Release Bulletin PowerBuilder® Enterprise 10.5.1

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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 PowerBuilder from the list of products and click Go.
- 3 Select PowerBuilder 10.5.1.
- 4 Select the Release Bulletin for PowerBuilder Enterprise.

2. Product summary

Enclosed is Sybase PowerBuilder® Enterprise version 10.5.1, which is compatible with the following platform and operating system configurations:

- Microsoft Windows 2000 with Service Pack 4
- 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

2.1 DataDirect database drivers

The PB DataDirect ODBC drivers and OLE DB data providers from DataDirect Technologies are delivered with this release under a limited contract. They will be removed from the final PowerBuilder 10.5.1 EBF download.

2.2 ASP Web site targets

PowerBuilder 10.5 is the last version of PowerBuilder Enterprise that will include ASP Web site targets, which enable you to build ASP pages and deploy them to a file system or FTP server. ASP Web site targets will be superseded in version 11 by an alternative technology. JSP targets will continue to be available in PowerBuilder version 11.

2.3 Software used for SOAP clients for Web services

PowerBuilder lets you choose between the .NET Web service engine and the EasySoap Web service engine to construct SOAP requests and parse the SOAP messages returned from a Web service. PowerBuilder installs an <code>EasySoap105.dll</code> file that contains the EasySoap++ library in executable form. The <code>EasySoap105.dll</code> file is linked dynamically to the <code>PBSoapClient105.pbx</code> and the <code>PBSoapClient.pbd</code> files. If you want to use the EasySoap Web service engine in a PowerBuilder application, you must import the PBX file to an application PBL or add the PBD to your target. When you deploy your application, you also distribute the contents of the PBX or PBD with its link to the EasySoap++ library.

The EasySoap++ library and its use are covered by the GNU Lesser General Public License (LGPL). For a copy of this license, see *Gnu-LGPL.txt* in the *Support.zip* file on the PowerBuilder 10.5.1 download page.

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 CD. In addition, the object code and Microsoft Visual C++ project file for the *PBSoapClient105.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 *EasySoap105.dll*. You can also relink *PBSoapClient105.pbx* with the modified EasySoap++ import library. According to the terms of the LPGL, it is understood that you will not necessarily be able to recompile *PBSoapClient105.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 *PBSoapClient105.pbx*.

For information about consuming Web services in PowerBuilder applications, see the chapter on building Web service clients in *Application Techniques*.

3. Special installation instructions

This section describes special installation instructions for PowerBuilder.

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 Installing PowerBuilder Enterprise

You can download PowerBuilder Enterprise 10.5.1 from the PowerBuilder page of the Sybase EBFs/Maintenance site at http://downloads.sybase.com. Download the files you require and extract the contents of the zip files following the instructions in the download notes that accompany the release.

To install PowerBuilder Enterprise 10.5.1, you must have already installed version 10.5 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 directories where they are installed. Also, back up .PBL and other files that contain information you do not want to lose, such as database files and .INI files.
- Run the *setup.exe* file in the *PowerBuilder* directory extracted from the *PowerBuilder.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 directory where they are installed.
- 3 Run the *setup.exe* file in the *InfoMaker* directory extracted from the *InfoMaker.zip* file.

3.3 Installing the PowerBuilder VM on EAServer

To run PowerBuilder components in EAServer, the runtime dynamic shared libraries for the version of PowerBuilder in which the components were developed must be available on the server. The PowerBuilder runtime files on the client and the server must be at the same build level.

To find out which version of the PowerBuilder virtual machine (VM) is installed with EAServer, see the "Product Compatibilities" section of the release bulletin for EAServer. If the PowerBuilder 10.5.1 VM is not installed, run the PBVM setup program to update the PowerBuilder runtime files.

To update the PowerBuilder VM:

• Run the *setup.exe* file in the *pbvm* directory extracted from the PowerBuilder 10.5.1 *PBVM.zip* file.

4. Changed functionality in this version

For a description of changes in the PowerBuilder 10.5.1 release, see the New Features section of the PowerBuilder Online Help file. To view the Help file, select Help>Welcome to PowerBuilder 10.5 from the PowerBuilder menu.

See "Migration information" on page 28 for more information.

5. Known problems

5.1 Database connectivity issues

5.1.1 Window is a reserved word in ASA

In Adaptive Server® Anywhere 9, the word "window" is a reserved word. As a result, SELECT statements on a column with the name window do not work correctly. There are several ways to work around this issue:

- Set the DelimitIdentifier database parameter to "Yes" in the ConnectString.
- Set the ASA database option "SET OPTION NON_KEYWORDS = 'WINDOW".
- Enclose the column name in quotation marks in SQL statements.

[CR 334166]

5.1.2 Pipeline execution with JDBC driver fails

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

5.1.3 Table updates not handled by OLE DB provider for Adaptive Server

The PB DataDirect OLE DB data provider for Adaptive Server Enterprise does not correctly handle table updates in the Database painter. [CR 338363, CR 338366]

5.1.4 DataDirect ODBC XML driver issues

You cannot create an ODBC XML data source name (DSN) using the DataDirect 5.1 ODBC driver. [CR 408671]

5.1.5 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]

5.1.6 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. Note that SQL scripts to alter a column's name are available only on the SQL Server 2000 client. [CR 348581]

5.1.7 PB DataDirect Oracle driver issues

If you create a table in the Database painter using the PB DataDirect 5.1 Oracle driver and give it a name that has all lowercase characters, the table columns are not visible in the Layout view. They display correctly after you select Tables>Refresh. [CR 348038]

The PB DataDirect OLE DB data provider for Oracle does not correctly handle inserts, updates, and display for Simplified Chinese and Traditional Chinese data. [CR 338372]

5.1.8 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]

5.1.9 OraOleDB faster than Oracle8ADOProvider

When you use an OLE DB connection to an Oracle9*i* database, the Table list or View list displays much more quickly in the Database painter if you use OraOleDB instead of the Oracle8ADOProvider. [CR 341835]

5.1.10 Connection issues with CnnPool

In the Database painter, attempting to connect to an Oracle9*i* or Oracle 10*g* database from an Oracle9*i* client fails after a connect and disconnect if the CnnPool database parameter is set to 'Yes'. This is because the Oracle9*i* client does not support connection pooling with a Unicode environment handle. [CR 355639]

5.1.11 RPC calls with non-Unicode Adaptive Server database

PowerBuilder can access Unicode data in Unichar and Univarchar columns in Adaptive Server Enterprise 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 Adaptive Server 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]

5.1.12 Microsecond portion of Adaptive Server times not retrieved

When you use the OLE DB interface to connect to an Adaptive Server Enterprise database and select a column with the DateTime or Time datatype, the microsecond portion of the time value is not retrieved. When you use the ODBC and JDBC interfaces, the microsecond portion of a DateTime column value is retrieved correctly, but the microsecond portion of a Time column value is not. [CR 399257]

5.1.13 ASE version 15 with ODBC driver

Retrieving and updating data in a DataStore with a TimeStamp datatype fails when you connect to an ASE version 15 server using the Sybase ASE ODBC driver. This is due to a bug in the ASE ODBC driver. [CR 416248]

5.1.14 Stored procedure call returns incorrect value with SQL Anywhere 10

With an ODBC connection to SQL Anywhere® 10, a stored procedure call with a numeric INOUT parameter that contains a value with zero digits in the last two or more places, such as 100, 1000, or 1200, returns an incorrect value. This is due to a bug in the SQL Anywhere 10.0 ODBC driver. [CR 443233]

5.2 DataWindow issues

5.2.1 Save As PDF fails on Windows 2003 Server

Saving as PDF using the Distill method fails at runtime on Windows 2003 Server. This 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]

5.2.2 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]

5.2.3 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]

5.2.4 Limitations in default PostScript drivers

The PostScript drivers installed with PowerBuilder do not support searching the generated PDF file. [CR 332365]

The PostScript drivers installed with PowerBuilder do not support searching the generated PDF file, and when a DataWindow object has more columns than fit on a single page, so that data is wrapped to a new page in the PDF file, sometimes the last column on each page is clipped. The workaround is to use an alternative driver. See the PowerBuilder 10.5 Installation Guide on the Sybase Product Manuals Web site at http://sybooks.sybase.com for how to install and use an alternative driver. [CR 324579, CR 332365]

5.2.5 Print preview mode disabled with ShowPrintDialog

When a DataWindow is in print preview mode, calling the Print method with the ShowPrintDialog argument set to true causes the DataWindow to display in normal mode. [CR 401182]

5.2.6 Print preview mode limitations

You can set the paper size and print margins from the Print Specifications tab page of the Properties dialog box for a rich text control. The settings you make modify the display of the control in both the standard and preview modes. However, you cannot open the Properties dialog box in preview mode. You must make paper size and print margin settings before you set the control display to preview mode. [CR 435746]

5.2.7 AutoSize group header band distorted in print preview mode

The AutoSize group header band is formatted correctly in normal mode but it is distorted in print preview mode. The column headers at the bottom of the group header band are overlapped by the detail band. [CR 421766]

5.2.8 TreeView DataWindow collapses when deleting or inserting a row

If a row is inserted or deleted when the TreeView DataWindow is in an expanded state, the TreeView DataWindow collapses. No workaround is known for this issue. This issue will be fixed in the next PowerBuilder 10.5.1 EBF release. [CR 439781]

5.2.9 SaveAs to Excel8! in script enables the encoding option

When you select Excel8! as the file type in the Save As dialog, the Encoding drop-down list is enabled and selected. This option is irrelevant for the Excel format and should always be disabled. If you change the file type from Excel to any other option, the encoding field is disabled. [CR 444616]

5.3 Decimal and longlong datatype support issues

5.3.1 Compiler error when maximum value assigned

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

5.3.2 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]

5.3.3 Dynamic SQL Format 4 does not work with longlong datatype

PowerBuilder 10.5.1 supports the longlong datatype and increases the range of the decimal datatype, but Dynamic SQL format 4 provides only one function, GetDynamicNumber, for all numeric datatypes. This function does not work correctly for data having the longlong datatype, or with high-range data of the decimal datatype. A new function for longlong and decimal datatype data will be available in PowerBuilder 11. [CR 403862]

5.4 EAServer issues

EAServer release bulletin

For additional 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://sybooks.sybase.com.

5.4.1 Byte datatype support for PowerBuilder components in EAServer

To fully support the byte datatype in PowerBuilder components hosted in EAServer, you must apply EBF 13293 to EAServer 5.3 and add a file named *pb.types* to the EAServer repository. This file must contain the following line: CORBA.octet=PB.Byte. [CR 402644]

5.4.2 Deploying an NVO Web service or accessing a Web service

Due to an upgrade in the underlying Axis technology, you must apply EBF 13293 to EAServer 5.3 before you deploy a PowerBuilder NVO as a Web service or access a Web service from a JSP target running in EAServer.

Additionally, to make the JSP Web service feature work, you must assign the following value to the com.sybase.jaguar.server.jvm.options setting in the *Jaguar.props* file in the EAServer repository, separating it from any other setting value by a comma:

-Dorg.apache.axis.transport.http11.chucked=false [CR 415834, CR 398194]

5.4.3 Byte[] datatype issue with Web services hosted in EAServer

Although EAServer can successfully return a byte[] datatype, it does not correctly handle the byte[] datatype as an input parameter. Any Web method that calls a Web method hosted in EAServer with a byte[] argument as an input parameter fails at runtime. This affects only Web methods hosted in EAServer. Web methods with a byte[] argument that are hosted in other servers can be successfully invoked from a JSP that is hosted in EAServer. [CR 306821]

5.4.4 SSL connection to EAServer 5.x fails

EAServer versions 5.2 and 5.3 use Transport Layer Security (TLS) to establish secure connections between a client and server. TLS is a protocol based on the Secure Sockets Layer (SSL) that can authenticate both the client and the server and create an encrypted connection between them. PowerBuilder clients that rely on the previous version of the EAServer SSL client runtime and use mutual authentication cannot establish an SSL connection using the default settings.

To disable support for TLS and use the previous version of the SSL client runtime, set the environment variable JAGSSL to true in the *serverstart.bat* file before you start EAServer.

You can also set this environment variable in an EAServer client installation:

set JAGSSL=true [CR 402979]

5.4.5 Calling a .NET Web service with EAServer causes runtime error

When EAServer 5.3 is used as a JSP server, calling a .NET Web service method that uses a byte array for a parameter in a JSP page causes a runtime error. [CR 378724]

5.4.6 Consuming a .NET Web service from a PowerBuilder NVO

If you call a .NET Web service from a PowerBuilder component running in EAServer, you must deploy the *Sybase.PowerBuilder.WebService.Runtime.dll*, *Sybase.PowerBuilder.WebService.RuntimeRemoteLoader.dll* and the dynamically generated .NET assembly to the EAServer bin directory (EAServer 5.x) or the EAServer JDK/bin (EAServer 6.0) directory. [CR 446351]

5.4.7 Creating an EJB client application for an EJB deployed to EAServer 6.0

Building EJB client applications for EJBs running in EAServer 6.0 requires you to take some additional steps when you create the EJB client proxy and when you create the client. See the New Features section of the PowerBuilder 10.5.1 Online Help for more information.

5.5 EJB client issues

5.5.1 CreateJavaVM does not produce debug information

Due to limitations in the Sun JDK 1.4, setting the *isdebug* argument of the CreateJavaVM method of the EJB client JavaVM class to true does not produce a *vm.out* debug information file when you use JDK 1.4. To work around this problem, use JDK 1.3 when you need debug information. You can change the JDK used in the development environment from the Java page of the System Options dialog box. [CR 296630]

5.6 Installation issues

5.6.1 Uninstall removes EAServer profiles from registry

Uninstalling PowerBuilder removes the EAServer profiles from the *HKEY_CURRENT_USER\Software\Sybase\PowerBuilder\N.N\JaguarServer Profiles* key in the registry, where *N.N* represents the version of PowerBuilder you are removing. If you need to uninstall and reinstall PowerBuilder, export this registry key to a file before you uninstall PowerBuilder. [CR 347732]

5.7 JSP issues

5.7.1 JSP Web DataWindow DTC pages display incorrectly in Enterprise Portal

JSP Web DataWindow DTC pages that use the XHTML or XML Generation Format options do not display correctly when deployed to Enterprise Portal. [CR 357759, CR 357760]

See "EAServer issues" on page 12 for additional issues.

5.7.2 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]

5.7.3 Web DataWindow custom component cannot be found in JSP Web DataWindow wizard

When you deploy a Web DataWindow custom component to EAServer 6.0 and create a JSP Web DataWindow page using the wizard, the Web DataWindow custom component cannot be found. The following workaround might solve the issue:

- 1 Insert a Web DataWindow DTC into an existing JSP.
- 2 In the Properties dialog box of the DTC, select the HTMLGenerator tab.
- 3 Expand the EAServer node.

Now you can select the Web DataWindow custom component.

[CR 445109]

5.8 Menu and toolbar issues

5.8.1 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]

5.8.2 RightToLeft property not supported

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

5.8.3 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.
- 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]

5.9 PowerDesigner plug-in issues

5.9.1 OLE controls are not supported

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

5.9.2 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 GetCurrentDirectoryA fails. The workaround is to specify an alias for the function, for example:

public function ulong GetCurrentDirectoryA (ulong textlen, ref string dirtext) library "KERNEL32.dll" alias for "GetCurrentDirectoryA; ansi"

[CR 358442]

5.10 Rich text control issues

5.10.1 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]

5.10.2 Rich text application deployment issues

When you deploy a rich text application to a server or client machine, you must also copy the rich text DLL and OCX files in the

Sybase\Shared\PowerBuilder\RTC directory to the PowerBuilder VM directory on the deployment computer or to a directory in the application's path. For more information on the list of files that must be deployed with an application that uses rich text, see the chapter on "Deploying Applications and Components," in Application Techniques.

You can use the PowerBuilder Runtime Packager to deploy the required rich text files with your application. You do not need to register the rich text *OCX* file if it is copied or deployed to the directory containing the PowerBuilder VM.

For more information on the runtime packager, see the chapter on "Deploying Applications and Components" in *Application Techniques*. [CR 426800]

5.10.3 Inserting a document in a rich text control fails

You cannot insert a document into a rich text control when the control's DisplayOnly property is set to true. If you try to do this, PowerBuilder displays a runtime error message. [CR 435744]

5.10.4 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, 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]

5.10.5 Text does not wrap correctly in rich text control

When WordWrap is enabled, text should wrap automatically to the next line when it reaches the right margin of the rich text control. But, in PowerBuilder 10.5.1, although WordWrap is enabled in a rich text control, the text is not wrapped correctly. This occurs because PowerBuilder sets 8 ½" x 11" as the default page size for the control. To work around this issue, change the page size to match the control size. The text will wrap correctly. [CR 441593]

5.11 SCC issues

5.11.1 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]

5.12 Web services issues

See "EAServer issues" on page 12 for additional Web service issues.

5.12.1 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]

5.12.2 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]

5.12.3 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]

5.12.4 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]

5.12.5 Array members with null values

If a Web service returns an array with a null value, you can declare an Any datatype variable to hold it; however, if you use an array variable to hold the null return value, PowerBuilder reports a runtime error. If the null value is returned for an embedded array, PowerBuilder throws an exception whether you use an Any variable or an array variable to hold the return value. When you use a Web service that returns an array or an embedded array, you should test whether that value is null using the IsNull method before deciding how to proceed. [CR 415207]

If you attempt to debug and run a workspace that imports a structure with an array member that returns a null value, then attempt to assign the null value to another variable, this can cause PowerBuilder to throw an exception. [CR 409850]

5.12.6 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]

5.12.7 Web services across time zones

When an application consumes a Web service that uses the date, time, or datetime datatypes, it is possible that the service implementation processes and returns different data for application users who access the service from different time zones. This is typically the result of design considerations of the Web service and not the result of precision differences or translation errors between the Web service and the application that calls it. [CR 429611]

5.13 Other issues

5.13.1 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 Comctrl32 Version 6. [CR 403814]

5.13.2 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 Adaptive Server Enterprise, PowerBuilder crashes if the encoding of the blob is ANSI or UTF-8 and it contains fewer than 10 characters. [CR 353231]

5.13.3 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]

5.13.4 Translation Toolkit cannot translate PBLs from previous version

If you want to translate PBLs from a version of PowerBuilder prior to PowerBuilder 10, you must first migrate them to PowerBuilder 10 or later. See the online Help for the Translation Toolkit for more information. [CR 349513]

5.13.5 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]

5.13.6 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]

5.13.7 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:

5.13.8 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.

6. Product compatibilities

6.1 EAServer

PowerBuilder 10.5.1 has been tested with EAServer 5.3 GA (Build 53016) patched with EBF 13293 and EAServer 6.0 GA (Build 60093) patched with EBF 14142.

If you want to establish an SSL conection between Power Builder 10.5.1 and EAServer 6.0, you must copy the files available in the $\$ lib folder of EBF 14142 to a corresponding folder in the EAServer client.

To run PowerBuilder components in EAServer, the runtime dynamic shared libraries for the version of PowerBuilder in which the components were developed must be available on the server. The PowerBuilder runtime files on the client and the server must be at the same build level. Using different build levels on client and server machines might result in unpredictable behavior or data corruption.

6.2 SQL Anywhere

In version 10.0, Adaptive Server Anywhere and SQL Anywhere Studio have been renamed SQL Anywhere. The suite is now referred to as SQL Anywhere. The database server is referred to as SQL Anywhere server.

PowerBuilder 10.5.1 has been tested with Adaptive Server Anywhere (ASA) 9.0.2 (Build 3044), ASA 9.0.2 Runtime Edition (Build 3044), and SQL Anywhere 10.0 (Build 2464).

Note If you want to upgrade to SQL Anywhere 10.0 after installing PowerBuilder 10.5.1 with Adaptive Server Anywhere 9.x, you must run the ASA9DBto10 tool after upgrading. ASA9DBto10 is available in the *Support* folder. Refer to the instructions in the *Readme.txt* file in the *Support*\ASA9DBto10 folder.

6.3 PowerDesigner

PowerBuilder 10.5.1 has been tested with PowerDesigner 12.1.

6.4 Enterprise Portal

PowerBuilder 10.5.1 has been tested with Enterprise Portal 6.0 with EAServer 5.3.

6.5 Java

PowerBuilder 10.5.1 is compatible with JDK 1.5.x.

6.6 Apache Tomcat

PowerBuilder 10.5.1 JSP targets have been tested with Apache Tomcat 4.1.30.

To use Web DataWindows and access EAServer components in JSP pages that you will deploy to a Tomcat server, you must add the following JAR files to the *%Tomcat%\shared\lib* directory:

```
pbjdbc12105.jar
easclient.jar
easj2ee.jar
```

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

6.7 Application Servers

EJB client functionality has been tested with EAServer 5.3, WebLogic 8.1, Oracle 9*i* AS, Oracle Application Server 10*g*, and WebSphere 5.0.

6.8 Ghostscript

The DataWindow Save as PDF feature has been tested with AFPL Ghostscript version 8.53.

7. Documentation updates and clarifications

7.1 Authentication methods for SOAPConnection class

The methods for the SOAPConnection class are not included in the printed and online versions of the *PowerBuilder Extension Reference* or are documented incorrectly. For more information about these methods, refer to the Help file installed with PowerBuilder or the *PowerBuilder 10.5 Release Bulletin* on the Sybase Product Manuals Web site at http://sybooks.sybase.com.

7.2 PBNI Application Wizard

The following information is not included in the printed and online versions of the *PowerBuilder Native Interface User's Guide and Reference*. It is included in the Help file installed with PowerBuilder.

If Visual Studio .NET 2005 is installed on your computer, a PBNI Application wizard is installed in the ..\Microsoft Visual Studio 8\VC\VCProjects and ..\Microsoft Visual Studio 8\VC\VCWizards directories when you install PowerBuilder. You use the wizard in the same way as the wizards for earlier versions of Visual Studio.

7.3 InsertPicture enhancement for RichTextEdit

The InsertPicture function for the RichTextEdit control now supports WMF, JPEG, PNG, GIF, and TIFF files in addition to bitmap files. The list of modified functions in the *New Features* book and the description of InsertPicture in the PowerScript Reference do not include this enhancement.

7.4 New RecheckRows database parameter

The RecheckRows database parameter is not described in the *Connection Reference*.

In Microsoft SQL server, if a table has an insert, update, or delete trigger, the number of affected rows returned to the SQLNRows property of the Transaction object after an INSERT, UPDATE, or DELETE command depends on the driver. With an ADO.NET driver, the value returned is the sum of the rows affected by the command itself and the trigger.

When you are connected to Microsoft SQL Server using ADO.NET or OLE DB, you can set the RecheckRows runtime database parameter to 1 to recheck how many rows of data were affected by the INSERT, UPDATE, or DELETE command itself and return that value in the SQLNRows property.

Setting RecheckRows to 1 before issuing an INSERT, UPDATE, or DELETE command causes a SELECT @@ROWCOUNT command to be executed. To improve performance, you should set it only when required, and reset it to the default value of 0 after use.

To set RecheckRows to 1, type the following in code:

SOLCA.DBParm="RecheckRows=1"

7.5 BindSPInput database parameter applies to Oracle 10g

The O10 driver for Oracle 10g is not listed as supported in the description of the BindSPInput database parameter in the *Connection Reference*. BindSPInput applies to the O10 interface.

7.6 List of DataDirect ODBC files incorrect

The list of PowerBuilder DataDirect ODBC database drivers and files in Chapter 41, "Deploying Applications and Components," in *Application Techniques* is incorrect. The following table lists the required files for each supported interface.

Driver	File Name
All PB DataDirect OEM 5.10 drivers	IVPB.LIC
	PBICU21.dll
	PBTRN21.dll
PB DataDirect OEM 5.10 Btrieve	PBBTR21.DLL
	PBBTR21R.DLL
	PBBTR21S.DLL

Driver	File Name
PB DataDirect OEM 5.10 DB2 Wire Protocol	PBDB221.DLL PBDB221R.DLL
PB DataDirect OEM 5.10 dBASE	PBDBF21.DLL PBDBF21R.DLL
PB DataDirect OEM 5.10 Informix	PBINF21.DLL PBINF21R.DLL PBINF21S.DLL PBINFDTC21.DLL
PB DataDirect OEM 5.10 Informix Wire Protocol	PBIFCL21.DLL PBIFCL21R.DLL
PB DataDirect OEM 5.10 Oracle	PBOR821.DLL PBOR821R.DLL PBOR821S.DLL PBOR8DTC21.DLL
PB DataDirect OEM 5.10 Oracle Wire Protocol	PBORA21.DLL PBORA21R.DLL
PB DataDirect OEM 5.10 Paradox	PBIDP21.DLL PBIDP21R.DLL PBIDP21S.DLL
PB DataDirect OEM 5.10 Progress SQL92	PBPRO921.DLL PBPRO921R.DLL PBPRO921S.DLL
PB DataDirect OEM 5.10 Progress OpenEdge	PBPRO1021.DLL PBPRO1021R.DLL PBPRO1021S.DLL
PB DataDirect OEM 5.10 SQL Server Wire Protocol	PBMSSS21.DLL PBMSSS21R.DLL DBNETLIB.DLL SQLSRV32.DLL SQLSRV32.RLL SQLUNIRL.DLL
PB DataDirect OEM 5.10 Sybase Adaptive Server Enterprise Wire Protocol	PBASE21.DLL PBASE21R.DLL
PB DataDirect OEM 5.10 Text File	PBTXT21.DLL PBTXT21R.DLL

Driver	File Name
PB DataDirect OEM 5.10 XML	PBXML21.DLL
	PBXML21R.DLL
	PBXML21S.DLL
	PBIADX09.DLL
	PBIADX09R.DLL
	PBXMLX09.DLL
	PBXMLX09R.DLL

7.7 Rich text deployment issue

Chapter 41, "Deploying Applications and Components," in *Application Techniques* lists the files that must be deployed with an application that uses rich text, but omits the following requirements. When the application is run remotely on a server, the ActiveX control (*tp4ole11.ocx*) must be registered on the client computer. In PowerBuilder 10.5 EBF 5048 and later builds, the ActiveX control does not need to be registered on the client if the required files are in the same directory as the PowerBuilder runtime files or in an *RTC* subdirectory of that directory.

7.8 Microsoft update affects DataWindow Web ActiveX

If the Cumulative Security Update for Internet Explorer (912812) or a subsequent update is installed on the computer where the DataWindow Web Control for ActiveX (Web ActiveX) is running, a browser refresh does not refresh the control correctly. This update is described in Microsoft Security Bulletin MS06-013, published in April 2006.

To work around this issue, move the <OBJECT> tag from the main HTML file to a separate JavaScript file, as shown in this example:

</HTML>

The *createElement.js* JavaScript file contains the Object tag:

```
// createElement.js file
var d = document.getElementById("DivID");
d.innerHTML =
'<OBJECT id="OBJECT1" style="WIDTH: 627px; HEIGHT:
320px" codeBase="psdwc105.cab"
classid="CLSID:A5A51503-A5A5-1000-8000-080009AC61A9">'
+'<PARAM NAME=" Version" VALUE="65536"></PARAM>'
+'<PARAM NAME=" ExtentX" VALUE="16589"></PARAM>'
+'<PARAM NAME=" ExtentY" VALUE="8467"></PARAM>'
+'<PARAM NAME=" StockProps" VALUE="2"></PARAM>'
+'<PARAM NAME="Caption" VALUE=""></PARAM>'
+'<PARAM NAME="SourceFileName"
VALUE="test.psr"></PARAM>'
+'<PARAM NAME="DataWindowObject"
VALUE="test.psr"></PARAM>'
+'<PARAM NAME="LogId" VALUE=""></PARAM>'
+'<PARAM NAME="LogPass" VALUE=""></PARAM>'
+'<PARAM NAME="dbParm" VALUE=""></PARAM>'
+'<PARAM NAME="SuppressEvents" VALUE="0"></PARAM>'
+'<PARAM NAME="VScrollBar" VALUE="0"></PARAM>'
+'<PARAM NAME="HScrollBar" VALUE="0"></PARAM>'
+'<PARAM NAME="HSplitScroll" VALUE="0"></PARAM>'
+'<PARAM NAME="LiveScroll" VALUE="0"></PARAM>'
+'</OBJECT>';
```

8. 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 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.

8.1 OLE DB performance with Microsoft SQL Server

In PowerBuilder 10.5.1, 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 *PBODB105.ini* file to turn off server-side cursors:

ServerCursor = 'NO'

8.2 Toolbar changes in PowerBuilder 10.5

In the Menu painter, you can now add a toolbar to a standalone main window as well as to an MDI frame. PowerBuilder adjusts the size of the main window to accommodate the toolbar. If your application currently uses a visual user object as a toolbar in a main window, the adjustments that PowerBuilder makes might affect the display of your toolbar and conflict with adjustments that your scripts make to display microhelp.

You can replace your toolbar user object with a toolbar designed in the Menu painter or continue to use your existing toolbar. To ensure that your existing toolbar displays correctly, set the window's ToolbarVisible property to false in a script or on the Toolbar page in the Properties view. To avoid conflicts, you should also move any microhelp position adjustment code into an event that runs after the Open event of the window.

8.3 Icon changes in PowerBuilder 10.5

In PowerBuilder 10.5, many of the icons used in the PowerBuilder and InfoMaker user interfaces were changed. When you migrate an application to PowerBuilder 10.5 or later, any stock icons used in the application are updated automatically. For users who prefer to use the existing icons, a zip file that contains 24 icon files and more than 500 bitmap files used in previous versions of the products is available on the CodeXchange Web site at https://powerbuilder.codexchange.sybase.com/servlets/ProjectDocumentView?d ocumentID=2392&showInfo=true.

8.4 Change in Date function behavior

When you use the Date function with a string argument, PowerBuilder attempts to match the input string to a date format in the regional settings on the computer. In PowerBuilder 10 and later, if a complete match is not found, PowerBuilder attempts a partial match. For example, if you use Date('01-JAN-1900') and PowerBuilder finds the partial match (dd-MMM-yy), PowerBuilder parses the first two numbers of the year and gets 19. The 2-digit year is interpreted as a year between 1930 and 2029, and the date returned is 1/1/2019.

9. 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.

10. 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 PowerBuilder 10.5 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 PowerBuilder 10.5 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/.

10.1 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

- 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.

10.2 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.

11. 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 10.5.1 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.