

Release Bulletin PowerBuilder® Enterprise 11.5

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1. Accessing current release bulletin information

A more recent version of this release bulletin may be available on the Web. To check for critical product or document information added after the product release, use the Sybase® Product Manuals Web site.

- ❖ **Accessing release bulletins at the Sybase Product Manuals Web site**
 - 1 Go to Product Manuals at <http://www.sybase.com/support/manuals/>.
 - 2 Select a product and language and click Go.
 - 3 Select a product version from the Document Set list.
 - 4 Select the Release Bulletins link.
 - 5 From the list of individual documents, select the link to the release bulletin for your PowerBuilder® edition. You can either download the PDF version or browse the document online.

2. Product summary

Enclosed is Sybase PowerBuilder Enterprise version 11.5, which is compatible with the following platform and operating system configurations:

- Microsoft Windows XP with Service Pack 3
- Microsoft Windows XP Tablet PC Edition with Service Pack 3
- Microsoft Windows Server 2003 with Service Pack 2
- Microsoft Windows Vista Business Edition with Service Pack 1
- Microsoft Windows Server 2008 (support for deployment)

PowerBuilder 11.5 builds 32-bit applications, but supports deployed applications in both 32-bit and 64-bit environments on the Vista operating system. For information about using PowerBuilder Help on the Vista operating system, see “Using Windows Help files on Vista” in the first chapter of the *Users Guide* in the HTML Help.

2.1 Deprecated features

PowerBuilder 11.5 includes the COM and COM+ component creation wizards, but these use deprecated technologies and will be removed from future releases.

2.2 DataDirect database drivers

Beginning with the PowerBuilder 11.0 release, PB DataDirect ODBC drivers and OLE DB data providers from DataDirect Technologies were removed from the PowerBuilder setup program. If you want to use these drivers and data providers, you must obtain them from DataDirect Technologies.

2.3 PBCrypto proxy library

Beginning with the PowerBuilder 11.0 release, the PBCrypto proxy library was removed from the PowerBuilder setup program. It remains available on the Sybase CodeXchange Web site at <https://powerbuilder.codexchange.sybase.com/>.

3. Special installation instructions

The *Installation Guide* on the Getting Started CD and the Sybase Product Manuals Web site at <http://www.sybase.com/support/manuals/> describes how to install the software.

If you installed a beta release of PowerBuilder 11.5, use the Windows control panel's Add or Remove Programs dialog box to remove it and ensure that all beta versions of PowerBuilder 11.5 DLLs and .NET assemblies are removed from your system before you install PowerBuilder 11.5 GA.

4. Changed functionality in this version

New Features PowerBuilder 11.5 describes features added in this version. You can view this book on the Sybase Product Manuals Web site at <http://www.sybase.com/support/manuals/>. Select PowerBuilder from the list of products and click Go, then select PowerBuilder 11.5 and select this title.

The New Features section of the PowerBuilder Help file also describes features added in this release. To view this Help, from the PowerBuilder menu, select Help>Welcome to PowerBuilder 11.5.

5. Known problems

5.1 .NET project issues

5.1.1 Web Forms projects with .NET Framework 3.5 still require AJAX 1.0

The setup programs for .NET Framework 3.5 and SDK 3.5 do not include the AJAX 1.0 extensions. You must download the AJAX 1.0.61025.0 extensions separately or Web Forms projects cannot be deployed. [CR 497981]

5.1.2 Set focus to a row before deleting it in a Web Forms application

If you attempt to delete a row when no row has focus, the Web Forms application terminates with a null object error. Therefore, you must explicitly set the focus to an appended row before attempting to delete it, because appending a row causes focus to be lost. [CR 534697]

5.1.3 CAS PrintingPermission level does not affect DataWindow print button

If you place the Print (15) Action button on a DataWindow® object in a Web Forms or Windows Forms application, the printing action is not restricted even though you remove the PrintingPermission setting or set it to NoPrinting or SafePrinting. [CR 534278]

5.1.4 Moving focus from an EditMask style column in Web Forms applications

When a DataWindow column with the EditMask edit style loses focus in a Web Forms application, the ItemChanged event is triggered. [CR 538461]

5.1.5 Moving focus from TreeView DataWindow item in Web Forms applications

When you select an item on a page of a TreeView DataWindow in a Web Forms application, and then change the focus, the application terminates if the page containing the item you initially selected is not the first page of the DataWindow. [CR 541007]

5.1.6 DropDownListBox persists after switching tabs in Web Forms applications

If you place a DropDownListBox control on a tab page in a Web Forms application, and you display the items in the control just before you switch to a different tab page, the control continues to display on the new tab page. If an application user then clicks on the image of this control in the new tab page, the application is terminated with a null object error. [CR 541357]

5.1.7 Duplicate toolbars in Windows Forms MDI applications

In standard PowerBuilder applications, you can prevent duplicate toolbars from displaying in MDI applications by setting the Application object's ToolbarFrameTitle property to its ToolbarSheetTitle property. However, if you deploy the same applications in .NET Windows Forms projects, the duplicate toolbars still display when you open a response window or a sheet window from a frame window menu.

Also, if you open multiple sheets in these Windows Forms applications, it is possible that duplicated toolbars will display. [CR 538382, 535917]

5.1.8 Animation times settings for windows in Windows Forms applications

If you set the AnimationTime property on a window to a large value (for example 5000), there can be a delay when you open the window in the deployed application. This problem has been observed only on computers with Windows Server 2008. [CR 534455]

5.1.9 Slow performance while debugging .NET applications

To maximize performance for the incremental build feature, PowerBuilder creates .NET modules for each PowerBuilder class. A side effect of this enhancement is that it also affects debugger performance. For example, when you debug a Windows Forms or Web Forms application, the All Variables view is slow to open and display the application variables. Other debugging operations can also be slowed, depending on the number of modules and global variables in the application being debugged. [CR 451470]

5.1.10 Publishing a smart client application fails on FIPS compliant system

The Microsoft .NET ClickOnce technology used by smart client applications implements a hashing algorithm that is not compliant with the Federal Information Processing Standard (FIPS). When FIPS is enabled, as it is on FDCC-configured desktops, and you attempt to publish a smart client application, the following error is returned: "Exception reading manifest from file *manifestFileName.exe.iu.manifest*: the manifest may not be valid or the file could not be opened."

For more information about this issue, see the Microsoft Web site at <http://support.microsoft.com/kb/811833>. [CR 533371]

5.1.11 Calling Web service from .NET applications does not work with partial trust

You must currently use "Unrestricted=true" for the WebPermission setting in a Web Forms or Windows Forms project that calls a Web service or uses a Web Service DataWindow. Otherwise, even if you add the Web Service URI to the WebPermission Web site list, a security exception is thrown. [CR 499840]

5.1.12 ADO.NET database connection fails at partial trust level

When you deploy a Windows Forms or Web Forms application that uses ADO.NET for a database connection and set a partial CAS trust level, the connection fails even though `SqlClientPermission` is selected on the Security tab of the application project. You must change the trust level to full trust for the ADO.NET connection to work successfully. [CR 541269]

5.1.13 Using the pipe character to test for matching text patterns

The pipe character (`|`) is a metacharacter in the .NET environment, but not a metacharacter in the standard PowerBuilder client-server environment. When you call the `Match` function in the .NET environment, it functions as an OR operator and tests whether the characters to its right or left match the string you are evaluating. However, if the pipe character is in the first or last position of the text pattern argument, one of the text patterns evaluates to *null* and PowerBuilder then evaluates the match to *true*, even though there is no match between the pattern you are testing and the string you are evaluating. This is in contrast to the behavior of the `Match` function in the standard client-server environment. [CR 536639]

5.1.14 Decimal conversions can exceed maximum value allowed by .NET

PowerScript and .NET do not allow the same range of values for decimal datatypes. The maximum value allowed in the .NET environment is 79228162514264337593543950335. The minimum value allowed is -18446744078004518913. Conversion to the decimal datatype fails if it exceeds these values in a .NET application or component. [CR 496381]

5.2 DataWindow gradient and transparency properties

5.2.1 SaveAs and Print methods do not work well with transparency settings

If you set the Transparency property for a DataWindow column, text, or GroupBox object, the text in the object appears blurry and displays in a bold font in the PDF file that you generate with a `SaveAs` call or in a copy of the DataWindow that you print with a print method call. [CR 528766]

5.2.2 Using solid brush mode with transparency slows PDF save process

If you use a solid color with a level of transparency other than zero on a DataWindow, DataWindow band, or control (Button, Column, Text, drawing object, and so on) and try to save to a PDF file, the save process takes considerably more time than when no transparency is used. [CR 538090]

5.2.3 Stray color line displays when using Repetition Count with gradients

This issue applies to static text and column objects. If you set the Brushmode to Horizontal, Vertical, Angle, or ScaleAngle, then set Repetition Mode to By Repetition Count and set the Repetition Count to greater than 1, a stray line displays on one of the object edges. [CR 529340]

5.2.4 Transparent color does not work correctly on remote desktop

If you run a PowerBuilder application on a remote computer using Remote Desktop Connection, the transparent color for pictures in a DataWindow object does not display correctly. When you develop a PowerBuilder application using Remote Desktop Connection, the same issue occurs at design time if you select the Make Color Transparent menu item. [CR 539530]

5.2.5 Transparent color and gradient settings in Summary bands

If you set the color for a Summary band to Transparent and use a gradient, the Summary band does not display the gradient properties, but remains transparent to the background color of the DataWindow object. This issue occurs in all DataWindow presentation styles and with all gradient brush modes. [CR 538201]

5.2.6 Transparent color setting for pictures ignored when saving rows to PDF

If you include PNG pictures in a DataWindow and save its rows to a PDF file, the transparent color setting for the picture controls is ignored in the saved file. For other types of pictures, such as BMPs, GIFs, or JPGs, the pictures are saved with their transparent color settings and display the same in the PDF as they do on screen. [CR 538248]

5.2.7 Setting text transparency in Crosstab DataWindow with a JPG image

If a Crosstab DataWindow contains a JPG image and a text object, setting the Text Transparency property for the text object on the Font tab of the DataWindow painter Properties view causes PowerBuilder to crash. However, if you set the Text Transparency on the same object at runtime using PowerScript code, the transparency setting works correctly. The crash at design time does not occur if the Crosstab DataWindow does not contain a picture control or if the picture controls it contains are not JPG images. [CR 540031]

5.2.8 Printing a DataWindow with gradient settings from Windows Vista

You cannot print a DataWindow with Angle, ScaledAngle and Radial gradient brush modes to a physical printer from a computer with the Vista operating system. This issue does not exist for print jobs that you send to a virtual printer, and it does not occur for computers using the XP operating system. [CR 541106]

5.3 DataWindow tooltip issues

5.3.1 InkPicture must be disabled for tooltip to appear

If you want to add a tooltip to an InkPicture in a DataWindow, the InkPicture must not be enabled. [CR 530824]

5.3.2 Tooltip colors cannot be customized on Windows Vista

On Windows Vista, you cannot change the color of the tooltip text or background unless you also change the display properties to use Classic themes. [CR 495074]

5.4 New 3D graph styles

5.4.1 New 3D graphs cannot be rendered on virtual platforms

VMWare virtual workstations do not fully support DirectX 3D graphics. If you try to use these graph styles on a virtual platform, PowerBuilder crashes. [CR 528885]

5.4.2 Older graphics adaptors do not display anti-aliased grid lines

In the new DirectX 3D graph styles, grid lines are designed to render with anti-aliasing. This is incompatible with older graphics adapters, so on these adapters the grid lines do not render with anti-aliasing. [CR 531837]

5.4.3 Visual anomalies in graphs with DirectX 3D rendering

Some graphics cards do not support multisampling with DirectX-enabled 3D graphs. Multisampling is used for anti-aliasing, making the edges of the 3D objects in your graphs appear less jagged. If a DirectX 3D graph does not display correctly on a runtime computer, you can turn off multisampling by creating a `PB_Graph_Multisampling` system environment variable and setting it to `FALSE`. If this does not work, you need to replace the graphics card to display DirectX 3D graphs correctly. [CR 530128]

5.4.4 Area3D DirectX graph with transparency settings displays irregular shadows

When you use an Area3D style graph with the DirectX 3D rendering and set the transparencies for a series or adjacent data points, shadows indicating the separation between data points might not display correctly. This could also give inaccurate impressions of the heights of certain data points. [CR 536659, CR 536661]

5.5 RichText edit style issues

5.5.1 New RichText edit styles are not saved in Database painter

If you right-click Edit Styles in the Extended Attributes view of the Database painter and select New from the pop-up menu, the Edit Style view displays. You can select RichText from the Style Type drop-down list, however, when you save the edit style, it changes back to the Edit edit style and you cannot change it back to RichText. You must use the DataWindow painter to add a RichText edit style. [CR 535473]

5.5.2 Setting AutoSizeHeight on RichText column can cause crash

At design time, if you select `AutoSizeHeight` for a DataWindow band and then select it for a RichText column, PowerBuilder might crash. This occurs when you only have .NET Framework 2.0 on your computer. If you install .NET Framework 3.5, the crash does not occur. [CR 542149]

5.5.3 RichTextCurrentStyleChanged event triggered incorrectly

The RichTextCurrentStyleChanged event is supposed to occur only when a column with the RichText edit style has focus and the selected text has mixed character styles, or when the character styles of the current text selection have changed. However, it sometimes occurs for selected text even when the characters in the text have the same character styles. [CR 539901]

5.5.4 N-Up DataWindow events with RichText column edit styles

The DoubleClicked and RightButtonDown events do not always pass the correct row of an N-Up DataWindow for which the event action occurs when the DataWindow includes columns with the RichText edit style. [CR 539544]

5.5.5 Clicking in a RichText column with PowerBuilder IDE is in background

If you click inside a RichText column in a runtime application while the PowerBuilder IDE is open in the background, the toolbar of the PowerBuilder IDE will flicker. This issue should not affect end users of PowerBuilder applications, since they typically would not also be running the PowerBuilder IDE. [CR 534874]

5.5.6 Toolbar displays only partially when the only editable columns have RichText edit styles

If you set the tab order to 0 for all columns except columns with RichText edit styles in a DataWindow, and select text in an editable RichText edit style column that is not in the first row, the rich text edit toolbar displays only partially, with part of the toolbar extending beyond the margins of the window or page containing the DataWindow. This does not occur if columns without the RichText edit style are editable. [CR 538833]

5.6 PNG support issues

5.6.1 Some PNG images cannot display in InkPicture controls

Alpha transparency and multilevel transparency PNG images do not display correctly in InkPicture controls and cause an exception to be raised. PNG images with color-type 2c (rgb color) or 6a (rgb color plus alpha channel), and PNG images with 16-bit bit depth having color-type 0, 2, 4, 6, fail to load in InkPicture controls, but these PNG image types do not cause an exception or error message to display. [CR 496187]

5.6.2 Large PNG images can cause flashing in Picture controls

PNG pictures paint slower than bitmaps and other picture types. Because of the way that PowerBuilder implements Picture controls, assigning large PNG images to these controls can cause the controls to flash when they are painted or repainted. The larger the picture, the more pronounced the flash. This painting issue does not affect Picture controls in .NET targets or other types of controls (such as the PictureButton control) in standard PowerBuilder targets. [CR 536633]

5.6.3 Exporting a DataWindow object containing PNG images to a PDF file

If you export a DataWindow object as a PDF file using the XSLFOP method, PNG images in the DataWindow are not saved in the generated PDF. You must use the Distill method to export the PNG images in a DataWindow object to a PDF file. [CR 537283]

5.7 License issues

5.7.1 Running PowerBuilder 11.2 and 11.5 using the same license server

If you install PowerBuilder 11.2 and 11.5 on the same computer and they use the same license server, you might encounter license issues if you try to run them simultaneously. If you start PowerBuilder 11.5 first, you might not be able to start PowerBuilder 11.2. If you start PowerBuilder 11.2 first, PowerBuilder 11.5 might start in grace mode and post a warning to indicate that you have 30 days to obtain a license. This issue is not reproducible on all license servers. [CR 542158]

5.7.2 Updating to a served license from a grace mode installation

In the PowerBuilder setup program, you can select the served license option without entering the license server name or port number. If you do this and continue with the installation, the setup program installs a grace period license allowing you to use PowerBuilder for 30 days before you update the license server information. However, in this case, using the Tools>Update License menu item to update to a valid server license might not work correctly unless you delete the *pb115.lic* grace period license from the local Sybase installation directories. Otherwise you must reinstall PowerBuilder, this time making sure to enter the valid license server information in the setup program. [CR 542171]

5.8 Other issues

5.8.1 Remote debugging on an FDCC-compliant computer

When you debug a PowerBuilder application or component running on a remote computer configured for FDCC compliance while the Windows firewall is enabled, the connection to the server fails if *pb115.exe* is not included in the list of firewall exceptions at the domain level. To use remote debugging through the firewall, you must add *pb115.exe* to the list of domain-level firewall exceptions and select PowerBuilder 11.5 from the Program and Services list on the Exceptions tab of the Windows Firewall dialog box. You can open this dialog box from the Windows control panel. [CR 534686]

5.8.2 Cannot install Sybase DataWindow PS Printer on Windows Vista

The PowerBuilder setup program installs the *ADIST5.INF* driver for the Sybase DataWindow PS Printer in the *Sybase Shared\PowerBuilder\Drivers* directory. However, this driver does not work on Vista. To install the Sybase DataWindow PS Printer, you can use the *GHOSTPDF.INF* driver that is installed with Ghostscript 8.x in the *gs\gs8.x\lib* directory. [CR 542436]

5.8.3 Line breaks do not display the same way in print as on screen

When you insert several lines of text in a large string column of a DataWindow, the text wraps appropriately. But when you print the DataWindow, the line breaks might not occur in the same locations as they do on screen. You can prevent dissimilar line breaks by creating a *PB_ForcePrintLineBreakSame* environment variable on the runtime computer and setting it to 1. However, this also can cause words at the end of a line to be clipped or truncated. If you set the environment variable to 0, the words in the column will not be truncated, but the line breaks in the printed copy will again occur in different locations than they do on screen. [CR 531741]

5.8.4 Images in CMYK format do not display correctly

Images defined in the CMYK format do not display well and are not supported in PowerBuilder applications. [CR 489723]

5.8.5 Surrogate pair characters are not supported in PowerBuilder

Surrogate pair characters are counted as two characters by PowerScript® functions. Therefore, you can use only characters in the Basic Multilingual Plane of the UTF-16 Unicode character set in PowerBuilder applications. [CR 534865, 534869]

5.8.6 OCI session pooling conflict

Once you create an Oracle Client Interface (OCI) pooling, the pool exists in the machine and does not depend on the current process. Therefore, if you create an OCI pooling in one application (for example a homogeneous session pooling with the DBPARM CSMIn=10), and another application tries to create an OCI pooling with similar parameters on the same machine, but with CSMIn=50 to increase the minimum allowable connections, the second pooling attempt causes a conflict and the pooling creation fails. [CR 497649]

5.8.7 Changing the OriginalSize property after a SetPicture call

You can use the SetPicture function to assign an image stored in a blob to a picture control. But if you then change the OriginalSize property dynamically, the picture will no longer display. This issue exists in the Picture and PictureHyperLink controls. [CR 540778]

6. Product compatibilities

6.1 Application Servers

PowerBuilder 11.5 has been tested with EAServer 5.5 patched with EBFs 13993 and 14146, and EAServer 6.2.

PowerBuilder 11.5 supports the 1.1 version of the PowerBuilder Application Server Plug-in that runs in JBoss, WebLogic, and WebSphere application servers. The plug-in has been tested on Windows XP with Service Pack 2 and Windows Server 2003 with Service Pack 2.

The PowerBuilder Application Server Plug-in can use the same SySAM license file as PowerBuilder 11.5. For information about SySAM licensing, see the PowerBuilder Enterprise *Installation Guide*. Information about the PowerBuilder Application Server Plug-in is available on the Sybase Web site at <http://sybooks.sybase.com/nav/detail.do?docset=1252>.

6.2 SQL Anywhere

PowerBuilder 11.5 has been tested with SQL Anywhere® 11.0 and the SQL Anywhere 11.0 Runtime Edition.

6.3 PowerDesigner

PowerBuilder 11.5 has been tested with PowerDesigner® 12.5.

6.4 Microsoft .NET Framework

PowerBuilder 11.5 is compatible with Microsoft .NET Framework 2.0 and later. However, for .NET Web Forms applications and .NET Web Service components, you must install AJAX Extensions version 1.0 (build 61025.0) from a separate download—even if you already installed the AJAX Extensions version that is included in .NET Framework 3.5.

6.5 Java

PowerBuilder 11.5 is compatible with JDK 1.5.

6.6 Ghostscript

The DataWindow Save as PDF feature has been tested with AFPL Ghostscript version 8.60.

7. Third-party components and deployment

PowerBuilder applications have some dependencies on third-party components that are installed with PowerBuilder. Most of these components are *not* installed with the PowerBuilder Runtime Packager. You may redistribute some of these components with your application, but others must be obtained from the vendor.

For information about components that can be freely downloaded, see the free download terms document. A copy of this document is located in the *Support* directory on the DVD and on the Sybase Web site at http://www.sybase.com/softwarelicenses/third_party_legal.

7.1 Apache files

You may redistribute Apache files included with PowerBuilder to your users. Any use or distribution of the Apache code included with PowerBuilder 11.5 must comply with the terms of the Apache License which is located in the free download terms document for PowerBuilder 11.5.

Version 0.20.4 of the Apache Formatting Objects Processor (FOP) is required if your application uses XSL-FO to save files as PDF. For more information about FOP, see the Apache FOP Web site at <http://xmlgraphics.apache.org/fop/>.

The Apache Xerces files *xerces-c_2_6.dll* and *xerces-depdom_2_6.dll* are required for XML Web DataWindow support, XML support for DataWindows and DataStores, PBDOM, and SOAP clients for Web services. For more information about Xerces, see the Xerces C++ Parser Web site at <http://xml.apache.org/xerces-c/>.

7.2 Microsoft files

Visual C++ runtime
and the Active
Template Library

When you deploy the core PowerBuilder runtime files, you must ensure that the *msvcr71.dll* and *msvc71.dll* Microsoft Visual C++ runtime libraries and the Microsoft .NET Active Template Library (ATL) module, *atl71.dll*, are present on the user's computer or server. The PowerBuilder runtime files have a runtime dependency on these files and they are required for all applications and components that require the PowerBuilder runtime. You can obtain these DLL files from the DLL archive Web site at <http://dlldump.com>. They are also available from the DLL archive Web site at <http://driverskit.com>.

Files must be installed before running MSI file

Some files installed by the MSI file generated by the PowerBuilder Runtime Packager have dependencies on these files. For example, *atl71.dll* must be installed on the user's computer before the *pbjvm115.dll* file can be registered. Make sure these files are on the target computer before you run the MSI file generated by the Runtime Packager.

Ink picture libraries

Microsoft.Ink, *Microsoft.Ink.dll*, and *Microsoft.Resources.dll* are required if your application uses InkEdit and InkPicture controls. These files are part of the Microsoft Windows XP Tablet PC Edition Software Development Kit 1.7, which is available on the Microsoft Web site at <http://www.microsoft.com/downloads/details.aspx?FamilyId=B46D4B83-A821-40BC-AA85-C9EE3D6E9699&displaylang=en>.

Microsoft has discovered some incompatibility issues between these DLLs and the .NET Framework 2.0. You can obtain an update to address these issues from Microsoft at <http://www.microsoft.com/downloads/details.aspx?familyid=84BBEFA4-7047-41DF-8583-E3BDBF9D805F&displaylang=en>.

DirectX 9.0c runtime

PowerBuilder applications can use DirectX 3D rendering to display 3D graphs (Pie3D, Bar3D, Column3D, Line3D, and Area3D) with a more sophisticated look. You can use data item or series transparency with the DirectX graph styles to improve the presentation of data.

The DirectX 3D rendering depends on the DirectX 9.0c runtime. The first time you select the Render3D check box on the General tab of the Properties view for a 3D graph, PowerBuilder launches the DirectX installer. If you opt out of the installation, the Render3D property is ignored. End users of PowerBuilder applications must also have the DirectX 9.0c runtime installed on their computers to view the DirectX graph styles. You can download the DirectX 9.0c runtime from the Microsoft Web site at [Microsoft Web site at http://www.microsoft.com/downloads/details.aspx?FamilyID=2da43d38-db71-4c1b-bc6a-9b6652cd92a3&DisplayLang=en](http://www.microsoft.com/downloads/details.aspx?FamilyID=2da43d38-db71-4c1b-bc6a-9b6652cd92a3&DisplayLang=en).

For computers with older graphics drivers, you can check whether DirectX is supported by running *dxdiag.exe*. This file is typically installed in the *Windows\System32* directory. The Display tab of the DirectX Diagnostic Tool that opens when you run *dxdiag.exe* indicates whether Direct3D is enabled.

AJAX extensions

PowerBuilder uses AJAX (Asynchronous JavaScript and XML) update functionality for Web Forms applications. With ASP.NET AJAX, the page is updated by refreshing individual regions of the page asynchronously.

Although PowerBuilder .NET Web Forms and .NET Web Service component targets work with .NET Framework 3.5, they do not use the version of AJAX that installs with .NET Framework 3.5. You must install AJAX Extensions version 1.0 (build 61025.0) for these .NET target types.

Because PowerBuilder uses the AJAX update feature by default, AJAX extensions are required for Web Forms applications on all development and deployment machines. You can download and install the Microsoft ASP.NET AJAX Extensions version 1.0 from the ASP.NET Web site at <http://www.asp.net/ajax/downloads/archive>.

7.3 Sun Microsystems files

The Java Runtime Environment (JRE) is required for EJB clients, JDBC connections, and saving as PDF using XSL-FO. For a copy of third-party terms and conditions for the JRE, see the free download terms document. The JRE can be downloaded from the Sun Developer Network at <http://java.sun.com/javase/downloads/index.jsp>.

7.4 Software used for SOAP clients for Web services

PowerBuilder includes the EasySoap++ library in executable form in *EasySoap115.dll*, which is dynamically linked to *PBSoapClient115.pbx*. The EasySoap++ library and its use are covered by the GNU Lesser General Public License (LGPL). For a copy of this license, see the free download terms document.

You may distribute the EasySoap++ library to third parties subject to the terms and conditions of the LGPL. Please read the LGPL prior to any such distribution.

The complete machine-readable source code for the EasySoap++ library is provided in the *EasySoap.zip* file in the *Support\WSExtn* folder on the DVD. In addition, the object code and Microsoft Visual C++ project file for the *PBSoapClient115.pbx* are provided in the *soapclient.zip* file in the same directory.

These files are provided under the terms of the LGPL so that you can modify the EasySoap++ library and then relink to produce a modified *EasySoap115.dll*. You can also relink *PBSoapClient115.pbx* with the modified EasySoap++ import library. According to the terms of the LGPL, it is understood that you will not necessarily be able to recompile *PBSoapClient115.pbx* to use the definitions you have modified in the EasySoap++ library.

Follow the instructions in the *Readme.txt* file in the *soapclient.zip* file to build *PBSoapClient115.pbx*.

8. Documentation updates and clarifications

All books in the PowerBuilder collection on the Sybase Product Manuals Web site have been updated for PowerBuilder 11.5. The *Working with JSP Targets* and *JSP Target Reference* books are no longer part of the PowerBuilder collection, as JSP targets are no longer supported.

9. Migration information

You can migrate a PowerBuilder application from any version of PowerBuilder directly to any later version. Before you migrate to a later version, read this section and the following Technical Document to learn about changes in PowerBuilder that might affect your application: Migrating PowerBuilder Applications at <http://www.sybase.com/detail?id=1032777>.

Back up your files and use the Migration Assistant to identify obsolete code before you migrate.

The applications that you build using this version of PowerBuilder must be deployed with the PowerBuilder runtime DLLs from this version.

9.1 Migrating .NET targets from earlier releases of PowerBuilder

If you deployed .NET projects from earlier releases of PowerBuilder, you must make sure to complete the following steps before redeploying the same projects from PowerBuilder 11.5:

- For .NET Web Forms and .NET Web Service targets, you must install AJAX extensions on development computers and production servers

You can download and install the Microsoft ASP.NET AJAX Extensions version 1.0 from the ASP.NET Web site at <http://www.asp.net/ajax/downloads/archive>.
- For .NET Web Forms and .NET Windows Forms projects, select “Full” for the project rebuild type before you redploy your applications from PowerBuilder 11.5 for the first time
- For .NET Web Forms and .NET Web Service targets, clear ASP.NET temporary files for the application or component on development computers and production servers. The temporary files are located in the C:\WINDOWS\Microsoft.NET\Framework\version\Temporary ASP.NET Files\projectName directory, where *version* is typically v2.0.50727, and *projectName* is the project’s Web application name or its Web service virtual directory name
- For all .NET targets, uninstall earlier versions of PowerBuilder runtime files (system assemblies and win32 DLLs) on all deployment computers or servers, then install the PowerBuilder 11.5 runtime files using the Runtime Packager or another tool, as described in the “Checklist for deployment” section of the *Deploying Applications and Components to .NET* book

9.2 Migrating EAServer targets

In PowerBuilder 11, the EAServer Component target wizard creates a specialized EAServer target instead of an Application target. After you migrate an existing EAServer target to PowerBuilder 11.5, you cannot start the remote debugger to debug the target unless you open the Project painter and select the Debug menu or toolbar item, or select Debug from the project's pop-up menu in the System Tree. To ensure that your target behaves correctly, you should use the EAServer Component target wizard to create a new EAServer target, select "Use an existing library and EAServer component project" in the wizard, and select your migrated library and component.

9.3 Migrating components to EAServer 6.0.1 or later

Intercomponent calls from a PowerBuilder component running in EAServer 6.0.1 require proxies for all called components. With earlier versions of EAServer, a PowerBuilder component is sometimes able to call another PowerBuilder component running in the same server without the use of a proxy, because the PowerBuilder VM creates a proxy for the component dynamically using method names that match the names of the component's methods.

In EAServer 6.0.1 and later, PowerBuilder components are wrapped as EJBs, providing an extra layer of security and preventing the PowerBuilder VM from generating a proxy with names that match the component's method names dynamically. Therefore, you must create a proxy object for all components you invoke with intercomponent calls. Without a proxy object, the TransactionServer object cannot obtain the correct method names of the component you are calling.

9.4 Creating an EJB client application for EAServer 6.x

Building EJB client applications for EJBs running in EAServer 6.x requires you to take some additional steps when you create the EJB client proxy and when you create the client.

.NET clients for EAServer components

PowerBuilder installs the EAServer 6.2 DLLs, *com.sybase.iiop.net.dll* and *com.sybase.ejb.net.dll*, in the GAC on the development computer, and requires these DLLs on runtime computers for applications that access EAServer components from .NET targets. You can use the Runtime Packager to place these DLLs in the GAC on deployment computers. However, if you subsequently upgrade EAServer from the 6.2 version, you must copy the upgraded DLLs from the EAServer/Lib directory to the GAC of all computers that use the upgraded version. If you then run or rerun the Runtime Packager, you must also recopy the upgraded DLLs to the GAC, since the Runtime Packager will overwrite any version upgrades that you make to these DLLs.

❖ **To generate a proxy for an EJB deployed to EAServer 6.x:**

- 1 Copy the *packagename* directory from the *%DJC_HOME%\deploy\ejbjars* directory on the server to the client computer, where *packagename* is the package that contains the EJB you want to use.
- 2 Add this directory to the Classpath on the Select EJB Component dialog box in the EJB Proxy Project painter.
- 3 Generate the proxy.

❖ **To create an EJB client application for an EJB deployed to EAServer 6.x:**

- 1 Copy the *eas-server-14.jar* file (or *eas-server-15.jar* if you are using JDK 1.5.x) from the *%DJC_HOME%\lib* directory to the client computer and include its full path in the client's classpath.
- 2 Copy the stub files from *%DJC_HOME%\genfiles\java\classes* directory to the client computer and include this path in the client's classpath.
- 3 Copy the *packagename* directory from the *%DJC_HOME%\deploy\ejbjars* directory on the server to the client computer, where *packagename* is the package that contains the EJB you want to use and include this path in the client's classpath.

If you copied these files and directories to a directory on the client called *EAServer6*, and you want to use an EJB in the datamapping package, the client classpath setting might look like this:

```
Classpath=D:\EAServer6\lib\eas-server-14.jar;D:\EAServer6\genfiles\java\classes;D:\EAServer6\deploy\ejbjars\datamapping
```

9.5 PowerBuilder system types as variable names in proxies

In PowerBuilder 10.5 and later versions, system types cannot be used as variable names in Web service proxies. If a PowerBuilder system type is used as a variable name, the Web Service Proxy wizard renames the variable by applying the prefix `ws_`. If you are migrating Web service applications from PowerBuilder 10.2 or earlier and regenerating the Web service proxies in PowerBuilder 10.5 or later, your code may need to be modified to reflect the change in variable names.

PowerBuilder system types include not only the objects and controls listed on the System tab page in the PowerBuilder Browser, but also the enumerated types listed on the Enumerated page in the Browser, such as `band`, `button`, `encoding`, `location`, and `weekday`. For example, if you build a Web service from a PowerBuilder custom class user object, and one of its functions has a string argument named *location*, in the proxy generated for that Web service, the argument is changed to string `ws_location`.

9.6 OLE DB performance with Microsoft SQL Server

In PowerBuilder 10.5.2 and later, when you use the OLE DB database interface with a Microsoft SQL Server database and retrieve data into a DataWindow or use an embedded SQL cursor in a SELECT statement, server-side cursors are used to support multiple command execution. If this has a negative impact on performance, try increasing the size of the Block database parameter to 500 or more, or adding the following line to the [Microsoft SQL Server] section in the PBODB initialization file to turn off server-side cursors:

```
ServerCursor = 'NO'
```

9.7 Change in behavior of OpenTab

A change was made in PowerBuilder 10.2.1 Build 9716, PowerBuilder 10.5.1 Build 6505, and PowerBuilder 11.0 Build 5021, to correct an anomalous behavior when the SelectedTab property was applied at runtime to a tab whose Visible property was set to false.

As a result of this change, there is a change in the behavior of the `OpenTab` and `OpenTabWithParm` functions. In previous releases, calling the `OpenTab` or `OpenTabWithParm` function to open a user object as a tab page displayed the tab page even if the user object's Visible property was set to false. In current releases, the user object's Visible property must be set to true for the tab page to display.

9.8 ImportFile size limit

PowerBuilder 10.0 and later versions are Unicode enabled. If your application uses the ImportFile method to import very large text files (approximately 839,000 lines) into a DataWindow or DataStore, ImportFile returns the error code -15. Larger text files could be imported in ANSI versions of PowerBuilder.

10. Technical support

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 have any questions about this installation or if you need assistance during the installation process, ask the designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

11. Other sources of information

Use the Sybase Getting Started CD, the SyBooks™ CD, and the Sybase Product Manuals Web site to learn more about your product:

- 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.

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.

Refer to the *SyBooks Installation Guide* on the Getting Started CD, or the *README.txt* file on the SyBooks CD for instructions on installing and starting SyBooks.

- 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.

To access the Sybase Product Manuals Web site, go to Product Manuals at <http://www.sybase.com/support/manuals/>.

11.1 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.

11.2 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.

12. 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 11.5 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.