

Release Bulletin

PowerBuilder® Enterprise 11.2

Document ID: DC33822-01-1120-01

Last revised: April 15, 2008

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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 11.2, which is compatible with the following platform and operating system configurations:

- Microsoft Windows XP with Service Pack 2
- Microsoft Windows XP Tablet PC Edition with Service Pack 2
- Microsoft Windows Server 2003 with Service Pack 1
- Microsoft Windows Vista Business Edition

PowerBuilder 11.2 builds 32-bit applications, but supports deployed applications in both 32-bit and 64-bit environments on the Vista operating system. For more information about using PowerBuilder on the Vista operating system, see “Vista Support” in the online Help. For a list of issues that have been found on the Vista operating system, see “Vista issues” on page 22.

Microsoft Windows 2000 with Service Pack 4 is supported for deployment only. All support for this platform will be discontinued in future releases of PowerBuilder.

2.1 Deprecated features

The following table lists features that are included in PowerBuilder 11.2, but will be removed from future releases of PowerBuilder:

Deprecated feature	Description
IE Web Controls for .NET Web Forms applications	PowerBuilder installs and deploys Telerik RadControls to replace the IE Web Controls.

Deprecated feature	Description
O84 Oracle 8i database interface	The next major release of PowerBuilder will include the ORA Oracle 11g database interface, in addition to the O90 and O10 Oracle database interfaces that you can install with PowerBuilder 11.2.
JSP targets	PowerBuilder 11.2 is the last version of PowerBuilder that includes JavaServer Pages (JSP) targets that enable you to build Web pages using JSP technology. Sybase Workspace is the recommended tool for building JavaServer Faces and HTML applications that use JSP pages.
COM, COM+ components	PowerBuilder 11.2 is the last version of PowerBuilder that includes the COM and COM+ component creation wizards.
Automation server	PowerBuilder 11.2 is the last version of PowerBuilder that includes the PowerBuilder Runtime Automation Server.
DataWindow® plug-in and PowerBuilder Window plug-in	PowerBuilder 11.2 is the last version of PowerBuilder that includes the DataWindow plug-in that allows you to display a Powersoft report (PSR) on a Web page. It is also the last version to include the PowerBuilder WIndow plug-in that allows you to display child windows on Web pages when viewed in a browser that supports Netscape plug-ins. You can use .NET Web Forms targets to display reports and child windows on Web pages.
PowerBuilder Window ActiveX	PowerBuilder 11.2 is the last version of PowerBuilder that includes the PowerBuilder Window ActiveX that allows you to display PowerBuilder child windows on Web pages when viewed in a browser that supports ActiveX.. You can use .NET Web Forms targets to display child windows on Web pages.
UDDI browser in the Web Service proxy wizard	PowerBuilder 11.2 is the last version of PowerBuilder that allows you to search for a WSDL file in a UDDI registry.
Deployment support for Windows 2000 platform with Service Pack 4	Support for the Windows 2000 platform will be discontinued in the next release of PowerBuilder.

2.2 DataDirect database drivers

The PB DataDirect ODBC drivers and OLE DB data providers from DataDirect Technologies have been removed from PowerBuilder 11.0 and later releases. If you want to continue to use these drivers and data providers, you must obtain them from DataDirect Technologies.

2.3 PBCrypto proxy library

The PBCrypto proxy library has been removed from PowerBuilder 11.0 and later releases. It will be made available on the Sybase CodeXchange Web site at <https://powerbuilder.codexchange.sybase.com/>.

3. Special installation instructions

PowerBuilder 11.2 is available as an update for PowerBuilder 11.0 or 11.1 users.

Vista manifest files may crash other operating systems

The ability to add a manifest file to standard PowerBuilder and Windows Forms applications was added in PowerBuilder 11.1. If you add a manifest file that contains Vista extensions to an executable or DLL file on Windows XP with Service Pack 2, memory may be corrupted, causing the operating system to crash or restart. This is a known Microsoft issue described on the Microsoft support site at <http://support.microsoft.com/Default.aspx?kbid=921337>.

To resolve this issue, Microsoft has provided a patch that can be downloaded from the Microsoft Web site at <http://www.microsoft.com/technet/security/Bulletin/MS06-075.msp>.

3.1 Before you install

Before you install this release, shut down any applications running on your system. Restart your system after all the installations are complete.

The executable files in this release extract setup files to the folder specified by your TMP environment variable, or the folder specified by your TEMP environment variable if TMP is not defined or specifies a directory that does not exist. Make sure you have enough disk space on the drive containing this folder before beginning the installation.

To specify an alternative location, open the System Properties dialog box from the Windows control panel, select the TMP user variable (or TEMP if TMP does not exist) on the Environment or Advanced tab page, and specify a location that has sufficient space.

3.2 Updating PowerBuilder 11.0 or 11.1 to PowerBuilder 11.2

You can download the PowerBuilder Enterprise 11.2 update from the PowerBuilder page of the Sybase EBFs/Maintenance site at <http://downloads.sybase.com> (select “in all months” and click the GO button if you do not see the 11.2 release). Download the zip file and extract its contents to a temporary directory on your computer using the “Use folder names” option.

To install the PowerBuilder Enterprise 11.2 update, you must have already installed version 11.0 or 11.1 of PowerBuilder Enterprise on your computer.

❖ To update PowerBuilder:

- 1 Create a backup by copying the contents of your *Sybase\Shared\PowerBuilder* directory to another directory.
- 2 If you use the Translation Toolkit or the Internet plug-ins, back up the *TransTlk* and *Internet Tools* directories in the *Sybase\PowerBuilder 11.0* directory. Also, back up other files that contain information you do not want to lose, such as PBLs, database files, and *.INI* files.
- 3 Run the *setup.exe* file in the *PowerBuilder* directory extracted from the zip file.
- 4 Perform a full rebuild of your PowerBuilder application in the System Tree or Library painter to ensure that all descendent objects are synchronized with their ancestors and to incorporate any compiler fixes in your code.

❖ To update InfoMaker:

- 1 Create a backup by copying the contents of your *Sybase\Shared\PowerBuilder* directory to another directory.
- 2 If you use the Internet plug-ins, back up the *Internet Tools* directory in the *Sybase\InfoMaker 11.0* directory. Also, back up other files that contain information you do not want to lose, such as PBLs, database files, and *.INI* files.
- 3 Run the *setup.exe* file in the *InfoMaker* directory extracted from the zip file.

3.3 Upgrading from a different edition of PowerBuilder

If you are upgrading to the PowerBuilder Enterprise edition from PowerBuilder Desktop or Professional, you require an *upgrade* license from Desktop or Professional to Enterprise. To upgrade to the Enterprise edition, start PowerBuilder and select Tools>Update License. In the wizard, enter your upgrade license key, then click Next and Finish. When you restart PowerBuilder, the PowerBuilder Enterprise features you selected when you installed PowerBuilder are enabled.

4. Changed functionality in this version

New Features PowerBuilder 11.2 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 11.2 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 11.2.

5. Known problems

5.1 .NET applications and components issues

5.1.1 Error CS0161 returned when deploying .NET target

When you deploy a target to .NET, all possible paths through a function or event script must return a value. If the compiler encounters a path that does not return a value, it generates error CS0161: “not all code paths return a value.” To work around this issue, add a return statement that returns a value to the end of the script. [CR 463688]

5.1.2 Events and delegates in .NET assemblies

You cannot add an event handler in PowerBuilder for an event defined in a .NET assembly. If a delegate is defined in a .NET assembly, the Combine method returns errors on deployment. [CR 435730]

5.2 .NET Web Forms issues

5.2.1 Mismatched DLLs result in blank page in Web Forms application

When you deploy any PowerBuilder application, you should always make sure that the version and build number of the PowerBuilder runtime DLLs on the target computer or server is the same as the version and build number of the DLLs on the development computer. Mismatched DLLs can result in unexpected errors. If the DLLs on the development computer and the IIS server do not match, a Web Forms application may display a blank page. [CR 483818]

5.2.2 State not refreshed in IE 7

In Internet Explorer 7, if you open the same application multiple times in a single IE session, the state and content of the first instance persist. This is because IE 7 has only one session, while Web Forms applications are session based. [CR 467206]

5.2.3 PowerBuilder DLL locked by IIS

The PowerBuilder *PBSHR110.DLL* system library is locked by IIS when you run a Web Forms application. This prevents you from uninstalling PowerBuilder when PowerBuilder and IIS are installed on the same computer. To avoid disrupting other applications using the IIS server, PowerBuilder does not automatically shut down and restart the server. Even if the Web Forms application is run from a browser on a remote computer, you must shut down the server manually before you can uninstall PowerBuilder on the IIS server. [CR 441626]

5.2.4 DtfLongDate! support for DatePicker

If Internet Explorer's language is de-DE and the value of PBCultureSource is set to Client in the *web.config* file, the DatePicker control does not support the DtfLongDate! enumerated value for the Format property. [CR 454532]

5.2.5 String function does not work correctly with culture de-DE

If Internet Explorer's language is de-DE and the value of PBCultureSource is set to Client in the *web.config* file, or if PBCultureSource is set to Server and the culture is set to de-DE in the *web.config* file, the String (*data*, "longdate") function returns en-US format. [CR 454957]

5.2.6 Print in TreeView DataWindow does not reflect current status

After expanding or collapsing a TreeView DataWindow in a Web Forms application, printing the DataWindow might not reflect the current status of the display. [CR 454704]

5.2.7 Using the Tab key in a TreeView DataWindow

Web Forms application users cannot use the Tab key to tab between items of a TreeView DataWindow control. The Tab key moves the focus to other controls on the current form. [CR 484349]

5.2.8 Right-click in TreeView DataWindow can cause “Error on page”

In a Web Forms application with a TreeView DataWindow and a secondary DataWindow, if you expand the tree view and double-click a row in the secondary DataWindow, you might see an “Error on page” in the browser window if you then right-click the TreeView DataWindow. [CR 452587]

5.2.9 Right-click causes focus change and opens drop-down lists

Right-clicking does not cause a change of focus for most types of controls in standard PowerBuilder applications. However, in Web Forms applications, right-clicking CheckBox, RadioButton, CommandButton, PictureBox, StaticHyperlink, StaticText, DatePicker, ListBox, or PictureBox controls does cause the focus to switch to those controls. Also, right-clicking the DatePicker, DropDownListBox, and DropDownPictureBox controls in Web Forms applications causes the focus to switch to the down arrow for those controls. [CR 464218]

5.2.10 Changing focus to some controls does not trigger modified event

When text is modified in a single-line edit control, clicking a check box, radio button, or drop-down list box does not trigger the edit control's Modified event in a Web Forms application. [CR 461223]

5.2.11 Scroll bar missing in Retrieve dialog box

In a Web Forms application, the scroll bar in the Retrieve dialog box disappears when focus is set to an input field. [CR 450404]

5.2.12 Selecting columns increases memory use

Repeatedly selecting columns in a DataWindow increases the memory used by Internet Explorer. [CR 425813]

5.2.13 Cannot deploy to a computer containing a hyphen in its name

Web Forms deployment fails with an “IIS Server not found” error when the host name of the computer running IIS contains a hyphen. You must remove the hyphen from the computer name before deployment can be successful. [CR 486955]

5.2.14 Cannot deploy to user-defined directory

If you specify a user-defined virtual directory such as “myapp” that is mapped to *C:\myapp*, the Web Forms application is deployed to a subdirectory of the IIS root directory. [CR 440758]

5.2.15 Problem triggering menu Clicked events in Web Forms applications

In Web Forms applications, users must click directly on a menu or menu item text in order to trigger the Clicked event. Clicking on empty space next to the menu or menu item name does not trigger the Clicked event. [CR 461334]

5.2.16 Issues with the default application pool in IIS 7

TreeView controls cannot be expanded in a deployed Web Forms target if the application runs in an IIS 7 application pool in Integrated mode. However, the default application pool (PBApPool) created for Web Forms applications uses Integrated mode by default. Integrated mode also causes issues with the Static Hyperlink control and with currency mask conversions.

Web Forms applications that have these issues must run in an application pool that uses the Classic mode. For more information, see “Additional configuration requirements for Windows Vista” in Chapter 1 of *Deploying Applications and Components to .NET*. [CR 475256, CR 472907, CR 488647]

5.2.17 Numeric edit mask shows negative number

In a Web Forms application, if a user enters data into a numeric or decimal edit mask set on an EditMask control or a DataWindow column and the data exceeds the number of characters defined for the mask, the leading characters that do not fit in the mask are replaced with a minus sign. To avoid this issue, make sure that the mask has enough characters to support any data that might be entered.

In a DataWindow column, if the mask is set to `#,##0.00`, the field contains 2,345.00, and the user attempts to change it to 12,345.00, the data is changed to -1,345.00.

In an EditMask control with the same mask, if the user enters data manually, only the number of characters specified in the mask can be entered. However, if the data is specified using `em_1.text = "23450.00"`, which has more characters than the mask, and the user attempts to add a 1 at the beginning, the data is changed to -1,450.00. [CR 468410]

5.2.18 A single word in a static text control is divided into two parts

In a Web Forms application, when a static text control contains a single word, the word may be displayed as two separate strings. This is caused by the way the browser handles the control. [CR 466655]

5.2.19 Zoom works incorrectly for DataWindow objects in Web Forms

In Web Forms applications, if you reduce the zoom factor for a DataWindow by setting its Zoom property, the DataWindow object is reduced in size, but the text and data strings in the DataWindow are not reduced in size and can therefore display with a cutoff appearance. The same thing occurs when you set the DataWindow object's Print.Preview.Zoom property. Also, in Web Forms applications, the DataWindow object's Print.Paper.Size property does not work. [CR 490359]

5.2.20 Inability to consume NVO .NET assemblies from Web Forms applications

Although PowerBuilder Web Forms can consume Web services that you create with a .NET Web Service target, they cannot consume assemblies that you create with a .NET Assembly target. These assemblies are dependent on the Sybase.PowerBuilder.Win.DLL. If you try to call one of these assemblies from a Web Forms application, PowerBuilder throws an exception. However, the assemblies you create from a .NET Assembly target can work in a PowerBuilder Windows Forms application, and they can be consumed from a Visual Studio application. [CR 485449]

5.2.21 Clicking Cancel in a DataWindow dialog box changes the current row

In Web Forms applications, when you click Cancel in the Filter dialog box that you open for a DataWindow, the current row in the DataWindow changes. This also happens if you click Cancel from other DataWindow dialog boxes, such as the Crosstab Definition dialog box. [CR 492630]

5.2.22 Negative number sign in EditMask cannot be deleted

If you enter a negative number in a number or decimal edit mask in a Web Forms DataWindow, and then use mouse to select all characters in the edit mask and delete them, the minus sign is not deleted. If you input a different number, the number displays as a negative number. [CR 492236]

5.2.23 Modified event not immediately triggered on date selection in EditMask

If you change a date in a drop-down calendar in a Web Forms EditMask control, PowerBuilder triggers the DateChanged event for the drop-down calendar but does not trigger the Modified event of the EditMask in the same postback. The Modified event is triggered, however, in a subsequent postback. [CR 491988]

5.2.24 Flashing message while replacing a DataWindow object

The message "DataWindow object goes here" sometimes displays in a Web Forms application if the application replaces one DataWindow object with another, or if application users navigate to a different page of data in a current DataWindow object. This message displays briefly, just prior to the rendering of the new DataWindow object or page, but only when AJAX is enabled. If you do not want this message to display, you can change the PBPostBackType global property to "Synchronous" after you deploy your application. [CR 489283]

5.2.25 Opening a window or message box in a Resize or Select event

In Web Forms applications with AJAX enabled, opening a new window or message box in a window Resize event or a menu Select event causes an invalid operation exception. The error message indicates that an UpdatePanel cannot be found. [CR 493538]

5.3 .NET Windows Forms issues

5.3.1 Only TrueType fonts supported

.NET Windows Forms applications support only TrueType fonts. Other fonts are translated internally into a TrueType font. If you do not use a TrueType font, the cursor does not display when you click in an EditMask control. [CR 455453]

5.3.2 Special characters cause smart client installation to fail

A smart client application fails to install on the client computer if there are special characters such as “&”, “%”, or “\$” in the update or install location. However, the publish process is successful and the *publish.htm* page can be opened. The error message on the client is “Value does not fall within the expected range.” This issue also occurs in Microsoft’s ClickOnce deployment. To avoid this issue, ensure that you use only alphanumeric characters in names and paths. [CR 464418]

5.3.3 Slow performance in Windows Forms debugger

When you debug a Windows Forms application and select the All Variables view, the view takes a long time to open and display variables. [CR 451470]

5.3.4 OLE control properties not available in .NET

OLE control properties specified in the OLE Control properties dialog box in PowerBuilder are not available when the application is deployed to .NET. For a DatePicker control, the initial date and font size are therefore incorrect. [CR 442851]

5.3.5 Width of tabs in Tab controls

The width of the tabs in a tab control is greater in a Windows Forms application than in a standard PowerBuilder application. This means that if a tab control is sized so that all the tabs show in PowerBuilder, the last tab on the page might not show when the application is deployed as a Windows Forms application. [CR 466404]

5.3.6 Using InkEdit and InkPicture controls

The InkEdit and InkPicture controls in Windows Forms use the Microsoft.Ink.dll from the Microsoft Windows XP Tablet PC Edition Software Development Kit 1.7. Microsoft has discovered some incompatibility issues between this DLL 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>. [CR 423970]

5.3.7 Child window size not restored

If a child window is minimized, clicking the name of that window on the frame window's Window menu does not restore the child window to the correct size in a Windows Forms application. [CR 436535]

5.3.8 OverridePrintJob setting does not affect PrintDataWindow

Setting the Print.OverridePrintJob DataWindow object property to 'yes' has no effect when you use PrintDataWindow in a Windows Forms application. [CR 466258]

5.3.9 EditMask appearance with lower BorderStyle setting

When you deploy Windows Forms applications with the No Manifest security setting and use the three-dimensional StyleLowered! border style for EditMask controls, the controls display at runtime with a classic Windows style rather than the XP style—even on XP computers with Windows XP themes.

If you want an XP look for EditMask controls using the StyleLowered! border style, you must deploy your Windows Forms applications with the Embedded Manifest or External Manifest security setting. For the Embedded Manifest setting, you must install the .NET SDK on the runtime computer. [CR 487836]

5.3.10 Timing discrepancy for Windows Forms animation controls

In standard PowerBuilder applications, controls with animation properties (such as “bottomroll” or “bottomslide”) that you place on a window start their animation as the window opens. In Windows Forms applications, these controls do not display until after the window opens. [CR 486259]

5.4 .NET Assembly and .NET Web service issues

5.4.1 Full build performed

If you select a single nonvisualobject to deploy as a .NET assembly, the full library list of the target is rebuilt before the component is deployed. [CR 447696]

5.4.2 NVO .NET Web service does not support exceptions

You cannot throw a user-defined exception in a .NET NVO Web service. Web services throw only Soap exceptions. [CR 454093]

5.4.3 Changing virtual directory or IIS address requires additional changes

If you deploy a .NET Web service project successfully, then change the Web service virtual directory or IIS address and redeploy, the service page fails to launch. You must change the arguments on the Run page in the painter before redeploying. [CR 439873]

5.5 Database connectivity issues

5.5.1 ASE ADO.NET provider 1.1.548.0 throws exception

If you execute a query that returns multiple rowsets, the Adaptive Server® Enterprise (ASE) ADO.NET provider version 1.1.548.0 throws an exception when calling the AseDataReader::GetSchemaTable method for the second rowset. The exception is “System.ArgumentException: This row already belongs to another table.” This exception is not thrown if you use version 1.1.475.0. [CR 453942]

5.5.2 Value of bit column displays as -1 with SNC interface

To communicate with SQL Server, the SNC interface uses the Microsoft OLE DB API, which returns VARIANT_BOOL for a bit datatype. If the value of the StaticBind DBParm is 1, the SNC interface does not describe the columns and does not do any data conversion. As a result, a bit column with the value 1 displays as -1 in a DataWindow. To work around this issue, set the StaticBind DBParm to 0, which enables the SNC interface to convert the datatype correctly. [CR 463142]

5.5.3 Pipeline execution with JDBC driver fails

Executing a pipeline with the destination ASE 12.5 when using the JDBC driver fails with the database error 2762. [CR 338371]

5.5.4 Informix interface does not work with UTF-8

The IN9 Informix database interface cannot update and retrieve data when the Informix server uses the UTF-8 character set. The interface works correctly with ANSI and DBCS. [CR 349535]

5.5.5 Alter table limitations with OLE DB and Microsoft SQL Server

When you connect using OLE DB and change the name or width of a column in a Microsoft SQL Server 2000 database using Alter Table in the Database painter, the column is moved to the end of the table and all its data is lost. To prevent this from occurring, PowerBuilder does not allow you to alter a table's column name and column size. You can alter the table outside the painter using ISQL scripts or at runtime using PowerScript® functions. [CR 348581]

5.5.6 Oracle stored procedures with output parameters

An Oracle stored procedure with output parameters produces an ORA-01036 error at runtime if you connect using ODBC, OLE DB, JDBC, or ADO.NET. The stored procedure runs correctly using the Oracle native driver. [CR 343297]

5.5.7 Connection issues with CnnPool

In the Database painter, attempting to connect to an Oracle9i or Oracle 10g database from an Oracle9i client fails after a connect and disconnect if the CnnPool database parameter is set to 'Yes'. The Oracle9i client software does not support connection pooling with PowerBuilder 10.0 or later. [CR 355639]

5.5.8 UpdateBlob SQL statement supports only UTF-16LE

The UpdateBlob SQL statement updates garbage characters to the database if the encoding of the blob variant is not UTF-16LE. For ASE, PowerBuilder crashes if the encoding of the blob is ANSI or UTF-8 and it contains fewer than 10 characters. [CR 353231]

5.5.9 RPC calls with non-Unicode ASE database

PowerBuilder can access Unicode data in Unichar and Univarchar columns in ASE databases that do not use a Unicode character set. You must set the UTF8 database parameter to 1 and configure the server to support both ASE direct conversions and Unicode conversions.

To configure the server, the database administrator must run the following command:

```
sp_configure, "enable Unicode conversion", 1
```

Declare procedure calls work correctly with this configuration, but RPC calls that use these columns are not currently supported. [CR 378850]

5.5.10 ASE version 15 with ODBC driver

When you connect to an ASE version 15 server using the Sybase ASE ODBC driver, NChar(10) and NVarChar(10) columns are saved as Char(10) and VarChar(10). [CR 408710]

5.6 DataWindow issues

5.6.1 Retrieve in Web Service DataWindow requires connection

The first time you use PowerBuilder there is no default database connection. When you create a Web Service DataWindow, you must select a database profile before the DataWindow is created even though the Web Service DataWindow does not use the profile. This also occurs with DataWindows that use an external data source. [CR 439122]

5.6.2 AutoSize Height issues with header band

When two reports are included one above the other in the header band of a DataWindow object and the AutoSize.Height property is set to true for the header band and false for the detail band, the DataWindow displays incorrectly in preview. The lower report overlaps the upper report. The report displays correctly if the Autosize.Height property is set to true in both the header and detail bands. [CR 405033]

5.6.3 XSL-FOP save as PDF does not support graphic controls

Use the distill method to export the data in DataWindow objects that contain graphic controls, such as ovals and rectangles, to PDF. The XSL-FOP method does not work correctly for graphic controls. [CR 303829]

5.6.4 Save As PDF fails on Windows 2003 Server

Saving as PDF using the Distill method fails at runtime on Windows 2003 Server. This problem is caused by a Group Policy that by default disallows installation of printers that use kernel-mode drivers. Kernel-mode drivers have access to system-wide memory, and poorly written drivers can cause system failures.

To allow installation of kernel-mode drivers, follow these steps:

- 1 Select Run from the Windows Start menu.
- 2 In the Open box, type gpedit.msc and click OK.
- 3 In the Group Policy console, expand Computer Configuration, Administrative Templates, and Printers.
- 4 Disable "Disallow Installation of Printers Using Kernel-Mode Drivers."

[CR 349868]

5.6.5 Calling GetItemNumber on DataStore with no rows

In Windows Forms, Web Forms, and standard applications, GetItemNumber throws a RuntimeError instead of a DWRuntimeError when called on a DataStore with no rows. [CR 452682]

5.6.6 DataWindow objects cannot be rewritten in a PrintPage event

The PrintPage event for a DataWindow control recalculates DataWindow pages before each page of a DataWindow object is formatted for printing. However, you cannot use this event to modify the page number of the current page or the remaining pages in the DataWindow. [CR 200650, CR 492844]

5.7 Decimal datatype support issues

5.7.1 Compiler error when maximum value assigned

Assigning the maximum value to a decimal variant without a decimal portion causes a compiler error. [CR 380713]

5.7.2 Precision lost in message box

Precision is lost when you display a decimal variant with more than 16 bits in a message box. [CR 390258]

5.8 EAServer issues

EAServer release bulletin

For additional EAServer issues, please refer to the release bulletin for the version of EAServer that you are using on the Sybase Product Manuals Web site at <http://www.sybase.com/support/manuals/>.

For migration issues related to EAServer, see “Migrating EAServer targets” on page 36.

5.8.1 Connection to SQL Anywhere JDBC connection cache fails

Connecting to a SQL Anywhere 10.0 JDBC connection cache in EAServer 6.0.x throws a runtime exception. This is caused by a difference between Adaptive Server® Anywhere (ASA) 9.x and SQL Anywhere 10.0.

To prepare a SQL Anywhere database for use with jConnect™ for JDBC™, you need to install additional tables and stored procedures by executing a SQL script. The *sql_asa.sql* file installed with EAServer 6.0.x in the *extras\jconnect-6.05\sp* directory is intended for use with ASA 9.x and references a property, File Version, that is not supported in SQL Anywhere 10.x.

To solve this issue, execute the *jcatalog.sql* file in the *scripts* directory in the SQL Anywhere installation directory on the destination SQL Anywhere 10.0 database instead of executing *sql_asa.sql*. For more information about deprecated features in SQL Anywhere 10.0, see the SQL Anywhere 10 - Changes and Upgrading book at http://www.ianywhere.com/developer/product_manuals/sqlanywhere/1000/en/html/dbwnen10/wn-newjasper-s-3751424.html. [CR 471640, CR 483184]

5.9 JSP issues

5.9.1 Column link problems with non-English characters

In a Web DataWindow DTC, if a column link property is set on a string column that contains Unicode data (non-English characters) and the value of this column is passed as a parameter to a target page, the target page does not display the Unicode data in the parameter value correctly. The data is displayed as garbage characters. This is caused by a defect in Internet Explorer. [CR 359511]

5.10 Menu and toolbar issues

5.10.1 Stock file image size inconsistent

In contemporary menus and toolbars, stock files and external files with multiple images are loaded differently. For stock files, PowerBuilder loads 32x32 images first. For external files, PowerBuilder loads 16x16 images first. PowerBuilder stock files include two types of files: BMP and ICO. Most BMP files have 16x16 images, and most ICO files have both 16x16 and 32x32 images. When you use a stock file, the BMP file is loaded with the 16x16 image but the ICO file is loaded with the 32x32 image. As a result the size of the stock image used is inconsistent. [CR 421716]

5.10.2 RightToLeft property not supported

The RightToLeft property is not supported in menus and toolbars. [CR 395702]

5.10.3 Display issues with some drivers

With some display card drivers, if you highlight a menu item with the mouse, a white block displays under the mouse point and is moved when you move the mouse. This is a limitation of the display card drivers and cannot be fixed in PowerBuilder. There are two techniques that might solve the issue:

- 1 In the Windows control panel, open the Mouse Properties dialog box and clear the Enable Pointer Shadow check box on the Pointers tab.

The pointer shadow feature has known problems working with many graphical features and programs including OpenGL, GDI+, many video games, Jaws, VMWare, and Virtual PC.

- 2 In the Windows control panel, open the Display Properties dialog box and click the Advanced button on the Settings tab page. On the Troubleshooting tab page, decrease the hardware acceleration level by dragging the slider towards the left. Note that decreasing the hardware acceleration level affects display performance.

[CR 414452]

5.11 PowerDesigner plug-in issues

5.11.1 OLE controls are not supported

Code for OLE controls is not generated when you reverse-engineer a PowerBuilder target to an OOM. [CR 359805]

5.11.2 Case sensitivity in external function names

When you reverse-engineer and then regenerate a PowerBuilder application, an external function with a case-sensitive name such as `GetCurrentDirectoryW` fails. The workaround is to specify an alias for the function, for example:

```
public function ulong GetCurrentDirectoryW (ulong  
textlen, ref string dirtxt) library "KERNEL32.dll"  
alias for "GetCurrentDirectoryW"
```

[CR 358442]

5.12 Rich text control issues

5.12.1 Scroll issues when input fields bound to DataStore

At runtime, if you insert input fields in a RichTextEdit control and bind the data source to a DataStore, then call `ScrollNextRow` or `ScrollNextPage`, the cursor disappears and you cannot scroll the DataWindow as expected. [CR 419757]

5.12.2 UTF-8 encoding in rich text control

If you insert an HTML file with UTF-8 encoding in a rich text control, the file does not display correctly unless the character set is indicated. In a future release, the encoding will be determined from the byte order mark of the HTML file, and it will not be necessary to indicate the character set. [CR 415495]

5.13 SCC issues

5.13.1 Adding an object to SCC whose name contains non-English characters fails

When you put a workspace that supports multiple languages under source control and attempt to add all files to SCC, PowerBuilder crashes if one or more of the object names contain non-English characters. [CR 342590]

5.14 Vista issues

For more information about using PowerBuilder and deploying PowerBuilder applications on the Windows Vista operating system, see the Vista support section in the What's New Help.

5.14.1 Run PowerBuilder as administrator

If an application is run without administrative privileges, Vista restricts it from writing to the *HKEY_LOCAL_MACHINE* subtree in the registry, the *Program Files* directory, and the *Windows* directory. Instead, changes are written to a writable area in the registry and to the user's local directory. This is referred to as virtualization. To avoid the issues that would result from this behavior, on Vista, you must start PowerBuilder with administrative privileges by right clicking *pb110.exe* in the Start menu or Explorer and selecting Run As Administrator from its pop-up menu.

You must also run PowerBuilder tools, such as the Runtime Packager, with administrative privileges. [CR 475612, CR 480682]

5.14.2 Windows Help files

Windows Vista does not distribute the *WinHelp32.exe* file required to open Windows Help files such as the *pbhlp110.hlp* file used in PowerBuilder. To use *.hlp* files, download and install a special Vista version of *WinHelp32.exe* from the Microsoft Web site at <http://go.microsoft.com/fwlink/?LinkId=82148>.

Compiled HTML Help (*.chm*) files are supported, but you need to edit the Windows registry to enable a Help macro that supports links from the *pbhlp110.hlp* file to the *pbman110.chm* file. If you do not edit the registry, the “For more information” links at the bottom of many topics in the Windows Help display an error.

You also need to edit the registry to run Windows Help files at a remote location on an intranet.

Registry reflection on 64-bit Windows

64-bit versions of Windows use registry reflection to maintain a 32-bit registry view and a 64-bit registry view. On 64-bit Windows, configuration information related to 32-bit applications is stored in the *HKEY_LOCAL_MACHINE\Software\WOW6432node* registry hive.

❖ To enable Windows Help macros and remote access on Vista:

- 1 Create the following registry key.

On 32-bit Windows:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WinHelp
```

On 64-bit Windows:

```
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432node\Microsoft\WinHelp
```

- 2 Add a new DWORD value with the name *AllowProgrammaticMacros* and the value 1.
- 3 Add a new DWORD value with the name *AllowIntranetAccess* and the value 1.

You can also add this support by saving the following lines in Notepad to a file with the extension *.reg* and importing it into the registry.

On 32-bit Windows:

```
Windows Registry Editor Version 5.00
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WinHelp]
"AllowProgrammaticMacros"=dword:00000001
"AllowIntranetAccess"=dword:00000001
```

On 64-bit Windows:

Windows Registry Editor Version 5.00

```
[HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432node\Microsoft\Win
Help]
"AllowProgrammaticMacros"=dword:00000001
"AllowIntranetAccess"=dword:00000001
```

Microsoft prohibits the distribution of *WinHelp32.exe* with deployed applications. If your application uses *.hlp* files, you should provide your users with instructions on how to download *WinHelp32.exe*. For more information, see the Microsoft support site at <http://support.microsoft.com/kb/917607>. [CR 477251]

5.14.3 Setting default to true for a menu item at runtime

When you set the default property for a menu item to true at runtime on a Vista computer, only part of the menu item name displays. On Windows XP operating systems, setting the default property to true correctly bolds the menu item name. [CR 488659]

5.14.4 Saving as PDF on Vista fails

The correct versions of Microsoft PostScript printer driver files must be available in the *drivers* directory when a file is saved as PDF using the Distill method. The Microsoft PostScript printer driver files, *PSCRIPT5.DLL*, *PS5UI.DLL*, and *pscript.ntf*, used for saving DataWindows as PDF, are no longer distributed with PowerBuilder due to licensing issues.

If you (and your users) have installed a PostScript printer, the PostScript driver files required to create PDF files are already installed. Typical locations are *C:\WINDOWS\system32\spool\drivers\w32x86* on Windows XP, *C:\Windows\System32\DriverStore\FileRepository\ntprint.inf_xxxxxxx*, where *xxxxxxx* is a system-specific identifier, in the *I386* subdirectory on 32-bit Vista and the *Amd64* subdirectory on 64-bit Vista. You must use the version of these files that is appropriate to the system where the PDF file is created. Copy the files to the *Shared\PowerBuilder\drivers* directory. [CR 445530]

5.14.5 JSP targets

On the Vista operating system, you can create a JSP target and a JSP page, but the component used to implement the HTML Editor's Page view and its built-in Script editor is not supported on the Vista operating system, therefore JSP targets are not supported on Vista.

5.14.6 Controls that use calendars

The Vista operating system does not support several properties for the DatePicker, EditMask, and MonthCalendar controls and the drop-down calendar in a DataWindow column. The following properties are not supported on Vista:

- DatePicker: CalendarBackColor, CalendarFontName, CalendarFontWeight, CalendarItalic, CalendarTextColor, CalendarTextSize, CalendarTitleBackColor, CalendarTitleTextColor, CalendarTrailingTextColor, CalendarUnderLine
- EditMask: CalendarBackColor, CalendarTextColor, CalendarTitleBackColor, CalendarTitleTextColor, CalendarTrailingTextColor
- MonthCalendar: FaceName, MonthBackColor, TextColor, TextSize, TitleBackColor, TitleTextColor, TrailingTextColor, Underline
- Column controls in DataWindow objects with a drop-down calendar EditMask style: DDCal_BackColor, DDCal_TextColor, DDCal_TitleBackColor, DDCal_TitleTextColor, DDCal_TrailingBackColor

In addition, the Vista operating system does not support the WeekNumbers property for the DatePicker control. When this property is true, the DatePicker control is not displayed correctly. The same limitation applies to the MonthCalendar control when WeekNumbers is true and Autosize is false. [CR 471379]

5.14.7 Using Web Forms targets on 64-bit systems

If you create a new Web Forms target on a Vista 64-bit system, when you launch the deployed target in Internet Explorer, you might receive an error that the application cannot be loaded. To resolve this issue, start 32-bit ASP.NET on the server using the following command line. You must run this command as Administrator:

```
cscript c:\inetpub\adminscripts\adsutil.vbs SET  
W3SVC/AppPools/Enable32bitAppOnWin64 1
```

5.14.8 Running Web Forms applications may fail on 64-bit Vista

On 64-bit Vista, running a Web Forms application sometimes fails with the error “Server error in ‘/’ Application.” This can occur if a virtual directory was not created for the application. To run the application successfully, open IIS Manager on the server by running the command `inetmgr`. Locate the folder for the application under Default Web Site, right-click on the application folder, and select Convert to Application from the pop-up menu. [CR 484872]

5.14.9 Connecting to Oracle from the PowerBuilder IDE on 64-bit systems

On Vista 64-bit platforms, PowerBuilder is installed by default into a directory for 32-bit programs. When you install PowerBuilder in the default directory and try to connect to Oracle from the PowerBuilder IDE, you might encounter the following error message: “ORA-12154: TNS:could not resolve the connect identifier specified.” To avoid this error and enable connections to Oracle databases from the PowerBuilder IDE, you must make sure the ORACLE_HOME environment variable is set correctly. [CR 489621]

5.14.10 Web Forms deployment fails if IIS compatibility component not installed

If you deploy a Web Forms application to a remote server running IIS 7, or if you publish a smart client application to a local or remote server running IIS 7, the Vista Metabase Compatibility component of IIS 7 must be installed on the server. This component is not installed by default. It is not required to deploy a Web Forms application to a local server.

You can install it from the Programs and Features page in the Windows control panel. Select Turn Windows features on or off, then select Internet Information Services>Web Management Tools>IIS 6 Management Compatibility>IIS Metabase and IIS 6 configuration compatibility [CR 445617]

5.14.11 Repeated right-clicking collapses the items in a TreeView DataWindow

When you right-click on a TreeView DataWindow and select ExpandAll and CollapseAll several times in a Web Forms application that you deploy to Vista, the expanded TreeView items can collapse automatically. [CR 491807]

5.14.12 DataWindow title bar issues with Vista

In standard PowerBuilder and Windows Forms applications, clicking the Control Menu, Maximize, or Minimize buttons on the title bar of a DataWindow control changes the display characteristics and position on Vista. [CR 472402]

5.14.13 mailGetMessages function fails on Vista

The mailGetMessages function does not return mail messages on the Vista operating system. This is caused by a deficiency in the Windows Simple MAPI (SMAPI) interface. For more information, see the Microsoft Support Web site at <http://support.microsoft.com/kb/930279/en-us>. [CR 479872]

5.14.14 PrintSetupPrinter function fails on 64-bit Vista

The PrintSetupPrinter function does not display the printer setup dialog box on the 64-bit version of the Vista operating system. This is caused by a known code defect in the Microsoft XPS Document Writer DLL *mxdwdui.dll*. The DLL file prematurely frees the *shell32.dll* library and caused a window class to be unregistered. When the printer dialog box UI tries to create a window with the unregistered class, it fails and the dialog box fails to display.

You can display a printer properties dialog box using the following command line, where *printer name* is the name of the printer and must be enclosed in quotation marks. You must run the command from the `\Windows\sysWow64` directory:

```
rundll32 printui.dll,PrintUIEntry /n "printer name" /p
```

[CR 477598]

5.15 Web services issues

5.15.1 Using a trace tool with .NET Web services

Although you can still use the built-in SOAP logging option with EasySoap Web services, PowerBuilder does not provide the same option with .NET Web services. Instead, you can use a third-party tool to trace .NET proxy calls for debugging purposes. There are two kinds of trace tools you can use:

- **TCP trace (tunnel) tool** This type of tool listens to a specified hostname and port, and transfers all incoming calls to a specified endpoint. An example of this type of tool is TCPTrace, available from the PocketSoap Web site at <http://www.pocketsoap.com>.

To use this type of tool, you must set the endpoint explicitly in the `CreateInstance` function. For example, if the original endpoint is `http://www.xxx.com/testWebService` and the trace tool has been set to listen to `localhost:6060`, then you can code something like the following to enable tracing: `Conn.CreateInstance(proxy_obj, "syb_NETproxy", "http://localhost:6060/testWebService")`

- **Proxy trace tool** This type of tool works as a proxy server. In PowerBuilder, you can set the proxy server using `SetProxyServer` or `SetProxyServerOptions`. An example of this type of tool is ProxyTrace, available from the PocketSoap Web site at <http://www.pocketsoap.com>.

[CR 419815]

5.15.2 Structures with array members

Calling a PowerBuilder custom class user object Web service that passes or returns a structure of arrays can fail. [CR 407611]

5.15.3 SOAP header cannot be modified in an EasySoap Web service

User authentication security in an EasySoap Web service cannot be implemented because this security must be included in the `<soap:Header>` section, which cannot be modified in PowerBuilder. [CR 351464, CR 356856]

5.15.4 Web services client raises exception with machine code

If a Web services client application is built as a machine-code executable, and a Web service proxy function has an array of longlong and double datatypes as an argument, calling this function raises an exception. A Pcode executable works correctly. [CR 360444]

5.15.5 EasySoap Web services do not support some built-in datatypes

PowerBuilder EasySoap Web services do not support the anyType and ur-type XML Schema built-in datatypes. [CR 341513]

5.16 Other issues

5.16.1 PowerTips using the XP style

Some window controls, such as Pictures, PictureButtons, and PictureHyperLinks, can display PowerTip text. When the cursor is on the control, the tip text displays but disappears after several seconds. Moving the cursor from the control to another control with PowerTip text and back again causes the tip to display again, but moving the cursor from the control to the window background or a control without PowerTip text and back does not. This problem is caused by a Microsoft issue with Comctl32 Version 6. [CR 403814]

5.16.2 PBNI objects not found at runtime

A call to the PBDOM_OBJECT GetContent function works correctly in the development environment but fails at runtime with the error, "Error calling method of a PBNI object." This occurs because the object cannot be found. The workaround is to reference all PBDOM and PBNI objects in PowerScript code so that they are included in the executable file. [CR 343299]

5.16.3 TipWatch on PowerBuilder extension variable causes crash

If you declare a variable of a type defined in a PowerBuilder extension, such as SOAPConnection, and place the cursor over this variable to check its TipWatch value while debugging, PowerBuilder crashes. [CR 435759]

5.16.4 Truncated string in saved EMF file

If a string in a text control in a DataWindow object is longer than can be displayed in the control in the Design view in the DataWindow painter, an EMF file saved in the painter or at runtime displays with the string truncated.

[CR 342797]

5.16.5 Throws clause removed from menu events when menu item is moved

If you add a user-defined event to a menu item and specify in the Prototype window that the event throws an exception, and then move the menu item to another location, the Throws box in the Prototype window is cleared.

[CR 290236]

5.16.6 String formatting function not Unicode enabled

The String function used to format a string does not have an encoding argument to allow you to specify the encoding of the resulting string. As a result, the string returned can contain garbage characters.

To work around this issue, convert the string to a blob and then back to a string using the encoding parameters provided in the Blob and String conversion functions:

```
ls_temp = String(long, "address" ) // format string
lb_blob = blob(ls_temp, EncodingUTF16LE!)
ls_result = string(lb_blob, EncodingANSI!) // convert
// to string
```

[CR 361568]

5.16.7 ActiveX control compiled in Visual C++ causes crash

If an ActiveX control placed on a window was compiled using Visual C++ .NET 2003 (version 7.1), PowerBuilder might crash when you attempt to save the window. The problem is caused by a known bug in the Microsoft Foundation Classes. A patch is available from Microsoft. See the Microsoft Support Web site at <http://support.microsoft.com/kb/838190>. [CR 350660]

5.16.8 Web ActiveX download fails on Windows XP

The DataWindow Web Control for ActiveX fails to download its CAB file to a client browser running on Windows XP if the Microsoft Active Template Library (ATL) module, *atl71.dll*, is not present in the *Windows\System32* directory. The CAB file downloads successfully if the ATL DLL is present.

5.16.9 Some PSR files must be regenerated

PSR files created in builds of PowerBuilder 10.0 or 10.0.1 prior to EBF build 6044 cannot be opened in PowerBuilder or InfoMaker® 11.2. You must regenerate the PSR file in a later build. [CR 386984]

5.16.10 Legend values do not change when changing graph type

At runtime, when you change a graph type to or from a Pie graph type, the values in the legend do not change. [CR 452581]

6. Product compatibilities

6.1 Application Servers

PowerBuilder 11.2 has been tested with EAServer 5.5 patched with EBFs 13993 and 14146, and EAServer 6.1.

PowerBuilder 11.2 does not support the current version of the PowerBuilder Application Server Plug-in that runs in JBoss, WebLogic, and WebSphere application servers. However, future releases of PowerBuilder will include support for the plug-in. 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 11.2 has been tested with SQL Anywhere® 10.0.1 and the SQL Anywhere 10.0.1 Runtime Edition.

6.3 PowerDesigner

PowerBuilder 11.2 has been tested with PowerDesigner® 12.5.

6.4 Microsoft .NET Framework

PowerBuilder 11.2 is compatible with Microsoft .NET Framework 2.0 and 3.0.

6.5 Java

PowerBuilder 11.2 is compatible with JDK 1.5.

6.6 Apache Tomcat

PowerBuilder 11.2 JSP targets have been tested with Apache Tomcat 4.1.30.

6.7 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 must comply with the terms of the Apache License which is located in the free download terms document for PowerBuilder 11.

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

When you deploy the core PowerBuilder runtime files, you must ensure that the *msvcr71.dll* and *msvcp71.dll* Microsoft C/C++ 7.1 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, including PowerBuilder .NET Web Forms applications, but Microsoft does not allow them to be redistributed with the Runtime Packager.

The Microsoft DLLs may already be installed on the server or the user's computer. *atl71.dll* is installed with some operating systems but is not installed with Windows Server 2003. For more information about obtaining *atl71.dll*, see the Microsoft Web site at <http://support.microsoft.com/kb/915564>.

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 *pbjvm110.dll* can be registered. Make sure these files are on the target computer before you run the MSI file generated by the Runtime Packager.

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>.

PowerBuilder .NET Web Forms can use Internet Explorer Web Controls to display the Tab, TreeView, and Toolbar controls. If you want to use these controls instead of the default RadControls, you can download IE Web Controls from the Microsoft Web site at <http://www.asp.net/IEWebControls/Download.aspx>. For detailed information about installing the controls, see *Deploying Applications and Components to .NET*.

7.3 Sun Microsystems files

The Java Runtime Environment (JRE) is required for JSP targets, 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 *EasySoap110.dll*, which is dynamically linked to *PBSoapClient110.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 *PBSoapClient110.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 *EasySoap110.dll*. You can also relink *PBSoapClient110.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 *PBSoapClient110.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 *PBSoapClient110.pbx*.

8. Documentation updates and clarifications

The following books have been updated on the Sybase Product Manuals Web site for PowerBuilder 11.2:

- *New Features*
- *Deploying Applications and Components to .NET*

For other books in the documentation set, refer to the PowerBuilder 11.0 and 11.1 collections on the Sybase Product Manuals Web site or the online Help.

8.1 PostScript print driver setup

The section on installing PostScript printer drivers in the *Installation Guide* lists the HP Color LaserJet PS and the HP LaserJet 4/4M Plus PS 600 as examples. However, the HP Color LaserJet PS does not display images in PDF output and the HP LaserJet 4/4M Plus PS 600 displays color images using greyscale. The ADIST5 printer driver installed in the *Sybase\Shared\PowerBuilder\drivers* directory and the HP LaserJet Series 4050 PS printer display images in the PDF output correctly.

8.2 Description for number and currency masks in User's Guide

The *User's Guide* (in the HTML Help) incorrectly notes that if you want number and currency values to display with the regional formatting of each country where an application is deployed, "DataWindow expressions and the masks used in display formats and edit masks require U.S. notation for numbers." Due to customer requests, this has been modified so that display formats and edit masks always use the formatting that you enter for numbers and currency, including when you use U.S. notation for numbers or symbols. Changing the regional settings of the operating system does not modify the formatting displayed for numbers and currency at runtime.

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 11.2:

- 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 11.2 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 11.2 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, 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 6.1 DLLs, *com.sybase.iio.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 6.1 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 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 11.2 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.