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PeopleSoft PeopleTools 8.56 Installation and PeopleSoft Database Setup (Microsoft SQL Server)

June 2017

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(Microsoft SQL Server)

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About This Documentation

This preface discusses:

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

Understanding This Documentation

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

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

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

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 Application Database Setup Using PeopleTools DPKs
- Reviewing Hardware Requirements
- Reviewing Software Requirements
- Planning Your Initial Configuration
- Planning Database Creation
- 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 Application Database Setup Using PeopleTools DPKs

It is possible to use the PeopleTools 8.56 DPKs in combination with PeopleSoft application software delivered in the traditional, non-DPK format (often referred to as VCD format) to install a PeopleSoft environment. This assumes that the PeopleSoft application was built on a PeopleTools release prior to PeopleTools 8.56, and therefore was not delivered in the DPK format.

This process includes the following high-level steps:

1. Download the PeopleSoft PeopleTools 8.56 DPKs.
2. Use the DPK setup script from the PeopleSoft PeopleTools 8.56 DPKs to carry out one of these steps:
 - Install the PeopleSoft PeopleTools 8.56 *PS_HOME*, which includes the PeopleTools setup and development utilities.
 - Install the PeopleSoft PeopleTools 8.56 *PS_HOME*, Oracle Tuxedo, and Oracle WebLogic.

Note. If you want to use the Database Configuration Wizard to create your PeopleSoft application database in the next step, you need to install Oracle Tuxedo first.

3. Install *PS_APP_HOME* using the PeopleSoft installer to obtain the PeopleSoft application-specific database and other files.
4. Create a PeopleSoft application database using scripts and tools from the PeopleSoft PeopleTools 8.56 *PS_HOME*.
5. Update the database to PeopleSoft PeopleTools 8.56.
6. Use the DPK setup script to install the application server, Process Scheduler, and web server software (mid-tier components) and set up the domains.

Task 1-1: Reviewing Hardware Requirements

This section discusses:

- Reviewing Hardware Requirements for Microsoft Windows
- Reviewing Hardware Requirements on Linux or UNIX

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

You can install the PeopleSoft Deployment Packages directly on a system running a Microsoft Windows operating system (sometimes called "bare-metal" installation). 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 must be 64-bit platform 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.

See Tech Update - Mainstream Support for Windows Server 2008, 2008 R2 Winds Down, My Oracle Support, Doc ID 1924632.1.

- *RAM (Memory)*: Approximately 8 GB RAM is required to run a mid-tier PeopleSoft environment.
See "Preparing to Deploy," Understanding PeopleSoft Components.
- *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.

Task 1-1-2: Reviewing Hardware Requirements on Linux or UNIX

You can install the PeopleSoft Deployment Packages directly on a system running an Oracle Linux operating system (sometimes called "bare-metal" installation). The PeopleSoft DPKs are certified to run on those Oracle Linux operating systems that are certified for PeopleSoft PeopleTools 8.56. The Linux system can be a physical computer or a virtual machine.

- *Host computer*: The PeopleSoft DPKs can be deployed on any supported Linux host, bare-metal or virtual. The PeopleSoft DPKs can also be deployed on Oracle Exalogic Elastic Cloud.

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 must be 64-bit platform certified by Oracle for PeopleSoft systems.

See My Oracle Support, Certifications.

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

- *RAM (Memory)*: Approximately 8 GB RAM is required to run a mid-tier PeopleSoft environment.

See "Preparing to Deploy," Understanding PeopleSoft Components.

- *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 My Oracle Support, Certifications.

Task 1-2: Reviewing Software Requirements

This section discusses:

- Reviewing Software Requirements on Microsoft Windows
- Reviewing Software Requirements on Linux or UNIX
- Reviewing Software Requirements on AIX
- Reviewing Requirements for the Puppet Software

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
- 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 Software Requirements on Linux or UNIX

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

- You must have root access to install the PeopleSoft DPKs.
- If you are installing the PeopleSoft DPKs on Oracle Linux 6 or 7 with Unbreakable Enterprise Kernel (UEK), apply the latest UEK kernel from the Oracle YUM repository at <http://public-yum.oracle.com/index.html>.
- Zip utility

You need a utility that is able to extract (unzip) the DPK zip files for your operating system; for example:

- For AIX, gunzip or unzip
- For Linux, tar or unzip
- For Solaris, tar or unzip

- OpenSSL

For deployments on AIX and Solaris, obtain the latest version of OpenSSL for your operating system and install it on the host.

Task 1-2-3: Reviewing Software Requirements on AIX

If you are installing the AIX version of the PeopleSoft DPKs, you must manually install JDK 8.0 from the IBM web site. This requirement is in addition to the requirements for Linux and UNIX.

To obtain 64-bit IBM JDK for IBM AIX:

1. Go to the IBM JDK download and service site.

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

Note. You need a user name and password for downloading IBM JDK. If you don't have the required credentials, contact IBM AIX support.

2. Select the link for Java 8 64-bit under Java SE Version 8.
3. Provide the required information to sign in.

4. Install the JDK on the AIX computer where you will install the PeopleSoft AIX DPK.
5. Make a note of the installation location.

To perform the DPK installation, you must perform the deployment using the DPK customizations, and specify the AIX JDK installation location.

See "Completing the DPK Initialization With Customizations," Preparing the Customization File for Component Software Locations.

Task 1-2-4: Reviewing Requirements for the Puppet Software

The PeopleSoft DPKs are delivered with the PeopleSoft Puppet modules, which are initialization and management scripts based upon open-source Puppet software. In most cases, the Puppet software will be installed by the DPK deployment. In some scenarios you may be required to install either Puppet or its dependencies.

- 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 it 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 only for Linux and Microsoft Windows operating systems.
If you are installing the PeopleSoft DPKs for IBM AIX or Oracle Solaris for SPARC, you must use the Puppet software that is delivered with the DPKs.

- These are the minimum requirements for the software versions associated with using Puppet with the PeopleSoft DPKs on Microsoft Windows and Linux operating systems:

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

- These are the minimum requirements for the software versions associated with using Puppet with the PeopleSoft DPKs on AIX, and Oracle Solaris for SPARC operating systems:

- 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: 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 1-3-1: Defining the PeopleTools Client

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

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 1-3-2: Defining the File Server

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

Important! Remember, a COBOL compiler is not needed for PeopleSoft PeopleTools unless your application contains COBOL programs. If your application requires COBOL and you are running on Microsoft Windows, we require that you maintain a central repository of your COBOL source code on the Windows file server. See the task Installing Supporting Applications later in this chapter for details on where you should install your COBOL compiler.

If you follow the default procedures recommended in this documentation, the install workstations, Microsoft Windows batch servers, and Microsoft Windows report servers will access the PeopleSoft files on the file server by pointing to a directory referred to in this documentation as *PS_HOME* on a shared network drive. You can install SQR on the file server, or install them locally on Microsoft Windows batch servers and on Microsoft Windows-based clients that will be running these processes locally.

If you are working only on Microsoft Windows, and you install the file server along with the other servers, you do not need to repeat the file server setup.

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

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

Task 1-3-3: Defining the Database Server

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

See Planning Database Creation.

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

Task 1-3-4: Defining the Application Server

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

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

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 1-3-5: 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 1-3-6: 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	<i>PS_CFG_HOME</i> 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 1-3-7: Defining the Web Server

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

- Oracle WebLogic Server
- IBM WebSphere Server

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 1-4: 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.

Task 1-4-1: Determining Databases and Database Names

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

- Are limited to eight characters, all UPPERCASE.
- Capture information about the PeopleSoft product line and the type of database.

For example, you may want to create two databases with the names PSHRDMO and PSHRSYS, using the two characters HR (for Human Resources) to indicate the product line.

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 1-4-2: 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 1-5: 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 1-6: 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 1-6-1: 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.

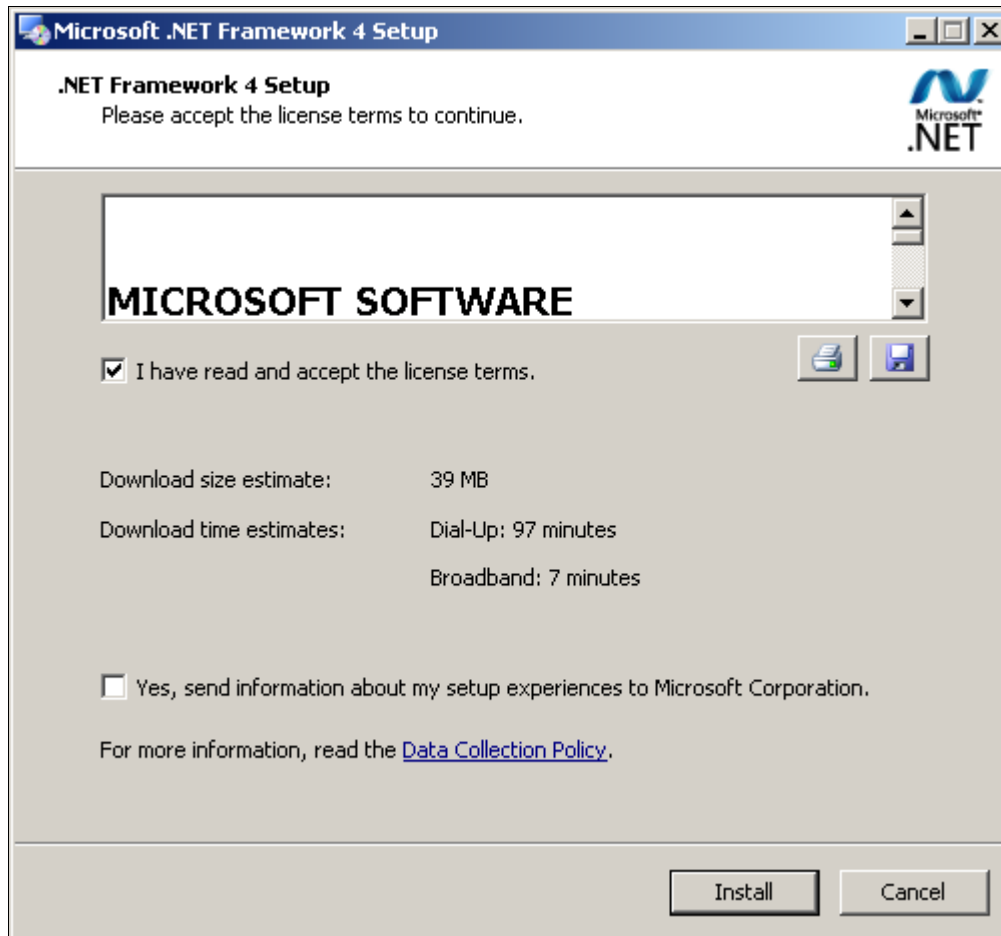
2. Insert the Microsoft SQL Server 2012 DVD into the DVD drive.

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.

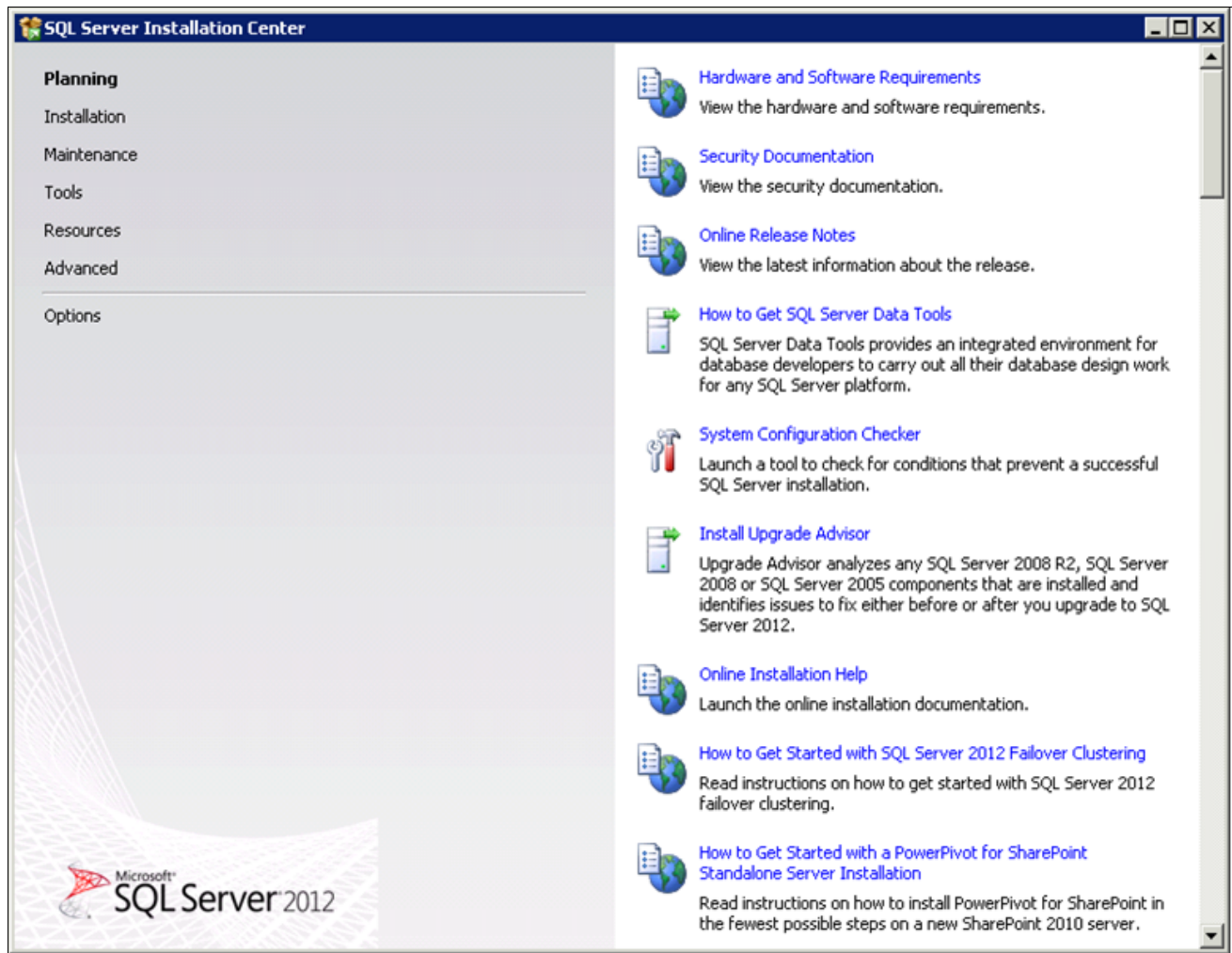
An initialization message box appears asking you to wait, as in this example.



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.



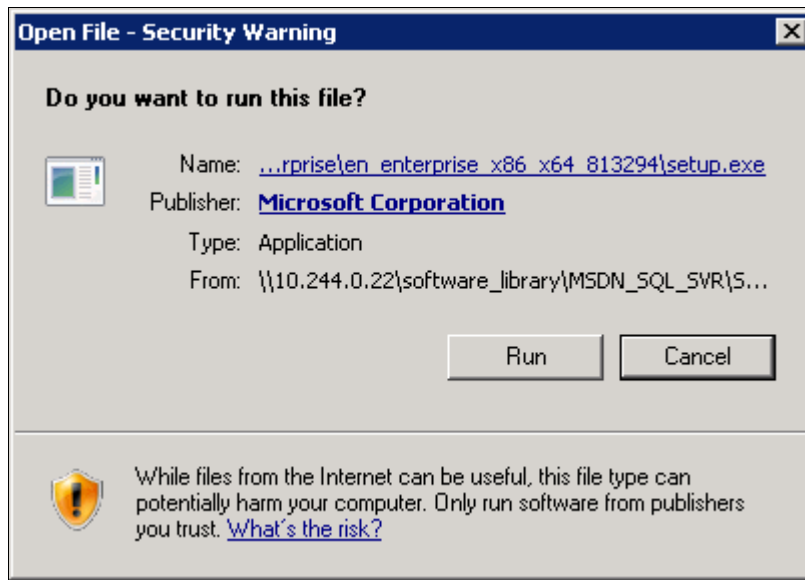
SQL Server Installation Center window for Microsoft SQL Server 2012

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



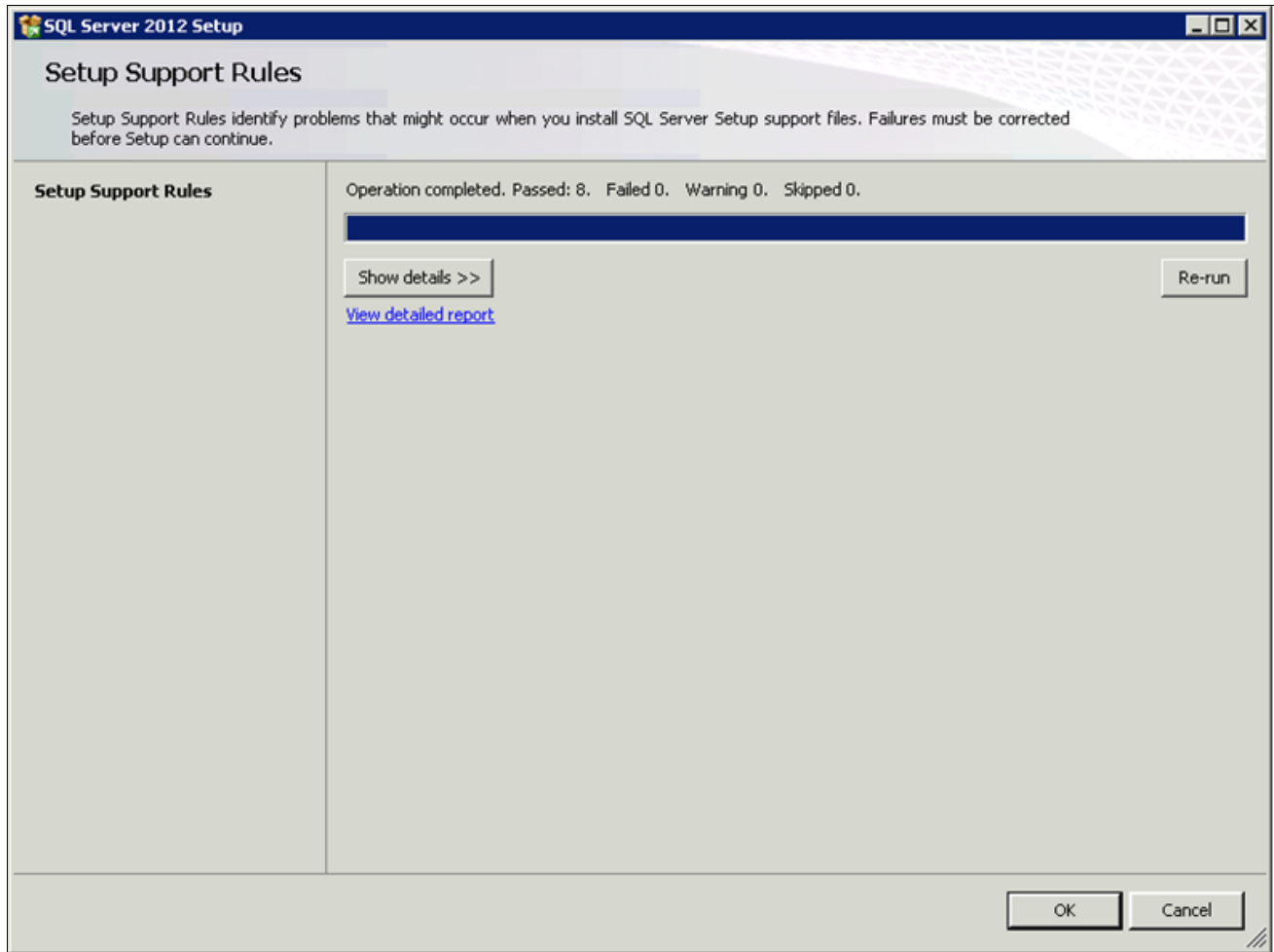
SQL Server Installation Center window with installation options

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



Open File - Security Warning for Microsoft SQL Server 2012 installation

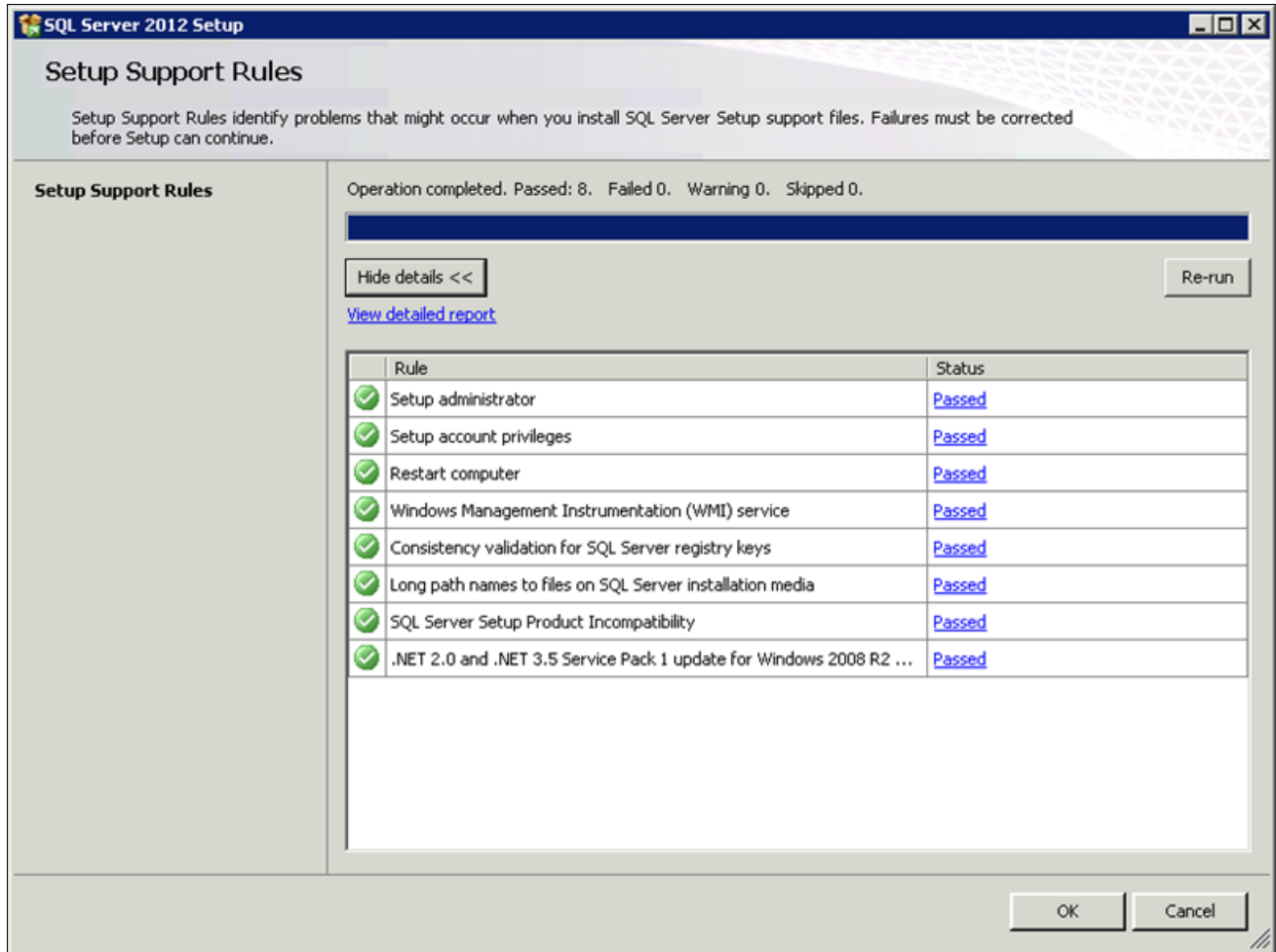
A message box appears asking you to wait. After the process is complete the Setup Support Rule window appears showing the progress of the initialization. Wait until the operation is complete, as shown in this example.



SQL Server 2012 Setup Support Rules progress indicator window

- When the operation is complete, click Show details.

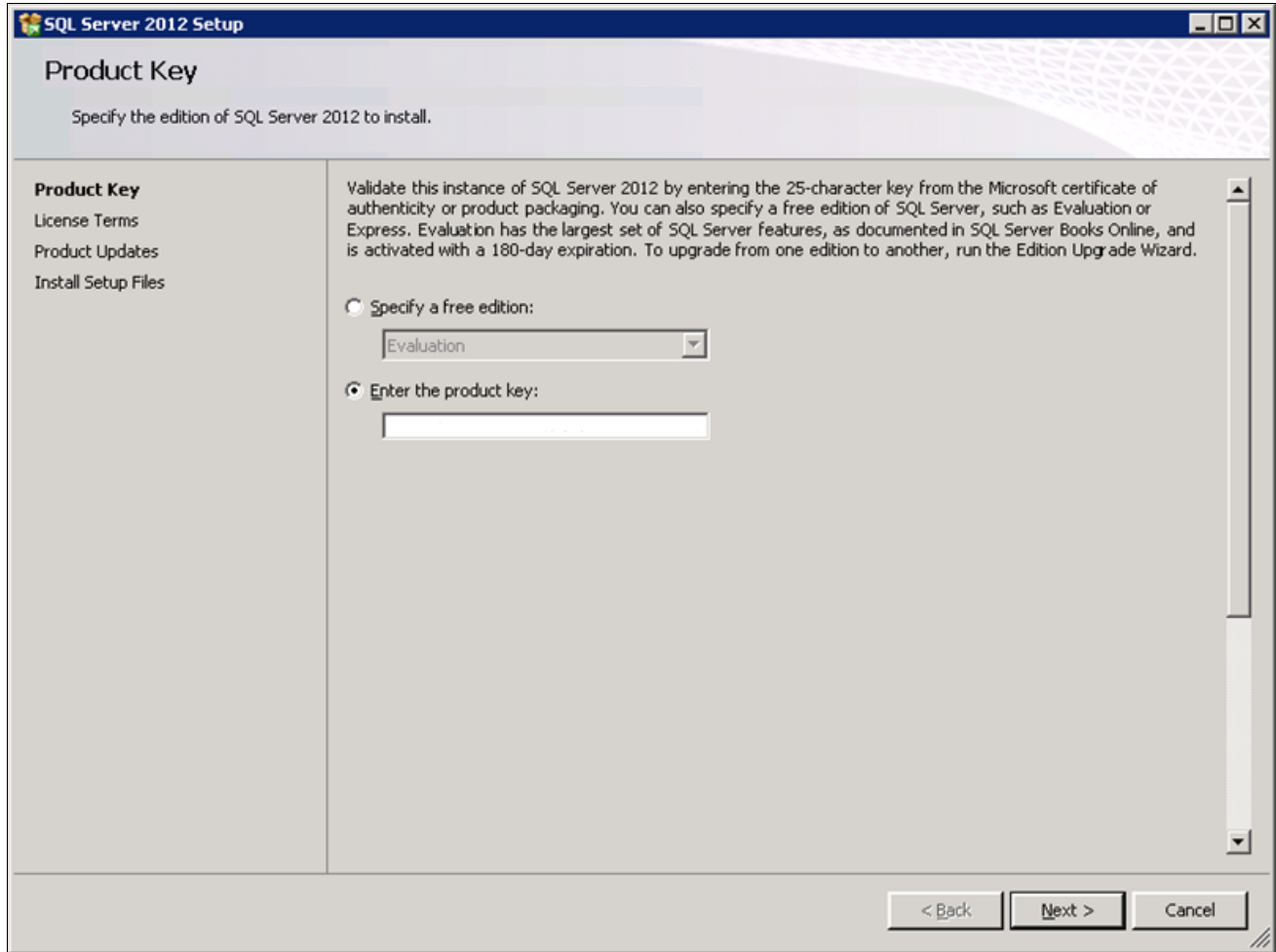
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Support Rules window showing detailed report

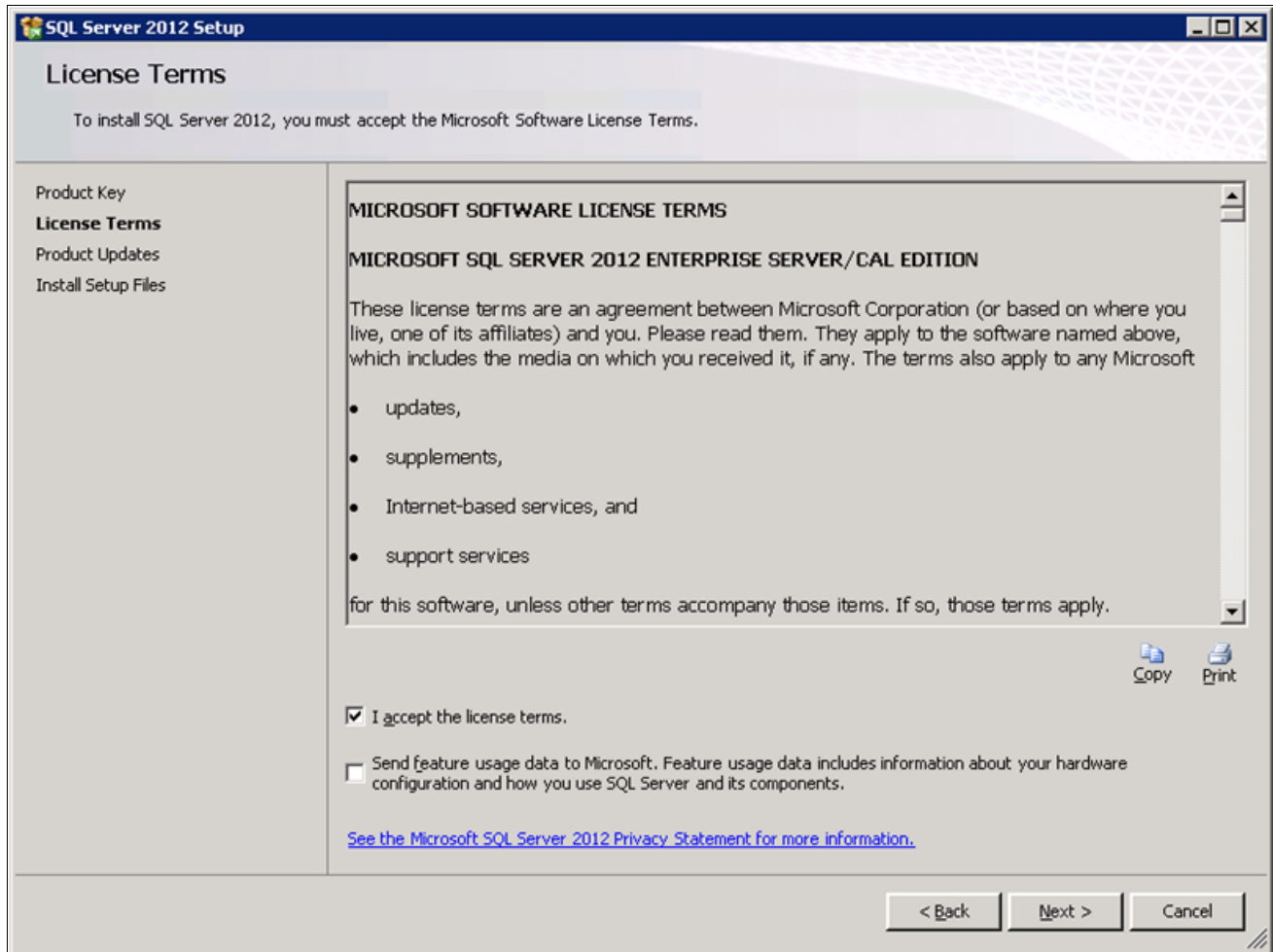
10. Click OK.

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

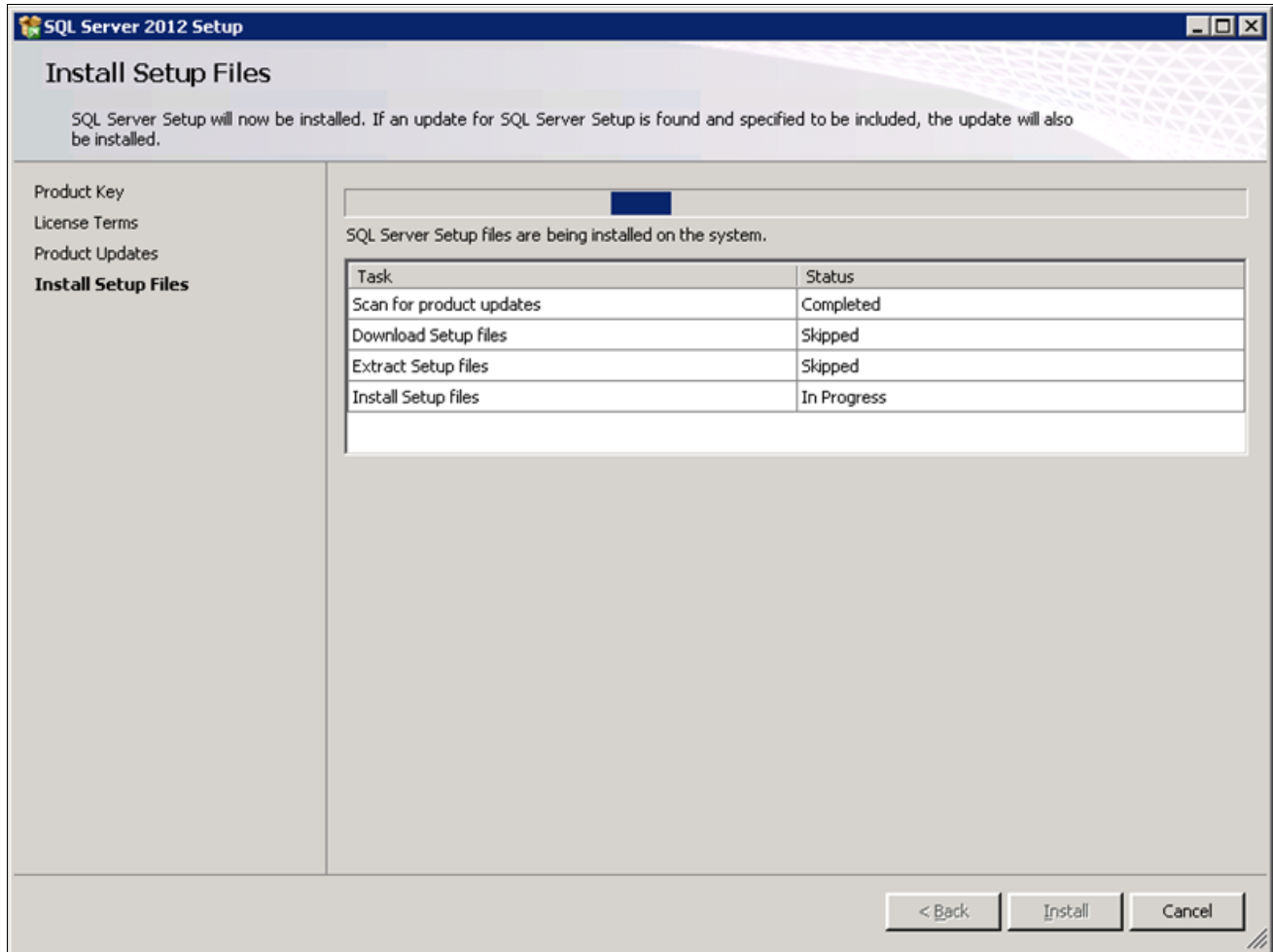
11. Read the terms and conditions carefully and select the check box I accept the license terms.



SQL Server 2012 Setup License Terms window

12. Click Next.

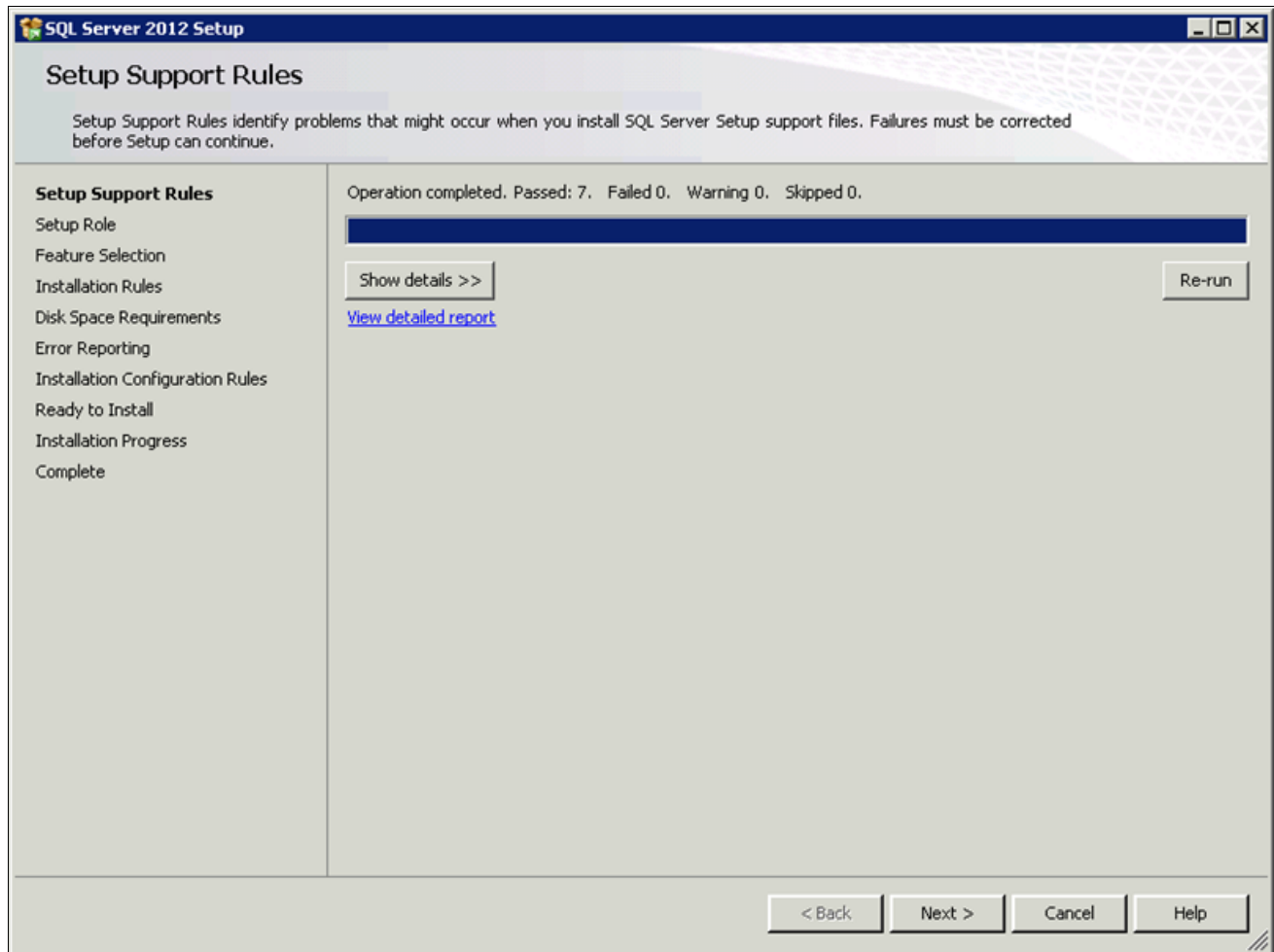
The Install Setup Files window appears. Wait for the process to install setup files and scan for product updates to complete, as shown in the Status column in this example.



SQL Server 2012 Install Setup Files progress window

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

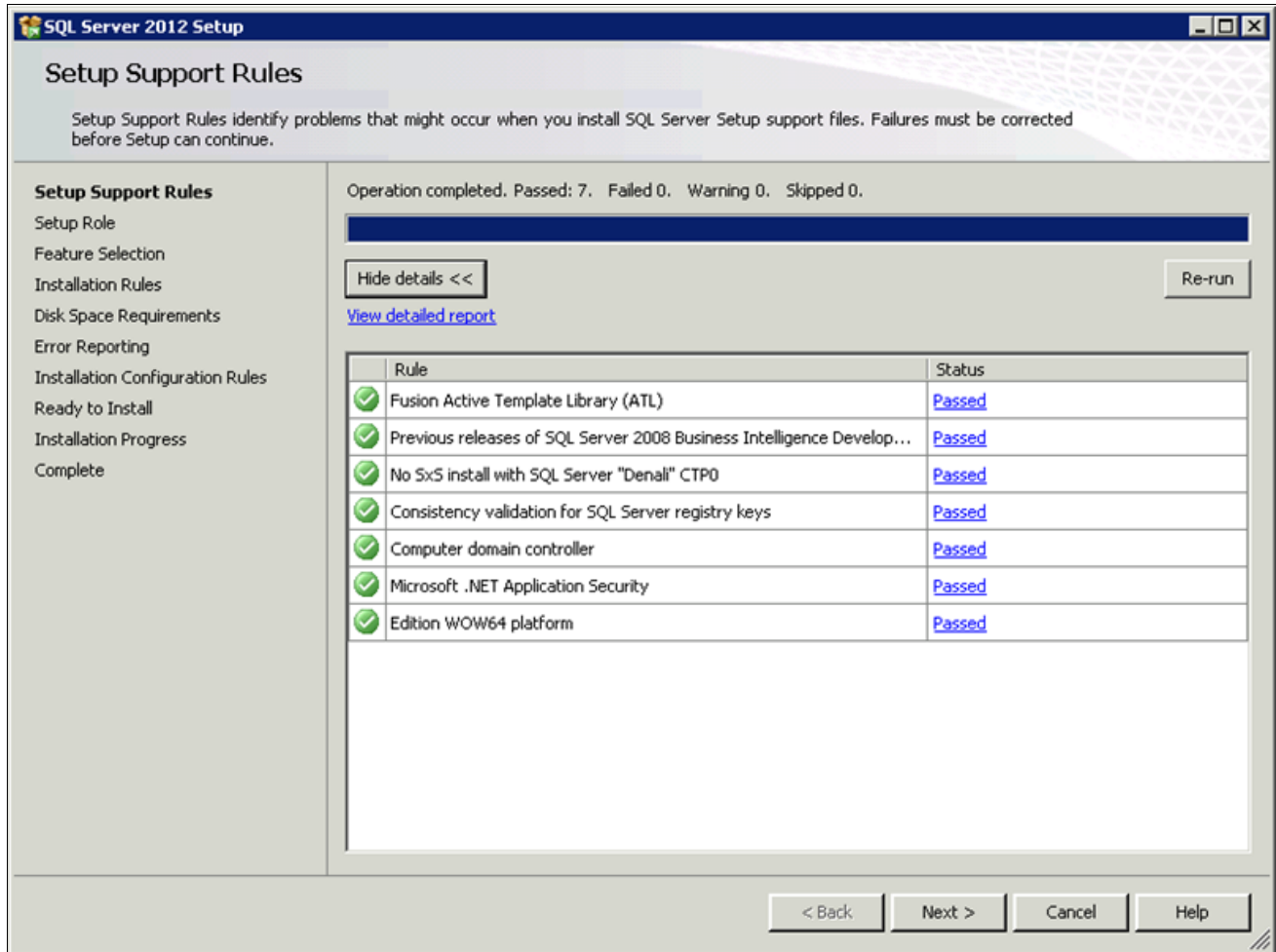
The setup operation checks for problems that might occur when you install support files. In this example all of the support rules have passed.



SQL Server 2012 Setup Support Rules window showing the operation completed

14. Click Show details.

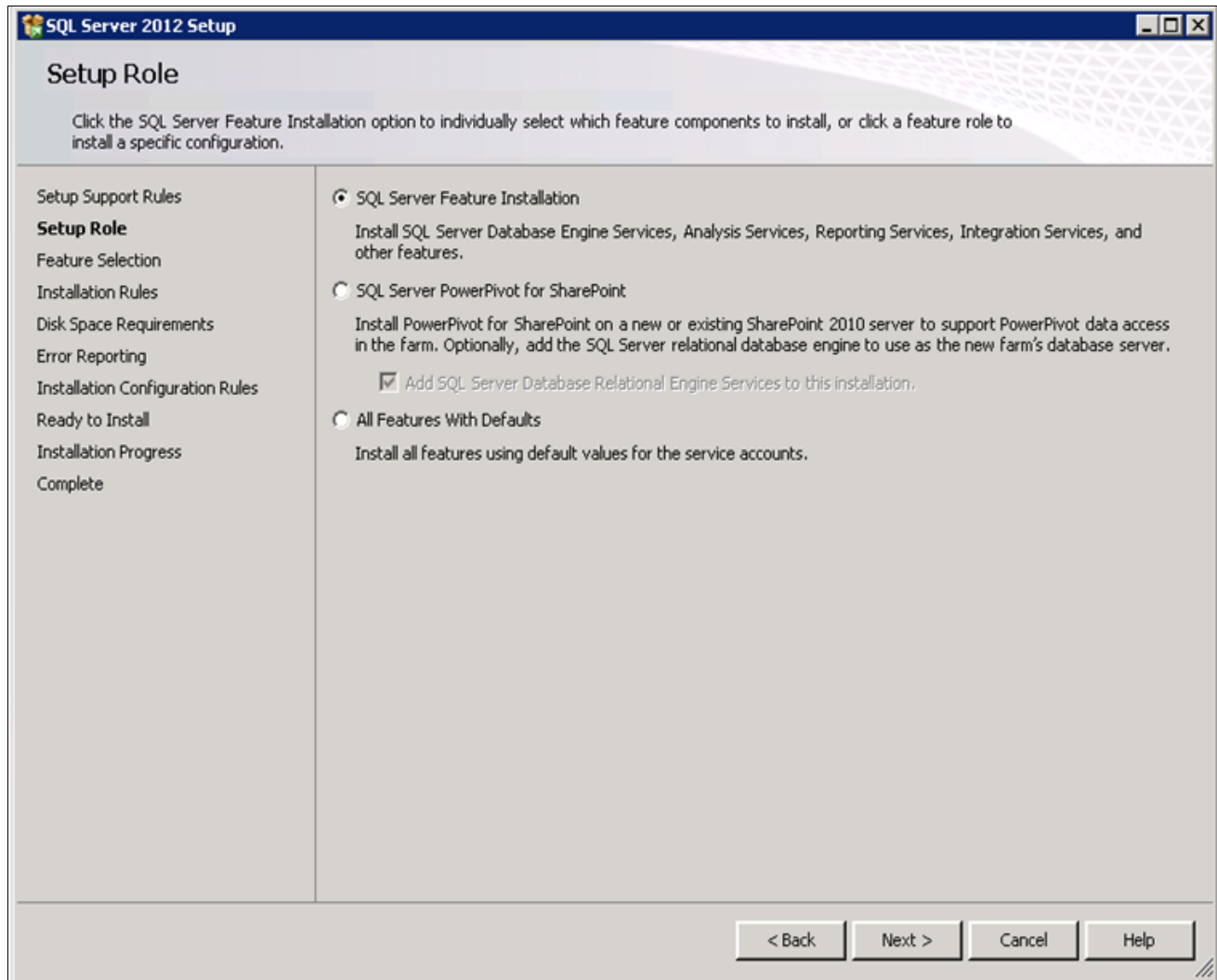
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Support Rules window showing report details

15. Click Next to proceed.

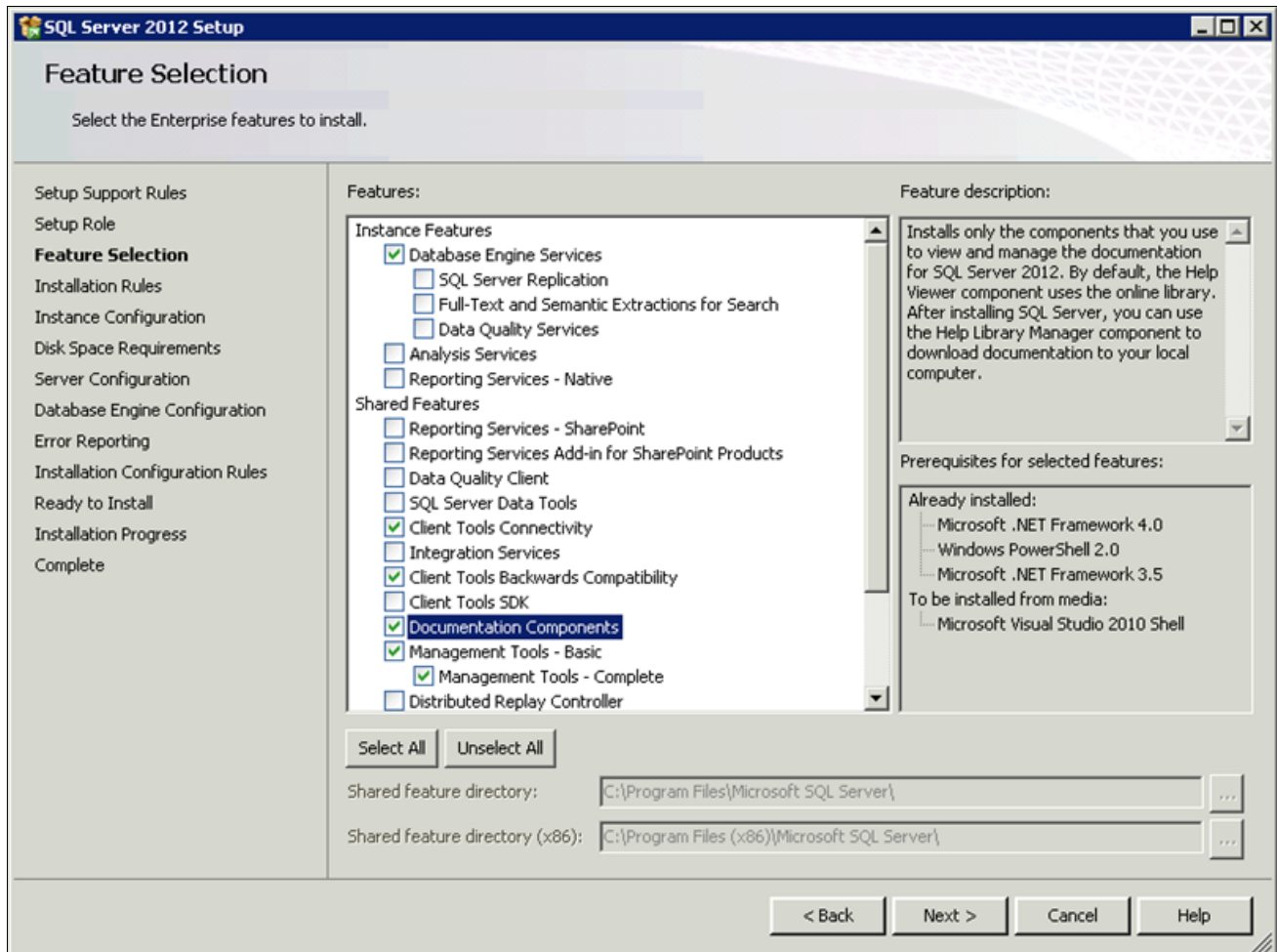
On the Setup Role window, select the option SQL Server Feature installation, as shown in this example, and click Next.



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)

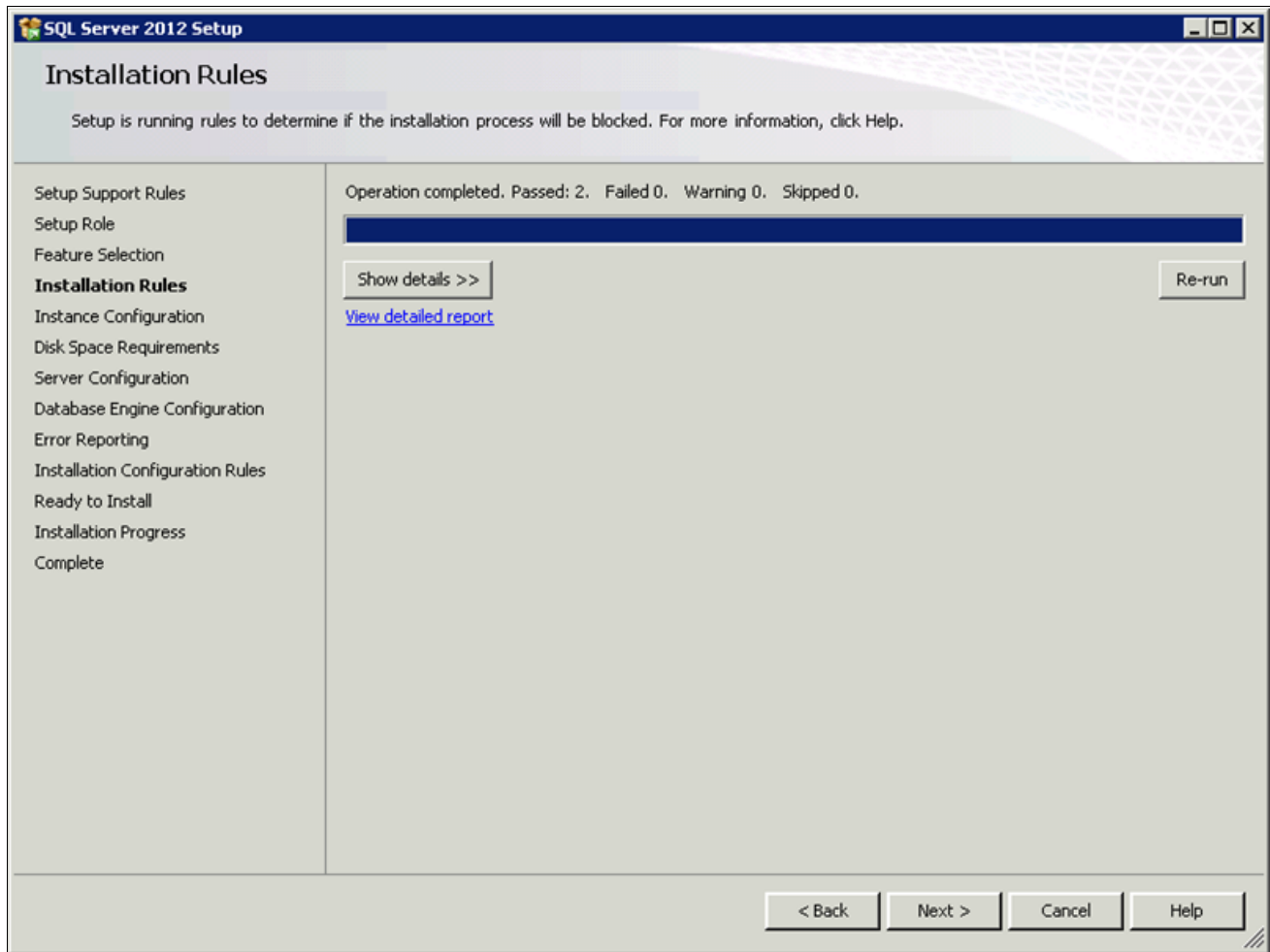
17. Clear the check boxes beside the following features:

- 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.

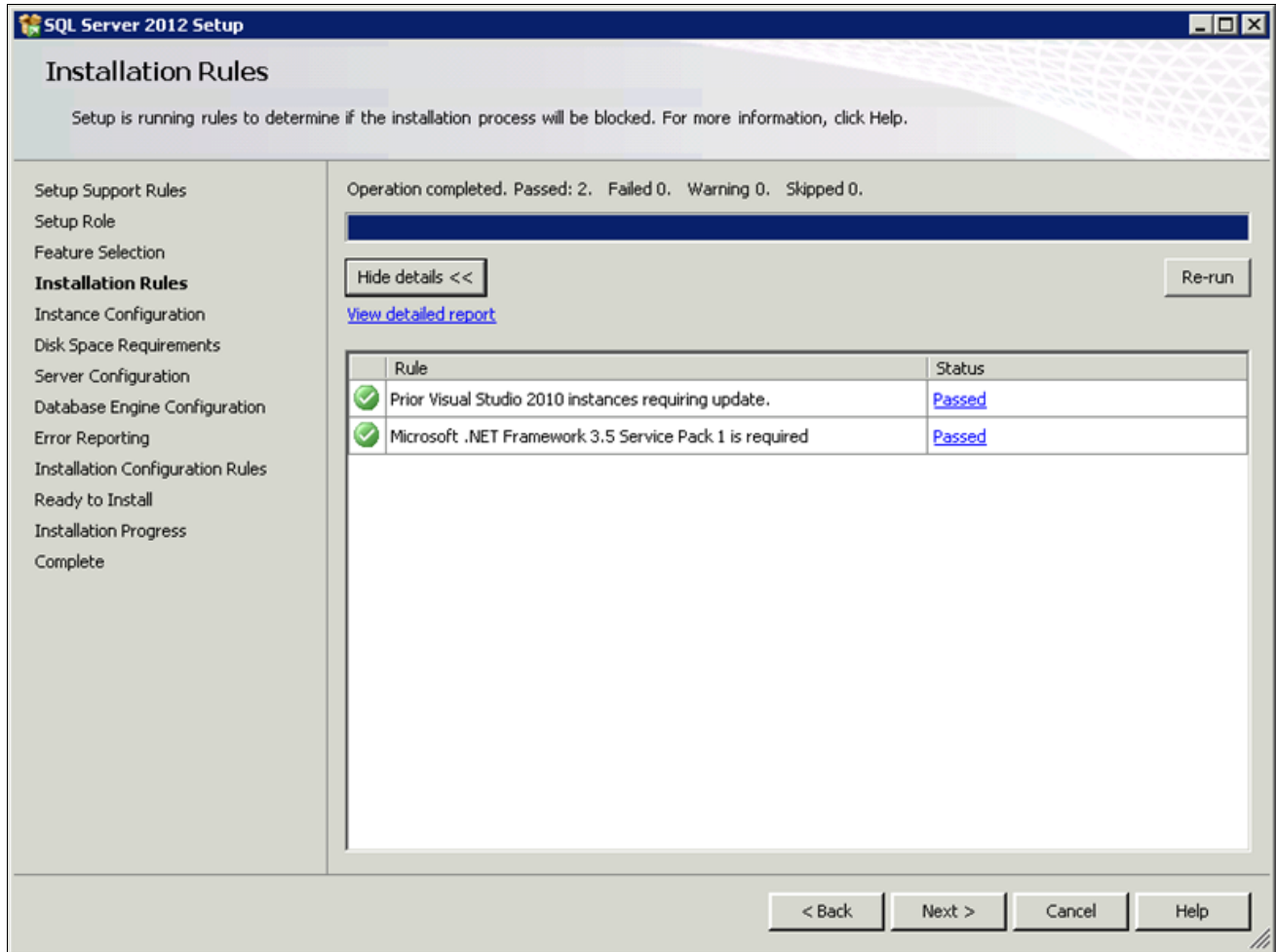
The Installation Rules window appears, and the setup operation runs rules to determine whether the installation will be blocked. The example below shows the operation is complete.



SQL Server 2012 Installation Rules window showing the operation completed

19. Click Show Details.

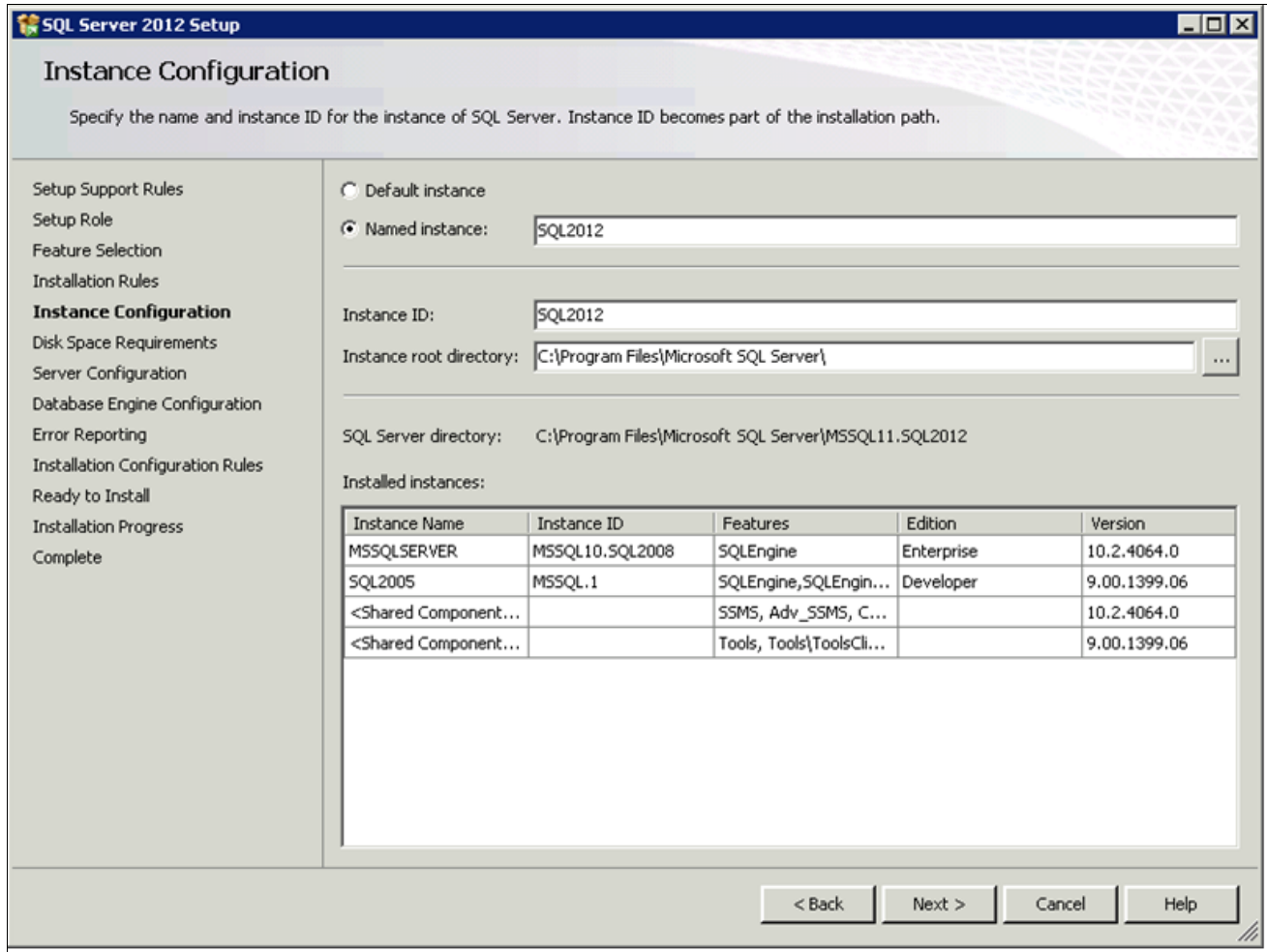
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Installation Rules window showing report details

20. Click Next.

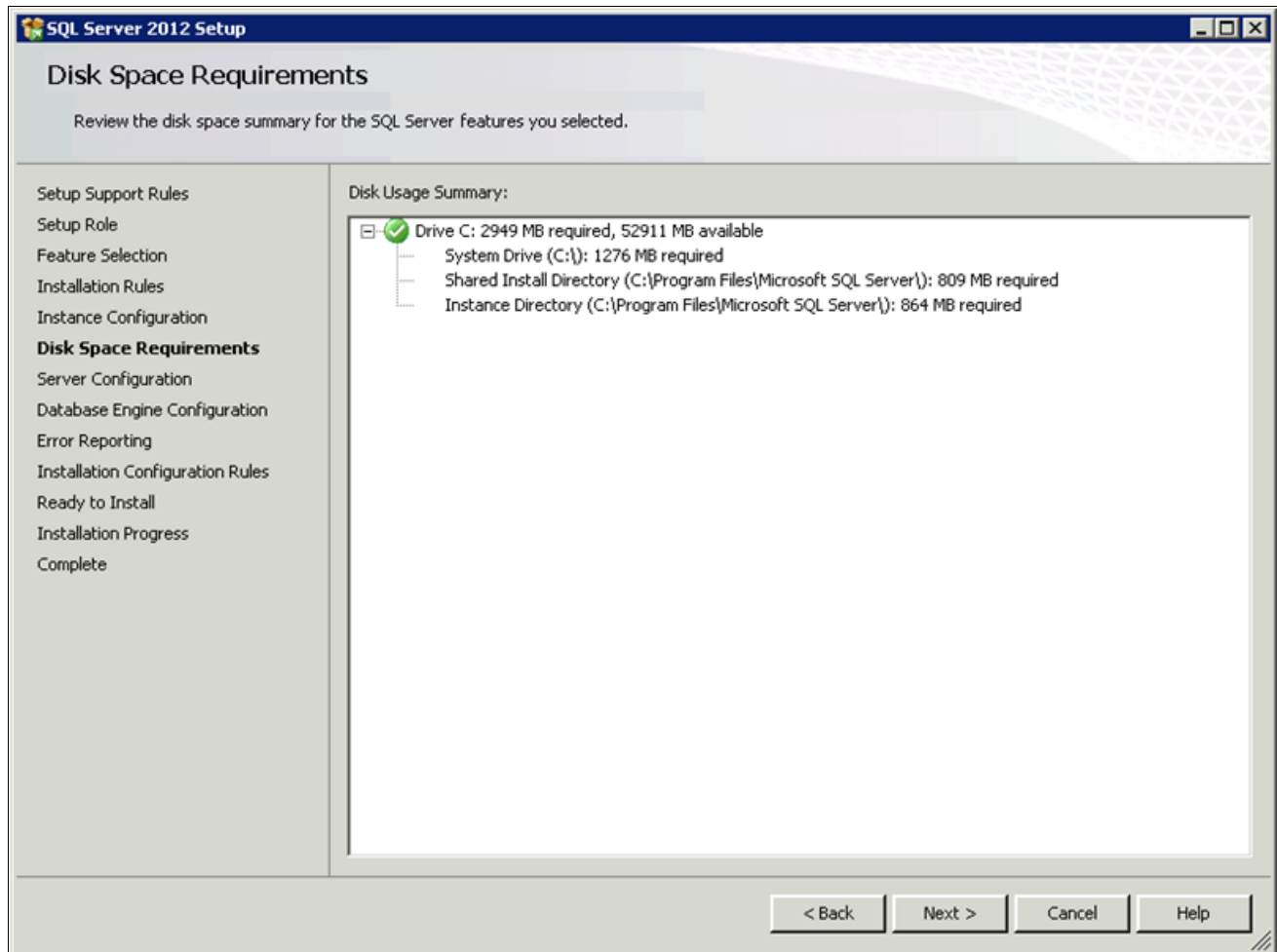
The Instance Configuration window appears. Enter *SQL2012* as the named instance, as shown in this example. In the Instance root directory field, accept the default path *C:\Program Files\Microsoft SQL Server*.



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

21. Click Next.

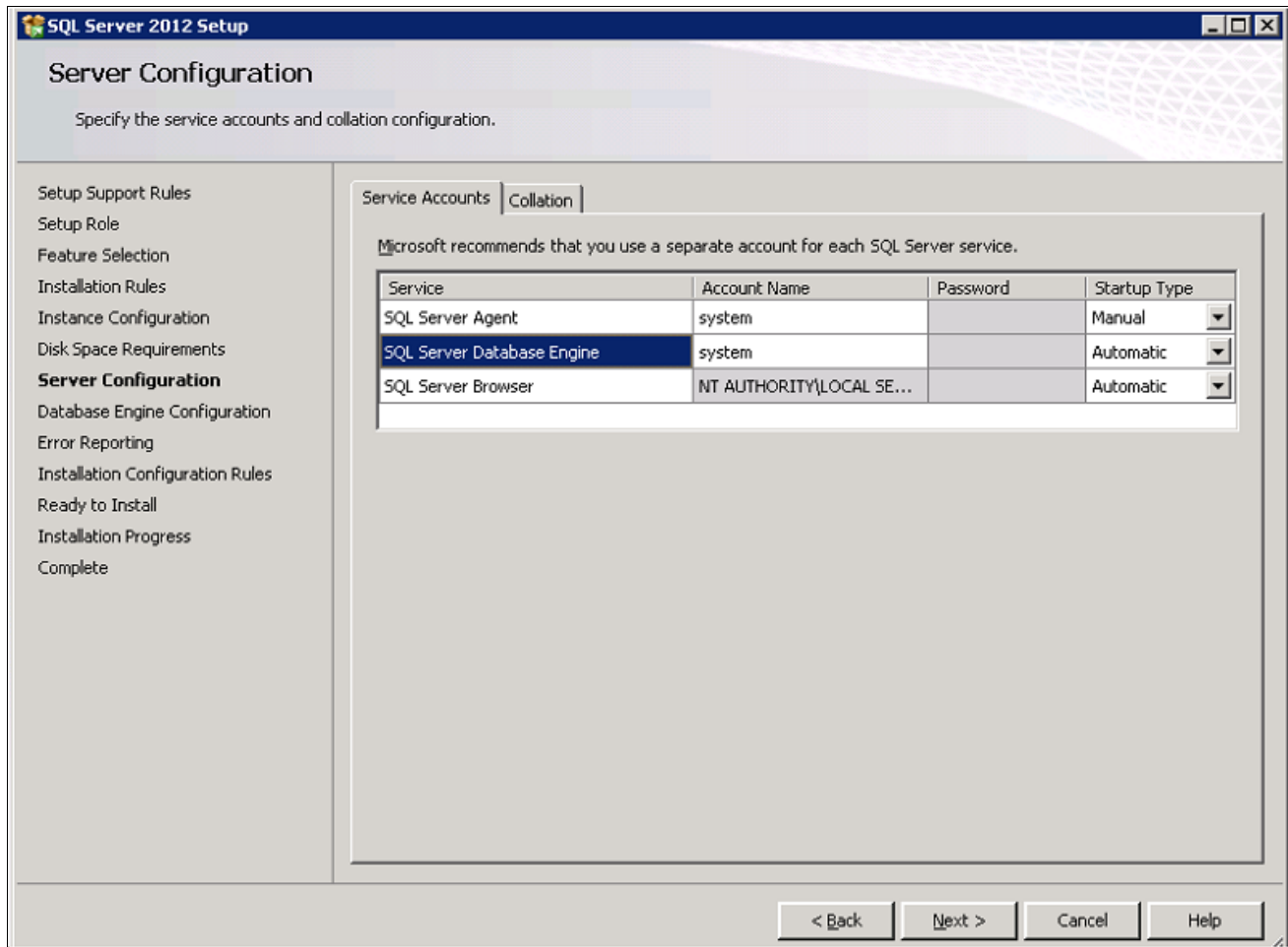
The Disk Space Requirements window appears, displaying the required and available disk space. The installation requires about 3 GB disk space, as shown in this example.



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:

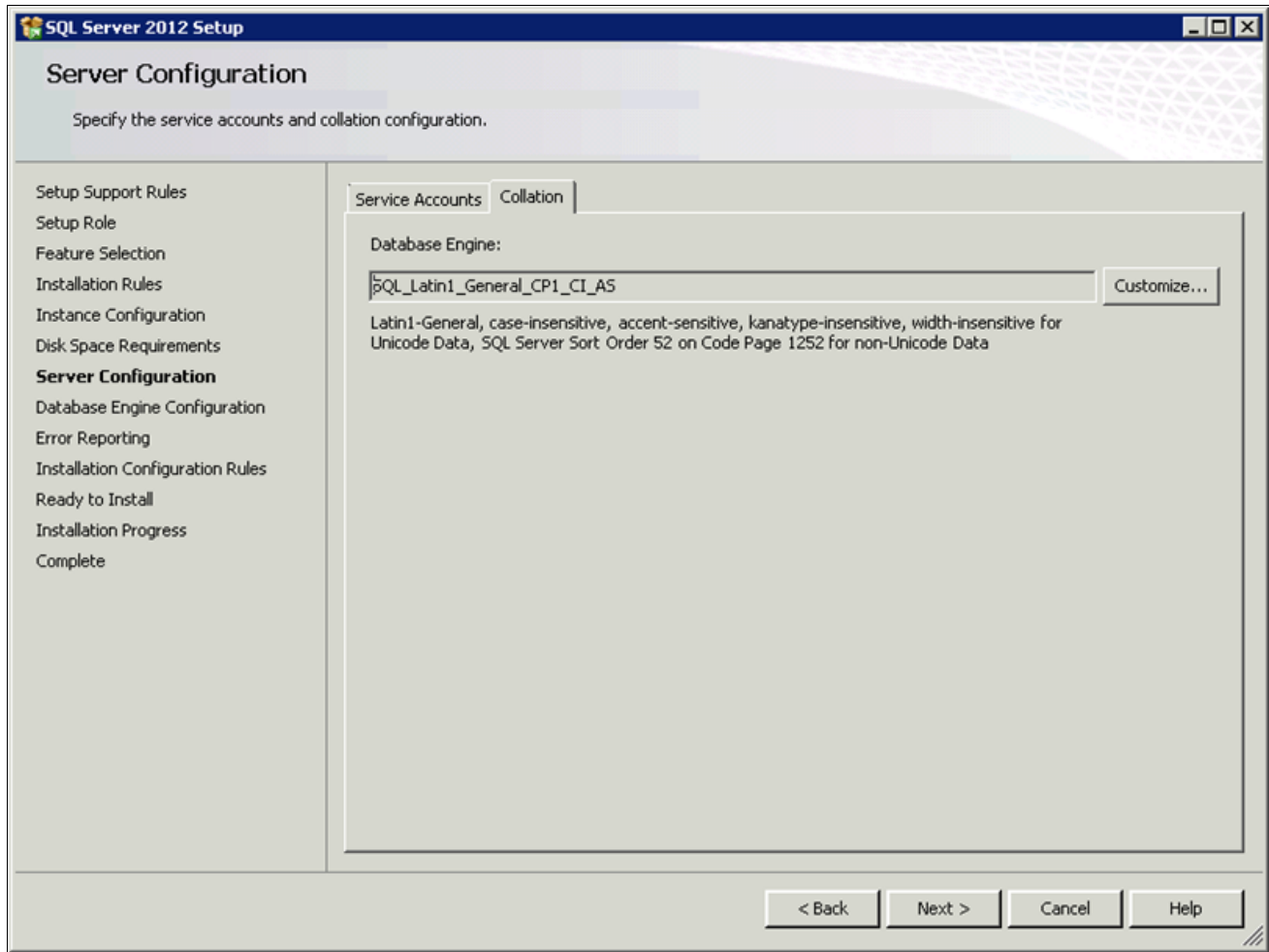


SQL Server 2012 Setup Server Configuration window after changing account names

- 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.

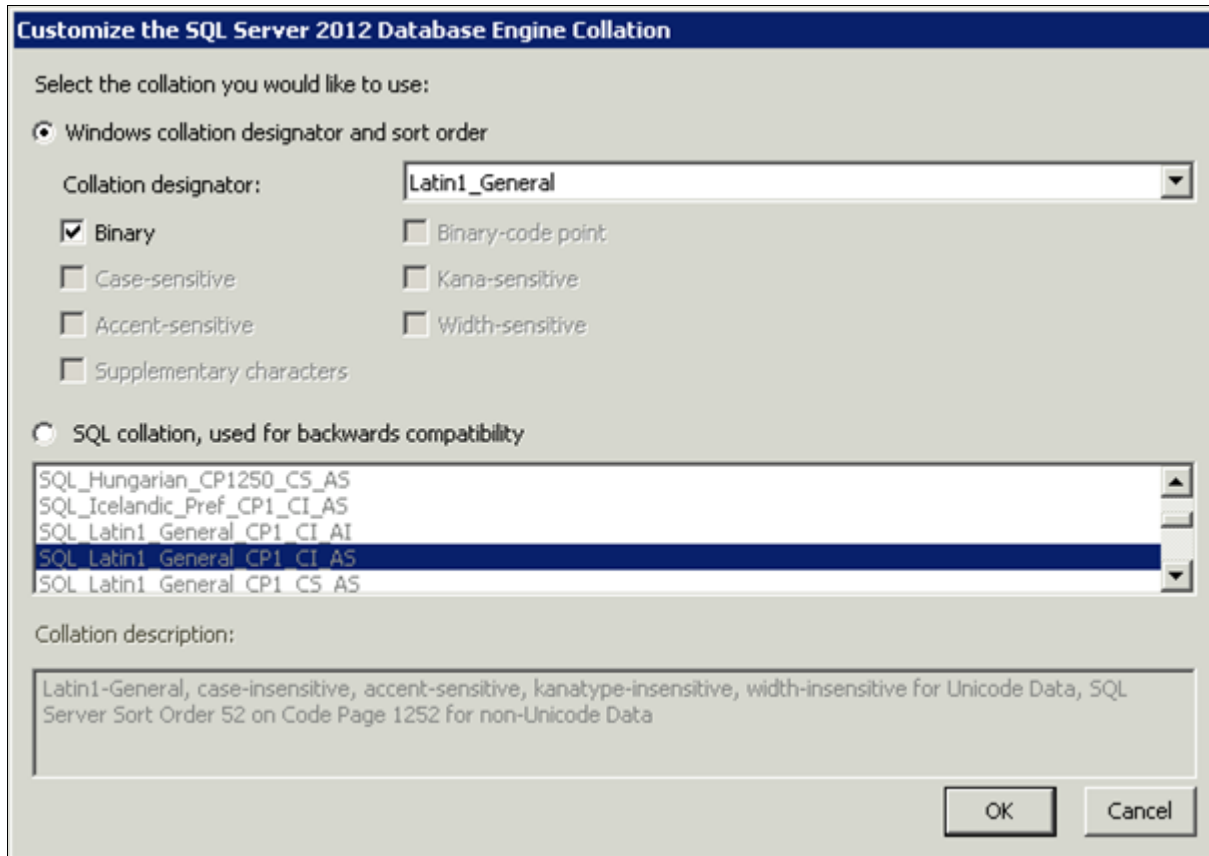
This example shows the default collation, SQL_Latin1_General_CP1_CI_AS.



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.

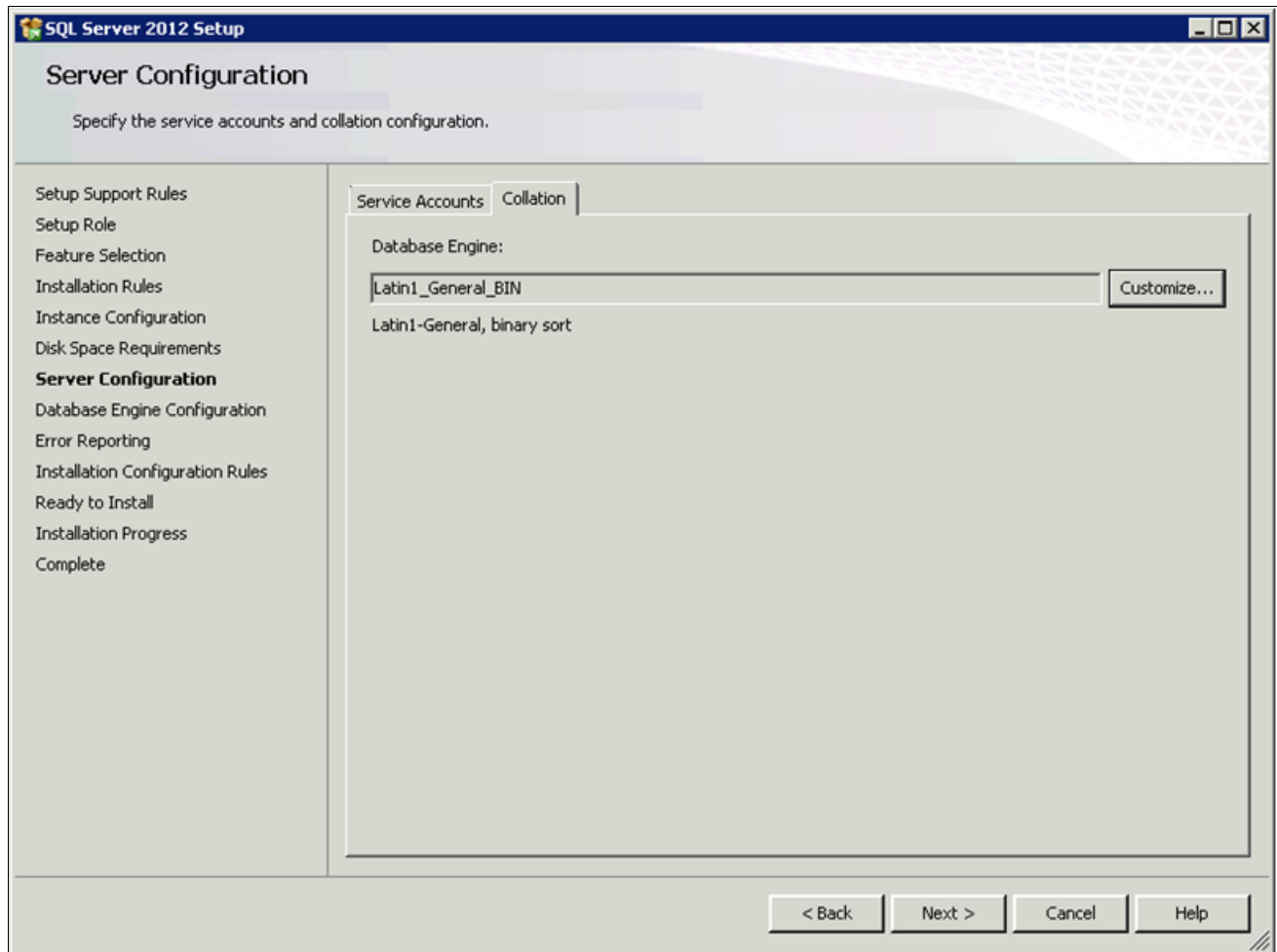


Customize the SQL Server 2012 Database Engine Collation window

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

25. Click OK.

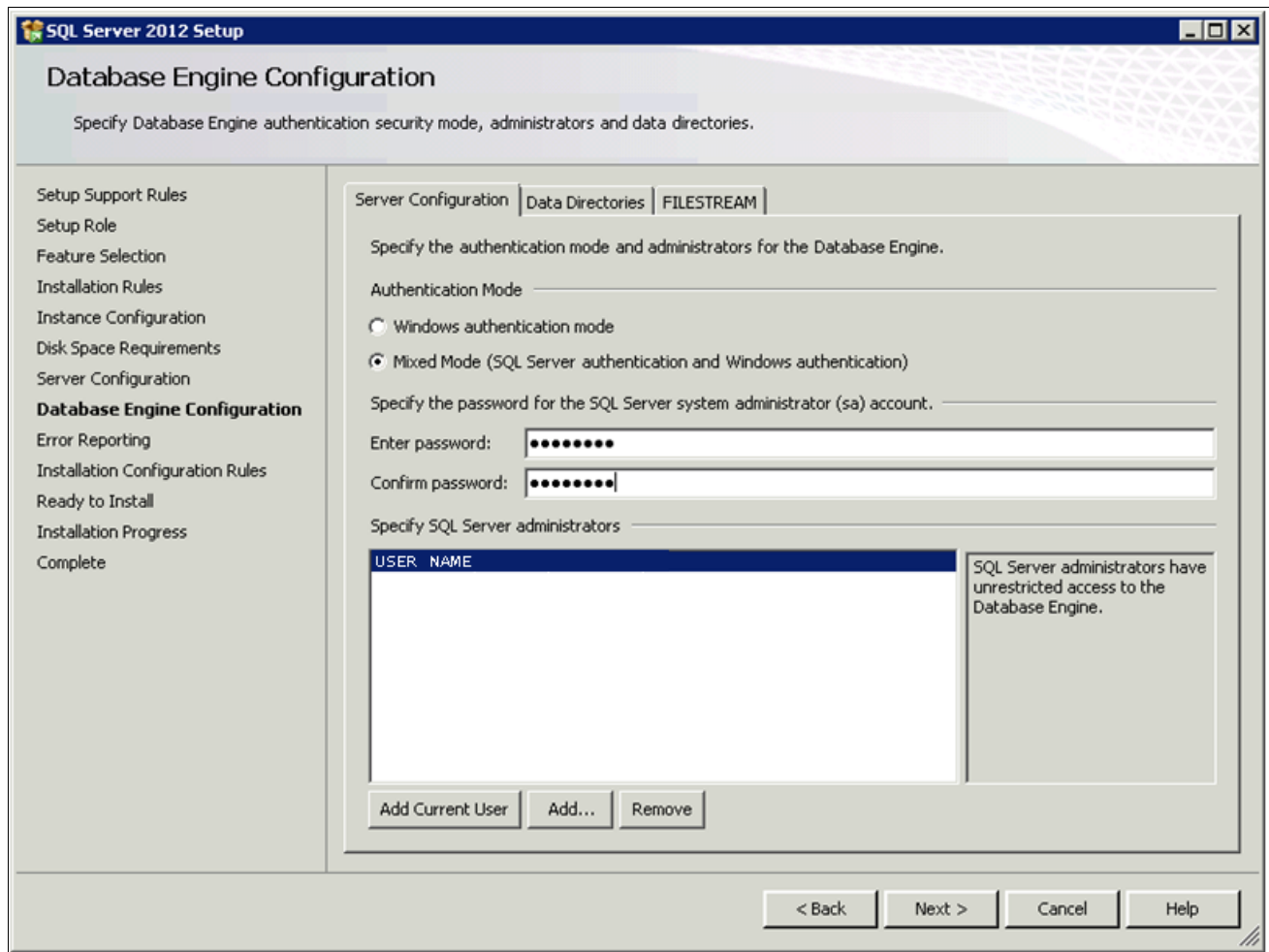
Verify on the Server Configuration Collation page that the collation is Latin1_General_BIN, Latin1-General, binary sort, as shown in this example.



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

26. Click Next.

The Database Engine Configuration window appears.

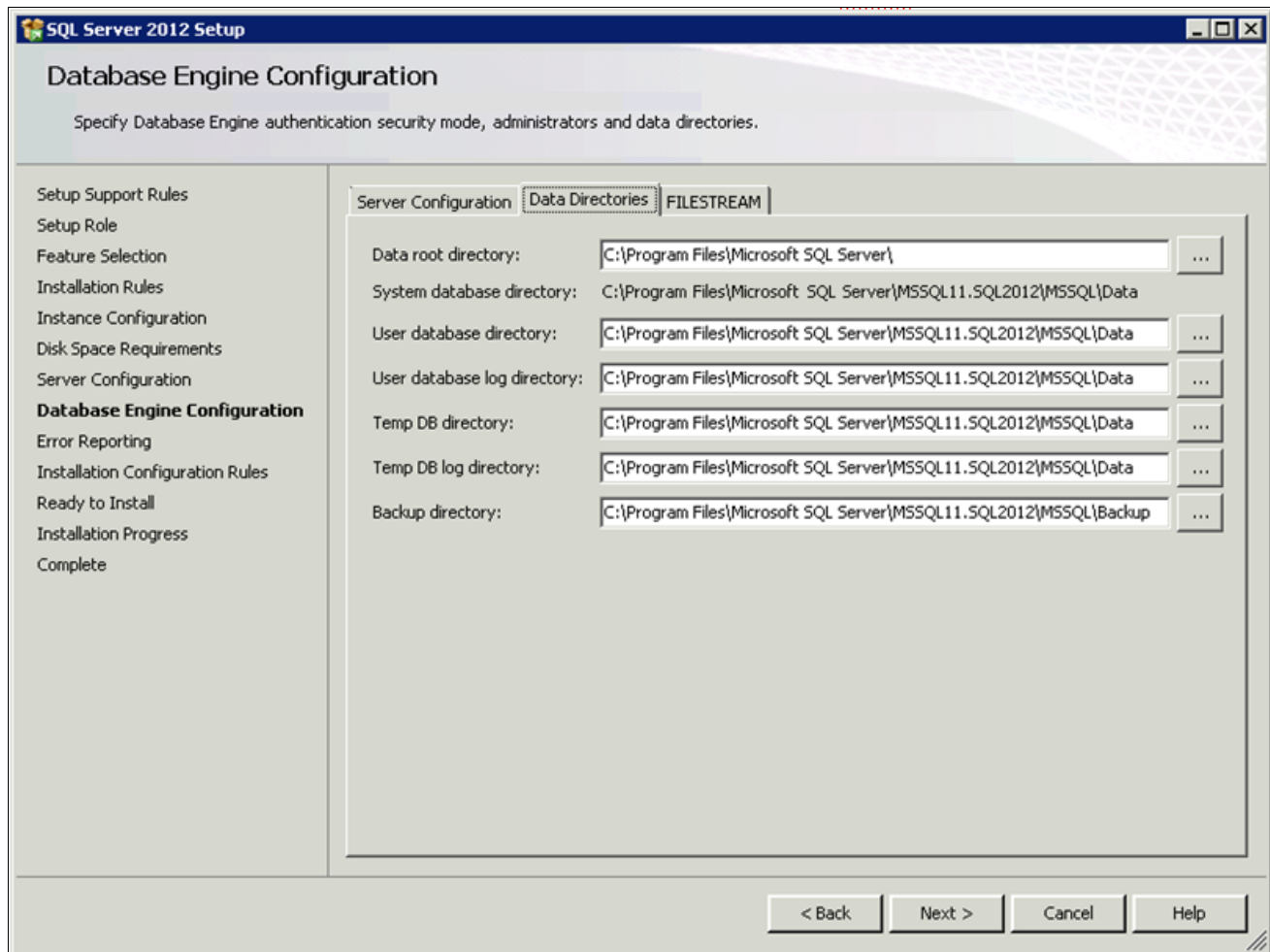


SQL Server 2012 Setup Database Engine Configuration window

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.

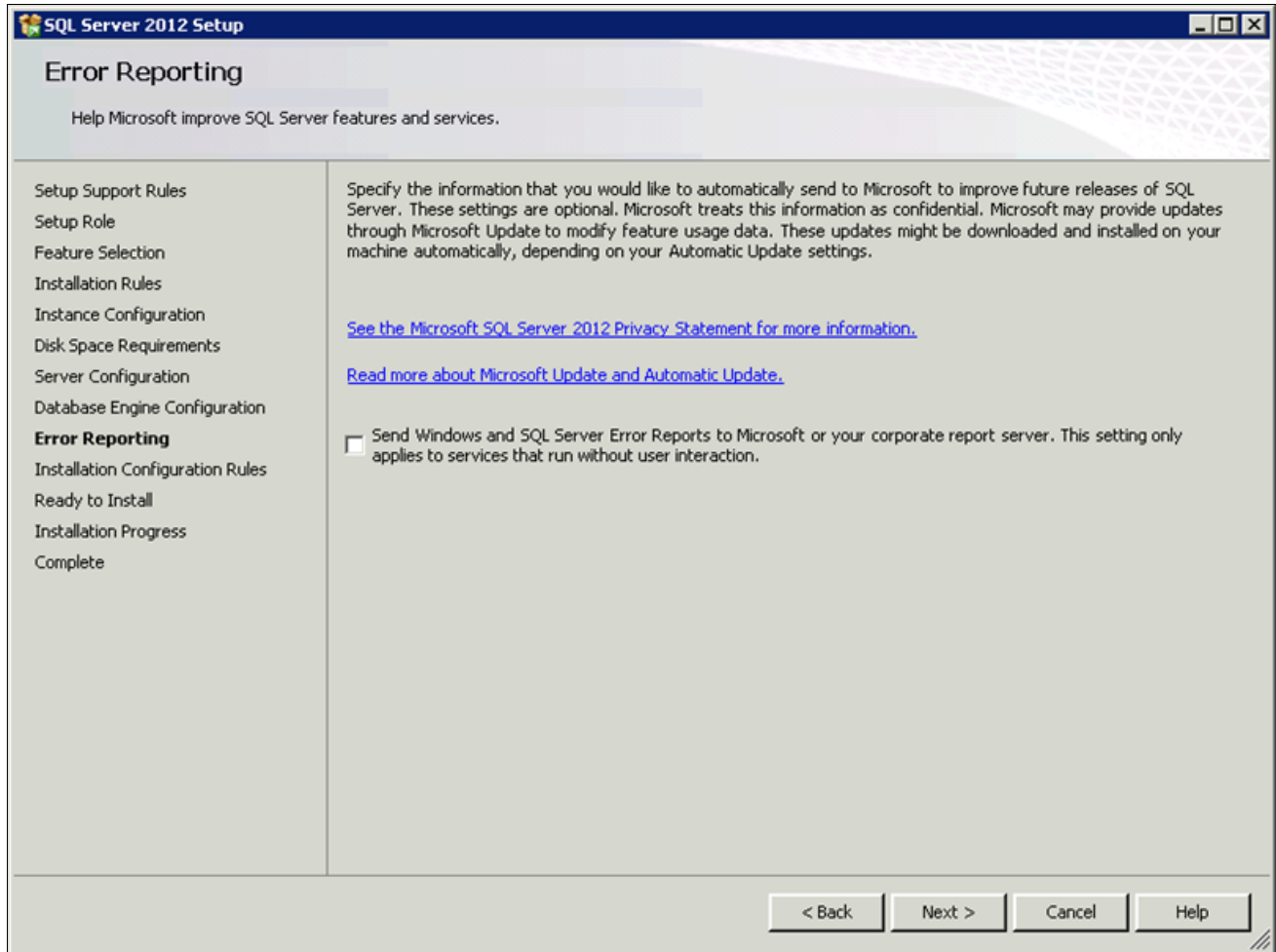
Consult the Microsoft support site, support.microsoft.com, for recommendations and best practices for the physical layout of database files, transaction log files, and temp DB.

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.mspx>.

28. Click Next.

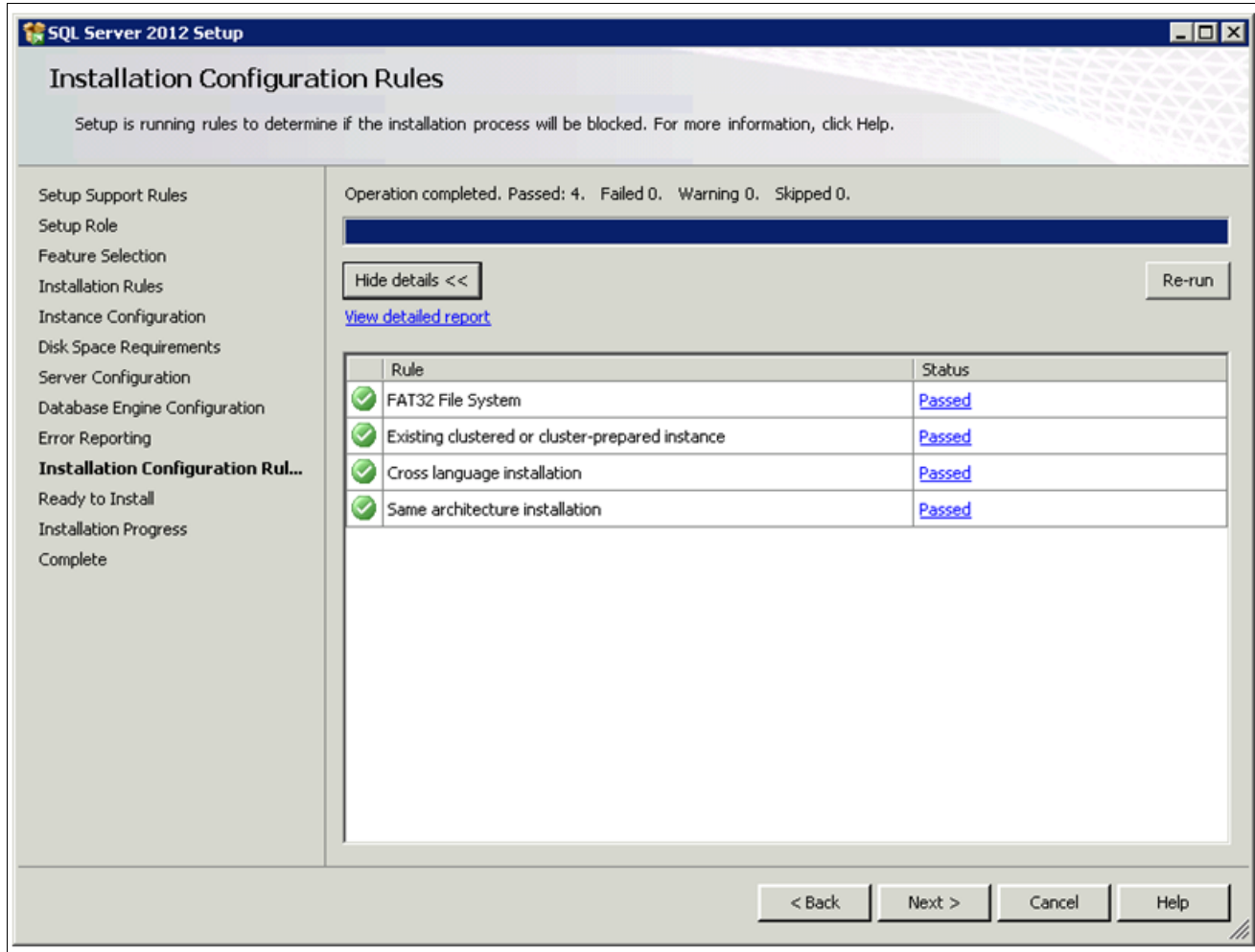
The Error Reporting window appears. If desired, select the options to send error reports to Microsoft. This example shows the option cleared.



SQL Server 2012 Setup Error Reporting window

29. Click Next.

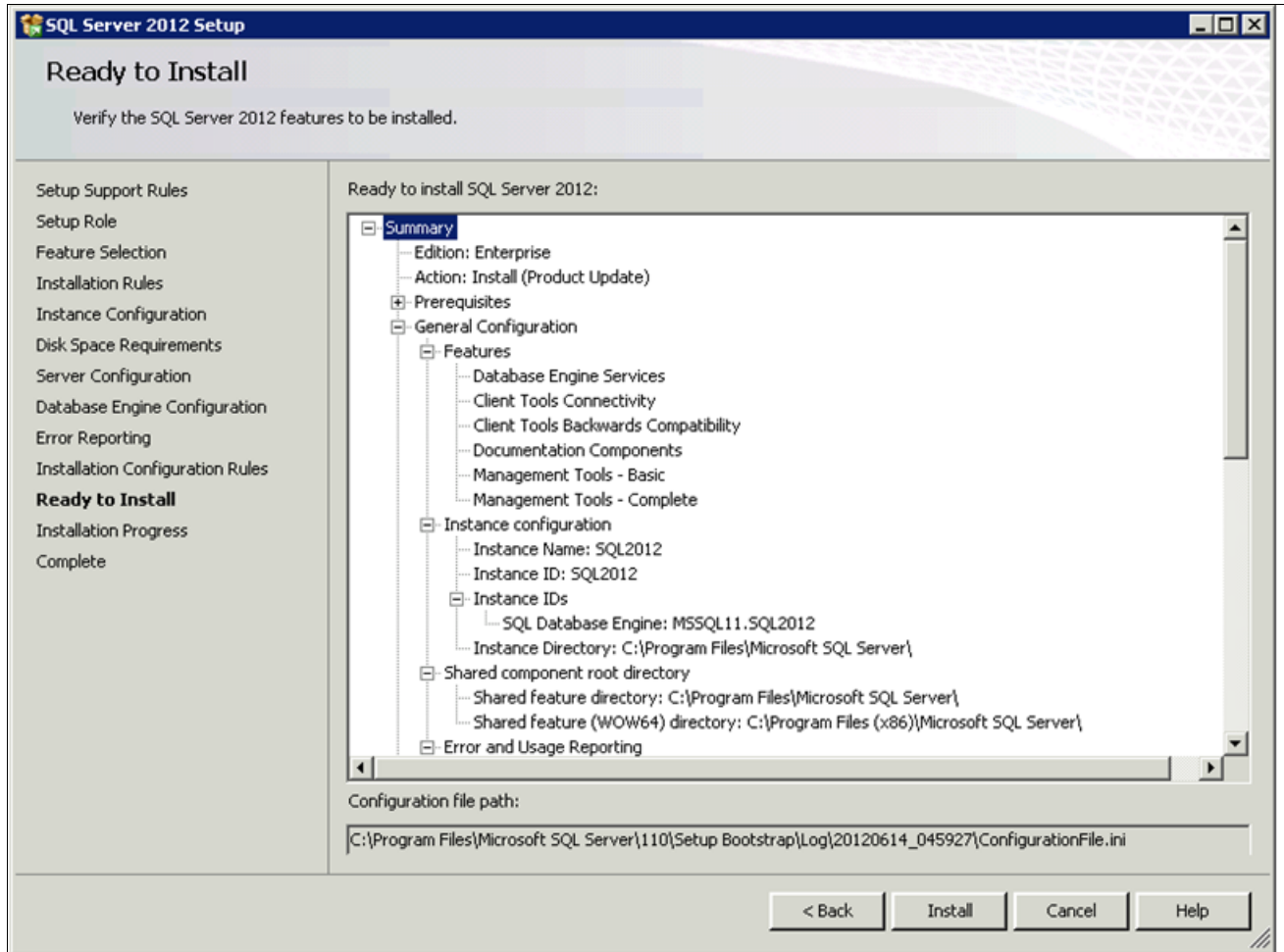
The Installation Configuration Rules window appears. The setup operation runs rules to determine whether the installation will be blocked. Wait until the operation is complete, and then click Show details. Verify that all of the rules have Passed in the Status column. If any rule does not pass, click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



SQL Server 2012 Setup Installation Configuration Rules window showing report details

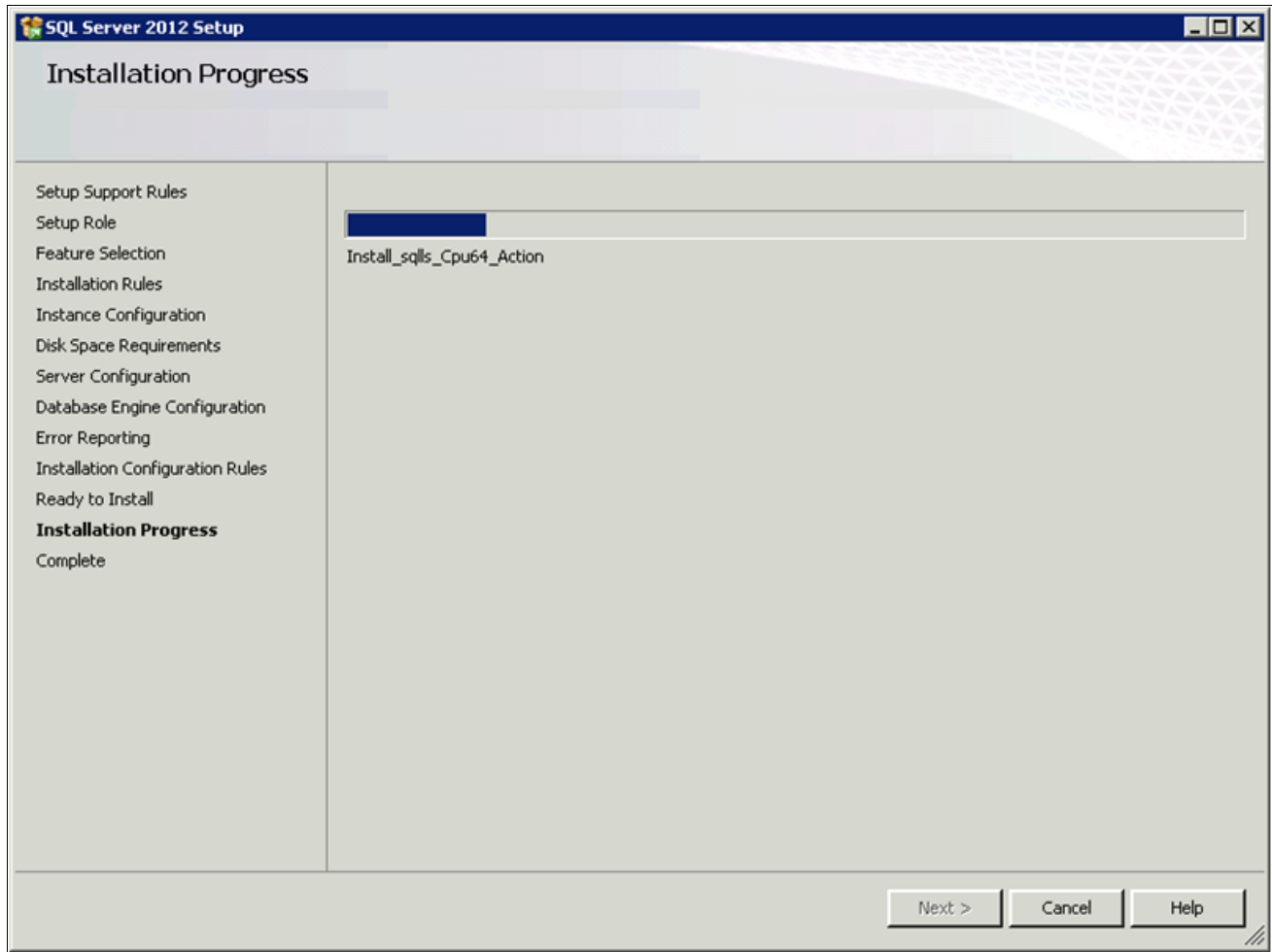
30. Click Next.

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.



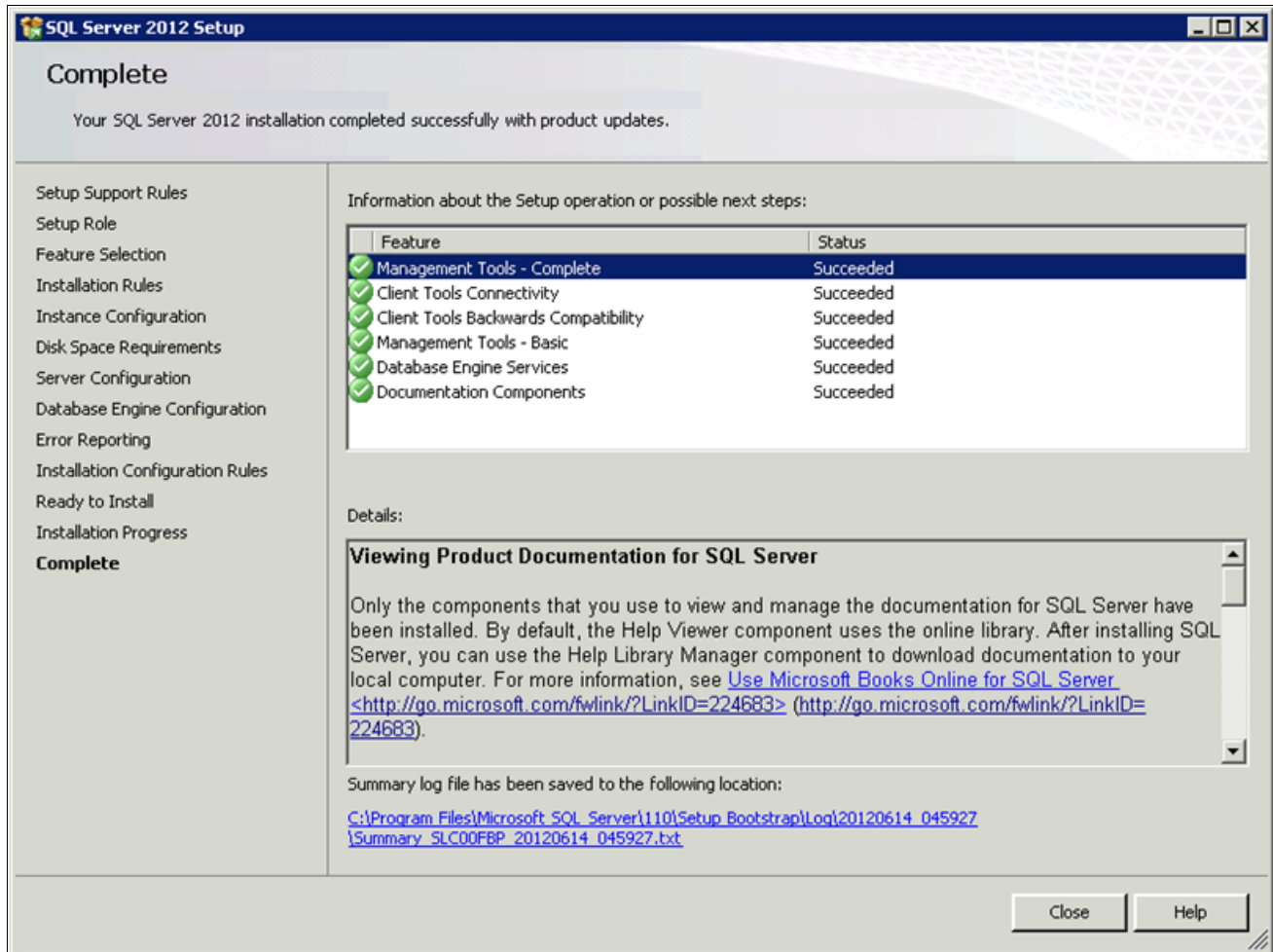
SQL Server 2012 Setup Ready to Install window

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



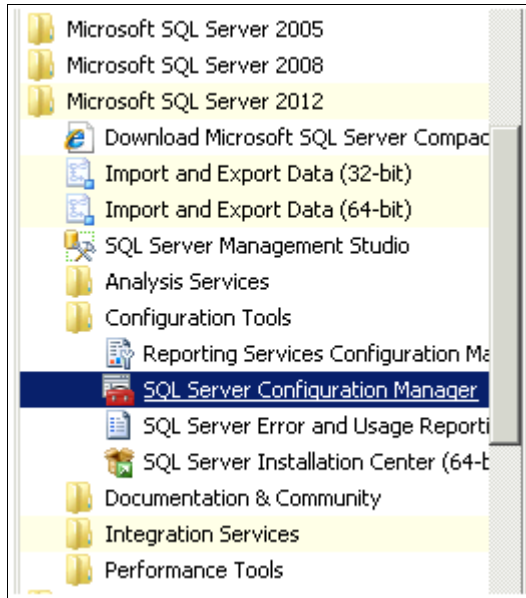
SQL Server 2012 Setup Complete window

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 1-7: 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.

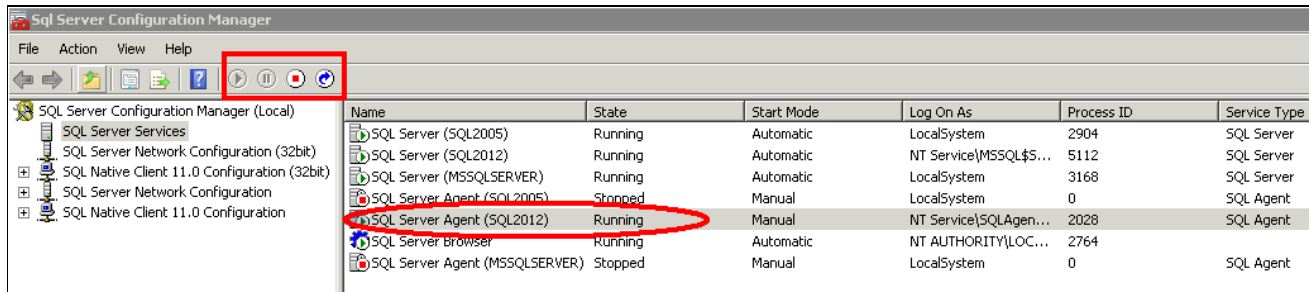


Starting SQL Server Configuration Manager

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.

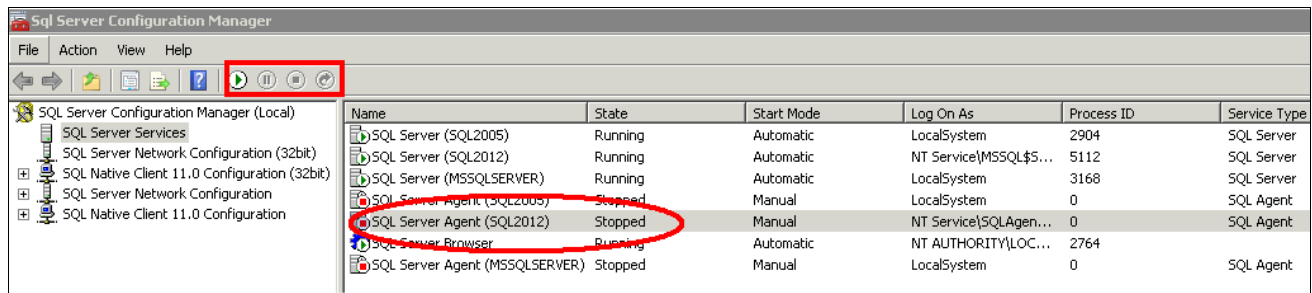
In this example, the running service SQL Server Agent (SQL2012) and the stop button are circled.



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 1-8: 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 1-8-1: Installing Microsoft SQL Server 2012 on a Client

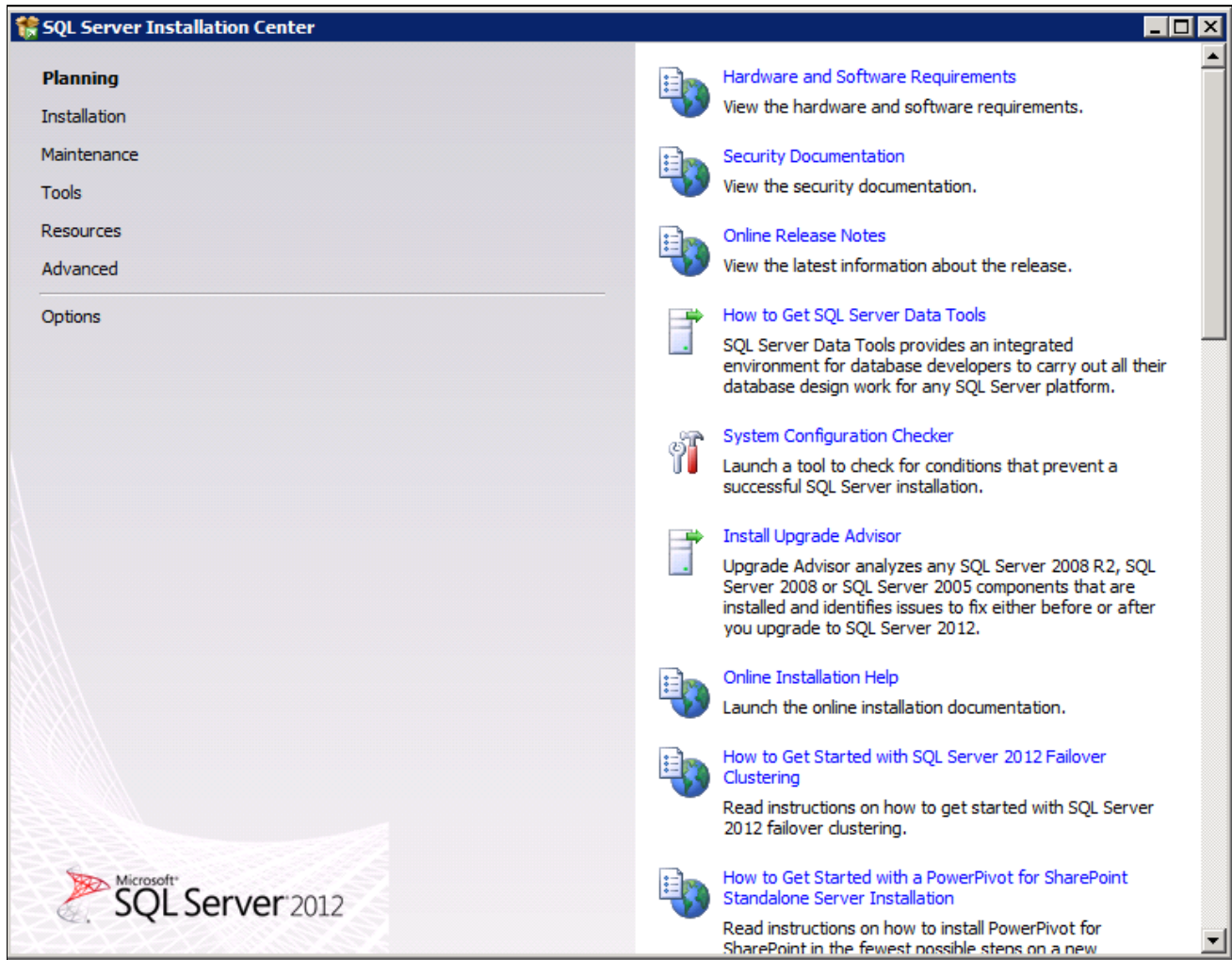
To install Microsoft SQL Server 2012 client software:

- 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.

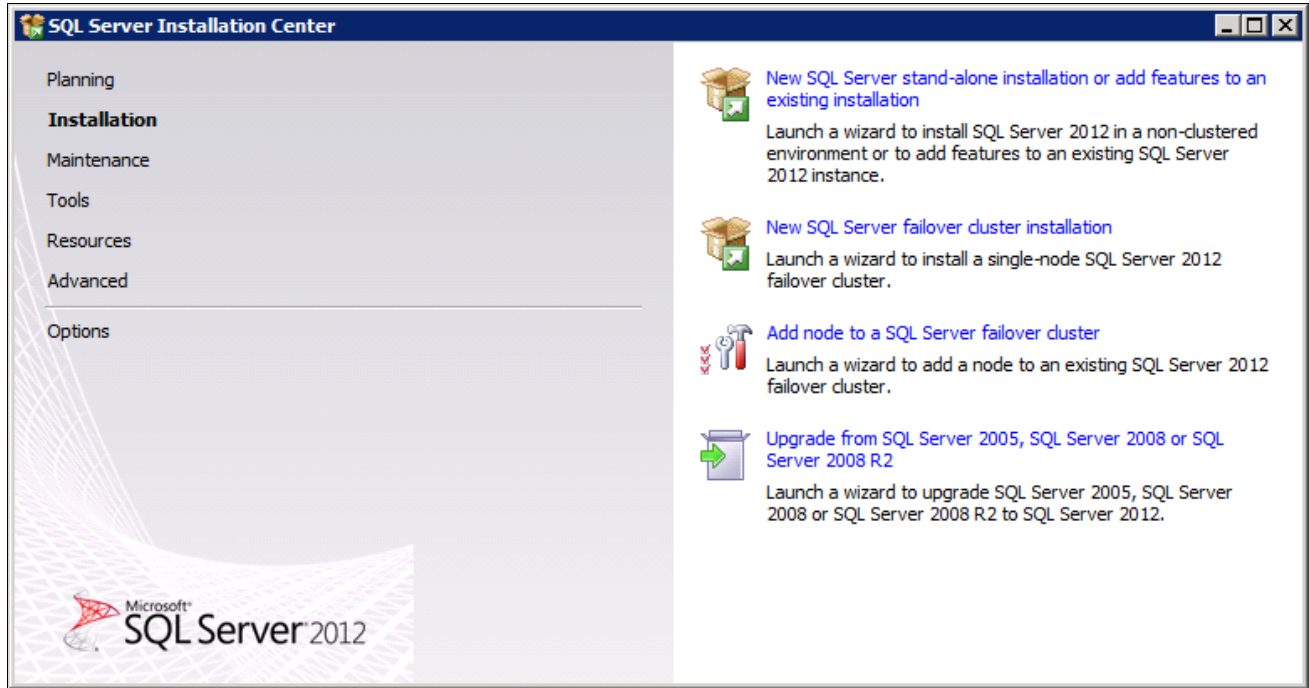
2. Download the Microsoft SQL Server 2012 Software from the Microsoft web site.
3. Install .NET Framework 4 and restart the system before installing SQL Server 2012.
See "Setting Up Process Scheduler on Windows," Installing Products for PS/nVision.
4. Select `setup.exe` from the directory where you downloaded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

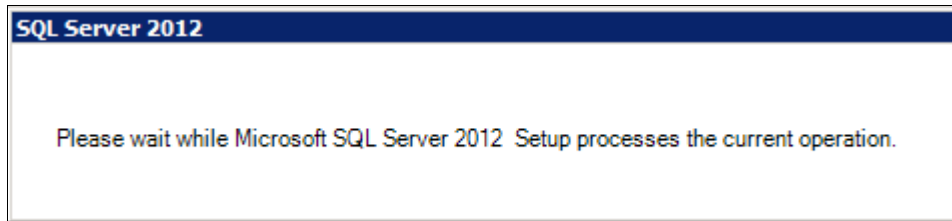


SQL Server Installation Center displaying Installation Links

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

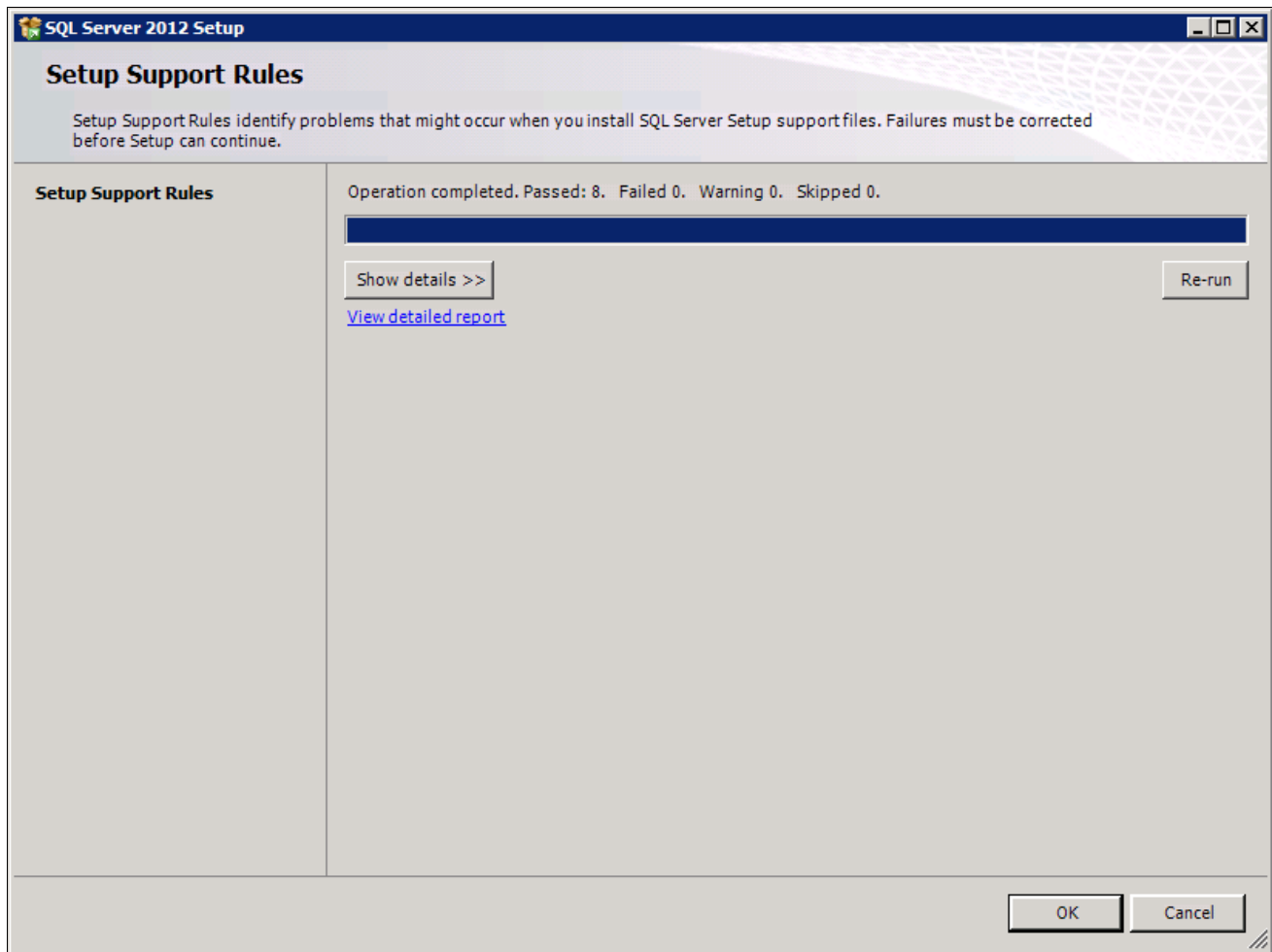
7. Click Run and choose Run Program.

A message box appears asking you to wait.



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

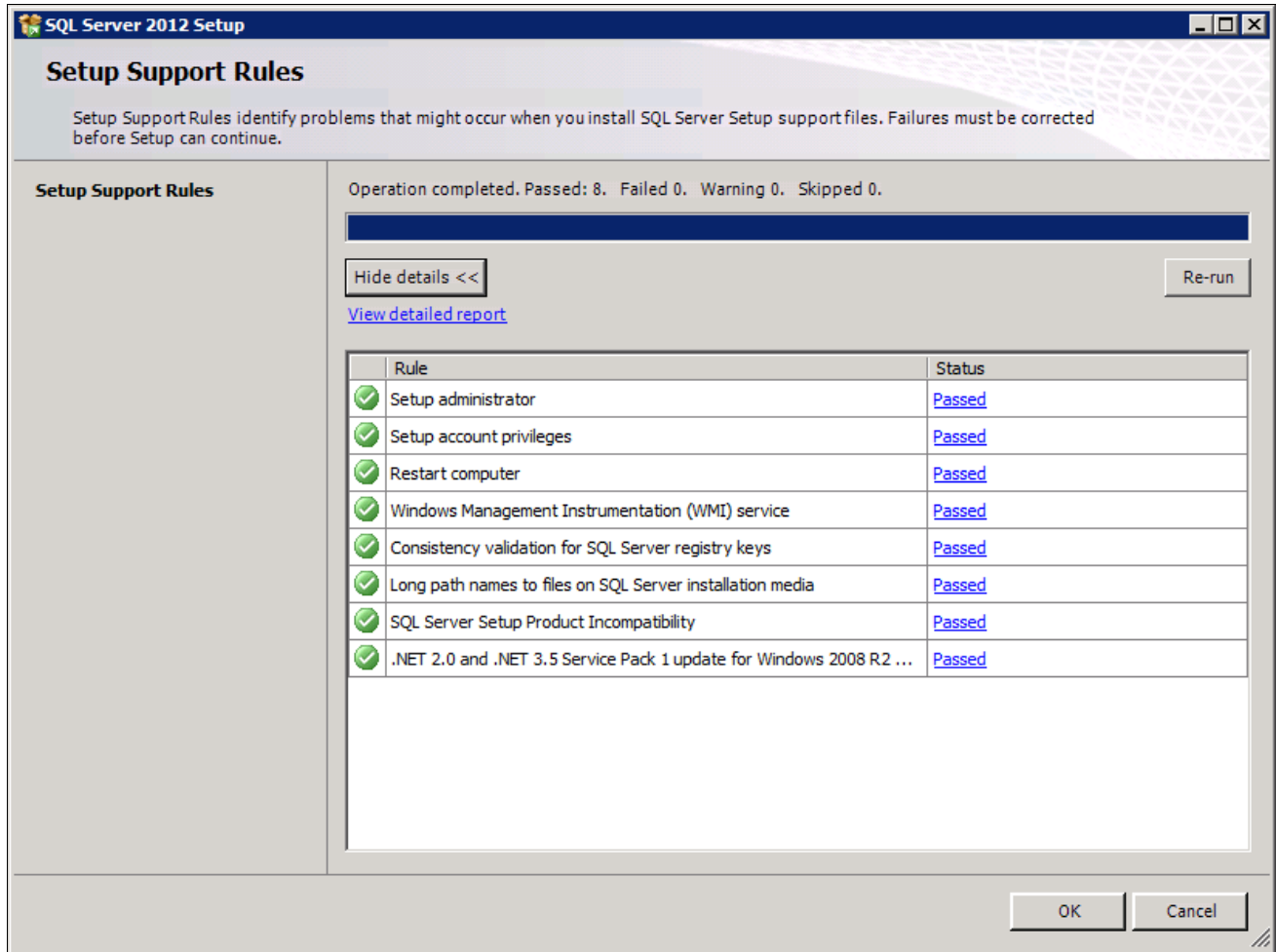
The Setup Support Rules window appears with a progress indicator.



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.

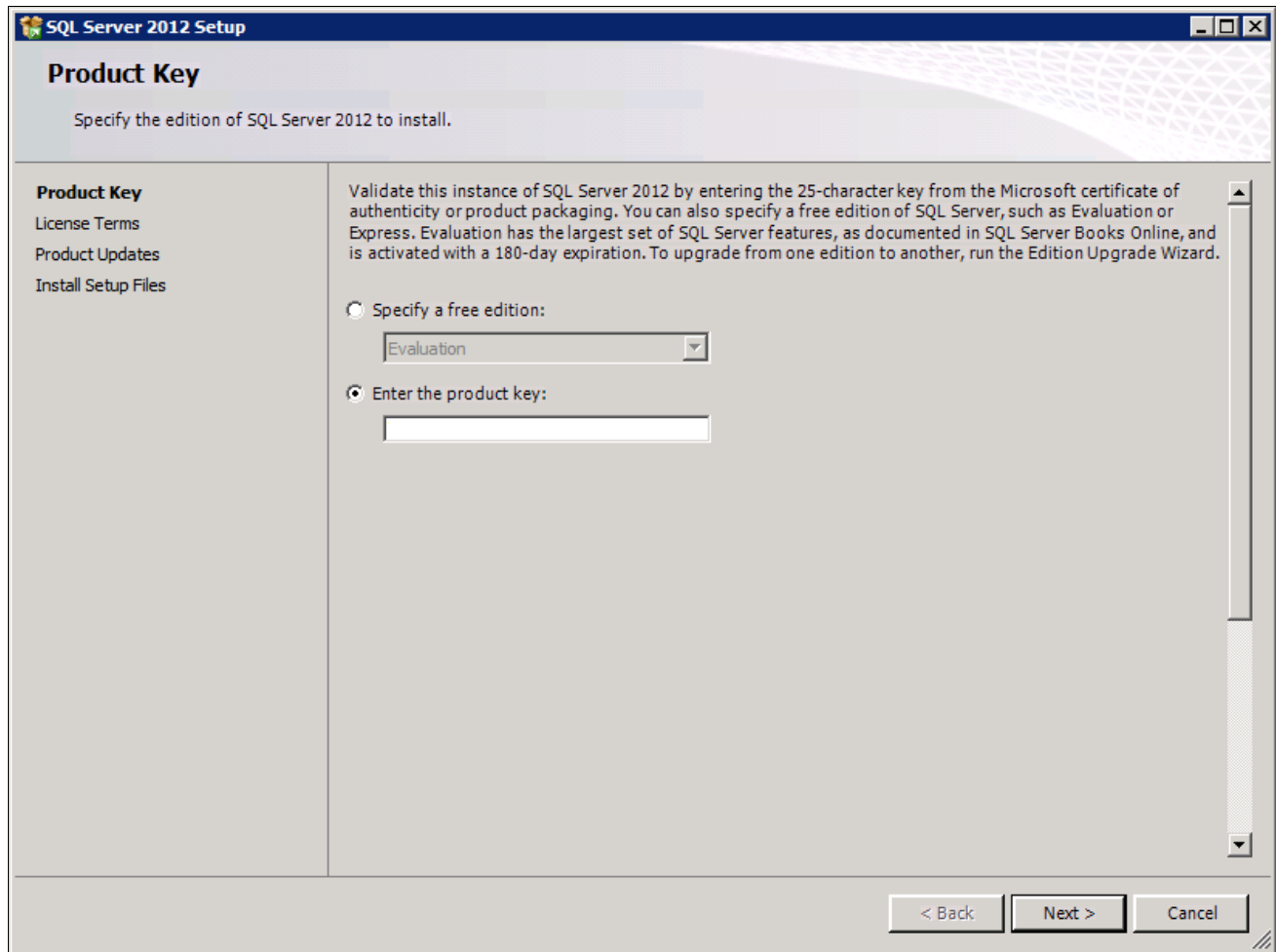


SQL Server 2012 Setup Support Rules windows with detailed report

9. Click OK to proceed.

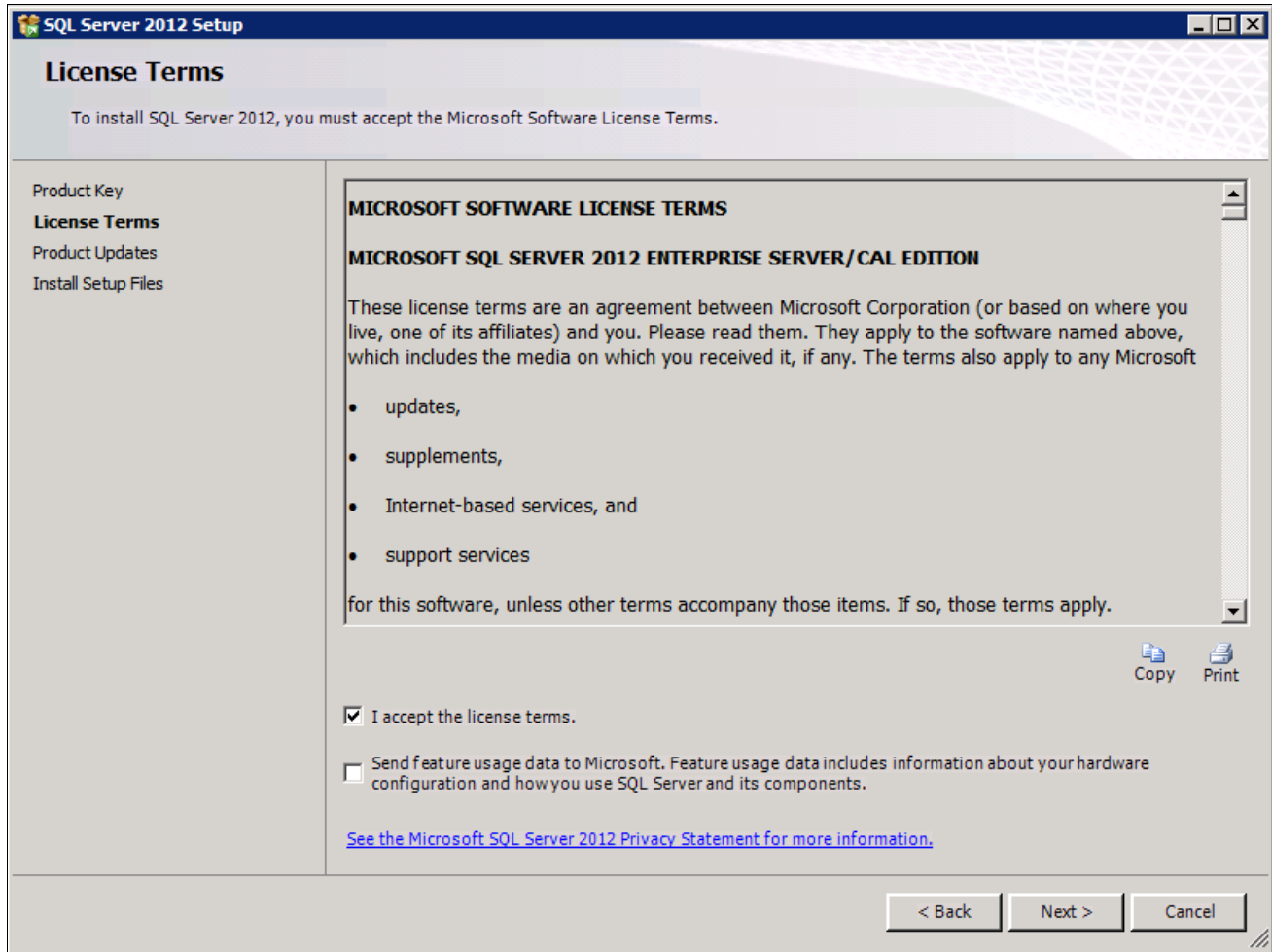
A Product Key window appears. Enter the product key.

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.

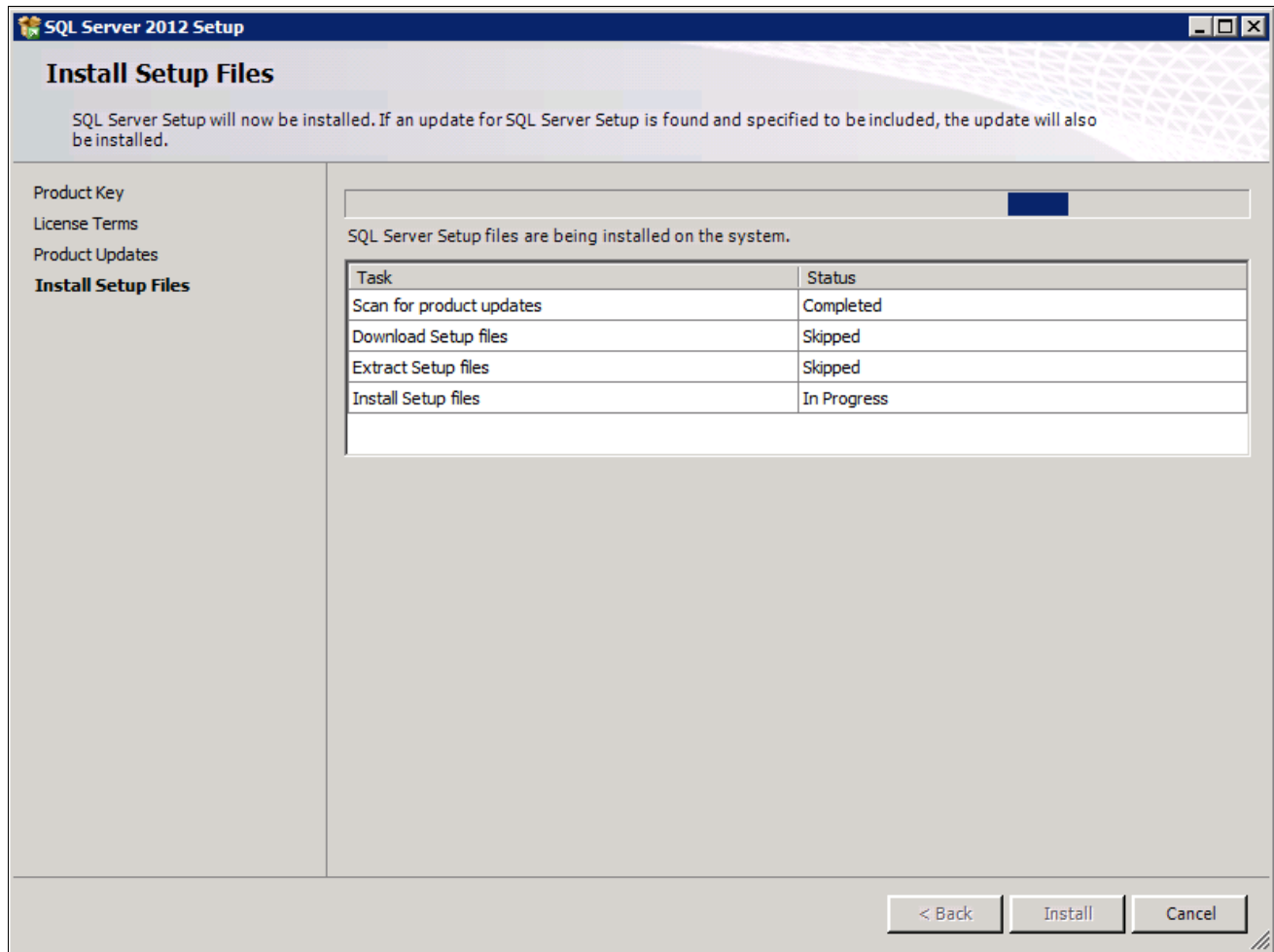


SQL Server 2012 License Terms window

11. Click Next

The Install Setup Files window appears.

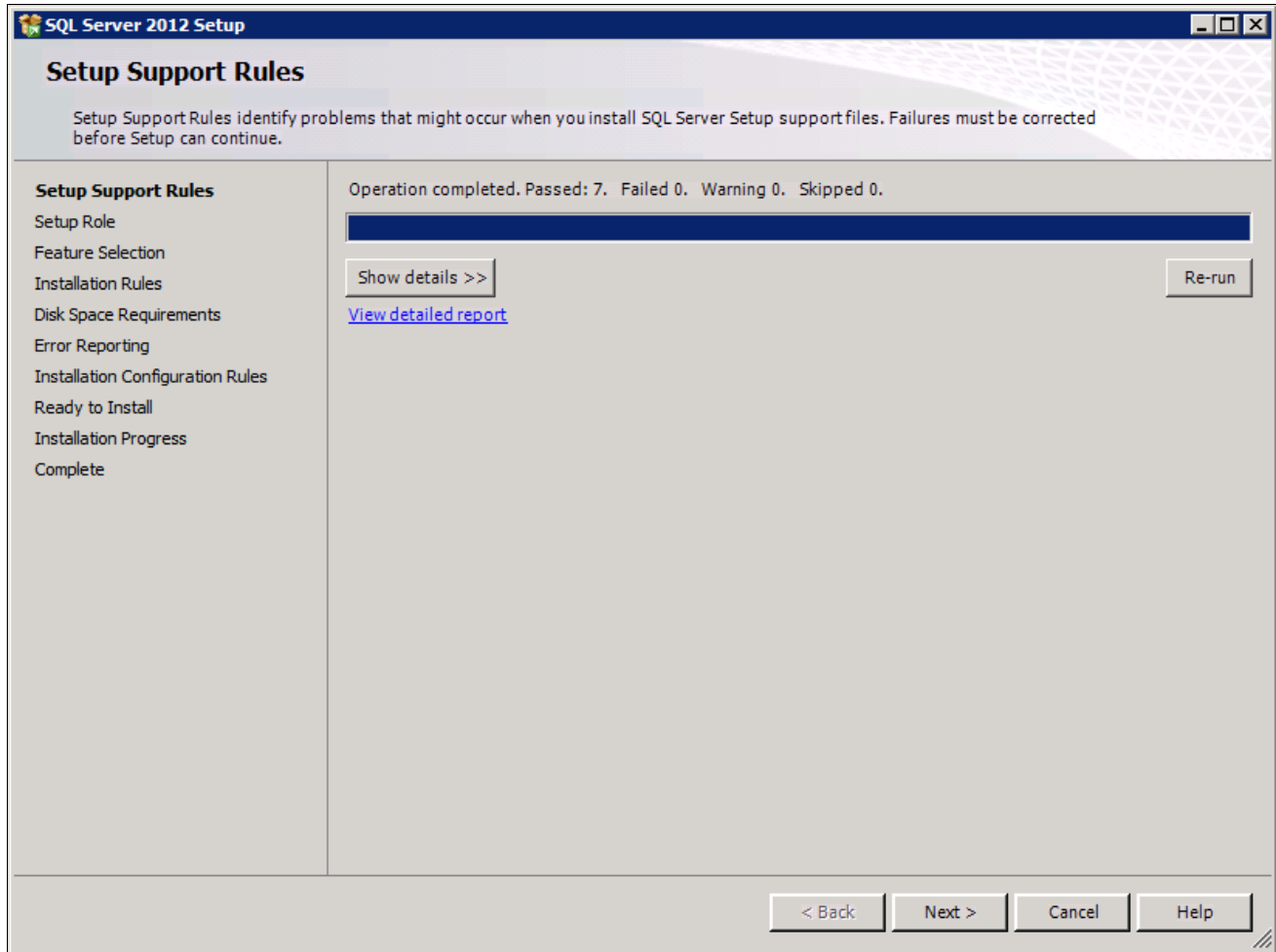
This example shows the Install Setup Files window during the process of installing the files.



SQL Server 2012 Setup Install Setup Files window

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

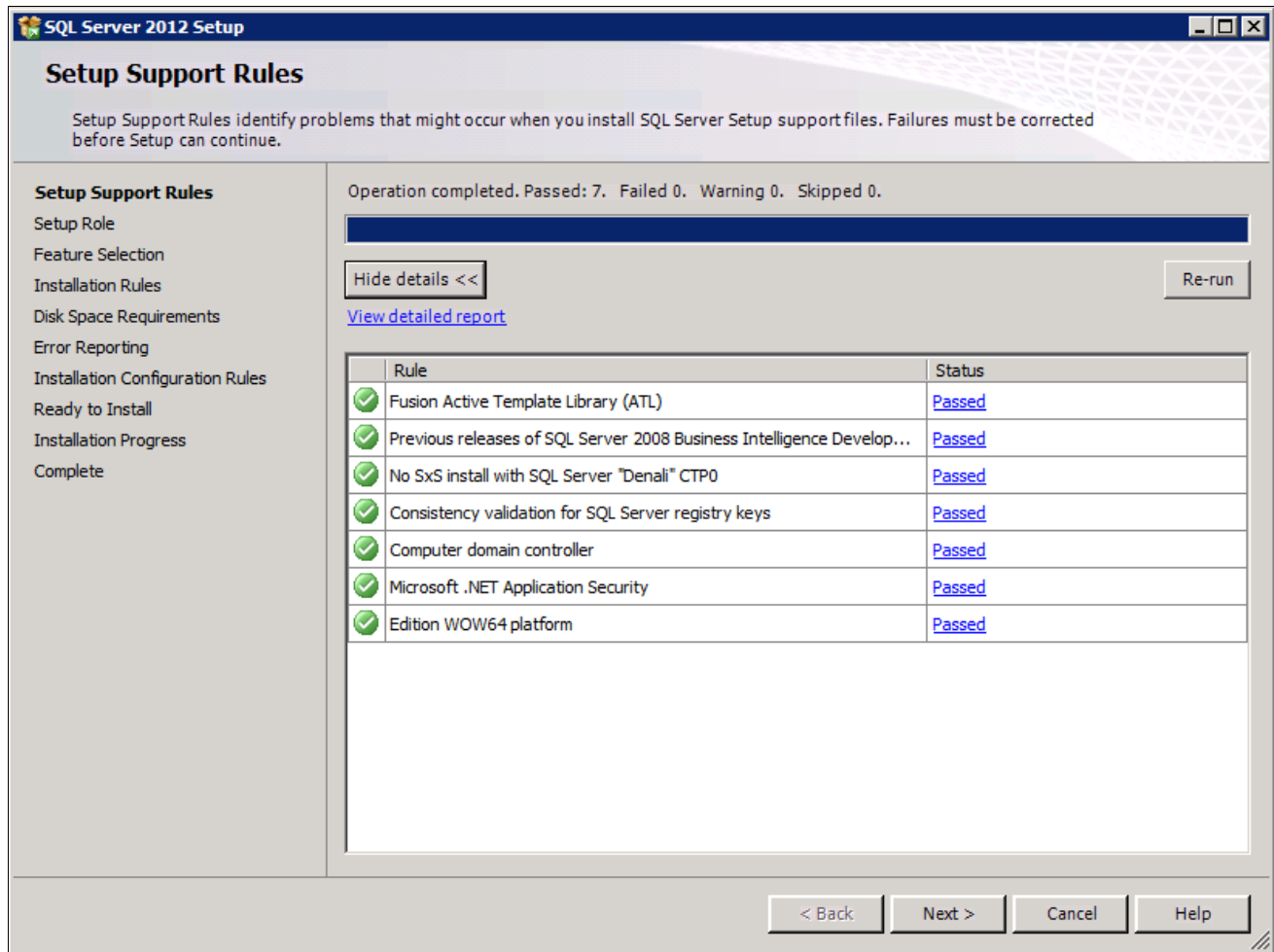
A progress bar appears at the bottom of the window. When the operation is complete, the Setup Support Rules window appears.



SQL Server 2012 Setup Support Rules window checking support files

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

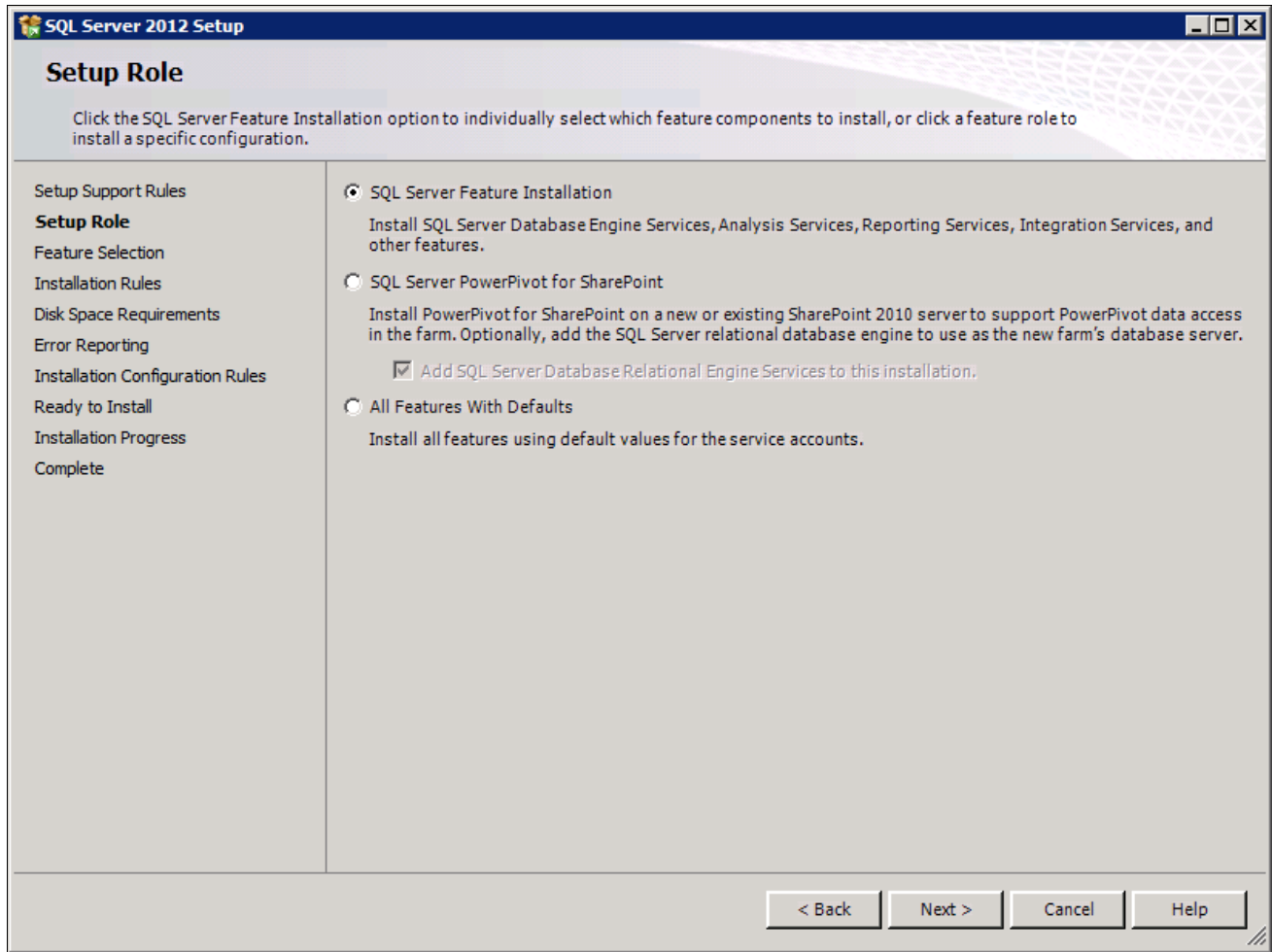
Verify that the status for all of the rules is *Passed*, as in this example. If any of the rules has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2012 Setup Support Rules window showing detailed report

14. Click Next.

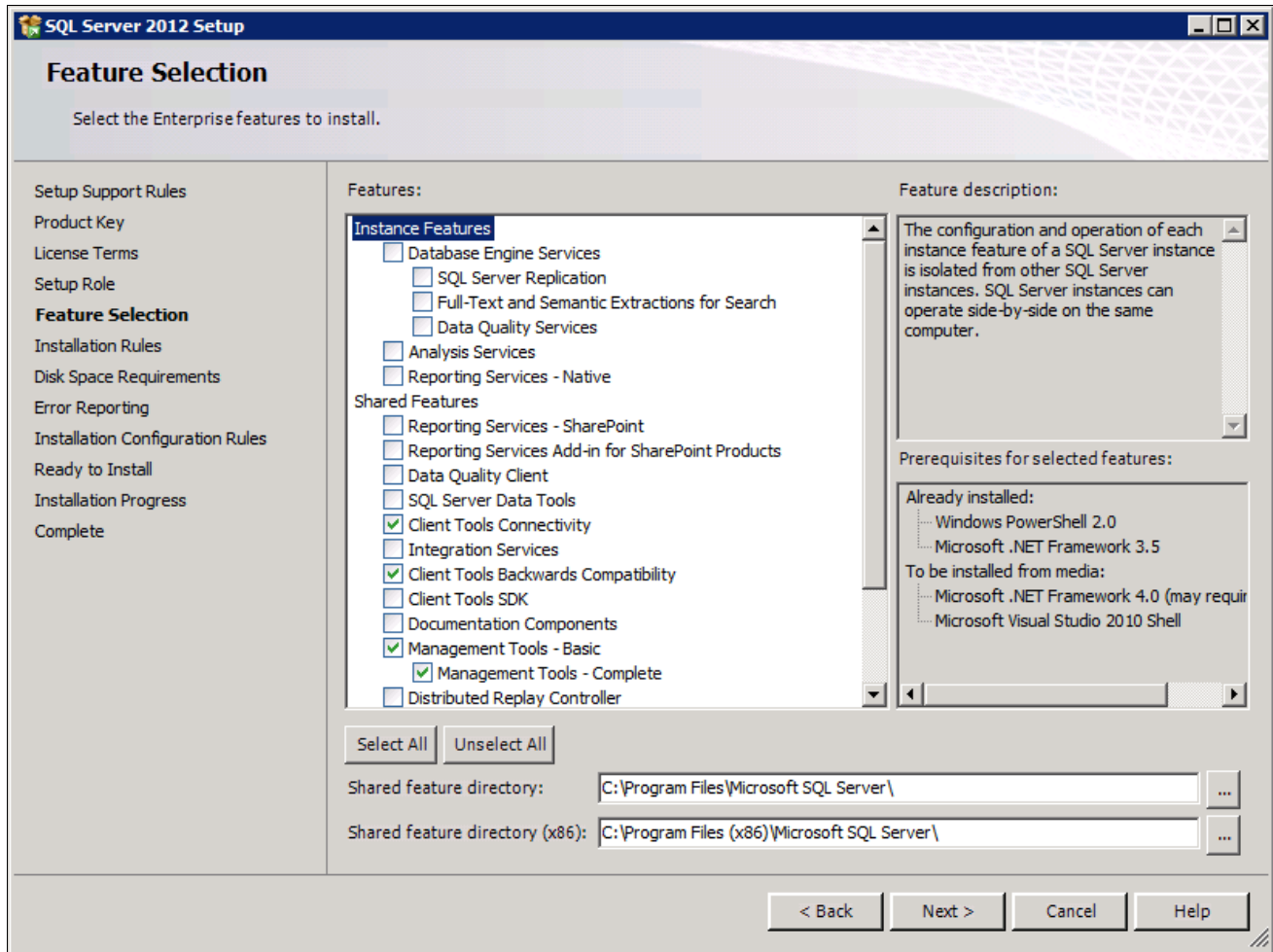
The Setup Role window appears.



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

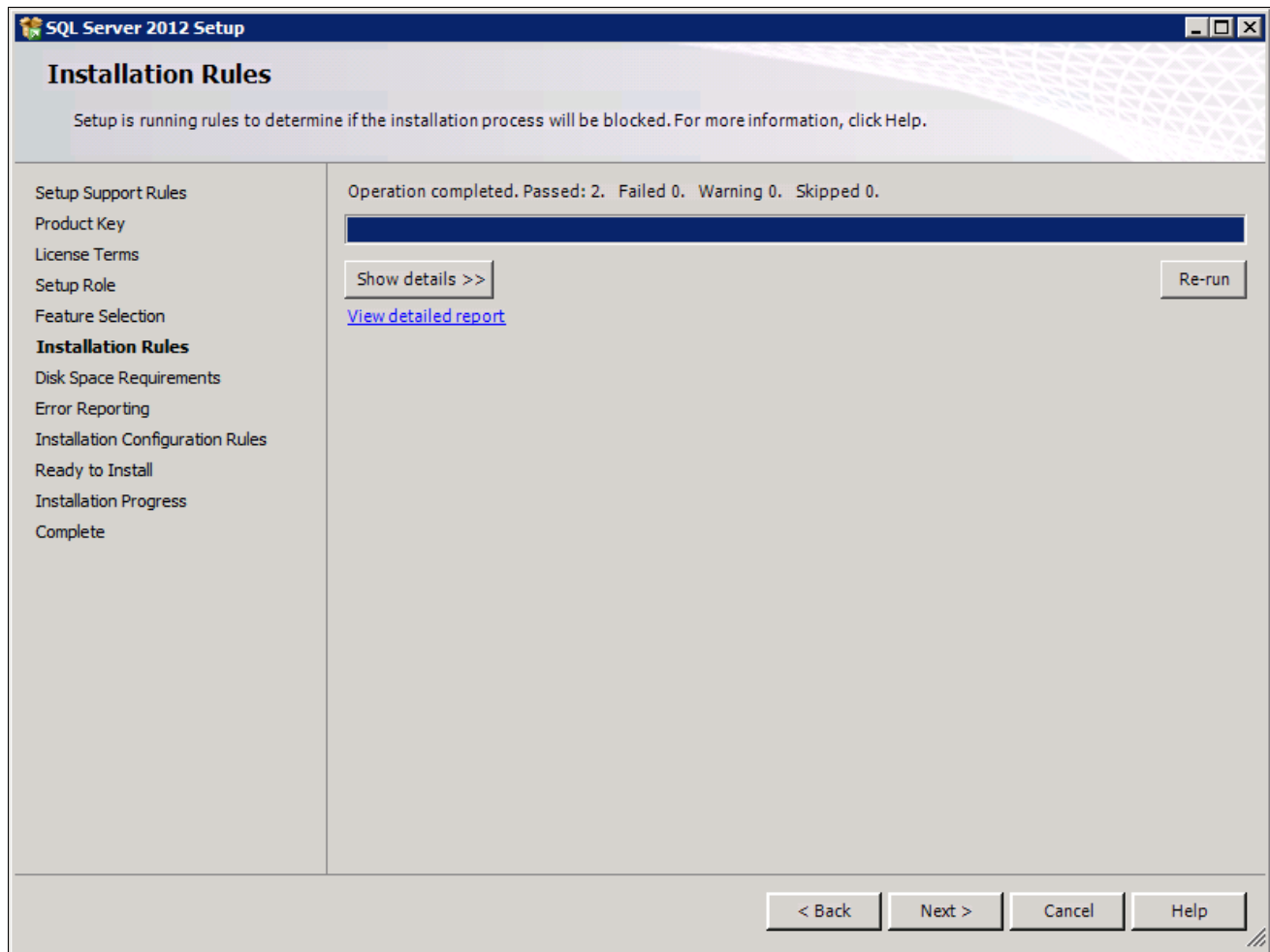
17. Clear the check boxes for the following features:

- 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

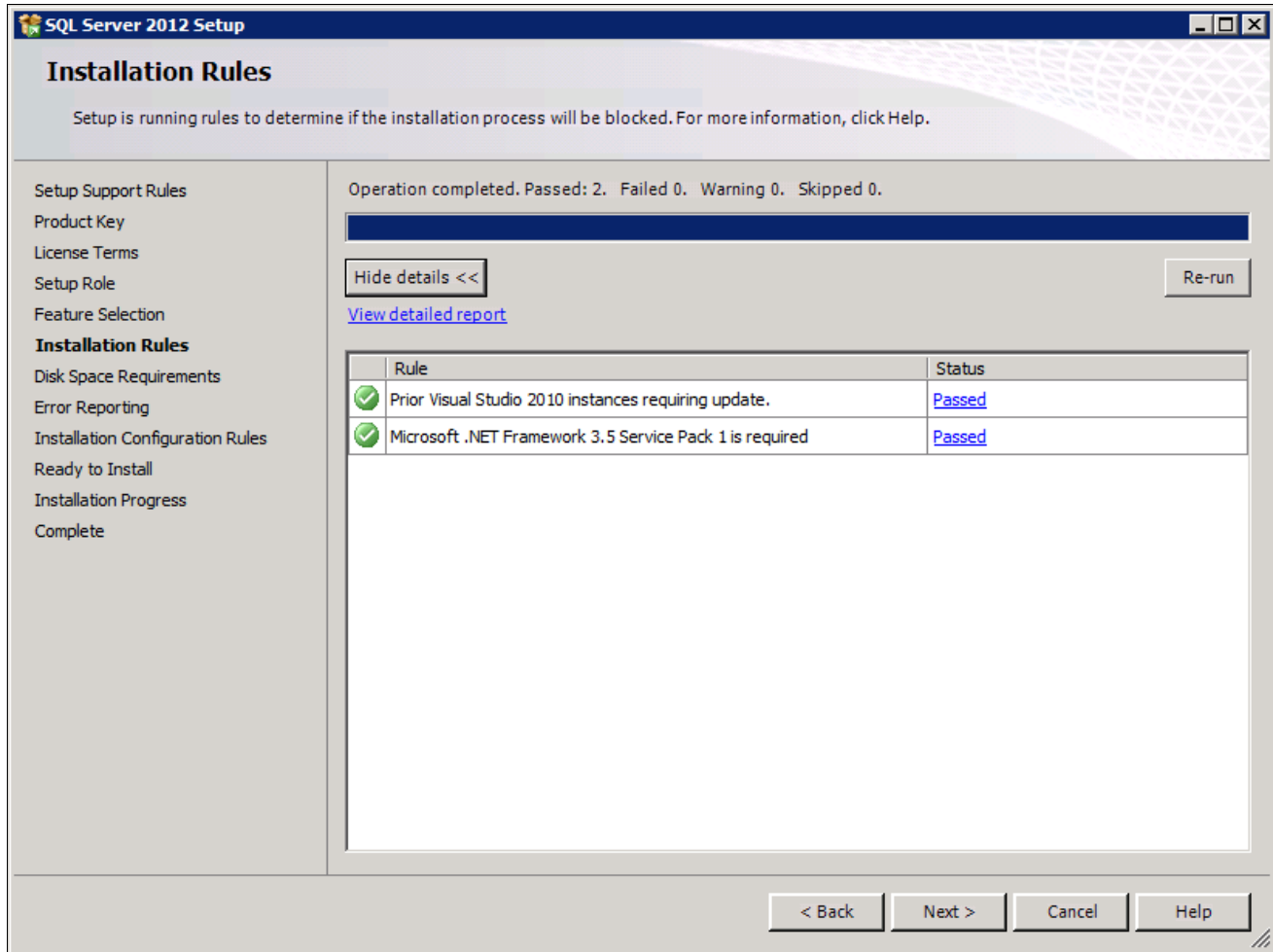
18. Click Next.

The Installation Rules window appears.



SQL Server 2012 Installation Rules window

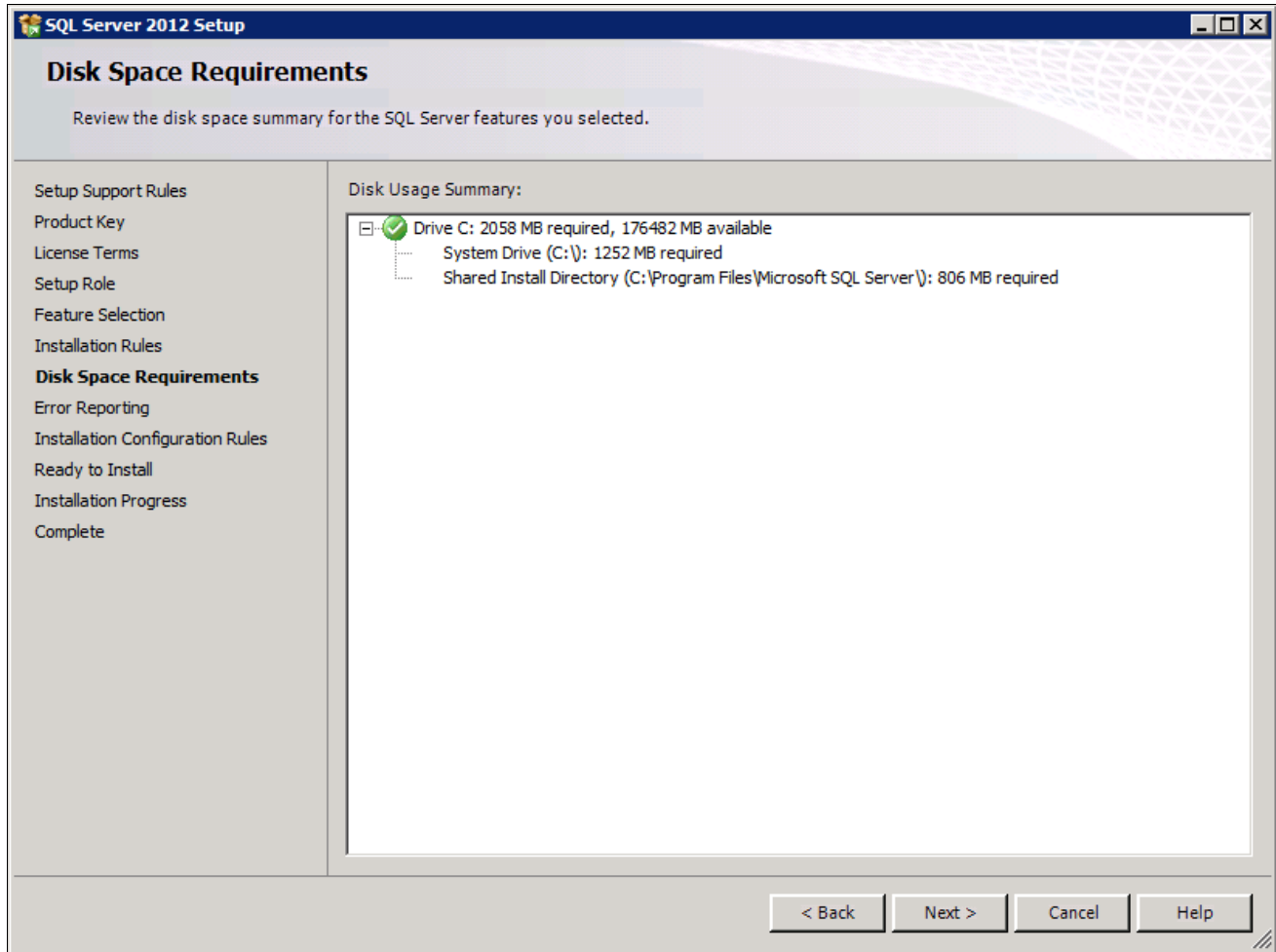
- 19. Wait for the operation to be complete, and then verify that all of the rules passed successfully. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



SQL Server 2012 Installation Rules showing report detail

20. Click Next.

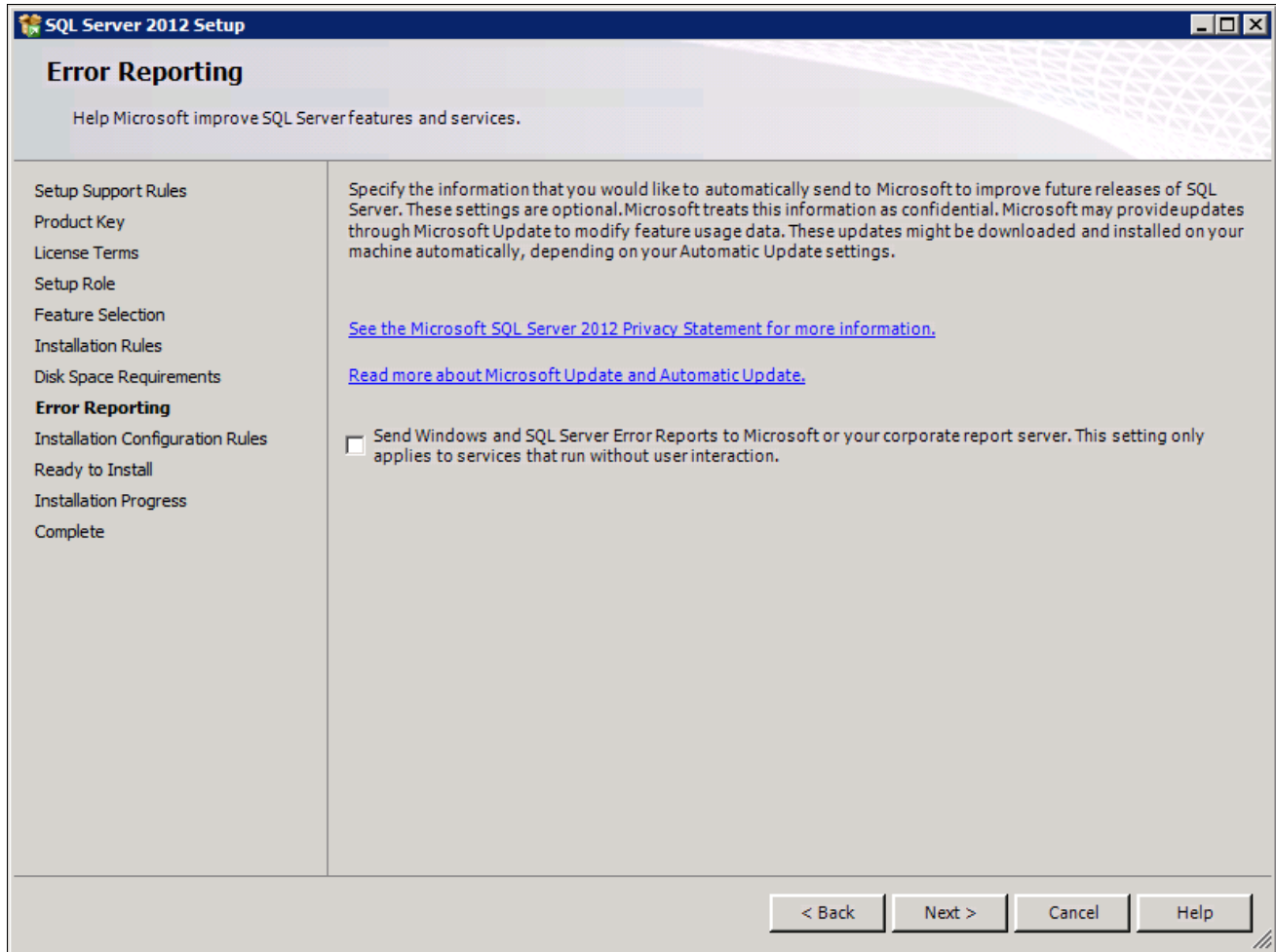
The Disk Space Requirements window appears showing the available and required disk space. Verify that you meet the disk space requirements.



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.

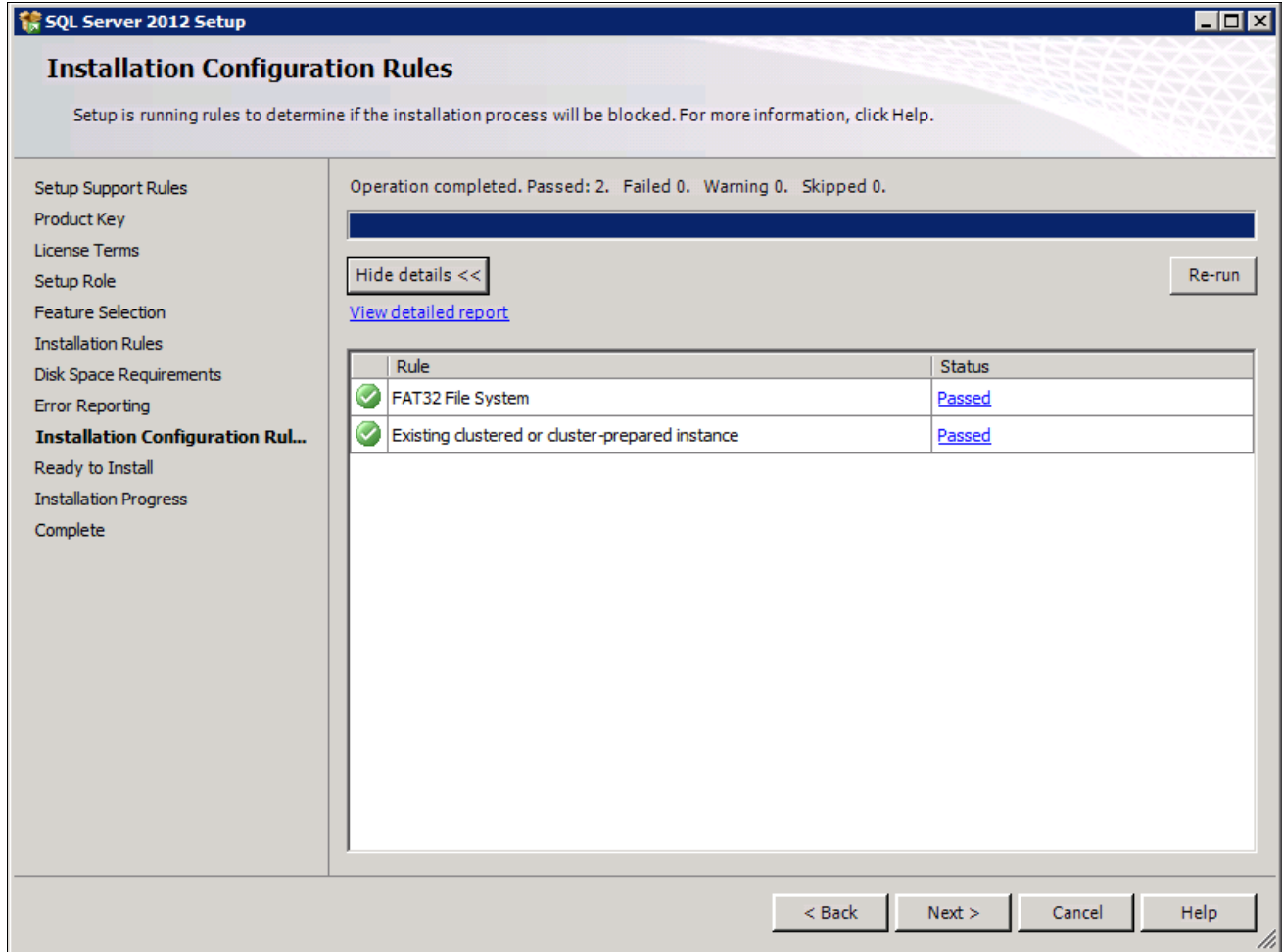


SQL Server 2012 Error Reporting window

22. Click Next.

The Installation Configuration Rules window appears.

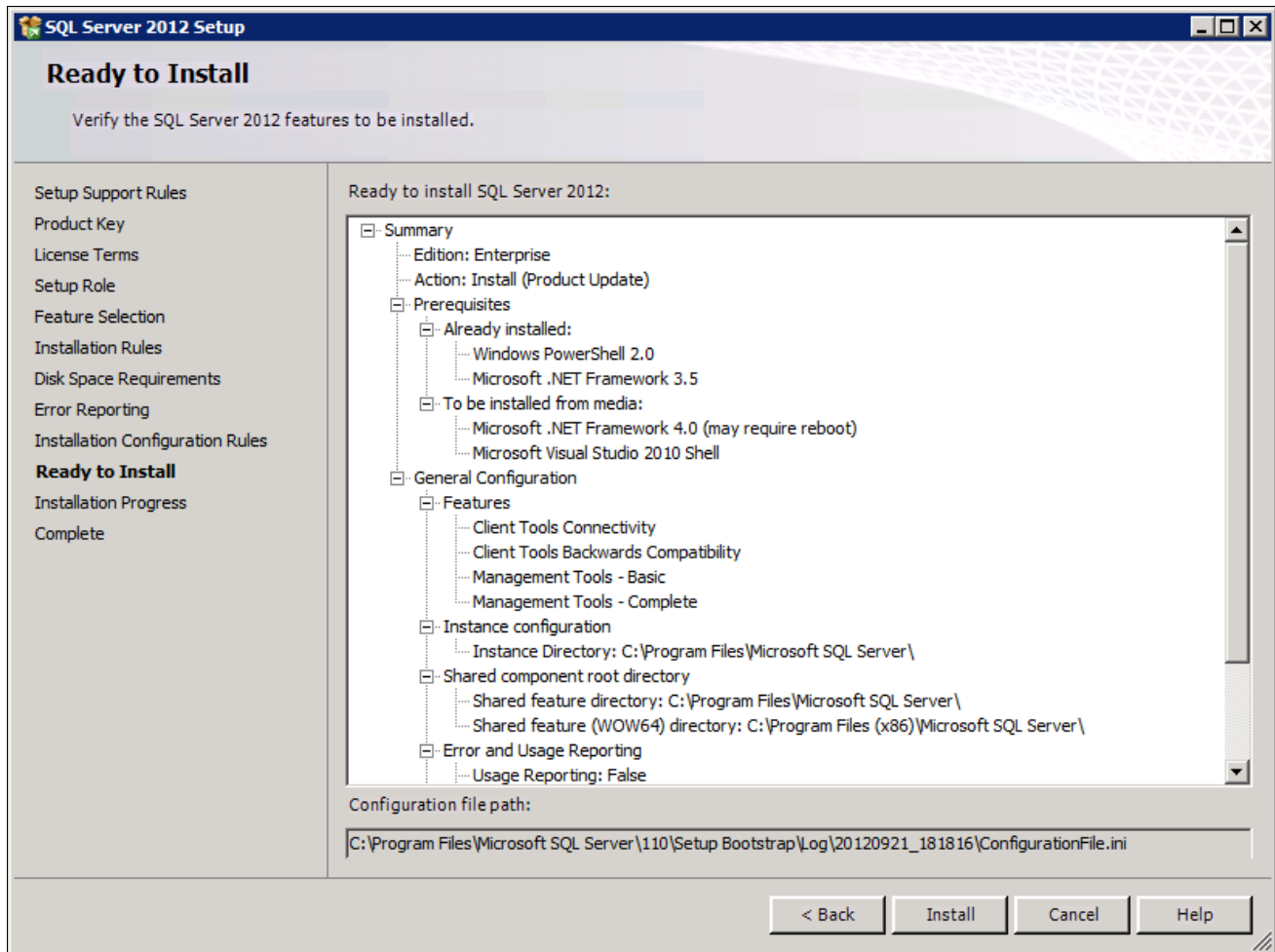
Wait for the operation to be complete. View the detailed report and verify that all of the rules passed successfully, as shown in this example. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



SQL Server 2012 Installation Configuration Rules window showing report detail

23. Click Next.

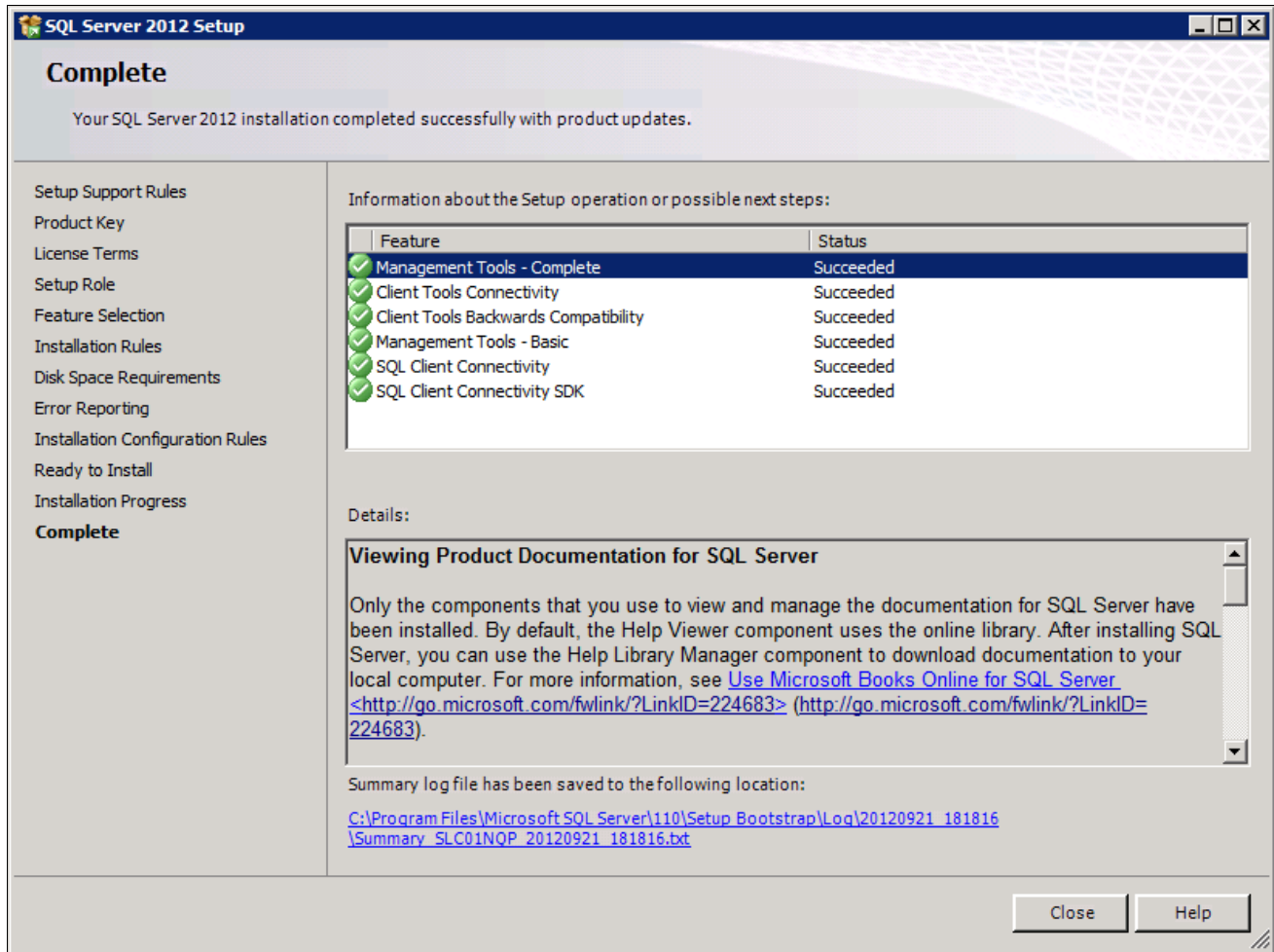
The Ready to Install window appears with a summary of the installation options that you have selected. Review the options, and then click Install to begin.



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

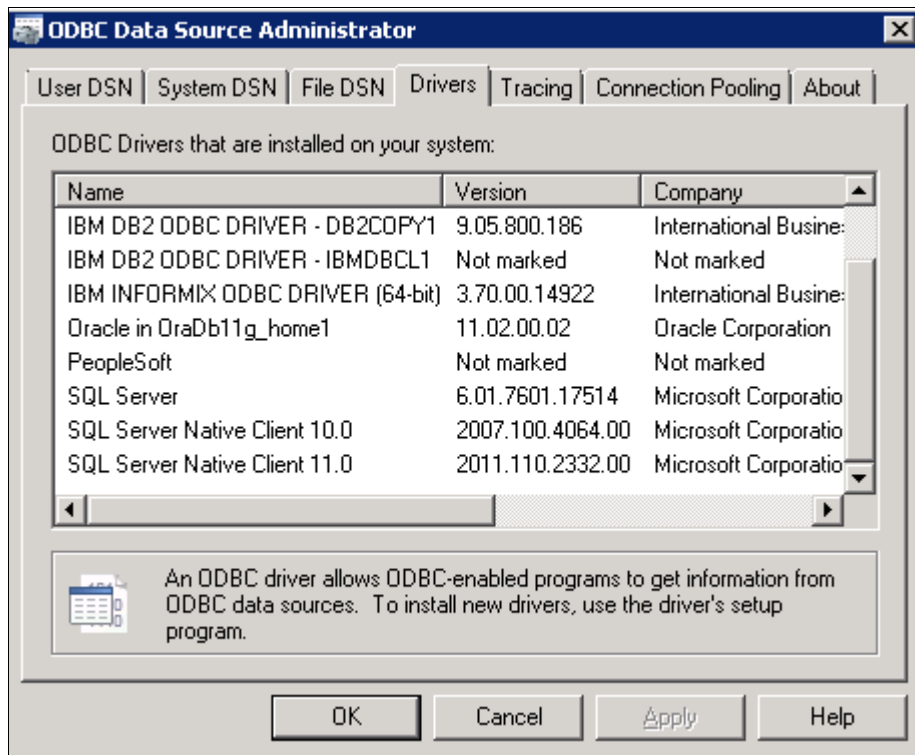
24. Click Close.

The SQL Server 2012 client setup is complete.

Task 1-9: 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 1-10: 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 1-11: 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 1-12: 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 1-13: Performing Backups

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

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

Chapter 2

Installing the PeopleSoft Homes

This chapter discusses:

- Obtaining the PeopleSoft PeopleTools DPKs
- Reviewing the DPK Setup Script Options
- Running the DPK Setup Script to Install PS_HOME Only
- 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 PeopleTools DPKs

This section discusses:

- Obtaining the PeopleSoft PeopleTools DPKs from My Oracle Support
- Obtaining from Oracle Software Delivery Cloud

Task 2-1-1: Obtaining the PeopleSoft PeopleTools DPKs from My Oracle Support

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

To locate and download the DPKs:

1. Go to the PeopleSoft PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2, to find the information on locating and downloading the latest PeopleSoft PeopleTools patch.

This page includes documentation and links to the most recent patches. To find earlier PeopleSoft PeopleTools patches:

- a. Sign in to My Oracle Support.
 - b. Select the Patches & Updates tab.
 - c. Select Product or Family (Advanced), and search for PeopleSoft PeopleTools.
2. Download the DPK zip files into a single directory, referred to in this documentation as *DPK_INSTALL*. Be sure that the *DPK_INSTALL* directory has adequate available space for all the zip files. When you download, there will probably be multiple zip files. The multiple files are needed due to size limitations.

The zip files have the following format:

PEOPLETOOLS-<Operating_System>-<Release>-#ofn.zip

For example:

PEOPLETOOLS-LNX-8.56.02-1of4.zip

PEOPLETOOLS-LNX-8.56.02-2of4.zip

PEOPLETOOLS-LNX-8.56.02-3of4.zip

PEOPLETOOLS-LNX-8.56.02-4of4.zip

The files names are comprised of the following parts:

- *<Operating_System>* is AIX for IBM AIX, LNX for Oracle Linux, SOL for Oracle Solaris for SPARC, or WIN for Microsoft Windows.
- *<Release>* is the release and patch number for the product, such as 8.56.02.
- *n* represents the total number of zip files.

Task 2-1-2: Obtaining from Oracle Software Delivery Cloud

At the general availability date for PeopleSoft PeopleTools 8.56, you can obtain the PeopleSoft PeopleTools DPKs from Oracle Software Delivery Cloud. This version includes the 8.56.01 patch and the full codeline. Later patches are available only on My Oracle Support. To obtain the PeopleSoft PeopleTools DPKs from Oracle Software Delivery Cloud:

1. Sign in to Oracle Software Delivery Cloud.
See Oracle Software Delivery Cloud, <https://edelivery.oracle.com>.
2. Search for PeopleSoft PeopleTools release.
3. Select your operating system from the Platform list, and click Search.
4. Click Continue twice.
5. Review and accept the terms and conditions.
6. Download the DPK zip files, for example V123456-0#.zip, into a single directory, referred to in this documentation as *DPK_INSTALL*.

Be sure that the *DPK_INSTALL* directory has adequate available space for all the zip files. When you download, there will probably be multiple zip files. The multiple files are needed due to size limitations.

Task 2-2: Reviewing the DPK Setup Script Options

The PeopleSoft PeopleTools DPK setup script alleviates the installation process by automating most of the manual tasks in using DPKs to set up PeopleSoft mid-tier components 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 Linux or UNIX shell script (*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 or UNIX. The suffix `<ext>` in the table refers to the operating system specific extension.

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

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). • Install the <code>PS_HOME</code> directory. 	<pre>psft-dpk-setup.<ext> --env_type midtier</pre>
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 <code>PS_HOME</code> directory. 	<pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only or psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type all</pre>
Deploy the <code>PS_HOME</code> directory only. This option does not set up any domains.	<pre>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type 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.	<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
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.	<code>psft-dpk-setup.<ext> --env_type midtier --dpk_src_dir <full_DPK_path></code>
Remove a deployed environment. See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment.	<code>psft-dpk-setup.<ext> --cleanup</code>

The following options are also available for PeopleSoft application DPKs. These options require the presence of PeopleSoft application DPKs in the deployment folder. If *DPK_INSTALL* includes only the PeopleTools DPKs files, you cannot use these options.

See PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2, for more information on the PeopleSoft application DPKs.

Deployment	DPK Setup Script Command
Deploy the <i>PS_APP_HOME</i> directory only. This option does not set up any domains.	<code>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type app_home</code>
Deploy the <i>PS_HOME</i> and <i>PS_APP_HOME</i> directories only. This option does not set up any domains.	<code>psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type app_and_tools_home</code>

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.

- Default or manual configuration

After extracting the DPKs, you are given the option to exit the process and complete the configuration manually using Puppet files. 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 Component Software Locations.

- 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 root access, user ID, PeopleSoft Connect ID, Application Server Domain Connection, and so on.

- Multi-language support

You are given the option to have the DPK setup script install translated files for a multi-language installation.

- Unicode or non-Unicode

You are given the option to have the DPK setup script install a Unicode or non-Unicode environment.

Task 2-3: Running the DPK Setup Script to Install PS_HOME Only

This section discusses:

- Understanding the PS_HOME Deployment
- Installing PS_HOME Only on Microsoft Windows
- Installing PS_HOME Only on Linux

Understanding the PS_HOME Deployment

Use these instructions to install the *PS_HOME* installation folder, which includes the PeopleSoft PeopleTools server utilities. Use this deployment, for example, to get the tools needed to carry out database creation. The *PS_HOME* deployment includes the following:

- *PS_HOME* installed to *BASE_DIR/pt/ps_home8.56.xx* by default.
- PeopleTools utilities and scripts including:
 - *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*
 - Other PeopleTools utilities
- Setup utilities including:
 - *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)

Task 2-3-1: Installing PS_HOME Only on Microsoft Windows

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL*. To use the DPK setup script to install *PS_HOME* only:

1. Extract the first zip file (*FILENAME_1of4.zip*) in the same directory, *DPK_INSTALL*.

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

See Obtaining the PeopleSoft PeopleTools DPK for the DPK file name syntax.

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

```
psft-dpk-setup.bat --env_type midtier --deploy_only --deploy_type 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.

Starting the PeopleSoft Environment Setup Process:

```
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 ]
```

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.

```
Validating User Arguments: [ OK ]
Validating PeopleSoft Supported Platform: [ OK ]
Verifying if Puppet Software is Installed on the Host:
```

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 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.

The base directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components.

Note. When entering the path for the base directory, use forward slashes (/). For example, C:/psft.

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.
- *BASE_DIR*\pt
The script uses this directory to deploy PeopleSoft PeopleTools.
- *BASE_DIR*\db
This directory is not used for this deployment.

8. Review the status messages as the script validates the files found in the base folder.

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 Folder:
Validating the PeopleSoft PeopleTools Server DPK: [ =>
OK ]
Validating the Oracle Server Database DPK: [ =>
OK ]
Validating the PeopleSoft PeopleTools Application Database 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 Oracle Database Server DPK Archive:
Extracting the PeopleSoft PeopleTools Application Database DPK Archive:⇒
    [ OK ]
Extracting the PeopleSoft PeopleTools Server DPK:                ⇒
    [ 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 the information for your database platform.

- a. For the database platform, enter ORACLE, MSSQL (Microsoft SQL Server), DB2UNIX (DB2 for Linux, UNIX, and Windows), or DB2ODBC (DB2 for z/OS).

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

- b. Enter y (yes) to indicate that the database you will connect to is a Unicode database.

Note. All PeopleSoft Update Image databases are required to be Unicode.

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

12. Enter y to continue with the script.

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

13. 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.

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]:
```

14. 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 step to set up the PeopleSoft OS Users environment failed:

Starting the Default Initialization of PeopleSoft Environment:

```
Deploying PeopleTools 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 environemnt.
```

1. cd C:\psft\dpk\puppet\production\manifests
2. puppet 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 Default Initialization of PeopleSoft Environment:

```
Deploying PeopleTools Components: [ OK ]
Setting up PeopleSoft OS Users Environment: [ 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 2-3-2: Installing PS_HOME Only on Linux

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in `DPK_INSTALL`. To use the DPK setup script to install `PS_HOME` only:

1. Extract the first zip file (`FILENAME_1of4.zip`) in the same directory, `DPK_INSTALL`.

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

See Obtaining the PeopleSoft PeopleTools DPKs for the DPK file name syntax.

2. Open a terminal window and change directory to `DPK_INSTALL/setup`.
3. As a user with root access, run the script with the options for mid-tier and deployment only.

```
psft-dpk-setup.sh --env_type midtier --deploy_only --deploy_type tools_⇒
home
```

4. 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].

Starting the PeopleSoft Environment Setup Process:

```
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.

```
Validating User Arguments:                [ OK ]
Validating PeopleSoft Supported Platform: [ OK ]
Verifying if Puppet Software is Installed on the Host:
```

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

```
Preparing the Linux 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 directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components.

Note. When entering the path for the base directory, use forward slashes (/). For example, */cs1/psft*.

The base folder is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft Components. This folder should be accessible on the host, has write permission, and has enough free space. 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 Linux VM, must have write permissions and should have enough free space.

```
.
Enter the PeopleSoft Base Folder [/opt/oracle/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.

```
Checking if the Base Filesystem 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.
- *BASE_DIR/pt*
The script uses this directory to deploy PeopleSoft PeopleTools.
- *BASE_DIR/db*

This directory is not used for this deployment.

7. Review the status messages as the script validates the files found in the base folder.

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 Folder:
Validating the PeopleSoft Application DPK:           [ OK ]
Validating the PeopleSoft PeopleTools DPK:          [ OK ]
Validating the PeopleSoft PeopleTools Client DPK:   [ OK ]
Validating the Manifest Information in DPKs:         [ OK ]
```

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

```
Extracting the DPK Archives in the VM:
Extracting the PeopleSoft PeopleTools Server DPK Archive:           =>
      [ OK ]
Extracting the Oracle Database Server DPK Archive:
Extracting the PeopleSoft PeopleTools Application Database 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. 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 VM:
Generating eYAML Hiera Backend Encryption Keys:           [ OK ]
Updating the Puppet Hiera YAML Files in the Linux VM:    [ OK ]
Updating the Role in Puppet Site File for the Linux VM:  [ OK ]
```

10. Specify the information for your database platform.

- a. For the database platform, enter ORACLE, MSSQL (Microsoft SQL Server), DB2UNIX (DB2 for Linux, UNIX, and Windows), or DB2ODBC (DB2 for z/OS).

Enter the PeopleSoft database platform [ORACLE]:

- b. Enter y (yes) to indicate that the database you are connecting to is a Unicode database.

Note. All PeopleSoft Update Image databases are required to be Unicode.

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

11. 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.

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]:

12. 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 Default Initialization of PeopleSoft Environment:

```
Deploying PeopleTools Components: [FAILED]
The initialization of PeopleSoft environment setup failed. Check the
log file [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 environemnt.
```

1. cd /opt/oracle/psft/dpk/puppet/production/manifests
2. puppet apply --confdir=/opt/oracle/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 Default Initialization of PeopleSoft Environment:

```
Deploying PeopleTools Components: [ OK ]
Setting up PeopleSoft OS Users Environment: [ 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 2-4: Running the DPK Setup Script to Install All Software

This section discusses:

- Understanding the DPK Installation
- Installing on Microsoft Windows
- Installing on Linux or UNIX
- Reviewing the Installed Software

Understanding the DPK Installation

Use these instructions to install all software required to continue with the PeopleSoft installation. This deployment uses the DPK setup script options `--env_type midtier --deploy_only --deploy_type all` to install the PeopleSoft PeopleTools software in *PS_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 or UNIX 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 PeopleSoft PeopleTools DPKs, and saved them in a location referred to here as *DPK_INSTALL*.

Task 2-4-1: 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 options for mid-tier and 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 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 PeopleSoft application DPKs.

Starting the PeopleSoft Environment Setup Process:

```

Extracting the Zip File FILENAME_1of4.zip: [ OK ]
Extracting the Zip File FILENAME_2of4.zip: [ OK ]
...
Extracting the Zip File FILENAME_4of4.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.

```

Validating User Arguments: [ OK ]
Validating PeopleSoft Supported Platform: [ OK ]
Verifying if Puppet Software is Installed on the Windows Host:

```

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 directory.

The base directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. Use forward slashes (/) to specify the base directory location; for example, *C:/psft*.

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 base folder.

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 Folder:
Validating the PeopleSoft PeopleTools 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 PeopleTools Application DPK Archive: [ OK ]
Extracting the PeopleSoft PeopleTools Server DPK:             [ 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):

```
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.

```
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
Updating the Puppet Hiera YAML Files with User Data:      [ OK ]
```

15. If you want to continue running the initialization script interactively, 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 C:\psft\dpk\puppet\production\manifests
2. puppet apply --confdir=C:\psft\dpk\puppet site.pp --debug --trace

```
Exiting the PeopleSoft environment setup process.
```

See "Customizing a PeopleSoft Environment."

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.

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

Task 2-4-2: Installing on Linux or UNIX

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 terminal window and change directory to *DPK_INSTALL/setup*.
3. As a user with root access, run the script with the options for mid-tier and deployment only.
 - If you extracted the first zip file into the same directory where you downloaded the zip files, run the script with no options, as follows:

```
./psft-dpk-setup.sh --env_type midtier --deploy_only --deploy_type all
```

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

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

4. 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].

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

Starting the PeopleSoft Environment Setup Process:

```
Extracting the Zip File FILENAME_1of4.zip:      [ OK ]
Extracting the Zip File FILENAME_2of4.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.

```
Validating User Arguments:                      [ OK ]
Validating PeopleSoft Supported Platform:       [ OK ]
Verifying if Puppet Software is Installed:
```

Puppet Software is not installed on the Linux 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 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 Linux 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.

Use forward slashes (/) to specify the directory; for example, `/opt/oracle/psft`. The base directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components.

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 Linux VM, must have write permissions and should have enough free space.

```
Enter the PeopleSoft Base Folder: /opt/oracle/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 Filesystem has Enough Free Space:      [ OK ]
```

7. If the default home directory is not writable, enter a new location at the following prompt.

The DPK setup creates local users on the host. These users deploy the PeopleSoft components and own the PeopleSoft runtime domains. The script checks whether the default home directory for the PeopleSoft users (/home) is writable. If not, it will prompt the user to enter a new location to be used for creating the home directories for these local users.

```
Checking if Default User Home Directory /home is Writable:  [WARNING]
```

The PeopleSoft environment setup creates local users on the VM. The default Home directory for these users is /home. Please ensure this directory is writable or provide a new directory on the VM that is writable.

```
Please Enter a directory on the VM that is writable [/home]: /ds1
Are you happy with your answer? [y|n|q]:
```

If the /home directory is writable, no response is required.

```
Checking if Default User Home Directory /home is Writable:  [ 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 mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

```
Validating the PeopleSoft DPKs in the Folder:
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.

```
Extracting the Peoplesoft DPK Archives in the host:
Extracting the PeopleSoft PeopleTools Server DPK:         [ OK ]
Extracting the PeopleSoft Application DPK Archive:         [ 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 Linux host:
Generating eYAML Hiera Backend Encryption Keys:           [ OK ]
```



```
Updating the Puppet Hiera YAML Files in the Linux host:      [ OK ]
Updating the Role in Puppet Site File for the Linux host:    [ OK ]
```

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

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

12. Specify the information for your database platform.

- a. Enter y (yes) to indicate that the database you are connecting to is a 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 interactively, 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.

See "Customizing a PeopleSoft Environment"

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 [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 /opt/oracle/psft/dpk/puppet/production/manifests
```

```
2. puppet apply --confdir=/opt/oracle/psft/dpk/puppet site.pp --debug -->
trace
```

Exiting the PeopleSoft environment setup process.

See "Customizing a PeopleSoft Environment."

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.

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

Task 2-4-3: 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/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)
- 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.

Task 2-5: 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 Microsoft Windows or Linux OS, 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) 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).
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 2-6: 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 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 2-6-1: 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.
You see this prompt if the script detects more than one deployment.
Enter the PeopleSoft Base Folder specified during setup:
4. Review the cleanup log file in `DPK_INSTALL\setup`.

Task 2-6-2: 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/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/production/manifests folder.

6. Run the following command:

```
puppet apply --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
```

Note. The options require double dashes.

Task 2-6-3: 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 OracleService CBD<*Database Name*> and OracleOraDB12cHomeTNSListener by highlighting the names, right-clicking and selecting Stop.

Note. When you stop the service for the CBD (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 OracleService CDB<Database Name>
sc delete OracleOraDB12cHomeTNSListener
sc delete PsftAppServerDomain<app_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_VS205 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 4, 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 (C:\psft\db by default)
 - KEY_OraTux1222Home (C:\psft\pt\bea\tuxedo by default)
 - KEY_OraWL1213Home (C:\psft\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* (C:\psft\pt\bea\tuxedo by default).
11. In the Registry Editor, only for the keys from step 8 and 9 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="OraTux1213Home" 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 (C:/psft/db, C:/psft/dpk, and C:/psft/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 for Component Software Locations
- Preparing the Customization File for Unicode
- Preparing the Customization File for the PeopleSoft Homes
- 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/default.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.

- 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 the entire section containing the parameter to be modified.

The hierarchy and alignment of the YAML files are very important to the correct operation. 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.

In addition, 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.

- Replace the entire attribute string.

The parameters in the delivered YAML files are written with Hiera 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 segment:

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

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

On Microsoft Windows:

```
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 Updates 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.

- Open a command prompt, using Run as administrator.
- Set the Puppet environment if necessary.

The last step in the examples given here 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. To set the Puppet environment, run this command:

On Microsoft Windows:

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

On AIX or 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=${PUPPET_BIN}:%PATH`
- `export LIBPATH=${PUPPET_LIB}:%LIBPATH`
- 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>.

See Also

PeopleSoft PeopleTools 8.56 Deployment Packages Installation, "Using the Puppet Hiera YAML Files for Customization"

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 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 in *BASE_DIR*/dpk/production/puppet/data.
2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, 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 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.

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.

```
---
db_name:          FS85606C
db_user:          VP1
db_user_pwd:      <DB_USER_PWD>

db_connect_id:    people
db_connect_pwd:   <DB_CONN_PWD>

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
pia_gateway_user_pwd: <GATEWAY_USER_PWD>
```

```

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

domain_conn_pwd:        <DOMAIN_CONN_PWD>

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"
  PSPPMSRV:       "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/PrcsServerName: "%{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
      webserver_admin_user_pwd: <WEBSERVER_ADMIN_PWD>
      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
          profile_user_pwd:     <WEBPROFILE_USER_PWD>

          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.

```
---
appserver_domain_list:
  "APPDOM1":                                                         ### Custom domain name=>
```

```

###
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_cfg_home in the application server section:

```

---
ps_config_home:      C:/user/psft_config/8.56          ### Custom PS_⇒
CFG_HOME location ###

appserver_domain_list:
  "APPDOM2":         ### Custom⇒
  domain name ###
  os_user:           "%{hiera('domain_user')}}"
  template_type:    "%{hiera('appserver_template')}}"

```

```

    ps_cfg_home_dir: C:/user/psft_config/8.56          ### Custom PS_⇒
CFG_HOME location ###

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 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"
    PSPMSRV: "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
webserver_admin_user_pwd: Tmt0wtd1
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
      profile_user_pwd:     PTWEBSERVER

    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
    webserver_admin_user_pwd: Tmt0wtd1
    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
        profile_user_pwd:     PTWEBSERVER

      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"

"PRCS222":
  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 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.

Note. As mentioned in the section Reviewing Software Requirements for AIX, you must use customizations to specify the installation location of the manually installed JDK 8.0 for the AIX DPK.

1. Locate the `psft_deployment.yaml` file in `BASE_DIR/dpk/production/puppet/data`.
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, 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 user section will not be deleted when the deployed environment is removed.

- Copy the entire `jdk` section from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file and modify the location value; for example:

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

- If you are installing on AIX, use the following:

```
---
jdk_location:      ibm-java-ppc64-80
  remove:         false
```

- Copy the entire `tuxedo` section from the `psft_deployment.yaml` file into the `psft_customizations.yaml` file and modify the location value; for example:

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

- For Oracle WebLogic, copy both the `weblogic_location` parameter and the entire `weblogic` 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
  remove:         false
weblogic_location: C:/psft/weblogic
```

- 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
  remove:         false

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

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

4. Save the file.

Task 3-3: 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.

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, 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 3-4: 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 3-4-1: 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/production/puppet/data*.

The *PS_HOME* installation location is specified by the *ps_home_location* parameter.

```
ps_home_location: "%{hiera('pt_location')}/ps_home8.56.12"
"
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_location: C:/psft8.56.12
"
ps_home:
  db_type:      "%{hiera('db_platform')}"
  unicode_db:   "%{hiera('unicode_db')}"
  location:     C:/psft8.56.12
```

4. Save the file.

Task 3-4-2: 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/<application>_app_home*, where *<application>* is the abbreviation for the PeopleSoft application, such as *fscm* for PeopleSoft Financials and Supply Chain Management. Use these steps to specify the *PS_APP_HOME* location.

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

The *PS_APP_HOME* installation location is specified by the *ps_apphome_location* parameter.

```
ps_apphome_location: "%{hiera('pt_location')}/fscm_app_home"
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_apphome_location: C:/hcm92_home
ps_app_home:
  db_type: "%{hiera('db_platform')}}"
  include_ml_files: false
  location: C:/hcm92_home
```

4. Save the file.

Task 3-4-3: 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 or UNIX. 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/production/puppet/data`.

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_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_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 3-5: 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 in `BASE_DIR/dpk/puppet/production/data`.

The information for Microsoft SQL Server 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 in `BASE_DIR/dpk/puppet/production/data`.

The database platform is specified as:

```
db_platform:  MSSQL
```

3. If necessary, create a `psft_customizations.yaml` file using a standard editing tool, such as Notepad on Microsoft Windows or `vi` on Linux, 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:
  FS92DEMO:
    mss_server_name: HOSTNAME\SQL2012
    mss_odbc_name:   "SQL Server Native Client 11.0"
```

5. Save the file.

Task 3-6: 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.

Note. The `confdir`, `debug`, and `trace` options begin with two dashes.

On Microsoft Windows, Linux or UNIX:

```
puppet apply --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
```

On AIX and other operating systems it may be necessary to provide the full path to `site.pp`:

```
puppet apply --confdir=BASE_DIR/dpk/puppet BASE_DIR/dpk/puppet⇒  
/production/manifests/site.pp --debug --trace
```


Chapter 4

Installing PS_APP_HOME Using the PeopleSoft Installer

This chapter discusses:

- Preparing for the PS_APP_HOME Installation
- Using the PeopleSoft Installer
- Verifying Necessary Files for Installation on Windows

Preparing for the PS_APP_HOME Installation

To get the files necessary to create a PeopleSoft application demo or system database, you must install the PeopleSoft application installation files to the *PS_APP_HOME* location. The PeopleTools DPK setup requires a *PS_APP_HOME* location that is different from the *PS_HOME* location where PeopleSoft PeopleTools is installed.

The PeopleSoft installer is a Java-based tool used to install PeopleSoft PeopleTools and PeopleSoft application from releases prior to PeopleTools 8.56, which were not delivered in the DPK format. You can run the PeopleSoft installer in GUI or console mode. For details on the prerequisites and options for running the PeopleSoft installer, see the PeopleSoft PeopleTools installation guide for your database platform (DB2 for Linux, UNIX, and Windows, DB2 for z/OS, Microsoft SQL Server, or Oracle RDBMS). Select the PeopleSoft PeopleTools release that your PeopleSoft application was built on.

If you need to obtain the software for the PeopleSoft application that you want to install, and if it is no longer available on Oracle Software Delivery Cloud or My Oracle Support, open a service request with Oracle support.

See Also

PeopleSoft PeopleTools 8.55 Installation Home Page, My Oracle Support, Doc ID 2068525.1

PeopleSoft PeopleTools 8.54 Installation Home Page, My Oracle Support, Doc ID 1905010.1

Task 4-1: Using the PeopleSoft Installer

This section discusses:

- Starting the PeopleSoft Installer
- Using the PeopleSoft Installer in GUI Mode
- Using the PeopleSoft Installer in Console Mode

Task 4-1-1: Starting the PeopleSoft Installer

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

To start the PeopleSoft Installer on Microsoft Windows, type:

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

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

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

- Specify console or GUI mode with the `-i` option.

- To run in GUI mode:

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

- To run in console mode:

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

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

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

On Microsoft Windows:

```
setup.bat -javahome D:\prod\java8\bin\java.exe
setup.bat -LAX_VM D:\prod\java8\bin\java.exe
```

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

On Microsoft Windows:

```
set LAX_DEBUG=true
```

- Run the installer; for example:

On Microsoft Windows:

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

- Specify the temporary directory to extract temporary files.

This is recommended if you have less than 2 GB of space in your default temporary directory.

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

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

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

```
setup.bat -i console -javahome D:\prod\java8\bin\java.exe
```

- To start the debugger in GUI mode:

1. Type the command; for example:

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

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

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

Task 4-1-2: Using the PeopleSoft Installer in GUI Mode

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

1. Launch the installer. For example:

```
PS_INSTALL\disk1\setup.bat
```

Click Next when you see the Welcome screen for PeopleTools.

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

The License Agreement window includes the terms in several languages.

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

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

See *PeopleTools: Global Technology*.

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

For example, select the PeopleSoft Application Server, PeopleSoft Batch Server, PeopleSoft Database Server, PeopleSoft File Server, and PeopleSoft Web Server.

Use the following information to help you make your selection on the Server window:

- You can install multiple servers at the same time, but they will all be installed on the same machine. If you want to install servers on separate machines, you need to run the PeopleSoft Installer on each server machine.
- If you do not have admin privileges, you will not be able to install PeopleSoft web server. You will have to either acquire admin privileges or deselect the Web Server option to continue.
- You *must* install the PeopleSoft software on your database server in order to run the PeopleSoft Database Configuration Wizard. (Running the Database Configuration Wizard is discussed in the chapter on creating a database.)

5. Specify the directory where you want to install PeopleSoft PeopleTools, referred to in this documentation as *PS_HOME*, in the Directory Name field, and click *Next*.

Note. Substitute your network drive and the directory name of your choice for the default selection. The installation directory name cannot contain a space. Note that directory names containing periods or non-US-ASCII characters may not work with some additional component software.

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

The location of the Connectivity Program Directory varies depending upon the version of SQL Server that you are using. The location may also vary depending on the options chosen during installation. For SQL

Server 2012 the default location is: C:\Program Files\Microsoft SQL Server\110\Tools\Binn, as shown in this example.

Note. If you are using SQL Server 2014, the default location is C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\110\Tools\Binn.

If you are using SQL Server 2016, the default location is C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\130\Tools\Binn

7. Depending on the PeopleSoft servers you selected, choose whether to install the PeopleSoft PeopleTools icons and click Next.
8. If you elected to install PeopleSoft PeopleTools icons, choose a valid group folder in which to create them and click Next.
9. Enter the configuration information for Environment Management, the Environment Management machine name and port number.

Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run the PeopleSoft Pure Internet Architecture). Select the hub port number (the default is 80, as shown in the example). This needs to match the PeopleSoft Pure Internet Architecture port. If you change the port number for the PeopleSoft Pure Internet Architecture configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See the information on configuring and running Environment Management Components in the *PeopleTools: Change Assistant and Update Manager* product documentation.

10. The next screen lists the PeopleSoft PeopleTools components (product features). Accept the defaults for the PeopleSoft PeopleTools features and click Next.
 - Select *PeopleTools* to install PeopleSoft PeopleTools and the PeopleSoft Pure Internet Architecture. This component contains the core PeopleTools files and is required for the proper operation of the PeopleSoft system and the PeopleSoft Pure Internet Architecture.
 - Select *PeopleTools System Database* to allow your developers to create custom PeopleSoft PeopleTools applications outside of the delivered PeopleSoft Application.
 - The *PeopleTools Language Pack* and *PeopleTools Language Development Kit* contain the translated PeopleSoft PeopleTools DLLs and the resource files and headers needed to build them.

Note. These options are available only for installations on Windows.

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

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

11. You will see an installation confirmation window. If the information is correct, choose Next. If you need to modify any of the information, choose the Back button and make your changes.

The summary information includes the installation directory, the features, and the PeopleSoft servers:

12. After the files have been installed, click *Done* to complete the setup.

The window displays the installation directory..

Task 4-1-3: Using the PeopleSoft Installer in Console Mode

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

Note. The console mode installation is typically used on UNIX and Linux platforms, but can also be used on Microsoft Windows.

1. Launch the PeopleSoft Installer in console mode. For example:

On Microsoft Windows

```
PS_INSTALL/disk1/setup.bat -i console
```

See Starting the PeopleSoft Installer.

2. At the Welcome prompt, press ENTER to continue.

```
=====→
=====
Welcome
-----
```

InstallAnywhere will guide you through the installation of PeopleTools 8.55.

PRESS <ENTER> TO CONTINUE:

3. Accept the license agreement by entering *Y*. Select 0 when you are finished.

Portions of the agreement text have been omitted from this example for brevity.

```
=====→
=====
License Agreement
-----
```

Installation and Use of PeopleTools Requires Acceptance of the Following License Agreement:

English

Notice: This installation program may install products above and beyond those

that you have licensed. Please refer to your master license agreement for the

products you are entitled to use. Installing and/or using software that you

have not specifically licensed may result in termination of your license agreement with PeopleSoft and entitle PeopleSoft to receive damages. →

It may also be an infringement of PeopleSoft's intellectual property rights.

DO YOU ACCEPT THE TERMS OF THIS LICENSE AGREEMENT? (Y/N): **y**

4. Enter *1* to select a Unicode Database (Recommended), or *2* to select a non-Unicode database, and then *0* to continue.

Note. Unicode databases are beneficial if you intend to deploy your applications globally. Some languages in a PeopleSoft installation are only supported in a Unicode database. Unicode databases can require more disk space than non-Unicode databases.

See *PeopleTools: Global Technology*.

Please select the Oracle database character set:

- >1- Unicode Database (Recommended)
- 2- Non-Unicode Database

To select an item enter its number, or 0 when you are finished [0] :

5. Select the PeopleSoft servers you want to install.

For Microsoft SQL Server please select the products to install:

- >1- PeopleSoft Application Server
- >2- PeopleSoft Batch Server
- >3- PeopleSoft Database Server
- >4- PeopleSoft File Server
- >5- PeopleSoft Web Server

To select an item enter its number, or 0 when you are finished [0] :

By default, all of the servers supported for your database platform are selected.

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

6. Enter the installation location, such as /home/pt855, referred to as *PS_HOME*, and press ENTER to continue.

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

Please enter an installation location or press <ENTER> to accept the⇒
default
(Default: C:\PT8.55):

7. *Microsoft Windows only:* Specify the database connectivity directory.

8. *Microsoft Windows only:* Indicate whether you want icons to be created.

Do you want to Install PeopleTools Icons?

- >1- Yes
- 2- No

To select an item enter its number, or 0 when you are finished [0] :

9. If you select the option to create PeopleTools icons, enter the name for the program group.

The default is PeopleTools 8.55.

Please enter in the program group folder you wish to create the icons⇒
in
[PeopleTools 8.55]:

10. Enter the configuration for Environment Management. Select the machine name and port number.

Please enter the hub machine name: [PSEMHUB]:

Please enter the hub port number: [80]:

Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run the PeopleSoft Pure Internet Architecture). Select the hub port number (the default is 80). This needs to match the PeopleSoft Pure Internet Architecture port. If you change the port number for the PeopleSoft Pure Internet Architecture configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See the information on configuring and running Environment Management components in the *PeopleTools: Change Assistant and Update Manager* product documentation.

11. Choose the features that you wish to install:

To select/deselect a feature or to view its children, type its number

```
-> 1- PeopleTools
    2- PeopleTools System Database
    3- PeopleTools Language Pack
    4- PeopleTools Language Development Kit
```

Options 3 and 4 appear only on Microsoft Windows.

12. At this point, you can toggle the install status of each product. Press 0 and then ENTER to continue and the PeopleSoft Installer will give you a summary of your selection. This summary will depend on your earlier selections.

Pre-Install Summary

Please review the following before continuing:

PeopleTools will be installed in the following location: C:\PT855

with the following features:

PeopleTools
PeopleTools System Database

The following PeopleSoft Servers were selected by you:

PeopleSoft Application Server
PeopleSoft Batch Server
PeopleSoft Database Server
PeopleSoft File Server
PeopleSoft Web Server

Database Type:

Microsoft SQL Server

Environment Hub Configuration:

Hub machine name: PSEMHUB

Hub port number: 80

Press 1 for Next, 2 for Previous, 3 to Cancel, or 5 to Redisplay [1]

13. Press ENTER to start the installation.

The PeopleSoft Installer displays a text-based progress bar to indicate the progress of the installation.

14. Press ENTER to exit.

Note. For UNIX operating systems, if you chose PeopleSoft servers that require a JRE, you see the "Unpacking JRE" message after the progress bar.

```
Installation Complete
-----
```

```
Congratulations. PeopleTools has been successfully installed to:
```

```
    /home/PT855
```

```
PRESS <ENTER> TO EXIT THE INSTALLER:
```

15. If you are installing on AIX, go to the *PS_HOME/jre* directory and ensure that the directory has executable permissions. If not, set the permission using a command such as `chmod +x`.

Task 4-2: Verifying Necessary Files for Installation on Windows

The current PeopleSoft PeopleTools release was developed using Microsoft Visual Studio 2015. PeopleSoft PeopleTools programs require Microsoft Visual C++ Redistributable for Visual Studio 2015 files to be present or the programs will not run.

During your PeopleSoft PeopleTools installation, the install programs will automatically update the Microsoft Windows machine performing the installation.

The required Visual C++ Redistributable for Visual Studio 2015 packages are part of the installation for the following components:

- PeopleSoft PeopleTools
- PeopleTools Client
- Database Configuration Wizard (DCW)
- PeopleSoft Pure Internet Architecture
- Change Assistant
- Change Impact Analyzer
- Web Application Deployment tool

In some cases it may be necessary for you to carry out a separate installation of the Visual C++ Redistributable for Visual Studio 2015 packages. For example:

- If the update does not take place during the installation program run, you may not be able to launch PeopleSoft PeopleTools client or server executables on that machine and may receive error messages.
- If you are accessing PeopleSoft PeopleTools executables from a machine on which you did not install directly, the executables may not work and you may receive error messages.

If you encounter these errors, you can update the Microsoft Windows machine's Visual C++ Redistributable for Visual Studio 2015 packages by running the installers manually.

If installing on a server or PeopleTools Client environment:

1. Go to *PS_HOME*\setup\psvcrt.
2. Run `vcredist_x64.exe`.

Note. For each installer, the installation is completed automatically.

Chapter 5

Setting Up the Install Workstation

This chapter discusses:

- Understanding the Install Workstation
- Prerequisites
- Starting Configuration Manager
- Setting Startup Options
- Editing the Default Profile
- Running Client Setup

Understanding the Install Workstation

This chapter describes how to set up a PeopleSoft Windows-based client for connecting to the database server in two-tier mode, specifically for the purpose of performing install-related tasks from the workstation. You must configure at least one two-tier Windows-based client for running 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 5-1: Starting Configuration Manager

Configuration Manager is a utility for configuring workstations being used as the PeopleTools Development Environment. These are its principal functions:

- Sets up and make changes to PeopleSoft configuration settings.
- Creates a program group containing Microsoft Windows shortcuts to PeopleSoft applications.
- Installs local DLLs.

The first time you run Configuration Manager on the client, it will populate certain fields with default values specified in a configuration file stored on the file server, specifically: *PS_HOME\setup\pstools.cfg*. This configuration file was set up when you ran the installation. Once you set up and run Configuration Manager, it will populate fields using values that are stored in the Windows system registry.

To start Configuration Manager, do one of the following:

- On Microsoft Windows 7, select *Start, Programs, PeopleTools 8.56, 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 *pscfg.exe* directly from the *PS_HOME\bin\client\winx86* directory on the file server.

Task 5-2: Setting Startup Options

The Startup tab of Configuration Manager sets the default options for the PeopleSoft sign-on screen that is used for connecting to a PeopleSoft database. It also contains a setting that specifies the local directory for storing cached PeopleSoft data.

To set Startup options:

1. Confirm that you are viewing the Configuration Manager Startup tab (this tab is what you see if you started Configuration Manager as described in the previous task).
2. Set the following options:
 - *Database type* — Verify the type of RDBMS. This should already be set to 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 5-3: Editing the Default Profile

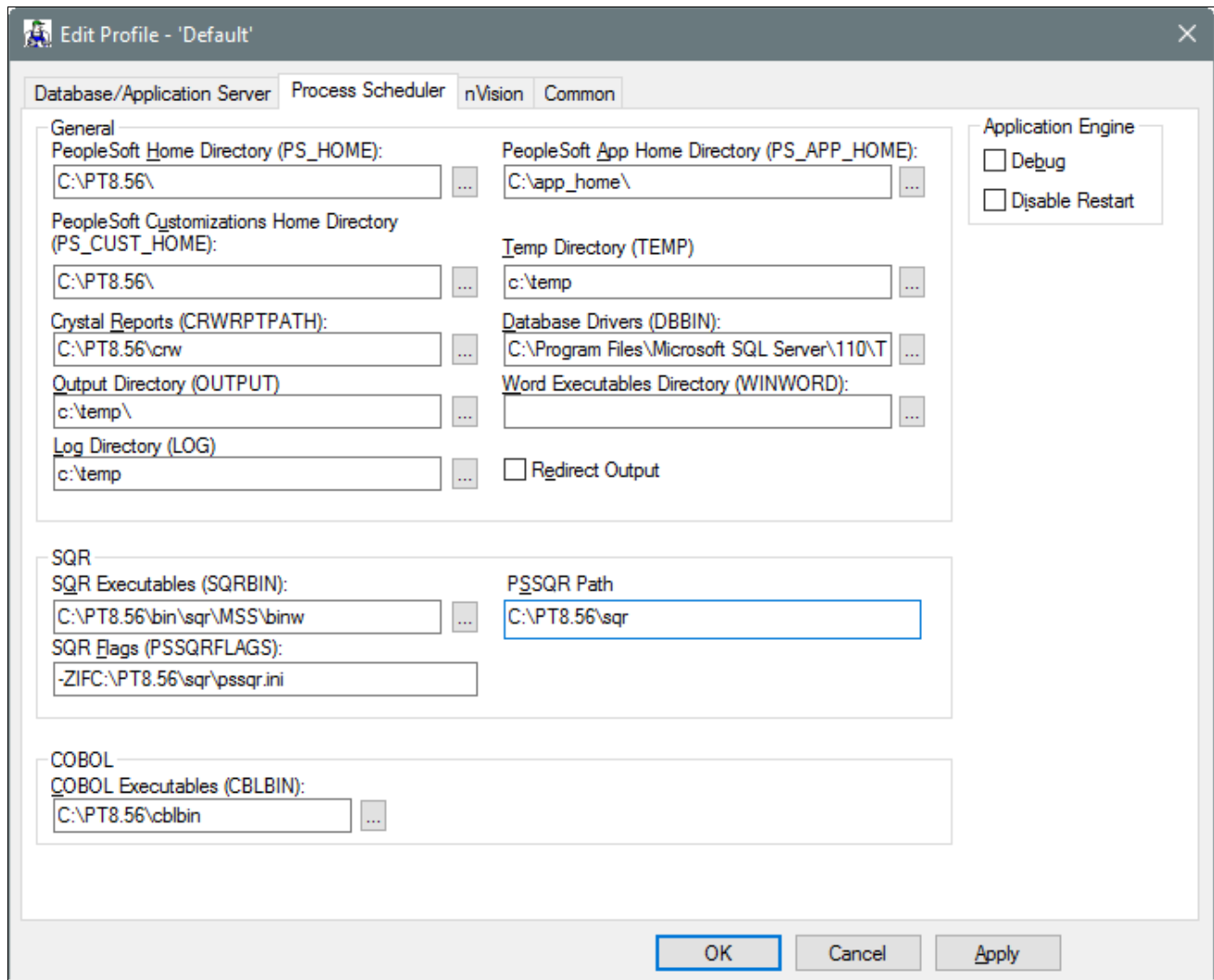
Begin by editing the default profile for the workstation. Among other things, this will verify that the paths to *PS_HOME* and its subdirectories are correctly set, which is required for subsequent tasks.

For more information on using Configuration Manager, see the *PeopleTools: System and Server Administration* product documentation for configuring user profiles.

To edit the default profile:

1. Select the Profile tab in Configuration Manager.
Only one profile, the Default Profile, has been defined.
2. Select Edit to display the Edit Profile dialog box, and then select the Process Scheduler tab.

3. In the Process Scheduler tab verify the options listed below the example. These should have been set correctly by the PeopleSoft installation program.



Edit Profile dialog box: Process Scheduler tab

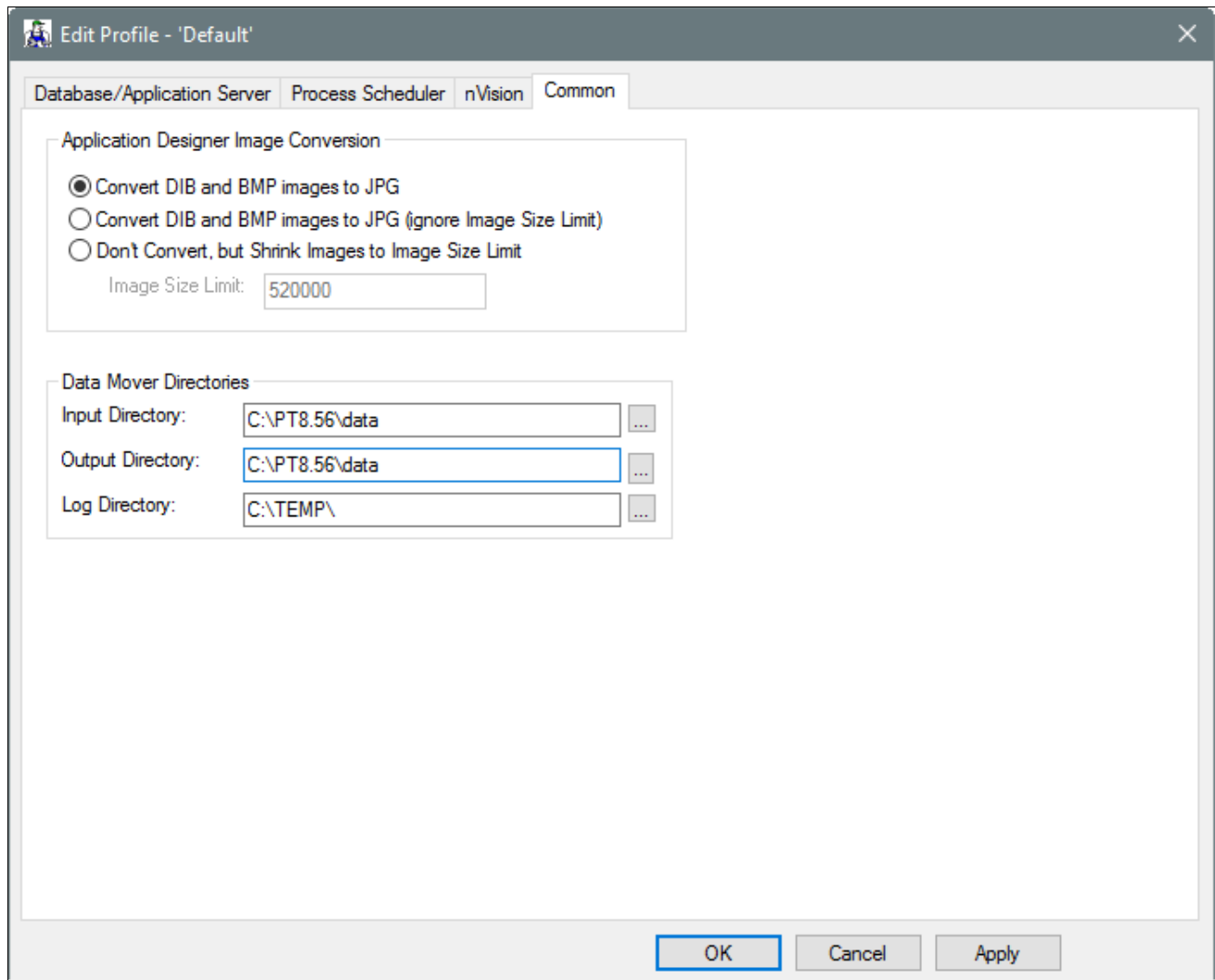
- Verify that the PeopleSoft Home Directory (PS_HOME) field is set to the path to *PS_HOME* on the file server.
- Verify that the PeopleSoft Apps Home Directory (PS_APP_HOME) field is set to the path to *PS_APP_HOME* on the file server, C:\app_home in this example.

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 required to populate the PeopleSoft database.
- Set the Log Directory to a local workstation directory to store the Data Mover log files. The default is *C:\TEMP*.

Data Mover will not create a new directory under *PS_APP_HOME* or *PS_HOME* for log files. If you want Data Mover to write log files into *PS_APP_HOME*, you must create a new directory named log under *PS_APP_HOME*.

5. Select OK to close the Edit Profile dialog box.

Task 5-4: Running Client Setup

The Client Setup tab does the following:

- Installs a PeopleSoft program group on the workstation.
- Installs system DLLs on the workstation.

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 6A

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."

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 6A-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 6A-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 6A-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 6A-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 6A-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 6A-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 text file and run the script without further interaction.

Here is a sample text file. The file includes basic and RDBMS-specific sections. Copy the file and modify the values for your environment. Save the file in a location referred to as `<path_to_response_file>`.

Most of the entries are self-explanatory. Here are notes about a few entries:

- `PS_APP_HOME`

Note that the DPK installation requires that the `PS_APP_HOME` location be different from the `PS_HOME` location.

- `BASE_LANGUAGE`

The base language selection 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*.

- **ENABLE_USERPROFILE**

Set this option 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.

- **SET_GLOBAL_PWD and PS_GLOBAL_PWD**

- Set this option to 0 (zero) to specify a password that is the same as the User ID (for example, VP1/VP1).
- Set the option 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.

- **UNICODE and DB_CHARSET_CODE, and DB_CHAR_DES**

For information on allowed character sets, see Planning Multilingual Strategy in PeopleSoft PeopleTools Installation for your database platform.

```
#
# Response file for Database Configuration Wizard (DCW)

# Notes:
# 1. In Microsoft Windows
#   Open a command prompt; go to PS_HOME\setup\PsmPdbInstall and run the following command:
#   setup.bat -f <path_to_response_file>
#
# 2. In Linux or UNIX
#   Go to PS_HOME/setup/PsmPdbInstall and run the following command:
#   setup.sh -f <path_to_response_file>
#
# 3. Please use forward slashes( / ) for specifying Windows directories =>
#   (for example I:/install_mss )
# 4. Change the values for your environment.
#
# *****
#
```

#####

BASIC Input

#####

```
#The following inputs are required in 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.
```

```
#DB_SERVER_TYPE=ORA
DB_SERVER_TYPE=MSS
#DB_SERVER_TYPE=DB2
#DB_SERVER_TYPE=DB2UNIX
#DB_SERVER_TYPE=DB2ODBC
```

```
# DB_TYPE=DMO/SYS this is for type of DB want to create. DMO for Demo=>
  Database or SYS for System Database.
```

```
CREATE_DB_TYPE=DMO
```

```
#UNICODE=0
```

```
# This value is determined in unicode.cfg. Specify the value here to=>
  override that setting.
```

```
#
UNICODE=0
DB_CHARSET_CODE=ISO8859-1
DB_CHAR_DES= Western European ISO 8859-1
```

```
BASE_LANGUAGE=ENG
#APP_LANGUAGE = UKE
```

```
DB_DB_NAME=FSDMO
PS_CONNECT_ID=people
PS_CONN_PWD=<password>
PS_CONN_PWD_RETYPE=<password>
```

```
PS_APP_USER=PS
PS_APP_PWD=<password>
PS_APP_PWD_RETYPE=<password>
```

```
PS_WEB_USER=PTWEBSERVER
PS_WEB_PWD=<password>
PS_WEB_PWD_RETYPE=<password>
```

```
ENABLE_USERPROFILE=1
SET_GLOBAL_PWD=0
#PS_GLOBAL_PWD=
```

```
#####
```

MSS Input

```
#####
```

```
DIR_QUERY_TOOLS=c:\Program Files\Microsoft SQL Server\110\Tools\Binn
```

```
DB_SERVER_NAME=server\SQL2012
DB_DATA_NAME=FSDMOdata
DB_CONFIG_SRVR=0
DB_DATA_FL_NME=C:\PT8.56\FSDMO_data.mdf
DB_DATA_SIZE=3000
DB_LOG_NME=FSDMOlog
LOG_FLE_NME=C:\PT8.56\FSDMO_log.ldf
DB_LOG_SIZE=700
```

```
ADMIN_USER=sa
ADMIN_PASS=<password>
ADMIN_PASS_RETYPE=<password>
ACCESS_ID=satst
ACCESS_PWD=<password>
ACCESS_PWD_RETYPE=<password>
```

Task 6A-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 6A-3: Cleaning Up Orphaned Language Data

Perform this task if you are a Multilingual customer and are installing non-English languages. 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 6A-4: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover
- Troubleshooting
- Improving Performance

Task 6A-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 6A-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 6A-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_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 rename without a leading `PS_`, add `PS_` to the beginning of the rename; otherwise the table will not be found. For example, `PS_<RECNAME>`.

- Restart the script (File, Run Script).

Task 6A-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 6B

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.

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 6B-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 Manger 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 6B-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.

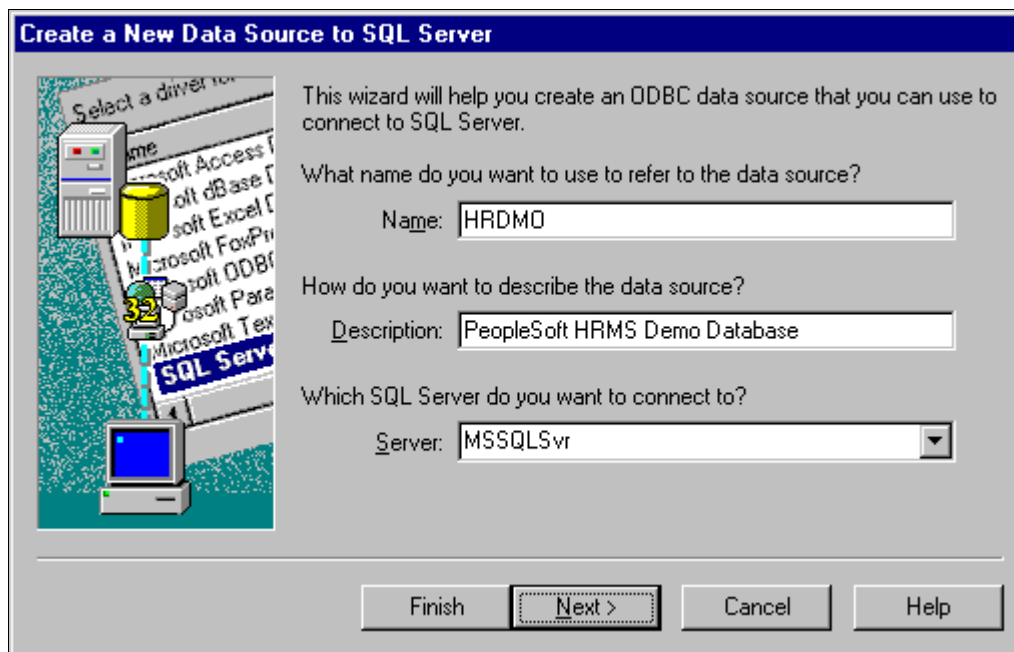
Note. You will need to configure a separate ODBC data source for each additional database that you create.

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.

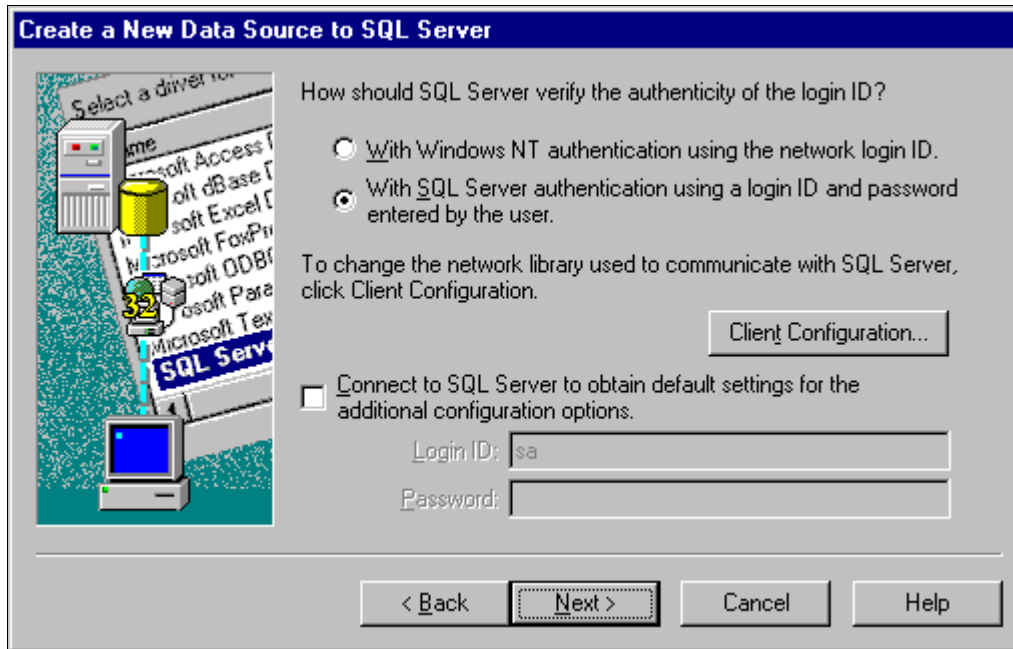
You must enter the data source name in uppercase. Filling in the Description text box is optional. Click Next.



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.

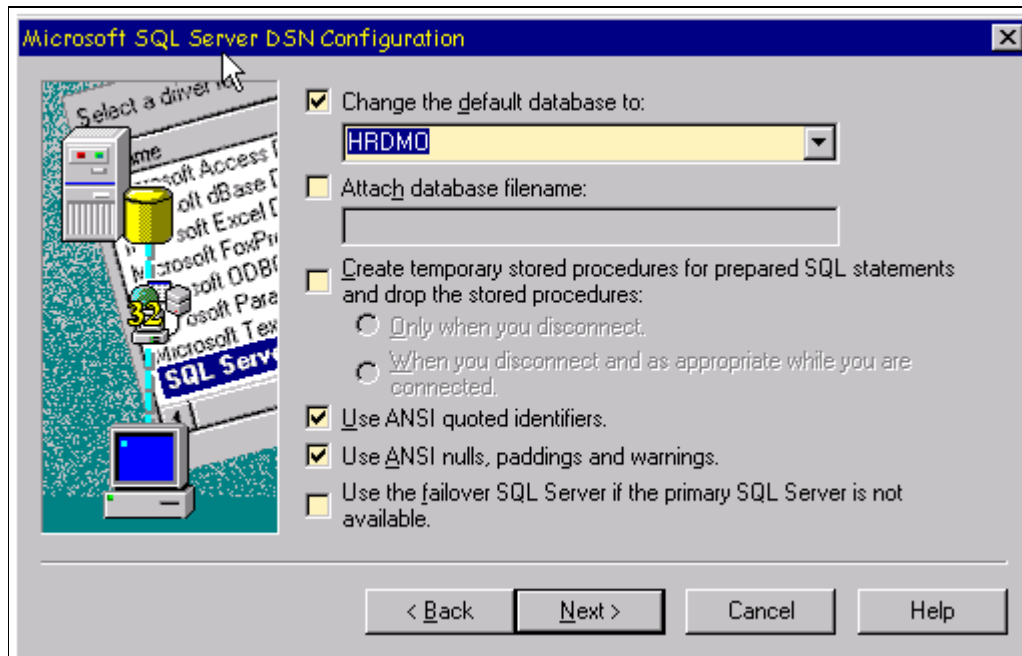
Click Next. For information on using different Client Configuration options consult the *PeopleTools: Data Management* product documentation.



Selecting the authentication type and configuration options in the Create a New Data Source to SQL Server dialog box

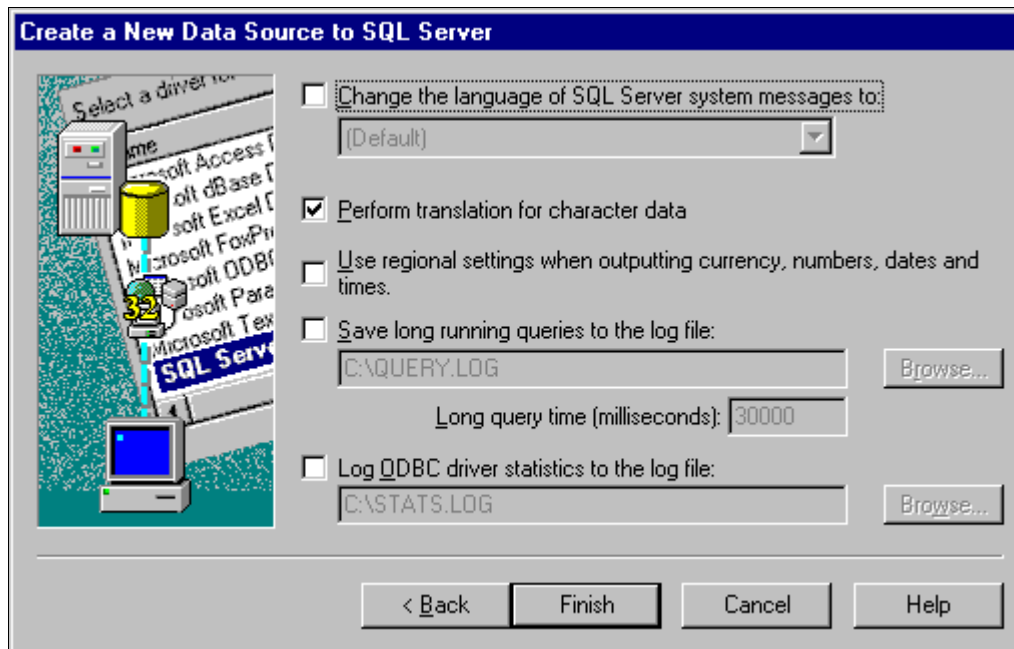
3. Select the option Change the default database to, and enter your database name—be sure to enter your database name in uppercase.

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 6B-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 <dbname>`

Task 6B-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 6B-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 6B-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 6B-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 6B-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 6B-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.

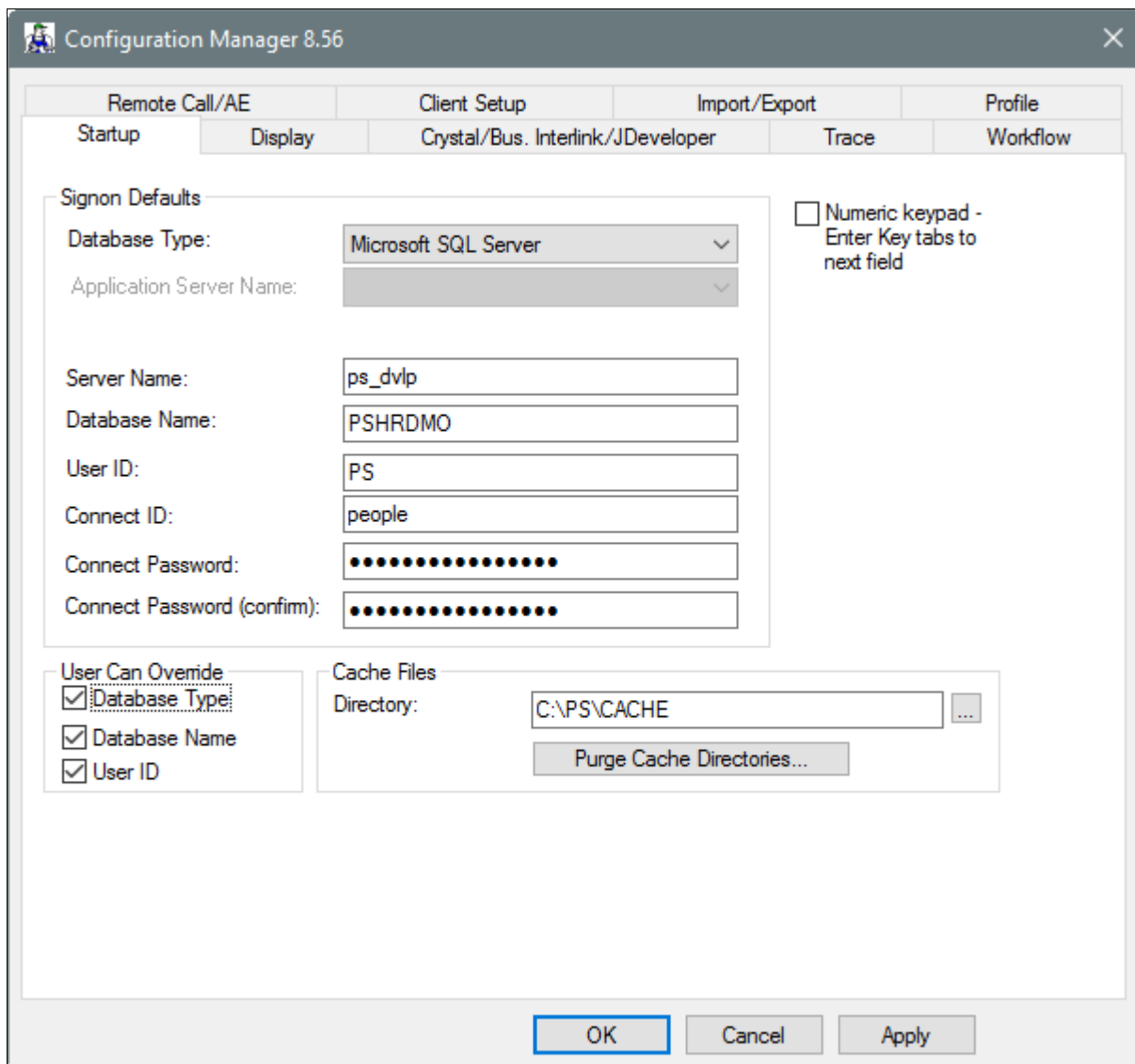
See *PeopleTools: Global Technology*.

Task 6B-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.

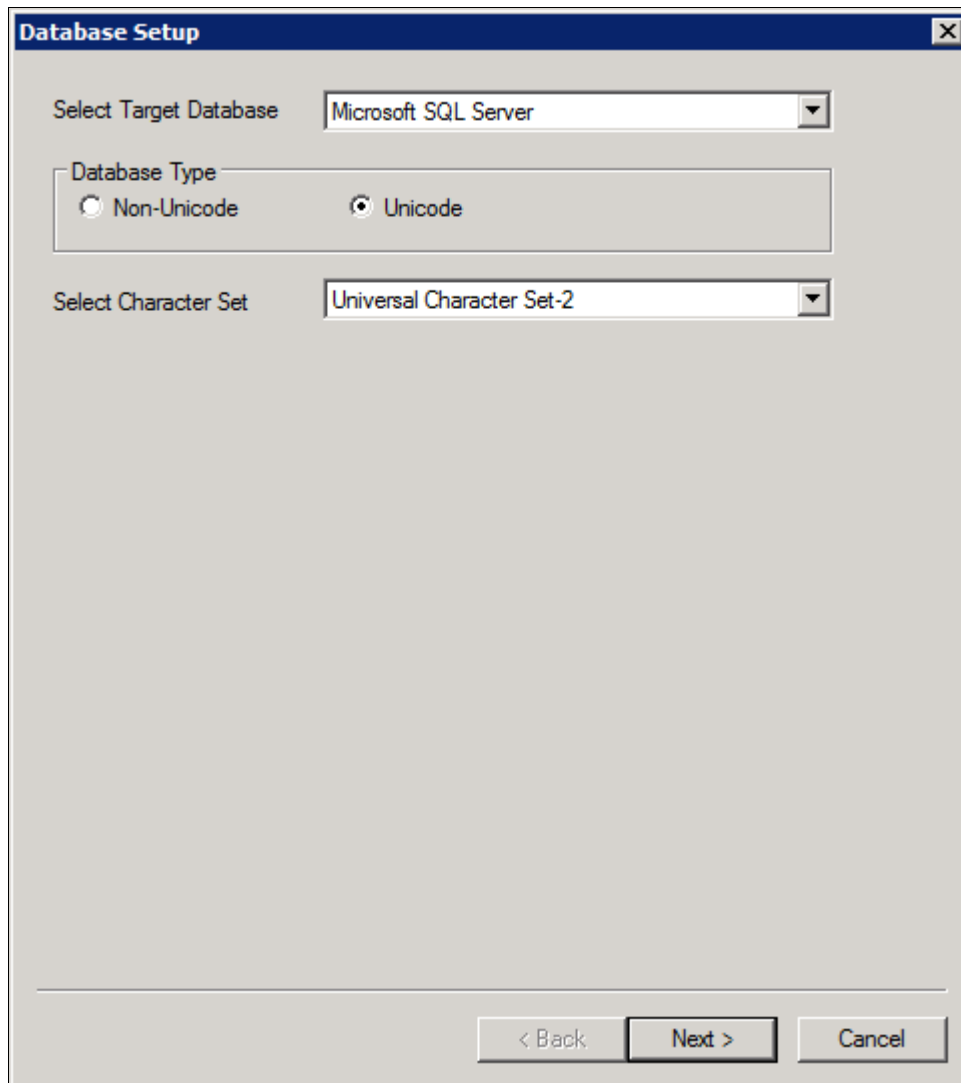
4. If the *PS_APP_HOME* location is not the same as *PS_HOME*, make sure it is set in Configuration Manager, as follows:
 - a. In Configuration Manager, select Profile.
 - b. Highlight the Default Profile and select Edit.
 - c. On the Edit Profile dialog box, select the Process Scheduler tab.
 - d. Verify 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.
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.

The screenshot shows a dialog box titled "Database Setup - Database Parameters". It contains the following fields and options:

- Database Name: PSHRDMO
- Symbolic ID: sa1
- Access ID: sa
- Access Password: (empty)
- Connect ID: people
- Application Server ID: (empty)
- Application Server Password: (empty)
- Web Server ID: PTWEBSERVER
- Web Server Password: (empty)
- Enable All Profiles
- Set Global Password
- Global Password: (empty)

At the bottom of the dialog are three buttons: "< Back", "Finish", and "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.

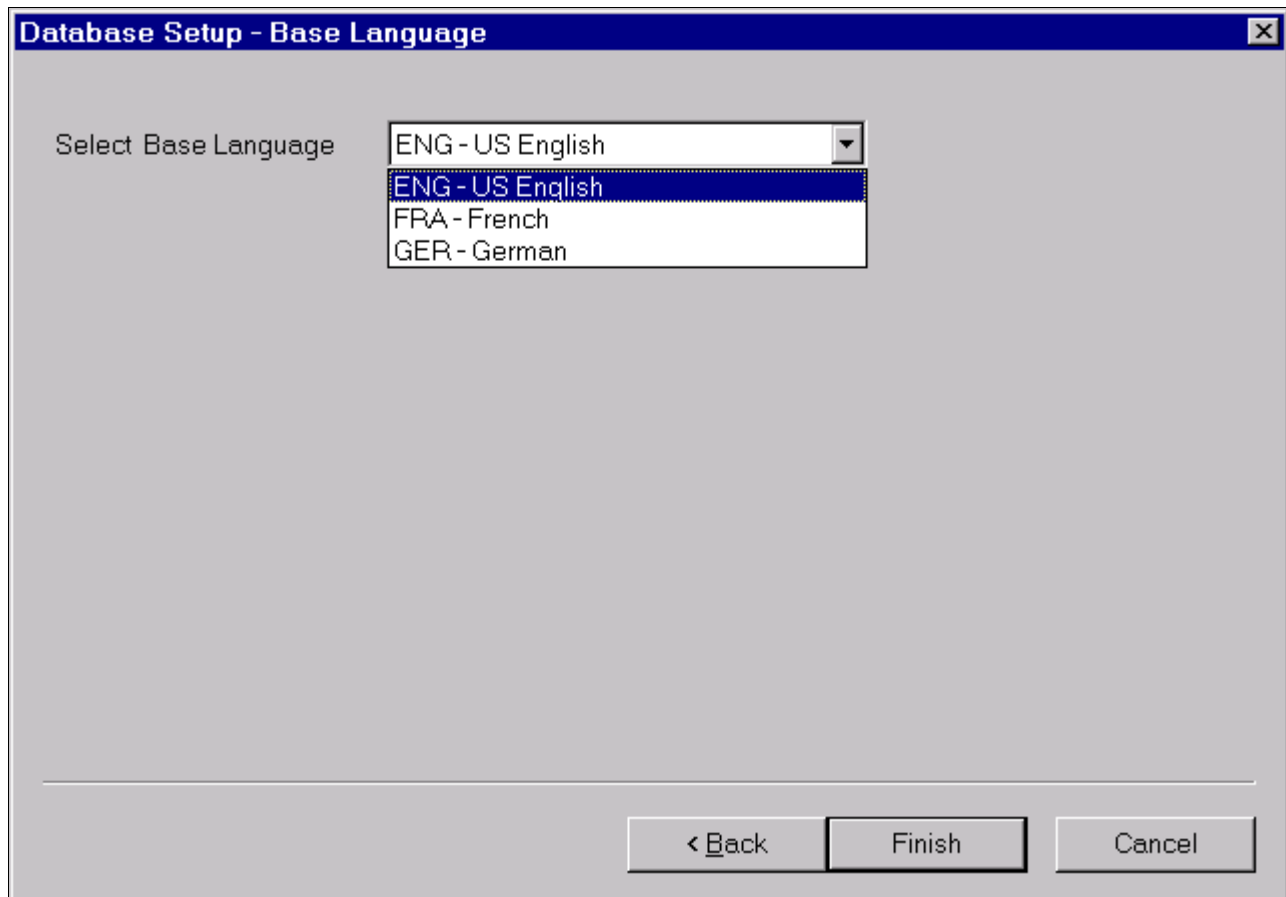
Note. This option is enabled when the Set Global Password option is selected, as shown in the example.

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 6B-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 6B-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 6B-8: Cleaning Up Orphaned Language Data

Perform this task if you are a Multilingual customer and are installing non-English languages. 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 6B-9: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Running Data Mover
- Troubleshooting
- Improving Performance

Task 6B-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 6B-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 6B-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 rename without a leading PS, add PS_ to the beginning of the rename; otherwise the table will not be found. For example, PS_<RECNAME>.

- Restart the script (File, Run Script).

Task 6B-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 6B-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 7

Completing the Database Setup

This chapter discusses:

- Selecting the Necessary Tasks to Complete the Database Setup
- Updating Database to Latest PeopleTools Release
- 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 7-1: Updating Database to Latest PeopleTools Release

This section discusses:

- Understanding Database Updates
- Cleaning Up Data
- Deleting Object Permission Data
- Deleting Performance Monitor System Default Data
- Updating PeopleTools System Tables
- Updating Select PeopleTools Database Objects
- Deleting Select PeopleTools Database Objects
- Updating Select PeopleTools Patch Database Objects
- Merging the PeopleTools Projects
- Altering PeopleTools Tables
- Updating PeopleTools Database Objects
- Deleting Obsolete PeopleTools Database Objects
- Applying Patched PeopleTools Database Objects
- Updating PeopleTools System Data

- Running PeopleTools Conversions
- Converting Integration Broker
- Running Additional PeopleTools Conversions

Understanding Database Updates

Your PeopleSoft application database may be on a PeopleSoft PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleSoft PeopleTools versions for your database and your file server must match. The steps in this task ensure that your PeopleSoft database is in sync with the PeopleSoft PeopleTools version that you are running.

Note. You will use Application Designer for several steps in this portion of the installation. Consult the Application Designer documentation if you have questions.

See *PeopleTools: Application Designer Developer's Guide*

Note. If you are installing a database delivered on PeopleSoft PeopleTools 8.56, and you are applying a required for install PeopleSoft PeopleTools patch, skip the steps in this task. Instead, follow the directions in the patch user doc to apply the database changes, and then continue with the install at the task Running Additional Data Mover Scripts. If you are installing an application SYS or DMO database that is not delivered on PeopleSoft PeopleTools 8.56, please proceed with this task.

This task must be run for any applications where the PeopleSoft PeopleTools version of the database that was shipped is different than the version of PeopleSoft PeopleTools that you are running. To verify the PeopleSoft PeopleTools release for your application database, run this SQL query:

```
select TOOLSREL from PSSTATUS
```

If the PeopleTools version is not 8.56, you must run this task. Otherwise, continue to the task Running Additional Data Mover Scripts.

Task 7-1-1: Cleaning Up Data

If your database is delivered on PeopleSoft PeopleTools 8.48 or higher, do *not* run this step, and instead, proceed to Deleting Performance Monitor System Default Data. If your database is delivered on PeopleSoft PeopleTools 8.47 or earlier, perform this step to clean out obsolete message data.

Warning! Performing this task when updating from PeopleSoft PeopleTools 8.48 or later will wipe out current valid data that is needed for your system to function properly.

Message functionality and structure changed as of PeopleSoft PeopleTools 8.48 and the old data is obsolete. Edit *PS_HOME*\scripts\ptupgibdel.sql to delete data from the tables that only exist in the old PeopleSoft PeopleTools release. Open the script and make the following modifications, and then run the modified script using your SQL query tool:

1. Search for the string "--- End of PT8.<xx> ---" where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from.
2. Delete the entire portion of the script below this string.
3. Save the script as <PS_HOME>\scripts\ptupgibdel8<xx>.sql where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from, as determined in Step 1.

Important! Be sure to save the script using the naming convention shown above. This will preserve the original script for use in updating other databases at different PeopleSoft PeopleTools releases.

4. Using a SQL query tool, run the `ptugibdel8<xx>.sql` script against your PeopleSoft database.

Task 7-1-2: Deleting Object Permission Data

If your database is delivered on PeopleSoft PeopleTools 8.55 or earlier you must run this step. Truncate the PeopleTools table `PSAPPDES_OBJ_PERM` to ensure the successful completion of your installation. Because a primary key index on this table changed in PeopleSoft PeopleTools 8.56, the data stored in this table needs to be deleted to ensure that the index can be successfully created later in the installation.

Task 7-1-3: Deleting Performance Monitor System Default Data

If your database is delivered on PeopleSoft PeopleTools 8.54 or higher, do *not* run this step, and instead, proceed to Updating PeopleTools System Tables. If your database is delivered on PeopleSoft PeopleTools 8.45 through 8.53, perform this task to clean out obsolete message data.

Warning! Performing this task when updating from PeopleSoft PeopleTools 8.54 or later will wipe out current valid data that is needed for your system to function properly.

Truncate the PeopleTools table `PSPMSYSDEFAULTS` to ensure the successful completion of your installation. Because a primary key index was added to this table as of PeopleSoft PeopleTools 8.54, the data stored in this table needs to be deleted to ensure that the index can be successfully created later in the installation.

Task 7-1-4: Updating PeopleTools System Tables

Run SQL scripts to update your PeopleSoft PeopleTools system tables to the latest PeopleSoft PeopleTools release (currently 8.56).

Use a query tool, such as the SQL Server Management Studio, to run SQL scripts while in the PeopleSoft database.

This procedure also includes steps to run Data Mover scripts. Depending upon the step, you run Data Mover in "bootstrap mode" or in "user mode."

See the section Checking the Log Files and Troubleshooting, Running Data Mover in the chapters on creating a database using the Database Configuration Wizard, or creating a database manually.

To update your PeopleSoft PeopleTools system tables:

1. Run the appropriate SQL scripts for your application version.

The following scripts are found in the *PS_HOME*\scripts directory.

Use the scripts in the following table for non-Unicode databases:

Application Database Version	Required Scripts for Non-Unicode Databases
8.40	rel841, rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.41	rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.42	rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.43	rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.44	rel845, rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.45	rel846, rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.46	rel847, rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856
8.47	rel848, rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856 Note. If you are installing ELM 9.0, run rel848n, rel849n, rel850n, rel851n, rel852n, rel853n, rel854n, rel855n, and rel856n instead.
8.48	rel849, rel850, rel851, rel852, rel853, rel854, rel855, and rel856 Note. If you are installing a 9.0 or higher application, run rel849n, rel850n, rel851n, rel852n, rel853n, rel854n, rel855n, and rel856n instead.
8.49	rel850, rel851, rel852, rel853, rel854, rel855, and rel856 Note. If you are installing a 9.0 or higher application, run rel850n, rel851n, rel852n, rel853n, rel854n, rel855n, and rel856n instead.
8.50	rel851, rel852, rel853, rel854, rel855, and rel856 Note. If you are installing a 9.0 or higher application, run rel851n, rel852n, rel853n, rel854n, rel855n, and rel856n instead.

Application Database Version	Required Scripts for Non-Unicode Databases
8.51	rel852, rel853, rel854, and rel855, and rel856 Note. If you are installing a 9.0 or higher application, run rel852n, rel853n, rel854n, rel855n, and rel856 instead.
8.52	rel853, rel854, rel855, and rel856 Note. If you are installing a 9.0 or higher application, run rel853n, rel854n, rel855n, and rel856n instead.
8.53	rel854, rel855, and rel856 Note. If you are installing a 9.0 or higher application, run rel854n, rel855n, and rel856n instead.
8.54	rel855 and rel856 Note. If you are installing a 9.0 or higher application, run rel855n and rel856n instead.
8.55	rel856 Note. If you are installing a 9.0 or higher application, run rel856n instead.
8.56	None

Use the scripts in the following table for Unicode databases:

Application Database Version	Required Scripts for Unicode Databases
8.40	rel841u, rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u
8.41	rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u
8.42	rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u
8.43	rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u
8.44	rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u
8.45	rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u

Application Database Version	Required Scripts for Unicode Databases
8.46	rel847u, rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u
8.47	rel848u, rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u Note. If you are installing ELM 9.0, run rel848un, rel849un, rel850un, rel851un, rel852un, rel853un, and rel854un, rel855un, and rel856un instead.
8.48	rel849u, rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u Note. If you are installing a 9.0 or higher application, run rel849un, rel850un, rel851un, rel852un, rel853un, rel854un, rel855un, and rel856un instead.
8.49	rel850u, rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u Note. If you are installing a 9.0 or higher application, run rel850un, rel851un, rel852un, rel853un, rel854un, rel855un, and rel856un instead.
8.50	rel851u, rel852u, rel853u, rel854u, rel855u, and rel856u Note. If you are installing a 9.0 or higher application, run rel851un, rel852un, rel853un, rel854un, rel855un, and rel856un instead.
8.51	rel852u, rel853u, rel854u, rel855u, and rel856u Note. If you are installing a 9.0 or higher application, run rel852un, rel853un, rel854un, rel855un, and rel856un instead.
8.52	rel853u, rel854u, rel855u, and rel856u Note. If you are installing a 9.0 or higher application, run rel853un, rel854un, rel855un, and rel856un instead.
8.53	rel854u, rel855u, and rel856u Note. If you are installing a 9.0 or higher application, run rel854un, rel855un, and rel856un instead.
8.54	rel855u and rel856u Note. If you are installing a 9.0 or higher application, run rel855un and rel856un instead.
8.55	rel856u Note. If you are installing a 9.0 or higher application, run rel856un instead.

Application Database Version	Required Scripts for Unicode Databases
8.56	None

2. If the application database version you are installing is either 8.42 or 8.43, run the following SQL command:

```
DROP TABLE PS_PSMCFQUEUESLANG
```

Note. PS_PSMCFQUEUESLANG may not exist in some 8.43 application databases. Do *not* drop the table PSMCFQUEUESLANG.

3. If the application database you are installing is 8.45 or lower, run the following SQL command:

```
DROP TABLE PSOPTSTATUS
```

4. If the application database you are installing is 8.53, run the following SQL commands:

```
DROP TABLE PS_PTIACPTMPLTDEFN;  
DROP TABLE PS_PTIACPTMPLTSTEP;
```

5. Edit and run the grant.sql script in the *PS_HOME*\scripts directory.

This will grant permissions to the CONNECTID. Run the script as a user with Microsoft SQL Server system administrator privileges.

6. If the application database you are installing is 8.54 or lower, invoke Data Mover in bootstrap mode, and run the encrypt.dms Data Mover script in the *PS_HOME*\scripts directory.

This will encrypt the operator passwords in your database.

7. With Data Mover still in bootstrap mode, run the msgtlsupg.dms Data Mover script in the *PS_HOME*\scripts directory.

This will update the PeopleSoft PeopleTools messages in your database.

8. If you are applying a required for install PeopleSoft PeopleTools patch, invoke Data Mover in user mode and run *PS_HOME*\scripts\PTPATCH.DMS.

9. With Data Mover still in user mode, run the storeddl.dms Data Mover script in the *PS_HOME*\scripts directory.

Note. Comment out the other platform-specific scripts according to your platform.

This will update your platform-specific DDL model statements.

Task 7-1-5: Updating Select PeopleTools Database Objects

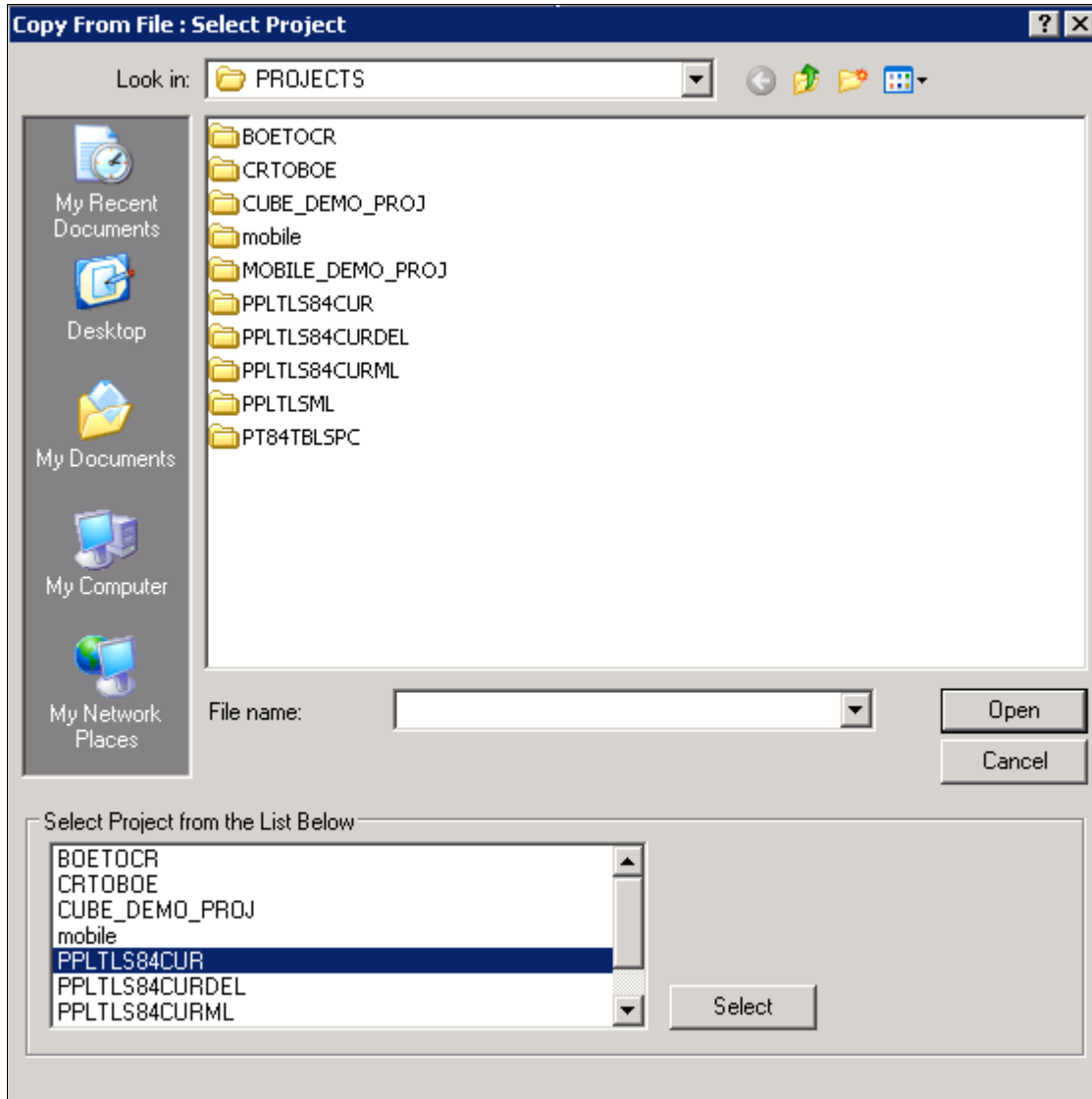
To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools release. Failure to run this step will introduce problems to your environment.

To update PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.

- In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CUR from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CUR in the Copy From File dialog box

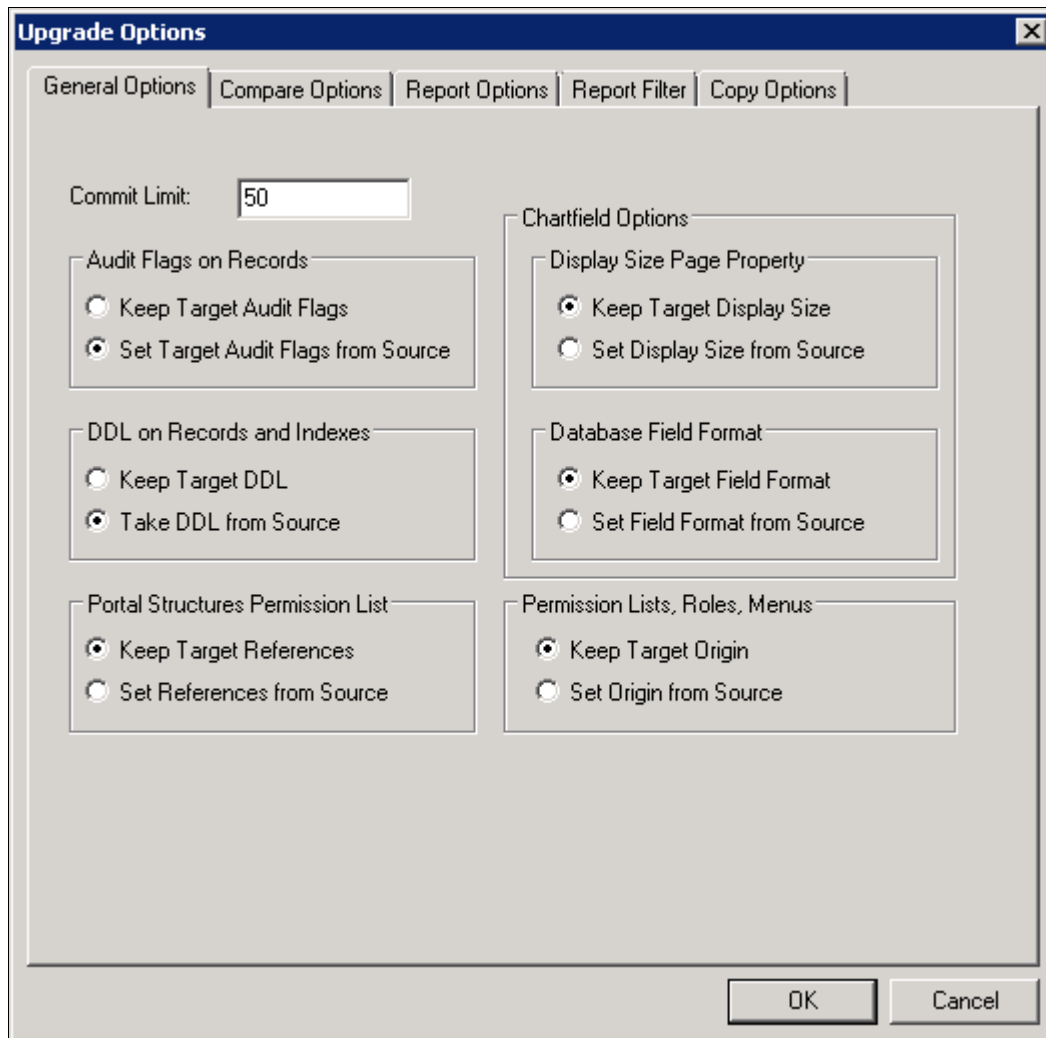
- The Copy From File dialog box appears.

Select *only* the first three object types (Records, Fields, and Indexes) in the Definition Type(s) field and then click Options.

Do not select any other object types.

- On the Upgrade Options dialog box, select the General Options tab.

Make sure that the Keep Target Origin option is selected, as shown in this example, and click OK.



Upgrade Options dialog box: General Options page

- On the Copy from File dialog box, click the Copy button.

When the progress window disappears, the project has been copied.

If you see the following types of messages in the output window do not worry; they are acceptable because the field label properties were copied with the object definition:

- Definition Name: OPERPSWD.OPERPSWD not copied, entire definition already copied (62,32).
- Definition Name: OPRID.NEW not copied, entire definition already copied (62,32).

Task 7-1-6: Deleting Select PeopleTools Database Objects

This process removes obsolete PeopleSoft PeopleTools records, fields, and indexes from your database. To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. You will use the Copy from File functionality to delete the obsolete objects from the database.

The copy process detects whether any deleted fields are in use on other objects, such as records. You may see the following kind of warning during the copy:

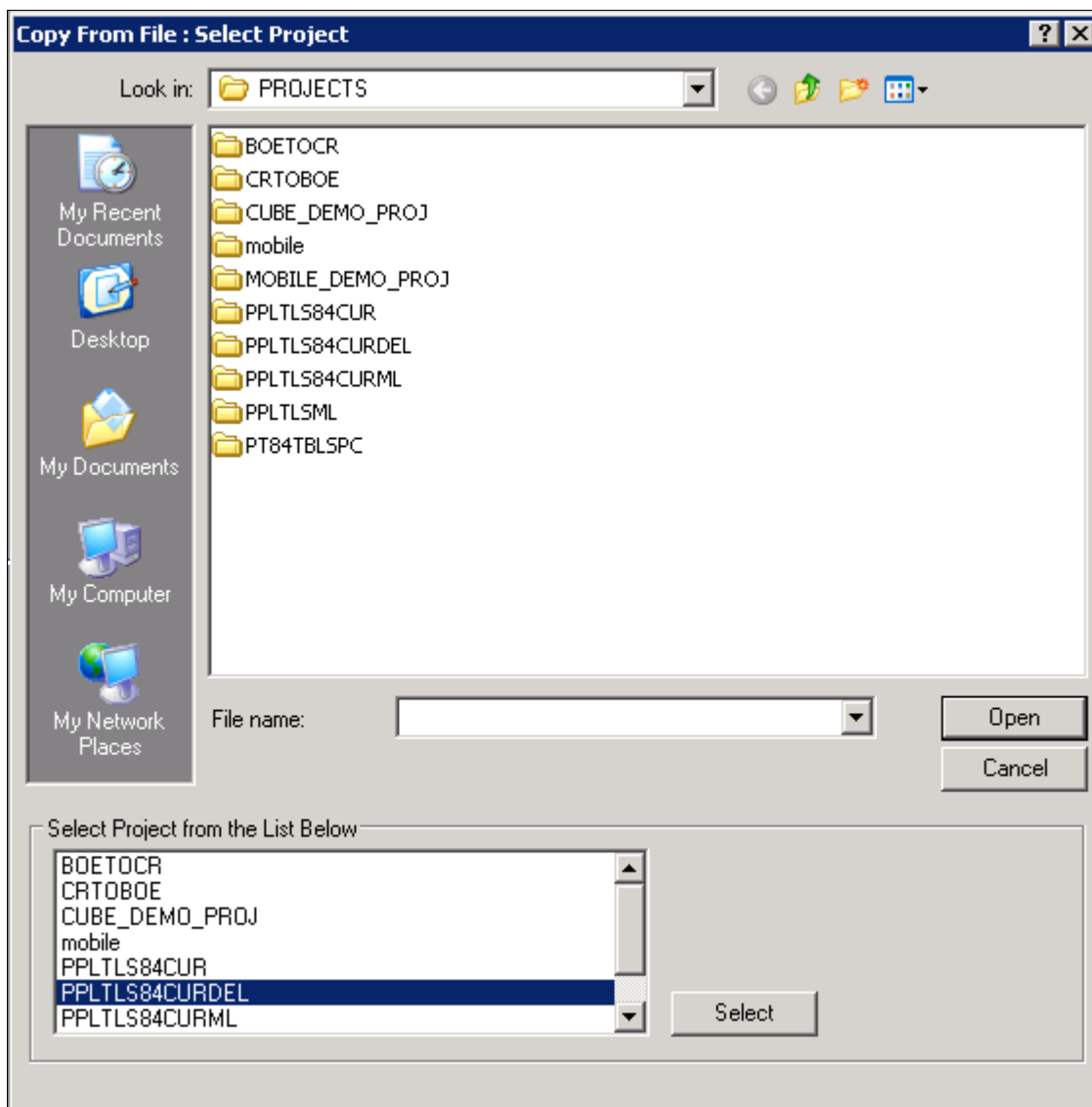
Field <FIELDNAME> is in use on at least one record.

You must clean up any objects that reference the deleted field(s) after the upgrade. While PeopleTools has deleted the field as part of the new release, you may still have objects that reference this deleted field. After fixing any objects that reference this field, delete the field from your system.

To delete obsolete PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CURDEL from the list of projects and click Select.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CURDEL in the Copy From File dialog box

4. The Copy From File dialog box appears.

Select *only* the first three object types (Records, Fields, and Indexes) in the Definition Type(s) field, and then click Options.

Do not select any other object types.

Note. If you have a multilingual database, do not change the languages that are selected by default.

5. On the Copy from File dialog box, click Copy.

When the progress dialog box disappears, the project has been copied.

Task 7-1-7: Updating Select PeopleTools Patch Database Objects

If you are applying a required for install PeopleSoft PeopleTools patch and *if a database project is included as part of the patch*, apply the database project now. Make sure to read the patch release notes to find out if database changes are in the patch.

To update patched PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools patch release. Failure to run this step will introduce problems to your environment.

To apply patched PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. On the Copy From File dialog box, change the import directory to *PS_HOME*\projects, select the patch project from the list of projects and click the Select button.
4. Follow the patch instructions to select the correct copy options.

Select *only* records, fields, and indexes object types.

5. On the Copy From File dialog box, click Copy.

When the progress window disappears, the project has been copied.

Task 7-1-8: Merging the PeopleTools Projects

In this task, you will merge the PPLTLS84CUR and PATCH856 projects definitions so that the PPLTLS84CUR project definition is updated with any new records that might have been delivered in the PeopleTools Patch.

To merge project definitions:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select File, Open.

The Open Definition dialog box opens.

3. Select Project from the Definition drop-down list, enter PPLTLS84CUR in the name dialog box, and click OK.
4. Select File, Merge Projects.
5. Enter PATCH856 in the Name dialog box, and press ENTER.
6. Select the PATCH856 project in the lower window and click Insert.
7. Click Close.

Task 7-1-9: Altering PeopleTools Tables

Use the ALTER AUDIT process in this step to check whether the PeopleSoft PeopleTools tables are synchronized with the underlying SQL data tables in your database. This step uses a delivered project to compare the data structures of your database tables with the PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point in the installation, we expect to see differences between the database structure and the PeopleSoft PeopleTools tables. You will generate and run a SQL script to synchronize the PeopleSoft PeopleTools table definitions with the underlying tables in your database.

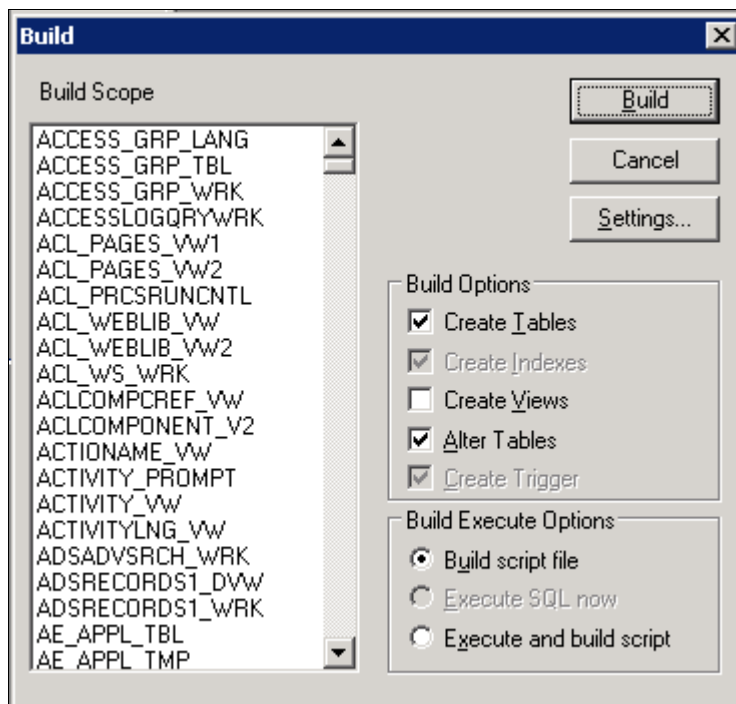
To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer with a valid PeopleSoft user ID and sign on to the installed database.
2. Select File, Open.

The Open Definition dialog box opens.

3. Select *Project* from the Definition drop-down list, enter *PPLTLS84CUR* in the name dialog box, and click OK.
4. Select Build, Project.

The Build dialog box appears:

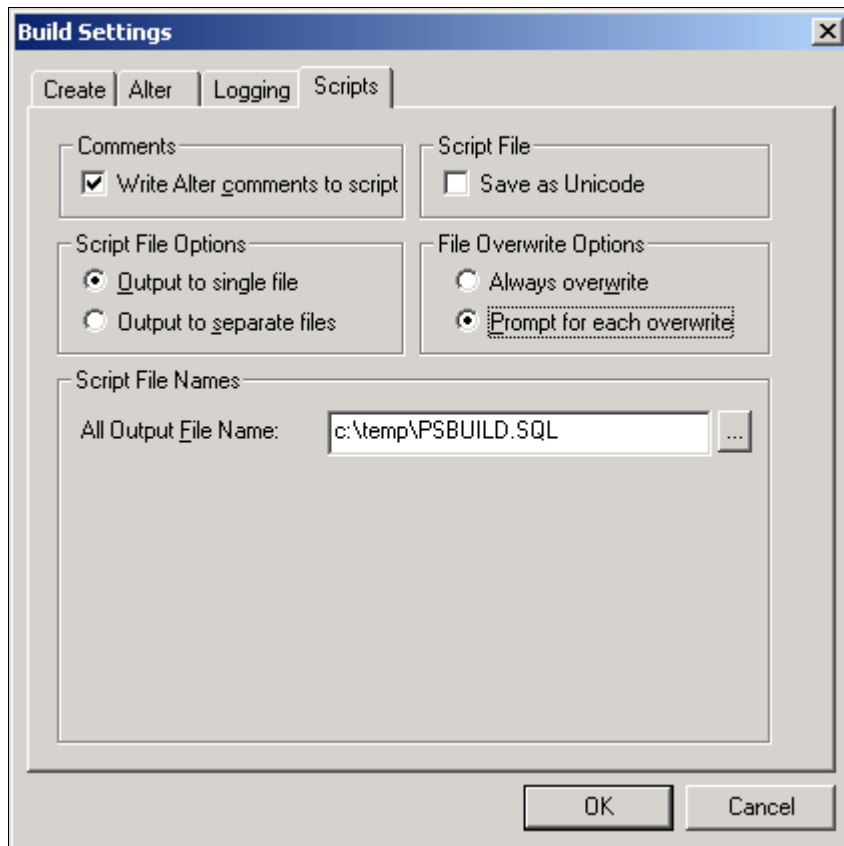


The Build dialog box with selections for altering tables

5. Select Create Tables and Alter Tables in the Build Options region as shown in the example above (Create Indexes and Create Trigger will automatically be selected).
6. Select Build script file in the Build Execute Options region.

7. Click Settings.

The Build Settings dialog box appears:



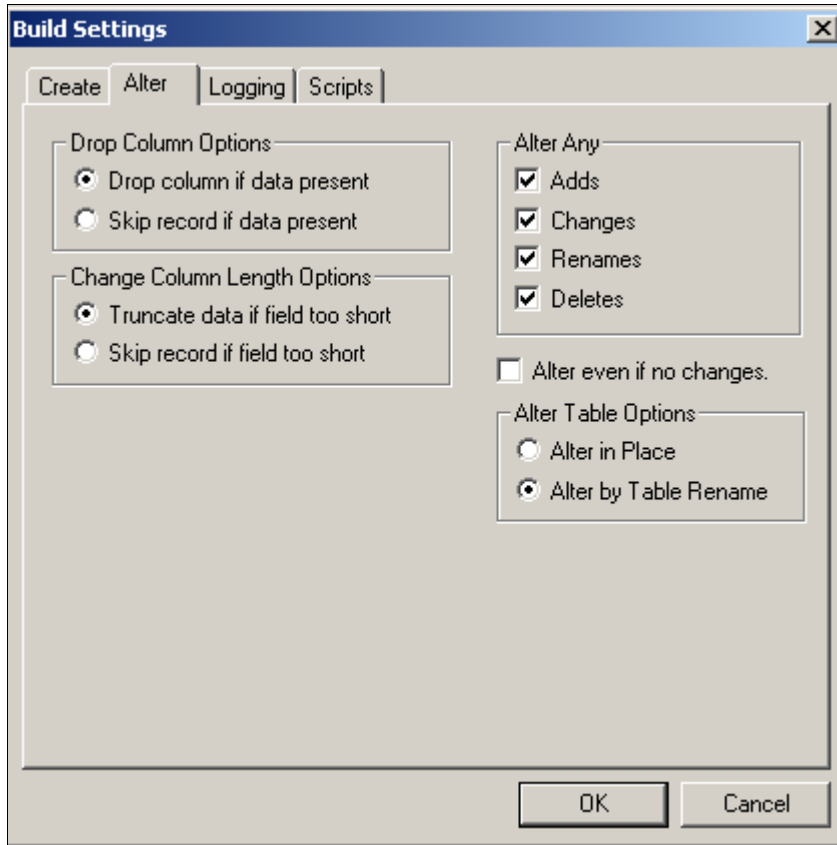
Build Settings dialog box: Scripts tab

8. Select the Scripts tab.
9. Select Write Alter comments to script.

10. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region.

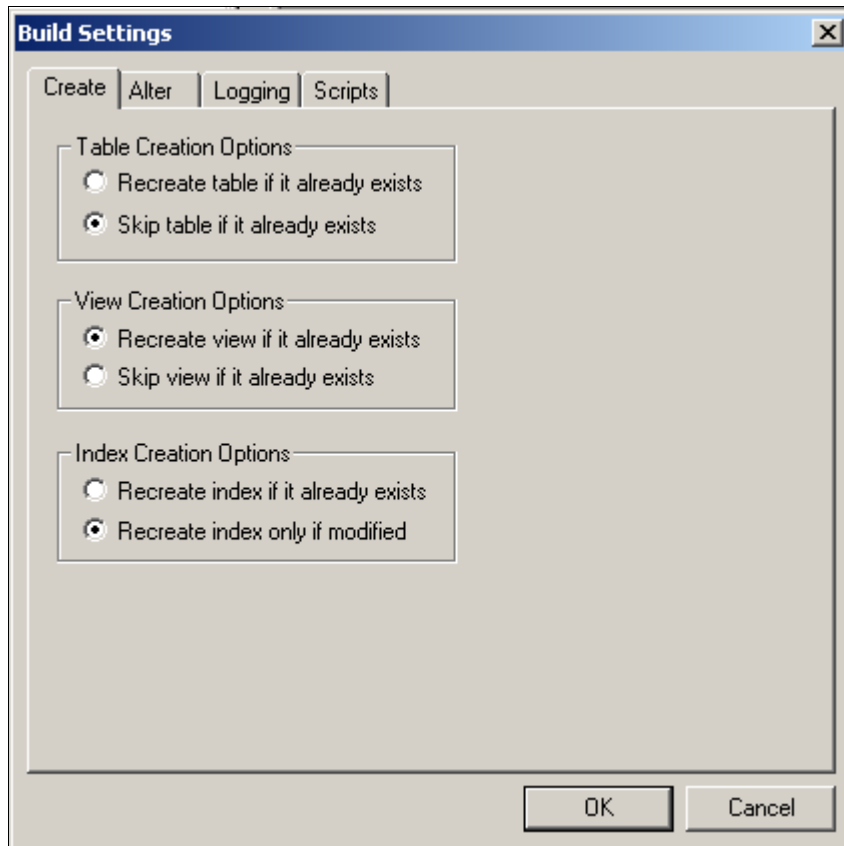
The check box Drop column if data present should be selected in the Drop Column Options region, and the option Truncate data if field too short should be selected in the Change Column Length Options region.

Make sure that the option Alter by Table Rename is selected in the Alter Table Options region.



Build Settings Dialog Box: Alter tab

11. Select the Create tab and ensure that the options Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified options are selected.



Build Settings dialog box: Create tab

12. Click OK.
The Build dialog box reappears.
13. Click Build.
14. Click Close when the process is completed.
15. Run the generated SQL script in your platform-specific query tool to bring your database structure in sync with the PeopleSoft PeopleTools tables.

Task 7-1-10: Updating PeopleTools Database Objects

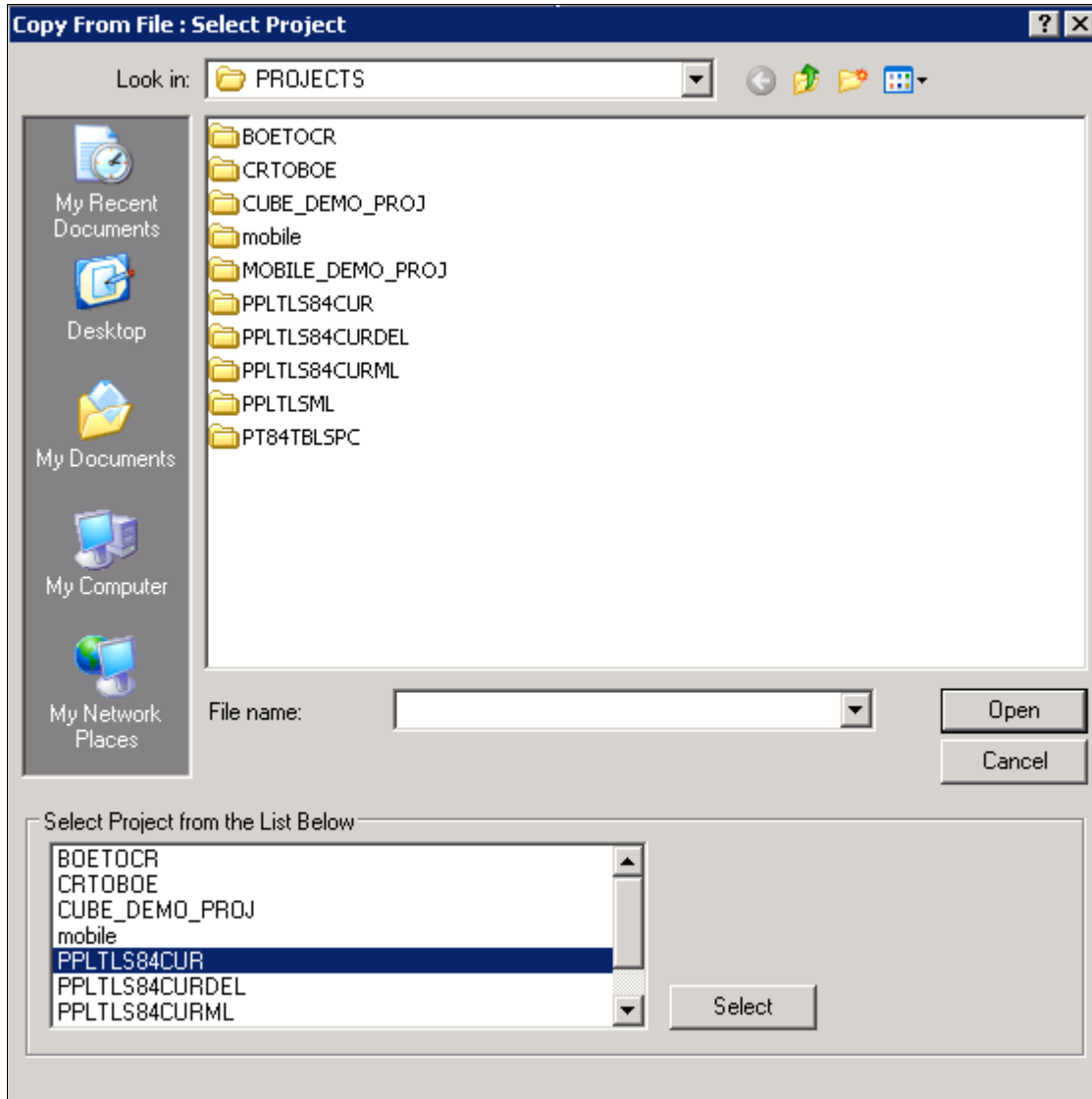
To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools release. Failure to run this step will introduce problems to your environment.

To update PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.

- In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CUR from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.

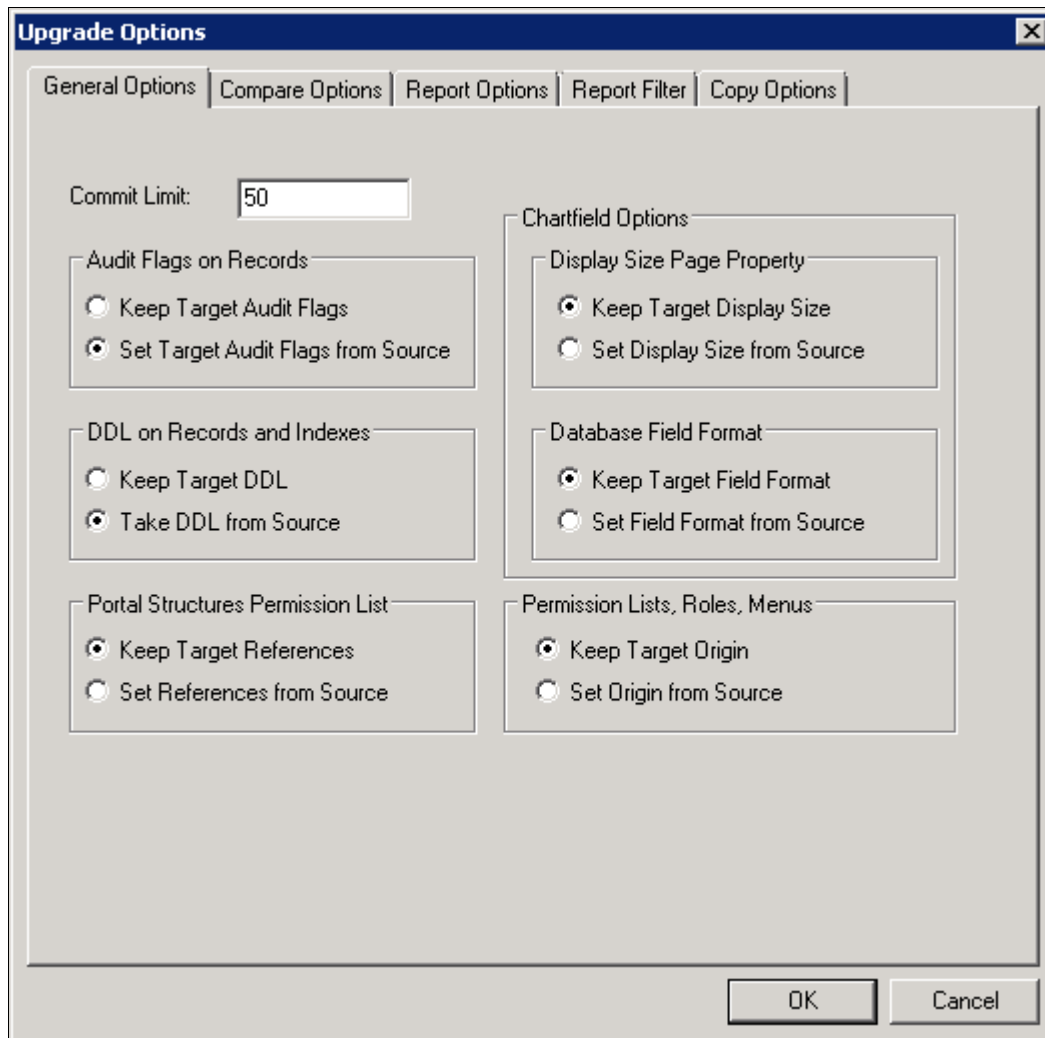


Selecting Project PPLTLS84CUR in the Copy From File dialog box

- The Copy From File dialog box appears.
Clear (deselect) the first three object types (Records, Fields, and Indexes) in the Definitions Type(s) field. Ensure that all of the remaining object types are selected, and then click Options.

5. On the Upgrade Options dialog box, select the General Options tab.

Make sure that the Keep Target Origin option is selected, as shown in this example, and click OK.



Upgrade Options dialog box: General Options page

6. On the Copy from File dialog box, click the Copy button.

When the progress window disappears, the project has been copied.

If you see the following types of messages in the output window do not worry; they are acceptable because the field label properties were copied with the object definition:

- Definition Name: OPERPSWD.OPERPSWD not copied, entire definition already copied (62,32).
- Definition Name: OPRID.NEW not copied, entire definition already copied (62,32).

Task 7-1-11: Deleting Obsolete PeopleTools Database Objects

This process removes obsolete PeopleSoft PeopleTools objects from your database. To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. You will use the Copy from File functionality to delete the obsolete objects from the database.

The copy process detects whether any deleted fields are in use on other objects, such as records. You may see the following kind of warning during the copy:

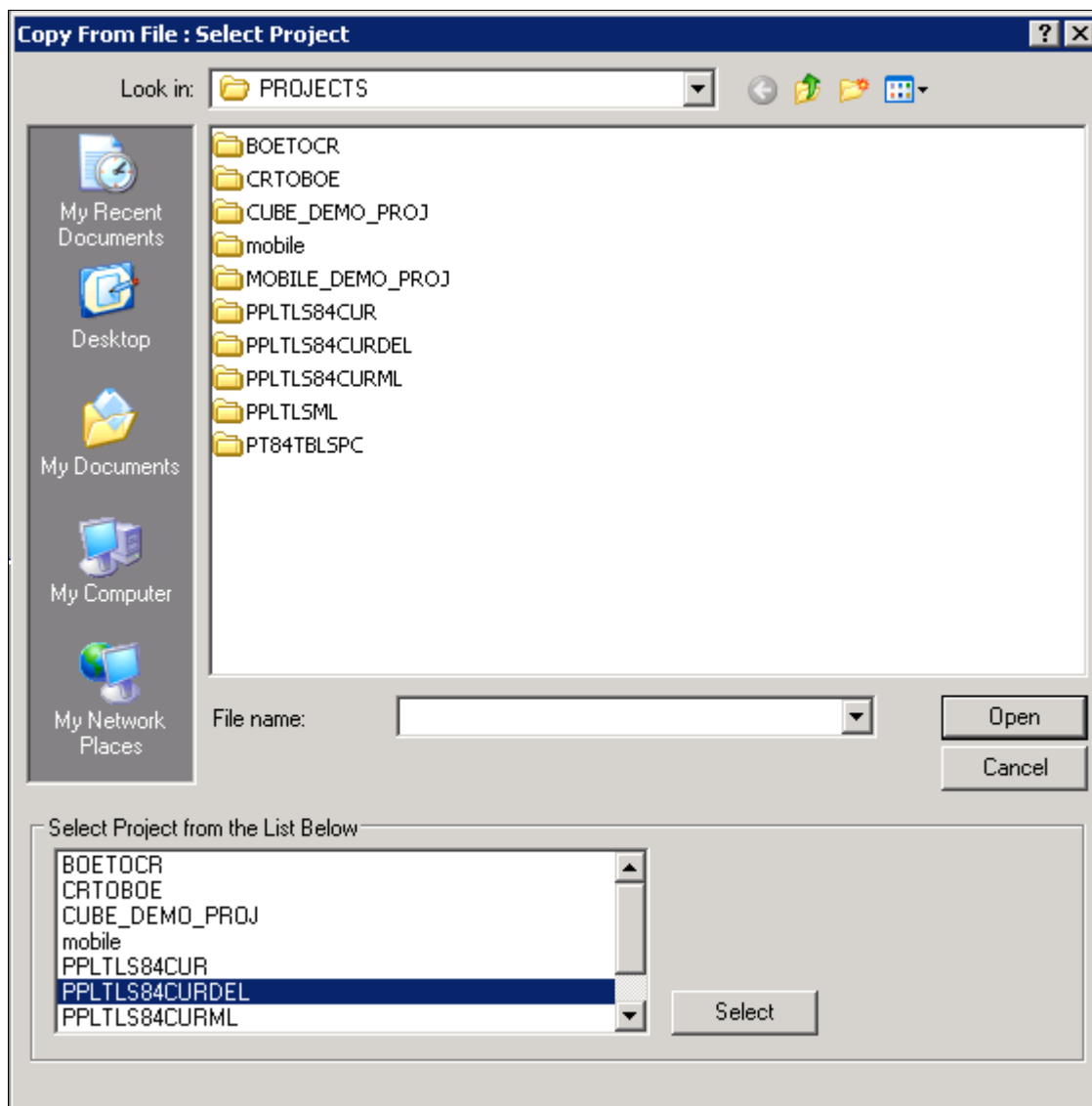
Field <FIELDNAME> is in use on at least one record.

You must clean up any objects that reference the deleted field(s) after the upgrade. While PeopleTools has deleted the field as part of the new release, you may still have objects that reference this deleted field. After fixing any objects that reference this field, delete the field from your system.

To delete obsolete PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CURDEL from the list of projects and click Select.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CURDEL in the Copy From File dialog box

4. The Copy From File dialog box appears.

Clear (deselect) the first three object types (Records, Fields, and Indexes) in the Definitions Type(s) field. Ensure that all of the remaining object types are selected, and then click Options.

Note. If you have a multilingual database, do not change the languages that are selected by default.

5. On the Upgrade Options dialog box, select the General Options tab and make sure that the Keep Target Origin option is selected.
Click OK.
6. On the Copy from File dialog box, click the Copy button.
When the progress dialog box disappears, the project has been copied.

Task 7-1-12: Applying Patched PeopleTools Database Objects

If you are applying a required for install PeopleSoft PeopleTools patch and *if a database project is included as part of the patch*, apply the database project now. Make sure to read the patch release notes to find out if database changes are in the patch.

To update patched PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools patch release. Failure to run this step will introduce problems to your environment.

To apply patched PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. On the Copy From File dialog box, change the import directory to *PS_HOME*\projects, select the patch project from the list of projects and click the Select button.
4. Follow the patch instructions to select the correct copy options.
Clear (deselect) the first three object types (Records, Fields, and Indexes). Ensure that all of the remaining object types are selected, and then click Options.
5. On the Upgrade Options dialog box, select the General Options tab.
6. Select the Keep Target Origin option, and click OK.
7. On the Copy From File dialog box, click Copy.
When the progress window disappears, the project has been copied.

Task 7-1-13: Updating PeopleTools System Data

Data Mover scripts that update PeopleSoft PeopleTools system data are run to enable new features and load new messages for the PeopleSoft PeopleTools 8.56 release. Several of the scripts that you need to run are dependent upon the version of the application you are running.

See Understanding Database Updates.

To update PeopleSoft PeopleTools system data:

1. Invoke Data Mover by running *PS_HOME*\bin\client\winx86\psdmt.exe.
The PeopleSoft Logon window appears.
2. Log on using the ACCESSID you specified when you created your Data Mover scripts with the Database Setup program.

This will start Data Mover in bootstrap mode.

3. Run the appropriate Data Mover scripts for your application database version.

The application database version refers to the version before you started this step. Be sure to run the scripts in the order listed. The scripts are found in the *PS_HOME*\scripts directory:

Application Database Version	Scripts to Run
8.40	pt841tls, pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.41	pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.42	pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.43	pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.44	pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.45	pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.46	pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.47	pt848tls, pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.48	pt849tls, pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.49	pt850tls, pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.50	pt851tls, pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.51	pt852tls, pt853tls, pt854tls, pt855tls, and pt856tls
8.52	pt853tls, pt854tls, pt855tls, and pt856tls
8.53	pt854tls, pt855tls, and pt856tls
8.54	pt855tls and pt856tls
8.55	pt856tls

Application Database Version	Scripts to Run
8.56	None

4. Run the `pslanguages.dms` Data Mover script in the `PS_HOME\scripts` directory.
This script loads language-specific seed data.
5. Run the `tlsupgnoncomp.dms` Data Mover script in the `PS_HOME\scripts` directory.
This will import the updated PeopleSoft PeopleTools Trees, Roles, and Access Groups into your database.
6. If you are a Multilingual customer, from the Data Mover script that was created for your PeopleSoft database installation, find the `UPDATE` to `PSLANGUAGES`.
The statement should look similar to the following, where `xxx` is one of the PeopleSoft three-letter language code identifiers, as described earlier:

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


See "Preparing for Installation," Planning Multilingual Strategy.
Run the SQL command identified above using your SQL tool.
7. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for Human Capital Management or VP1 for Financials/Supply Chain Management.
8. If you are a Multilingual customer and are using non-English languages, run the `ptxxx.dms` scripts in the `PS_HOME\scripts` directory.
This will update the language-specific PeopleSoft PeopleTools system data in your database.

Note. The portion of the script name `xxx` is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the non-English languages you have installed. There will be a Data Mover script for each non-English language.

9. Run the `msgtleng.dms` Data Mover Script in the `PS_HOME\scripts` directory.
Non-English message data was loaded in the `ptxxx.dms` scripts. This will update the messages in your database.
10. Run the `ptstreng.dms` Data Mover script in the `PS_HOME\scripts` directory.
Non-English system data was loaded in the `ptxxx.dms` scripts. This will update the `SQR` strings in your database.
11. Run the `storept.dms` Data Mover script in the `PS_HOME\src\cbl\base` directory.
This will update your PeopleSoft PeopleTools COBOL stored statements.
12. Run the `ptdefnsec.dms` Data Mover script in the `PS_HOME\scripts` directory.
This will update the PeopleSoft PeopleTools Definition Security group.
13. If the application database you are installing is PeopleSoft PeopleTools 8.53 or later, you must compile all directive PeopleCode in your database. Execute the following command on your database to run PeopleSoft Application Designer in quiet mode. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\pside.exe -CT MICROSOFT -cD <dbname> -CS=>
  <database server name> -CO <oprid> -CP <pswd> -SS NO -QUIET -HIDE ->
  CMPDIRPC -LF <full path of log file>
```
14. Run the `createvw.dms` Data Mover script in the `PS_HOME\scripts` directory.
This will recreate all the views in your database.

Task 7-1-14: Running PeopleTools Conversions

This section discusses:

- Understanding Usage of Application Engine Programs
- Converting Portal Objects
- Converting Setup Manager
- Converting Navigation Collection and Pagelet Wizard Data
- Converting Additional Pagelet Wizard Data
- Populating the Feed Options Table
- Updating Feeds for Active Data Guard
- Updating Web Profiles
- Updating Chart and Grid Filters
- Populating the Hash Values
- Migrating the Authorization Configuration Data
- Populating BI Publisher Templates with Object Owner ID Values
- Creating the NavBar and Adding Default Tiles
- Populating the DB-Cache Lock Table

Understanding Usage of Application Engine Programs

You run several Application Engine programs in this section. For information on Application Engine, including how to use and restart Application Engine programs, consult the Application Engine documentation.

See *PeopleTools: Application Engine*.

Converting Portal Objects

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.43 or earlier. The Application Engine program UPG844PORTAL splits PSPRSMDEFN.PORTAL_URLTEXT into segments. This is performed for PeopleSoft Components URLs to extract Menu, Component, and Market information. Record, Field, Event, and Function Names are extracted from Iscript URLs. This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role. The following SQL will identify which users have the PeopleSoft Administrator or Portal Administrator roles:

```
select ROLEUSER, ROLENAME from PSROLEUSER where ROLENAME in ('PeopleSoft⇒
Administrator','Portal Administrator')
```

Run the UPG844PORTAL Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP⇒
<pswd> -R INSTALL -AI UPG844PORTAL
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <oprid>, respectively. However, be aware that <pswd> is not the same as the connect password that you entered on the Configuration Manager startup tab. Enter a value for <pswd> that is the password you want to be associated with the <oprid>.

See "Setting Up the Install Workstation."

You may see some of the following errors when running this Application Engine program:

- Not authorized CRef: <Portal Object Name> (95,5032).
This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.
- Security synchronization failed for Portal Object: <Portal Object Name> (96,61).
This is not a fatal error. It may be caused by a content reference that contains invalid URL text and indicates that there was an internal error writing to the security table. The invalid URL text may be pointing to a component or script that does not exist in the database. If you receive this error, search the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.
- Cref <Portal Object Name> points to Menu: <Menu Name>, Component <Component Name> which doesn't exist. (96,80).
The content reference is pointing to an invalid Menu/Component combination. If you receive this error, search the Patches and Updates section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.

See "Preparing for Installation," Reviewing Patches and Updates Required at Installation.

See *PeopleTools: Portal Technology*.

Converting Setup Manager

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.45 or earlier. The application engine program UPGPTSMDAT upgrades Setup Manager Version 1 (shipped with Fin SCM 8.8, CRM 8.9, and with HCM 8.9) to Setup Manager Version 2 (shipped with PeopleSoft PeopleTools 8.46 and above). The program moves all data from Setup Manager Version 1 tables to Version 2 tables.

The application engine program was designed so that it can be run in any database, and can be rerun in the same database. In either case, it will determine if there is data to convert and run as appropriate. For detailed information, see comments attached to the Steps and Actions in this Application Engine Program within Application Designer. This program must be run by a PeopleSoft user with PeopleSoft Administrator role.

Run the UPGPTSMDAT Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPTSMDAT
```

Converting Navigation Collection and Pagelet Wizard Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.45 or earlier. The application engine program UPGPT846PP adds Navigation Collection and Pagelet Wizard data from the Common Components and PeopleSoft Applications Portal storage tables into PeopleSoft PeopleTools tables.

The application engine program performs the following conversions:

1. Moves data from Common Components tables to PeopleSoft PeopleTools tables.
2. Moves data from PeopleSoft Applications Portal tables to PeopleSoft PeopleTools tables.
3. Updates the registry definitions to enable displaying Navigation pages.
4. Adds, updates, and deletes the Navigation Collections folders and content references in the portal registry to the new structures.
5. Converts Pagelet Wizard definitions to the PeopleSoft PeopleTools Pagelet Wizard version.
6. Renames Navigation Collection and Pagelet Wizard portal registry attributes to the PeopleSoft PeopleTools attribute names.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT846PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd>=>
-R INSTALL -AI UPGPT846PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT846PP to check for any remaining errors after applying patches.

Converting Additional Pagelet Wizard Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.47 or earlier. The application engine program UPGPT848PP adds the following Pagelet Wizard data sources from PeopleSoft Applications Portal to PeopleSoft PeopleTools: IB Connector, Integration Broker, SOAP, and URL. In addition, the application program transforms the WSRP Portlets created in PeopleSoft PeopleTools 8.46 or 8.47 versions of Pagelet Wizard. The process includes the following:

- Move data from PeopleSoft Applications Portal tables to PeopleSoft PeopleTools tables.
- Convert WSRP Portlets created by Pagelet Wizard to the new version.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT848PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPT848PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT848PP to check for any remaining errors after applying patches.

Populating the Feed Options Table

The Application Engine program UPGPT850PTFP populates the feed options table PS_PTFP_OPTIONS if it is empty.

Run the UPGPT850PTFP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPT850PTFP
```

Updating Feeds for Active Data Guard

The Application Engine program UPGPT852PTFP updates Service Operations used by Feeds for Active Data Guard support.

Run the UPGPT852PTFP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPT852PTFP
```

Updating Web Profiles

The Application Engine Program UPGPTWBPFNVP migrates the web profile properties from the PT_PROPVALUE field to the PT_LPROPVALUE field for the PSWEBPROFNVP record.

Run the UPGPTWBPFNVP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPTWBPFNVP
```

Updating Chart and Grid Filters

The Application Engine program UPGPTPGFLRS upgrades the Pivot Grid and chart filters from the PSPGVIEWOPT record into the new long filter fields. The grid filters are updated in the PTPG_FLRS_GRID_EX field on the PSPGVIEWOPT record and the chart filters are updated in the PTPG_FLRS_CHART_EX field on the PSPGCHRTFLRSOPT record.

Run the UPGPTPGFLRS Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPTPGFLRS
```

Populating the Hash Values

The Application Engine program UPGPTHASH populates the hash columns on PSPCMTEXT and PSSQLHASH if they are empty.

Run the UPGPTHASH Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
  <pswd> -R INSTALL -AI UPGPTHASH
```

Migrating the Authorization Configuration Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.53 or earlier. The Application Engine program UPGPT854AUTH migrates the authorization configuration data from PTCAC_AUTHCONF to PTCAC_AUTHORIZE.

Run the UPGPT854AUTH Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
  <pswd> -R INSTALL -AI UPGPT854AUTH
```

Populating BI Publisher Templates with Object Owner ID Values

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.53 or earlier. The Application Engine program UPGPTXPTMPL populates Oracle Business Intelligence Publisher (BI Publisher) templates with owner ID values.

Run the UPGPTXPTMPL Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
  <pswd> -R INSTALL -AI UPGPTXPTMPL
```

Creating the NavBar and Adding Default Tiles

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.53 or earlier. The Application Engine program UPGPT855NUI creates the Fluid User Interface navigation bar (NavBar) and adds default tiles if they do not exist.

See *PeopleTools: Application User's Guide*, "Working with Fluid Homepages."

Run the UPGPT855NUI Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
  <pswd> -R INSTALL -AI UPGPT855NUI
```

Populating the DB-Cache Lock Table

The Application Engine program UPGPT851DBC populates the DB Cache lock table PSOBJCACHELOCK.

Run the UPGPT851DBC Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPT851DBC
```

Task 7-1-15: Converting Integration Broker

This section discusses:

- Updating Integration Broker Defaults
- Creating Integration Broker Objects
- Saving Application Messaging Objects
- Exporting Node Transactions
- Deleting Application Messaging Objects
- Deleting Node Transactions

If your database is delivered with PeopleSoft PeopleTools 8.48 or higher, do *not* run this task since the database is already delivered with the new Integration Broker objects as of PeopleSoft PeopleTools 8.48. Instead, proceed to Running Additional PeopleTools Conversions.

Updating Integration Broker Defaults

User-level node security and transactional security have been added as of PeopleSoft PeopleTools 8.48. Service namespace information, a low-level user on the node, and a low-level permission list for service operations, need to be specified. Edit *PS_HOME*\scripts\ptibupgrade.dms and make the necessary modifications as documented in the script. Consult with your Integration Broker specialist for assistance.

Open Data Mover using a valid PeopleSoft Operator ID and run this script.

Creating Integration Broker Objects

The application engine program UPGPT848IBUG converts Application Package metadata into Integration Broker metadata. It also creates the projects PTUPGIBCLONE and PTUPGIBDELETE, and the script ptupg_trx.dms.

Note. Conversion errors in the Application Engine log file will be resolved by applying application-specific Required for Install patches.

Run the UPGPT848IBUG Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPT848IBUG
```

Saving Application Messaging Objects

The PTUPGIBCLONE project was created by the UPGPT848IBUG Application Engine program and contains objects that were successfully converted. Copy this project to a directory of your choice where it will not be overwritten. The objects are copied to file as a precautionary measure since you will delete them from the database in a subsequent step.

To save Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBCLONE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to one of your choice, and click Copy.

When the progress dialog box disappears, the project has been copied to the specified location.

Exporting Node Transactions

Open Data Mover using a valid PeopleSoft Operator ID and run the script *PS_HOME\scripts\ptupg_trx_export.dms* to save the old pre-conversion node transaction data.

Deleting Application Messaging Objects

Delete the obsolete pre-conversion object definitions from the database by first copying the *PTUPGIBDELETE* project to file, and then copying the same project from file. This project was created by the *UPGPT848IBUG* Application Engine program and contains the same objects as *PTUPGIBCLONE*.

To delete Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBDELETE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to the same one you used for *PTUPGIBCLONE*, and click Copy.

When the progress dialog box disappears, the project has been copied to the specified location.

6. Select Tools, Copy Project, From File.
7. In the resulting dialog box, change the import directory to the previously specified directory, select *PTUPGIBDELETE* from the list of projects, and click Select.

Note. Because the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.

8. Select all object types and click the Copy button.

When the progress dialog box disappears, the project has been copied. The actions in the project are set to Delete, so this will delete the obsolete pre-conversion object definitions from the database.

Deleting Node Transactions

The script *ptupg_trx.dms* is generated by the *UPGPT848IBUG* Application Engine program. This script can be found in the location specified in the *OUTPUT* variable set in Configuration Manager.

To view the *OUTPUT* variable:

1. Open Configuration Manager.
2. Select the Profile tab.

3. Click Edit to open the Default profile.
4. Select the Process Scheduler tab.
5. Examine the Output Directory value.

Open Data Mover using a valid PeopleSoft Operator ID and run this script to remove obsolete node transaction data associated with the obsolete objects in the PTUPGIBDELETE project.

Task 7-1-16: Running Additional PeopleTools Conversions

The Application Engine program UPGPTSERVOPR converts WSDL and Schema data.

Run the UPGPTSERVOPR Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT MICROSOFT -CO <oprid> -CP=>
<pswd> -R INSTALL -AI UPGPTSERVOPR
```

Task 7-2: 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 7-3: 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

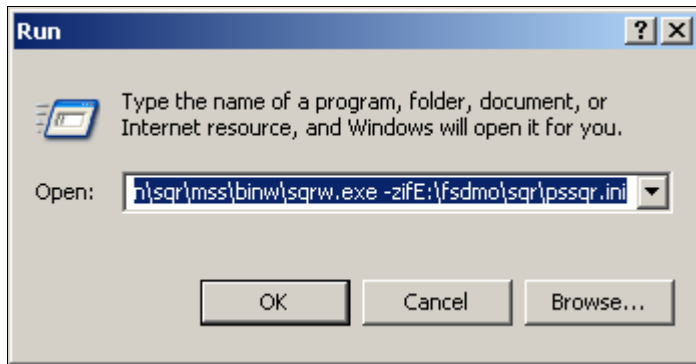
PeopleTools: SQR for PeopleSoft Developers

Task 7-3-1: 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

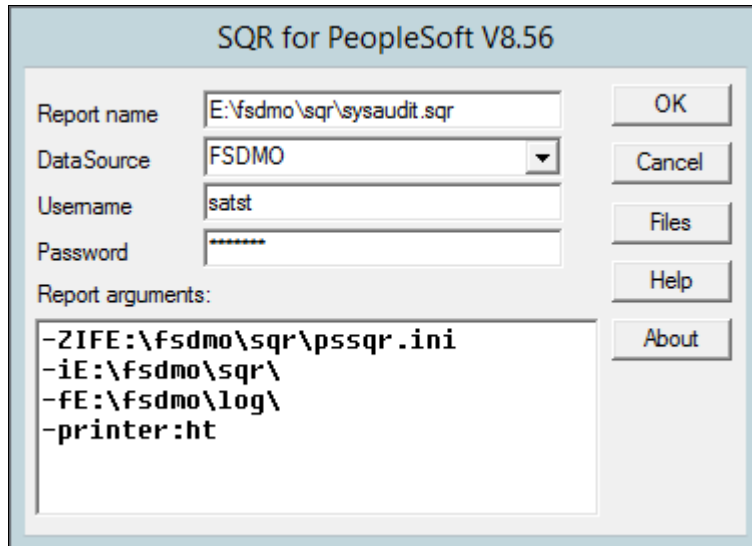
The following table summarizes the SQR report arguments used by PeopleSoft software. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog box.)

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 <i>PS_HOME</i> \sqr\pssqr.ini file.
-keep	Keeps the .SPF file after the program runs. This enables you to view the report with the SQR viewer.
-printer:ht	Generates the output file in HTML format. Specify the filename, with path location, with the <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 7-3-2: 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 7-4: 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 7-5: 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 8

Deploying Mid-Tier Components

This chapter discusses:

- Understanding the Mid-Tier Deployment
- Running the DPK Setup Script for Mid-Tier Deployment
- Using the PeopleSoft Installation
- Completing Post-Installation Steps

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.
- 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 8-1: Running the DPK Setup Script for Mid-Tier Deployment

This section discusses:

- Prerequisites
- Running with the Mid-Tier Option on Microsoft Windows

Prerequisites

Use this procedure to install the PeopleSoft mid-tier components (application server, PIA, and Process Scheduler domains) and the Oracle WebLogic and Oracle Tuxedo software required. This procedure assumes that:

- You have downloaded all of the required PeopleSoft PeopleTools DPKs, and saved them in a location accessible to the Microsoft Windows or Linux 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.

- 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.
-

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, there is a writable directory available for the home for the users that own the PeopleSoft runtime. 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.
-

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 database administrator
 - PeopleSoft operator ID (such as PS or VP1) and password
 - Application Server Domain Connection password (optional)
 - PTWEBSERVER web profile user password
 - Oracle WebLogic server administrator password
 - Integration Gateway administrator
- If you created a *psft_customizations.yaml* file, back it up in a location other than the installation location, *BASE_DIR/dpk/production/puppet/data*. The DPK setup script will delete the existing YAML files, including the *psft_customizations.yaml*.

Task 8-1-1: 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 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 PeopleSoft application DPKs.

Starting the PeopleSoft Environment Setup Process:

```
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:

Verifying if Puppet Software is Installed on the Host:

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]

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

The base directory 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 directory, use forward slashes (/). For example, C:/psft. Enclose any names with special characters in double quotes.

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 PeopleTools 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 *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*.

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 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-lingual support.

```
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 the PeopleSoft database name [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 the PeopleSoft database Connect ID [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:

The password should contain only alphanumeric characters and is between⇒
6

and 30 characters in length:

Re-Enter the PeopleSoft database Connect ID password:

14. Enter the password twice for the PeopleSoft operator ID, such as PS or VP1.

Enter a new PeopleSoft database Operator ID [PS] password.

The password should contain only alphanumeric characters and is between⇒
1

and 32 characters in length:

Re-Enter the PeopleSoft Operator ID password:

15. 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 is between 8 and 30 characters in length and do not contain any space (), percentage (%), slash (/), quote (",') and equals (=) characters:

Re-Enter the Application Server Domain connection password:

16. Enter the password for the PTWEBSEVER web profile user at the following prompt:

Enter the PeopleSoft WebProfile user PTWEBSEVER password:

The password should contain only alphanumeric characters and is between⇒
6

and 32 characters in length:

Re-Enter the PeopleSoft WebProfile user PTWEBSEVER 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⇒
lower

case letter, one uppercase letter and one number or one special⇒
character

(!@#\$%^&):

Re-Enter the WebLogic Server Admin user password:

18. Enter the Integration Gateway user ID and password at the following prompt.

The default user ID is administrator.

```

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:

```

19. 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]:
```

20. 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 ]

```

21. 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.

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 c:\psft\dpk\puppet\production\manifests
2. puppet 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 8-2: Using the PeopleSoft Installation

This section discusses:

- Reviewing the PeopleSoft Environment
- Reviewing the Deployment File System
- Reviewing the Deployed Users
- Managing PeopleTools Domains with PSADMIN

Task 8-2-1: Reviewing 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 <code>ps_home<peopletools_patch_version></code> directory, where <code><peopletools_patch_version></code> is the full release, for example 8.56.01.	<code>BASE_DIR/pt/ ps_home<peopletools_patch _version></code>	This directory can only be written to by the PeopleSoft administrator, psadm1.

Directory	Description	Default Location	Access
PS_CFG_HOME	The Application Server and Process Scheduler server configuration files are placed into a <i>PS_CFG_HOME</i> directory named <i><peopletools_major_version></i> , where <i><peopletools_major_version></i> does not include patch numbers; for example, 8.56.	<ul style="list-style-type: none"> On Linux, <i>/home/psadm2/psft/pt/<peopletools_major_version></i> On Microsoft Windows, <i>C:\%USERPROFILE%\psft\pt/<peopletools_major_version></i> <p>For example, if the <code>USERPROFILE</code> environment variable is <code>C:\Users\username</code>, the location is <code>C:\Users\username\psft\pt\8.56</code>.</p>	This directory is owned by <code>psadm2</code> .
PS_APP_HOME	The PeopleSoft application installation files are located in the <i><app>_ps_home</i> directory, where <i><app></i> refers to the PeopleSoft application, such as <i>fscm_ps_home</i> for Financials and Supply Chain Management	<i>BASE_DIR/pt/<application>_ps_home</i>	This directory can only be written to by <code>psadm3</code> .
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 database listener for the RDBMS hosting the PeopleSoft PeopleTools tables is 1522.</p>	<i>BASE_DIR/db/oracle-server</i>	This directory is owned by user <code>oracle2</code> .
Oracle WebLogic	This includes the installation files for the Oracle WebLogic web server.	<i>BASE_DIR/pt/bea/wlserver</i>	
Oracle Tuxedo	This includes the installation files for Oracle Tuxedo.	<i>BASE_DIR/pt/bea/tuxedo</i>	

Directory	Description	Default Location	Access
PeopleSoft database files (on Oracle RDBMS)	This includes the Oracle database files and tables for the PeopleSoft application.	<i>BASE_DIR</i> /pt/db/oradata	The owner of the database tables is oracle2 and its group is oinstall. Note. This is different from the users for the PeopleSoft installation and configuration.
Other directories	The rest of the environment, outside <i>PS_HOME</i> and <i>PS_CFG_HOME</i> . The file system ownership and permissions are similar to typical Oracle Linux and Microsoft Windows installations.	NA	These directories are owned by root on Linux OS.

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
<i>psadm1</i>	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> .

User Name	Default Password	Role Definition
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 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"

Task 8-3: Completing Post-Installation Steps

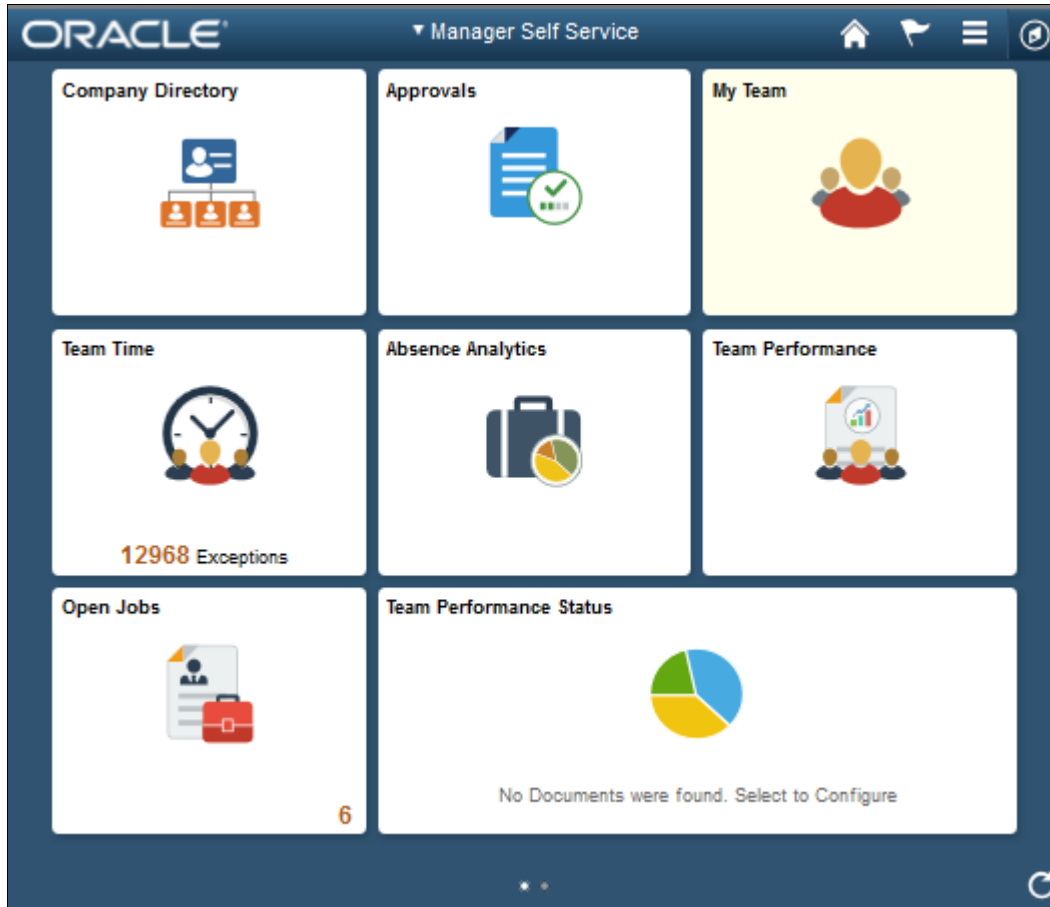
This section discusses:

- Using Fluid User Interface
- Setting Options for Multilingual Databases
- Updating PeopleTools Options
- Updating Time Zone Information
- Updating Database Information

Task 8-3-1: 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:

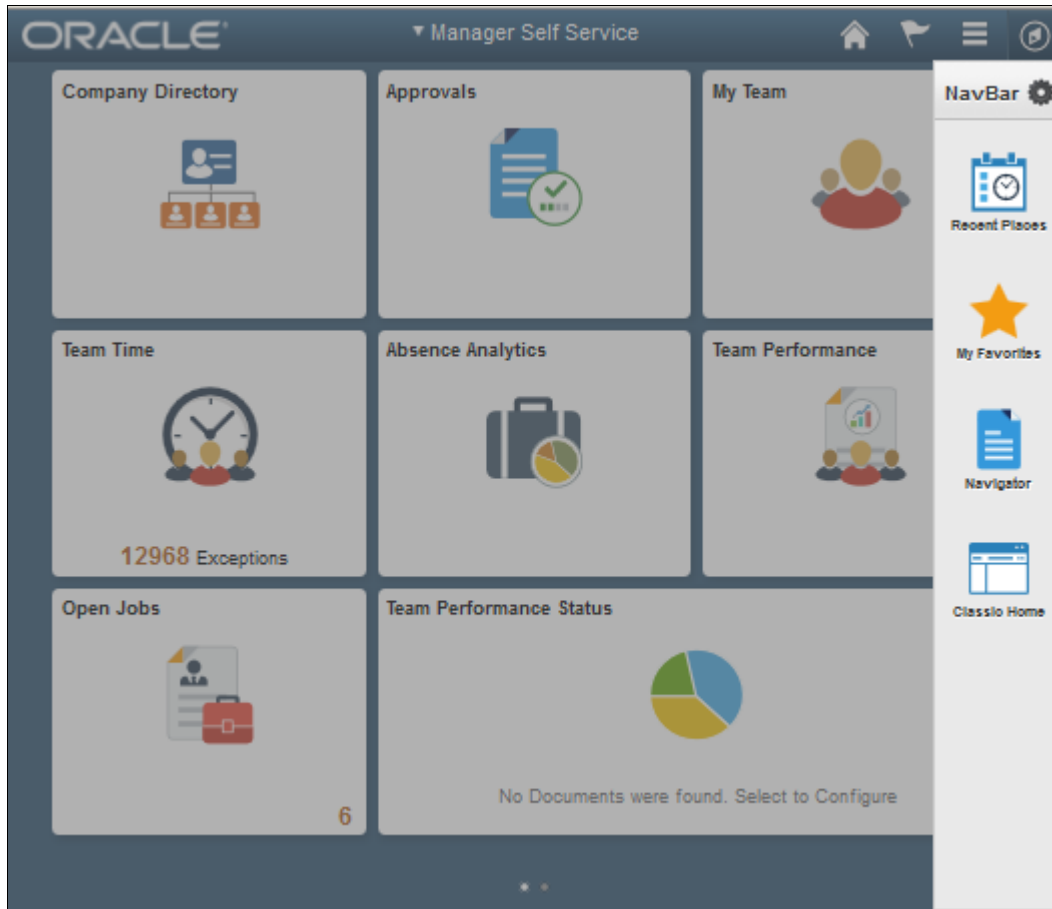
1. On the PeopleSoft Fluid User Interface, shown in this example, select (press) the NavBar button at the top right (diamond inside a circle).



PeopleSoft Fluid User Interface home page

The Navigation bar (NavBar) side page appears.

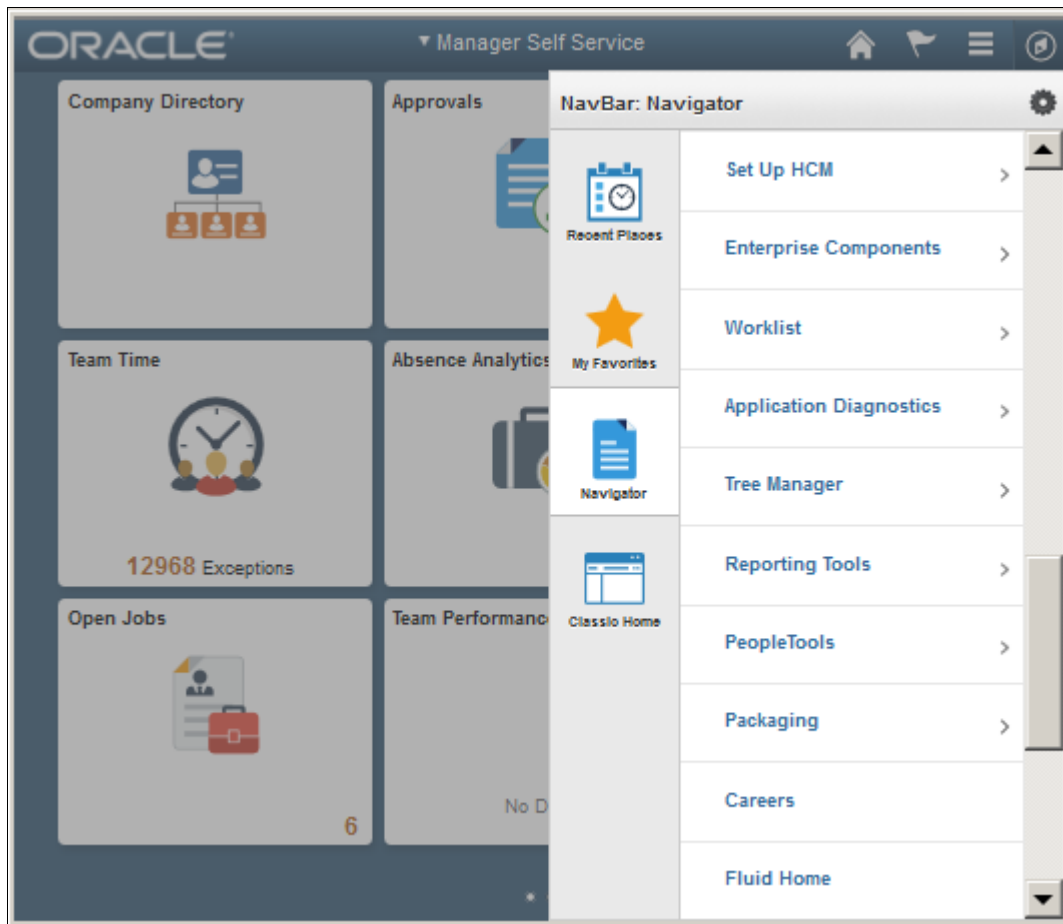
2. Select (press) Navigator.



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 8-3-2: 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.DBLENGHTHYPE 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 8-3-3: 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 8-3-4: 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 8-3-5: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
 - Environment Long Name — Customer HR Demo Database
 - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.

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.

See "Reviewing Deployment Use Cases," Reviewing the PeopleTools-only Upgrade Use Case.

- 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 "Reviewing Deployment Use Cases," Reviewing the PeopleTools Patch DPK Use Case.

- 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.

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.

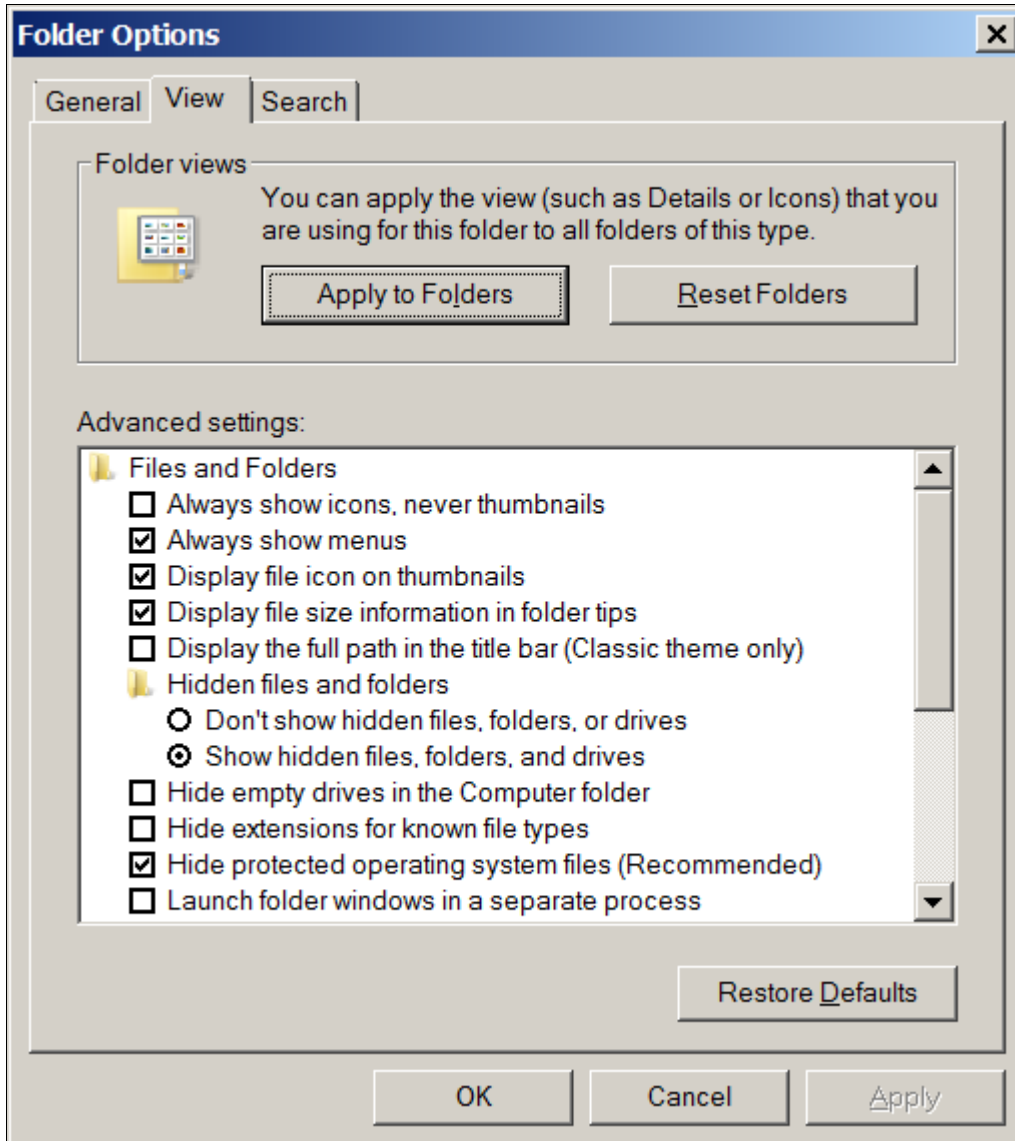
To deploy the PeopleTools Client DPK in SA mode:

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 *1*, Oracle.

```
Please Select the Database Platform:
1. Oracle
2. DB2 for LUW
3. Microsoft SQL Server
4. DB2 for zOS
Enter your choice [1-4] : 1
```

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_ORA.

```
Please specify the PSHOME for the PeopleTools Client [C:\PT8.56.02_=>
Client_ORA]:
```

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_ORA
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

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 10-1: 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 10-1-1: 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.

The response file should contain all the input parameters that are needed for deploying PeopleSoft Pure Internet Architecture, such as `PS_CFG_HOME`, `DOMAIN_NAME`, `SERVER_TYPE`, and so on. Many input parameters are self-explanatory, and the sample response file includes brief definitions in some cases. Here are some additional guidelines:

- 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`.
- 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.
- `INSTALL_TYPE`
 - `SINGLE_SERVER_INSTALLATION` — This domain configuration contains one server named PIA, and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, non-production environments.
 - `MULTI_SERVER_INSTALLATION` — This domain configuration contains seven unique server definitions, an Oracle WebLogic cluster, and the PeopleSoft application split across multiple servers. This configuration is intended for a production environment.
 - `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.
See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

Note. When specifying paths on Microsoft Windows operating systems, use forward slashes (`/`), as shown in the examples in the response file.

Sample Response file template:

```
#Following inputs are required in response file for silent installation

# Location of PIA_HOME directory. For windows path should have front=>
  slash '/' instead of back slash '\'
# Set the below variable to the location where you want to install PIA.
# PLEASE NOTE this variable could be ANY DIRECTORY on your machine. It=>
```



```

includes but is definitely not limited to PeopleTools Home.
PS_CFG_HOME=C:/PT8.50

# Name of the PIA domain
DOMAIN_NAME=peoplesoft

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

# WebLogic home, the location where Oracle WebLogic is installed (for Web=>
Logic deployment only)
BEA_HOME=c:/bea

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

# admin console user id/password for securing WebLogic/WebSphere admin=>
console credential
USER_ID=system
USER_PWD=
USER_PWD_RETYPE=

# Install action to specify the core task that installer should perform.
# For creating new PIA domain - CREATE_NEW_DOMAIN.
# For redeploying PIA - REDEPLOY_PSAPP.
# For recreating PIA domain - REBUILD_DOMAIN.
# For installing additional PSFT site - ADD_SITE
# For installing Extensions - ADD_PSAPP_EXT
INSTALL_ACTION=CREATE_NEW_DOMAIN

# Domain type to specify whether to create new domain or modify existing=>
domain. Possible values are "NEW_DOMAIN", "EXISTING_DOMAIN".
DOMAIN_TYPE=NEW_DOMAIN

# App home is required only when you are 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 to specify whether the installation is a single server or=>
multi server deployment. Possible values are "SINGLE_SERVER_>
INSTALLATION", "MULTI_SERVER_INSTALLATION"
INSTALL_TYPE=SINGLE_SERVER_INSTALLATION

# WebSite Name
WEBSITE_NAME=ps

# To enable jolt failover and load balancing, provide a list of=>
application server domains in the format of; PSSERVER=AppSrvr:JSLport,...

```

```

# For example: PSSERVER=SERVER1:9000,SERVER2:9010,SERVER3:9020
# PSSERVER is optional, but if set will have precedence over APPSERVER_→
NAME & JSL_PORT.
PSSERVER=

# AppServer Name
APPSERVER_NAME=

# Appserver JSL Port
JSL_PORT=

# HTTP Port
HTTP_PORT=80

# HTTPS Port
HTTPS_PORT=443

# Authentication Domain (optional)
AUTH_DOMAIN=

# Web Profile Name Possible Values are "DEV","TEST","PROD","KIOSK"
WEB_PROF_NAME=PROD

# Web Profile password for User "PTWEBSERVER"
WEB_PROF_PWD=
WEB_PROF_PWD_RETYPE=

# Integration Gateway user profile.
IGW_USERID=administrator
IGW_PWD=
IGW_PWD_RETYPE=

# AppServer connection user profile
APPSRVR_CONN_PWD=
APPSRVR_CONN_PWD_RETYPE=

# Directory path for reports
REPORTS_DIR=

```

Task 10-1-2: 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 10-2: 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.

Task 10-3: 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 10-3-1: 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 10-3-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

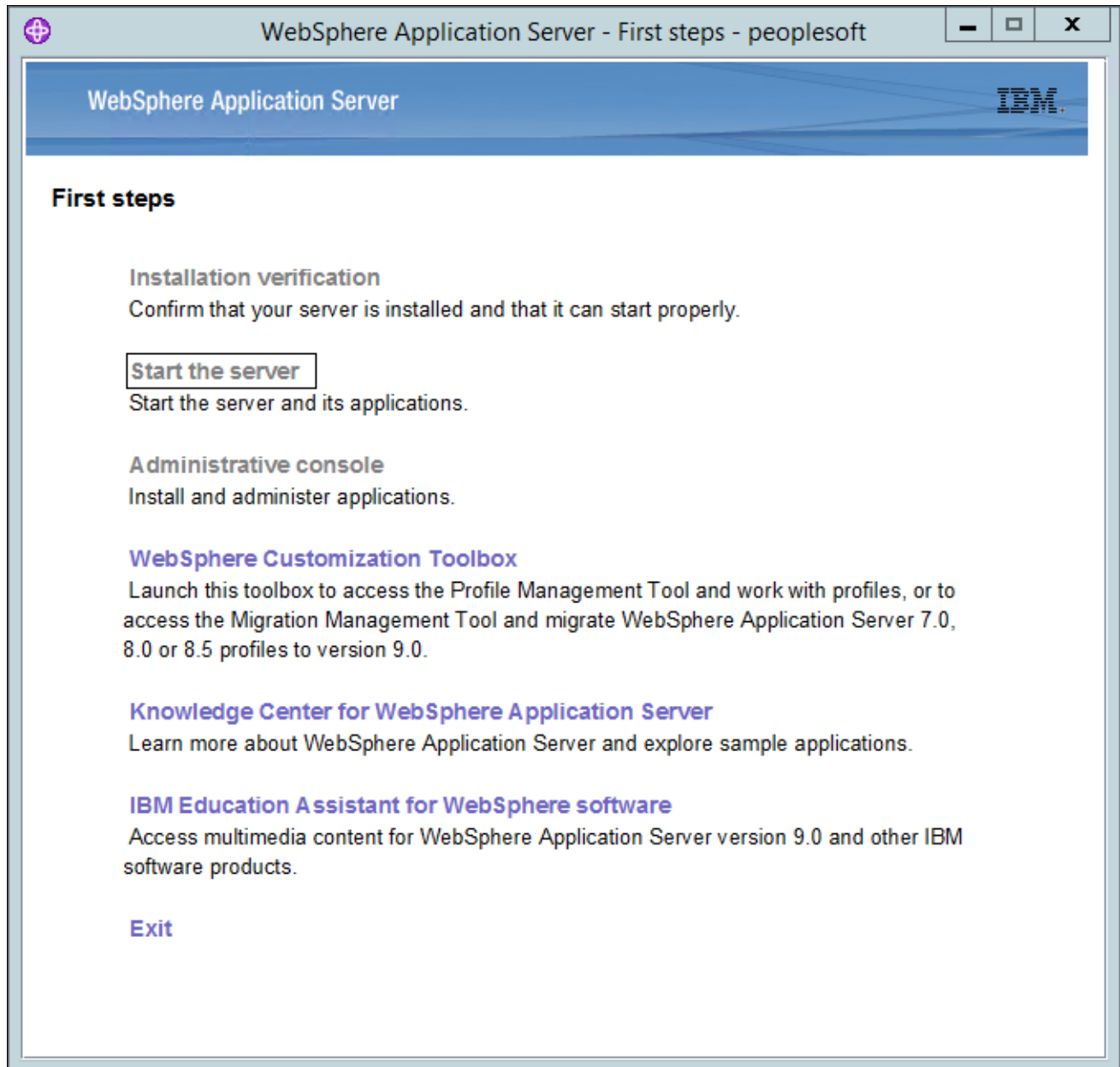
- Starting and Stopping IBM WebSphere Application Servers on Windows
- Verifying the IBM WebSphere Installation

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.

- 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 FFDC1003: FFDC Incident emitted on C:\Users\
[5/17/17 18:35:04:917 MDT] 00000001 SibMessage W [ ] 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 FFDC1003: 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 FFDC1003: 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 FFDC1003: FFDC Incident emitted on C:\Users\
[5/17/17 18:40:32:792 MDT] 00000001 SibMessage W [ ] 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 FFDC1003: 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 FFDC1003: 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 FFDC1003: 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 FFDC1003: FFDC Incident emitted on C:\Users\
[5/25/17 15:15:12:355 MDT] 00000001 SibMessage W [ ] 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 FFDC1003: FFDC Incident emitted on C:\Users\
IVTL0040I: 42 errors/warnings are detected in the C:\Users\
ipsftpt18.56\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

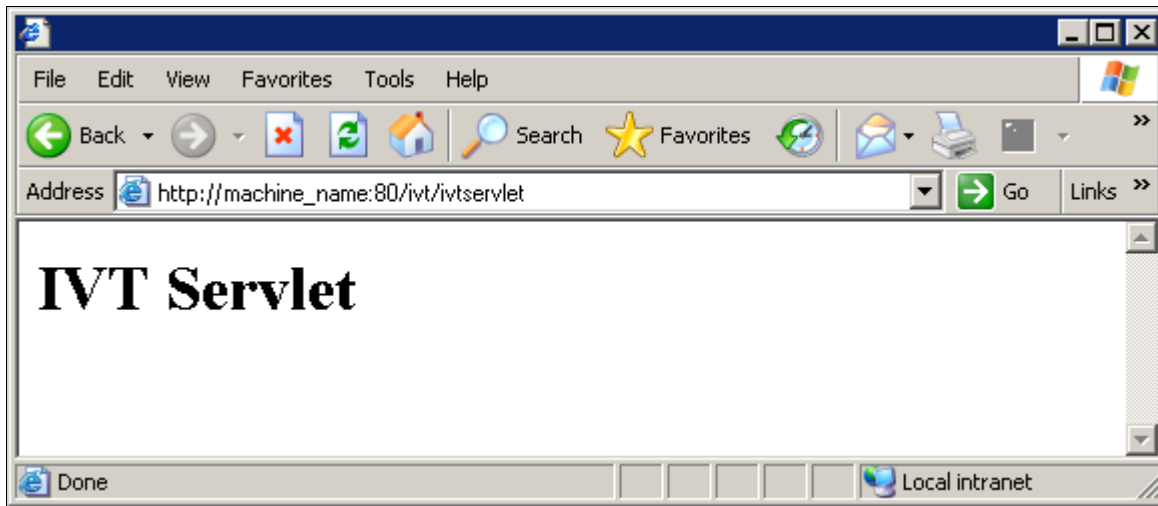
Verifying the IBM WebSphere Installation

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 10-3-3: 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 10-3-4: Accessing the PeopleSoft Signon

To access the PeopleSoft signon:

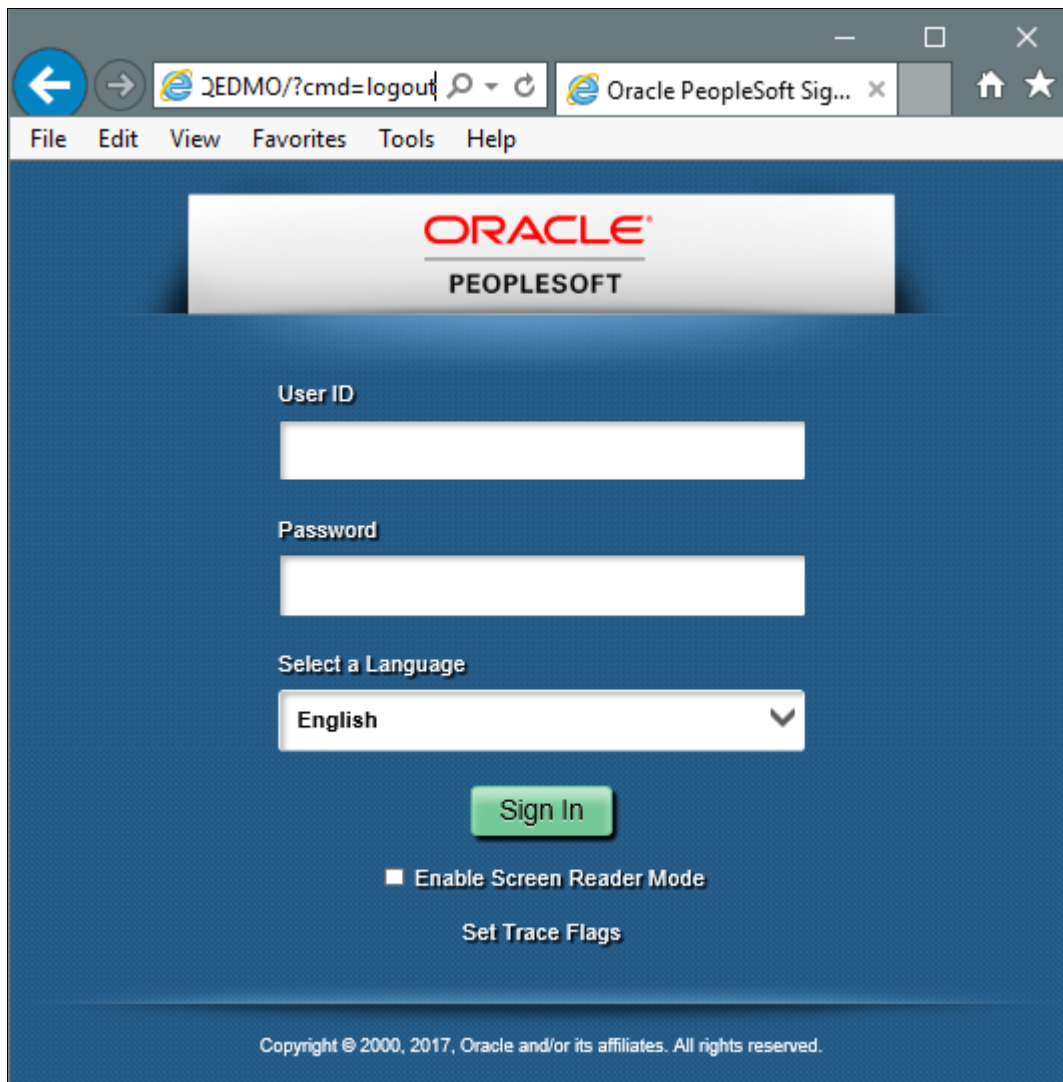
1. Open your web browser.

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 10-4: Completing Post-Installation Steps

This section discusses:

- Using Fluid User Interface
- Setting Options for Multilingual Databases
- Updating PeopleTools Options
- Updating Time Zone Information
- Updating Database Information

Task 10-4-1: 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:

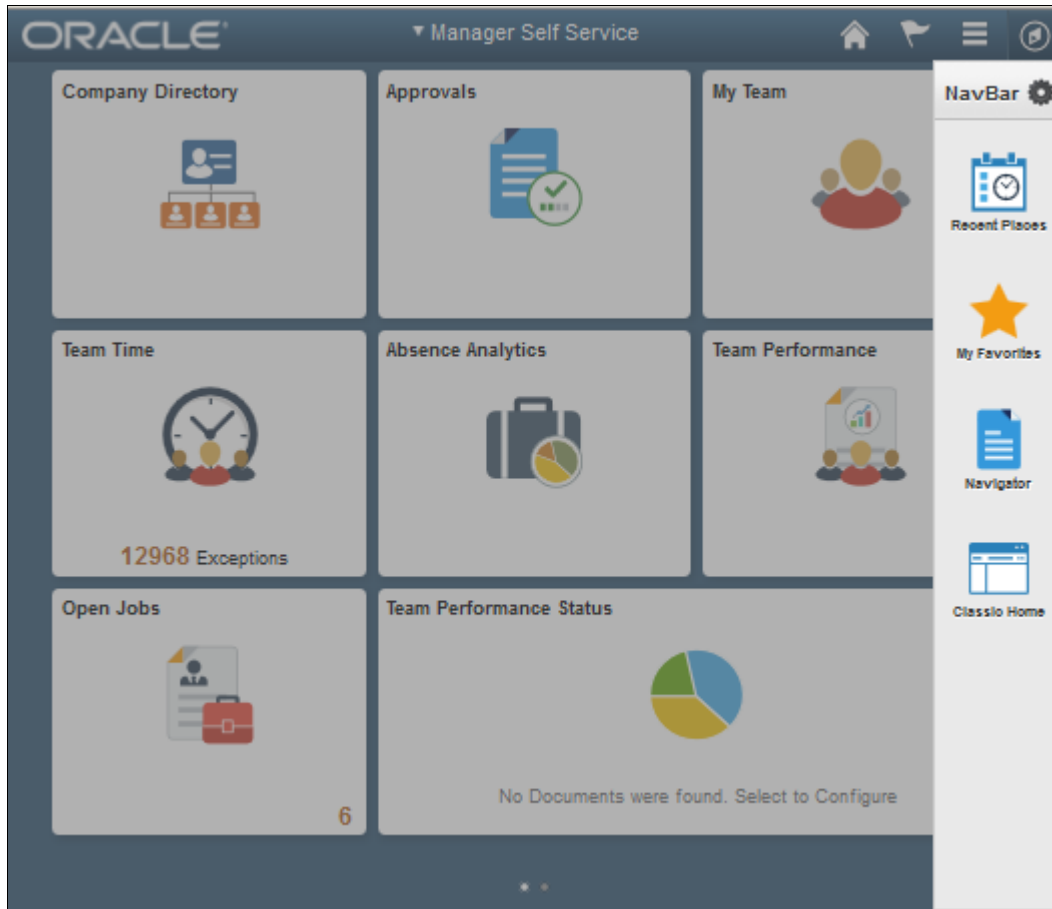
1. On the PeopleSoft Fluid User Interface, shown in this example, select (press) the NavBar button at the top right (diamond inside a circle).



PeopleSoft Fluid User Interface home page

The Navigation bar (NavBar) side page appears.

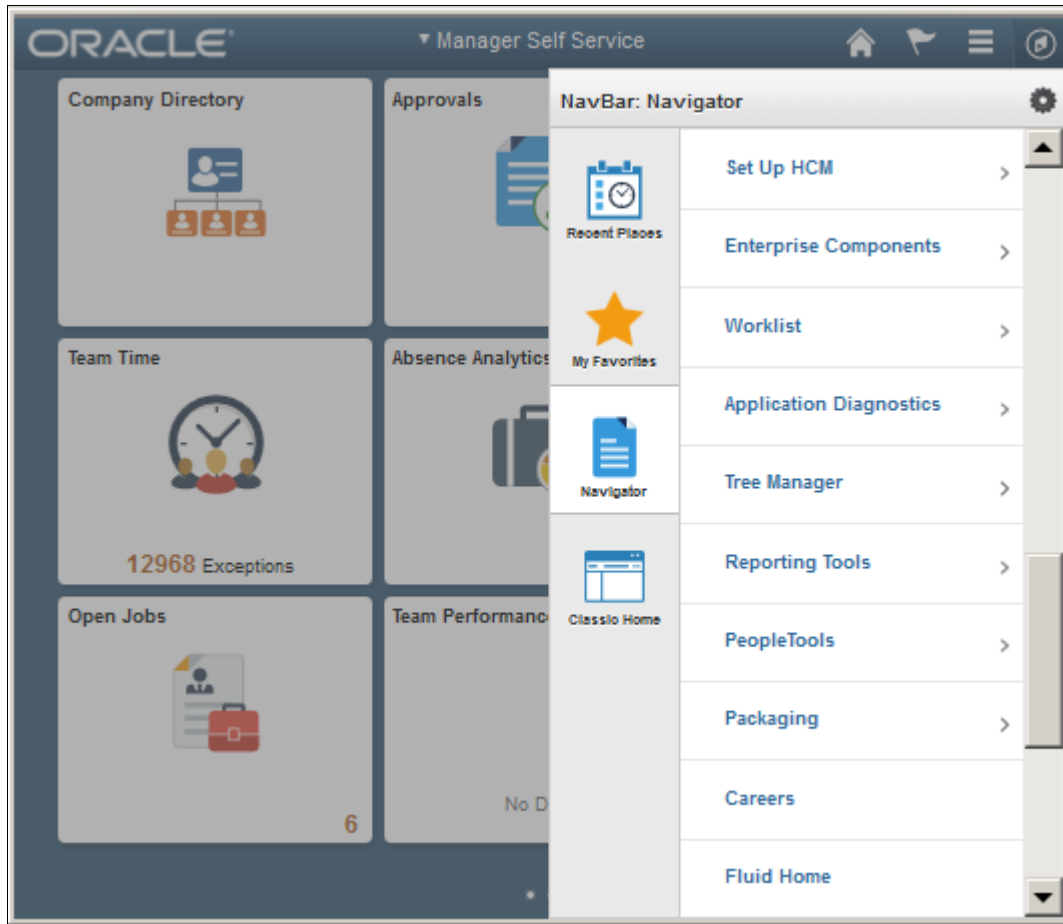
2. Select (press) Navigator.



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 10-4-2: 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.DBLENGHTHYPE 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 10-4-3: 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 10-4-4: 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 10-4-5: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
 - Environment Long Name — Customer HR Demo Database
 - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.

Chapter 11

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. You cannot run more than one instance at a time. That is, you cannot run multiple instances in parallel.

- You must remove installations of PeopleSoft Change Assistant from PeopleSoft PeopleTools 8.55 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 11-1: 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 11-1-1: 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,

changeassistantcfgbak.zip, is saved in the installation location.

- Specify *nobackup* if you do not want to create a backup file with the configuration information.

To use the PeopleSoft Change Assistant silent installation script:

1. In a command prompt, go to *PS_HOME*\setup\PSCA.

Note. Do not move the file to another location.

2. Run the following command:

```
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 11-2: 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 11-2-1: 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 11-2-2: 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 11-2-3: 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 11-2-4: 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 11-3: 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:

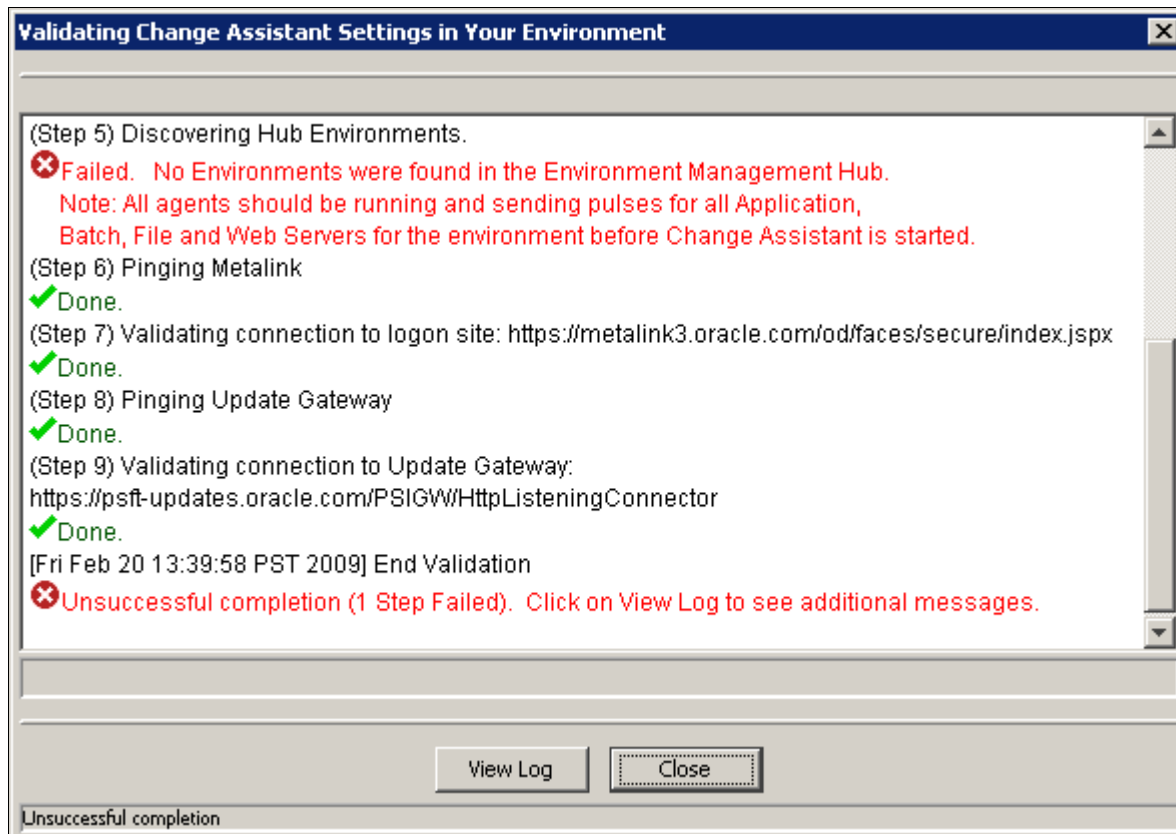
- Locating valid SQL query tools required to run SQL scripts.
- Testing the Environment Management hub and ensuring that PeopleSoft Change Assistant can communicate with it.
- Testing My Oracle Support and ensuring that PeopleSoft Change Assistant can communicate with it.

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-apis.jar;C:\Program
Files\PeopleSoft\Change Assistant\xalan_2_7_0.jar;C:\Program Files\PeopleSoft\Change
Assistant\serializer.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-logging-
1.0.1.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-httpclient-2.0-rc1.jar;C:\Program
Files\PeopleSoft\Change Assistant\commons-codec-1.1.jar;C:\Program Files\PeopleSoft\Change
Assistant\xml-db-api-20021118.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-db-
common.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-db-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 12

Installing PeopleSoft Change Impact Analyzer

This chapter discusses:

- Prerequisites
- Removing PeopleSoft Change Impact Analyzer Installations
- 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

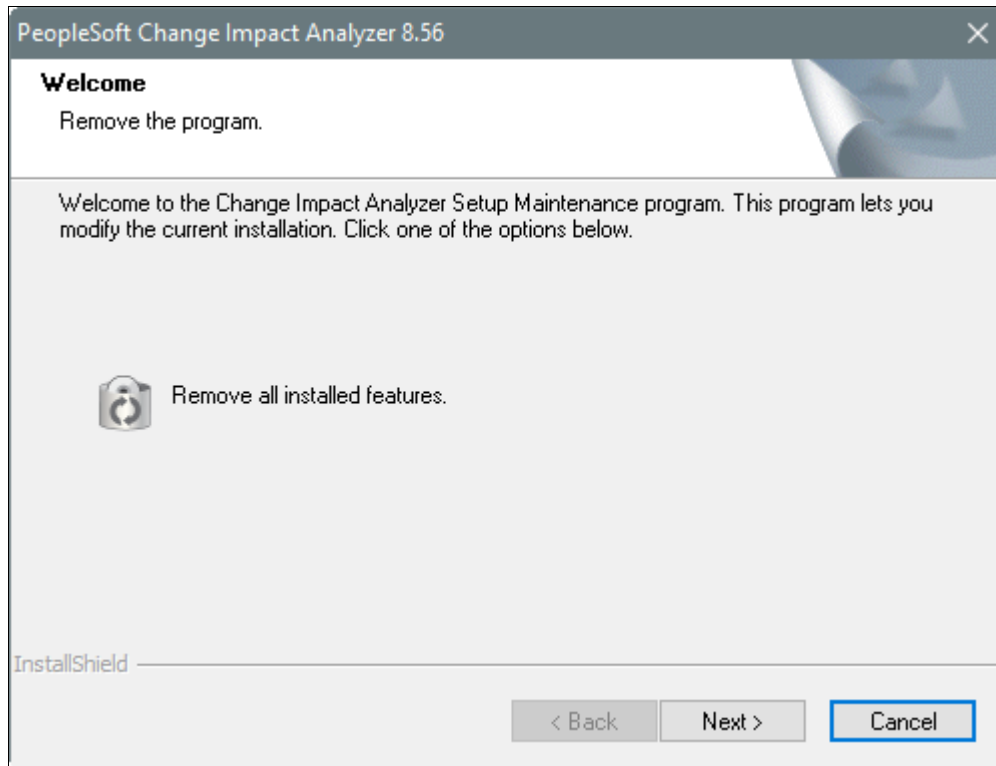
Task 12-1: Removing PeopleSoft Change Impact Analyzer Installations

To uninstall an existing installation of PeopleSoft Change Impact Analyzer, use the setup utility for the current release, as follows:

1. From the `PS_HOME\setup\PscIA` directory, run `installCIA.exe`.

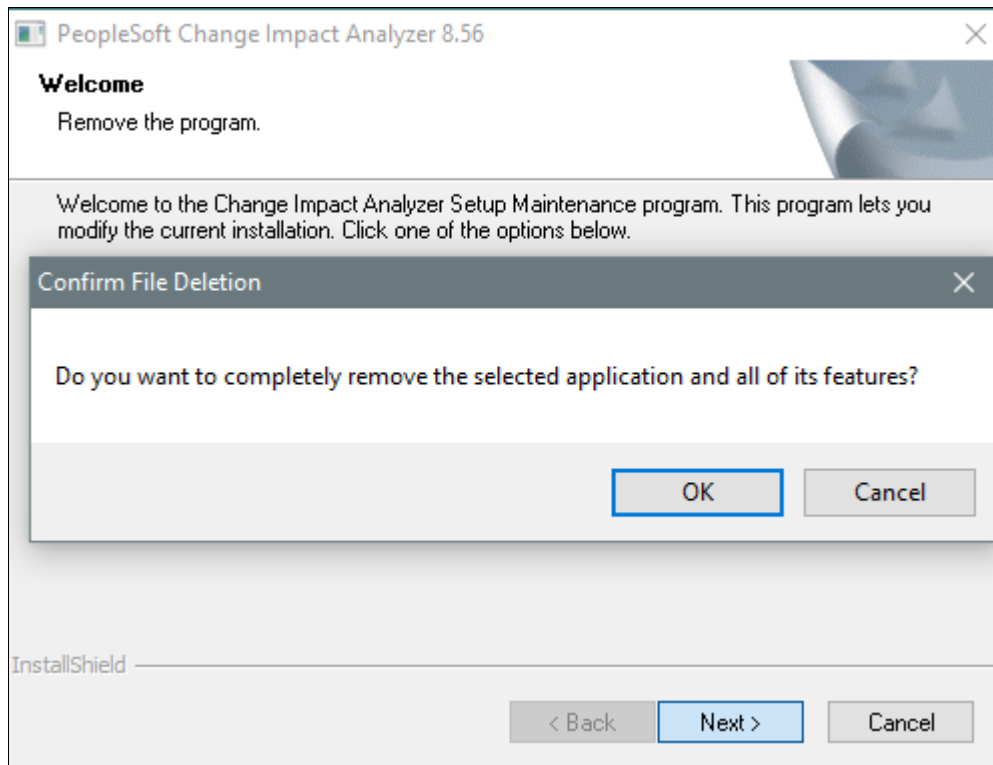
2. If there is an existing installation of PeopleSoft Change Impact Analyzer on your machine, the Remove the program window appears.

Click Next to remove all installed features.



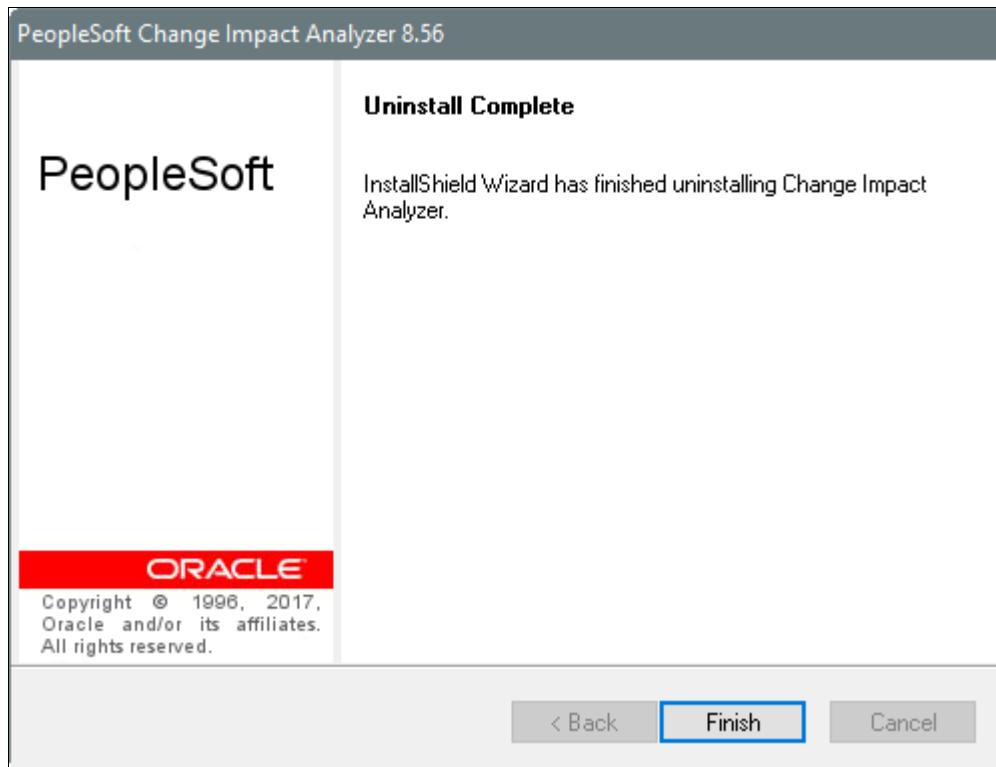
PeopleSoft Change Impact Analyzer Remove the program window

3. Click OK to confirm that you want to remove the previous PeopleSoft Change Impact Analyzer installation.



Confirm File Deletion message dialog box

- When the removal process is complete, click Finish on the Uninstall Complete window.



PeopleSoft Change Impact Analyzer Uninstall Complete window

- Use the instructions in the next section, Installing PeopleSoft Change Impact Analyzer, to install the current release.

Task 12-2: 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 12-2-1: 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 12-2-2: 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 12-2-3: 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 13

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 13-1: 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 13-2: 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 13-2-1: 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 13-2-2: Installing Micro Focus Net Express Wrap Pack 6

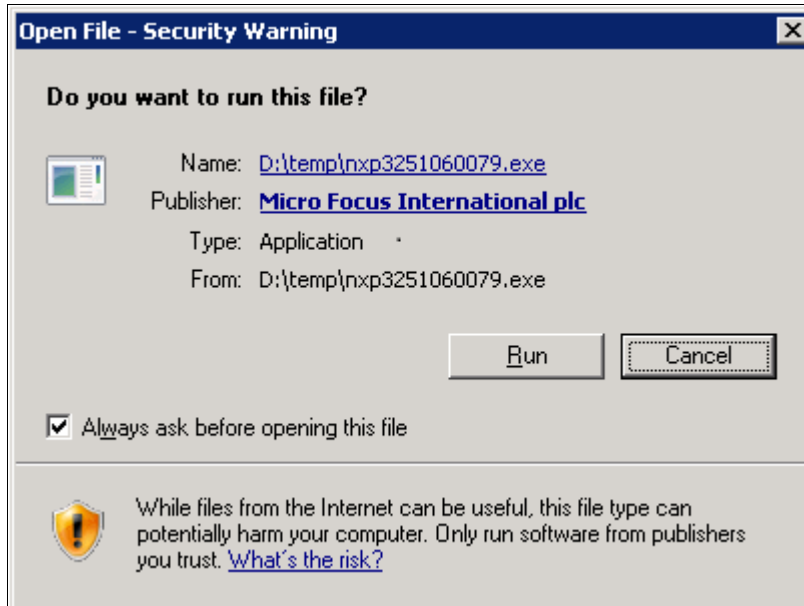
The following procedure assumes that you saved the installation files from Oracle Software Delivery Cloud in the directory *NE_INSTALL*.

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.

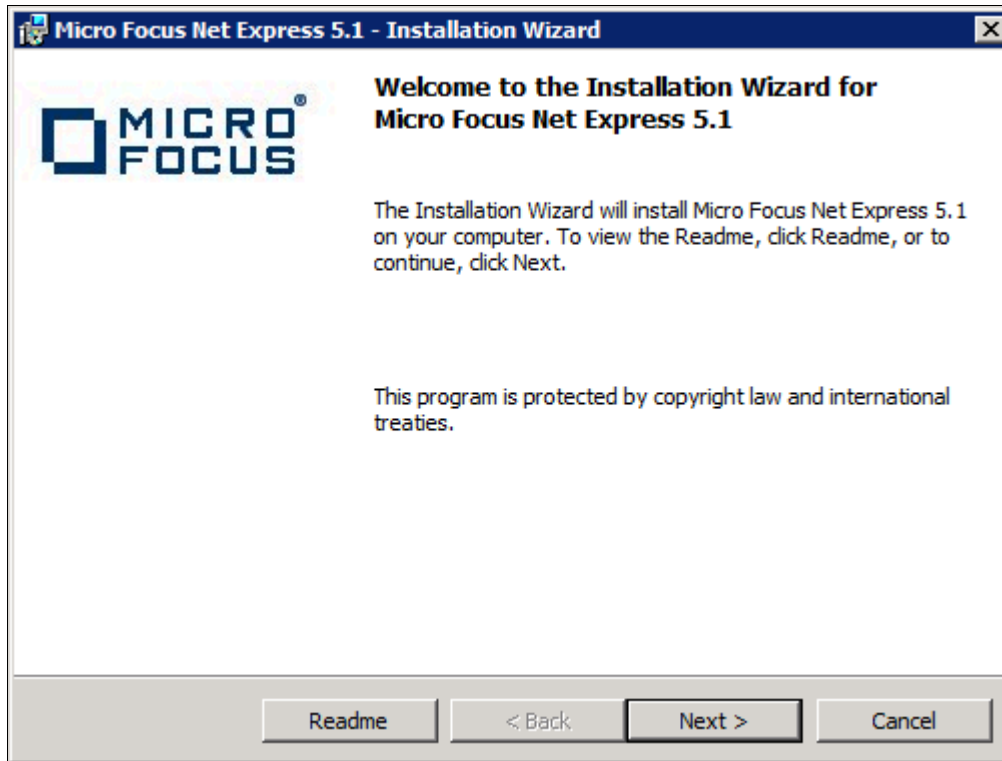


Open File - Security Warning for the Micro Focus installation executable

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.

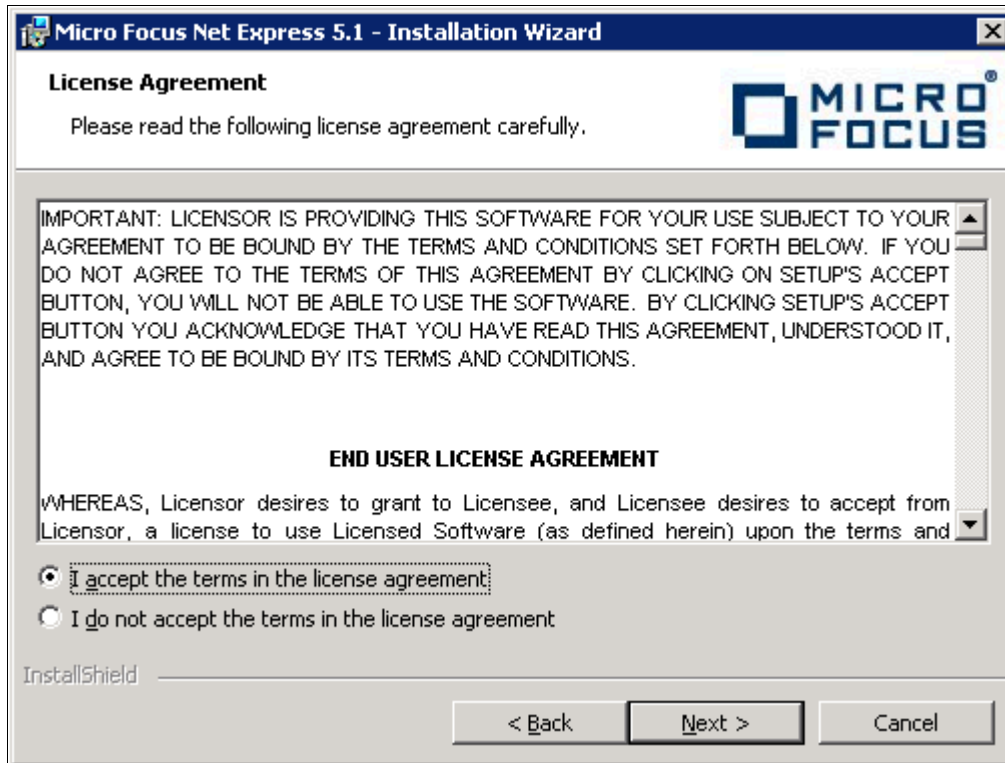
2. Click Next on the welcome window.

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.

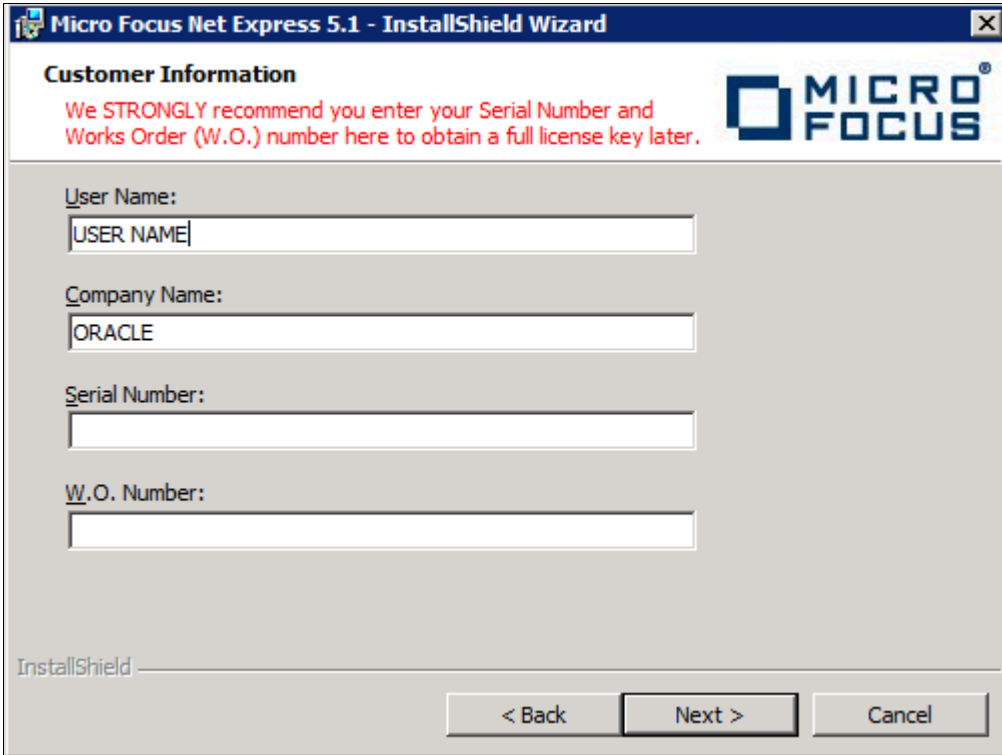


License Agreement window for Micro Focus Express

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.

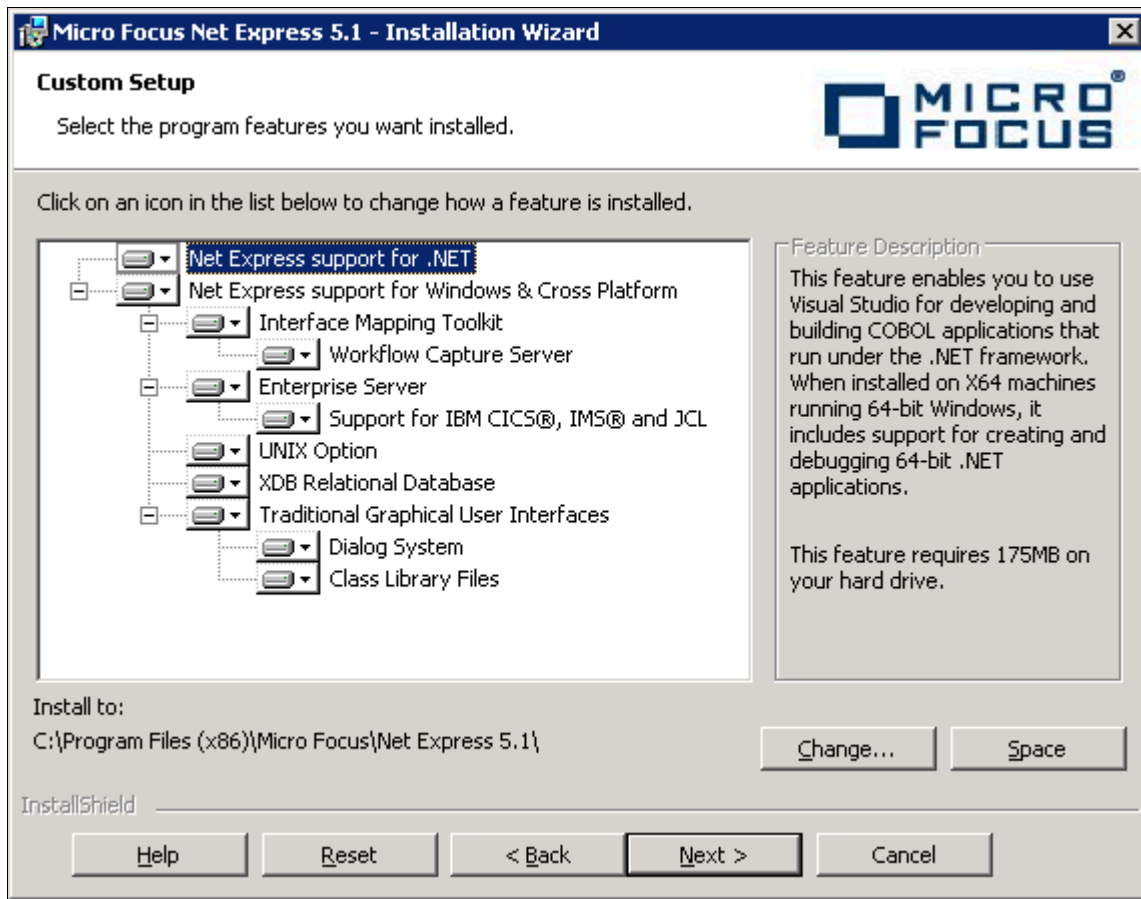
- c. Click Next.



The screenshot shows a Windows dialog box titled "Micro Focus Net Express 5.1 - InstallShield Wizard". The window has a blue title bar with a close button (X) in the top right corner. The main content area is titled "Customer Information" and features the Micro Focus logo in the top right. A red message reads: "We STRONGLY recommend you enter your Serial Number and Works Order (W.O.) number here to obtain a full license key later." Below this, there are four text input fields: "User Name:" with the placeholder text "USER NAME", "Company Name:" with the text "ORACLE", "Serial Number:", and "W.O. Number:". At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel". The "Next >" button is highlighted with a dark border. The text "InstallShield" is visible in the bottom left corner of the window's content area.

Customer Information window

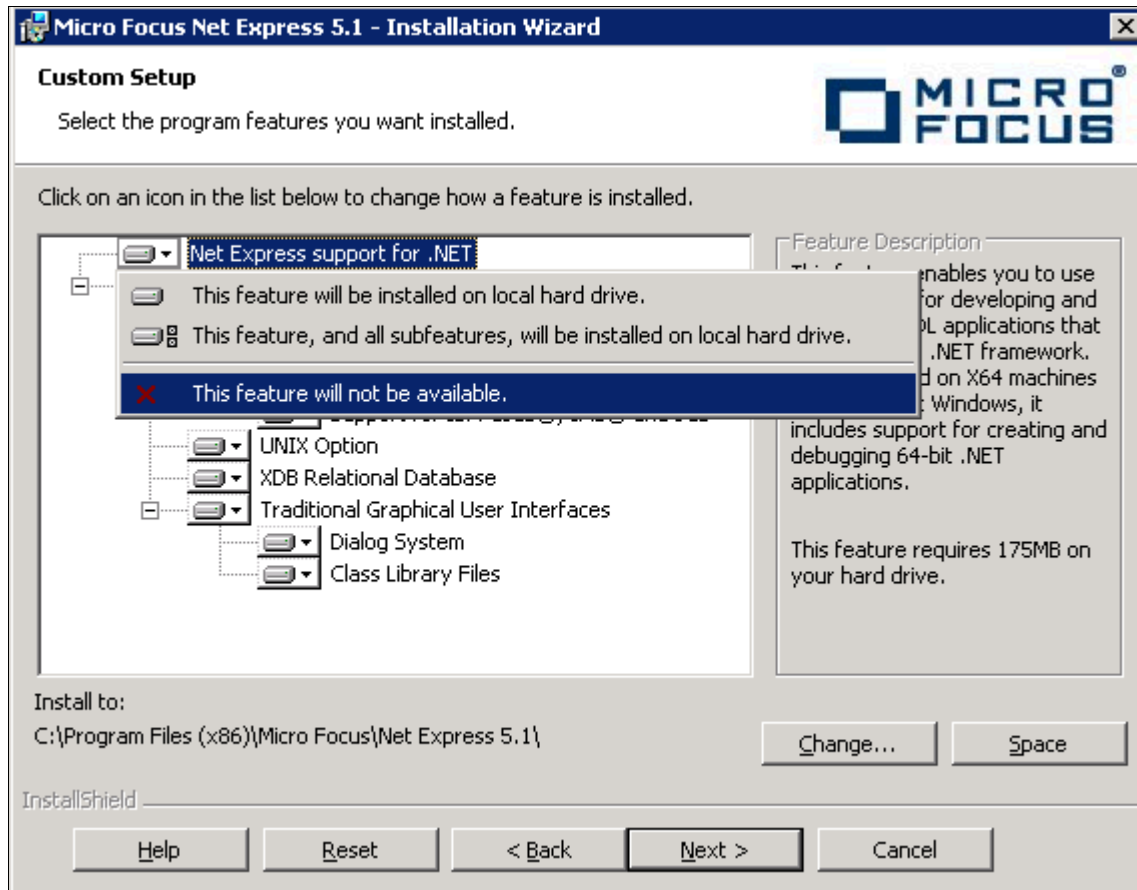
5. The Custom Setup window appears as in this example, with all of the options selected initially:



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

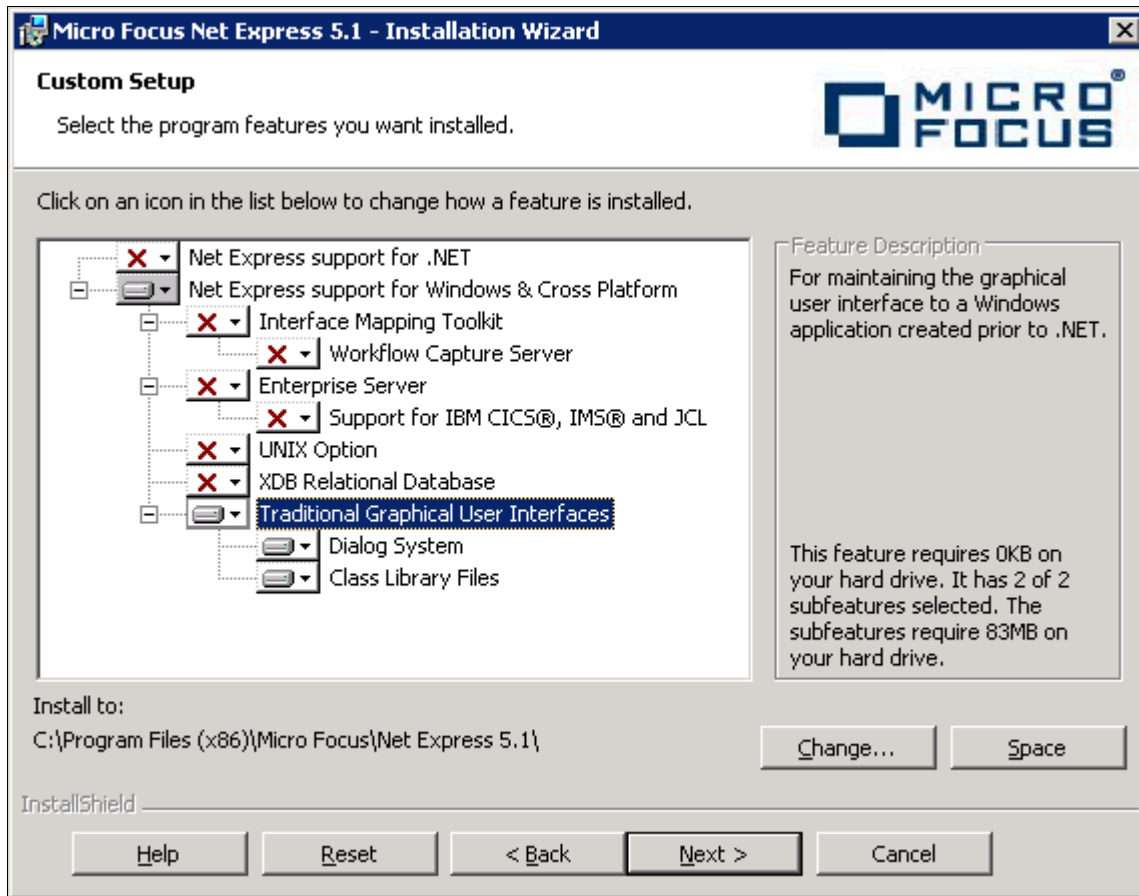
The Traditional Graphical User Interfaces feature is the only feature required for the PeopleSoft installation. (The Traditional Graphical User Interfaces feature also includes Dialog System and Class Library Files.) Clear the following features:

- 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

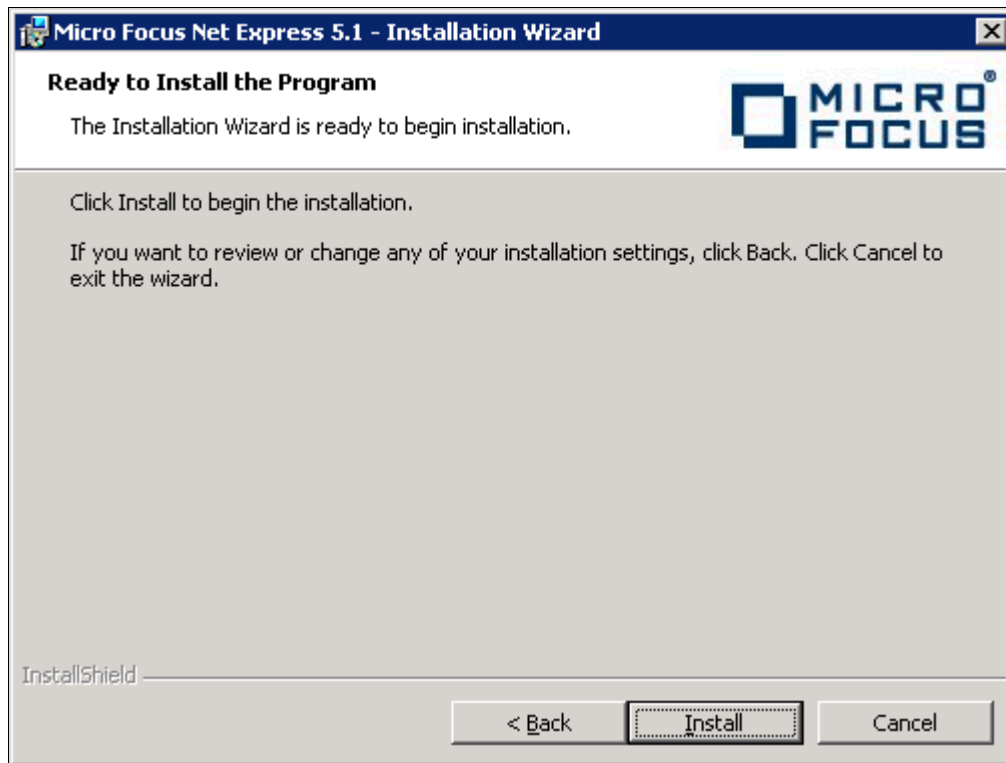
8. Highlight Traditional Graphical User Interfaces.

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:

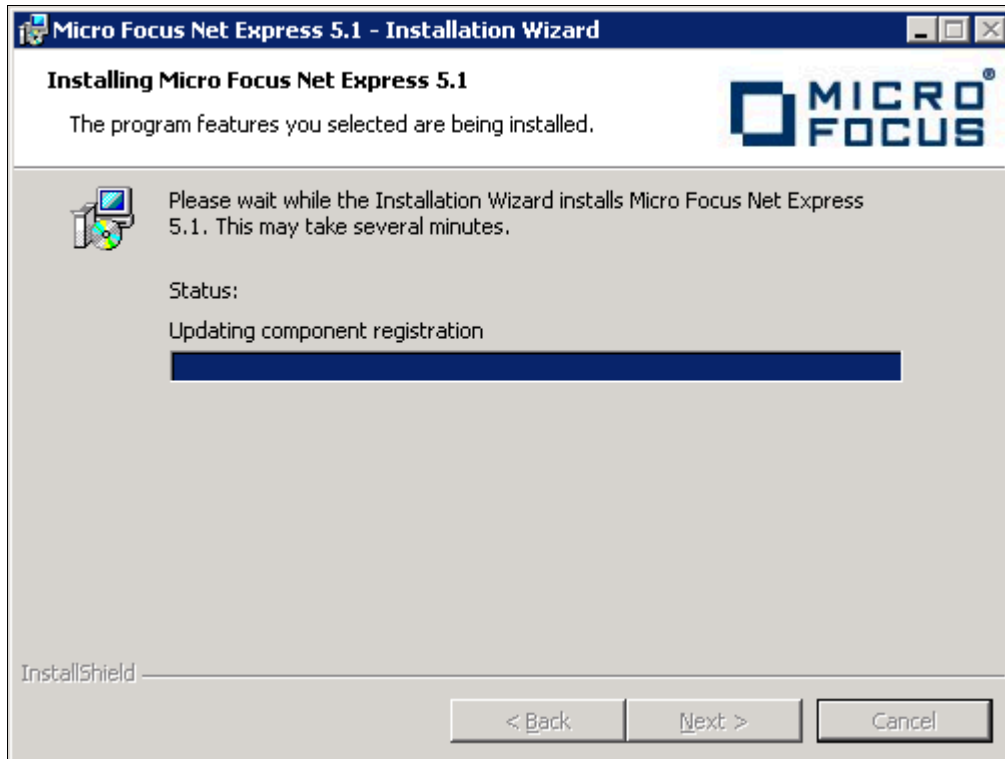
C:\Program Files (x86)\Micro Focus\Net Express 5.1

9. Click Install.



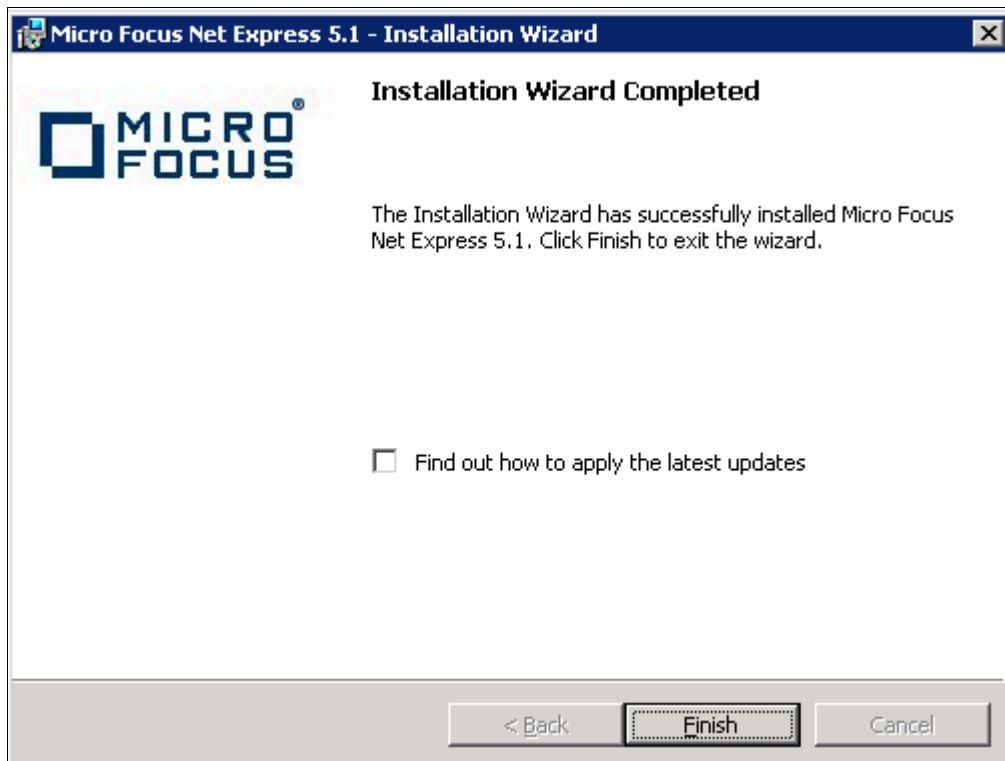
Micro Focus Net Express Installation window: Ready to Install the Program

The installation status window appears, tracking the installation progress.



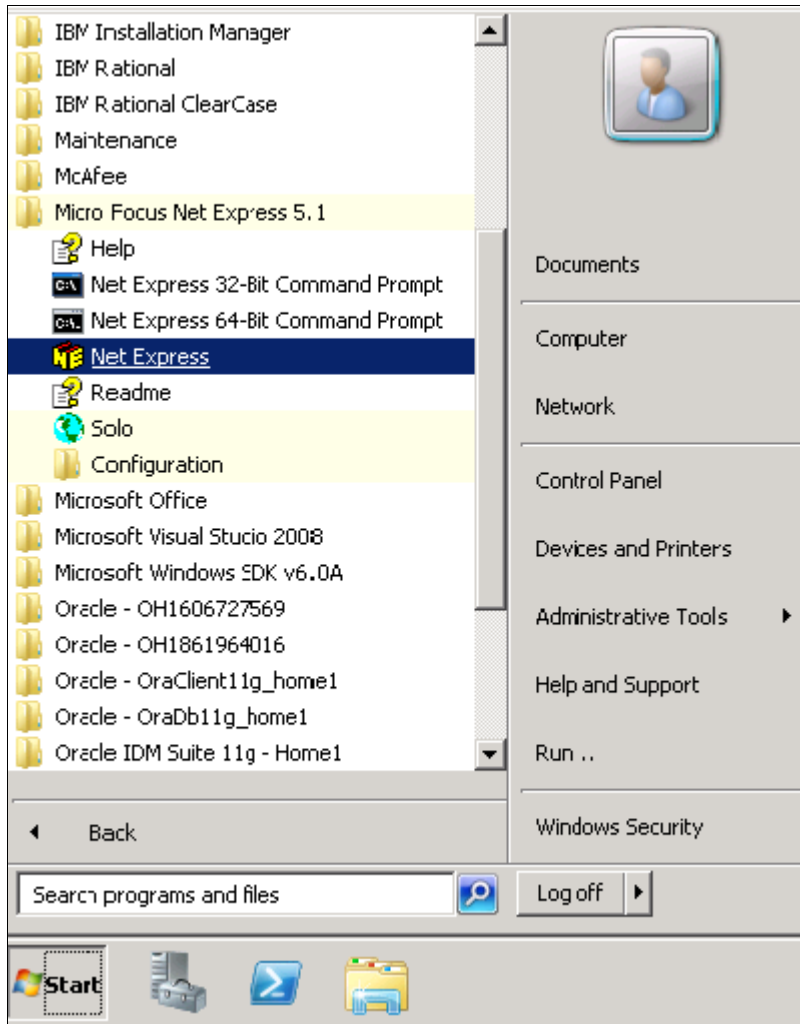
Installation status for the Micro Focus Net Express Installation

10. Click Finish.



Installation Wizard Completed window

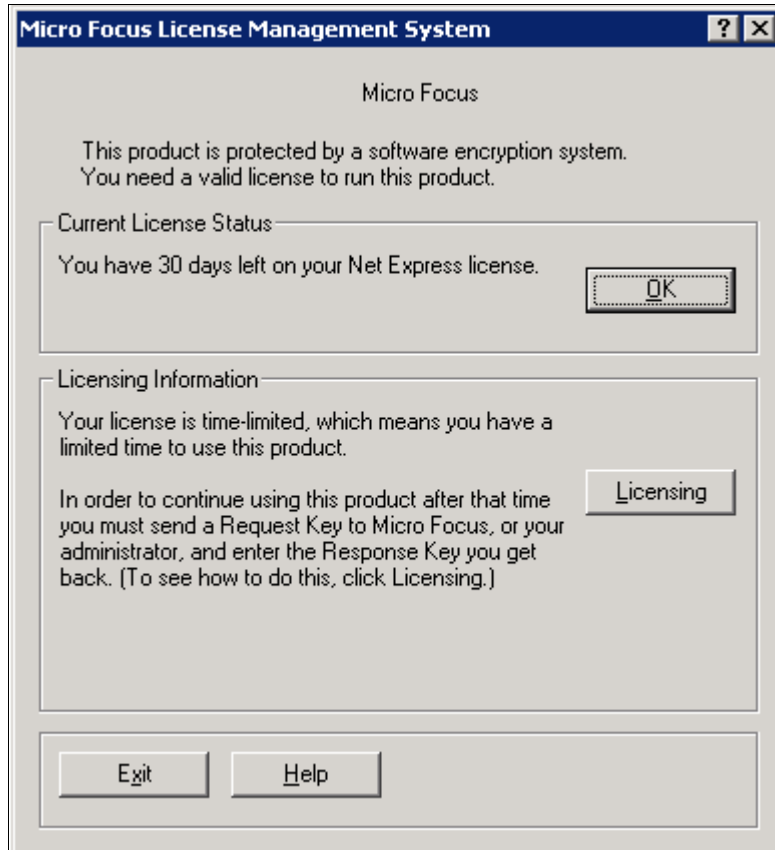
11. To confirm the installation, select Start, All Programs, Micro Focus Net Express 5.1, Net Express.



Selecting Micro Focus Net Express from the Microsoft Windows Start menu

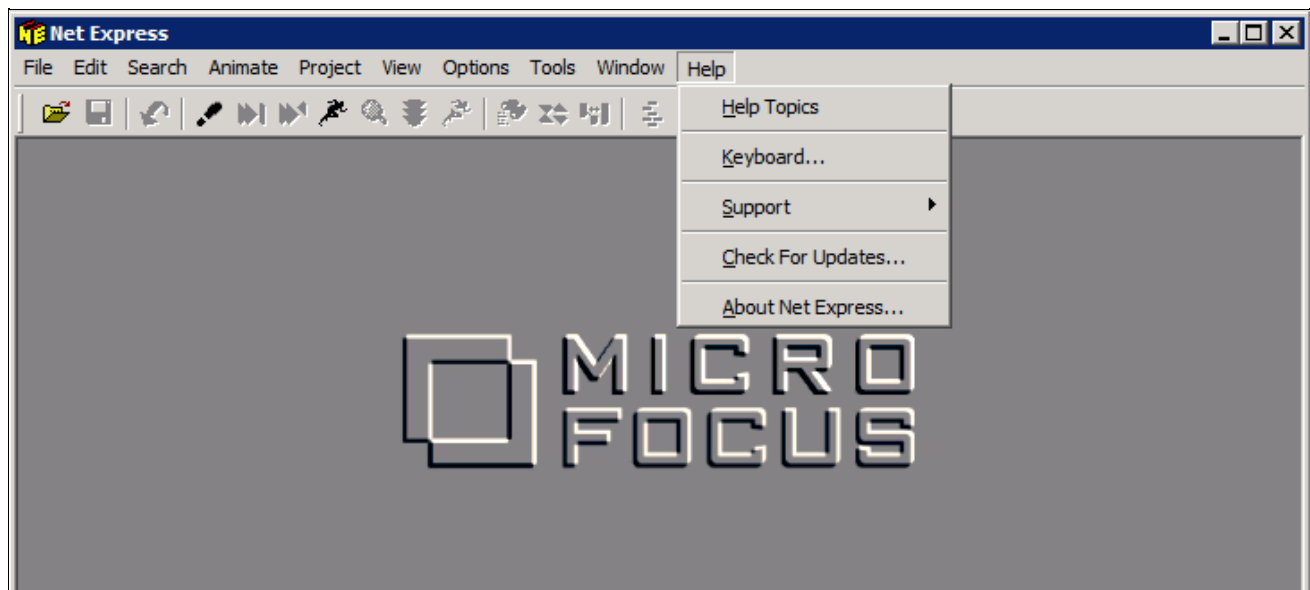
The Net Express Integrated Development Environment (IDE) appears.

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.

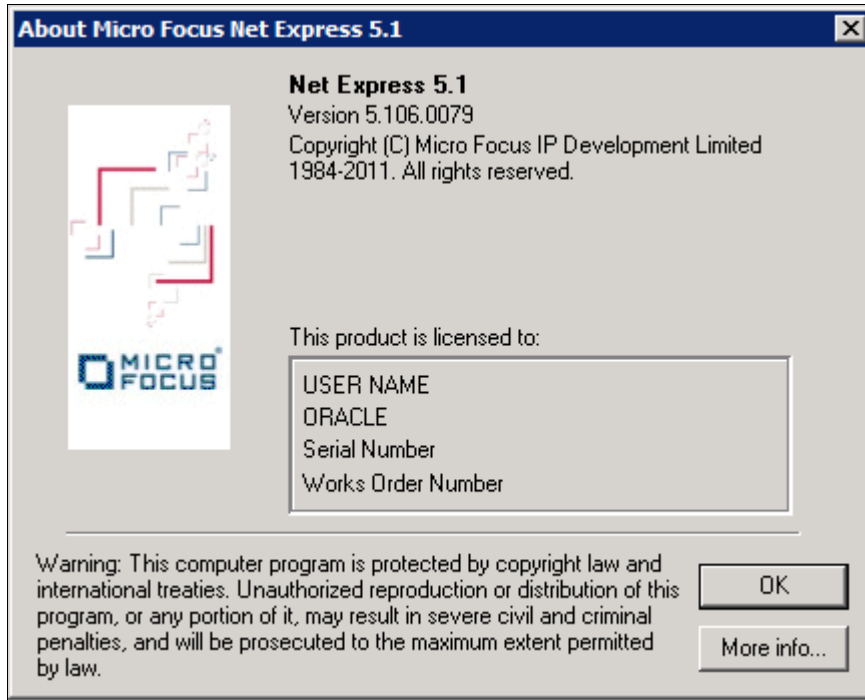


Micro Focus Net Express Integrated Development Environment Help menu

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

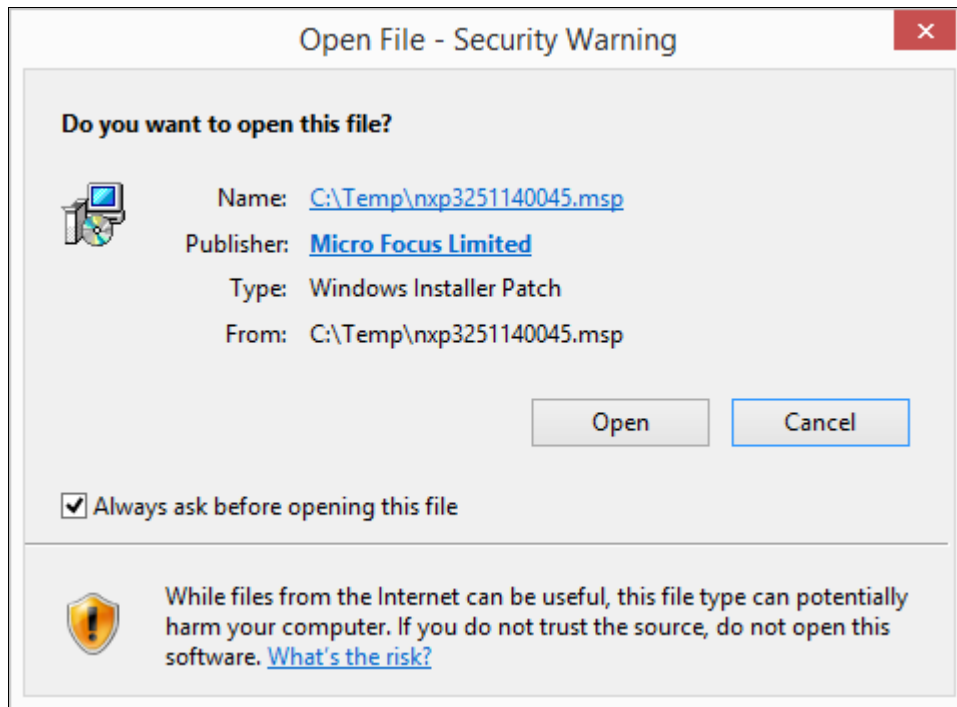
Task 13-2-3: Installing Micro Focus Net Express Wrap Pack 14

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*.

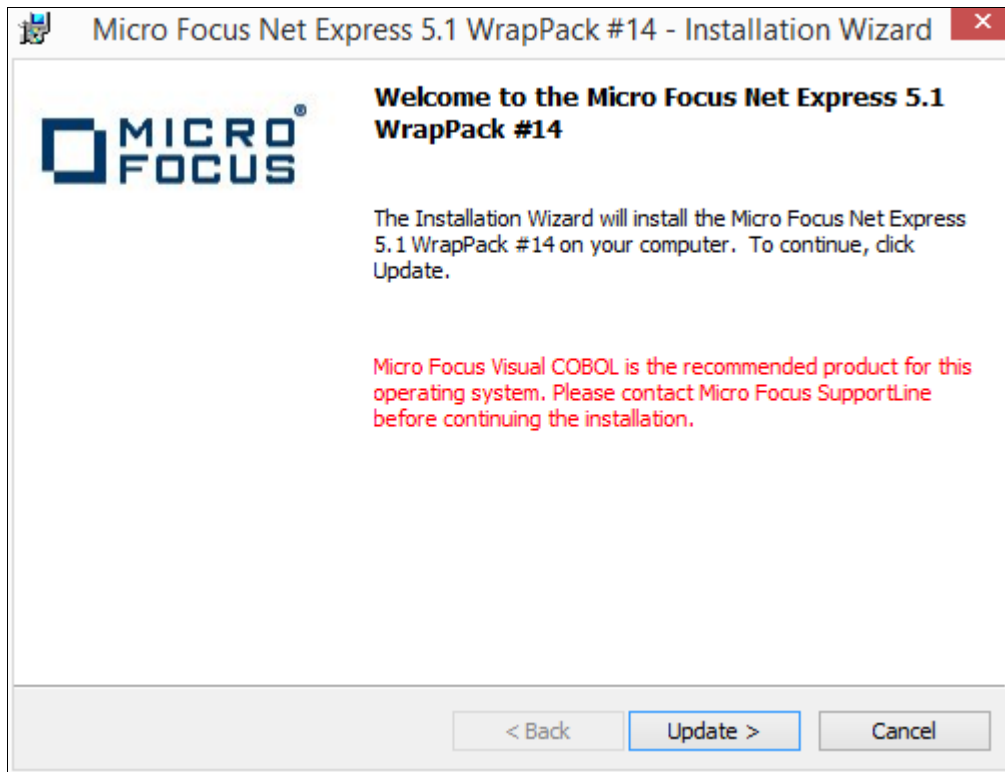
If a security screen appears, as in this example, click Open to launch the installer.



Open File - Security Warning dialog box

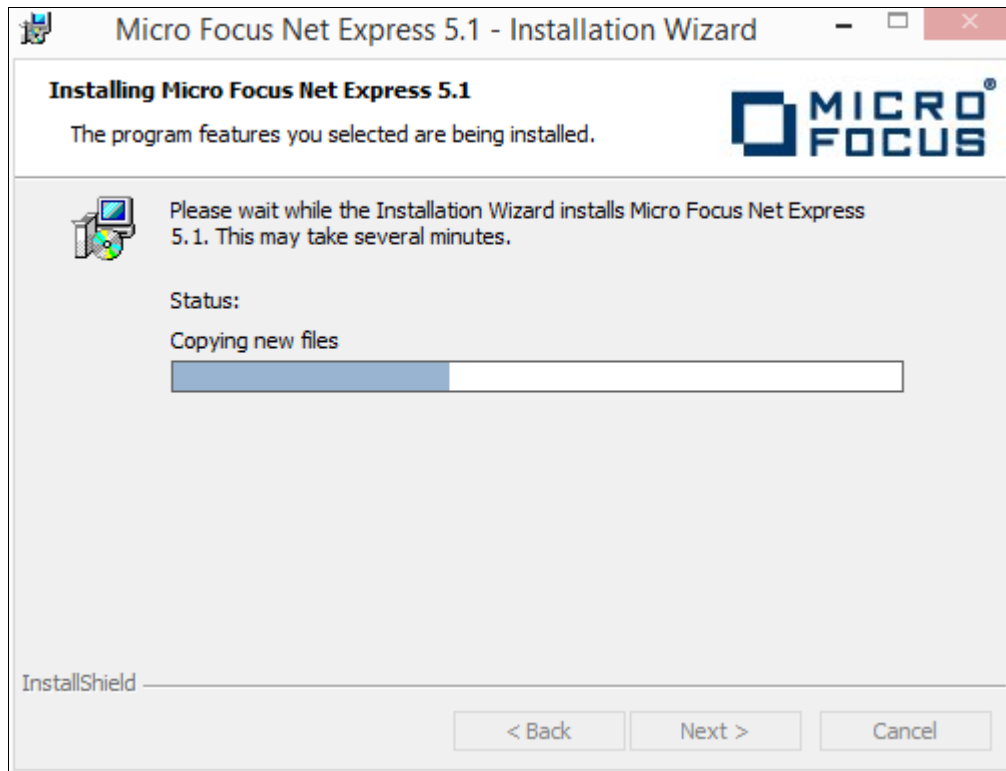
A Welcome window appears.

2. Click Update to continue, as in this example:



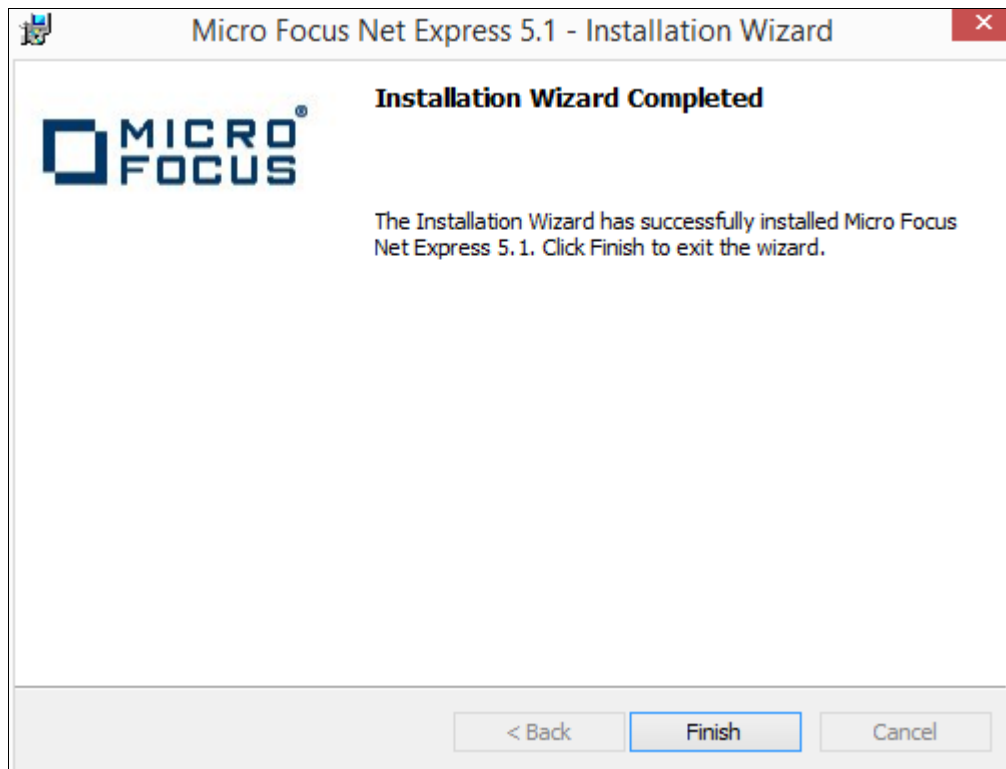
Welcome to the Micro Focus Net Express 5.1 WrapPack #14 window

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:



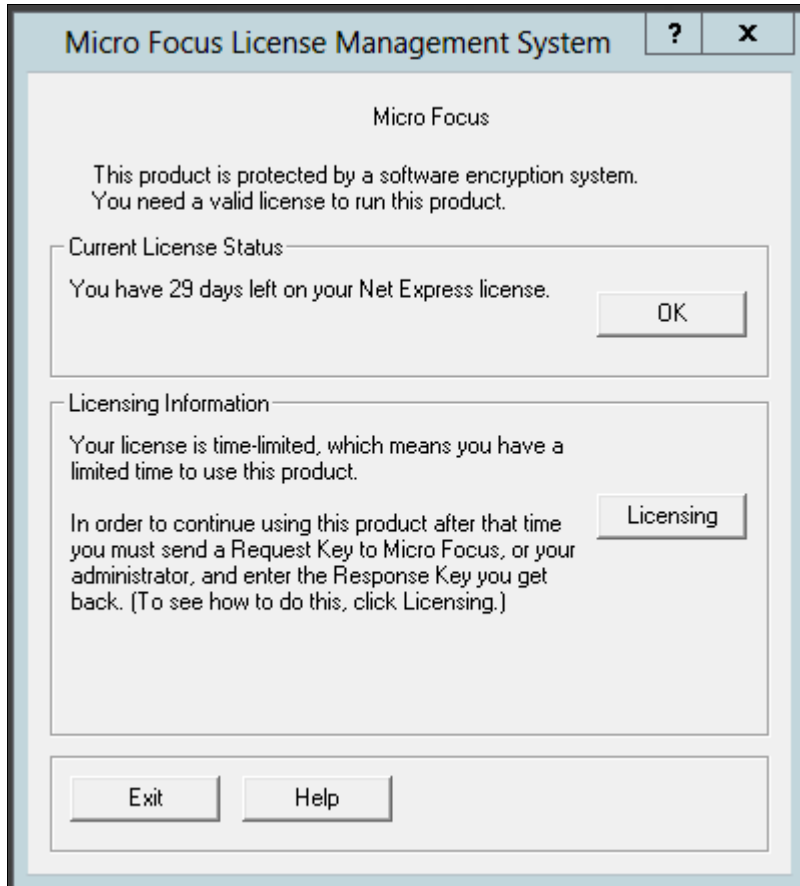
Installation Wizard Completed window

- 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.

- 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

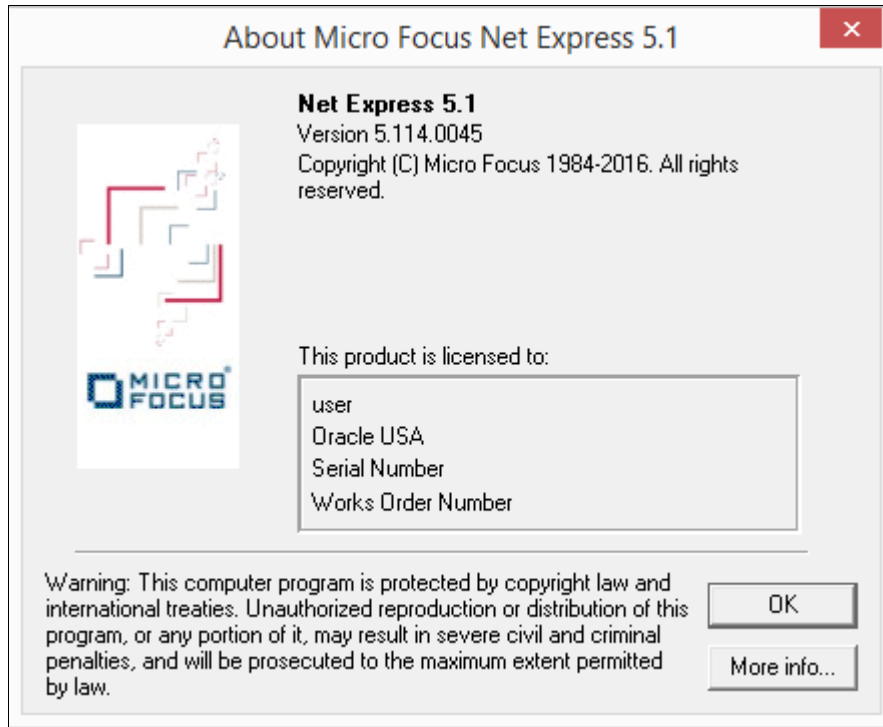
- Click Continue on the Welcome to Micro Focus Net Express window.

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 13-3: 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.

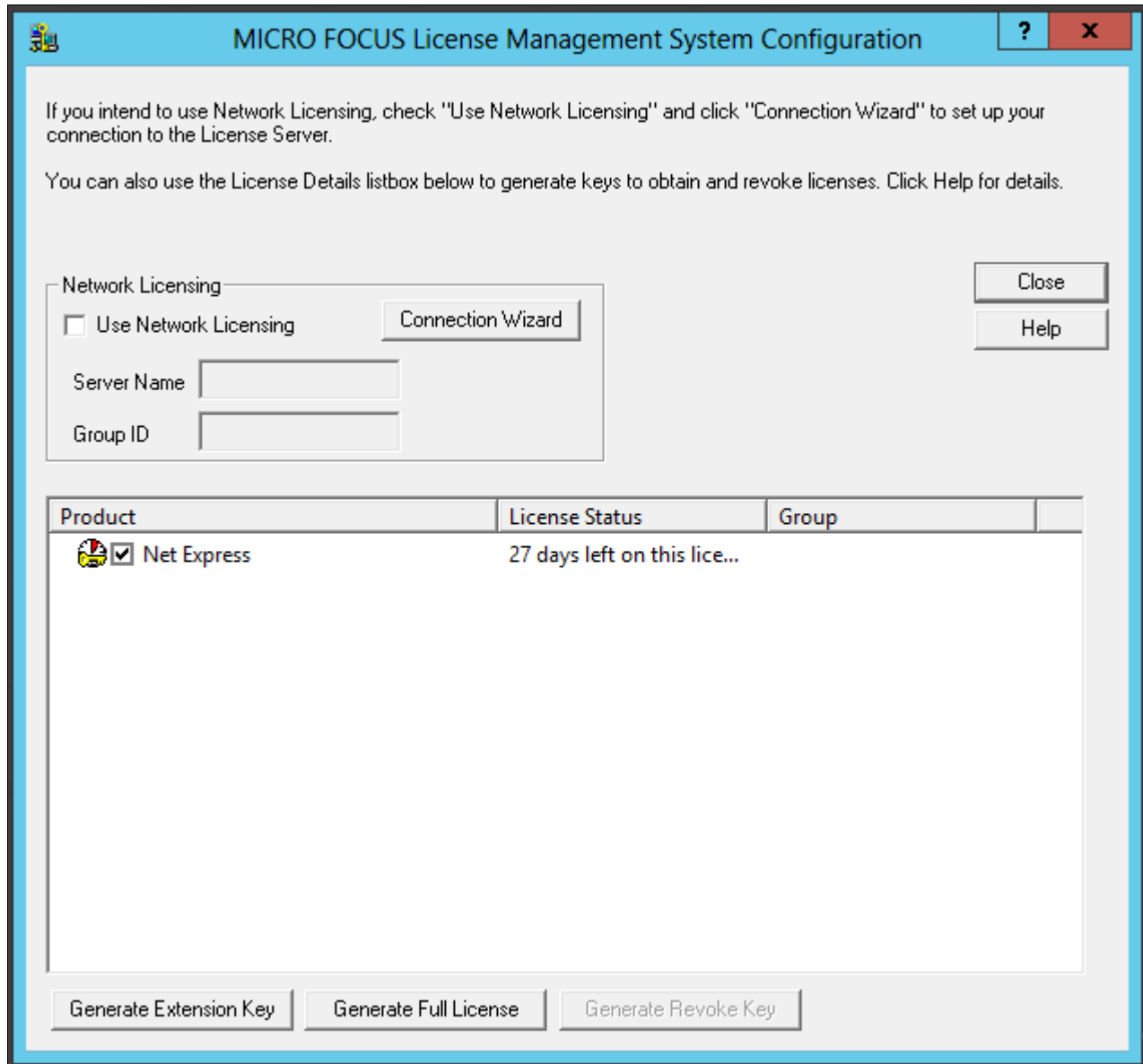
Task 13-3-1: Configuring a Full License with the License Server

To configure a Full License for permanent use:

1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.

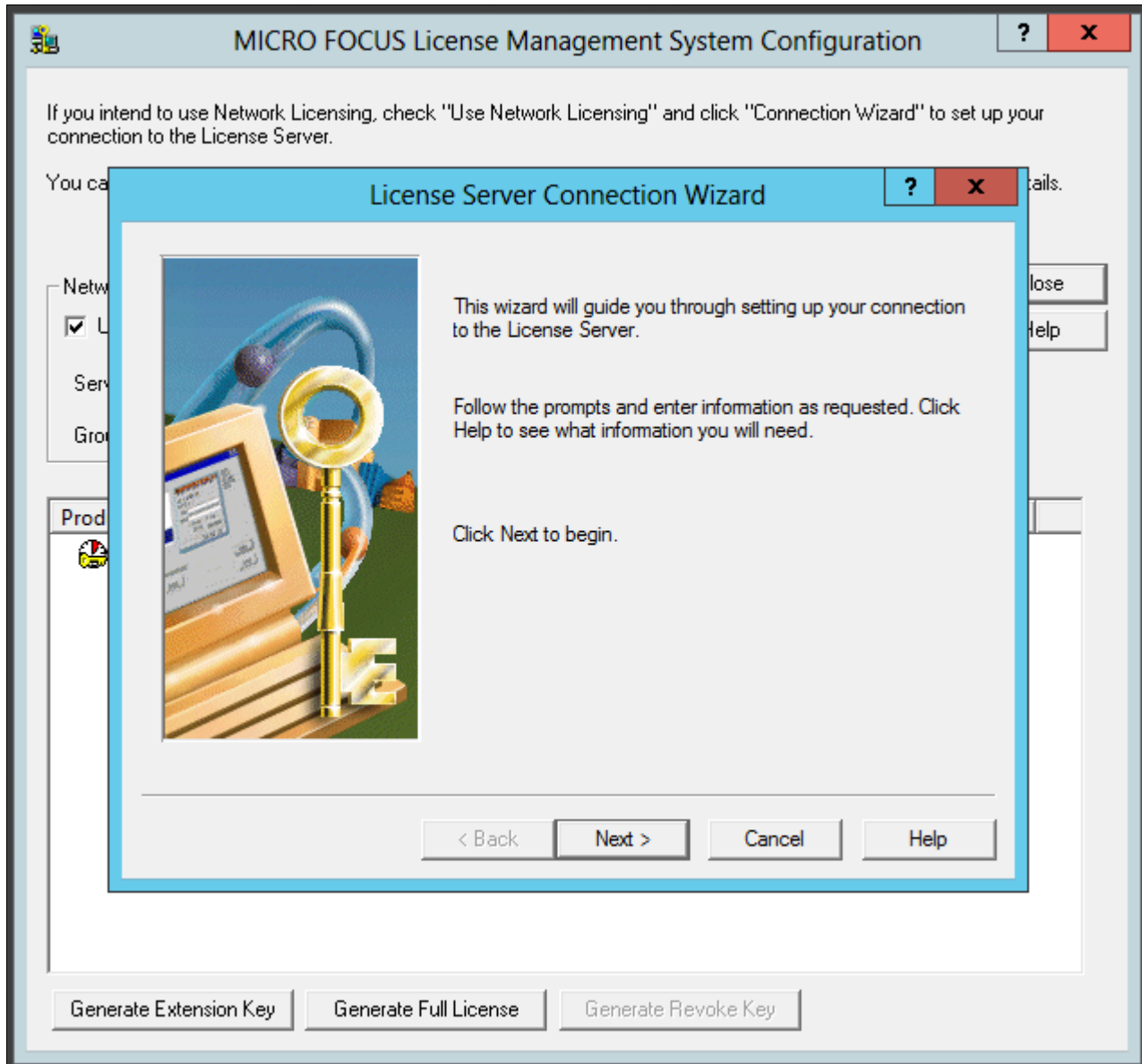
Note. Alternatively, run `NE_HOME\Bin\protcfg.exe`, where `NE_HOME` is the directory where you installed Micro Focus Net Express.

2. Select the option Use Network Licensing, and click Connection Wizard, as shown in this example:



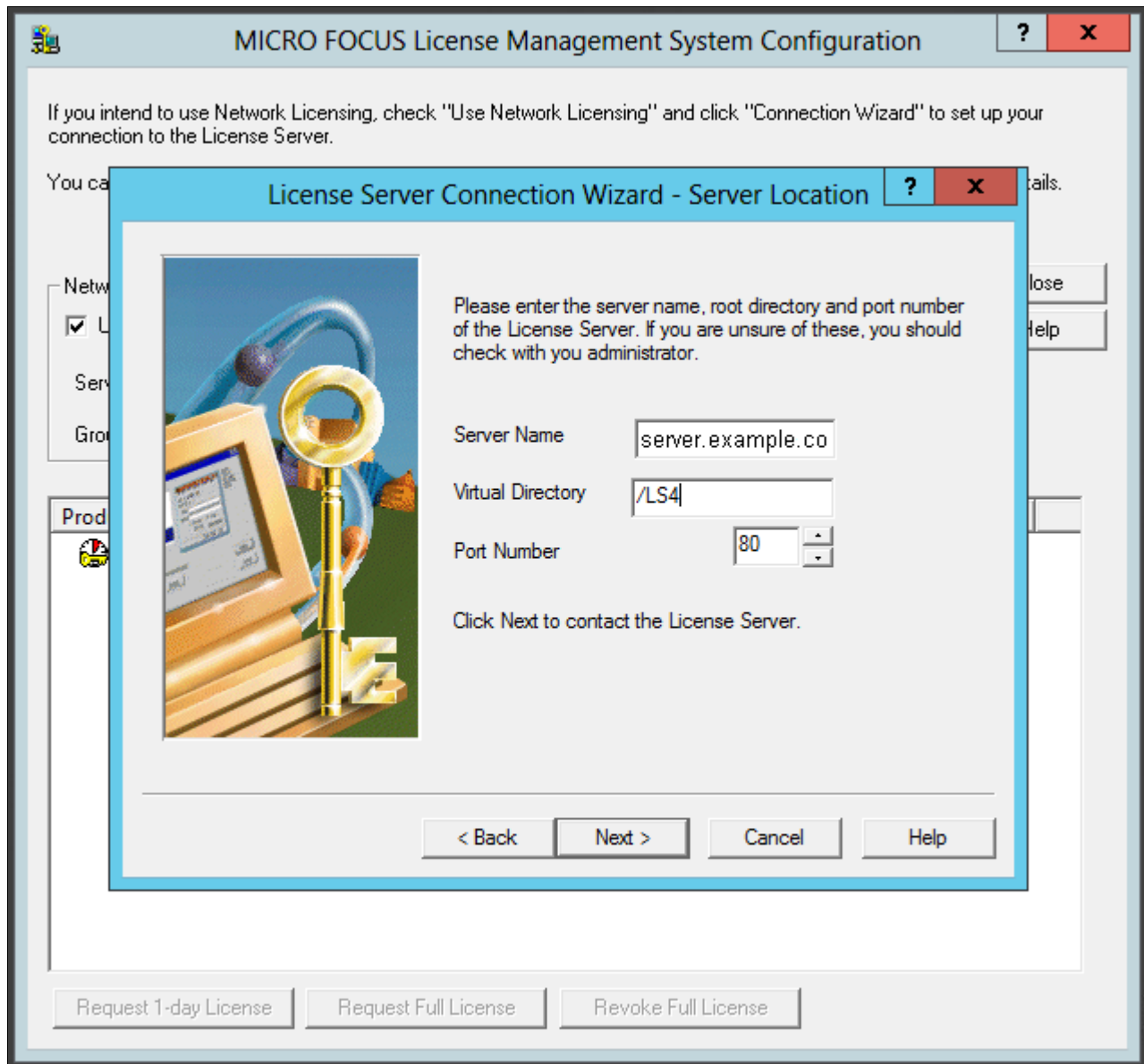
MICRO FOCUS License Management System Configuration window

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.

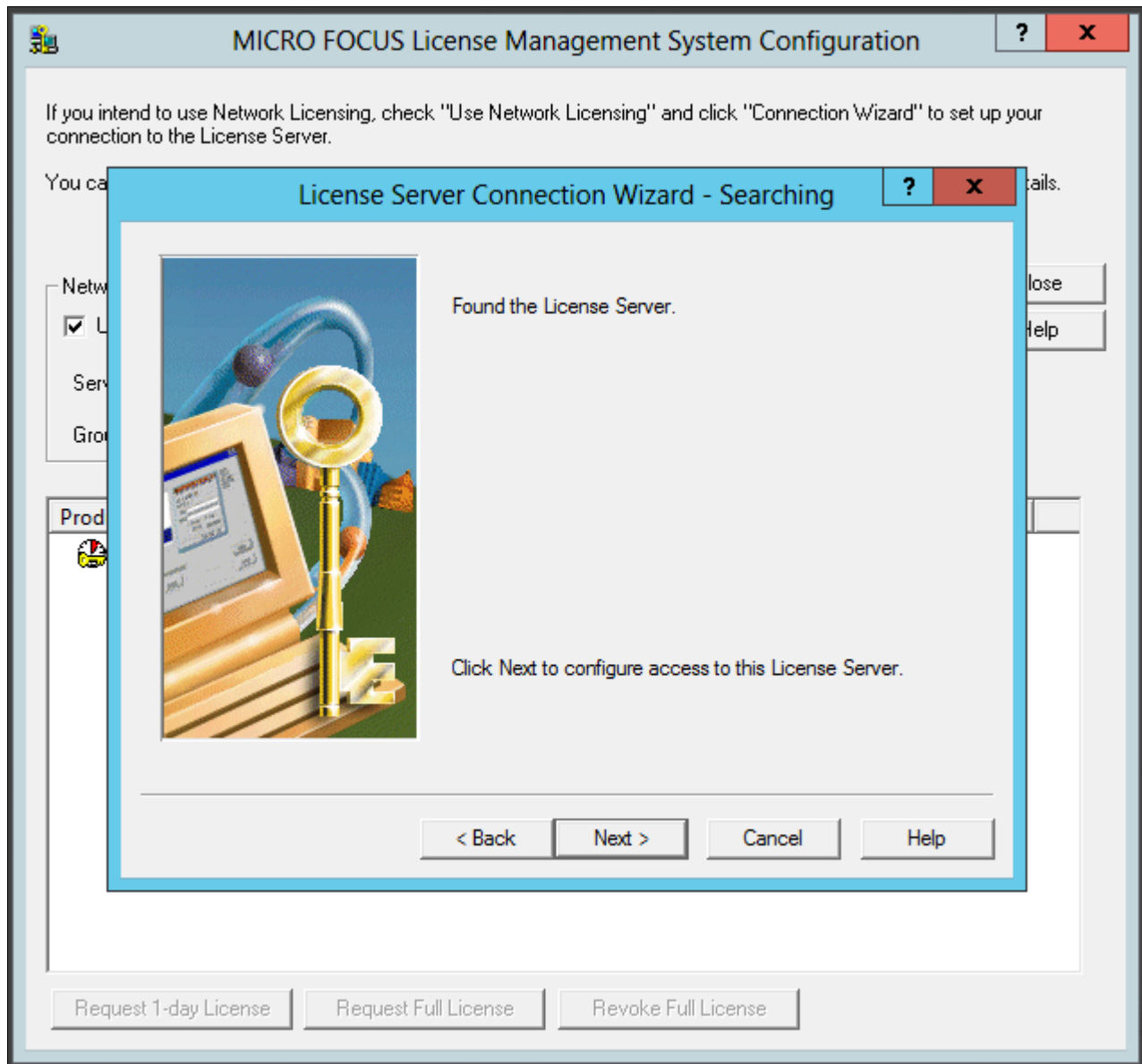


License Server Connection Wizard - Server Location window

- 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.

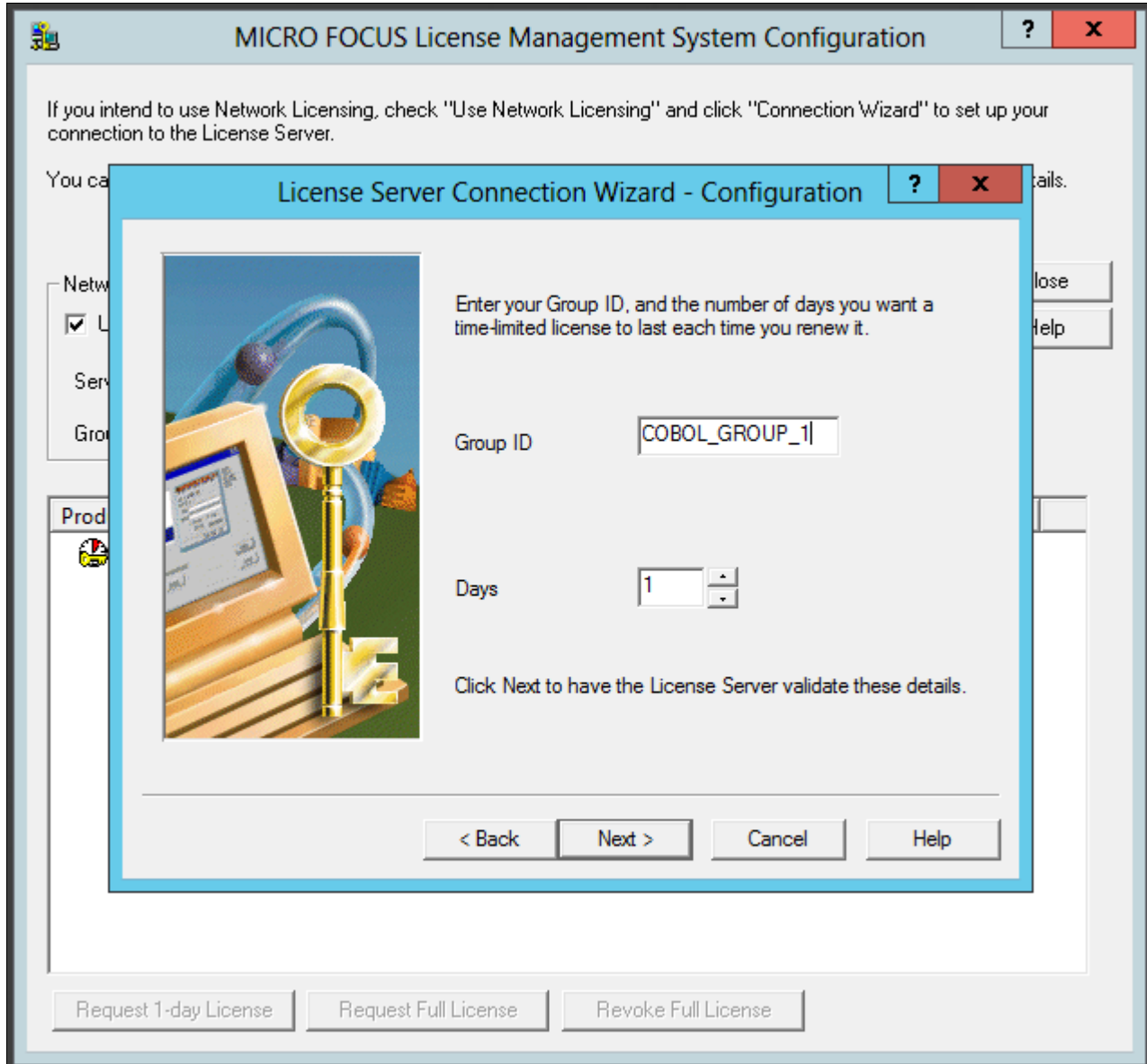


License Server Connection Wizard - Searching window

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.

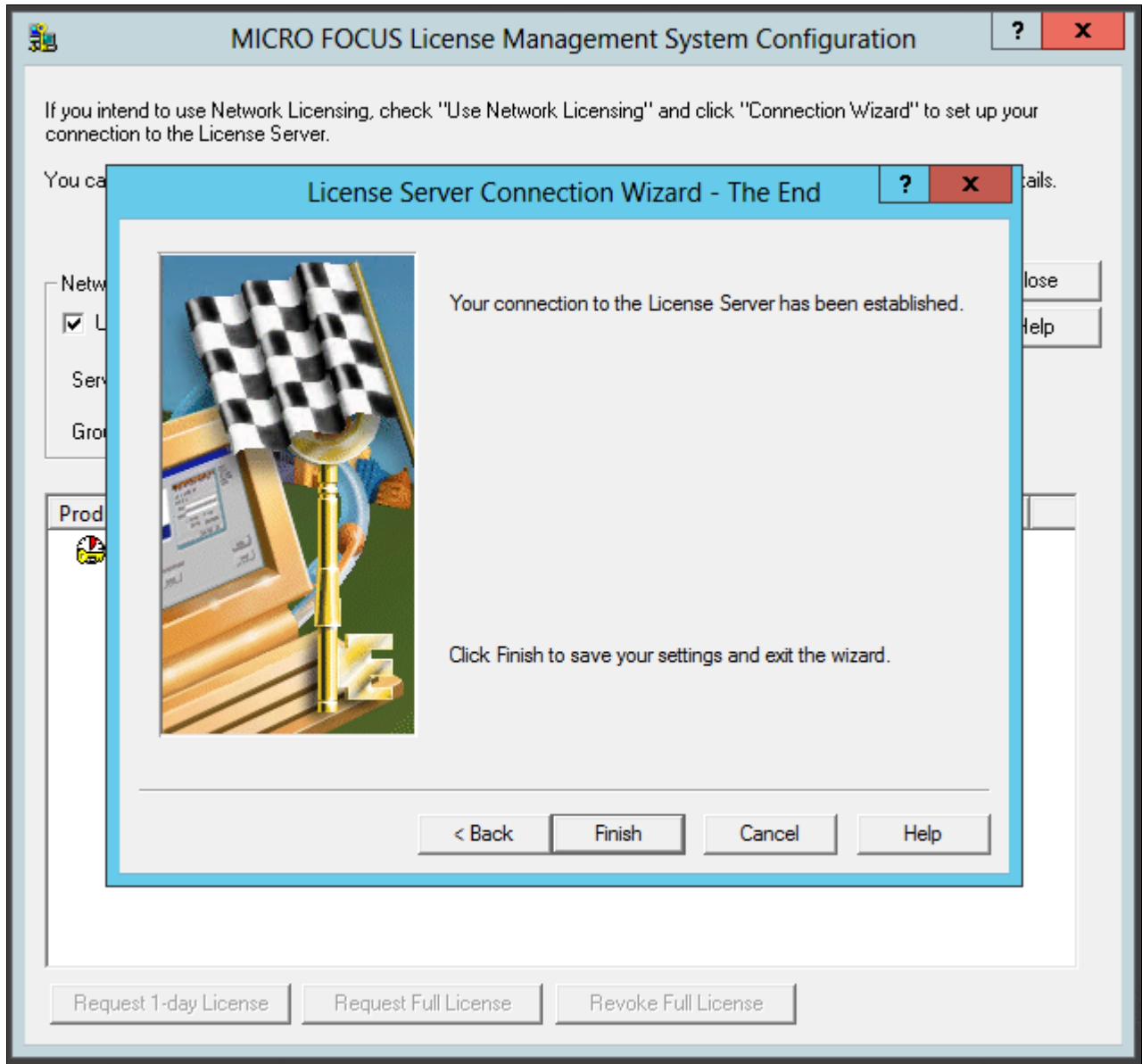
Note. Although you enter one day here, you complete a step later that requests permanent license status.

Click Next.



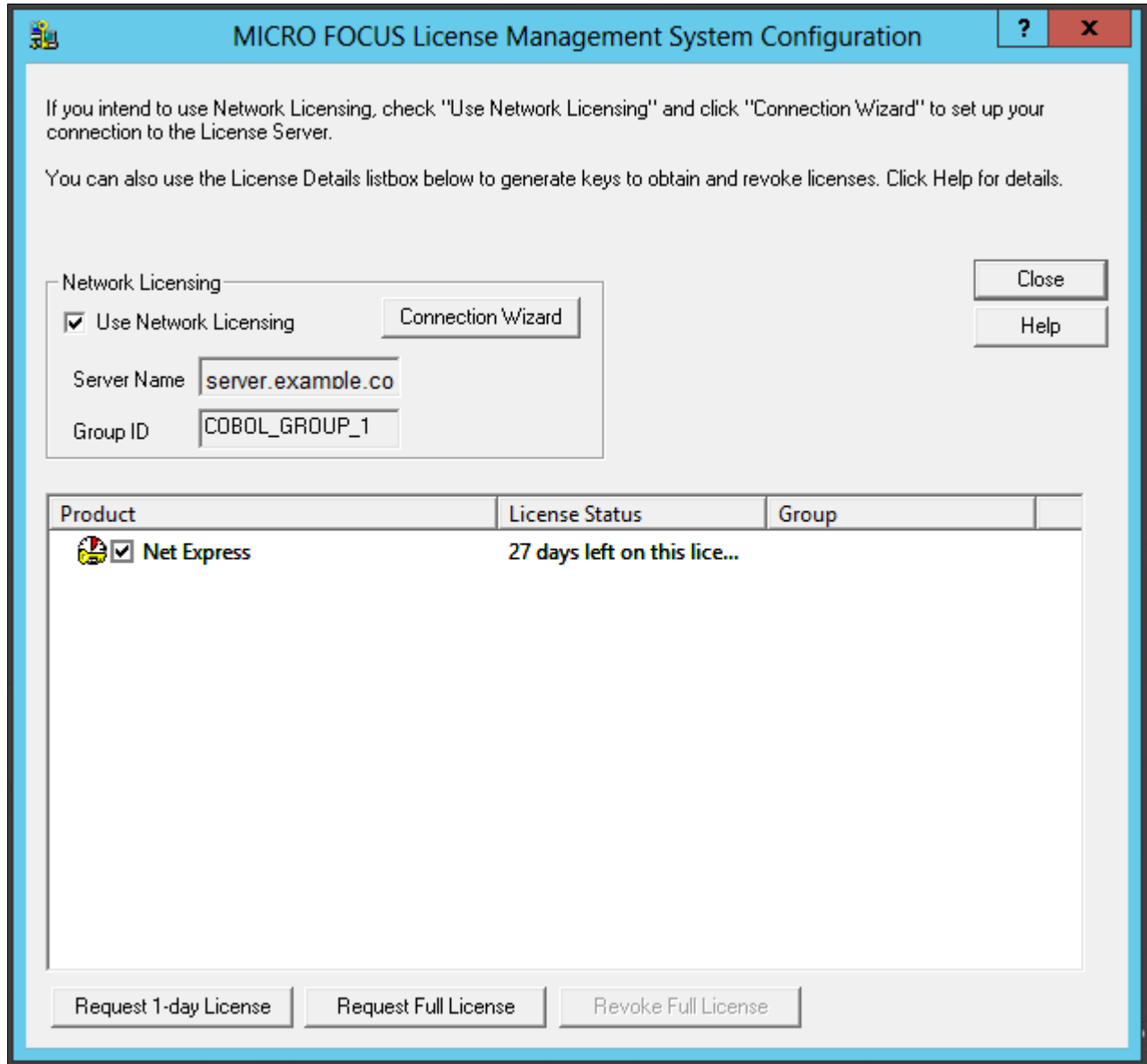
License Server Connection Wizard - Configuration window

7. Click Finish to exit the wizard, as shown in this example:



License Server Connection Wizard - The End window

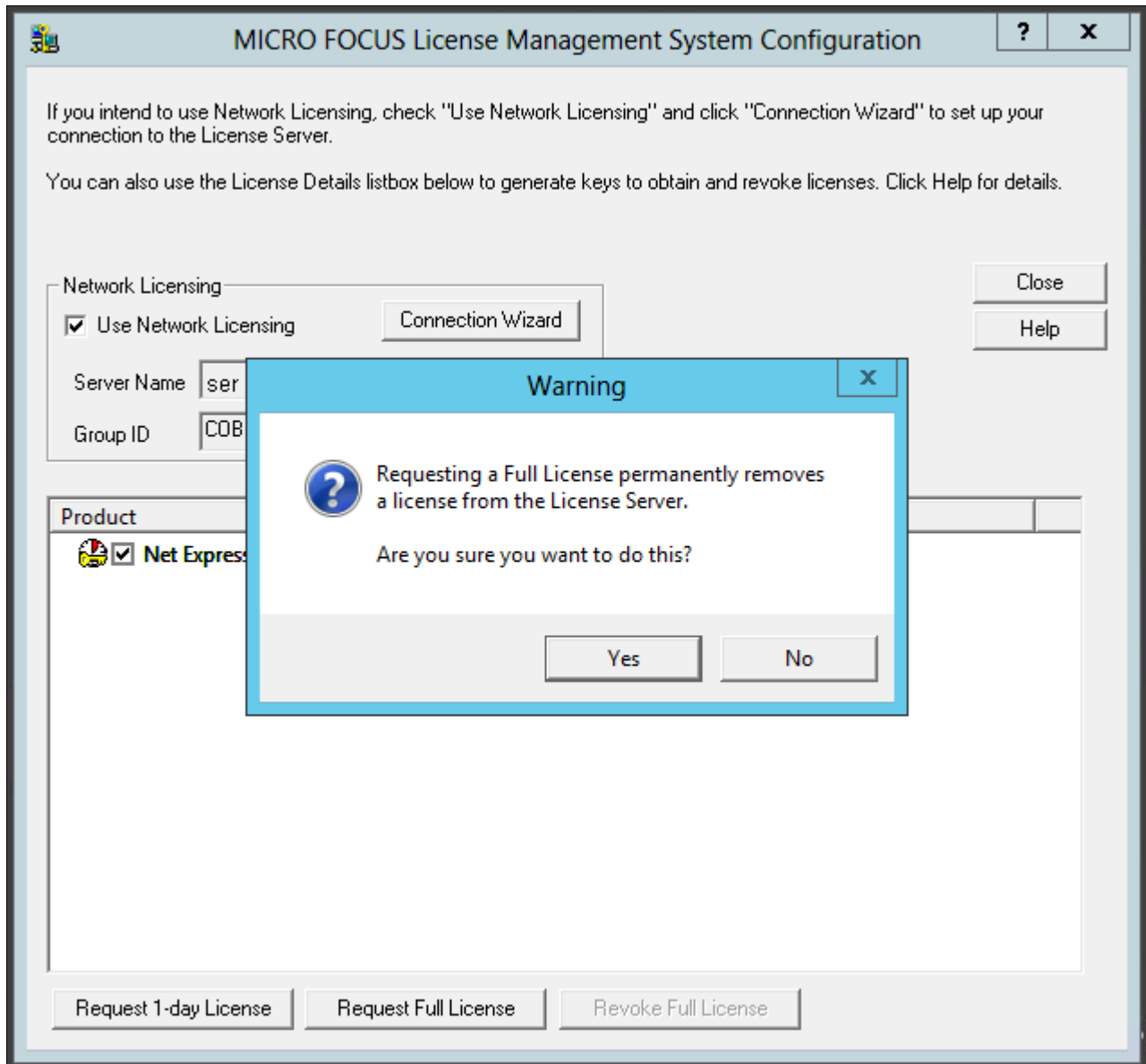
8. In the details list on the MICRO FOCUS License Management System Configuration dialog box, select the check box for Net Express, and then click Request Full License, as shown in this example:



MICRO FOCUS License Management System Configuration window

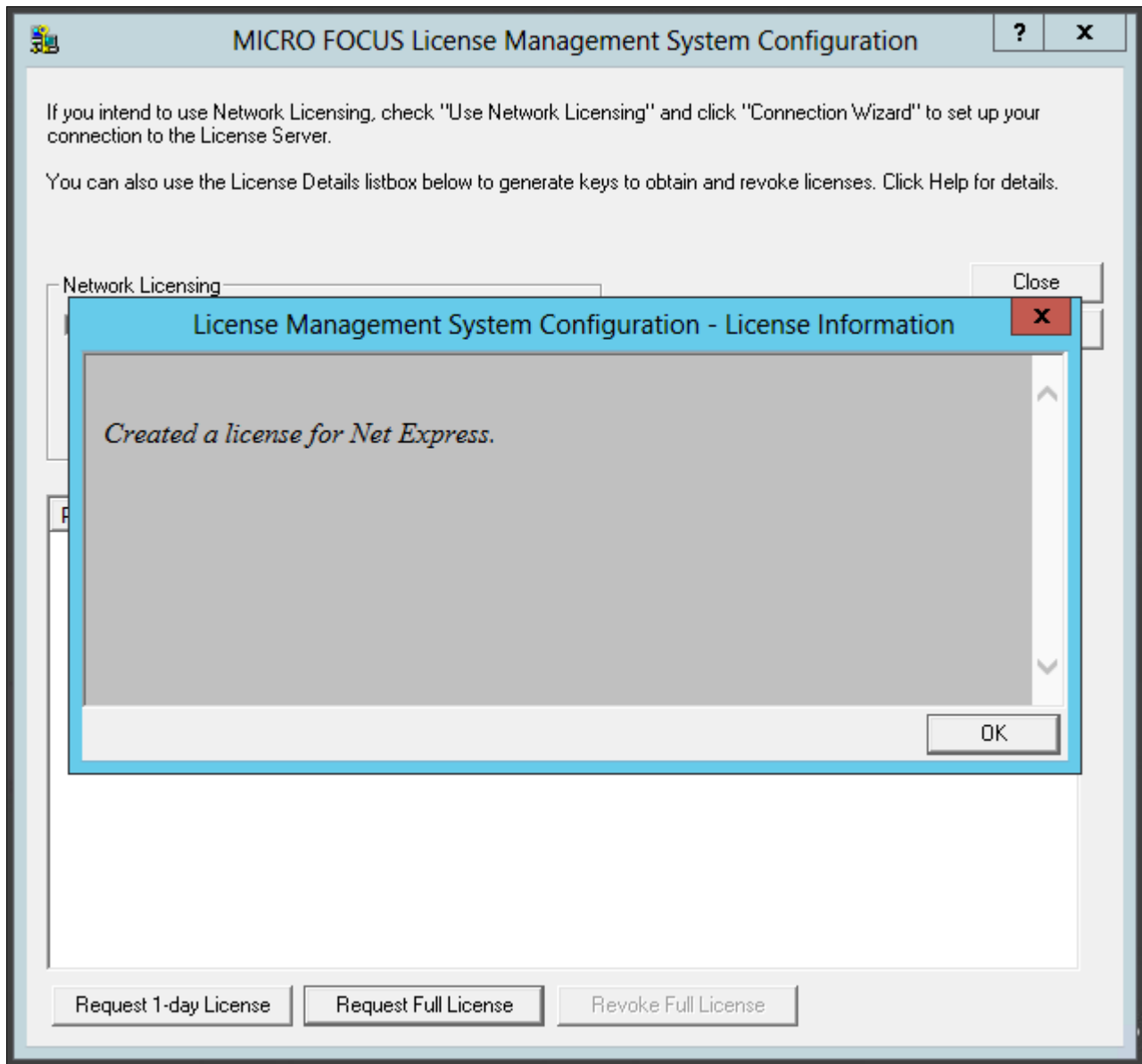
- 9. Click Yes to confirm that you want to request a full license, as shown in this example.

The warning message says that requesting a full license permanently removes a license from the license server.



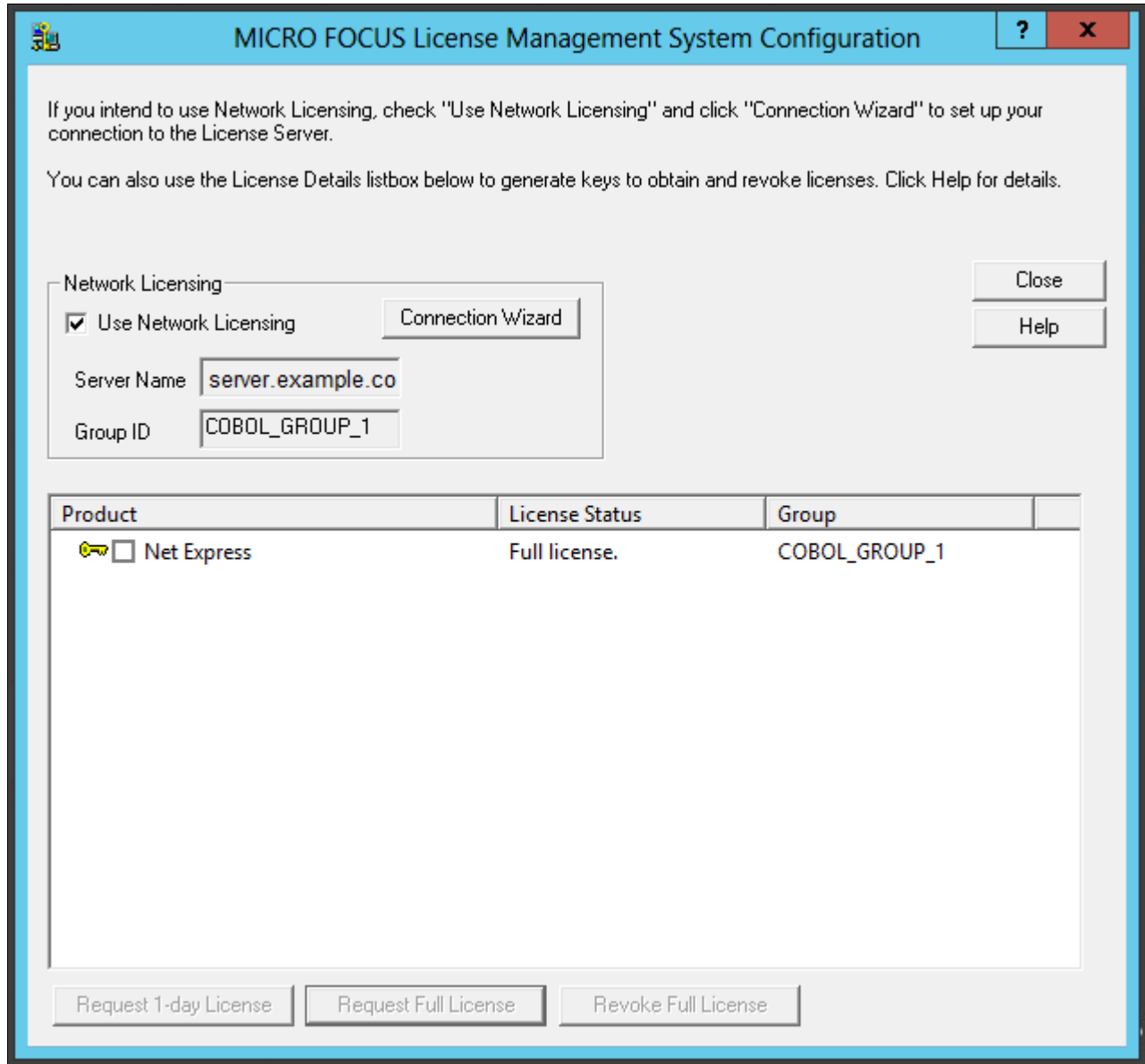
Warning message box when requesting a Full License

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

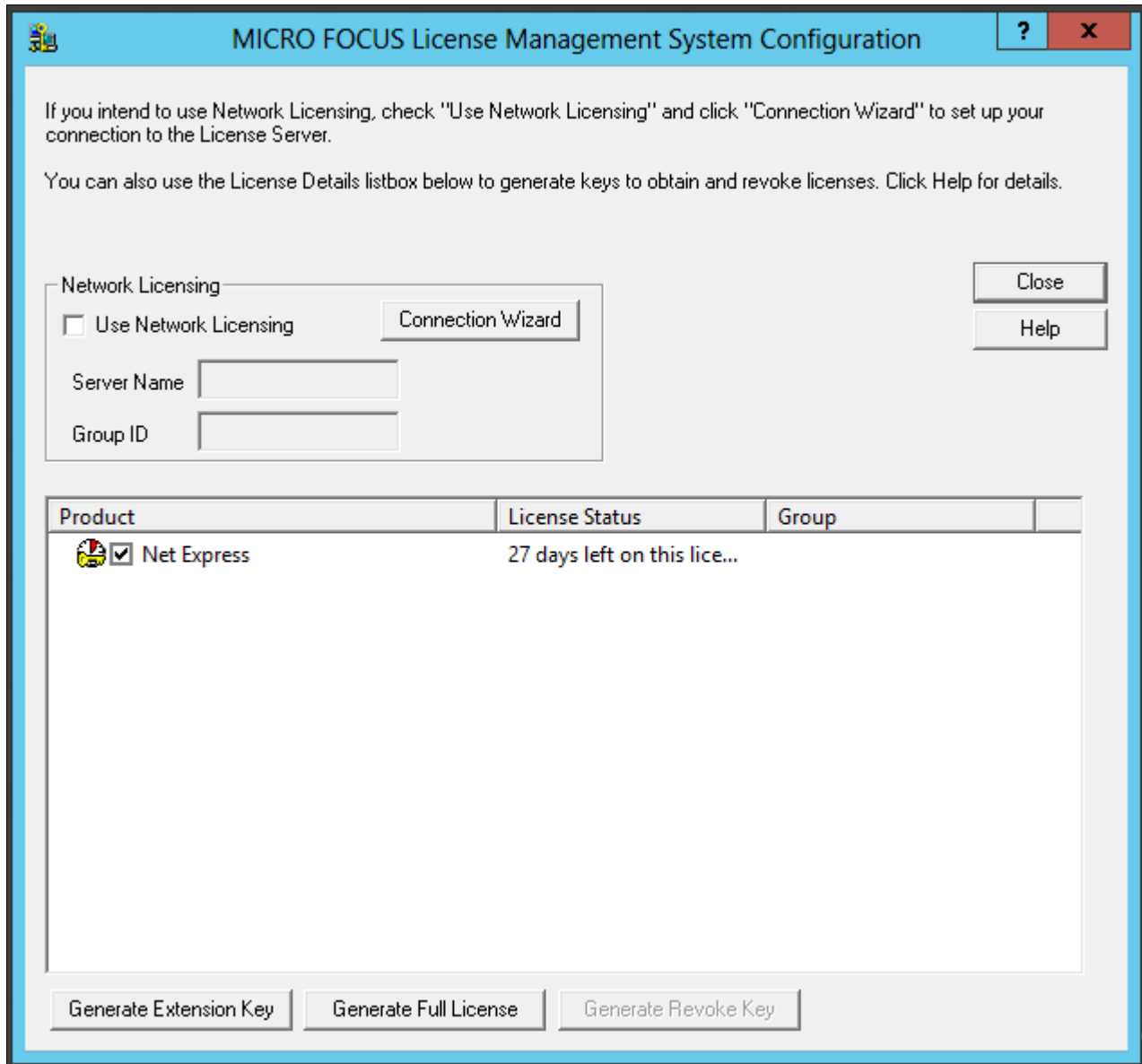
Task 13-3-2: Configuring a Timed License with the License Server

To configure a Timed License for temporary use:

1. Select Start, All Programs, Micro Focus Net Express 5.1, Configuration, License Management System.

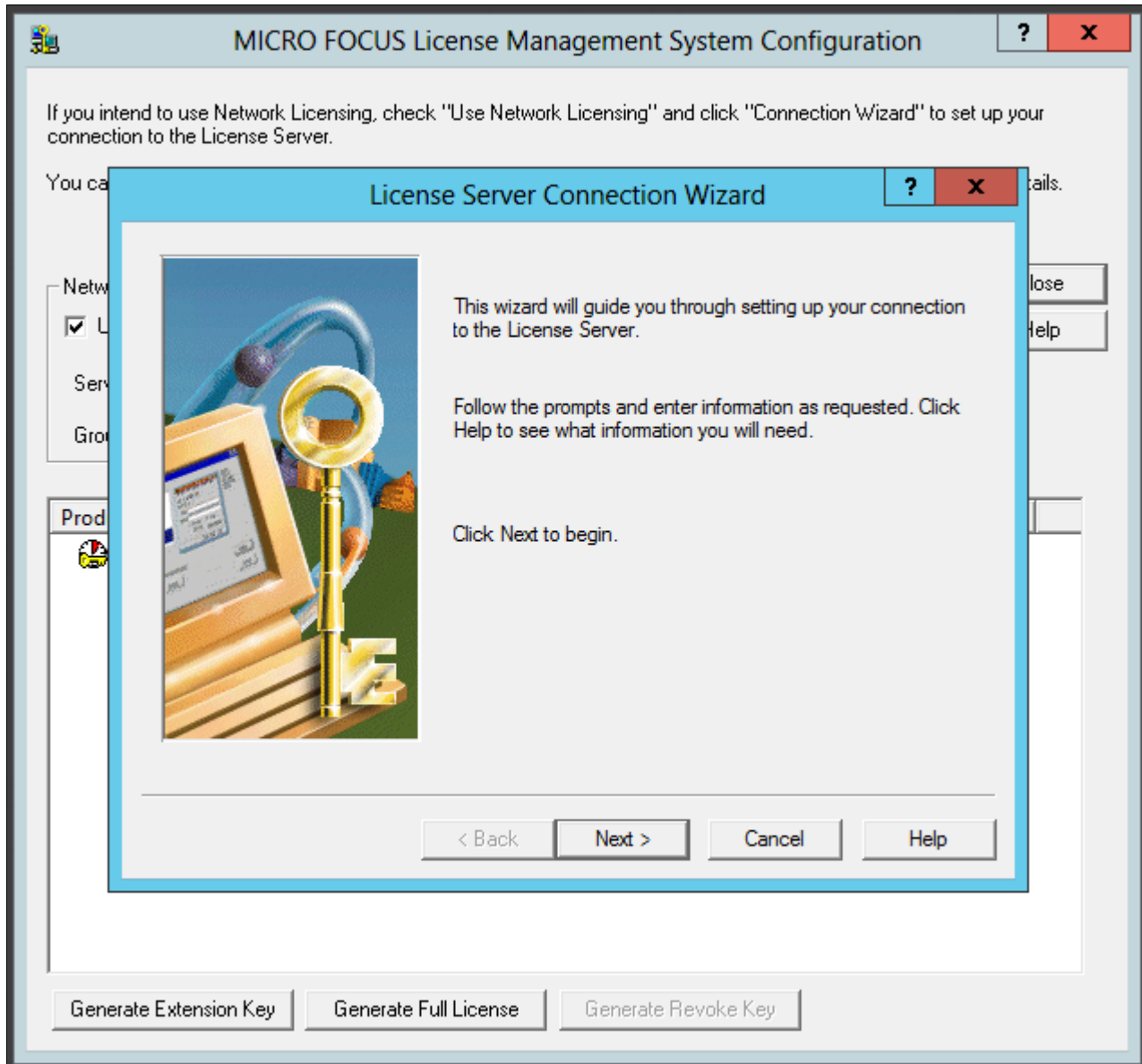
Note. Alternatively, run `NE_HOME\Bin\protcfg.exe`, where `NE_HOME` is the directory where you installed Micro Focus Net Express.

2. Select the option Use Network Licensing, and click Connection Wizard, as shown in this example:



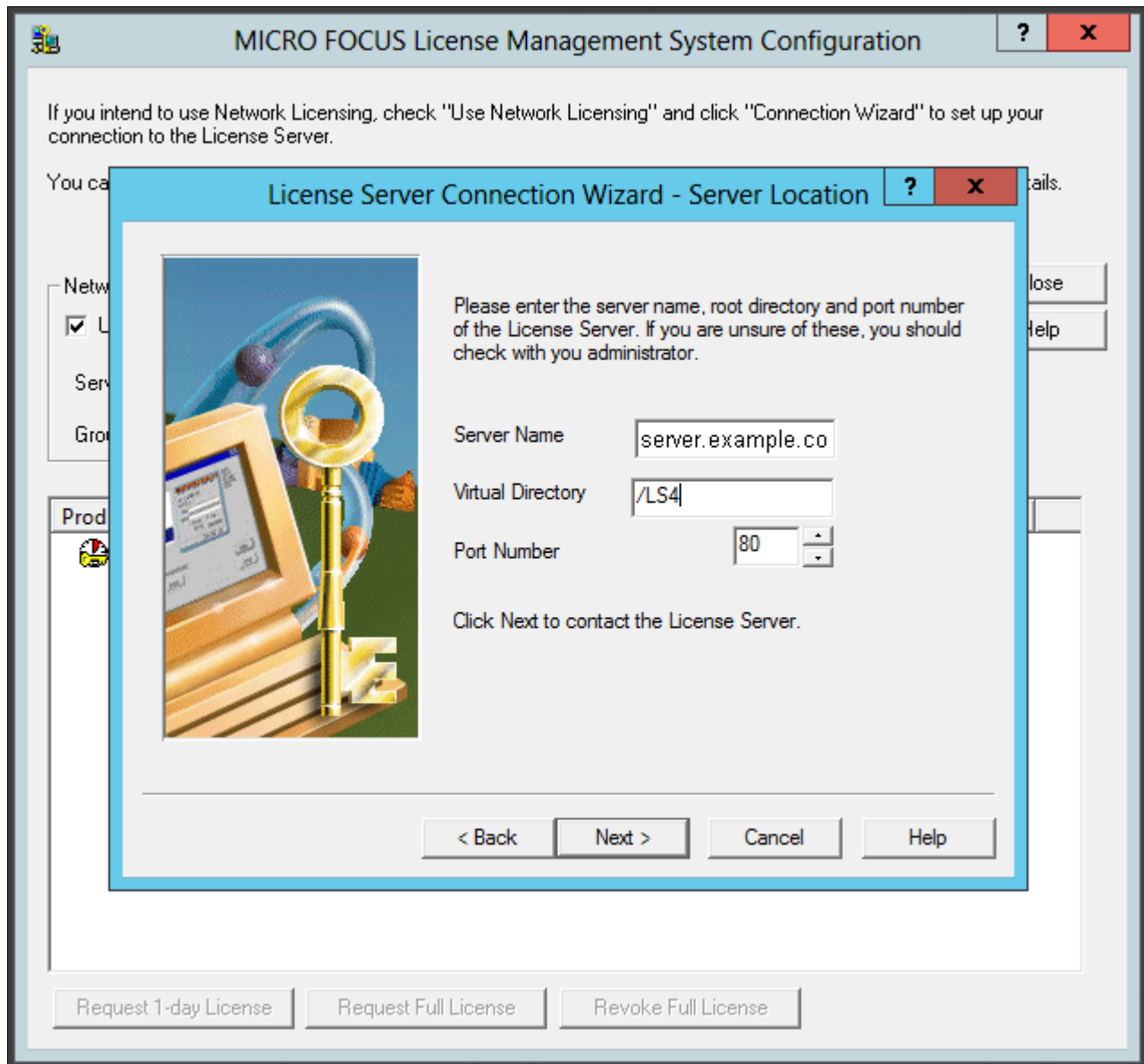
MICRO FOCUS License Management System Configuration window

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.

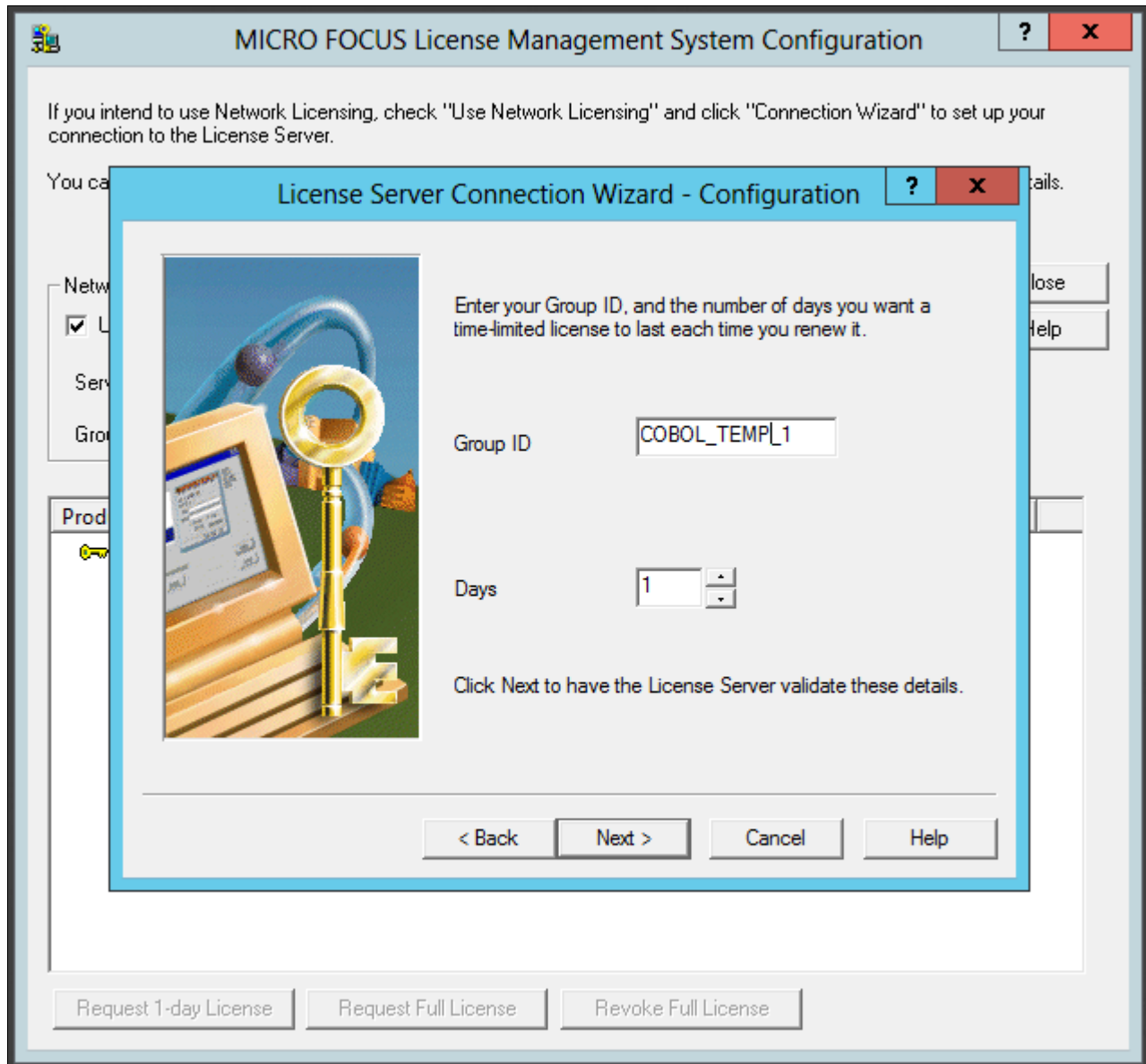


License Server Connection Wizard - Server Location

- 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.

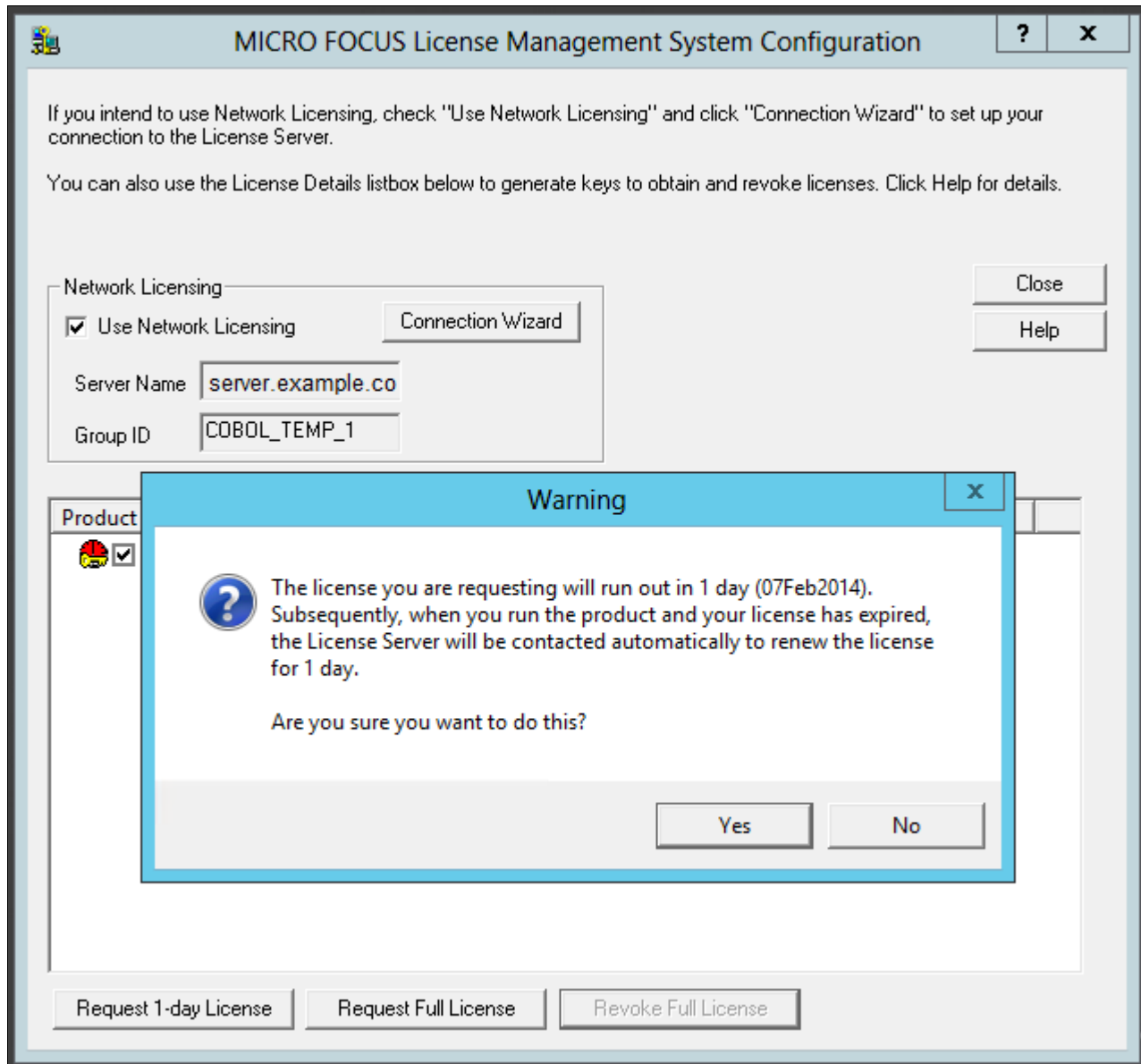


License Server Connection Wizard - Configuration window

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.

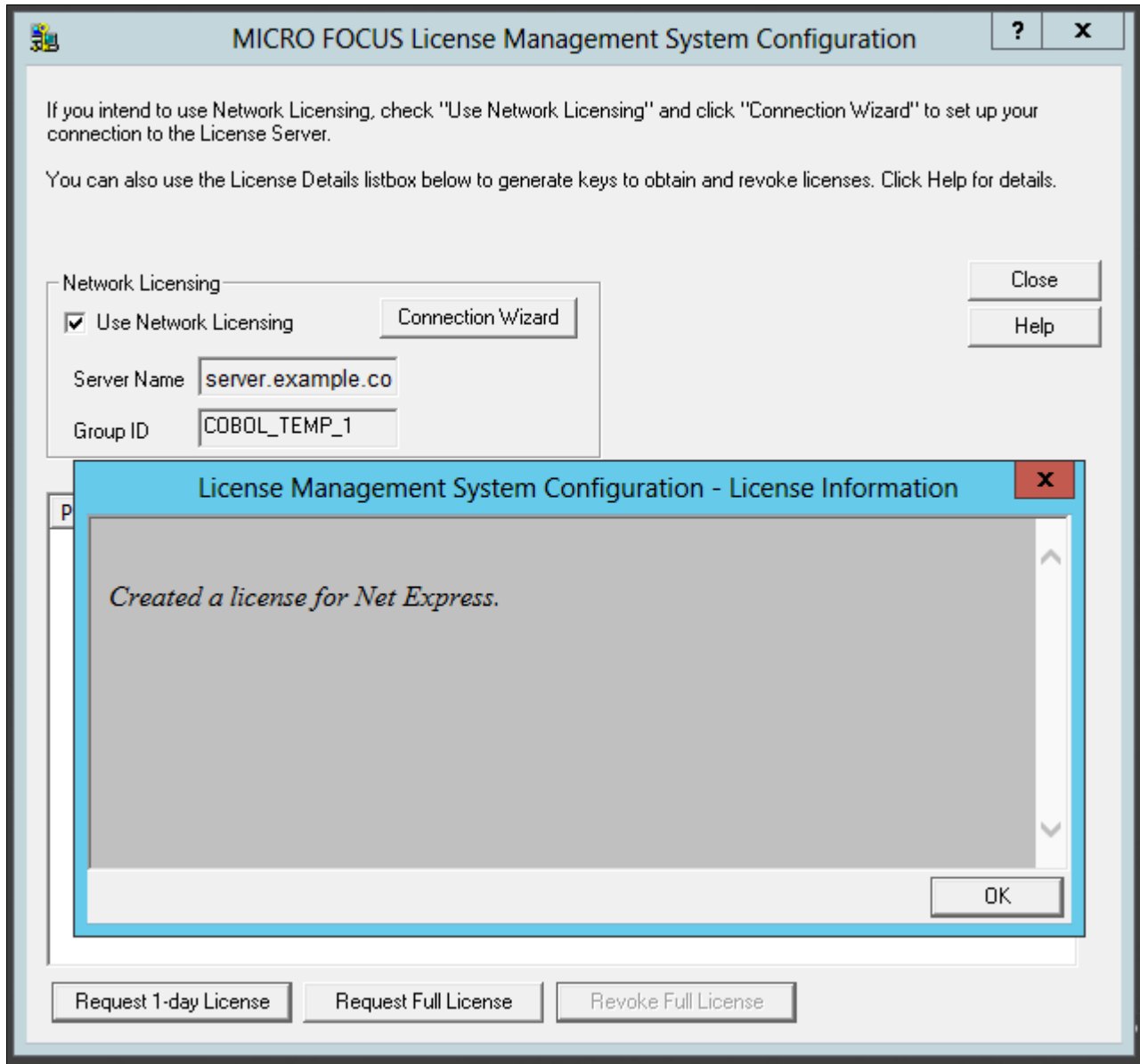
9. Click Yes to confirm that you want to request a timed (temporary) license, as shown in this example.

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.



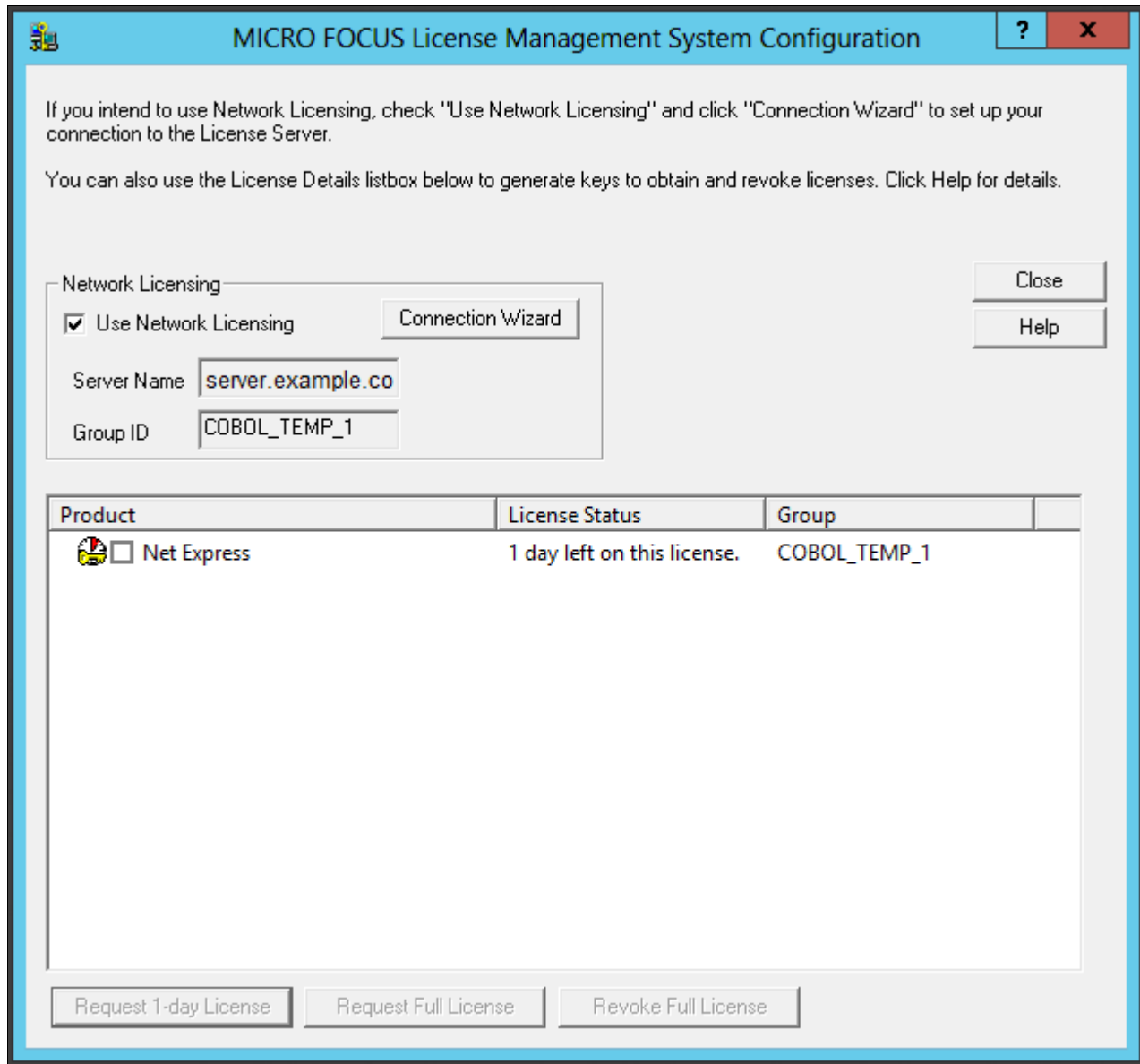
Warning message box when requesting a timed license

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 13-3-3: 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.

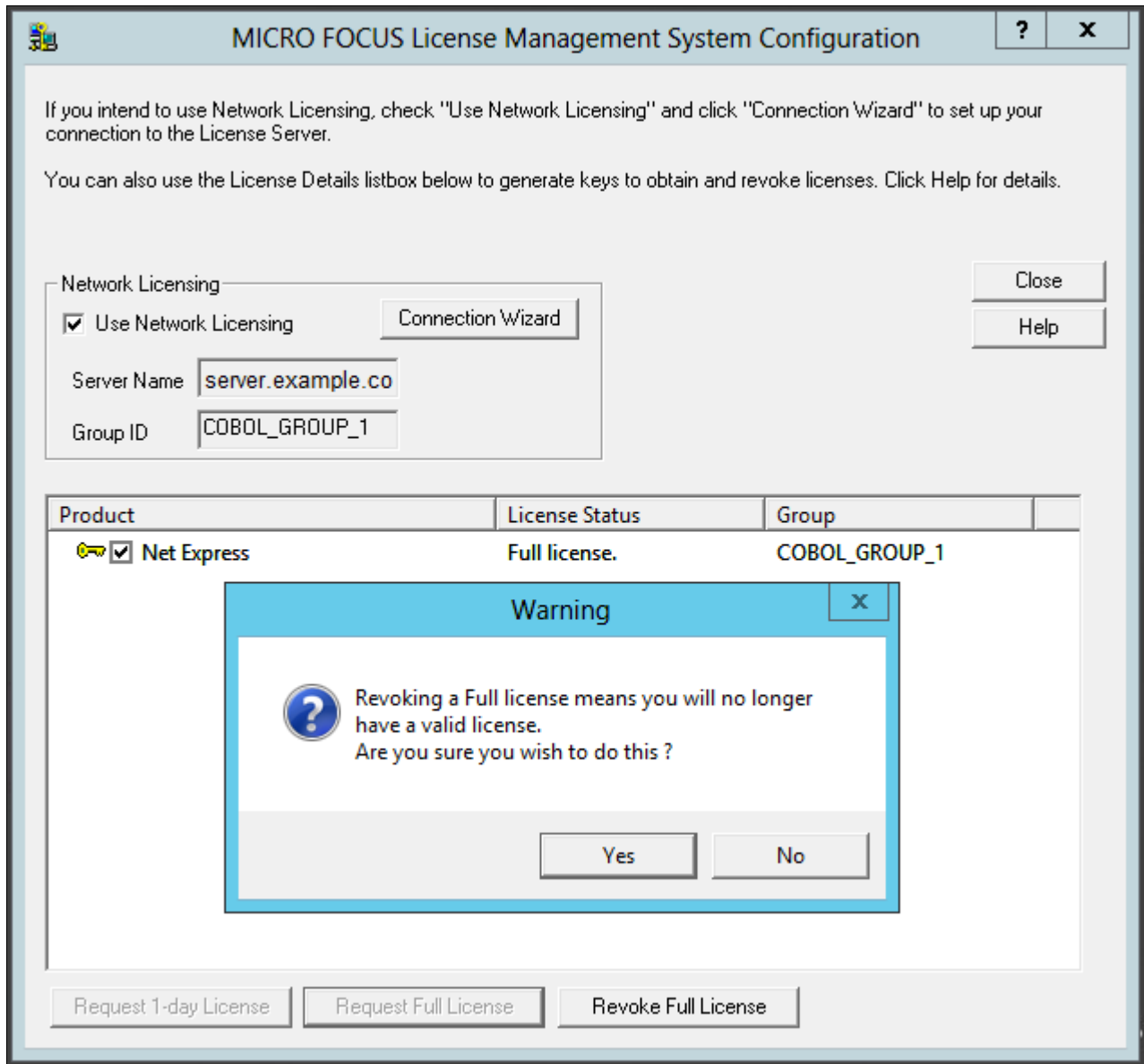
See Revoking the License by Removing the Installation.

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.

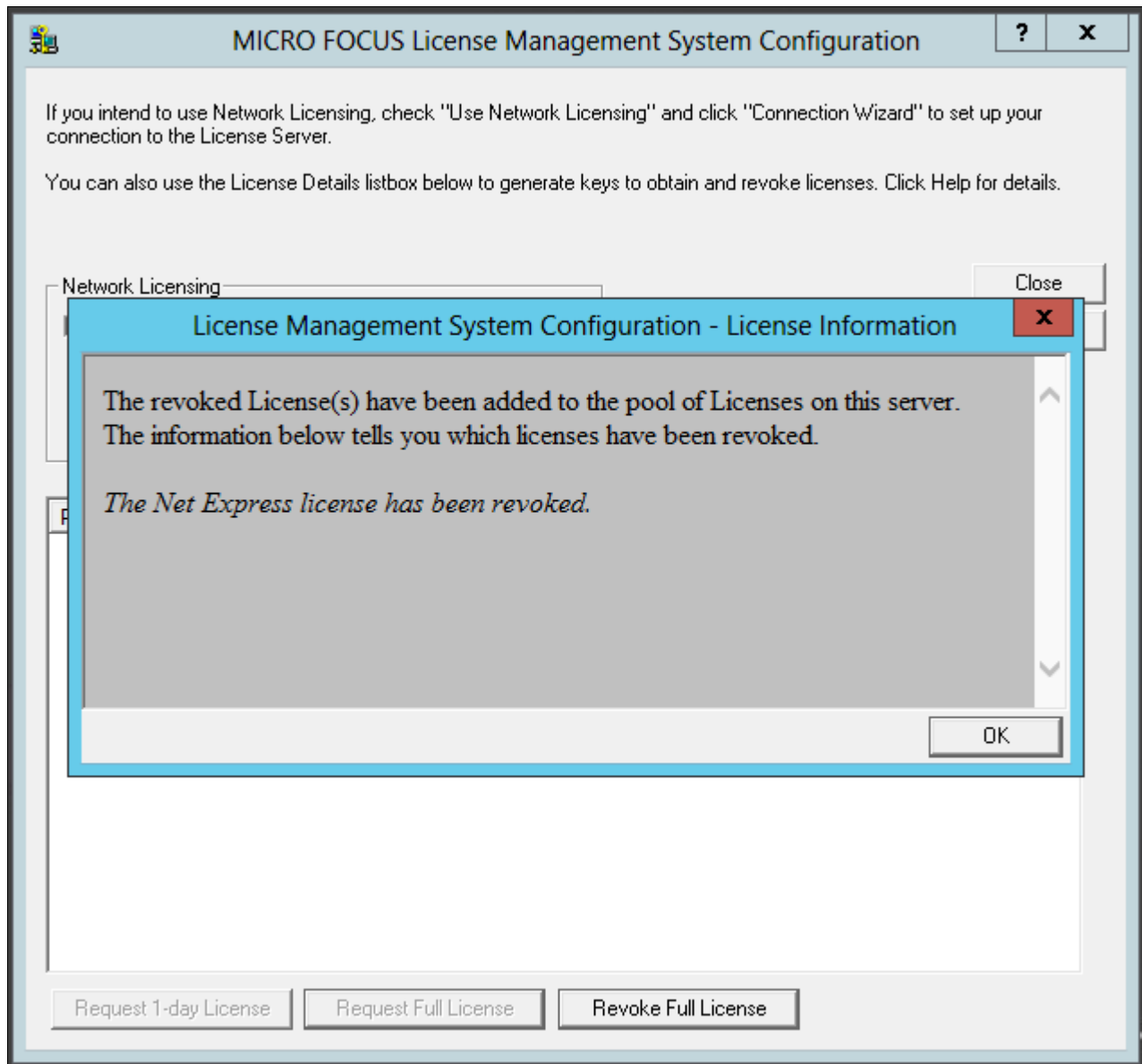
The warning message says that revoking a full license means that you will no longer have a valid license.



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.

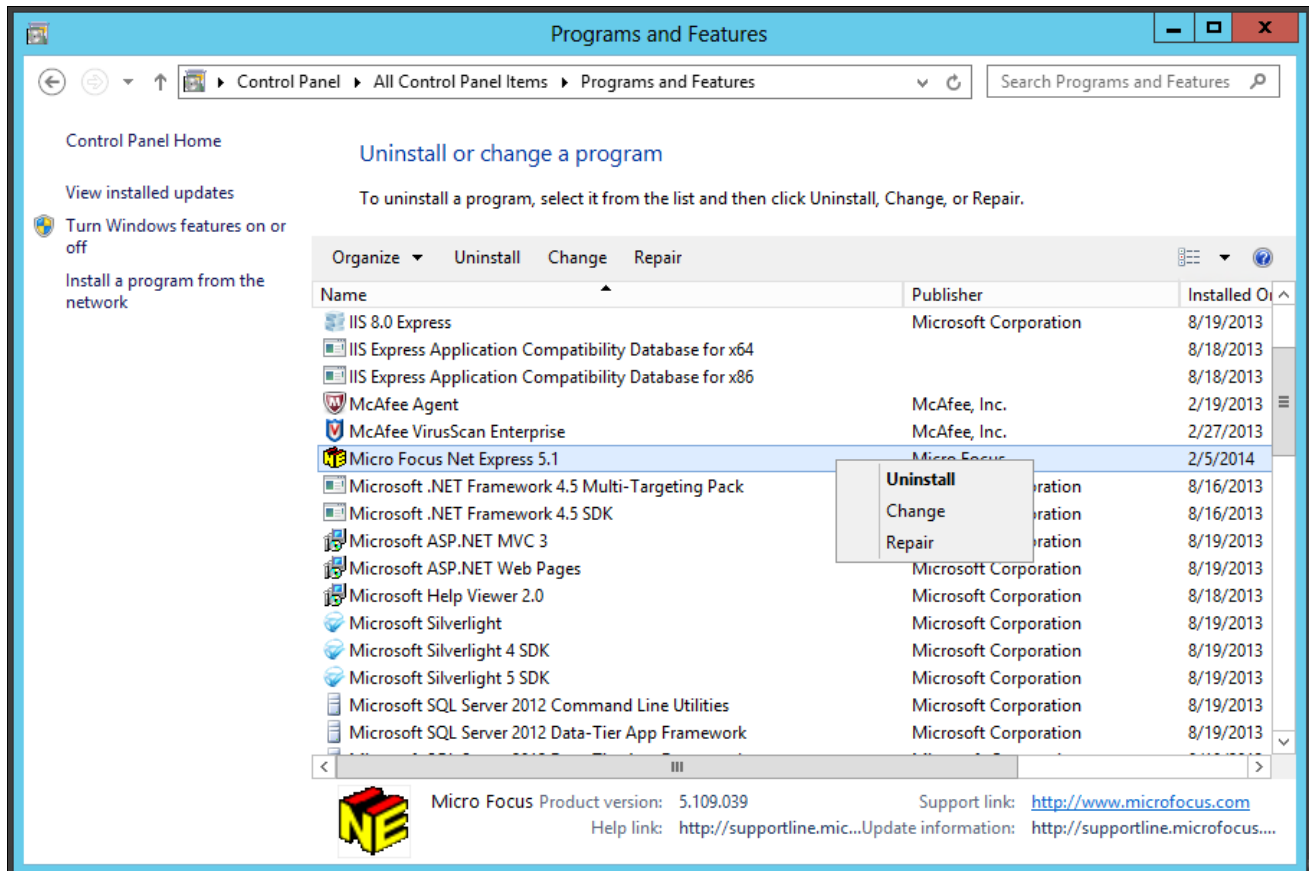
Task 13-3-4: Revoking the License by Removing the Installation

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.

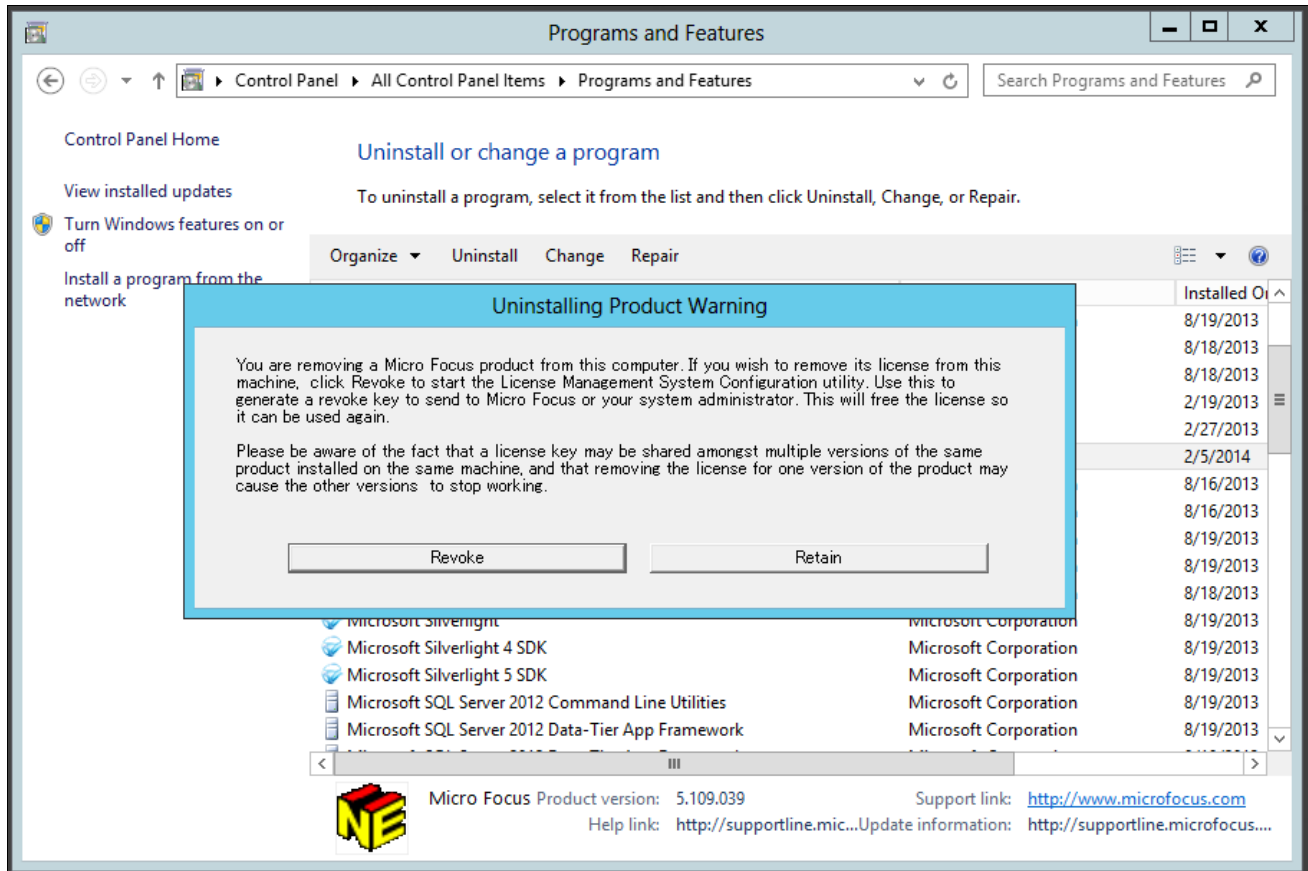
To remove the installation and revoke the license:

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

- 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.

- Follow the instructions in the previous section to revoke the license.
See [Revoking the License Using the License Management System](#).
- 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 13-4: 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 13-4-1: 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 13-4-2: 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*.

- 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
```

- 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*.

- 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.

- Open a command prompt window.
- 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*.

- 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.

- 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 13-4-3: 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
```

- 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
```

- 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.

- 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 13-4-4: 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 13-4-5: 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 13-4-6: 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 13-4-7: 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 14

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

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).

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 14-1: 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 14-1-1: 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/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=pt855pbr0&ctx=hcm92pbr7

This example shows the Web Profile Configuration page with a sample help URL for PeopleSoft PeopleTools 8.55 and PeopleSoft HCM 9.2:

Web Profile Configuration

My Homepage | New Window | Help | Personalize Page

General | Security | Authorized Site | Virtual Addressing | Cookie Rules | Caching | Debugging

Profile Name: PROD [Save As ...] [View History]

Description: Installation Defaults

Authentication Domain: .us.oracle.com ?

Help URL: oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&cbx=pt855pbr0&cbx=hom92pbr7 ?

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] [Notify] [Previous tab] [Next tab] [Add] [Update/Display]

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 14-1-2: Setting Up F1 Help with the PeopleSoft Online Help Web Site

PeopleTools Application Designer also has context-sensitive help available through the user's F1 key. To enable this help functionality, the PeopleTools Options must be configured to access the hosted content on the PeopleSoft Online Help Web site as follows:

1. In your PeopleSoft application, select PeopleTools, Utilities, Administration, PeopleTools Options.
2. Scroll down to the Help Options group.
3. Enter the value for the F1 URL field.

Specify the URL for the PeopleSoft PeopleTools online help for your release. The URL should be similar to the following:

http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt855pbr0

You can access the URL from the PeopleSoft Online Help Web site. Under Setting Up Context-Sensitive Help, select the link Enabling the Help Link from the Application Pages.

See PeopleSoft Online Help,

http://docs.oracle.com/cd/E17566_01/epm91pbr0/eng/psbooks/EnablingtheHelpLinkfromApplicationPages.pdf.

4. Save and exit the PeopleTools Options page.
5. Stop and restart the application server each time you update the help URL.
6. Open Application Designer. Press F1 to display the online help content.
7. For context-sensitive help, open an object, such as a panel or PeopleCode, then press F1.

Task 14-2: 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 14-2-1: 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 14-2-2: 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 14-2-3: 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."

Chapter 15

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 15-1: 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 15-1-1: 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 15-2: 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 15-2-1: 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 15-3: 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 15-4: 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:

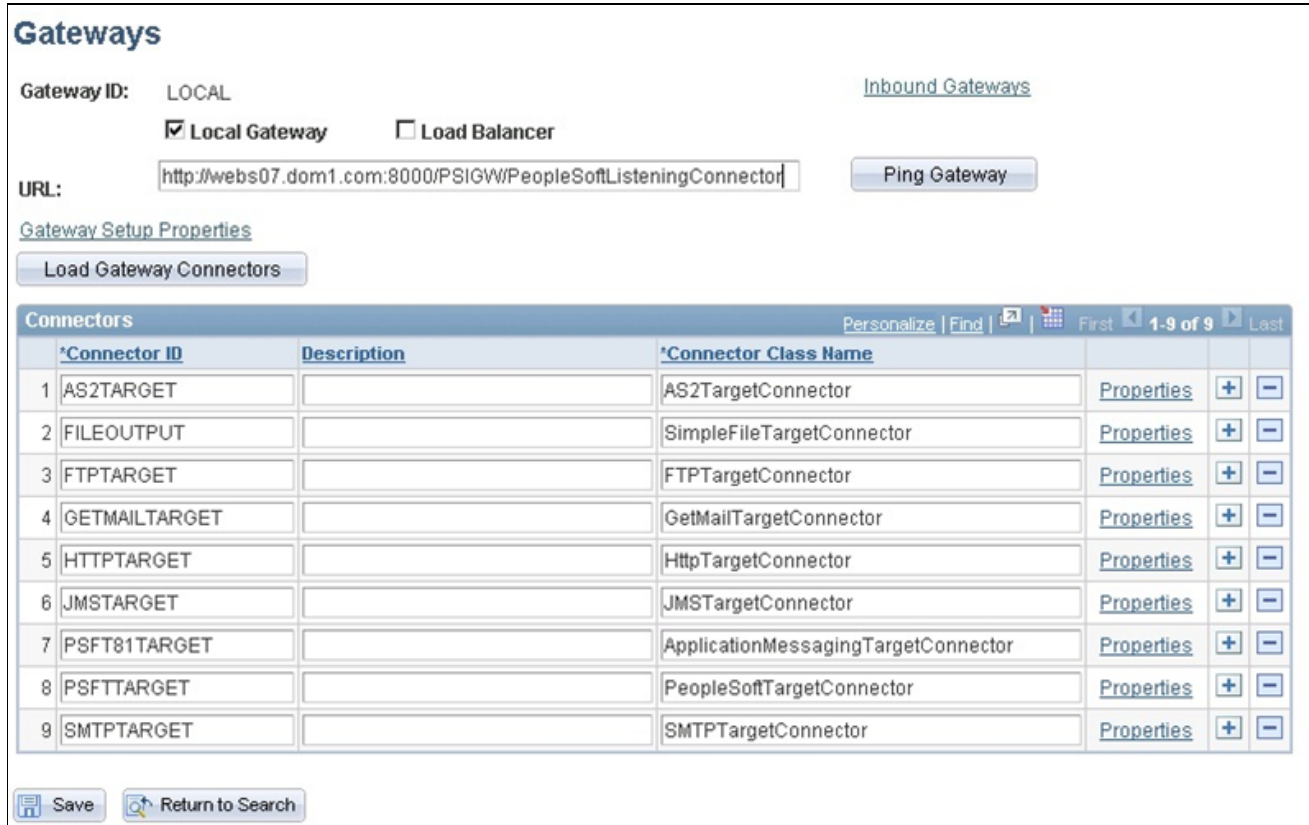
1. Select PeopleTools, Integration Broker, Configuration, Gateways.
2. Select the Integration Gateway ID for which the Local Gateway is enabled from the search results.
An enabled Local Gateway is marked as "Y" in the search results.

- In the URL field, enter the following value, where <machine_name> is the Web server machine name, including the domain name, and <port> is the HTTP port number of the PeopleSoft web server:

http://<machine_name>:<port>/PSIGW/PeopleSoftListeningConnector

This example shows the Integration Broker Gateways page with the URL

http://webs07.dom1.com:8000/PSIGW/PeopleSoftListeningConnector, where webs07.dom1.com is the combined machine name and domain name, and 8000 is the HTTP port:



Integration Broker Gateways page

- 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.

- 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.

- Select PeopleTools, Integration Broker, Service Operations Monitor, Administration, Domain Status.
- 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 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 16

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 or Linux platforms.

When you install your PeopleSoft application, consult the product-specific installation guide to determine whether the Web Application Deployment tool is required. If the Web Application Deployment tool is not referenced in the product-specific installation guide, you can skip this chapter.

Before you install the Web Application Deployment tool, confirm that you have completed the following requirements.

If you use Oracle WebLogic as your web server, you must fulfill these requirements:

- Java 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 or Linux, run the Web Application Deployment installation with a user who owns IBM WebSphere, and who owns `PS_HOME`. Here are two examples:
 - If IBM WebSphere is owned by "root" and group "system", the Web Application Deployment installation must be run with "root" and group "system."

- If WebSphere is owned by user "wsadmin" and group "wsadmin", then the Web Application Deployment installation must be run with wsadmin and wsadmin as the user and group.

See Also

"Installing Web Server Products"

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

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

"Using the PeopleSoft Installer"

PeopleTools: System and Server Administration

PeopleSoft Customer Relationship Management Installation

Task 16-1: 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 16-1-1: 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.

For information on the parameters in the response file, see the previous sections in this chapter on installing the Web Application Deployment tool.

The response file includes the following sections:

- Comments and instructions, including the command to run the silent installation.
- Parameters needed for the installations, such as *PS_CFG_HOME*, *DOMAIN_NAME*, *SERVER_TYPE*.

Sample response file template:

```

# *****
#
# Response file for WebAppDeploy Installations
#
# 1. In Windows
# use "\\\" as file path separator
#   Open a command prompt; go to PS_HOME\setup\PsmWebAppDeployInstall=>
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/PsmWebAppDeployInstall and run following=>
commands
#   setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
#
#
# *****

# Set the below variable to the location where you want to install DES.
# PLEASE NOTE this variable could be ANY DIRECTORY on your machine. It=>
includes but is definitely not limited to PeopleTools Home.
PS_CFG_HOME=

# Domain Name
DOMAIN_NAME=

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

# WebLogic home, the location where Oracle WebLogic is installed (for Web=>
Logic deployment only)
BEA_HOME=C:\oracle

# WebSphere Home, the location where IBM WebSphere is installed (for Web=>
Sphere deployment only)
#WS_HOME=

# admin console user id/password for securing WebLogic/WebSphere admin=>
console credential
USER_ID=system
USER_PWD=
USER_PWD_RETYPE=

HTTP_PORT=80
HTTPS_PORT=443

# DES support only NEW_DOMAIN , so please do not change the below variable.
DOMAIN_TYPE=NEW_DOMAIN

# DES support only CREATE_NEW_DOMAIN , so please do not change the below=>

```

```

variable.
INSTALL_ACTION=CREATE_NEW_DOMAIN

# Install type to specify whether the installation is a single server or⇒
multi server deployment,
# possible values for INSTALL_TYPE are singleserver, multiserver,⇒
distributedmanagedserver
INSTALL_TYPE=singleserver

# If your PeopleSoft Applications install is decoupled from PS_HOME then⇒
PS_APP_HOME will be the actual path to PS_APP_HOME, else it should be the⇒
path to PS_HOME.
PS_APP_HOME=

# Please enter the CRM specific DB information

# possible values for DB_TYPE are MSSQL,ORACLE,DB2UDB
DB_TYPE=MSSQL
DB_SERVER_NAME=
DB_PORT=1433
DB_SERVER_INSTANCE=
DB_USER=Admin
DB_PASSWORD=

```

Task 16-1-2: 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 or Linux, run the following command, using "/" as a separator in the file path:

```
setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
```

For example:

```
setup.sh -i silent -DRES_FILE_PATH=/home/pt856/setup/PsMpWebAppDeploy⇒  
Install
```

Task 16-2: 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 17

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 17-1: 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 17-2: 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 18

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 18-1: 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 18-2: 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 18-3: 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 19

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 19-1: 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.

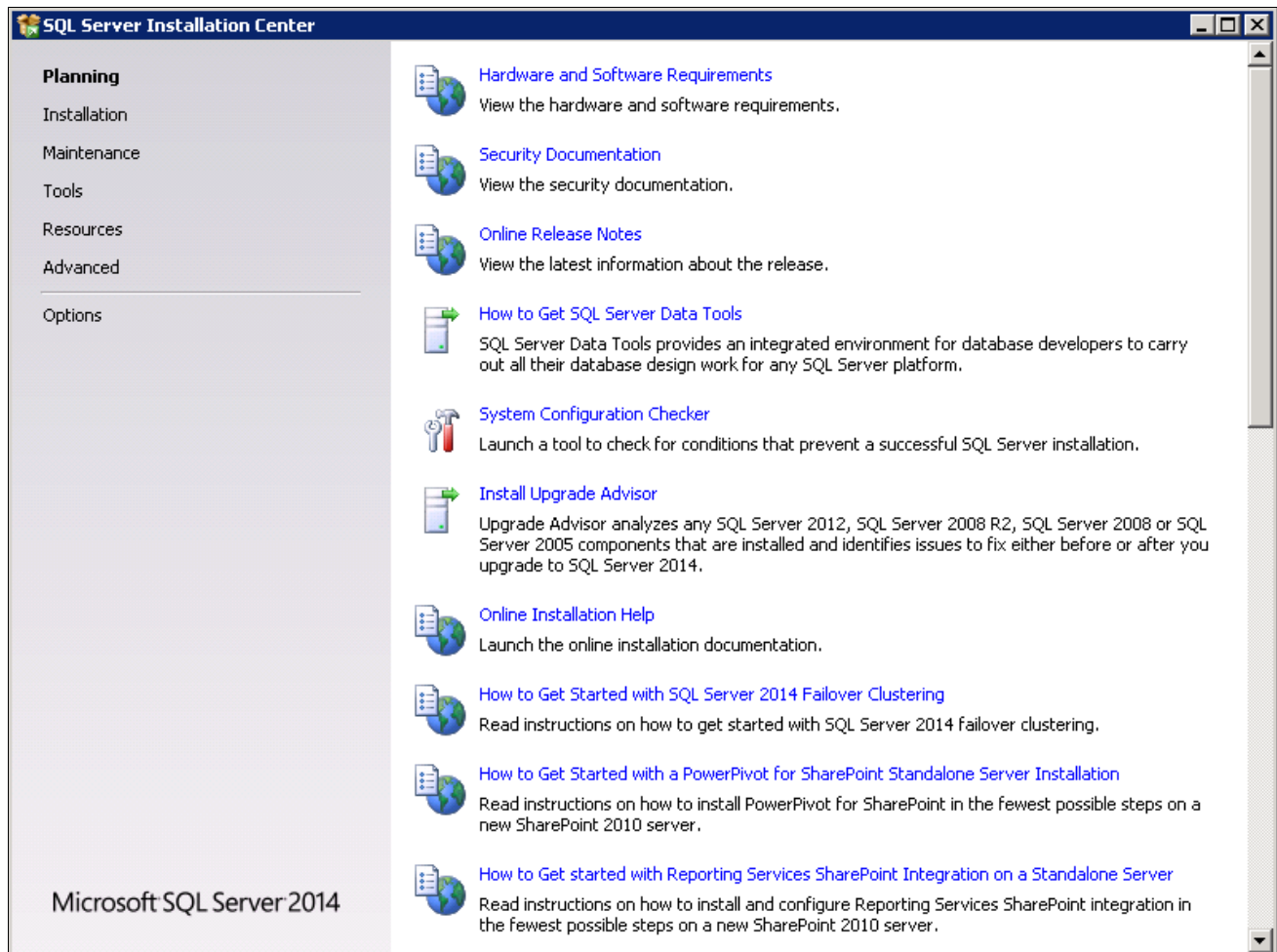
2. Insert the Microsoft SQL Server 2014 DVD into the DVD drive.

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`.

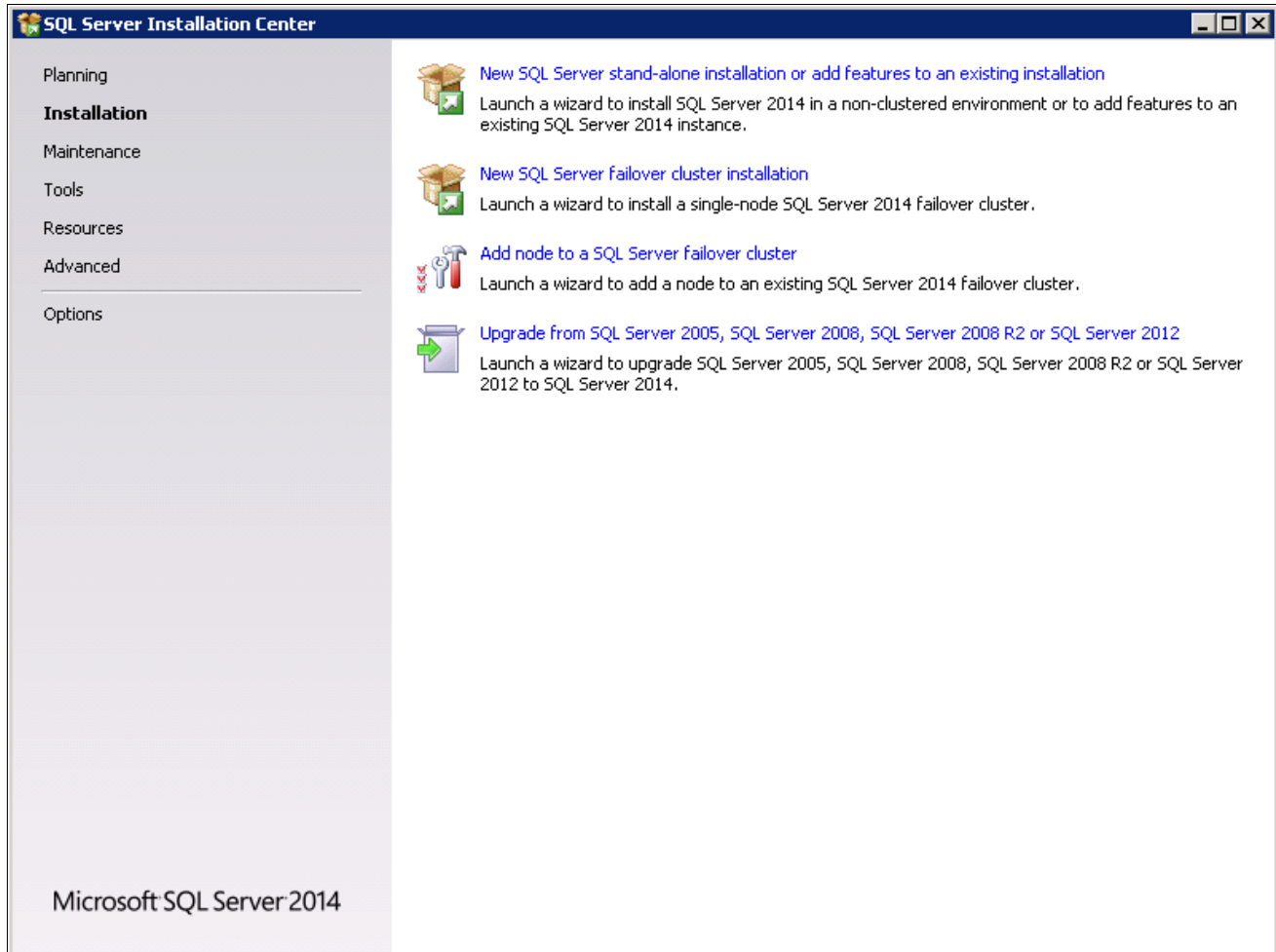
An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

3. Select the Installation link in the left-hand navigation tree.



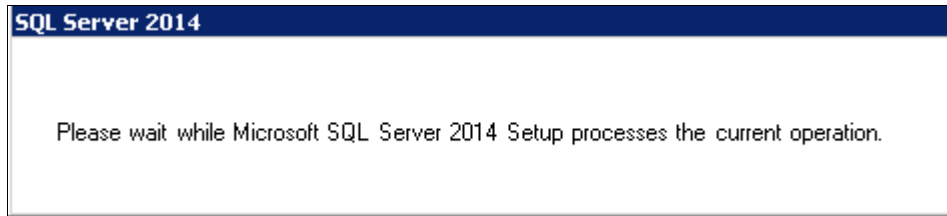
Microsoft SQL Server 2014 SQL Server Installation Center Planning window

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:

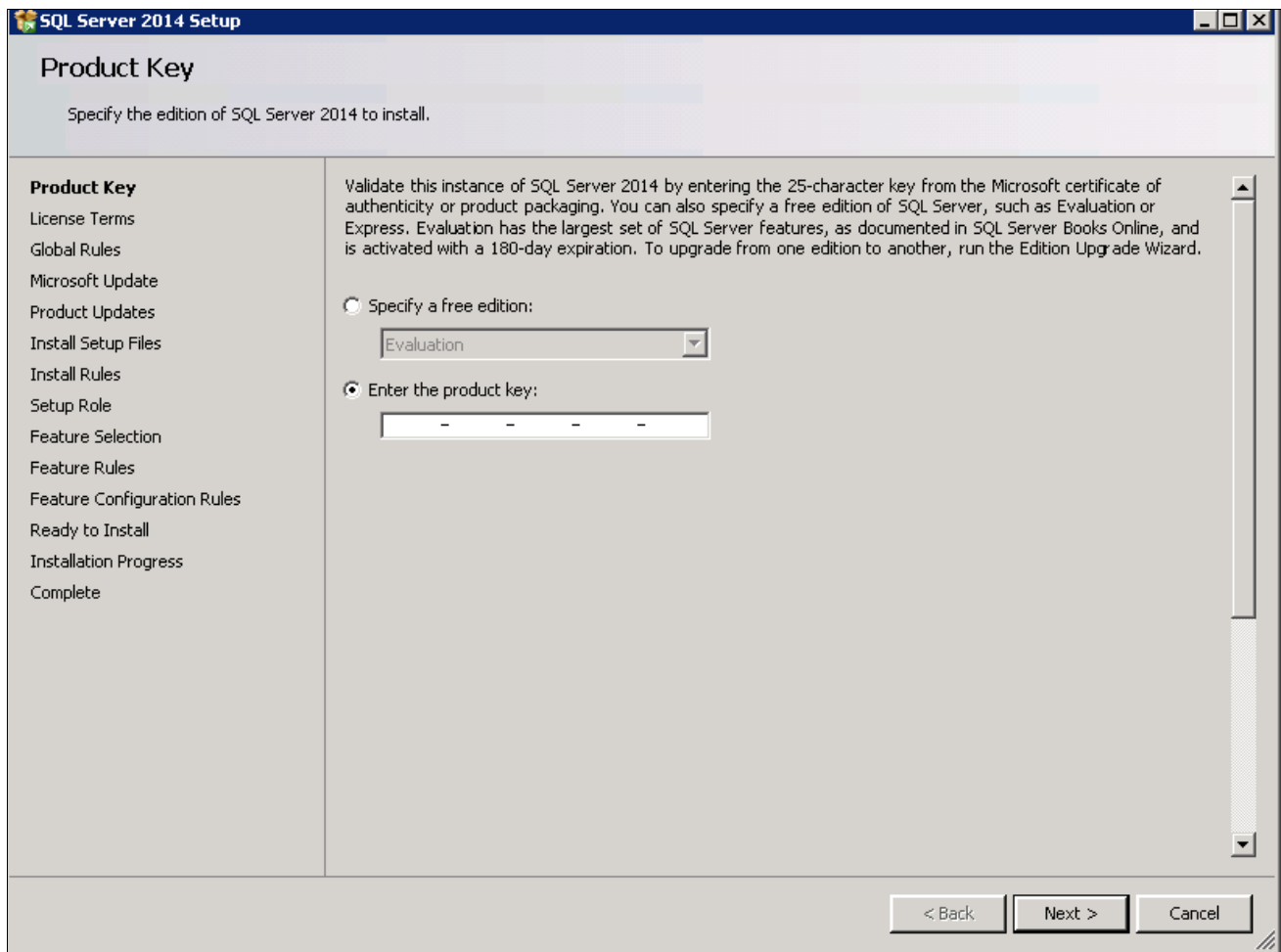


SQL Server 2014 operation in progress message box

After the process is complete the Product Key window appears.

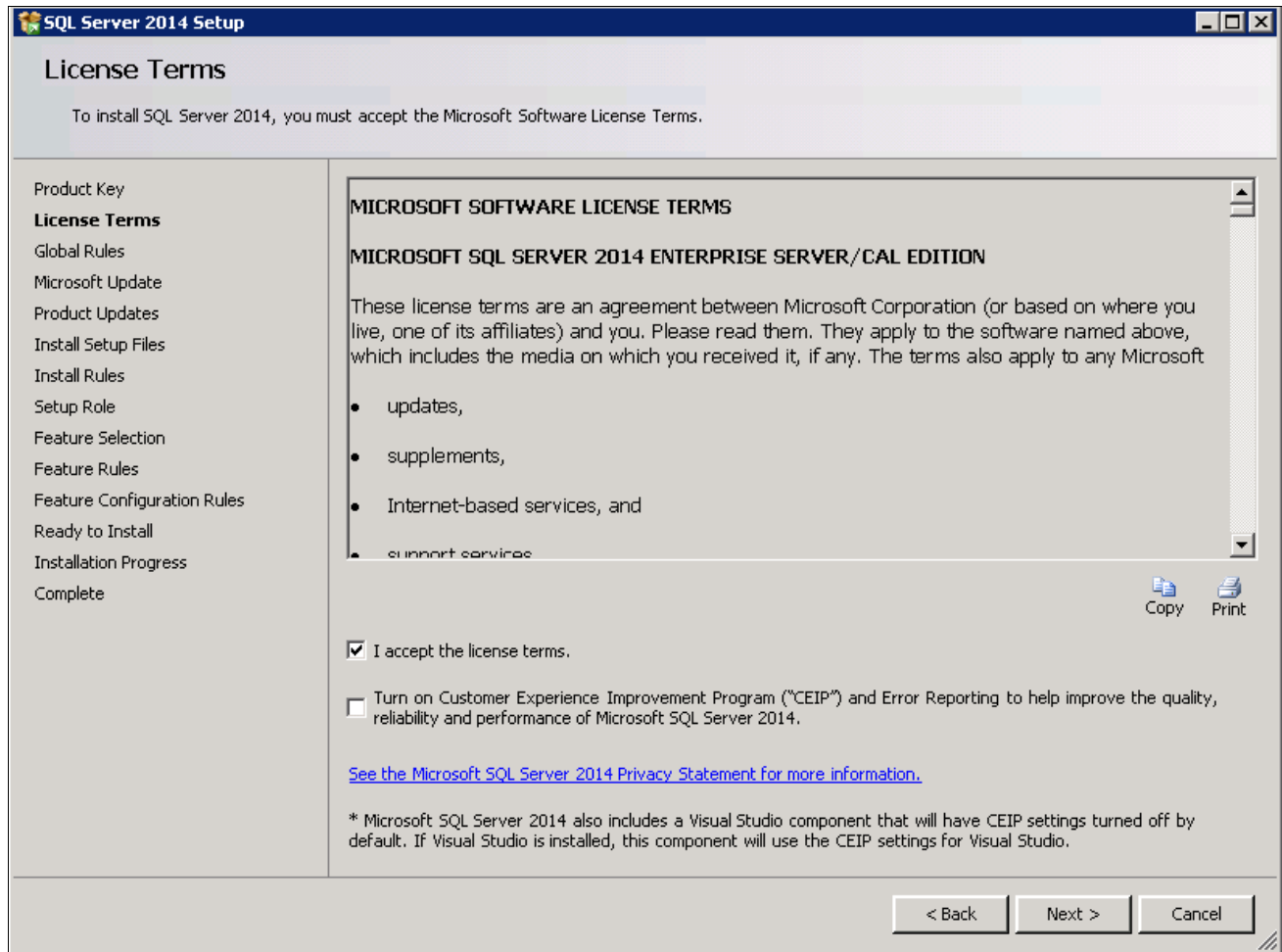
- 5. Enter your product key value.

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

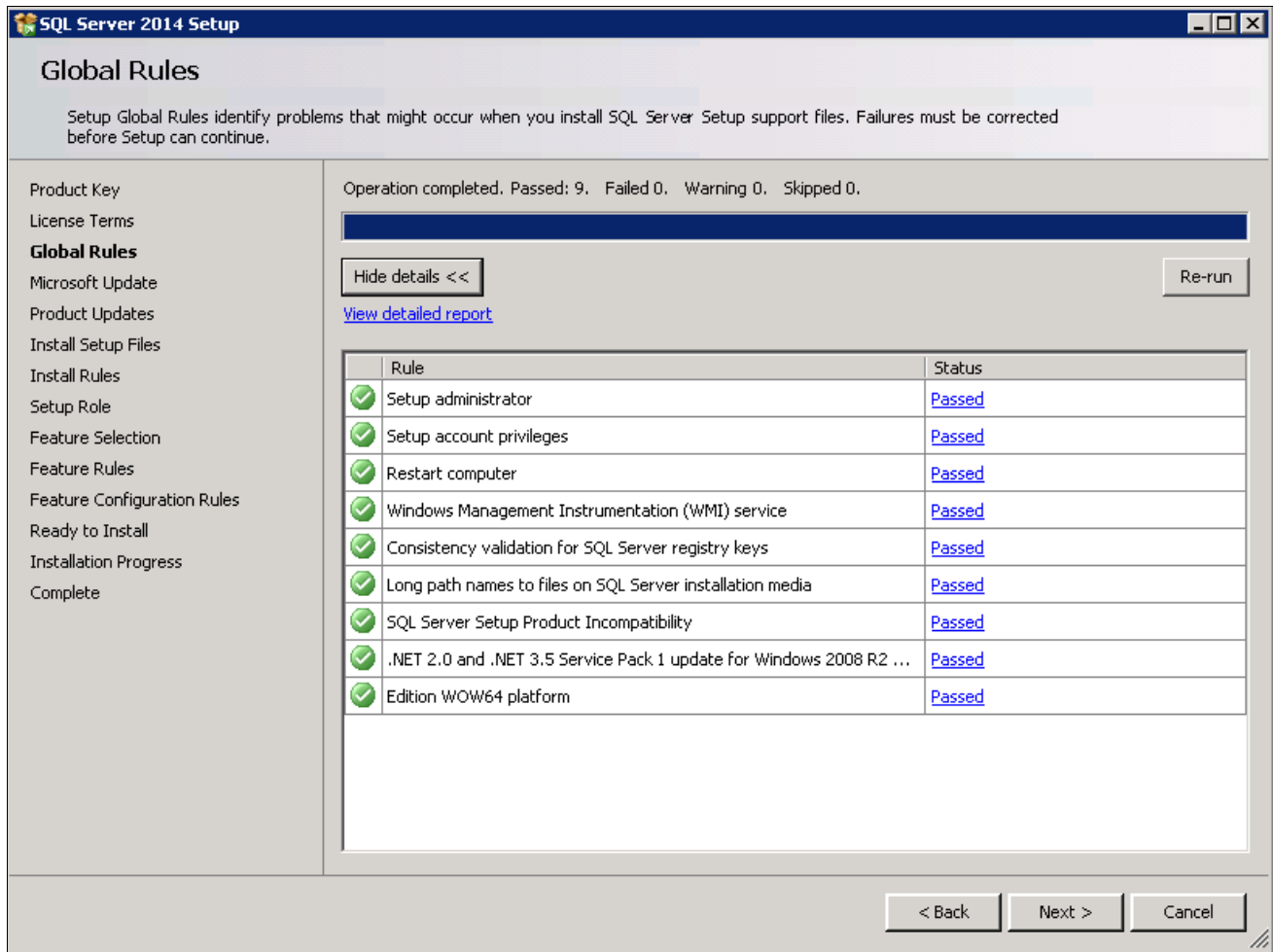
6. Read the terms and conditions carefully and select the check box I accept the license terms, as shown in this example:



SQL Server 2014 Setup License Terms window

7. Click Next.

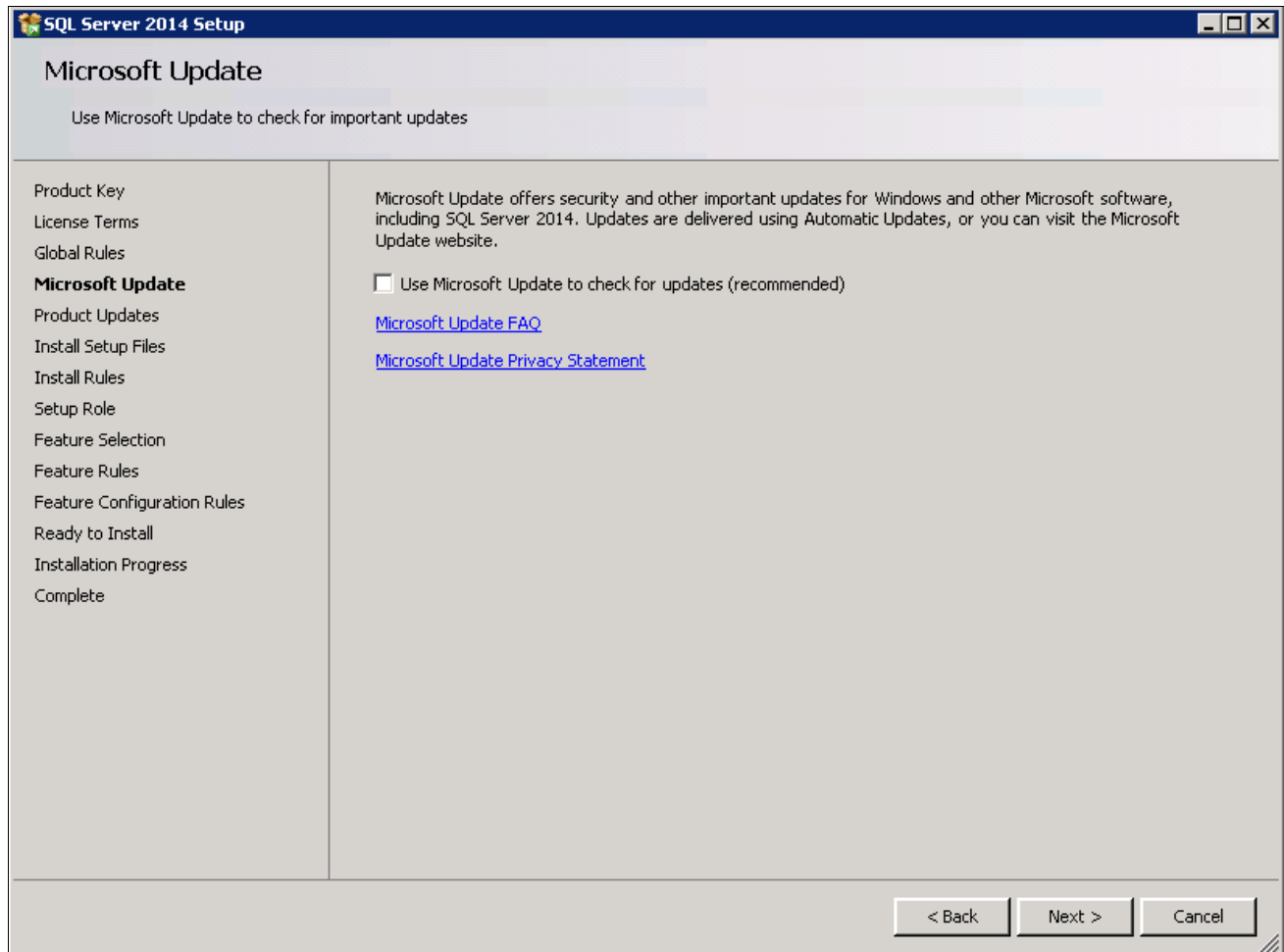
The Global Rules window appears. Wait until the process verifying global rules is complete. Verify that all the rules have passed, as shown in the Status column in this example:



SQL Server 2014 Setup Global Rules window

8. Click Next.

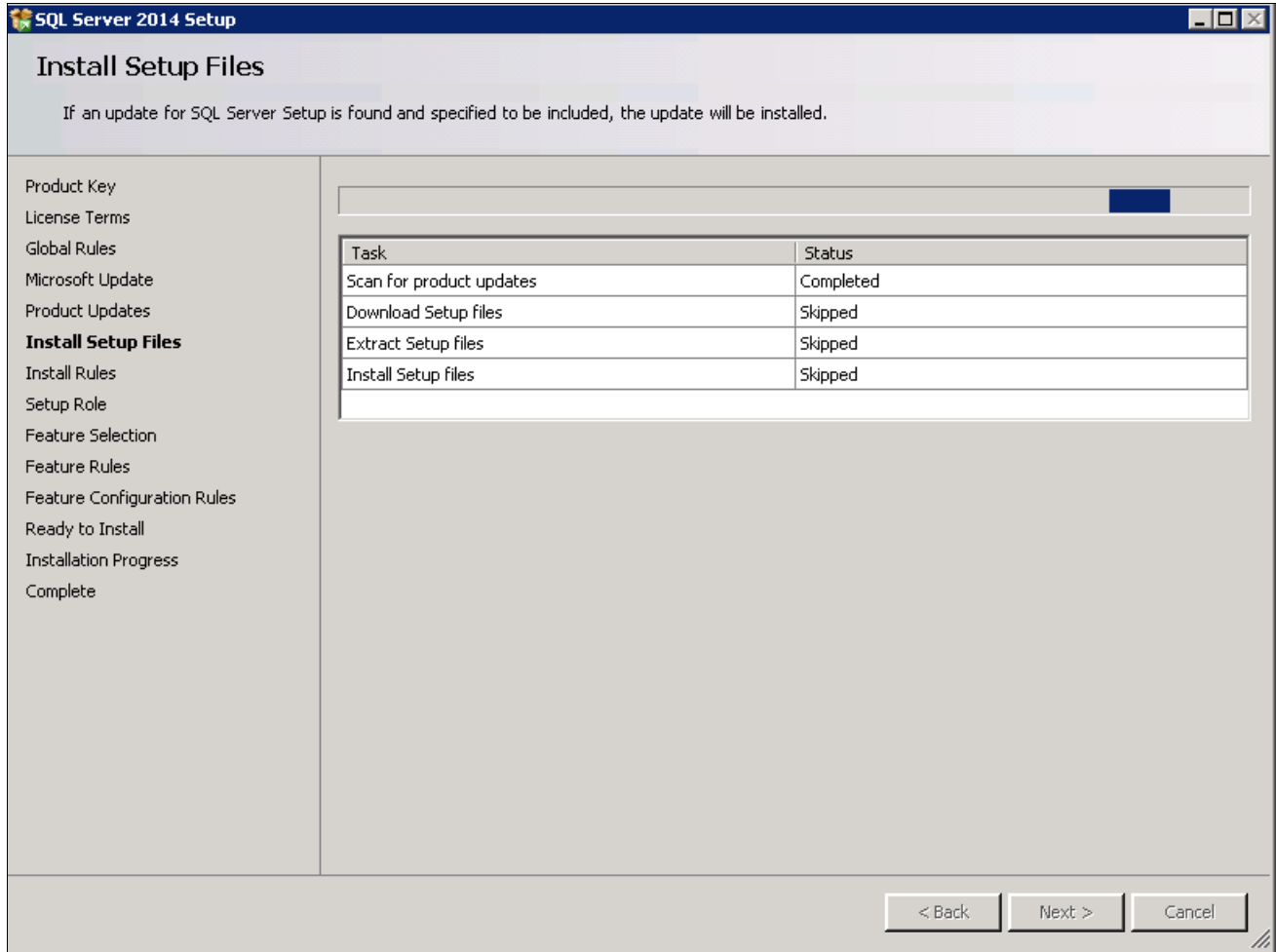
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



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:

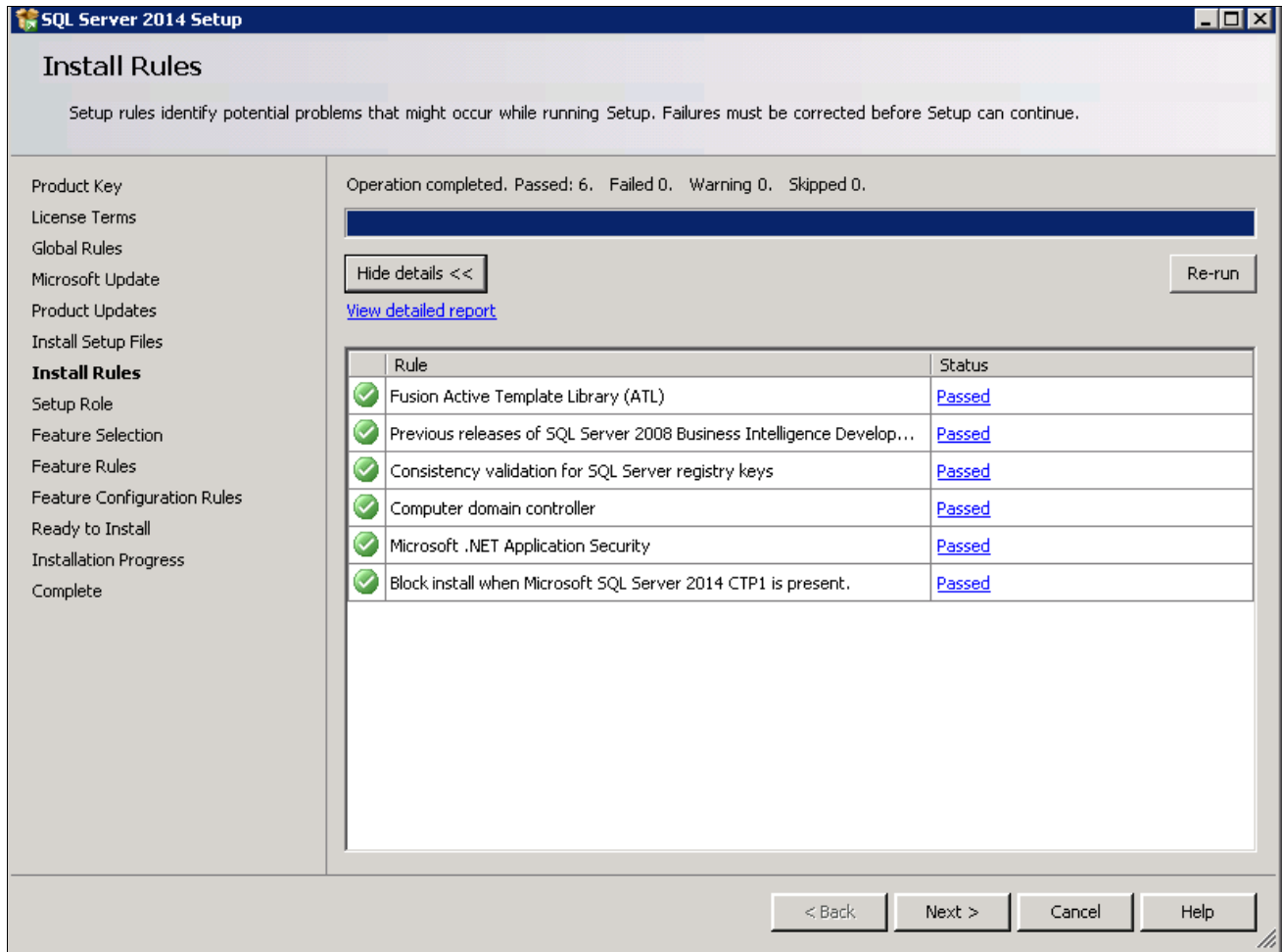


SQL Server 2014 Setup Install Setup Files window

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.

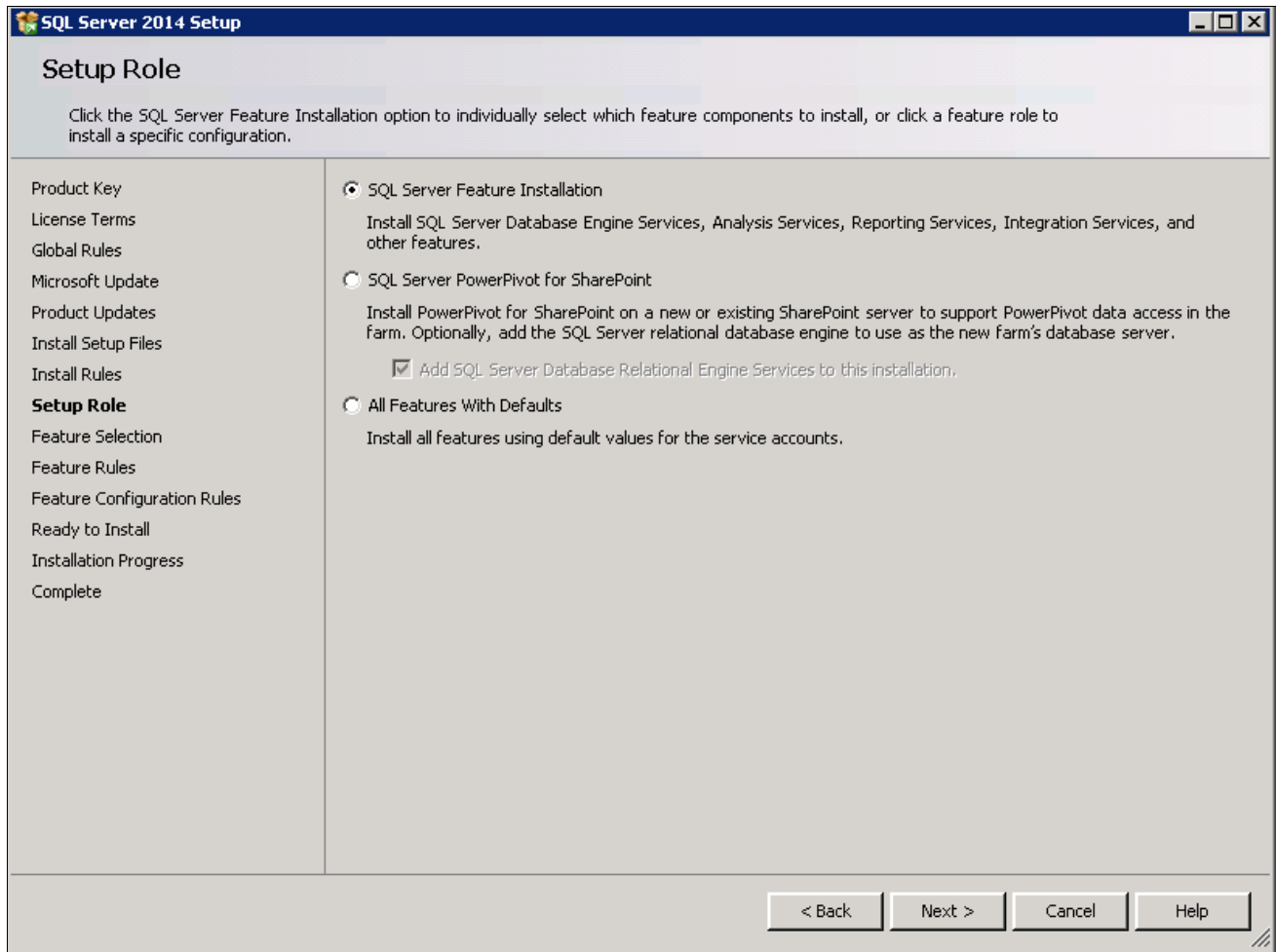
- Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Install Rules window

12. Click Next to proceed.

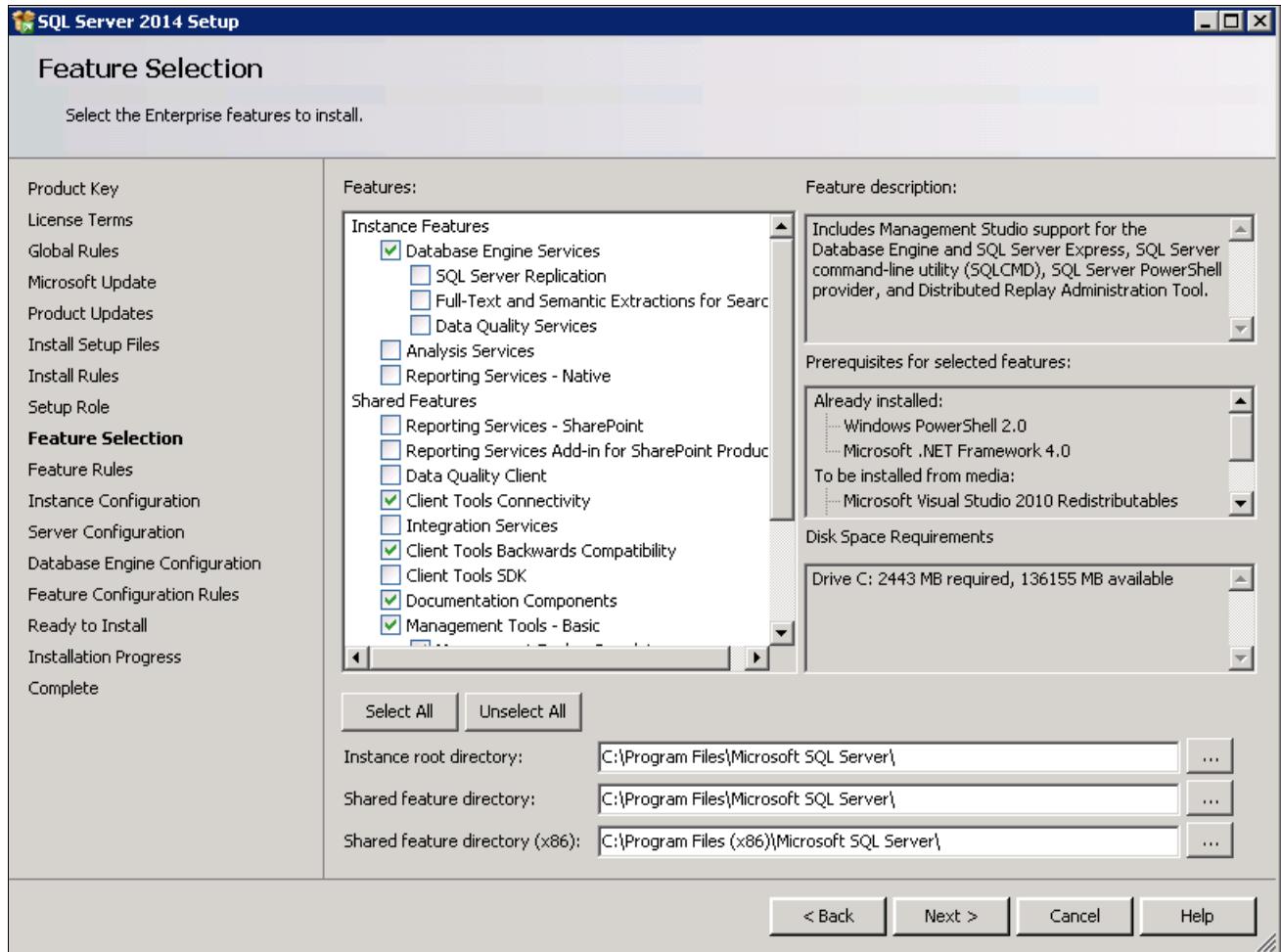
On the Setup Role window, select the option SQL Server Feature installation, as shown in this example, and click Next.



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.

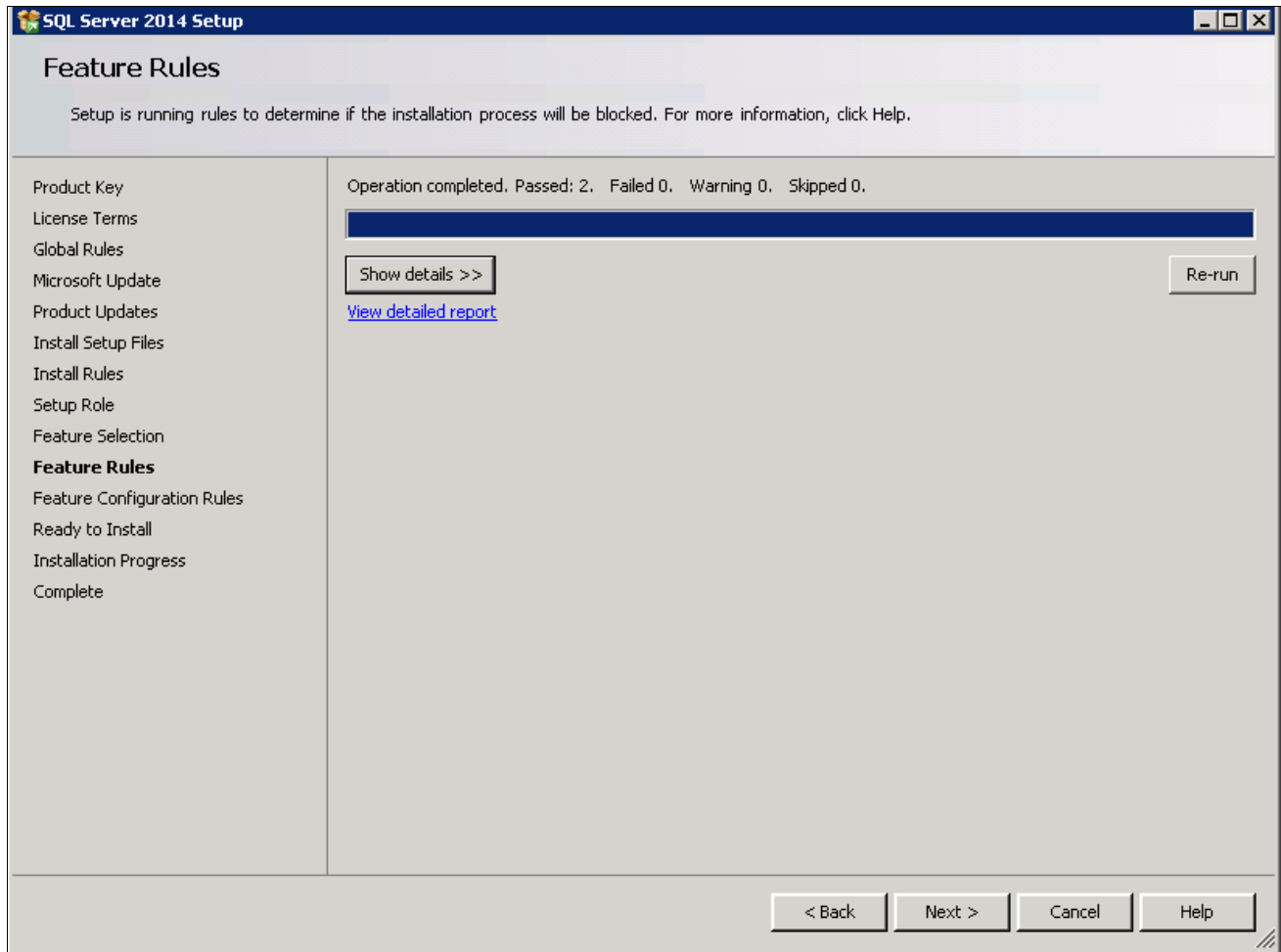
14. Clear the check boxes beside the following features:

- 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.

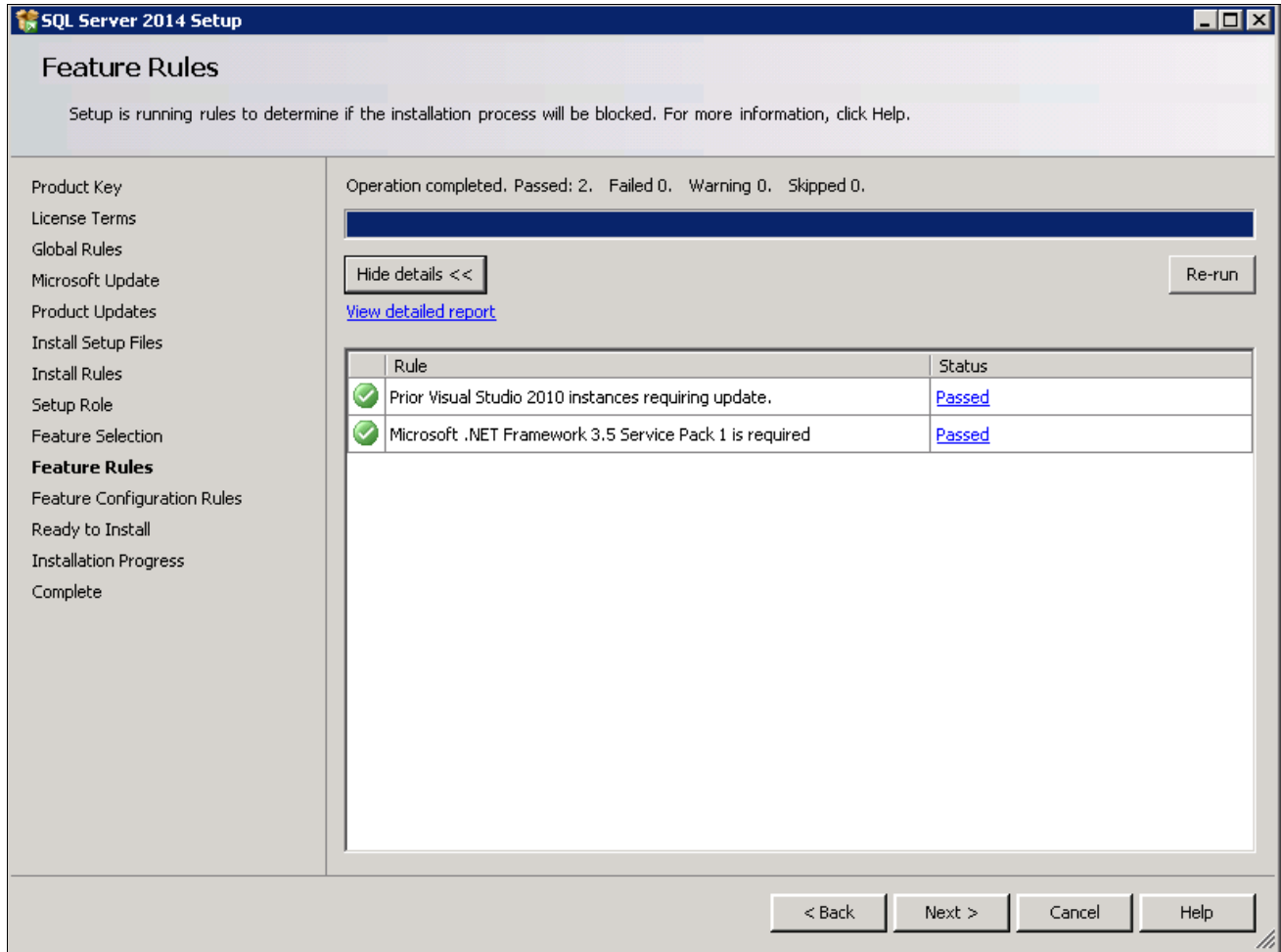
The Feature Rules window appears, and the setup operation runs rules to determine whether the installation will be blocked. The example below shows the operation is complete.



SQL Server 2014 Setup Feature Rules window

16. Click Show Details on the Feature Rules window.

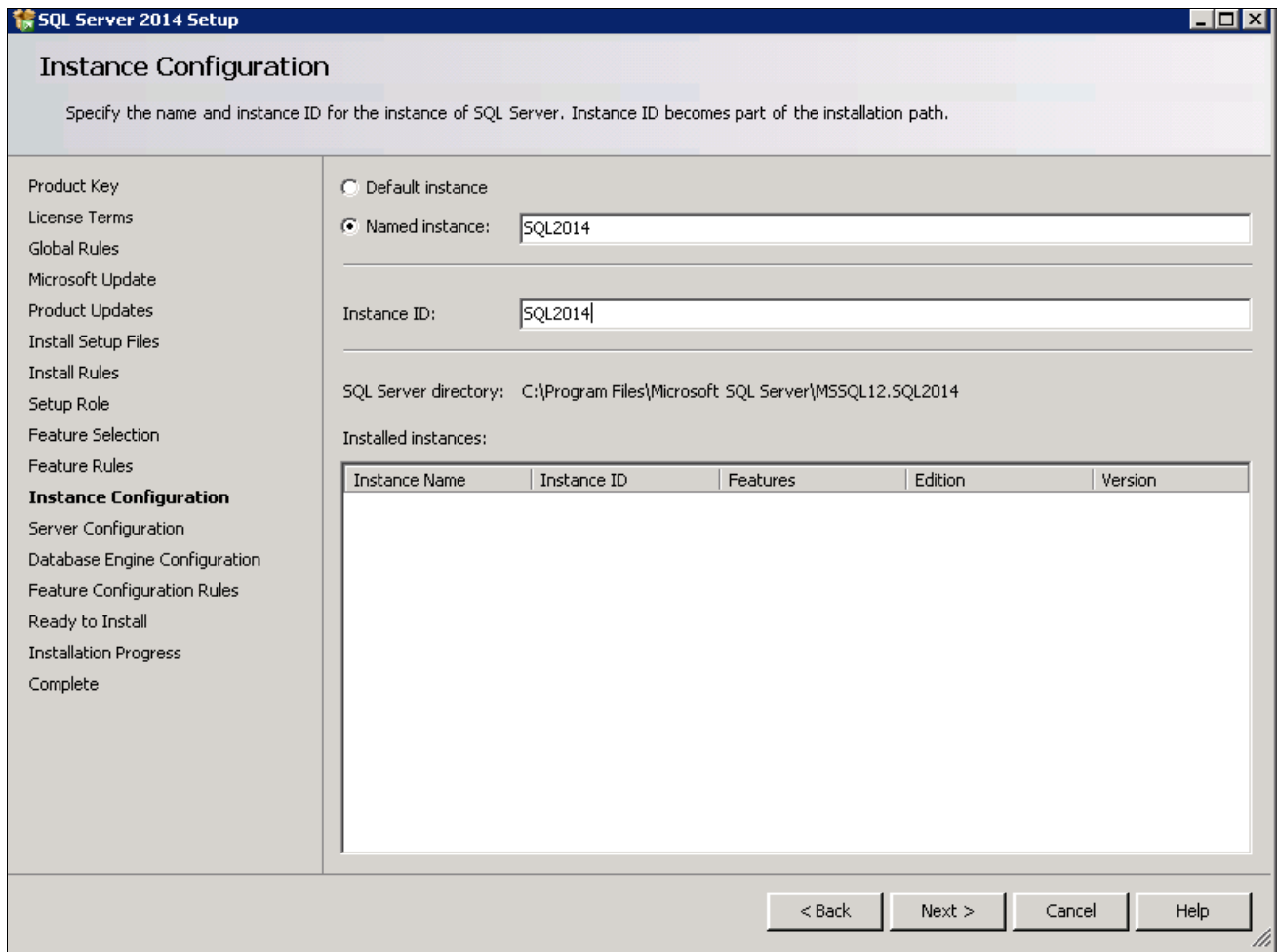
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Feature Rules window showing details

17. Click Next.

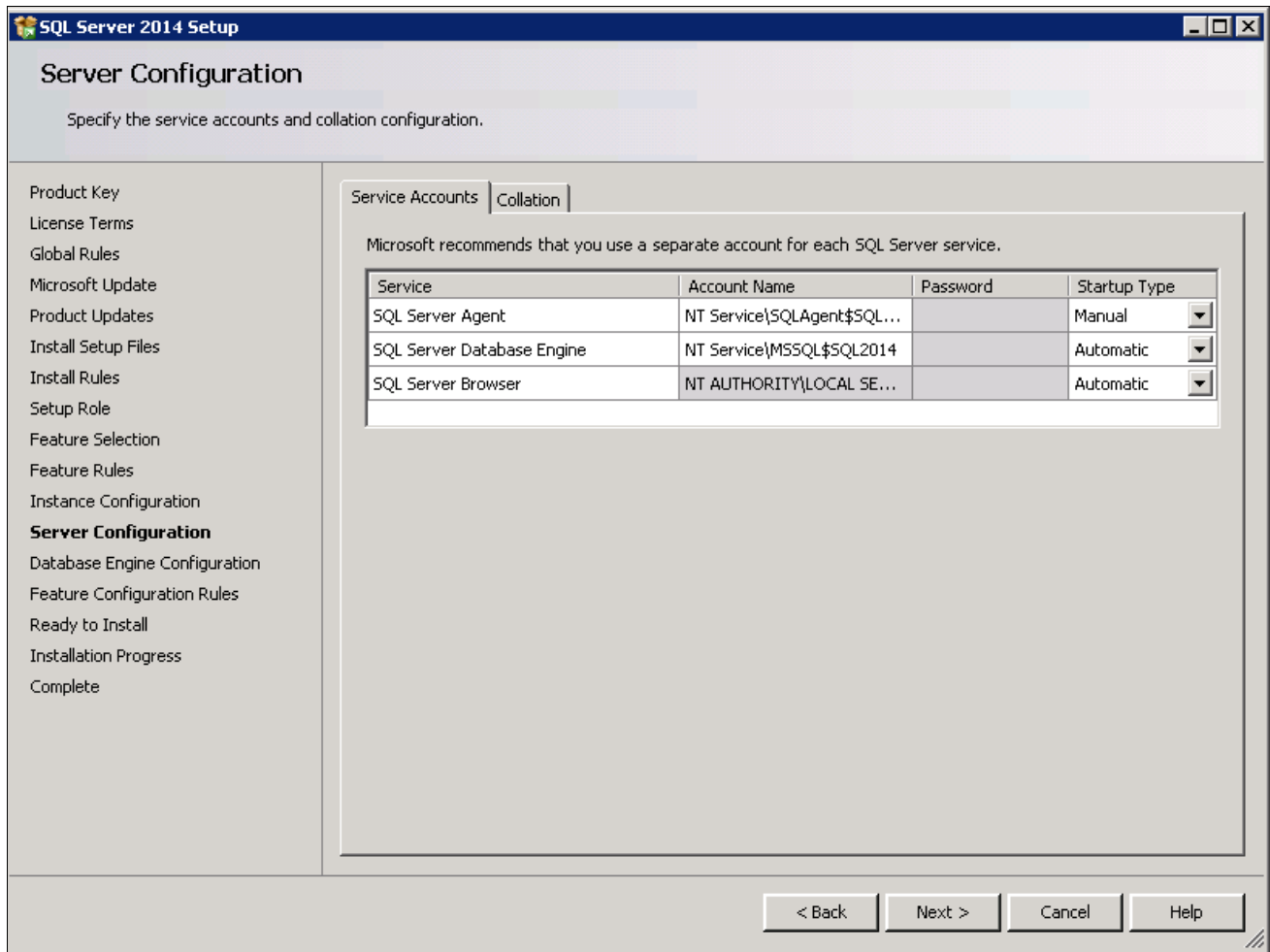
The Instance Configuration window appears. Enter *SQL2014* as the named instance, as shown in this example. The window also displays the SQL Server directory, in this example C:\Program Files\Microsoft SQL Server\MSSQL12.SQL2014.



SQL Server 2014 Setup Instance Configuration window

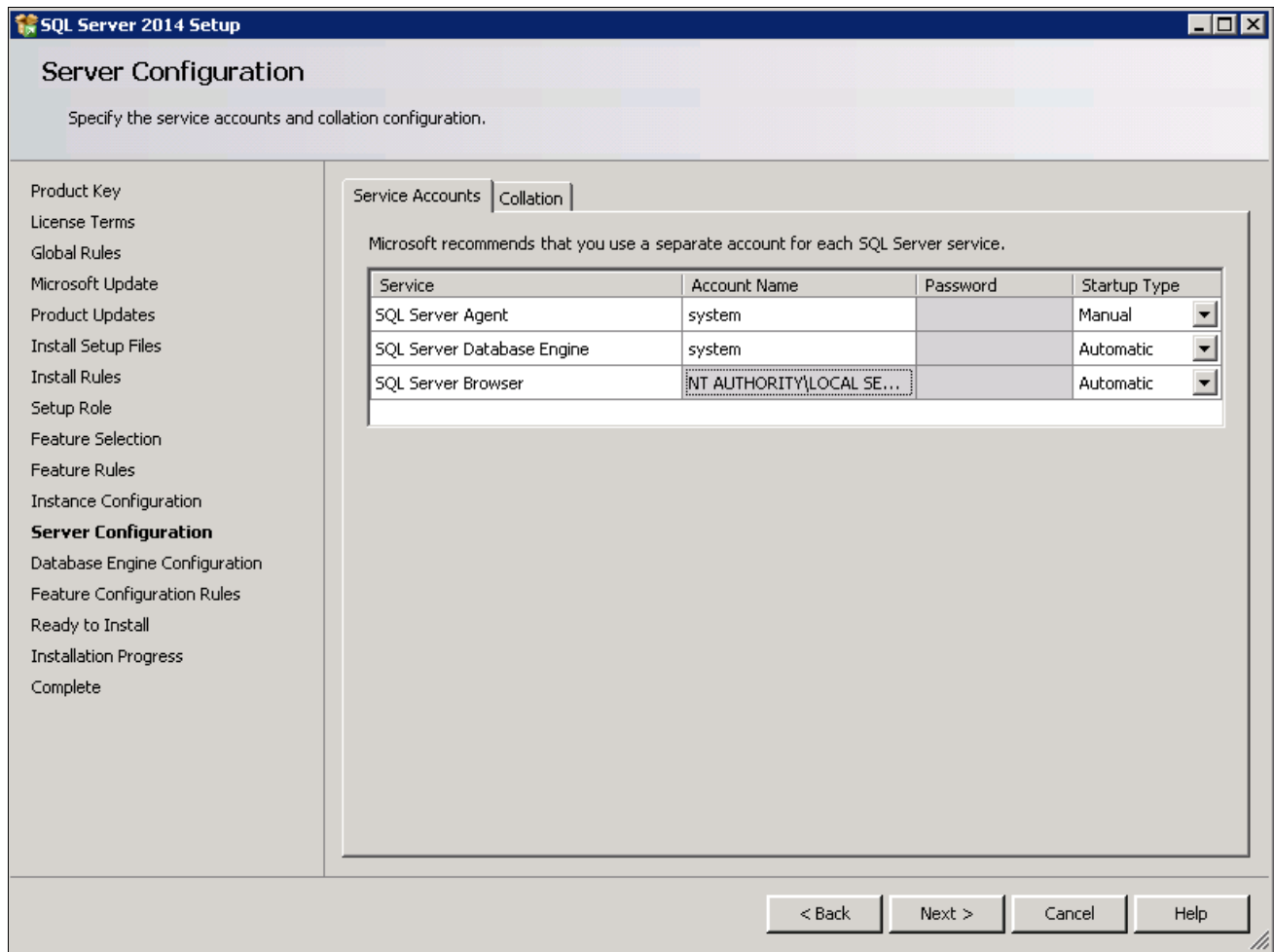
18. Click Next.

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:

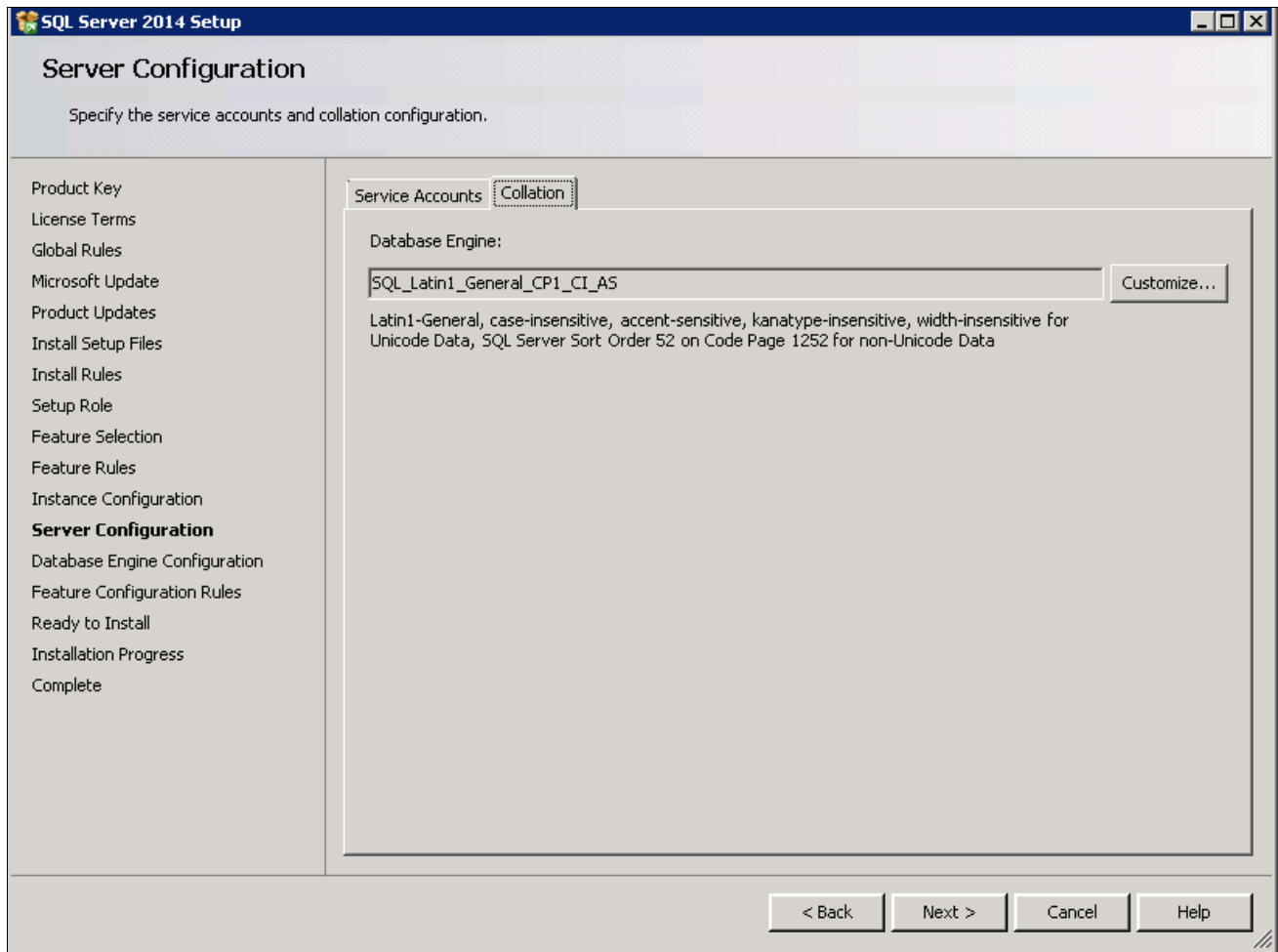


SQL Server 2014 Setup Server Configuration window after specifying account names and startup types

- 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.
- 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.

20. Still on the Server Configuration window, select the Collation page.

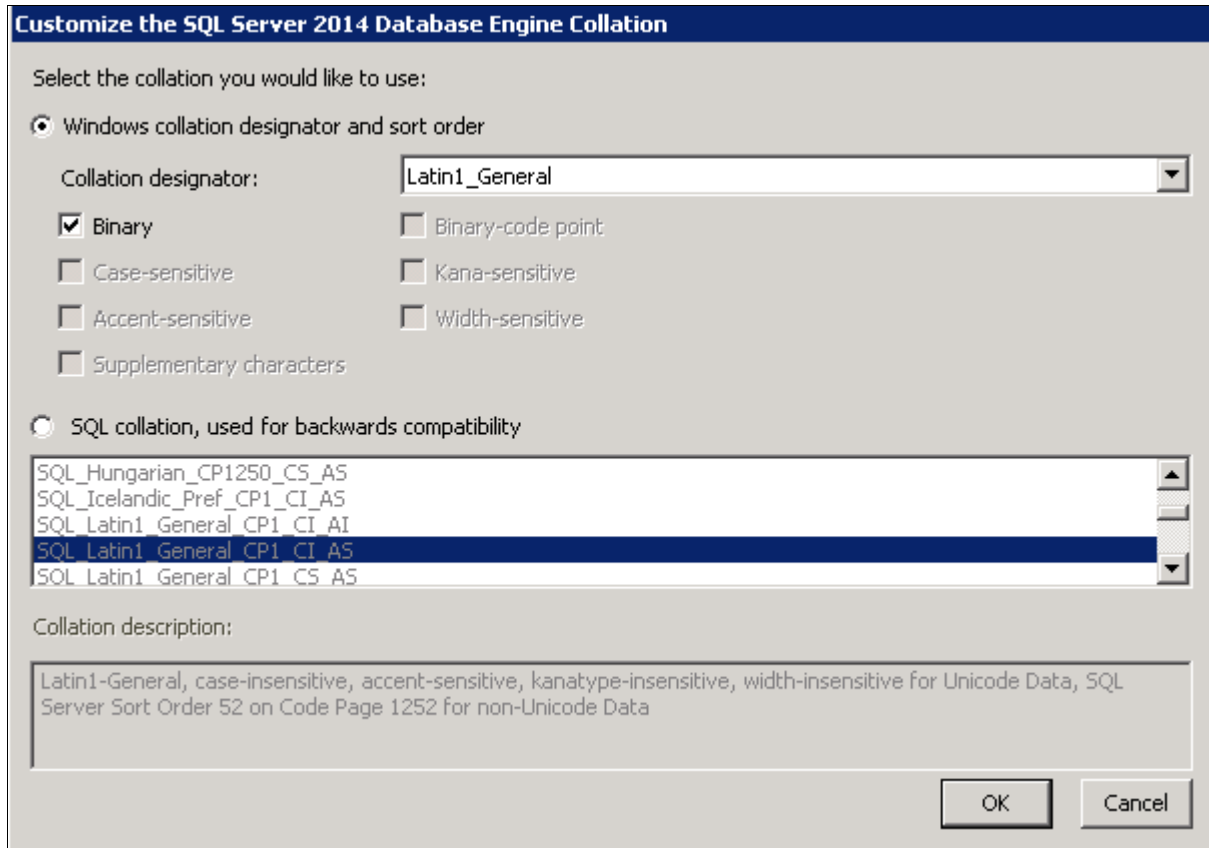
This example shows the default collation, SQL_Latin1_General_CP1_CI_AS.



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:

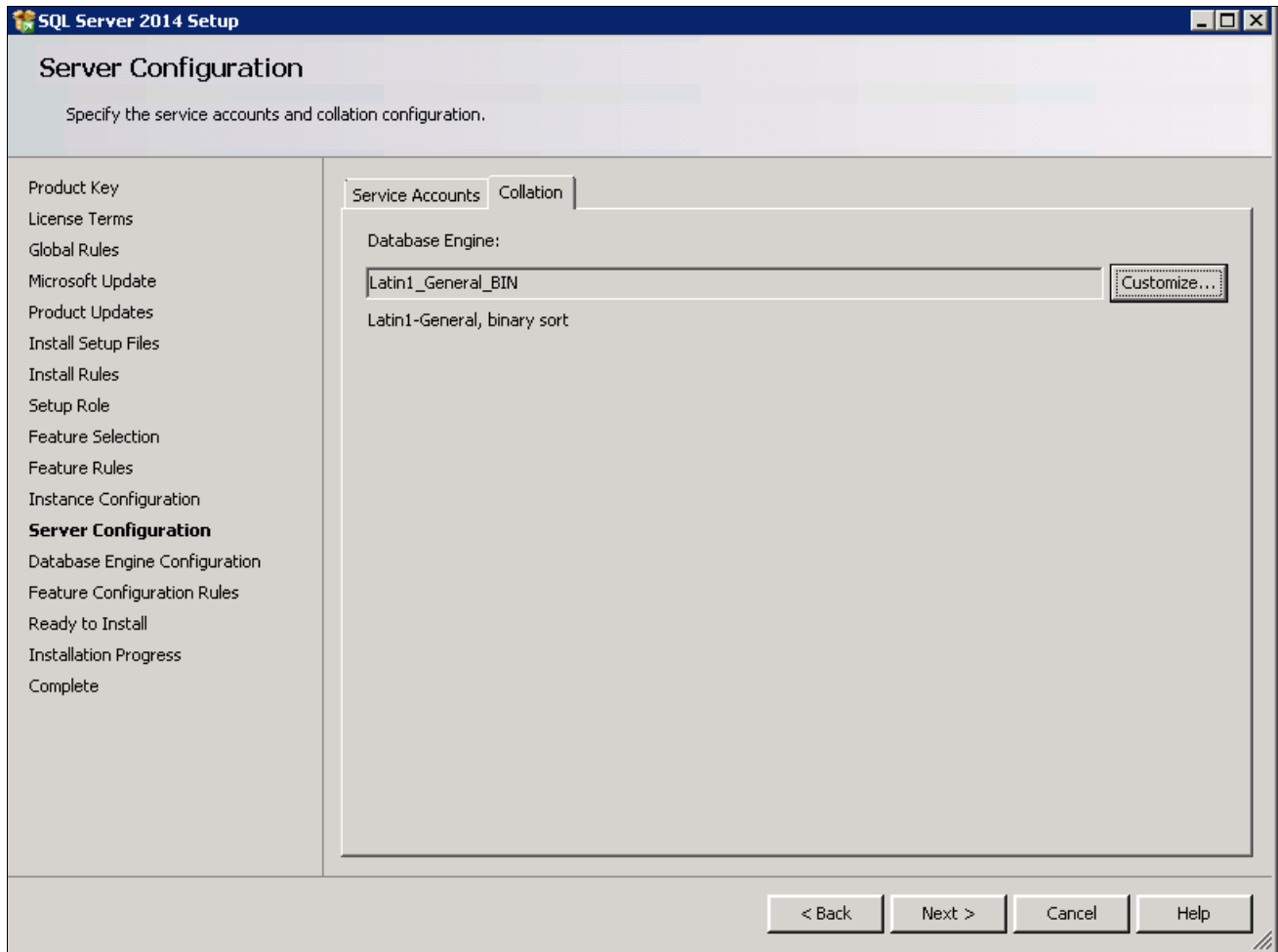


Customize the SQL Server 2014 Database Engine Collation window

Selecting these options changes the collation to *Latin1_General_BIN*. Your collation designation may vary if you are not using English.

22. Click OK.

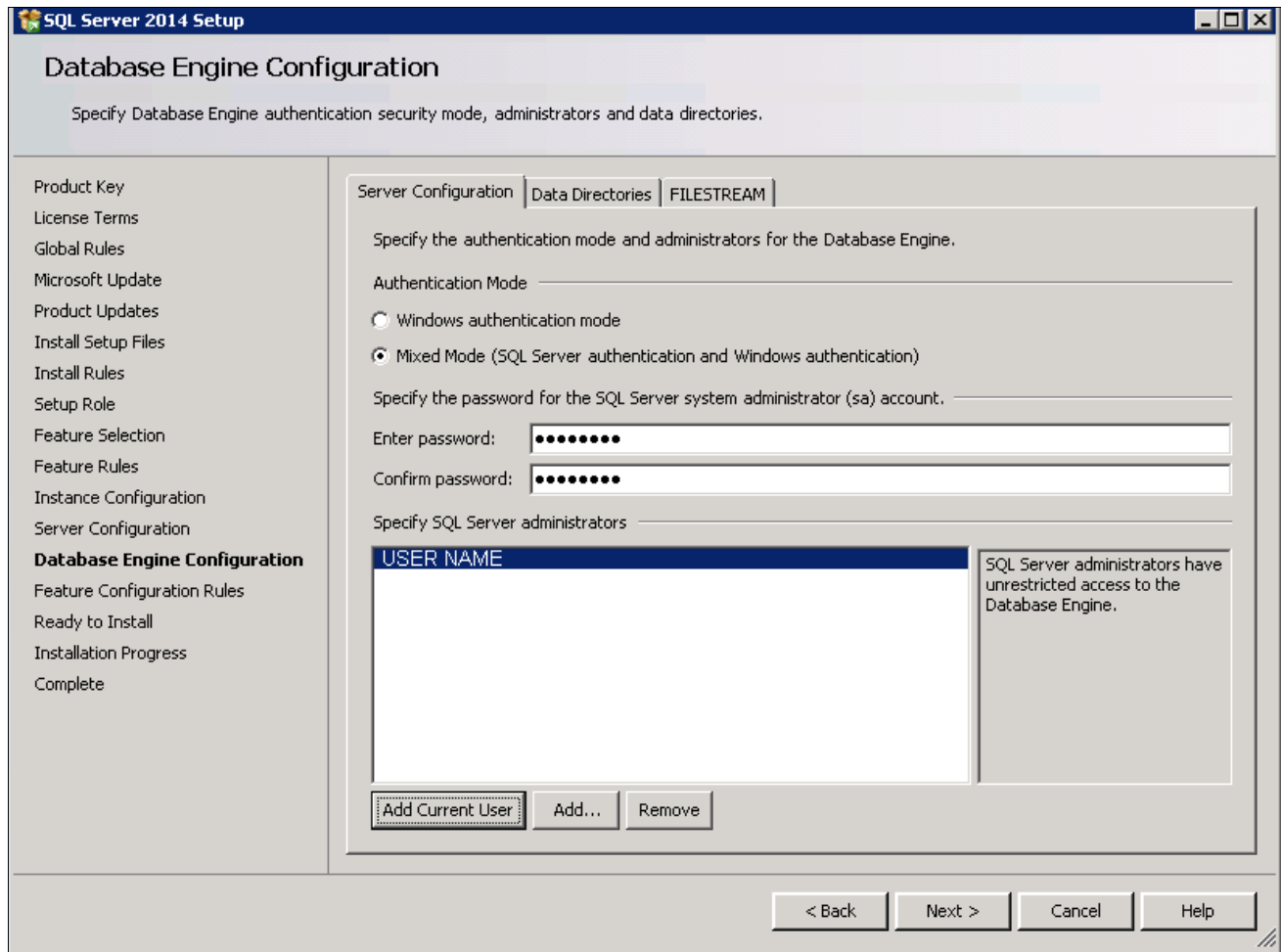
Verify on the Server Configuration Collation page that the collation is Latin1_General_BIN, Latin1-General, binary sort, as shown in this example:



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.

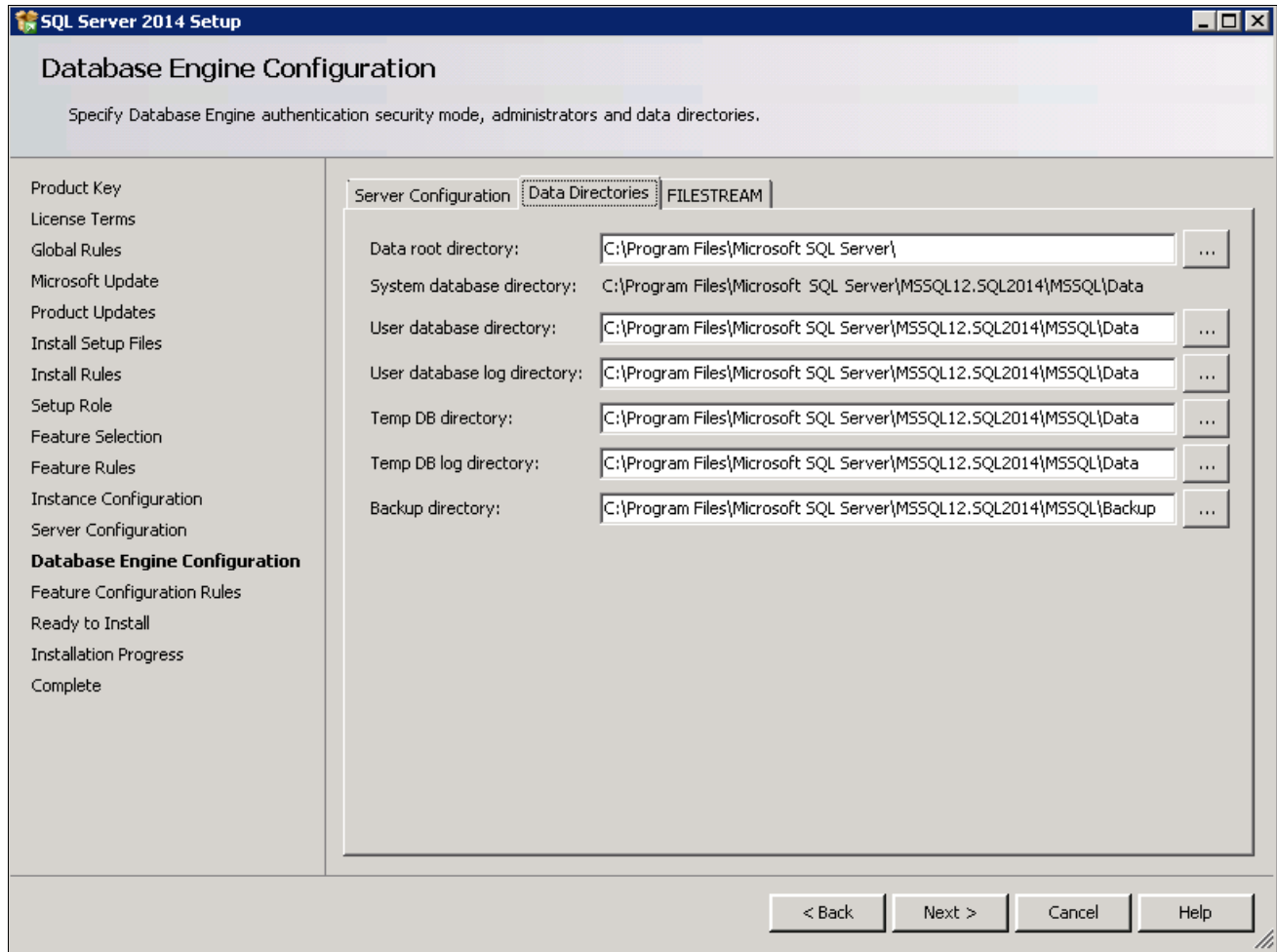
See Microsoft SQL Server I/O subsystem requirements for the tempdb database, <http://support.microsoft.com/kb/917047/en-us>.

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/sqllops6.msp>.

See Microsoft SQL Server 2012 Best Practices Analyzer, Microsoft Download Center, <http://www.microsoft.com/en-in/download/details.aspx?id=29302>.

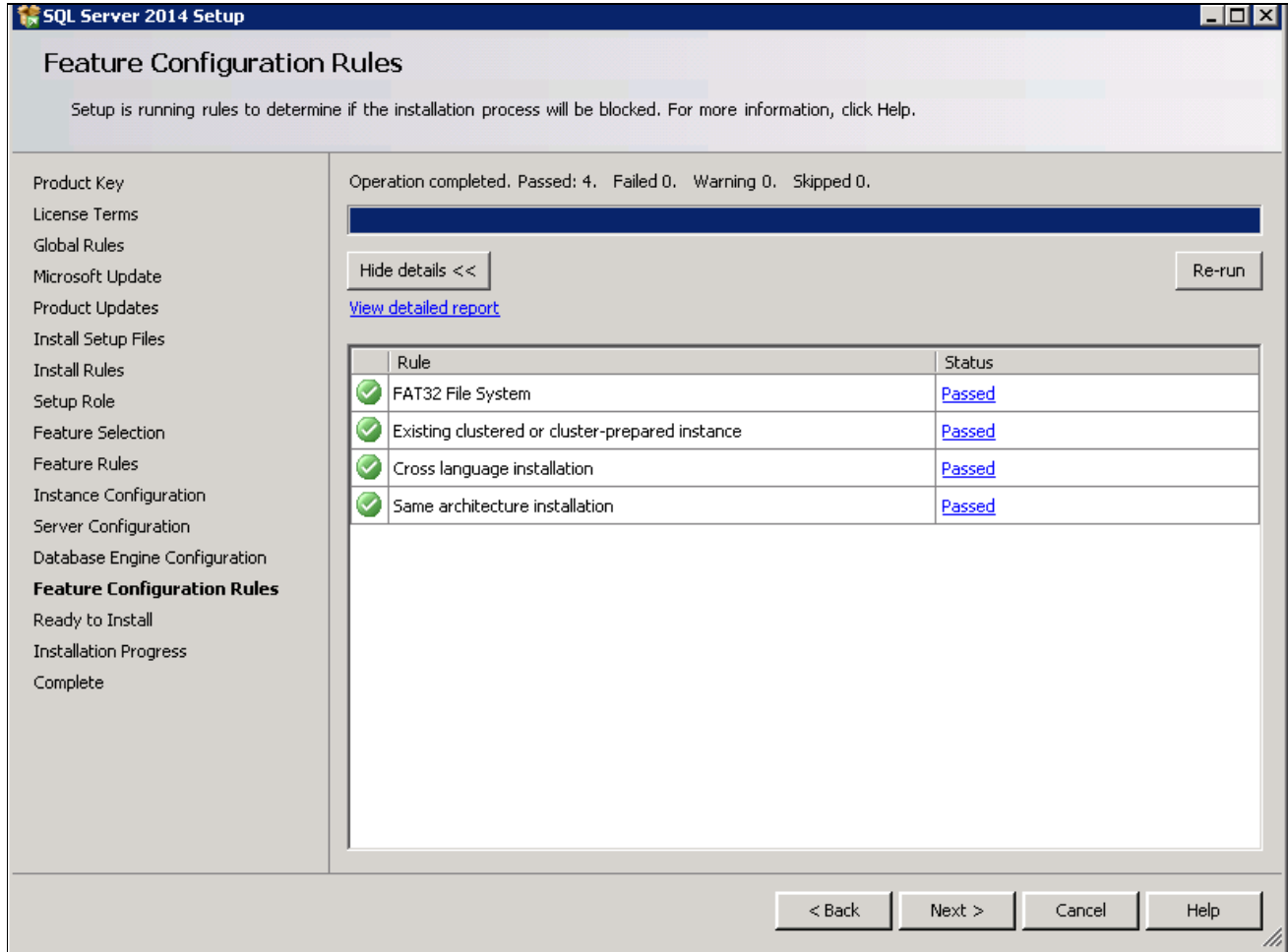
See SQL Server Best Practices, <http://technet.microsoft.com/en-us/sqlserver/bb671430>.



SQL Server 2014 Setup Database Engine Configuration window: Data Directories page

25. Click Next.

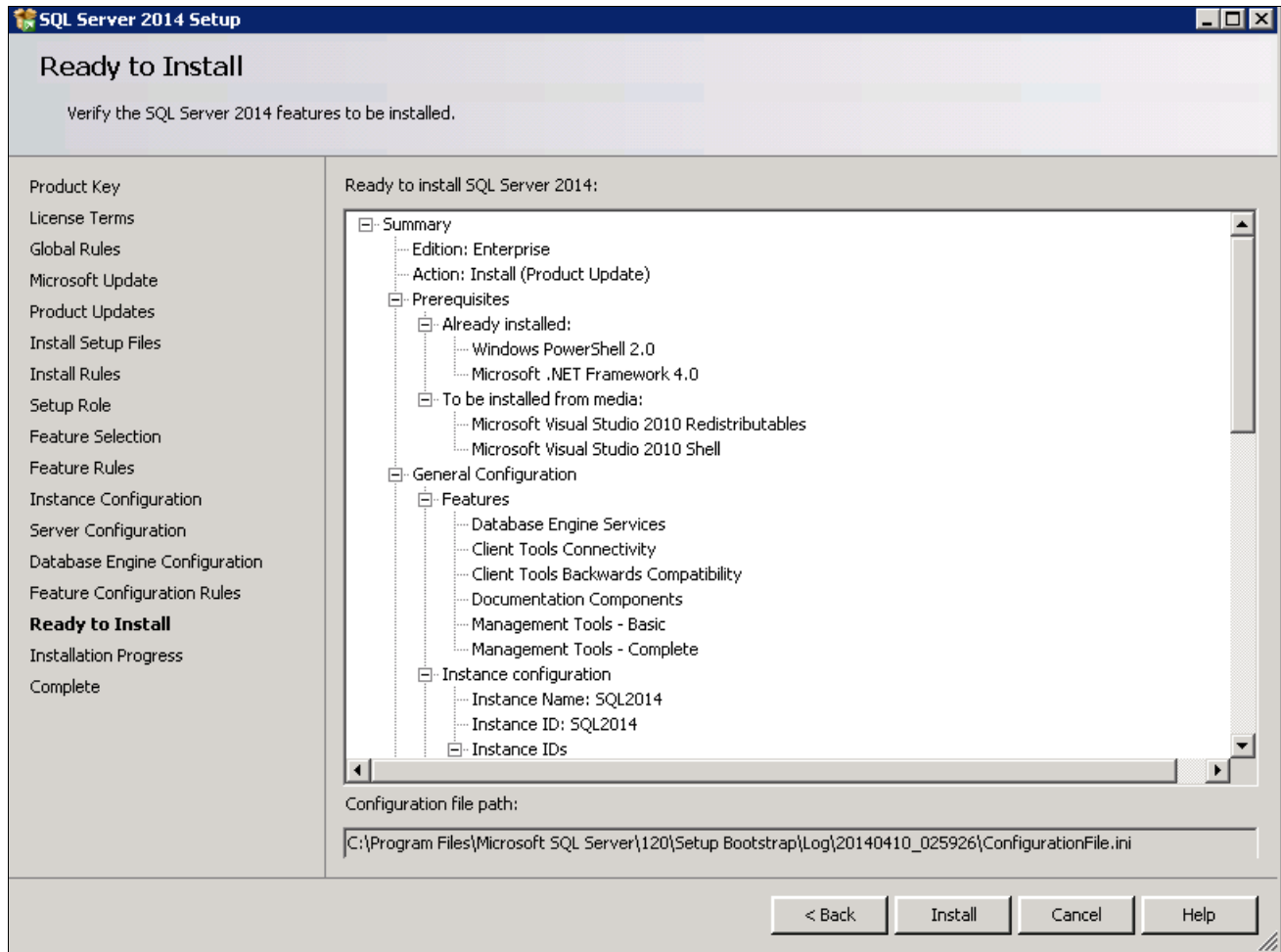
The Feature Configuration Rules window appears. The setup operation runs rules to determine whether the installation will be blocked. Wait until the operation is complete, and then click Show details. Verify that all of the rules have Passed in the Status column, as shown in this example. If any rule 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

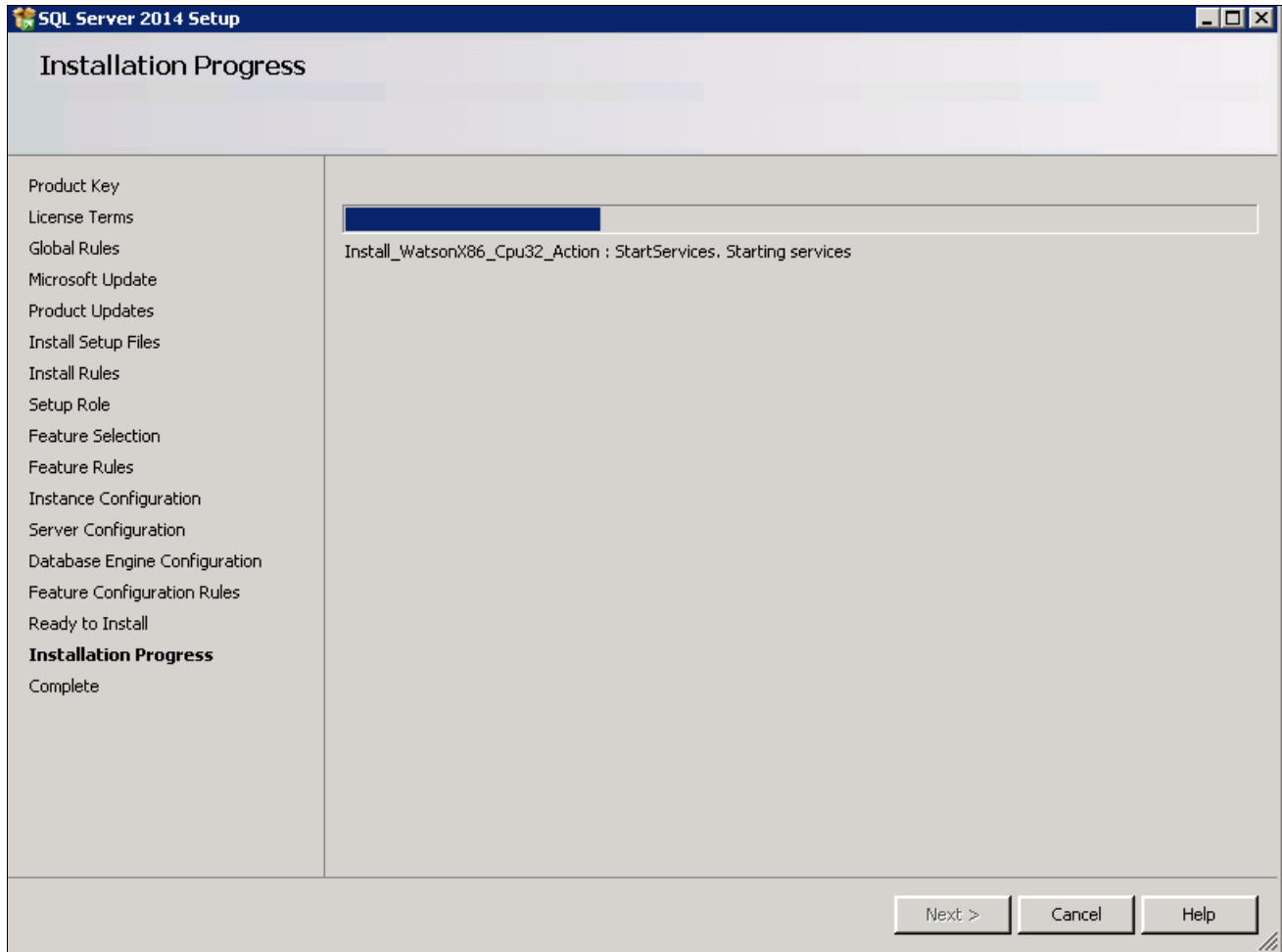
26. Click Next.

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.



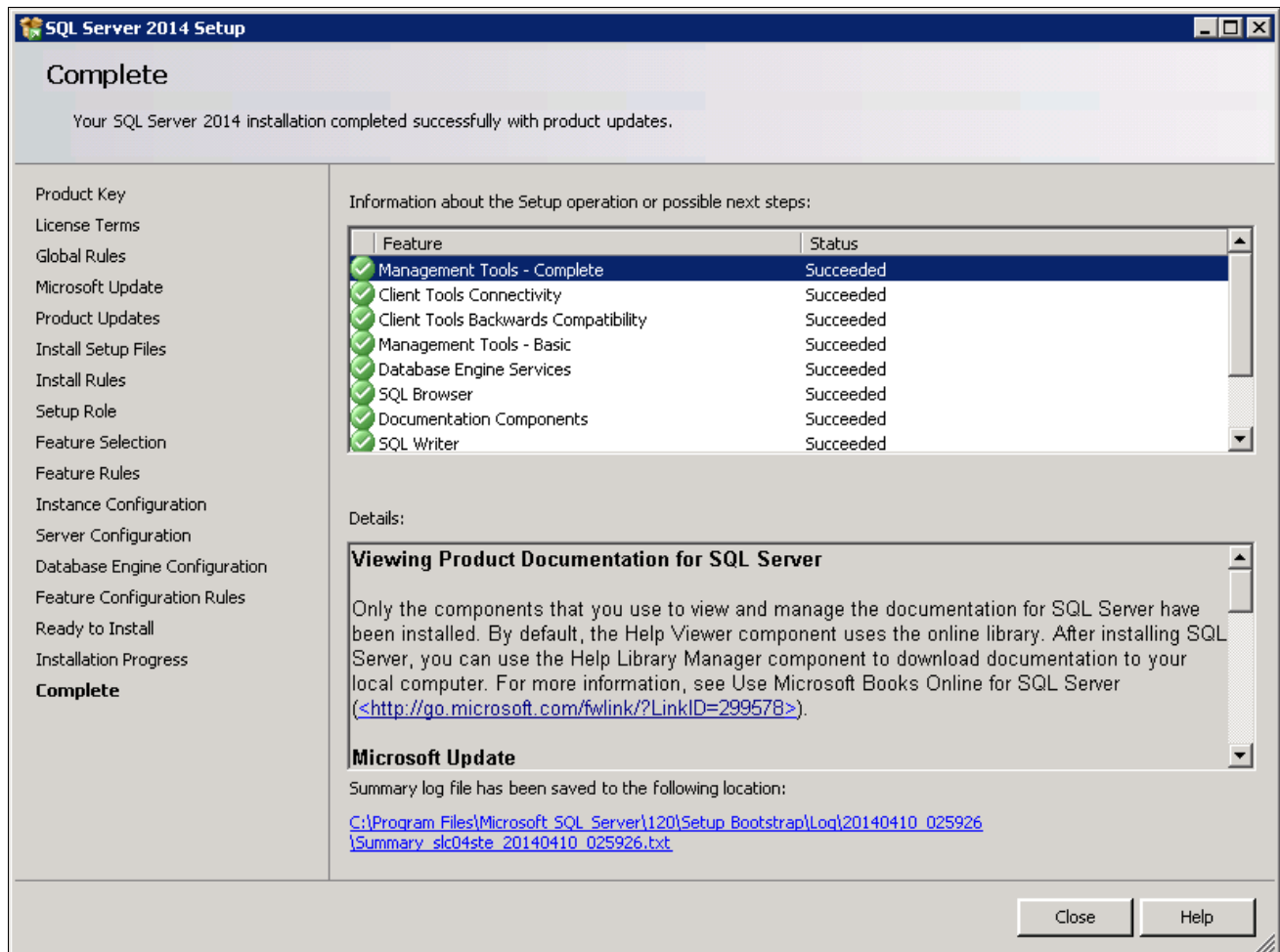
SQL Server 2014 Setup Installation Progress window

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.

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

C:\Program Files\Microsoft SQL Server\120\Setup Bootstrap\Log\<identifier>\Summary<identifier>.txt

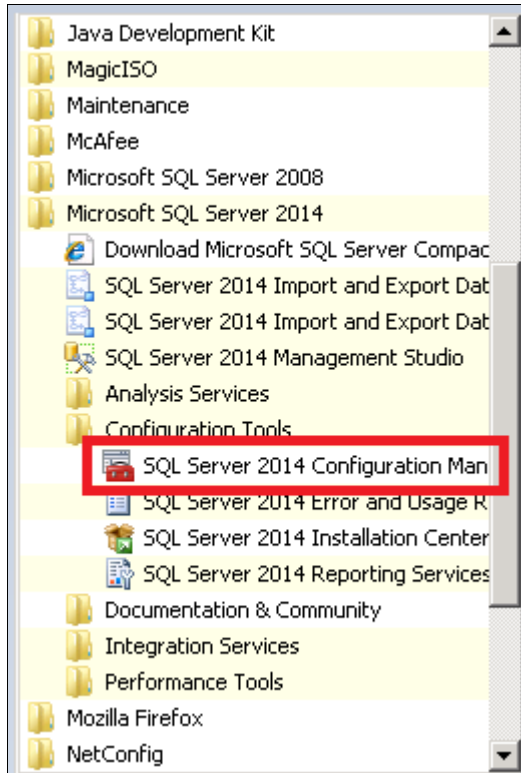


SQL Server 2014 Setup Complete window

Task 19-2: Starting and Stopping Microsoft SQL Server 2014

To start or stop the server:

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.

Name	State	Start Mode	Log On As	Process ID
SQL Server Browser	Running	Automatic	NT AUTHORITY\LOC...	4964
SQL Server (SQL2014)	Running	Automatic	LocalSystem	4536
SQL Server Agent (SQL2014)	Stopped	Manual	LocalSystem	0

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 19-3: 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 19-3-1: 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.

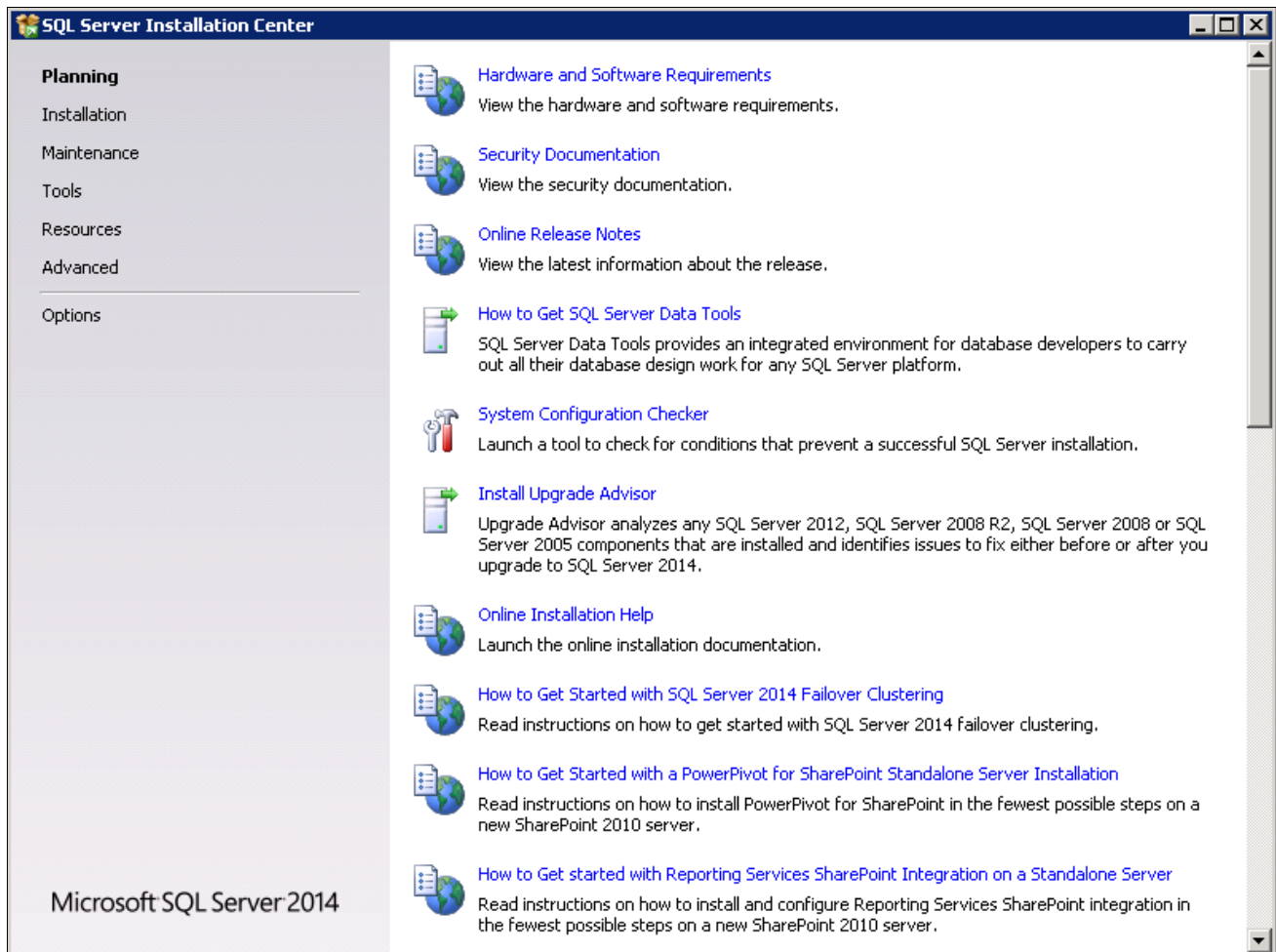
2. Insert the Microsoft SQL Server 2014 DVD into the DVD drive.

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`.

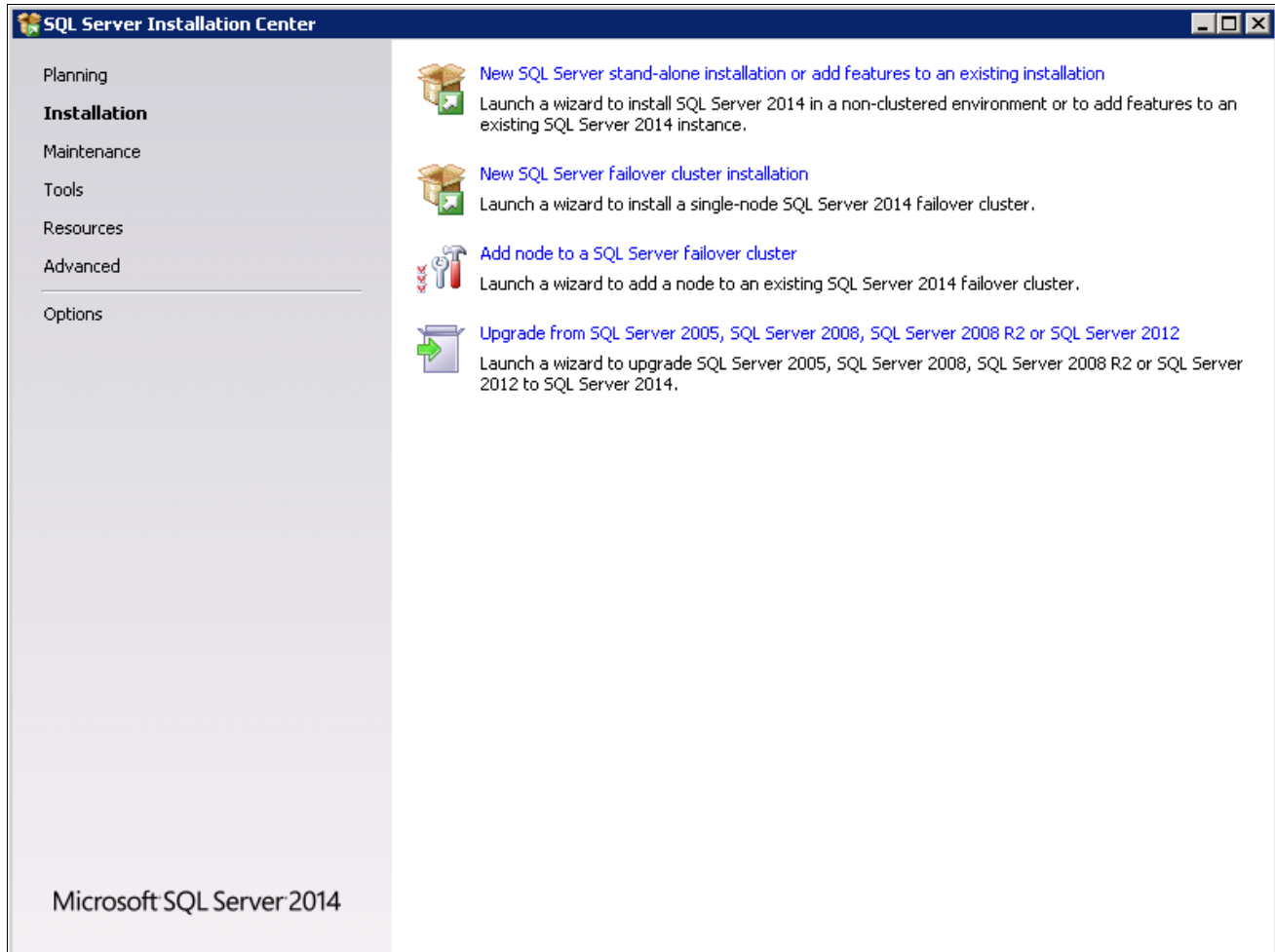
An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

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

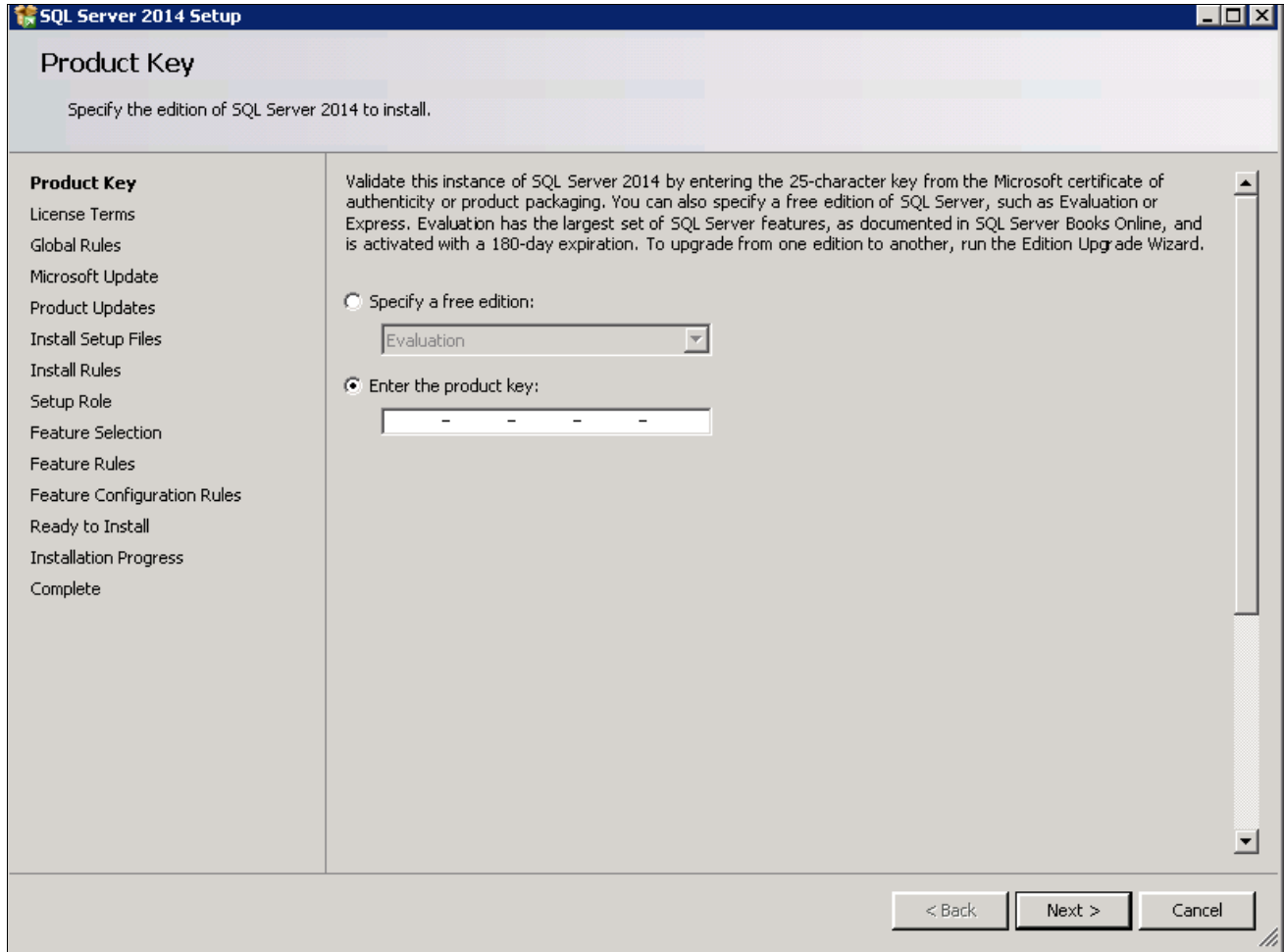
5. If you see an Open File security message, click **Run** and choose **Run Program**. A message box appears asking you to wait, as shown in this example:



SQL Server 2014 message box

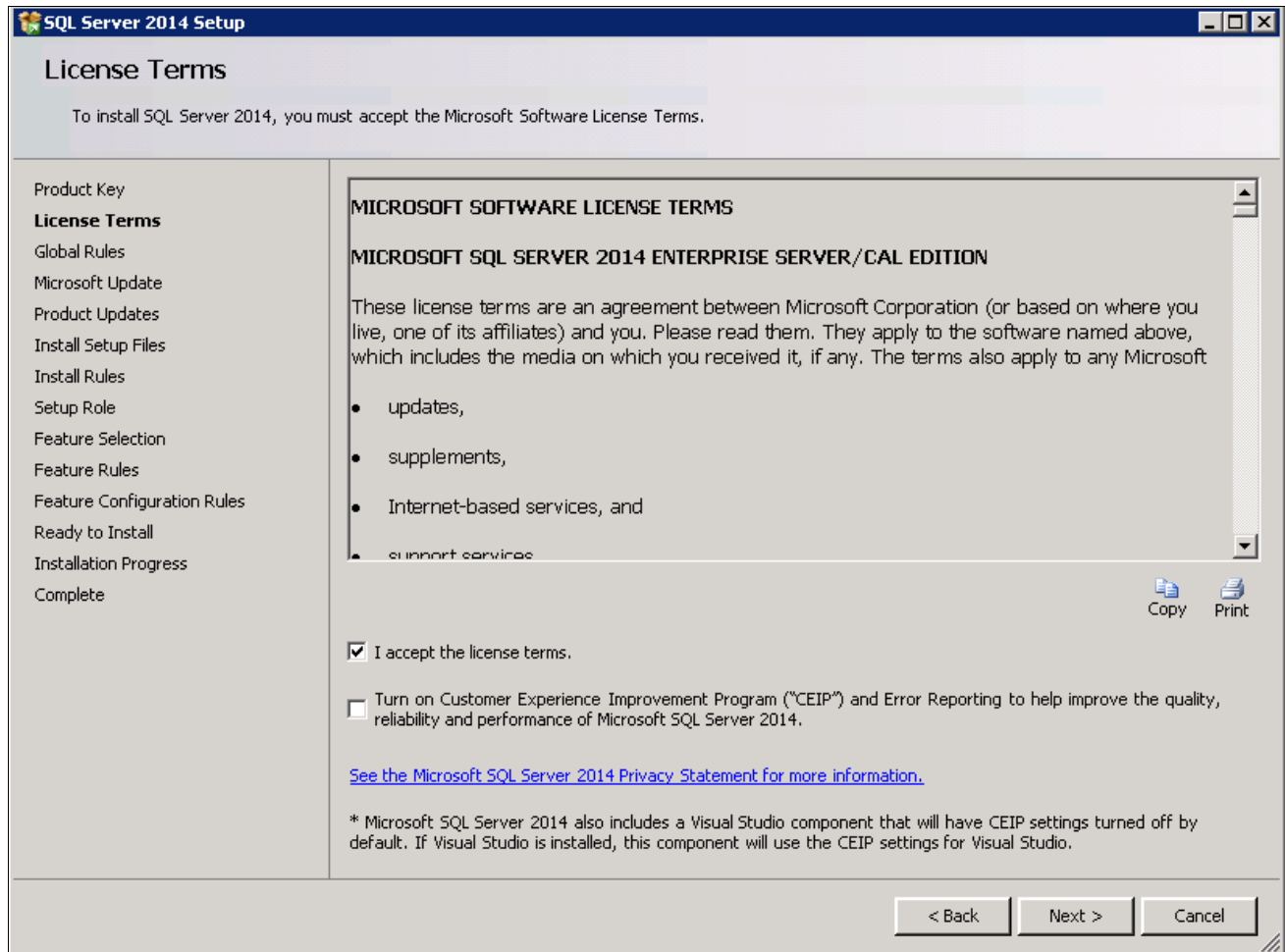
- 6. Enter the product key on the Product Key window.

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:

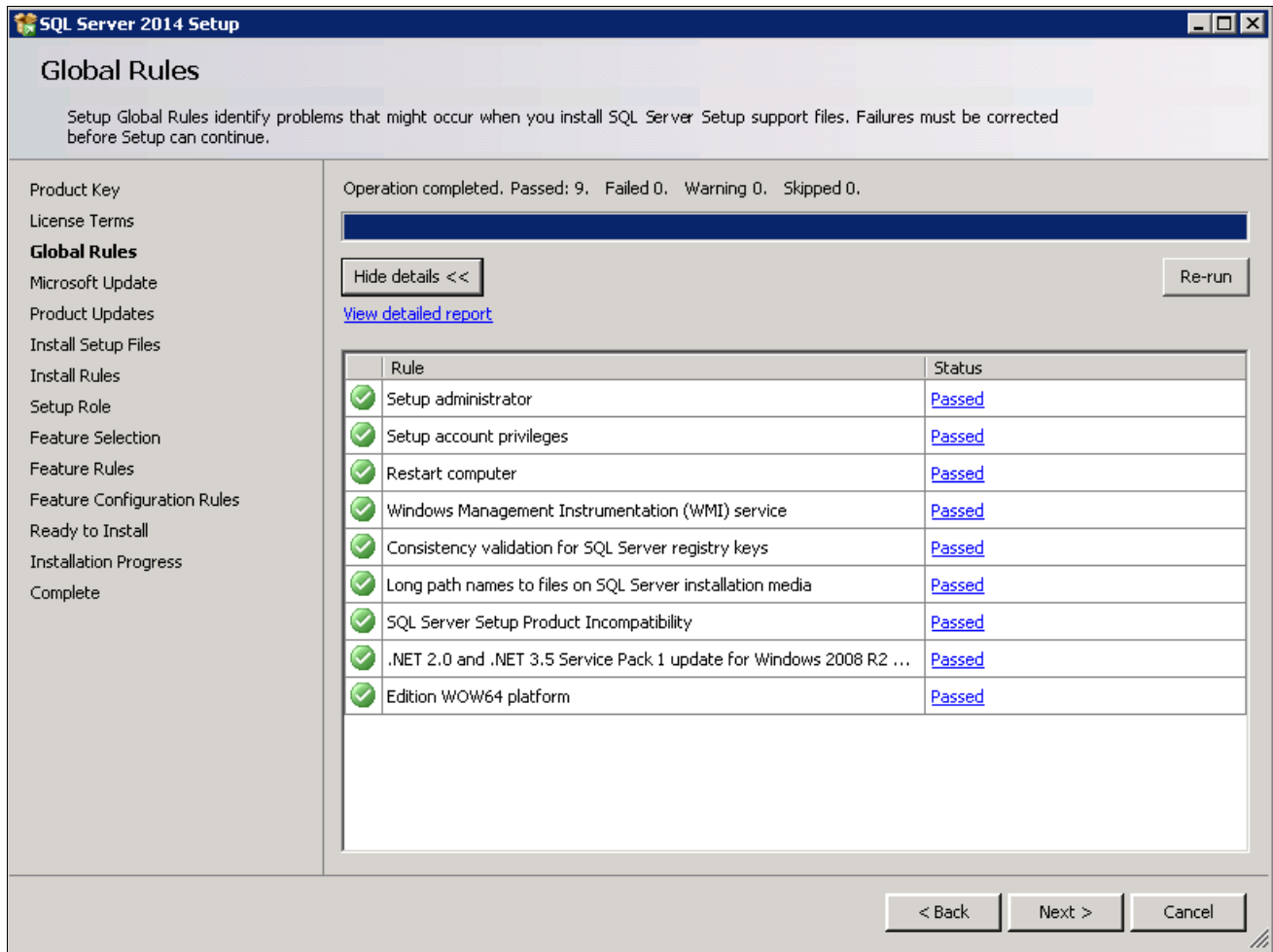


SQL Server 2014 Setup License Terms window

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.

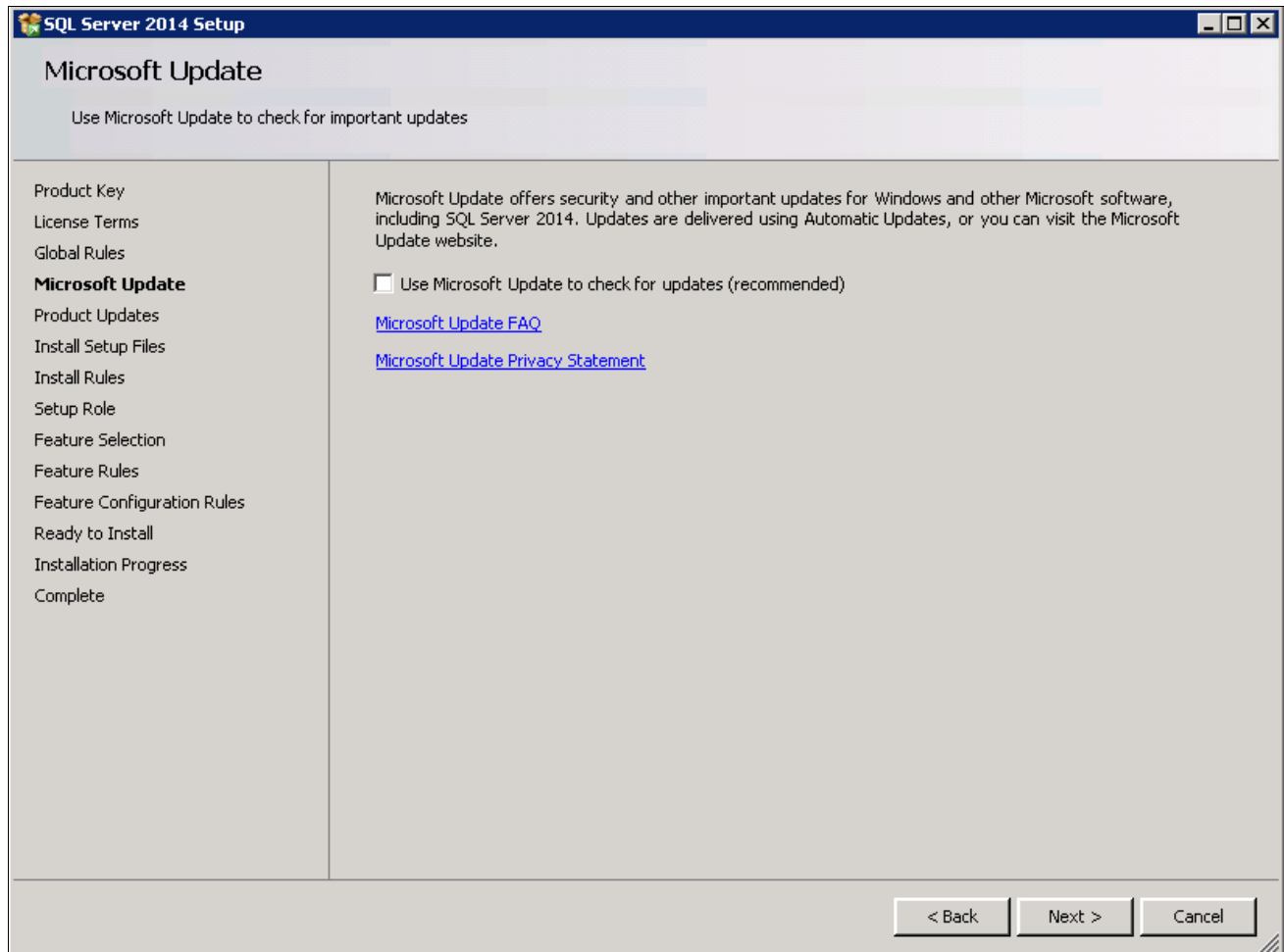
Verify that the status for all of the rules is Passed, as in this example. If any of the rules has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2014 Setup Global Rules window

10. Click Next.

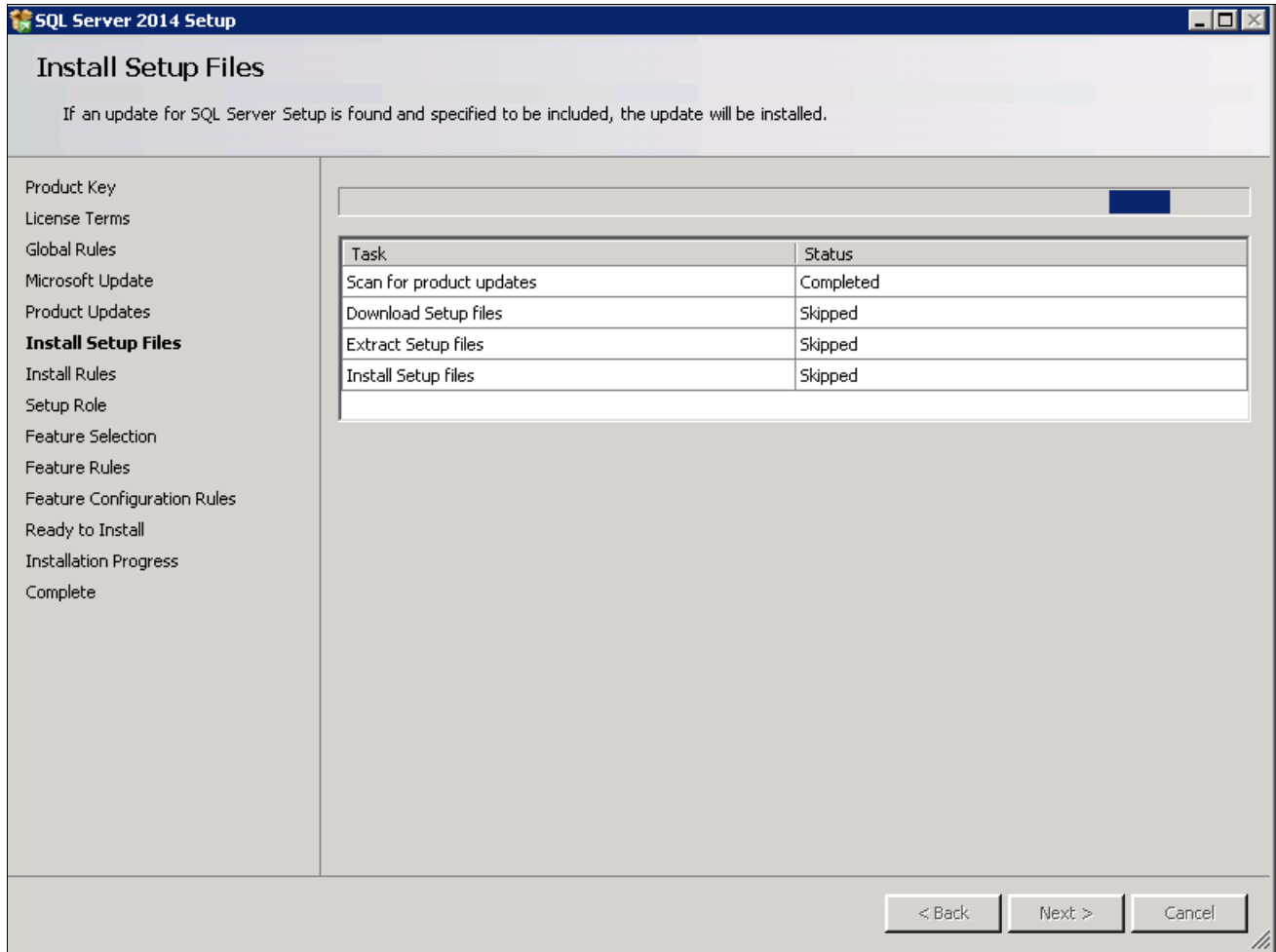
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



SQL Server 2014 Setup Microsoft Update window

11. Click Next.

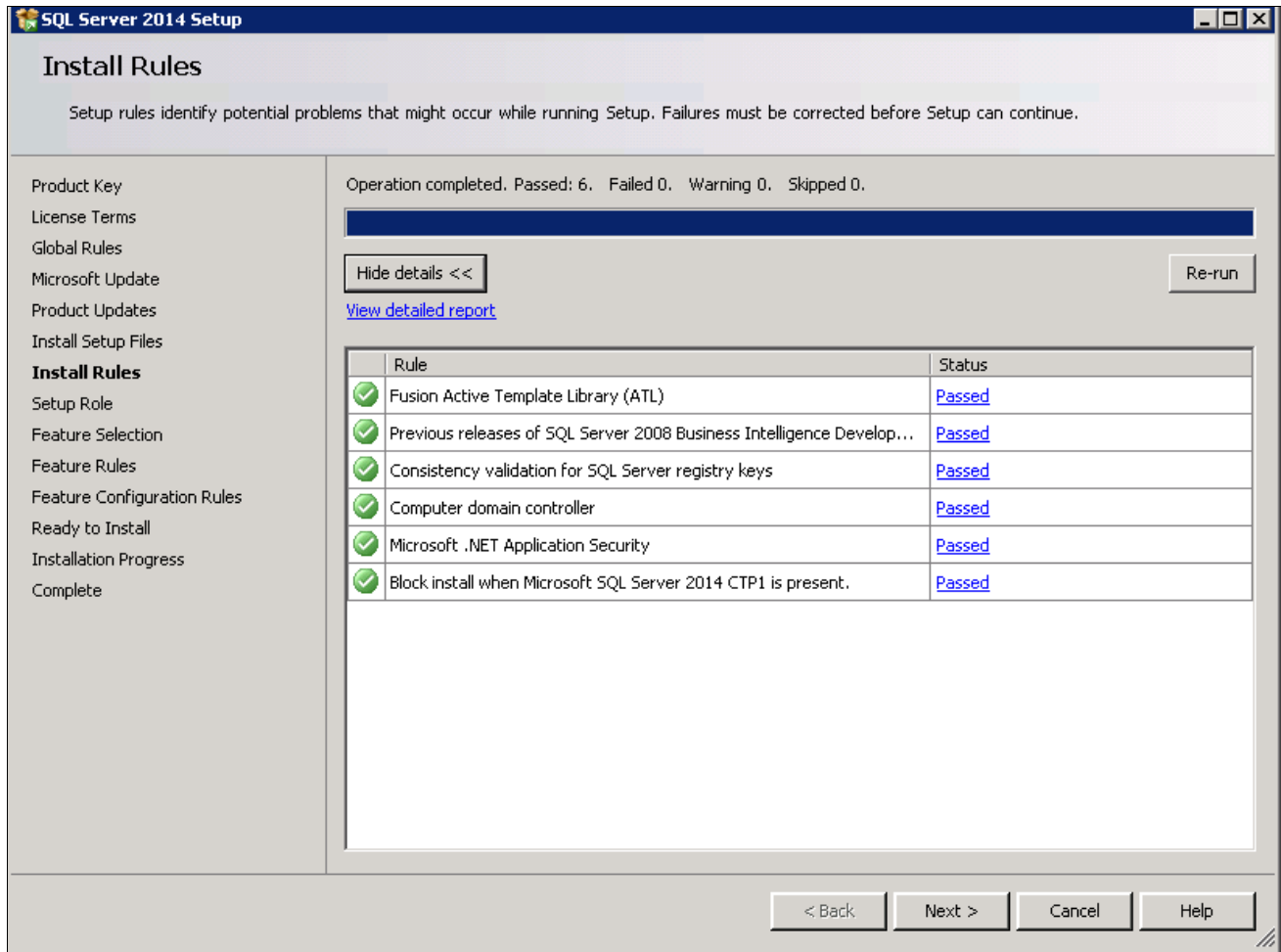
The Install Setup Files window appears. Wait for the process to install setup files and scan for product updates to complete, as shown in the Status column in this example.



SQL Server 2014 Setup Install Setup Files window

12. When the operation is complete, the Install Rules window appears.

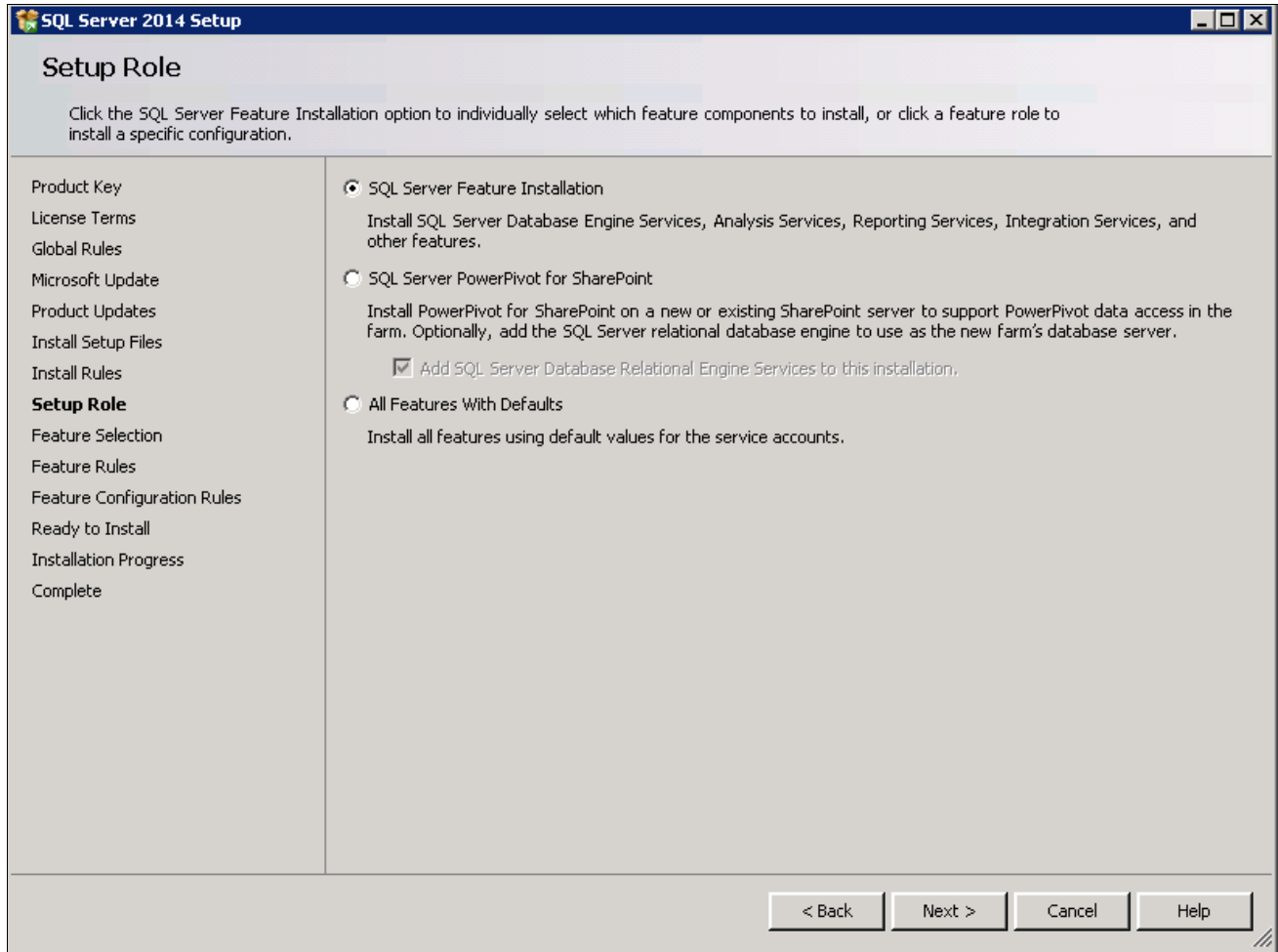
The setup operation checks for problems that might occur when you install support files. In this example all of the support rules have passed.



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.

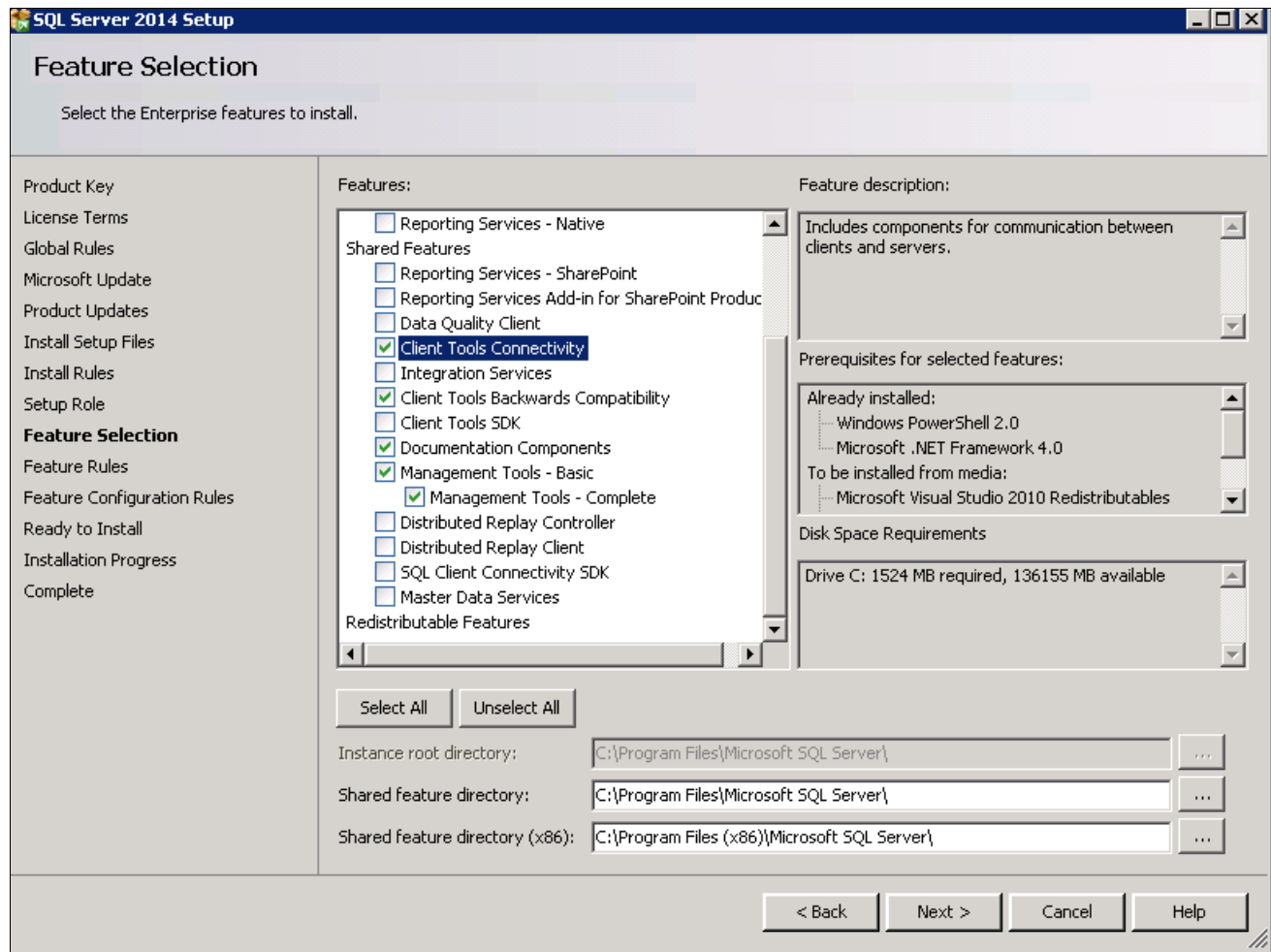


SQL Server 2014 Setup Setup Role window

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

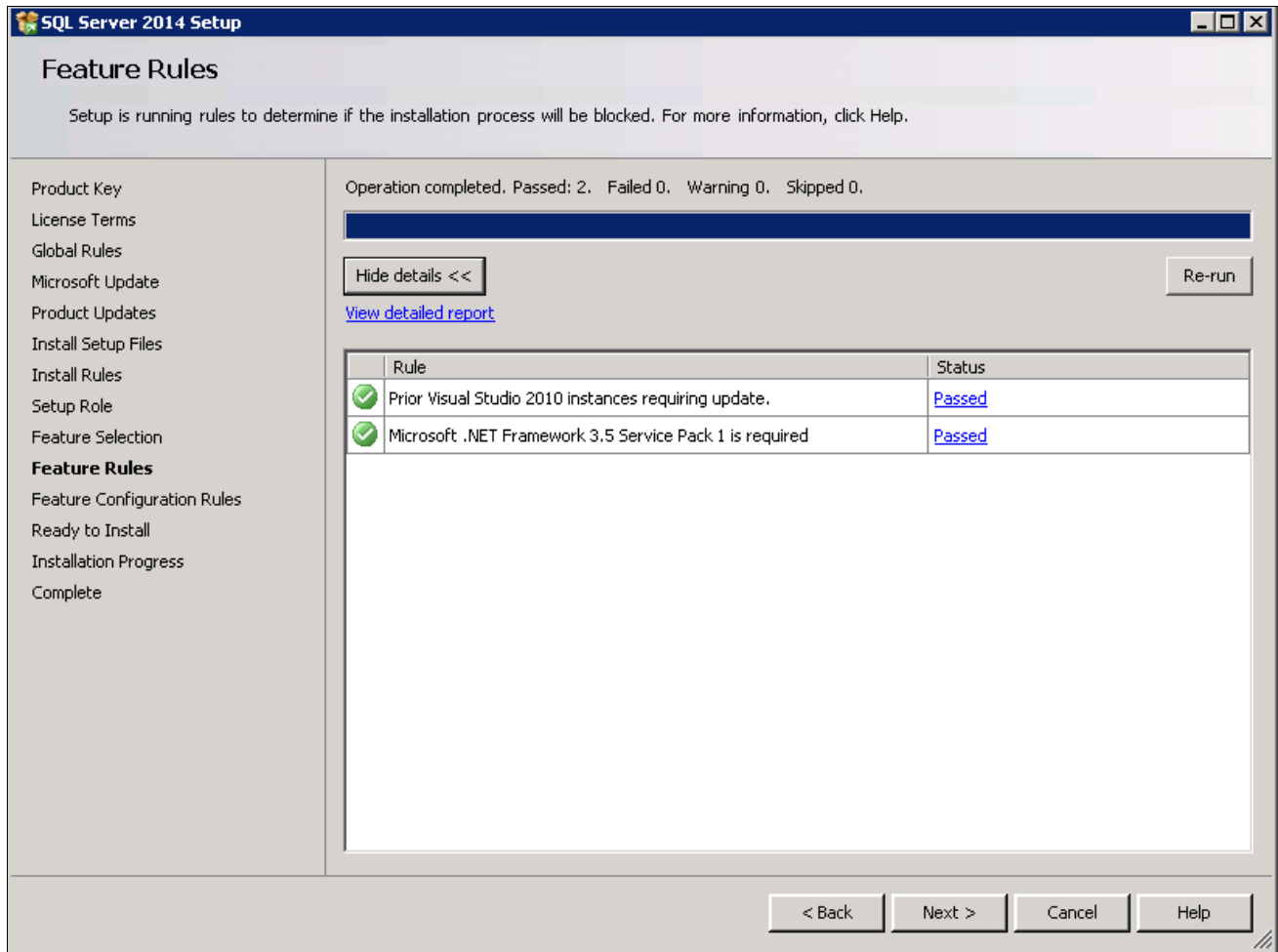
- Shared Features
- Reporting Services - SharePoint
- Reporting Services Add-in for Share Point Products
- Data Quality Client
- SQL Server Data Tools
- Integration Services
- Client Tools SDK
- Documentation Components
- Distributed Replay Controller
- Distributed Replay Client
- SQL Client Connectivity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

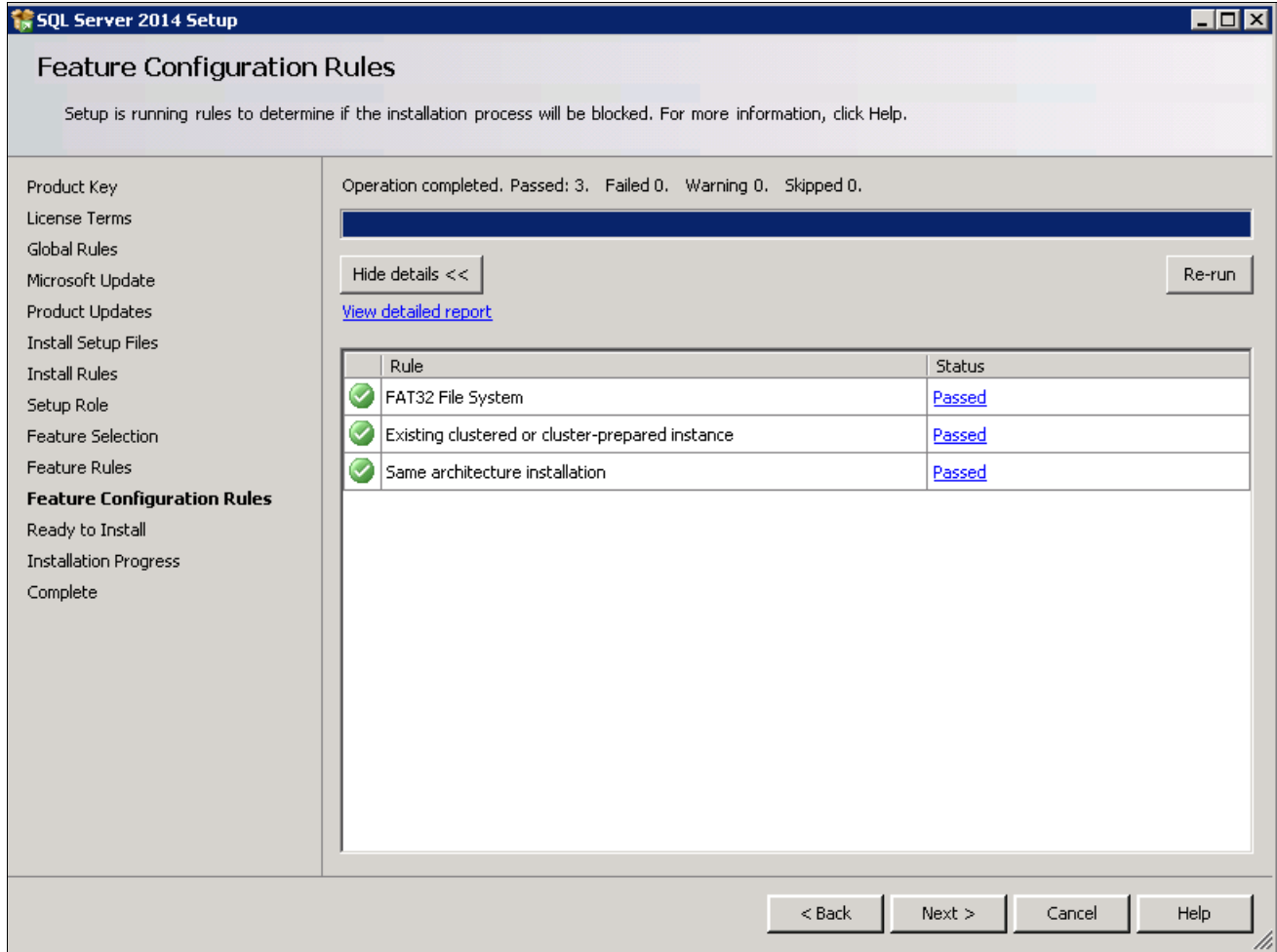


SQL Server 2014 Setup Feature Rules window showing details

19. Click Next.

The Feature Configuration Rules window appears.

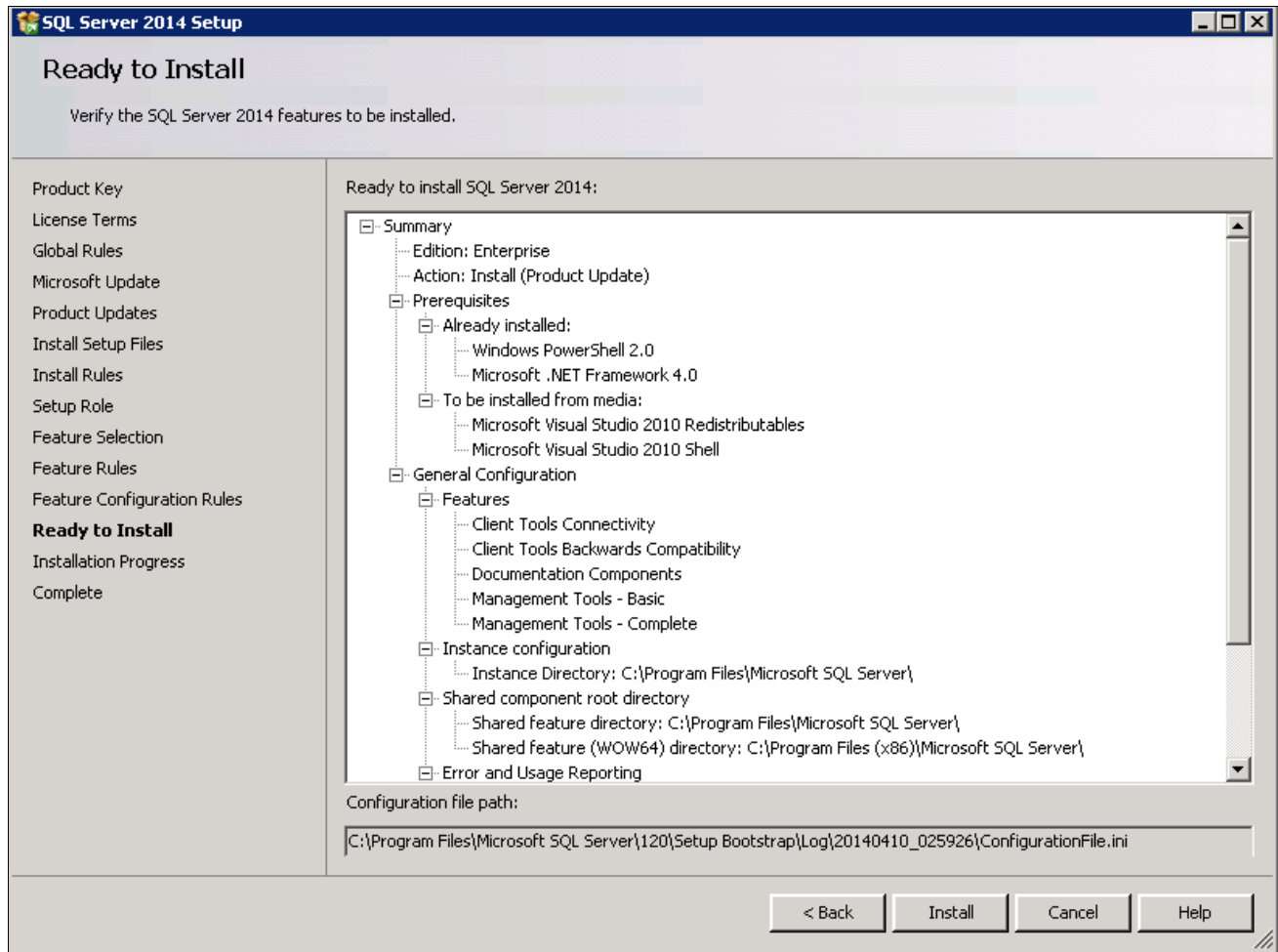
Wait for the operation to be complete. View the detailed report and verify that all of the rules passed successfully, as shown in this example. If any of the rules does not have a status of *Passed*, click the link in the Status column to check the reason.



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.



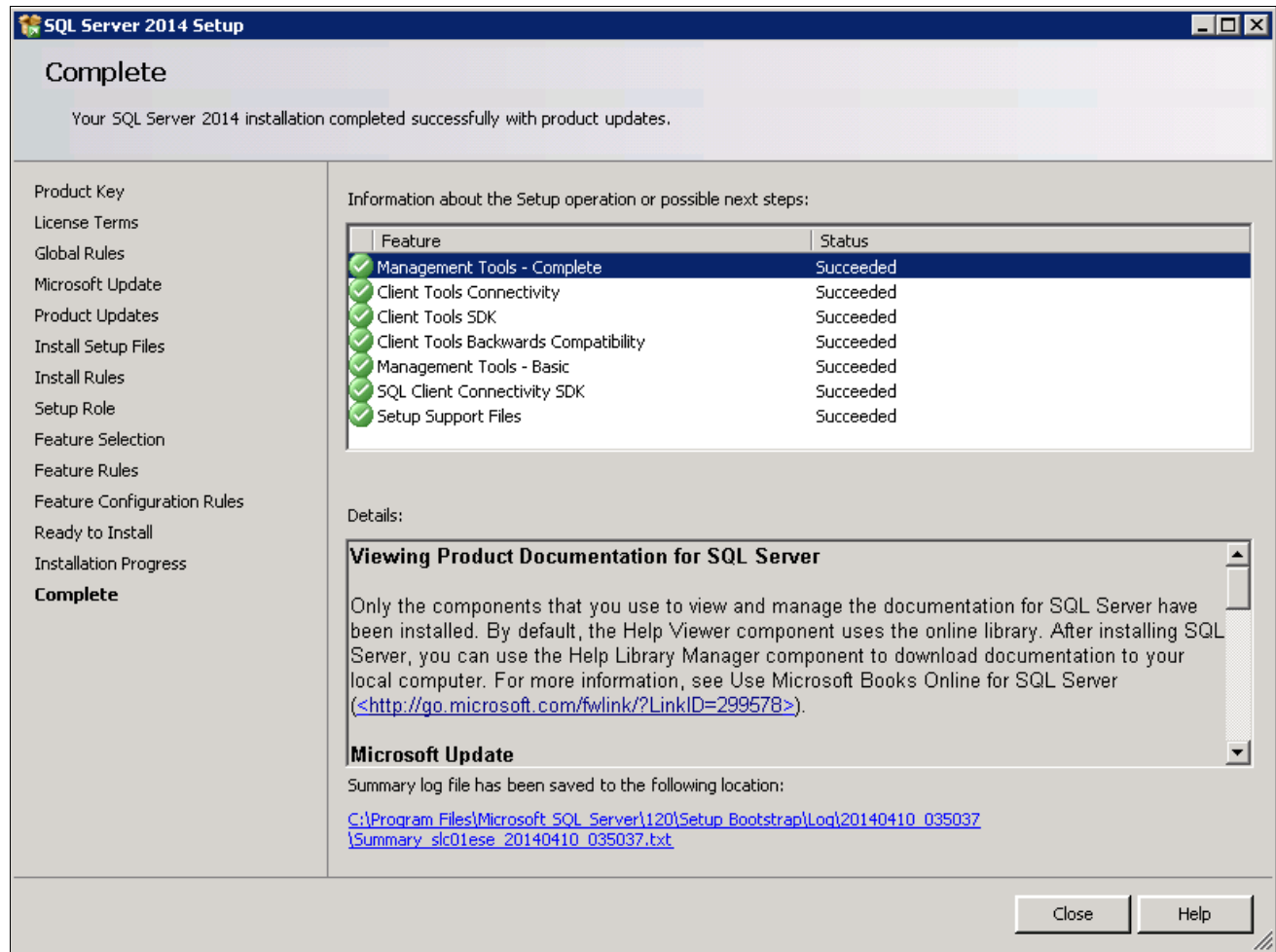
SQL Server 2014 Setup Ready to Install window

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.

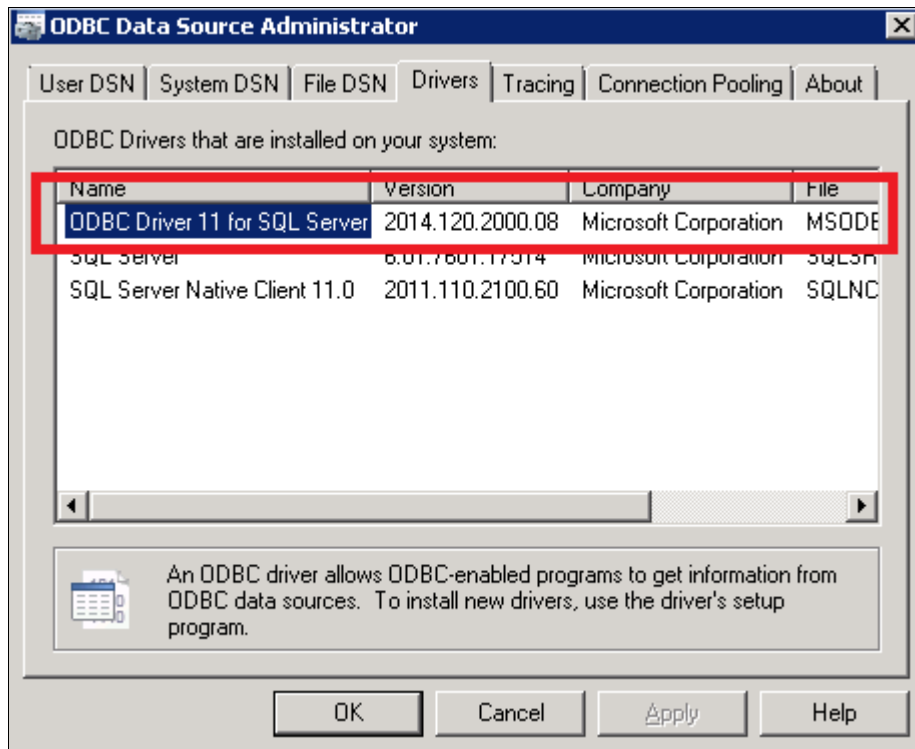


SQL Server 2014 Setup Complete window

Task 19-4: 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 19-5: 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 20

Installing Microsoft SQL Server 2016

This chapter discusses:

- Understanding the Microsoft SQL Server 2016 Installation
- Installing Microsoft SQL Server 2016 on the Database Server
- 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 Books Online (support.microsoft.com or Microsoft support services). Contact your Microsoft vendor for information on obtaining Microsoft SQL Server 2016.

The Microsoft SQL Server 2016 setup has the following prerequisites:

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.

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 20-1: 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 Books Online 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.

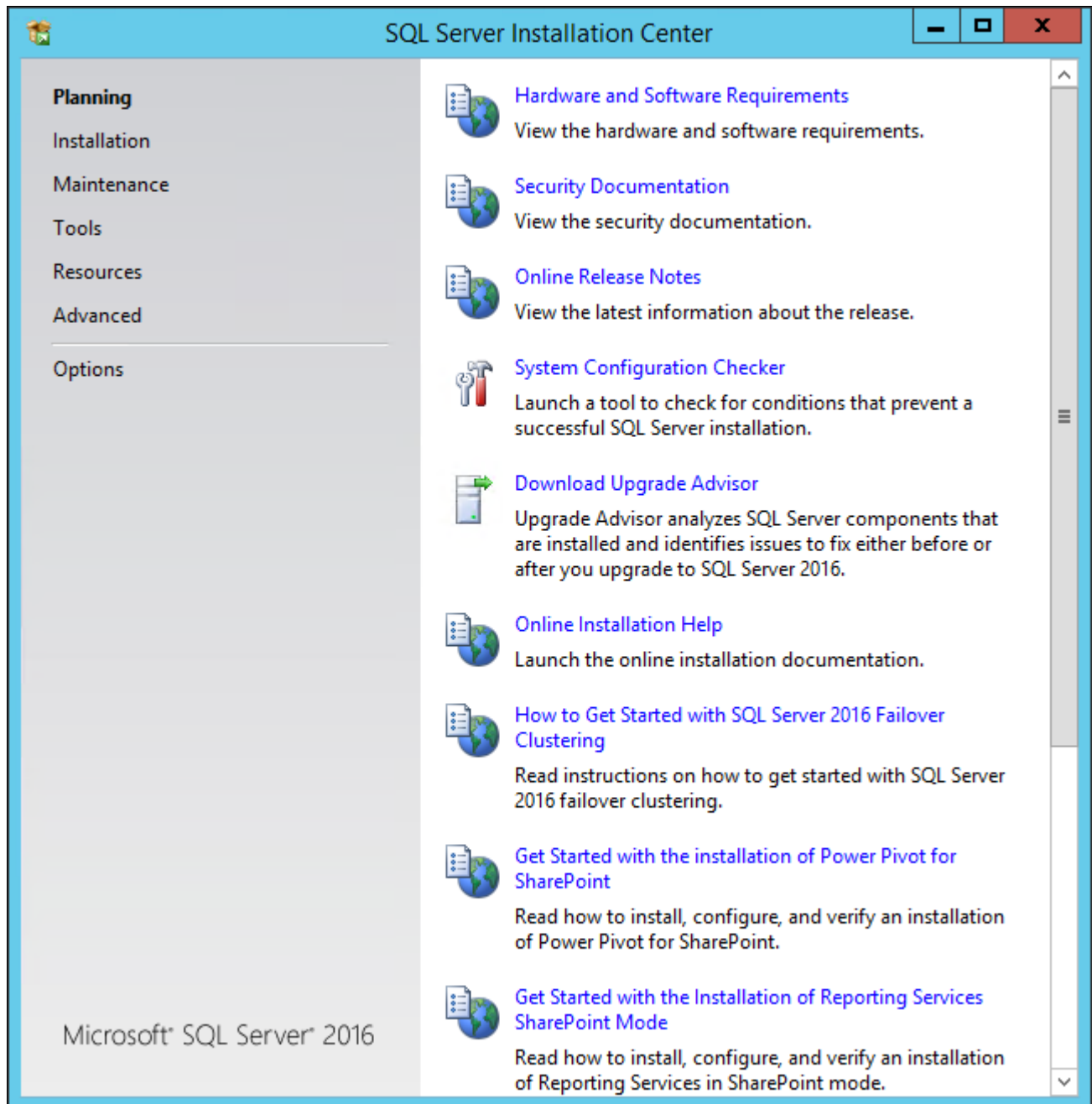
2. Insert the Microsoft SQL Server 2016 DVD into the DVD drive.

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`.

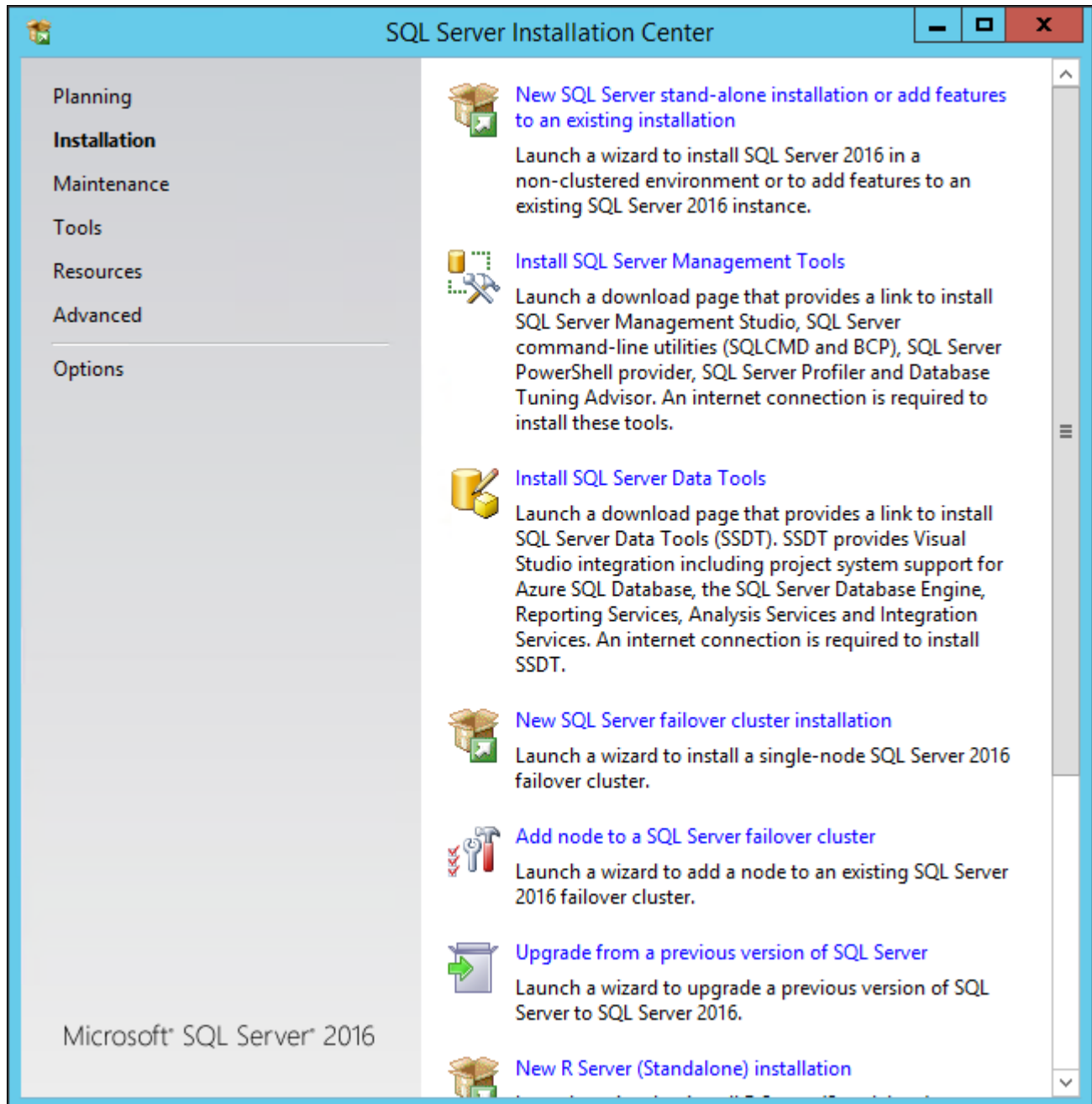
An initialization message box appears asking you to wait. After initialization is complete, the SQL Server Installation Center window appears.

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:



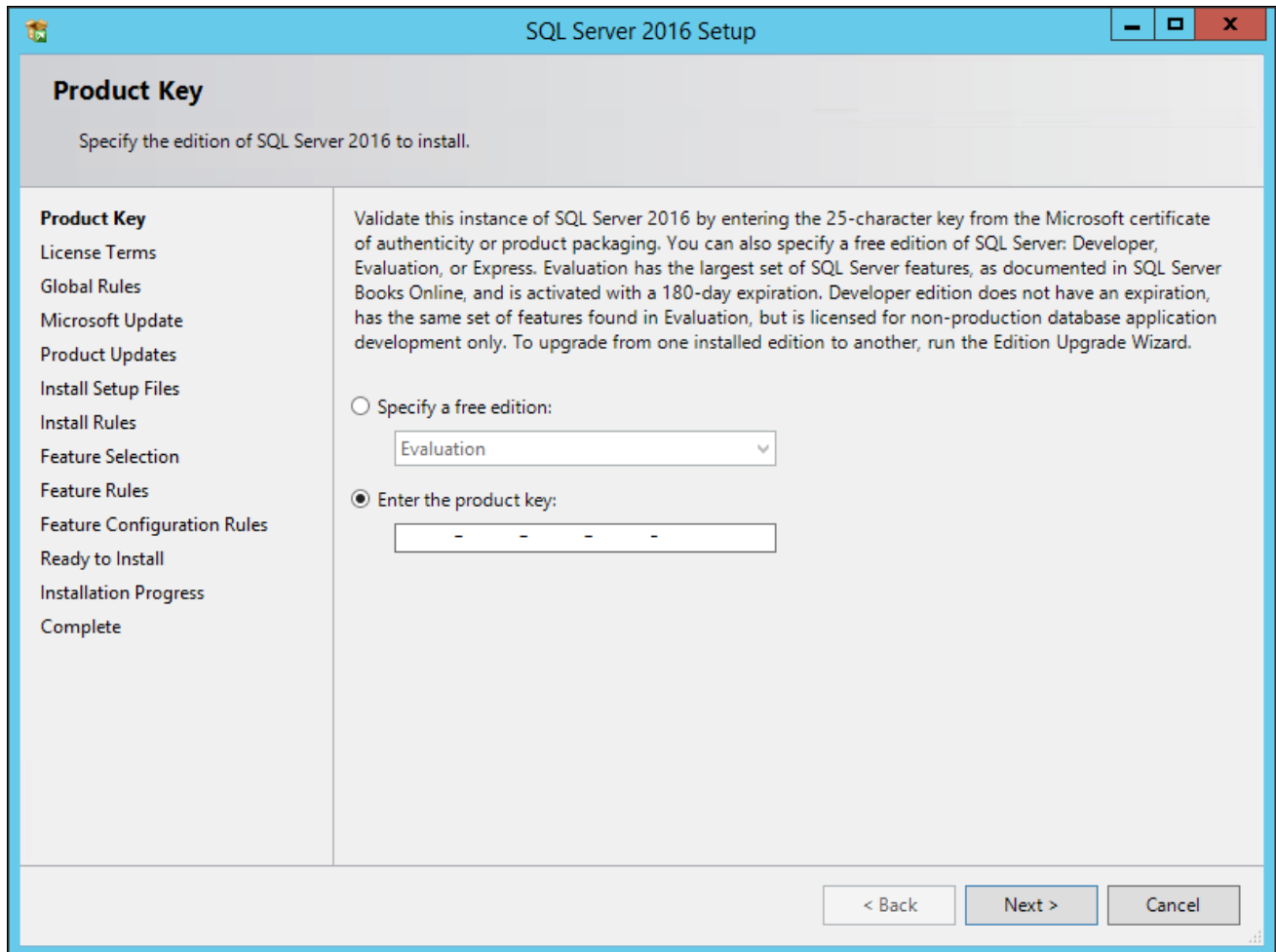
Microsoft SQL Server 2016 SQL Server Installation Center Installation window

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.

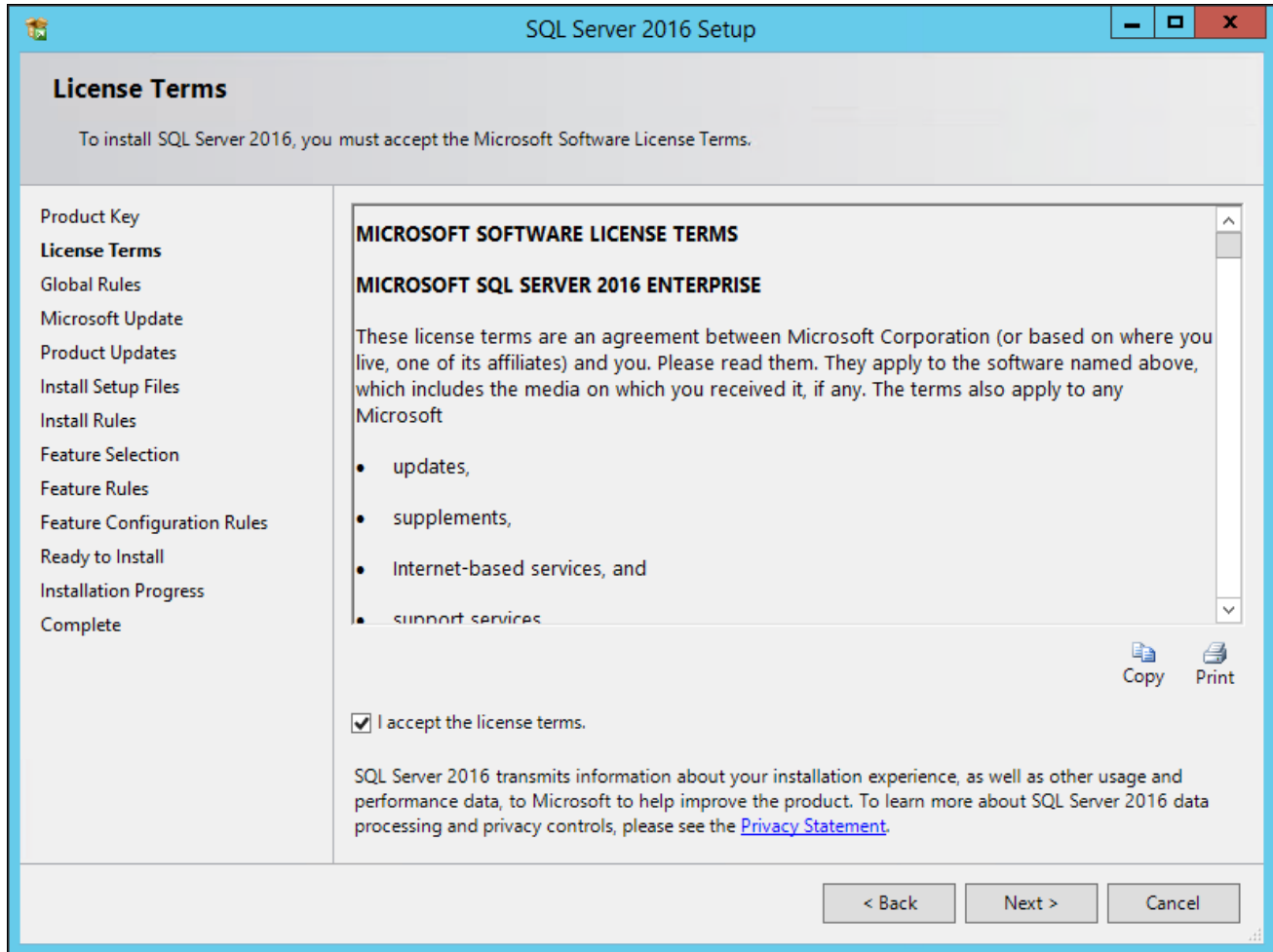
5. Enter your product key value.

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 window

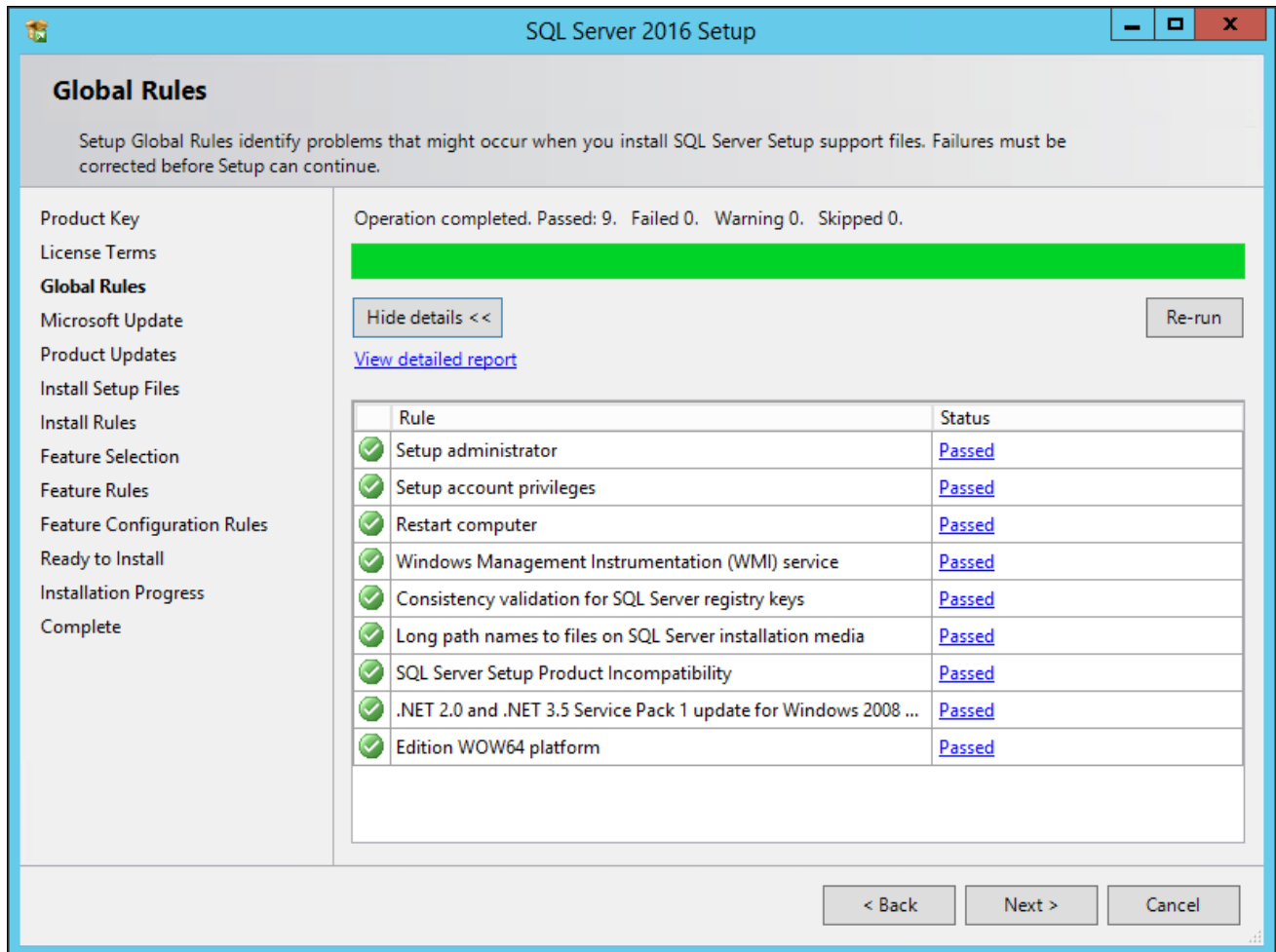
6. Read the terms and conditions carefully and select the check box I accept the license terms, as shown in this example:



SQL Server 2016 Setup License Terms window

7. Click Next.

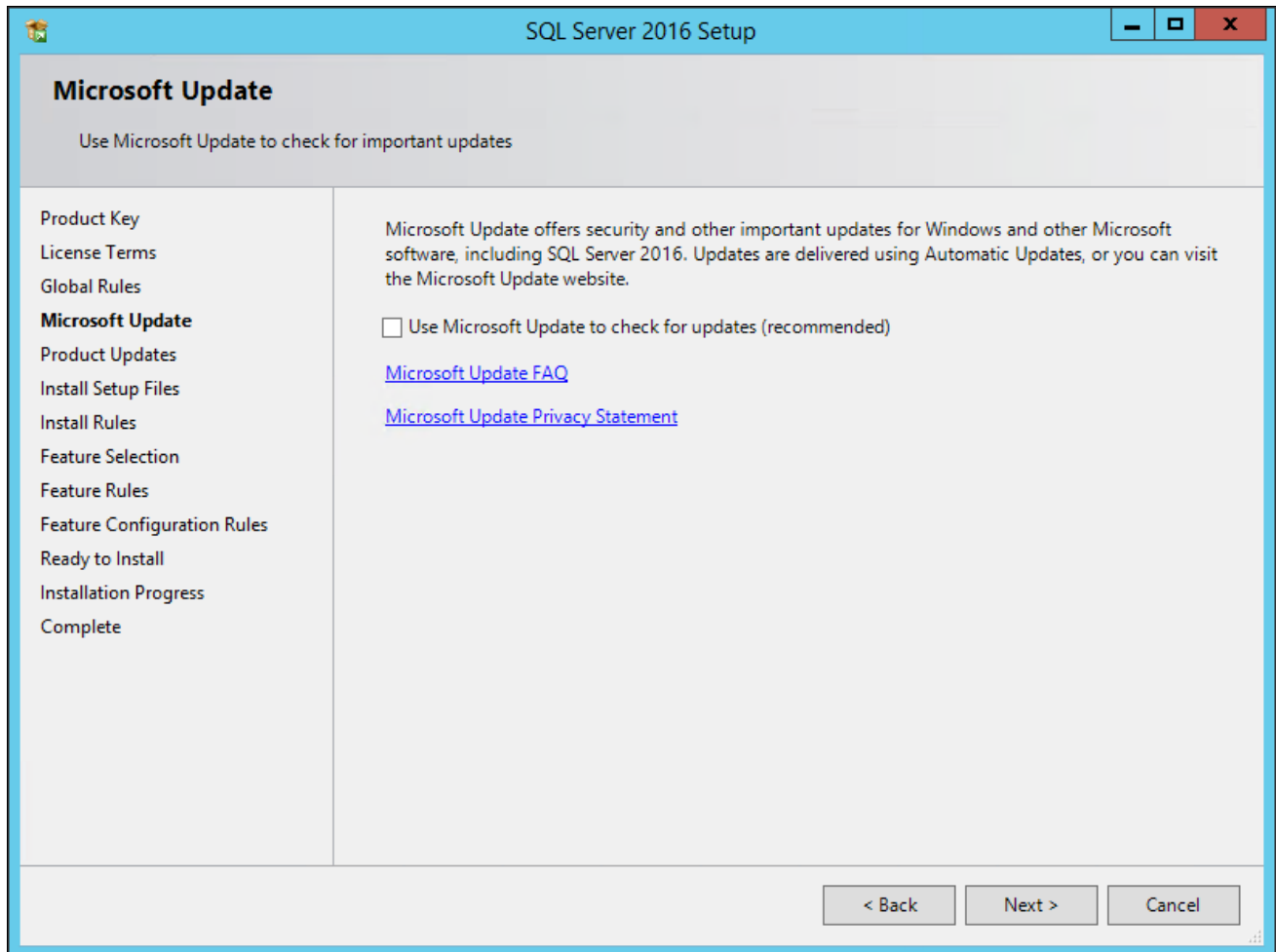
The Global Rules window appears. Wait until the process verifying global rules is complete. Verify that all the rules have passed, as shown in the Status column in this example:



SQL Server 2016 Setup Global Rules window

8. Click Next.

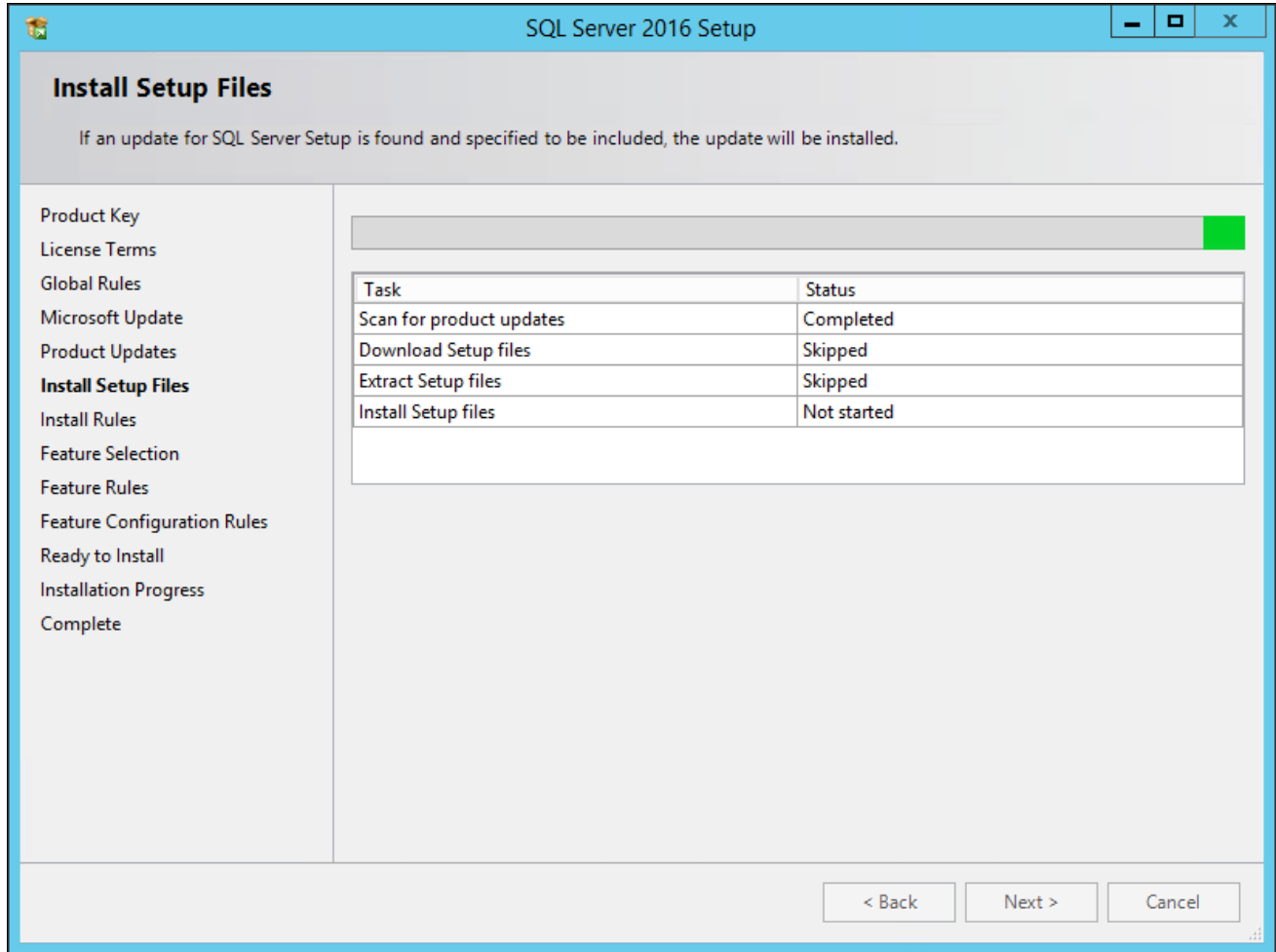
The Microsoft Update window appears. Clear the check box for "Use Microsoft Update to check for updates (recommended)", as shown in this example:



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:

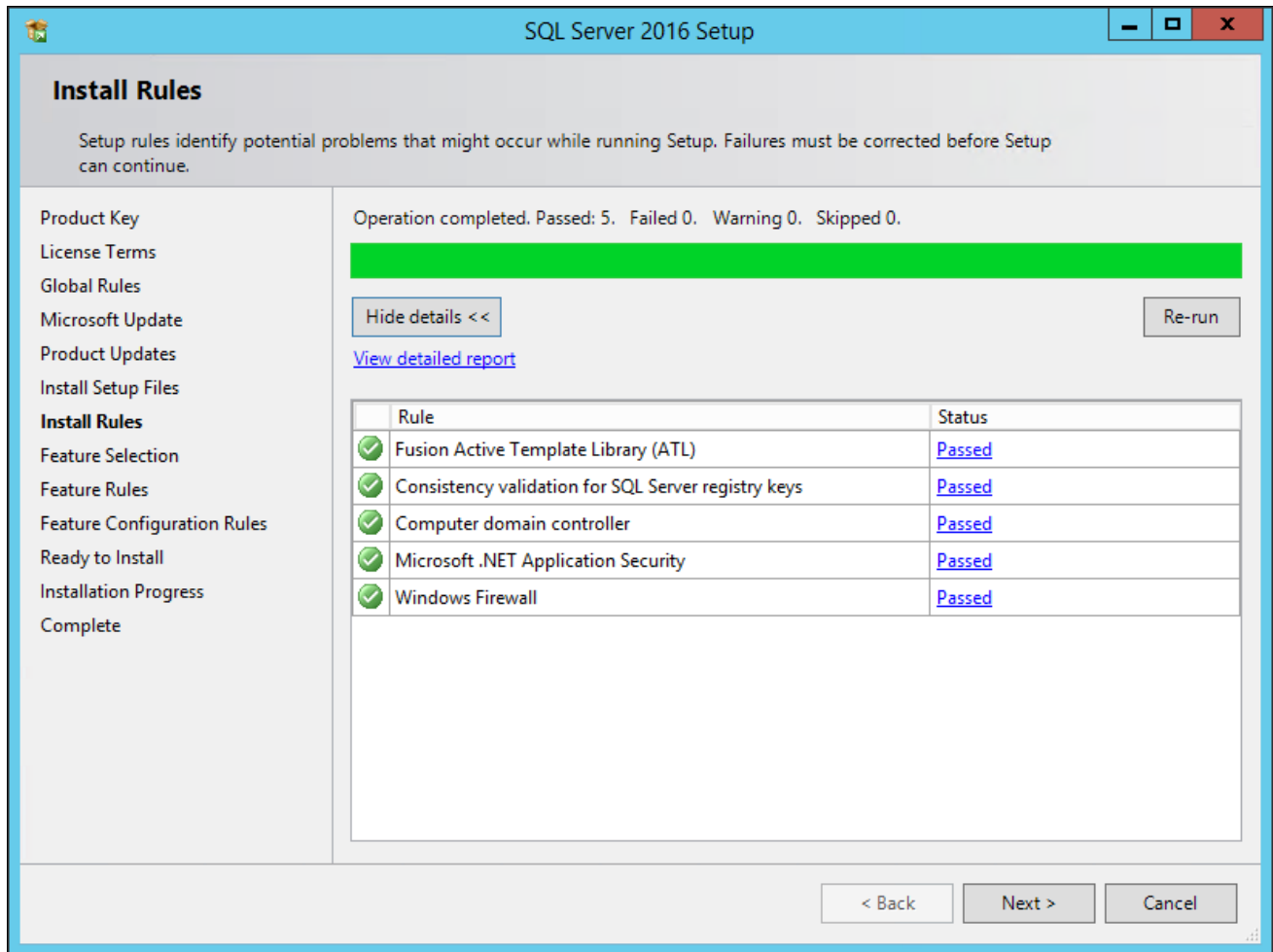


SQL Server 2016 Install Setup Files window

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.

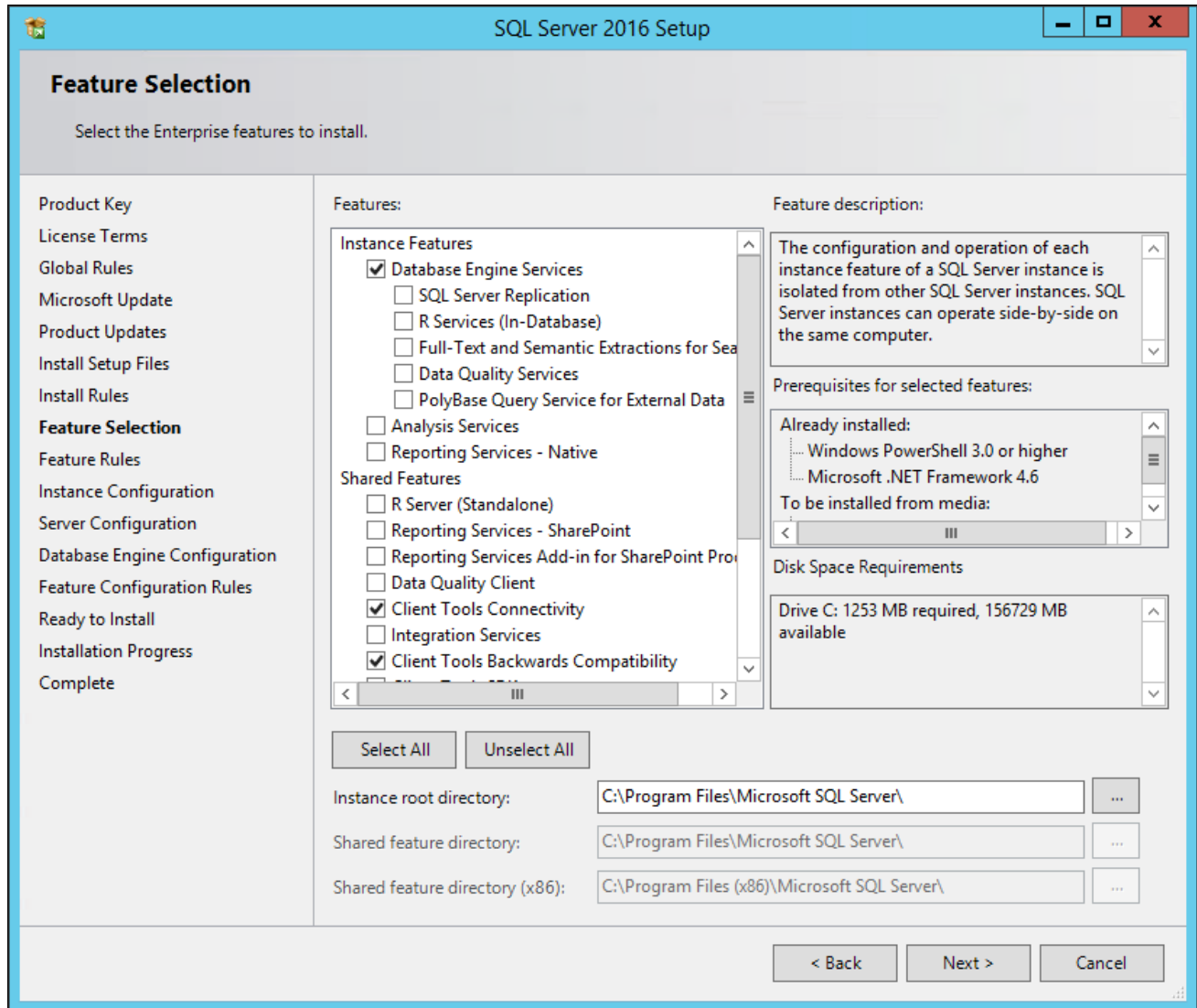
- Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



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

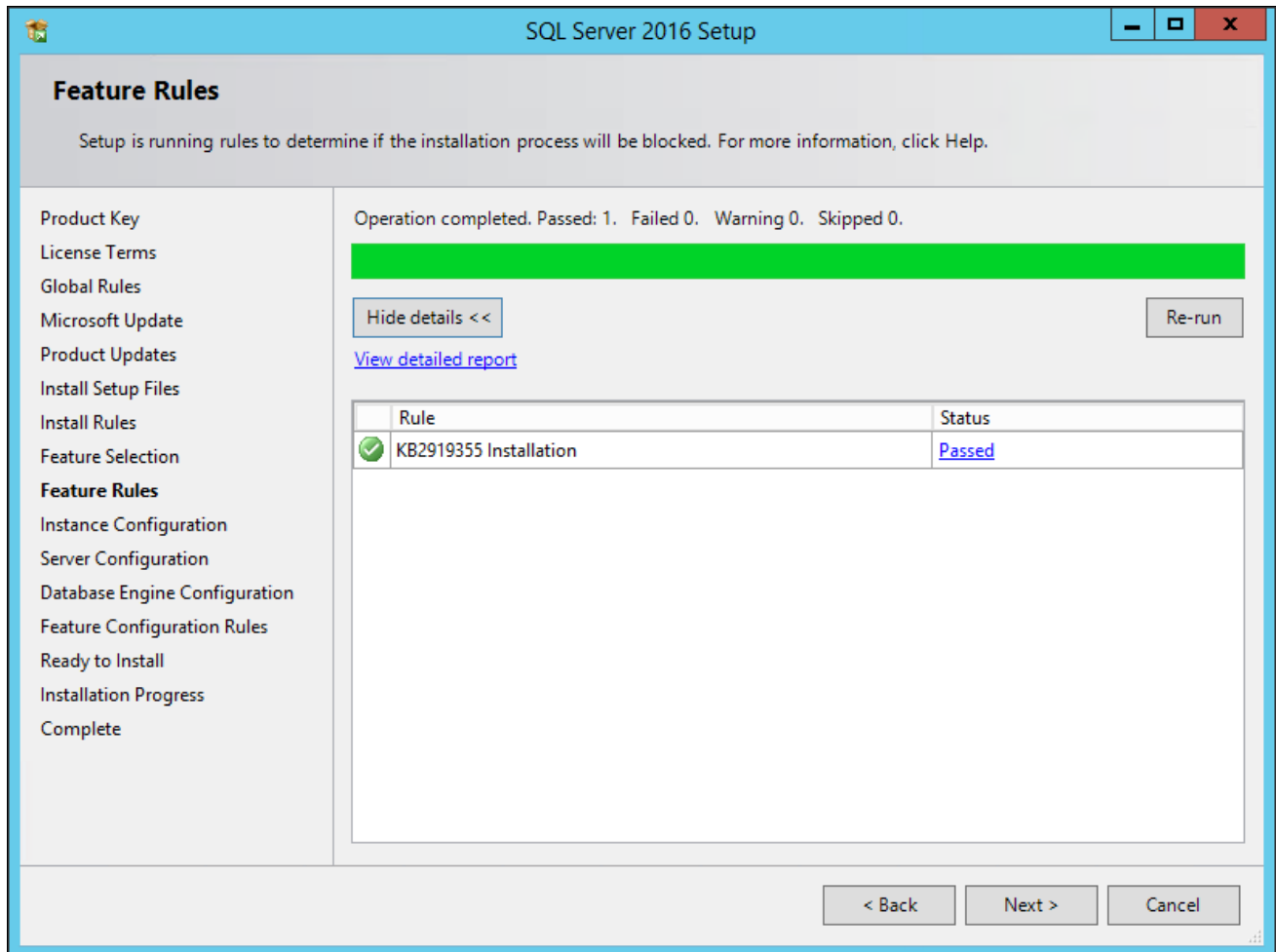
- Data Quality Services
- PolyBase Query Service for external data
- Analysis Services
- Reporting Services - Native
- R Server (Standalone)
- Reporting Services - SharePoint
- Reporting Services Add-in for SharePoint Products
- Data Quality Client
- Integration Services
- Client Tools SDK
- Distributed 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.

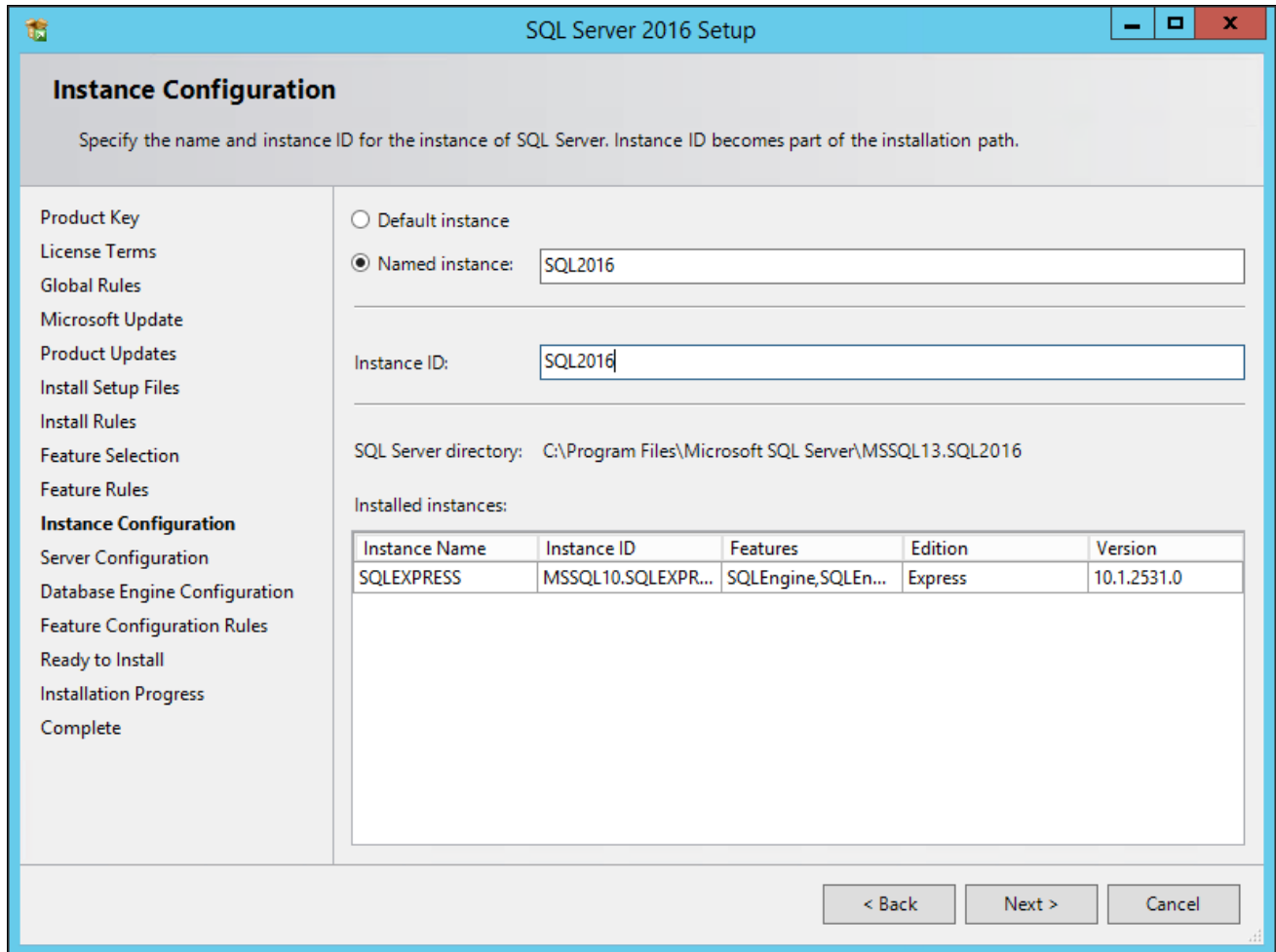
Verify that all of the listed Rules display Passed in the Status column, as shown in this example. If any one of them has not passed, select the link in the Status column to check the reason for the failure.



SQL Server 2016 Setup Feature Rules window

16. Click Next.

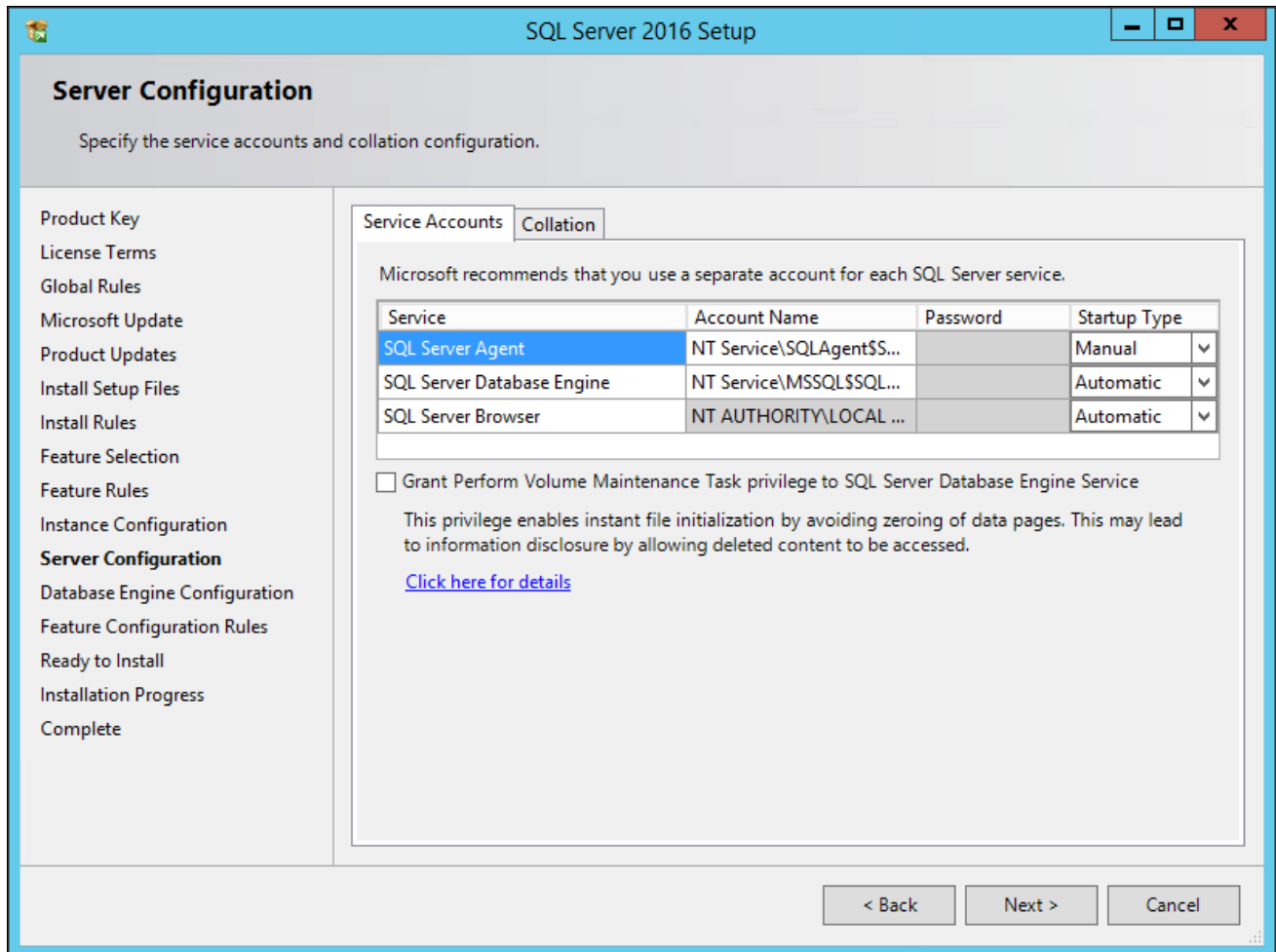
The Instance Configuration window appears. Enter *SQL2016* as the named instance and the Instance ID, as shown in this example. The window also displays the SQL Server directory, in this example C:\Program Files\Microsoft SQL Server\MSSQL13.SQL2016.



SQL Server 2016 Setup Instance Configuration window

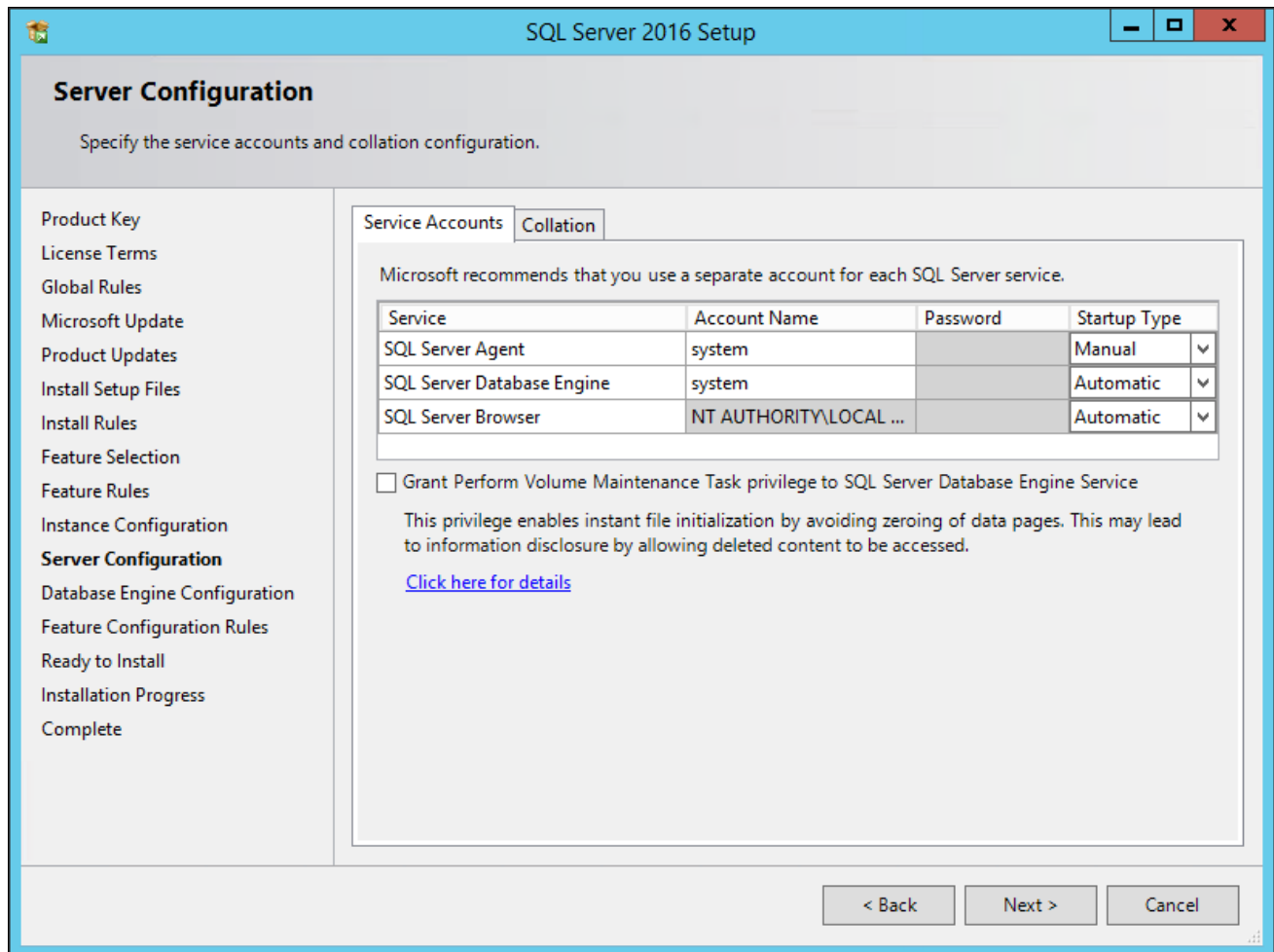
17. Click Next.

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.



SQL Server 2016 Setup Server Configuration window

18. Specify the service accounts. This example shows the window after making the recommended selections:

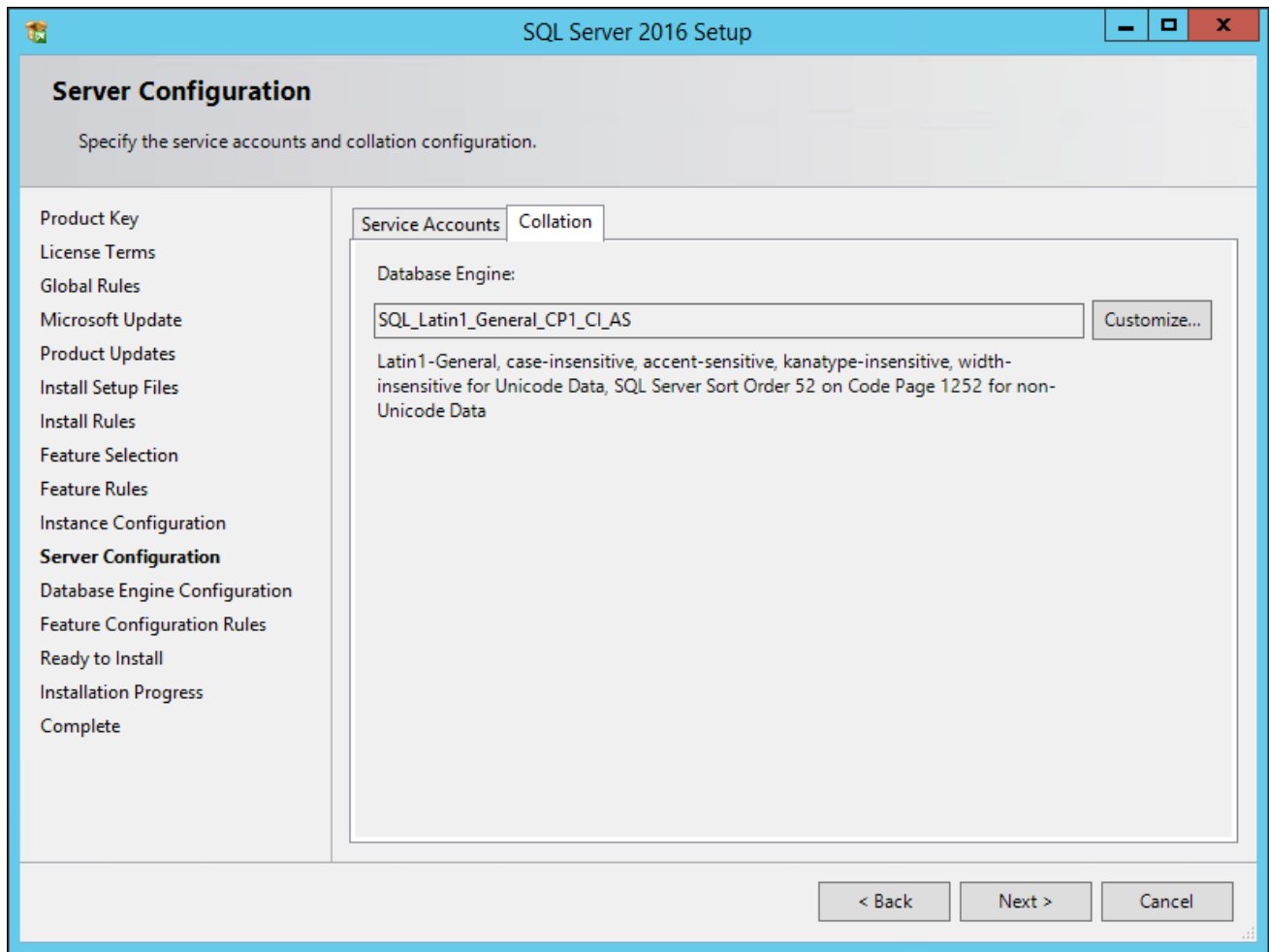


SQL Server 2016 Setup Server Configuration window with account names

- 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.

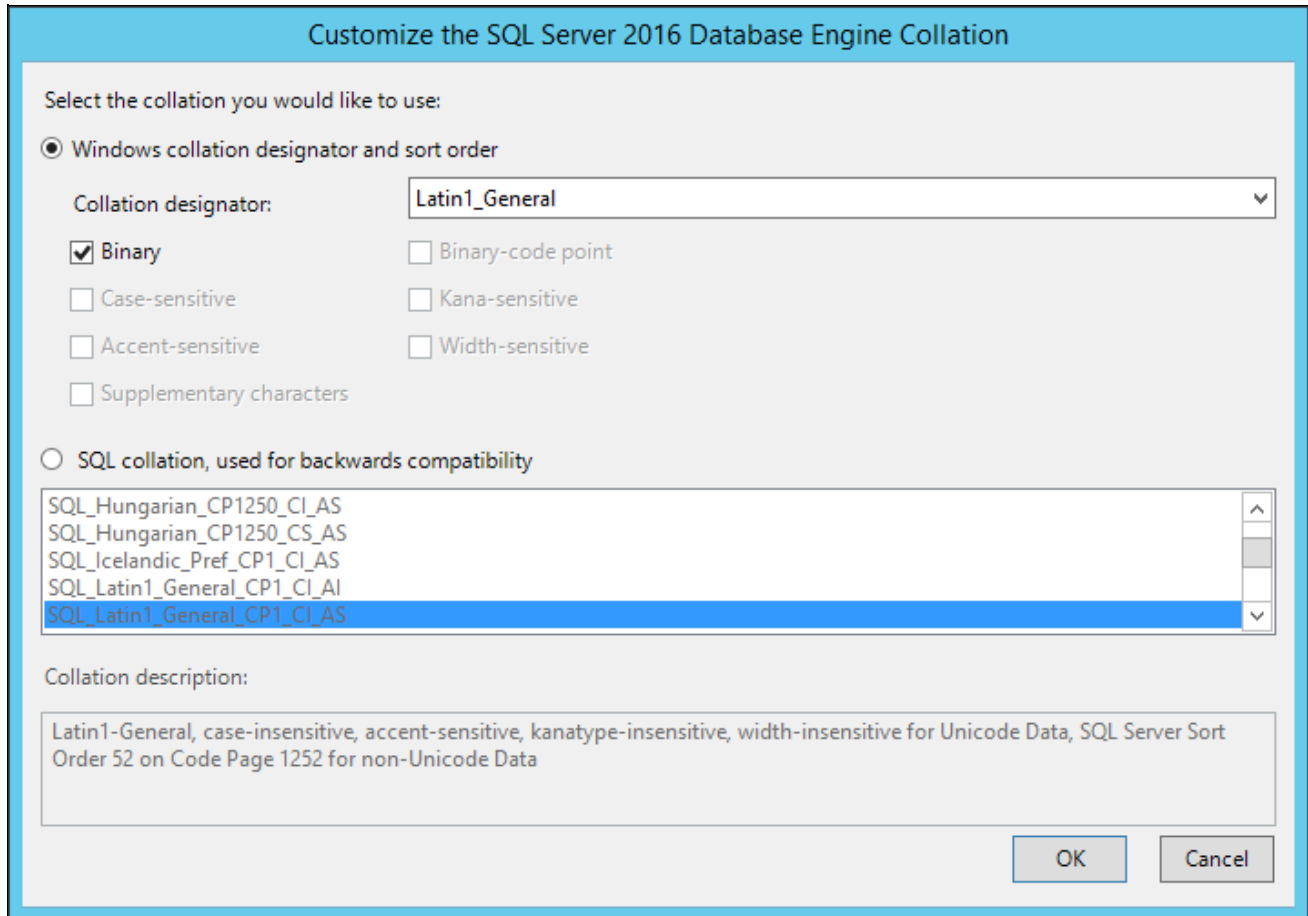
This example shows the default collation, `SQL_Latin1_General_CP1_CI_AS`.



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:

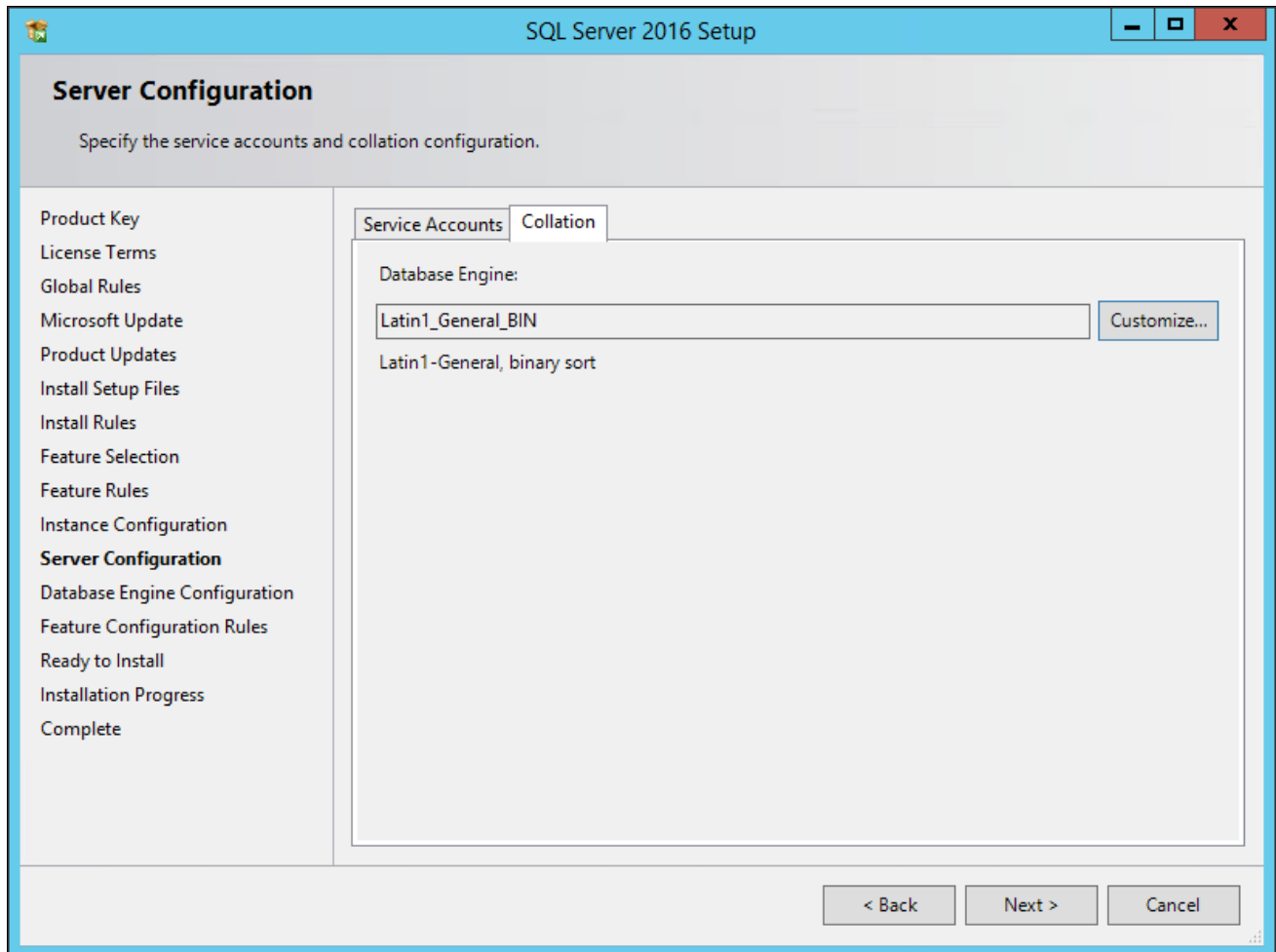


Customize the SQL Server 2016 Database Engine Collation window

Selecting these options changes the collation to *Latin1_General_BIN*. Your collation designation may vary if you are not using English.

21. Click OK.

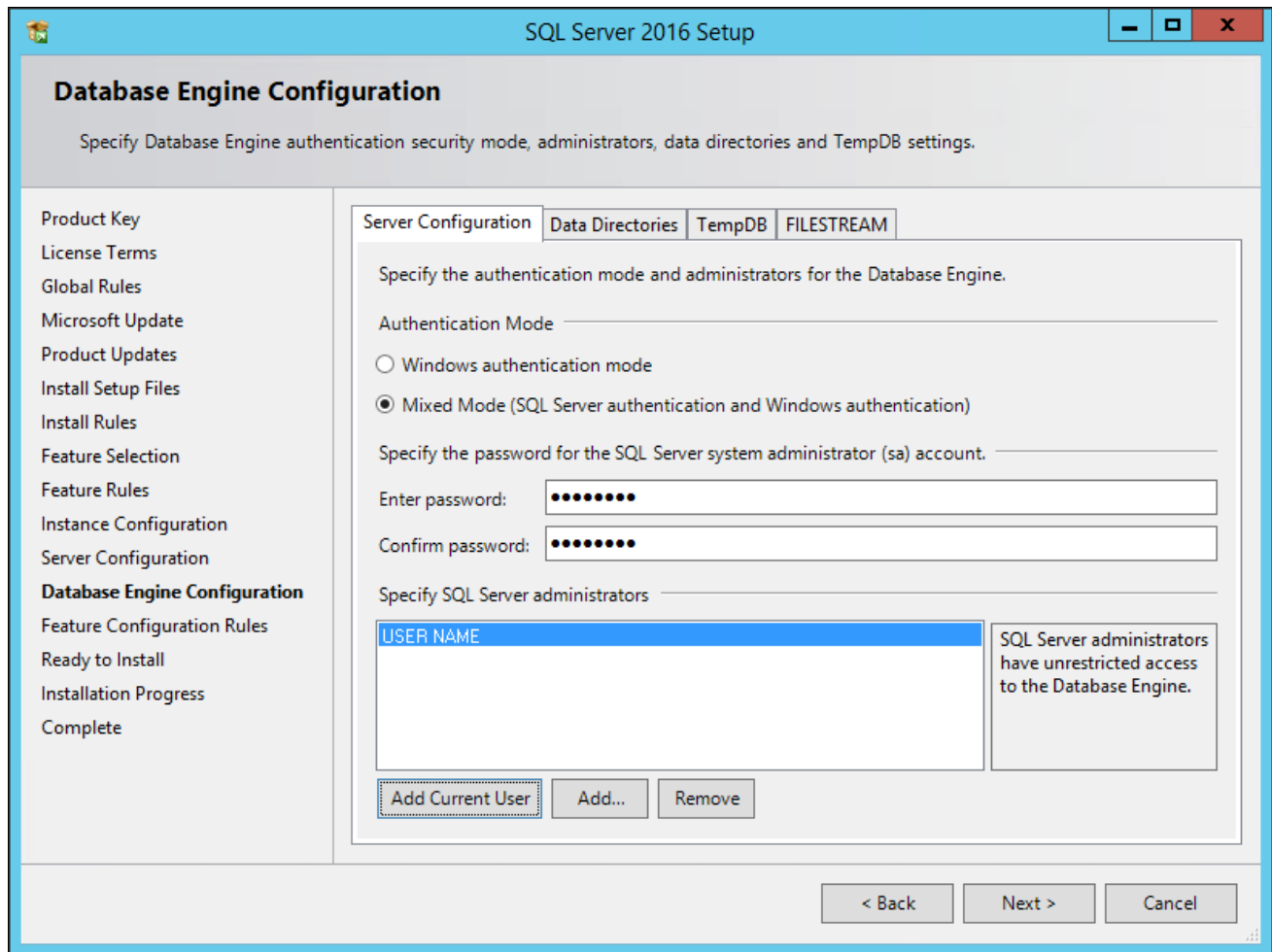
Verify on the Server Configuration Collation page that the collation is Latin1_General_BIN, Latin1-General, binary sort, as shown in this example:



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:



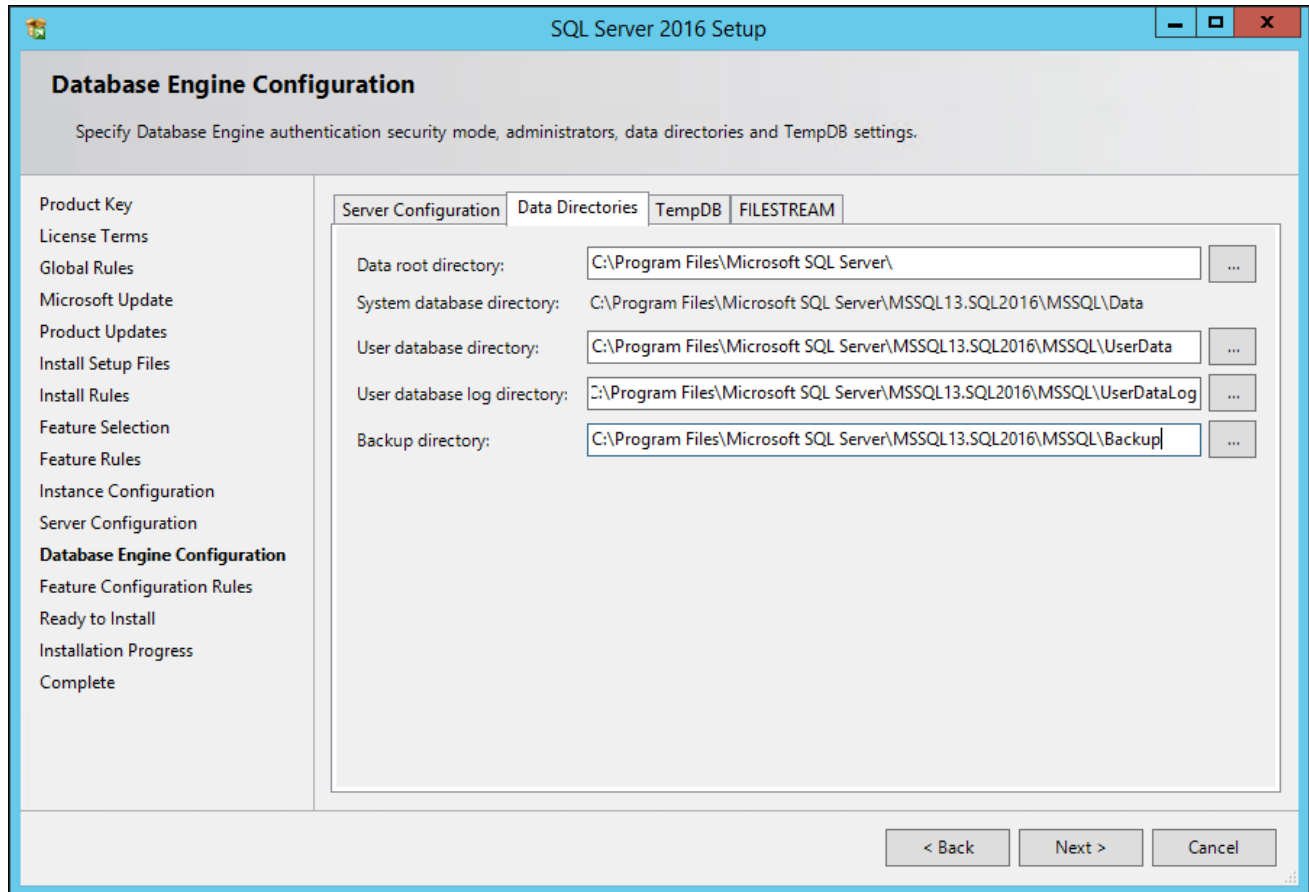
SQL Server 2016 Setup Database Engine Configuration window: Server Configuration page

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 documentation Books Online 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>.

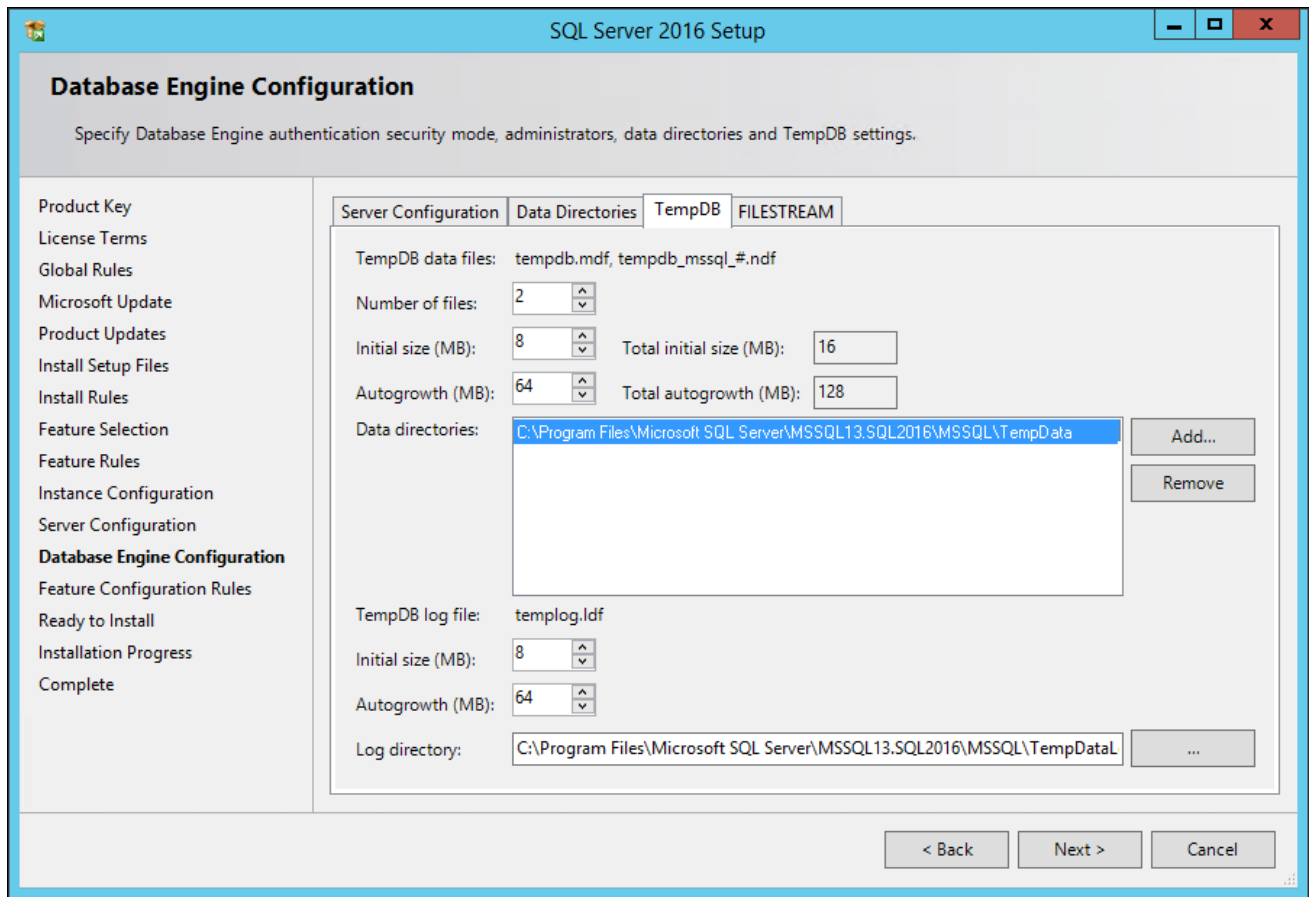
See Optimizing tempdb Performance, Microsoft TechNet Library, [http://technet.microsoft.com/en-us/library/ms175527\(v=sql.105\).aspx](http://technet.microsoft.com/en-us/library/ms175527(v=sql.105).aspx).

See SQL Server 2000 Operations Guide: Capacity and Storage Management, <http://www.microsoft.com/technet/prodtechnol/sql/2000/maintain/sqlops6.msp>.

See SQL Server Best Practices, <http://technet.microsoft.com/en-us/sqlserver/bb671430>.

24. Select the TempDB page.

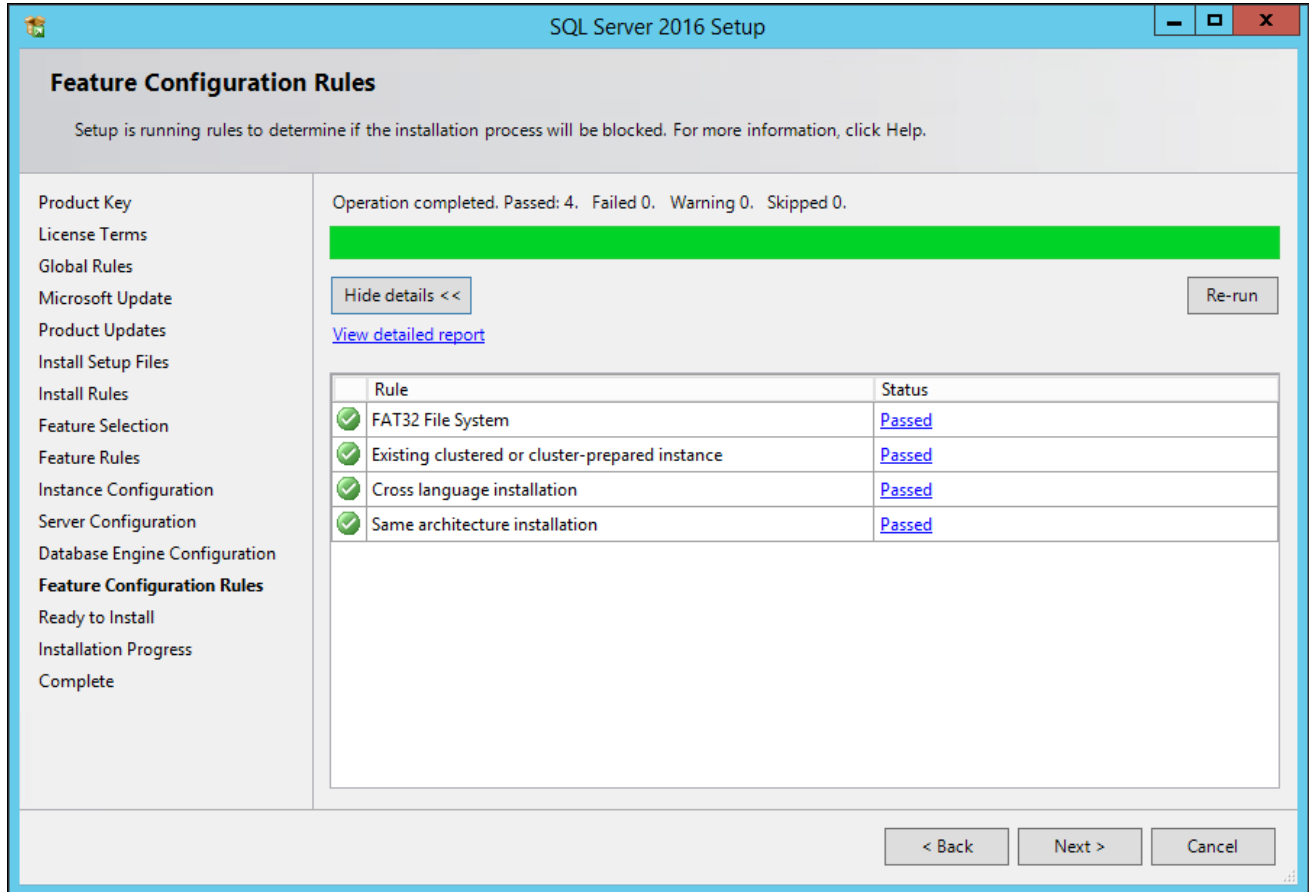
Ensure that the temp database data and log files are in separate directories, as shown in this example:



SQL Server 2016 Setup Database Engine Configuration window: TempDB page

25. Click Next.

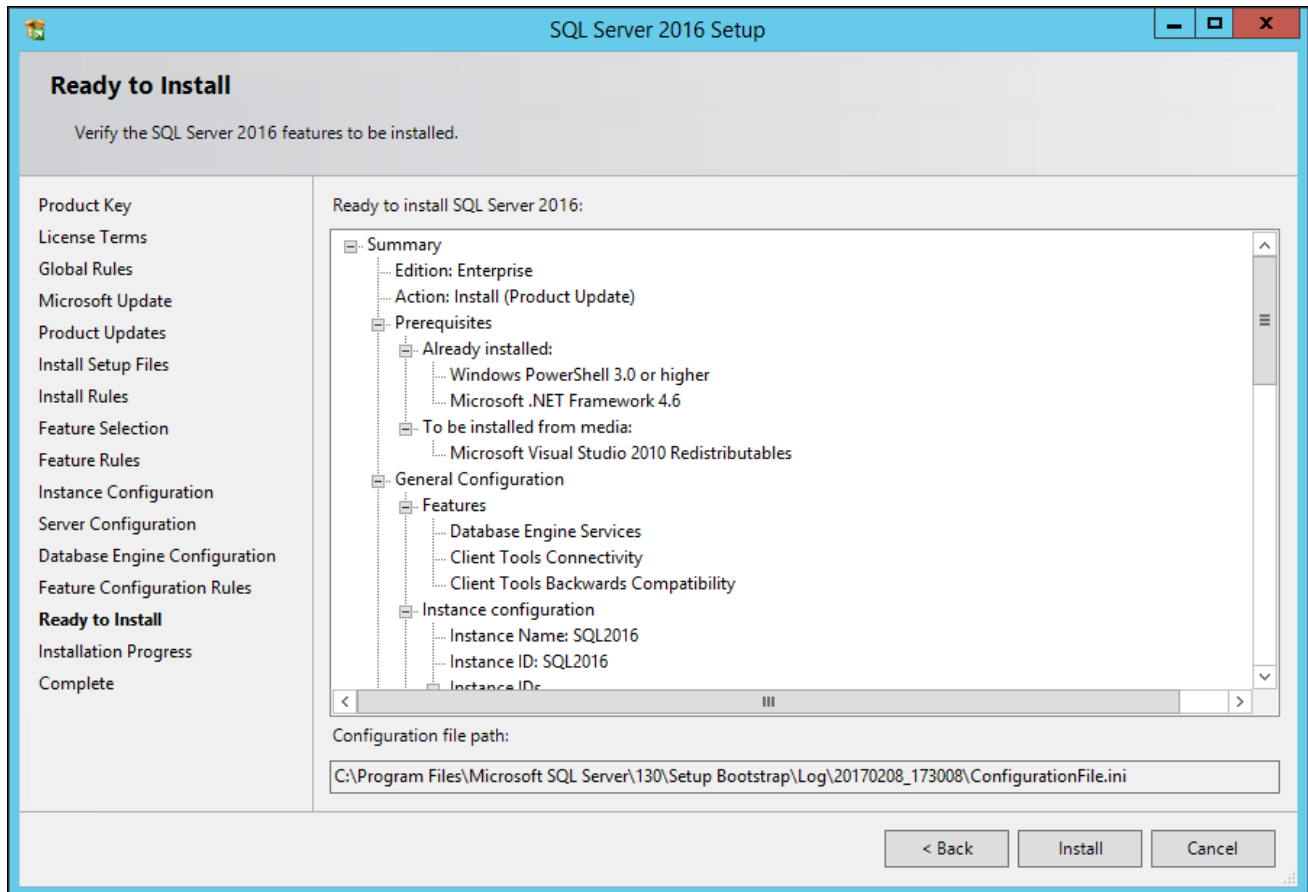
The Feature Configuration Rules window appears. The setup operation runs rules to determine whether the installation will be blocked. Wait until the operation is complete, and then click Show details. Verify that all of the rules have Passed in the Status column, as shown in this example. If any rule 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

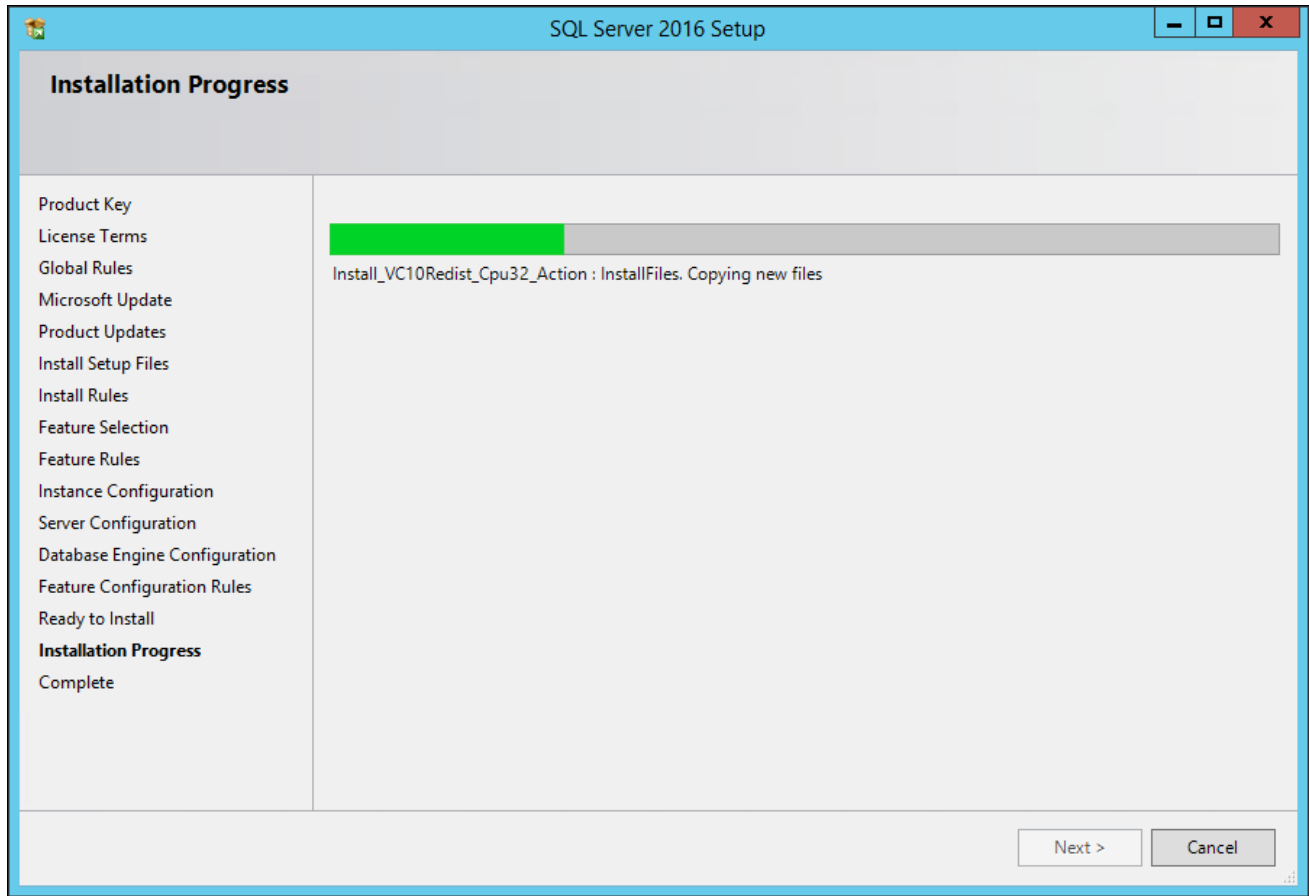
26. Click Next.

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

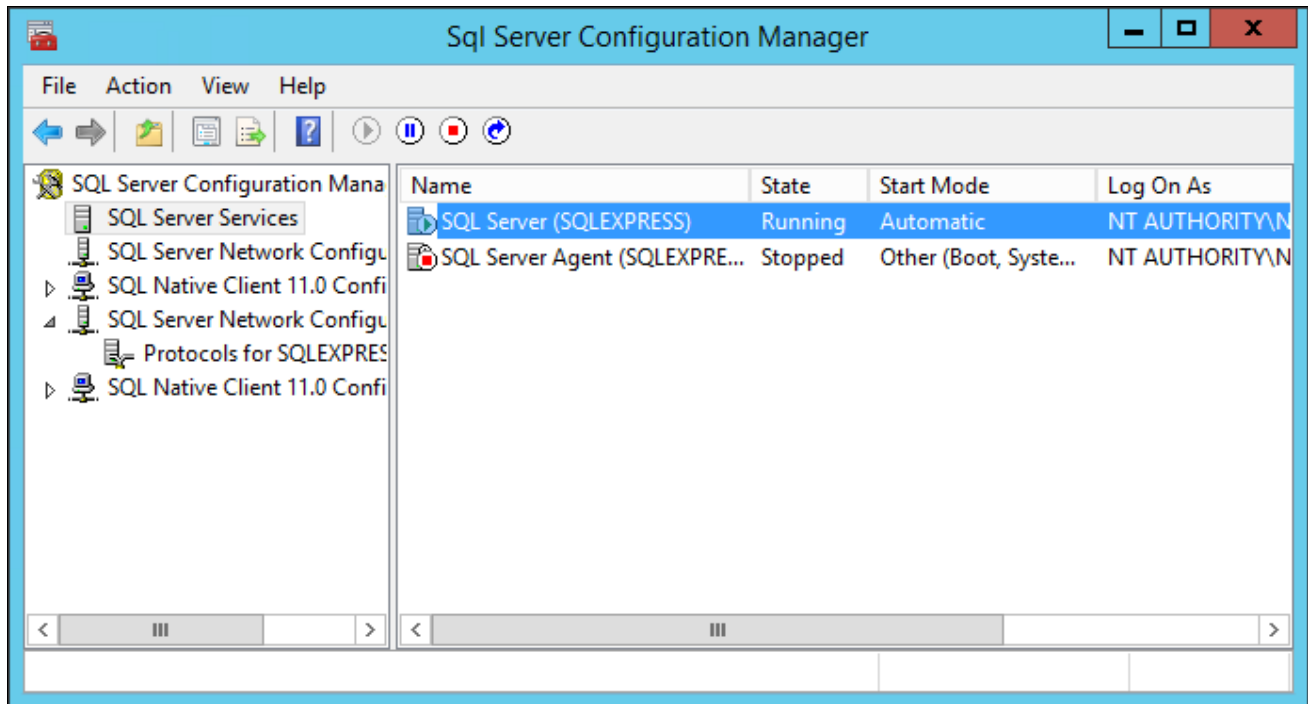
A window appears showing the progress of the installation, as shown in this example. The installation requires 10-15 minutes, and may depend upon your system configuration.



SQL Server 2016 Setup Installation Progress window

- 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.



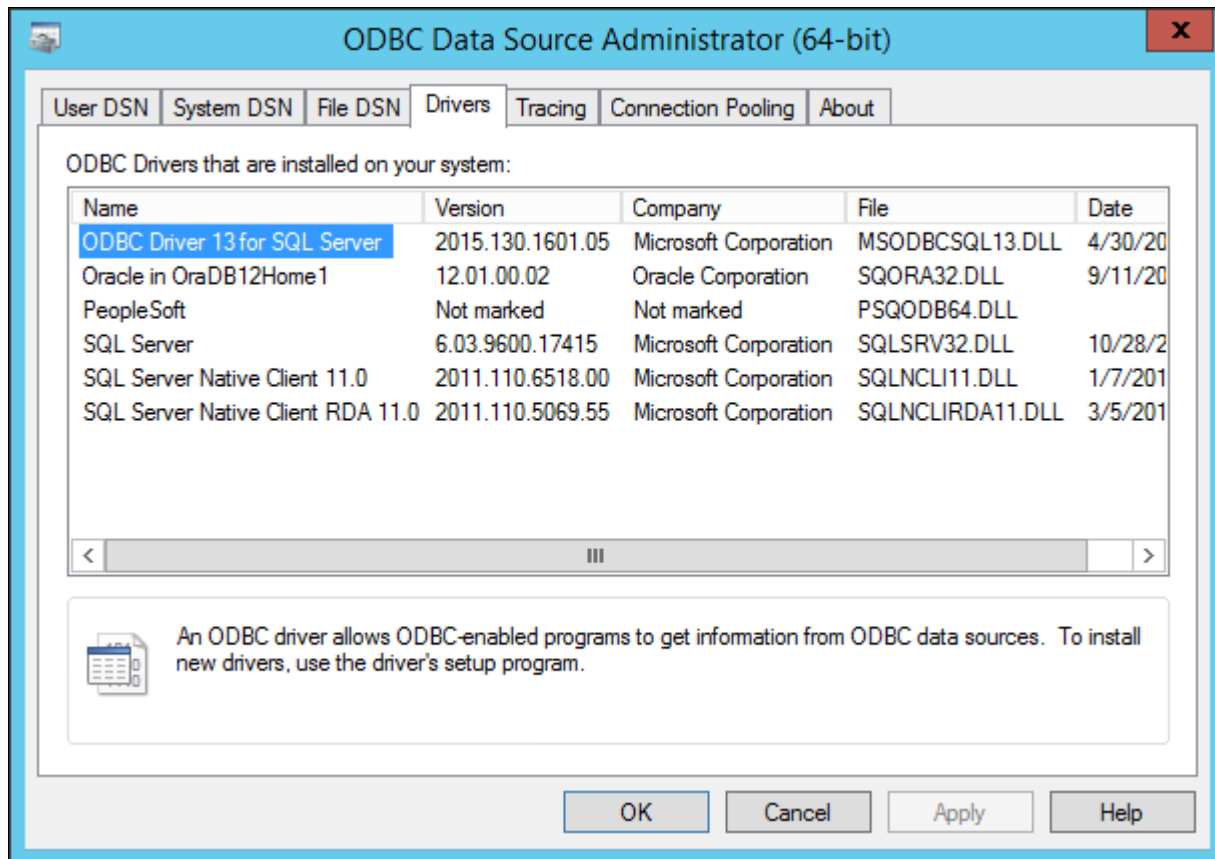
Sql Server Configuration Manager

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

Task 20-3: 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 20-4: 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 odbcad32 on a 64-bit Microsoft Windows machine, the 64-bit version of odbcad32.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).