SYBASE®

An **SAP**® Company

Installation Guide

PowerDesigner® 16.1

Windows

Contents

CHAPTER 1   **Planning Your PowerDesigner Installation**

The deployment of PowerDesigner® typically involves the installation of a license server, one or more repository components, and a number of client machines.

A PowerDesigner environment can contain the following servers, components, and client machines:
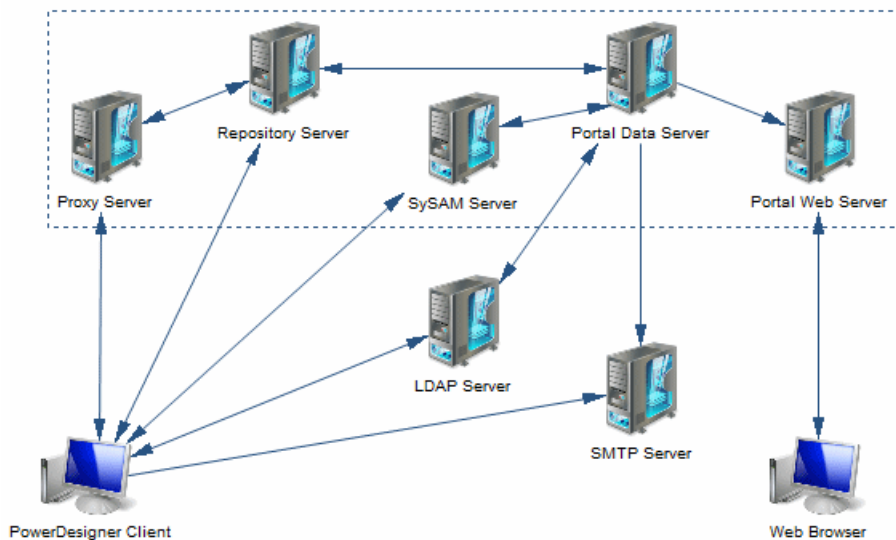
- PowerDesigner server components (enclosed in the dotted line box) - Can all be installed on a single server or on separate servers as necessary to maximize performance:
    - SySAM Server - Required if using served or floating licenses.
    - Repository Server - Required if using the repository.
    - Proxy Server - Required if using the repository proxy.
    - Portal Data Server - Required if using the PowerDesigner Portal.
    - Portal Web Server - Required if using the PowerDesigner Portal.
- Local servers - PowerDesigner can connect to these servers in your local environment:
    - LDAP Server - to delegate the authentication of repository users.
    - SMTP Server - to automate the sending of email notifications.
- Client machines - Allow users to access the repository using the following applications:
    - PowerDesigner Client - Can access the repository directly or through the proxy.
    - Web Browser - Can access the repository through the PowerDesigner Portal.

Note: For installation of PowerDesigner without a repository, complete steps one and two of this procedure and then go directly to *Chapter 2, Installing PowerDesigner* on page 13.

1. Obtain your license key file (see *Obtaining a License* on page 4).

   If you do not have a license key, you will only be able to install PowerDesigner for a 15-day trial period.

2. Install the Sysam license server (see *Installing a License Server* on page 4).

   The license server is required if you intend to share served licenses among users instead of assigning individual licenses per machine.

3. Install PowerDesigner on the administrator's workstation (see *Chapter 2, Installing PowerDesigner* on page 13).

   This initial installation is needed to install the PowerDesigner repository, which is used to store and share models.

4. Choose a server capable of supporting large, long-running transactions to host your repository. We recommend as a minimum, a dual-core machine, with 2-4GB of RAM, but the exact system requirements depend on your DBMS, the number of concurrent users, and the size of your repository.

Note: To calculate the size required for your repository database, estimate the number of models that will be stored and the period during which they will be developed. An average model containing 100 primary objects (tables, classes, etc.) will have an initial disk size of 5MB and the size of its initial check in will be around 10MB. Assuming an average number of edits, each subsequent check in will add 10% to the size of the file, so that after an average development period of two months (40 working days) with one check in per day, the final model file size will be $10MB*1.1^{40}$ or approximately 500MB. If your team will develop 20 such models during the course of the year, you should allow 10GB of space for your repository database.

If you want to use the repository proxy or PowerDesigner Portal, you should install them, by preference, on the same machine where the repository is located to optimize communication between the components. If the repository server is not a Windows server or is unable to support the additional workload, then we recommend installing these components on another machine on the same LAN segment.

5. Install SQL Anywhere® on the repository server and create a database to house the PowerDesigner repository (see *Installing and Authenticating SQL Anywhere* on page 24) .

   Alternatively, create a database to house the repository in one of the other supported DBMSs:
   - Adaptive Server® Enterprise
   - Oracle 8 and higher
   - IBM DB2 Common Server and DB2 for OS/390
   - Informix 2000

- Microsoft SQL Server 2005 and higher - we recommend that you use a server that is not currently managing a high transaction load, since PowerDesigner performs long- running synchronous transactions during Check-In/Check-Out.

Note: The most up-to-date list of supported DBMSs, is available at *http://certification.sybase.com*.

6. Install the repository to the new database (see *Installing the Repository to the Server* on page 26).

7. [optional] Install the repository proxy on the repository server (see *Installing the Repository Proxy* on page 31).

   The proxy simplifies and offers more security for connection to your repository and may provide performance improvements in environments where clients will be connecting over a WAN or complicated LAN or when dealing regularly with large (15MB+) models.

8. [optional] Install the PowerDesigner Portal on the repository server (see *Installing the PowerDesigner Portal Server* on page 33).

   The PowerDesigner Portal provides access to your repository models via a Web browser.

9. Define a password policy, optionally connect to an LDAP server to delegate the authentication of repository users and an SMTP server for notifications, and create groups and user accounts with appropriate rights and permissions to control access to the repository (see *Core Features Guide > Administering PowerDesigner > Controlling Repository Access*).

10. [optional] Customize the PowerDesigner interface to optimize it for various groups of users and define shared reference models and resources:

    - Prepare profiles to customize the PowerDesigner interface (by hiding types of models, objects, and properties and customizing menus, toolbars, and settings) and associate them with appropriate users and groups (see *Core Features Guide > Administering PowerDesigner > Customizing the PowerDesigner Interface*).
    - Prepare shared reference models and an enterprise glossary for deployment to users (see *Core Features Guide > Administering PowerDesigner > Deploying an Enterprise Glossary and Library*).
    - Prepare custom resource files (such as DBMSs, languages, and extensions) for deployment to users (see *Core Features Guide > Administering PowerDesigner > Deploying an Enterprise Glossary and Library > Deploying an Enterprise Library > Sharing Resource Files via the Library*).

11. Install PowerDesigner on user machines (see *Chapter 2, Installing PowerDesigner* on page 13).

Note: If you are not using the repository proxy, you will also need to install the SQL Anywhere client (as part of the PowerDesigner installation) or an appropriate client or driver for your chosen DBMS on all client machines to allow them to connect to the repository.

Obtaining a License

When you purchase SySAM 2–enabled Sybase® products, you must generate, download, and deploy SySAM product licenses.

- If you purchased your product from Sybase or an authorized Sybase reseller, go to the secure Sybase Product Download Center (SPDC) at *https://sybase.subscribenet.com* and log in to generate license keys. The license generation process may vary slightly, depending on whether you ordered directly from Sybase or from a Sybase reseller.
- If you ordered your product under an SAP® contract and were directed to download from SAP Service Marketplace (SMP), you can use SMP at *http://service.sap.com/licensekeys* to generate license keys for Sybase products that use SySAM 2-based licenses.

Host ID

To obtain a license, you must know the *host ID* and name of the computer that will act as the license server. You can obtain these values during installation of SYSAM on the third page of the installation program where you are asked to load or copy a license file to proceed. Ethernet addresses are 12 character hex values consisting of digits 0 through 9 and characters A through F, which can be entered in any of the following formats:

- 12AB34CD56EF
- 12-AB-34-CD-56-EF
- 12:AB:34:CD:56:EF

Your host id is obtained by entering the first 8 characters of the ethernet address in one of the following formats:

- 12AB34CD
- 12AB-34CD

Note: For some platforms, host IDs can also be entered in decimal formats, with a # prefix. Example: #1039716963

For Windows platforms, if your machine does not have a network adapter, you can use the disk serial number as an alternate host ID. Use the `lmutil lmhostid -vsn` command or execute `DIR C:` to obtain the serial number, remove the hyphen and enter it with a `DISK_SERIAL_NUM=` prefix. For example: DISK_SERIAL_NUM=3e2e17fd

Installing a License Server

If you intend to use standalone served or floating served licenses, you must either install the SySAM license server provided as part of the PowerDesigner installation or locate an existing

SySAM license server on your network, to which your PowerDesigner licenses can be assigned.

The license server serves a license to a user upon request and retrieves it when it is no longer being used. If all the licenses are already in use, the license server informs you that no license is available.

You must already have obtained a license file before you can install the license server (see *Obtaining a License* on page 4).

Note: Do not install a license server and PowerDesigner on the same workstation. License servers installed with PowerDesigner v11 are not compatible with v12.0 and higher. If you no longer use PowerDesigner v11, we recommend that you uninstall the old license server.

If you borrow a mobile license and your workstation has installed other products with Flexlm served licenses, you may encounter problems returning your license to the server.

1. Select the machine on which you want to install the SySAM license server (this should not be a workstation on which you will install any Sybase product), and insert the PowerDesigner CD.
2. Click the **Install Licenses Server** button to open the Sybase Software Asset Management Installshield wizard:
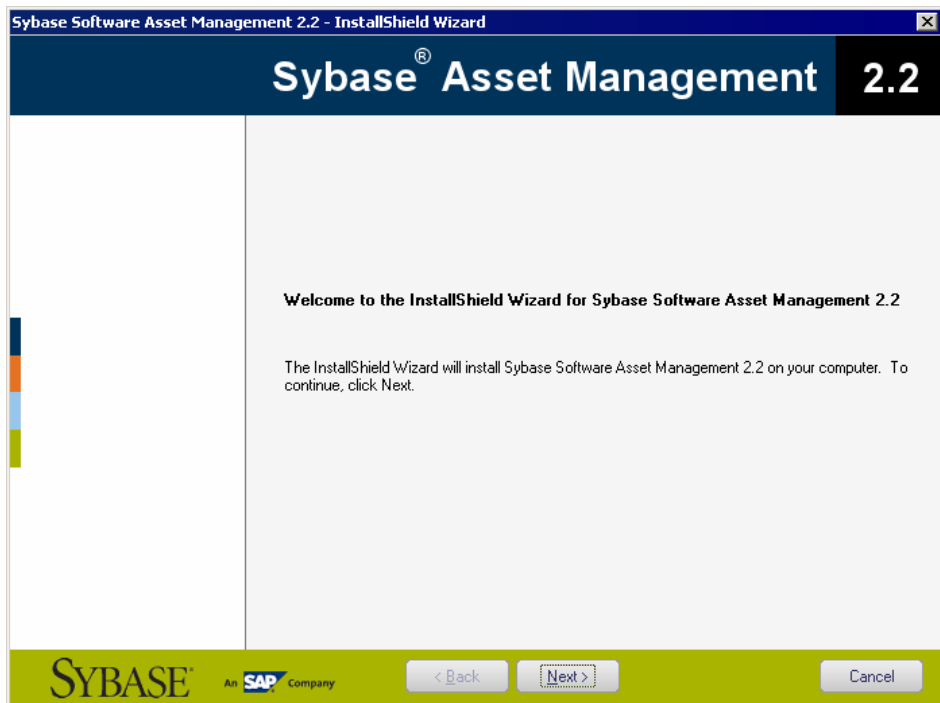
3. Click **Next** to display the license agreement page. Read the License Agreement and click the **I Agree** radio button to accept the terms of the agreement. If you click **I Do Not Agree**, the installation will be cancelled.

4. Click **Next** to display the license file definition page. Click the **Load** button and browse to the folder where your license file is located. The content of the license file is automatically displayed in the License key box.

If you do not have a license file, see *Obtaining a License* on page 4.
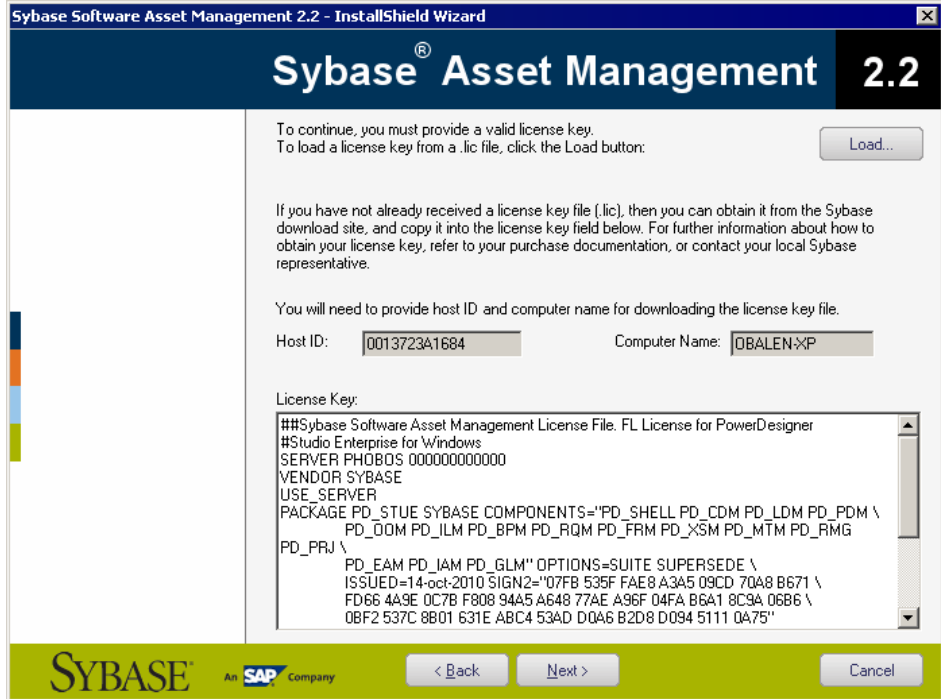
5. Click **Next** to display the destination folder page. Select the suggested installation directory or browse to a new one and then click **Next** to go to the settings page.

6. Click **Next** to accept the current settings and start copying files.

The copy starts. A progress box is displayed and Setup copies files to the destination directory. When installation is complete:

- If SySAM had to be installed, you can choose to start the license server as a service.
- If the PowerDesigner licenses were assigned to an existing license server, you can choose to reread the licenses to refresh the server license file.

7. Click **Finish** to exit the wizard.

Note: If a firewall is activated on the computer where the license server is installed, then the ports 27000 and 27010 must be opened in the firewall. For a Windows Firewall, you may need to add the port 27000 and the SySAM executable (for example C:\Sybase \SYSAM-2_1\Bin\SYBASE.exe to the list of exceptions.

Additionally, on Windows and UNIX platforms, edit the license server license files to add the port number 27000 to the line beginning SERVER and add a new line VENDOR SYBASE PORT=27010 directly after it. When you have finished, these lines should read as follows:

```
SERVER server_name server_id 27000
VENDOR SYBASE PORT=27010
```

Adding Additional Licenses with lmtools

The license server should configure itself correctly at installation. If you need to subsequently add additional licenses or otherwise administer the server, you can do so using lmtools.exe

1. Double-click **SYSAM-*x_x*\Bin\lmtools.exe** to open the LMTOOLS dialog.

2. On the **Service/License File** tab, select **SYSAM** in the list of servers:
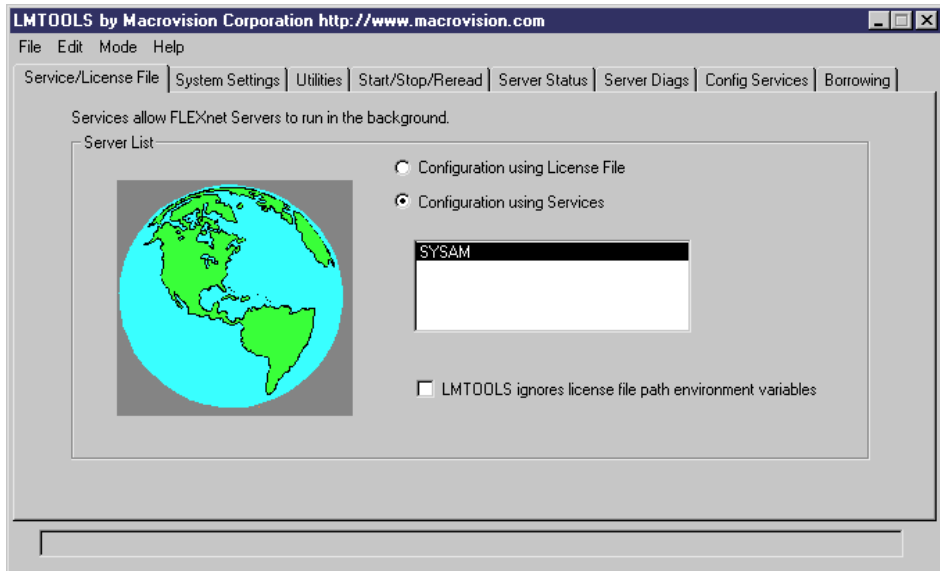
3. Click the **Start/Stop/Reread** tab and click the **Reread License File** button to force the server to read again the file sybpdes.lic and update license number.

4. Select **File > Exit** to close the LMTOOLS dialog.

For detailed information about lmtools, follow the SySAM Documentation Collection link available at *http://www.sybase.com/sysam*.

Troubleshooting with lmutil

lmutil.exe, which is available in the SYSAM-*x_x*\Bin folder provides various diagnostic possibilities.

For example, the following command can be used to find the user(s) who have currently borrowed the license(s):

```
lmutil lmstat -a -c <port>@<host> where <port> and <host> are license
server information.
```

For detailed information about lmutil, follow the SySAM Documentation Collection link available at *http://www.sybase.com/sysam*.

SySAM for IPv6 Environments

By default, the 32-bit Windows version of SySAM for IPv4 is provided in the PowerDesigner setup. You can add IPv6 support easily after installation by copying the appropriate executables in the installation directory.

1. Open SYSAM-*x_x*\Bin\lmtools.exe and click the **Start/Stop/Reread** tab.
2. Select the SYSAM server in the list and click **Stop Server** (you may need to select the **Force Server Shutdown** check box if licenses are currently being borrowed).
3. Open the folder SYSAM-*x_x*\Bin\binIPv6, and copy the files lmgrd.exe and SYBASE.exe to SYSAM-*x_x*\Bin, overwriting the existing versions.
4. Return to the **Start/Stop/Reread** tab in the LMTOOLS dialog, and click **Start Server**.

SySAM for 64-Bit and Non-Windows Environments

You can obtain a SySAM server for 64-bit Windows or for a non-Windows environment from the Sybase website.

Note: The 32-bit version of SySAM will run on a 64-bit Windows machine, but if you prefer to install a 64-bit version, you can download it from the Sybase website.

To download a 64-bit version of SySAM for Windows or a SySAM server for a non-Windows environment, go to *http://www.sybase.com/sysam*, select **SySAM Standalone License Servers**, and follow the download instructions.

Note: Any licenses that have been activated for a Windows server must be reactivated for any other platform.

Upgrading PowerDesigner

This topic provides guidance on issues relating to Office add-ins, the license server, and resource files, which may arise when upgrading PowerDesigner.

- Repository branches - Prior to v16.1, the repository browser only supported displaying a single branch at a time. When you upgrade an existing repository to v16.1, all branches will become, by default, visible for all users. You may wish to simplify viewing the repository by deleting documents and branches that are no longer used, by using permissions to hide certain branches from users or groups who have no need of them, or by migrating active models to a new repository (see *Post-Upgrade Cleanup for a Repository Containing Branches* on page 43).
- Office add-ins - Though PowerDesigner v15.x and v16.x can be installed together on the same workstation, after the installation of v16.x, the add-ins supporting importing from MS Word and Visio will only function for v16.x.
- License Server - In general, you can serve licenses for clients using PowerDesigner v15.x and v16.x from the same SySAM license server. However, if you want to support heterogeneous versions of the Data Architect package (which is only available as an upgrade to v16.x and not as a new purchase), you will need to install a second license server on another machine and plan to serve the licenses associated with each version from a separate server.
- Resource Files - DBMS and language definition files and other resource files provided with PowerDesigner are constantly evolving. If you have not edited the resource files delivered with a previous version of PowerDesigner, then the upgrade to the latest version will happen silently.

  If you have edited a definition file or other resource file from a previous version, then it will continue to work with the new version. However, we advise you to use the **Compare** tool to review the differences between your file and the file delivered with the new version and, if appropriate, merge them to obtain bug fixes or new features. For information about comparing and merging resource files, see *Customizing and Extending PowerDesigner > PowerDesigner Resource Files*.

  If you have stored resource files from a previous version in the repository then you must check them in again under the new version before you can continue to use them. Resource files can now be stored in the library and pushed to users (see *Core Features Guide > Administering PowerDesigner > Deploying an Enterprise Glossary and Library > Deploying an Enterprise Library > Sharing Resource Files via the Library*).

Downloading Sybase EBFs and Maintenance Reports

Get EBFs and maintenance reports from the Sybase Web site or the SAP® Service Marketplace (SMP). The location you use depends on how you purchased the product.

- If you purchased the product directly from Sybase or from an authorized Sybase reseller:
  a) Point your Web browser to *http://www.sybase.com/support*.
  b) Select **Support > EBFs/Maintenance**.
  c) If prompted, enter your MySybase user name and password.
  d) (Optional) Select a filter, a time frame, or both, and click **Go**.
  e) Select a product.

     Padlock icons indicate that you do not have download authorization for certain EBF/ Maintenance releases because you are not registered as an authorized support contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click **My Account** to add the "Technical Support Contact" role to your MySybase profile.
  f) Click the **Info** icon to display the EBF/Maintenance report, or click the product description to download the software.
- If you ordered your Sybase product under an SAP contract:
  a) Point your browser to *http://service.sap.com/swdc*.
  b) Select **Search for Software Downloads** and enter the name of your product. Click **Search**.

Windows 64-Bit Support

PowerDesigner is only available in a 32-bit version, but installation on 64-bit versions of Windows is supported.

To ensure that PowerDesigner can communicate with your data sources, you should use the 32-bit version of the ODBC Administrator tool. PowerDesigner cannot connect to 64-bit ODBC DSNs. For detailed information about working with 32-bit DSNs on a 64-bit version of Windows, see *http://support.microsoft.com/kb/942976*.

Password and Data Encryption

PowerDesigner supports encryption of both passwords and data for direct and proxy connections to a repository and for connections to other databases using most of the supported DBMSs via one or more of native, ODBC, and JDBC connection profiles.

The following table provides information and examples for encrypting passwords and data with each type of connection:

Type	Encryption
Native	Password and data encryption can generally be enabled with connection parameters.
	For example, the password for Sybase Adaptive Server Enterprise is encrypted by default, and you can enable data encryption by setting the `Sec_Confidential` connection parameter to `1`.
ODBC	Password and data encryption can generally be enabled in the ODBC Configuration dialog.
	For example, to encrypt the password for Sybase SQL Anywhere, select the **Encrypt password** option on the **Login** tab, and to encrypt data, select an encryption method on the **Network** tab.
JDBC	It is not possible to control password and data encryption through the PowerDesigner connection profile interface, but you may be able to enable encryption directly in your database client.

For more information about using PowerDesigner connection profiles, see *Core Features Guide > Modeling with PowerDesigner > Getting Started with PowerDesigner > Connecting to a Database*. For detailed information about encryption and other parameters for your database, see your DBMS documentation.

CHAPTER 2   **Installing PowerDesigner**

You can install PowerDesigner directly on individual client machines, including as a plugin for the Eclipse and Visual Studio IDEs. You can also perform a mass silent installation or an administrative installation to a network server.

Note: You should obtain a license key (see *Obtaining a License* on page 4) and, if appropriate, install and configure your license server (see *Installing a License Server* on page 4) before beginning.

PowerDesigner has the following minimum system requirements:

*   Microsoft Windows XP, Vista, or 7 or Microsoft Windows Server 2003 or 2008
*   1.5 GHz processor
*   1 GB RAM (2 GB recommended)
*   SVGA or higher-resolution graphics adapter and compatible color monitor (800x600)
*   CD-ROM drive
*   1GB disk space for installation of all the core modules (and demonstration videos).

For information about the frameworks and libraries and frameworks required by PowerDesigner, see *PowerDesigner Dependencies* on page 22.

Note: Non-Administrator users may receive a warning message during installation as setup requires write access on certain directories and on the registry that they may not have. Setup can go on despite this message.

1. Insert the PowerDesigner CD-ROM in your drive.

    If setup does not automatically start, then double-click the SETUP.EXE file in the setup directory of the CD-ROM.
2. Click the **Install PowerDesigner 16.1** button to open the welcome page, and then click **Next** to go to the license selection page.
3. Select one of the following license types:

    *   *Trial version* – is a full-featured version, valid for an evaluation period of 15 days, that allows you to perform any design task. Contact Sybase if you require a limited extension.
    *   *Local standalone license* – is installed on and locked to a particular machine. Click **Next** to go to the license key page, where you must load a valid license file (see *Obtaining a License* on page 4).
    *   *Served standalone license* – is provided by one or more SySAM license servers, and is locked to a particular machine. Click **Next** to go to the license server page, where you must enter the name of your license server.

- *Served floating license* – is provided by one or more SySAM license servers, which manage the allocation and recuperation of licenses among a pool of users. Click **Next** to go to the license server page, where you must enter the name of your license server.

For more information about PowerDesigner licensing, see *Core Features Guide > Modeling with PowerDesigner > Getting Started with PowerDesigner > License Management*.

4. [for served licenses] Click **Next** to go to the package selection page, where you can select which package to install. The list displays all the packages that are available on the server but it does not necessarily reflect the current availability of a license for a particular package.

5. Click **Next** to go to the license agreement page. Select the location where you are installing the software, read the License Agreement, and then click the **I Agree** radio button to accept the terms of the agreement. If you click **I Do Not Agree**, you cannot proceed with the Setup program.

Note: You can print the License Agreement from the Setup\Licenses directory on the product CD.

6. Click **Next** to go to the directory selection page. Accept the default installation directory or choose another by clicking the **Browse** button.

We recommend that you do not install a new major version of PowerDesigner in a directory that holds a previous version.

7. Click **Next** to go to the component selection page, which lists the products and features that are available to install. Each node can be expanded in order to let you select or deselect sub-features:
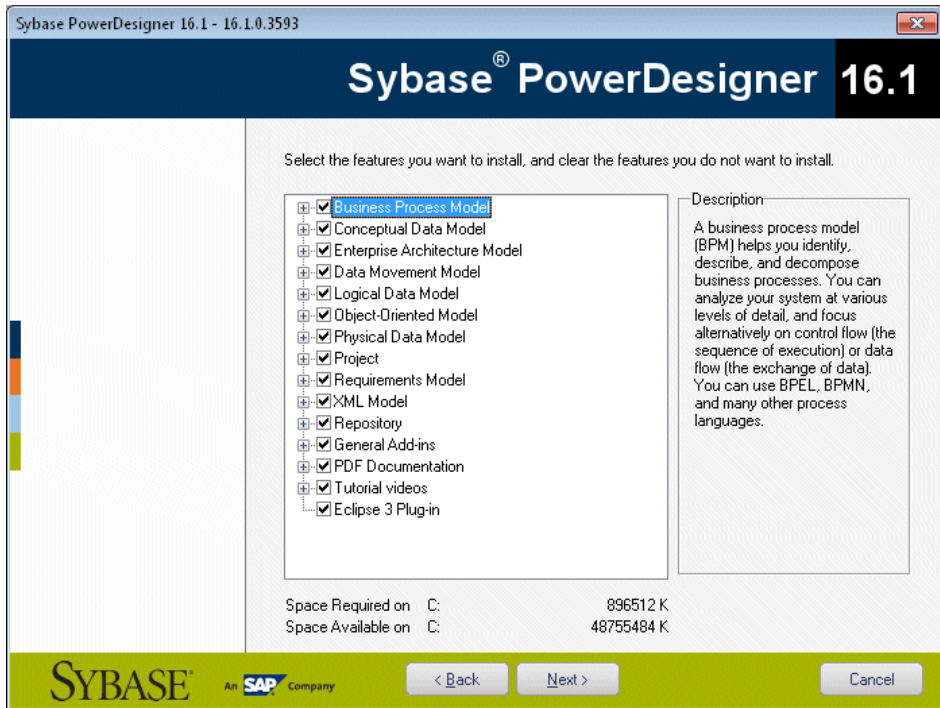
Note:

- The PowerDesigner plugin for Eclipse is available for Eclipse v3.2 to v3.6. For more information, see *Core Features Guide > Modeling with PowerDesigner > The PowerDesigner Plugin for Eclipse*.
- The PowerDesigner add-in for Microsoft Visual Studio and Team Foundation is available for Visual Studio 2005, 2008, and 2010. For more information, see *Core Features Guide > Modeling with PowerDesigner > The PowerDesigner Add-In for Visual Studio*.
- The SQL Anywhere drivers provide connectivity to a repository installed on SQL Anywhere, which is bundled with PowerDesigner (see *Installing and Authenticating SQL Anywhere* on page 24).

Select or clear check boxes as necessary, and then click **Next**.

8. If you selected the Eclipse 3 plug-in in the list of components, the Eclipse directory selection page is displayed. Click the **Browse** button to specify a directory containing a valid Eclipse installation.

Note: If you had manually installed the Eclipse plug-in in PowerDesigner version 10 or 11 and want to upgrade to version 16.x you have to remove the plug-in manually. To do so, open the Eclipse directory, and remove any PowerDesigner-related folder under the \configuration, \features, and \workspace\.metadata\.plugins folders.

9. Click **Next** to go to the user profiles page. Select the user profiles that you want to apply immediately to your installation.

   Note that whatever you select on this page, all the profiles will be installed and you can apply any profiles after installation. If you select two or more contradictory profiles (for example, E/R Notation and Barker Notation, in the CDM category), the one that appears last in the list will be applied:
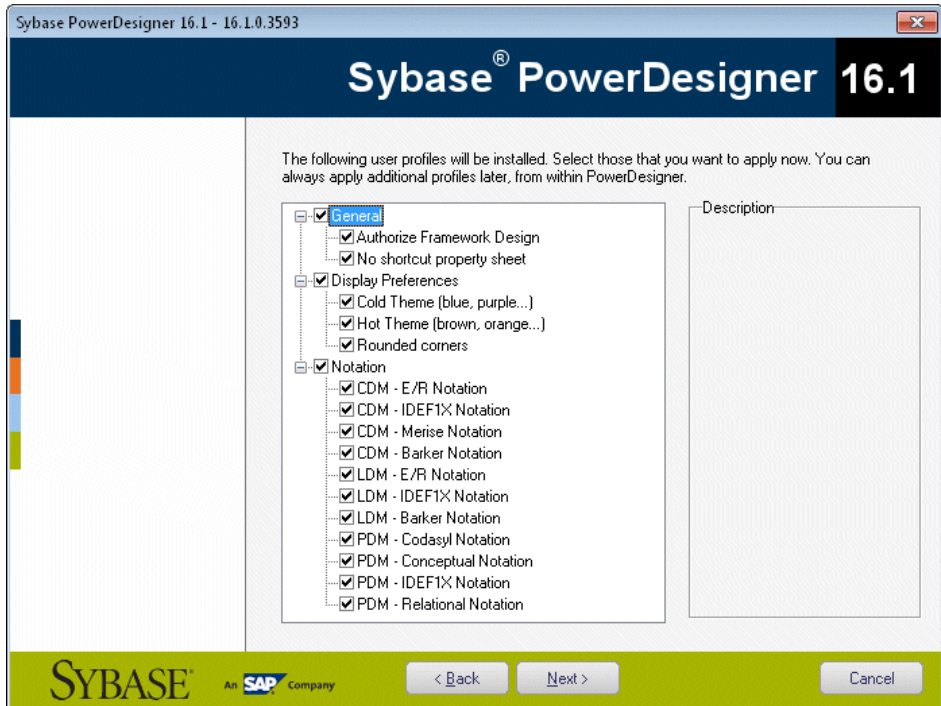
   For more information about user profiles, including how to make your own profiles available to the installer, see *Core Features Guide > Modeling with PowerDesigner > Customizing Your Modeling Environment > User Profiles*.

10. Click **Next** to go to the program folders page. You can select to make PowerDesigner available from the default folder or select or create another.

11. Click **Next** to go to the current settings page, which lists all your selections. Select the **Keep PowerDesigner Settings** check box to retain any settings from a previous version of PowerDesigner.

   Note: For new major versions, even if you select to retain settings from a previous version, resource file named paths (such as _DBMS) pointing inside the Resource Files directory inside the PowerDesigner installation will be updated to point to the new installation directory in order for you to benefit from bug fixes and other improvements. If

you have defined additional paths for populating your resource file lists, these will not be affected.
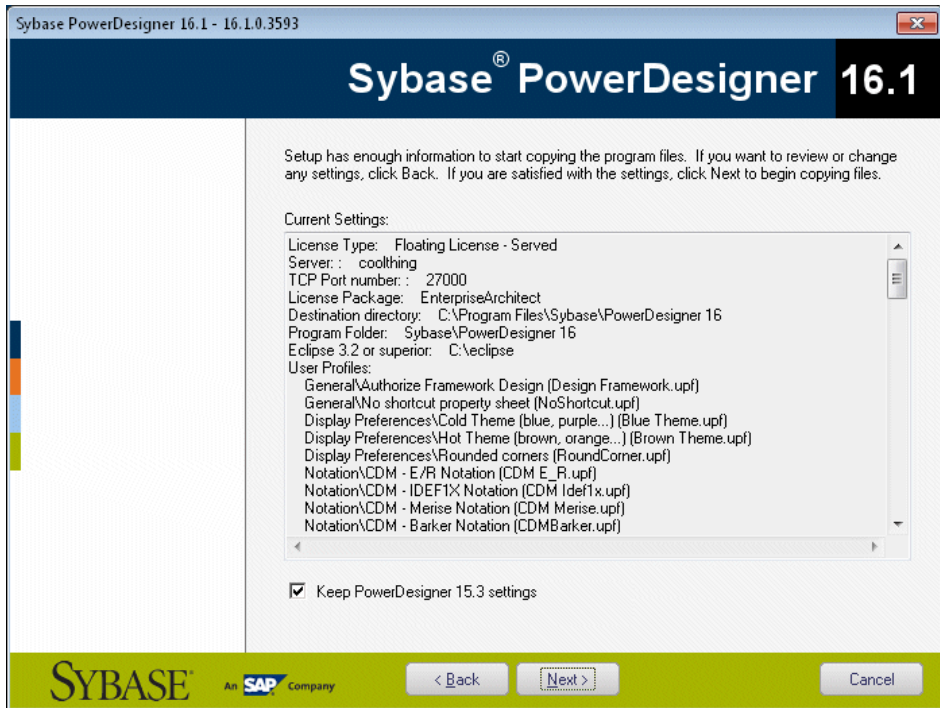
12. Click **Next** to begin the install. Setup begins copying files to the destination directory.

13. Wait for the setup to complete, and then click **Finish** to exit the wizard. Depending on your working environment, you may be prompted to reboot your machine.

Note: The Readme.html file, which contains important release information, is available in the root of your installation directory.

Installing PowerDesigner in Administrative Mode

System administrators can install PowerDesigner on a server and have client machines run the application from this central install. The client machines do not install any files but their registry is modified in order to be able to access PowerDesigner from the specified location.

With this type of administrative mode install, there is only one instance of PowerDesigner to deploy and upgrade.

You can install any type of PowerDesigner license and specify any combination of installation options on each client machine.

Creating the Administrative Install on the Server

The first part of the administrative install consists in copying the PowerDesigner files to a server. You are not required to enter any product key or select any feature to install. All PowerDesigner setup files are decompressed and copied to the server, but the server registry and system files will not be affected.

1. Insert the CD-ROM in the drive to automatically launch the setup program. The initial setup dialog box is displayed. Click the **Administrative Installation** button.

   or

   Select **Start > Run**, type the PowerDesigner setup.exe path followed by /a in the Run dialog box and click **OK**.
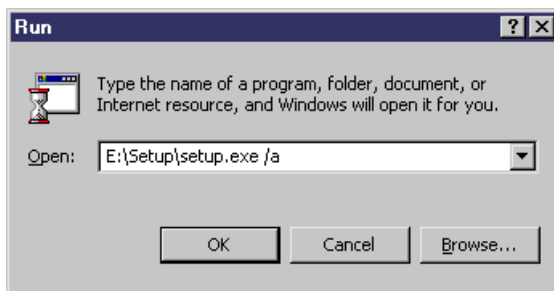
   The welcome page is displayed.

2. Click **Next** to display the network location page.
3. Specify the network location where you want to copy the product files, and then click **Install**.

   The setup status page displays a progress box while the files are copied to the destination directory. When this process is complete, the complete page opens.

4. Click **Finish** to exit the InstallShield Wizard.

Installing Client Machines

Once you have created the administrative install on the server, you can set up the client machines. The client install modifies the registry of the client machine in order to be able to reference the files located on the server, but does not copy any file onto the client machine. Consequently no space is required on the client machine.

1. On the client machine, open Windows Explorer, connect to the network location where you have created the administrative install and double-click the Setup.exe file.

   The welcome page is displayed.

2. Click Next to open the license selection page, select a license type, and then click Next again.

---

3. Define the appropriate installation parameters on the following pages, and then click Finish to begin the install.

Depending on your working environment, Setup may ask you to reboot your machine.

Upgrading an Administrative Install

You can pass the administrative install command to an upgrade package downloaded from the web.

Note: You cannot upgrade between major versions. Each major version (12.x, 15.x, etc.) must be installed as a new administrative install in its own directory.

Use the following syntax to upgrade your administrative install to a new minor version:

```
upgrade_package.exe /a
```

Installing PowerDesigner in Silent Mode

If you need to deploy PowerDesigner on a large number of machines and wish to reuse *exactly* the same setup options and destination folder for each machine, you can use the silent install mode. Silent install runs without user input, by using a *response file* (called *setup.iss*) that specifies all the required installation options.

The silent installation mode does not provide any information about the installation itself. You can open the setup.log file in the directory containing the setup.exe file to have a report about the silent install. The last section of this ResponseResult file contains a line ResultCode=X. If X=0, installation was successful.

Note: You can perform a silent install from the product CD or from a network location where the PowerDesigner installation files have been copied (see *Creating the Administrative Install on the Server* on page 18).

1. To create a setup.iss response file, select **Start > Run** to open the Windows Run dialog box and enter the following command:

```
<PD-inst-dir>\setup\setup.exe /r /f1"<path>\setup.iss"
```

Complete the installation parameters as required and then click Finish to create the setup.iss file at <path>. For example, the following:

```
G:\setup\setup.exe /r /f1"setup.iss"
```

References a network drive G:, mapped to a location where the PowerDesigner files have been copied, and creates setup.iss in the setup directory for easy access.

2. Proceed to install the client machine with the following command:

```
<PD-inst-dir>\setup\setup.exe /s /f1"<path>\setup.iss".
```

Each new silent install will replace the content of the setup.log file located in the Installation drive.

Use the /f2 parameter to define a local directory where the setup.log file will be stored on each client machine:

```
G:\setup\setup.exe /s /f2"c:\temp\setup.log"
```

Note: From a client machine, map a drive to the server where the PowerDesigner files are copied. The drive letter must be the same as that on the server. For example, if your PowerDesigner files are located on drive R:\admin\setup.exe, you must use the R drive on each client machine to access installation files.

Uninstalling PowerDesigner in Silent mode

A silent uninstall works in a similar fashion to the silent install, but requires that you locate the InstallShield PowerDesigner maintenance file.

For PowerDesigner v16.x this file is located, by default, at:

```
C:\Program Files\InstallShield Installation Information\{D88DF8F0-
B749-4D26-AFBC-A6E588099793}\setup.exe
```

Note: It may be that your maintenance file is not found in the standard location. You can always retrieve its location file from the following registry key: HKEY_LOCAL_MACHINE \SOFTWARE\Microsoft \Windows\CurrentVersion\Uninstall\{D88DF8F0-B749-4D26- AFBC- A6E588099793}

1. To create an uninstall.iss response file, select **Start > Run** to open the Windows Run dialog box to invoke the installshield maintenance file with the following options:

```
<path-to>\setup.exe /r /f1"<path>\uninstall.iss"
```

Complete the installation parameters as required and then click Finish to create the uninstall.iss file at <path>. For example, the following:

```
C:\Program Files\InstallShield Installation Information
\setup.exe /r /f1"C:\temp\uninstall.iss"
```

Uses the standard maintenance file, and creates uninstall.iss in a temp directory.

2. Proceed to uninstall the client machine with the following command:

```
<path-to>\setup.exe /s /f1"<path>\uninstall.iss"
```

Uninstalling PowerDesigner and Installation Maintenance

After installing PowerDesigner on your machine, you can modify the installation by selecting **Control Panel > Add/Remove Programs** or by restarting the installation.
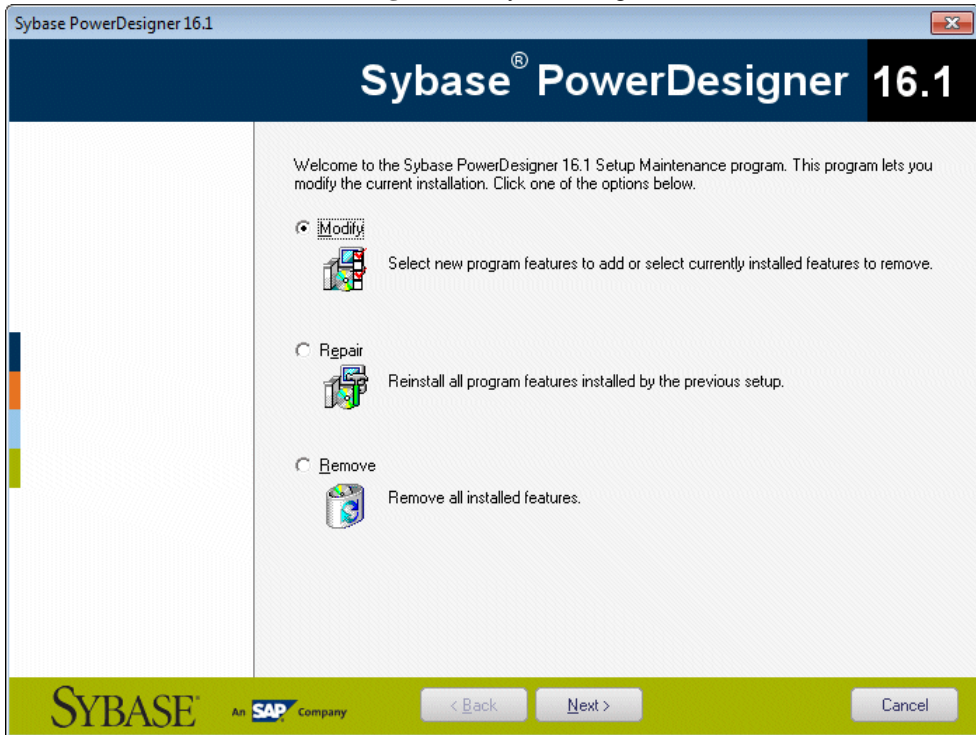
You can:

- *Modify* - your PowerDesigner installation by adding or removing program features. Select or clear components in the components page.
- *Repair* - your PowerDesigner installation by reinstalling it. You must have the installation CD or access to the network drive where installation files are copied.
- *Remove* - your installation and clean up your registry.

Note: User files are not removed and you cannot modify your license configuration.

Manual Fonts Installation

If setup fails to define default fonts, you can do it manually.

1. Select the Fonts page in the General Options dialog box and define fonts for UI, Code and RTF Editor.
2. Create a new report, select **Report > Change Font** and define new fonts.
3. Verify that the following registry key does not exist: HKEY_CURRENT_USER\Software \Sybase\PowerDesigner 16\DisplayPreferences\Font Name.
4. Create a registry key named Font Name (with the following string values: Name, Size, Style) for all symbols in the following registry key: HKEY_LOCAL_MACHINE \Software\Sybase\PowerDesigner 16\DisplayPreferences\Font Name.

PowerDesigner Dependencies

PowerDesigner depends on a certain number of frameworks and libraries and will install them if they are not present in your environment.

- `WindowsInstaller-KB893803-v2-x86.exe` - to support the installation of .NET.
- Microsoft .NET Framework 4.0
- Windows Installer 3.1 and Windows Imaging Component - for your Windows version.
- `o2003pia.msi`, `o2007pia.msi`, `o2010pia.msi` - Microsoft Office Primary Interop Assemblies for MS Office 2003, 2007, and 2010 to support PowerDesigner MS Office plugins.
- `extensibilityMSM.msi` - shared Addin Extensibility update for .Net to support PowerDesigner MS Office plugins.
- `msxml6-KB954459-enu-x86.exe` - to support the PowerDesigner XSM.
- `vjredist.exe` - Microsoft Visual J# 2.0 redistribuable to support the PowerDesigner Auto-Layout feature.
- `ProjectAggregator2.msi` - to support the PowerDesigner Visual Studio add-in.
- `vcredist_x86.exe` - Microsoft Visual C++ 2010 Runtime Libraries

CHAPTER 3 **Installing the Repository**

The PowerDesigner repository can be used to store your PowerDesigner models and other files relating to your design projects. An administrator must set up the repository, which is stored in a database on a server.

For information about using the repository, see *Core Features Guide > Storing and Sharing Models > The Repository*.

1. Choose a server capable of supporting large, long-running transactions to host your repository. We recommend as a minimum, a dual-core machine, with 2-4GB of RAM, but the exact system requirements depend on your DBMS, the number of concurrent users, and the size of your repository.

Note: To calculate the size required for your repository database, estimate the number of models that will be stored and the period during which they will be developed. An average model containing 100 primary objects (tables, classes, etc.) will have an initial disk size of 5MB and the size of its initial check in will be around 10MB. Assuming an average number of edits, each subsequent check in will add 10% to the size of the file, so that after an average development period of two months (40 working days) with one check in per day, the final model file size will be $10MB*1.1^{40}$ or approximately 500MB. If your team will develop 20 such models during the course of the year, you should allow 10GB of space for your repository database.

If you want to use the repository proxy or PowerDesigner Portal, you should install them, by preference, on the same machine where the repository is located to optimize communication between the components. If the repository server is not a Windows server or is unable to support the additional workload, then we recommend installing these components on another machine on the same LAN segment.

2. Install SQL Anywhere® on the repository server and create a database to house the PowerDesigner repository (see *Installing and Authenticating SQL Anywhere* on page 24) .

Alternatively, create a database to house the repository in one of the other supported DBMSs:

- Adaptive Server® Enterprise
- Oracle 8 and higher
- IBM DB2 Common Server and DB2 for OS/390
- Informix 2000
- Microsoft SQL Server 2005 and higher - we recommend that you use a server that is not currently managing a high transaction load,

since PowerDesigner performs long- running synchronous transactions during Check-In/Check-Out.

Note: The most up-to-date list of supported DBMSs, is available at *http:// certification.sybase.com.*

3. Install the repository to the new database (see *Installing the Repository to the Server* on page 26).

4. [optional] Install the repository proxy on the repository server (see *Installing the Repository Proxy* on page 31).

The proxy simplifies and offers more security for connection to your repository and may provide performance improvements in environments where clients will be connecting over a WAN or complicated LAN or when dealing regularly with large (15MB+) models.

5. [optional] Install the PowerDesigner Portal on the repository server (see *Installing the PowerDesigner Portal Server* on page 33).

The PowerDesigner Portal provides access to your repository models via a Web browser.

6. Define a password policy, optionally connect to an LDAP server to delegate the authentication of repository users and an SMTP server for notifications, and create groups and user accounts with appropriate rights and permissions to control access to the repository (see *Core Features Guide > Administering PowerDesigner > Controlling Repository Access*).

Installing and Authenticating SQL Anywhere

The PowerDesigner repository is delivered with an *authenticated* version of Sybase SQL Anywhere, which can only be used to store your PowerDesigner model repository. Note that the trial version of PowerDesigner is supplied with a lighter version of SQL Anywhere, for which the setup may be slightly different.

1. Insert the software CD-ROM in the drive, and click the **Install SQL Anywhere** button. Choose your setup language, and then click **Next** to open the SQL Anywhere InstallShield wizard.

2. Click **Next** to go to the license agreement page. Select your country or region, review and accept the license terms, and then click **Next** to go to the **Custom Setup**.

3. Leave all the defaults, click **Next**, and then click **Install** to start the installation.

Note: When installing SQL Anywhere on a 64-bit version of Windows, you must install the 32-bit versions of the database and administration tools (see *Windows 64-Bit Support* on page 10).
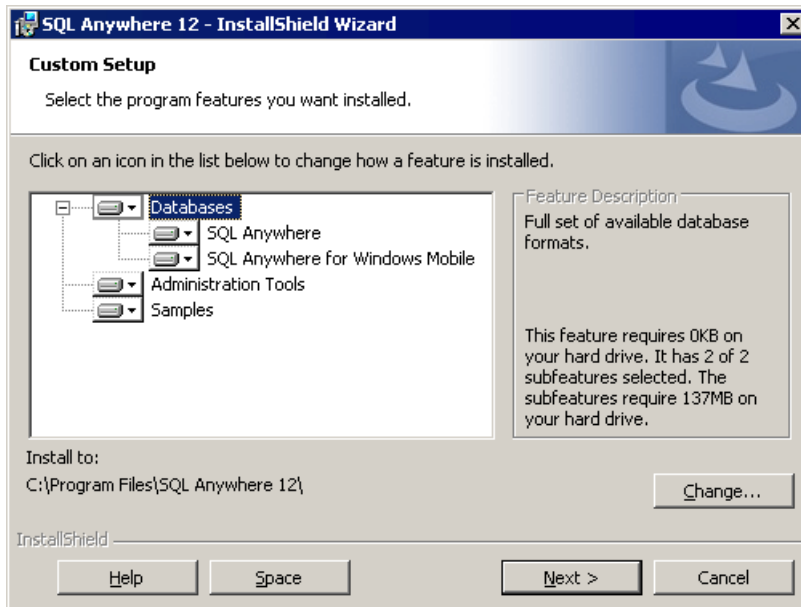
4. When the installation is complete, you will be invited to view the ReadMe and online resources. Make your choices, and then click **Finish** to exit the wizard

5. Copy the `authenticate.sql` file delivered in the `Setup\support` directory of the installation media (and installed to the `Tools` directory of your PowerDesigner installation) to the `\Scripts` directory in your SQL Anywhere installation on the repository server.

   Copying these statements in this way ensure that when you create a database, it will automatically be authorized for use with the PowerDesigner repository.

Note: If you create a database before having copied the authentication instructions in this way, then you will need to authenticate it manually by opening the Interactive SQL tool, logging into your database, and running the contents of `authenticate.sql` against it.

Creating a Database to Contain the Repository

Once you have installed SQL Anywhere, you must create an authenticated database on the repository server to which you will deploy the repository.

1. Select **Start > Programs > SQL Anywhere 12 > Admin Tools > Sybase Central** to open Sybase Central.

2. Select **Tools > SQL Anywhere 12 > Create Database** to open the Create Database Wizard.

3. Click **Next** to go to the Select a Location page. The **Create a database on this computer** option is automatically selected. Click **Next** to go to the Specify a Database File page.

4. Enter an appropriate name and location for the database, and then click **Next** to go to the Specify the Transaction Log File page.

   Note: You will need to specify this file when you create a data source to allow PowerDesigner to connect to the database (see *Creating a Data Source to Access Your Database* on page 28).

5. Make sure the **Maintain the Following Transaction Log File** check box is selected, accept or specify an alternate log file name and location, and then click **Next**.

6. Continue clicking **Next** and accepting the default settings until you arrive at the Specify DBA User and Password page.

7. By default, the database is created with an administrator account called DBA, and with a password sql. Select these defaults or enter your own, and then click **Next** to go to the Connect to the Database page.

   Note: You will need to enter this username and password in the repository definition (see *Installing the Repository to the Server* on page 26) and data source (see *Creating a Data Source to Access Your Database* on page 28).

8. Deselect the **Connect to the new database** option, and then click **Finish** to create the database.

Installing the Repository to the Server

The repository administrator must set up the repository on a database server running one of the supported DBMSs.

Note: Before you can install the repository, you must create an empty database with an administrator user who has full rights on all the tables (see *Creating a Database to Contain the Repository* on page 25) and install PowerDesigner on the repository administrator's workstation (see *Chapter 2, Installing PowerDesigner* on page 13).

1. On the repository administrator's workstation, start PowerDesigner and select **Repository > Repository Definitions** to open the List of Repository Definitions.

2. Click the **Add a Row** tool to create a new definition, and click the **Properties** tool to open its property sheet.

3. Enter the following properties:

Property	Value
Repository name	Enter an appropriate name to identify the repository.

Property	Value
Data source name	Click the **Select a Data Source** tool to the right of the field and select or create the data source that you want to use to connect to the repository database.
	To create an ODBC machine data source for a SQL Anywhere database, see *Creating a Data Source to Access Your Database* on page 28. For detailed information about creating, configuring, and using connection profiles for other DBMSs, see *Core Features Guide > Modeling with PowerDesigner > Getting Started with PowerDesigner > Connecting to a Database.*
User name	Enter the administrator name you chose when creating the database.
Password	Enter the administrator password you chose when creating the database
Bytes per char	For non-Oracle unicode or multi-byte character set databases, specify the bytes per character used by the database: • 1-byte - [default] For SBCS (Single-Byte Character Set) • 2-byte - For DBCS (Double-Byte Character Set) • 3-byte - For Unicode or MBCS (Multi-Byte Character Set)

4. Click **Test** to test the connection and, in the event of an error, double-check your connection parameters. Then click **OK** to return to your repository definition, and click **OK** to complete its creation.

5. Select **Repository > Connect** to open the Connect dialog. Select the name of the repository definition you just created and click **OK** to connect.

A message box is displayed inviting you to install the repository. This will involve running a SQL script to create the necessary tables.

6. Click **Yes** to continue. The read-only Repository Installation Script window opens.
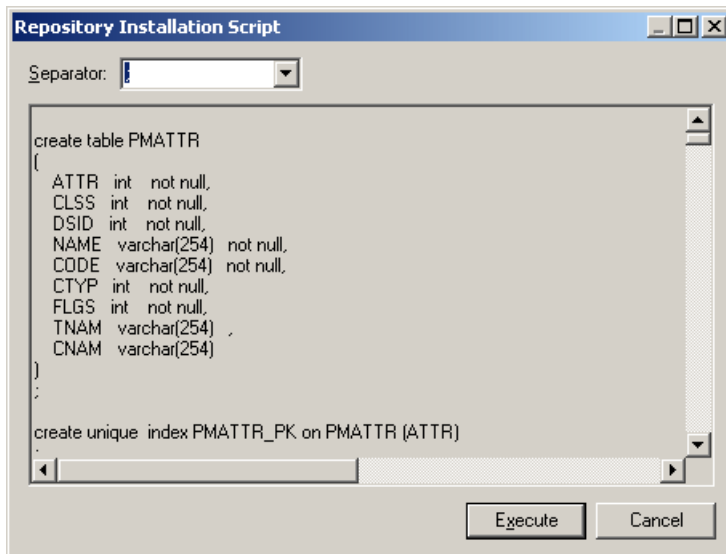
> **Note:** You cannot edit the script in this dialog, but you can, if necessary, modify the statements (for example, to add physical options) by copying the script to an external SQL editor, making the appropriate edits, and then connecting to the database to execute the script outside of PowerDesigner. The Separator list in the dialog lets you select the separator appropriate to your interpreter.

7. Click **Execute** to run the script and create the repository tables. This may take several minutes.

> **Note:** If the installation fails due to network problems, insufficient disk space, or permission problems, we recommend that you do not choose to ignore the errors, but rather abort the installation and start again.

8. When the repository has been installed, the Change Password dialog will open, prompting you to change the administrator password. Enter a password that complies with the default repository password policy as listed in the dialog, and then click **OK** to complete the creation of the repository.

   In the repository Browser, the root of the repository tree displays the repository name and the connected user and is ready for use.

Creating a Data Source to Access Your Database

In order for PowerDesigner to connect to your database, you must create a data source from within PowerDesigner or using the ODBC Data Source Administrator.

The instructions given here are for creating an ODBC machine data source for SQL Anywhere. For information about creating other data sources for other DBMSs, see *Core Features Guide > Modeling with PowerDesigner > Getting Started with PowerDesigner > Connecting to a Database*.

> **Note:** In order to create a data source on a Windows 7 machine, you may need to launch PowerDesigner or the ODBC Data Source Administrator by right-clicking its icon or menu item and selecting **Run as administrator**.

1. Click the **Select a Data Source** tool on the Repository Definition dialog, then select **ODBC machine data source** and click **Configure**. On the **ODBC Machine Data Sources** tab of the Configure Data Connections dialog, click the **Add Data Source** tool, then select **System Data Source** and click **Next**.

   Alternately, to create a data source using the ODBC Data Source Administrator, select **Start > Settings > Control Panel > Administrative Tools > Data Sources (ODBC)**, select the **System DSN** tab, and then click **Add**.

> **Note:** In a 64-bit environment, you must use the 32-bit version of the ODBC Administrator tool, because PowerDesigner cannot connect to 64-bit ODBC DSNs (see *Windows 64-Bit Support* on page 10).

2. Select **SQL Anywhere 12** and click **Next**, and then click **Finish** to create the data source.

3. On the **ODBC** tab of the ODBC Configuration for SQL Anywhere dialog, enter an appropriate name such as PD Repository in the **Data source name** field.

4. Click the **Login** tab and enter the following values:

Parameter	Value
Authentication	Select Database.
User ID	Enter the administrator name you chose when creating the database (see *Creating a Database to Contain the Repository* on page 25).
Password	Enter the administrator password you chose when creating the database.
Action	Select the appropriate action: • Start and connect to a database on this computer • Start and connect to a database on another computer
Database file	Browse to and select your database file.
Database name	Enter an appropriate name such as PD Repository.
Server name	Enter an appropriate name such as PD Repository.
Start line	Enter "C:\Program Files\SQL Anywhere 12\Bin32\dbsrv12.exe" (including the quotation marks).
Stop database after last disconnect	Deselect this option if you want the repository to continue to be available after you disconnect from it.

5. Click **OK** to complete the configuration of the data source.

Troubleshooting the Repository Installed on ASE

This section lists known issues encountered when installing the repository on Sybase Adaptive Server Enterprise.

Commonly Required ASE Parameters
The following ASE parameters must frequently be configured higher than their default settings to optimize check in of models:

• number of open objects
• number of open indexes
• number of locks
• max memory
• procedure cache size

Must declare variable '@dr_t_a0'. SQLSTATE = ZZZZZ
If you see the above error and are connecting to an ASE server via ODBC, open the ODBC Data Source Administrator, select your data source, and select the **Enable Dynamic Prepare** option on the **Connection** tab.

Truncated data on extraction
If you are seeing data truncated on extraction from the repository and are connecting to an ASE server via ODBC, open the ODBC Data Source Administrator, select your data source, and enter the value 10000000 in the **Text size** field on the **Advanced** tab.

If characters such as the ellipsis are being truncated, you should verify that the character set of your driver matches the setting for your database.

Connection Profile: "Error converting characters into server's character set"
If you receive such a conversion error when working with a connection profile, click the ellipsis button to the right of the **Connection parameters** field on the Connection Profile Definition dialog, add the CharSet parameter, and enter the appropriate charset value to match your repository database.

Troubleshooting the Repository Installed on DB2

This section lists known issues encountered when installing the repository on IBM DB2.

Exception During Search
If you are seeing exceptions when performing a search through the PowerDesigner Portal, you should consider doubling the size of the applheapsz parameter, which controls the application heap size.

Connection Profile: "Error converting characters into server's character set"
If you receive such a conversion error when working with a connection profile, click the ellipsis button to the right of the **Connection parameters** field on the Connection Profile Definition dialog, add the CharSet parameter, and enter the appropriate charset value to match your repository database.

Troubleshooting the Repository Installed on SQL Server

This section lists known issues encountered when installing the repository on Microsoft SQL Server v2005 and higher.

Optimizing Repository Reads with Snapshots
To ensure that all users reading data will get access to a snapshot and not be blocked by concurrent transactions, we recommend that you enable the following SQL Server options:

- ALLOW_SNAPSHOT_ISOLATION
- READ_COMMITTED_SNAPSHOT

Note: No users should be connected to the repository when you enable these options.

Connection Profile: "Error converting characters into server's character set"
If you receive such a conversion error when working with a connection profile, click the
ellipsis button to the right of the **Connection parameters** field on the Connection Profile
Definition dialog, add the `CharSet` parameter, and enter the appropriate charset value to
match your repository database.

Installing the Repository Proxy

The PowerDesigner repository proxy is an optional program that runs as a service on or near
the repository server and translates SQL requests from client workstations into a more
efficient proprietary format. The proxy can considerably improve performance, particularly if
clients will be connecting over a WAN or complicated LAN environment or when dealing
regularly with larger (15MB+) models, due to its client request pooling and sophisticated
caching.

Using the proxy also simplifies the client connection to the repository, as users do not need to
know details of the database hosting the repository.

1. Choose whether to install the repository proxy on the repository server, or on another
   windows machine on the same LAN.

   You should install the proxy on the same server as the repository, if possible, to optimize
   communication between the components. If the repository server is not a Windows server
   or is unable to support the additional workload, then we recommend installing the proxy
   on another machine on the same LAN segment. We recommend as a minimum, a dual-core
   machine, with 2-4GB of RAM, but the exact system requirements depend on the number
   of concurrent users and the size of your repository.

2. Create a system data source on the chosen machine to define the connection between the
   proxy and the repository database (see *Creating a Data Source to Access Your Database* on
   page 28).

3. Insert the PowerDesigner software CD-ROM in the drive, and then click the **Install
   PowerDesigner Repository Proxy** button.

4. Click **Next** to go to the license agreement page. Select the location where you are installing
   the software, read the License Agreement, and then click the **I Agree** radio button to accept
   the terms of the agreement. If you click **I Do Not Agree**, you cannot proceed with the Setup
   program.

   Note: You can print the License Agreement from the Setup\Licenses directory on the
   product CD.

5. Click **Next** to go to the directory selection page. Accept the default installation directory or
   choose another by clicking the **Browse** button.

6. Click **Next** to go to the current settings page to review your choices, and then click **Next** to start copying files.

   When setup is complete, a page is displayed with two checkboxes selected by default, to let you start the proxy service and launch the configuration tool.

7. Click **Finish** to exit the wizard and open the Proxy Configuration dialog.

   Note: You must have write access on HKEY_LOCAL_MACHINE to change proxy parameters. On a Windows 7 machine, you may need to launch the Proxy Configuration dialog by right-clicking its icon and selecting **Run as administrator**. You can open the configuration dialog at any time by navigating to the proxy installation directory and launching pdproxyconf16.exe.

8. Click **New** to create a new proxy connection instance, and enter the following parameters.

Parameter	Value
Instance name	Enter an appropriate name to identify the instance.
Data source	Select the system data source you created for the repository from the list. Note that the proxy cannot access user data sources.
User name	Enter the user name used to connect to the repository database.
Password	Enter the password used to connect to the repository database.
Bytes per char	For non-Oracle unicode or multi-byte character set databases, specify the bytes per character used by the database: • 1-byte - [default] For SBCS (Single-Byte Character Set) • 2-byte - For DBCS (Double-Byte Character Set) • 3-byte - For Unicode or MBCS (Multi-Byte Character Set)
Port	Enter the connection port of the server on which the proxy is installed and which allows the client to communicate with the server using TCP/IP protocol. The default port number is 32999.
Log file	Select the level of logging that you want to perfom and enter or browse to the path to the log file in the Name field.
Cache	Enter or browse to the path to the cache, and specify its maximum size. The default is 300MB, which is generally sufficient for optimum proxy performance.

   Note: A single proxy server can provide simultaneous connections to multiple PowerDesigner repositories of the same version. Click the **New** button to create an additional instance.

9. Click **OK** to complete your definition of proxy instances.

   Users can now connect to the repository via the proxy by specifying the server name, port number and instance name in a proxy repository definition (see *Core Features Guide >*

Modeling with PowerDesigner > Getting Started with PowerDesigner > Accessing the Repository).

Installing the PowerDesigner Portal Server

The PowerDesigner Portal allows you to view the contents of your repository in your standard web browser. The PowerDesigner installation disc includes database access and web application layers that are required to browse your repository from the web, along with a standard Apache Tomcat web server. Before beginning the installation, you should already have created your repository database and have the DBMS user name and password to hand.

For maximum responsiveness, we recommend that you install the database access layer on the same machine as your repository database, while the web application layer can be installed on any appropriate machine. While each instance of the PowerDesigner Portal database access layer can only communicate with a single repository database, a single web application instance can communicate with multiple database access layers and provide a single point of access for users browsing multiple repositories.

If the repository server is not a Windows server or is unable to support the additional workload, then we recommend installing the PowerDesigner Portal on another machine on the same LAN segment. We recommend as a minimum, a dual-core machine, with 2-4GB of RAM, but the exact system requirements depend on the number of concurrent users and the size of your repository.

Note: For information about using the PowerDesigner Portal, see *Core Features Guide > Storing and Sharing Models > The PowerDesigner Portal.*

1. Insert the PowerDesigner software CD-ROM in the drive, and then click the **Install PowerDesigner Portal** button.

   The PowerDesigner Portal installation program opens to the welcome page.

2. Click **Next** to go to the license page, and select the type of license that you want to use:
   - **Trial** - For evaluating PowerDesigner and the PowerDesigner Portal
   - **PowerDesigner Portal** - For using the PowerDesigner Portal without allowing users to edit object comments, descriptions, and annotations
   - **PowerDesigner Portal Composer** - For allowing users to edit object comments, descriptions, and annotations, which requires a separate license. If you select this option, you will be prompted to specify the licence server that manages this license (see *Installing a License Server* on page 4).

3. Click **Next** to go to the license agreement page, and select the location where you are installing the software. Read the License Agreement and click the **I Agree** radio button to accept the terms of the agreement. If you click **I Do Not Agree**, you cannot proceed with the Setup program and you will have to cancel the install.

Note: You can print the License Agreement from the Setup\Licenses directory on the product CD.

4. Click **Next** to go to the web server page. If you have already installed one or more PowerDesigner Portal servers, you can select the second option to install the web application layer only. You will then be prompted to specify connection information for a PowerDesigner Portal server to which it will connect. Setup suggests a location in which to install the PowerDesigner Portal, which you can change by clicking the **Browse** button.
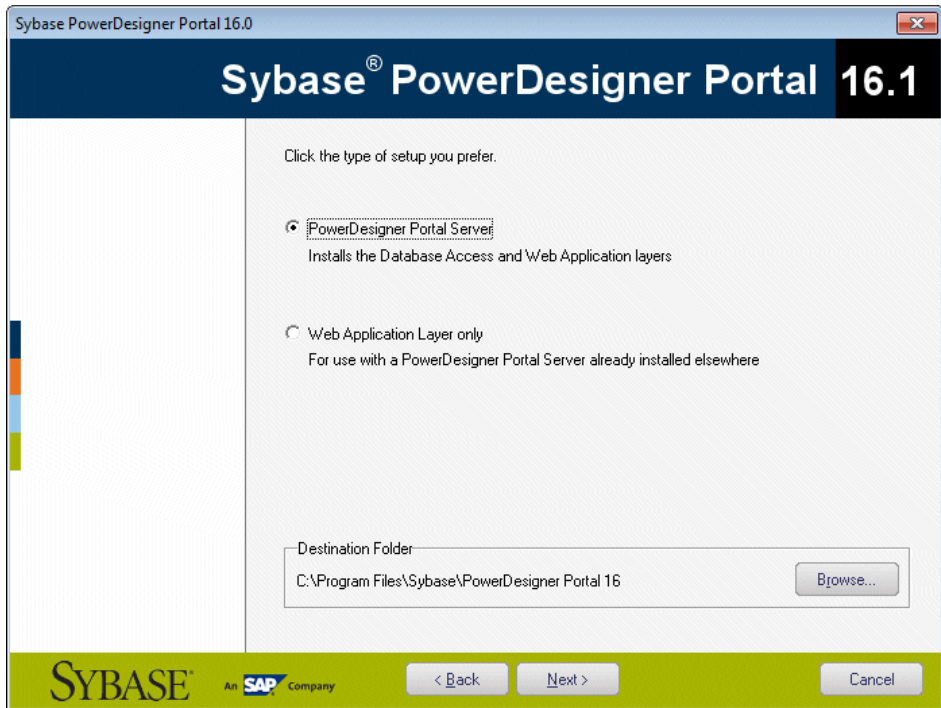
5. Click **Next** to go to the application server page. By default, the installer will install a new Tomcat Server. If you want to use one of the other supported servers, select it and specify its location. Default sever ports may be provided that you must verify. At least one port is required in order to create a connection profile and connect to the repository database.

Note: If you choose the WebLogic application server, you must deploy the archive directory (by default, the `weblogic_openfolder` directory inside your PowerDesigner Portal installation directory) from your WebLogic Administrative Console once the setup has completed.
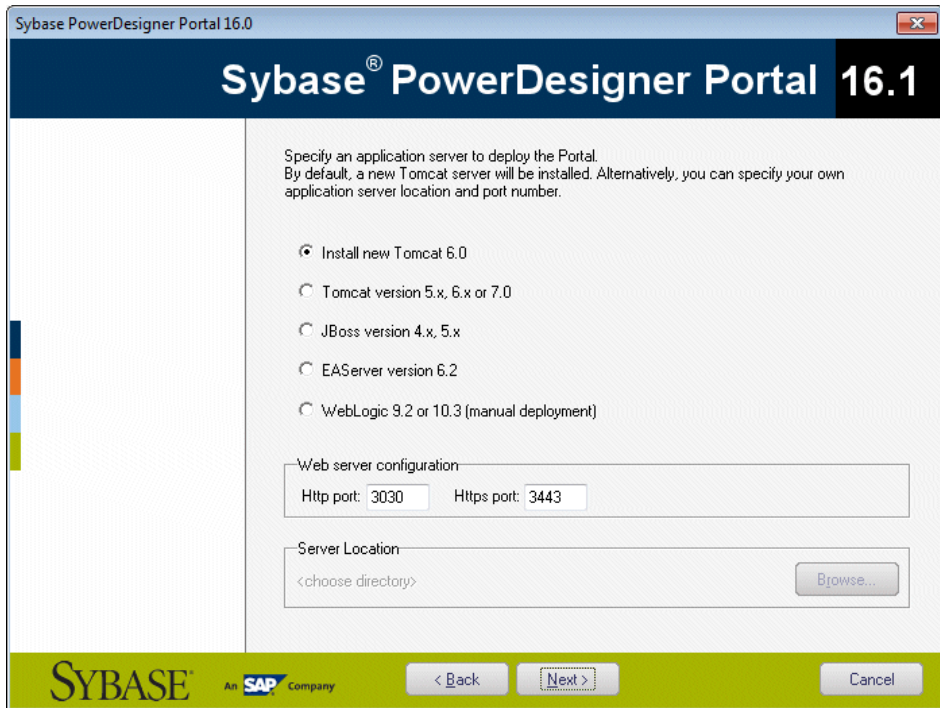
6. Click **Next** to go to the JDK page. By default, a new JDK is installed. If you want to use an existing JDK, deselect the check box and specify its location.

7. Click **Next** to go to:

- [for a full PowerDesigner Portal server install] The database parameters page lets you enter the appropriate parameters for your database. If you select the **Use Windows Authentication** checkbox, you will need to select the **This account** option on the **Log On** tab of the web server service property sheet before starting the service.

- [for an application layer only install] The connection information page of the PowerDesigner Portal server lets you enter the appropriate parameters for connecting to the existing repository web server instance. You must enter at least one port:
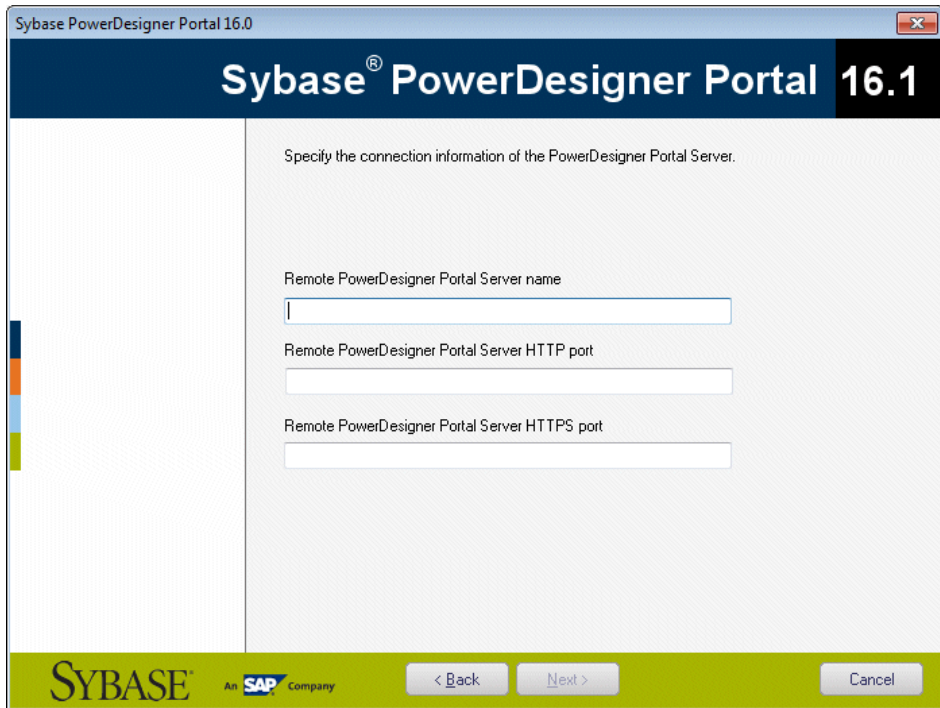
8. Click **Next** to go to the information page which summarizes your choices.

9. Click **Next** to accept the current settings and start copying files.

The install begins. A progress box is displayed and Setup copies files to the destination directory. When the setup is complete, one of the following pages appears depending on your selection on the web server page:

- [PowerDesigner Portal server] The completion page opens with two check boxes selected by default to let you:
    - Start the PowerDesigner Portal Server service
    - Open the PowerDesigner Portal Web page
- [web application layer] The completion page opens with a check box selected by default to let you open the service configuration page and enter its account name and password. Then you will have to start the service.

10. Click **Finish** to exit the wizard.

Accessing the PowerDesigner Portal Web Site

You can start and stop the PowerDesigner Portal server and the associated service by navigating to the server from your Start menu.

By default, these commands appear as sub-items of **Programs > Sybase > PowerDesigner Portal** , and selecting the appropriate sub-item:

- Start the PowerDesigner Portal Server
- Start the PowerDesigner Portal Server Service
- Stop the PowerDesigner Portal Server
- Stop the PowerDesigner Portal Server Service

When the server is running (whether as a service or not), navigate to the following address:

http://*server-name*:*port-number*/cmr

Where *server-name* is the name of the machine on which you have installed the PowerDesigner Portal server, and *port-number* is the port specified during installation. Note that `cmr` is the name of the PowerDesigner Portal program and is a required part of the address.

The following screen will appear:

For information about using the PowerDesigner Portal, see *Core Features Guide > Storing and Sharing Models > The PowerDesigner Portal*.

Controlling SSL Encryption for the PowerDesigner Portal

All passwords saved in the repository configuration files are encrypted and are decrypted at runtime. User passwords are encrypted when making connection to the repository.

The default keys used for the encryption and decryption process are saved in the following file:

```
install_dir/keystore/common.keystore
```

For security purposes, we recommend that you generate your own key and keystore file. The keystore information is saved in the following file:

```
install_dir/keystore/config/cmrcommon.xml
```

This file contains the following XML structure:

```
<cmrcommon>
    <!-- Keystore Configuration -->
    <bean class="java.lang.Object" id="cmr.common.config.keystore">
        <!-- if value is empty, default to cmr home\keystore folder
-->
        <param name="keyStoreFilePath" value=""/>
        <param name="keyStoreFileName" value="common.keystore"/>
        <param name="keyStoreAlias" value="cmrenkey"/>
        <param name="keyStorePassword" value="changeit"/>
    </bean>
</cmrcommon>
```

You can edit the following nodes:

- keyStoreFilePath – Specifies the path to the keystore file. Default value: *install_dir*/keystore/.
- keyStoreFileName – Specifies the name of the keystore file.
- keyStoreAlias – [required] Specifies the name of the alias of the key in the keystore.
- keyStorePassword – [required] Specifies the password to read the keystore.

You can use the following command to generate a 512 byte key and keystore file:

```
JDK_HOME\bin\keytool -genkey -keyalg RSA -keysize 512 -alias
keyStoreAlias -keypass keyStorePassword -keystore keyStoreFilePath
\keyStoreFileName -storepass keyStorePassword
```

For example: to generate a new key using the default values specified in the cmrcommon.xml file:

```
JDK_HOME\bin\keytool -genkey -keyalg RSA -keysize 512 -alias
cmrenkey -keypass changeit -keystore install_dir\keystore
\common.keystore -storepass changeit
```

Note: All PowerDesigner Portal web application layer installations that need to connect to a PowerDesigner Portal Server must use the same keyStore file.

Installing the PowerDesigner Portal Server on UNIX

We do not provide support for installing any component of PowerDesigner on UNIX. However, it is possible to manually deploy the PowerDesigner Portal to a UNIX environment using this procedure.

Note: This procedure requires that you install and configure the PowerDesigner Portal on a Windows server in order to copy certain of the installation directories to your UNIX installation.

1. On your UNIX server, install JDK 6.0 or higher, and set the JAVA_HOME environment variable to its path. For example:

   ```
   export JAVA_HOME=/usr/lib/jvm/java-6
   ```

2. Install Tomcat 5.5 or 6.0 and set the CATALINA_HOME environment variable to its path. For example:

   `export CATALINA_HOME=…/apache-tomcat-6.0.28`

3. Create a new folder called CMR, and set the CMR_HOME environment variable to its path. For example:

   `export CMR_HOME=…/CMR`

4. Copy the contents of the CMR_HOME directory on your Windows environment to the CMR_HOME directory on the UNIX server.

5. Extract the appropriate license library for your flavor of UNIX from CMR_HOME/ license/lib/sylapi 2.2.0.7.zip to CMR_HOME/license/lib.

6. Copy the cmr.war file from the CATALINA_HOME/webapps directory on your Windows environment to the CATALINA_HOME/webapps directory on the UNIX server.

7. Unzip cmr.war and edit the file cmr.war/WEB-INF/cmrhome.xml to remove the content of the Path element, so that it reads <entry key="Path"></entry>. Rezip cmrhome.xml into a new cmr.war and deploy the new cmr.war.

8. Ensure you have installed the necessary JDBC drivers to connect to your PowerDesigner Repository, and that they can be found via the proper path statement.

9. Run CATALINA_HOME/bin/startup.sh.

Multiple PowerDesigner Portal Instances on One Server

We do not provide support for running multiple instances of the PowerDesigner Portal on a single physical server. However, it is possible to manually configure your installation to do so using this procedure.

1. Install the initial PowerDesigner Portal normally.

   In this example, we will install the Portal to C:\Portal:

2. Create a second installation directory for the second instance of the Portal, and add a sub-directory to hold the second instance of Tomcat.

   In this example, we will create a second installation directory at C:\Portal2

3. Install the second Tomcat or other server to C:\Portal2\Tomcat and specify a different listening port.

   In this example, we will use port number 3030 for the first Tomcat and 9090 for the second instance

4. Copy C:\Portal\Tomcat\webapps\cmr.war to C:\Portal2\Tomcat \webapps\cmr.war. For the remainder of this procedure, the file must be unzipped, as it will be if Tomcat is running.

5. Copy the folders `config`, `log`, `keystore`, and `license` from `C:\Portal` to `C:\Portal2`.

6. Edit `C:\Portal2\Tomcat\webapps\cmr\WEB-INF\cmrhome.xml` to specify your new folder:

   ```
   <entry key="Path">C:\Portal2</entry>
   ```

7. Clear `C:\Portal2\Tomcat\work` and restart Tomcat.

   The URL for accessing the first PowerDesigner Portal is `http://myserver:3030/cmr/` and the URL for the second is `http://myserver:9090/cmr/`.

   The new instance will initially point to the original database. You can change the database:

   • By clicking the **Advanced options** link on the login page.
   • By editing `C:\Portal2\config\repository.xml`

Changing the Repository DBMS

If you decide to change the DBMS on which the repository database is stored, then you must copy an appropriate JDBC driver to the `PowerDesigner Portal 16\Tomcat\webapps\cmr\WEB-INF\lib` directory to allow the PowerDesigner Portal to connect to the new database.

We recommend that you keep your original database running initially and that you change the parameters on the PowerDesigner Portal Server Settings page, and use the **Test Connection** button to confirm that you can connect to the new database.

Upgrading the Repository

When an administrator upgrades their PowerDesigner client and then connects to an existing repository for the first time, they will be prompted to upgrade the repository. Until an administrator upgrades the repository, other users who have upgraded their PowerDesigner client will not be able to connect to the repository.

Warning! Always back up your repository database before upgrading it. Upgrading the repository typically creates many log entries, and you should consider increasing the log size to accommodate them.

1. If you have installed the PowerDesigner Portal, you must stop the PowerDesigner Portal Service before upgrading the repository.

2. Open PowerDesigner and select **Repository > Connect** to open the Connect dialog.

   Only the PowerDesigner modules that are installed on your machine will be upgraded in the repository database. For example, if you do not have the Object Oriented Model installed on your machine, that part of the repository database will not be upgraded. For this reason, you should try to perform the upgrade from a machine that has all of the modules used by your organization installed.

3. Select a direct repository definition from the list, enter your password, and click **OK**.

Note: Upgrading the repository via the proxy is not supported.

4. You are prompted to update the repository. Click **Yes** to continue and open the Repository Update Script dialog.

Depending on the size and complexity of your repository, this dialog may take several minutes to appear.

Note: If you created your repository database with Microsoft SQL Server or Sybase ASE before PowerDesigner version 15.0, we recommend that you select **Rebuild clustered indexes** in this dialog to improve performance, particularly for document check out. If you do not select this option at upgrade time, you can select **Repository > Administration > Rebuild Clustered Indexes** at any time to perform the rebuild.

5. Click **Execute** to begin the repository upgrade.

The upgrade may take some time to complete. In the event of an upgrade failure due to network or permission problems, or insufficient disk space, you should restore the repository database from your backup version and retry an upgrade when problems are solved. If the upgrade fails because of the data in your database, then you should contact technical support for assistance.

6. [when upgrading from a repository before v16.1] If your repository contains branches, you are prompted to update your branches to the new implementation (see *Post-Upgrade Cleanup for a Repository Containing Branches* on page 43). Click **OK** to continue.

Note: Depending on the complexity of your branch structure and the size of your repository, upgrading your branches may take a considerable time. If you click **Cancel** at this point you will leave the repository in a stable state, and can relaunch the upgrade at a later point by reconnecting to the repository.

7. [when upgrading from a repository before v16.1] If your current password does not comply with the default repository password policy, you will be prompted to change your password. Enter your new password (which must comply with all the rules listed in the dialog) and then click **OK**.

Note: Administrators can control the restrictiveness of the password policy (see *Core Features Guide > Administering PowerDesigner > Controlling Repository Access > Defining a Password Policy*).

8. The Library Synchronization dialog opens to prompt you to synchronize the contents of your local library. Make any appropriate selections and click **OK** to perform the synchronization and complete the repository upgrade.

For information about administering the library, see *Core Features Guide > Administering PowerDesigner > Deploying an Enterprise Glossary and Library*.

Post-Upgrade Cleanup for a Repository Containing Branches

The new implementation of repository branches provides many improvements over branches in v16.0 and earlier, but if your existing repository contained branches, you may want to perform some post-upgrade cleanup of your updated branch structure or create a new repository and migrate all your active documents to it.

For v16.1, branches in the repository have been completely re-architected to allow:

- The simultaneous display of all branches in the repository browser.
- Branching on a folder-by-folder basis.
- Simplified version numbering.
- Greater flexibility and control over branch contents.
- Simplified integration of changes from one branch to another.

During the repository upgrade, PowerDesigner will transform any existing branches in your repository to the new format, and your new repository will display all of your old branches as siblings directly under the root. As a result, you may experience the following issues:

- Too many branches at root making the repository difficult to view and navigate. To simplify your repository, you should consider:
  - Hiding branches when they are not needed for certain users.
  - Deleting old branches that are no longer needed for any users.

  Note: For information about working with the new repository branches, see *Core Features Guide > Storing and Sharing Models > The Repository > Branching Version Trees*.

- The presence of branches at the root prevents you from being able to branch sub-folders (because you cannot create a branch under another branch).

To simplify a repository and enable the creation of branches on a folder-by-folder basis, you should create a new repository and transfer all your appropriate models and other documents to it.

1. Review your existing repository and identify the models and other documents that are still current and that you want to transfer to your new repository.
2. Create a new repository and create all the necessary users and groups in preparation for allowing your users to connect to it.
3. Set up an appropriate folder structure to allow you to organize your documents by project, and in preparation for future branching.
4. Connect to your old repository and check out all the documents you want to transfer.

   Note: To ensure that no changes are lost, you may want to perform the remaining steps outside of normal working hours or instruct your users to terminate their connections with the old repository and await permission to begin connecting to the new repository.

5. Connect to your new repository and check the documents to transfer into it.

> **Note:** When you check documents into the new repository, their revision histories will not be transferred with them. For this reason, you may want to retain, at least for a time, your old repository to give you continuing access to this information.

6. Continue transferring documents until everything that you need for ongoing development is in the new repository and organized in an appropriate folder structure.

7. Communicate the new repository connection information to your users and instruct them from now on to only check documents in and out of the new repository.

Deleting the Repository

You can delete the repository by using the **Drop Repository Tables** command, which removes all repository tables and their content from the database and cuts the connection with the database. You cannot drop the repository tables through a proxy connection. You must perform a direct ODBC connection instead.

> **Warning!** Dropping the repository database cannot be undone. If you have not backed up your models and other contents, they will be lost.

1. Select **Repository > Administration > Drop Repository Tables**. You will be prompted to confirm that you want to continue. Click **Yes** to open the Repository Table Drop Script window.

    This window is read-only. You can only review the script, and not edit it. If you want to modify the script you should copy it to a script interpreter, after having selected the appropriate separator for your interpretor from the list.

2. Click **Execute** to begin the deletion.

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