Apps screen, and select Oracle 12c, Oracle Installation Products, Universal Installer.
- Double-click *TUX_INSTALL*\Disk1\install\setup.exe.

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



Oracle Universal Installer: Welcome window

- On the Contents page, select the name for the Oracle Tuxedo installation, which is tuxedo1222vs2015 in this example, and then click Remove.



Inventory window: Contents page

- 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\12.2.2.0.0_VS2015

Task 12-1-10: 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 V12.2.2.0.0_VS2015 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 V12.2.2.0.0_VS2015" to "Oracle ProcMGR."

- 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 12-1-11: 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 tadmin (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.

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. Access the Control Panel, and then select 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 12-1-12: Setting Up the Windows Services for Oracle Tuxedo

To set up the Microsoft Windows services for Oracle Tuxedo:

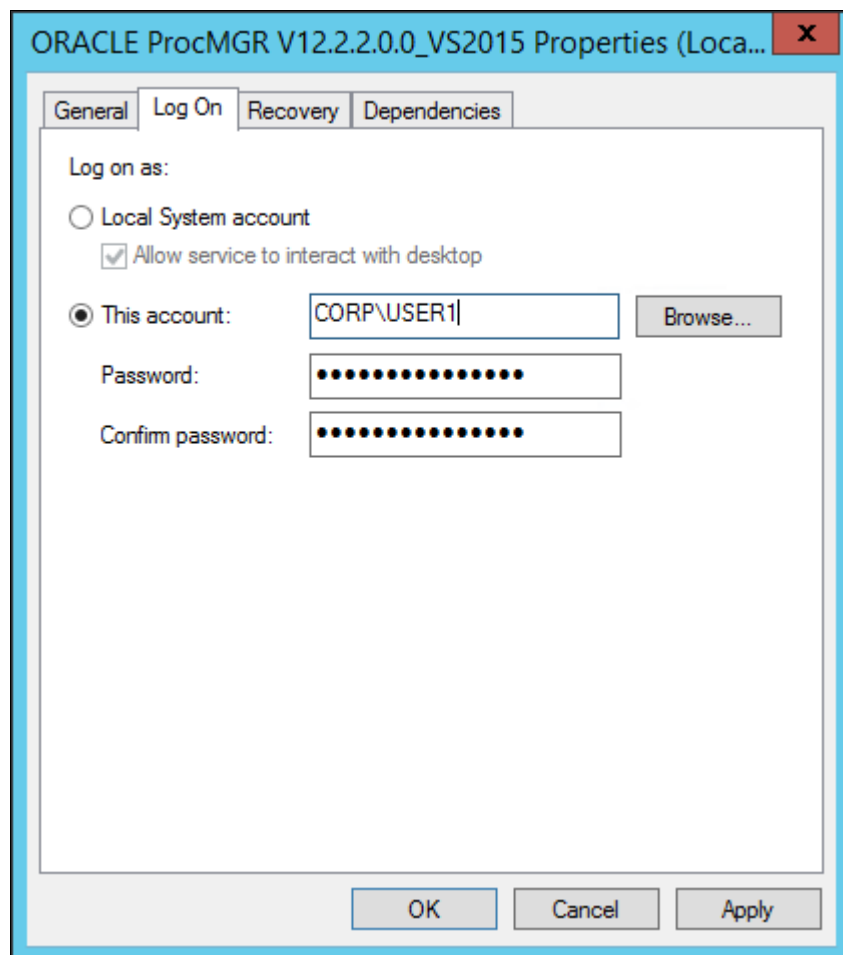
1. Log on again as the Application Server Administrator, TUXADM, or a designated user ID.
2. Open the Control Panel and double-click Administrative Tools.
3. Select Computer Management and expand Services and Applications.
4. Select Services and locate the service labeled *ORACLE ProcMGR V12.2.2.0.0_VS2015*.
Double-click ORACLE ProcMGR V12.2.2.0.0_VS2015 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 V12.2.2.0.0_VS2015 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.

Note. The option used—Local System account or This account—must be consistent with your ODBC catalog definition, due to registry operations. For example, if you use the Local System Account option, you must also catalog your ODBC data source using System DSN.

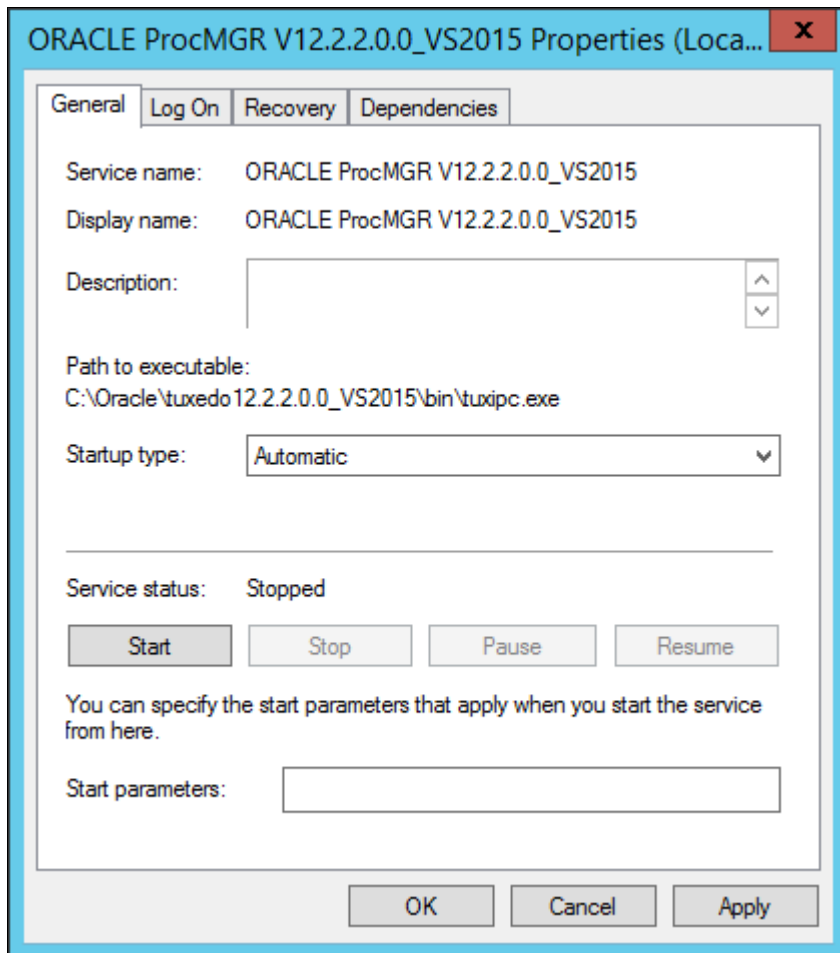
See Checking the Windows Service Account.



ORACLE ProcMGR V12.2.2.0.0_VS2015 Properties dialog box: Log On tab

8. Select General.

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



ORACLE ProcMGR V12.2.2.0.0_VS2015 Properties dialog box: General tab

9. Click Start.

The status Started appears both on the General tab of the Oracle ProcMGR V12.2.2.0.0_VS2015 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 12.2.2.0.0_VS2015 (Port: *PORT*) service, where *PORT* is the port number you entered during the installation. The default is 3050.

Task 12-1-13: 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\tuxedo12.2.2.0.0_VS2015
```
3. Go to the directory where you installed Oracle Tuxedo, *TUXDIR*, and then to the bin sub-directory. For

example:

```
C:\oracle\tuxedo12.2.2.0.0_VS2015\bin
```

4. Issue this command:

```
tmadmin -v
```

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

```
INFO: Oracle Tuxedo, Version 12.2.2.0.0_VS2015, 64-bit, Patch Level 016
```

If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 12cR2_VS2015.

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\12.2.2.0.0_VS2015
```

Task 12-1-14: 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 8.56, you can safely skip this section. If you need to run application servers on PeopleSoft PeopleTools 8.56 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 8.56 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.

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.

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.

Chapter 13

Configuring the Application Server on Windows

This chapter discusses:

- Understanding the Application Server
- Prerequisites
- Creating a Wallet for the SSL/TLS Setup
- 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.

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."
- Set up SSL/TLS protocol for the workstation connection.
The Secure Socket Layers/Transport Layer Security (SSL/TLS) protocol is supported for Workstation Listener and Jolt Listener ports for the current PeopleSoft PeopleTools release. The application server domain configuration requires a wallet. You can use the delivered wallet or create your own.
See *PeopleTools: Integration Broker*, "Installing Web Server-Based Digital Certificates."
- 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," Running the Database Configuration Wizard.
See "Creating a Database Manually," 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.

Task 13-1: Creating a Wallet for the SSL/TLS Setup

This section discusses:

- Using the Delivered Wallet
- Creating a Wallet with OpenSSL

Task 13-1-1: Using the Delivered Wallet

Before you configure the application server to use the SSL/TLS protocol, you need a wallet. Use these instructions to create wallets for the application server and workstation client.

Note. The term "Oracle Wallet" is sometimes used in the software and documentation, for example in PSADMIN custom configuration, to refer to wallets on all RDBMS. In this context it does not refer to an entity specific to an Oracle RDBMS.

You also have the option to use the wallets that are included with the PeopleSoft PeopleTools installation. The default wallet for the application server is named psft and is located in `$PS_SERVDIR/security`. When you configure the application server, define the default wallet as follows:

- `SEC_PRINCIPAL_LOCATION=%PS_SERVDIR%\security`
- `SEC_PRINCIPAL_NAME=psft`

To specify the default wallet for the workstation client:

- `SEC_PRINCIPAL_LOCATION=PS_HOME\bin\client\winx86\security`
- `SEC_PRINCIPAL_NAME=wscpsft`

The default Java Keystore file used for the SSL/TLS configuration for JSL ports is located in `<PIA_HOME>\webserv\<DOMAIN_NAME>\piaconfig\keystore\pskey`. If you change the Keystore password in this file, you must also provide the password in the PIA configuration.properties file at `<PIA_HOME>\webserv\<DOMAIN_NAME>\application\peoplesoft\PORTAL.war\WEB_INF\psftdoc\ps`.

Task 13-1-2: Creating a Wallet with OpenSSL

This section discusses:

- Defining OpenSSL Options
- Creating a Server Wallet for the Application Server Domain with OpenSSL
- Creating a Client Wallet for the Workstation Client with OpenSSL
- Adding the Server's Certificate to the Client's Trust Store with OpenSSL

Defining OpenSSL Options

An example of an OpenSSL command that can be used to create a wallet is as follows.

For more information, see the OpenSSL documentation.

```
openssl pkcs12 -export -out ewallet.p12 -inkey server.key -in server.crt ->
chain -CAfile caCert.crt -passout pass:<password>
```

- `-export`: indicates that a PKCS 12 file is being created
- `-chain`: specifies that an attempt is made to include the entire certificate chain of the user certificate
- `-inkey`: specifies the private key file
- `-in`: specifies the file that contains the user certificate and any other certificates in the certificate chain
- `-CAfile`: specifies a file containing trusted certificates
- `-out`: specifies the output file name, which must be `ewallet.p12` for an Oracle Wallet for PeopleSoft installations.
- `-passin`: specifies the password for the private key file
- `-passout`: specifies the password for the newly created wallet

Creating a Server Wallet for the Application Server Domain with OpenSSL

This section gives an example of creating a wallet for the application server with the open-source tool OpenSSL.

1. Create a directory, for example `wallet.server`.

For example on Microsoft Windows:

```
mkdir C:\wallet.server
```

2. Change directory to `wallet.server`.

```
cd wallet.server
```

3. Enter the following command:

```
openssl genrsa -out server.key 4096
```

4. Enter the following command.

```
openssl req -new -key server.key -out server.csr -subj <subject>
```

For example:

```
openssl req -new -key server.key -out server.csr -subj '/C=country/CN=>commonName'
```

The `<subject>` values in this step and step 7 are used to replace the specified data in an input request, and output a modified request. The format for `<subject>` is `'/type0=value0/type1=value1/type2=...'`. Characters must be escaped with a backslash (`\`), and no spaces are skipped. Use the following fields:

- `/C` — Country
- `/CN` — Common name
- `/L` — Location
- `/O` — Organization
- `/OU` — Organizational Unit
- `/ST` — State

5. Enter the following command:

```
openssl genrsa -out caCert.key 4096
```

6. Enter the following command,

```
openssl req -new -x509 -days 1826 -key caCert.key -out caCert.crt -subj =>
<subject>
```

For example:

```
openssl req -new -x509 -days 1826 -key caCert.key -out caCert.crt -subj=>
'/C=US/OU=Class 2 Public Primary Certification Authority/O=My=>
Organization'
```

7. Enter the following command:

```
openssl x509 -req -days 730 -in server.csr -CA caCert.crt -CAkey ca=>
Cert.key -set_serial 01 -out server.crt
```

8. Enter the following command to create the wallet ewallet.p12 and specify the server password:

```
openssl pkcs12 -export -out ewallet.p12 -inkey server.key -in=>
server.crt -chain -CAfile caCert.crt -passout pass:<server_password>
```

Creating a Client Wallet for the Workstation Client with OpenSSL

This section gives an example of creating a client wallet with the open-source tool OpenSSL.

1. Create a directory, for example wallet.client, and change to that directory.

```
mkdir wallet.client
cd wallet.client
```

2. Copy the server's trust store to the client wallet.

```
cp wallet.server\caCert.crt wallet.client
cp wallet.server\caCert.key wallet.client
```

3. Enter these commands:

```
openssl genrsa -out client.key 4096
```

4. Run this command:

```
openssl req -new -key client.key -out client.csr -subj <subject>
```

For example:

```
openssl req -new -key client.key -out client.csr -subj '/C=country/CN=>
commonName'
```

5. Run this command:

```
openssl x509 -req -days 730 -in client.csr -CA caCert.crt -CAkey ca=>
Cert.key -set_serial 01 -out client.crt
```

6. Enter the following command to create the wallet ewallet.p12 and specify the client password:

```
openssl pkcs12 -export -out ewallet.p12 -inkey client.key -in=>
client.crt -chain -CAfile caCert.crt -passout pass:<client_password>
```

7. Remove the client wallet password:

- a. Make a backup copy of the wallet, ewallet.p12:

On Microsoft Windows:

```
xcopy ewallet.p12 oldwallet.p12
```

- b. Run this command:

```
openssl pkcs12 -clcerts -nokeys -in oldwallet.p12 -out⇒
certificate.crt -password pass:<client_password> -passin pass:⇒
<client_password>
```

- c. Run this command:

```
openssl pkcs12 -cacerts -nokeys -in oldwallet.p12 -out ca-cert.ca -⇒
password pass:C<client_password> -passin pass:<client_password>
```

- d. Run this command:

```
openssl pkcs12 -nocerts -in oldwallet.p12 -out private.key -password⇒
pass:<client_password> -passin pass:<client_password> -passout pass:⇒
temp
```

- e. Run this command:

```
openssl rsa -in private.key -out NewKeyFile.key -passin pass:temp
```

- f. Run the command to create the PEM.pem file.

This file is created to copy the public key and root certificates.

On Microsoft Windows:

```
type certificate.crt ca-cert.ca >PEM.pem
```

- g. Run this command:

```
openssl pkcs12 -export -nodes -in PEM.pem -inkey NewKeyFile.key -out⇒
ewallet.p12 -passout pass:TrustedCertsOnlyNoPWNeeded
```

Adding the Server's Certificate to the Client's Trust Store with OpenSSL

To complete the setup, add the application server's certificate to the workstation client's trust store:

1. Change directory.

```
cd %ORACLE_HOME%\jdk\bin
```

2. Add the certificate to the trust store found in the web server directory for the application server domain.

```
keytool -import -file <server_wallet>/<certificate> -alias srvcert -⇒
keystore <PIA_HOME>\webserver\<DOMAIN_NAME>\piaconfig\keystore\pskey -⇒
storepass password -noprompt
```

For example, on Microsoft Windows:

```
keytool -import -file wallet.server/caCert.crt -alias srvcert -keystore⇒
C:\user\psft\pt\8.56\webserver\ps\piaconfig\keystore\pskey -storepass⇒
password -noprompt
```


Task 13-2: 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 13-3: 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 Microsoft SQL Server use sqlcmd.exe.

Task 13-4: 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

Task 13-4-1: 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\8.56
PS_HOME:      C:\PT8.56
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.
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 domain 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           : [MICROSFT]
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:\Program=>

Files=>
\Microsoft SQL Server\110\Tools\Binn]
  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) WSL SSL Port     : [7010]
12) Domains Gateway     : No                    28) JSL Port         : [9000]
13) Push Notifications  : No                    29) JSL SSL Port     : [9010]
                                     30) JRAD Port        : [9100]

          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. If you are using Microsoft SQL Server, enter 22 for AddToPATH, and enter the path to the 64-bit connectivity software.

The default path for Microsoft SQL Server 2012 is:

C:\Program Files\Microsoft SQL Server\110\Tools\Binn

Note. You can skip this step if the PATH environment variable already includes the database connectivity path.

Note. If you are using Microsoft SQL Server 2014, the default path is:

C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\110\Tools\Binn

If you are using Microsoft SQL Server 2016, the default path is:

C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\130\Tools\Binn

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. To set up the Workstation Listener for SSL/TLS protocol, enter 27 for WSL SSL Port, and specify an available port number.

The default port number is 7010.

16. To set up the Jolt listener for SSL/TLS protocol, enter 29 for JSL SSL Port, and specify an available port number.

The default port number is 9010.

17. Use the custom configuration menu to specify the settings for SSL/TLS encryption and the wallet location.

See *PeopleTools: Integration Broker*, "Installing Web Server-Based Digital Certificates."

- a. To specify the minimum and maximum encryption for SSL/TLS, select 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]?

Continue to enter *n*, for No, for all sections until you see the Workstation Listener section, and then answer *y*. (Be aware that there are several sections.)

- d. If necessary, change the values for WSL minimum and maximum encryption to correspond to your installed SSL/TLS cipher. The default minimum is 0 and the default maximum is 256. The maximum is the number of bits that indicates the highest level of encryption possible for the installed SSL/TLS version.

Values for config section - Workstation Listener

```
Address=%PS_MACH%
Port=7000
SSL Port=7010
WSL Min Encryption=0
WSL Max Encrytion=256
Min Handlers=1
Max Handlers=2
Max Clients per Handler=40
Client Cleanup Timeout=60
Init Timeout=5
Tuxedo Compression Threshold=5000
```

- e. Accept the defaults for the next series of questions until asked if you want Oracle Wallet configured. In this case, answer *y*.

- f. Specify the values for the Oracle Wallet location, name, and password, or accept the defaults.

You can use an existing wallet that you created, or use the default wallet found in the security directory.

Values for config section - Oracle Wallet

```
SEC_PRINCIPAL_LOCATION=%PS_SERVDIR%\security
SEC_PRINCIPAL_NAME=psft
SEC_PRINCIPAL_PASSWORD=
```

- g. Accept the defaults for the next series of questions until asked if you want the JOLT Listener configured. In this case, answer *y*

- h. If necessary, change the values for JSL minimum and maximum encryption to correspond to your installed SSL/TLS cipher. The default minimum is 0 and the default maximum is 256. The maximum is the number of bits that indicates the highest level of encryption possible for the installed SSL/TLS version.

Values for config section - JOLT Listener

```
Address=%PS_MACH%
Port=9000
SSL Port=9010
JSL Min Encryption=0
JSL Max Encrytion=256
Min Handlers=1
Max Handlers=2
Max Clients per Handler=40
Client Cleanup Timeout=10
Init Timeout=5
Client Connection Mode=ANY
```

Jolt Compression Threshold=1000000

- i. Accept the default for the remaining questions; the configuration will load automatically.
 18. 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]?

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.
19. 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.
20. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
21. 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.
-
22. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
 23. 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 13-4-2: 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 8.56, Configuration Manager.
 - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.56, 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
 - Port Number (WSL)

Enter the WSL port that you specified when creating the application server domain. If you want to use the SSL/TLS protocol for connection, enter the WSL SSL port number (the default is 7010). If you want to use the LLE protocol, enter the non-SSL WSL port (the default is 7000).
 - 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.
 - Wallet Location

Enter the location that you specified for the client wallet. The default location is *%PS_HOME%\bin\client\winx86\security*.
 - Wallet Name

Enter the name for the client wallet that you specified. The default name is *wscpsft*.
 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 8.56, Application Designer.
 - On Microsoft Windows 8 or 2012 R2, access the Apps screen and navigate to PeopleTools 8.56, 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.

Task 13-4-3: 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 the current PeopleSoft PeopleTools release, 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\8.56
PS_HOME:      C:\PT8.56
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.
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

```

```

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\
\8.56

```

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 13-4-4: 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.

To reconfigure an application server domain:

1. Go to the *PS_HOME*\appsrv 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 tmlodcf 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=
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 13-4-5: 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

Chapter 14

Setting Up the PeopleSoft Pure Internet Architecture in Silent Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Installing the PeopleSoft Pure Internet Architecture in Silent Mode
- Configuring the SSL/TLS Port for JSL
- 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 silent mode.

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*.

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 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*.

- *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 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*.

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 14-1: 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 14-1-1: 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.

Note. When specifying paths on Microsoft Windows operating systems, use forward slashes (/), as shown in the examples in the response file.

The response file should contain all the input parameters that are needed for deploying PeopleSoft Pure Internet Architecture. The sample response file includes the following sections:

- The location where you want to install the PeopleSoft Pure Internet Architecture.

```
#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
```
- Domain name

```
# Name of the PIA domain
DOMAIN_NAME=peoplesoft
```
- The Web server type and root directory for the web server installation

```
# Web server type. Possible values are "weblogic", "websphere"
SERVER_TYPE=weblogic

# WebLogic home, the location where Oracle WebLogic is installed (for⇒
  WebLogic 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
```

 - Specify `SERVER_TYPE=weblogic` to deploy on Oracle WebLogic.
 For Oracle WebLogic, specify the installation location for `BEA_HOME`.
 - Specify `SERVER_TYPE=websphere` to deploy on IBM WebSphere.

If you installed IBM WebSphere, specify the installation location for WS_HOME.

- The administrator login ID, and the password for the web server domain.

```
# admin console user id/password for securing WebLogic/WebSphere admin⇒
  console credential
USER_ID=system
USER_PWD=
USER_PWD_RETYPE=
```

- Installation action

```
# 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
```

- CREATE_NEW_DOMAIN

Create a new PeopleSoft Pure Internet Architecture domain.

- REDEPLOY_PSAPP

If your web server is Oracle WebLogic, 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.

If your web server is IBM WebSphere, 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.

- REBUILD_DOMAIN

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.

Warning! Re-creating an existing domain will delete everything previously installed into that domain.

- ADD_SITE

If your web server is Oracle WebLogic: 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>\*
```

If your web server is IBM WebSphere: Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing IBM WebSphere ND web server configuration .

- **ADD_PSAPP_EXT**

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.

- **Create a new domain or modify an existing 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
```

- **Specify the PS_APP_HOME**

```
# App home is required only when you are installing extensions from a⇒
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**

```
# 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
```

- **SINGLE_SERVER_INSTALLATION**

If your web server is Oracle WebLogic, the single server 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.

If your web server is IBM WebSphere, 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**

If your web server is Oracle WebLogic, the multi-server 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.

If your web server is IBM WebSphere, the multi server domain configuration creates a single profile with the name you enter as the application name. 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

- **The PeopleSoft web site name.**

Warning! 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).

```
# WebSite Name
WEBSITE_NAME=ps
```

- **PSSERVER**

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.

```
# 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=
```

- The application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional).

```
# AppServer Name
APPSERVER_NAME=

# Appserver JSL Port
JSL_PORT=

# HTTP Port
HTTP_PORT=80

# HTTPS Port
HTTPS_PORT=443

# Authentication Domain (optional)
AUTH_DOMAIN=
```

- **APPSERVER_NAME** — the name of your application server
- **JSL_PORT** — the JSL port number you specified when setting up your application server.
- **HTTP_PORT** — the port to access the software in a browser using HTTP.
- **HTTPS_PORT** — the port to access the software in a browser using HTTPS.
- **AUTH_DOMAIN**

This is optional. 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.

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 Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

- Web profile name and password

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, PTWEBSEVER. 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, PTWEBSEVER, be sure to review the information on web profile configuration and security in the *PeopleTools: Portal Technology* product documentation.

```
# Web Profile Name Possible Values are "DEV", "TEST", "PROD", "KIOSK"
WEB_PROF_NAME=PROD
```

```
# Web Profile password for User "PTWEBSEVER"
WEB_PROF_PWD=
WEB_PROF_PWD_RETYPE=
```

- Integration Gateway user name and password

See *PeopleTools: Integration Broker Administration*.

```
# Integration Gateway user profile.
IGW_USERID=administrator
IGW_PWD=
IGW_PWD_RETYPE=
```

- 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*.

```
# AppServer connection user profile
APPSRVR_CONN_PWD=
APPSRVR_CONN_PWD_RETYPE=
```

- The root directory for the Report Repository

Make sure that the report repository directory is shared. You must have write access to the Report Repository directory.

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.

```
# Directory path for reports
REPORTS_DIR=
```

Task 14-1-2: 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:/PT8.56
```

Task 14-2: Configuring the SSL/TLS Port for JSL

Supply the SSL/TLS port for JSL in the `configuration.properties` file for the web server.

See *PeopleTools: Integration Broker*, "Installing Web Server-Based Digital Certificates."

1. Using a text editor, open the `configuration.properties` file in the web server deployment folder located here:
`<PIA_HOME>\webserv\<DOMAIN_NAME>\application\peoplesoft\PORTAL.war\WEB_INF\psftdoc\ps.`
2. Locate the `psserver` section and enter the application server name and the SSL/TLS port.

Enter the SSL/TLS port that you specified for the JSL SSL Port when setting up the application server domain.

See *Creating, Configuring, and Starting an Initial Application Server Domain*.

```
psserver=<machine_name>:<SSL_port_for_JSL>
```

3. Locate the section `Keystore password for ssl connection`.

If you reset the SSL/TLS Java Keystore password, enter it here. Otherwise, accept the default value. The default Java Keystore file is located in `<PIA_HOME>\webserv\<DOMAIN_NAME>\piaconfig\keystore\pskey`.

```
#Keystore password for ssl connection
KeyStorePwd=={V1.1}7m40tVwXFNyLc1j6pZG69Q==
```

4. Save and close the file.

If the JDK used for your web server does not support the algorithm used for SSL connection, you may see an error similar to the following when you sign in to the PeopleSoft Pure Internet Architecture through an SSL port: "Cannot support TLS_RSA_WITH_AES_256_CBC_SHA with currently installed providers"

This applies to the Oracle JDK for Linux, Microsoft Windows, or Oracle Solaris for SPARC operating systems.

See "Installing Web Server Products," *Installing JDK*.

To resolve the issue, use the following steps to upgrade the JDK with Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files:

1. Download the file `jce_policy-8.zip` from this site to a convenient directory:
<http://www.oracle.com/technetwork/java/javase/downloads/jce8-download-2133166.html>
2. Unzip the file `jce_policy-8.zip`.

3. Copy the files `local_policy.jar` and `US_export_policy.jar` from `jce_policy-8\UnlimitedJCEPolicyJDK8`.
4. Paste the two files into the `<JAVA_HOME>\jre\lib\security` folder, and replace the existing files.

Task 14-3: 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.

Task 14-3-1: 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:
On Microsoft Windows:
`startPIA.cmd`
- To start Oracle WebLogic Server as a foreground process on multiple-servers or distributed servers, use the following commands:
 1. Execute the following command:
On Microsoft Windows:
`startWebLogicAdmin.cmd`
 2. Then execute:
On Microsoft Windows:
`startManagedWebLogic.cmd ManagedServerName`
- To stop the server, use the following commands:

- **Single Server on Microsoft Windows:**
`stopPIA.cmd`
- **Multiple Servers or Distributed Servers on Microsoft Windows:**
`stopWebLogic.cmd ManagedServerName`

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 14-3-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

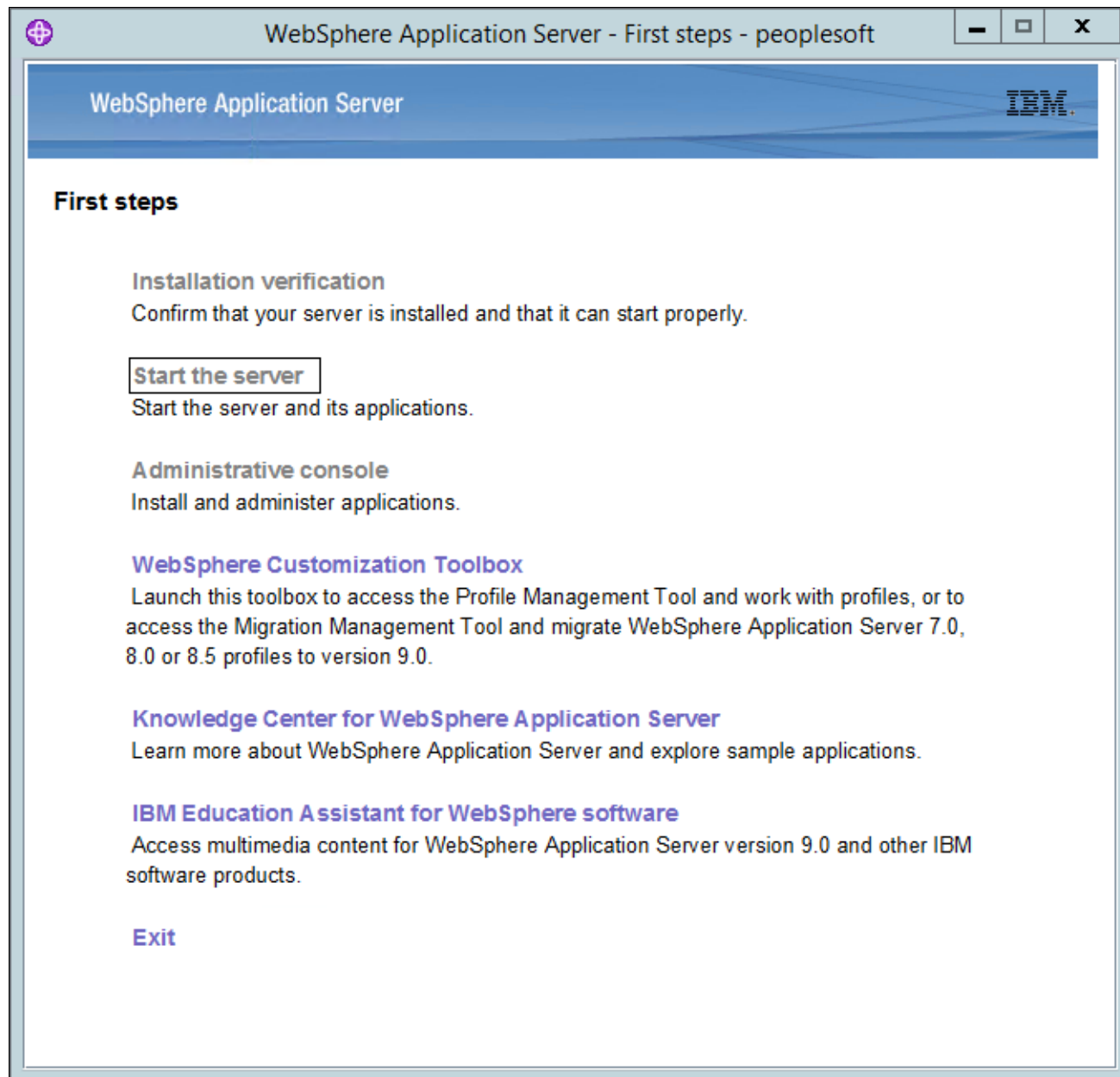
- Starting and Stopping IBM WebSphere Application Servers on Windows
- Verifying the IBM WebSphere Installation

Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 9.0.0.0 (WebSphere ND), use the WebSphere First Steps utility:

1. For example, on Microsoft Windows 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 *peoplesoft*:

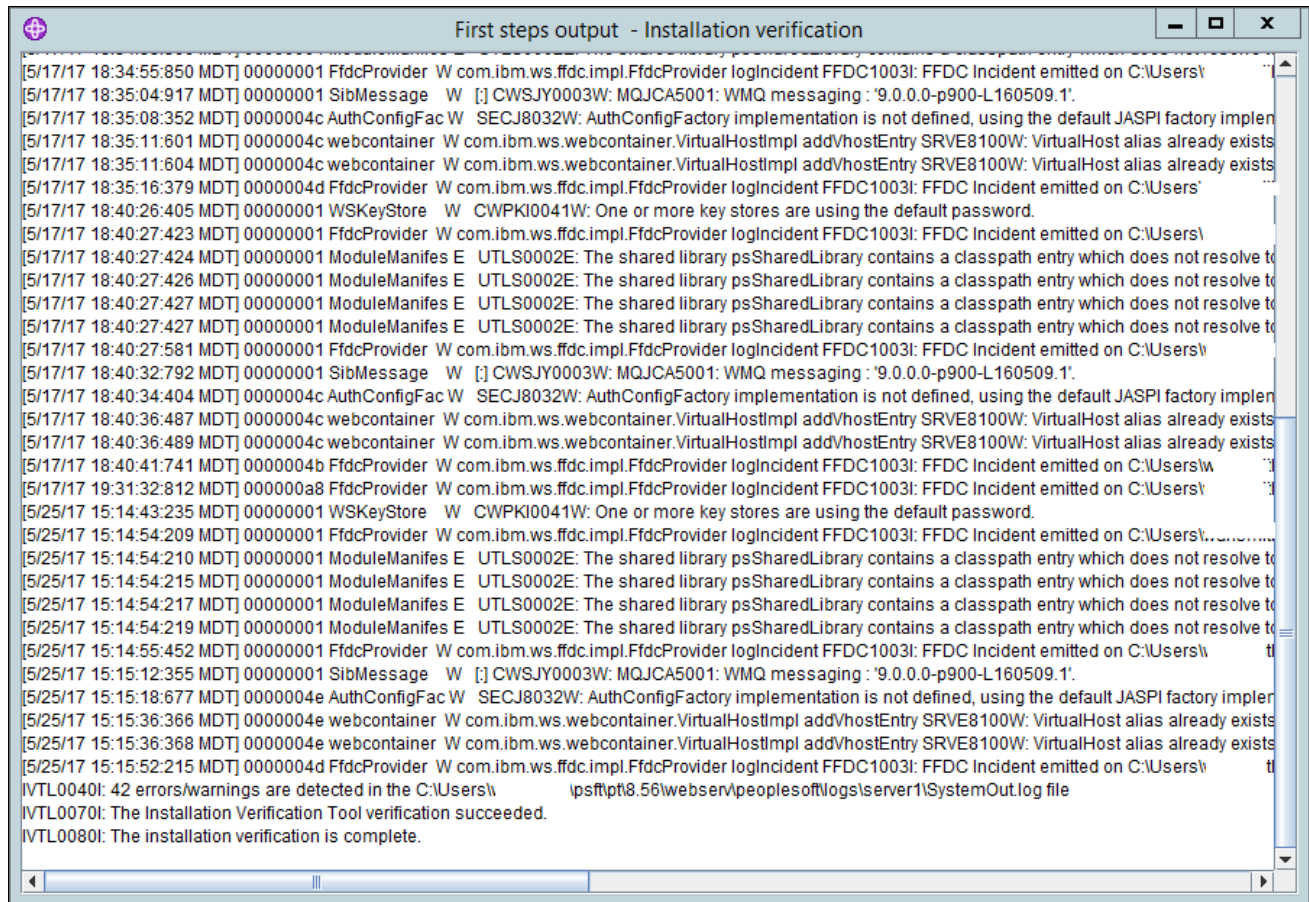


WebSphere Application Server - First steps window

2. Select the link Start the server.

If the server starts properly, a verification window appears with several messages about the initialization process.

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window and review the messages.



```

[5/17/17 18:34:55:850 MDT] 00000001 FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\
[5/17/17 18:35:04:917 MDT] 00000001 SibMessage W [J] CWSJY0003W: MQJCA5001: WMQ messaging : '9.0.0.0-p900-L160509.1'.
[5/17/17 18:35:08:352 MDT] 0000004c AuthConfigFac W SECJ8032W: AuthConfigFactory implementation is not defined, using the default JASPI factory imple
[5/17/17 18:35:11:601 MDT] 0000004c webcontainer W com.ibm.ws.webcontainer.VirtualHostImpl addVhostEntry SRVE8100W: VirtualHost alias already exists
[5/17/17 18:35:11:604 MDT] 0000004c webcontainer W com.ibm.ws.webcontainer.VirtualHostImpl addVhostEntry SRVE8100W: VirtualHost alias already exists
[5/17/17 18:35:16:379 MDT] 0000004d FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\
[5/17/17 18:40:26:405 MDT] 00000001 WSKeyStore W CWPki0041W: One or more key stores are using the default password.
[5/17/17 18:40:27:423 MDT] 00000001 FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\
[5/17/17 18:40:27:424 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/17/17 18:40:27:426 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/17/17 18:40:27:427 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/17/17 18:40:27:427 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/17/17 18:40:27:581 MDT] 00000001 FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\
[5/17/17 18:40:32:792 MDT] 00000001 SibMessage W [J] CWSJY0003W: MQJCA5001: WMQ messaging : '9.0.0.0-p900-L160509.1'.
[5/17/17 18:40:34:404 MDT] 0000004c AuthConfigFac W SECJ8032W: AuthConfigFactory implementation is not defined, using the default JASPI factory imple
[5/17/17 18:40:36:487 MDT] 0000004c webcontainer W com.ibm.ws.webcontainer.VirtualHostImpl addVhostEntry SRVE8100W: VirtualHost alias already exists
[5/17/17 18:40:36:489 MDT] 0000004c webcontainer W com.ibm.ws.webcontainer.VirtualHostImpl addVhostEntry SRVE8100W: VirtualHost alias already exists
[5/17/17 18:40:41:741 MDT] 0000004b FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\w
[5/17/17 19:31:32:812 MDT] 000000a8 FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\
[5/25/17 15:14:43:235 MDT] 00000001 WSKeyStore W CWPki0041W: One or more key stores are using the default password.
[5/25/17 15:14:54:209 MDT] 00000001 FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\w...
[5/25/17 15:14:54:210 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/25/17 15:14:54:215 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/25/17 15:14:54:217 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/25/17 15:14:54:219 MDT] 00000001 ModuleManifes E UTLS0002E: The shared library psSharedLibrary contains a classpath entry which does not resolve to
[5/25/17 15:14:55:452 MDT] 00000001 FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\w
[5/25/17 15:15:12:355 MDT] 00000001 SibMessage W [J] CWSJY0003W: MQJCA5001: WMQ messaging : '9.0.0.0-p900-L160509.1'.
[5/25/17 15:15:18:677 MDT] 0000004e AuthConfigFac W SECJ8032W: AuthConfigFactory implementation is not defined, using the default JASPI factory imple
[5/25/17 15:15:36:366 MDT] 0000004e webcontainer W com.ibm.ws.webcontainer.VirtualHostImpl addVhostEntry SRVE8100W: VirtualHost alias already exists
[5/25/17 15:15:36:368 MDT] 0000004e webcontainer W com.ibm.ws.webcontainer.VirtualHostImpl addVhostEntry SRVE8100W: VirtualHost alias already exists
[5/25/17 15:15:52:215 MDT] 0000004d FfdcProvider W com.ibm.ws.ffdc.impl.FfdcProvider logIncident FFDC1003I: FFDC Incident emitted on C:\Users\w
IVTL0040I: 42 errors/warnings are detected in the C:\Users\w\psft\pt8.56\websrv\peoplesoft\logs\server1\SystemOut.log file
IVTL0070I: The Installation Verification Tool verification succeeded.
IVTL0080I: The installation verification is complete.

```

First steps output - Installation verification window

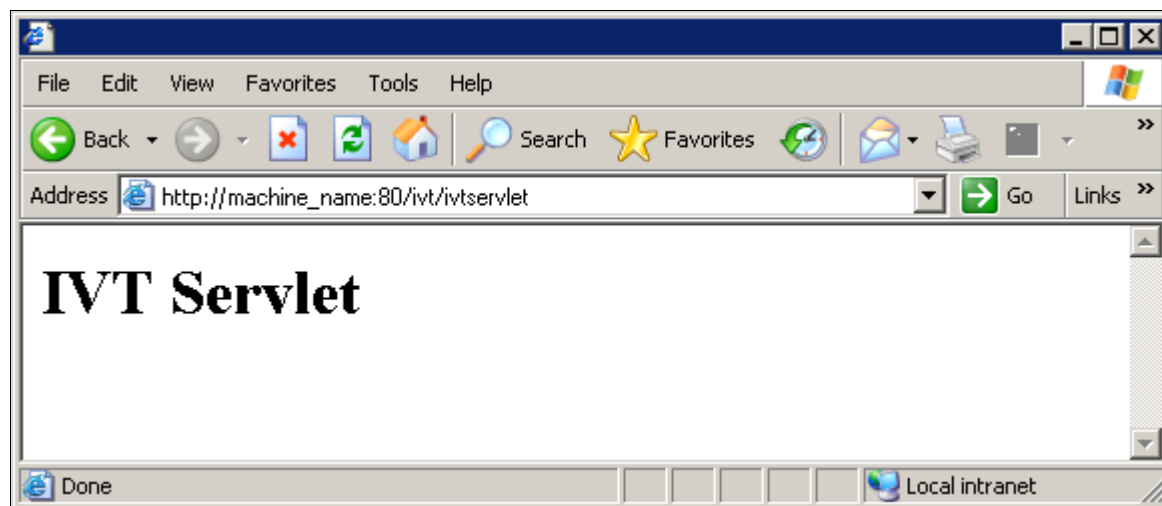
Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Microsoft Windows and UNIX.

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 14-3-3: 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. Specify 4 for Web (PIA) Server.

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.

2. Select 1 for Administer a domain.

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.

3. 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**

4. To start a web server domain, enter *1*, Boot this domain.

Starting the domain.....

...

Verifying domain status..

The domain has started.

5. To stop a web server domain, select *2*, Shutdown this domain.

Stopping the domain.....

.....

Verifying domain status.....

The domain has stopped.

6. 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 14-3-4: Accessing the PeopleSoft Signon

To access the PeopleSoft signon:

1. Open your web browser.

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:



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 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 14-4: Completing Post-Installation Steps

This section discusses:

- Using Fluid User Interface
- Updating the Installation Table
- Setting Options for Multilingual Databases
- Updating PeopleTools Options
- Updating Time Zone Information
- Updating Database Information

Task 14-4-1: 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:

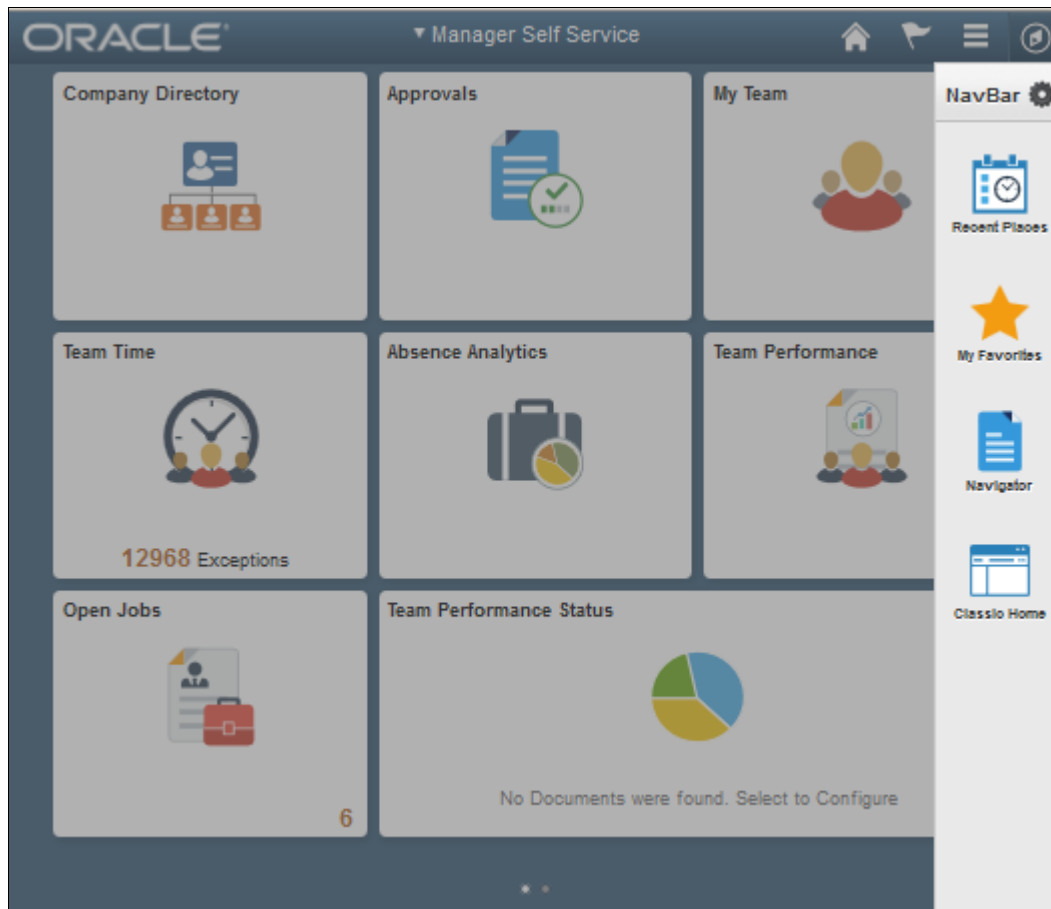
1. On the PeopleSoft Fluid User Interface, shown in this example, select (press) the NavBar button at the top right (diamond inside a circle).



PeopleSoft Fluid User Interface home page

The Navigation bar (NavBar) side page appears.

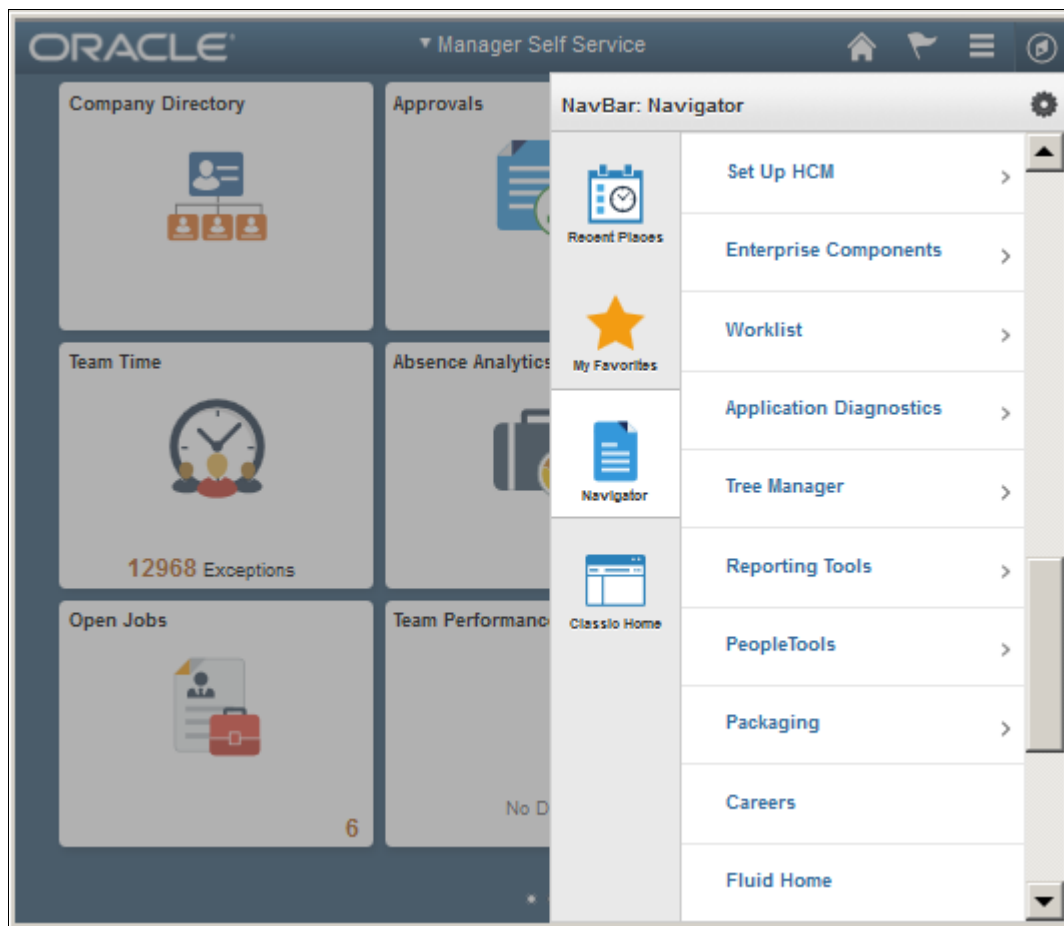
2. Select (press) Navigator.



NavBar side page

The menu structure appears.

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 14-4-2: 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. This postinstallation step ensures that only the products you are entitled to use are active in the installation. The location of the installation table in the PeopleSoft system varies depending upon the PeopleSoft application that you installed.

Note. For information on the products you are entitled to use, contact your Oracle Support representative.

1. Sign on to the PeopleSoft system in a browser.
2. Select Set Up *Application_name* (where *Application_name* is the PeopleSoft application you installed), Install, Installation Table.
3. Select the Products tab.

4. Clear the check boxes for the products that you are not entitled to use.

Task 14-4-3: 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.

Task 14-4-4: 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 14-4-5: Updating Time Zone Information

Additional steps may be required to configure your time zone after you complete the installation.

See *PeopleTools: Global Technology*, "Maintaining Time Zones."

Task 14-4-6: 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.

Chapter 15

Setting Up Process Scheduler on Windows

This chapter discusses:

- Prerequisites
- 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.
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.

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 15-1: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Changing User Account to Start ORACLE ProcMGR V12.2.2.0.0_VS2015
- 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.

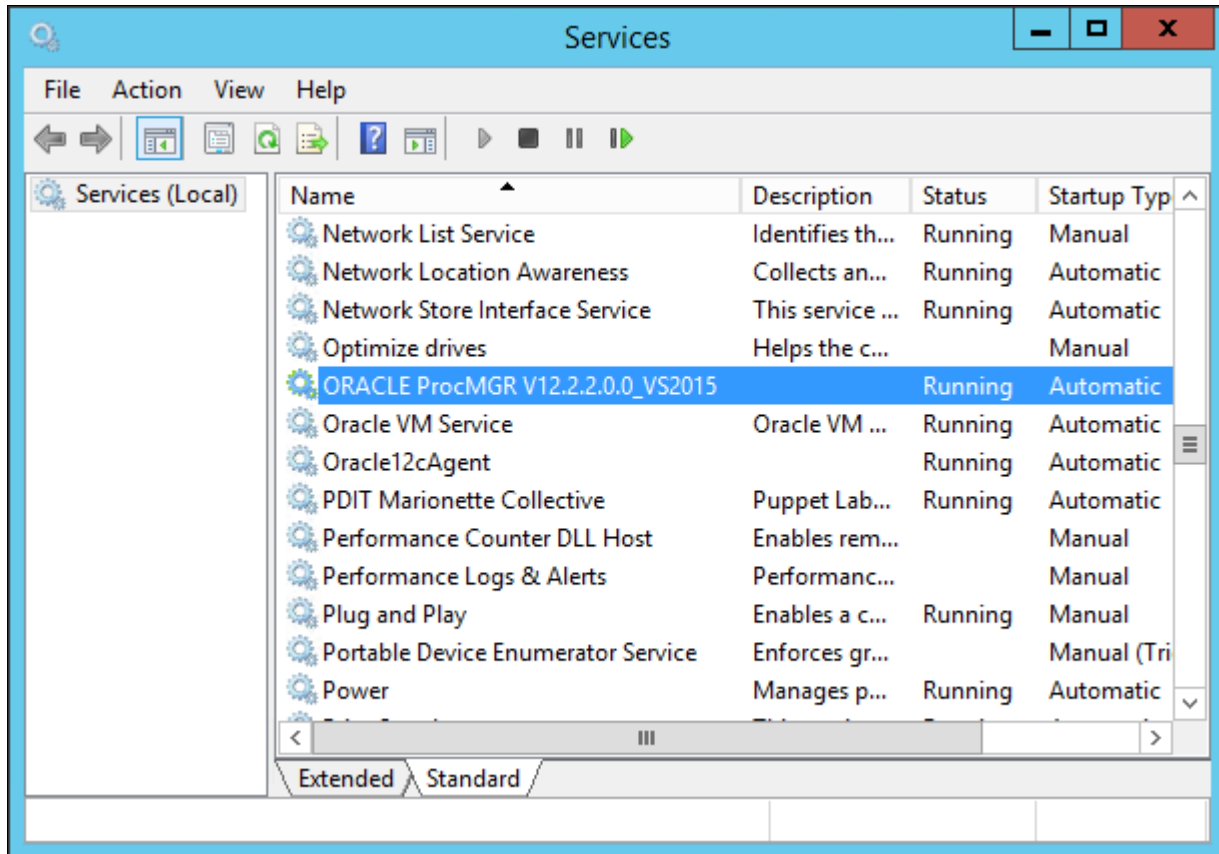
In the next section you set up ORACLE ProcMGR V12.2.2.0.0_VS2015 with a network user ID. When you install Oracle Tuxedo, the ORACLE ProcMGR V12.2.2.0.0_VS2015 service is set up by default to be started by local system account—a user account that does not have access to the Windows network. If the Process 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 V12.2.2.0.0_VS2015 with a network user account.

Task 15-1-1: Changing User Account to Start ORACLE ProcMGR V12.2.2.0.0_VS2015

To change User Account to start ORACLE ProcMGR V12.2.2.0.0_VS2015:

1. Launch the Services dialog box; for example, on Microsoft Windows 2012 R2, select Administrative Tools, Services.

In the Services dialog box, find the service labeled *ORACLE ProcMGR V12.2.2.0.0_VS2015*. This service is installed automatically when you install Tuxedo, and is highlighted in this example.



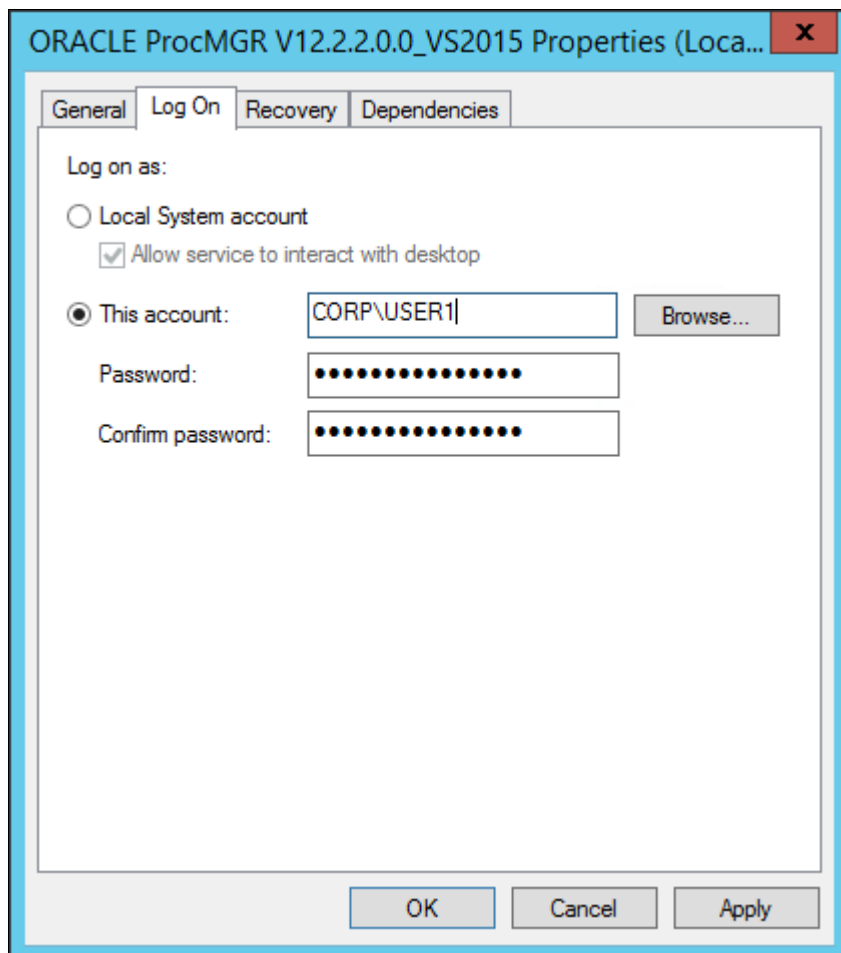
Microsoft Windows Services dialog box with ORACLE ProcMGR service highlighted

2. If the Stop button is enabled, click it to stop the current ORACLE ProcMGR V12.2.2.0.0_VS2015 process.
 - a. Click Yes when a message informs you of the status change.
 - b. Double-click ORACLE ProcMGR V12.2.2.0.0_VS2015.

The Properties dialog box appears.

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.

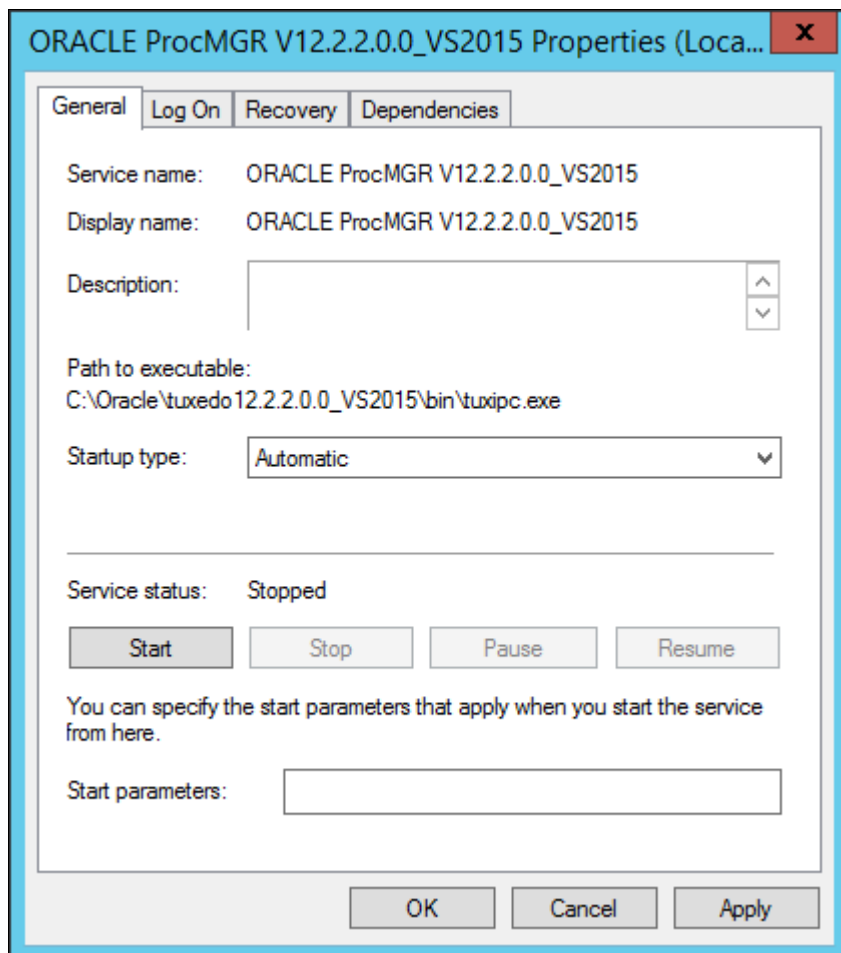


ORACLE ProcMGR V12.2.2.0.0_VS2015 Properties dialog box: Log On tab

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\tuxedo12.2.2.0.0_VS2015.

4. Select the General tab.

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



ORACLE ProcMGR V12.2.2.0.0_VS2015 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 15-1-2: 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.

- 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.

ORACLE®

Home | Worklist | MultiChannel Console | Add to Favorites | Sign Out

Favorites | Main Menu > PeopleTools > Security > User Profiles > User Profiles

New Window | Personalize Page | http

General | ID | Roles | Workflow | Audit | Links | User ID Queries

User ID: QEDMO
Description: QE User

Dynamic Role Rule

Execute on Server:

Test Rule(s) Refresh

Execute Rule(s)

[Process Monitor](#)
[Service Monitor](#)

User Roles Personalize | Find | View All | First 2-11 of 18 Last

Role Name	Description	Dynamic	Route Control	View Definition		
PTF Administrator	PTF Administrator	<input type="checkbox"/>	Route Control	View Definition	+	-
PeopleSoft Administrator	PeopleSoft Admin Privileges	<input type="checkbox"/>	Route Control	View Definition	+	-
PeopleSoft User	PeopleSoft User	<input type="checkbox"/>	Route Control	View Definition	+	-
Portal Administrator	Portal Administrator	<input type="checkbox"/>	Route Control	View Definition	+	-
Portal Manager	Portal Manager	<input type="checkbox"/>	Route Control	View Definition	+	-
ProcessSchedulerAdmin	Process Scheduler Admin	<input type="checkbox"/>	Route Control	View Definition	+	-
QE Role	QE Role	<input type="checkbox"/>	Route Control	View Definition	+	-
Search Administrator	Search Administrator	<input type="checkbox"/>	Route Control	View Definition	+	-
Search Developer	Search Developer	<input type="checkbox"/>	Route Control	View Definition	+	-
ReportDistAdmin	Report Distribution Admin	<input type="checkbox"/>	Route Control	View Definition	+	-

Save Return to Search Previous in List Next in List Add Update/Display

General | ID | Roles | Workflow | Audit | Links | User ID Queries

Process Scheduler window: Roles tab

- 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.
- Click Save to save your changes.
- Select the General tab and jot down the Permission List name assigned to the Process Profile field.
- From the Portal menu, choose PeopleTools, Security, Permissions & Roles, Permission Lists.
- In the Search dialog, enter the Permission List you noted in step 7.
- Select the Can Start Application Server check box.
- Click Save to save your changes.

Task 15-2: 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:

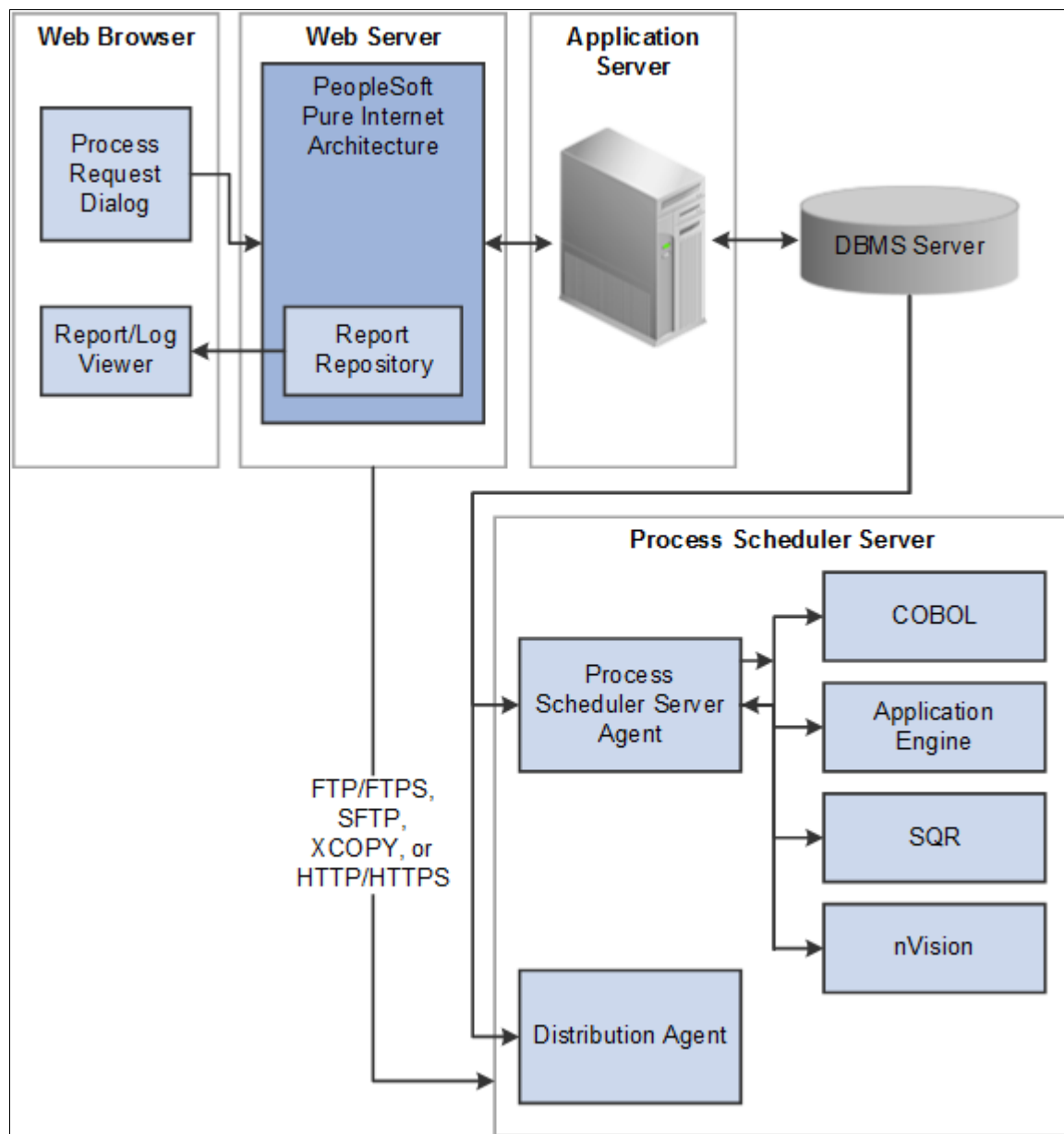
- *Transfer files to the Report Repository.* All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- *Delete the directory from the Process Scheduler Agent's Log/Output directory.* When the output destination type specified for a process request is *Web/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.



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*.

Task 15-2-1: 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 15-2-2: 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. 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.)

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 15-2-3: 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 15-2-4: 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.

- 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.

The screenshot shows the 'Report Node Definition' page in the Oracle PeopleTools interface. The breadcrumb trail at the top indicates the path: Favorites > Main Menu > PeopleTools > Process Scheduler > Report Nodes. The page title is 'Report Node Definition'. The 'Node Name' is set to 'HTTP'. The '*Protocol' dropdown is also set to 'HTTP', with a 'Validate' button to its right. Below this is the 'Distribution Node Details' section, which includes a 'URLID' field with a placeholder 'http://<machine_name>:<port_number>/psreports/<site_name>', a 'Description' field, and an 'Operating System' dropdown set to 'Windows'. The 'Login Details' section has 'Login ID', 'Password', and 'Confirm Password' fields. The 'URL Details' section includes 'URI Host' (placeholder '<machine_name>'), 'URI Port' (value '80'), and 'URI Resource' (placeholder 'SchedulerTransfer/<site_name>'). At the bottom are buttons for 'Save', 'Return to Search', 'Notify', and 'Refresh'.

Report Node Definition page for the HTTP protocol

- 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.

- 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 XCOPY

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.

- On the Report Node Definition page, select XCOPY from the Protocol drop-down list.

The screenshot shows the Oracle Report Node Definition page. The breadcrumb navigation at the top reads: Favorites > Main Menu > PeopleTools > Process Scheduler > Report Nodes. The Oracle logo is on the left, and a search bar is in the center. On the right, there are links for 'New Window', 'Help', 'Personalize Page', and a 'Home' icon. The main heading is 'Report Node Definition'. Below it, the 'Node Name' is 'XCOPY' and the '*Protocol' is 'XCOPY'. A 'Validate' button is to the right. A section titled 'Distribution Node Details' contains several fields: 'URLID' with a placeholder 'http://<machine_name>:<port_number>/psreports/<site_name>', 'Description' (empty), 'Operating System' set to 'Windows', and 'Network Path' with a placeholder '\\<machine_name>\psreports'. At the bottom are 'Save', 'Notify', and 'Refresh' buttons.

Report Node Definition page for the XCOPY protocol

- 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.

- Select Save to save your entries.
- 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.

- To add additional report nodes, select 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.

3. On the Report Node Definition page, select FTP from the Protocol drop-down list.

The screenshot shows the Oracle Report Node Definition page for the FTP protocol. The page is titled "Report Node Definition" and includes a navigation bar with "Favorites", "Main Menu", "PeopleTools", "Process Scheduler", and "Report Nodes". The Oracle logo is visible in the top left. The page contains several sections for defining the report node:

- Node Name:** FTP
- *Protocol:** FTP (selected from a dropdown)
- Validate:** A button to validate the configuration.
- Distribution Node Details:**
 - URLID:** http://<machine_name>:<port_number>/psreports/<site_name>
 - Description:** FTP sample
 - Operating System:** Windows (selected from a dropdown)
 - Network Path:** (empty field)
- Login Details:**
 - Login ID:** <user_id>
 - Password:** (masked with dots)
 - Confirm Password:** (masked with dots)
- File Transfer Details:**
 - Home Directory:** \\<machine_name>\psreports
 - FTP Address:** <machine_name>
 - SSL Mode:** EXPLICIT (selected from a dropdown)
- Connection Properties:** A table with columns for Property Name and Property Value.
- Password Encryption:**
 - Password:** (empty field)
 - Confirm Password:** (empty field)
 - Encrypt:** A button to encrypt the password.
 - Encrypted Password:** (empty field)

At the bottom of the page, there are buttons for "Save", "Return to Search", "Notify", and "Refresh".

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.

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.

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 <i>Y</i> . 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: <i>10.176.147.111:10000-13000</i>
ENABLEEPRPRT	This option can be used only with Active Mode. If Active Mode is enabled and ENABLEEPRPRT is set to <i>N</i> , then the system will use a PORT (IPv4) Active Mode connection. By default, ENABLEEPRPRT is <i>Y</i> , if Active Mode is set to <i>Y</i> .
EXTENDEDPASSIVEMODE	<ul style="list-style-type: none"> • <i>0</i>: Disable EPSV • <i>1</i>: Enable EPSV <p>This property enables you to control whether extended passive mode (EPSV) will be used by FTP.</p> <p>EPSV is used by default. That is, by default, this value is considered to be 1.</p> <p>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.</p>
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.

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.

3. On the Report Node Definition page, select FTPS from the Protocol drop-down list.

The screenshot shows the Oracle Report Node Definition page for the FTPS protocol. The page is titled "Report Node Definition" and includes a navigation bar with "Favorites", "Main Menu", "PeopleTools", "Process Scheduler", and "Report Nodes". The "Report Nodes" tab is selected. The page contains several sections for configuring the report node:

- Node Name:** FTPS
- *Protocol:** FTPS (selected from a dropdown menu)
- Validate:** A button to validate the configuration.
- Distribution Node Details:**
 - URLID:** http://<machine_name>:<port_number>/psreports/<site_name>
 - Description:** FTPS sample
 - Operating System:** Windows (selected from a dropdown menu)
 - Network Path:** (empty field)
- Login Details:**
 - Login ID:** <user_id>
 - Password:** (masked with dots)
 - Confirm Password:** (masked with dots)
- File Transfer Details:**
 - Home Directory:** \\<machine_name>\psreports
 - FTP Address:** <machine_name>
 - SSL Mode:** EXPLICIT (selected from a dropdown menu)
- Connection Properties:**
 - Property Name:** (empty field)
 - Property Value:** (empty field)
- Password Encryption:**
 - Password:** (empty field)
 - Confirm Password:** (empty field)
 - Encrypt:** A button to encrypt the password.
 - Encrypted Password:** (empty field)

At the bottom of the page, there are buttons for "Save", "Notify", and "Refresh".

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.

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.

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	<p>To enable active mode, add the ACTIVEMODE property to the URL and set it to <i>Y</i>.</p> <p>The default FTPS connection mode is extended passive mode.</p>
ACTIVEPORTOPTION	<p>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.</p> <p>You can also specify a port range. For example: <i>10.176.147.111:10000-13000</i></p>
CERTALIAS	<p>Certificate Alias: The Certificate Alias must be an alias name of a certificate stored in the database (using the PeopleSoft PeopleTools Digital Certificates page).</p> <p>Note. Currently, only PEM certificates are supported for FTPS.</p>
ENABLEEPRPRT	<p>This option can be used only with Active Mode. If Active Mode is enabled and ENABLEEPRPRT is set to <i>N</i>, then the system will use a PORT (IPv4) Active Mode connection.</p> <p>By default, ENABLEEPRPRT is <i>Y</i>, if Active Mode is set to <i>Y</i>.</p>
EXTENDEDPASSIVEMODE	<ul style="list-style-type: none"> • <i>0</i>: Disable EPSV • <i>1</i>: Enable EPSV <p>This property enables you to control whether extended passive mode (EPSV) will be used by FTP.</p> <p>EPSV is used by default. That is, by default, this value is considered to be 1.</p> <p>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.</p>
JKSPASSWORD	Specify the Java keystore (JKS) password.
JKSPATH	Specify the Java keystore (JKS) user.

Property Name	Property Value
KEYSTOREPASSWORD	<p>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.</p> <p>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.</p> <p>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.</p> <p>For information on setting the PS_SERVDIR environment variable, see the <i>PeopleTools: Integration Broker</i> product documentation.</p>
PASSWORD	Specify the password associated with the USER property, which identifies the FTP User ID.
SSLUAGELEVEL	<ul style="list-style-type: none"> • <i>0 - No SSL:</i> No SSL will be used. • <i>1 - Try SSL:</i> Try using SSL, but proceed as normal otherwise. • <i>2 - Control:</i> Require SSL for the control connection. • <i>3 - SSL Only:</i> (Default) Require SSL for all communication.
USER	Specify the FTP User ID used for authentication when accessing the FTP site.
VERIFYHOST	<ul style="list-style-type: none"> • <i>0:</i> Do not verify the server for host name. • <i>1:</i> 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. • <i>2:</i> (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	<ul style="list-style-type: none"> • <i>False:</i> Do not verify the peer. • <i>True:</i> (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:

- 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.

3. On the Report Node Definition page, select SFTP from the Protocol drop-down list.

The screenshot shows the 'Report Node Definition' page in the Oracle PeopleTools interface. The breadcrumb trail is: Favorites > Main Menu > PeopleTools > Process Scheduler > Report Nodes. The page title is 'Report Node Definition'. The 'Node Name' is 'SFTP' and the '*Protocol' is 'SFTP'. A 'Validate' button is present. The 'Distribution Node Details' section includes 'URLID' (http://<machine_name>:<port_number>/psreports/<site_name>), 'Description' (SFTP sample), and 'Operating System' (Windows). The 'Login Details' section includes 'Login ID' (<user_id>), 'Password' (masked with dots), and 'Confirm Password' (masked with dots). The 'File Transfer Details' section includes 'Home Directory' (\\<machine_name>\psreports) and 'FTP Address' (<machine_name>). The 'Connection Properties' section has a table with 'Property Name' and 'Property Value' columns. The 'Password Encryption' section includes 'Password', 'Confirm Password', and 'Encrypted Password' fields, along with an 'Encrypt' button.

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.

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.

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: <ul style="list-style-type: none"> • <i>PUBLICKEY</i> • <i>PASSWORD</i> • <i>ANY</i>
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	<p>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.</p> <p>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.</p> <p>If you provided a password (or passphrase) when generating your SSH certificate, specify that value using the PASSWORDKEY URL property.</p> <p>See <i>PeopleTools: Security Administration</i>, "Configuring Digital Certificates."</p>
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:
- In the Password field, enter a password.
 - In the Confirm Password field, enter the password again.
 - 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.

Task 15-2-5: 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.

The screenshot shows the Oracle PeopleTools interface. The breadcrumb trail at the top reads: Favorites > Main Menu > PeopleTools > Process Scheduler > Servers. The Oracle logo is on the left, and a search bar is in the center. On the right, there are links for 'Advanced Search' and 'Last Search Results'. Below the breadcrumb trail, there are tabs for 'Server Definition', 'Distribution', 'Operation', 'Notification', and 'Daemon'. The 'Distribution' tab is selected. The 'Server Name' is 'PSNT'. Below this, there is a section titled 'Server Distribution Details' with the following fields: 'Distribution Node Name' (with a lookup icon), 'Maximum Transfer Retries' (with a numeric input field), 'Interval for Transfer Attempt' (with a numeric input field and 'seconds' label), and 'Transfer System Files to Report Repository' (with a checkbox). At the bottom, there are buttons for 'Save', 'Return to Search', 'Notify', 'Add', and 'Update/Display'. A secondary breadcrumb trail at the bottom reads: Server Definition | Distribution | Operation | Notification | Daemon.

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.
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 15-2-6: 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 15-3: 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 15-4: 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
- 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 15-4-1: 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\8.56
PS_HOME             C:\PT8.56
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):

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. Enter the name of the domain at the following prompt, such as HRDMO in this example, and press ENTER:

Please enter name of domain to create : **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]
2) Master Scheduler : Yes     10) DBTYPE          : [MICROSFT]
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\MSS⇒
\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):

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. <i>See PeopleTools: Process Scheduler.</i>
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. <i>See PeopleTools: Process Scheduler.</i>
Perf Collator	Select this option to enable the PSPPMSSRV server process. <i>See PeopleTools: Performance Monitor, "Enabling the Required Elements on the Monitoring System."</i>
Domain Gateways	Select this option to enables inter domain communication, for example between Application Server and Process Scheduler domains. <i>See PeopleTools: Fluid User Interface Developer's Guide, "Setting Up Push Notification Configurations."</i>
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. <i>See PeopleTools: Fluid User Interface Developer's Guide, "Setting Up Push Notification Configurations."</i>
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: MICROSOFT.
PrCsServer	Specify the process server name. This must match the name defined in the Server Definition table, such as PSNT or PSUNX.

Parameter	Description
UserId	Enter the user ID, such as VP1 or PS.
UserPswd	<p>Enter the password for the user ID, as you specified during the database configuration.</p> <p>The password is hidden by masking characters as you type, in the Quick-configure menu after entry.</p>
ConnectID	Enter the connect ID. This value is required.
ConnectPswd	<p>Enter the connect password, as you specified during the database configuration. This value is required.</p> <p>The password is hidden by masking characters as you type, in the Quick-configure menu after entry.</p>
Log/Output Dir	<p>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.</p>
SQRBIN	Enter the path to the SQR executables.
AddToPATH	<p>(Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.</p> <p>For a Microsoft SQL Server installation, specify the 64-bit connectivity software. For example, for Microsoft SQL Server 2012, the default path is:</p> <p>C:\Program Files\Microsoft SQL Server\110\Tools\Binn</p> <p>Note. For a Microsoft SQL Server 2014 installation, the default path is C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\110\Tools\Binn.</p> <p>Note. If the PATH environment variable already includes the database connectivity location, you do not need to change the setting for AddToPATH.</p>
DBBIN	Enter the path to the database drivers; that is, your connectivity software.

Parameter	Description
DomainConnectPswd	<p>If you configured your Application Server domain to require a Domain Connection password, enter it here. Otherwise, leave it blank.</p> <p>The password is hidden by masking characters as you type, and in the Quick-configure menu after entry.</p> <p>See the information on setting Application Server Domain Parameters in the <i>PeopleTools: System and Server Administration</i> product documentation.</p>

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.

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 ... tadmin - 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 15-4-2: 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.

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 15-4-3: 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
```


- 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 Service	Queue Name	Grp Name	ID	RqDone	Load	Done	Current⇒
-----	-----	-----	--	-----	-----	-----	-----→

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.

This example of the Server List page shows two Process Scheduler servers with status Down, and one with status Running.

Process List

Server List

Refresh

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 15-5: 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.

4. Select 6 for Service Setup from the PeopleSoft Server Administration menu.

```

-----
PeopleSoft Server Administration
-----
PS_CFG_HOME           C:\Users\JSMITH\psftuser\psft\pt\8.56
PS_HOME               C:\PT8.56
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.

Note. You can use PSADMIN to set up Process Scheduler Servers, application servers, or search servers as a Windows service. The Windows Service psntrsv.exe automatically starts application servers, Process Scheduler servers, and search servers that reside on the same Microsoft Windows machine. Occasionally, psntrsv.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 psntrsv.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\8.56

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 V12.2.2.0.0_VS2015 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.

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 15-6: Configuring the Process Scheduler for Microsoft Word (Optional)

This section discusses:

- Configuring Process Scheduler
- Executing Winword on Mapped Drive

Task 15-6-1: 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.

The screenshot displays the Oracle PeopleTools interface for configuring a process. The breadcrumb trail indicates the path: Home > Worklist > MultiChannel Console > Add to Favorites > Sign out > Favorites > Main Menu > PeopleTools > Process Scheduler > Processes. The 'Override Options' tab is selected, showing details for Process Type 'Winword' and Name 'WORDSAMP'. The 'Override Options' section includes three dropdown menus: '*Parameter List' set to 'Append', '*Command Line' set to 'None', and '*Working Directory' set to 'None'. A 'Parameters' section contains a text field with the value '%%PS_HOME%%\WINWORD\WORDSAMP.DOCX /mWORDSAMP'. At the bottom, there are buttons for 'Save', 'Return to Search', 'Notify', 'Add', and 'Update/Display'. A footer bar contains links to 'Process Definition', 'Process Definition Options', 'Override Options', 'Destination', 'Page Transfer', 'Notification', 'Message', and 'Run'.

Process Definition page: Override Options

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, 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 15-6-2: 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.

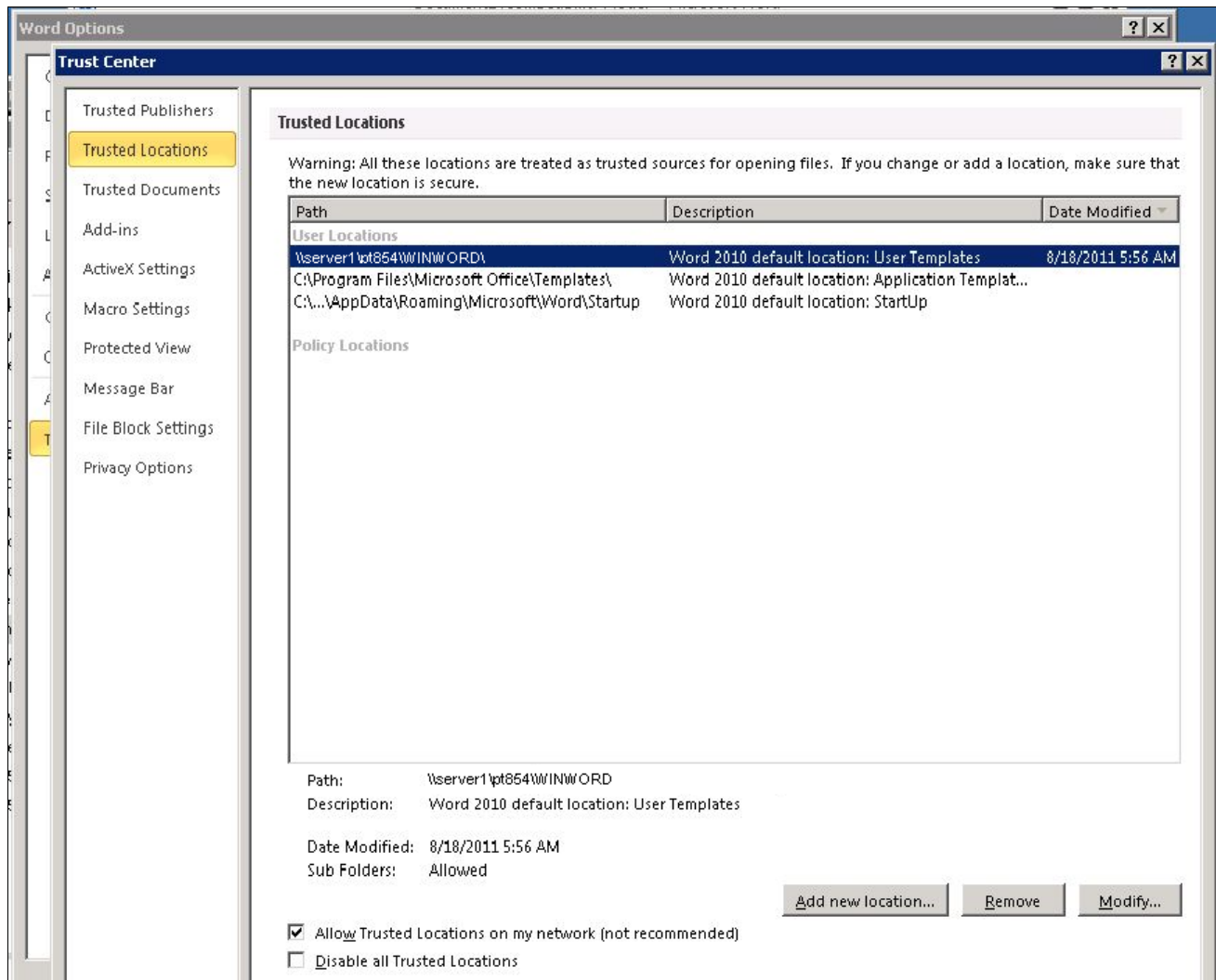
To perform the first workaround:

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.

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

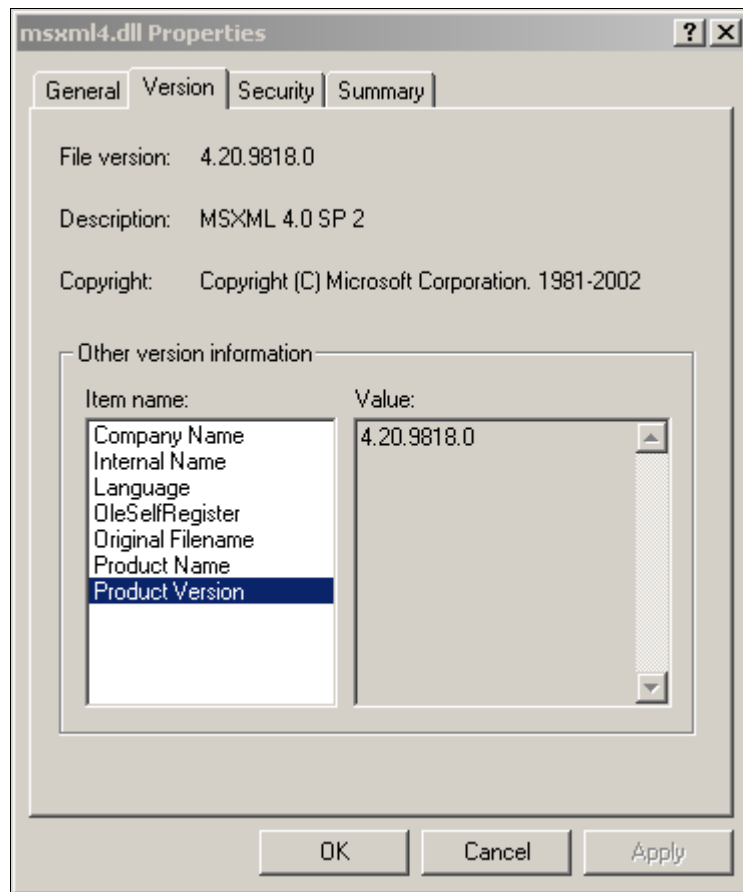
Task 15-7: Configuring Setup Manager

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

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 15-8: 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 4.6.1
- Installing Microsoft Open XML SDK for PS/nVision

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.

See "Setting Up Process Scheduler on UNIX," Using PS/nVision in Cross-Platform Mode on UNIX.

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 15-8-1: 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, Excel 2013, and Excel 2016.

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 machine, create an empty "Desktop" folder with this path:
C:\Windows\System32\config\systemprofile\Desktop

Task 15-8-2: Installing Microsoft .NET Framework 4.6.1

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 4.6.1.

Note. Microsoft .NET Framework 4.6.1 may be included as a feature on your operating system. See your operating system instructions to verify whether it is installed and enabled.

To install Microsoft .NET Framework 4.6.1:

1. If there is an existing installation of Microsoft .NET Framework 4.0 or 4.6 installed on your computer:

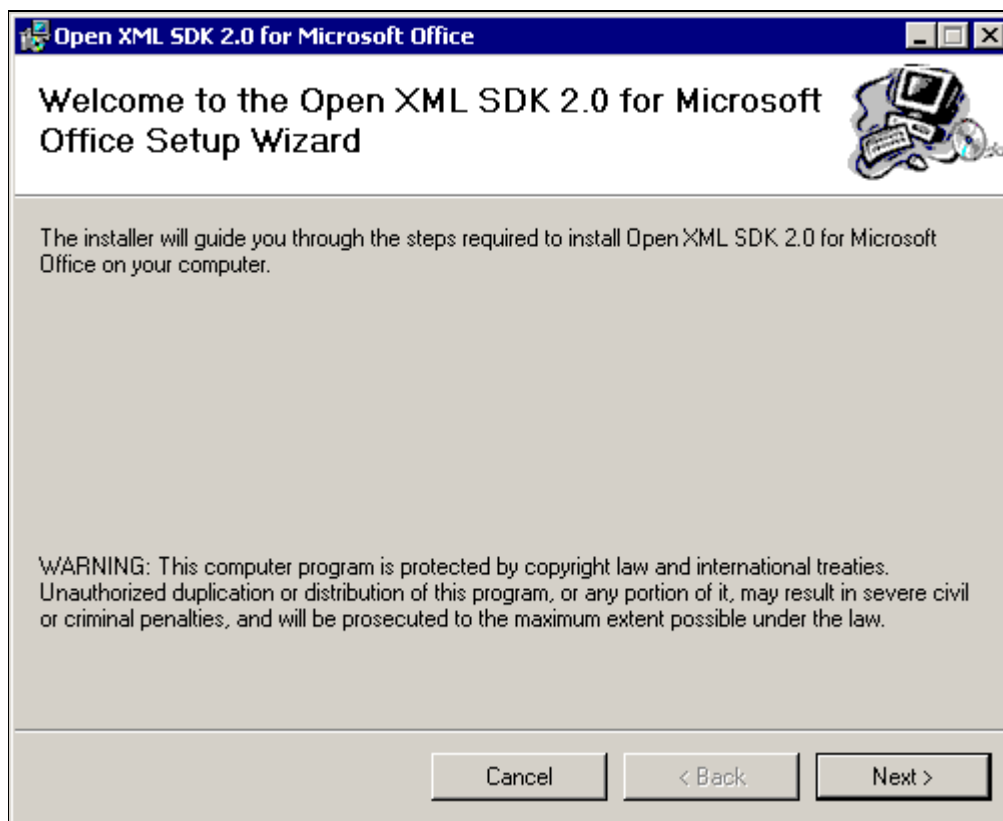
- a. Select Start, Programs, Control Panel, Add/Remove Programs
- b. Locate the existing Microsoft .NET Framework installation and remove it.
2. Go to *PS_HOME*\setup\dotnetredist.
3. Run the dotNetFx461_Full_x86_x64.exe file.
4. Review the license agreement, select the option I have read and accept the license terms, and then click Install.
A progress indicator appears.
5. Click Finish when the installation is complete.

Task 15-8-3: Installing Microsoft Open XML SDK for PS/nVision

As described in the previous section, you must have installed Microsoft .NET Framework versions 4.6.1 before beginning this installation.

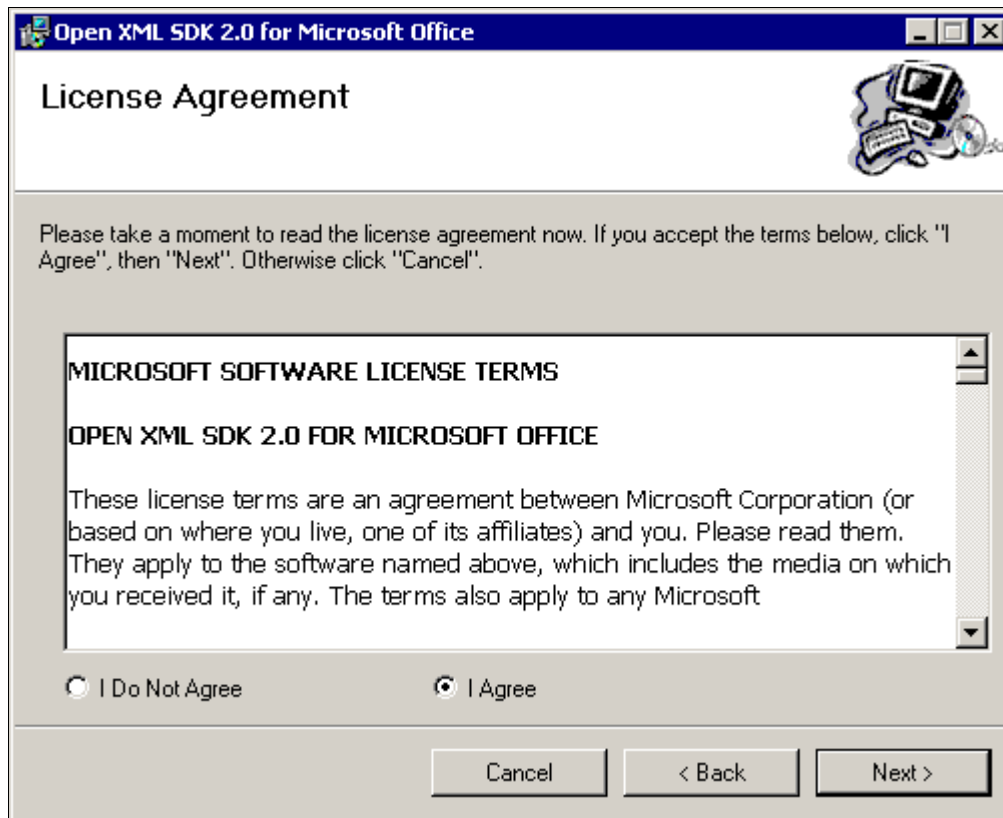
To install Microsoft Open XML SDK V2.0:

1. Go to *PS_HOME*\setup\OpenXmlSDK.
2. Run the OpenXMLSDKv2.msi file.
3. Click Next on the welcome window.



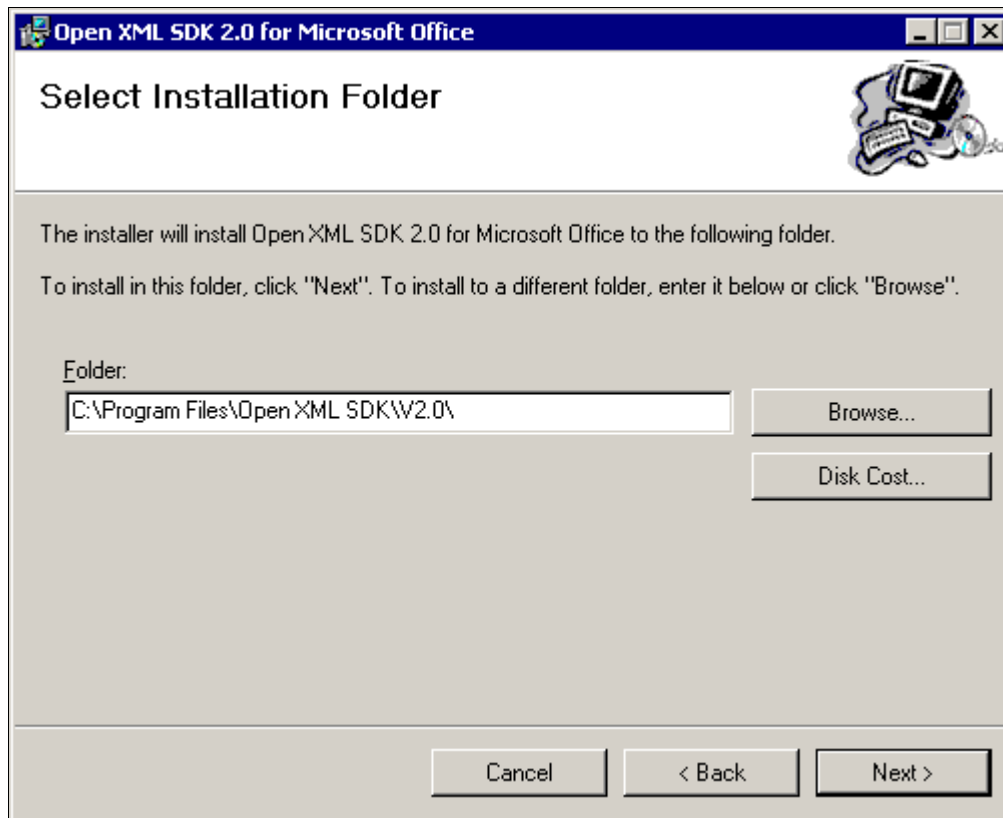
Microsoft Open XML SDK 2.0 welcome window

4. Review the license agreement, select the option I agree, and then click Next.



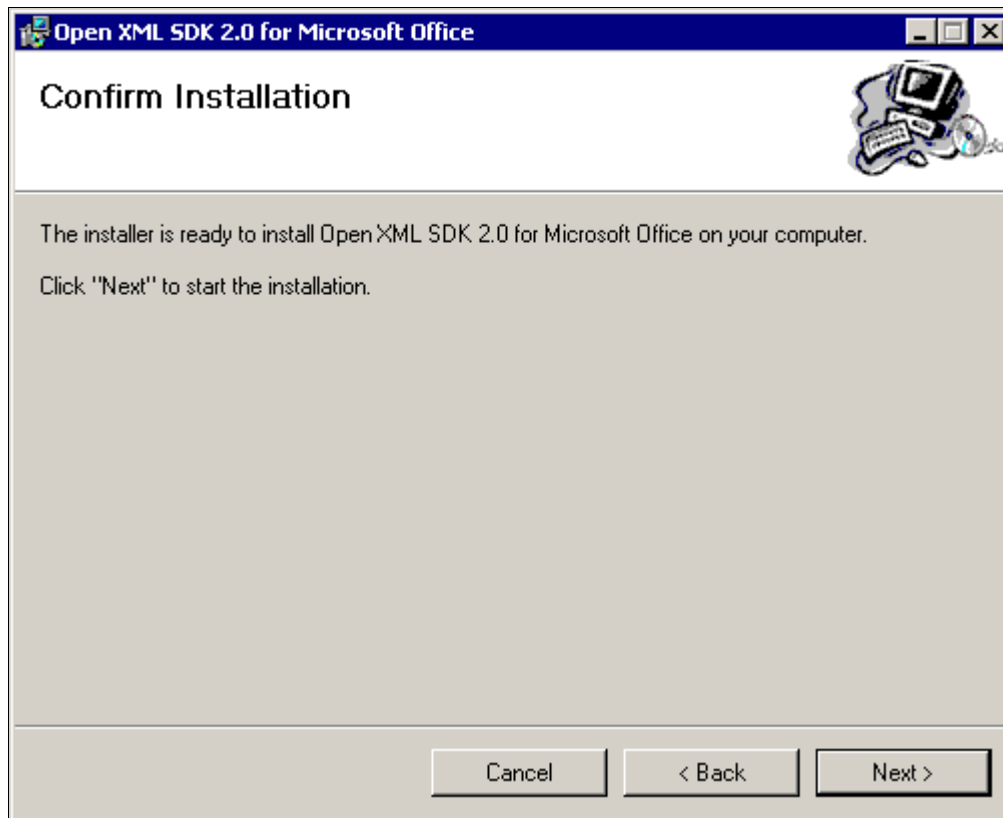
Microsoft Open XML SDK 2.0 License Agreement window

5. Accept the default location for the installation, C:\Program Files\Open XML SDK\V2.0, and then click Next.



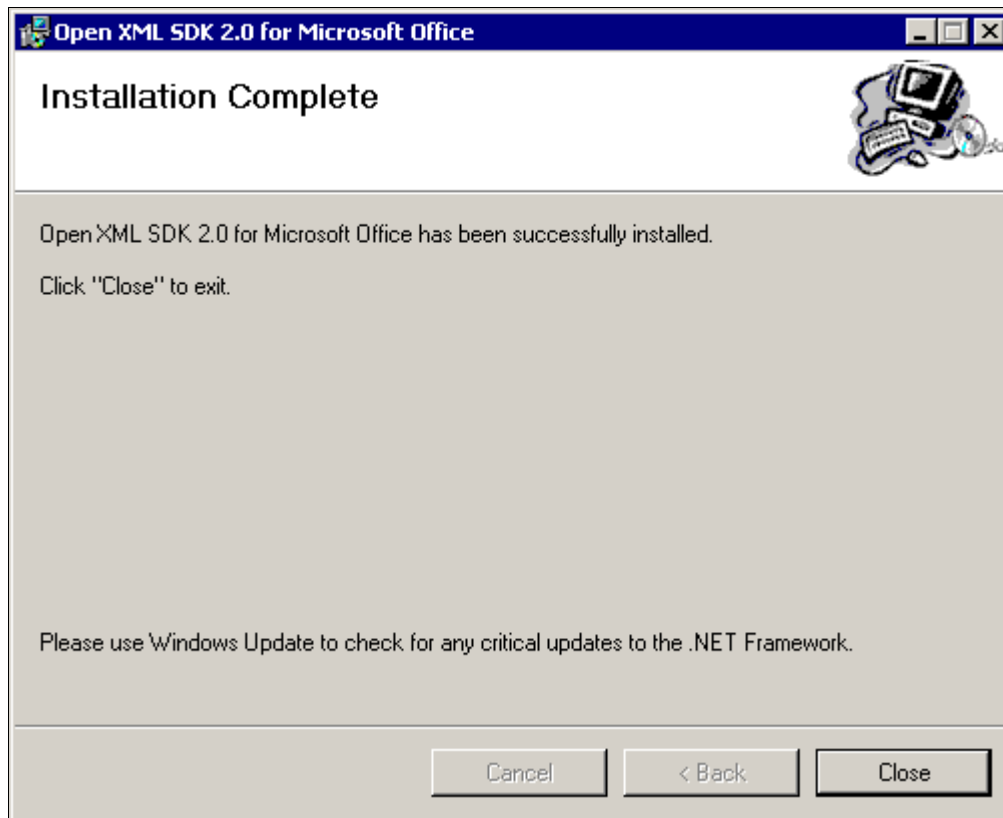
Microsoft Open XML SDK 2.0 Select Installation Folder window

6. Click Next on the Confirm Installation window to begin the installation.



Microsoft Open XML SDK 2.0 Confirm Installation window

7. Click Close when the installation is complete.



Microsoft Open XML SDK 2.0 Installation Complete window

Chapter 16

Installing PeopleSoft Change Assistant

This chapter discusses:

- Understanding PeopleSoft Change Assistant
- 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.

For the current PeopleSoft PeopleTools release, 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. Beginning with PeopleSoft PeopleTools 8.56, multiple instances of Change Assistant can run in parallel. However, you can not run multiple instances against the same target database.

See PeopleTools: Change Assistant and Update Manager, "Running Multiple Instances of Change Assistant."

- You must remove installations of PeopleSoft Change Assistant from PeopleSoft PeopleTools 8.55 or earlier before installing from the current release. PeopleSoft Change Assistant from PeopleSoft PeopleTools 8.56 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.

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 16-1: Installing PeopleSoft Change Assistant in Silent Mode

This section discusses:

- Understanding Silent Mode for PeopleSoft Change Assistant
- 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 8.56 will remove a Change Assistant installation from PeopleSoft PeopleTools 8.54 or earlier, and also install the 8.56 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 16-1-1: 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, for PeopleSoft PeopleTools 8.56 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, *changeassistantcfbak.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:

```
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 16-2: 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 16-2-1: 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 16-2-2: 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

Task 16-2-3: 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 16-2-4: 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 16-3: 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:

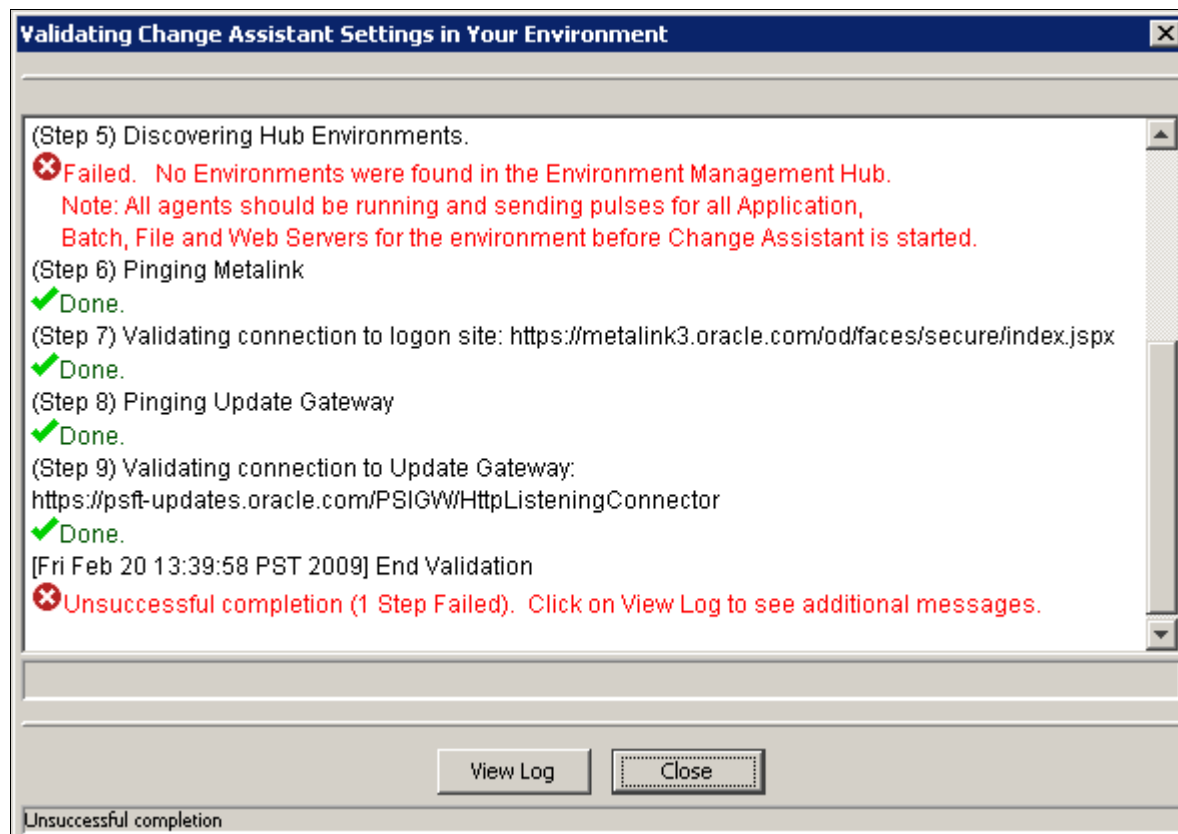
- Locating valid SQL query tools required to run SQL scripts.
- Testing the Environment Management hub and ensuring that PeopleSoft Change Assistant can communicate with it.
- Testing My Oracle Support and ensuring that PeopleSoft Change Assistant can communicate with it.

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.

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.

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_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-apls.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 SERVER-11
Done.
(Step 4) Connecting to Hub: http://SERVER-11:80/PSEMPUG/hub
Done.
(Step 5) Discovering Hub Environments.
Failed. No Environments were found in the Environment Management Hub.

```

Validation log

Chapter 17

Installing PeopleSoft Change Impact Analyzer

This chapter discusses:

- Prerequisites
- 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.
- You must install JDBC drivers for connectivity to your database platform. PeopleSoft Change Impact Analyzer uses Type 4 JDBC drivers by default.

You can normally obtain JDBC drivers from your RDBMS vendor. Search the vendor's web site or contact the vendor for information.

See Also

PeopleTools: Change Impact Analyzer

Task 17-1: 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*:

- *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 17-1-1: 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

Enter the full path to the JDBC driver for szPath.

```
##### 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.

```
##### 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:

```
installCIA.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 17-1-2: 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

```
installCIA.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 17-1-3: 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\setup\PsCIA\silentInstall-ResultCodes.rtf*.

Chapter 18

Adding New Product Modules

Task 18-1: Adding New Modules to PeopleSoft 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 installations:

1. Back up the database, file server, application server, Process Scheduler Server, and web server components of your current system.
2. Install the PeopleSoft Application software on the file server.
3. 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.

4. Select File, Database Setup and choose your database type in the resulting dialog.
5. Select Next and select add new product.
6. Select Finish and a Data Mover script will be generated in Data Mover.
7. Select File, Run script and your database updates are complete.
8. Install software to your batch server.

See the chapters on setting up Process Scheduler in this documentation.

9. Reapply all code customizations if needed.

Note. Remember to maintain backup copies of your customizations.

10. Compile and link COBOL.

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

11. 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.)

12. 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.

13. Shut down all application servers.

14. Install software to your application server.

See the chapters on configuring the Application Server in this documentation.

15. Restart all required application servers.

16. Shut down all web servers.

17. Install software to your web server.

See the chapters on setting up the PeopleSoft Pure Internet Architecture in this documentation.

Chapter 19

Installing PeopleSoft Online Help

This chapter discusses:

- Understanding PeopleSoft Online Help (PeopleBooks)
- Using the PeopleSoft Online Help Web Site for Context-Sensitive Help
- Configuring Context-Sensitive Help with Local Installations
- Installing PeopleSoft Online Help Locally

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.
- *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.

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).

- *Local installation:* Install and configure PeopleSoft Online Help so you can deploy the documentation at your site.

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 19-1: 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.

Task 19-1-1: 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.

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/pdfs/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\$](http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=UlinkID1&ctx=UlinkID2....&ctx=UlinkIDn)

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=pt856pbr1&ctx=hcm92pbr14

This example shows the Web Profile Configuration page with a sample help URL for PeopleSoft PeopleTools 8.56 and PeopleSoft HCM 9.2:

Web Profile Configuration

General | Security | Virtual Addressing | Cookie Rules | Authorized Site | Caching | Debugging

Profile Name: PROD [Save As ...] [View History]

Description: Installation Defaults

Authentication Domain: example.com ?

Help URL: w.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt856pbr1&ctx=hcm92pbr X ?

☒ Compress Responses ?

☒ Compress Response References ?

Compress Mime Types: application/x-javascript, text/javascript, text/css, text/html ?

☒ Compress Query ?

Save Confirmation Display Time: 3,000 Milliseconds ?

☒ Enable Processing Message ?

☒ Enable New Window ?

☐ Enable Print ?

☒ Enable PPM Agent ?

PPM Monitor Buffer Size: 51,200 KB ?

☐ Single Thread Netscape ?

Single Thread Delay: 1,000 Milliseconds ?

Non-standard Base Path: ?

Reports

☒ Enable Report Repository ?

Report Repository Path: ?

Compress Report Output

☒ All Browsers ?

☐ Exclude NetScape ?

☐ Do Not Compress ?

[Save] [Return to Search] [Previous in List] [Next in List] [Notify] [Previous tab] [Next tab] [Add] [Update/Display]

General | Security | Virtual Addressing | Cookie Rules | Authorized Site | Caching | Debugging | Look and Feel | Custom Properties

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.
7. Test the help functionality by clicking the Help icon on a PeopleSoft application page.

Task 19-1-2: 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=pt856pbr1

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/pdfs/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 19-2: 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

Task 19-2-1: 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 19-2-2: 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%
```

For example:

```
http://myserver:5080/pt855pbr0/help.html?ContextID=%CONTEXT_ID%&LangCD=>
%LANG_CD%
```

4. Save the page.

Task 19-2-3: 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 19-3: Installing PeopleSoft Online Help Locally

This section discusses:

- Prerequisites
- Obtaining the PeopleSoft Documentation Files from Oracle Software Delivery Cloud
- Deploying PeopleSoft Documentation Library on a WebLogic Server
- Removing the PeopleSoft Online Help Deployment
- Setting Up Help for Multiple Product Lines on the Same Machine

Prerequisites

Before installing the PeopleSoft online help:

- Obtain the installation file for the PeopleSoft Online Help from Oracle Software Delivery Cloud, as described in the next section.
- Install a supported web server and verify that it is up and running.

This task describes the steps for Oracle WebLogic on Microsoft Windows. However, you can use other web server software, such as IBM WebSphere.

- Install the Elasticsearch search utility and verify that it is up and running.

The "Search Utility for locally installed PeopleSoft Documentation" contains a customized version of Elasticsearch for PeopleSoft Online Help that is independent of the Elasticsearch that is used for the PeopleSoft search framework. The utility is available on Oracle Software Delivery Cloud in the same delivery package as the PeopleSoft online help documentation. The downloaded zip file includes a text file with instructions.

Note. For the sake of brevity, this task refers to the "Search Utility for locally installed PeopleSoft Documentation" as the "search utility."

- The PeopleSoft Online Help installation requires Java 8.

Task 19-3-1: Obtaining the PeopleSoft Documentation Files from Oracle Software Delivery Cloud

This section explains locating and using the installation files for PeopleSoft Online Help and the search utility, if you have not already done so. The files are included in the installation files for PeopleSoft applications and PeopleSoft PeopleTools.

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 *PeopleSoft PeopleTools* in the type-ahead Product field, and select PeopleSoft PeopleTools 8.56 for PSFT Application Products from the drop-down list.
3. If you want to obtain the PeopleSoft Online Help installation files for a PeopleSoft application, 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.
4. 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.
5. Click Continue two times.
6. Read the license agreement, select the check box to acknowledge that you accept the agreement, and then click Continue.
7. On the File Download window, select the links for the online help zip file and the search utility.
8. Download the zip files into a convenient local directory.

Task 19-3-2: Deploying PeopleSoft Documentation Library on a WebLogic Server

This task uses the PeopleSoft PeopleTools 8.56 documentation library as an example.

1. Create folder C:\PeopleBooks to serve as the documentation root.
2. Install and set up the search utility.

This section refers to the installation location as *SRCH_UTILITY_INSTALL*. Follow the instructions in the INSTALL.txt file included with the downloaded zip file to:

- Set up Elasticsearch for PeopleSoft Online Help
- Deploy Elasticsearch for PeopleSoft Online help search page

These instructions assume that you copy the psesssearch folder to C:\PeopleBooks.

3. Copy the zip file containing the PeopleSoft Online Help to C:\PeopleBooks, and extract into the same folder.
4. Create a folder WEB-INF under the C:\PeopleBooks folder.
5. In the WEB-INF folder create a file named "web.xml" that has the following content:

```
<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE web-app PUBLIC

"-//Sun Microsystems, Inc.//DTD Web Application 2.3//EN"

"http://java.sun.com/j2ee/dtds/web-app_2_3.dtd">

<web-app>

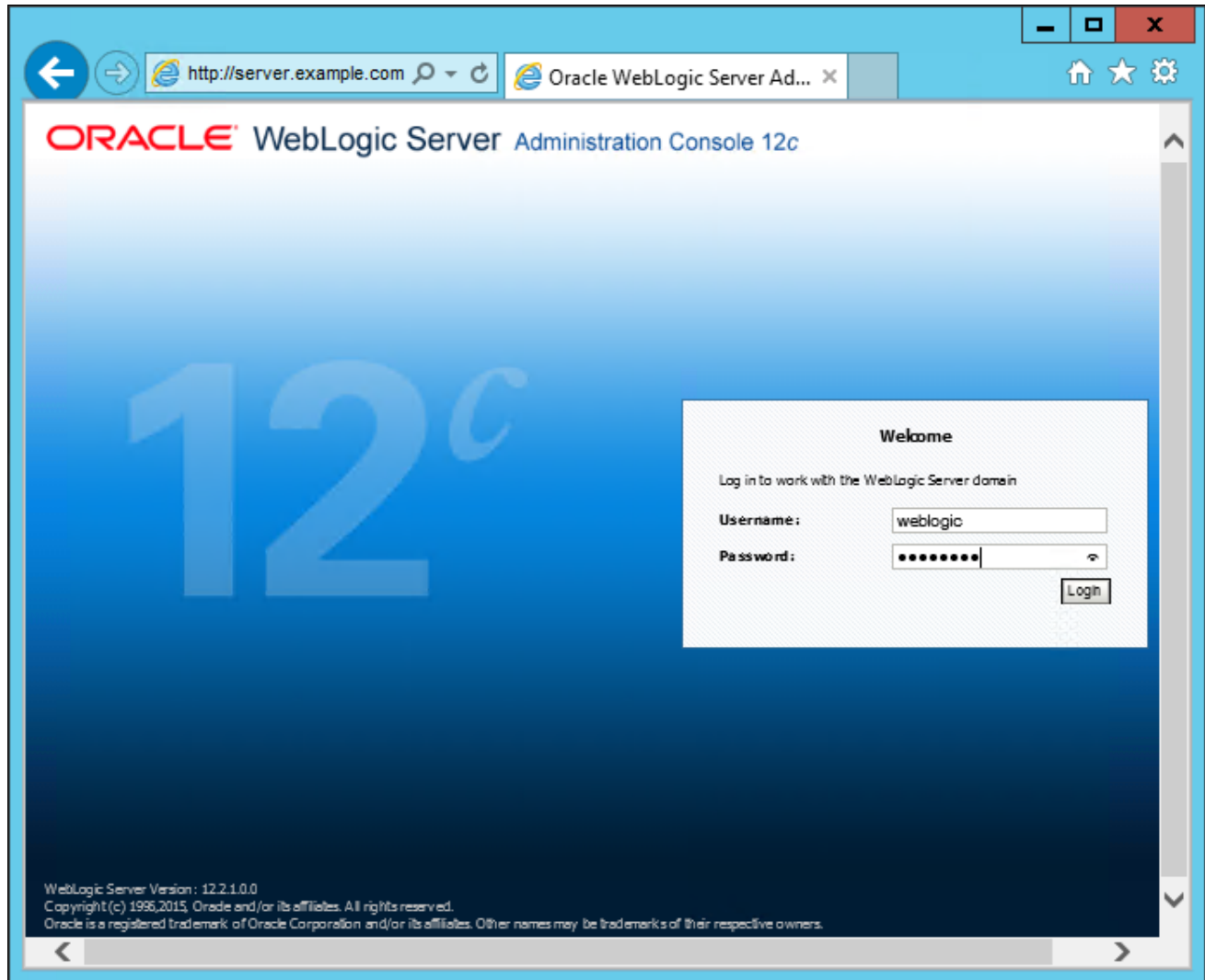
</web-app>
```

This allows Oracle WebLogic to recognize the C:\PeopleBooks folder as a valid deployment.

6. Open the Oracle WebLogic administration console by entering the following URL in a browser:

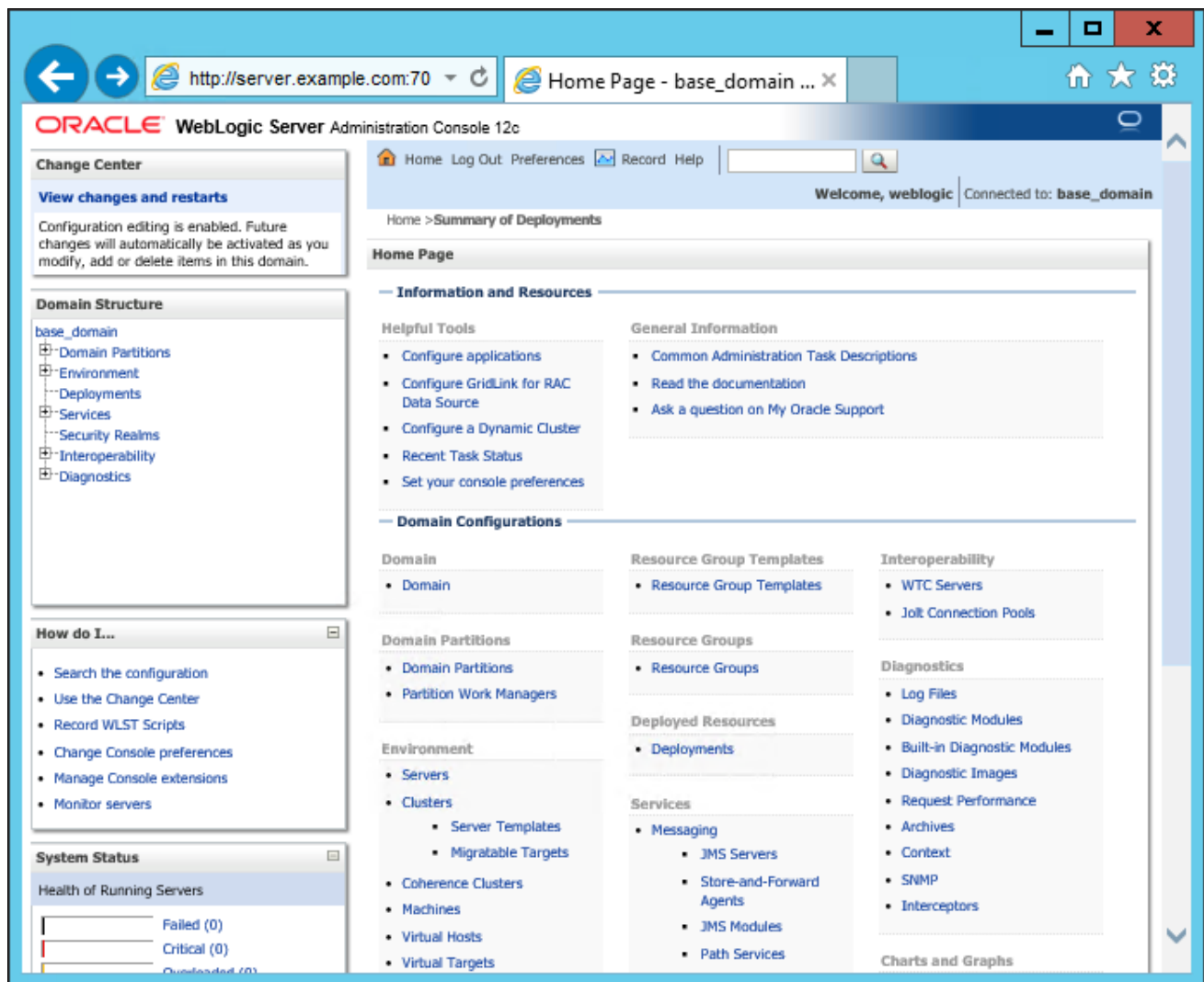
`http://<hostname>:7001/console`

7. Log in using Oracle WebLogic administrator credentials.



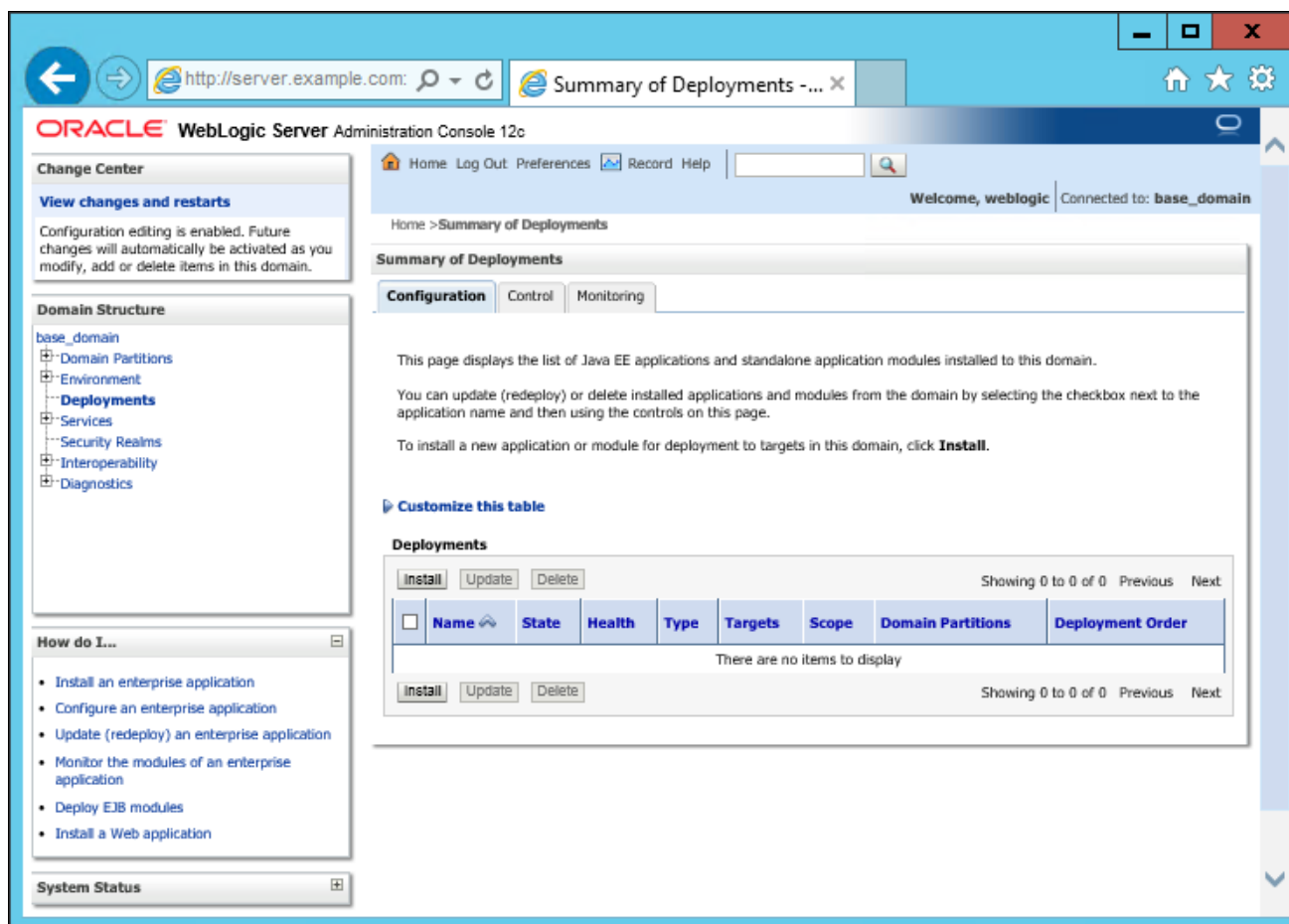
Oracle WebLogic Server Administration Console 12c

8. Select Deployments from the Domain Structure section on the left side of the window:



Oracle WebLogic Administration Console Home Page

9. Click Install on the Deployments section of the Configuration tab under Summary of Deployments.

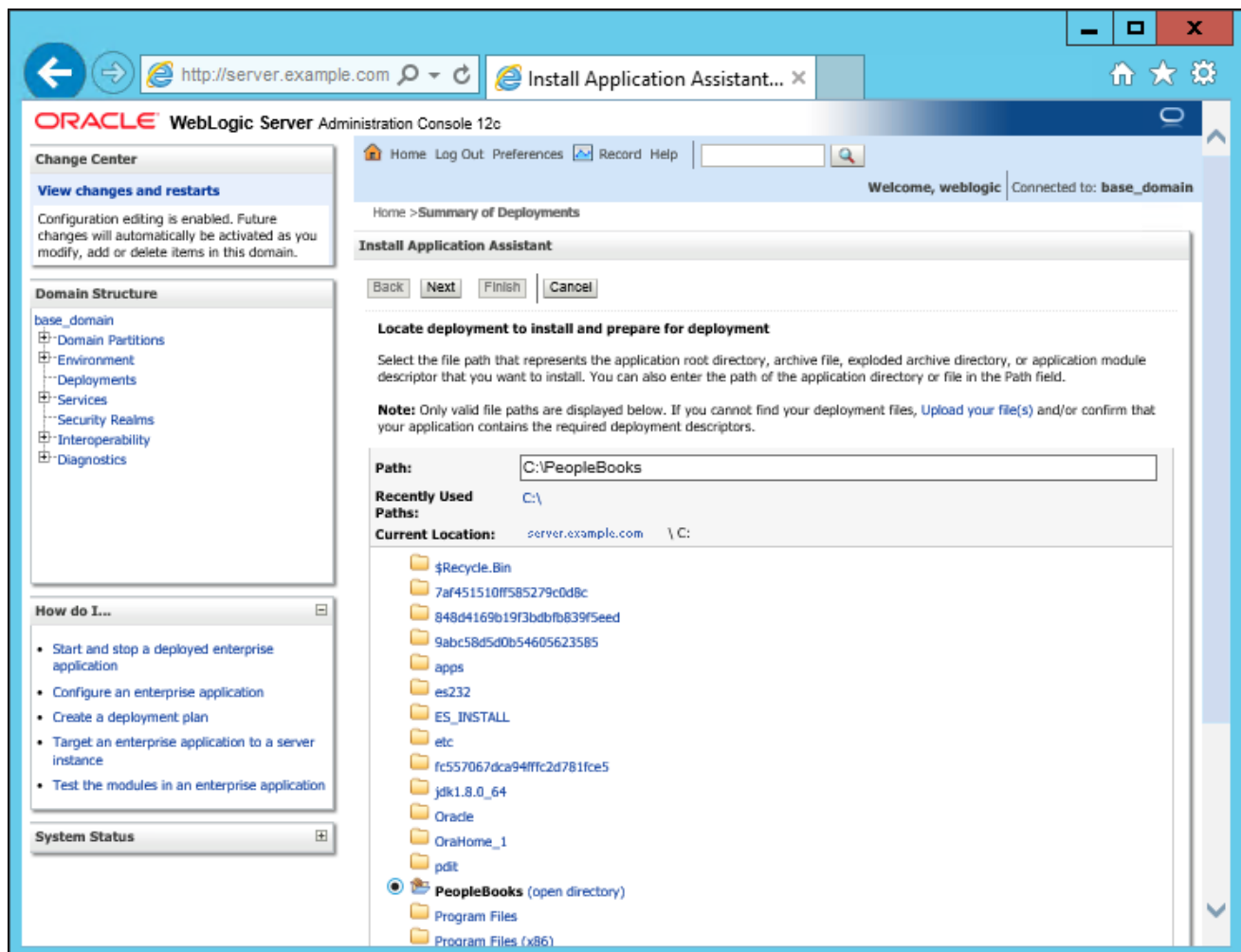


Configuration tab on the Summary of Deployments page

10. If necessary, enter C:\ for the path.

You see the computer directory structure. The entry for PeopleBooks includes a radio button indicating that this folder can be deployed as an application.

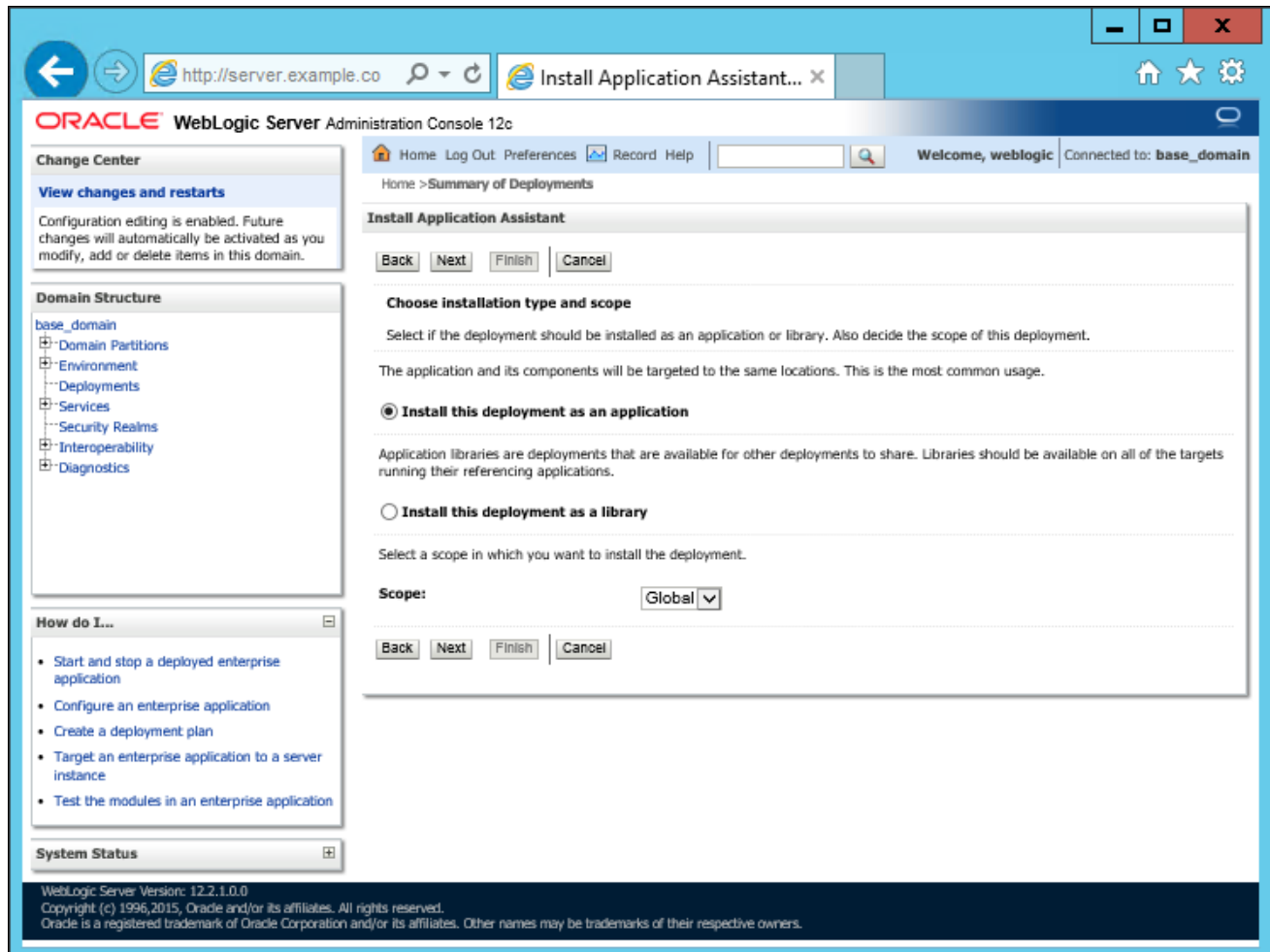
11. Select PeopleBooks (open directory) and then click Next.



Locate deployment to install and prepare for deployment page

12. On the Choose installation type and scope window, select Installation type as an application and Scope Global.

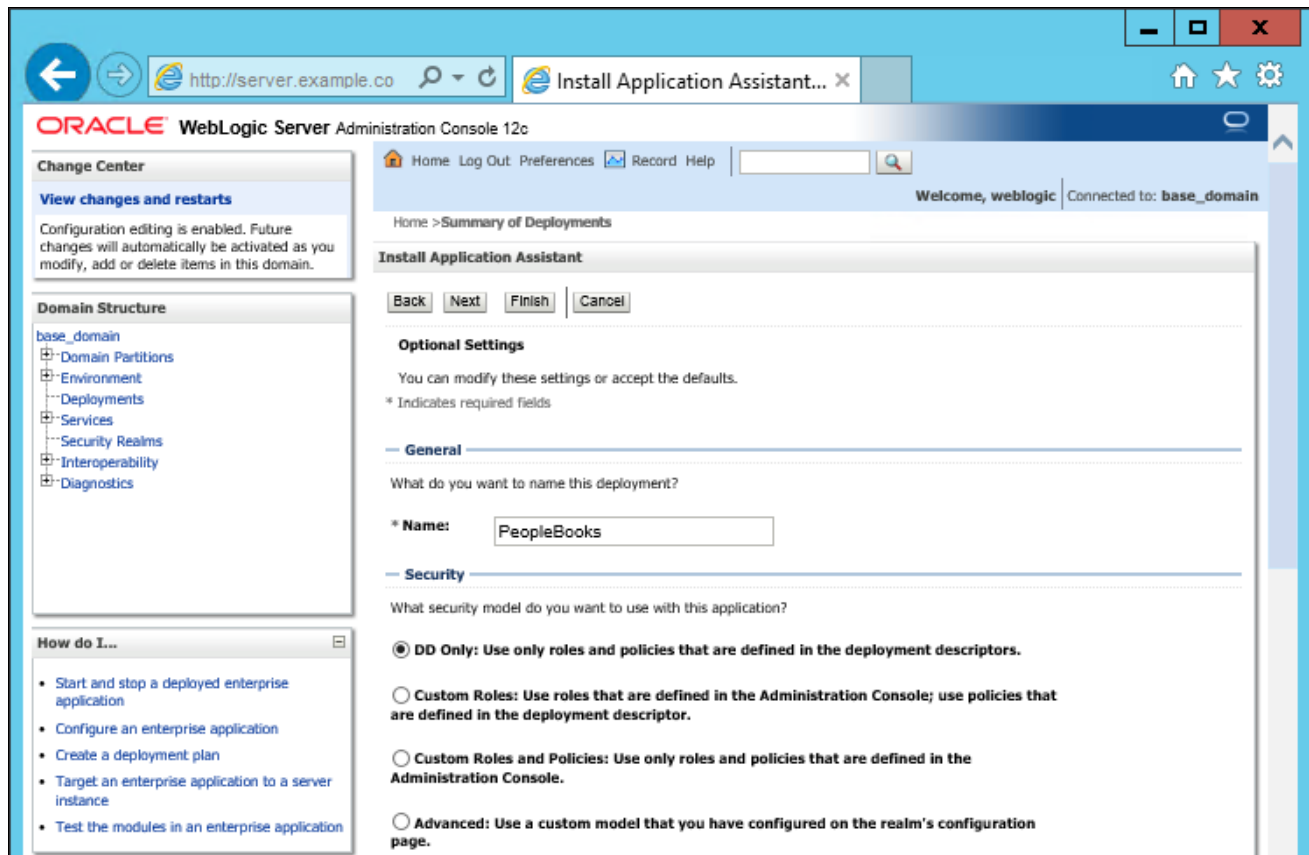
Click Next.



Choose installation type and scope page

13. Accept the default entries on the Optional Settings page, and click Next.

The page includes sections General, Security, Source Accessibility, and Plan Source Accessibility.



Top section of the Optional Settings page

Instance

- Test the modules in an enterprise application

System Status

Advanced: Use a custom model that you have configured on the realm's configuration page.

Source Accessibility

How should the source files be made accessible?

☒ Use the defaults defined by the deployment's targets

Recommended selection.

☐ Copy this application onto every target for me

During deployment, the files will be copied automatically to the Managed Servers to which the application is targeted.

☐ I will make the deployment accessible from the following location

Location:

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Plan Source Accessibility

How should the plan source files be made accessible?

☒ Use the same accessibility as the application

Recommended selection.

☐ Copy this plan onto every target for me

During deployment, the plan files will be copied automatically to the Managed Servers to which the application is targeted.

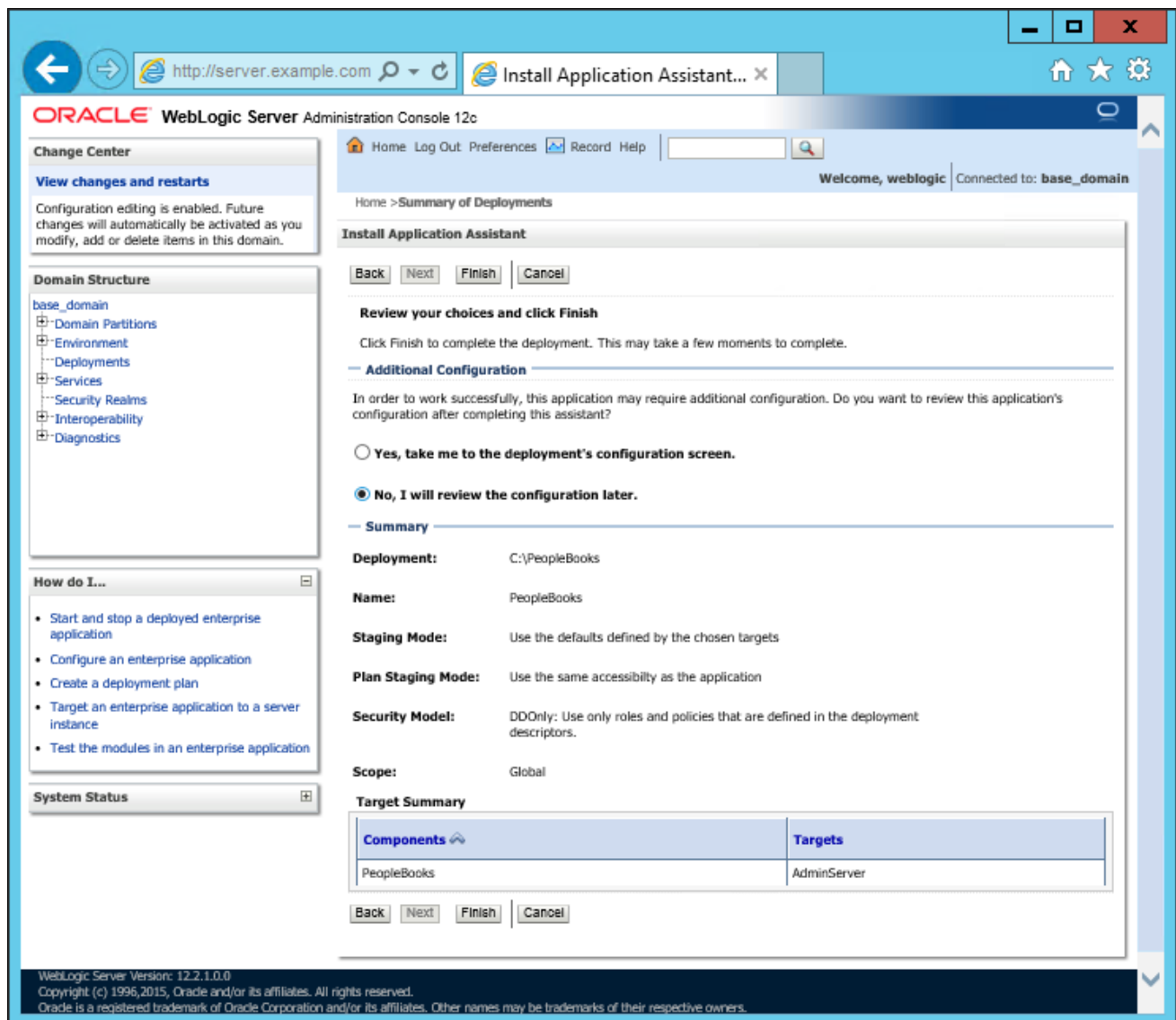
☐ Do not copy this plan to targets

You must ensure the plan files exist in the shared location and that each target can reach the location.

Back Next Finish Cancel

Bottom section of the Optional Settings page

14. Review the summary, select No, I will review the configuration later, and then click Finish.



Review your choices and click Finish page

15. Verify that PeopleBooks appears in the Deployments list on the Summary of Deployments page.

The page includes messages indicating that all changes have been activated and the deployment has been successfully deployed.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Deployments

Messages

- ✓ All changes have been activated. No restarts are necessary.
- ✓ The deployment has been successfully installed.

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

To install a new application or module for deployment to targets in this domain, click **Install**.

[Customize this table](#)

Deployments

Install Update Delete Showing 1 to 1 of 1 Previous Next

<input type="checkbox"/>	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
<input type="checkbox"/>	PeopleBooks	Active	OK	Web Application	AdminServer	Global		100

Install Update Delete Showing 1 to 1 of 1 Previous Next

System Status

WebLogic Server Version: 12.2.1.0.0
Copyright (c) 1996, 2015, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Summary of Deployment page

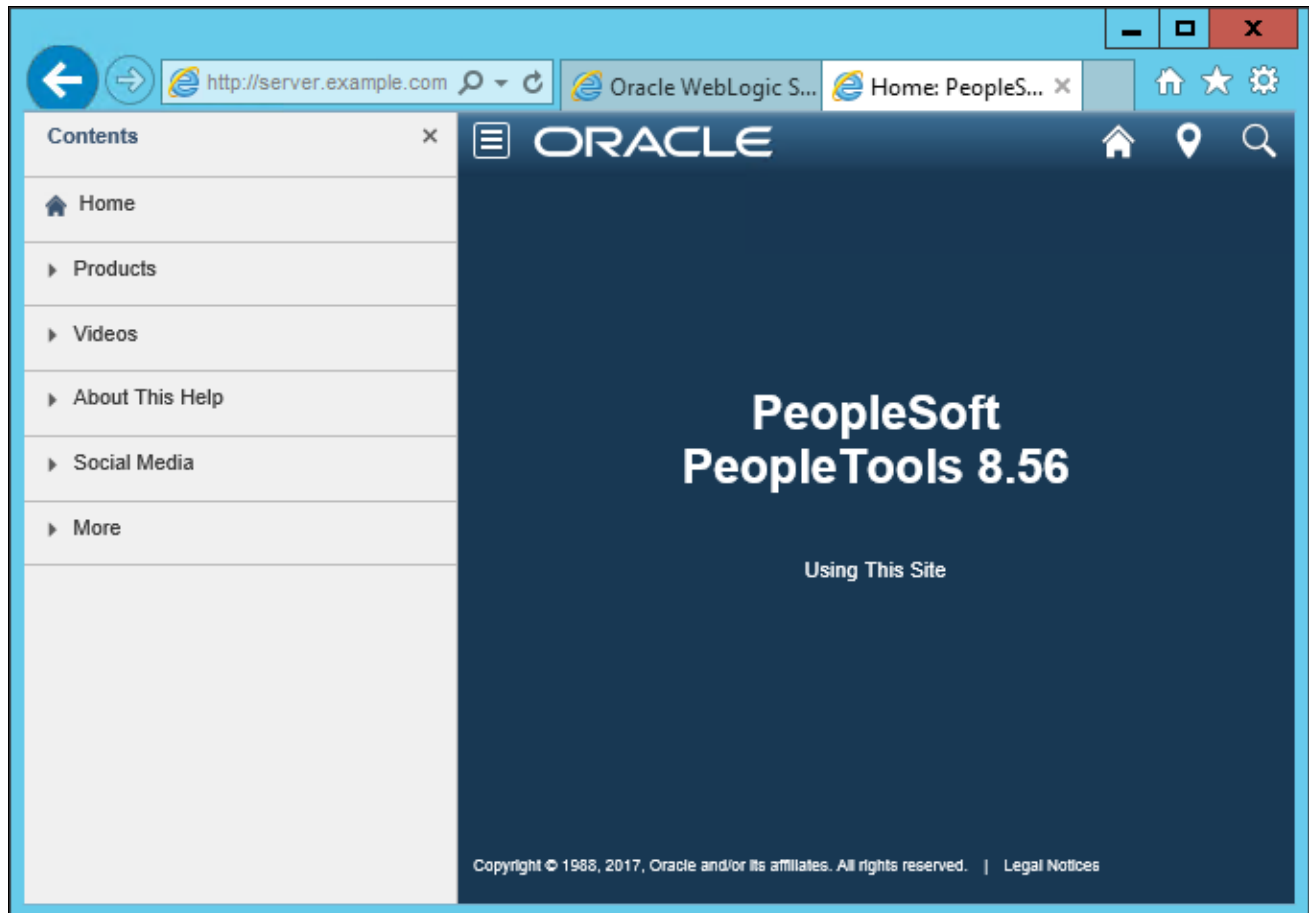
16. Log out of the Oracle WebLogic Administration console.

17. Verify that you can access the PeopleSoft Online Help by entering this URL in a browser:

`http://<hostname>:<weblogic port>/PeopleBooks/<library name>/eng/<product family>/index.html`

Enter the fully qualified machine name for `<hostname>`, the Oracle WebLogic port for `<weblogic port>`. Enter the PeopleSoft documentation library name (that is, the name of the folder extracted from the downloaded zip file) for `<library name>`. The `<product family>` is an abbreviation for the PeopleSoft product, such as `pt` for PeopleSoft PeopleTools. For example, this URL displays the PeopleSoft PeopleTools 8.56 documentation home page:

`http://server.example.com:7001/PeopleBooks/pt856pbr1/eng/pt/index.html`



PeopleSoft PeopleTools 8.56 Online Help Home Page

18. Crawl the online help site.

See the instructions in `INSTALL.txt`.

- a. In a command prompt, change directory to `SRCH_UTILTY_INSTALL/pscrawler`.
- b. Run this command:

```
crawler.<ext> <elasticsearch host> <elasticsearch port> index =>
<online help URL>
```

For example, on Microsoft Windows:

```
crawler.bat hostname.example.com 9260 index http:=>
//hostname.example.com:7001/PeopleBooks/pt856pbr1/eng/pt/index.html
```

For example, on UNIX:

```
./crawler.sh hostname.example.com 9260 index http:⇒
//hostname.example.com:7001/PeopleBooks/pt856pbr1/eng/pt/index.html
```

19. To enable search capability on the PeopleSoft Online Help pages so that when you click the search icon, the PeopleSoft Online Help Search Console appears:

- a. Locate the common.js file and open it for editing.

Using the folder structure used in this task as an example, the common.js file is located in C:\PeopleBooks\<library name>.js.

- b. Edit the variables searchURL, searchOpt and queryTextParamName.

For example:

```
var searchURL = "/PeopleBooks/psessearch/index.html";
var altHelpURL = "";
var searchOpt = "product=PeopleSoft PeopleTools 8.56";
var queryTextParamName = "query"; //q
```

For more information on using locally installed online help, see About This Help. From the PeopleSoft PeopleTools Online Help site, select About This Help from the Contents frame. Then select Managing Locally Installed PeopleSoft Online Help, Enabling the Search Button and Field.

Task 19-3-3: Removing the PeopleSoft Online Help Deployment

Use this procedure if you need to remove the deployed PeopleSoft Online Help to redeploy or upgrade. You must first remove the deployment from the Oracle WebLogic administration console, and then remove the index in the search crawler.

1. If the PeopleSoft Online Help or the search console are open, close them.
2. Log in to the Oracle WebLogic administration console using Oracle WebLogic administrator credentials.
3. Select Deployments from the Domain Structure section on the left side of the window:

4. Select the check box beside the PeopleBooks deployment, and click Delete.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar displays `http://server.example.com`. The page title is "Summary of Deployments - ...". The console header includes "ORACLE WebLogic Server Administration Console 12c" and navigation links like Home, Log Out, Preferences, Record, and Help. A sidebar on the left contains a "Domain Structure" tree with "base_domain" expanded, showing "Domain Partitions", "Environment", "Deployments" (selected), "Services", "Security Realms", "Interoperability", and "Diagnostics".

The main content area is titled "Summary of Deployments" and has tabs for "Configuration", "Control", and "Monitoring". It contains instructions: "This page displays the list of Java EE applications and standalone application modules installed to this domain. You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page. To install a new application or module for deployment to targets in this domain, click **Install**."

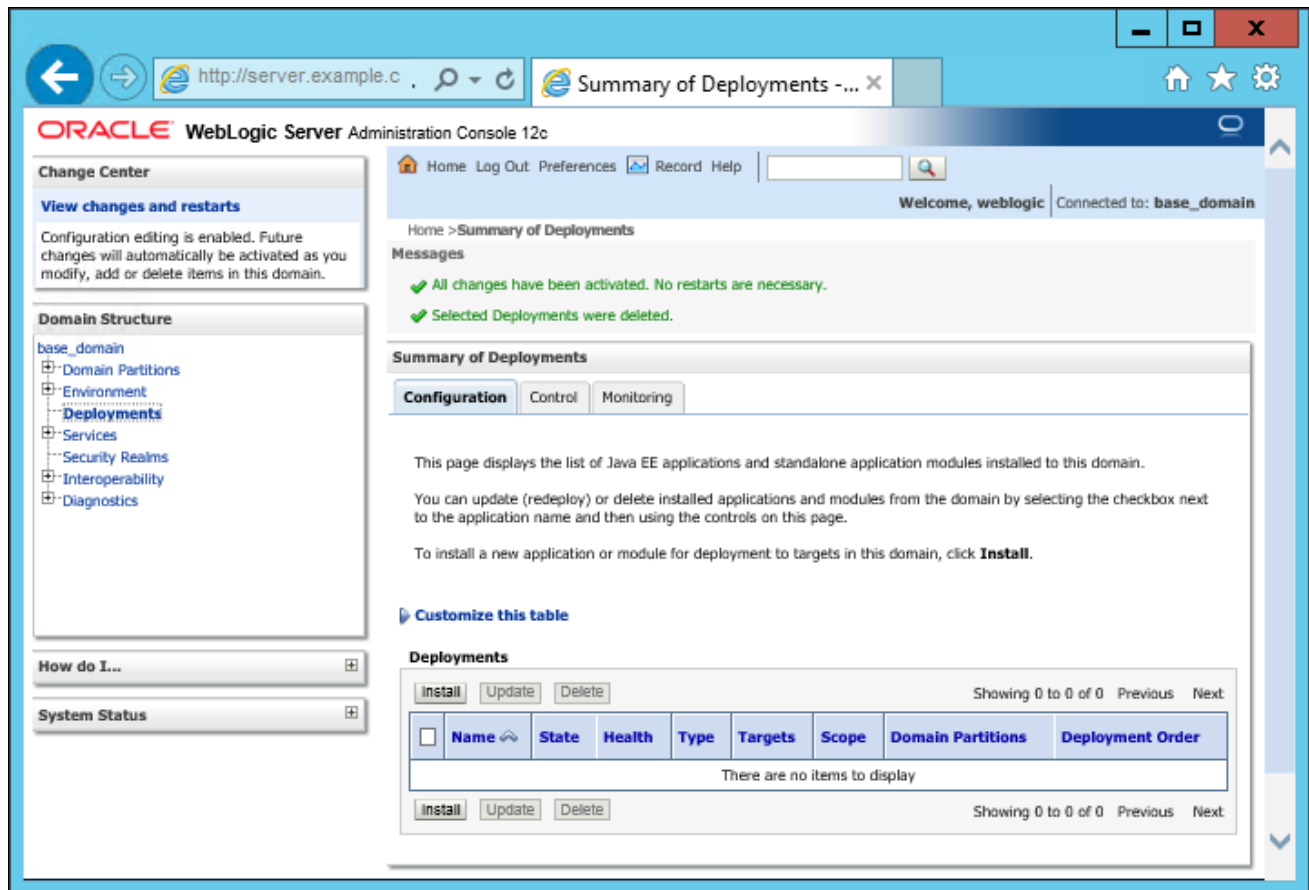
Below the instructions is a "Customize this table" link and a "Deployments" section. It includes "Install", "Update", and "Delete" buttons. A table lists the deployments, with "PeopleBooks" selected. The table has columns: Name, State, Health, Type, Targets, Scope, Domain Partitions, and Deployment Order.

<input checked="" type="checkbox"/>	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
<input checked="" type="checkbox"/>	PeopleBooks	Active	OK	Web Application	AdminServer	Global		100

Below the table are "Install", "Update", and "Delete" buttons. The page footer shows "WebLogic Server Version: 12.2.1.0.0" and copyright information.

Summary of Deployment page with PeopleBooks deployment selected

5. Wait until you see messages saying the deployment was removed.
Verify that PeopleBooks does not appear in the Deployments section.



Summary of Deployments page after PeopleBooks deployment was removed

6. Log out of the Oracle WebLogic administration console.
7. Open a command prompt and change directory to the location where the search utility was installed; for example:

```
cd SRCH_UTILITY_HOME\pscrawler
```
8. Run this command to remove the search index:

```
crawler.bat <elasticsearch host> <elasticsearch port> delete <product>
```

Enter the fully qualified machine name for *<elasticsearch host>*, the search engine port for *<elasticsearch port>*, and the PeopleSoft product name for *<product>*. For example:

```
crawler.bat server.example.com 9260 delete "PeopleSoft PeopleTools 8.56"
```
9. Wait until the process is complete, as indicated by "Deletion completed"

```
SUCCESS: Specified value was saved.
Checking for running Elasticsearch instance
Starting deletion of product-PeopleSoft PeopleTools 8.56
Deletion completed
```

Task 19-3-4: Setting Up Help for Multiple Product Lines on the Same Machine

Use these steps if you want to deploy multiple product line online help sites, such as PeopleSoft PeopleTools and Financials/Supply Chain Management (FSCM) on a single server.

This section assumes that you have set up a web server and the search utility as previously mentioned.

1. Extract the contents of the documentation library zip file for product line 1 (for example, pt856pbr1.zip) to the web server folder where the pssesearch folder resides, for example, C:\PeopleBooks.
2. Extract the contents of the documentation library zip file for product line 2 (for example, fscm92pbr13.zip) to the same folder where the product line 1 was extracted.
3. Repeat step 2 for other product lines as needed. The contents of the Web server folder includes these folders (plus others depending upon your web server):

```
C:\PeopleBooks\fscm92pbr13
C:\PeopleBooks\pssesearch
C:\PeopleBooks\pt856pbr1
```

4. Open a command prompt and change directory to the location where the search utility was installed.

For example, on Microsoft Windows:

```
cd SRCH_UTILITY_HOME\pscrawler
```

For example, on UNIX:

```
cd SRCH_UTILITY_HOME/pscrawler
```

5. Run this command for each product line:

```
crawler.<ext> <elasticsearch host> <elasticsearch port> index <online>
help URL>
```

For example, to crawl FSCM and PT on Microsoft Windows:

```
crawler.bat server.example.com 9260 index http://server.example.com⇒
/PeopleBooks/pt856pbr1/eng/pt/index.html
crawler.bat server.example.com 9260 index http://server.example.com⇒
/PeopleBooks/fscm92pbr13/eng/fscm/index.html
```

- Use .bat for <ext> on Microsoft Windows, and .sh on UNIX.
- Enter the fully qualified machine name for the online help web server <elasticsearch host>
- Enter the search engine port for <elasticsearch port>.
- The <online help URL> is the URL used to view the documentation home page.

6. Locate the common.js file and open it for editing.

Using the folder structure used in this task as an example, the common.js file is located in C:\PeopleBooks\<library name>.js.

7. For all product lines, edit the variables searchURL, searchOpt and queryTextParamName.

For example, for product line 1, pt856pbr1:

```
var searchURL = "/PeopleBooks/pssesearch/index.html"; // "http://host:⇒
port/search/query";
```



```

var altHelpURL = ""; //"http://www.oracle.com/pls/topic/lookup?id=>
%CONTEXT_ID%&ctx=hcm92pbr6"
                        //"http://host/path/help.html?ContextID=%CONTEXT_>
ID%&LangCD=%Lang%
var searchOpt = "product=PeopleSoft PeopleTools 8.56";           //group=>
pt853
var queryTextParamName = "query"; //q

```

For product line 2, fscm92pbr13:

```

var searchURL = "/PeopleBooks/psessesearch/index.html";  //"http://host:>
port/search/query";
var altHelpURL = ""; //"http://www.oracle.com/pls/topic/lookup?id=>
%CONTEXT_ID%&ctx=hcm92pbr6"
                        //"http://host/path/help.html?ContextID=%CONTEXT_>
ID%&LangCD=%Lang%
var searchOpt = "product=PeopleSoft Financials and Supply Chain=>
Management 9.2";           //group=pt853
var queryTextParamName = "query"; //q

```


Chapter 20

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.

Task 20-1: 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 20-1-1: 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.

Task 20-2: 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 20-2-1: Installing the nVisionDrill Add-in for Microsoft Excel

To install the nVisionDrill VSTO add-in for Microsoft Excel:

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 20-3: 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 20-4: 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.

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:

Gateways

Gateway ID: LOCAL [Inbound Gateways](#)

☒ Local Gateway ☐ Load Balancer

URL:

[Gateway Setup Properties](#)

Connectors				Personalize Find First 1-9 of 9 Last	
	*Connector ID	Description	*Connector Class Name	Properties	
1	AS2TARGET		AS2TargetConnector	Properties	+ -
2	FILEOUTPUT		SimpleFileTargetConnector	Properties	+ -
3	FTPTARGET		FTPTargetConnector	Properties	+ -
4	GETMAILTARGET		GetMailTargetConnector	Properties	+ -
5	HTTPTARGET		HttpTargetConnector	Properties	+ -
6	JMSTARGET		JMSTargetConnector	Properties	+ -
7	PSFT81TARGET		ApplicationMessagingTargetConnector	Properties	+ -
8	PSFTTARGET		PeopleSoftTargetConnector	Properties	+ -
9	SMTPTARGET		SMTPTargetConnector	Properties	+ -

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.

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.

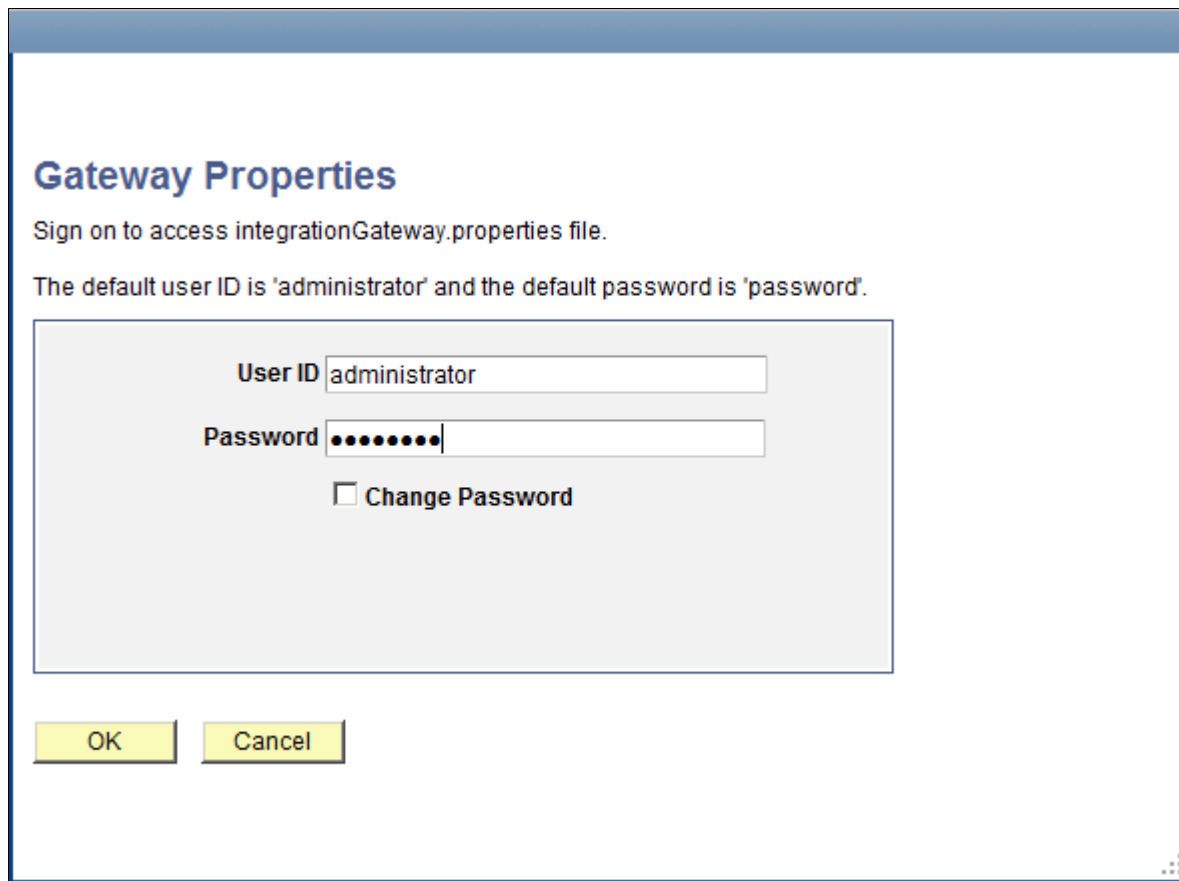
Select the same Integration Gateway ID that you chose in step 1.

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 to access integrationGateway.properties file.

The default user ID is 'administrator' and the default password is 'password'.

User ID: administrator

Password:

☐ Change Password

OK Cancel

Gateway Properties sign on page

11. Add a new node in the PeopleSoft Node Configuration page.

PeopleSoft Node Configuration

URL: http://webs07.dom1.com:8000/PSIGW/PeopleSoftListeningConnector

Gateway Default App. Server

App Server URL: //<machine name>:<jolt port> User ID: <database user> Password: Tools Release: <peopletools> Domain Password: Virtual Server Node:

PeopleSoft Nodes Customize | Find | View All | First 1 of 1 Last

Node Name	App Server URL	User ID	Password	Tools Release	Domain Password	
\$NODENAME	//<machine name>:<jolt port>	<database user>	<peopletools>	Ping Node + -

[Advanced Properties Page](#)

OK Cancel Save

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*.

Chapter 21

Installing Web Application Deployment Tools

This chapter discusses:

- Prerequisites
- 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 platforms.

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 sometimes used to refer to all UNIX-like operating systems, including IBM AIX, Linux, HP-UX, and Oracle Solaris for SPARC. For the most up-to-date information on operating system support for your database platform, see the Certification information on My Oracle Support.

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 8 must be installed and working properly. Your PATH environment variable must include an entry for Java 8 (for example, `<java>/bin`). If you do not install Java 8 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 12.2.1 must be installed.

If you use IBM WebSphere as your web server, you must fulfill these requirements:

- Java 8 or above must be installed and working properly.
- The PeopleSoft web server must be selected for installation during the PeopleSoft PeopleTools installation.
- IBM WebSphere 9.0.0.0 must be installed. The web server must be up and running when you carry out the

Web Application Deployment tool installation.

- The PeopleSoft Pure Internet Architecture must be installed on IBM WebSphere.
- If you are running on UNIX, 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 21-1: 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.

Task 21-1-1: 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. To exclude sections that are not needed, begin the line with a pound sign (#).

The sample response file template includes the following sections:

- Comments and instructions, including the command to run the silent installation, and the proper syntax for specifying paths in Microsoft Windows or UNIX.

```
# *****
#
# Response file for WebAppDeploy Installations
#
# 1. In Windows
# use "\\" as file path separator
#   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 separator
#   Go to PS_HOME/setup/PsMpWebAppDeployInstall and run following⇒
#   commands
#   setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
#
# *****
```

- The directory where you want to deploy the web server domain for the Web Application Deployment. The default directory is *PS_CFG_HOME*.

```
# 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=
```

- A name for the Web Application Deployment domain, such as PSWebApp.
Use a fully qualified domain name, and do not use an IP address.

Note. 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.

```
# Domain Name
DOMAIN_NAME=PSWebApp
```

- The web server type, either Oracle WebLogic or IBM WebSphere.

```
# Web server type. Possible values are "weblogic", "websphere"
SERVER_TYPE=weblogic
```

- The root directory where you installed Oracle WebLogic or IBM WebSphere.

In this example, the Oracle Websphere section is excluded:

```
# WebLogic home, the location where Oracle WebLogic is installed (for⇒
# WebLogic deployment only)
BEA_HOME=C:\oracle
```

```
# WebSphere Home, the location where IBM WebSphere is installed (for Web⇒
# Sphere deployment only)
```

```
#WS_HOME=
```

- The login ID and password for the new web server domain that you are creating.

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.

```
# admin console user id/password for securing WebLogic/WebSphere admin⇒
  console credential
USER_ID=system
USER_PWD=
USER_PWD_RETYPE=
```

- The HTTP and HTTPS port numbers.

Do not use the same values that you used for the HTTP and HTTPS ports when setting up the PeopleSoft Pure Internet Architecture.

```
HTTP_PORT=8000
HTTPS_PORT=4430
```

- The domain type and install action values in the sample response file are mandatory.

Do not change these parameters.

```
# 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
```

- The installation configuration

```
# Install type to specify whether the installation is a single server or⇒
  multi server deployment,
# possible values for INSTALL_TYPE are singleserver, multiserver,⇒
  distributedmanagedserver
INSTALL_TYPE=singleserver
```

- Singleserver (Single Server Domain) — This configuration is intended for single user or very small scale, non-production environments.
- Multiserver (Multi-Server Domain) — This configuration is intended for a production environment.
- Distributedmanagedserver (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.

- The PS_APP_HOME location.

Note that the DPK installation requires that the *PS_APP_HOME* location be different from the *PS_HOME* location; that is, a decoupled *PS_APP_HOME*.

```
# 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=

- Information about your database.

```
# 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=
```

- DB_TYPE — The RDBMS type
- DB_SERVER_NAME — The name of the machine that is hosting the database
- DB_PORT — Consult with your database administrator for the correct port number.
- DB_SERVER_INSTANCE — the database name.
- DB_USER — The user name for the database.
- DB_PASSWORD — The password for the database user.

Task 21-1-2: 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.
 - 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:\WLS1221*.
 - 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:\pt856\setup\PSMpWebAppDeploy⇒
```

Install

5. On UNIX, 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/pt856/setup/PsMpWebAppDeploy⇒  
Install
```

Task 21-2: 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.

Chapter 22

Synchronizing the ACCESSID User

This chapter discusses:

- Understanding the ACCESSID User Synchronization
- Creating the ACCESSID
- Updating the ACCESSID Information

Understanding the ACCESSID User Synchronization

The following procedure applies only to Microsoft SQL Server customers upgrading from PeopleSoft PeopleTools 8.49 or earlier to PeopleSoft PeopleTools 8.50 or later. This procedure must be run by both a PeopleSoft administrator and the DBA for a PeopleSoft database. No other user should run this procedure.

As of PeopleSoft PeopleTools 8.50, the ACCESSID user does not have administrator privileges and is not the database owner. After completing the upgrade process to PeopleSoft PeopleTools 8.50 or later, customers utilizing Microsoft SQL Server need to update their ACCESSID user. The ACCESSID user is the database user utilized by PeopleSoft applications to access all the data for all the application users. The following instructions will guide you on creating the new ACCESSID and then enabling the new ACCESSID.

See Also

PeopleTools: Security Administration

PeopleTools: Data Management

"Preparing for Installation," Planning Database Creation

Task 22-1: Creating the ACCESSID

Create the new ACCESSID by editing, and then running *PS_HOME\scripts\CREATE_ACCESSID.sql*. This script must be executed by both a database administrator and a PeopleSoft administrator. Once the new ACCESSID is defined you must update the PeopleSoft metadata using the instructions in the next section in order to be able to log in to the database using your PeopleSoft user ID.

Task 22-2: Updating the ACCESSID Information

Use these instructions after running *CREATE_ACCESSID.SQL* to update the PeopleSoft metadata:

1. Run Data Mover in bootstrap mode.

To access Data Mover in bootstrap mode log in with the database user utilized to create the database. This

user is the database owner or dbo and should have all the necessary permissions to access the database with Data Mover without the need to grant any additional permissions.

Note. Use the newly created ACCESSID to log in.

2. Execute *PS_HOME*\scripts\UPDATE_ACCESS.dms.

This script updates the catalog information and re-encrypts the ACCESSID password. Running this script updates the necessary tables to utilize the new ACCESSID defined by CREATE_ACCESSID.sql.

3. Launch Application Designer and verify it is possible to log in to the database with the new ACCESSID.
4. Make sure the Connect ID information in the Configuration Manager is updated and the Data Source information is updated utilizing the ODBC Data Source Administrator.

When you connect to the database with Application Designer utilizing the new ACCESSID you validate that the update was successful. In case an error is found please verify the configuration information at Configuration Manager or run a trace to verify if there is a connection problem.

Chapter 23

Upgrading to Microsoft SQL Server 2012

This chapter discusses:

- Understanding the Upgrade to Microsoft SQL Server 2012
- Preparing to Migrate
- Upgrading a PeopleSoft Database from Microsoft SQL Server 2008 to Microsoft SQL Server 2012
- Setting Up the Migrated Database

Understanding the Upgrade to Microsoft SQL Server 2012

This chapter provides pointers for migrating a PeopleSoft application database from Microsoft SQL Server 2008 to Microsoft SQL Server 2012. The following instructions are not intended as a replacement to the Microsoft SQL Server Books Online documentation. Make sure you read and understand the migration instructions and process provided in the SQL Server Books Online (Upgrading to SQL Server 2012) before attempting any database migration from Microsoft SQL Server 2008 to Microsoft SQL Server 2012. Another tool that may help on your migration efforts is the "Upgrade Advisor Wizard" provided by Microsoft.

In addition, please read the chapter "Installing Microsoft SQL Server 2012" which provides information on installing Microsoft SQL Server 2012 for PeopleSoft applications. Also refer to SQL Server 2008 Books Online, support.microsoft.com, or Microsoft support services for further details about Microsoft SQL Server 2012.

Note. PeopleSoft PeopleTools 8.51 is the minimum PeopleTools release to support Microsoft SQL Server 2012. Use these instructions if you installed your PeopleSoft application on PeopleSoft PeopleTools 8.52 or later using Microsoft SQL Server 2008, and want to migrate the PeopleSoft database to Microsoft SQL Server 2012.

Task 23-1: Preparing to Migrate

Before beginning the migration to Microsoft SQL Server 2012, you must:

- Back up your database files.
Back up your existing Microsoft SQL Server database. After doing so, ensure that your backup was successful by restoring or loading the database into a "dummy" database. You may also want to back up the instance database files to have them ready to restore if necessary.
- Verify database integrity.
You need to verify the integrity of your database and repair any problems before attempting a migration. Commands like DBCC CHECKDB are available to perform this task.

Task 23-2: Upgrading a PeopleSoft Database from Microsoft SQL Server 2008 to Microsoft SQL Server 2012

If you are currently using Microsoft SQL Server 2008 and would like to upgrade your PeopleSoft database to Microsoft SQL Server 2012 you have several alternatives. Select the one which best suits your environment necessities. The following are only suggestions of possible alternatives to accomplish this task.

- Restore a backup.

To upgrade a Microsoft SQL Server 2008 database it is possible to back it up and restore it in Microsoft SQL Server 2012. This will automatically upgrade the database to Microsoft SQL Server 2012.

Note. The Microsoft SQL Server 2008 environment must be running at least with the service pack SP2.

- Detach and attach a database.

Another way to upgrade your PeopleSoft database and probably the fastest is detaching the database from Microsoft SQL Server 2008 and attaching it to Microsoft SQL Server 2012.

To accomplish this, run `sp_detach_db` in Microsoft SQL Server 2008, and then `sp_attach_db` in Microsoft SQL Server 2012. This procedure will automatically upgrade your database to Microsoft SQL Server 2012.

Note. The Microsoft SQL Server 2008 environment must be running at least with the service pack SP2.

- Copy Database Wizard.

You can also upgrade to Microsoft SQL Server 2012 using Microsoft SQL Server 2012 Copy Database Wizard. Consult the Microsoft Books Online for details on how to use the tool.

- Use PeopleSoft Data Mover.

Another alternative to migrate your database could be using PeopleTools. You can use Data Mover to migrate data of the entire database. This could be accomplished by exporting all the tables in the database to a Data Mover file. Keep in mind that this could be the slowest procedure of all those mentioned in this section; however, there are specific scenarios where using Data Mover could be the best choice

See "Creating a Database Manually."

See *PeopleTools: Data Management*.

Task 23-3: Setting Up the Migrated Database

No matter which approach you decide to use, read and observe the follow recommendations in your migrated PeopleTools environment.

- Set up the appropriate compatibility level.

According to the Microsoft SQL Server Book Online: "When a database is upgraded to SQL Server 2012 from any earlier version of SQL Server, the database retains its existing compatibility level."

For this reason it is very important to remember to modify the compatibility level of your PeopleSoft database to 110 immediately after verifying the database integrity after upgrade. PeopleSoft PeopleTools will not recognize the compatibility level used in your database and it will assume the appropriate compatibility mode was selected. Utilizing a different compatibility mode may cause unexpected behavior in the product

- Verify database integrity.

We recommend that you verify the integrity of your database and repair any problems that may occur after migrating your database. Make sure to run DBCC CHECKDB at the upgraded database. Immediately after migrating the database the compatibility mode will be 110.

- Update database statistics.

The Microsoft SQL Server Books Online recommends updating your database statistics to help optimize query performance. Use the `sp_updatestats` stored procedure to update statistics in user-defined tables in Microsoft SQL Server 2012 databases. Make sure the compatibility mode is set to 110 before running this command.

For a more elaborate procedure you can use a script to run the following commands for all tables in your PeopleSoft database:

```
sp_createstats 'indexonly'
UPDATE STATISTICS <PS_TABLENAME> WITH FULLSCAN
```

For example, the script should be similar to this:

```
exec sp_createstats 'indexonly'
UPDATE STATISTICS PS_BU_TYPE_INV WITH FULLSCAN;
UPDATE STATISTICS PSAPMSGARCHPD WITH FULLSCAN;
```

- Update usage counters.

In earlier versions of SQL Server, the values for the table and index row counts and page counts can become incorrect. To correct any row or page counts that are not valid, Microsoft recommends that you run DBCC UPDATEUSAGE on all databases following the upgrade.

- Enable READ COMMITTED SNAPSHOT ISOLATION (RCSI).

By default all PeopleSoft release 9 or later applications running Microsoft SQL Server 2008 will have RCSI enabled. If RCSI is not enabled you must activate the RCSI level for the upgraded database since all the PeopleSoft 9 or later applications will use that isolation level by default.

- To verify if the database is using RCSI you may run the following SQL command, substituting the name of your database for *DATABASENAME*:

```
select is_read_committed_snapshot_on from sys.databases
where database_id = db_id ('DATABASENAME')
```

The output must be the number 1 (one), which means, RCSI is enabled.

- If RCSI is not enabled you must activate now the RCSI level for the upgraded database.
- To enable RCSI you can use the script labeled `ENABLE_RCSI.SQL` available under *PS_HOME*\scripts for all PeopleSoft PeopleTools 8.48 and later. Edit and review the script before running it.

Make sure there is no database activity and no other connections to the database; otherwise RCSI will not be activated (see Microsoft SQL Server Book Online for further details).

The script executes the following command:

```
ALTER DATABASE <DBNAME> SET READ_COMMITTED_SNAPSHOT ON
```

- Check the login.

By default login accounts created on Microsoft SQL Server 2012 will inherit the password policies from their operating systems. If the password for the migrated logins does not comply with the operating system, you may experience problems signing on with those login names and passwords.

There are several ways to solve the problem. One simple solution is to disable the feature for each login or to change its password. However, remember that if you change the password for the logins used as `CONNECTID` or `ACCESSID`, you must update and encrypt through Data Mover the appropriate security tables (`PSSTATUS`, `PSOPRDEFN`, and `PSACCESSPROFILE`) with the new values to be able to log in again

to your PeopleSoft database.

See *PeopleTools: Security Administration*.

Chapter 24

Installing Microsoft SQL Server 2014

This chapter discusses:

- Understanding the Microsoft SQL Server 2014 Installation
- Installing Microsoft SQL Server 2014 on the Database Server
- Starting and Stopping Microsoft SQL Server 2014
- Installing Microsoft SQL Server 2014 — Client Only
- Configuring the Connection to Use SNAC for Microsoft SQL Server 2014
- Configuring an ODBC Data Source for Microsoft SQL Server 2014

Understanding the Microsoft SQL Server 2014 Installation

This chapter describes how to install Microsoft SQL Server 2014 for use with a PeopleSoft installation. For complete step-by-step instructions on installing Microsoft SQL Server 2014 and for prerequisite details, refer to the SQL Server 2014 Books Online (support.microsoft.com or Microsoft support services). Contact your Microsoft vendor for information on obtaining Microsoft SQL Server 2014.

The Microsoft SQL Server 2014 setup has the following prerequisites:

- Windows PowerShell 2.0
- Microsoft .NET Framework 4.0

For information on installing Microsoft .NET Framework 4.0, see the earlier instructions for PS/nVision, or the Microsoft SQL Server hardware and software requirements.

- Microsoft .NET Framework 3.5 SP1

You must download and install, or enable Microsoft .NET Framework 3.5 SP1. For more information, see the earlier instructions for PS/nVision, or the Microsoft SQL Server hardware and software requirements.

- On Microsoft Windows Server 2014 and Windows 8 operating systems, .NET Framework 3.5 is not installed by default.

See the Microsoft SQL Server 2014 documentation for installation instructions.

See Install or Uninstall Roles, Roles Services, or Features, Microsoft Library web site, <http://technet.microsoft.com/en-us/library/hh831809.aspx>.

See Also

"Setting Up Process Scheduler on Windows," Installing Products for PS/nVision.

Hardware and Software Requirements for Installing SQL Server 2014, Microsoft TechNet Library, SQL Server, [http://msdn.microsoft.com/en-us/library/ms143506\(v=sql.120\).aspx](http://msdn.microsoft.com/en-us/library/ms143506(v=sql.120).aspx)

Task 24-1: Installing Microsoft SQL Server 2014 on the Database Server

This task describes how to install Microsoft SQL Server 2014 on the database server. You may need to reboot your server after the installation.

Note. There are different editions of Microsoft SQL Server 2014. Make sure that the edition you install is appropriate for your requirements. Some editions are not compatible with certain operating systems. You can check the version and edition of your existing SQL Server installation by issuing 'SELECT @@VERSION' from SQL Server Management Studio. Consult the SQL Server Books Online and Microsoft support for more information about editions.

To install Microsoft SQL Server 2014 on the database server:

1. If you want to uninstall your previous Microsoft SQL Server software before installing Microsoft SQL Server 2014, you can use Control Panel, Add/Remove Programs.

Note. We recommend that you install only one SQL Server version per server. This should simplify the administration. However, in some instances you may need to install multiple versions, and it is possible to have side-by-side installations of different versions of Microsoft SQL Server.

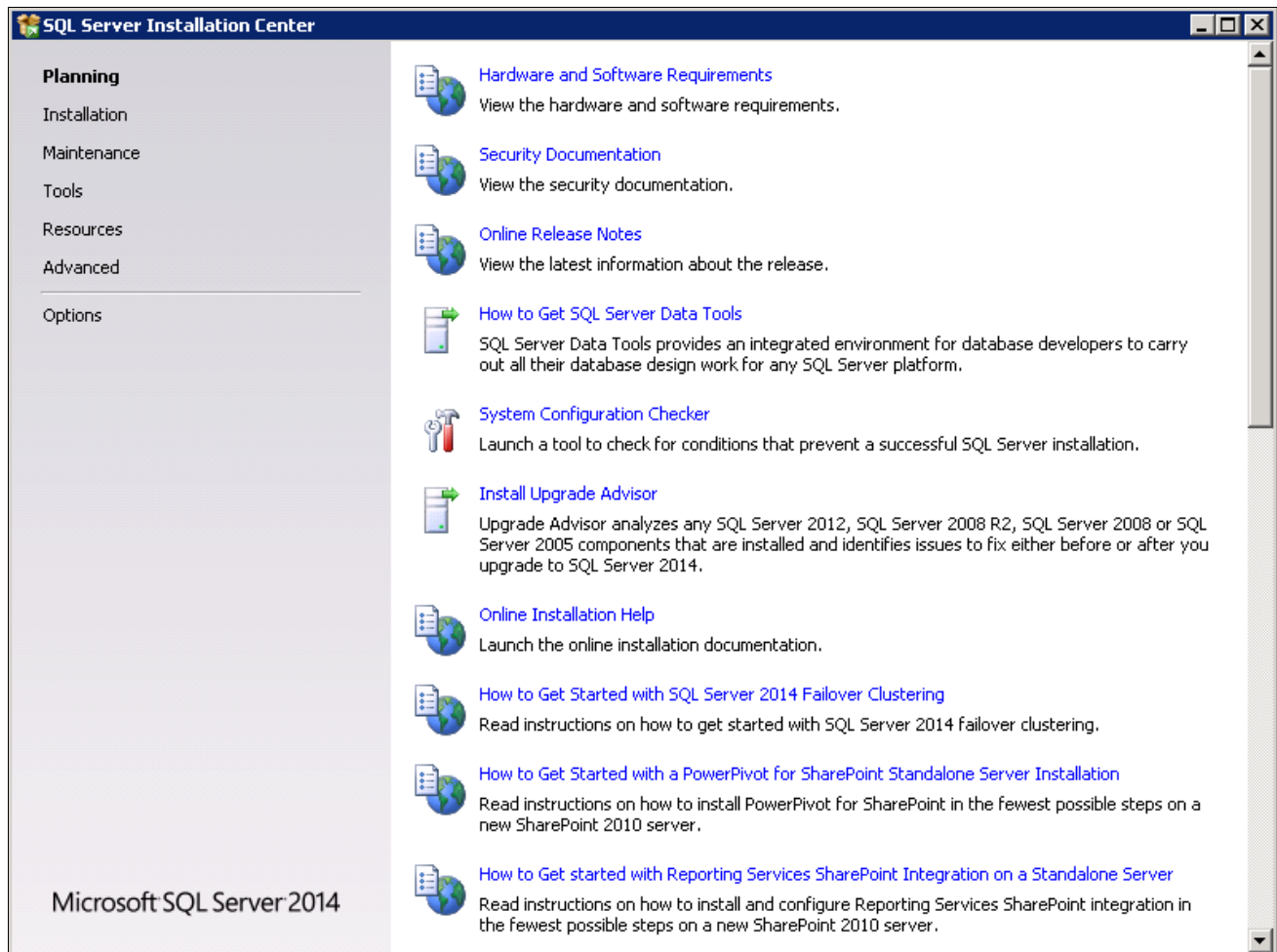
2. Insert the Microsoft SQL Server 2014 DVD into the DVD drive.

The installation should start automatically, but if it does not, run `setup.exe` from the DVD-ROM's directory.

If you downloaded the installation files, go to the directory where you saved the installation files and run `setup.exe`.

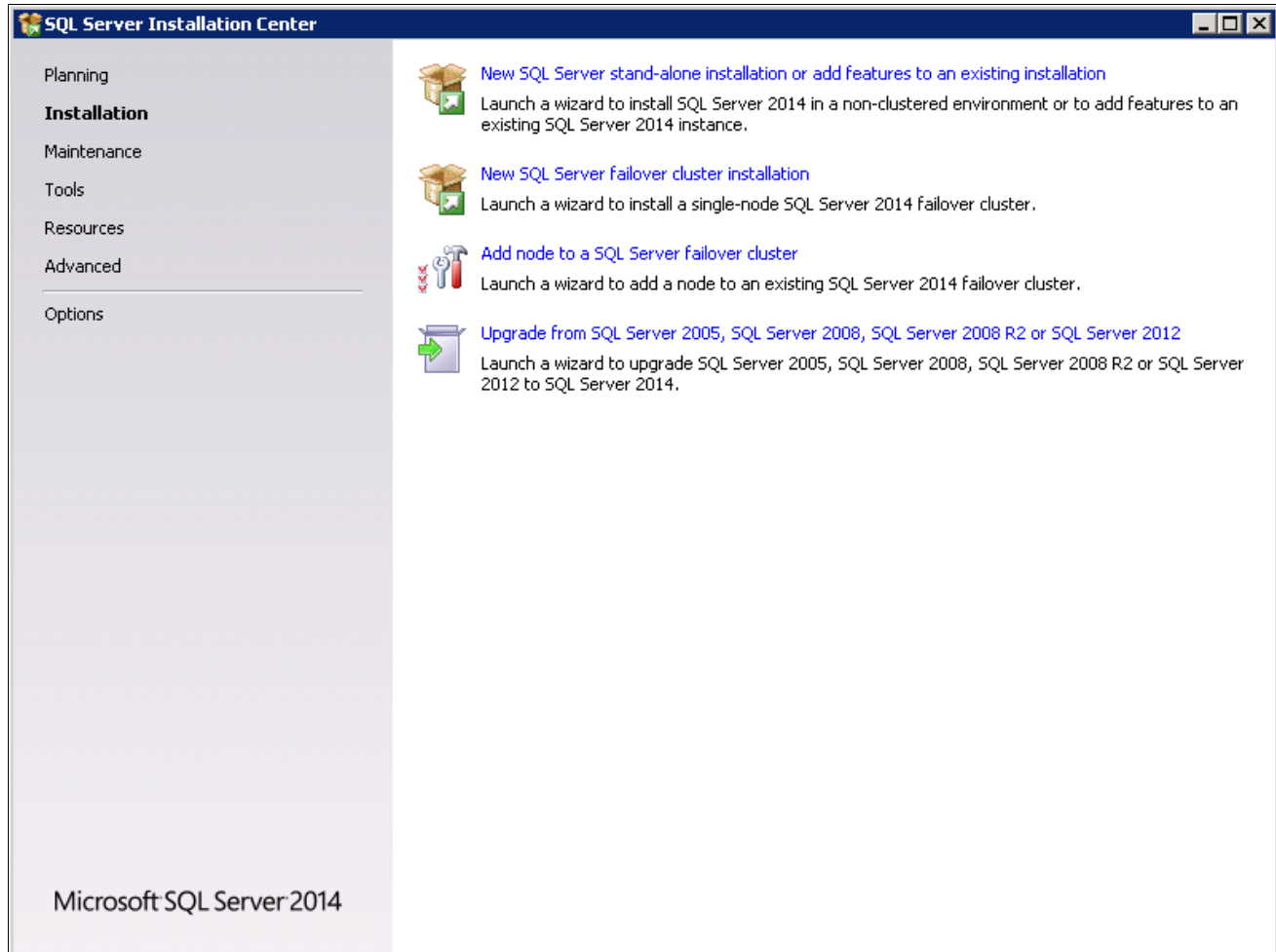
An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

3. Select the Installation link in the left-hand navigation tree.



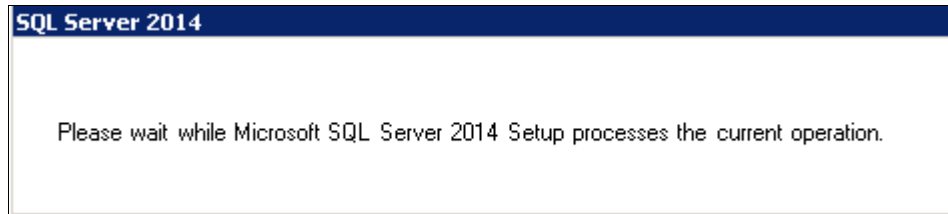
Microsoft SQL Server 2014 SQL Server Installation Center Planning window

4. Select the link **New SQL Server stand-alone installation or add features to an existing installation**, the first link in this example:



Microsoft SQL Server 2014 SQL Server Installation Center Installation window

A message box appears asking you to wait while Microsoft SQL Server 2014 Setup processes the current operation, as shown in this example:

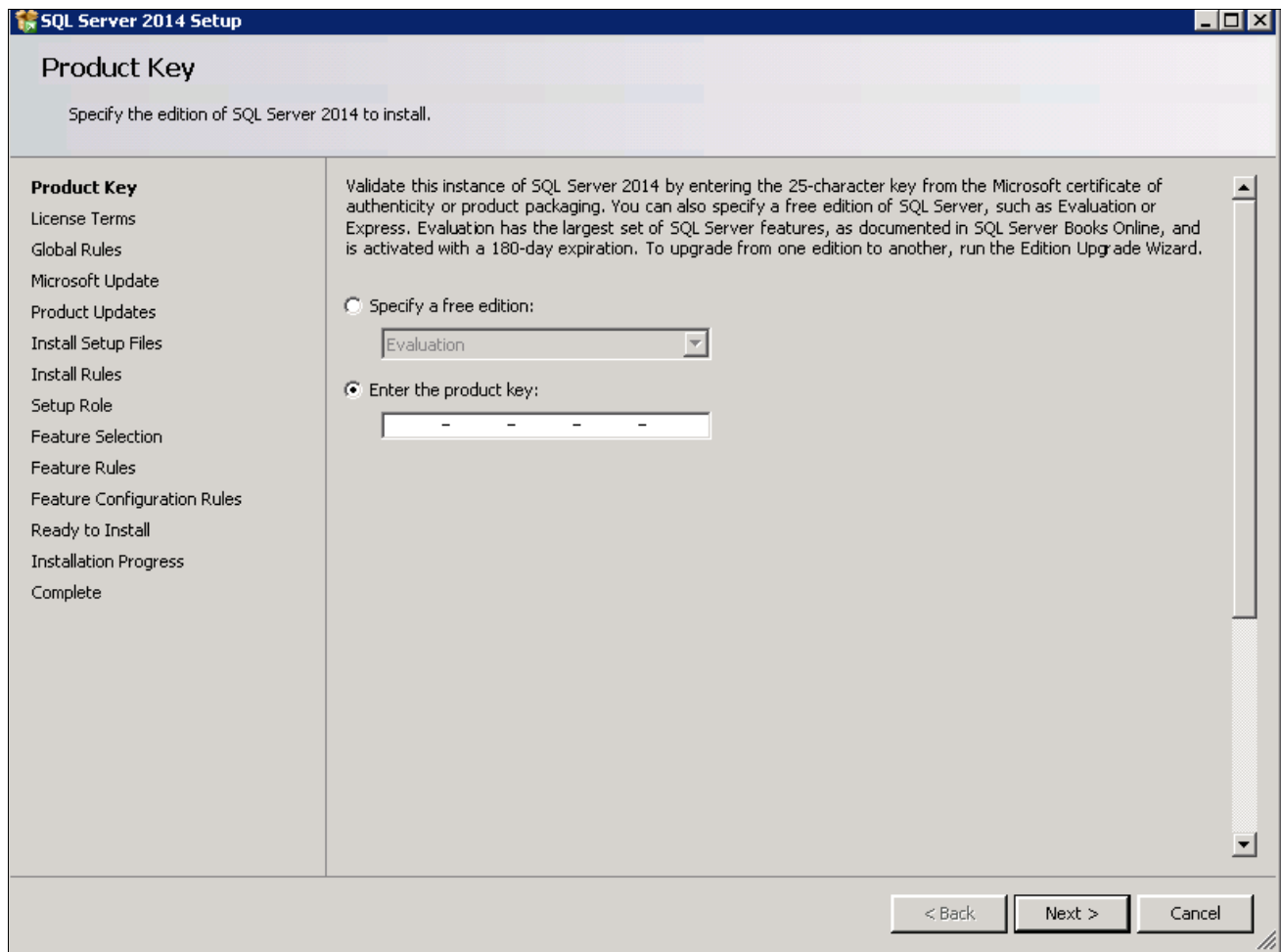


SQL Server 2014 operation in progress message box

After the process is complete the Product Key window appears.

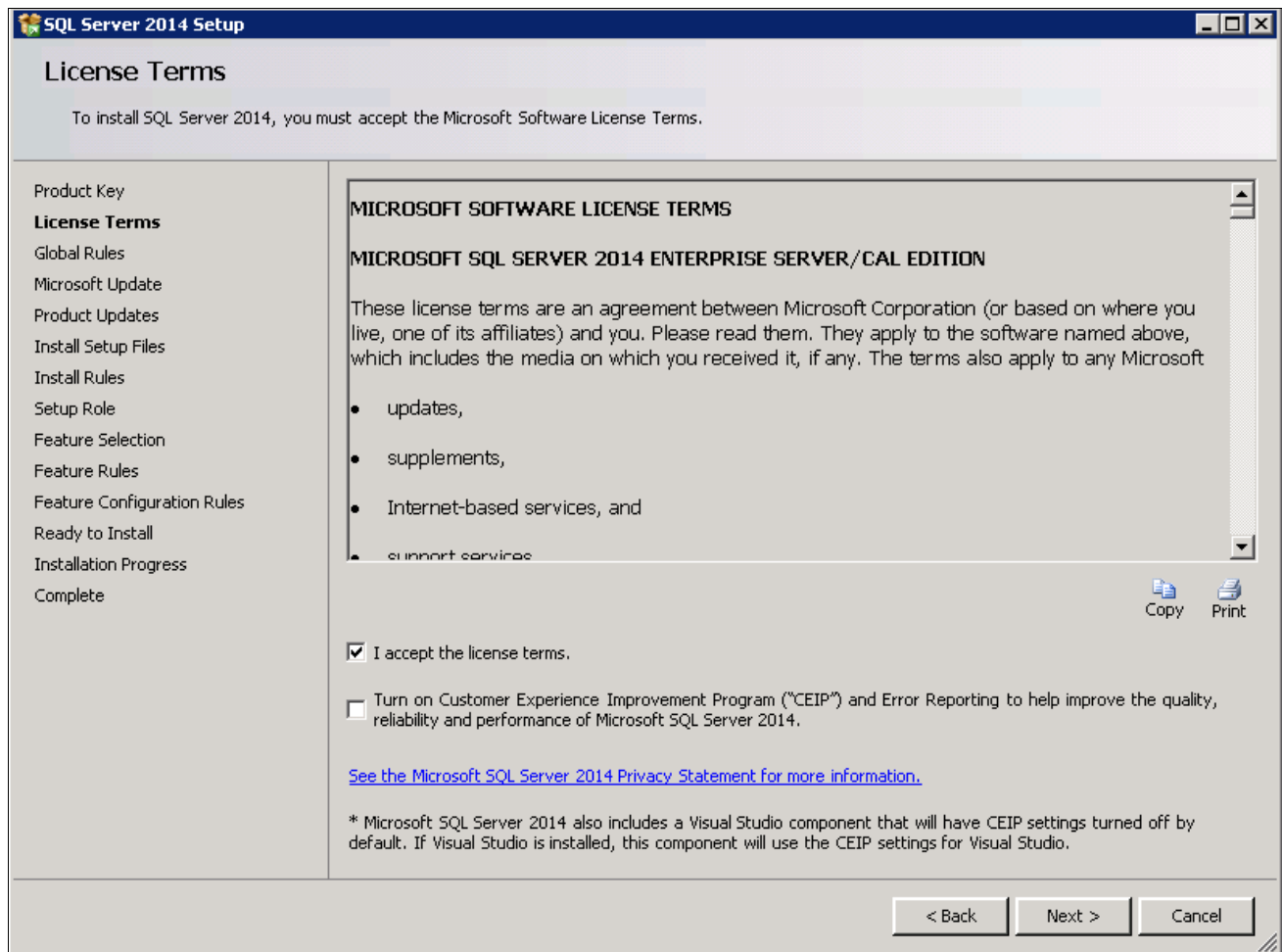
5. Enter your product key value.

If it is already populated, ignore this step and click Next to continue to the License Terms window. In this example the field for Enter the product key is blank:



SQL Server 2014 Setup Product Key window

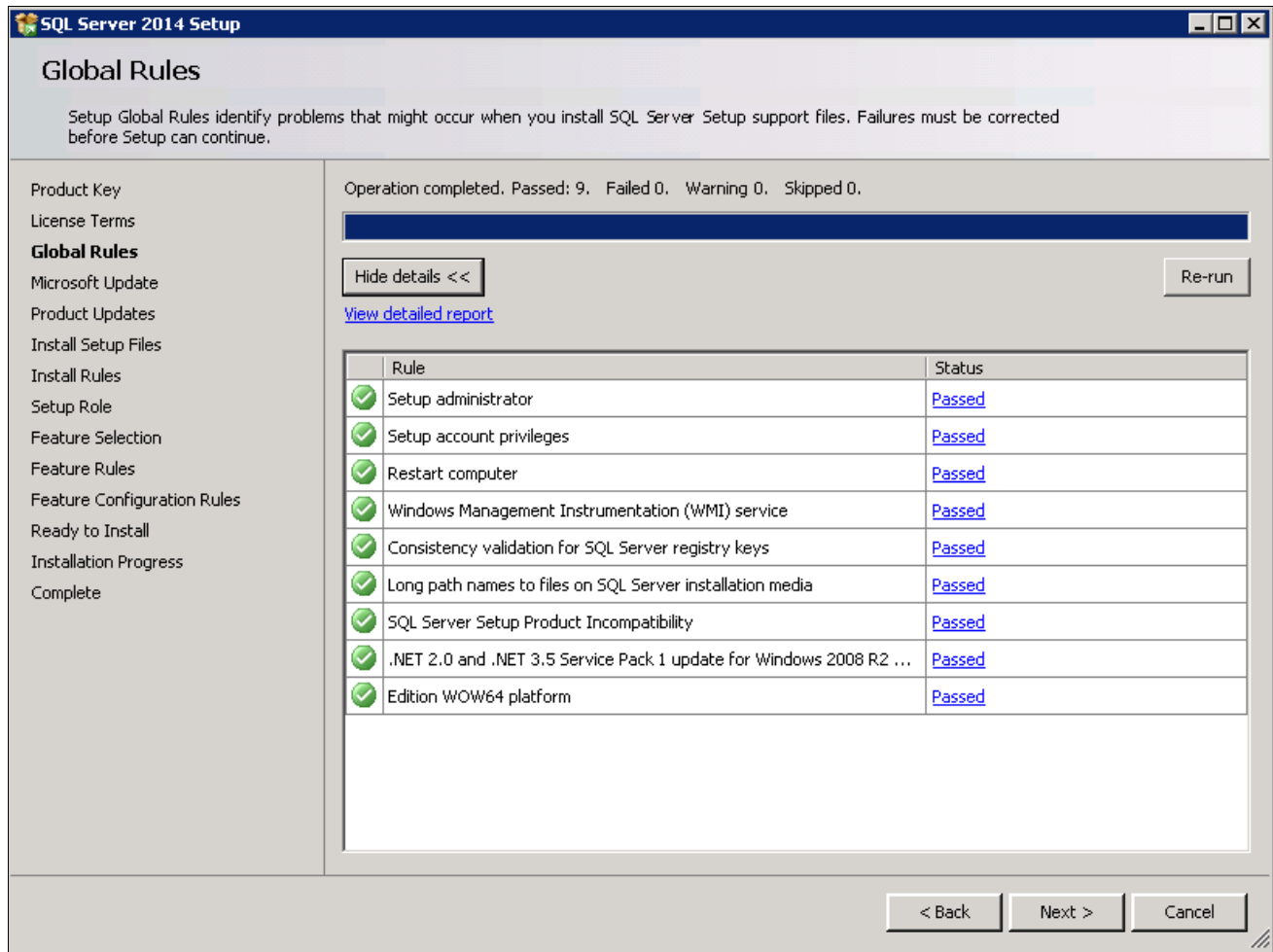
6. Read the terms and conditions carefully and select the check box I accept the license terms, as shown in this example:



SQL Server 2014 Setup License Terms window

7. Click Next.

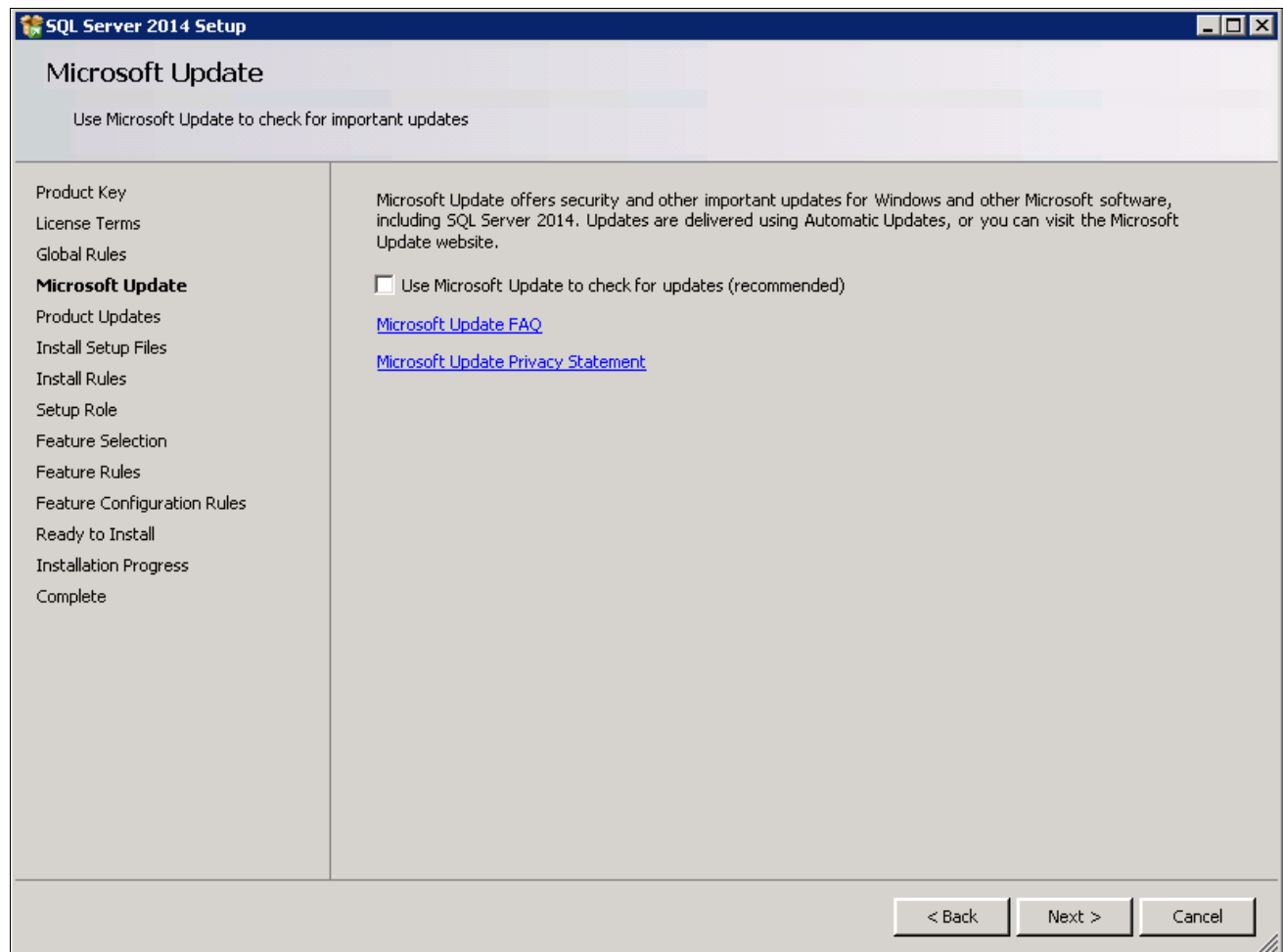
The Global Rules window appears. Wait until the process verifying global rules is complete. Verify that all the rules have passed, as shown in the Status column in this example:



SQL Server 2014 Setup Global Rules window

8. Click Next.

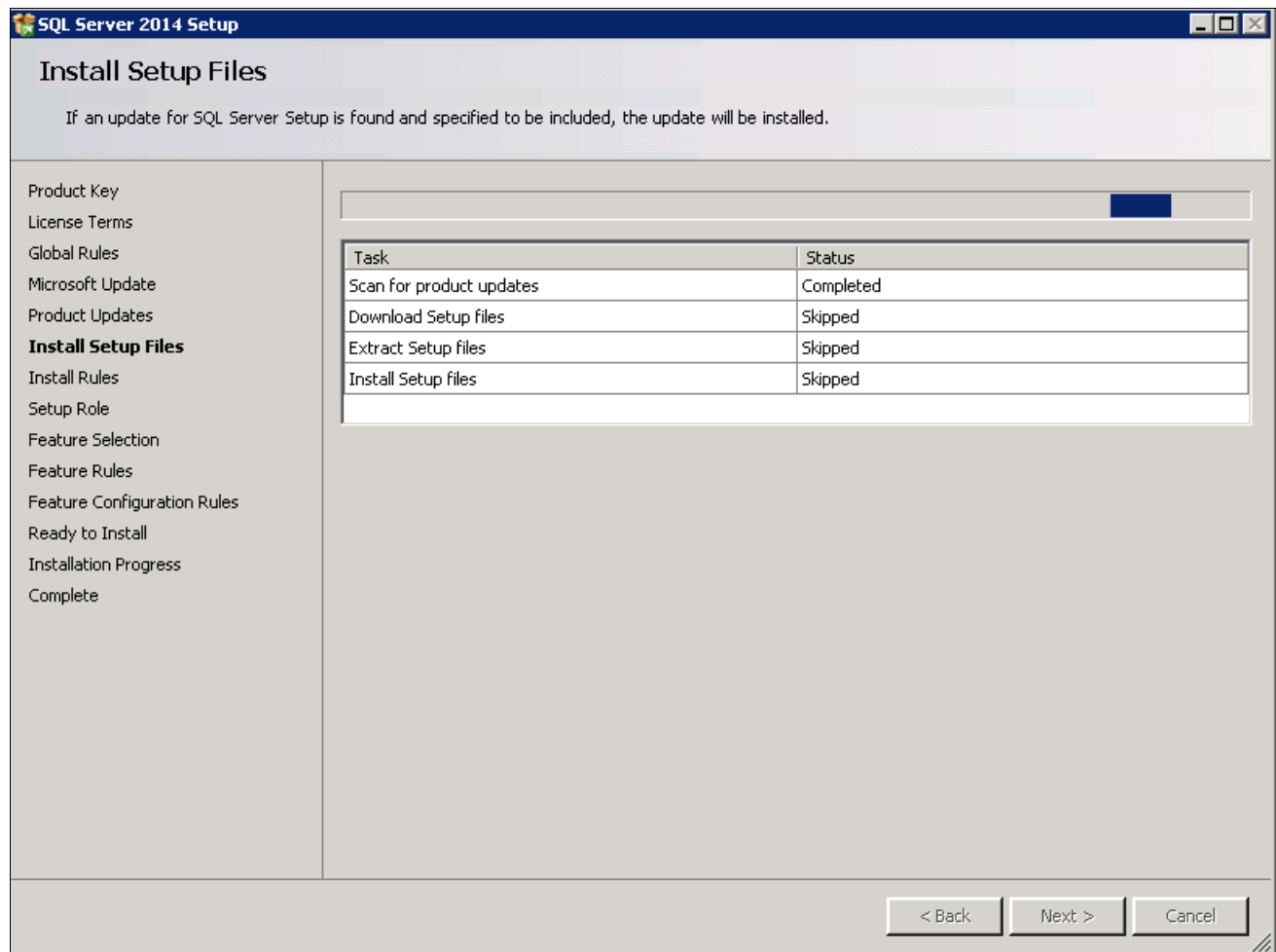
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



SQL Server 2014 Setup Microsoft Update window

9. Click Next.

The Install Setup Files window appears. Wait until the progress bar indicates that the process to install setup files and scan for product updates is complete. In this example, the task Scan for product updates is completed, and three additional tasks were skipped:

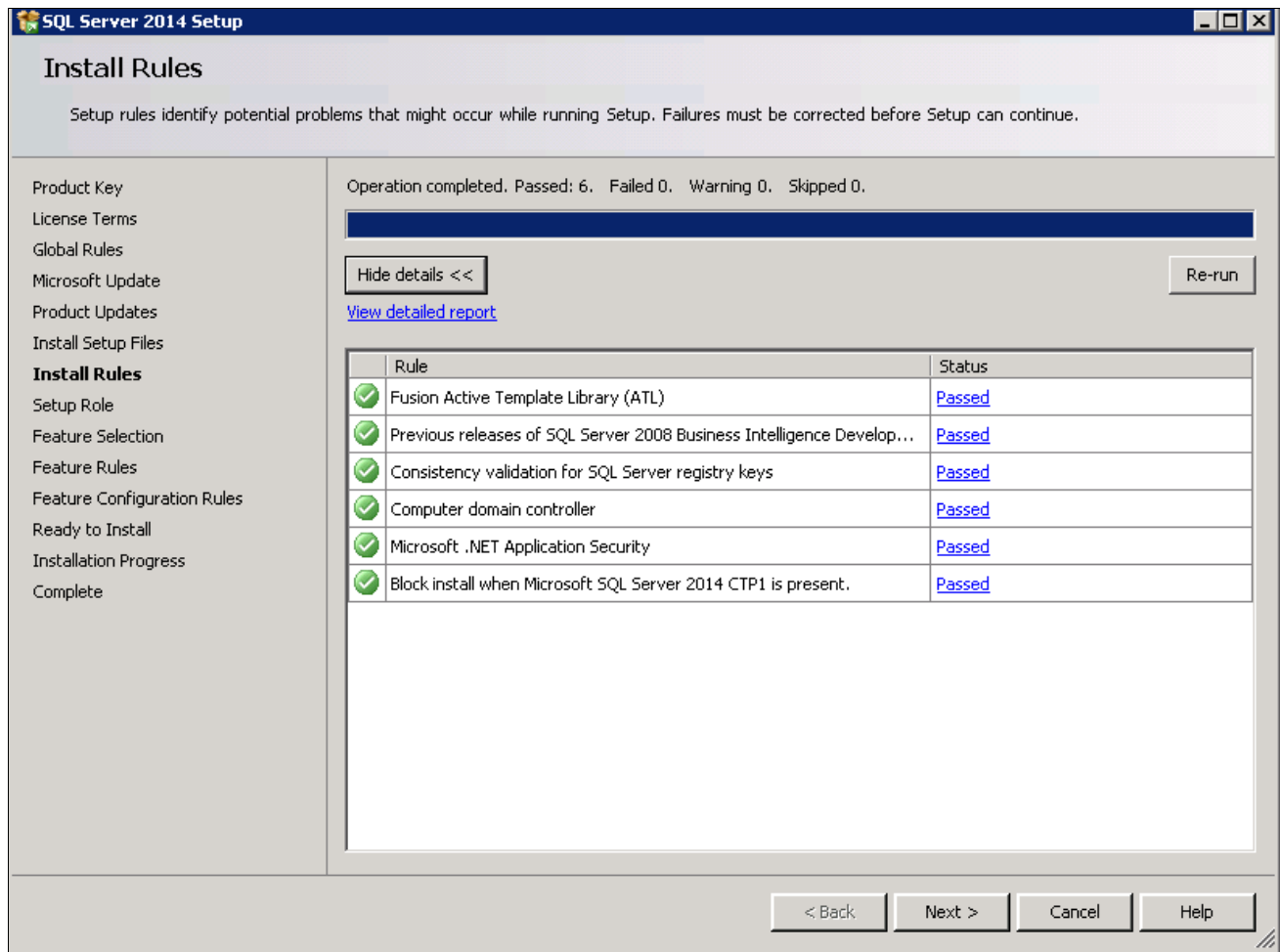


SQL Server 2014 Setup Install Setup Files window

10. Click Next.

The Install Rules window appears. The setup operation checks for problems that might occur when you install support files. Click Show Details.

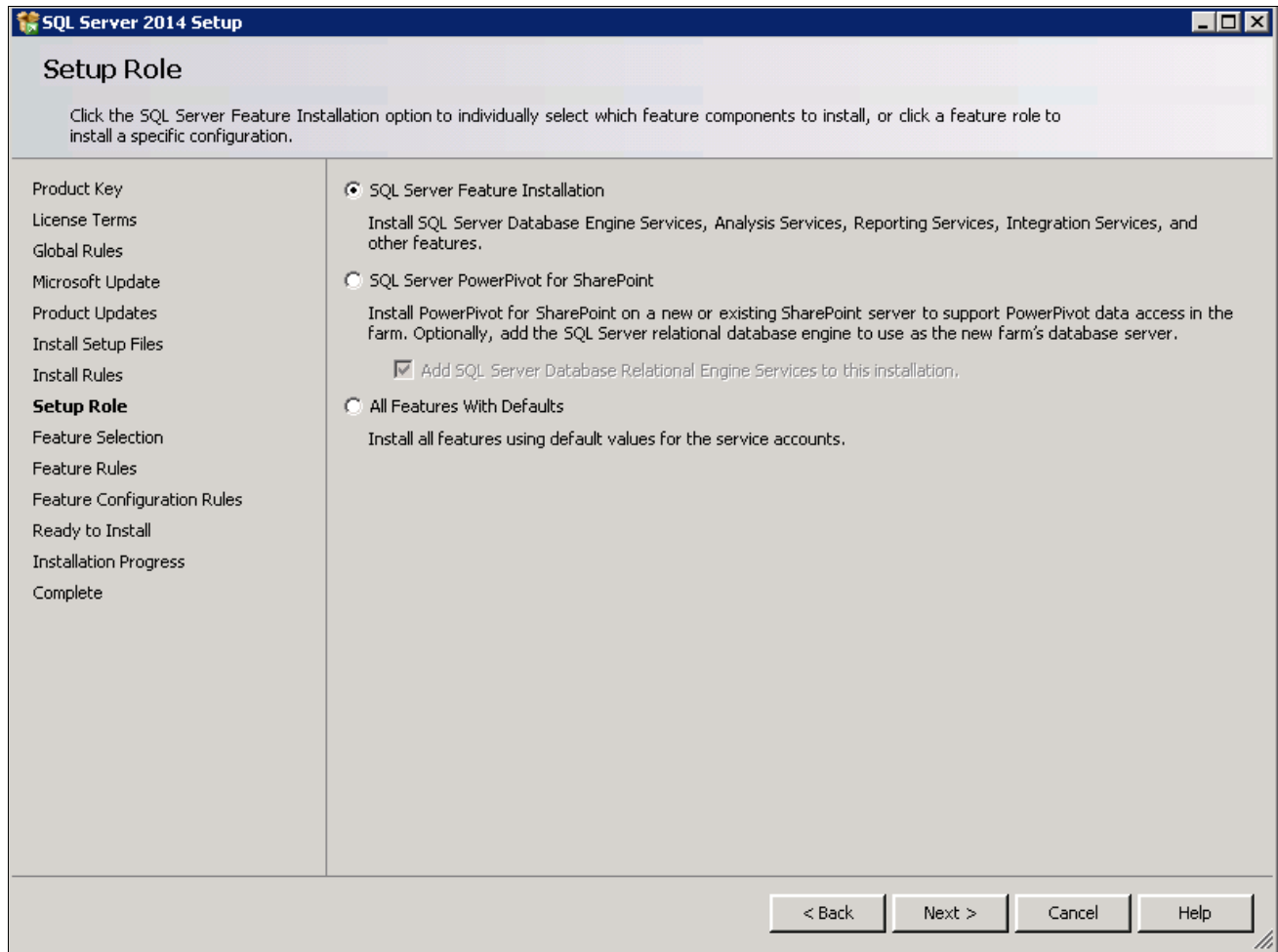
11. Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Install Rules window

12. Click Next to proceed.

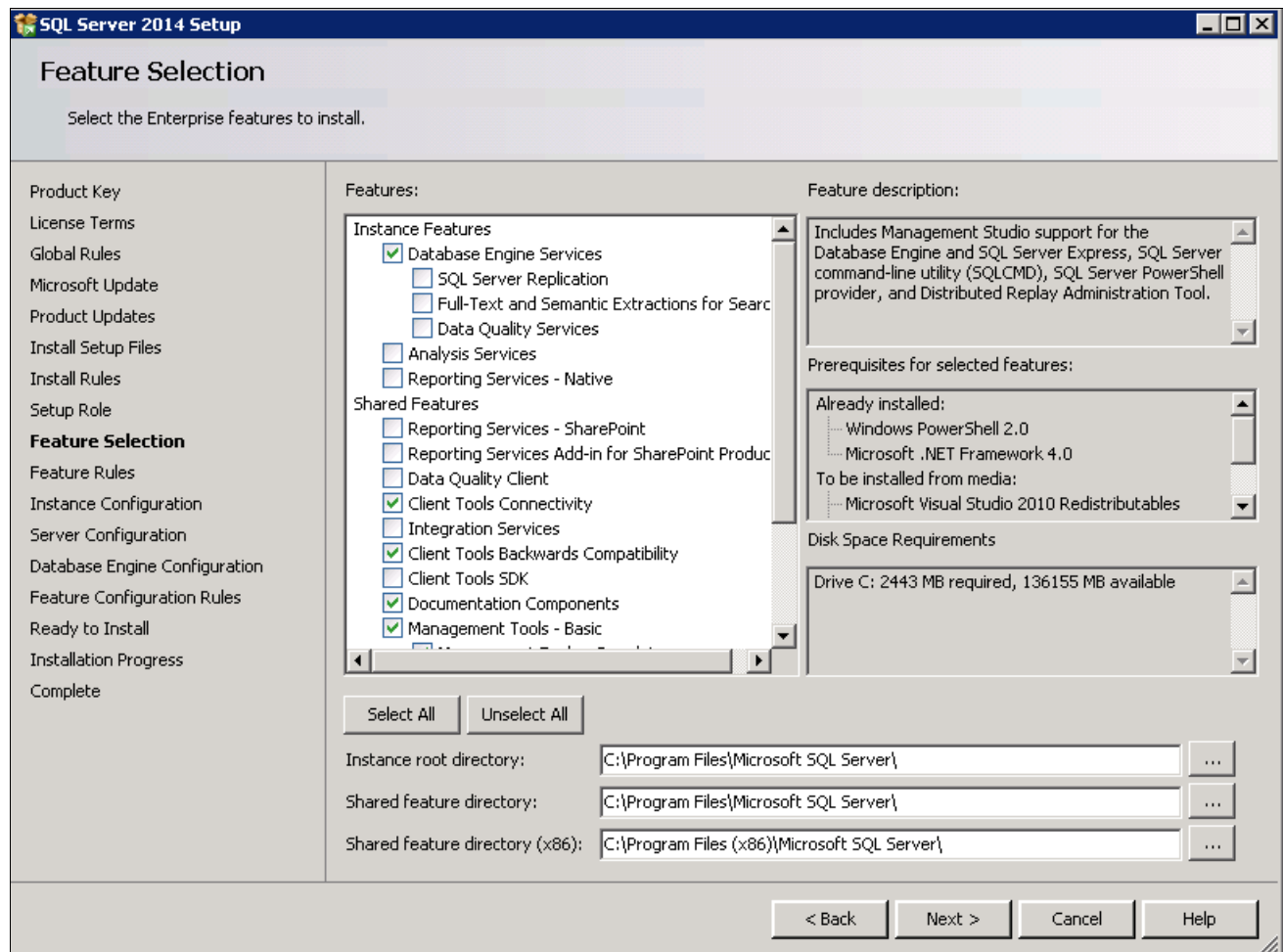
On the Setup Role window, select the option SQL Server Feature installation, as shown in this example, and click Next.



SQL Server 2014 Setup Role window

13. A Feature Selection window appears that lists all the features of Microsoft SQL Server 2014 that are available to be installed.

This example shows the Feature Selection window with the features required for a PeopleSoft installation, which are listed below, selected.



SQL Server 2014 Setup Feature Selection window

For your PeopleSoft installation, select the following features (these are the minimum requirements):

- Database Engine Services
- Client Tools Connectivity
- Client Tools Backward Compatibility
- Management Tools - Basic
- Management Tools - Complete
- Documentation Components

This selection is optional.

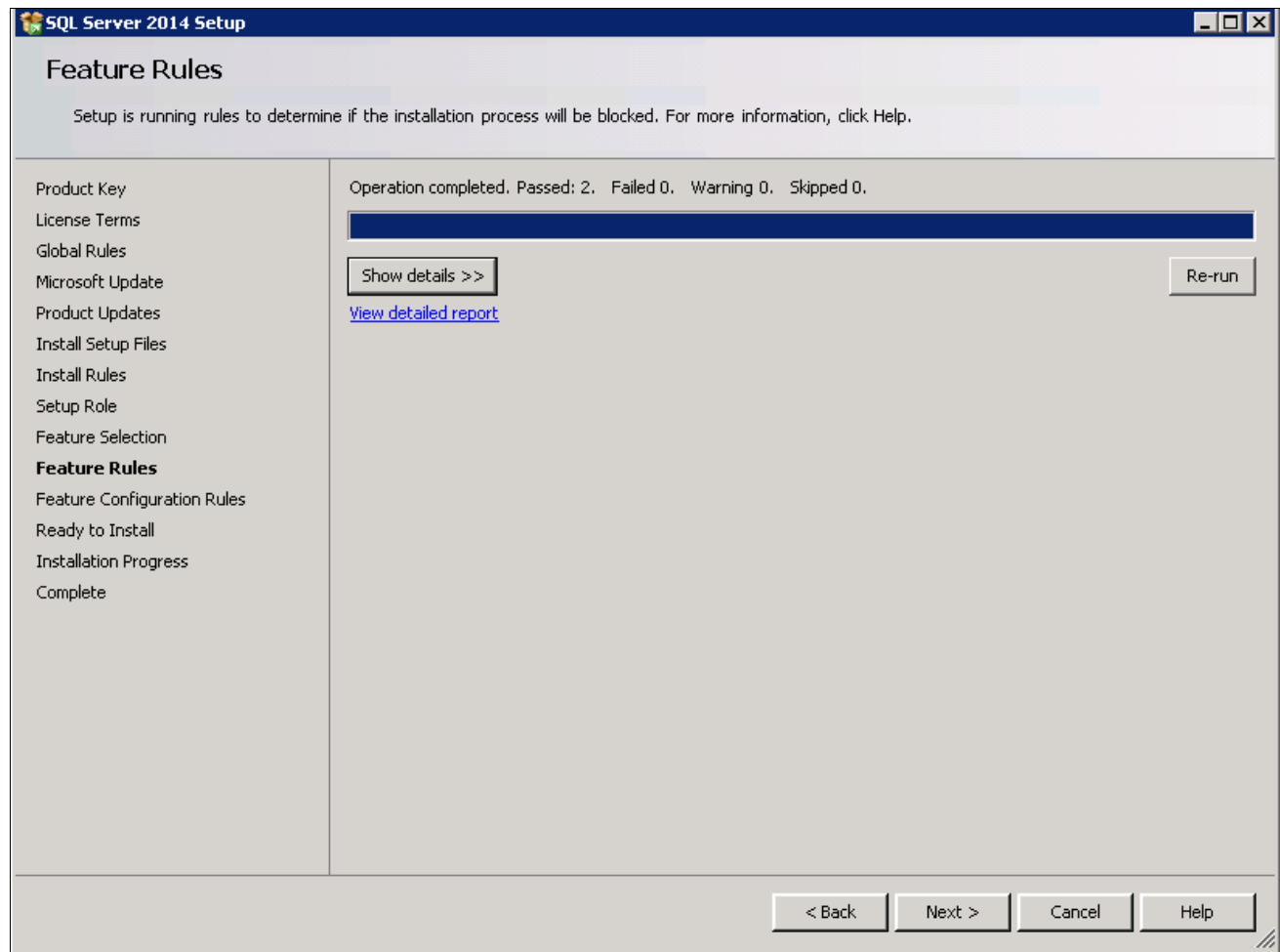
14. Clear the check boxes beside the following features:

- SQL Server Replication
- Full Text and Semantic Extractions for Search
- Data Quality Services

- Analysis Services
- Reporting Services - Native
- Reporting Services - SharePoint
- Reporting Services Add-in for SharePoint Products
- Data Quality Client
- SQL Server Data Tools
- Integration Services
- Client Tools SDK
- SQL Client Connectivity SDK
- Distributed Replay Controller
- Distributed Replay Client
- Master Data Services

15. Click Next.

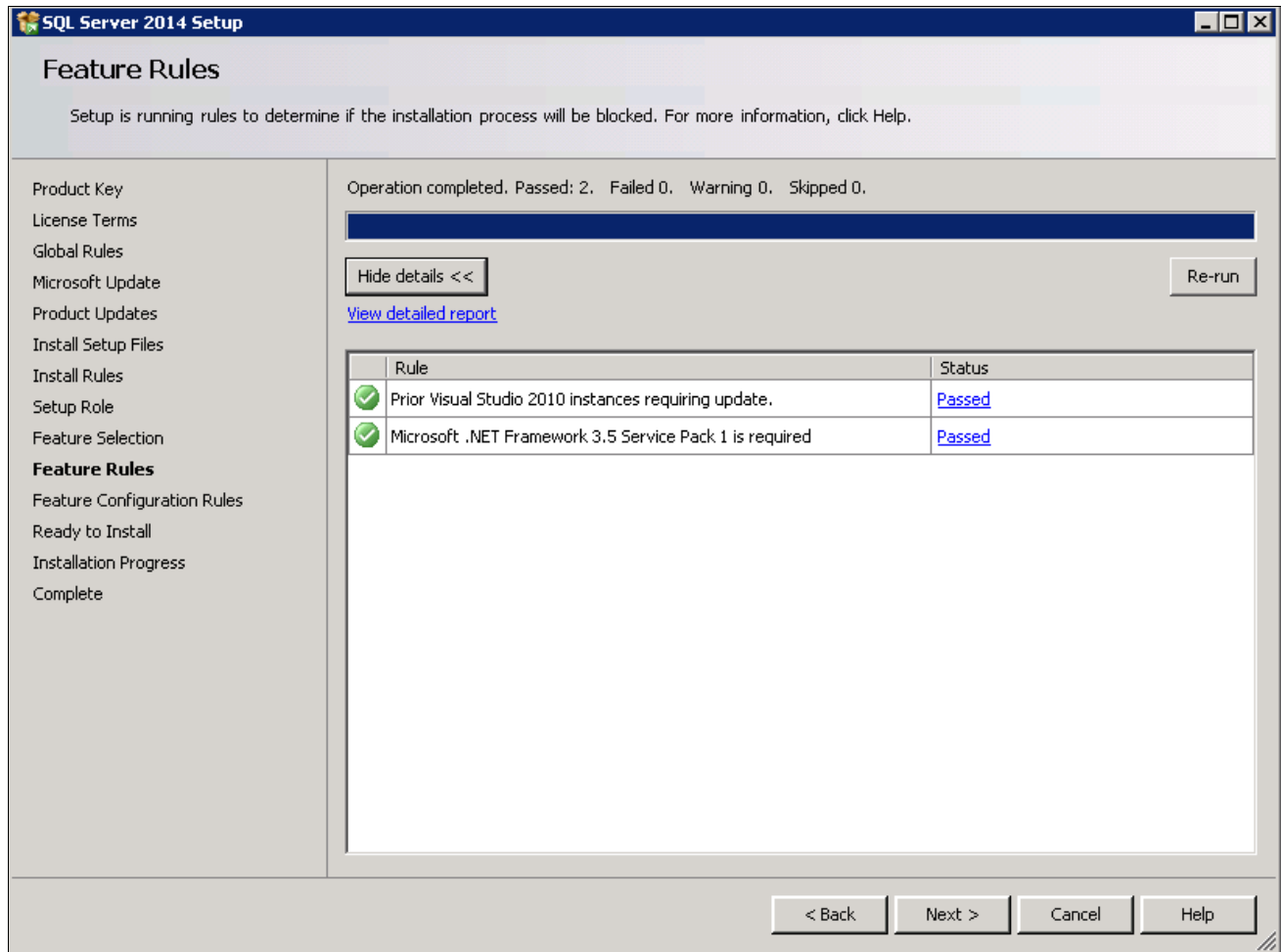
The Feature Rules window appears, and the setup operation runs rules to determine whether the installation will be blocked. The example below shows the operation is complete.



SQL Server 2014 Setup Feature Rules window

16. Click Show Details on the Feature Rules window.

Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Feature Rules window showing details

17. Click Next.

The Instance Configuration window appears. Enter *SQL2014* as the named instance, as shown in this example. The window also displays the SQL Server directory, in this example *C:\Program Files\Microsoft SQL Server\MSSQL12.SQL2014*.

SQL Server 2014 Setup

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Setup Role
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

☐ Default instance
☒ Named instance:

Instance ID:

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL12.SQL2014

Installed instances:

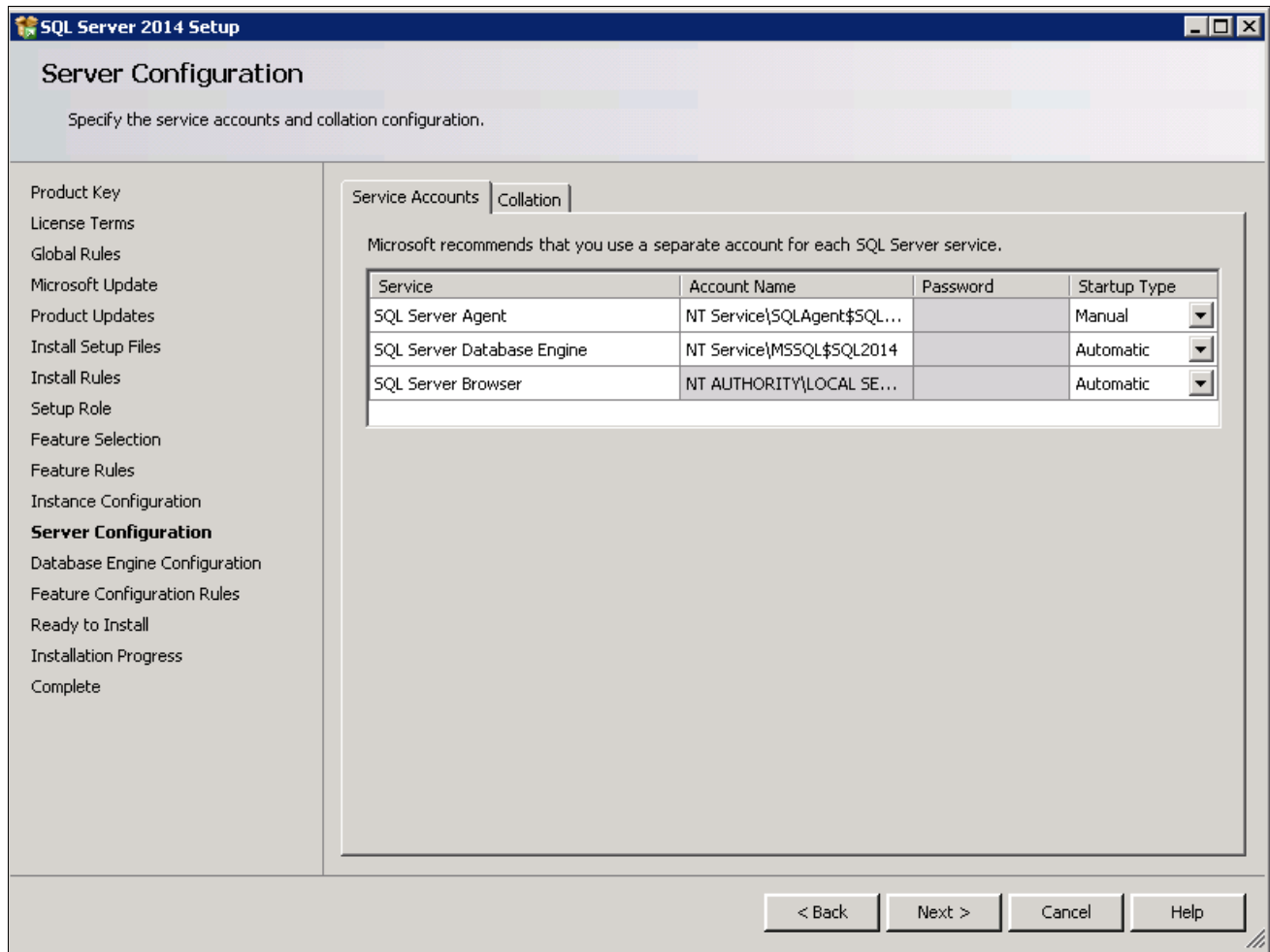
Instance Name	Instance ID	Features	Edition	Version
---------------	-------------	----------	---------	---------

< Back Next > Cancel Help

SQL Server 2014 Setup Instance Configuration window

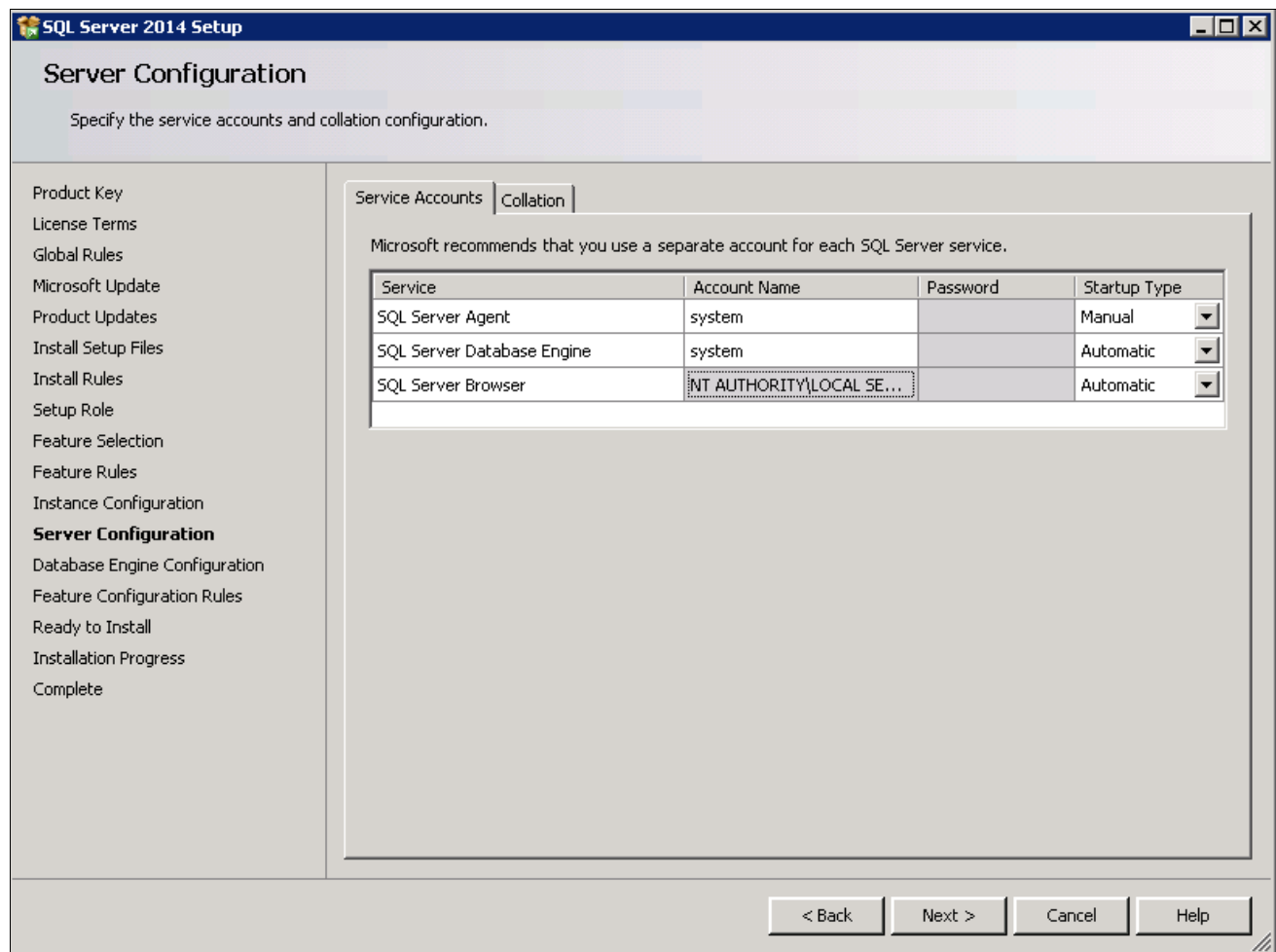
18. Click Next.

The Server Configuration window appears, as shown in this example. Microsoft recommends that you use a separate account for each of the SQL Server services.



SQL Server 2014 Setup Server Configuration window before specifying account names and startup types

19. Specify the service accounts. This example shows the window after making the recommended selections:

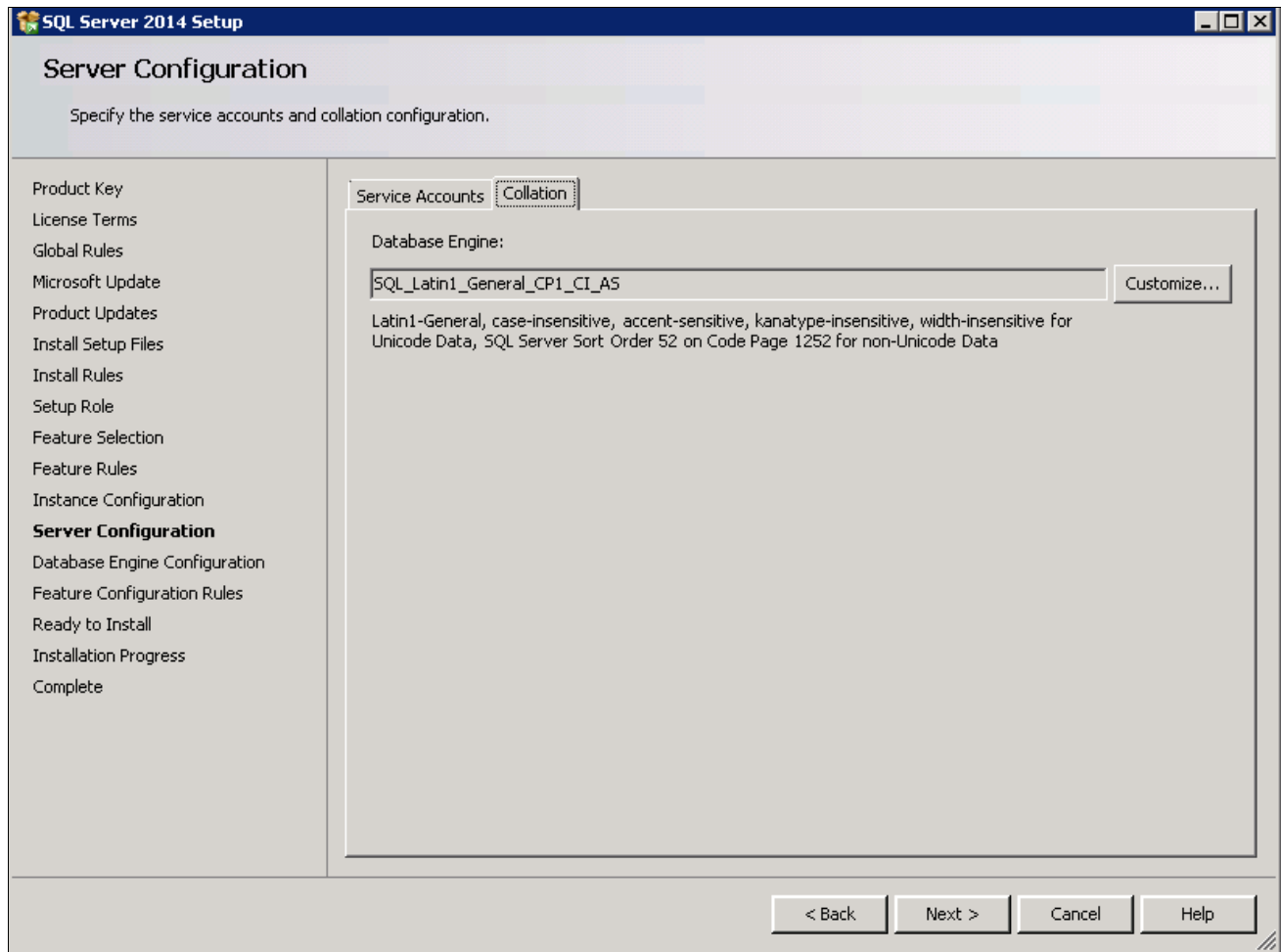


SQL Server 2014 Setup Server Configuration window after specifying account names and startup types

- a. Enter *system* as the account name for SQL Server Agent and SQL Server Database Engine to use the local system account.
Do not use a domain user account.
- b. Select *Manual* startup type for SQL Server Agent.
- c. Select *Automatic* startup type for SQL Server Database Engine.
- d. Select *Automatic* startup type for SQL Server Browser.

20. Still on the Server Configuration window, select the Collation page.

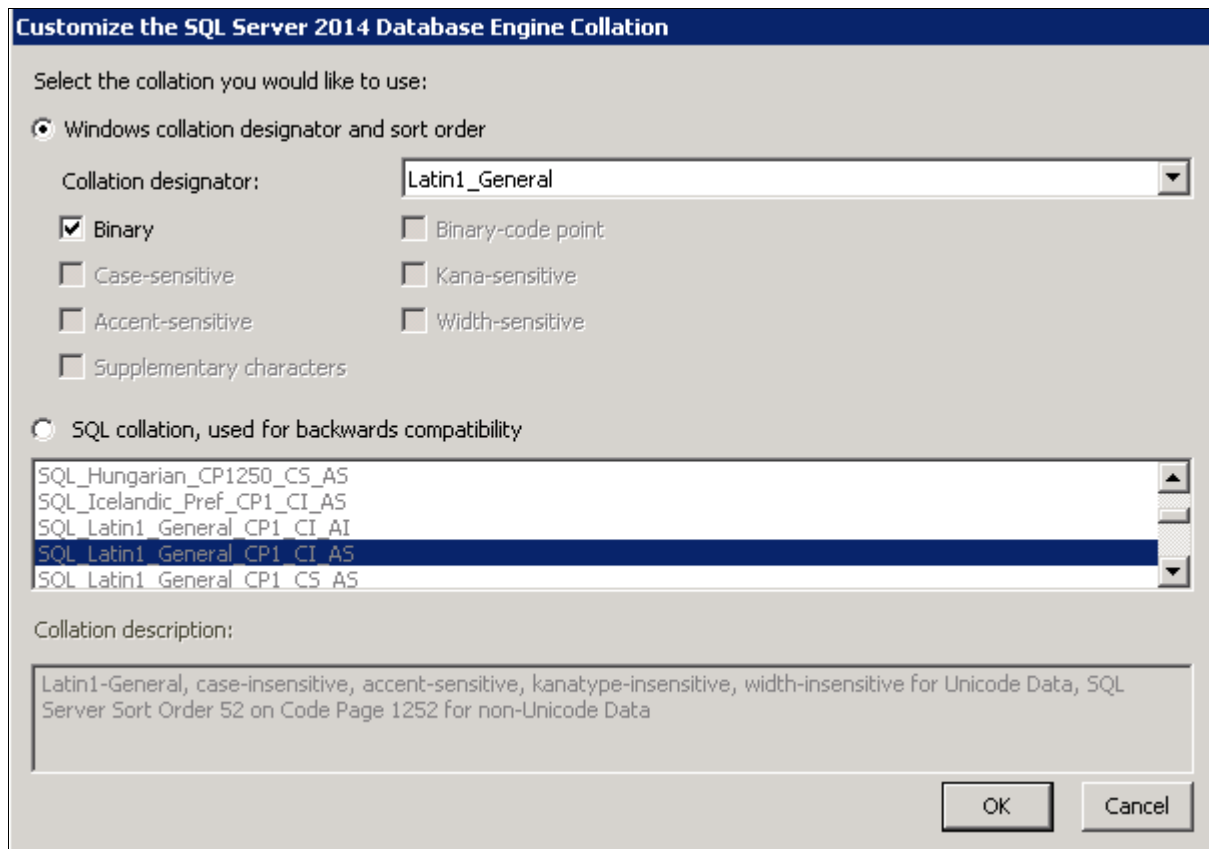
This example shows the default collation, SQL_Latin1_General_CP1_CI_AS.



SQL Server 2014 Setup Server Configuration window: Collation page before modification

21. Click Customize to change the collation.

On the Customize the SQL Server 2014 Database Engine Collation window, select the option Windows collation designator and sort order. Select *Latin1_General* as the Collation designator, and the Binary option, as shown in this example:

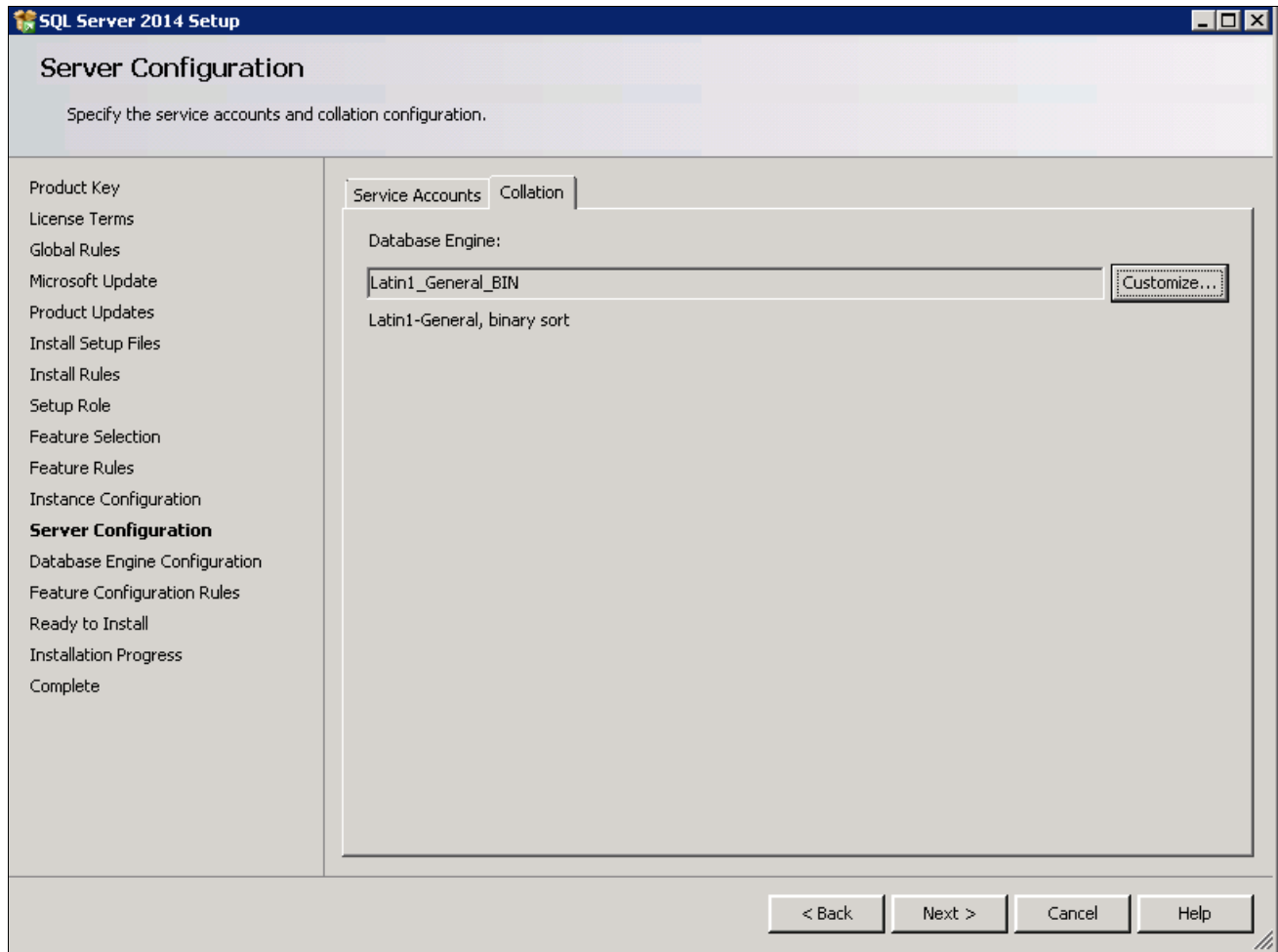


Customize the SQL Server 2014 Database Engine Collation window

Selecting these options changes the collation to *Latin1_General_BIN*. Your collation designation may vary if you are not using English.

22. Click OK.

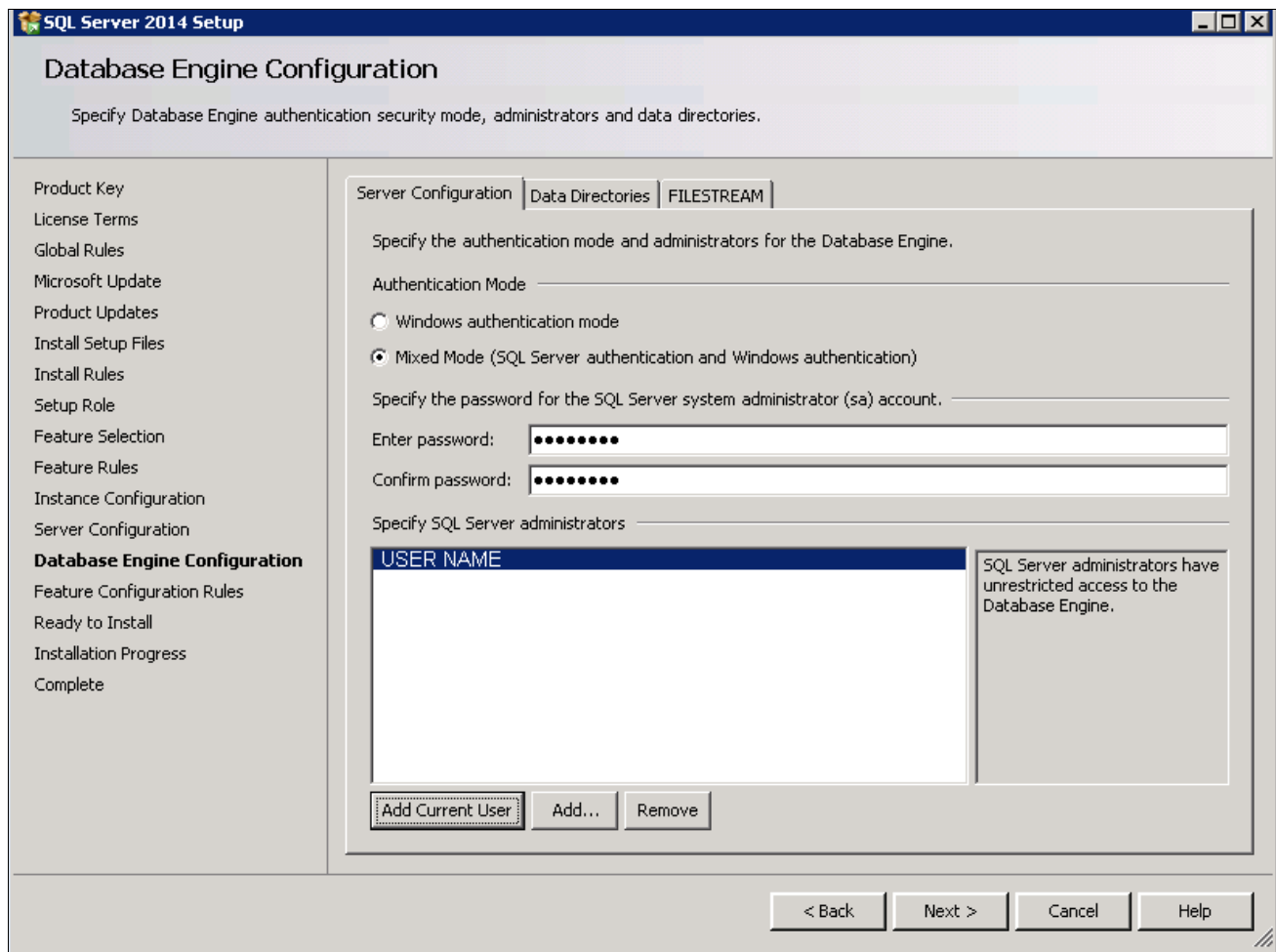
Verify on the Server Configuration Collation page that the collation is Latin1_General_BIN, Latin1-General, binary sort, as shown in this example:



SQL Server 2014 Setup Server Configuration window: Collation page after modification

23. Click Next.

The Database Engine Configuration window appears as shown in this example:



SQL Server 2014 Setup Database Engine Configuration window: Server Configuration page

On the Server Configuration page, specify the following:

- Select the Mixed Mode (SQL Server authentication and Windows authentication) option in the Authentication Mode area.
- Enter and confirm a secure Microsoft SQL Server administrator (sa) password.
The password must meet password policy requirements given in the documentation Books Online for SQL Server 2014.
- Click Add Current User and select the user under whose account the setup is running.
The current user shown in the example is USER NAME.

24. Still on the Database Engine Configuration window, select the Data Directories page.

This example of the Data Directories page shows all the directories on the same drive. However, Microsoft recommends that the directories included on this page reside on separate drives. Verify that the User database directory and the User database log directory are located in separate directories and on two different drives. In addition, the Temp DB directory and Temp DB log directory should be on a separate, third drive, and if possible, the Backup directory on a fourth drive.

Consult the Microsoft support site, support.microsoft.com, for recommendations and best practices for the physical layout of database files, transaction log files, and temp DB.

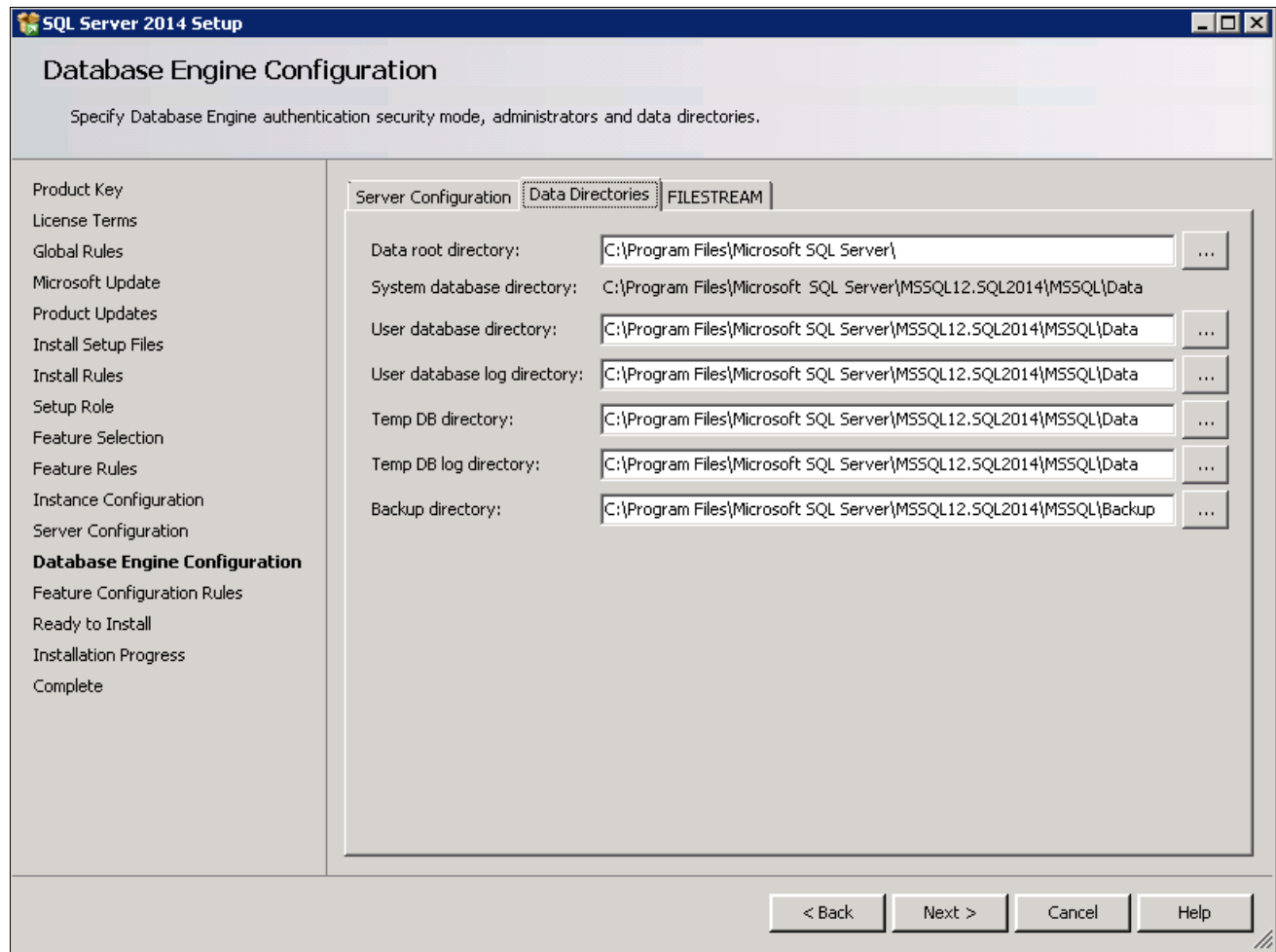
See Microsoft SQL Server I/O subsystem requirements for the tempdb database, <http://support.microsoft.com/kb/917047/en-us>.

See Optimizing tempdb Performance, Microsoft TechNet Library, [http://technet.microsoft.com/en-us/library/ms175527\(v=sql.105\).aspx](http://technet.microsoft.com/en-us/library/ms175527(v=sql.105).aspx).

See SQL Server 2000 Operations Guide: Capacity and Storage Management, <http://www.microsoft.com/technet/prodtechnol/sql/2000/maintain/sqlops6.msp>.

See Microsoft SQL Server 2012 Best Practices Analyzer, Microsoft Download Center, <http://www.microsoft.com/en-in/download/details.aspx?id=29302>.

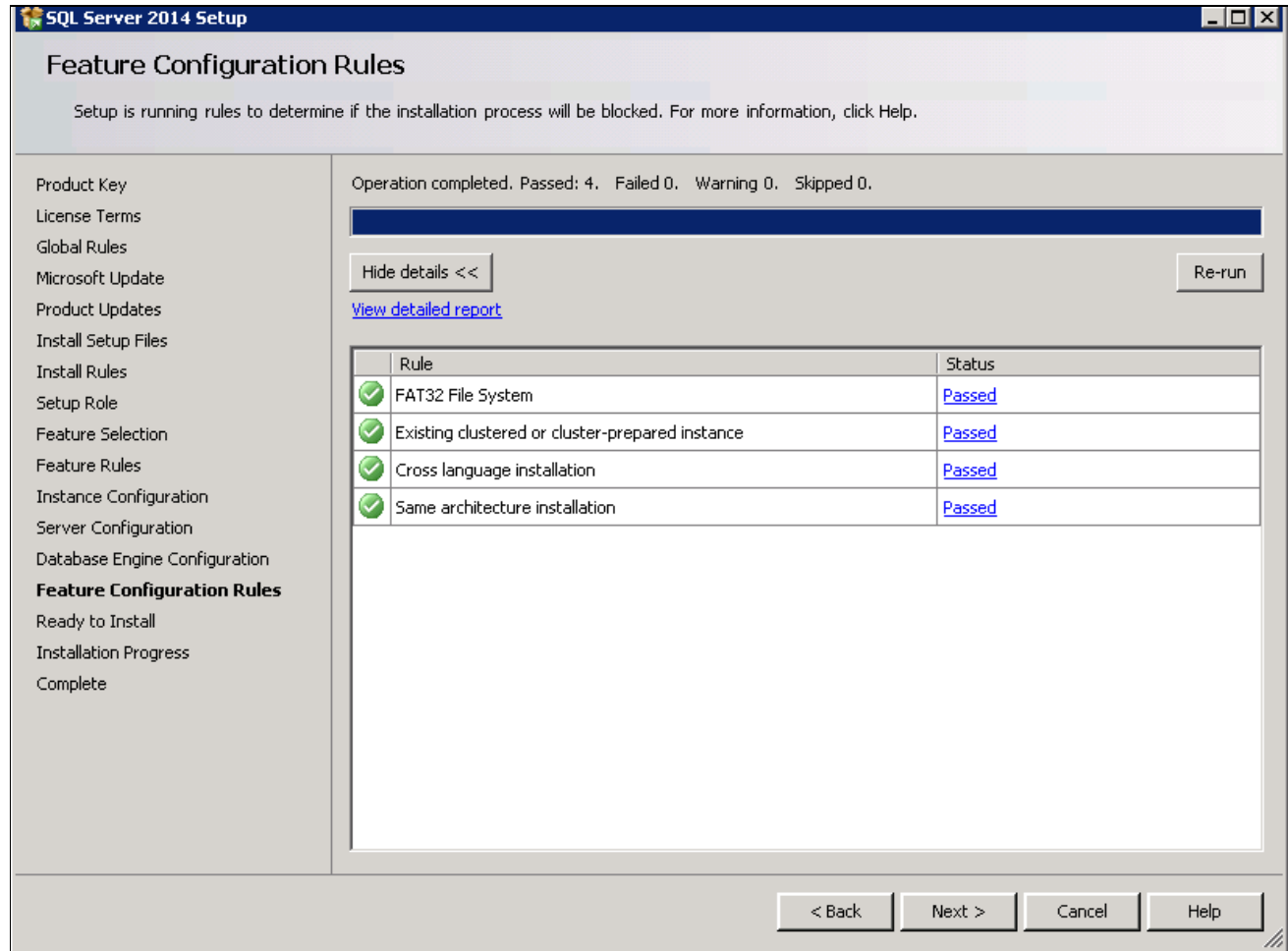
See SQL Server Best Practices, <http://technet.microsoft.com/en-us/sqlserver/bb671430>.



SQL Server 2014 Setup Database Engine Configuration window: Data Directories page

25. Click Next.

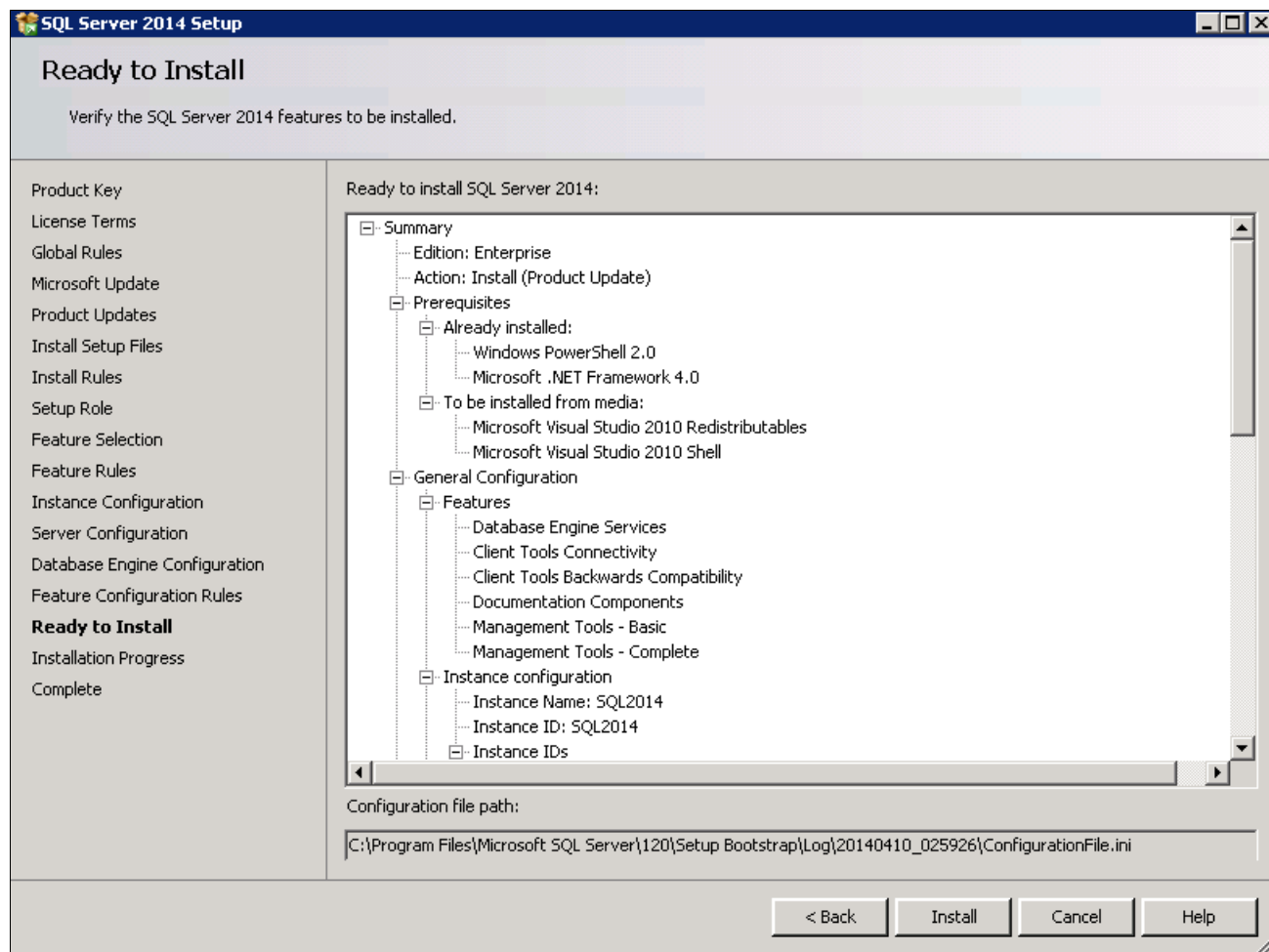
The Feature Configuration Rules window appears. The setup operation runs rules to determine whether the installation will be blocked. Wait until the operation is complete, and then click Show details. Verify that all of the rules have Passed in the Status column, as shown in this example. If any rule does not pass, click the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Feature Configuration Rules window

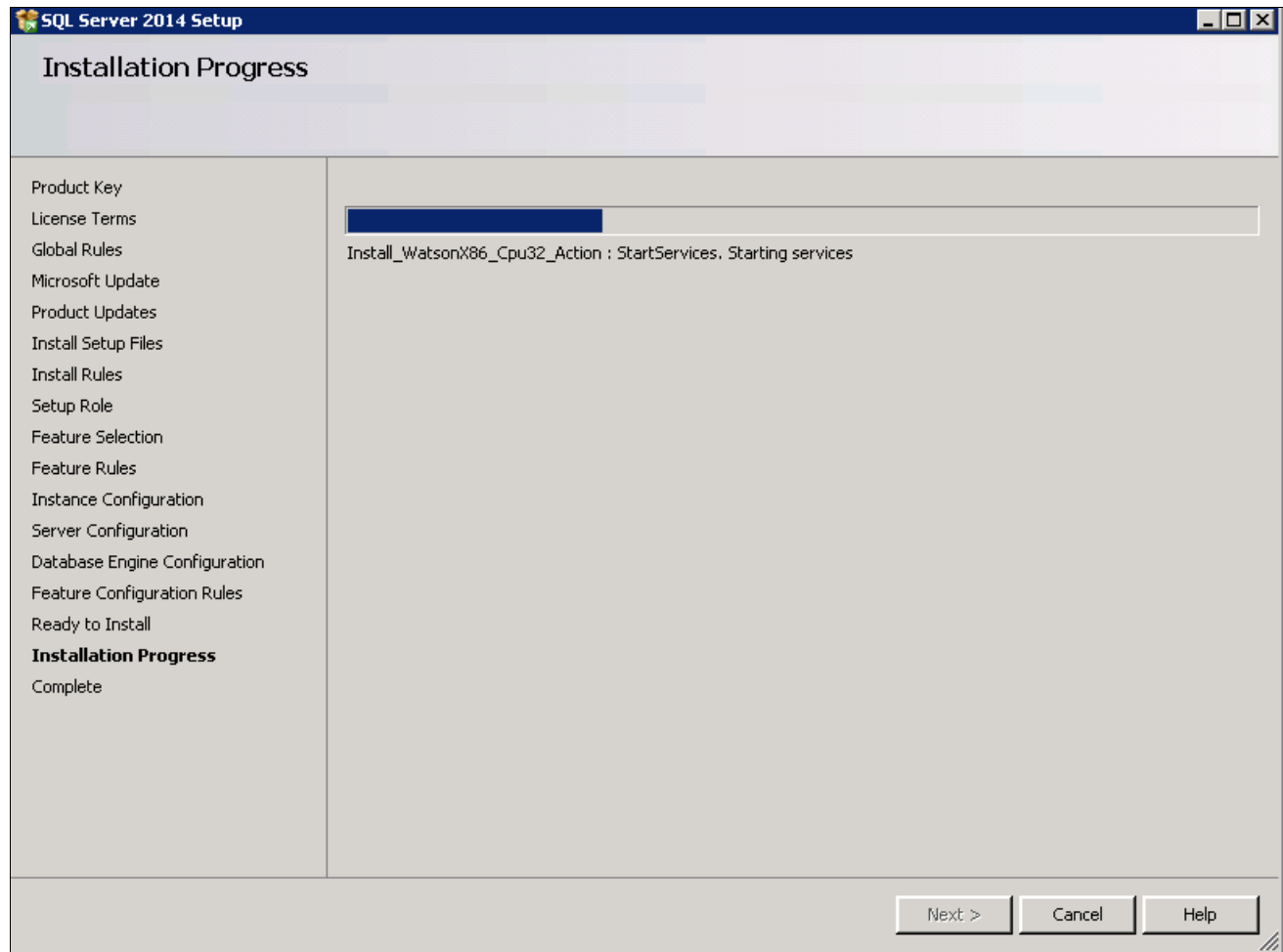
26. Click Next.

The Ready to Install window appears with a summary of the features and settings that you have selected, as shown in this example. Select Install to proceed or Back to go back and correct a setting.



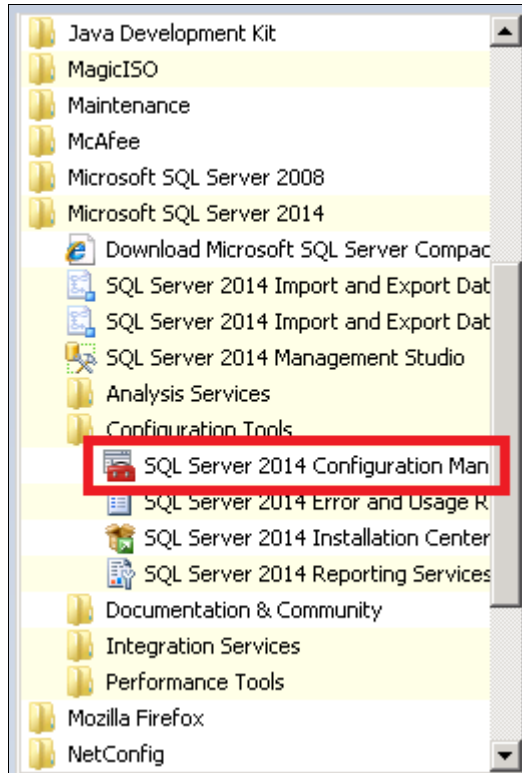
SQL Server 2014 Setup Ready to Install window

A window appears showing the progress of the installation, as shown in this example. The installation requires 10-15 minutes, and may depend upon your system configuration.



SQL Server 2014 Setup Installation Progress window

1. Select Start, Programs, Microsoft SQL Server 2014, Configuration Tools, SQL Server 2014 Configuration Manager, which is surrounded by a red box in this example:



SQL Server 2014 Configuration Manager selection

The SQL Server Configuration Manager window opens.

2. On the left side of the window select SQL Server Services, and on the right side select the server or instance name that you want to start or stop.
3. If the service is running, highlight the service name and click the stop button on the top menu bar.

In this example the SQL Server (SQL2014) service (which is surrounded by a red box) is running.

SQL Server Configuration Manager (Local)					
	Name	State	Start Mode	Log On As	Process ID
SQL Server Services	SQL Server Browser	Running	Automatic	NT AUTHORITY\LOC...	4964
SQL Server Network Configuration (32bit)	SQL Server (SQL2014)	Running	Automatic	LocalSystem	4536
SQL Native Client 11.0 Configuration (32bit)	SQL Server Agent (SQL2014)	Stopped	Manual	LocalSystem	0
SQL Server Network Configuration					
SQL Native Client 11.0 Configuration					

SQL Server Configuration Manager window

4. If the service is stopped, highlight the name and click the start button on the top menu bar.

Task 24-3: Installing Microsoft SQL Server 2014 — Client Only

This section discusses:

- Understanding the Client-Only Microsoft SQL Server 2014 Installation

- Installing Microsoft SQL Server 2014 on a Client

Understanding the Client-Only Microsoft SQL Server 2014 Installation

Use these instructions to install only the client portion of Microsoft SQL Server 2014. You may use the client software, for example, when using a remote machine to connect to the database server on another machine.

See the section Understanding the Microsoft SQL Server 2014 Installation and verify that you have fulfilled the prerequisites. The client installation has the same requirements as the installation on database server.

Task 24-3-1: Installing Microsoft SQL Server 2014 on a Client

To install Microsoft SQL Server 2014 client software:

1. If you want to uninstall your previous Microsoft SQL Server software before installing Microsoft SQL Server 2014, you can use Control Panel, Add/Remove Programs.

Note. Oracle recommends that you install only one SQL Server version per server. This should simplify the administration. However, in some instances you may need to install multiple versions, and it is possible to have side-by-side installations of different versions of Microsoft SQL Server.

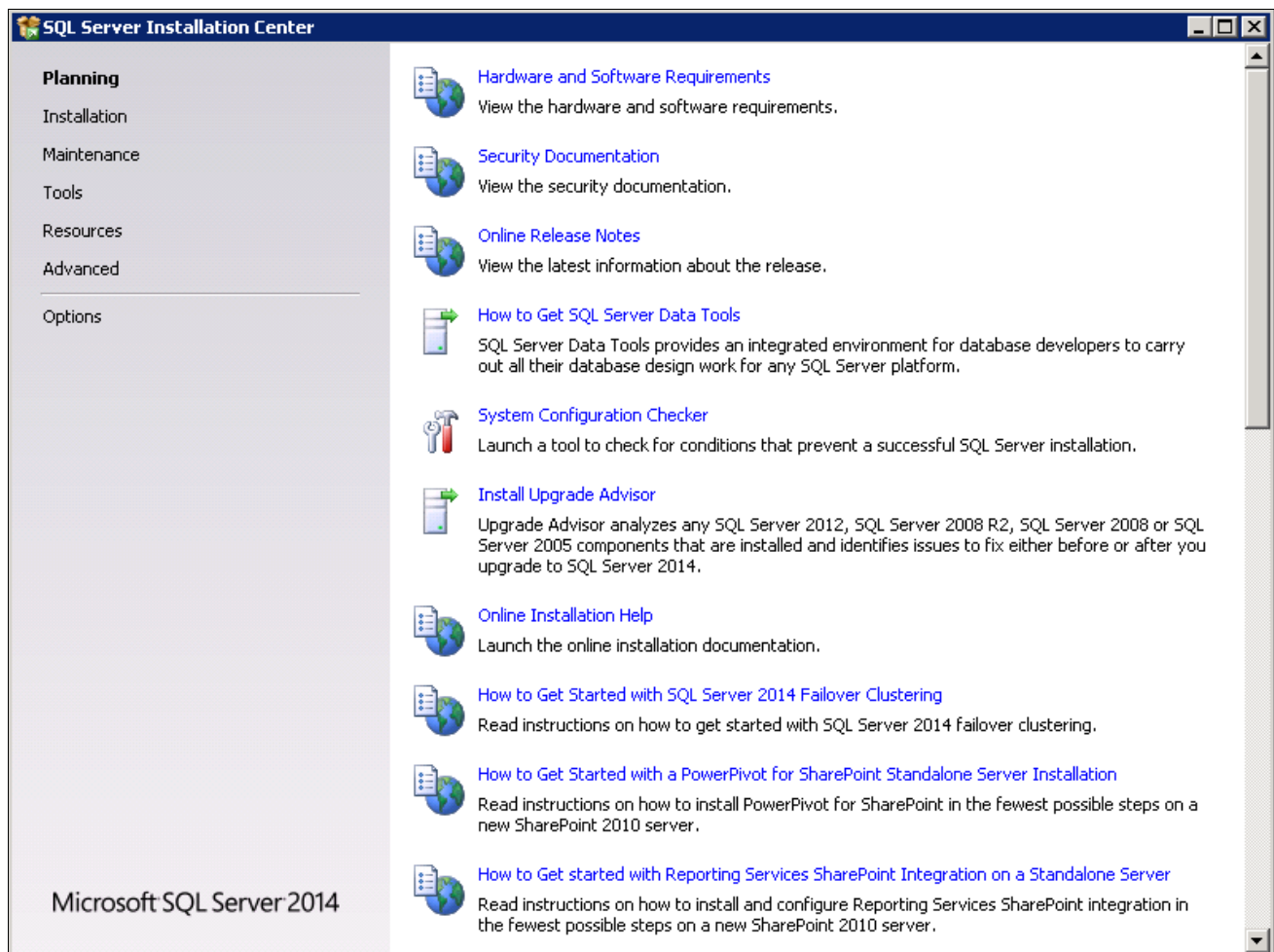
2. Insert the Microsoft SQL Server 2014 DVD into the DVD drive.

The installation should start automatically, but if it does not, run `setup.exe` from the DVD-ROM's directory.

If you downloaded the installation files, go to the directory where you saved the installation files and run `setup.exe`.

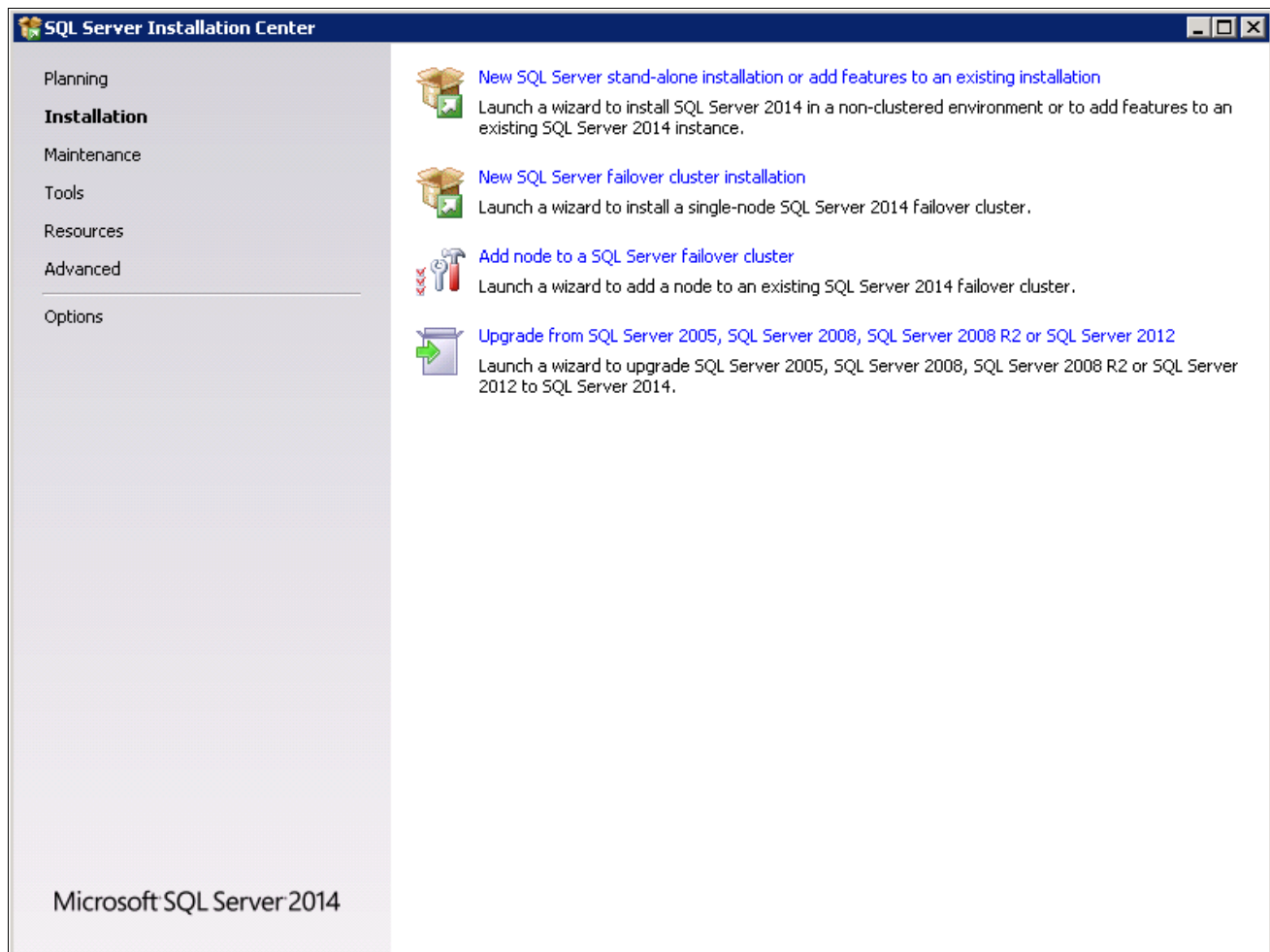
An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

3. Select Installation from the left-hand navigation tree, as shown in this example:



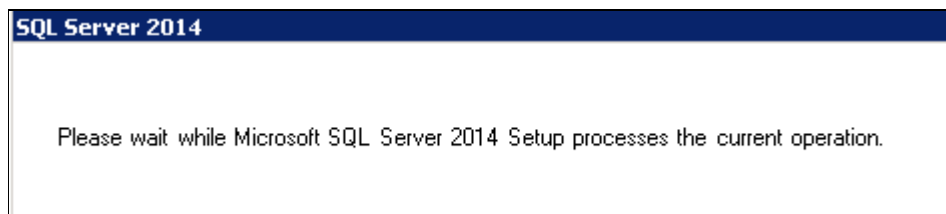
Microsoft SQL Server 2014 SQL Server Installation Center window

4. Select the link **New SQL Server stand-alone installation or add features to an existing installation**, which is the first link in this example, to proceed:



SQL Server Installation Center window Installation page

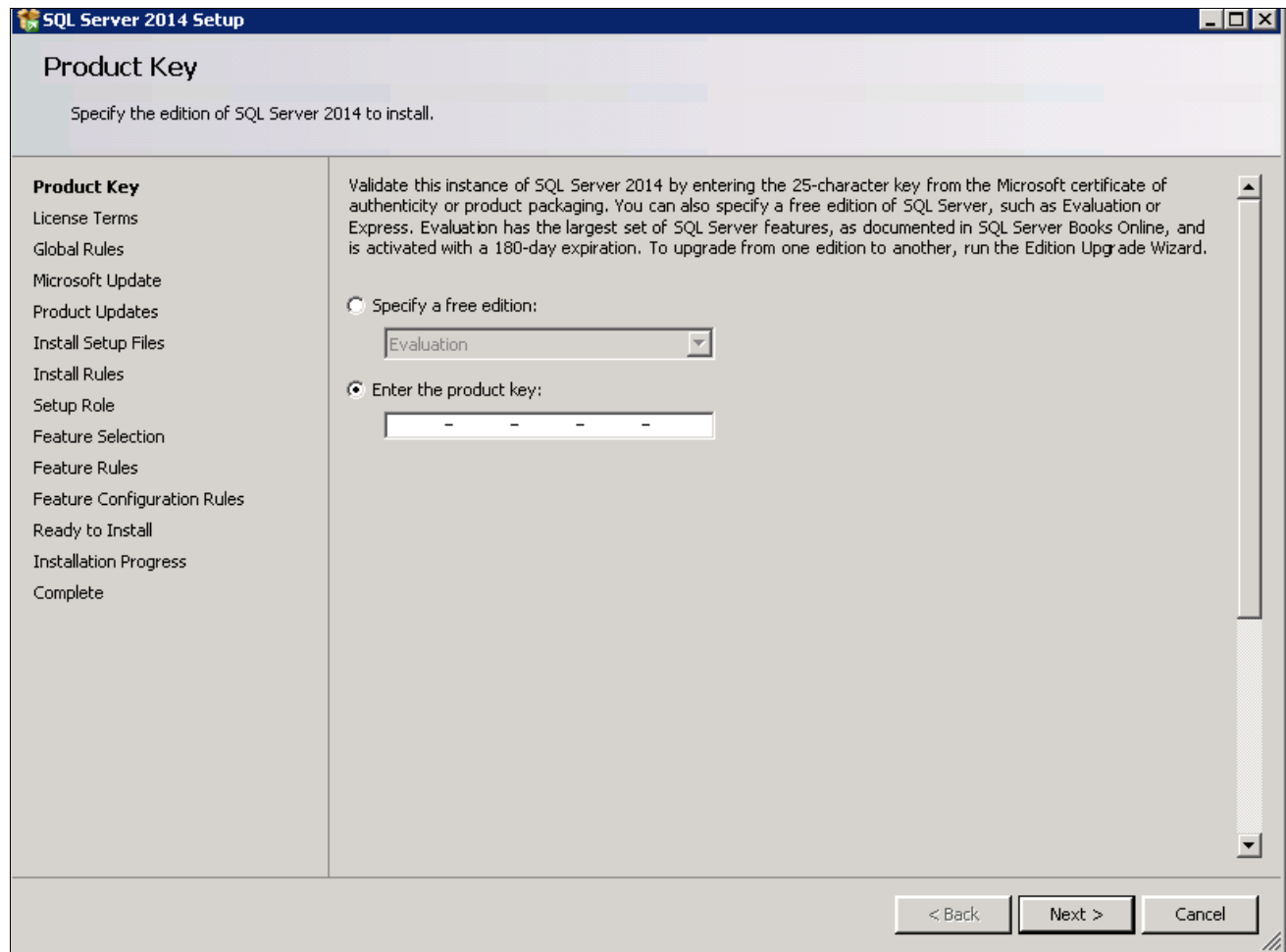
5. If you see an Open File security message, click Run and choose Run Program.
A message box appears asking you to wait, as shown in this example:



SQL Server 2014 message box

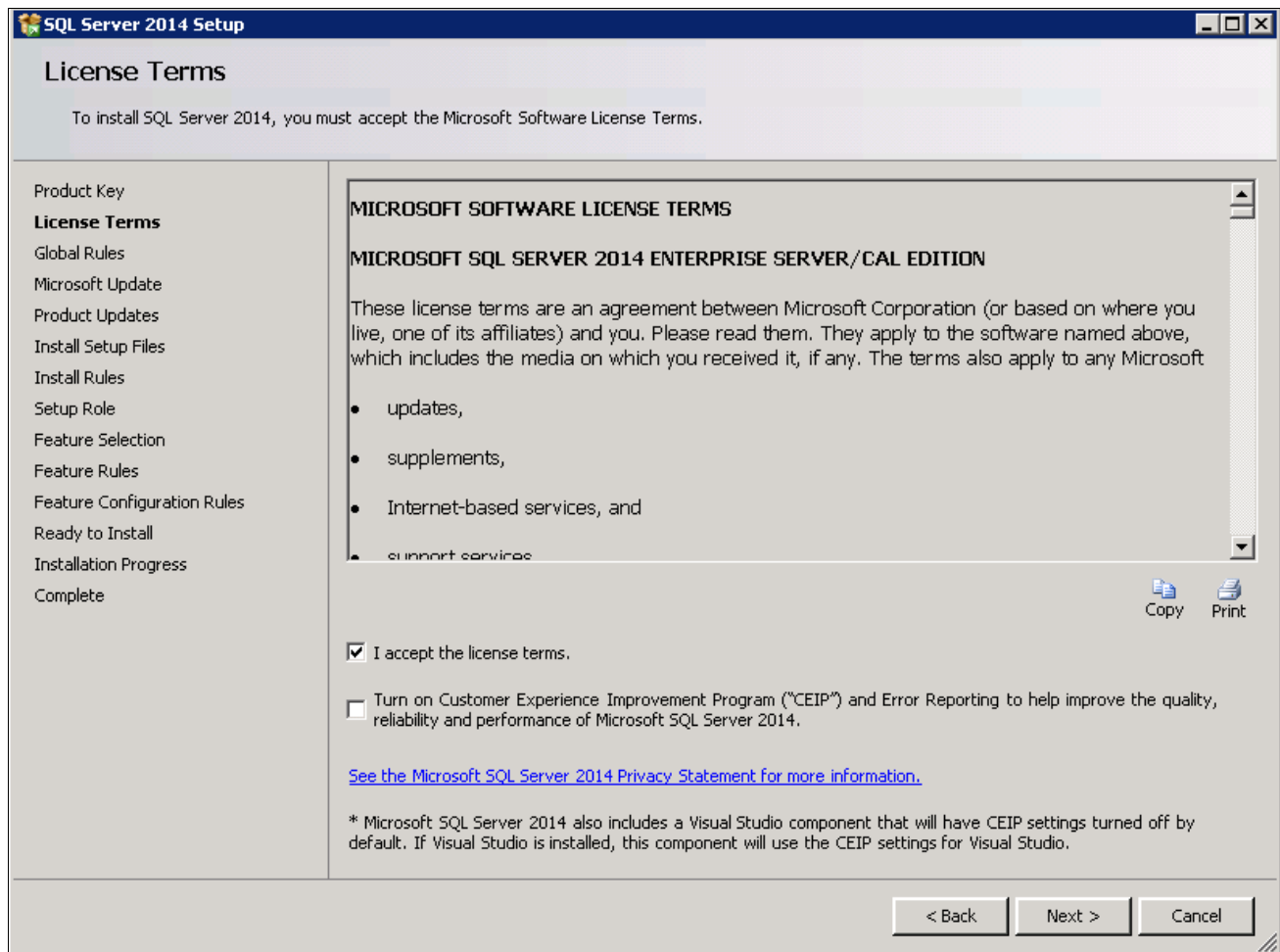
6. Enter the product key on the Product Key window.

If it is already populated ignore this step and click Next to continue to the License Terms window. In this example, the product key field is empty:



SQL Server 2014 Setup Product Key window

7. On the License Terms window, read the Microsoft Software license terms and conditions carefully and select the check box labeled I accept the license terms, as shown in this example:

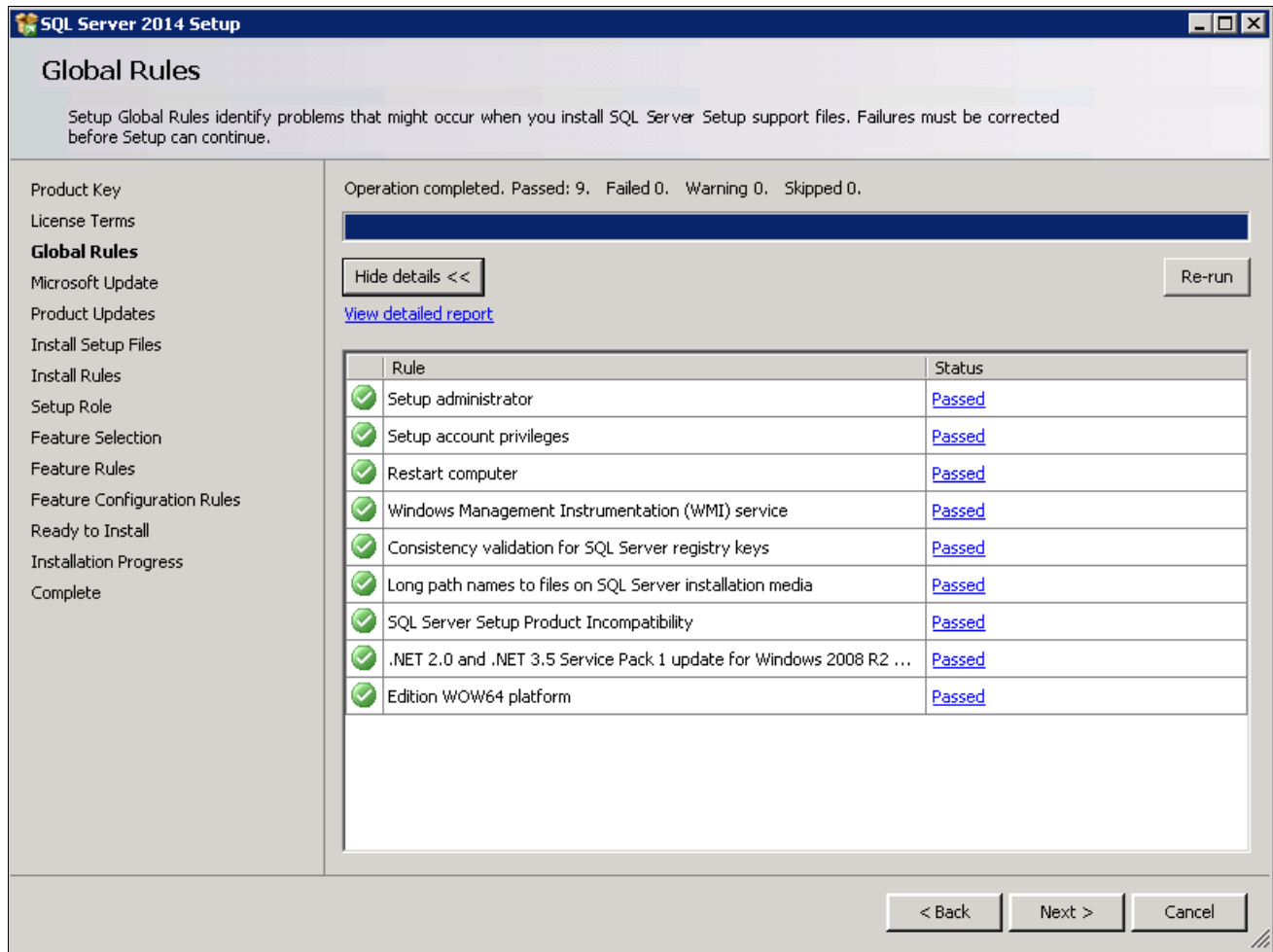


SQL Server 2014 Setup License Terms window

8. Click Next.
- The Global Rules window appears. Wait until the process verifying global rules is complete.

9. Click Show details on the Global Rules window.

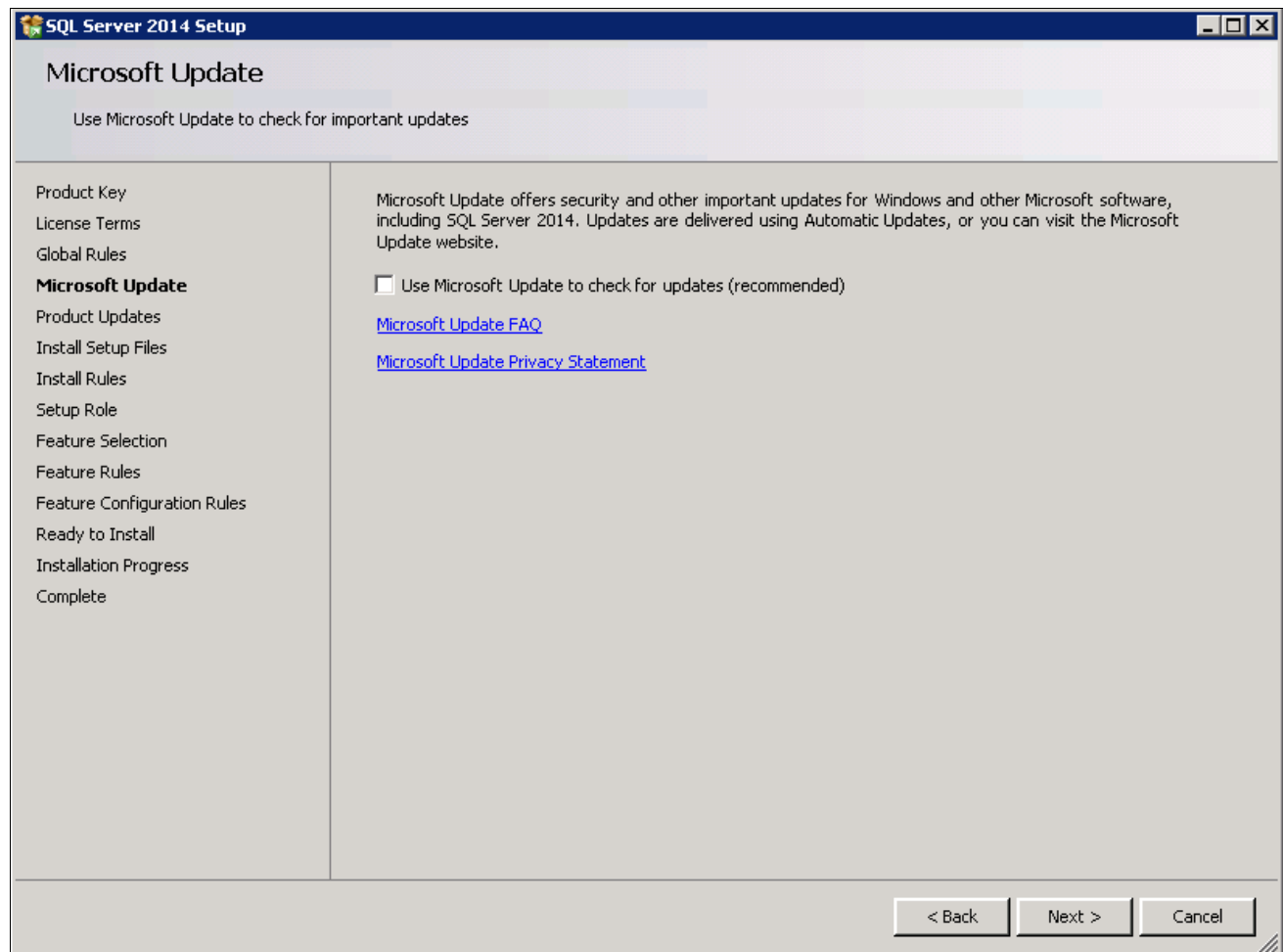
Verify that the status for all of the rules is Passed, as in this example. If any of the rules has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Global Rules window

10. Click Next.

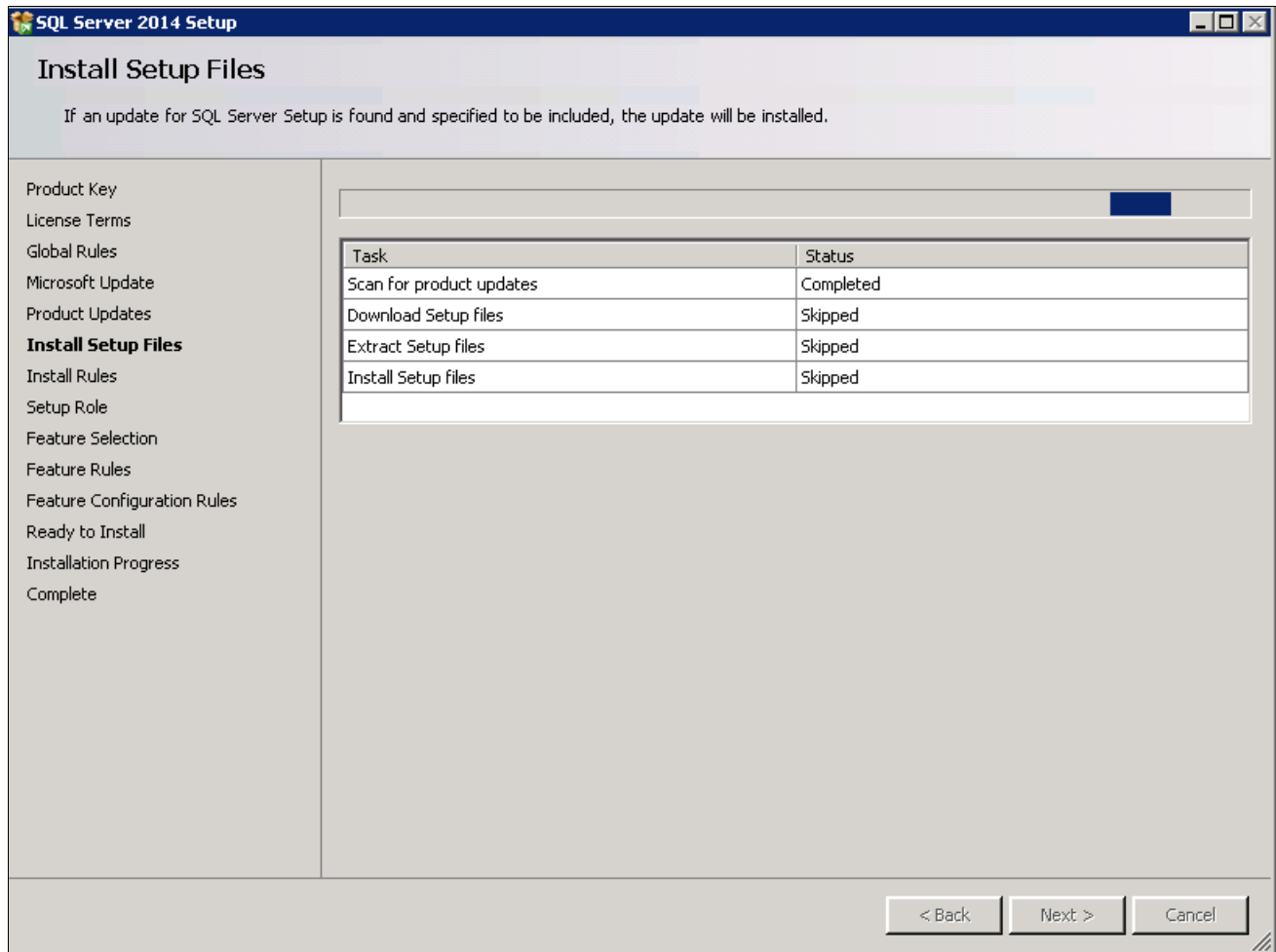
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



SQL Server 2014 Setup Microsoft Update window

11. Click Next.

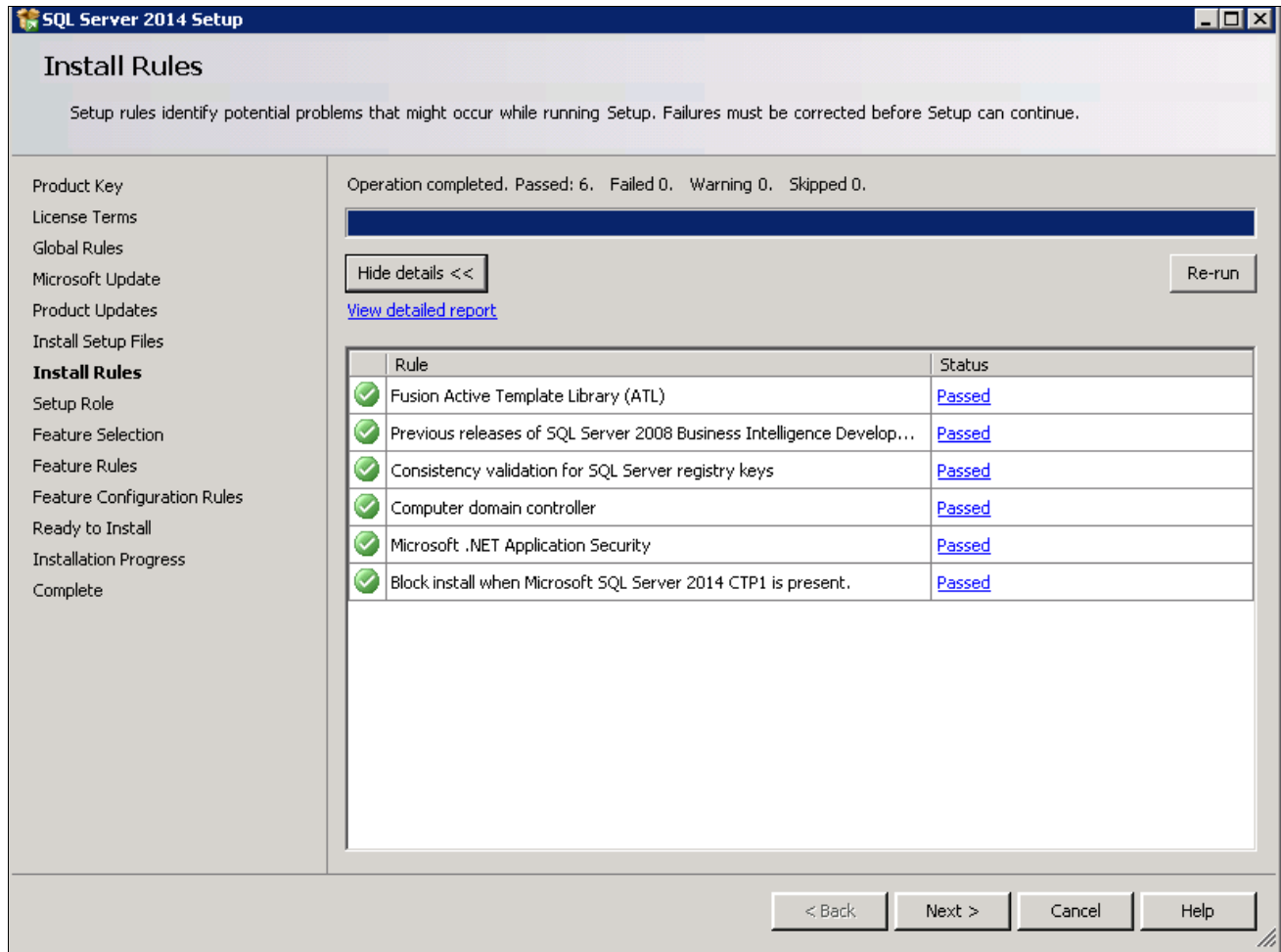
The Install Setup Files window appears. Wait for the process to install setup files and scan for product updates to complete, as shown in the Status column in this example.



SQL Server 2014 Setup Install Setup Files window

12. When the operation is complete, the Install Rules window appears.

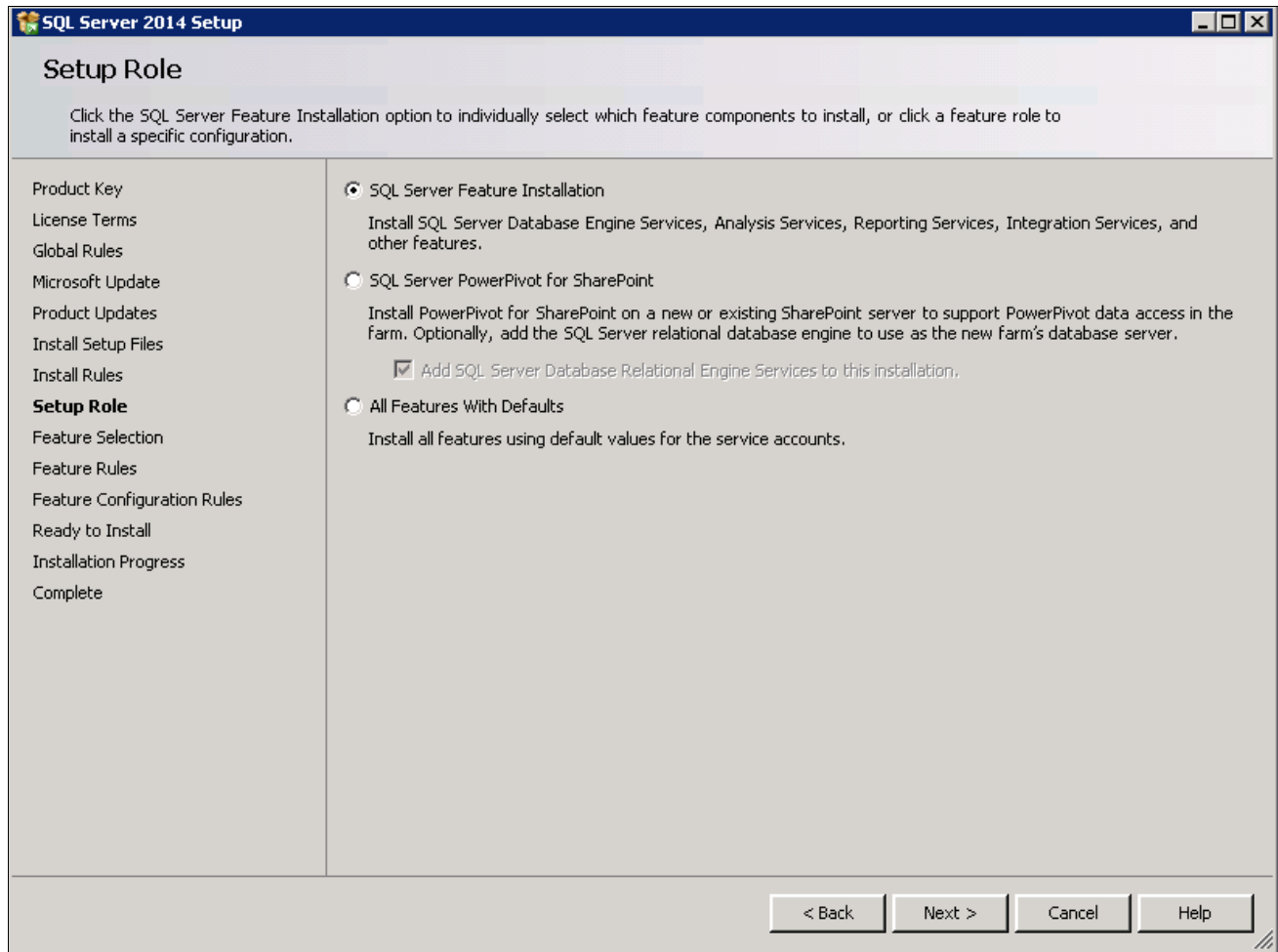
The setup operation checks for problems that might occur when you install support files. In this example all of the support rules have passed.



SQL Server 2014 Setup Install Rules window

13. Click Next to proceed.

On the Setup Role window, select the option SQL Server Feature installation, as shown in this example, and click Next.

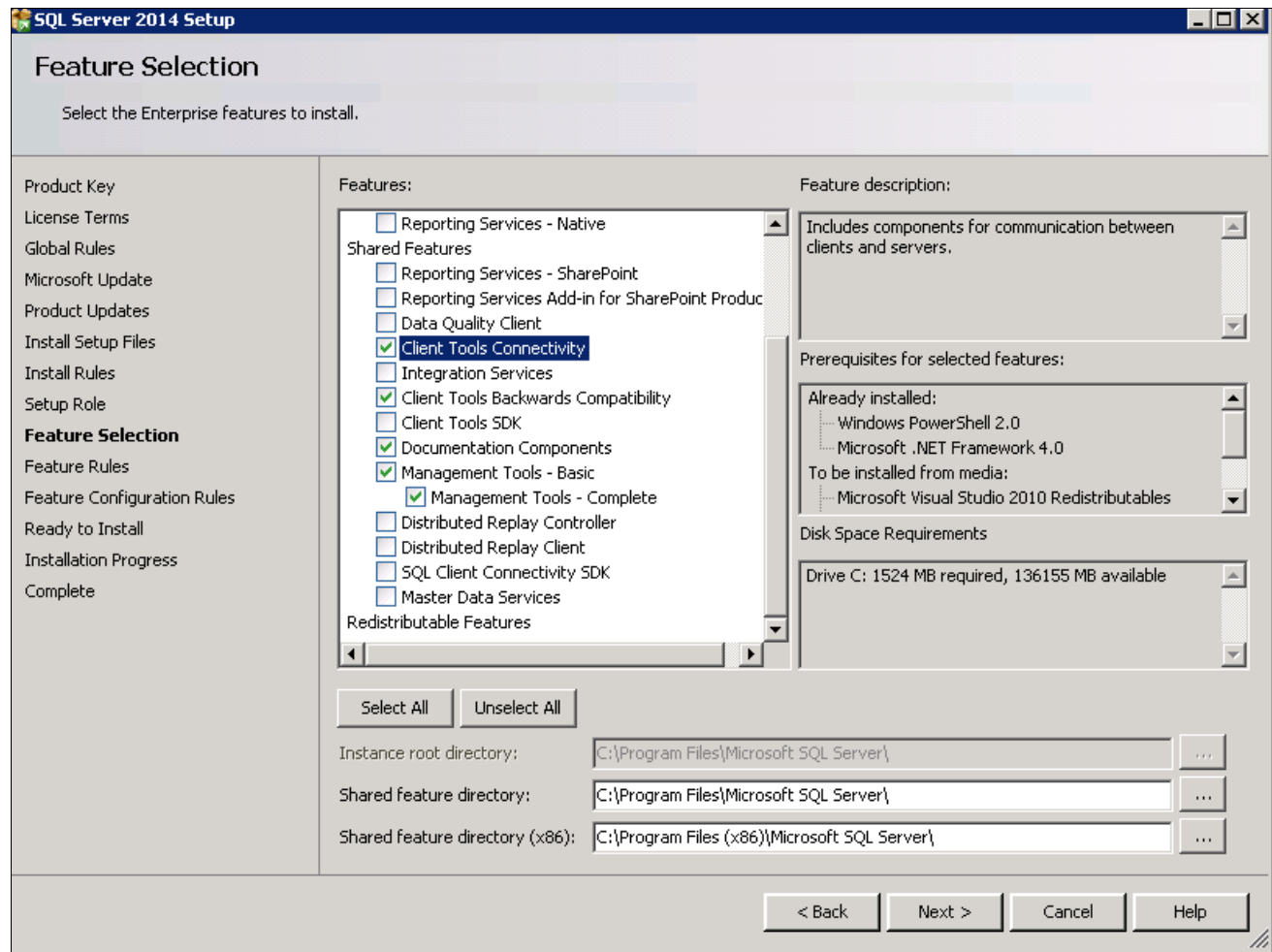


SQL Server 2014 Setup Setup Role window

14. Select the option SQL Server Feature Installation, and click Next.

15. A Feature Selection window appears that lists all the features of Microsoft SQL Server 2014 that are available to be installed.

This example shows the Feature Selection window with the features required to install the client for a PeopleSoft installation selected. The required features are listed below the example.



SQL Server 2014 Setup Feature Selection window

For a PeopleSoft installation, select the following features, as shown in the example:

- Client Tools Connectivity
- Client Tools Backward Connectivity
- Management Tools - Basic
- Management Tools - Complete

16. Clear the check boxes for the following features:

- Database Engine Services
- SQL Server Replication
- Full Text Search and Semantic Extraction for Search
- Data Quality Services
- Analysis Services
- Reporting Services - Native

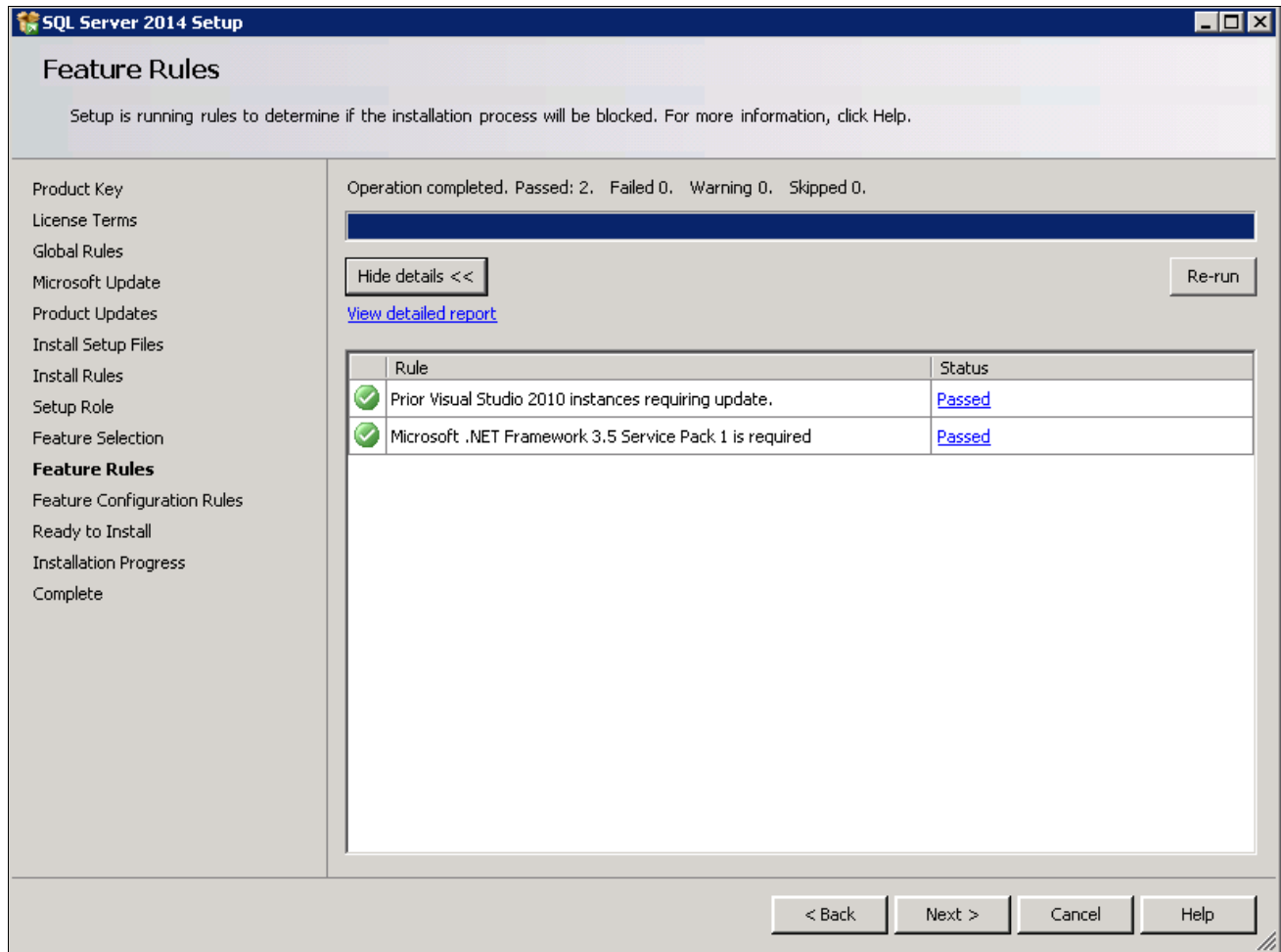
- Shared Features
- Reporting Services - SharePoint
- Reporting Services Add-in for Share Point Products
- Data Quality Client
- SQL Server Data Tools
- Integration Services
- Client Tools SDK
- Documentation Components
- Distributed Replay Controller
- Distributed Replay Client
- SQL Client Connectivity SDK
- Master Data Services

17. Click Next.

The Feature Rules window appears.

18. Wait for the operation to be complete, and then click Show Details.

Verify that all of the rules passed successfully, as shown in this example. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.

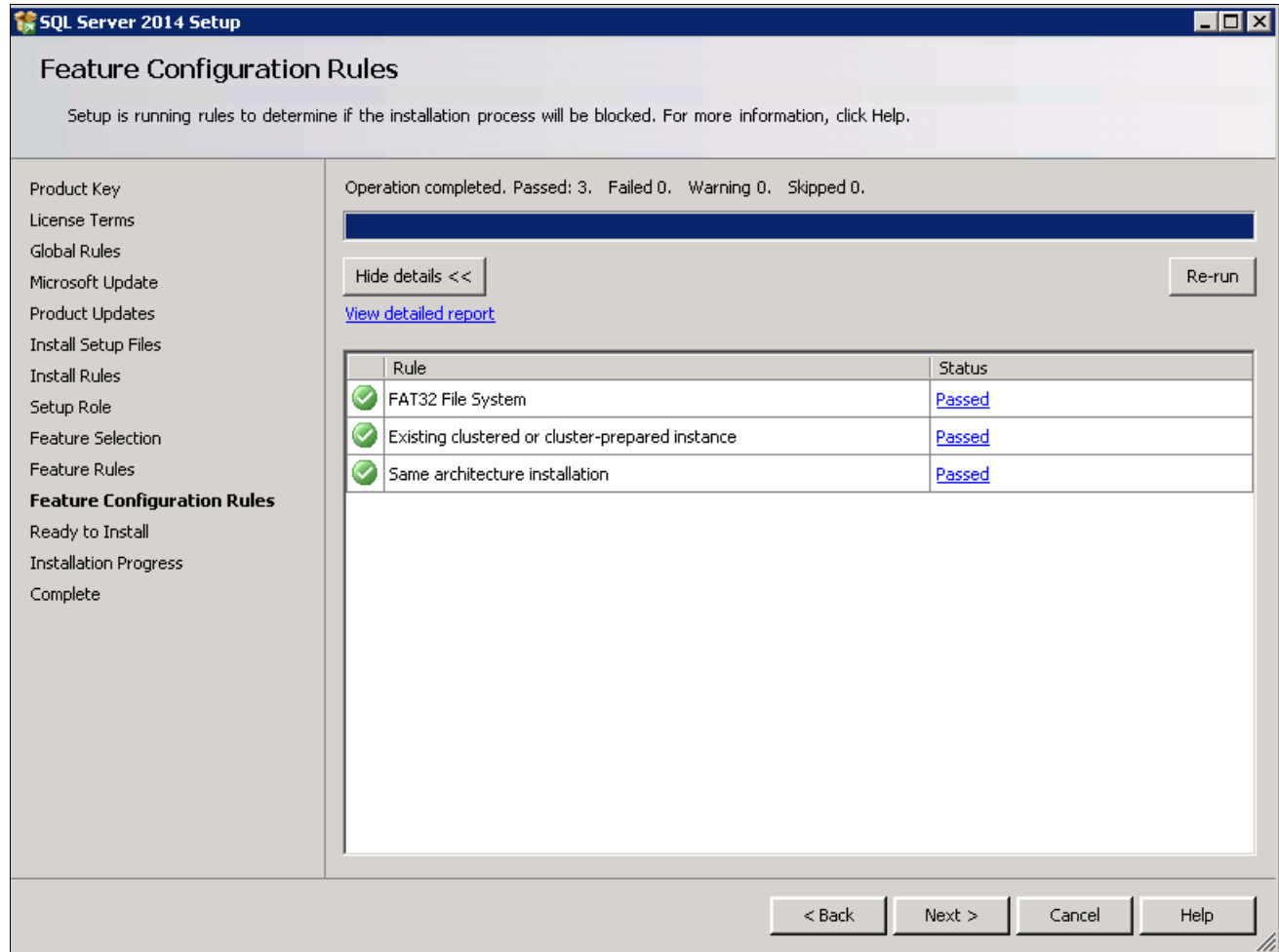


SQL Server 2014 Setup Feature Rules window showing details

19. Click Next.

The Feature Configuration Rules window appears.

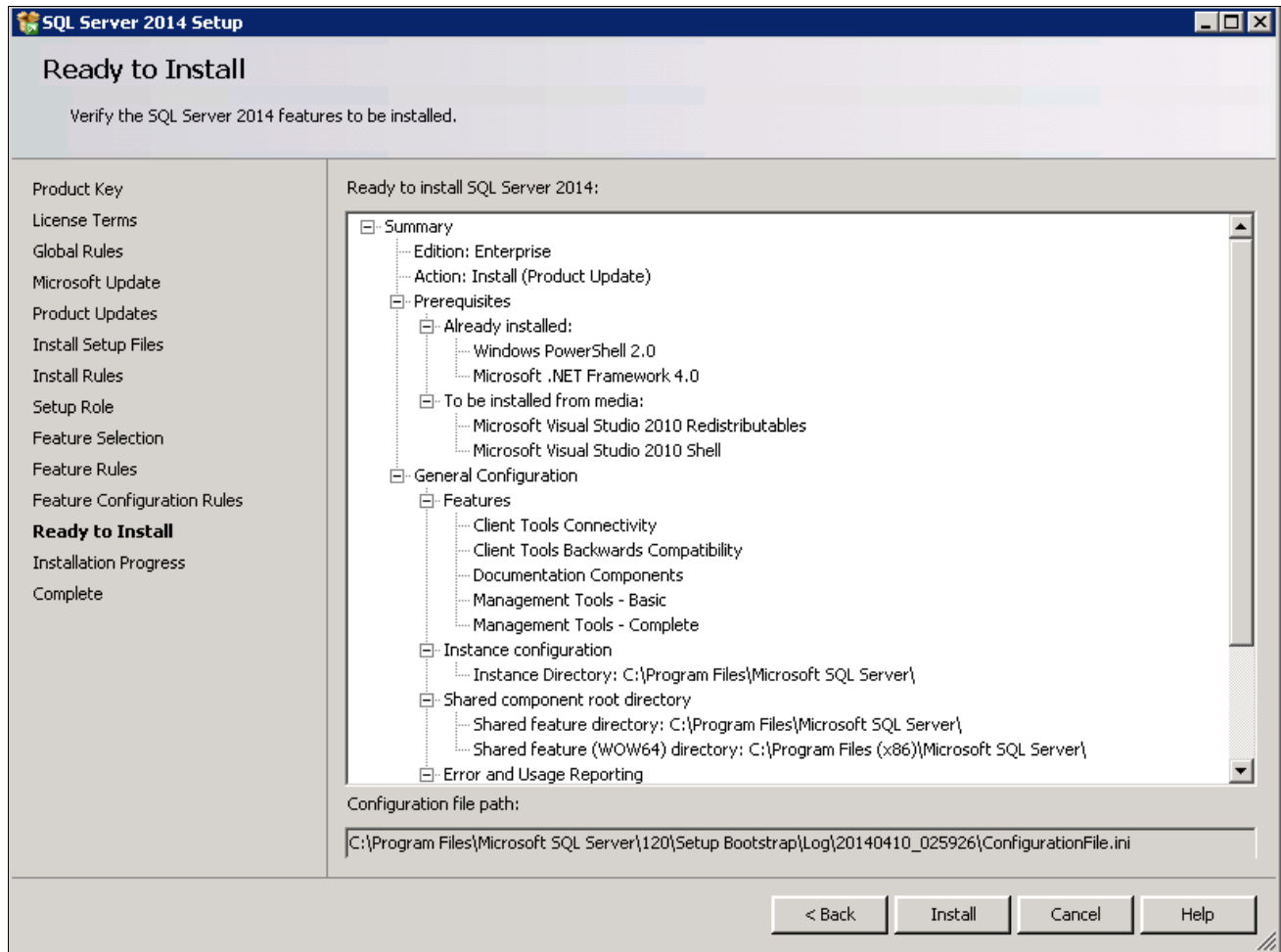
Wait for the operation to be complete. View the detailed report and verify that all of the rules passed successfully, as shown in this example. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



SQL Server 2014 Setup Feature Configuration Rules window

20. Click Next.

The Ready to Install window appears with a summary of the features and settings that you have selected, as shown in this example. Select Install to proceed or Back to go back and correct a setting.



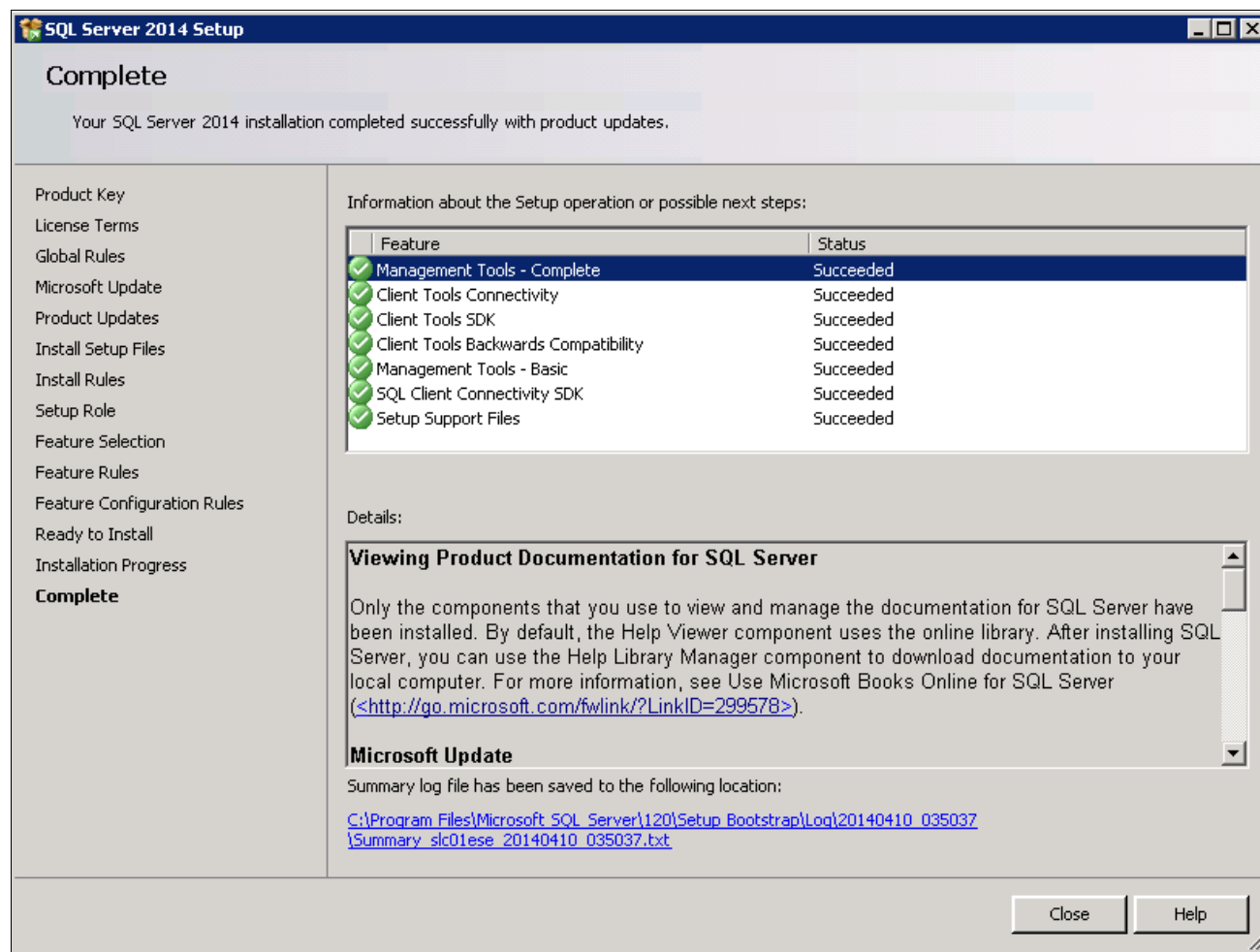
SQL Server 2014 Setup Ready to Install window

21. Wait for all the components to install successfully.

After the installation is complete, a Complete screen appears which gives the location of the setup log files and other information. The log files are saved in this location, where *<identifier>* refers to a string including a timestamp:

C:\Program Files\Microsoft SQL Server\120\Setup Bootstrap\Log\<identifier>\Summary<identifier>

The SQL Server 2014 client setup is complete.

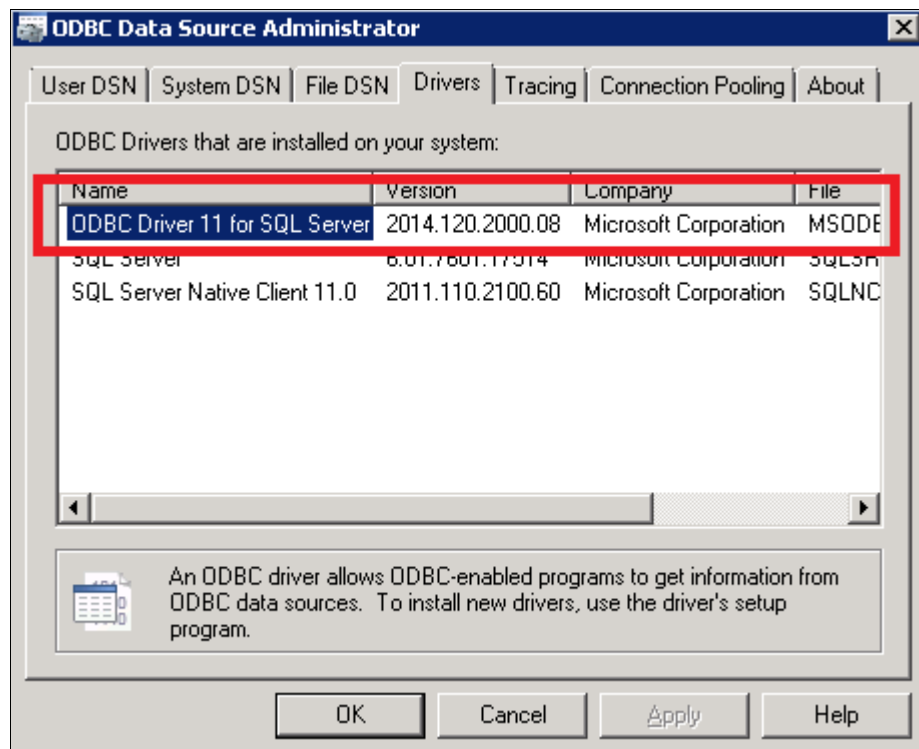


SQL Server 2014 Setup Complete window

Task 24-4: Configuring the Connection to Use SNAC for Microsoft SQL Server 2014

When configuring ODBC to connect to your SQL Server 2014 databases make sure you use ODBC Driver 11 for SQL Server version 2014.120.2000.08. The only certified configuration uses this client to connect to SQL Server 2014.

Select Start, Programs, Administrative Tools, Data Sources (ODBC), and select the Drivers page. Confirm that the driver is ODBC Driver 11 for SQL Server version 2014.120.2000.08, which is surrounded by a red box in this example:



ODBC Data Source Administrator dialog box: Drivers page

Task 24-5: Configuring an ODBC Data Source for Microsoft SQL Server 2014

Confirm that you are using the correct connectivity drivers for a 64-bit machine. Beginning with the PeopleSoft PeopleTools 8.54 release, PeopleSoft PeopleTools server and client executables are 64-bit. To run on a 64-bit operating system you need only the 64-bit connectivity drivers for PeopleSoft PeopleTools.

On the ODBC Data Source Administrator dialog box, on the System DSN page, you need to create an ODBC Data Source for the 64-bit application.

The 64-bit version of `odbcad32.exe` is found in `C:\windows\system32`. This is for 64-bit utilities running on a 64-bit operating system. This is the correct version for 64-bit PeopleSoft PeopleTools clients and servers such as the Application Server, Process Scheduler, Application Designer (`pside.exe`) and Data Mover (`psdmt.exe`).

When you run `odbcad32` on a 64-bit Microsoft Windows machine (Start, Programs, Control Panel, Administrative Tools, ODBC Data Administrator), the 64-bit version of `odbcad32.exe` (`C:\windows\system32`) is used by default.

Chapter 25

Installing Microsoft SQL Server 2016

This chapter discusses:

- Understanding the Microsoft SQL Server 2016 Installation
- Installing Microsoft SQL Server 2016 on the Database Server
- Installing Microsoft SQL Server 2016 - Client Only
- Starting and Stopping Microsoft SQL Server 2016
- Configuring the Connection to Use SNAC for Microsoft SQL Server 2016
- Configuring an ODBC Data Source for Microsoft SQL Server 2016

Understanding the Microsoft SQL Server 2016 Installation

This chapter describes how to install Microsoft SQL Server 2016 for use with a PeopleSoft installation. For complete step-by-step instructions on installing Microsoft SQL Server 2016 and for prerequisite details, refer to the SQL Server 2016 online documentation (support.microsoft.com or Microsoft support services). Contact your Microsoft vendor for information on obtaining Microsoft SQL Server 2016.

Note. If you are upgrading from an existing installation on Microsoft SQL Server 2012 or Microsoft SQL Server 2014 see the chapter "Upgrading to Microsoft SQL Server 2016."

Microsoft .NET Framework 4.0 is the prerequisite for Microsoft SQL Server 2016.

Microsoft .NET Framework 4.0 is installed as part of the Microsoft SQL Server 2016 setup. If you need to install it separately, see the earlier instructions for PS/nVision, or the Microsoft SQL Server hardware and software requirements.

See Also

"Setting Up Process Scheduler on Windows," Installing Products for PS/nVision.

Hardware and Software Requirements for Installing SQL Server 2016, Microsoft online documentation

Task 25-1: Installing Microsoft SQL Server 2016 on the Database Server

This task describes how to install Microsoft SQL Server 2016 on the database server. You may need to reboot your server after the installation.

Note. There are different editions of Microsoft SQL Server 2016. Make sure that the edition you install is appropriate for your requirements. Some editions are not compatible with certain operating systems. You can check the version and edition of your existing SQL Server installation by issuing 'SELECT @@VERSION' from SQL Server Management Studio. Consult the SQL Server online documentation and Microsoft support for more information about editions.

To install Microsoft SQL Server 2016 on the database server:

1. If you want to uninstall your previous Microsoft SQL Server software before installing Microsoft SQL Server 2016, you can use Control Panel, Add/Remove Programs.

Note. We recommend that you install only one SQL Server version per server. This should simplify the administration. However, in some instances you may need to install multiple versions, and it is possible to have side-by-side installations of Microsoft SQL Server 2014 and Microsoft SQL Server 2016.

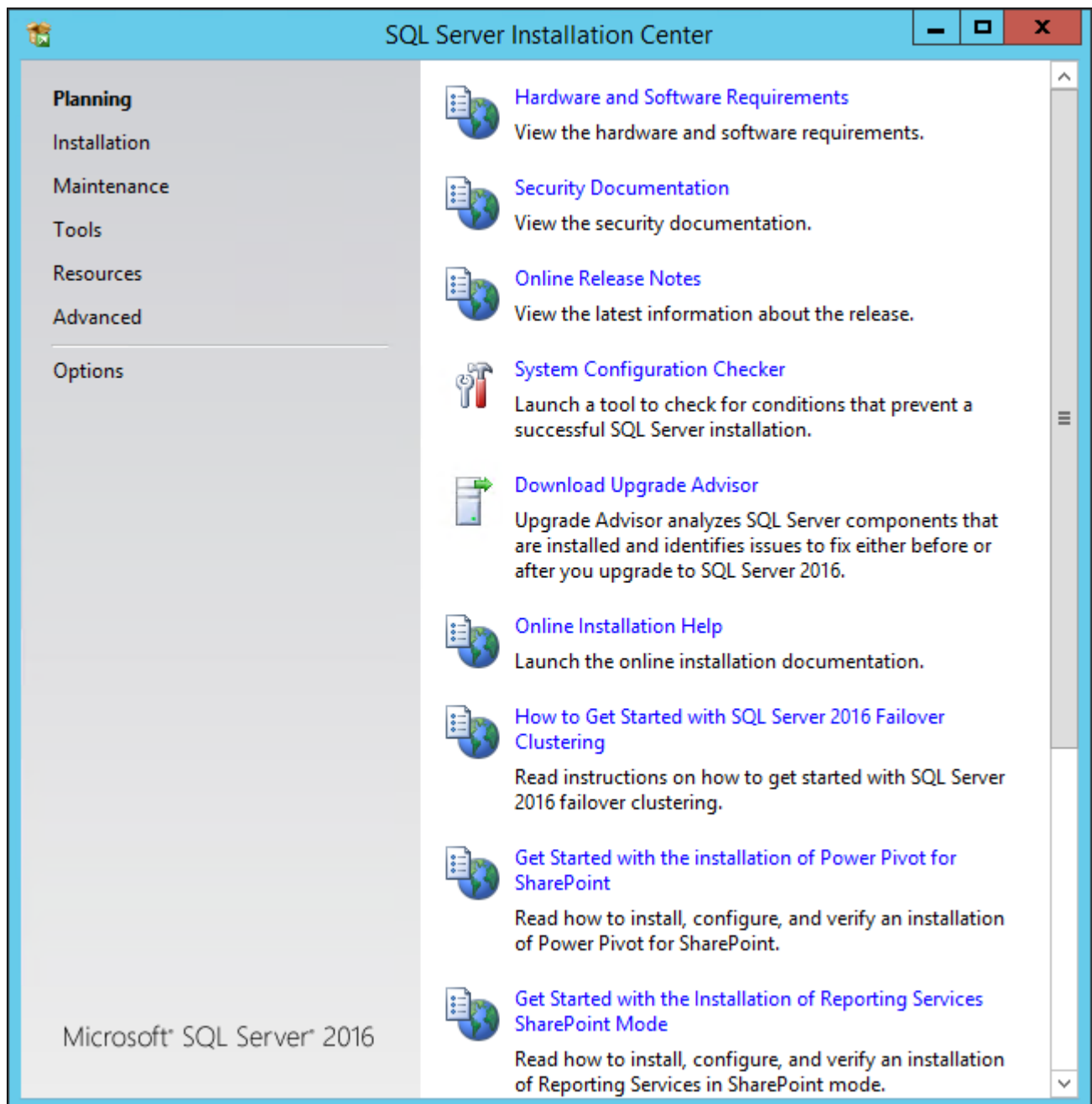
2. Insert the Microsoft SQL Server 2016 DVD into the DVD drive.

The installation should start automatically, but if it does not, run `setup.exe` from the DVD-ROM's directory.

If you downloaded the installation files, go to the directory where you saved the installation files and run `setup.exe`.

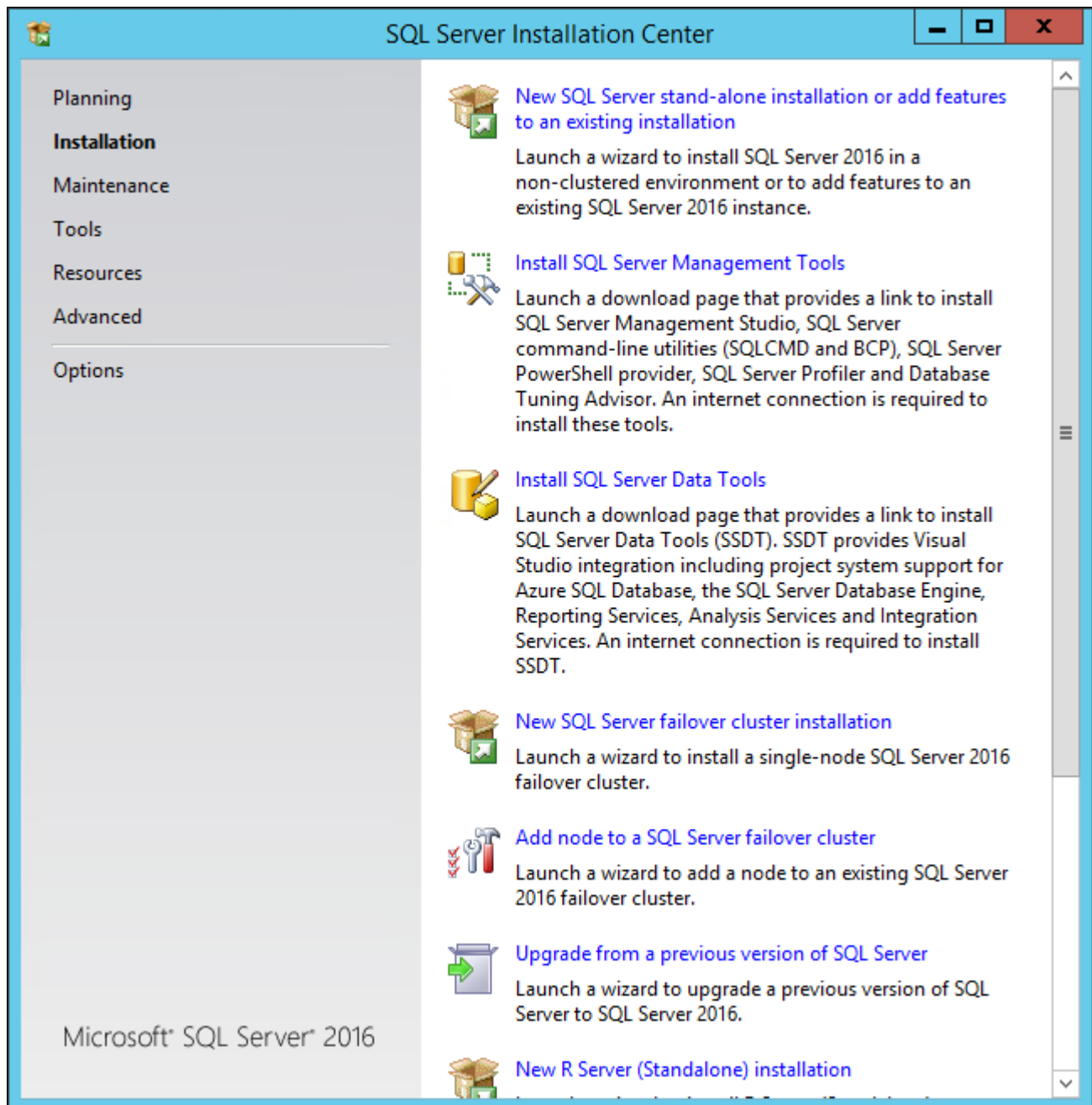
An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

3. Select the Installation link in the left-hand navigation tree.



Microsoft SQL Server 2016 SQL Server Installation Center Planning window

4. Select the link **New SQL Server stand-alone installation or add features to an existing installation**, the first link in this example:



Microsoft SQL Server 2016 SQL Server Installation Center Installation window

A message box appears asking you to wait while Microsoft SQL Server 2016 Setup processes the current operation.

After the process is complete the Product Key window appears.

5. Enter your product key value.

If it is already populated, ignore this step and click Next to continue to the License Terms window. In this example the field for Enter the product key is blank:

SQL Server 2016 Setup

Product Key

Specify the edition of SQL Server 2016 to install.

Product Key

- License Terms
- Global Rules
- Microsoft Update
- Product Updates
- Install Setup Files
- Install Rules
- Feature Selection
- Feature Rules
- Feature Configuration Rules
- Ready to Install
- Installation Progress
- Complete

Validate this instance of SQL Server 2016 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server: Developer, Evaluation, or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. Developer edition does not have an expiration, has the same set of features found in Evaluation, but is licensed for non-production database application development only. To upgrade from one installed edition to another, run the Edition Upgrade Wizard.

☐ Specify a free edition:

Evaluation

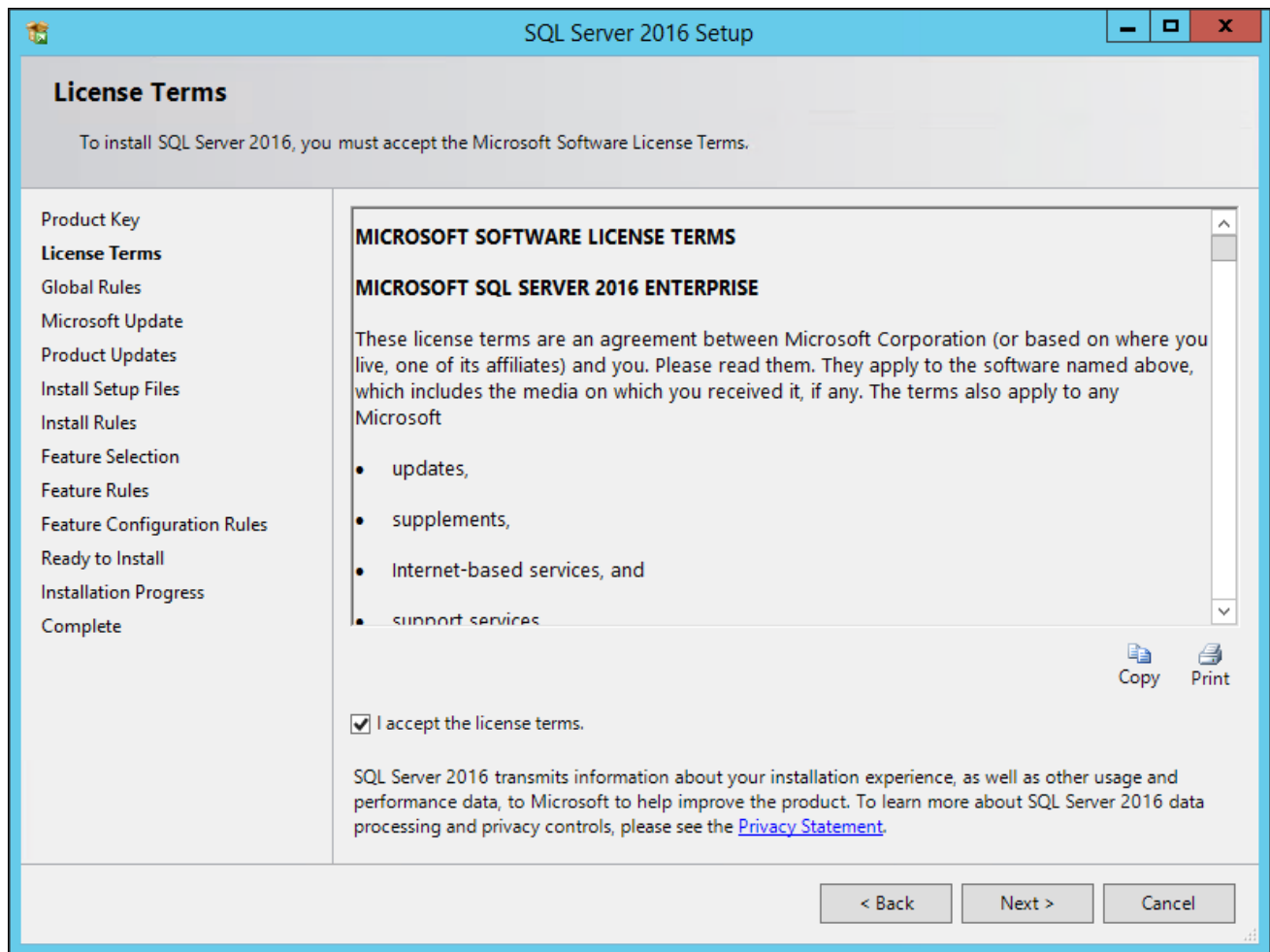
☒ Enter the product key:

- - - -

< Back Next > Cancel

SQL Server 2016 Setup Product Key window

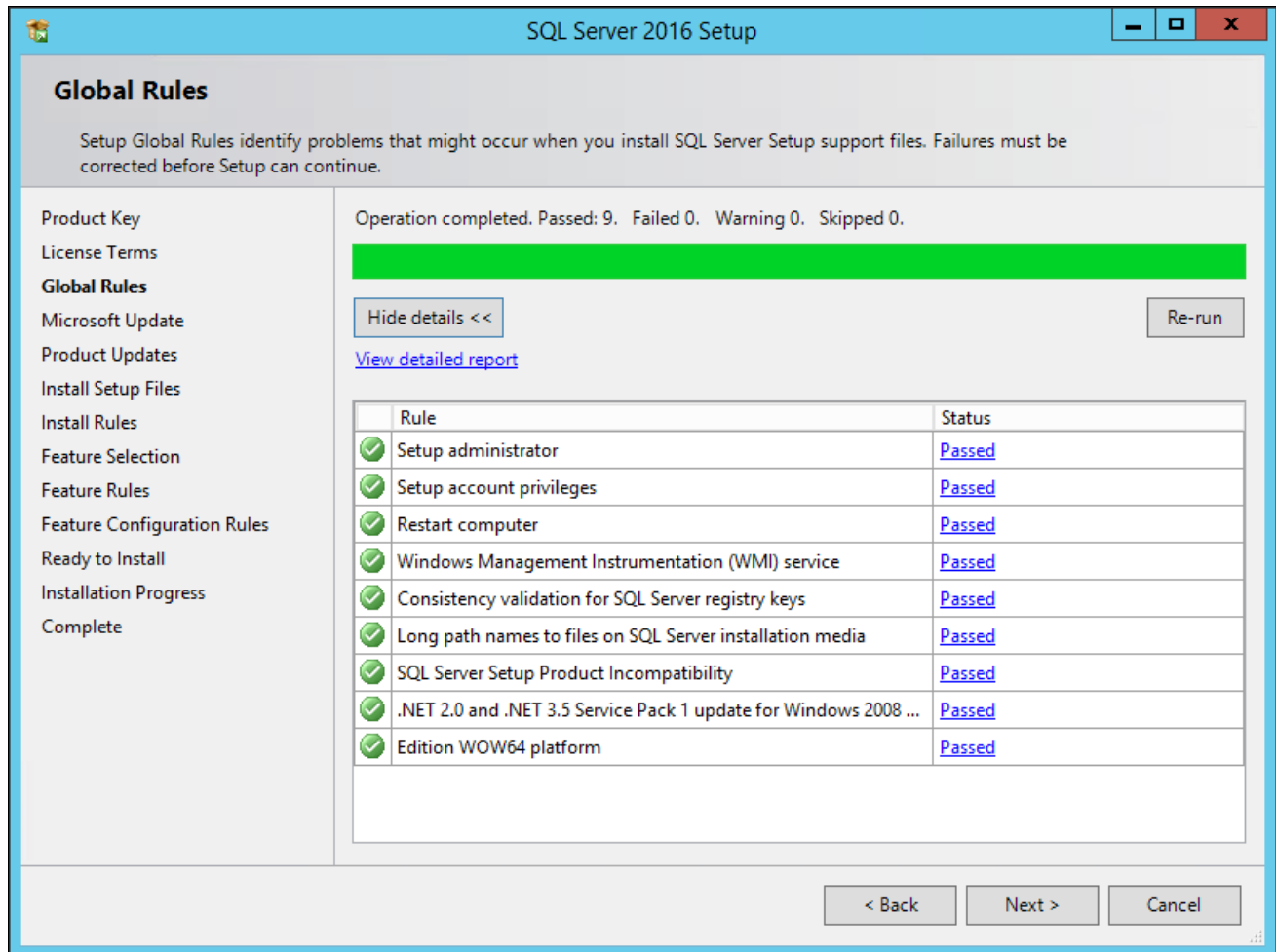
6. Read the terms and conditions carefully and select the check box I accept the license terms, as shown in this example:



SQL Server 2016 Setup License Terms window

7. Click Next.

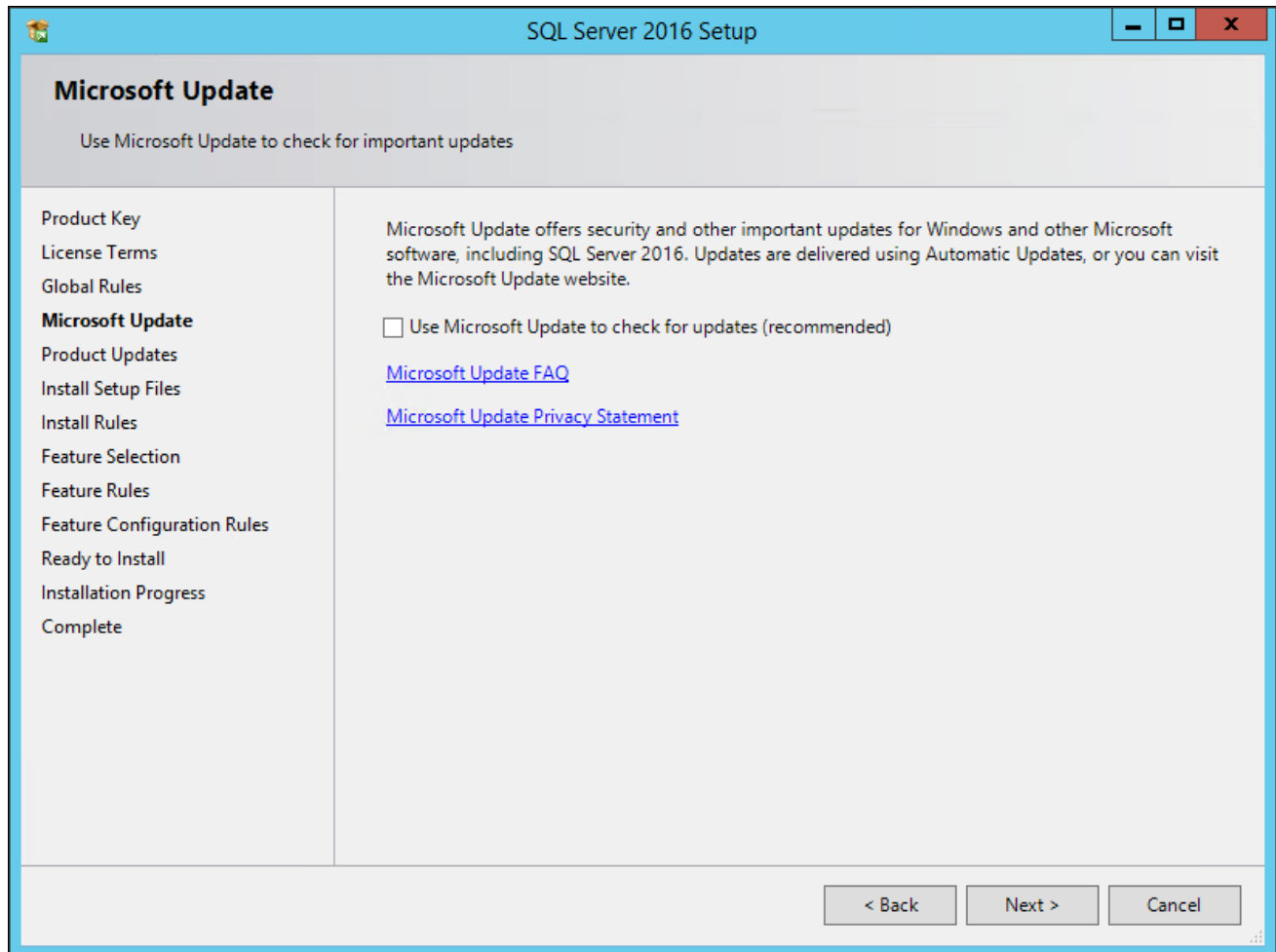
The Global Rules window appears. Wait until the process verifying global rules is complete. Verify that all the rules have passed, as shown in the Status column in this example:



SQL Server 2016 Setup Global Rules window

8. Click Next.

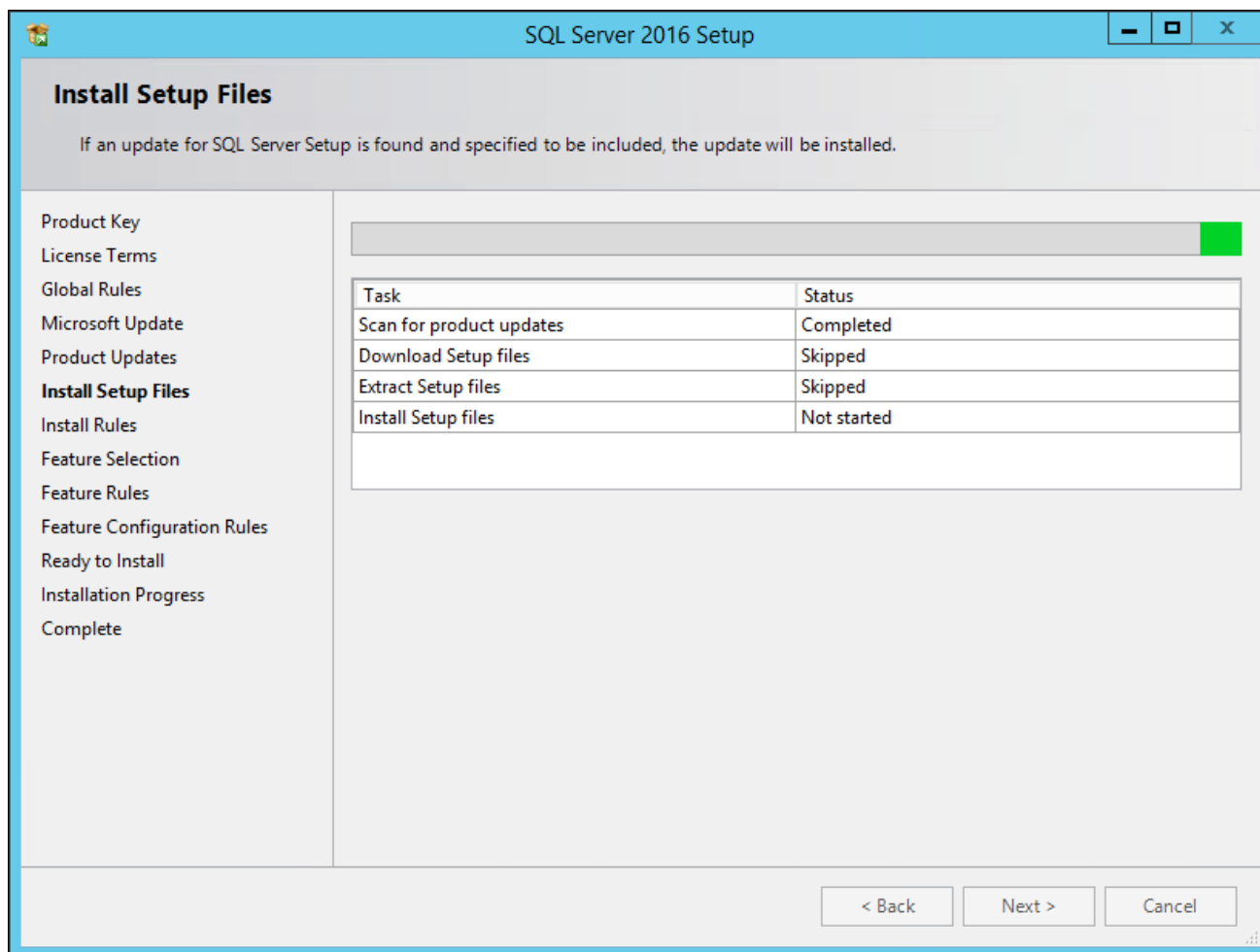
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



SQL Server 2016 Setup Microsoft Update window

9. Click Next.

The Install Setup Files window appears. Wait until the progress bar indicates that the process to install setup files and scan for product updates is complete. In this example, the task Scan for product updates is completed, and three additional tasks were skipped or not started:

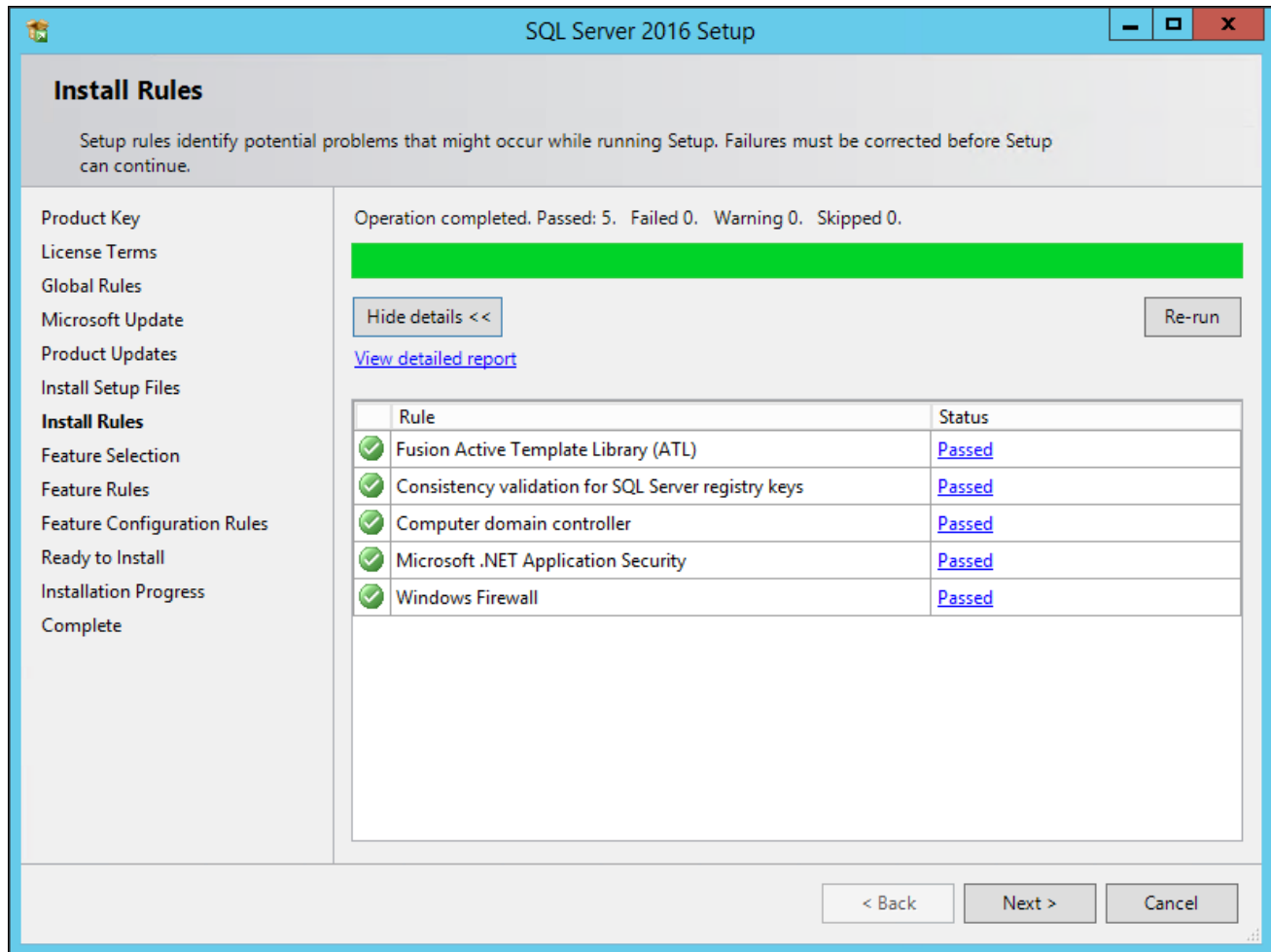


SQL Server 2016 Install Setup Files window

10. Click Next.

The Install Rules window appears. The setup operation checks for problems that might occur when you install support files. Click Show Details.

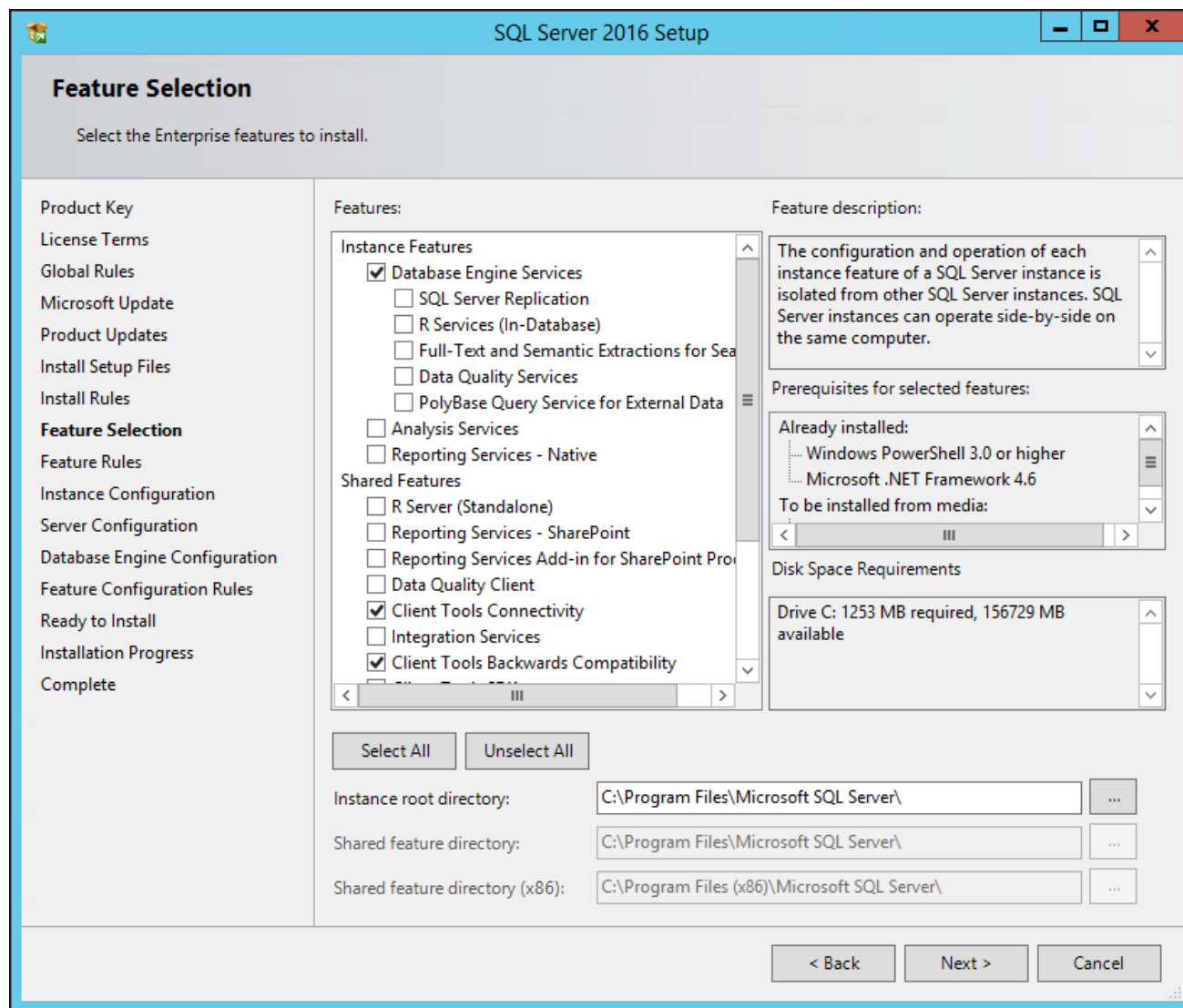
11. Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2016 Setup Install Rules window

12. A Feature Selection window appears that lists all the features of Microsoft SQL Server 2016 that are available to be installed.

This example shows the Feature Selection window with the features required for a PeopleSoft installation selected. These features are listed following the example.



SQL Server 2016 Setup Feature Selection window

For your PeopleSoft installation, select the following features (these are the minimum requirements):

- Database Engine Services
- Client Tools Connectivity
- Client Tools Backward Compatibility
- Documentation Components

This selection is optional.

13. Clear the check boxes beside the following features:

- SQL Server Replication
- Full Text and Semantic Extractions for Search

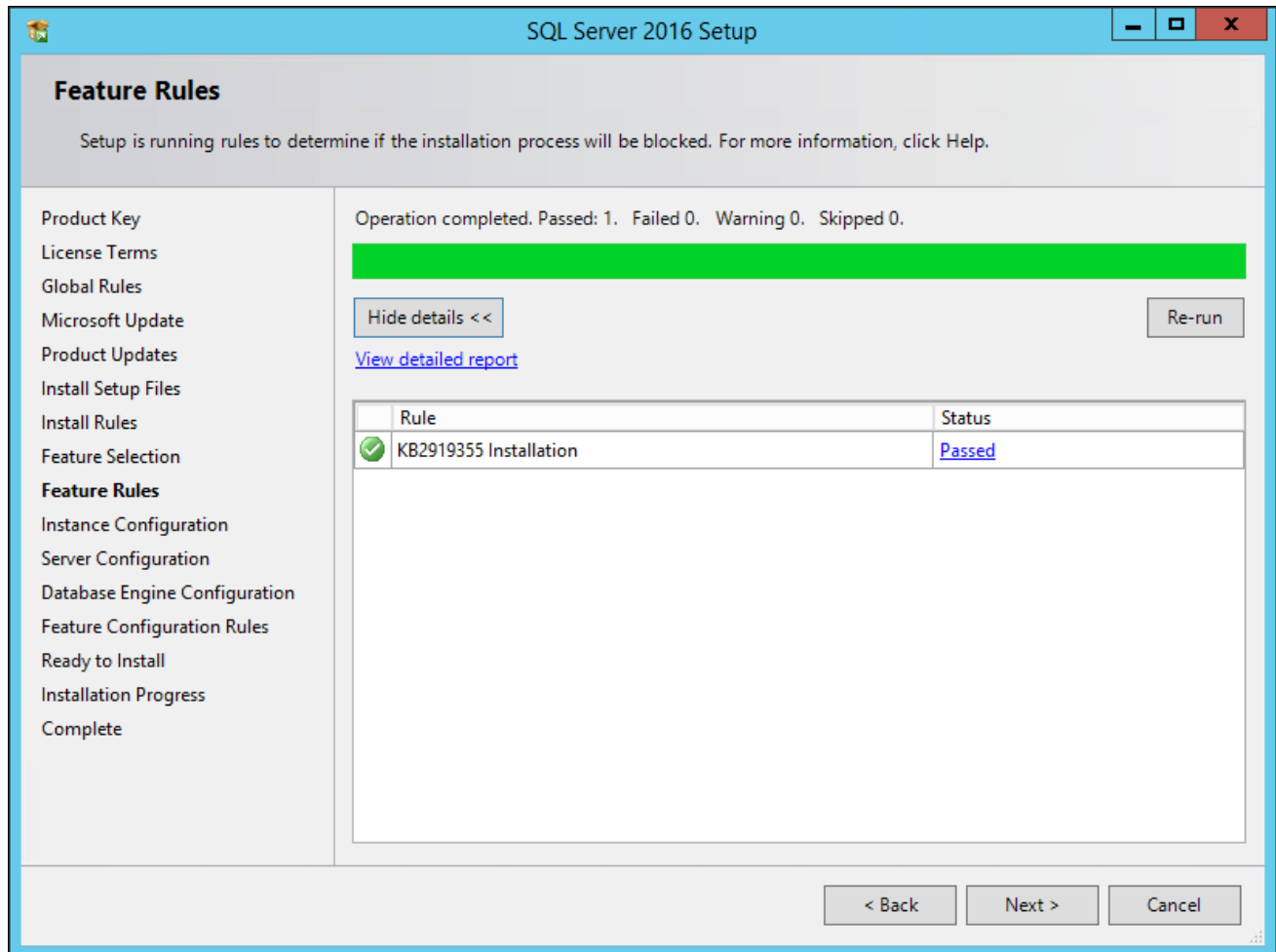
- Data Quality Services
- PolyBase Query Service for external data
- Analysis Services
- Reporting Services - Native
- R Server (Standalone)
- Reporting Services - SharePoint
- Reporting Services Add-in for SharePoint Products
- Data Quality Client
- Integration Services
- Client Tools SDK
- Distributed Replay Controller
- Distributed Replay Client
- SQL Client Connectivity SDK
- Master Data Services

14. Click Next.

The Feature Rules window appears, and the setup operation runs rules to determine whether the installation will be blocked. The example below shows the operation is complete.

15. Click Show Details on the Feature Rules window.

Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2016 Setup Feature Rules window

16. Click Next.

The Instance Configuration window appears. Enter *SQL2016* as the named instance and the Instance ID, as shown in this example. The window also displays the SQL Server directory, in this example *C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016*.

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete

☐ Default instance

☒ Named instance:

Instance ID:

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016

Installed instances:

Instance Name	Instance ID	Features	Edition	Version
SQLEXPRESS	MSSQL10.SQLEXPRESS	SQLEngine,SQLEn...	Express	10.1.2531.0

< Back Next > Cancel

SQL Server 2016 Setup Instance Configuration window

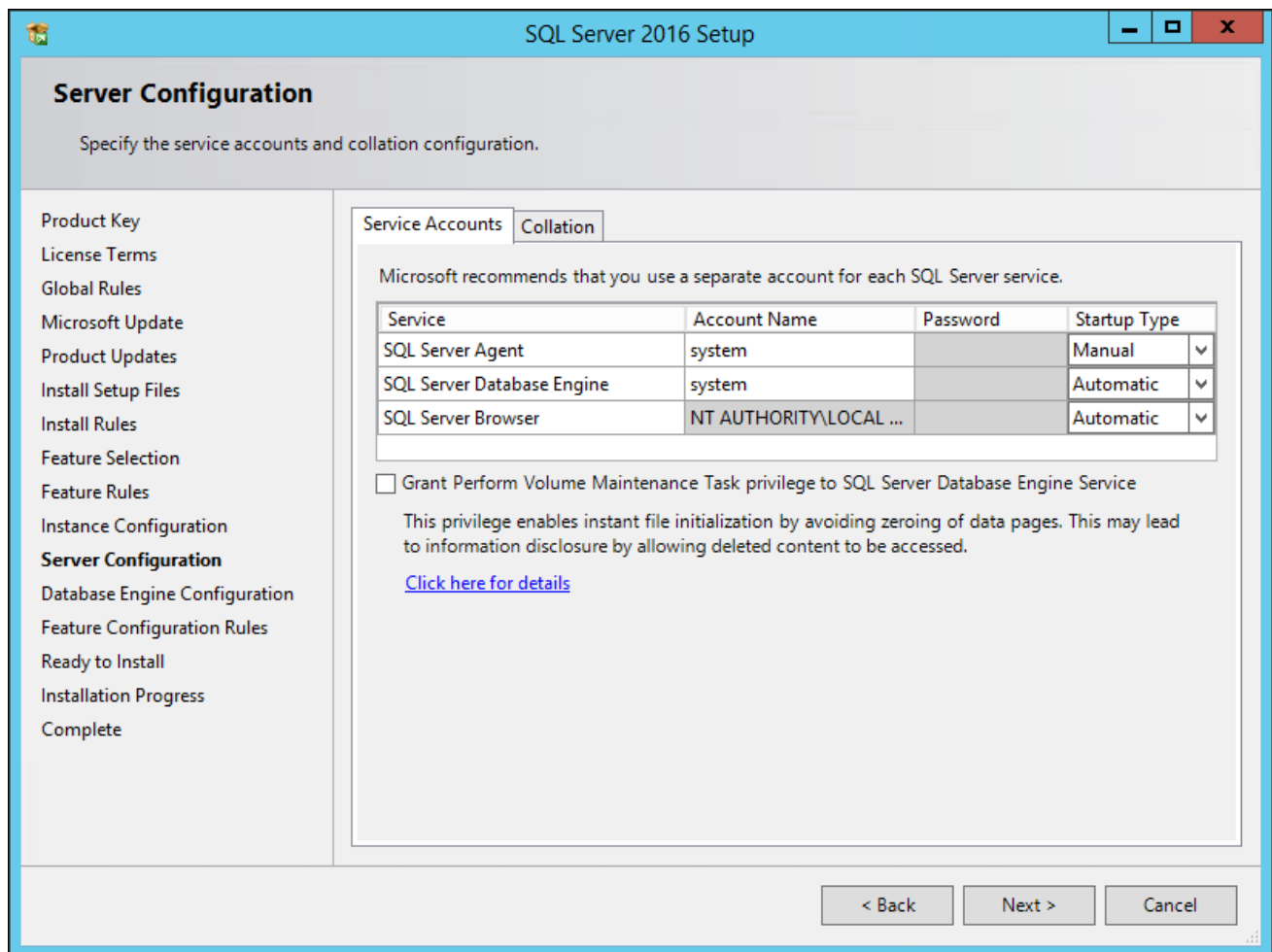
17. Click Next.

The Server Configuration window appears, as shown in this example. Microsoft recommends that you use a separate account for each of the SQL Server services.

Service	Account Name	Password	Startup Type
SQL Server Agent	NT Service\SQLAgent\$S...		Manual
SQL Server Database Engine	NT Service\MSSQL\$SQL...		Automatic
SQL Server Browser	NT AUTHORITY\LOCAL ...		Automatic

SQL Server 2016 Setup Server Configuration window

18. Specify the service accounts. This example shows the window after making the recommended selections:

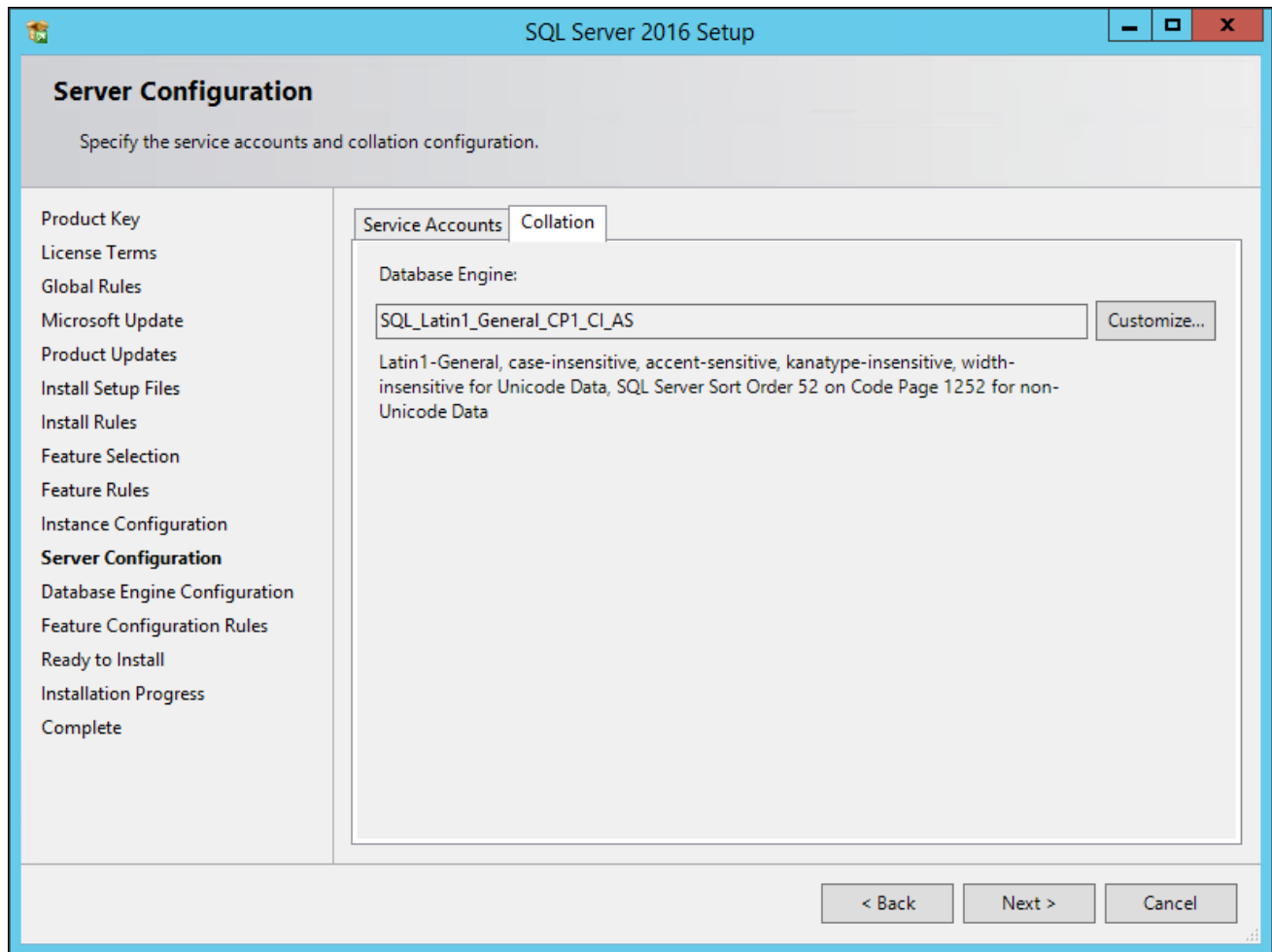


SQL Server 2016 Setup Server Configuration window with account names

- a. Enter *system* as the account name for SQL Server Agent and SQL Server Database Engine to use the local system account.
Do not use a domain user account.
- b. Select *Manual* startup type for SQL Server Agent.
- c. Select *Automatic* startup type for SQL Server Database Engine.
- d. Select *Automatic* startup type for SQL Server Browser.

19. Still on the Server Configuration window, select the Collation page.

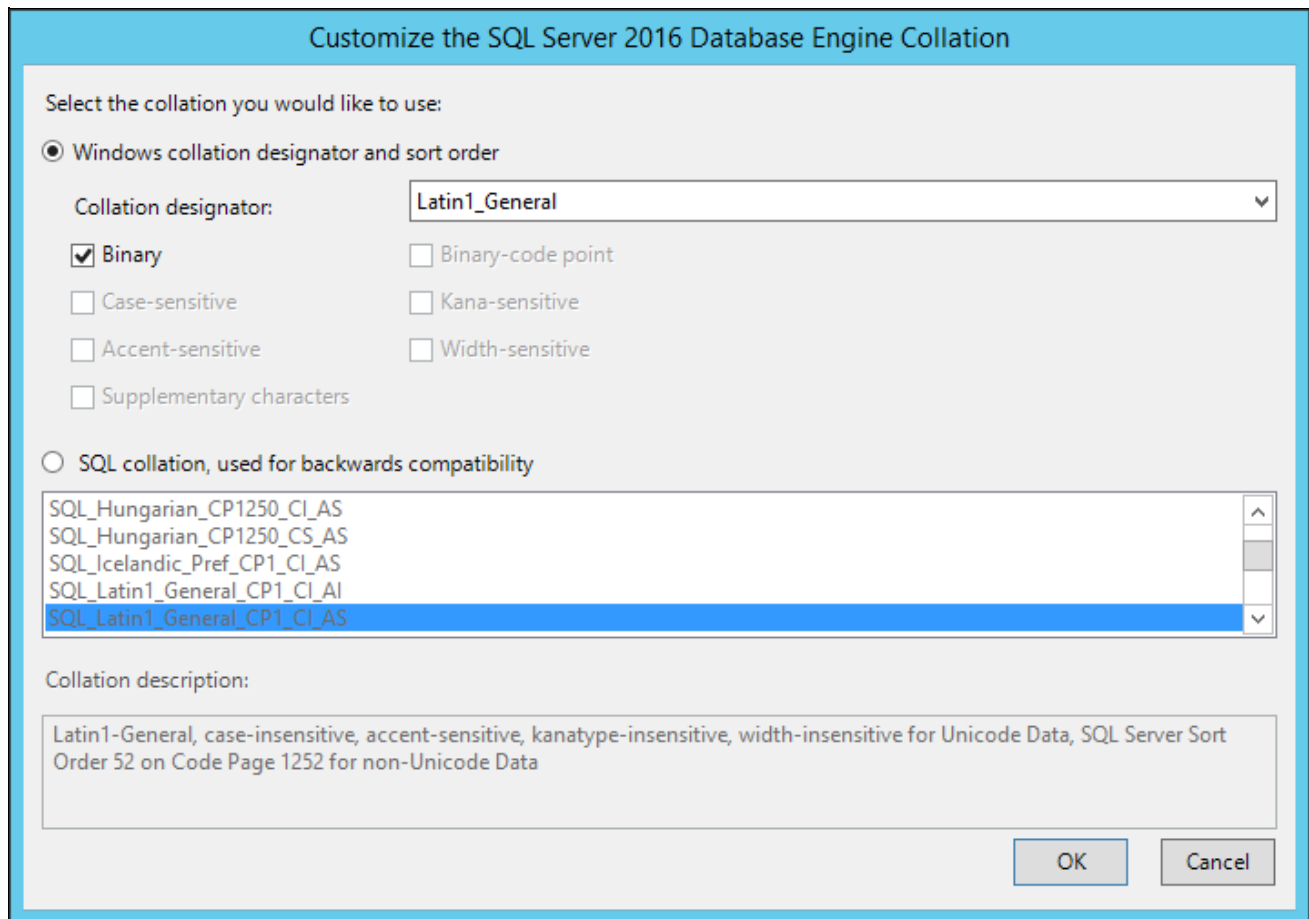
This example shows the default collation, SQL_Latin1_General_CP1_CI_AS.



SQL Server 2016 Setup Server Configuration window: Collation page

20. Click Customize to change the collation.

On the Customize the SQL Server 2016 Database Engine Collation window, select the option Windows collation designator and sort order. Select *Latin1_General* as the Collation designator, and the Binary option, as shown in this example:

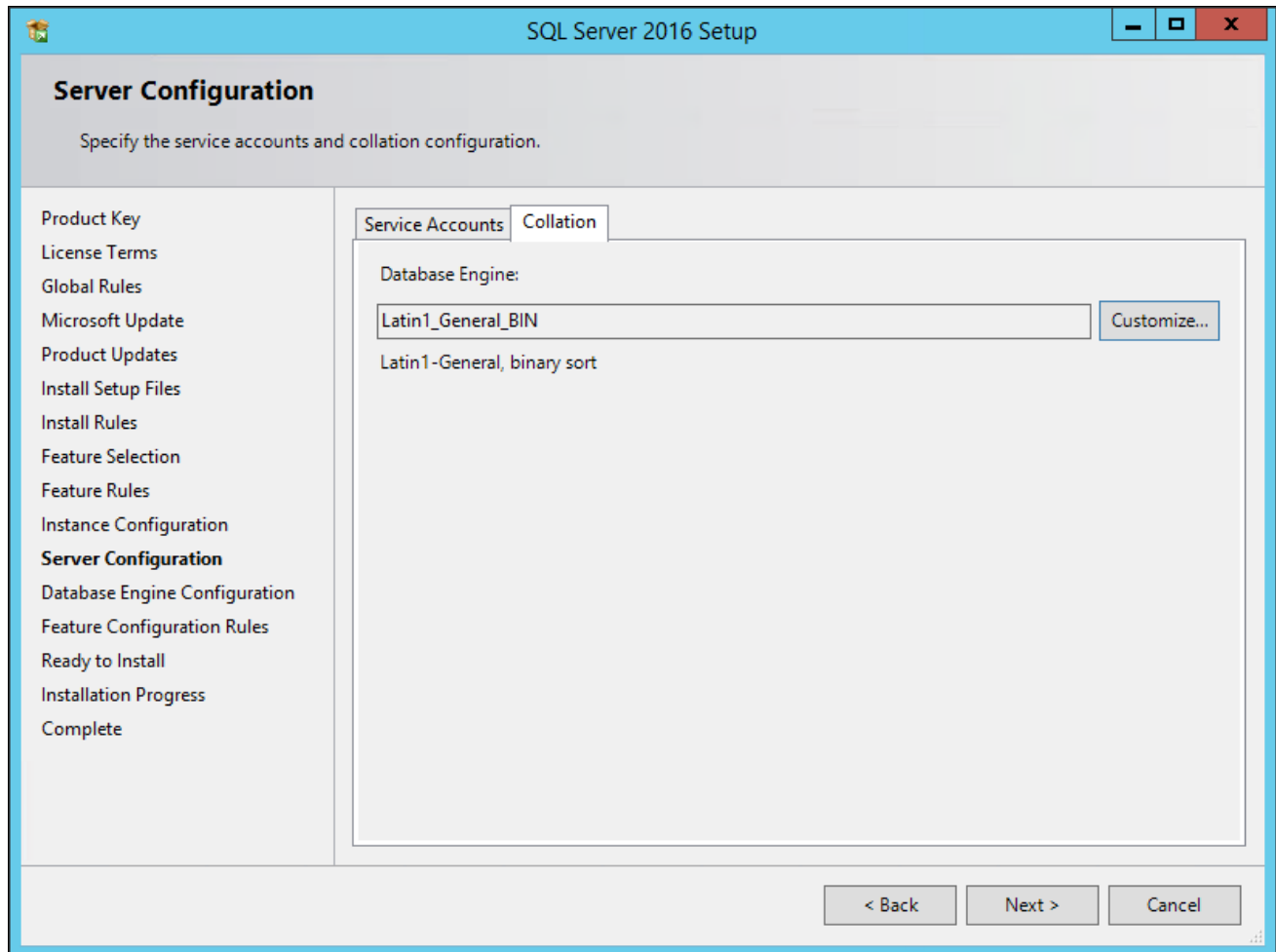


Customize the SQL Server 2016 Database Engine Collation window

Selecting these options changes the collation to *Latin1_General_BIN*. Your collation designation may vary if you are not using English.

21. Click OK.

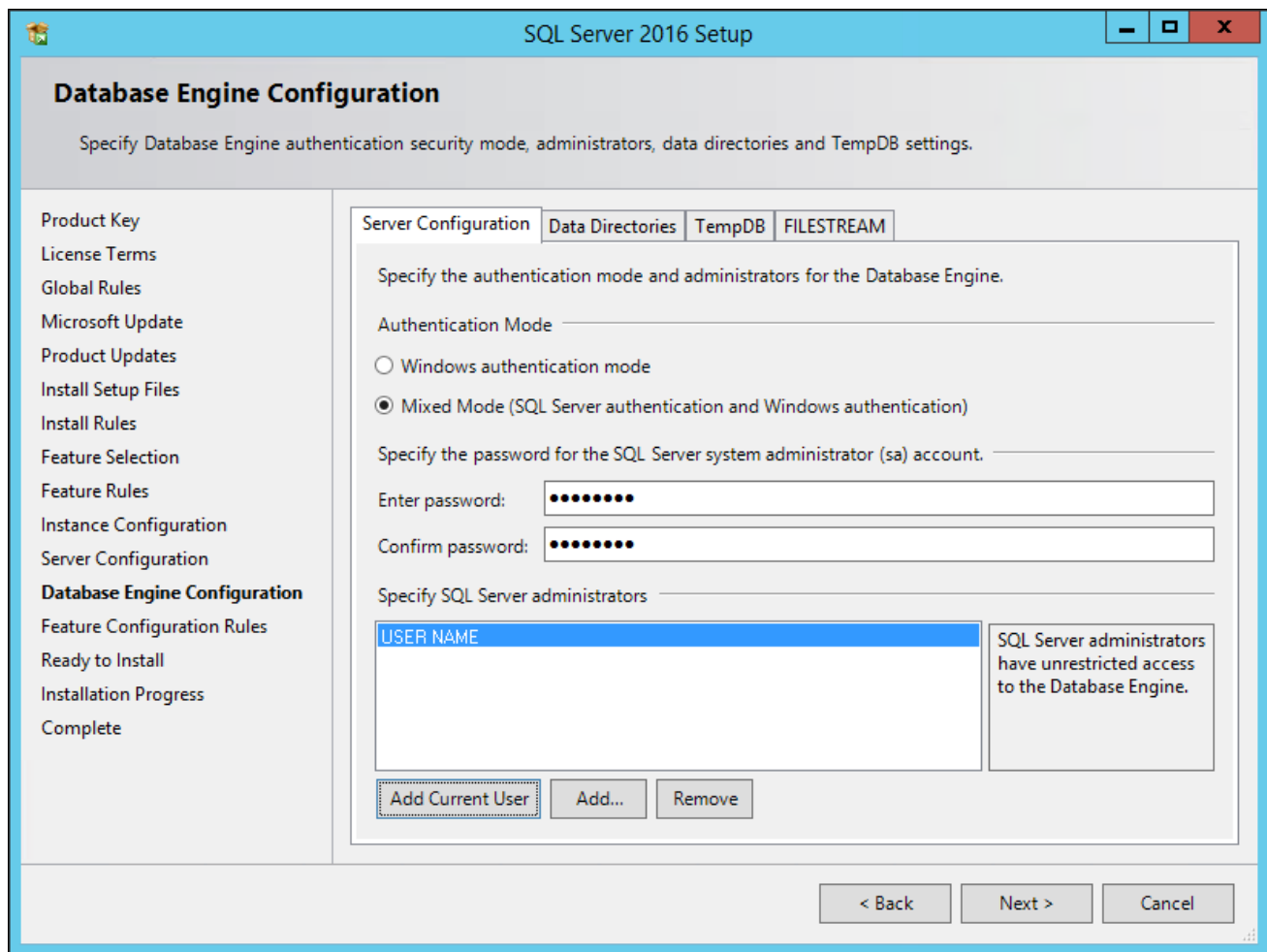
Verify on the Server Configuration Collation page that the collation is Latin1_General_BIN, Latin1-General, binary sort, as shown in this example:



SQL Server 2016 Setup Server Configuration window: Collation page after updating

22. Click Next.

The Database Engine Configuration window appears as shown in this example:



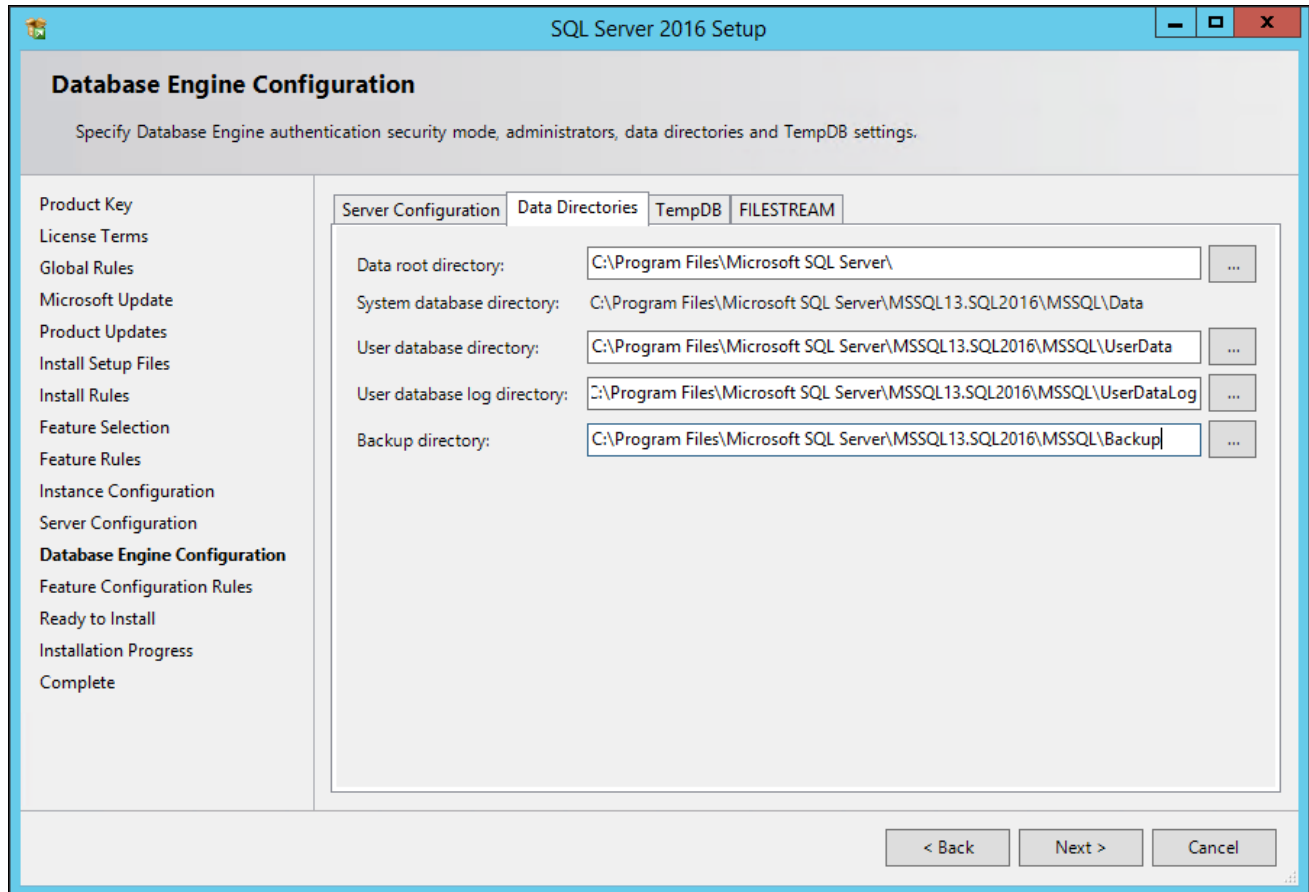
SQL Server 2016 Setup Database Engine Configuration window: Server Configuration page

On the Server Configuration page, specify the following:

- Select the Mixed Mode (SQL Server authentication and Windows authentication) option in the Authentication Mode area.
- Enter and confirm a secure Microsoft SQL Server administrator (sa) password.
The password must meet password policy requirements given in the Microsoft documentation for SQL Server 2016.
- Click Add Current User to add the user under whose account the setup is running.
The current user shown in the example is USER NAME.

23. Still on the Database Engine Configuration window, select the Data Directories page.

Microsoft recommends that the directories included on this page reside in different locations, as shown in this example. Ensure that the User database directory and the User database log directory are located in separate directories. In addition, the Backup directory should be in a separate location if possible.



SQL Server 2016 Setup Database Engine Configuration window: Data Directories page

Consult the Microsoft support site, support.microsoft.com, for recommendations and best practices for the physical layout of database files, transaction log files, and temp DB.

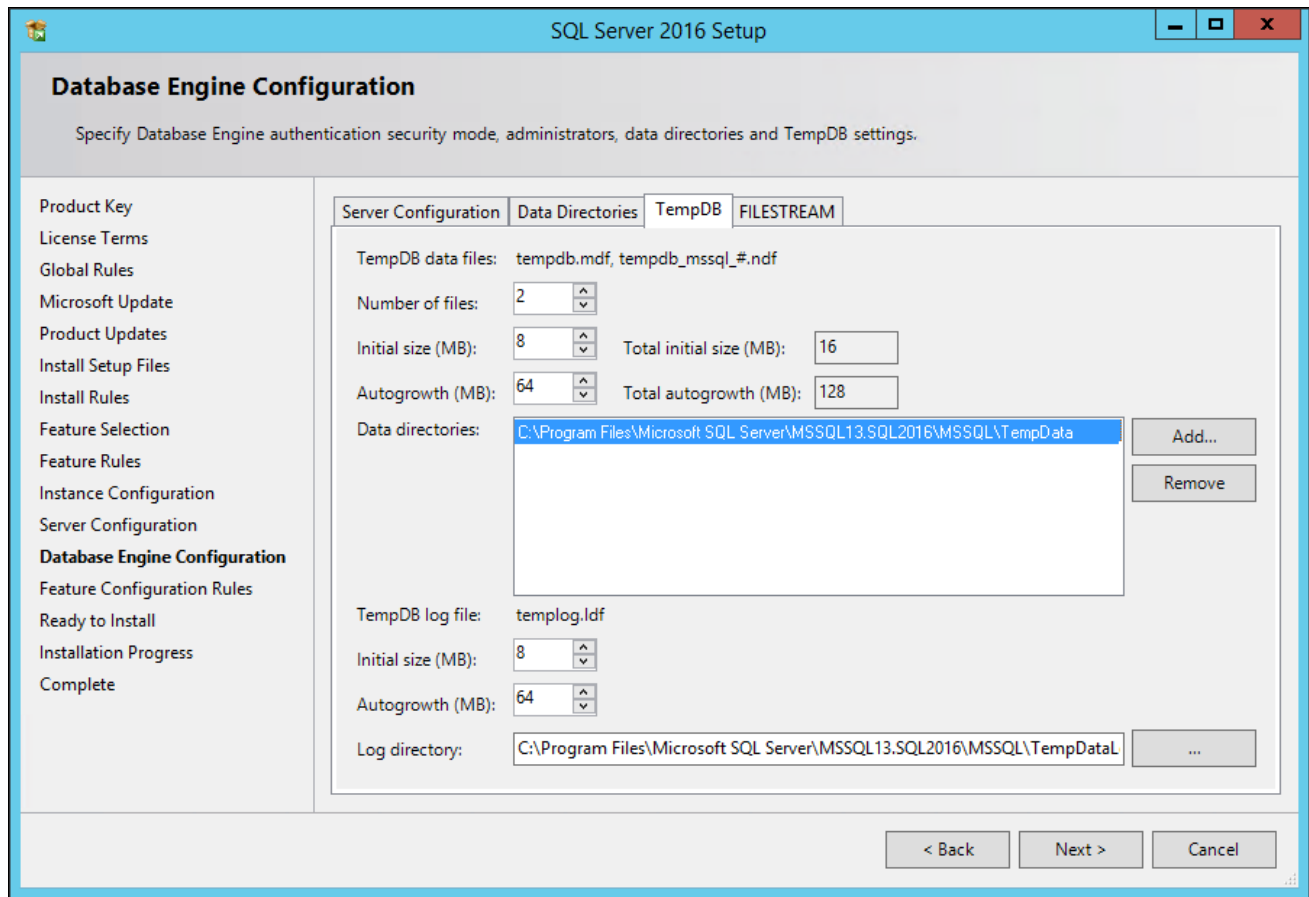
See Microsoft SQL Server I/O subsystem requirements for the tempdb database, <http://support.microsoft.com/kb/917047/en-us>.

See Optimizing tempdb Performance, Microsoft TechNet Library, [http://technet.microsoft.com/en-us/library/ms175527\(v=sql.105\).aspx](http://technet.microsoft.com/en-us/library/ms175527(v=sql.105).aspx).

See SQL Server 2000 Operations Guide: Capacity and Storage Management, <http://www.microsoft.com/technet/prodtechnol/sql/2000/maintain/sqlops6.msp>.

24. Select the TempDB page.

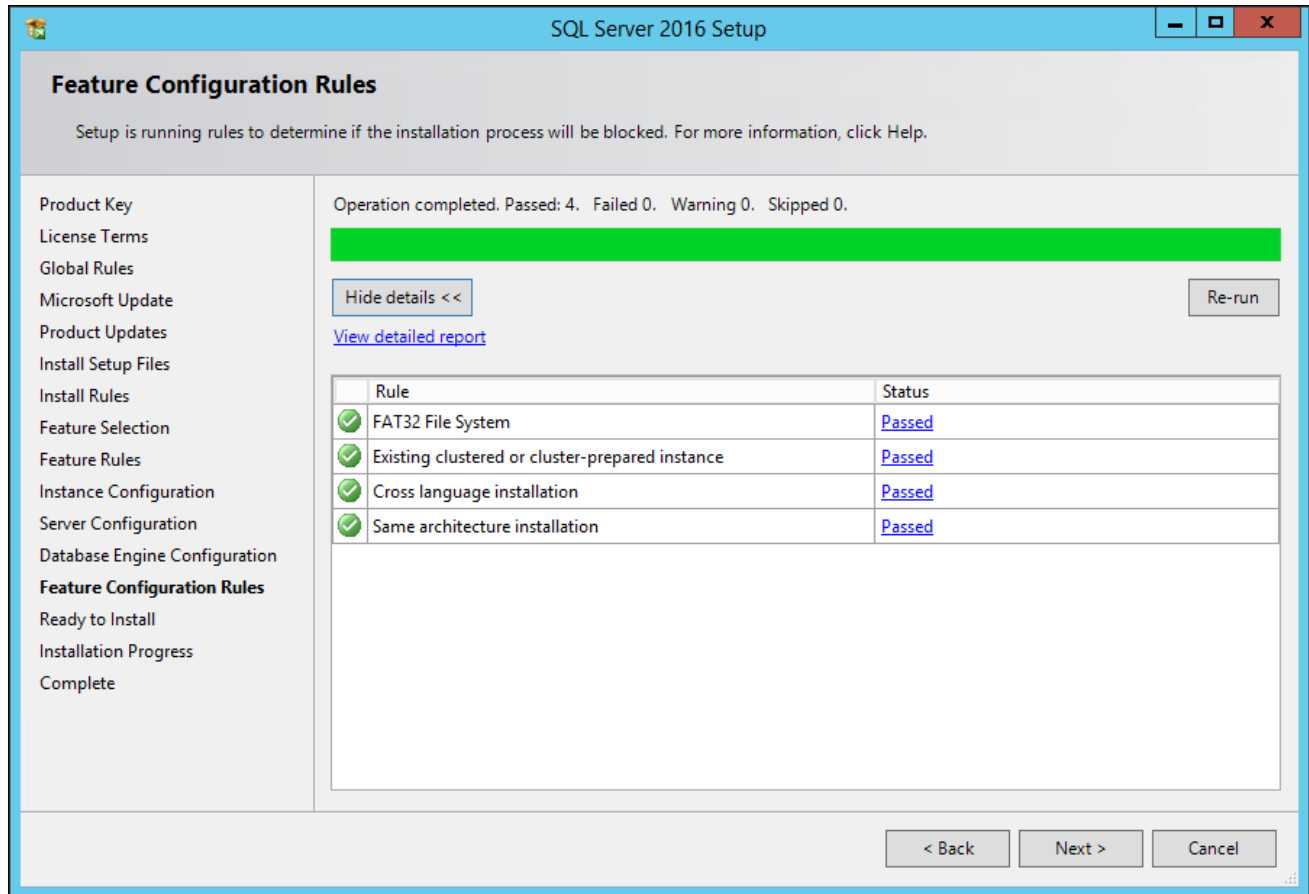
Ensure that the temp database data and log files are in separate directories, as shown in this example:



SQL Server 2016 Setup Database Engine Configuration window: TempDB page

25. Click Next.

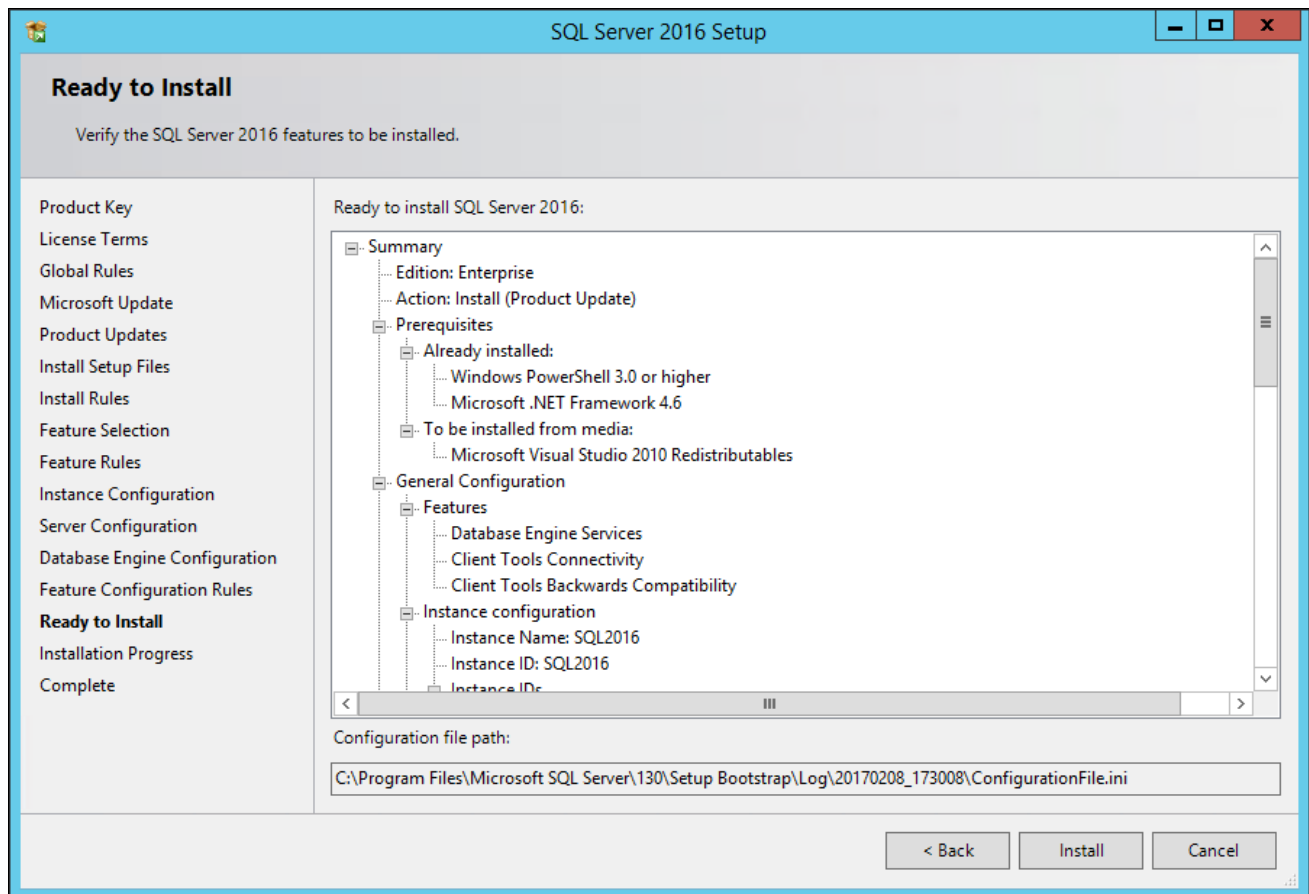
The Feature Configuration Rules window appears. The setup operation runs rules to determine whether the installation will be blocked. Wait until the operation is complete, and then click Show details. Verify that all of the rules have Passed in the Status column, as shown in this example. If any rule does not pass, click the link in the Status column to check the reason for the failure.



SQL Server 2016 Setup Feature Configuration Rules window

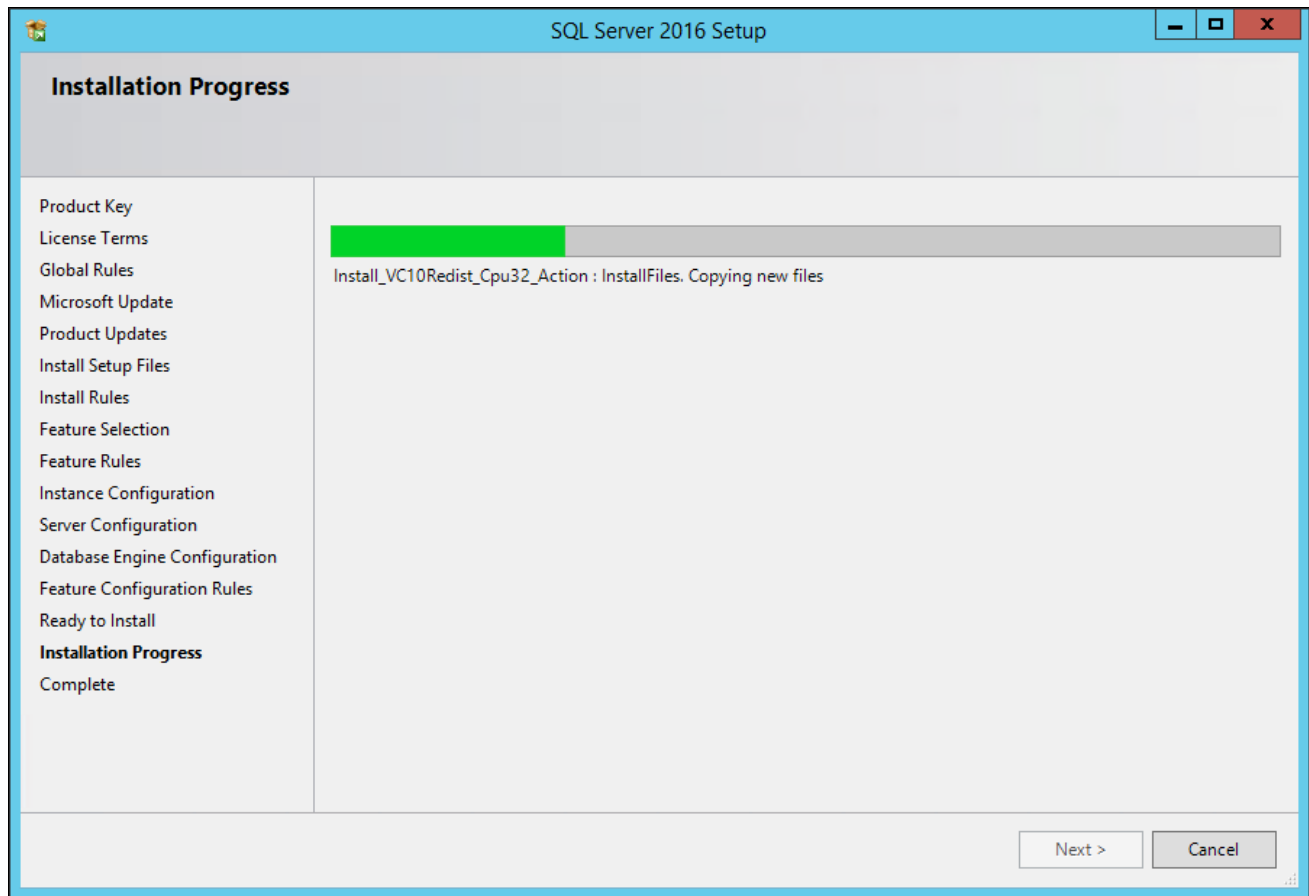
26. Click Next.

The Ready to Install window appears with a summary of the features and settings that you have selected, as shown in this example. Select Install to proceed or Back to go back and correct a setting.



SQL Server 2016 Setup Ready to Install window

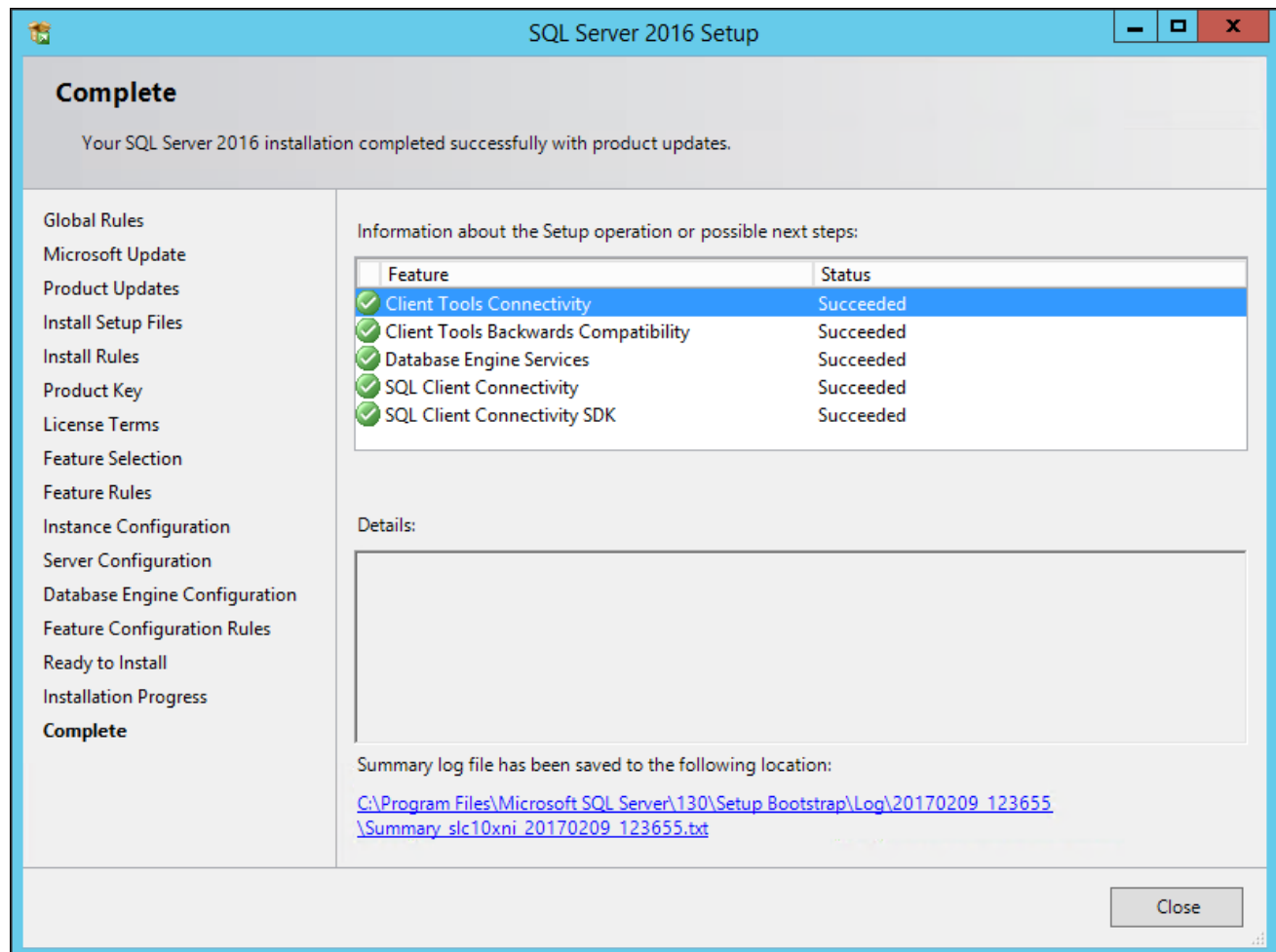
A window appears showing the progress of the installation, as shown in this example. The installation requires 10-15 minutes, and may depend upon your system configuration.



SQL Server 2016 Setup Installation Progress window

27. Wait for all the components to install successfully.

All of the components should show a status of Succeeded as shown in this example. If any one of them shows a status of Failed select the status link to check the reason for the failure.



SQL Server 2016 Setup Complete window

The window also includes the location of the setup log files (<identifier> is a string including a timestamp):

C:\Program Files\Microsoft SQL Server\130\Setup Bootstrap\Log\<identifier>\Summary<identifier>.txt

Task 25-2: Installing Microsoft SQL Server 2016 - Client Only

Understanding the Microsoft SQL Server 2016 Client Only Installation

Use these instructions to install only the client portion of Microsoft SQL Server 2016. You may use the client software, for example, when using a remote machine to connect to the database server on another machine.

See the section Understanding the Microsoft SQL Server 2016 Installation and verify that you have fulfilled the prerequisites. The client installation has the same requirements as the installation on database server.

Task 25-2-1: Installing Microsoft SQL Server 2016 Client Software

To install Microsoft SQL Server 2016 client software:

1. If you want to uninstall your previous Microsoft SQL Server software before installing Microsoft SQL Server 2016, you can use Control Panel, Add/Remove Programs.

Note. Oracle recommends that you install only one SQL Server version per server. This should simplify the administration. However, in some instances you may need to install multiple versions, and it is possible to have side-by-side installations of Microsoft SQL Server 2014 and Microsoft SQL Server 2016.

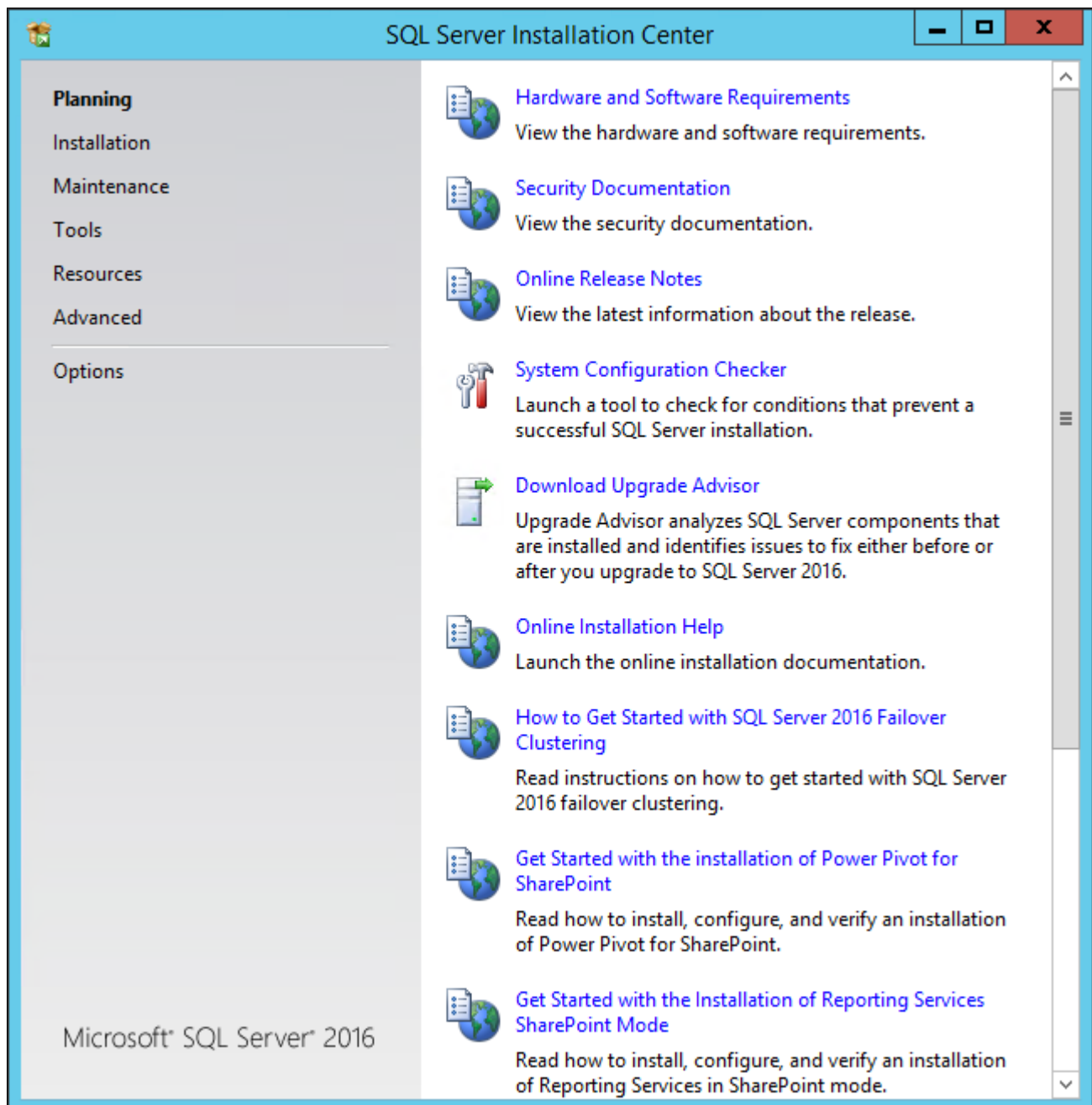
2. Insert the Microsoft SQL Server 2016 DVD into the DVD drive.

The installation should start automatically, but if it does not, run `setup.exe` from the DVD-ROM's directory.

If you downloaded the installation files, go to the directory where you saved the installation files and run `setup.exe`.

An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

3. Select Installation from the left-hand navigation tree, as shown in this example:



Microsoft SQL Server 2016 SQL Server Installation Center window: Planning page

4. Select the link **New SQL Server stand-alone installation or add features to an existing installation**, which is the first link in this example, to proceed:



Microsoft SQL Server 2016 SQL Server Installation Center window: Installation page

5. If you see an Open File security message, click Run and choose Run Program.
A message box appears asking you to wait.

6. Enter the product key on the Product Key window.

If it is already populated ignore this step and click Next to continue to the License Terms window. In this example, the product key field is empty:

SQL Server 2016 Setup

Product Key

Specify the edition of SQL Server 2016 to install.

Product Key

- License Terms
- Global Rules
- Microsoft Update
- Product Updates
- Install Setup Files
- Install Rules
- Feature Selection
- Feature Rules
- Feature Configuration Rules
- Ready to Install
- Installation Progress
- Complete

Validate this instance of SQL Server 2016 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server: Developer, Evaluation, or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. Developer edition does not have an expiration, has the same set of features found in Evaluation, but is licensed for non-production database application development only. To upgrade from one installed edition to another, run the Edition Upgrade Wizard.

☐ Specify a free edition:

Evaluation

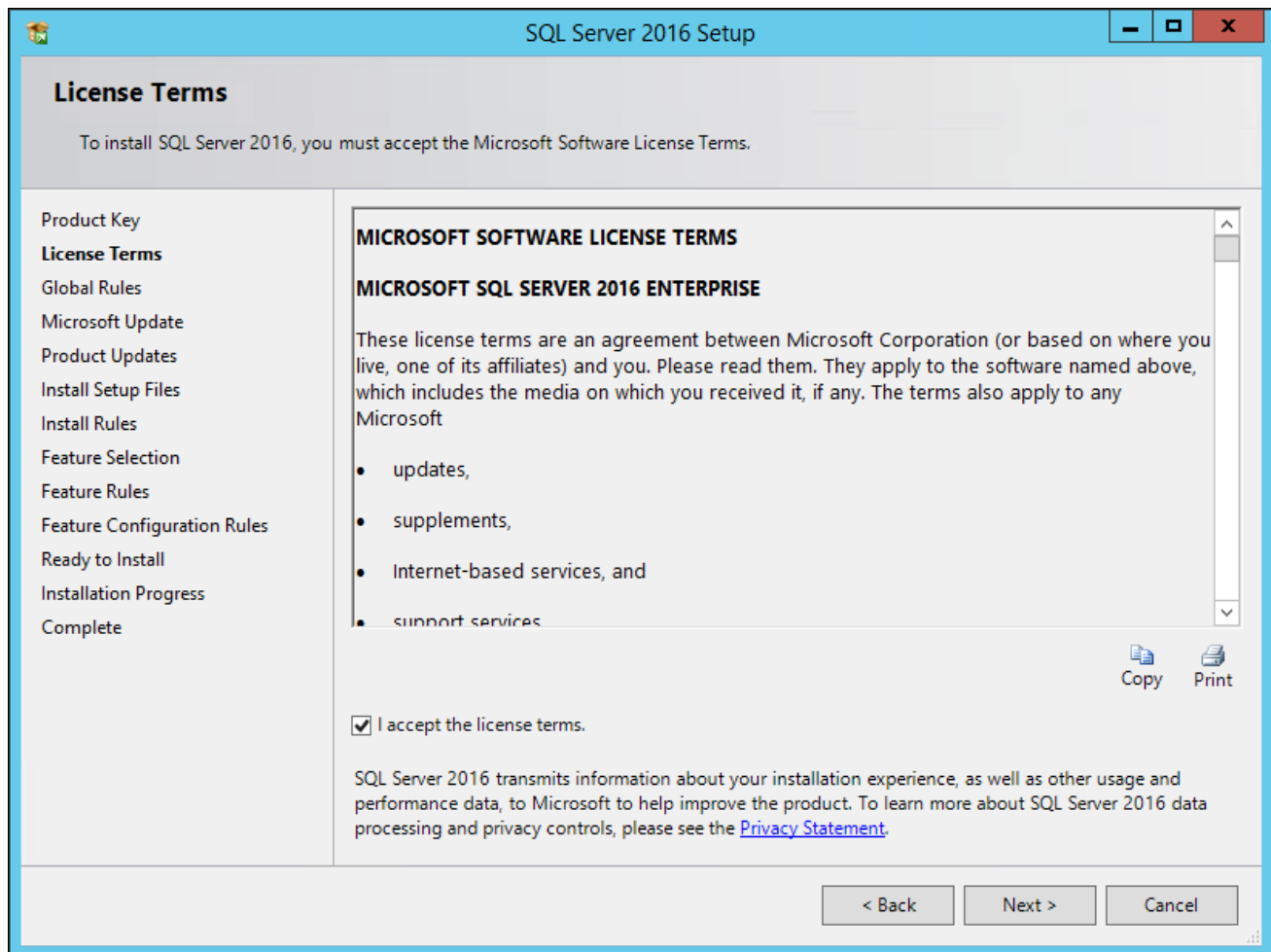
☒ Enter the product key:

- - - -

< Back Next > Cancel

SQL Server 2016 Setup Product Key window

7. On the License Terms window, read the Microsoft Software license terms and conditions carefully and select the check box labeled I accept the license terms, as shown in this example:

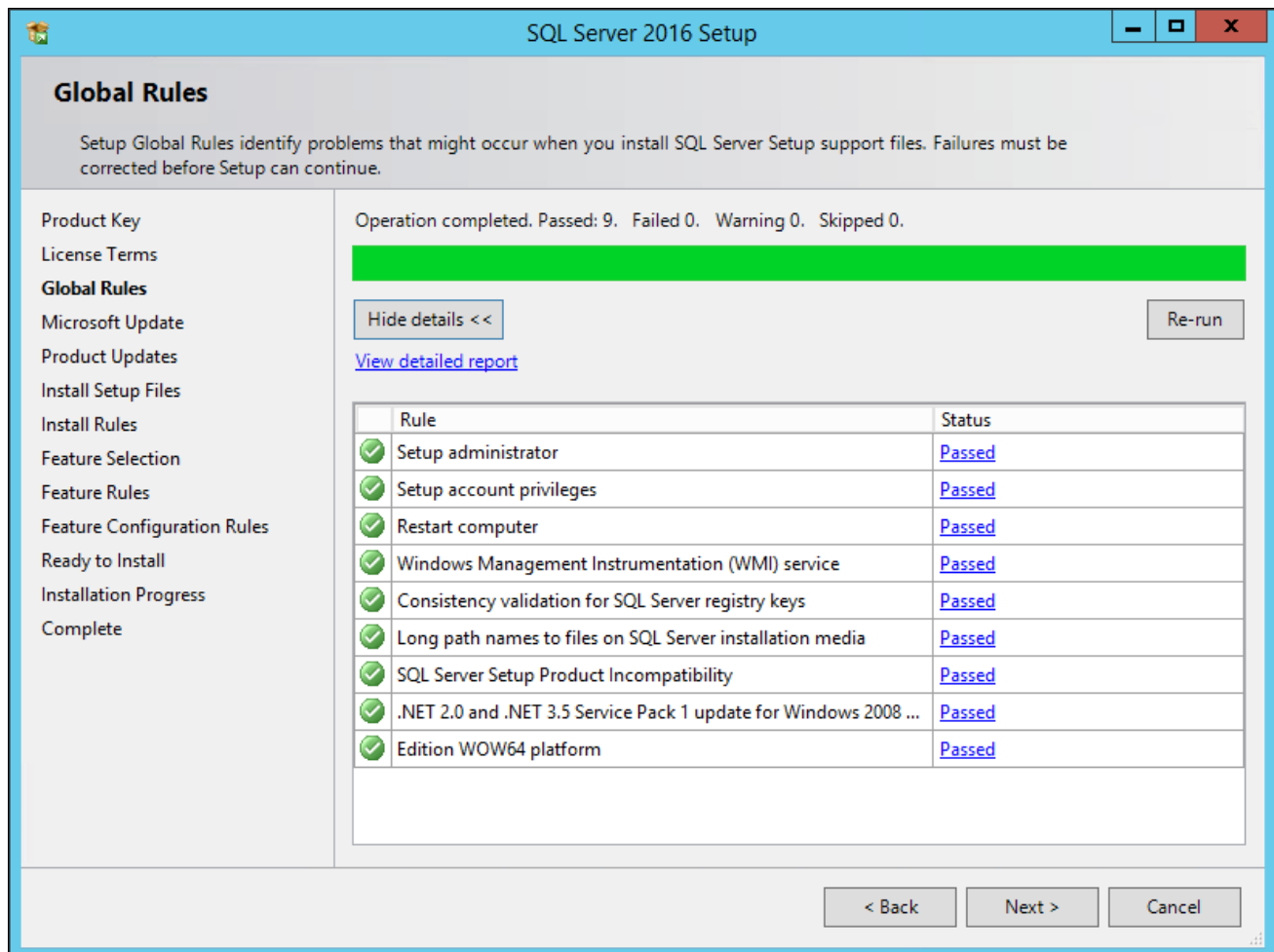


SQL Server 2016 Setup License Terms window

8. Click Next.
The Global Rules window appears. Wait until the process verifying global rules is complete.

9. Click Show details on the Global Rules window.

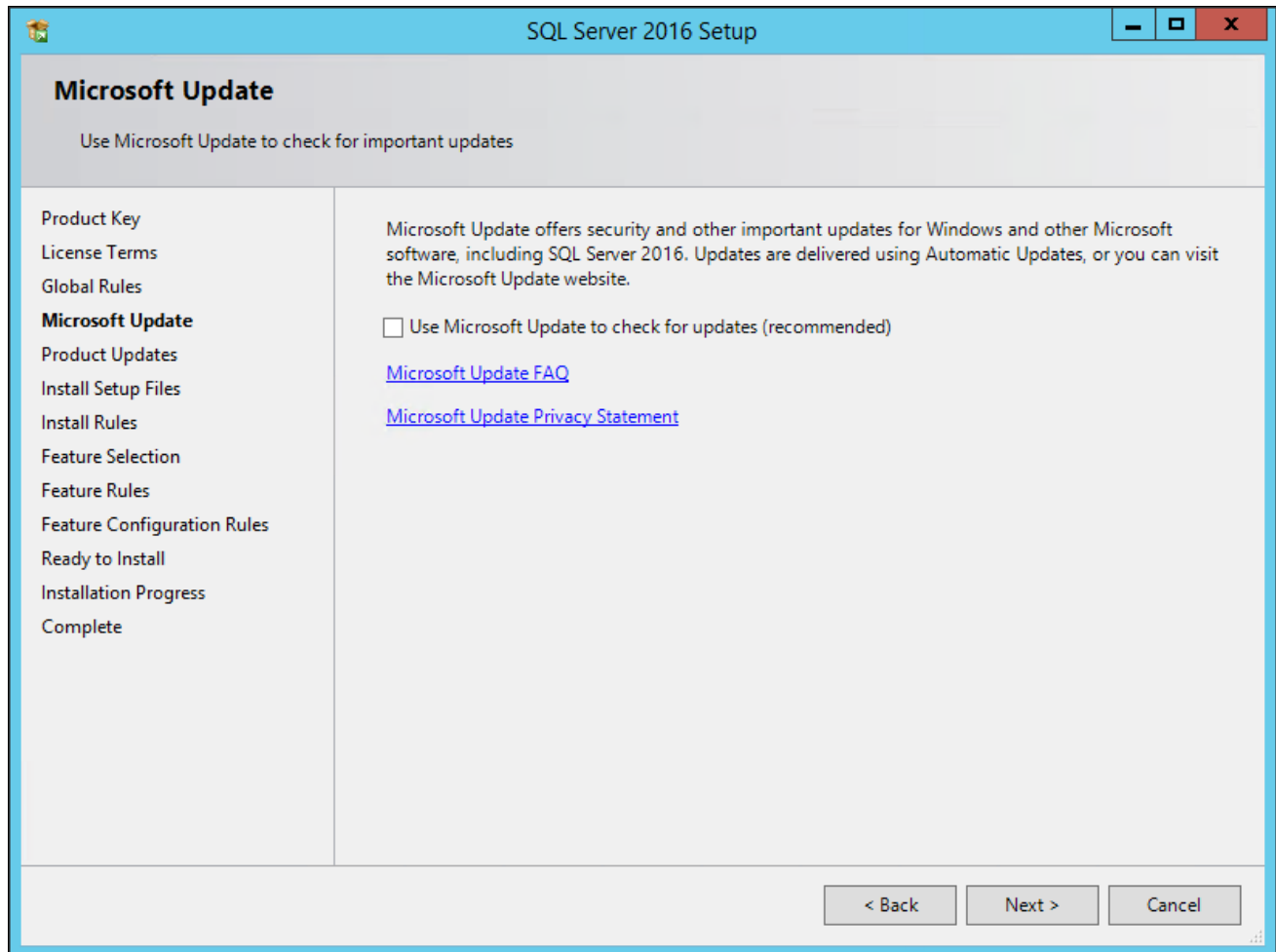
Verify that the status for all of the rules is Passed, as in this example. If any of the rules has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2016 Setup Global Rules window

10. Click Next.

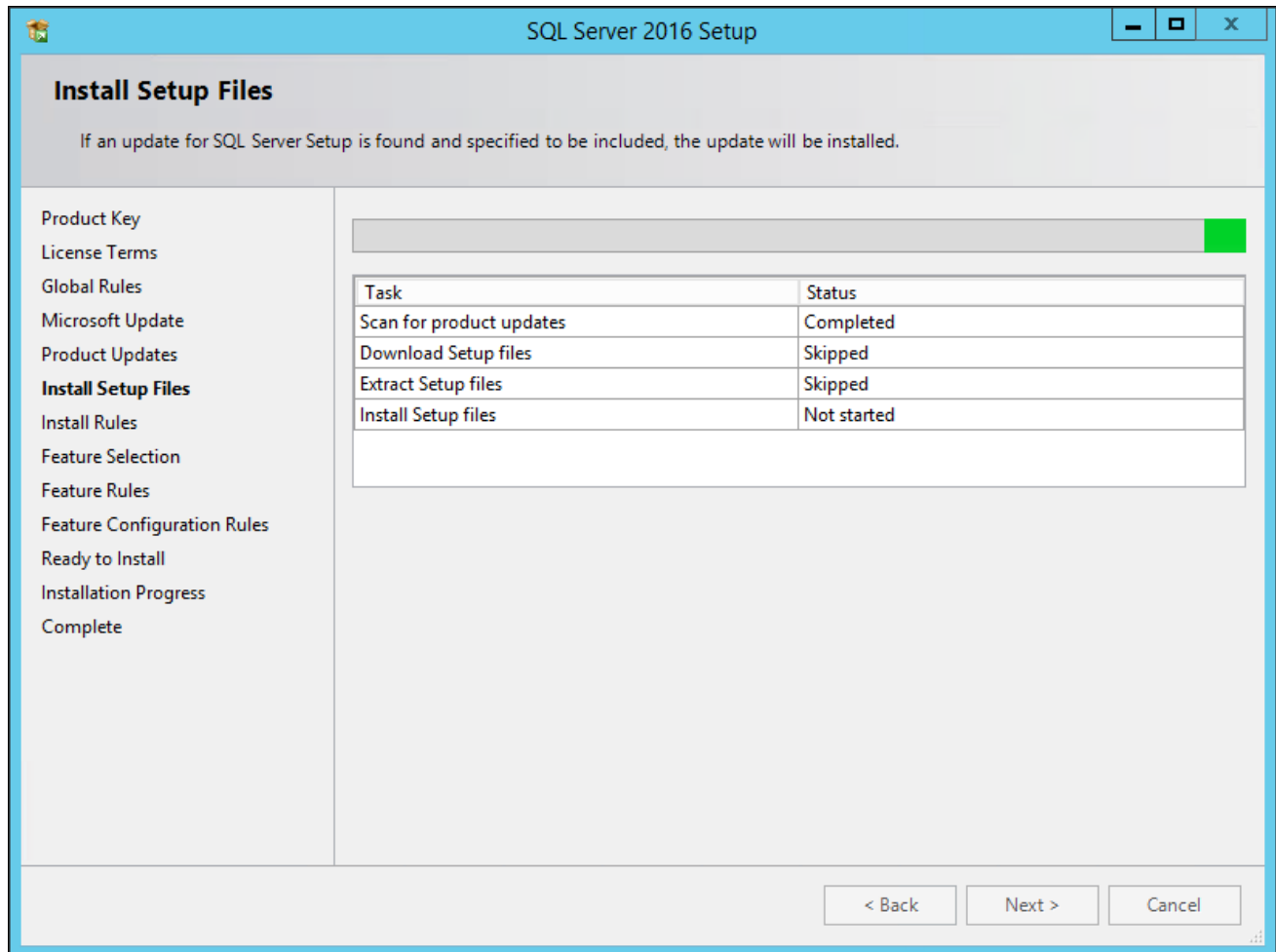
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



SQL Server 2016 Setup Microsoft Update window

11. Click Next.

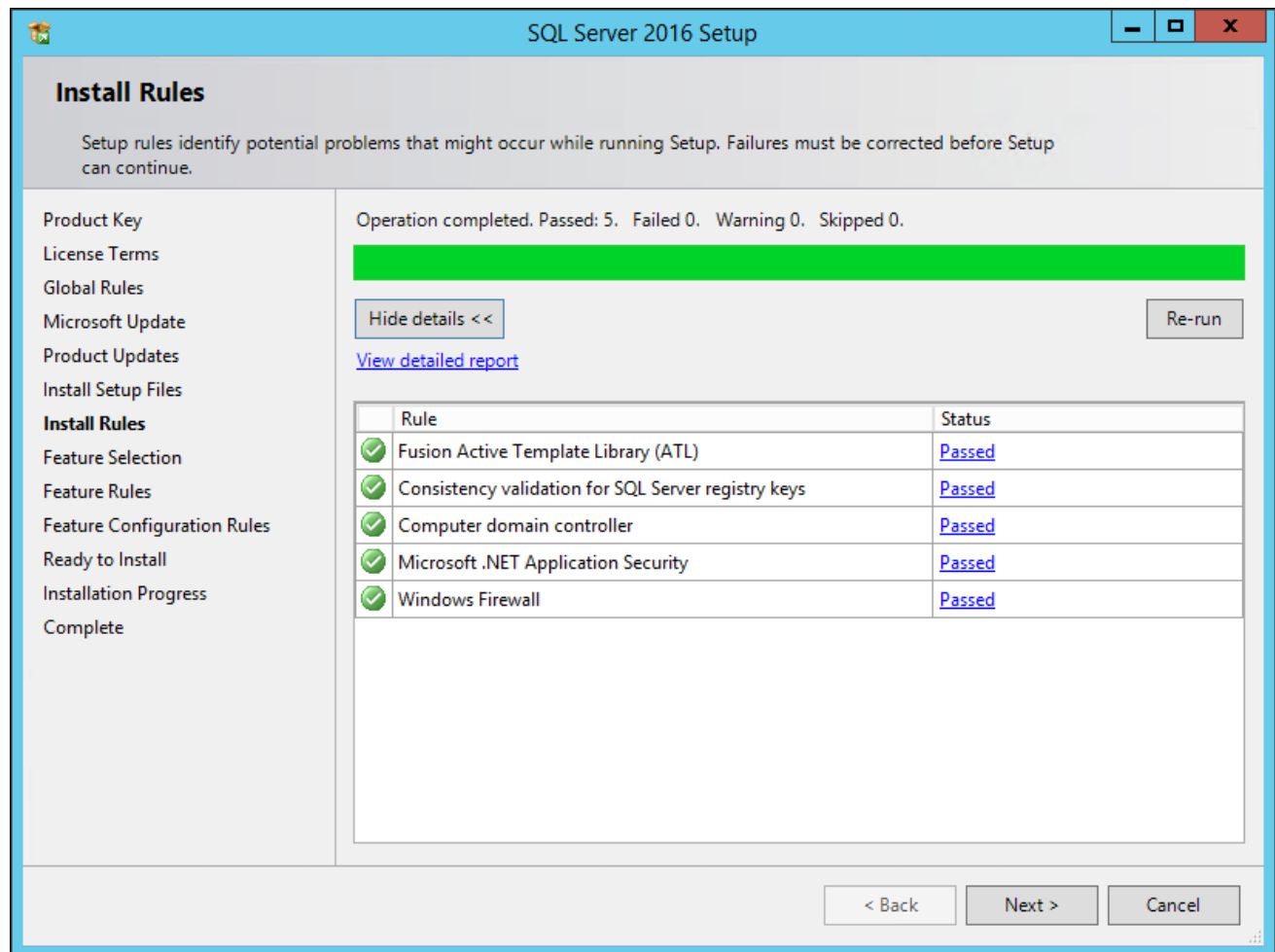
The Install Setup Files window appears. Wait for the process to install setup files and scan for product updates to complete, as shown in the Status column in this example.



SQL Server 2016 Setup Install Setup Files window

12. When the operation is complete, the Install Rules window appears.

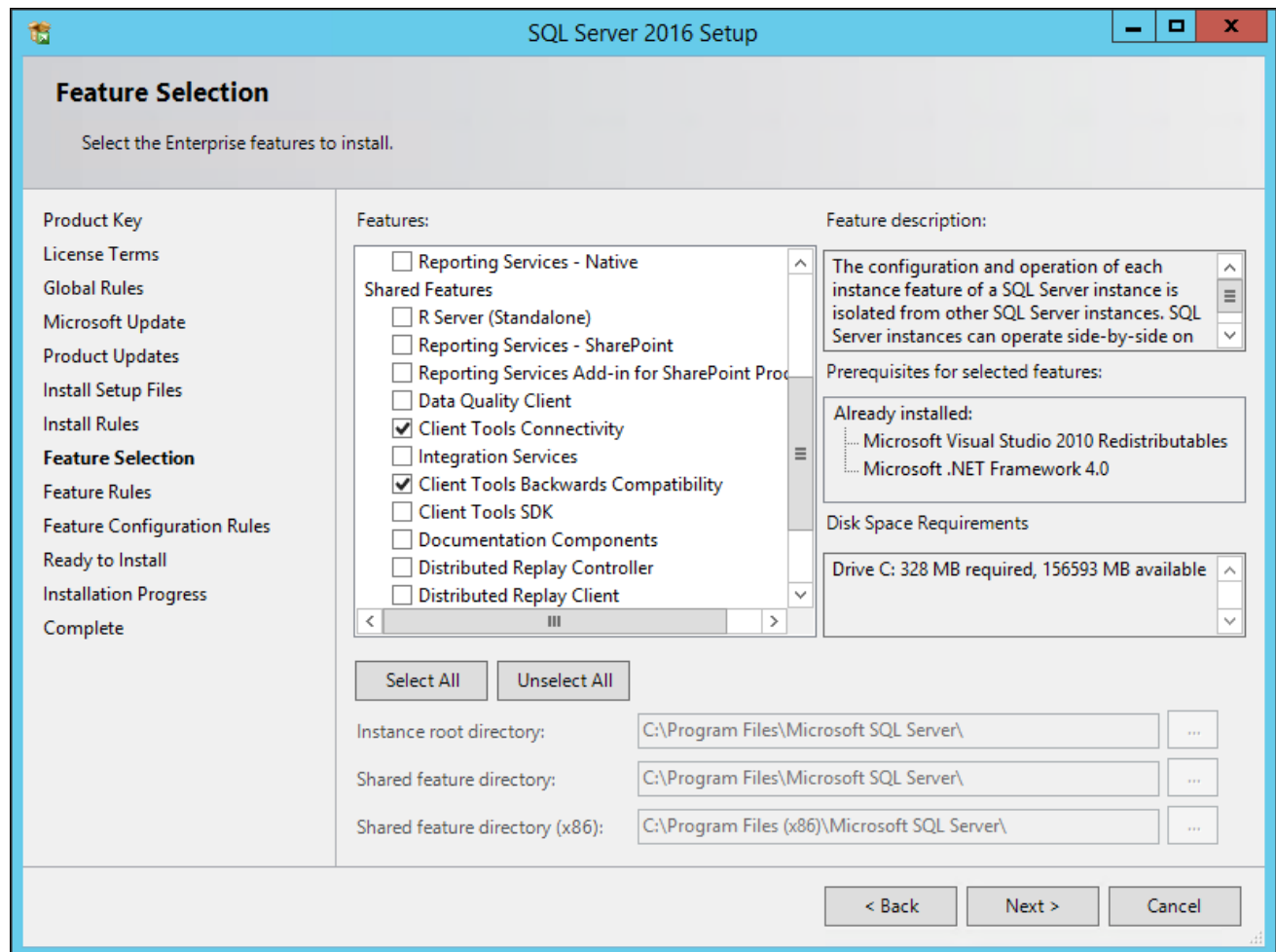
The setup operation checks for problems that might occur when you install support files. In this example all of the support rules have passed.



SQL Server 2016 Setup Install Rules window

13. A Feature Selection window appears that lists all the features of Microsoft SQL Server 2014 that are available to be installed.

This example shows the Feature Selection window with the features required to install the client for a PeopleSoft installation selected. The required features are listed below the example.



SQL Server 2016 Setup Feature Selection window

For a PeopleSoft installation, select the following features, as shown in the example:

- Client Tools Connectivity
- Client Tools Backward Connectivity

14. Clear the check boxes for the following features:

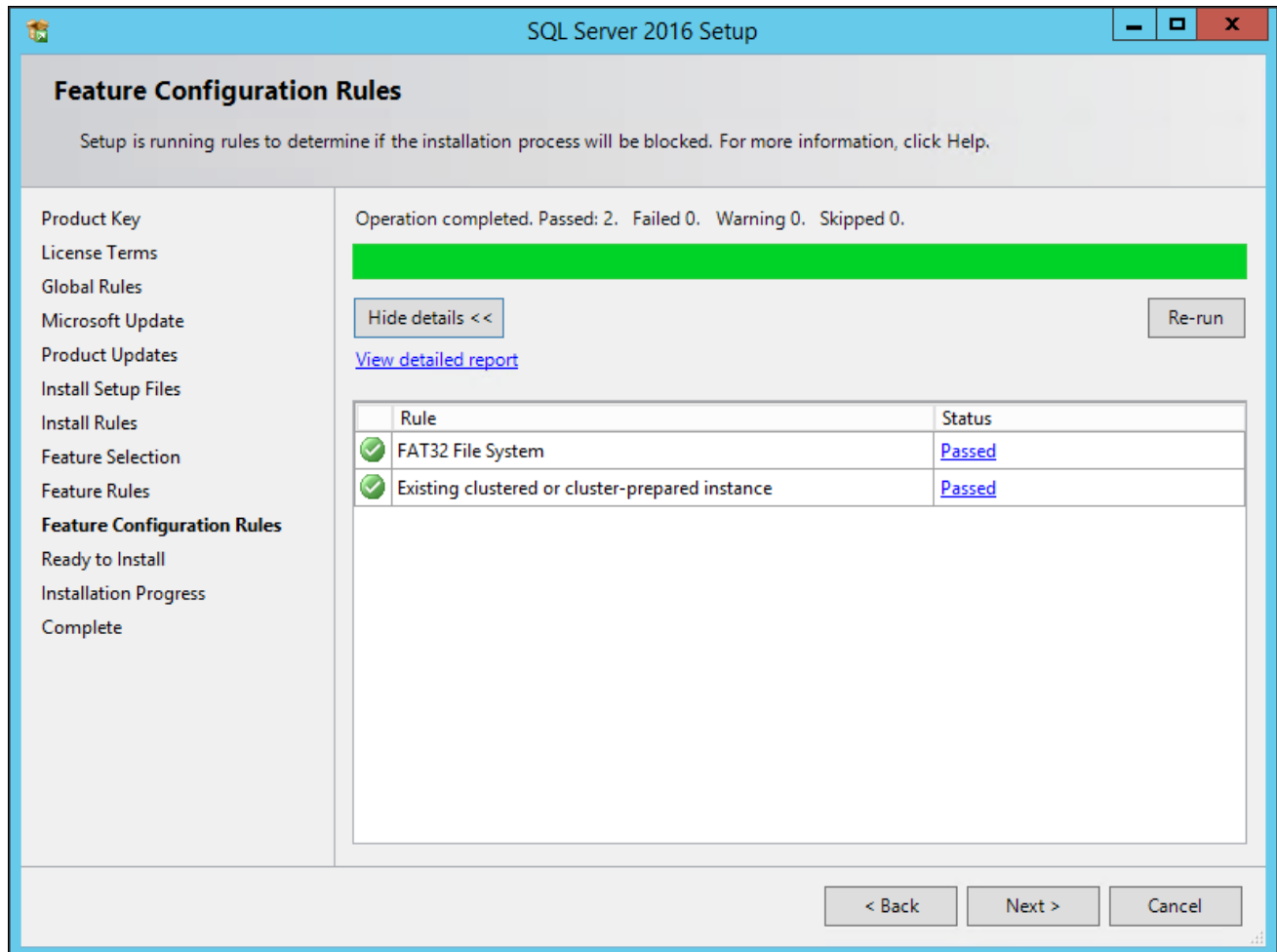
- Database Engine Services
- SQL Server Replication
- R Services (In-Database)
- Full Text Search and Semantic Extractions for Search
- Data Quality Services
- PolyBase Query service for external data
- Analysis Services
- Reporting Services - Native

- R Server (Standalone)
- Reporting Services - SharePoint
- Reporting Services Add-in for Share Point Products
- Data Quality Client
- Integration Services
- Client Tools SDK
- Distributed Replay Controller
- Distributed Replay Client
- SQL Client Connectivity SDK
- Master Data Services

15. Click Next.

The Feature Configuration Rules window appears.

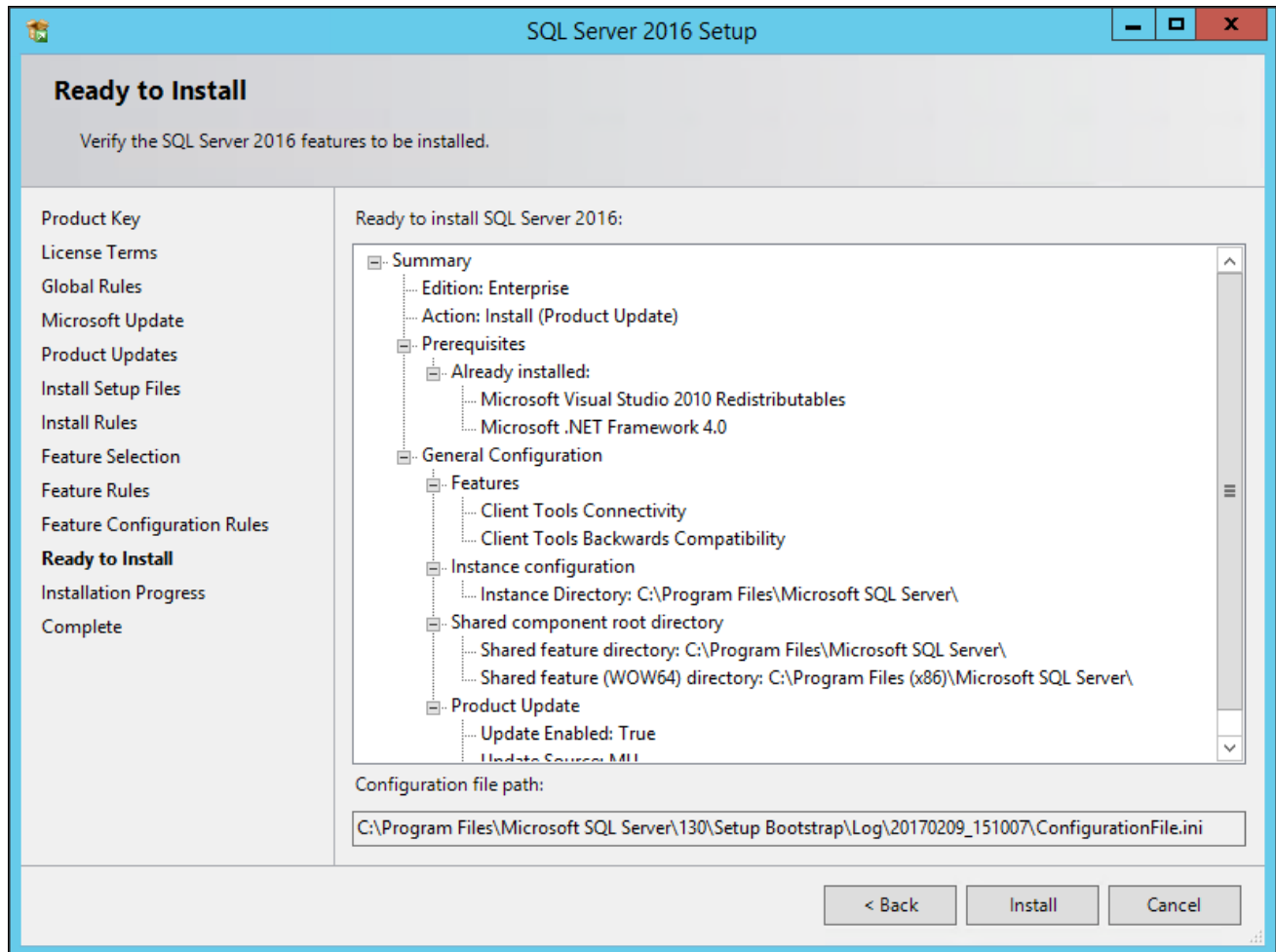
Wait for the operation to be complete. View the detailed report and verify that all of the rules passed successfully, as shown in this example. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



SQL Server 2016 Setup Feature Configuration Rules window

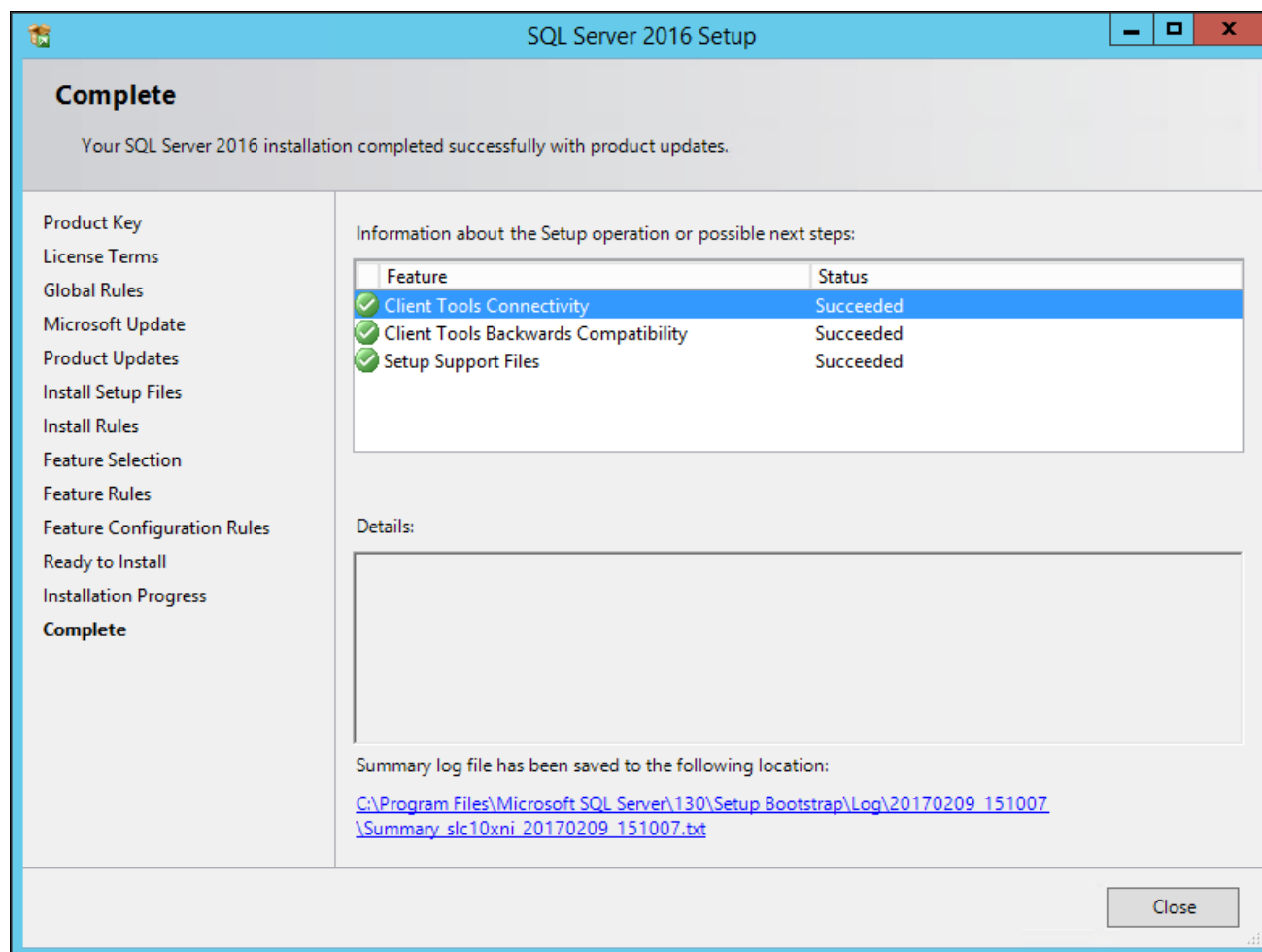
16. Click Next.

The Ready to Install window appears with a summary of the features and settings that you have selected, as shown in this example. Select Install to proceed or Back to go back and correct a setting.



SQL Server 2016 Setup Ready to Install window

17. Wait for all the components to install successfully.



SQL Server 2016 Setup Complete window

After the installation is complete, a Complete screen appears which gives the location of the setup log files and other information. The log files are saved in this location, where *<identifier>* refers to a string including a timestamp:

C:\Program Files\Microsoft SQL Server\130\Setup Bootstrap\Log\<identifier>\Summary<identifier>

The SQL Server 2016 client setup is complete.

Task 25-3: Starting and Stopping Microsoft SQL Server 2016

To start or stop the server:

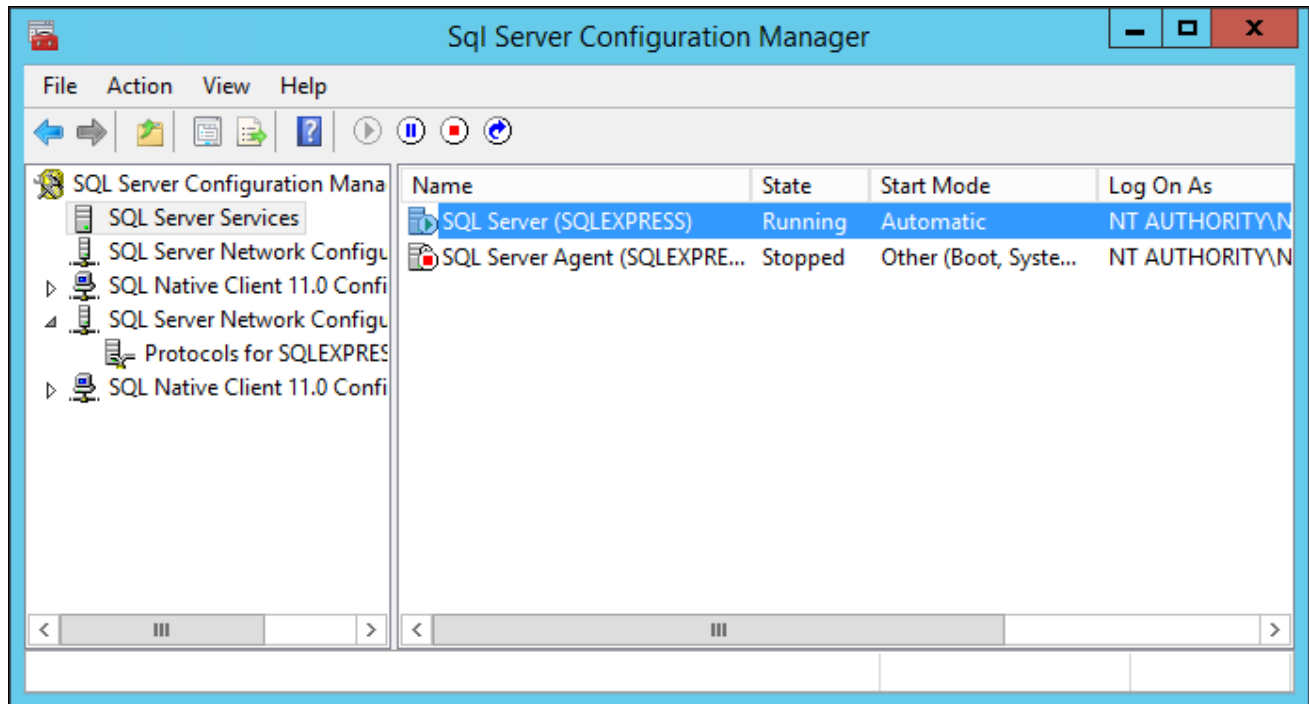
1. On Microsoft Windows 2012 R2, go to the App page, locate and select SQL Server 2016 Configuration Manager.

The SQL Server Configuration Manager window opens.

2. On the left side of the window select SQL Server Services, and on the right side select the server or instance name that you want to start or stop.

3. If the service is running, highlight the service name and click the stop button on the top menu bar.

In this example the SQL Server service, which is highlighted, is running, and the SQL Server Agent is stopped.



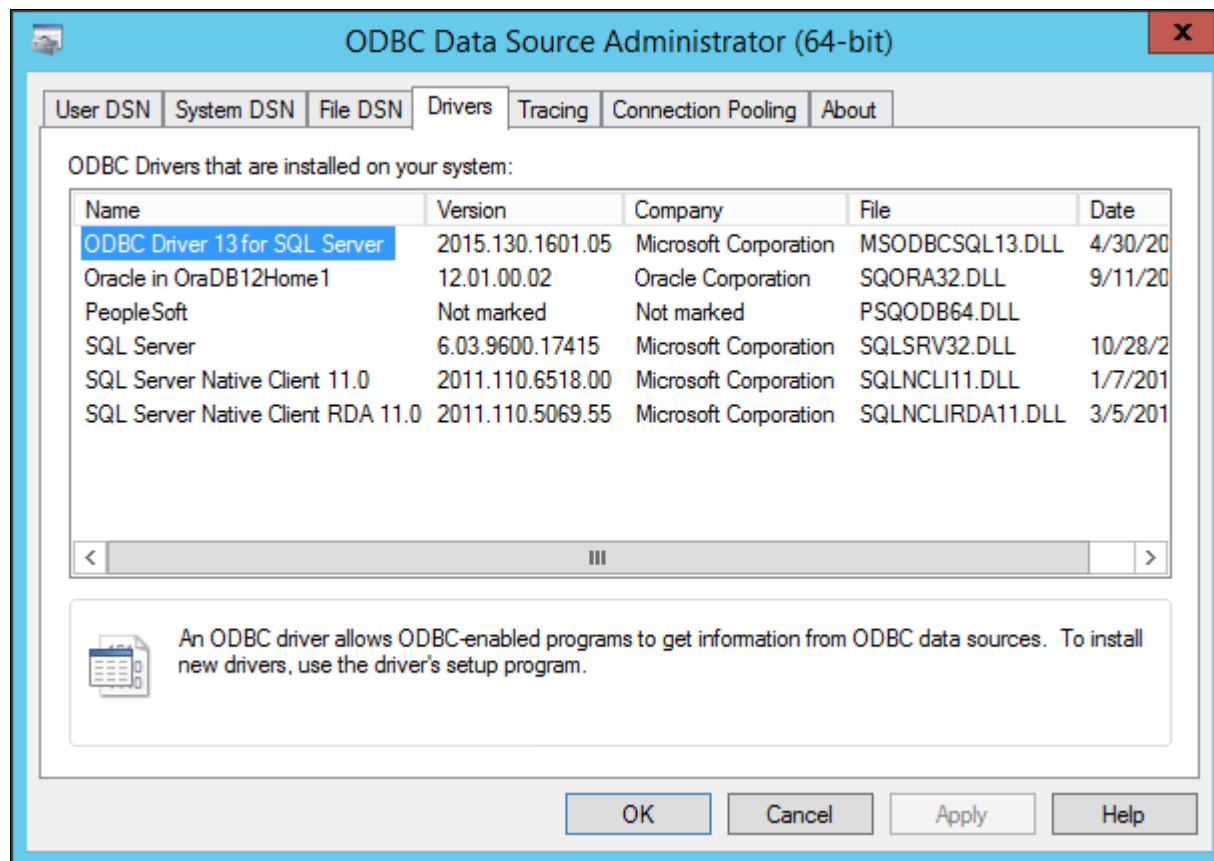
Sql Server Configuration Manager

4. If the service is stopped, highlight the name and click the start button on the top menu bar.

Task 25-4: Configuring the Connection to Use SNAC for Microsoft SQL Server 2016

When configuring ODBC to connect to your SQL Server 2016 databases make sure you use ODBC Driver 13 for SQL Server version 2015.130.1601.05. The only certified configuration uses this client to connect to SQL Server 2016.

Access the ODBC Data Source Administrator (64-bit) dialog box, for example, by selecting Control Panel, System and Security, Administrative Tools, ODBC Data Sources. Select the Drivers tab. Confirm that the driver is ODBC Driver 13 for SQL Server version 2015.130.1601.05, as shown in this example:



ODBC Data Source Administrator (64-bit) dialog box

Task 25-5: Configuring an ODBC Data Source for Microsoft SQL Server 2016

Confirm that you are using the correct connectivity drivers for a 64-bit machine. For the current PeopleSoft PeopleTools release, PeopleSoft PeopleTools server and client executables are 64-bit. To run on a 64-bit operating system you need only the 64-bit connectivity drivers for PeopleSoft PeopleTools.

To create an ODBC Data Source for the 64-bit application:

1. Access the ODBC Data Source Administrator dialog box shown in the previous section, for example by selecting Control Panel, System and Security, Administrative Tools, ODBC Data Sources, 64-bit.

Alternatively, you can launch the ODBC Data Source Administrator dialog box from
C:\windows\system32\odbcad32.exe.

2. Select the System DNS tab and create a data source.

When you run odcbad32 on a 64-bit Microsoft Windows machine, the 64-bit version of odcbad32.exe (C:\windows\system32) is used by default. This is the correct version for 64-bit PeopleSoft PeopleTools clients and servers such as the Application Server, Process Scheduler, Application Designer (pside.exe) and Data Mover (psdmt.exe).

Chapter 26

Upgrading to Microsoft SQL Server 2016

This chapter discusses:

- Understanding the Upgrade to Microsoft SQL Server 2016
- Preparing to Migrate
- Upgrading a PeopleSoft Database from Microsoft SQL Server 2014 to Microsoft SQL Server 2016
- Setting Up the Migrated Database

Understanding the Upgrade to Microsoft SQL Server 2016

This chapter provides pointers for migrating a PeopleSoft application database from Microsoft SQL Server 2014 to Microsoft SQL Server 2016. The following instructions are not intended as a replacement to the Microsoft SQL Server Books Online documentation. Make sure you read and understand the migration instructions and process provided in the SQL Server Books Online (Upgrading to SQL Server 2016) before attempting any database migration from Microsoft SQL Server 2014 to Microsoft SQL Server 2016. Another tool that may help on your migration efforts is the "Data Migration Assistant" provided by Microsoft.

In addition, please read the chapter "Installing Microsoft SQL Server 2016" which provides information on installing Microsoft SQL Server 2016 for PeopleSoft applications. Also refer to SQL Server 2016 online documentation, support.microsoft.com, or Microsoft support services for further details about Microsoft SQL Server 2016.

Note. PeopleSoft PeopleTools 8.54 is the minimum PeopleTools release to support Microsoft SQL Server 2016. Use these instructions if you installed your PeopleSoft application on PeopleSoft PeopleTools 8.54 or later using Microsoft SQL Server 2014, and want to migrate the PeopleSoft database to Microsoft SQL Server 2016.

Note. The guidelines given here can also be used for other upgrade paths, such as upgrading from Microsoft SQL Server 2012 to Microsoft SQL Server 2016.

Task 26-1: Preparing to Migrate

Before beginning the migration to Microsoft SQL Server 2016, you must:

- Back up your database files.
Back up your existing Microsoft SQL Server database. After doing so, ensure that your backup was successful by restoring or loading the database into a "dummy" database. You may also want to back up the instance database files to have them ready to restore if necessary.
- Verify database integrity.
You need to verify the integrity of your database and repair any problems before attempting a migration.

Commands like DBCC CHECKDB are available to perform this task.

Task 26-2: Upgrading a PeopleSoft Database from Microsoft SQL Server 2014 to Microsoft SQL Server 2016

If you are currently using Microsoft SQL Server 2014 and would like to upgrade your PeopleSoft database to Microsoft SQL Server 2016 you have several alternatives. Select the one that best suits your environment necessities. The following are only suggestions of possible alternatives to accomplish this task.

- Restore a backup.

To upgrade a Microsoft SQL Server 2014 database it is possible to back it up and restore it in Microsoft SQL Server 2016. This will automatically upgrade the database to Microsoft SQL Server 2016.

Note. The Microsoft SQL Server 2014 environment must be running at least with the service pack SP2.

- Detach and attach a database.

Another way to upgrade your PeopleSoft database and probably the fastest is detaching the database from Microsoft SQL Server 2014 and attaching it to Microsoft SQL Server 2016.

To accomplish this, run `sp_detach_db` in Microsoft SQL Server 2014, and then `sp_attach_db` in Microsoft SQL Server 2016. This procedure will automatically upgrade your database to Microsoft SQL Server 2016.

Note. The Microsoft SQL Server 2014 environment must be running at least with the service pack SP1.

- Copy Database Wizard.

You can also upgrade to Microsoft SQL Server 2016 using Microsoft SQL Server 2016 Copy Database Wizard. Consult the Microsoft online documentation for details on how to use the tool.

- Use PeopleSoft Data Mover.

Another alternative to migrate your database could be using PeopleTools. You can use Data Mover to migrate data of the entire database. This could be accomplished by exporting all the tables in the database to a Data Mover file. Keep in mind that this could be the slowest procedure of all those mentioned in this section; however, there are specific scenarios where using Data Mover could be the best choice.

See "Creating a Database Manually."

See *PeopleTools: Data Management*.

Task 26-3: Setting Up the Migrated Database

No matter which approach you decide to use, read and observe the follow recommendations in your migrated PeopleTools environment.

- Set up the appropriate compatibility level.

Review the information in the Microsoft SQL Server online documentation concerning compatibility level. Briefly, according to Microsoft SQL Server online documentation: "When a database is upgraded from any earlier version of SQL Server, the database retains its existing compatibility level if it is at least minimum allowed for that instance of SQL Server."

For this reason it is very important to remember to modify the compatibility level of your PeopleSoft database to 130 immediately after verifying the database integrity after upgrade. PeopleSoft PeopleTools will not

recognize the compatibility level used in your database and it will assume the appropriate compatibility mode was selected. Utilizing a different compatibility mode may cause unexpected behavior in the product

- Verify database integrity.

We recommend that you verify the integrity of your database and repair any problems that may occur after migrating your database. Make sure to run DBCC CHECKDB at the upgraded database. Immediately after migrating the database the compatibility mode will be 130.

- Update database statistics.

The Microsoft SQL Server online documentation recommends updating your database statistics to help optimize query performance. Use the `sp_updatestats` stored procedure to update statistics in user-defined tables in Microsoft SQL Server 2016 databases. Make sure the compatibility mode is set to 130 before running this command.

For a more elaborate procedure you can use a script to run the following commands for all tables in your PeopleSoft database:

```
sp_createstats 'indexonly'
UPDATE STATISTICS <PS_TABLENAME> WITH FULLSCAN
```

For example, the script should be similar to this:

```
exec sp_createstats 'indexonly'
UPDATE STATISTICS PS_BU_TYPE_INV WITH FULLSCAN;
UPDATE STATISTICS PSAPMSGARCHPD WITH FULLSCAN;
```

- Update usage counters.

In earlier versions of SQL Server, the values for the table and index row counts and page counts can become incorrect. To correct any row or page counts that are not valid, Microsoft recommends that you run DBCC UPDATEUSAGE on all databases following the upgrade.

- Enable READ COMMITTED SNAPSHOT ISOLATION (RCSI).

By default all PeopleSoft release 9 or later applications running Microsoft SQL Server 2014 will have RCSI enabled. If RCSI is not enabled you must activate the RCSI level for the upgraded database since all the PeopleSoft 9 or later applications will use that isolation level by default.

- To verify if the database is using RCSI you may run the following SQL command, substituting the name of your database for *DATABASENAME*:

```
select is_read_committed_snapshot_on from sys.databases
where database_id = db_id ('DATABASENAME')
```

The output must be the number 1 (one), which means, RCSI is enabled.

- If RCSI is not enabled you must activate now the RCSI level for the upgraded database.
- To enable RCSI you can use the script labeled `ENABLE_RCSI .SQL` available under *PS_HOME*\scripts for all PeopleSoft PeopleTools 8.48 and later. Edit and review the script before running it.

Make sure there is no database activity and no other connections to the database; otherwise RCSI will not be activated (see Microsoft SQL Server online documentation for further details).

The script executes the following command:

```
ALTER DATABASE <DBNAME> SET READ_COMMITTED_SNAPSHOT ON
```

- Check the login.

By default login accounts created on Microsoft SQL Server 2016 will inherit the password policies from their operating systems. If the password for the migrated logins does not comply with the operating system, you may experience problems signing on with those login names and passwords.

There are several ways to solve the problem. One simple solution is to disable the feature for each login or to change its password. However, remember that if you change the password for the logins used as CONNECTID or ACCESSID, you must update and encrypt through Data Mover the appropriate security tables (PSSTATUS, PSOPRDEFN, and PSACCESSPROFILE) with the new values to be able to log in again to your PeopleSoft database.

See *PeopleTools: Security Administration*.