



Installation Guide

PowerBuilder® Enterprise

11.0

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About This Book

Audience	This book is for anyone installing Sybase® PowerBuilder® Enterprise.
How to use this book	Read this book before you run the setup program to install PowerBuilder, InfoMaker®, and SQL Anywhere™.
Related documents	For a complete list of PowerBuilder documentation, see the preface of PowerBuilder <i>Getting Started</i> .
Other sources of information	<p>Use the Sybase Getting Started CD, the SyBooks CD, and the Sybase Product Manuals Web site to learn more about your product:</p> <ul style="list-style-type: none">• The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.• The SyBooks CD contains product manuals and is included with your software. The Eclipse-based SyBooks browser allows you to access the manuals in an easy-to-use, HTML-based format. <p>Some documentation may be provided in PDF format, which you can access through the PDF directory on the SyBooks CD. To read or print the PDF files, you need Adobe Acrobat Reader.</p> <p>Refer to the <i>SyBooks Installation Guide</i> on the Getting Started CD, or the <i>README.txt</i> file on the SyBooks CD for instructions on installing and starting SyBooks.</p> <ul style="list-style-type: none">• The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network. <p>To access the Sybase Product Manuals Web site, go to Product Manuals at http://www.sybase.com/support/manuals/.</p>

Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ Finding the latest information on product certifications

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click Certification Report.
- 3 In the Certification Report filter select a product, platform, and timeframe and then click Go.
- 4 Click a Certification Report title to display the report.

❖ Finding the latest information on component certifications

- 1 Point your Web browser to Availability and Certification Reports at <http://certification.sybase.com/>.
- 2 Either select the product family and product under Search by Base Product; or select the platform and product under Search by Platform.
- 3 Select Search to display the availability and certification report for the selection.

❖ Creating a personalized view of the Sybase Web site (including support pages)

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click MySybase and create a MySybase profile.

Sybase EBFs and software maintenance

❖ Finding the latest information on EBFs and software maintenance

- 1 Point your Web browser to the Sybase Support Page at <http://www.sybase.com/support>.
- 2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.
- 3 Select a product.
- 4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the “Technical Support Contact” role to your MySybase profile.

- 5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

Accessibility features

This document is available in an HTML version that is specialized for accessibility. You can navigate the HTML with an adaptive technology such as a screen reader, or view it with a screen enlarger.

PowerBuilder 11.0 and the HTML documentation have been tested for compliance with U.S. government Section 508 Accessibility requirements. Documents that comply with Section 508 generally also meet non-U.S. accessibility guidelines, such as the World Wide Web Consortium (W3C) guidelines for Web sites.

Note You might need to configure your accessibility tool for optimal use. Some screen readers pronounce text based on its case; for example, they pronounce ALL UPPERCASE TEXT as initials, and MixedCase Text as words. You might find it helpful to configure your tool to announce syntax conventions. Consult the documentation for your tool.

For information about how Sybase supports accessibility, see Sybase Accessibility at <http://www.sybase.com/accessibility>. The Sybase Accessibility site includes links to information on Section 508 and W3C standards.

For more information about accessibility features of PowerBuilder, see the chapter on building accessible applications in *Application Techniques*.

For a Section 508 compliance statement for PowerBuilder, go to the Voluntary Product Assessment Templates page at http://www.sybase.com/detail_list?id=52484.

If you need help

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you cannot resolve a problem using the manuals or online help, please have the designated person contact Sybase Technical Support or the Sybase subsidiary in your area.

Installing PowerBuilder Enterprise

About this book

This book explains how to install the PowerBuilder Enterprise product set on Windows XP or Windows Server 2003.

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PowerBuilder Enterprise contents

PowerBuilder Enterprise includes the CDs or DVDs listed in Table 1-1. The setup program on the PowerBuilder DVD can be used to install all editions of PowerBuilder (Enterprise, Professional, and Desktop). The editions available to you depend on the license you supply. For more information, see “Product licensing with SySAM 2.0” on page 3.

Table 1-1: PowerBuilder 11.0 contents

CD or DVD	Contents
Getting Started CD	<i>Customer Service Reference Guide, SyBooks Installation Guide, PowerBuilder and InfoMaker Release Bulletins, order card for printed documentation, and this Installation Guide.</i>
PowerBuilder DVD	Common setup program for PowerBuilder 11.0 (all editions) and InfoMaker 11.0, setup program for SQL Anywhere 10.0, and a support folder that contains files that can be used to rebuild the PowerBuilder extensions for Web services clients and other supporting files. This book describes how to run the setup programs.
PowerBuilder SyBooks CD	Documentation for PowerBuilder in HTML-based and PDF formats. For more information, see “Other sources of information” on page v.

System requirements

This section provides system requirements for each product in PowerBuilder Enterprise. All tools require a DVD-ROM drive. The disk space requirements provided are approximate. The actual disk space you need for each tool might vary depending on hard disk size, partitioning, and the features you choose to install. Additional temporary space is required on the hard disk during installation for uncompressing install files.

Table 1-2: System requirements for PowerBuilder Enterprise

Tool	Computer	Minimum memory	Hard disk space	Operating system
PowerBuilder	600 MHz Pentium III class processor	128MB	442MB for all components	Windows XP Professional with SP 2, Windows XP Tablet PC Edition with SP 2, or Windows Server 2003 with SP 1
InfoMaker	400 MHz or higher Pentium-compatible	64MB	197MB for all components*	Windows XP Professional with SP 2, Windows XP Tablet PC Edition with SP 2, or Windows Server 2003 with SP 1

Tool	Computer	Minimum memory	Hard disk space	Operating system
SQL Anywhere	400 MHz or higher Pentium-compatible	48MB in addition to memory required by the operating system	242MB for all components	Windows 2000, Windows XP, Windows XP Tablet PC Edition, or Windows Server 2003

* Less disk space is required if PowerBuilder is installed on the same computer.

Product licensing with SySAM 2.0

Starting with PowerBuilder 11.0, PowerBuilder uses the Sybase Software Asset Management System (SySAM) for product licensing.

If you have purchased PowerBuilder, you have either a standalone local license or a served license.

For more information about licensing, see the SySAM Documentation at <http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.help.sysam/title.htm>.

For troubleshooting help, see “Troubleshooting SySAM issues” on page 25.

Installing a standalone local license

Typically, you must have a license file to install PowerBuilder on your computer. You can download a license file from the Sybase Product Download Center (SPDC) at <https://sybase.subscribenet.com/>. If you are evaluating PowerBuilder, refer to the information provided with your DVD or download. Evaluation versions of PowerBuilder are usually valid for 30 days and do not require a license file.

If you purchase PowerBuilder from Sybase, you receive an email with a URL, your login, and your password for the SPDC. If you purchase PowerBuilder from a Sybase reseller, you receive a certificate with a Web key registration number and a download URL.

You must provide the host ID and computer name of the computer where you want to install a local license when you contact the SPDC. If you have not obtained your license information before you run the setup program, you can find the host ID and computer name on the License Key page in the setup program.

Installing a served license

If you are installing a served license, your organization needs a license server. The license server allows you to share and control licenses within a pool of users. It controls license availability and allows you to use licenses as needed. The license server also blocks use when all licenses are being used.

To install a served license, you must know the server name. You may also need the TCP port number if the administrator who installed the license server defined a TCP port number that is different from the default. In this case, you must specify this user-defined TCP port number.

Setting up a license server

If you are responsible for setting up a license server, you can install a license server using the *Standalone SySAM Installer.zip* file in the *Support* directory on the DVD. For more information, see the chapter on license server administration in the Sybase Software Asset Management User's Guide at http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.dc00530_0200/html/sysamug/title.htm.

Pre-installation tasks

Before you install PowerBuilder Enterprise, you need to perform the following tasks:

- Read the release bulletins for the latest information on the products that you are installing. Pay close attention to the “Special Installation Instructions” section.

Release bulletins for PowerBuilder and InfoMaker are available in the product package on the Getting Started CD.

Release bulletins for PowerBuilder and InfoMaker are also available on the Product Manuals Web site at <http://www.sybase.com/support/manuals/>. The release bulletins at this site sometimes contain more recent information than the bulletins on the Getting Started CD.

A *readme.txt* file for SQL Anywhere is available in the *SQLAnywhere10* directory on the DVD.

- Make sure the drive where you install PowerBuilder Enterprise is not compressed. If compression is enabled on the installation drive, the setup program fails.

- Make sure you have a TEMP environment variable that points to an existing directory location with at least 300MB free space. The setup programs write files to this directory during the installation and free the space after the installation is complete.
- Close any open applications.
- Back up your files. See “Backing up your files” next.
- Read “Required software for PowerBuilder features” on page 5 to determine whether you need to install any software before installing PowerBuilder 11.0.
- If you already have PowerBuilder Enterprise products installed on your computer, follow the instructions in “Updating PowerBuilder Enterprise products” on page 9.

Backing up your files

Back up any files created with earlier versions of Sybase tools. Make sure that any PowerBuilder PBLs you plan to migrate have been regenerated without error in your current version of PowerBuilder before you back them up.

Besides backing up your PBLs, you need to back up any files that contain information you do not want to lose, such as database files, INI files, preference information, and modified database definition files.

For additional information about backing up and migrating existing applications, see “Before using PowerBuilder Enterprise” on page 20.

Required software for PowerBuilder features

Table 1-3 lists the software required for PowerBuilder Enterprise features. Some of this software is installed automatically when the feature is installed.

Read this table carefully to determine whether you need to install any software *before* you run the PowerBuilder setup program, and whether you need to select SQL Anywhere before you select PowerBuilder. If you select a feature that has a prerequisite that has not been installed, the setup program displays a warning message.

Table 1-3: Required software for PowerBuilder features

Feature	Required software	Notes
.NET target development and deployment	Microsoft .NET Framework Version 2.0 Redistributable Package	<p>Note This package must be installed on your computer before you install PowerBuilder.</p> <p>Required by all .NET features. The package is available from the Microsoft Download Center at http://www.microsoft.com/downloads/details.aspx?familyid=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en.</p>
.NET Windows Forms smart client deployment and update and support for OLE controls in Windows Forms	Microsoft .NET Software Development Toolkit 2.0	<p>Note This SDK must be installed on your computer before you install PowerBuilder.</p> <p>The SDK is available from the Microsoft .NET Framework Developer Center at http://msdn2.microsoft.com/en-us/netframework/aa731542.aspx.</p>
.NET Web Forms development and deployment and .NET Web services local host deployment	Microsoft Internet Information Services (IIS) 5.0 or higher	<p>Note This feature must be installed on your computer before you install PowerBuilder.</p> <p>For how to configure IIS, see <i>Deploying Applications and Components to .NET</i>.</p>
.NET Web Forms runtime	IE Web Controls	Web Forms use these controls to display correctly and to provide functionality for the Tab, TreeView, and Toolbar controls. If you choose to install the .NET Web Forms feature, this software is installed automatically.
PowerBuilder and InfoMaker tutorials and demo databases Sample applications JSP target development	SQL Anywhere 10.0 or later	<p>Note This product must be installed on your computer before you install PowerBuilder.</p> <p>SQL Anywhere 10.0 is available on the DVD.</p> <p>If the PowerBuilder setup program cannot detect SQL Anywhere 10.0 or later on your computer, you receive a warning if you select PowerBuilder and/or InfoMaker.</p> <p>If you choose to continue, the setup program does not install the tutorials or create registry entries for the demo databases. If you want to use these features later, you must reinstall PowerBuilder and/or InfoMaker after installing SQL Anywhere.</p>

Feature	Required software	Notes
MobiLink synchronization	Adaptive Server® Anywhere 9.0.2 or SQL Anywhere 10.0 or later	MobiLink is a component of Adaptive Server Anywhere 9.0.2 and SQL Anywhere 10.0. In the SQL Anywhere 10.0 setup program, select Synchronization and Messaging and then MobiLink.
EAServer component and Web DataWindow development and deployment	EAServer 5.5 with EBF 13993, EAServer 6.0.1 with EBF 14587, or later	Run the setup program in the <i>PBVM</i> directory on the PowerBuilder DVD to install PowerBuilder 11.0 runtime files and the Web DataWindow server component in EAServer. For more information, see “Installing the PBVM in EAServer” on page 22.
EJB client development	EAServer 5.5 with EBF 13993, EAServer 6.0.1 with EBF 14587, or another J2EE-compliant application server such as WebLogic 8.1, Oracle 9i AS, Oracle Application Server 10g, or WebSphere 5.0 Sun JDK 1.5 or IBM JDK 1.4 or later	The Sun JDK 1.5 is installed in the <i>Sybase\Shared\PowerBuilder\jdk1.5.0_06</i> directory when you install PowerBuilder.
Web service clients	Microsoft .NET Framework Version 2.0 Redistributable Package Microsoft .NET Software Development Toolkit 2.0	See “.NET target development and deployment” and “.NET Windows Forms smart client deployment and update and support for OLE controls in Windows Forms” above.
JSP target deployment	Access to a server running EAServer 6.0 or later or Apache Tomcat 4.0 or later Sun JDK 1.3 or later	Apache Tomcat can be downloaded from the Apache Jakarta Project Web site at http://jakarta.apache.org/tomcat/index.html . No Tomcat files are required on the development computer. There are special setup requirements for using JSP targets with Tomcat. See “Configuring Tomcat for use with JSP targets” on page 24. Sun JDK 1.5 is installed in the <i>Sybase\Shared\PowerBuilder\jdk1.5.0_06</i> directory when you install PowerBuilder.

Feature	Required software	Notes
JSP target development	Microsoft Internet Explorer (IE) 6 or later	<p>Note This software must be installed on your computer before you install PowerBuilder.</p> <p>You can download Microsoft Internet Explorer from the Microsoft Downloads page at http://www.microsoft.com/downloads/</p> <p>If the setup program cannot detect Internet Explorer 6 or later on your system, you will receive a warning. If you choose to continue, the setup program disables JSP targets functionality. If you want to use JSP targets at a later date, you must reinstall PowerBuilder 11.0.</p> <p>You do <i>not</i> need to install the Microsoft VM. JSP targets in PowerBuilder 11.0 use the Sun Java VM.</p>
JSP deployment to Enterprise Portal	Enterprise Portal 6.0 with EAServer 5.3	
Saving DataWindows as PDF using the Ghostscript distiller and PostScript printing	Ghostscript <i>and</i> PostScript printer driver	<p>See “Installing Ghostscript” on page 22 for information about obtaining and installing Ghostscript files.</p> <p>See “Installing PostScript drivers” on page 23 for information about installing PostScript drivers.</p>
Saving DataWindows as PDF using XSL Formatting Objects (FO) and Java printing	Sun JDK 1.3 or later <i>and</i> Apache FO processor	<p>The Sun JDK 1.5 is installed in the <i>Sybase\Shared\PowerBuilder\jdk1.5.0_06</i> directory when you install PowerBuilder.</p> <p>The Apache FO processor is installed in the <i>Sybase\Shared\PowerBuilder\fop-0.20.4</i> directory when you install PowerBuilder.</p>
PowerDesigner plug-in	PowerDesigner 12.1	An evaluation version of PowerDesigner is available on the PowerDesigner page of the Sybase Web site.
Data access using the PowerBuilder ADO.NET interface	Microsoft .NET Framework Version 2.0 Redistributable Package	See “.NET target development and deployment” above.
JDBC connectivity	Sun JDK 1.3 or later	Sun JDK 1.5 is installed in the <i>Sybase\Shared\PowerBuilder\jdk1.5.0_06</i> directory when you install PowerBuilder.
PowerBuilder Runtime Packager	Microsoft Windows Installer	Microsoft Windows Installer is installed on all Windows XP and Windows 2003 systems.

Updating PowerBuilder Enterprise products

If you are updating from a previous version of PowerBuilder Enterprise, you must have PowerBuilder Enterprise 10.0.x, 10.2.x, or 10.5.x installed on your computer if you have purchased the standard PowerBuilder Enterprise Update license, or PowerBuilder 6.5, 7.0.x, 8.0.x, or 9.0.x if you have purchased the PowerBuilder Enterprise Update from Older Versions license.

If none of these products is installed on your computer, the setup program prompts you to insert the CD for one of the older versions for which your update is licensed into your DVD-ROM drive for validation before proceeding with the installation.

After validating the CD, the setup program prompts you to reinsert the PowerBuilder 11.0 DVD into your DVD-ROM drive.

In general, you can run the setup program to install the products in this set over existing versions of those products, or you can make disk space available by uninstalling older versions before running the setup program.

Starting the PowerBuilder 11.0 setup program

To install PowerBuilder Enterprise, insert the PowerBuilder DVD into your DVD drive. The setup program starts automatically.

Installing from a downloaded image

If you have downloaded an installable image from the Sybase Web site, run the *autorun.exe* file. If you run *setup.exe*, the procedure described in “Providing basic information” on page 12 starts and you will not be able to install SQL Anywhere.

❖ To start the setup program:

- 1 Exit any programs that are running.
- 2 Insert the PowerBuilder 11.0 DVD into your DVD-ROM drive.

On the start page of the setup wizard, you can choose to install PowerBuilder 11.0 and SQL Anywhere 10.0.
- 3 Select SQL Anywhere 10.0 first if it is not already installed.

For how to install SQL Anywhere, see “Installing SQL Anywhere” on page 10.

SQL Anywhere required

If you select PowerBuilder and the setup program detects that SQL Anywhere is not installed on your system, it displays a warning message that allows you to exit the PowerBuilder setup program and return to the start page and select SQL Anywhere. If you choose not to install SQL Anywhere, the features that depend on it, listed in Table 1-3 on page 6, are not installed.

4 Select PowerBuilder 11.0.

Selecting PowerBuilder 11.0 starts a common setup program that collects basic information before launching the individual setup programs for PowerBuilder and InfoMaker. You will need to provide license information. For how to proceed, see “Providing basic information” on page 12.

Installing SQL Anywhere

Sybase SQL Anywhere is a fully-featured relational database and data management tool. The SQL Anywhere installation is restricted to development use only. Deployed systems require a separate SQL Anywhere license or the SQL Anywhere Runtime Edition (see “SQL Anywhere Runtime Edition” next).

The SQL Anywhere installation includes MobiLink, a session-based synchronization system that allows two-way synchronization between a main database and many remote databases, and the Sybase Central database management tool.

SQL Anywhere Runtime Edition

PowerBuilder also includes the SQL Anywhere for Windows royalty-free runtime edition (the “SQL Anywhere Runtime Edition”). The SQL Anywhere Runtime Edition is a restricted-functionality version of the standalone version of SQL Anywhere. For example, the SQL Anywhere Runtime Edition does not support stored procedures and triggers, transaction logs, and synchronization.

The SQL Anywhere Runtime Edition is available in the *Support\SA100runtime* directory on the DVD. For more information, including the list of Redistributable Components of the SQL Anywhere Runtime Edition, see the *Read Me First* document in that directory.

The SQL Anywhere setup program installs the SQL Anywhere developer edition in default drives and directories unless you specify otherwise. If a directory you specify does not exist, setup creates it.

❖ **To install SQL Anywhere:**

- 1 On the Welcome page, click Next.
- 2 On the Choose Location page, click Next to accept the destination folder path shown, or click Browse and select a different path for all the modules, click OK, and click Next.
- 3 On the Choose Samples Location page, click Next to accept the destination folder path shown, or click Browse and select a different path for samples, click OK, and click Next.
- 4 On the Select Components page, select the components you want to install, and click Next.
- 5 On the Select Program Folder page, select the program folder to which program icons will be added or specify a new one, and click Next.
- 6 On the Start Copying Files page, review your settings, then click Next to begin installing files or Back to change your selections.

If you selected Documentation in step 3, the SQL Anywhere 10 Documentation Setup Select Components page displays.

- 7 Select Next to install the documentation or Cancel to continue without installing it. If you select Next, select Next again on the Start Copying Files page.
- 8 On the Setup Complete page, select the check box if you want to view iAnywhere Online Resources, and click Finish to return to the start page of the PowerBuilder 11.0 setup program.

Providing basic information

When you select PowerBuilder 11.0 on the start page in the setup program, it launches a wizard that collects basic information before starting the individual PowerBuilder and InfoMaker setup programs.

❖ **To provide basic information before installing PowerBuilder and InfoMaker:**

- 1 On the start page of the PowerBuilder 11.0 setup program, select PowerBuilder 11.0.
- 2 On the Welcome page, click Next.

If you have not installed prerequisites for any feature, the next page in the wizard informs you what needs to be installed. You can click Cancel to exit the wizard or Next to continue without installing the prerequisites. For information about prerequisites, see Table 1-3 on page 6.

Back and Next

Use the Back and Next buttons to step backward and forward through the wizard to modify specifications as necessary.

- 3 On the License Type page, select the type of license you want to use.

If you select Standalone Seat - Local License and click Next, the License Key page displays. Click the Load button, navigate to the location of your license file, select it and click Open, then click Next. Wait for a few seconds while the setup program validates the license.

If you select Standalone Seat - Served and click Next, the Server Information page displays. Enter the name of the license server provided by your system administrator. You may also need the TCP port number if the administrator who installed the license server defined a non-default TCP port number. Click Next and wait for a few seconds while the setup program validates the license.

For more information, see “Product licensing with SySAM 2.0” on page 3.

- 4 If the Select Edition page displays, select Enterprise and click Next.
- 5 On the License Agreement page, select your location from the drop-down list, read the license agreement, select the I AGREE radio button, and click Next to continue.
- 6 On the Customer Information page, enter your name and your company’s name.

- 7 On the Choose Destination Location page, click Next to accept the destination path shown, or click Browse and select a different path, click OK, and click Next.
- 8 On the Choose Destination Location For Shared Files page, click Next to accept the destination path shown, or click Browse and select a different path, click OK, and click Next. You must use the same folder for shared files for all products in this set.
- 9 On the Select Components page, select the products you want to install and click Next to continue.
- 10 Complete the setup program for each product you selected.

See “Installing InfoMaker” next and “Installing PowerBuilder” on page 16.

Cancel

To interrupt the installation process, use the Cancel button in the wizard. When you click Cancel, you can choose to exit or resume the installation. If you choose to exit, you can exit the current setup program and continue with your other selections, or exit setup completely.

Installing InfoMaker

When you install InfoMaker, you can install only what you need to query a database and create reports in the database, or you can install optional painters that enable you to work more fully with data.

What to install

The InfoMaker setup program lets you choose which components to install. You must install the base components. Table 1-4 lists all the components.

Table 1-4: InfoMaker components

Component	Description
InfoMaker Base Components	Installs InfoMaker as a reporting and query tool only. No optional painters are installed. You cannot open forms in the InfoMaker tutorial library; those forms require use of the optional painters that are installed with the database write option. This option installs the ODBC driver.
InfoMaker Database Write Option	<p>Adds three additional painters so that you can work with data more fully:</p> <ul style="list-style-type: none"> • <i>Database painter</i> for creating and modifying tables • <i>Form painter</i> for creating and modifying data in a database • <i>Data Pipeline painter</i> for copying data from one database to another
Native Database Interfaces	Interfaces that enable you to interact with server databases natively. Expand the tree view to select which interfaces to install.
OLE DB Driver	Interface to connect to databases using an OLE DB data provider.
JDBC Driver	Interface to connect to databases using JDBC.
Internet Tools	The DataWindow Plug-in and the DataWindow Web Control for ActiveX, tools that let you display a PSR file in a Web browser.
InfoMaker Tutorial	Source files for the tutorial in the Getting Started book. If you want to do the InfoMaker tutorial or use the sample library, you must install SQL Anywhere 10.0 or later if it is not already installed on your computer. When you install InfoMaker, the setup program creates an ODBC data source for the demo database. If SQL Anywhere is not installed on your system when you install InfoMaker, setup does not install the demo database, sample library, or tutorial files.
Demo Database	A SQL Anywhere database used in the tutorial, the sample library, and examples in the documentation.
Online Help Files	The <i>imhlp110.hlp</i> file, the Getting Started book in PDF format, and the <i>imman.110.chm</i> compiled HTML Help file.

Installation procedure

The InfoMaker setup program installs InfoMaker in default drives and directories unless you specify otherwise. If a directory you specify does not exist, setup creates it.

❖ **To install InfoMaker:**

- 1 On the Choose Destination Location page, click Next to accept the destination folder path shown, or click Browse and select a different path, click OK, then click Next.
- 2 On the Choose Destination Location For Shared Files page, click Next to accept the destination folder path shown, or browse to select the *Sybase\Shared* directory.
- 3 On the Select Components page, clear the check box next to any components you do not want to install, and click Next.

You can expand the tree view to select or clear subcomponents of top-level components, and click Select All or Unselect All to select or clear all the check boxes.

You must select the InfoMaker Base Components option. To install optional painters, select the Database Write option. For information on what to select, see “What to install” on page 13.

Demo Database

The Demo Database is selected by default if you select the Tutorial component.

- 4 On the Select Program Folder page, select the program folder to which program icons will be added or specify a new one, and click Next.
- 5 On the Start Copying Files page, review your settings, then click Next to begin installing files or Back to change your selections.
- 6 On the InstallShield Wizard Complete page, select the check box if you want to read the Readme file, and click Finish to return to the common setup program.

You must close the Readme file to continue.

Installing PowerBuilder

What to install

The PowerBuilder setup program lets you choose which components to install. You must install the base components. Table 1-5 lists all the components.

Table 1-5: PowerBuilder components

Component	Description
PowerBuilder Base Components	Includes the PowerBuilder ODBC driver, Orca Software Development Kit (SDK), the PowerBuilder Document Object Model extension, the ability to save DataWindow objects as PDF using the distill or XSL-FO methods, support for rich text, support for EAServer and COM/COM+, and JDK 1.5.
.NET Targets	Deploying Windows Forms, smart client, and Web Forms applications to .NET and deploying NVOs as .NET assemblies and Web services.
JSP targets	The ability to create JavaServer Pages Web sites.
Native Database Interfaces	Interfaces that enable you to interact with server databases natively. Expand the tree view to select which interfaces to install.
ADO.NET Driver	Interface to connect to databases using an ADO.NET data provider.
OLE DB Driver	Interface to connect to databases using an OLE DB data provider.
JDBC Driver	Interface to connect to databases using JDBC.
SCC Interface	Interface for connecting to any source code control system that supports the Microsoft SCC interface.
Web Plug-ins	Tools that enable you to display PowerBuilder windows or DataWindows in a Web browser. The plug-ins require a browser that supports Netscape plug-ins and the ActiveX controls require a browser that supports ActiveX. The DataWindow Plug-in displays a PSR file. The DataWindow Web Control for ActiveX is a fully interactive DataWindow control.
PowerBuilder Native Interface	An SDK for developing extensions to PowerBuilder in C++. Optional wizards are installed in Visual Studio 2005 and Visual Studio .NET 2002 and 2003 if they are available on your system.
EJB Client	The EJB Client PBNI extension, which enables you to develop clients for EJBs running on J2EE-compliant servers.

Component	Description
Web Services	The PowerBuilder extensions and other files that enable you to create clients for Web services using the .NET or EasySoap Web service engines.
PowerDesigner Plug-in	A plug-in that provides the class diagram functionality of the PowerDesigner OOM inside the PowerBuilder development environment.
PowerBuilder Tutorial	Source files for the tutorial in the Getting Started book. If you want to do the PowerBuilder tutorial or use the code examples, you must install SQL Anywhere 10.0 or later if it is not already installed on your computer. When you install PowerBuilder, the setup program creates an ODBC data source for the demo database. If SQL Anywhere is not installed on your system when you install PowerBuilder, setup does not install the demo database, code examples, or tutorial files.
Demo Database	A SQL Anywhere database used in the tutorial, the Code Examples sample application, and examples in the documentation.
Code Examples	The Code Examples application, which demonstrates coding techniques, the Web DataWindow PBL, which can be used as a model for a custom Web DataWindow server component, and other examples.
Translation Toolkit	Tools to help you translate PowerBuilder applications into other languages.
PowerBuilder Resource Manager	A utility to help PowerBuilder determine whether there are sufficient USER/GDI resources available in the operating system to open a painter.
PowerBuilder Runtime Packager	A tool that packages files required for deployment into an MSI file.
Online Help Files	The <i>pbhlp110.hlp</i> file, the Getting Started book in PDF format, and the <i>pbman110.chm</i> compiled HTML Help file.

Installation procedure

You must have Administrator privileges to fully install this product. After installing, make sure users have write permission for the PowerBuilder 11.0 directory and the Windows registry.

The PowerBuilder setup program installs PowerBuilder in default drives and directories unless you specify otherwise. If a directory you specify does not exist, setup creates it.

❖ **To install PowerBuilder:**

- 1 On the Choose Destination Location page, click Next to accept the destination folder path shown, or click Browse and select a different path, click OK, then click Next.
- 2 On the Choose Destination Location For Shared Files page, click Next to accept the destination folder path shown, or browse to select the *Sybase\Shared* directory.
- 3 On the Select Components page, clear the check box next to any components you do not want to install, and click Next.

You can expand the tree view to select or clear subcomponents of top-level components, and click Select All or Unselect All to select or clear all the check boxes.

You must select the PowerBuilder Base Components option. For information on what to select, see “What to install” on page 16.

Demo Database

The Demo Database is selected by default if you select the Tutorial component.

- 4 On the Select Program Folder page, select the program folder to which program icons will be added or specify a new one, and click Next.
- 5 On the Start Copying Files page, review your settings, then click Next to begin installing files or Back to change your selections.
- 6 On the InstallShield Wizard Complete page, select the check box if you want to read the Readme file, and click Finish to return to the common setup program.

You must close the Readme file to continue.

Completing the setup program

After all the products you selected have been installed, you return to the common setup program.

❖ **To complete the common setup program:**

- 1 On the InstallShield Wizard Complete page, click Finish to complete the installation.

If you do not clear the check boxes on this page, setup displays the readme file and launches a browser so that you can complete online registration.
- 2 On the System Reboot Required page, click Finish to reboot your computer, or choose to reboot your computer later.

You should always shut down and restart your computer before using any of the PowerBuilder Enterprise products.
- 3 On the setup program's start page, choose to view the readme, Product Manuals Web site, or Sybase Web site, then click Exit to close the setup program.

Network install

The installation procedure presented above assumes you are installing from the PowerBuilder 11.0 DVD. If you are a system administrator, you might want to allow users to install PowerBuilder Enterprise from a network drive rather than from a DVD. To do this, copy the files from the DVD into a directory on a network drive. Users can then install PowerBuilder Enterprise by running the setup program from the network.

What the setup program does

The setup program does the following:

- Installs Sybase files in a *Sybase* directory
- Installs system files in the Windows operating system path
- Creates a program group and icons for each product installed
- Creates uninstall files to identify what needs to be removed if you uninstall a product
- Makes changes to the Windows registry
- Creates or updates INI files including *PB.INI* (for PowerBuilder) and *IM.INI* (for InfoMaker)

Directory names The default installation places all Sybase tools in a directory called *Sybase*. All files shared by more than one Sybase tool are placed in a common subdirectory called *Shared*:

File type	Directory names
Sybase tools	<i>\install_dir\Sybase</i>
Files associated with each tool	<i>\install_dir\Sybase\tool-name</i>
Shared files	<i>\install_dir\Sybase\Shared\tool-name</i>

Registry changes The setup program makes the following changes to the Windows registry:

- Creates or updates registry subkeys, including *ODBC.INI* and *ODBCINST.INI*
- Creates or updates the Sybase key in *HKEY_CURRENT_USER\Software* and *HKEY_LOCAL_MACHINE\Software*
- Updates system and user paths in *HKEY_CURRENT_USER\Environment*
- Adds the appropriate paths to the registry path *HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\App Paths*
- Adds the paths to compiled HTMLHelp files to the registry path *HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\HTMLHelp*

Before using PowerBuilder Enterprise

Before you use PowerBuilder Enterprise, you might need to perform some additional migration or configuration tasks:

- Migrating applications to PowerBuilder or InfoMaker 11.0
- Setting up your DBMS
- Upgrading databases for jConnect for JDBC
- Installing the PBVM in EAServer
- Installing Ghostscript
- Installing PostScript drivers
- Configuring Tomcat for use with JSP targets

Migrating applications to PowerBuilder or InfoMaker 11.0

If you have applications and PBLs that you created in an earlier version of PowerBuilder or InfoMaker, you can migrate them to version 11.0. Before you do, make sure your PBLs can be successfully regenerated under the earlier version, and make backup copies.

PowerBuilder and InfoMaker 11.0 are Unicode enabled and some changes are made to your code when you migrate an application from PowerBuilder 9.x or earlier. For details, see the section on migrating targets in the PowerBuilder *User's Guide*.

You should also read the migration issues section in the PowerBuilder release bulletin.

Setting up your DBMS

Your DBMS might require additional setup procedures for use with PowerBuilder or InfoMaker. For details, see *Connecting to Your Database*.

Upgrading databases for jConnect for JDBC

If you plan to use any of the products in PowerBuilder Enterprise with SQL Anywhere or Adaptive Server® Enterprise databases, including databases that were previously prepared for jConnect™ for JDBC™ 4.x, you need to prepare the databases for jConnect 5.5 by installing additional tables and stored procedures. You must repeat the following steps for every SQL Anywhere or Adaptive Server Enterprise database that you want to prepare for jConnect.

❖ To prepare a SQL Anywhere or Adaptive Server database for jConnect 5.5:

- 1 Start Interactive SQL and connect to your database.
- 2 Select File>Open and locate the appropriate SQL file stored in the *jConnect-5_5\sp* folder.

jConnect is installed in the *Sybase\Shared* folder. Use *sql_SA.sql* for SQL Anywhere, *sql_server12.5.sql* for Adaptive Server version 12.5 or later, *sql_server12.sql* for Adaptive Server version 12, or *sql_server.sql* for earlier versions of Adaptive Server.
- 3 Click the Execute button.

Installing the PBVM in EAServer

If you plan to deploy PowerBuilder 11.0 components to EAServer, a set of PowerBuilder 11.0 runtime files called the PowerBuilder virtual machine (PBVM) must be installed on the same computer as EAServer.

The PBVM setup program, available in the PBVM directory on the DVD, installs the required files. It also installs the PowerBuilder 11.0 version of the Web DataWindow server component (HTMLGenerator110) and the PBDebugBroker11 component required for remote debugging.

❖ To install the PBVM on EAServer or the server plug-in:

- 1 Run the *setup.exe* program in the PBVM directory on the PowerBuilder 11.0 DVD.
- 2 On the Choose Destination Location page, click Next if the default destination location is correct, or click Browse to navigate to the directory where EAServer is installed and click Next.
- 3 On the Choose Destination Location for Shared Files page, click Next if the default destination location is correct, or click Browse to navigate to the directory you specified in step 2 or to the *Sybase\Shared* directory and click Next.

The setup program installs the PBVM in a *PowerBuilder* subdirectory of the directory you selected, installs the Web DataWindow and debugger components in the *Repository* directory, and exits.

Installing Ghostscript

If you want to use the distill method for saving DataWindows as PDF, you must install Ghostscript.

❖ To install Ghostscript:

- 1 Into a temporary directory on your computer, download the self-extracting executable file for the version of Ghostscript you want from one of the sites listed on the Ghostscript Web site at <http://www.ghostscript.com/awki>.

See the PowerBuilder release bulletin for the version of Ghostscript that was used for testing.

- 2 Run the executable file to install Ghostscript on your system.

The default installation directory is *C:\Program Files\gs*.

After installing Ghostscript, you should read the *readme.htm* file in the *doc* subdirectory in the Ghostscript installation directory to find out more about using Ghostscript and distributing it with your application.

Installing PostScript drivers

If you want to use the distill method for saving DataWindows as PDF, you must have a PostScript printer or printer driver installed on your system. If you do not, use the Windows Add Printer wizard to add a PostScript printer. If you have never installed a PostScript printer, the Microsoft *pscript5.dll* file, which is required to add a PostScript printer, may not be available on your computer. You may be prompted to insert a Windows operating system installation CD.

❖ **To add a PostScript printer to your printer settings:**

- 1 Select Settings>Printers from the Windows Start menu.
- 2 Double-click Add Printer.
- 3 Specify a local printer.
- 4 Specify FILE: as the port.
- 5 Select a manufacturer (such as HP) and a printer with the designation PS (such as HP Color LaserJet PS or HP LaserJet 4/4M Plus PS 600).
- 6 Accept the default name or enter a shorter name for the printer.
- 7 Complete the wizard.

❖ **To use the print driver in the DataWindow painter:**

- 1 Select the Distill Custom PostScript check box on the Data Export property page for PDF export.
- 2 Specify the printer name (from step 6 in the previous procedure) as the Printer Name on the Print Specifications page.

❖ **To use the print driver in a script:**

- Set the Distill.CustomPostScript and Printer properties.

For example:

```
dw_1.Object.DataWindow.Export.PDF.Distill.CustomPostScript=1  
dw_1.Object.DataWindow.Printer="HP LaserJet 4/4M Plus PS 600"
```

Configuring Tomcat for use with JSP targets

To use Web DataWindows and access EAServer components in JSP pages that you will deploy to a Tomcat server, you must copy the following JAR file from the *Sybase\Shared\PowerBuilder* directory to the *%Tomcat%\shared\lib* directory:

pbjdbc12110.jar

If you are accessing the Web DataWindow component from EAServer 5.x, copy the following files from the EAServer *java\lib* directory to the *%Tomcat%\shared\lib* directory:

easclient.jar

easj2ee.jar

If you are accessing the Web DataWindow component from EAServer 6.x, copy the following files from the *EAServer6\lib* directory to the *%Tomcat%\shared\lib* directory:

For JDK 1.4: *eas-client-14.jar* and *eas-server-14.jar*, or

For JDK 1.5: *eas-client-15.jar* and *eas-server-15.jar*

You should also add the JAR files required by your DBMS, such as *jconn2.jar* for jConnect.

Adding tools and components later

You can install additional tools and components by running the setup program again.

❖ **To add one or more components or tools to your installation:**

- 1 Repeat the installation procedure that begins in “Starting the PowerBuilder 11.0 setup program” on page 9.
- 2 Select SQL Anywhere or PowerBuilder from the start page and select the additional features you require in the individual setup programs.
- 3 Complete the main setup program.

Troubleshooting SySAM issues

If you experience issues with your SySAM license, read this section to find information that might help you troubleshoot licensing issues, or help you collect information that Technical Support can use to diagnose licensing issues. You can find more information about SySAM licensing on the SySAM Web site at <http://www.sybase.com/sysam> and in the SySAM Documentation at <http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.help.sysam/title.htm>.

Logging SySAM information

You can enable logging by adding an entry to the *PB.INI* file with the following format, where N is 0, 1, or 2:

```
[pb]
LogSySAM = N
```

The default value for LogSySAM is 0, which means no logging. Set the value to 1 for basic logging information, or 2 for full information. The log file is saved in the same directory as *PB.INI* and is named *PB110_sysam.log*. The file contains status information from the development environment, the details of the current license, and, if you set the SySAMTrace value in *PB.INI*, information from the SySAM API. Technical Support might ask you to set these values if you experience license problems.

Additional SySAM files

The *pb110_sysam.properties* and *PB110.lic* files are installed in the same directory as *PB.INI*. These files contain information that might be useful to Technical Support. Do not edit these files unless directed to do so by Technical Support.

Served license issue

If you enter an unqualified server name, such as “myserver” as the license server name, it might not be found. Try a fully-resolved name, such as “myserver.mydomain.com.”

Removing a product

If you want to remove products from your computer, you should use the Windows control panel’s Add or Remove Programs dialog box for each product you want to remove. This uses the PowerBuilder setup maintenance program to remove:

- Shared and standard program files
- Folder items

- Program folders
- Program directories
- Program registry entries

The setup maintenance program removes file and icon groups, as well as system and user path settings in the registry and INI files. These changes are not made if you simply delete directories.

Removing shared DLLs

The setup program increments the usage count in the registry for each shared Sybase DLL and each shared system DLL. The setup maintenance program decrements that count. The setup maintenance program does not try to delete a shared DLL until the usage count reaches zero.

Stopping the setup maintenance program

Unlike the setup program, the setup maintenance program has no Back or Cancel button. Once you click Yes in the procedure below, the program cannot be stopped.

❖ To use the setup maintenance program to remove a product:

- 1 Make a backup copy of any files you might want to reuse (such as DB, INI, and PBL files) if you plan to reinstall.
- 2 Open the Control Panel from the Start menu and double-click the Add/Remove Programs icon.
- 3 On the Install/Uninstall tab page, select the product to remove, click Add/Remove, and click Yes when prompted to confirm that you want to remove the tool.
- 4 If you are prompted to remove a shared file, click the appropriate response.

If the usage count for a system file in the registry indicates that the file is no longer being used, the setup maintenance program asks if you want to delete the file. Some applications do not increment the usage count; therefore, *do not delete a file unless you are sure it is not being used by another application.*

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