Features Help for Appeon Web

This Help gives a detailed list of what PowerBuilder features are supported and can be converted to the Web and what features are unsupported.

Note: Unless specified, the supported features in this Help document work with Appeon Server for .NET, EAServer, WebLogic, WebSphere, JBoss and JEUS; a feature marked "EAServer only" only works with Appeon Server for EAServer.

What's New in Appeon Web 6.6

These are major new features added to Appeon Web 6.6.

PowerScript Features	Supported • The BackColor property of the PictureButton control is supported. • The Identity database parameter is supported. • The SaveObject event of the OLE control is supported. • The HSplitScroll property of DataWindow is supported. • PNG image type is supported.
Application Server types and versions	Supported • Supports Cloud Computing: Amazon, Azure, Rackspace • Supports SAP NetWeaver and WebSphere CE Java servers.
Database Server types and versions	Supported • Supports SAP HANA and MySQL database • Supports native driver for ASE database

Features Help for Appeon Web

Appeon® for PowerBuilder® 2013

For WINDOWS/UNIX/LINUX

Overview

Appeon® for PowerBuilder® is able to deploy most PowerBuilder features to Web successfully. However there are still some unsupported features to remove, general guideline to follow and common pitfalls to avoid during the Web migration process. An application that contains unsupported features and does not adhere to some basic requirements and architectural requirements, may fail to migrate to the Web and suffer from performance problems.

This book will help you:

1. Figure out what PowerBuilder features are supported in Appeon and what are not;
2. Understand Appeon Web features.

Basic Requirements

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There are some basic requirements for the PowerBuilder application which is going to move to the Web with Appeon.

1. The PBLs size is suggested less than 500MB. Appeon has successfully tested a PFC application that was artificially inflated to over 500MB.
2. The code is upgraded to be 100% compatible with Appeon-supported environment. Details refer to the **Installation Requirements** section in **Appeon Installation Guide**.
3. The application can generate .exe files (with no errors) in the PowerBuilder version that you install Appeon Developer to.
4. The application has been tested thoroughly to be bug-free.

Requirements for Upgrading PowerBuilder Applications

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The application code must be 100% PowerBuilder 9 or above code.

Non-PowerBuilder 9 or above code, including code that is defined as obsolete in PowerBuilder 9 or above help, must be replaced/upgraded before you can begin to use Appeon for PowerBuilder. In addition, supported PowerBuilder 9 or above code is demonstrated in the PowerBuilder Help. Undocumented syntax is unsupported.

All objects that are referenced by PBLs need to be available - PBLs cannot point to objects that do not exist. If a PBL does reference an unavailable object, the Appeon Web Application Deployment process will crash.

Upgrading DataWindow objects to PowerBuilder 9 or above

- In PowerBuilder 9 or above, the DataWindow column name cannot be null (in previous versions of PowerBuilder, this was allowed). Ensure that the column names of DataWindows are not null.
- In the earlier versions of PowerBuilder, the edit style of a DataWindow could be null. The user must make sure that after upgrading to PowerBuilder 9 or above, the edit styles of the DataWindows are not null.
- In the earlier versions of PowerBuilder, the user could use the GetChild function to provide a reference to a child DataWindow in the DataWindow itself.
- If an application is updated to PowerBuilder 9 or above, some DataWindow columns may have duplicate names. Duplicate names for columns in a DataWindow are unsupported.
- If a DataWindow is not correctly upgraded to a PowerBuilder 9 or above format, the problematic DataWindow(s) will be reported with the following information: PBL >

DATAWINDOW NAME.

Upgrading Menu objects to PowerBuilder 9 or above

- With menu inheritance, the source code in earlier versions of PowerBuilder is different from the source code in PowerBuilder 9 or above. The user must open the menu objects with inheritance in PowerBuilder 9 or above and upgrade the objects to PowerBuilder 9 or above objects.

Upgrading color specification to PowerBuilder 9 or above

- A color value in an earlier PowerBuilder version may map to a different color of the same value in PowerBuilder 9 or above. If you prefer the color of the earlier version, be sure to verify that the correct colors are selected when upgrading the application to a PowerBuilder 9 or above application.

Application Language Recommendations

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Appeon conducted comprehensive test for the Web application under the following language environment. Other languages can potentially be supported, but they have not been tested.

- English
- Simplified Chinese
- Traditional Chinese
- Korean
- Japanese

Web Browser Limitations

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Appeon Web applications run well in the Internet Explorer with two limitations:

1. Multiple Appeon applications cannot be run in the same Internet Explorer session. Because of this limitation, you will have the following limitations in IE 7and IE 8\9.
    - With IE 7, tab browsing multiple Appeon applications that are deployed with same Appeon version is unsupported since all tabs are sharing the same session in IE 7.
    - With IE 8\9, by default, you can run no more than two Appeon web applications in different tab pages, or different IE browsers. The third Appeon web application can not be run with the default IE settings. If you need to run multiple Appeon Web applications (more than 3) with IE 8\9 you can

a. Click the New Session item on the File menu of IE 8\9. Then access Appeon applications in the new opened IE browser.

b. Run iexplore.exe with the -nomerge parameter so that whenever you open a new IE browser, new session will be created. For example, you can change the shortcut of IE 8\9 to "C:\Program Files\Internet Explorer\iexplore.exe" –nomerge.

2. When the Internet Explorer is refreshed, you need to log in the Web application again.

If you are an Internet Explorer 7 user, there are more known issues:

- IE 7 supports page zoom, enlarging individual Web pages, including both text and graphics, to either focus on specific content or to make content more accessible to those with vision limitations, however, this feature has no effect to Appeon application Web pages and places the UI elements in disorder.
- When a response window of the Appeon Web application is opened in IE 7, if you click the area out of the response window, the focus will be moved away from the window and you will not be able to set focus to the response window again.
- When an Appeon Web application is opened in IE 7, if you move the focus which is currently on the treeview of an MDIClient window to a different tab which has opened a non-Appeon application, and then switch back to the Appeon Web application, the toolbar of IE 7 will not be able to get the focus.
- When IE browser is displayed in full screen, the pop-up menu on the Appeon Web application will be closed automatically, because IE 7 automatically switches the focus.
- When an Appeon Web application is opened in IE 7, thumbnail images are unsupported.
- If the shortcut defined in PowerBuilder application is the same as the shortcut of IE 7, shortcuts in IE 7 have a higher priority when it converted to the Web.

Distributed Application Support (EAServer + Windows Only)

N-Tier PowerBuilder NVOs

N-Tier DataWindows

Work around Unsupported Features

Appeon supports N-Tier NVOs as well as the distributed DataWindow technique, which synchronizes a DataWindow control on a client with a DataStore on a server using GetFullState, SetFullState, GetChanges and SetChanges. These features can be applied to work around most unsupported features as well as connectivity to Web Services, Java Corba, EJB, C/C++ DLLs (Windows only), and ActiveX components, etc.

The basic requirement for migrating distributed PowerBuilder applications is as follows: all components directly called by the PowerBuilder client must be hosted in one Appeon Server that is used for Web deployment of the PowerBuilder client, and the component type must be a PowerBuilder NVO or a Java Corba component.

The N-Tier NVO that is hosted in one Appeon Server can serve as a "bridge" to call different kinds of middle-tier components that are hosted in different servers.

For instance, if your application calls both .NET components in Web Services and some Java components in EAServer, add an intermediate layer of PowerBuilder NVO components to

EAServer: Encapsulate the .NET components and deploy them to EAServer as N-tier NVOs. Modify the application so that it can call the deployed NVO in EAServer instead of directly invoking the .NET components.

Distributed applications involve the use of the PowerBuilder Connection object. Refer to Connection object for information on supported and unsupported features.

N-Tier PowerBuilder NVOs (EAServer + Windows Only)

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Supported

- The variables used in n-Tier PowerBuilder NVO can be the following standard PowerScript data types:

Boolean	Blob	Char	Date*
DateTime	Decimal	Double	Int
Integer	Long	Real	String
Time	UInt	ULong*	UnsignedInt
UnsignedInteger*	UnsignedLong*		

- Functions in NVO components can use UnsignedLong or UnsignedInteger as arguments, but not as return values.
- Functions in NVO components can use array, structure and reference as arguments.
- The parameter and return value of an NVO public interface can be arrays, complex data types, or structures.
- Declaring external functions (such as API functions, DLLs) in the NVO is supported if Appeon Server runs on Windows. External Function DLLs in Appeon Server/EAServer PowerBuilder components have no issues from PowerBuilder's perspective, but if the external function is not thread-safe, that can certainly cause a problem. It's dependent on the DLL's implementation, which has nothing to do with Appeon Server/EAServer. If it's not threadsafe you can set the com.sybase.jaguar.component.thread.safe property of the PowerBuilder component to false and that will prevent multiple threads from trying to access the external function simultaneously.

Differences

- The precision of the decimal number, which is the return value of NVO components, is different from that in PowerBuilder and on the Web. This is caused by the different precision between PowerScript and JavaScript.

Unsupported

The n-Tier PowerBuilder NVOs cannot use the following features:

- PowerScript MessageBox function in the NVO
- Global variables
- Visual controls or objects
- Any visual control/object data type as the parameters for NVO functions and events

For calling and using remote EAServer PowerBuilder NVO components in the PowerBuilder

client, some limitations are listed below:

- The proxy object for an NVO cannot use the same name as the NVO.
- It is impossible to use Dot Notation to refer to the instance variables of a remote NVO. Appeon suggests that you add functions to the remote NVO to get/set its instance variable values.
- You cannot trigger or post the events of a remote NVO in the PowerBuilder client.
- The script for an NVO or the script referred to in an NVO cannot contain UI-related scripts or objects.
- Web applications are unsupported to call NVOs that contain inheritance hierarchy.
- The parameter of an NVO public interface cannot be Date or Time in EAServer 6.x.
- The return value of an NVO public interface cannot be decimal in EAServer 6.x

N-Tier DataWindows (EAServer + Windows only)

Appeon Server installed to EAServer on Solaris/AIX can only support n-Tier DataWindows that do not call the GetChanges, GetFullState, SetChanges, and SetFullState functions.

Appeon Server installed to EAServer on Windows can support n-Tier DataWindows that call the GetChanges, GetFullState, SetChanges, and SetFullState functions, as long as the Appeon Workaround PBL is implemented.

For more instructions on how to use the Appeon Workaround PBL, please refer to the Distributed DataWindows section in *Appeon Workarounds Guide.*

Program access techniques

Using OLE in an application

Using External functions

Using Run PowerScript function

Building a mail-enabled application

Using Drag and Drop

Using OLE in an application

OLE, originally an acronym for Object Linking and Embedding, is a facility that allows Windows programs to share data and program functionality. Appeon supports the use of OLE in three ways:

- OLE control
- OLECustomControl
- OLE object

OLE controls	Supported OLEControl control OLECustomControl control Unsupported OLE Control of DataWindow
OLE objects	Supported OLEObject object Unsupported OLEStorage OLEStream OLERuntimeError OLERuntime OLETxnObject Large Binary/Text database OLE Object of DataWindow
Calling OLE object functions	Requirements Using parentheses when calling an OLEObject method is required, even if the OLEObject method does not require any parameter. For example, when executing the Save function for a Microsoft Word document: o1.ActiveDocument.Save //Unsupported `o1.ActiveDocument.Save() //Supported` Unsupported 1) OLEObject object does not support cascaded calling. The following example is unsupported: OleObject.function1.function2() 2) The OLE object method cannot contain reference parameters.
Shortcut	Unsupported Using shortcuts in the OLECustomControl control are unsupported.
Requirements for client environment	Requirements When an OLE object is called in a deployed application, the location used to store the OLE object on the client should match the location specified in the original PowerBuilder application. ActiveX control(s), if used in the Web application, should be installed and registered on the client. There are two ways to install and register ActiveX controls: Manually install and register ActiveX controls that are associated with the Web application. Deploy ActiveX controls that are associated with the Web application to Appeon Web Server, so ActiveX controls can be automatically

downloaded and registered on the client. For detail information on deploying ActiveX controls to the Web Server, refer to the *Appeon Developer User Guide*.

Using external functions

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Data types of external function arguments	**Supported**			
	Array	Boolean	Blob	Char
	Date	DateTime	Decimal*	Integer
	Long	Real	String*	Structure
	Void			
	String The length of an argument or return value as String data type can not be larger than 512 characters.			
	Decimal The precision of Decimal argument is the same as the precision of Double data type.			
	Unsupported			
	LongLong	Object	UInt	UsignedInt
	UnsignedInteger	UnsignedLong		
Data types of external function return values	**Supported**			
	Array	Boolean	Blob	Char
	Date	DateTime	Double	Decimal*
	Integer	Long	Real	String*
	Unsigned Integer	Unsigned Long	Void	
	String The length of an argument or return value as String data type can not be larger than 512 characters.			
	Decimal The precision of Decimal argument is the same as the precision of Double data type.			
	Unsupported			
	LongLong	Structure	Object	

DLLs or shared libraries Location	**Supported** When your application calls an external function, it must be able to find the DLL (Dynamic link library) or the shared library in which that function resides. To ensure this, you must update the library path environment variable on the client machine to include the directory where that DLL or shared library is stored. The directory is searched in the following order of precedence: 1.Windows system directory • Windows 2000/2003: The 32-bit Windows system directory. Use the GetSystemDirectory function to get the path of this directory. The name of this directory is SYSTEM32. or • Windows NT/2000: The 16-bit Windows system directory. There is no Win32 function that retrieves the path of this directory, but it is searched. The name of this directory is SYSTEM. 2. The Windows directory uses the GetWindowsDirectory function to get the path of this directory. 3. The directories that are listed in the PATH environment variable. When you make changes to the environment variables, the environment variables take effect only after you restart the machine.
Ensuring the resource file in an external function when running Web application	Supported 1. If the file is an Image, directly specify the file name. When you deploy the application with Appeon Developer, you need to deploy the Image, DLL or OCX file with the application Web files to the Web server. Refer to Application profile configuration in the Appeon Developer Guide for instructions. 2. If the file type is not Image, DLL or OCX, specify the file name and absolute file path. The client that runs the application must have the file ready in the same path before executing the external function. 3. If the file is a DLL or OCX, there are two ways to ensure the resource file in an external function: Directly specify the file name. When you deploy the application with Appeon Developer, you need to deploy the Image, DLL or OCX file with the application Web files to the Web server. Refer to Application profiles configuration in the Appeon Developer Guide for instructions. Package the file using the DLL/OCX file packaging wizard. Installed them to the client before the application is run for the first time. Refer to Packaging DLL OCX files in the Appeon Developer Guide.
Others	Supported Calling external functions in Win32-based DLLs (including both the system DLLs and the user-defined DLLs) is supported. API for file and directory access operations is supported. Unsupported Graphs created by Window API function may not be displayed on the Web.

Calling external functions in the Timer event will result in unexpected errors on the Web if the external functions are called in other places of the application.

Using Run PowerScript function

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Syntax	Supported Run (string {, windowstate }) The value of a string argument can be a filename without a path or extension. The following examples are supported: run("notepad") run("notepad.exe") run("C:\winnt\system32\notepad") run("C:\winnt\system32\notepad.exe")
Application programs location	**Supported** When you call the Run function and do not specify the path of the application program to the string argument, make sure that the application program is stored in one of the following directories. If it is not, an execution error will occur. The directory is searched in the following order: 1. Windows system directory Windows 2000/2003: The 32-bit Windows system directory. Use the GetSystemDirectory function to get the path of this directory. The name of this directory is SYSTEM32. or Windows NT/2000: The 16-bit Windows system directory. There is no Win32 function that retrieves the path of this directory, but it is searched. The name of this directory is SYSTEM. 2. The Windows directory Use the GetWindowsDirectory function to get the path of this directory. 3. The directories that are listed in the PATH environment variable. When you make changes to the environment variables, the environment variables take effect only after you restart the machine.

Building a mail-enabled application

Appeon supports MAPI (messaging application program interface), so you can enable your Web applications to send and receive messages using any MAPI-compliant electronic mail system.

Appeon supports the following mail related objects and structures to enable the mail service.

A mail-related system object	**Supported**		
	MailSession		
Mail-related structures	**Supported**		
	MailMessage	MailFileDescription	MailRecipient
	Unsupported		
	Properties of the three structures cannot be NULL.		
Object-level functions for the MailSession object	**Supported**		
	mailAddress	mailDeleteMessage	mailGetMessages
	mailHandle	mailLogoff	mailLogon
	mailReadMessage	mailRecipientDetails	mailResolveRecipient
	mailSaveMessage	mailSend	
Enumerated data types	**Supported**		
	MailFileType	MailLogonOption	MailReadOption
	MailRecipientType	MailReturnCode	

Using Drag and Drop

Drag and drop allows users to initiate activities by dragging a control and dropping it on another control. Except OLE, drag and drop is supported for other draggable controls and objects with features listed in the table below:

Drag and Drop properties	**Supported**			
	DragAuto	DragIcon		
Drag and Drop Events	**Supported**			
	BeginDrag	BeginRightDrag	DragDrop	DragEnter
	DragLeave	DragWithin		
	Unsupported			
	If the DragIcon is not specified for a control except the ListView or TreeView control, pressing the left mouse button without moving will trigger both DragEnter and DragWithin events in PowerBuilder, however,			

	DragEnter event only on the Web.			
Drag and Drop Functions	**Supported**			
	Drag	DraggedObject		
Drag mode	**Unsupported**			
	Key event is unsupported if controls are in drag mode			
UI differences during the drag and drop	**Difference**			
	(For all supported draggable controls except the TreeView and ListView controls) The icon of the mouse will not change, if it is not on the client area of a control. (For TreeView and ListView) When you drag a control, you cannot see the mouse icon during the drag. Appeon does not support dragging and dropping multiple controls simultaneously. You can only drag and drop one control at a time.			

Using Unicode

APPEON

Appeon supports the Unicode character encoding in PowerBuilder 10 or above. You can display characters from multiple languages on the same page of a Web application. Since 3.1, Appeon provides support to other Unicode related functions for backward compatibility with earlier versions of PowerBuilder.

Supported

String related functions

Appeon supports the string related functions in both PowerBuilder 9 and PowerBuilder 10 +. The following changes, made since PowerBuilder 10, are also supported.

1. Modified processing of string-manipulation functions.

2. Asc and Char functions

3. Blob and String conversion functions.

Support ANSI and Unicode database

Appeon supports both ANSI and Unicode database. For Unicode database it is recommended to use iAnywhere and jConnect driver because using JDBC-ODBC driver with Unicode databases may cause problems.

Calling external functions

Appeon supports both Unicode encoding and ANSI encoding when the Web application calls external functions.

Application enhancements and differences

Appeon security enhancement

If your PowerBuilder application has no coded username/password verification during application startup, Appeon's built-in user group management can assist you. Refer to Configuration during security management in the *Server Configuration Guide* for more information. When using Appeon's built-in security, you will be prompted to enter a user name and password in the Appeon Login Web dialog box.

Installing Appeon ActiveX control

Methods for installing Appeon ActiveX

Originally, there are two ways to install Appeon ActiveX. One way is Appeon ActiveX will be automatically downloaded to the client when you access the Web application with correct IE settings and user privilege. The other way to install Appeon ActiveX is manually download the ActiveX control to the client and

1. Double click the ax_install.msi file to install it or

2. Open the Command Prompt window and install it with the command line, for example, C:\ax_install.msi.

Appeon command-line options

Starting from Appeon 6.1, Appeon provides the following command-line options to enable you silently install or uninstall Appeon ActiveX control. Note those Appeon provided command-line options can be used together with the MSI options.

Option	Description
-u	Uninstalls the Appeon ActiveX.

-s Silently executes the command.

-f Prompts the failure message. This option has to be used with -s. When the two options used together it means that prompt messages if there is any failure (such as errors and warnings) during the installation process of Appeon ActiveX control.

-r Reverses the old files. This option has to be used with -s.

-l Prints log file with a specified path and it is valid only when being used with -s (for example, *C:\ax_install.msi OPTION="-s* -l c:\test.log").

Following are some examples on how to use Appeon command-line options. You should execute these command lines in the Command Prompt window.

1. Use Appeon command-line option to silently install the Appeon ActiveX control. With this command you will not see any interface that relates to install the ActiveX. However, MSI installer related user interface will be displayed though it does not require user interaction.

   C:\ax_install.msi OPTION="-s"

2. Use Appeon command-line options to silently uninstall the Appeon ActiveX control. With this command you will not see any interface that relates to uninstall the ActiveX, however, MSI installer related user interface will be displayed though it does not require any user interaction.

   C:\ax_install.msi OPTION="-s -u"

3. Use Appeon command-line option together with MSI command-line option to silently install the ActiveX control and also the MSI installer. With this command, the whole ActiveX package will be installed silently.

   C:\ax_install.msi /quiet /qn OPTION="-s"

Appeon Server open interfaces

APPEON

Overview

Appeon Server open interfaces give users the opportunity to manage services provided by Appeon Server through PowerBuilder code. In Appeon 2.8 or earlier versions, you can only use the Appeon Server AEM system to manage Appeon-deployed Web applications. Beginning with Appeon 3.0, you can easily manage Appeon-deployed Web applications in PowerBuilder code.

Appeon Server open interfaces

There are five open interfaces provided by Appeon Server. You can write code for calling the interface in the PowerBuilder application, but the code only takes effect in the Appeon-deployed application.

Note: Appeon for .NET editions only support getSessionCount.

⊞ getSessionCount

⊞ killAllSessions

⊞ rollbackAllTransactions

⊞ getAllClients

⊞ getAllSessions

Applying Appeon Server open interfaces

There are two steps that should be performed when applying Appeon Server open interfaces:

1. Call the Appeon Server open interface in the PowerBuilder application. You can
2. Deploy the PowerBuilder application to Appeon Server the same way you would deploy a normal PowerBuilder application.

Calling Appeon Server open interfaces

APPEON

For EAServer 5.x user, Appeon Server open interfaces (methods) are encapsulated in a standard EAServer component named OpenInterface that is included in the ASInterface package. You can call the open interfaces in PowerBuilder scripts the same way you would call any EAServer component interface.

To invoke an open interface (method) of the OpenInterface component, perform the following steps in the PowerBuilder application:

Step 1 - Connect to the EAServer where Appeon Server is installed.

Example

```
Long ll_rc
myconnect = create connection
myconnect.driver = "jaguar"
myconnect.location = "192.0.2.39:9100"
myconnect.application = "ASInterface"
myconnect.userID = "jagadmin"
myconnect.password = ""
ll_rc = myconnect.ConnectToServer()
IF ll_rc <> 0 THEN
//MessageBox("Connection failed", ll_rc)
END IF
```

Step 2 - Generate a proxy object for the component OpenInterface.

Please refer to the *Generating EAServer proxy objects | building an EAServer client* section in PowerBuilder Help for details.

Step 3 - Create an instance of the component OpenInterface by using the CreateInstance method.

Example

```
int rc
rc = myconnect.CreateInstance(mycomp, "ASInterface/OpenInterface")
IF IsValid(mycomp) = FALSE THEN
Messagebox('','create instance failed')
End if
```

Step 4 - Invoke one or more interfaces in the component.

Example

```
mycomp.getSessionCount( "192.0.2.39", "testApbInterface")
```

Calling Appeon Server open interfaces

Appeon Server open interfaces (methods) in EAServer 6.x, JBoss, JEUS, WebLogic and WebSp
a standard EJB component named OpenInterface that is included in the ASInterface package. T
interfaces in PowerBuilder, you need to follow the step instructions of how to call Appeon EJBOb
Appeon EJB Solution.

Following is general step guide to invoke the open interface in PowerBuilder.

Step 1 - Load Appeon Workaround PBL to the application.

Step 2 - Deploy Appeon Bridge

Step 3 - Connect to the EAServer where Appeon Server and Appeon Bridge are installed throug

Example

```
string ls_prop[5]
string ls_serurl,ls_msg
ls_serurl = "http://192.0.3.35:8000/appeonbridge/Dispatch"
ls_prop[1]= "applicationA"
ls_prop[2]=
"javax.naming.Context.INITIAL_CONTEXT_FACTORY='com.sybase.ejb.Init
ls_prop[3]= "javax.naming.Context.PROVIDER_URL='iiop://192.0.1.249
ls_prop[4]= "username=admin@system"
ls_prop[5]= "password=appeon249"
ls_msg = io_ejb.connectserver(ls_serurl, ls_prop)
if ls_msg <> "" then
MessageBox("Connect Application Server error!", ls_msg)
return
end if
```

Step 4- Create an instance of the EJB component OpenInterface.

The JNDI name for EAServer is ejb.components.appeonserver.appeonserver.OpenInterfaceRem
name for WebSphere, WebLogic, JEUS, & JBoss is OpenInterfaceBean.

Example

```
String ls_jndi, ls_home, ls_method,ls_msg
ls_jndi = "ejb.components.appeonserver.appeonserver.OpenInterfaceRemoteHome"
ls_msg = io_ejb.createremoteinstance(ls_jndi, ls_home, "create", ref il_bean1)
if ls_msg <> "" then
MessageBox("create remote instance faild!", ls_msg)
return
end if
```

Step 5 - Invoke one or more open interfaces in the component.

Example

```
string  ls_msg
int c_val
string retval01
c_val = -1
io_ejb.regstring("")
io_ejb.regstring("")
ls_msg = io_ejb.invokeretstring (il_bean1, "getAllSessions",true, ref retval01)
if ls_msg = "" then
messagebox('',"retval=" + string(retval01))
else
messagebox("","retval=" + ls_msg)
end If
```

Calling Appeon Server open interfaces

Appeon Server open interfaces (methods) in .NET are encapsulated in a standard .NET/COM components. To call .NET/COM components, Appeon provides a non-autoinstantiated NVO - AppeonDotNetComponent - as the proxy object to call the server-side components. Details refer to Calling .NET/COM server components.

Following is general step guide to invoke the open interface in PowerBuilder.

Step 1 - Load Appeon Workaround PBL to the application.

Step 2 - Make sure the COM component have been registered using the regsvr32 tool and the components has been copied to the %appeon%/AEM/components folder on the Appeon Server machine.

Step 3 - Create an instance of the AppeonDotNetComponent;

Example

```
String servername,appname
AppeonDotNetComponent loadDBList
Any la_l[]
Long lRet
serverName = ""
appname = ""
la_l[1] = servername //
la_l[2] = appname //
loadDBList = Create AppeonDotNetComponent
```

Step 4- Specify the ComponentType and Set the TypeLib property and the ClassDescript property to empty;

Example

```
loadDBList.ComponentType = "4"
loadDBList.TypeLib = ""
loadDBList.ClassDescript = ""
```

Step 5 - Invoke one or more open interfaces in the components.

Example

```
lRet = loadDBList.of_ExecInterface("GetSessionCount",la_l)
If lRet = 0 Then
MessageBox("Get session count successfully.","Session Count:"+string
(loadDBList.ReturnValue))
End If
```

Application differences

APPEON

User interface and operation difference

- There may be slight differences in color and size between the Web UI and the PowerBuilder UI due to minor mismatching of the conversion algorithm for converting PowerBuilder measurements to Web measurements.
- Using the middle mouse key to operate the Web application is unsupported.
- Keyboard Navigation: tab order and arrow keys are partially supported.
- All Appeon system error messages appear in the Internet Explorer status bar rather than in a dialog box.
- While a Web application is running and the TextSize in the Internet Explorer is reset, the Web application will not change its font size accordingly.

Design-time property settings difference

- Appeon creates the resulting Web application based on design-time property settings of the application obtained from PowerBuilder. Therefore, even if the PowerBuilder application does not work properly at run-time, the Appeon-deployed Web application may still run properly. For instance, in a particular build, the PowerBuilder Edit Mask DataWindow column style did not run properly in the PBVM, but the Appeon for PowerBuilder Edit Mask DataWindow column style ran successfully because the Appeon framework for Web applications works properly.

Printing

- The manual feeder feature of Print is unsupported.

Section 508 compliance

All standard controls supported by Web applications are section 508 compliant but with the following noted issue on keyboard focus:

- When an Appeon Web application runs in Internet Explorer, the keyboard focus, by default, is on the Web application. You can press Alt+Tab to shift the focus to Internet Explorer, and then press Tab to shift the focus back to the application.
- You can press Alt to access the menu of the application (or Internet Explorer) when the keyboard focus is on the application (or Internet Explorer).

DataWindow enhancements and differences

APPEON

Enhancement: Appeon DataWindow menu

Enhancement: DataWindow printing

[User operation differences]

Appeon DataWindow menu

APPEON

Appeon DataWindow menu client functions

Since Appeon 3.0 on Windows, Appeon DataWindow Menu cannot be enabled through AEM (Appeon Enterprise Manager). You can enable the Appeon DataWindow Menu by calling two Appeon client functions that are defined in *appeon_workarounds_ax.pbl*:

⊞ AppeonPopMenu function

⊞ AppeonPopMenuOn function

How to invoke an Appeon DataWindow Menu

There are two ways to invoke an Appeon DataWindow menu:

1. Execute the AppeonPopMenu function for a specified DataWindow.

2. After the AppeonPopMenuOn function is executed for a specified DataWindow, right click on a DataWindow (the area clicked should not be a DataWindow field that has focus).

Note: If the area clicked is a DataWindow field that has focus, the DataWindow menu that pops up is the same as it would be in PowerBuilder, and contains the following items: Undo, Cut, Copy, Past, Delete and Select All.

Appeon DataWindow Menu Items

⊞ Menu Items

DataWindow printing

APPEON

Starting from Appeon 6.5 all the printing will be done on the client side. A printing command is directly sent to a printer at the client.

DataWindow printing

To print the DataWindows at the Client, you can choose any of the following methods. There are slight differences between the two methods.

1. Using the Print item in the Appeon DataWindow Menu.
   At the click of the Print... button in the Appeon DataWindow, a Print Setup dialog pops up with the names of all the Client printers listed. The user can select one of the printers for printing the DataWindow. For more information, refer to Appeon DataWindow menu.
2. Executing the DataWindow Print function.
   This is the same as in PowerBuilder applications: when the DataWindow Print function is executed in the Web application, the DataWindow is printed on the Client's default printer.

PDF printing

There are two ways to print the DataWindow into PDF format.

1. Call the print function of the DataWindow and set the default printer on the client side to a PDF printer.
2. Call SaveAs function of the DataWindow or Child DataWindow and set the saveas file type to PDF format.

DataWindow user operation differences

APPEON

User interface differences

- In some cases, text in the DataWindow will appear truncated or UI elements may not be fully visible in the Window. This is because the PowerBuilder units used to size the UI of the application, such as the DataWindow rows and columns, the Window object, etc, cannot be converted to the Web perfectly.
- The number of data records displayed per page in deployed DataWindows may be different from that in PowerBuilder.

DataWindow modify/update

- When you click a date field in a DataWindow, the format of the date is changed to format yyyy-mm-dd, regardless of what the original display format is.
- If a cell in a DataWindow contains a value that is composed of only spaces and no other characters, the update to the database will fail (the value is updated to the database as an empty string rather than blank spaces). The retrieving functionality still works correctly and is not affected. Workaround: If a cell must be empty, make sure its value is an empty string, not a string composed of only one or more spaces. This issue affects Sybase ASE, Oracle, and Microsoft SQL Server. It does not affect Sybase ASA.
- In PowerBuilder, if the user drags the scroll bar while a DataWindow field is being edited, AcceptText will not be executed for the field. In a Web DataWindow, AcceptText is executed for the field.

More behavioral differences

- Motion effect of GIF files is unsupported.

Object/control enhancements and differences

APPEON

Enhancements

User operation differences

Object/control enhancements

APPEON

MultiLineEdit

- In the Web MultiLineEdit control, the user can drag and drop the selected text.
- In the Web MultiLineEdit control, the user can **s**elect characters by mouse dragging and right-click on the selected characters to display the popup menu to copy/cut/paste the characters.

SingleLineEdit

- **In** the Web SingleLineEdit control, the user can **select characters by mouse dragging and right-click on the selected characters to display the popup menu to copy/cut/paste the characters.**

Object/control user operation differences

APPEON

Controls

- In a container such as a UserObject, DataWindow, or Window, if the Enable property of a control in the container is set to FALSE, a corresponding event of the container will be triggered in PowerBuilder when the user clicks the control. However, no event is triggered for the container.
- Controls in the Web application get focus when SetFocus is triggered, while controls in the PowerBuilder application get focus when the LoseFocus event of the control (which is to lose focus) is triggered. For example, when focus is moved from Control A to Control B due to the user operation, on Web, Control B gets focus when the SetFocus event of Control B is triggered, while in PowerBuilder, Control B gets focus when the LoseFocus event of Control A is triggered. This does not affect the user operation, but may affect the execution result of script dependent on the focus.

DropdownListBox, DropdownPictureListBox, ListBox or PictureListBox

- The size of the pictures displayed in a PictureListBox will always be 16px * 16px. It will not adjust according to the actual height and width available as it does in PowerBuilder.

Motion effect

- Motion effect of GIF files is unsupported.

Controls

Important Requirements

- Supported controls can be dynamically created (e.g. using the CREATE statement).

- Creating a new control in a child object by copying and pasting an existing control in the PowerBuilder painter is unsupported if the existing control is inherited from the parent object.

Supported

- The following list includes the controls Appeon supports:

CheckBox	CommandButton	DatePicker	DataWindow
DropDownListBox	DropDownPictureListBox	EditMask	GroupBox
HProgressBar	HScrollBar	HTrackBar	Line
ListBox	ListView	MonthCalendar	MultiLineEdit
OLEControl	OLECustomControl	Oval	Picture
PictureButton	PictureHyperLink	PictureListBox	RadioButton
Rectangle	RichTextEdit	RoundRectangle	SingleLineEdit
StaticHyperLink	StaticText	Tab	TreeView
VProgressBar	VScrollBar	VTrackBar	

- For information on properties, events and functions of supported controls, refer to the remaining sections in this chapter.
- For DataWindow controls, please refer to the DataWindow section.

Unsupported

- It is unsupported to change the skin of system standard controls on the Web.

CheckBox control

Properties | Events | Functions

APPEON

Properties for CheckBox control

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
Automatic	Supported	cbx_1.Automatic = TRUE
BackColor	Supported	cbx_1.BackColor = ll_value cbx_1.BackColor = RGB(192,192,192)
BorderStyle	Supported	cbx_1.BorderStyle = StyleLowered! cbx_1.BorderStyle = StyleRaised!

BringToTop	Supported	cbx_1.BringToTop = TRUE
Checked	Supported	cbx_1.Checked =TRUE cbx_1.Checked = lb_value
DragAuto	Supported	cbx_1.DragAuto = TRUE
DragIcon	Supported	cbx_1.DragIcon = 'c:\archive\arrow.ico'
Enabled	Supported	cbx_1.Enabled=TRUE cbx_1.Enabled = lb_value
FaceName	Supported	cbx_1.FaceName = "" cbx_1.FaceName = ls_value
FontCharSet	Supported	cbx_1.FontCharSet = ANSI!
FontFamily	Supported	cbx_1.FontFamily = Roman!
FontPitch	Supported	cbx_1.FontPitch = Fixed!
Height	Supported	cbx_1.Height=889 cbx_1.Height = li_value
Italic	Supported	cbx_1.Italic=TRUE cbx_1.Italic = lb_value
LeftText	Supported	cbx_1.LeftText = TRUE
Pointer	Supported	cbx_1.Pointer='Cross!' cbx_1.Pointer='d:\archive\IBEAM.CUR'
RightToLeft	Supported	cbx_1.RightToLeft = TRUE
TabOrder	Supported	cbx_1.TabOrder = 10
Tag	Supported	cbx_1.Tag = ls_value
Text	Supported	cbx_1.Text = ls_value
TextColor	Supported	cbx_1.TextColor = long(88995) cbx_1.TextColor = RGB(0,0,255)
TextSize	Supported	cbx_1.TextSize = 15 cbx_1.TextSize = li_value
ThirdState	Supported	cbx_1.ThreeState = TRUE cbx_1.ThirdState = TRUE
ThreeState	Supported	cbx_1.ThreeState = TRUE cbx_1.ThirdState = TRUE
Underline	Supported	cbx_1.Underline = TRUE cbx_1.Underline = lb_value
Visible	Supported	cbx_1.Visible =TRUE cbx_1.Visible = lb_value
Weight	Supported	cbx_1.Weight = 700 cbx_1.Weight = li_value
		In both PowerBuilder and Appeon Web applications, a weight value smaller or equal to 550 indicates a normal weight, and a weight value larger than 550 indicates a

		bold weight.
Width	Supported	cbx_1.Width=899 cbx_1.Width = li_value
X	Supported	cbx_1.X = 100 cbx_1.X = li_value
Y	Supported	cbx_1.Y = 500 cbx_1.Y = li_value
ClassDefinition	Unsupported	

Events for CheckBox control

Properties | Events | Functions

Event	Support Level	Example Code
Clicked	Supported	Clicked()
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
RButtonDown	Supported	RbuttonDown(flags, xpos, ypos)
Help	Unsupported	
Other	Unsupported	

Functions for CheckBox control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_return = cbx_1.ClassName()
Drag	Supported	cbx_1.Drag(Begin!)
GetParent	Supported	lobj_parent = cbx_1.GetParent()
Hide	Supported	li_return = cbx_1.Hide()
Move	Supported	cbx_1.Move(100,100)] li_return = cbx_1.Move(li_x,li_y)
PointerX	Supported	li_return = cbx_1.PointerX()
PointerY	Supported	li_return = cbx_1.PointerY()
PostEvent	Supported	cbx_1.PostEvent(RButtonDown!) lb_return = cbx_1.PostEvent(event)
Resize	Supported	cbx_1.Resize(100,20) li_return = cbx_1.Resize(li_x, li_y)
SetFocus	Supported	cbx_1.SetFocus() li_return = cbx_1.SetFocus() Unsupported: SetFocus(cbx_1)
SetPosition	Supported	li_return = cbx_1.SetPosition(position)
SetRedraw	Supported	li_return= cbx_1.SetRedraw(TRUE)
Show	Supported	li_return = cbx_1.Show()
TriggerEvent	Supported	cbx_1.TriggerEvent(RButtonDown!)

TypeOf	Supported	if cbx_1.TypeOf() = Checkbox! Then
		  ls_return = "Checkbox!"
		else
		  ls_return = "Not a Checkbox"
		end if

GetContextService	Unsupported	
Print	Unsupported	

CommandButton control

Properties | Events | Functions

Properties for CommandButton control

Properties | Events | Functions

Property	Support Level	Example Code
BringToTop	Supported	cb_1.BringToTop = TRUE
Cancel	Supported	cb_1.Cancel = TRUE
Default	Supported	cb_1.Default = TRUE
DragAuto	Supported	cb_1.DragAuto = TRUE
DragIcon	Supported	cb_1.DragIcon = 'c:\archive\arrow.ico'
Enabled	Supported	cb_1.Enabled = lb_value
FaceName	Supported	cb_1.FaceName = "" cb_1.FaceName = "Courier"
Height	Supported	cb_1.Height = li_value
FontCharSet	Supported	cb_1.FontCharSet = ANSI!
FontFamily	Supported	cb_1.FontFamily = Roman!
FontPitch	Supported	cb_1.FontPitch = Fixed!
Italic	Supported	cb_1.Italic = lb_value
Pointer	Supported	cb_1.Pointer = 'Size!' cb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
TabOrder	Supported	cb_1.TabOrder = 20
Tag	Supported	cb_1.Tag = ls_value
Text	Supported	cb_1.Text = ls_value
TextSize	Supported	cb_1.TextSize = li_value
Underline	Supported	cb_1.Underline = TRUE cb_1.Underline = lb_value
Visible	Supported	cb_1.Visible = TRUE cb_1.Visible = lb_value
Weight	Supported	cb_1.Weight = 700 cb_1.Weight = li_value
Width	Supported	cb_1.Width = 750 cb_1.Width = li_value
X	Supported	cb_1.X = 280 cb_1.X = li_value
Y	Supported	cb_1.Y = 1280 cb_1.Y = li_value
ClassDefinition	Unsupported	

Events for CommandButton control

Properties | Events | Functions

Event	Support Level	Example Code
Clicked	Supported	Clicked()

Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
Help	Unsupported	
Other	Unsupported	

Functions for CommandButton control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_return = cb_1.ClassName()
Drag	Supported	cb_1.Drag(Begin!)
GetParent	Supported	PowerObject lpo_return lpo_return = cb_1.GetParent()
Hide	Supported	li_return = cb_1.Hide()
Move	Supported	cb_1.Move(200,800) li_return = cb_1.Move(li_x,li_y)
PointerX	Supported	li_return = cb_1.PointerX()
PointerY	Supported	li_return = cb_1.PointerY()
PostEvent	Supported	cb_1.PostEvent(Clicked!)
Resize	Supported	cb_1.Resize(200,800) li_return = cb_1.Resize(li_x, li_y)
SetFocus	Supported	li_return = cb_1.SetFocus()

			Unsupported: SetFocus(cb_1)
SetPosition		Supported	ll_return = cb_1.SetPosition(ToTop!)
SetRedraw		Supported	li_return = cb_1.SetRedraw(TRUE)
Show		Supported	li_return = cb_1.Show()
TriggerEvent		Supported	li_return = cb_1.TriggerEvent(Clicked!)

TypeOf		Supported	if cb_1.TypeOf() = commandbutton! then
			ls_return = "commandbutton!"
			end if

GetContextService		Unsupported	
Print		Unsupported	

DropDownListBox control

Properties | Events | Functions

APPEON

Important Requirements

In PowerBuilder, if a DropDownListBox has no item, an empty row will display in the ListBox portion when the user clicks the down arrow. However, on the Web application, no empty row will display.

Properties for DropDownListBox control

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
Accelerator	Supported	ddlb_1.Accelerator=67
AllowEdit	Supported	ddlb_1.AllowEdit = TRUE ddlb_1.AllowEdit = lb_value Note: The pbm_keydown event is unsupported if the AllowEdit property is set to true.
AutoHScroll	Supported	ddlb_1.AutoHScroll = TRUE
BringToTop	Supported	ddlb_1.BringToTop = TRUE
BackColor	Supported	ddlb_1.BackColor = RGB(0, 0, 255) ddlb_1.BackColor = ll_value
Border	Supported	ddlb_1.Border = TRUE ddlb_1.Border = lb_value
BorderStyle	Supported	ddlb_1.BorderStyle = StyleBox!

		ddlb_1.BorderStyle = StyleLowered! ddlb_1.BorderStyle = StyleRaised!
DragAuto	Supported	ddlb_1.DragAuto = TRUE
DragIcon	Supported	ddlb_1.DragIcon = 'c:\archive\arrow.ico'
Enabled	Supported	ddlb_1.Enabled=TRUE ddlb_1.Enabled = lb_value
FaceName	Supported	ddlb_1.FaceName = "" ddlb_1.FaceName = ls_value
FontCharSet	Supported	ddlb_1.FontCharSet = ANSI!
FontFamily	Supported	ddlb_1.FontFamily = Roman!
FontPitch	Supported	ddlb_1.FontPitch = Fixed!
Height	Supported	ddlb_1.Height = 750 ddlb_1.Height = li_value .
HScrollBar	Supported	ddlb_1.HScrollBar = TRUE ddlb_1.HscrollBar = lb_value
Italic	Supported	ddlb_1.Italic=TRUE ddlb_1.Italic = lb_value
Item[ ]	Supported	ls_value = ddlb_1.Item[1]
Limit	Supported	ddlb_1.Limit = 256 ddlb_1.Limit = li_value
Pointer	Supported	ddlb_1.Pointer = 'Size!' ddlb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
RightToLeft	Supported	ddlb_1.RightToLeft = TRUE
ShowList	Supported	ddlb_1.ShowList = TRUE
Sorted	Supported	ddlb_1.Sorted = TRUE ddlb_1.Sorted = lb_value
TabOrder	Supported	ddlb_1.TabOrder = 30
Tag	Supported	ddlb_1.Tag = ls_value
Text	Supported	ddlb_1.Text = ls_value
TextColor	Supported	ddlb_1.TextColor = ll_value ddlb_1.TextColor = RGB(192,192,192)
TextSize	Supported	ddlb_1.TextSize = li_value
Underline	Supported	ddlb_1.Underline= TRUE ddlb_1.Underline = lb_value
Visible	Supported	ddlb_1.Visible = TRUE ddlb_1.Visible = lb_value
VScrollBar	Supported	ddlb_1.VScrollBar = TRUE ddlb_1.VscrollBar = lb_value
Weight	Supported	ddlb_1.Weight = 700 ddlb_1.Weight = li_value
Width	Supported	ddlb_1.Width = li_value
X	Supported	ddlb_1.X = li_value
Y	Supported	ddlb_1.Y = li_value
ClassDefinition	Unsupported	

Events for DropDownListBox control

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
Modified	Supported	Modified() Note: it is unsupported to trigger the event by clicking the Enter key.
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
SelectionChanged	Supported	SelectionChanged(index) If the return value of the event is greater than 0, the Modified event will be triggered. Otherwise, continue processing.
Help	Unsupported	
Other	Unsupported	

Functions for DropDownListBox control

Properties | Events | Functions

Function	Support Level	Example Code
AddItem	Supported	li_return = ddlb_1.AddItem(item)

ClassName	Supported	ls_return = ddlb_1.ClassName()
Clear	Supported	li_return = ddlb_1.Clear()
Copy	Supported	li_return = ddlb_1.Copy()
Cut	Supported	li_return = ddlb_1.Cut()
DeleteItem	Supported	li_return = ddlb_1.DeleteItem(index)
DirList	Supported	ddlb_1.DirList("C:\EMPLOYEE*.TXT", 0)
DirSelect	Supported	lb_dir = ddlb_1.DirSelect(ls_dirname)
Drag	Supported	ddlb_1.Drag(Cancel!)
FindItem	Supported	li_return = ddlb_1.FindItem('hello', 4) li_return = ddlb_1.FindItem(text, index)
GetParent	Supported	PowerObject lpo_return lpo_return = ddlb_1.GetParent()
Hide	Supported	li_return = ddlb_1.Hide()
InsertItem	Supported	ddlb_1.InsertItem('hello',3) li_return = ddlb_1.InsertItem(item, index)
Move	Supported	ddlb_1.Move(200,400) li_return = ddlb_1.Move(li_x,li_ y)
Paste	Supported	li_return = ddlb_1.Paste()
PointerX	Supported	li_return = ddlb_1.PointerX()
PointerY	Supported	li_return = ddlb_1.PointerY()
PostEvent	Supported	ddlb_1.PostEvent(Clicked!)
ReplaceText	Supported	ddlb_1.ReplaceText("60 Days")
Reset	Supported	li_return = ddlb_1.Reset()
Resize	Supported	ddlb_1.Resize(200,800) li_return = ddlb_1.Resize(li_x, li_y)
SelectItem	Supported	ddlb_1.SelectItem ('hello',3) li_return = ddlb_1.SelectItem(item, index)
SelectedLength	Supported	li_returnvalue = ddlb_1.SelectedLength()
SelectedStart	Supported	li_returnvalue = ddlb_1.SelectedStart()

SelectedText	Supported	li_returnvalue = ddlb_1.SelectedText()
SelectText	Supported	li_returnvalue = ddlb_1.SelectText(start, length)
SetFocus	Supported	li_return = ddlb_1.SetFocus() Unsupported: SetFocus(ddlb_1)
SetPosition	Supported	ddlb_1.SetPosition(ToTop!) li_return = ddlb_1.SetPosition(position)
SetRedraw	Supported	li_return = ddlb_1.SetRedraw(FALSE)
Show	Supported	li_return = ddlb_1.Show()
Text	Supported	ls_return = ddlb_1.Text(index)
TotalItems	Supported	li_return = ddlb_1.TotalItems()
TriggerEvent	Supported	ddlb_1.TriggerEvent(Constructor!) li_return = ddlb_1.TriggerEvent(event)

TypeOf	Supported	if ddlb_1.typeof() = DropDownListBox! then
		messagebox("show"," DropDownListBox!")
		end if

GetContextService	Unsupported	
Position	Unsupported	
Print	Unsupported	

DatePicker control

Properties | Events | Functions

APPEON

Difference

Left mouse clicking on the DatePicker control will trigger the Clicked, GetFocused events in sequence.

Properties for DatePicker control

Properties | Events | Functions

APPEON

Property	Support	Example Code

	Level	
Accelerator	Supported	dp_1.Accelerator=67
AccessibleDescription	Supported	
AccessibleName	Supported	
AccessibleRole	Supported	
AllowEdit	Supported	dp_1.AllowEdit = TRUE
Border	Supported	dp_1.Border = TRUE
BorderStyle	Supported	dp_1.BorderStyle = StyleBox! dp _1.BorderStyle = StyleLowered! dp_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	
CalendarBackColor	Supported	dp_1.CalendarBackColor = RGB(255, 255, 0)
CalendarFontCharset	Supported	db_1.CalendarFontCharset = ANSI!
CalendarFontFamily	Supported	dp_1.CalendarFontFamily = Roman!
CalendarFontName	Supported	dp_1.CalendarFontName = ls_value
CalendarFontPitch	Supported	dp_1.CalendarFontPitch = Fixed!
CalendarFontWeight	Supported	dp_1.CalendarFontWeight = li_value
CalendarItalic	Supported	dp_1.CalendarItalic = lb_value
CalendarTextColor	Supported	dp_1.CalendarTextColor = RGB(0,0,255)
CalendarTextSize	Supported	dp_1.CalendarTextSize = li_value
CalendarTitleBackColor	Supported	dp_1.CalendarTitleBackColor = RGB(128, 255, 128)
CalendarTrailingTextColor	Supported	dp_1.CalendarTrailingTextColor = RGB(128, 255, 128)
CalendarUnderline	Supported	dp_1.CalendarUnderline = lb_value
CustomFormat	Supported	dp_1.CustomFormat = ls_value
DateValue	Supported	dp_1.DateValue = ld_value
DragAuto	Supported	dp_1.DragAuto = TRUE Notes: 1. On the Web, dragging a DatePicker control will not trigger the DropDown event if the DragAuto property is set to True, which means there is no Month Calender dispayed on the Web when you Drag the DatePicker with setting the DragAuto property to True. 2. On the Web, if the DragAuto is set to True, clicking, dragging, and releasing the DatePicker control will trigger the following event in sequence: DragEnter, DragWithin, DragLeave.
DragIcon	Supported	dp_1.DragIcon = 'arrow.ico'
DropDownRight	Supported	dp_1.DropDownRight = true

Enabled	Supported	dp_1.Enabled = TRUE
FaceName	Supported	dp_1.FaceName = ""
FirstDayOfWeek	Supported	dp_1.FirstDayOfWeek = Monday!
FontCharSet	Supported	dp_1.FontCharSet = ANSI!
FontFamily	Supported	dp_1.FontFamily = Roman!
FontPitch	Supported	dp_1.FontPitch = Fixed!
FontWeight	Supported	dp_1.FontWeight = 700
Format	Supported	dp_1.Format = dtfShortDate!
Height	Supported	dp_1.Height = 750 dp_1.Height = li_value
Italic	Supported	dp_1.Italic=TRUE dp_1.Italic = lb_value
MaxDate	Supported	dp_1.MaxDate = Date("2007/06/30")
MinDate	Supported	dp_1.MinDate = Date("2006/09/01")
Pointer	Supported	dp_1.Pointer = 'Size!'
ShowUpDown	Supported	dp_1.ShowUpDown = true
TabOrder	Supported	dp_1.TabOrder = 30
Tag	Supported	dp_1.Tag = ls_value
Text	Supported	dp_1.Text = ls_value
TextSize	Supported	dp_1.TextSize = li_value
TimeValue	Supported	lt_value = dp_1.TimeValue
TodayCircle	Supported	dp_1.TodayCircle = false
TodaySection	Supported	dp_1.TodaySection = false
Underline	Supported	dp_1.Underline = TRUE
Value	Supported	dp_1.Value = DateTime(Date("2005/07/01"),Time("12:00:00"))
Visible	Supported	dp_1.Visible = True
WeekNumbers	Supported	dp_1.WeekNumbers = true
Width	Supported	dp_1.Width = li_value Note: 1. If the Width value is set to -32768, obtaining the width property returns -32768 on the Web, however it returens 0 in PowerBuilder. 2. If the Width value is set to 32768, obtaining the width property returns 0 on the Web, however it returens -32768 in PowerBuilder.
X	Supported	dp_1.X = li_value Note: 1. If the X value is set to -32768, obtaining the X property returns -32768 on the Web, however it returens 0 in PowerBuilder. 2. If the Width value is set to 32768, obtaining the width property returns 0 on the Web, however it returens -32768 in PowerBuilder.
Y	Supported	dp_1.Y = li_value Note:

		1. If the Y value is set to -32768, obtaining the Y property returns -32768 on the Web, however it returens 0 in PowerBuilder. 2. If the Width value is set to 32768, obtaining the width property returns 0 on the Web, however it returens -32768 in PowerBuilder.
ClassDefinition	Unsupported	
RightToLeft	Unsupported	

Events for DatePicker control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Clicked	Supported	Clicked()
CloseUp	Supported	CloseUp()
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DoubleClicked	Supported	Doubleclicked(flags,xpos,ypos)
DragDrop	Supported	DragDrop()
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
DropDown	Supported	DropDown()
LoseFocus	Supported	GetFocus()
GetFocus	Supported	GetFocus()
PreCreateWindow	Supported	Precreatewindow(style,styleex,other)
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
ValueChanged	Supported	Valuechanged(flag,dtm)
Help	Unsupported	
UserString	Unsupported	

Other	Unsupported	

Functions for DatePicker Control

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	ls_value = dp_1.ClassName()
Drag	Supported	dp_1.Drag (dragmode) Note: If you use Drag(Begin!), single mouse clicking will trigger DragEnter and DragDrop event in sequnce on the Web. This is different from the event sequences in PowerBuilder.
GetCalendar	Supported	dp_1.getcalendar( )
GetParent	Supported	PowerObject lpo_returnvalue lpo_returnvalue = dp_1.GetParent()
GetText	Supported	ls_text = dp_1.GetText()
GetToday	Supported	currentdate = dp_1.GetToday()
GetValue	Supported	li_value = dp_1.GetValue(dt)
Hide	Supported	li_return = dp_1.Hide()
Move	Supported	li_return = dp_1.Move(li_x,li_y)
PointerX	Supported	li_value = dp_1.PointerX()
PointerY	Supported	li_value = dp_1.PointerY()
PostEvent	Supported	dp_1.PostEvent(Constructor!)
Resize	Supported	li_return = dp_1.Resize(li_width,li_height)
SetFocus	Supported	_return = dp_1.SetFocus()
SetPosition	Supported	li_return = dp_1.SetPosition(position)
SetRedraw	Supported	li_return= dp_1.SetRedraw(FALSE)
SetToday	Supported	li_return = dp_1.SetToday(currentdate)
SetValue	Supported	dp_1.SetValue(dt)
Show	Supported	li_return = dp_1.Show()
TriggerEvent	Supported	dp_1.TriggerEvent(Constructor!)

TypeOf	Supported	if dp_1.TypeOf() = DatePicker! Then
		ls_return = DatePicker!'
		else
		ls_return = 'isvalid'
		end if

GetContextService	Unsupported	

Print	Unsupported	

DropDownPictureListBox control

Properties | Events | Functions

APPEON

Properties for DropDownPictureListBox control

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
Accelerator	Supported	ddplb_1.Accelerator = 67
AllowEdit	Supported	ddplb_1.AllowEdit = TRUE ddplb_1. AllowEdit = lb_value Note: The pbm_keydown event is unsupported if the AllowEdit property is set to true.
AutoHScroll	Supported	ddplb_1.AutoHScroll = TRUE
BackColor	Supported	ddplb_1.BackColor = ll_value ddplb_1.BackColor = RGB (0,0,255)
BringToTop	Supported	ddplb_1.BringToTop = TRUE
Border	Supported	ddplb_1.Border = TRUE ddplb_1.Border = lb_value
BorderStyle	Supported	ddplb_1.BorderStyle = StyleBox! ddplb_1.BorderStyle = StyleLowered! ddplb_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
DragAuto	Supported	ddplb_1.DragAuto = TRUE
DragIcon	Supported	ddplb_1.DragIcon = 'c:\archive\arrow.ico'
Enabled	Supported	ddplb_1.Enabled = TRUE ddplb_1.Enabled = lb_value
FaceName	Supported	ddplb_1.Facename = ls_value
FontCharSet	Supported	ddplb_1.FontCharSet = ANSI!
FontFamily	Supported	ddplb_1.FontFamily = Roman!
FontPitch	Supported	ddplb_1.FontPitch = Fixed!
Height	Supported	ddplb_1.Height = li_value
HScrollBar	Supported	ddplb_1.Hscrollbar = lb_value
Italic	Supported	ddplb_1.Italic = lb_value
Item[ ]	Supported	String a[] = ddplb_1.Item[]

ItemPictureIndex[ ]	Supported	ddplb_1.ItemPictureIndex[] = li_value[]
Limit	Supported	ddplb_1.Limit = 256 ddplb_1.Limit = li_value
PictureHeight	Supported	ddplb_1.PictureHeight = 16
PictureWidth	Supported	ddplb_1.PictureWidth = 16

PictureName[ ]	Supported	ls_value = ddplb_1.PictureName[1]
		
		Assigning values to part of an array and using the default values for the other part is not supported. For example:
		picturename[1] = "aaa.bmp"
		picturename[3] = "bbb.bmp"
		var pic1 = picutrename[1];
		var pic2 = picturename[3];
		
		A supported example is given as follows:
		picturename[1] = "aaa.bmp"
		picturename[2] = "bbb.bmp"
		picturename[3] = "ccc.bmp"
		var pic1 = picutrename[1];
		var pic2 = picturename[2];
		var pic3 = picturename[3];

Pointer	Supported	ddplb_1.Pointer = "Beam!" dbplb_1.Pointer = 'd:\archive\IBEAM.BMP.cur'
RightToLeft	Supported	dbplb_1.RightToLeft = TRUE
ShowList	Supported	ddplb_1.ShowList = TRUE
Sorted	Supported	ddplb_1.Sorted = lb_value
TabOrder	Supported	ddplb_1.TabOrder = 40
Tag	Supported	ddplb_1.Tag = ls_value
Text	Supported	ddplb_1.Text = ls_value
TextColor	Supported	ddplb_1.Textcolor = ll_value ddplb_1.Textcolor = RGB(192,192,192)
TextSize	Supported	ddplb_1.TextSize = li_value
Underline	Supported	ddplb_1.Underline = lb_value
Visible	Supported	ddplb_1.Visible = lb_value
VScrollBar	Supported	ddplb_1.VscrollBar = lb_value
Weight	Supported	ddplb_1.Weight = li_value
Width	Supported	ddplb_1.Width = li_value
X	Supported	ddplb_1.X = li_value
Y	Supported	ddplb_1.Y = li_value
ClassDefinition	Unsupported	
PictureMaskColor	Unsupported	

Events for DropDownPictureListBox control

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
Modified	Supported	Modified()
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
SelectionChanged	Supported	SelectionChanged(index) //If the return value is greater than 0, the Modified event will be triggered. Otherwise, continue processing.
Help	Unsupported	
Other	Unsupported	

Functions for DropDownPictureListBox control

Properties | Events | Functions

Function	Support Level	Example Code
AddItem	Supported	li_return = ddplb_1.AddItem(ls_name, li_pic)
AddPicture	Supported	li_return = ddplb_1.AddPicture(picturename)

ClassName	Supported	ls_return = ddplb_1.ClassName()
Clear	Supported	ls_return = ddplb_1.Clear()
Copy	Supported	ls_return = ddplb_1.Copy()
Cut	Supported	ls_return = ddplb_1.Cut()
DeleteItem	Supported	li_return = ddplb_1.DeleteItem(index)
DeletePicture	Supported	li_return =ddplb_1.DeletePicture(index)
DeletePictures	Supported	li_return =ddplb_1.DeletePictures()
DirList	Supported	ddplb_1.DirList("C:\EMPLOYEE*.TXT", 0) ddplb_1.DirList("C:\EMPLOYEE*.DOC", 1, st_path)
DirSelect	Supported	ddplb_1.DirSelect(ls_filename)
Drag	Supported	ddplb_1.Drag(End!)
FindItem	Supported	li_return = ddplb_1.FindItem(text, index)
GetParent	Supported	PowerObject lpo_return lpo_return = ddplb_1.GetParent()
Hide	Supported	li_return = ddplb_1.Hide()
InsertItem	Supported	ddplb_1.InsertItem("Run Application", 5)
Move	Supported	li_return = ddplb_1.Move(li_x,li_ y)
Paste	Supported	li_return = ddplb_1.Paste()
PointerX	Supported	li_return = ddplb_1.PointerX()
PointerY	Supported	li_return = ddplb_1.PointerY()
PostEvent	Supported	ddplb_1.PostEvent(Clicked!) lb_return = ddplb_1.PostEvent(event)
Reset	Supported	li_return = ddplb_1.Reset()
Resize	Supported	li_return = ddplb_1.Resize(li_width,li_height)
SelectItem	Supported	li_return = ddplb_1.SelectItem(item, index)
SelectedLength	Supported	li_returnvalue = ddplb_1.SelectedLength()
SelectedStart	Supported	li_returnvalue = ddplb_1.SelectedStart()
SelectedText	Supported	li_returnvalue = ddplb_1.SelectedText()
SelectText	Supported	li_returnvalue = ddplb_1.SelectText(start, length)

SetFocus	Supported	li_return = ddplb_1.SetFocus() Unsupported: SetFocus(ddplb_1)
SetPosition	Supported	li_return = ddplb_1.SetPosition(position)
SetRedraw	Supported	li_return= ddplb_1.SetRedraw(FALSE)
Show	Supported	li_return = ddplb_1.Show()
Text	Supported	ls_return = ddplb_1.Text(index)
TotalItems	Supported	li_return = ddplb_1.TotalItems()
TriggerEvent	Supported	li_return = ddplb_1.TriggerEvent(event)

TypeOf	Supported	if ddplb_1.TypeOf() = DropDownPictureListBox! Then
		ls_return = 'DropDownPictureListBox!'
		else
		ls_return = 'isvalid'
		end if

GetContextService	Unsupported	
Position	Unsupported	
Print	Unsupported	

EditMask control

Properties | Events | Functions

Properties for EditMask control

Properties | Events | Functions

Property	Support Level	Example Code
Accelerator	Supported	em_1.Accelerator = 67

Alignment	Supported	em_1.Alignment = Center!
AutoSkip	Supported	em_1.AutoSkip = TRUE
BackColor	Supported	em_1.BackColor = ll_value em_1.BackColor = RGB(192,192,192)
Border	Supported	em_1.Border = TRUE em_1.Border = lb_value
BorderStyle	Supported	em_1.BorderStyle = StyleLowered! em_1.BorderStyle = StyleRaised! em_1.BorderStyle = StyleBox! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	em_1.BringToTop = TRUE
DisplayData	Supported	
DisplayOnly	Supported	em_1.DisplayOnly = TRUE em_1.DisplayOnly = lb_value
DragAuto	Supported	em_1.DragAuto = TRUE
DragIcon	Supported	em_1.DragIcon = 'c:\archive\arrow.ico''
Enabled	Supported	em_1.Enabled = TRUE em_1.Enabled = lb_value
FaceName	Supported	em_1.FaceName = ls_value
FontCharSet	Supported	em_1.FontCharSet = ANSI!
FontFamily	Supported	em_1.FontFamily = Roman!

FontPitch	Supported	em_1.FontPitch = Fixed!
Height	Supported	em_1.Height = li_value
HideSelection	Supported	em_1.HideSelection = FALSE
Increment	Supported	em_1.Increment = 5.0 em_1.Increment = ld_value
Italic	Supported	em_1.Italic = lb_value
Limit	Supported	em_1.Limit = 50 em_1.Limit = li_value Note: the Limit property cannot be dynamically changed.
Mask	Supported	em_1.MaskDataType =StringMask em_1.Mask = "^^^-!!!" Note: The Mask property for EditMask can only be set in the PowerBuilder Painter.
MaskDataType	Supported	em_1.MaskDataType = StringMask! em_1.MaskDataType = DateTimeMask! em_1.MaskDataType = NumericMask! Note: this property can be set only in painter.
MinMax	Supported	em_1.MinMax = ("100 ~~ 10000")
Pointer	Supported	em_1.Pointer = 'AppStarting!' em_1.Pointer = 'd:\archive\IBEAM.BMP.cur'
RightToLeft	Supported	em_1.RightToLeft = TRUE

Spin	Supported	em_1.Spin = TRUE em_1.Spin = FALSE
TabOrder	Supported	em_1.TabOrder = 50
Tag	Supported	em_1.Tag = ls_value
Text	Supported	em_1.Text = ls_value
TextColor	Supported	em_1.TextColor = ll_value em_1.TextColor = RGB(192,192,192)
TextCase	Supported	em_1.TextCase = AnyCase! em_1.TextCase = Lower! em_1.TextCase = Upper!
TextSize	Supported	em_1.TextSize = li_value
Underline	Supported	em_1.Underline = TRUE em_1.Underline = lb_value
UseCodeTable	Supported	em_1.UseCodeTable = TRUE
Visible	Supported	em_1.Visible = lb_value
Weight	Supported	em_1.Weight = li_value
Width	Supported	em_1.Width = li_value
X	Supported	em_1.X = li_value
Y	Supported	em_1.Y = li_value
AutoHScroll	Supported	
AutoVScroll	Supported	
ClassDefinition	Unsupported	
HScrollBar	Supported	

IgnoreDefaultButton	Unsupported
TabStop[ ]	Unsupported
VScrollBar	Supported

Events for EditMask control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
Modified		Supported		Modified()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
Help		Unsupported		
Other		Unsupported		

Functions for EditMask control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_returnvalue = em_1.ClassName()
Clear	Supported	li_returnvalue = em_1.Clear()
Copy	Supported	li_returnvalue = em_1.Copy()
Cut	Supported	li_returnvalue = em_1.Cut()
Drag	Supported	em_1.Drag(Begin!)
GetData	Supported	li_returnvalue = em_1.GetData(datavariable)
GetParent	Supported	PowerObject lpo_returnvalue lpo_returnvalue = em_1.GetParent()
Hide	Supported	li_returnvalue = em_1.Hide()
LineCount	Supported	li_returnvalue = em_1.LineCount()
LineLength	Supported	li_returnvalue = em_1.LineLength()
Move	Supported	li_returnvalue = em_1.Move(li_xpos, li_ypos)
Paste	Supported	li_returnvalue = em_1.Paste()
PointerX	Supported	li_returnvalue = em_1.PointerX()
PointerY	Supported	li_returnvalue = em_1.PointerY()
PostEvent	Supported	lb_returnvalue = em_1.PostEvent(event)
ReplaceText	Supported	li_returnvalue = em_1.ReplaceText(text)
Resize	Supported	li_returnvalue = em_1.Resize(li_width, li_height)
SelectedLength	Supported	li_returnvalue = em_1.SelectedLength() If the control is off screen, the execution of the function may have an incorrect return result.
SelectedLine	Supported	integer li_SL li_SL = em_1.SelectedLine()
SelectedStart	Supported	li_returnvalue = em_1.SelectedStart() If the control is off screen, the execution of the function may have an incorrect return result.
SelectedText	Supported	ls_returnvalue = em_1.SelectedText() If the control is off screen, the execution of the function

		may have an incorrect return result.
SelectText	Supported	ls_returnvalue = em_1.SelectText(start, length) If the control is off screen, the execution of the function may have an incorrect return result.
SetFocus	Supported	li_returnvalue = em_1.SetFocus() Unsupported: SetFocus(em_test)
SetMask	Supported	li_returnvalue = em_1.SetMask(maskdatatype, mask)
SetPosition	Supported	li_returnvalue = em_1.SetPosition(position)
SetRedraw	Supported	li_returnvalue = em_1.SetRedraw (FALSE)
Show	Supported	li_returnvalue = em_1.Show()
TextLine	Supported	li_returnvalue = em_1.TextLine()
TriggerEvent	Supported	li_returnvalue = em_1.TriggerEvent()

TypeOf	Supported	If em_1.TypeOf() = editmask! Then
		ls_returnvalue = 'editmask!'
		else
		ls_returnvalue = 'invalid!'
		End if

CanUndo	Unsupported	
GetContextService	Unsupported	
Position	Unsupported	
Print	Unsupported	
Scroll	Unsupported	
Undo	Unsupported	

GroupBox control

Properties | Events | Functions

Properties for GroupBox control

Properties | Events | Functions

Property	Support Level	Example Code
BackColor	Supported	gb_1.BackColor = ll_value
BorderStyle	Supported	gb_1.Border = TRUE gb_1.BorderStyle = StyleLowered!
BringToTop	Supported	gb_1.BringToTop = TRUE
DragAuto	Supported	gb_1.DragAuto = TRUE
DragIcon	Supported	gb_1.DragIcon = 'c:\archive\arrow.ico''
Enabled	Supported	gb_1.Enabled = lb_value
FaceName	Supported	gb_1.FaceName = ls_value
FontCharSet	Supported	gb_1.FontCharSet = ANSI!
FontFamily	Supported	gb_1.FontFamily = Roman!
FontPitch	Supported	gb_1.FontPitch = Fixed!
Height	Supported	gb_1.Height = li_value
Italic	Supported	gb_1.Italic = lb_value
Pointer	Supported	gb_1.Pointer = 'Beam!' gb_1.Pointer = 'd:\archive\IBEAM.BMP.cur'
RightToLeft	Supported	gb_1.RightToLeft = TRUE
TabOrder	Supported	gb_1.TabOrder = 50
Tag	Supported	gb_1.Tag = ls_value
Text	Supported	gb_1.Text = ls_value
TextColor	Supported	gb_1.TextColor = ll_value gb_1.TextColor = RGB(192,192,192)
TextSize	Supported	gb_1.TextSize = li_value
Underline	Supported	gb_1.Underline = lb_value
Visible	Supported	gb_1.Visible = lb_value
Weight	Supported	gb_1.Weight = li_value
Width	Supported	gb_1.Width = li_value
X	Supported	gb_1.X = li_value
Y	Supported	gb_1.Y = li_value
ClassDefinition	Unsupported	

Events for GroupBox control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code

Constructor		Supported		Constructor( )
Destructor		Supported		Destructor( )
Help		Unsupported		
Other		Unsupported		

Functions for GroupBox control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_returnvalue = gb_1.ClassName()
Drag		Supported		gb_1.drap(Cancel!)
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = gb_1.GetParent()
Hide		Supported		li_returnvalue = gb_1.Hide()
Move		Supported		gb_1.Move(200,500) li_returnvalue = gb_1.Move(li_xpos, li_ypos)
PointerX		Supported		li_returnvalue = gb_1.PointerX()
PointerY		Supported		li_returnvalue = gb_1.PointerY()
PostEvent		Supported		lb_returnvalue = gb_1.PostEvent(event)
Resize		Supported		li_returnvalue = gb_1.Resize(li_width,li_height)
SetFocus		Supported		li_returnvalue = gb_1.SetFocus( ) Unsupported: SetFocus(gb_text)
SetPosition		Supported		li_returnvalue = gb_1.SetPosition(position)
SetRedraw		Supported		li_value = gb_1.SetRedraw(TRUE)
Show		Supported		li_returnvalue = gb_1.Show()
TriggerEvent		Supported		li_returnvalue = gb_1.TriggerEvent(event)

TypeOf		Supported		if gb_1.TypeOf() = GroupBox! Then
				  ls_returnvalue = "GroupBox!"
				else
				  ls_returnvalue = "invalid"
				end if

GetContextService		Unsupported		
Print		Unsupported		

HProgressBar control

Properties | Events | Functions

APPEON

Properties for HProgressBar control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
BringToTop		Supported		hpb_1.BringToTop = TRUE
DragAuto		Supported		hpb_1.DragAuto = TRUE
DragIcon		Supported		hpb_1.DragIcon = 'Question!'
Height		Supported		hpb_1.Height = li_value
MaxPosition		Supported		hpb_1.MaxPosition = 120
MinPosition		Supported		hpb_1.MinPosition = 20
Pointer		Supported		hpb_1.Pointer = 'Beam!' hpb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
Position		Supported		hpb_1.Position = 50
SetStep		Supported		hpb_1.setstep = 20
SmoothScroll		Supported		hpb_1.SmoothScroll = True
TabOrder		Supported		hpb_1.TabOrder = 20
Tag		Supported		hpb_1.Tag = "HProgressBar control"
Visible		Supported		hpb_1.Visible = TRUE
Width		Supported		hpb_1.Width = 700
X		Supported		hpb_1.X = 280
Y		Supported		hpb_1.Y = 1280
ClassDefinition		Unsupported		

Events for HProgressBar control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Clicked		Supported		Clicked()
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DoubleClicked		Supported		DoubleClicked()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RightClicked		Supported		RightClicked()
Help		Unsupported		
Other		Unsupported		

Functions for HProgressBar control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_classnm = hpb_1.classname()
Drag		Supported		li_return = hpb_1.drag(Begin!)
GetParent		Supported		lpo_return = hpb_1.GetParent()
Hide		Supported		li_return = hpb_1.Hide()
Move		Supported		li_return = hpb_1.Move(li_x,li_y)
OffsetPos		Supported		li_return = hpb_1.OffsetPos(10)
PointerX		Supported		li_return = hpb_1.PointerX()
PointerY		Supported		li_return = hpb_1.PointerY()

PostEvent	Supported	hpb_1.PostEvent(Clicked!)
Resize	Supported	li_return = hpb_1.Resize(li_x, li_y)
SetFocus	Supported	li_return = hpb_1.SetFocus()
SetPosition	Supported	li_return = hpb_1.SetPosition(ToTop!)
SetRange	Supported	li_return = hpb_1.SetRange (1, 10)
SetRedraw	Supported	li_return = hpb_1.SetRedraw(FALSE)
Show	Supported	li_return = hpb_1.Show()
StepIt	Supported	li_return = hpb_1.StepIt( )
TriggerEvent	Supported	li_return = hpb_1.TriggerEvent(Clicked!)
TypeOf	Supported	type_obj = hpb_1.typeof()
GetContextService	Unsupported	
Print	Unsupported	

HScrollBar control

Properties | Events | Functions

APPEON

Properties for HScrollBar control

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
BringToTop	Supported	hsb_1.BringToTop = TRUE
DragAuto	Supported	hsb_1.DragAuto = TRUE
DragIcon	Supported	hsb_1.DragIcon = 'Question!'
Height	Supported	hsb_1.Height = li_value
MaxPosition	Supported	hsb_1.MaxPosition = 120

MinPosition		Supported		hsb_1.MinPosition = 20
Pointer		Supported		hsb_1.Pointer = 'Beam!' hsb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
Position		Supported		hsb_1.Position = 50
StdHeight		Supported		hsb_1.StdHeight = True
TabOrder		Supported		hsb_1.TabOrder = 20
Tag		Supported		hsb_1.Tag = "HScrollBar control"
Visible		Supported		hsb_1.Visible = TRUE
Width		Supported		hsb_1.Width = 700
X		Supported		hsb_1.X = 280
Y		Supported		hsb_1.Y = 1280
ClassDefinition		Unsupported		

Events for HScrollBar control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LineLeft		Supported		LineLeft()
LineRight		Supported		LineRight() Note: User defined events in the LineLeft or LineRight events for the Hscrollbar control may be triggered

				more than once.
LoseFocus		Supported		LoseFocus()
Moved		Supported		Moved(scrollpos)
PageLeft		Supported		PageLeft()
PageRight		Supported		PageRight()
RButtonDown		Supported		RButtonDown()
Help		Unsupported		
Other		Unsupported		

Functions for HScrollBar control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_classnm = hsb_1.classname()
Drag		Supported		li_return = hsb_1.drag(Begin!)
GetParent		Supported		lpo_return = hsb_1.GetParent()
Hide		Supported		li_return = hsb_1.Hide()
Move		Supported		li_return = hsb_1.Move(li_x,li_y)
PointerX		Supported		li_return = hsb_1.PointerX()
PointerY		Supported		li_return = hsb_1.PointerY()
PostEvent		Supported		hsb_1.PostEvent(Clicked!)
Resize		Supported		li_return = hsb_1.Resize(li_x, li_y)
SetFocus		Supported		li_return = hsb_1.SetFocus()
SetPosition		Supported		li_return = hsb_1.SetPosition(ToTop!)
SetRedraw		Supported		li_return = hsb_1.SetRedraw(FALSE)
Show		Supported		li_return = hsb_1.Show()
TriggerEvent		Supported		li_return = hsb_1.TriggerEvent(Clicked!)

TypeOf		Supported		type_obj = hsb_1.typeof()
GetContextService		Unsupported		
Print		Unsupported		

HTrackBar control

Properties | Events | Functions

APPEON

Properties for HTrackBar control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
BringToTop		Supported		htb_1.BringToTop = TRUE
DragAuto		Supported		htb_1.DragAuto = TRUE
DragIcon		Supported		htb_1.DragIcon = 'Question!'
Height		Supported		htb_1.Height = li_value
LineSize		Supported		htb_1.LineSize = li_value
MaxPosition		Supported		htb_1.MaxPosition = 120
MinPosition		Supported		htb_1.MinPosition = 20
PageSize		Supported		htb_1.PageSize = li_value
Pointer		Supported		htb_1.Pointer = 'Beam!'
Position		Supported		htb_1.Position = 50
Slider		Supported		htb_1.Slider = TRUE
SliderSize		Supported		htb_1.SliderSize = li_value
TabOrder		Supported		htb_1.TabOrder = 20

Tag		Supported		htb_1.Tag = ls_tag
TickFrequency		Supported		htb_1.TickFrequency = li_value
TickMarks		Supported		htb_1.TickMarks = HTicksOnRight!
Visible		Supported		htb_1.Visible = TRUE
Width		Supported		htb_1.Width = li_value
X		Supported		htb_1.X = li_x
Y		Supported		htb_1.Y = li_y
ClassDefinition		Unsupported		

Events for HTrackBar control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LineDown		Supported		LineDown()
LineUp		Supported		LineUp()
LoseFocus		Supported		LoseFocus()
Moved		Supported		Moved(scrollpos)
PageDown		Supported		PageDown()
PageUp		Supported		PageUp()

RButtonDown		Supported		RButtonDown()
Help		Unsupported		
Other		Unsupported		

Functions for HTrackBar control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_classnm = htb_1.classname()
Drag		Supported		li_return = htb_1.drag(Begin!)
GetParent		Supported		lpo_return = htb_1.GetParent()
Hide		Supported		li_return = htb_1.Hide()
Move		Supported		li_return = htb_1.Move(li_x,li_y)
PointerX		Supported		li_return = htb_1.PointerX()
PointerY		Supported		li_return = htb_1.PointerY()
PostEvent		Supported		htb_1.PostEvent(Clicked!)
Resize		Supported		li_return = htb_1.Resize(li_x, li_y)
SelectionRange		Supported		li_return = htb_1.SelectionRange(30, 70)
SetFocus		Supported		li_return = htb_1.SetFocus()
SetPosition		Supported		li_return = htb_1.SetPosition(ToTop!)
SetRedraw		Supported		li_return = htb_1.SetRedraw(FALSE)
Show		Supported		li_return = htb_1.Show()
TriggerEvent		Supported		li_return = htb_1.TriggerEvent(Clicked!)
TypeOf		Supported		type_obj = htb_1.typeof()
GetContextService		Unsupported		
Print		Unsupported		

Line control

Properties | Events | Functions

APPEON

Properties for Line control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
BeginX		Supported		ln_1.BeginX = li_value
BeginY		Supported		ln_1.BeginY = li_value
EndX		Supported		ln_1.EndX = li_value
EndY		Supported		ln_1.EndY = li_value
LineColor		Supported		ln_1.LineColor = ll_value ln_1.LineColor = RGB(192,192,192)
LineStyle		Supported		ln_1.LineStyle = Continuous! ln_1.LineStyle = Dash! ln_1.LineStyle = DashDot! ln_1.LineStyle = DashDotDot! ln_1.LineStyle = Dot! ln_1.LineStyle = Transparent!
LineThickness		Supported		ln_1.LineThickness = li_value
Tag		Supported		ln_1.Tag = ls_value
Visible		Supported		ln_1.Visible = TRUE ln_1.Visible = lb_value
ClassDefinition		Unsupported		

Events for Line control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()

Destructor	Supported	Destructor()

Functions for Line control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_returnvalue = ln_1.ClassName()
GetParent	Supported	li_returnvalue = ln_1.GetParent( )
Hide	Supported	li_returnvalue = ln_1.Hide()
Move	Supported	li_returnvalue = ln_1.Move(li_xpos, li_ypos)
Resize	Supported	li_returnvalue = ln_1.Resize(100, 150)
Show	Supported	li_returnvalue = ln_1.Show()

TypeOf	Supported	if ln_1.typeof() = Line! Then
		ls_returnvalue = 'Line!'
		else
		ls_returnvalue = 'Invalid'
		end if

GetContextService	Unsupported	

ListBox control

Properties | Events | Functions

Properties for ListBox control

Properties | Events | Functions

Property	Support Level	Example Code
Accelerator	Supported	lb_1.Accelerator=67
BackColor	Supported	lb_1.BackColor = ll_value

				lb_1.BackColor = RGB(192,192,192)
Border		Supported		lb_1.Border = lb_value
BringToTop		Supported		lb_1.BringToTop = TRUE
BorderStyle		Supported		lb_1.BorderStyle = StyleLowered! lb_1.BorderStyle = StyleRaised! lb_1.BorderStyle = StyleBox! Note: StyleShadowBox! is unsupported.
DisableNoScroll		Supported		lb_1.DisableNoScroll = FALSE lb_1.DisableNoScroll = lb_value
DragAuto		Supported		lb_1.DragAuto = TRUE
DragIcon		Supported		lb_1.DragIcon = 'c:\examples\arrow.ico' lb_1.DragIcon = 'Question!'
Enabled		Supported		lb_1.Enabled = lb_value
ExtendedSelect		Supported		lb_1.ExtendedSelect = lb_value
FaceName		Supported		lb_1.FaceName = ls_value
FontCharSet		Supported		lb_1.FontCharSet = ANSI!
FontFamily		Supported		lb_1.FontFamily = Roman!
FontPitch		Supported		lb_1.FontPitch = Fixed!
Height		Supported		lb_1.Height = li_value
HScrollBar		Supported		lb_1.HScrollBar = TRUE lb_1.HscrollBar = lb_value
Italic		Supported		lb_1.Italic = lb_value
Item[ ]		Supported		ls_value = lb_1.Item[1]
MultiSelect		Supported		lb_1.MultiSelect = lb_value
Pointer		Supported		lb_1.Pointer = 'SizeNS!' lb_1.Pointer='d:\archive\IBEAM.BMP.cur'
RightToLeft		Supported		lb_1.RightToLeft = TRUE
Sorted		Supported		lb_1.Sorted = TRUE
TabOrder		Supported		lb_1.TabOrder = 60
Tag		Supported		lb_1.Tag = ls_value
TextColor		Supported		lb_1.TextColor = ll_value lb_1.TextColor = RGB(192,192,192)
TextSize		Supported		lb_1.TextSize = li_value
Underline		Supported		lb_1.Underline = lb_value
Visible		Supported		lb_1.Visible = lb_value
VScrollBar		Supported		lb_1.VscrollBar = lb_value
Weight		Supported		lb_1.Weight = li_value
Width		Supported		lb_1.Width = li_value
X		Supported		lb_1.X = li_value

Y		Supported		lb_1.Y = li_value
ClassDefinition		Unsupported		
TabStop[ ]		Unsupported		

Events for ListBox control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DoubleClicked		Supported		DoubleClicked()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
SelectionChanged		Supported		SelectionChanged(index)
Help		Unsupported		
Other		Unsupported		

Functions for ListBox control

Properties | Events | Functions

APPEON

Function		Support		Example Code

	Level	
AddItem	Supported	li_returnvalue = lb_1.AddItem(item)
ClassName	Supported	ls_ returnvalue = lb_1.ClassName()
DeleteItem	Supported	li_returnvalue = lb_1.DeleteItem(index)
DirList	Supported	lb_1.DirList("C:\EMPLOYEE*.TXT", 0)
DirSelect	Supported	lb_1.DirSelect(ls_filename)
Drag	Supported	lb_1.Drag(End!)
Find Item	Supported	li_returnvalue = lb_1.FindItem(text, index)
GetParent	Supported	PowerObject lpo_returnvalue lpo_returnvalue = lb_1.GetParent()
Hide	Supported	li_returnvalue = lb_1.Hide()
InsertItem	Supported	li_returnvalue = lb_1.InsertItem(ls_x, li_y)
Move	Supported	li_returnvalue = string(lb_1.Move(li_x,li_y))
PointerX	Supported	li_returnvalue = lb_1.PointerX()
PointerY	Supported	li_returnvalue = lb_1.PointerY()
PostEvent	Supported	lb_returnvalue = string(lb_1.PostEvent(Clicked!))
Reset	Supported	li_returnvalue = lb_1.Reset()
Resize	Supported	li_returnvalue = lb_1.Resize(li_x,li_y)
SelectedIndex	Supported	li_returnvalue = lb_1.SelectedIndex()
SelectedItem	Supported	ls_returnvalue = lb_1.SelectedItem()
SelectItem	Supported	li_returnvalue = lb_1.SelectItem (item, index)
SetFocus	Supported	li_returnvalue = lb_1.SetFocus() Unsupported: SetFocus(lb_test)
SetPosition	Supported	li_returnvalue = lb_1.SetPosition(position)
SetRedraw	Supported	li_value = lb_1.SetRedraw(TRUE)
SetState	Supported	li_returnvalue = lb_1.SetState(index, lb_y)
SetTop	Supported	li_returnvalue = lb_1.SetTop(index)
Show	Supported	li_returnvalue = lb_1.Show()
State	Supported	li_returnvalue = lb_1.State(index)
Text	Supported	ls_returnvalue = lb_1.Text (index)

Top	Supported	li_returnvalue = lb_1.Top()
TotalItems	Supported	li_returnvalue = lb_1.TotalItems()
TotalSelected	Supported	li_returnvalue = lb_1.TotalSelected()
TriggerEvent	Supported	li_returnvalue = lb_1.TriggerEvent(event)

TypeOf	Supported	if lb_1.typeof() = listbox! Then
		ls_returnvalue ='listbox!'
		else
		ls_returnvalue ='isvalid'
		end if

GetContextService	Unsupported	
Print	Unsupported	

ListView control

Properties | Events | Functions

Important Requirements

In the ListView control, selecting multiple items at one time is unsupported.

Properties for ListView control

Properties | Events | Functions

Property	Support Level	Example Code
Accelerator	Supported	lv_1.Accelerator=67
AutoArrange	Supported	lv_1.AutoArrange = TRUE
BackColor	Supported	lv_1.BackColor = ll_value lv_1.BackColor = RGB(192,192,192)
Border	Supported	lv_1.Border = lb_value
BorderStyle	Supported	lv_1.BorderStyle = StyleBox! lv_1.BorderStyle = StyleLowered! lv_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is not supported.
BringToTop	Supported	lv_1.BringToTop = TRUE

ButtonHeader	Supported	lv_1.ButtonHeader = TRUE
CheckBoxes	Supported	lv_1.CheckBoxes = TRUE
DeleteItems	Supported	lv_1.DeleteItems = lb_value
DragAuto	Supported	lv_1.DragAuto = TRUE
DragIcon	Supported	lv_1.DragIcon = 'c:\archive\arrow.ico''
EditLabels	Supported	lv_1.EditLabels = lb_value
Enabled	Supported	lv_1.Enabled = lb_value
ExtendedSelect	Supported	lv_1.ExtendedSelect = TRUE
FaceName	Supported	lv_1.FaceName =ls_value
FixedLocations	Supported	lv_1.FixedLocations = FALSE
FontCharSet	Supported	lv_1.FontCharSet = ANSI!
FontFamily	Supported	lv_1.FontFamily = Roman!
FontPitch	Supported	lv_1.FontPitch = Fixed!
FullRowSelect	Supported	lv_1.FullRowSelect = TRUE
GridLines	Supported	lv_1.GridLines = TRUE
HeaderDragDrop	Supported	lv_1.HeaderDragDrop = TRUE
Height	Supported	lv_1.Height = li_value
HideSelection	Supported	lv_1.HideSelection = FALSE
Italic	Supported	lv_1.Italic = lb_value
Item[ ]	Supported	lv_1.item[intx] = ls_value
ItemPictureIndex[ ]	Supported	lv_1. ItemPictureIndex [li_x] = ls_value
LabelWrap	Supported	lv_1.LabelWrap = TRUE
LargePictureHeight	Supported	lv_1.LargePictureHeight = li_value Note: This value cannot be set to 0 or negative.
LargePictureMaskColor	Supported	lv_1.LargePictureMaskColor = RGB(255, 255, 0)
LargePictureName[ ]	Supported	lv_1. LargePictureName [li_x] = ls_value
LargePictureWidth	Supported	lv_1.LargePictureWidth = li_value Note: This value cannot be set to 0 or negative.
OneClickActivate	Supported	lv_1.OneClickActivate = TRUE
Pointer	Supported	lv_1.Pointer = 'SizeNS!' lv_test.Pointer = 'd:\archive\IBEAM.BMP.cur'
Scrolling	Supported	lv_1.Scrolling = TRUE
ShowHeader	Supported	lv_1.ShowHeader = TRUE
SmallPictureHeight	Supported	lv_1.SmallPictureHeight = li_value Note: This value cannot be set to 0 or negative.
SmallPictureMaskColor	Supported	lv_1.SmallPictureMaskColor = RGB(255, 255, 0)
SmallPictureName[ ]	Supported	lv_1. SmallPictureName [li_x] = ls_value
SmallPictureWidth	Supported	lv_1.SmallPictureWidth = li_value Note: This value cannot be set to 0 or negative.
SortType	Supported	lv_1.SortType = Unsorted!
StatePictureMaskColor	Supported	lv_1.StatePictureMaskColor = RGB(255, 255, 0)
StatePictureName[ ]	Supported	lv_1. StatePictureName [li_x] = ls_value

TabOrder	Supported	lv_1.TabOrder = 70
Tag	Supported	lv_1.Tag = ls_value
TextColor	Supported	lv_1.TextColor = ll_value lv_1.TextColor = RGB(192,192,192)
TextSize	Supported	lv_1.TextSize = li_value
TrackSelect	Supported	lv_1.TrackSelect = TRUE
TwoClickActivate	Supported	lv_1.TwoClickActivate = TRUE
Underline	Supported	lv_1.Underline = lb_value
UnderlineCold	Supported	lv_1. UnderlineCold = TRUE
UnderlineHot	Supported	lv_1. UnderlineHot = TRUE
View	Supported	lv_1.View = ListViewLargeIcon!
Visible	Supported	lv_1.Visible = lb_value
Weight	Supported	lv_1.Weight = li_value
Width	Supported	lv_1.Width = li_value
X	Supported	lv_1.X = li_value
Y	Supported	lv_1.Y =li_value
ClassDefinition	Unsupported	
LayoutRTL	Unsupported	
StatePictureHeight	Unsupported	
StatePictureWidth	Unsupported	

Events for ListView control

Properties | Events | Functions

Event	Support Level	Example Code
BeginDrag	Supported	BeginDrag(index)
BeginLabelEdit	Supported	BeginLabelEdit(index)
BeginRightDrag	Supported	BeginRightDrag(index)
Clicked	Supported	Clicked(index)
ColumnClick	Supported	ColumnClick(column)
Constructor	Supported	Constructor()
DeleteAllItems	Supported	DeleteAllItems()
DeleteItem	Supported	DeleteItem(index)

Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked(index)
DragDrop	Supported	DragDrop(source,index)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source,index)
EndLabelEdit	Supported	EndLabelEdit(index,newlabel)
GetFocus	Supported	GetFocus()
InsertItem	Supported	InsertItem(index)
ItemActivate	Supported	ItemActivate(index, focuschanged, hasfocus, selectionchange, selected, otherchange)
ItemChanged	Supported	ItemChanged(index, focuschanged, hasfocus, selectionchange, selected, otherchange)
ItemChanging	Supported	ItemChanging(index, focuschange, hasfocus, selectionchange, selected, otherchange)
Key	Supported	Key(key,keyflags)
LoseFocus	Supported	LoseFocus()
RightClicked	Supported	RightClicked(index)
RightDoubleClicked	Supported	RightDoubleClicked(index)
Help	Unsupported	
Other	Unsupported	
Sort	Unsupported	

Functions for ListView control

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
AddColumn	Supported	li_value = lv_1.AddColumn(ls_x,Center!,li_y)
AddItem	Supported	li_value = lv_1.AddItem(ls_x,li_y)
AddLargePicture	Supported	li_value = lv_1.AddLargePicture(ls_prop)
AddSmallPicture	Supported	li_value = lv_1.AddSmallPicture(ls_prop)

AddStatePicture	Supported	li_value = lv_1.AddstatePicture(ls_prop)
Arrange	Supported	li_value = lv_1.Arrange()
ClassName	Supported	ls_value = lv_1.ClassName( )
DeleteColumn	Supported	li_value = lv_1.DeleteColumn(1)
DeleteColumns	Supported	li_value = lv_1.DeleteColumns( )
DeleteItem	Supported	li_value = lv_1.DeleteItem(li_x)
DeleteItems	Supported	li_value = lv_1.DeleteItems()
DeleteLargePicture	Supported	li_value = lv_1.DeleteLargePicture(li_x)
DeleteLargePictures	Supported	li_value = lv_1.DeleteLargePictures( )
DeleteSmallPicture	Supported	li_value = lv_1.DeleteSmallPicture(li_x)
DeleteSmallPictures	Supported	li_value = lv_1.DeleteSmallPictures( )
DeleteStatePicture	Supported	li_value = lv_1.DeleteStatePicture(li_x)
DeleteStatePictures	Supported	li_value = lv_1.DeleteStatePictures( )
Drag	Supported	lv_1.Drag(Begin!)
EditLabel	Supported	li_value= lv_1. EditLabel()
FindItem	Supported	li_Value = lv_1.FindItem (startindex, label, partial, wrap) li_value = lv_1.FindItem(startindex, direction, focused, selected, cuthighlighted, drophighlighted)
GetColumn	Supported	li_strValue = lv_1.GetColumn (index, label, alignment, width)
GetItem	Supported	li_value = lv_1.GetItem(li_x,lv1)
GetParent	Supported	PowerObject lpo_returnvalue lpo_returnvalue = lv_1.GetParent()
Hide	Supported	li_value = lv_1.Hide( )
InsertColumn	Supported	li_value = lv_1.InsertColumn(li_x,ls_x,Center!,li_y)
InsertItem	Supported	li_value = lv_1.InsertItem(2, "Insert String")
Move	Supported	li_value = lv_1.Move(li_x,li_y)
PointerX	Supported	li_value = lv_1.PointerX()
PointerY	Supported	li_value = lv_1.PointerY()
PostEvent	Supported	lv_1.PostEvent(Clicked!)
Resize	Supported	li_value = lv_1.Resize(li_x,li_y)
SelectedIndex	Supported	li_value = lv_1.SelectedIndex( )
SetColumn	Supported	li_value = lv_1.SetColumn(li_x,ls_x,Center!,li_y)
SetFocus	Supported	li_value = lv_1.SetFocus( )

				Unsupported: SetFocus(lv_test)
SetItem		Supported		li_value = lv_1.SetItem(li_x[],li_y[],lv1)
SetPosition		Supported		li_value = lv_1.SetPosition(Behind!, lv_three)
SetRedraw		Supported		li_value = lv_1.SetRedraw(TRUE)
Show		Supported		li_value = lv_1.Show( )
Sort		Supported		li_value = lv_1.Sort(Ascending!) li_value = lv_1.Sort(Descending!) li_value = lv_1.Sort(Unsorted!) Note: three types, ascending!, descending! and unsorted!, are supported. The sort type userdefinesort! is not supported.
TotalColumns		Supported		li_cols = lv_1.TotalColumns( )
TotalItems		Supported		li_value = lv_1.TotalItems( )
TriggerEvent		Supported		li_value = lv_1.TriggerEvent("Clicked")

TypeOf		Supported		if lv_1.TypeOf( ) = ListView! Then
				  ls_value = "ListView!"
				else
				  ls_value = "invalid"
				end if

SetOverlayPicture		Supported		lv_1.SetOverlayPicture(1, index)
TotalSelected		Supported		
GetContextService		Unsupported		
GetOrigin		Unsupported		
Print		Unsupported		

MultiLineEdit control

Properties | Events | Functions

APPEON

Properties for MultiLineEdit control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code

Accelerator	Supported	mle_1.Accelerator = 67
Alignment	Supported	mle_1.Alignment = Center!
AutoHScroll	Supported	mle_1.AutoHScroll = TRUE
AutoVScroll	Supported	mle_1.AutoVscroll = TRUE
BackColor	Supported	mle_1.BackColor = ll_value mle_1.BackColor = RGB(192,192,192)
Border	Supported	mle_1.Border = lb_value
BorderStyle	Supported	mle_1.BorderStyle = StyleBox! mle_1.BorderStyle = StyleLowered! mle_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	mle_1.BringToTop = TRUE
DisplayOnly	Supported	mle_1.DisplayOnly =lb_value
DragAuto	Supported	mle_1.DragAuto = TRUE
DragIcon	Supported	mle_1.DragIcon = 'c:\archive\arrow.ico''
Enabled	Supported	mle_1.Enabled = lb_value Note: when the user moves the pointer over a MultiLineEdit control that has set the Enabled property to false, the pointer on the Web will be different from that in the PowerBuilder application.
FaceName	Supported	mle_1.FaceName = ls_value
FontCharSet	Supported	mle_1.FontCharSet = ANSI!
FontFamily	Supported	mle_1.FontFamily = Roman!

FontPitch	Supported	mle_1.FontPitch = Fixed!
Height	Supported	mle_1.Height = li_value
HideSelection	Supported	mle_1.HideSelection = FALSE
HScrollBar	Supported	mle_1.HScrollBar = TRUE
IgnoreDefaultButton	Supported	mle_1.IgnoreDefaultButton = TRUE
Italic	Supported	mle_1.Italic = lb_value
Limit	Supported	mle_1.Limit = li_value
Pointer	Supported	mle_1.pointer= 'beam!' mle_1.pointer ='d:\archive\IBEAM.BMP.cur'
RightToLeft	Supported	mle_1.RightToLeft = TRUE
TabOrder	Supported	mle_1.TabOrder = 80
Tag	Supported	mle_1.Tag = ls_value
Text	Supported	mle_1.Text = ls_value It is unsupported to set the value of this property to null.
TextCase	Supported	mle_1.TextCase = AnyCase! mle_1.TextCase = Lower! mle_1.TextCase = Upper!
TextColor	Supported	mle_1.TextColor = ll_value
TextSize	Supported	mle_1.TextSize = li_value
Underline	Supported	mle_1.Underline = lb_value

Visible	Supported	mle_1.Visible = lb_value
VScrollBar	Supported	mle_1.VScrollBar = TRUE
Weight	Supported	mle_1.Weight = li_value
Width	Supported	mle_1.Width = li_value
X	Supported	mle_1.X = li_value
Y	Supported	mle_1.Y = li_value
ClassDefinition	Unsupported	
TabStop[ ]	Unsupported	

Events for MultiLineEdit control

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
Modified	Supported	Modified() A Modified event is followed by a LoseFocus event.
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)

Help		Unsupported		
Other		Unsupported		

Functions for MultiLineEdit control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_value = mle_1.ClassName()
Clear		Supported		ls_value = mle_1.Clear() Note: the function executes successfully only when the control has focus.
Copy		Supported		ls_value = mle_1.Copy()
Cut		Supported		ls_value = mle_1.Cut()
Drag		Supported		mle_1.Drag(Begin!)
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = mle_1.GetParent()
Hide		Supported		ls_value = mle_1.Hide()
LineCount		Supported		li_value = mle_1.LineCount()
LineLength		Supported		li_value = mle_1.LineLength()
Move		Supported		ls_value = mle_1.Move(li_x,li_y)
Paste		Supported		ls_value = mle_1.Paste()
PointerX		Supported		ls_value = mle_1.PointerX()
PointerY		Supported		ls_value = mle_1.PointerY()
Position		Supported		mle_1.Position()
PostEvent		Supported		ls_value = mle_1.PostEvent(Constructor!)
ReplaceText		Supported		ls_strexevalue = mle_1.ReplaceText(ls_x)
Resize		Supported		ls_value = mle_1.Resize(li_x,li_y)
Scroll		Supported		mle_1.Scroll(4)
SelectedLength		Supported		ls_value = mle_1.SelectedLength()

SelectedLine		Supported	integer li_SL li_SL = mle_1.SelectedLine()
SelectedStart		Supported	ls_value = mle_1.SelectedStart()
SelectedText		Supported	ls_value = mle_1.SelectedText()
SelectText		Supported	li_value = mle_1.SelectText(li_x,li_y)
SetFocus		Supported	ls_value = mle_1.SetFocus() Unsupported: SetFocus(mle_1)
SetPosition		Supported	mle_1.SetPosition(Behind!, mle_2) ls_value = mle_1.SetPosition(ToTop!) ls_value = mle_1.SetPosition(ToBottom!)
SetRedraw		Supported	li_return= mle_1.SetRedraw(FALSE)
Show		Supported	ls_value = mle_1.Show()
TextLine		Supported	ls_value = mle_1.TextLine()
TriggerEvent		Supported	ls_value = mle_1.TriggerEvent(Constructor!)

TypeOf		Supported	if mle_1.typeof() = MultiLineEdit! Then
			  ls_value = 'MultiLineEdit!'
			else
			  ls_value = 'Invalid'
			end if

Undo		Supported	li_value = mle_1.Undo()
CanUndo		Unsupported	
GetContextService		Unsupported	
Print		Unsupported	

MonthCalendar control

Properties | Events | Functions

APPEON

Properties for MonthCalendar control

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
Accelerator	Supported	mc_1.Accelerator=67
AccessibleDescription	Supported	
AccessibleName	Supported	
AccessibleRole	Supported	
AutoSize	Supported	mc_1.AutoSize = false
BackColor	Supported	mc_1.BackColor = RGB(0, 0, 255) mc_1.BackColor = ll_value
Border	Supported	mc_1.Border = TRUE mc_1.Border = lb_value
BorderStyle	Supported	mc_1.BorderStyle = StyleBox! mc _1.BorderStyle = StyleLowered! mc _1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	mc_1.BringToTop = TRUE
DragAuto	Supported	mc_1.DragAuto = TRUE Note: On the Web, dragging a DatePicker control will not trigger the DropDown event if the DragAuto property is set to True, which means there is no Month Calender dispayed on the Web when you Drag the DatePicker with setting the DragAuto property to True.
DragIcon	Supported	mc_1.DragIcon = 'arrow.ico'
Enabled	Supported	mc_1.Enabled=TRUE mc_1.Enabled = lb_value
FaceName	Supported	mc_1.FaceName = "" mc_1.FaceName = ls_value
FirstDayOfWeek	Supported	mc_1.FirstDayOfWeek = Monday!
FontCharSet	Supported	mc_1.FontCharSet = ANSI!
FontFamily	Supported	mc_1.FontFamily = Roman!
FontPitch	Supported	mc_1.FontPitch = Fixed!
Height	Supported	mc_1.Height = 750 mc_1.Height = li_value
Italic	Supported	mc_1.Italic=TRUE mc_1.Italic = lb_value
MaxSelectCount	Supported	mc_1.MaxSelectCount = 7
MonthBackColor	Supported	mc_1.MonthBackColor = RGB(255, 255, 0
Pointer	Supported	mc_1.Pointer = 'Size!'
ScrollRate	Supported	mc_1.ScrollRate = 3
TabOrder	Supported	mc_1.TabOrder = 30
Tag	Supported	mc_1.Tag = ls_value
TextColor	Supported	mc_1.TextColor = ll_value
TextSize	Supported	mc_1.TextSize = li_value

TitleBackColor	Supported	mc_1.TitleBackColor = RGB(128, 255, 128)
TitleTextColor	Supported	mc_1.TitleTextColor = RGB(0,0,255)
TodayCircle	Supported	mc_1.TodaySection = false
TodaySection	Supported	mc_1.TodaySection = false
TrailingTextColor	Supported	mc_1.TrailingTextColor = 134217731
Underline	Supported	mc_1.Underline = lb_value
Visible	Supported	mc_1.Visible = True
WeekNumbers	Supported	mc_1.WeekNumbers = true
Weight	Supported	mc_1.Weight = 700 mc_1.Weight = li_value
Width	Supported	mc_1.Width = li_value Note: 1. If the Width value is set to -32768, obtaining the width property returns -32768 on the Web, however it returens 0 in PowerBuilder. 2. If the Width value is set to 32768, obtaining the width property returns 0 on the Web, however it returens -32768 in PowerBuilder.
X	Supported	mc_1.X = li_value Note: 1. If the X value is set to -32768, obtaining the X property returns -32768 on the Web, however it returens 0 in PowerBuilder. 2. If the Width value is set to 32768, obtaining the width property returns 0 on the Web, however it returens -32768 in PowerBuilder.
Y	Supported	mc_1.Y = li_value Note: 1. If the Y value is set to -32768, obtaining the Y property returns -32768 on the Web, however it returens 0 in PowerBuilder. 2. If the Width value is set to 32768, obtaining the width property returns 0 on the Web, however it returens -32768 in PowerBuilder.
ClassDefinition	Unsupported	
RightToLeft	Unsupported	

Events for MonthCalendar control

Properties | Events | Functions

Event	Support Level	Example Code
Clicked	Supported	Clicked()

Constructor		Supported		Constructor()
DateChanged		Supported		DateChanged() Note: SetSelectedDate and SetSelectedRange trigger a DateChanged event twice on the Web.
Destructor		Supported		Destructor()
DoubleClicked		Supported		Doubleclicked(flags,xpos,ypos)
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
GetFocus		Unsupported		
LoseFocus		Unsupported		
Help		Unsupported		
UserString		Unsupported		
Other		Unsupported		

Functions for MonthCalendar Control

Properties | Events | Functions

Function		Support Level		Example Code
ClassName		Supported		ls_value = mc_1.ClassName()
ClearBoldDates		Supported		li_return = mc_1.ClearBoldDates()
Drag		Supported		mc_1.Drag(Begin!) Note: If you use Drag(Begin!), single mouse clicking will trigger DragEnter and DragDrop event in sequnce on the Web. This is different from the event sequences in PowerBuilder.
GetDateLimits		Supported		li_return = mc_1.GetDateLimits(mindate, maxdate)
GetDisplayRange		Supported		li_return = mc_1.GetDisplayRange(startdate, enddate,PartlyDisplayed!)

GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = mc_1.GetParent()
GetSelectedDate		Supported		li_return = mc_1.GetSelectedDate(seldate) Notes: 1. The function returns 0 on the Web if there are several dates selected or the specified date is an invalid value. 2. The function will trigger a DateChanged event twice on the Web.
GetSelectedRange		Supported		li_return = mc_1.GetSelectedRange(startdate, enddate) Note: The function will trigger a DateChanged event twice on the Web.
GetToday		Supported		currentdate = mc_1.GetToday()
Hide		Supported		li_return = mc_1.Hide()
Move		Supported		li_return = mc_1.Move(li_x,li_y)
PointerX		Supported		li_value = mc_1.PointerX()
PointerY		Supported		li_value = mc_1.PointerY()
PostEvent		Supported		mc_1.PostEvent(Constructor!)
Resize		Supported		li_return = mc_1.Resize(li_width,li_height)
SetBoldDate		Supported		li_return = mc_1.SetBoldDate(d, true)
SetDateLimits		Supported		li_return = mc_1.SetDateLimits(mindate, maxdate)
SetFocus		Supported		li_return = mc_1.SetFocus()
SetPosition		Supported		li_return = mc_1.SetPosition(position)
SetRedraw		Supported		li_return= mc_1.SetRedraw(FALSE)
SetSelectedDate		Supported		li_return = mc_1.SetSelectedDate(seldate) Notes:If input an invalid date, the function returns 0 on the Web but -1 in PowerBuilder.
SetSelectedRange		Supported		li_return = mc_1.SetSelectedRange(startdate, enddate)
SetToday		Supported		li_return = mc_1.SetToday(currentdate)
Show		Supported		li_return = mc_1.Show()
TriggerEvent		Supported		mc_1.TriggerEvent(Constructor!)

TypeOf		Supported		if mc_1.TypeOf() = MonthCalendar! Then
				ls_return = 'MonthCalendar!'
				else
				ls_return = 'isvalid'
				end if

GetContextService		Unsupported		
Print		Unsupported		

OLEControl control

Properties | Events | Functions

Important Requirements

The shortcut key for Ocx is unsupported.

Using parentheses when calling an OLEObject method is required.

Properties for OLEControl control

Properties | Events | Functions

APPEON

Properties	Support Level	Example Code
Activation	Supported	ole_1.Activation = ActivateOnDoubleClick! Note: activateOnGetfocus! is unsupported.
BackColor	Supported	ole_1.BackColor = ll_value ole_1.BackColor = RGB(192,192,192)
BinaryIndex	Supported	
BinaryKey	Supported	
Border	Supported	ole_1.Border = TRUE ole_1.Border = lb_value
BorderStyle	Supported	ole_1.BorderStyle = StyleBox! ole_1.BorderStyle = StyleLowered! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	ole_1.BringToTop = TRUE
DisplayName	Supported	ole_1.DisplayName = "My project"
DisplayType	Supported	ole_1.DisplayType = DisplayAsIcon! Note: displayasactivexdocument! is unsupported
DocFileName	Supported	ls_ret = ole_1.docfilename
DragAuto	Supported	ole_1.DragAuto = TRUE
DragIcon	Supported	ole_1.DragIcon = 'Question!'
Enabled	Supported	ole_1.Enabled=TRUE ole_1.Enabled = lb_value
FocusRectangle	Supported	ole_1.FocusRectangle = TRUE ole_1.FocusRectangle = lb_value
Height	Supported	ole_1.Height = 750 ole_1.Height = li_value

LinkItem	Supported	ls_ret = iole.LinkItem
Object	Supported	OLEObject obj = ole_1.object.activesheet.cells Int x = ole_1.object.month
ObjectData	Supported	blob lblob_data = ole_1.objectdata
Pointer	Supported	ole_1.Pointer = 'SizeWE!' ole_1.Pointer='d:\archive\IBEAM.BMP.cur'
SizeMode	Supported	ole_1.SizeMode = Clip!
TabOrder	Supported	ole_1.TabOrder = 40 ole_1.TabOrder = li_order
Tag	Supported	ole_1.Tag = ls_value
Visible	Supported	ole_1.Visible = lb_value
Width	Supported	ole_1.Width = li_value
X	Supported	ole_1.X = li_value
Y	Supported	ole_1.Y = li_value
ClassDefinition	Unsupported	
ClassLongName	Unsupported	
ClassShortName	Unsupported	
ContentsAllowed	Unsupported	
IsDragTarget	Unsupported	
LinkUpdateOptions	Unsupported	
ParentStorage	Unsupported	

Events for OLEControl control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Clicked	Supported	Clicked()
Constructor	Supported	Constructor()
DataChange	Supported	DataChange()

Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked()
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
PropertyChanged	Supported	PropertyChanged(propertyname)
PropertyRequestEdit	Supported	PropertyRequestEdit(propertyname,cancelchange)
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
SaveObject	Supported	
Close	Unsupported	
DragDrop	Unsupported	
DragEnter	Unsupported	
DragLeave	Unsupported	
DragWithin	Unsupported	
Error	Unsupported	
ExternalException	Unsupported	
Help	Unsupported	
Other	Unsupported	
Rename	Unsupported	
Save	Unsupported	
ViewChange	Unsupported	

Functions for OLEControl control

Properties | Events | Functions

Function	Support Level	Coding Examples
Activate	Supported	integer li_return li_return = ole_1.Activate(OffSite!) Note: the argument InPlace! is unsupported
ClassName	Supported	ls_return = ole_1.ClassName()
Clear	Supported	li_return = ole_1.Clear()
DoVerb	Supported	li_return = ole_1.DoVerb(7)

GetData	Supported	li_return = ole_1.GetData(ClipFormatText!, ls_oledata)
GetNativePointer	Supported	UnsignedLong lul_oleptr li_return = ole_1.GetNativePointer(lul_oleptr)
GetParent	Supported	PowerObject lpo_parent lpo_parent = ole_1.GetParent()
Hide	Supported	ole_1.Hide()
InsertClass	Supported	li_return = ole_1.InsertClass("excel.sheet")
InsertFile	Supported	li_return = ole_1.InsertFile("c:\xls\expense.xls")
InsertObject	Supported	li_return = ole_1.InsertObject() Items listed in the Web Insert Object dialog box contain and only contain all the registered OLE applications in the client. Items listed in PowerBuilder Insert object dialog box are defined in PowerBuilder.
LinkTo	Supported	li_return = ole_1.LinkTo("c:\xls\expense.xls", "R1C1:R5C5")
Move	Supported	li_return = ole_1.Move(P_Train1.X + P_Train1.Width, P_Train1.Y)
Open	Supported	li_return = ole_1.Open("c:\ole2\mystuff.ole")
PointerX	Supported	li_return = ole_1.PointX()
PointerY	Supported	li_return = ole_1.PointY()
PostEvent	Supported	ole_1.PostEvent("DataChange")
ReleaseNativePointer	Supported	li_return = ole_1.ReleaseNativePointer(lul_oleptr)
Resize	Supported	li_return = ole_1.Resize(500, 1000)
Save	Supported	li_return = ole_1.Save()
SaveAs	Supported	li_return = ole_1.SaveAs("c:\ole\expense.ole")
SetData	Supported	li_return = ole_1.SetData(ClipFormatText!, ls_oledata)
SetFocus	Supported	li_return = ole_1.SetFocus()
SetPosition	Supported	ole_1.SetPosition(ToTop!) ole_1.SetPosition(Behind!, cb_exec)
SetRedraw	Supported	ole_1.SetRedraw(true)
Show	Supported	ole_1.Show()
TriggerEvent	Supported	li_return = ole_1.TriggerEvent("DataChange")
TypeOf	Supported	if ole_1.typeof()=olecontrol! then ls_return="olecontrol!"
Copy	Unsupported	
Cut	Unsupported	

Drag	Unsupported	
GetContextService	Unsupported	
Paste	Unsupported	
PasteLink	Unsupported	
PasteSpecial	Unsupported	
Print	Unsupported	
SelectObject	Unsupported	
UpdateLinksDialog	Unsupported	

OLECustomControl control

Properties | Events | Functions

APPEON

Important Requirements

The shortcut key for Ocx is unsupported.

Using parentheses when calling an OLEObject method is required.

Properties for OLECustomControl control

Properties | Events | Functions

APPEON

Properties	Support Level	Example Code
BackColor	Supported	ole_1.BackColor = ll_value ole_1.BackColor = RGB(192,192,192)
BinaryIndex	Supported	
BinaryKey	Supported	
Border	Supported	ole_1.Border = TRUE ole_1.Border = lb_value
BorderStyle	Supported	ole_1.BorderStyle = StyleBox! ole_1.BorderStyle = StyleLowered! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	ole_1.BringToTop = TRUE

DisplayName	Supported	ole_1.DisplayName = "My project"
DragAuto	Supported	ole_1.DragAuto = TRUE
DragIcon	Supported	ole_1.DragIcon = 'Question!'
Enabled	Supported	ole_1.Enabled =TRUE ole_1.Enabled = lb_value
FocusRectangle	Supported	ole_1.FocusRectangle = TRUE ole_1.FocusRectangle = lb_value
Object	Supported	OLEObject obj = ole_1.object.activesheet.cells Int x = ole_1.object.month
Pointer	Supported	ole_1.Pointer = 'SizeNWSE!' ole_1.Pointer='d:\archive\IBEAM.BMP.cur'
TabOrder	Supported	ole_1.TabOrder = 40 ole_1.TabOrder = li_order
Tag	Supported	ole_1.Tag = ls_value
Visible	Supported	ole_1.Visible = lb_value
Width	Supported	ole_1.Width = li_value
X	Supported	ole_1.X = li_value
Y	Supported	ole_1.Y = li_value
Alignment	Unsupported	
Cancel	Unsupported	
ClassDefinition	Unsupported	
ClassLongName	Unsupported	
ClassShortName	Unsupported	
Default	Unsupported	
FaceName	Unsupported	
FontCharSet	Unsupported	
FontFamily	Unsupported	
FontPitch	Unsupported	
IsDragTarget	Unsupported	

Italic	Unsupported	
TextColor	Unsupported	
TextSize	Unsupported	
Underline	Unsupported	
Weight	Unsupported	

Events for OLECustomControl control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Clicked	Supported	Clicked()
Constructor	Supported	Constructor()
DataChange	Supported	DataChange()
Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked()
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
PropertyChanged	Supported	PropertyChanged(propertyname)
PropertyRequestEdit	Supported	PropertyRequestEdit(propertyname,cancelchange)
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
DragDrop	Unsupported	
DragEnter	Unsupported	
DragLeave	Unsupported	
DragWithin	Unsupported	
Error	Unsupported	
ExternalException	Unsupported	
Help	Unsupported	

Other	Unsupported	

Functions for OLECustomControl control

Properties | Events | Functions

APPEON

Function	Support Level	Coding Examples
ClassName	Supported	ls_return = ole_1.ClassName()
GetData	Supported	li_return = ole_1.GetData(ClipFormatText!, ls_oledata)
GetNativePointer	Supported	UnsignedLong lul_oleptr li_return = ole_1.GetNativePointer(lul_oleptr)
GetParent	Supported	PowerObject lpo_parent lpo_parent = ole_1.GetParent()
Hide	Supported	li_return = ole_1.Hide()
Move	Supported	li_return = ole_1.Move(500 , 1000)
PointerX	Supported	li_return = ole_1.PointX()
PointerY	Supported	li_return = ole_1.PointY()
PostEvent	Supported	ole_1.PostEvent("DoubleClicked")
ReleaseNativePointer	Supported	li_return = ole_1.ReleaseNativePointer(lul_oleptr)
Resize	Supported	li_return = ole_1.Resize(500, 1000)
SetData	Supported	li_return = ole_1.SetData(ClipFormatText!, ls_oledata)
SetFocus	Supported	li_return = ole_1.SetFocus()
SetPosition	Supported	ole_1.SetPosition(ToTop!) ole_1.SetPosition(Behind!, cb_exec)
SetRedraw	Supported	ole_1.SetRedraw(true)
Show	Supported	li_return = ole_1.Show()
TriggerEvent	Supported	li_return = ole_1.TriggerEvent("DoubleClicked")
TypeOf	Supported	if ole_1.typeof()=olecustomcontrol! then

				ls_return="olecustomcontrol!" end if
Drag		Unsupported		
GetContextService		Unsupported		
Print		Unsupported		

Oval control

Properties | Events | Functions

Properties for Oval control

Properties | Events | Functions

Property		Support Level		Example Code
FillColor		Supported		o_1.FillColor=RGB(255,255,0)
FillPattern		Supported		o_1.FillPattern = Diamond!
Height		Supported		o_1.Height = 750
LineColor		Supported		o_1.LineColor = RGB(255,0,0)
LineStyle		Supported		o_1.LineStyle = Dash!
LineThickness		Supported		
Tag		Supported		o_1.SetMicroHelp(This.Tag)
Visible		Supported		o_1.Visible = TRUE
Width		Supported		o_1.Width = 750
X		Supported		o_1.X = 215
Y		Supported		o_1.Y = 215
ClassDefinition		Unsupported		

Events for Oval control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()

Functions for Oval control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_value = o_1.ClassName()
GetParent		Supported		lo_value = o_1.GetParent()
Hide		Supported		o_1.Hide()
Move		Supported		o_1.Move(150, 200)
PostEvent		Supported		o_1.PostEvent(Clicked!) Note: The PostEvent function returns 1 if it is successful.
Resize		Supported		o_1.Resize(100, 150)
Show		Supported		o_1.Show()
TriggerEvent		Supported		o_1.TriggerEvent(Clicked!) Note: in an Web application the TriggerEvent function returns 1 if it is successful.

TypeOf		Supported		if o_1.typeof()=Oval! then
				  ls_return="Oval!"
				end if

GetContextService		Unsupported		

Picture control

Properties | Events | Functions

Important Requirements

Picture controls can contain images in the following formats:

- Bitmaps, with .BMP extensions
- GIF or animated GIF files, with the .GIF extension
- JPEG files, with .JPEG or .JPG extensions
- Ico files with .ICO extensions
- Cursor files with .CUR extensions
- PNG files with .PNG extensions

Pictures in an application

- The name of a picture file cannot be a string that ends with '!'.
- The picture directory can be an absolute path or relative path. For example:

  this. picturename = "c:\app\about.bmp"

  or this. picturename = " image\about.bmp"

- If a picture fails to display in the Web application, copy the picture directly to the *Web Root Path /images* directory. *Web Root Path* stands for the folder in the Web server that is configured in Appeon Developer Config for storing the Web application files.

Properties for Picture control

Properties | Events | Functions

Property	Support Level	Example Code
Border	Supported	p_1.Border = lb_value
BringToTop	Supported	p_1.BringToTop = TRUE
BorderStyle	Supported	p_1.BorderStyle = StyleBox! p_1.BorderStyle = StyleLowered! p_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
DragAuto	Supported	p_1.DragAuto = TRUE
DragIcon	Supported	p_1.DragIcon = 'c:\examples\arrow.ico'
Enabled	Supported	p_1.Enabled = lb_value
FocusRectangle	Supported	p_1.FocusRectangle = TRUE
Height	Supported	p_1.Height = li_value

Invert		Supported		p_1.Invert = FALSE
OriginalSize		Supported		p_1.OriginalSize = lb_value
PictureName		Supported		p_1.PictureName = ls_value Note: It is unsupported to dynamically change this property if the initial value is a GIF file.
Pointer		Supported		p_1.pointer= 'size!' p_1.pointer= '"d:\archive\IBEAM.BMP.cur'
PowerTipText		Supported		p_1.PowerTipText = "Cancel the operation"
TabOrder		Supported		p_1.TabOrder = 100
Tag		Supported		p_1.Tag = ls_value
Visible		Supported		p_1.Visible = lb_value
Width		Supported		p_1.Width = li_value
X		Supported		p_1.X = li_value
Y		Supported		p_1.Y = li_value
ClassDefinition		Unsupported		
Map3DColors		Unsupported		

Events for Picture control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Clicked		Supported		Clicked()
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DoubleClicked		Supported		DoubleClicked()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)

Help		Unsupported		
Other		Unsupported		

Functions for Picture control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_value = p_1.ClassName( )
Drag		Supported		p_1.Drag(Begin!)
Draw		Supported		li_value = p_1.Draw(li_x,li_y) Note: run the Draw function once the picture has been resized. After conversion, the size of the modified picture will be the same as the most recent state. In PowerBuilder, the size of the drawn picture will be the same as the original one.
GetParent		Supported		PowerObject lpo_value lpo_value = p_1.GetParent( )
Hide		Supported		li_value = p_1.Hide( )
Move		Supported		li_value = p_1.Move(li_x,li_y)
PointerX		Supported		li_value = p_1.PointerX()
PointerY		Supported		li_value = p_1.PointerY()
PostEvent		Supported		lb_value = p_1.PostEvent(Clicked!)
Resize		Supported		li_value = p_1.Resize(li_x,li_y)
SetFocus		Supported		li_value = p_1.SetFocus( ) Unsupported: SetFocus(p_1)
SetPicture		Supported		p_1.SetPicture(Emp_pic)
SetPosition		Supported		li_value = p_1.SetPosition( )
SetRedraw		Supported		li_value = p_1.SetRedraw(FALSE)
Show		Supported		li_value = p_1.Show( )
TriggerEvent		Supported		li_value = p_1.TriggerEvent(Clicked!)

TypeOf		Supported		if p_1.TypeOf( ) = Picture! Then
				  ls_value = "Picture!"
				else
				  ls_value = "invalid"
				end if

GetContextService		Unsupported		

Print	Unsupported	

PictureButton control

Properties | Events | Functions

APPEON

Important Requirements

It is unsupported to use GIF files in PictureButton controls.

Properties for PictureButton control

Properties | Events | Functions

Property	Support Level	Example Code
BackColor	Supported	pb_1.BackColor = 8421376
BringToTop	Supported	pb_1.BringToTop = TRUE
Cancel	Supported	pb_1.Cancel = TRUE
Default	Supported	pb_1.Default = TRUE
DisabledName	Supported	pb_1.DisabledName = "d:\pbhelp\controls.bmp"
DragAuto	Supported	pb_1.DragAuto = TRUE
DragIcon	Supported	pb_1.DragIcon = 'c:\archive\arrow.ico'
Enabled	Supported	pb_1.Enabled = TRUE
FaceName	Supported	pb_1.FaceName = ls_value
FontCharSet	Supported	pb_1.FontCharSet = ANSI!
FontFamily	Supported	pb_1.FontFamily = Roman!
FontPitch	Supported	pb_1.FontPitch = Fixed!
Height	Supported	pb_1.Height = li_value
HTextAlign	Supported	pb_1.HtextAlign = "Left!" //Specifies how the text in the control is aligned. Values are: Center! Justify! Left! Right!
Italic	Supported	pb_1.Italic = lb_value
OriginalSize	Supported	pb_1.OriginalSize = FALSE //Specifies whether the width and height properties of a bitmap image (picture) are set to

		their original values.
PictureName	Supported	pb_1.PictureName = ls_value
Pointer	Supported	pb_1.pointer = 'Arrow!' pb_1.pointer ='d:\archive\IBEAM.BMP.cur'
PowerTipText	Supported	pb_1.PowerTipText = "This button opens a new form"
TabOrder	Supported	pb_1.TabOrder = 10
Tag	Supported	pb_1.Tag = ls_value
Text	Supported	pb_1.Text = ls_value
TextSize	Supported	pb_1.TextSize = li_value
Underline	Supported	pb_1.Underline = lb_value
Visible	Supported	pb_1.Visible = lb_value
VTextAlign	Supported	pb_1.VTextAlign= Top! //Specifies how the text in the control is aligned. Values are: Bottom!, MultiLine!, Top!, and VCenter! All these values, except for MultiLine!, assume that there is only one line of text.
Weight	Supported	pb_1.Weight = li_value
Width	Supported	pb_1.Width = li_value
X	Supported	pb_1.X = li_value
Y	Supported	pb_1.Y = li_value
ClassDefinition	Unsupported	
Map3DColors	Unsupported	

Events for PictureButton control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Clicked	Supported	Clicked()
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)

DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
Help		Unsupported		
Other		Unsupported		

Functions for PictureButton control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_returnvalue = pb_1.ClassName()
Drag		Supported		pb_1.Drag (Cancel!)
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = pb_1.GetParent()
Hide		Supported		li_returnvalue = pb_1.Hide()
Move		Supported		li_returnvalue = pb_1.Move(li_xpos, li_ypos)
PointerX		Supported		lb_returnvalue = pb_1.PointerX()
PointerY		Supported		lb_returnvalue = pb_1.PointerY()
PostEvent		Supported		lb_returnvalue = pb_1.PostEvent(event)
Resize		Supported		li_returnvalue = pb_1.Resize(li_width, li_height)
SetFocus		Supported		li_returnvalue = pb_1.SetFocus() Unsupported: SetFocus(pb_1)
SetPosition		Supported		li_returnvalue = pb_1.SetPosition(position)
SetRedraw		Supported		li_returnvalue = pb_1.SetRedraw (TRUE)
Show		Supported		li_returnvalue = pb_1.Show()
TriggerEvent		Supported		li_returnvalue = pb_1.TriggerEvent(event)

TypeOf		Supported		if pb_1.TypeOf() = PictureButton! Then
				ls_returnvalue = 'PictureButton!'
				end if

GetContextService		Unsupported		
Print		Unsupported		

PictureHyperLink control

Properties | Events | Functions

Important Requirements

The PictureHyperLink controls can contain images in the following formats:

- Bitmaps, with .BMP extensions
- GIF or animated GIF files, with the .GIF extensions
- JPEG files, with .JPEG or .JPG extensions
- Ico files with .ICO extensions
- Cursor files with .CUR extensions

Properties for PictureHyperLink control

Properties | Events | Functions

Property	Support Level	Example Code
Border	Supported	phl_1.Border = lb_value
BorderStyle	Supported	phl_1.BorderStyle = StyleBox! phl_1.BorderStyle = StyleLowered! phl_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	phl_1.BringToTop = TRUE
DragAuto	Supported	
DragIcon	Supported	
Enabled	Supported	phl_1.Enabled = lb_value
FocusRectangle	Supported	phl_1.FocusRectangle = TRUE
Height	Supported	phl_1.Height = li_value
OriginalSize	Supported	phl_1.OriginalSize = lb_value
PictureName	Supported	phl_1.PictureName = ls_value
Pointer	Supported	phl_1= 'Size!' phl_1='d:\archive\IBEAM.BMP.cur'
PowerTipText	Supported	phl_1.PowerTipText = "This button opens a new form"
TabOrder	Supported	phl_1.TabOrder = 100
Tag	Supported	phl_1.Tag = ls_value
URL	Supported	phl_1.URL = "http://www.appeon.com/"
Visible	Supported	phl_1.Visible = lb_value
Width	Supported	phl_1.Width = li_value
X	Supported	phl_1.X = li_value

Y		Supported		phl_1.Y = li_value
ClassDefinition		Unsupported		
Invert		Unsupported		
Map3DColors		Unsupported		

Events for PictureHyperLink control

Properties | Events | Functions

Event		Support Level		Example Code
Clicked		Supported		Clicked()
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DoubleClicked		Supported		DoubleClicked()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
Help		Unsupported		
Other		Unsupported		

Functions for PictureHyperLink control

Properties | Events | Functions

Function		Support Level		Example Code

ClassName	Supported	ls_value = phl_1.ClassName( )
Draw	Supported	li_value = phl_1.Draw(li_x,li_y)
Drag	Supported	phl_1.Drag(Begin!)
GetParent	Supported	PowerObject lpo_value lpo_value = phl_1.GetParent()
Hide	Supported	li_value = phl_1.Hide( )
Move	Supported	li_value = phl_1.Move(li_x,li_y)
PointerX	Supported	li_value = phl_1.PointerX()
PointerY	Supported	li_value = phl_1.PointerY()
PostEvent	Supported	lb_value = phl_1.PostEvent(Clicked!)
Resize	Supported	li_value = phl_1.Resize(li_x,li_y)
SetFocus	Supported	li_value = phl_1.SetFocus( ) Unsupported: SetFocus(phl_1)
SetPicture	Supported	phl_1.SetPicture(Emp_pic)
SetPosition	Supported	li_value = phl_1.SetPosition( )
SetRedraw	Supported	li_returnvalue = phl_1.SetRedraw (FALSE)
Show	Supported	li_value = phl_1.Show( )
TriggerEvent	Supported	li_value = phl_1.TriggerEvent(Clicked!)

TypeOf	Supported	if phl_1.TypeOf( ) = PictureHyperLink! Then
		ls_value = "PictureHyperLink!"
		else
		ls_value = "invalid"
		end if

GetContextService	Unsupported	
Print	Unsupported	

PictureListBox control

Properties | Events | Functions

APPEON

Important Requirements

Setting a PictureListBox as a Dropdown PictureListBox is not supported.

Properties for PictureListBox control

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
Accelerator	Supported	plb_1.Accelerator=67
BackColor	Supported	plb_1.BackColor = ll_value plb_1.BackColor = RGB(192,192,192)
Border	Supported	plb_1.Border = lb_value
BorderStyle	Supported	plb_1.BorderStyle = StyleLowered! plb_1.BorderStyle = StyleRaised! plb_1.BorderStyle = StyleBox! Note: StyleShadowBox! is not supported.
BringToTop	Supported	plb_1.BringToTop = TRUE
DisableNoScroll	Supported	plb_1. DisableNoScroll = lb_value
DragAuto	Supported	plb_1.DragAuto = TRUE
DragIcon	Supported	plb_1.DragIcon ='c:\archive\arrow.ico'
Enabled	Supported	plb_1.Enabled = lb_value
ExtendedSelect	Supported	plb_1. ExtendedSelect = lb_value
FaceName	Supported	plb_1.FaceName = ls_value
FontCharSet	Supported	plb_1.FontCharSet = ANSI!
FontFamily	Supported	plb_1.FontFamily = Roman!
FontPitch	Supported	plb_1.FontPitch = Fixed!
Height	Supported	plb_1.Height = li_value
HScrollBar	Supported	plb_1.Hscrollbar = lb_value
Italic	Supported	plb_1.Italic = lb_value
Item[ ]	Supported	plb_1.Item[] = ls_value
ItemPictureIndex[ ]	Supported	plb_1.ItemPictureIndex[ ] = li_value[]
MultiSelect	Supported	plb_1.MultiSelect = lb_value
PictureHeight	Supported	plb_1.PictureHeight = 16
PictureWidth	Supported	plb_1.PictureWidth = 16

PictureName[ ]	Supported	ls_result[] = plb_1.PictureName[li_x[]]
		
		Assigning values to part of an array and using the default values for the other part is not supported. For example:
		`picturename[1] = "aaa.bmp"`
		`picturename[3] = "bbb.bmp"`
		`var pic1 = picutrename[1];`
		`var pic2 = picturename[3];`

				A supported example is given as follows:
				`picturename[1] = "aaa.bmp"`
				`picturename[2] = "bbb.bmp"`
				`picturename[3] = "ccc.bmp"`
				`var pic1 = picutrename[1];`
				`var pic2 = picturename[2];`
				`var pic3 = picturename[3];`

Pointer		Supported		plb_1.pointer = 'Icon!' plb_1.pointer ='d:\archive\IBEAM.BMP'
RightToLeft		Supported		plb_1.RightToLeft = TRUE
Sorted		Supported		plb_1.Sorted =lb_value
TabOrder		Supported		plb_1.TabOrder = 110
Tag		Supported		plb_1.Tag = ls_value
TextColor		Supported		plb_1.Textcolor = ll_value
TextSize		Supported		plb_1.TextSize = li_value
Underline		Supported		plb_1.Underline = lb_value
Visible		Supported		plb_1.Visible = lb_value
VScrollBar		Supported		plb_1.VScrollBar = lb_value
Weight		Supported		plb_1.Weight = li_value
Width		Supported		plb_1.Width = li_value
X		Supported		plb_1.X = li_value
Y		Supported		plb_1.Y = li_value
PictureMaskColor		Supported		plb_1.PictureMaskColor= ll_value
ClassDefinition		Unsupported		
ShowList		Unsupported		
TabStop[ ]		Unsupported		

Events for PictureListBox control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()

Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked()
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
RButtonDown	Supported	RButtonDown(flags, xpos, ypos)
SelectionChanged	Supported	SelectionChanged(index)
Help	Unsupported	
Other	Unsupported	

Functions for PictureListBox control

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
AddItem	Supported	li_position = plb_1.AddItem(ls_name, li_pic)
AddPicture	Supported	li_pic = plb_1.AddPicture("c:\pics\cardinal.bmp")
ClassName	Supported	ls_value = plb_1.ClassName()
DeleteItem	Supported	plb_1.DeleteItem(li_value)
DeletePicture	Supported	plb_1.DeletePicture (6)
DeletePictures	Supported	plb_1.DeletePictures ()
DirList	Supported	plb_1.DirList("C:\EMPLOYEE*.TXT", 0)
DirSelect	Supported	plb_1.DirSelect(ls_filename)
Drag	Supported	plb_1.Drag(End!)
FindItem	Supported	li_index = plb_1.FindItem ("Delete", 1)
GetParent	Supported	PowerObject lpo_value lpo_value = plb_1.GetParent()
Hide	Supported	li_value = plb_1.Hide()

InsertItem	Supported	plb_1.InsertItem("Run Application", 5) plb_1.InsertItem("Run Application", 5, 4)
Move	Supported	li_value = plb_1.Move(li_x[],li_y[])
PointerX	Supported	li_value = plb_1.PointerX()
PointerY	Supported	li_value = plb_1.PointerY()
PostEvent	Supported	lb_value = plb_1.PostEvent(Clicked!)
Reset	Supported	li_value = plb_1.Reset()
Resize	Supported	li_value = plb_1.Resize(li_x[],li_y[])
SelectedIndex	Supported	li_index = plb_1.SelectedIndex()
SelectedItem	Supported	li_item = plb_1.SelectedItem()
SelectItem	Supported	li_value = plb_1.SelectItem (li_x[],li_y[])
SetFocus	Supported	li_value = plb_1.SetFocus() Unsupported: SetFocus(plb_1)
SetPosition	Supported	li_returnvalue = plb_1.SetPosition(position)
SetRedraw	Supported	li_returnvalue = plb_1.SetRedraw (FALSE)
SetState	Supported	plb_1.SetState(6, TRUE)
SetTop	Supported	plb_1.SetTop(6)
Show	Supported	li_value = plb_1.Show()
State	Supported	li_item = plb_1.State(3)
Text	Supported	ls_return = plb_1.Text(2)
Top	Supported	li_num = plb_1.Top()
TotalItems	Supported	li_value= plb_1.TotalItems()
TotalSelected	Supported	integer SelectedTotal SelectedTotal = plb_1.TotalSelected()
TriggerEvent	Supported	li_value = plb_1.TriggerEvent(Constructor!)

TypeOf	Supported	if plb_1.typeof()=picturelistbox! Then
		ls_value='picturelistbox!'
		else
		ls_value='isvalid'
		end if

Clear	Unsupported	
Copy	Unsupported	
Cut	Unsupported	
GetContextService	Unsupported	
Paste	Unsupported	
Position	Unsupported	
Print	Unsupported	

RadioButton control

Properties | Events | Functions

Properties for RadioButton control

Properties | Events | Functions

Property		Support Level		Example Code
Automatic		Supported		rb_1.Automatic = TRUE
BackColor		Supported		rb_1.BackColor = ll_value rb_1.BackColor = RGB(192,192,192)
BorderStyle		Supported		rb_1.BorderStyle = StyleLowered! rb_1.BorderStyle = StyleRaised!
BringToTop		Supported		rb_1.BringToTop = TRUE
Checked		Supported		rb_1.Checked = lb_value
DragAuto		Supported		rb_1.DragAuto = TRUE
DragIcon		Supported		rb_1.DragIcon ='c:\archive\arrow.ico'
Enabled		Supported		rb_1.Enabled = lb_value
FaceName		Supported		rb_1.FaceName = ls_value
FontCharSet		Supported		rb_1.FontCharSet = ANSI!
FontFamily		Supported		rb_1.FontFamily = Roman!
FontPitch		Supported		rb_1.FontPitch = Fixed!
Height		Supported		rb_1.Height = li_value
LeftText		Supported		rb_1.LeftText = TRUE
Italic		Supported		rb_1.Italic = lb_value
Pointer		Supported		rb_1.Pointer ='AppStarting!' rb_1.Pointer='d:\archive\IBEAM.BMP'
RightToLeft		Supported		rb_1.RightToLeft = TRUE
TabOrder		Supported		rb_1.TabOrder = 120
Tag		Supported		rb_1.Tag = ls_value
Text		Supported		rb_1.Text = ls_value

TextColor		Supported		rb_1.TextColor = ll_value
TextSize		Supported		rb_1.TextSize = li_value
Underline		Supported		rb_1.Underline = lb_value
Visible		Supported		rb_1.Visible = lb_value
Weight		Supported		rb_1.Weight = li_value
Width		Supported		rb_1.Width = li_value
X		Supported		rb_1.X = li_value
Y		Supported		rb_1.Y = li_value
ClassDefinition		Unsupported		

Events for RadioButton control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Clicked		Supported		Clicked()
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
Help		Unsupported		
Other		Unsupported		

Functions for RadioButton control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_value = rb_1.ClassName( )
Drag	Supported	rb_1.Drag(Begin!)
GetParent	Supported	PowerObject lpo_value lpo_value = rb_1.GetParent( )
Hide	Supported	li_value = rb_1.Hide( )
Move	Supported	li_value = rb_1.Move(li_x,li_y)
PointerX	Supported	li_vaule = rb_1.PointerX()
PointerY	Supported	li_value = rb_1.PointerY()
PostEvent	Supported	lb_value = rb_1.PostEvent(Clicked!)
Resize	Supported	li_value = rb_1.Resize(li_x,li_y)
SetFocus	Supported	li_value = rb_1.SetFocus( ) Unsupported: SetFocus(rb_1)
SetPosition	Supported	li_value = rb_1.SetPosition(ToTop!) li_value = rb_1.SetPosition(ToBottom!)
SetRedraw	Supported	li_returnvalue = rb_1.SetRedraw (FALSE)
Show	Supported	li_value = rb_1.Show( )
TriggerEvent	Supported	li_value = rb_1.TriggerEvent(Clicked!)

TypeOf	Supported	if rb_1.TypeOf( ) = RadioButton! Then
		ls_value = "RadioButton!"
		end if

GetContextService	Unsupported	
Print	Unsupported	

Rectangle control

Properties | Events | Functions

Properties for Rectangle control

Properties | Events | Functions

Property		Support Level		Example Code
FillColor		Supported		r_1.FillColor = ll_value
FillPattern		Supported		r_1.FillPattern = Diamond!
Height		Supported		r_1.Height = li_value
LineColor		Supported		r_1.LineColor = ll_value
LineStyle		Supported		r_1.LineStyle = Continuous! r_1.LineStyle = Dash! r_1.LineStyle = DashDot! r_1.LineStyle = DashDotDot! r_1.LineStyle = Dot! r_1.LineStyle = Transparent!
LineThickness		Supported		r_1.LineThickness =li_value Note: If LineThickness is greater than one pixel (about four PowerBuilder units), the LineStyle property is forced to Continuous!
Tag		Supported		r_1.Tag = ls_value
Visible		Supported		r_1.Visible = lb_value
Width		Supported		r_1.Width = li_value
X		Supported		r_1.X = li_value
Y		Supported		r_1.Y = li_value
ClassDefinition		Unsupported		

Events for Rectangle control

Properties | Events | Functions

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()

Functions for Rectangle control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_value = r_1.ClassName( )
GetParent	Supported	PowerObject lpo_value lpo_value = r_1.GetParent( )
Hide	Supported	li_value = r_1.Hide( )
Move	Supported	li_value = r_1.Move(li_x,li_y)
PostEvent	Supported	lb_value = r_1.PostEvent(Clicked!) Note: The PostEvent function returns 1 if it is successful.
Resize	Supported	lb_value = r_1.Resize(Clicked!)
Show	Supported	li_value = r_1.Show( )
TriggerEvent	Supported	li_value = r_1.TriggerEvent(Clicked!) Note: The TriggerEvent function returns 1 if it is successful.

TypeOf	Supported	if r_1.TypeOf( ) = Rectangle! Then
		li_value = "Rectangle! "
		end if

GetContextService	Unsupported	

RichTextEdit control

Properties | Events | Functions

Differences

1. On the Web, the printed result of the RichText may be different from what you see in the RichText control. This is because the printed result will be reformatted according to the size of the paper.
2. On the Web, an input filed is selected when you click on it, you can then delete or replace it by using the keyboard. This is different from that in PowerBuilder.
3. Because of the following differences, the return value on the Web and in PowerBuilder is different when using the functions that relates to the calculation of length. For example, SelectText, SelectedText, SelectAllText, CopyRTF, PasteRTF, Position, Clear, LineCount, TextLine, Copy, Cut, Position, Paste and SelectLength.
    - A picture will be counted as one character on the Web.
    - A new line character will be counted as one character on the Web.
    - A line ending character will be counted as one character.

- An input field will be counted as separated characters, therefore the return value will be the length of the content in the input fields or the content of the input field.

4. Appeon adopts Windows RTF specification, which differs from PowerBuilder RTF specification, so the displaying result on the Web may differ from that in PowerBuilder. For example: Copying and pasting the content to the RichText control, the displaying result on the Web is different from that in PowerBuilder; The content of RichTextEdit control saved on the Web differs from that in PowerBuilder. However the pure text displayed is almost the same.
5. A menu does not pop up when right clicking a picture in the RichTextEdit control on the Web. This is different from that in PowerBuilder.
6. When a part of text in an InputField is selected, pressing Tab control replaces the selected text with a white space on the Web while a white space is inserted before the selected text in PowerBuilder.
7. When using CTRL + V to paste a picture to the RichTextEdit control, a shortcut icon will be shown on Web, and when clicked, the picture will display, while pasted in PowerBuilder, the picture will directly display in the RichTextEdit control.

Unsupported

1. After you double click the ruler bar in the RichTextEdit control, Paragraph window will be displayed. On the Web, the Standard tab item in the Paragraph window is unsupported.
2. End identifier is unsupported.

Properties for RichTextEdit control

Properties | Events | Functions

Property	Support Level	Example Code
Accelerator	Supported	rte_1.Accelerator=67 rte_1.Accelerator = ASC("M")
BackColor	Supported	rte_1.BackColor = RGB(255, 255, 0)
Border	Supported	rte_1.Border = TRUE
BorderStyle	Supported	rte_1.BorderStyle = StyleLowered!
BottomMargin	Supported	rte_1.BottomMargin = 1
BringToTop	Supported	rte_1.BringToTop = TRUE
DisplayOnly	Supported	rte_1.DisplayOnly = TRUE
DocumentName	Supported	rte_1.DocumentName = "Report 1"
DragAuto	Supported	rte_1.DragAuto = TRUE
DragIcon	Supported	rte_1.DragIcon = 'Question!'
Enabled	Supported	rte_1.Enabled = TRUE
HeaderFooter	Supported	

Height	Supported	rte_1.Height = 750
HScrollBar	Supported	rte_1.HScrollBar = TRUE Note:On the Web, the horizontal scrollbar is always displayed even if the property is set to FALSE, However, the scroll box of the scrollbar is displayed only when all of the data cannot be displayed at one time
InputFieldNamesVisible	Supported	rte_1.InputFieldNamesVisible = FALSE
InputFieldsVisible	Supported	rte_1.InputFieldsVisible = TRUE
LeftMargin	Supported	rte_1.LeftMargin = 1
Modified	Supported	
PopMenu	Supported	rte_1.PopMenu = TRUE
Resizable	Supported	rte_1.Resizable = TRUE Note: After setting this property to True, setting Border properties will not be effective.
RightMargin	Supported	rte_1.RightMargin = 1
RulerBar	Supported	rte_1.RulerBar = TRUE
TabBar	Supported	rte_1.TabBar = TRUE
TabOrder	Supported	rte_1.TabOrder = 10
Tag	Supported	rte_1.SetMicroHelp(This.Tag)
ToolBar	Supported	rte_1.ToolBar = TRUE
TopMargin	Supported	rte_1.TopMargin = 1
Visible	Supported	rte_1.Visible = TRUE
VScrollBar	Supported	rte_1.VScrollBar = TRUE Note: On the Web, the vertical scrollbar is always displayed even if the property is set to FALSE. However, the scroll box of the scrollbar is displayed only when the contents of the object are outside the borders.
Width	Supported	rte_1.Width = 750
WordWrap	Supported	rte_1.WordWrap = TRUE Note:

		1. When this property is changed from TRUE to FALSE, the content in the RichTextEdit control will be rearranged on the Web. This is different from that in PowerBuilder. 2. If this property is set to False, you cannot execute SetAlignment to set the alignment for the selected paragraphs on the Web and the text will not automatically wrap to the next line even if the line reaches the margin. These are different from that in PowerBuilder. 3. Alignment buttons on the Web are only effective if the WordWrap property is set to True. This is different from that in PowerBuilder.
X	Supported	rte_1.X = 215
Y	Supported	rte_1.Y = 215
ClassDefinition	Unsupported	
ImeMode	Unsupported	
InputFieldBackColor	Unsupported	
Pointer	Unsupported	
PicturesAsFrame	Unsupported	
ReturnsVisible	Unsupported	
SpacesVisible	Unsupported	
TabsVisible	Unsupported	
UndoDepth	Unsupported	

Events for RichTextEdit control

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destruvtor
DoubleClicked	Supported	DoubleClicked
GetFocus	Supported	rte_1 = GetFocus()

Key	Supported	IF key = KeyF1! THEN Beep(1) Note: Some keystrokes take no effect in formatting the document in RichText DataWindow. For example, pressing Esc after updating data in an inputfield restores the data in PowerBuilder but takes no effect on the Web.
LoseFocus	Supported	LoseFocus
Modified	Supported	Modified
MouseDown	Supported	rte_1.text = "Mouse Down"
MouseMove	Supported	rte_1.Text = "Mouse Move"
MouseUp	Supported	rte_1.Text = "Mouse Up"
RButtonDown	Supported	RButtonDown
RButtonUp	Supported	RButtonUp
DragDrop	Supported	
DragEnter	Supported	
DragLeave	Supported	
DragWithin	Supported	
FileExists	Unsupported	
Help	Unsupported	
InputFieldSelected	Unsupported	
Other	Unsupported	
PictureSelected	Unsupported	
PrintFooter	Unsupported	
PrintHeader	Unsupported	

Functions for RichTextEdit control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_value = rte_1.ClassName(gd_double)

Clear	Supported	rte_1.Clear() Note: Executing this function on the Web clears the selected text as well as the format from the control. However, in PowerBuilder, it only clears the selected text.
Copy	Supported	li_value = rte_1.Copy()
CopyRTF	Supported	ls_value = rte_1.CopyRTF()
Cut	Supported	rte_1.Cut()
DataSource	Supported	rte_1.DataSource(dw_1)
Drag	Supported	rte_1.Drag(Begin!)
Find	Supported	li_value = rte_1.Find(sle_search.Text, TRUE, & TRUE, FALSE, TRUE)
FindNext	Supported	rte_1.FindNext()
GetAlignment	Supported	l_align = rte_1.GetAlignment()
GetParagraphSetting	Supported	ll_value = rte_1.GetParagraphSetting(Indent!))
GetParent	Supported	luo_value = rte_1.GetParent()
GetSpacing	Supported	l_spacing = rte_1.GetSpacing()
GetTextColor	Supported	ll_color = rte_1.GetTextColor()
GetTextStyle	Supported	lb_value = rte_1.GetTextStyle(Bold!)
Hide	Supported	rte_1.Hide()
InputFieldChangeData	Supported	li_value = rte_1.InputFieldChangeData ("instrument", & lb_instruments.SelectedItem())
InputFieldCurrentName	Supported	ls_value = rte_1.InputFieldCurrentName()
InputFieldDeleteCurrent	Supported	li_value = rte_1.InputFieldDeleteCurrent() The input filed that is being edited can be deleted by executing the InputFieldDeleteCurrent function on the Web. But it cannot be deleted in PowerBuilder in that way.

InputFieldGetData	Supported	ls_value = rte_1.InputFieldGetData(empname)
InputFieldInsert	Supported	ls_value = String(rte_1.InputFieldInsert("lastname")) Note: On the Web, when you click on an input field and then execute InputFieldInsert, the input field is replaced by the new one. In PowerBuilder, the new input field is inserted and the old one will still exist.
InputFieldLocate	Supported	ls_value = rte_1.InputFieldLocate(Last!, "address")
InsertDocument	Supported	li_value = rte_1.InsertDocument("c:\pb\test .rtf", & TRUE, FileTypeRichText!)
InsertPicture	Supported	li_value = rte_1.InsertPicture("c:\windows\earth.bmp")
IsPreview	Supported	lb_value = rte_1.IsPreview()
LineCount	Supported	li_value = rte_1.LineCount()
LineLength	Supported	li_value = rte_1.LineLength()
Move	Supported	rte_1.Move(150, 200)
PageCount	Supported	ls_value = String(rte_1.PageCount())
Paste	Supported	rte_1.Paste() Note: Double-byte characters inserted by executing this function can not be displayed properly.
PasteRTF	Supported	string ls_richtext rte_1.PasteRTF(ls_richtext, Header!)
PointerX	Supported	li_value = rte_1.PointerX()
PointerY	Supported	li_value = rte_1.PointerY()
Position	Supported	l_band = rte_1.Position(ll_startline, ll_startchar, & ll_endline, ll_endchar)
PostEvent	Supported	rte_1.PostEvent(Clicked!)
Preview	Supported	rte_1.Preview(TRUE) Note: When executing this function to display the RichTextEdit control, the content will be rearranged according to the size of the page on the Web. This is different from that in PowerBuilder.
Print	Supported	rte_1.Print(1, "1-5", FALSE, TRUE)

ReplaceText	Supported	rte_1.ReplaceText("Draft") Note: If the text contains double-byte characters, the return value of this function is different from in PowerBuilder.
Resize	Supported	rte_1.Resize(100, 150)
SaveDocument	Supported	rte_1.SaveDocument("c:\test.rtf", FileTypeRichText!) Note: 1. *encoding* argument is unsupported. 2. The values FileTypePDF!, FileTypeDoc!, FileTypeHTML! of the filetype argument are unsupported.
Scroll	Supported	rte_1.Scroll(4)
ScrollNextPage	Supported	rte_1.ScrollNextPage()
ScrollNextRow	Supported	rte_1.ScrollNextRow()
ScrollPriorPage	Supported	rte_1.ScrollPriorPage()
ScrollPriorRow	Supported	rte_1.ScrollPriorRow()
ScrollToRow	Supported	rte_1.ScrollToRow(25)
SelectedLength	Supported	ll_length = rte_1.SelectedLength()
SelectedLine	Supported	li_value = rte_1.SelectedLine()
SelectedPage	Supported	li_value = rte_1.SelectedPage()
SelectedStart	Supported	li_value = rte_1.SelectedStart()
SelectedText	Supported	ls_value = rte_1.SelectedText() Notes: 1. Executing the this function on the Web will select text and pictures , however the pictures will not appear to be selected. 2. It returns a string containing the selected text when selecting text in the header or footer bands on the Web. This is different from in PowerBuilder.
SelectText	Supported	rte_1.SelectText(1,1, 3,4) Note:

		1. When the focus is on an input field, executing the SelectText function will select the input field however the input field will not appear to be selected on the Web. 2. After executing the SelectText function on the Web, if the focus is not at the area where the arguments specify, the focus will be automatically placed at that area. This is different from that in PowerBuilder. 3. If the ReadOnly is set to True, this function still takes effect on the Web.
SelectTextAll	Supported	rte_1.SelectTextAll() Note: If the focus is in the header or footer band, executing "SelectTextAll (detail!)" on the Web returns -1 and no text will be selected. However, in PowerBuilder, the text in the band, which the focus is in, will be selected.
SelectTextLine	Supported	rte_1.SelectTextLine()
SelectTextWord	Supported	rte_1.SelectTextWord()
SetAlignment	Supported	li_value = rte_1.SetAlignment(Right!)
SetFocus	Supported	rte_1.SetFocus()
SetParagraphSetting	Supported	ll_indent = rte_1.SetParagraphSetting(Indent!, 250)
SetPosition	Supported	rte_1.SetPosition(ToTop!)
SetRedraw	Supported	rte_1.SetRedraw(FALSE)
SetSpacing	Supported	rte_1.SetSpacing(Spacing2!)
SetTextColor	Supported	rte_1.SetTextColor(RGB(100, 0, 0))
SetTextStyle	Supported	rte_1.SetTextStyle(TRUE, FALSE, FALSE, & FALSE, TRUE, FALSE) Note: If the RichTextEdit control retrieves the focus by executing the SetFocus or SetText, executing the SetTextStyle function will affect the formatting of the following inputted text on the Web. This is different from that in PowerBuilder.
Show	Supported	rte_1.Show()
ShowHeadFoot	Supported	rte_1.ShowHeadFoot(TRUE)

TextLine	Supported	ls_value = rte_1.TextLine()
TriggerEvent	Supported	rte_1.TriggerEvent(Clicked!)
TypeOf	Supported	rte_1.Typeof()
CanUndo	Unsupported	
GetContextService	Unsupported	
SelectedColumn	Unsupported	
Undo	Unsupported	

RoundRectangle control

Properties | Events | Functions

APPEON

Properties for RoundRectangle control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
CornerHeight		Supported		rr_1.CornerHeight = 10
CornerWidth		Supported		rr_1.CornerWidth = 10
FillColor		Supported		rr_1.FillColor=RGB(255,255,0)
FillPattern		Supported		rr_1.FillPattern = Diamond!
Height		Supported		rr_1.Height = 750
LineColor		Supported		rr_1.LineColor = RGB(255,0,0)
LineStyle		Supported		rr_1.LineStyle = Dash!
LineThickness		Supported		rr_1.LineThickness =li_value
Tag		Supported		rr_1.Tag = ls_value
Visible		Supported		rr_1.Visible = True
Width		Supported		rr_1.Width = 750

X		Supported		rr_1.X = 215
Y		Supported		rr_1.Y = 215
ClassDefinition		Unsupported		

Events for RoundRectangle control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()

Functions for RoundRectangle control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_value = rr_1.ClassName( )
GetParent		Supported		PowerObject lpo_value lpo_value = rr_1.GetParent( )
Hide		Supported		li_value = rr_1.Hide( )
Move		Supported		li_value = rr_1.Move(li_x,li_y)
PostEvent		Supported		lb_value = rr_1.PostEvent(Clicked!) Note: The PostEvent function returns 1 if it is successful.
Resize		Supported		lb_value = rr_1.Resize(Clicked!)
Show		Supported		li_value = rr_1.Show( )
TriggerEvent		Supported		li_value = rr_1.TriggerEvent(Clicked!) Note: The TriggerEvent function returns 1 if it is successful.

TypeOf		Supported		if rr_1.TypeOf( ) = RoundRectangle! Then
				  li_value = "RoundRectangle!"
				end if

GetContextService	Unsupported	

SingleLineEdit control

Properties | Events | Functions

APPEON

Properties for SingleLineEdit control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
Accelerator		Supported		sle_1.Accelerato r= 67
AutoHScroll		Supported		sle_1.AutoHScroll = TRUE
BackColor		Supported		sle_1.BackColor = ll_value
Border		Supported		sle_1.Border = lb_value
BorderStyle		Supported		sle_1.BorderStyle = StyleBox! sle_1.BorderStyle = StyleLowered! sle_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
BringToTop		Supported		sle_1.BringToTop = TRUE
DisplayOnly		Supported		sle_1.DisplayOnly = lb_value
DragAuto		Supported		sle_1.DragAuto = TRUE
DragIcon		Supported		sle_1.DragIcon ='c:\archive\arrow.ico'
Enabled		Supported		sle_1.Enabled = lb_value
FaceName		Supported		sle_1.FaceName = ls_value
FontCharSet		Supported		sle_1.FontCharSet = ANSI!
FontFamily		Supported		sle_1.FontFamily = Roman!
FontPitch		Supported		sle_1.FontPitch = Fixed!
Height		Supported		sle_1.Height = li_value
HideSelection		Supported		sle_1.HideSelection = FALSE
Italic		Supported		sle_1.Italic = lb_value
Limit		Supported		sle_1.Limit = li_value
Password		Supported		sle_1.Password = lb_value

Pointer		Supported		sle_1.pointer= 'Arrow!' sle_1.pointer= 'd:\archive\IBEAM.BMP.cur'
RightToLeft		Supported		sle_1.RightToLeft = TRUE
TabOrder		Supported		sle_1.TabOrder = 130
Tag		Supported		sle_1.Tag = ls_value
Text		Supported		sle_1.Text = ls_value
TextCase		Supported		sle_1.TextCase = AnyCase! sle_1.TextCase = Lower! sle_1.TextCase = Upper!
TextColor		Supported		sle_1.TextColor = ll_value
TextSize		Supported		sle_1.TextSize = li_value
Underline		Supported		sle_1.Underline = lb_value
Visible		Supported		sle_1.Visible = lb_value
Weight		Supported		sle_1.Weight = li_value
Width		Supported		sle_1.Width = li_value
X		Supported		sle_1.X = li_value
Y		Supported		sle_1.Y = li_value
ClassDefinition		Unsupported		

Events for SingleLineEdit control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
Modified		Supported		Modified()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)

Help		Unsupported		
Other		Unsupported		

Functions for SingleLineEdit control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_returnvalue = sle_1.ClassName()
Clear		Supported		li_returnvalue = sle_1.Clear()
Copy		Supported		li_returnvalue = sle_1.Copy()
Cut		Supported		li_returnvalue = sle_1.Cut()
Drag		Supported		sle_1Drag(Cancel!)
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = sle_1.GetParent()
Hide		Supported		li_returnvalue = sle_1.Hide()
Move		Supported		li_returnvalue = sle_1.Move(li_x,li_y)
Paste		Supported		li_returnvalue = sle_1.Paste()
PointerX		Supported		li_returnvalue = sle_1.PointerX()
PointerY		Supported		li_returnvalue = sle_1.PointerY()
Position		Supported		sle_1.Position()
PostEvent		Supported		lb_returnvalue = sle_1.PostEvent(event)
ReplaceText		Supported		li_returnvalue = sle_1.ReplaceText(text)
Resize		Supported		li_returnvalue = sle_1.Resize(li_x,li_y)
SelectedLength		Supported		li_returnvalue = sle_1.SelectedLength() If the control is off screen, the execution of the function may have an incorrect return result.
SelectedStart		Supported		li_returnvalue = sle_1.SelectedStart() If the control is off screen, the execution of the function may have an incorrect return result.
SelectedText		Supported		ls_returnvalue = sle_1.SelectedText() If the control is off screen, the execution of the function may have an incorrect return result.
SelectText		Supported		li_returnvalue = sle_1.SelectText(start, length) If the control is off screen, the execution of the function may have an incorrect return result.

SetFocus	Supported	li_returnvalue = sle_1.SetFocus() Unsupported: SetFocus(sle_1)
SetPosition	Supported	li_returnvalue = sle_1.SetPosition(position)
SetRedraw	Supported	li_return= sle_1.SetRedraw(FALSE)
Show	Supported	li_returnvalue = sle_1.Show()
TriggerEvent	Supported	li_returnvalue = sle_1.TriggerEvent(event)

TypeOf	Supported	if sle_1.TypeOf() = SingleLineEdit! Then
		ls_returnvalue = "SingleLineEdit!"
		end if

Undo	Supported	li_returnvalue = sle_1.Undo()
CanUndo	Unsupported	
GetContextService	Unsupported	
Print	Unsupported	

StaticHyperLink control

Properties | Events | Functions

Properties for StaticHyperLink control

Properties | Events | Functions

Property	Support Level	Example Code
Alignment	Supported	shl_1.Alignment = ls_value
BackColor	Supported	shl_1.BackColor = ll_value shl_1.BackColor = RGB(192,192,192)
Border	Supported	shl_1.Border = lb_value
BorderColor	Supported	shl_1.BorderColor = ll_value
BorderStyle	Supported	shl_1.BorderStyle = StyleBox! shl_1.BorderStyle = StyleLowered! shl_1.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
BringToTop	Supported	shl_1.BringToTop = TRUE
DisabledLook	Supported	
DragAuto	Supported	shl_1.DragAuto = TRUE
DragIcon	Supported	shl_1.DragIcon = 'c:\archive\arrow.ico'

Enabled	Supported	shl_1.Enabled = lb_value Note: in PowerBuilder, setting the Enabled property of StaticHyperLink to TRUE or FALSE has no effect. The text always displays as it is.
FaceName	Supported	shl_1.FaceName = ls_value
FillPattern	Supported	shl_1.FillPattern = Diamond!
FocusRectangle	Supported	shl_1.FocusRectangle = TRUE
FontCharSet	Supported	shl_1.FontCharSet = ANSI!
FontFamily	Supported	shl_1.FontFamily = Roman!
FontPitch	Supported	shl_1.FontPitch = Fixed!
Height	Supported	shl_1.Height = li_value
Italic	Supported	shl_1.Italic = lb_value
Pointer	Supported	shl_1.Pointer = 'HourGlass!' shl_1.Pointer='d:\archive\IBEAM.BMP.cur'
RightToLeft	Supported	shl_1.RightToLeft = TRUE
TabOrder	Supported	shl_1.TabOrder = 140
Tag	Supported	shl_1.Tag = ls_value
Text	Supported	shl_1.Text = ls_value
TextColor	Supported	shl_1.TextColor = ll_value
TextSize	Supported	shl_1.TextSize = li_value
Underline	Supported	shl_1.Underline = lb_value
URL	Supported	shl_1.URL = "http://www.appeon.com"
Visible	Supported	shl_1.Visible = lb_value
Weight	Supported	shl_1.Weight = li_value
Width	Supported	shl_1.Width = li_value
X	Supported	shl_1.X = li_value
Y	Supported	shl_1.Y = li_value
ClassDefinition	Unsupported	

Events for StaticHyperLink control

Properties | Events | Functions

Event	Support Level	Example Code
Clicked	Supported	Clicked()
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()

DoubleClicked		Supported		DoubleClicked()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
Help		Unsupported		
Other		Unsupported		

Functions for StaticHyperLink control

Properties| Events | Functions

Function		Support Level		Example Code
ClassName		Supported		ls_returnvalue = shl_1.ClassName()
Drag		Supported		shl_1.Drag(End!)
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = shl_1.GetParent()
Hide		Supported		li_returnvalue = shl_1.Hide()
Move		Supported		li_returnvalue = shl_1.Move(li_x,li_y)
PointerX		Supported		li_returnvalue = shl_1.PointerX()
PointerY		Supported		li_returnvalue = shl_1.PointerY()
PostEvent		Supported		lb_returnvalue = shl_1.PostEvent(event)
Resize		Supported		li_returnvalue = shl_1.Resize(li_x,li_y)
SetFocus		Supported		li_returnvalue = shl_1.SetFocus() Unsupported: SetFocus(shl_1)
SetPosition		Supported		li_returnvalue = shl_1.SetPosition(position)
SetRedraw		Supported		shl_1.SetRedraw(FALSE)
Show		Supported		li_returnvalue = shl_1.Show()
TriggerEvent		Supported		li_returnvalue = shl_1.TriggerEvent(event)

TypeOf		Supported		if shl_1.typeof() = StaticHyperLink! Then
				ls_returnvalue = 'StaticHyperLink!'
				end if

GetContextService		Unsupported		
Print		Unsupported		

StaticText control

Properties | Events | Functions

Properties for StaticText control

Properties | Events | Functions

Property		Support Level		Example Code
Alignment		Supported		st_1.Alignment = ls_value
BackColor		Supported		st_1.BackColor = ll_value st_1.BackColor = RGB(192,192,192)
Border		Supported		st_1.Border = lb_value
BorderColor		Supported		st_1.BorderColor = ll_value
BorderStyle		Supported		st_1.BorderStyle = StyleBox! st_1.BorderStyle = StyleLowered! st_1.BorderStyle = StyleRaised! Note: The border style cannot be StyleShadowBox!.
BringToTop		Supported		st_1.BringToTop = TRUE
DisabledLook		Supported		
DragAuto		Supported		st_1.DragAuto = TRUE
DragIcon		Supported		st_1.DragIcon = 'c:\archive\arrow.ico'
Enabled		Supported		st_1.Enabled = lb_value
FaceName		Supported		st_1.FaceName = ls_value
FillPattern		Supported		st_1.FillPattern = Diamond!

FocusRectangle		Supported		st_1.FocusRectangle = TRUE
FontCharSet		Supported		st_1.FontCharSet = ANSI!
FontFamily		Supported		st_1.FontFamily = Roman!
FontPitch		Supported		st_1.FontPitch = Fixed!
Height		Supported		st_1.Height = li_value
Italic		Supported		st_1.Italic = lb_value
Pointer		Supported		st_1.Pointer = 'AppStarting!' st_1.Pointer = 'd:\archive\IBEAM.BMP.cur'
RightToLeft		Supported		st_1.RightToLeft = TRUE
TabOrder		Supported		st_1.TabOrder = 140
Tag		Supported		st_1.Tag = ls_value
Text		Supported		st_1.Text = ls_value
TextColor		Supported		st_1.TextColor = ll_value
TextSize		Supported		st_1.TextSize = li_value
Underline		Supported		st_1.Underline = lb_value
Visible		Supported		st_1.Visible = lb_value
Weight		Supported		st_1.Weight = li_value
Width		Supported		st_1.Width = li_value
X		Supported		st_1.X = li_value
Y		Supported		st_1.Y = li_value
ClassDefinition		Unsupported		

Events for StaticText control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Clicked		Supported		Clicked()
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()

DoubleClicked		Supported		DoubleClicked()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LoseFocus		Supported		LoseFocus()
RButtonDown		Supported		RButtonDown(flags, xpos, ypos)
Help		Unsupported		
Other		Unsupported		

Functions for StaticText control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_returnvalue = st_1.ClassName()
Drag		Supported		st_1.Drag(Cancel!)
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = st_1.GetParent()
Hide		Supported		li_returnvalue = st_1.Hide()
Move		Supported		li_returnvalue = st_1.Move(li_x,li_y)
PointerX		Supported		li_returnvalue = st_1.PointerX()
PointerY		Supported		li_returnvalue = st_1.PointerY()
PostEvent		Supported		lb_returnvalue = st_1.PostEvent(event)
Resize		Supported		li_returnvalue = st_1.Resize(li_x,li_y)
SetFocus		Supported		li_returnvalue = st_1.SetFocus() Unsupported: SetFocus(st_1)
SetPosition		Supported		li_returnvalue = st_1.SetPosition(position)
Show		Supported		li_returnvalue = st_1.Show()

SetRedraw	Supported	li_returnvalue = st_1.SetRedraw (FALSE)
TriggerEvent	Supported	li_returnvalue = st_1.TriggerEvent(event)

TypeOf	Supported	if st_1.typeof() = StaticText! Then
		ls_returnvalue = 'StaticText!'
		end if

GetContextService	Unsupported	
Print	Unsupported	

Tab control

Properties | Events | Functions

Differences

- If the MultiLine property of a Tab control is set to True, and the width of the control is exactly the same as the width of all the tabs in it, the tabs may be displayed in two lines on the Web although one line in PowerBuilder. To avoid the difference, specify a width for the Tab control that is bigger than the width of all the tabs, and do more testing till the tabs on the Web can be displayed in the same way as in PowerBuilder.
- In the following scenario, setting the RaggedRight to TRUE will not take effect:
  1. The MultiLine property is disabled.
  2. The MultiLine property is enabled but all tabs can be located in a row.
- In PowerBuilder, if the BoldSelectText property is enabled, only the label of the selected tab page will be displayed in bold type. However, on the Web, the labels of all tabs appear in bold type. Remember to adjust the width of each tab page so that the text can be displayed within the label when enabling this property for the Web.
- In the following scenario, the width of tabs on the Web may be different from in PowerBuilder. When the MultiLine property is enabled and the RaggedRight property is disabled, the largest width of a tab is over W/N (W stands for the total width of all tabs, N stands for the total number of all tabs.)

Properties for Tab control

Properties | Events | Functions

Property	Support Level	Example Code
Alignment	Supported	tab_1. Alignment = 'Center!'
BackColor	Supported	tab_1.BackColor = ll_value tab_1.BackColor = RGB(192,192,192)

BoldSelectedText	Supported	tab_1.BoldSelectedText = TRUE
BringToTop	Supported	tab_1.BringToTop = TRUE
Control[]	Supported	Userobject luo_1 luo_1 = tab_1.Control[1] Note: this property cannot be dynamically changed.
CreateOnDemand	Supported	tab_1.CreateOnDemand = TRUE
DragAuto	Supported	tab_1.DragAuto = True
DragIcon	Supported	tab_1.DragIcon ='c:\archive\arrow.ico'
Enabled	Supported	tab_1.Enabled = FALSE
FaceName	Supported	tab_1.FaceName = ls_value
FixedWidth	Supported	tab_1.FixedWidth = lb_value
FocusOnButtonDown	Supported	tab_1.FocusOnButtonDown = TRUE
FontCharSet	Supported	tab_1.FontCharSet = ANSI!
FontFamily	Supported	tab_1.FontFamily = Roman!
FontPitch	Supported	tab_1.FontPitch = Fixed!
Height	Supported	tab_1.Height = li_value
Italic	Supported	tab_1.Italic = lb_value
MultiLine	Supported	tab_1.Multiline = TRUE
PictureOnRight	Supported	tab_1.PictureOnRight = TRUE
Pointer	Supported	tab_1.Pointer='SizeNWSE!' tab_1.Pointer='d:\archive\IBEAM.BMP.cur'
PowerTips	Supported	tab_1.PowerTips = TRUE
RaggedRight	Supported	tab_1.RaggedRight=TRUE
SelectedTab	Supported	tab_1.SelectedTab = li_value
ShowPicture	Supported	tab_1.ShowPicture = TRUE
ShowText	Supported	tab_1.ShowText = lb_value
TabOrder	Supported	tab_1.TabOrder = 150
TabPosition	Supported	tab_1.TabPosition = TabsOnTop!
		The TabPosition property is partially supported: • Supported values of the TabPosition property: TabsOnBottom!,TabsOnTop! • Unsupported values of the TabPosition property: TabsOnBottomAndTop!, TabsOnLeftAndRight!, TabsOnRightAndLeft!, TabsOnTopAndBottom!,TabsOnLeft!, TabsOnRight!
Tag	Supported	tab_1.Tag = ls_value
TextSize	Supported	tab_1.TextSize = li_value
Underline	Supported	tab_1.Underline = lb_value
Visible	Supported	tab_1.Visible = lb_value
Weight	Supported	tab_1.Weight = li_value
Width	Supported	tab_1.Width = li_value
X	Supported	tab_1.X = li_value

Y	Supported	tab_1.Y = li_value
ClassDefinition	Unsupported	
PerpendicularText	Unsupported	

Events for Tab control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Clicked	Supported	Clicked(index)
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked()
DragDrop	Supported	DragDrop(source,index)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source,index)
GetFocus	Supported	GetFocus()
Key	Supported	Key(key,keyflags)
LoseFocus	Supported	LoseFocus()
RightClicked	Supported	RightClicked(index)
RightDoubleClicked	Supported	RightDoubleClicked(index)
SelectionChanged	Supported	SelectionChanged(oldindex,newindex)
SelectionChanging	Supported	SelectionChanging(oldindex,newindex)
Help	Unsupported	
Other	Unsupported	

Functions for Tab control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_returnvalue = tab_1.ClassName()
CloseTab	Supported	li_returnvalue = tab_1.CloseTab()
Drag	Supported	li_returnvalue = tab_1.Drag()
GetParent	Supported	PowerObject lpo_returnvalue lpo_returnvalue = tab_1.GetParent()
Hide	Supported	li_returnvalue = tab_1.Hide()
Move	Supported	li_returnvalue = tab_1.Move(li_x,li_y)
MoveTab	Supported	li_returnvalue = tab_1.MoveTab(li_x,li_y)
OpenTab	Supported	li_returnvalue = tab_1.OpenTab()
OpenTabWithParm	Supported	li_returnvalue = tab_1.OpenTabWithParm()
PointerX	Supported	li_returnvalue = tab_1.PointerX()
PointerY	Supported	li_returnvalue = tab_1.PointerY()
PostEvent	Supported	li_returnvalue = tab_1.PostEvent(Clicked!)
Resize	Supported	li_returnvalue = tab_1.Resize(li_x,li_y)
SelectTab	Supported	li_returnvalue = tab_1.SelectTab(tabidentifier)
SetFocus	Supported	li_returnvalue = tab_1.SetFocus() Unsupported: SetFocus(tab_1)
SetPosition	Supported	li_returnvalue = tab_1.SetPosition(position)
SetRedraw	Supported	li_return= tab_1.SetRedraw(FALSE)
Show	Supported	li_returnvalue = tab_1.Show()
TabTriggerEvent	Supported	li_returnvalue = tab_address.TabTriggerEvent ("ue_display")
TriggerEvent	Supported	li_returnvalue = tab_1.TriggerEvent(event)

TypeOf	Supported	if tab_1.typeof() = Tab! then
		ls_returnvalue = 'Tab!'
		endif

GetContextService	Unsupported	
Print	Unsupported	
TabPostEvent	Unsupported	

Properties for TabPage object

Properties | Events | Functions

Property	Support Level	Example Code
BackColor	Supported	tab_1.tabpage_1.BackColor = ll_value

Enabled		Supported		tab_1.tabpage_1.BackColor = TRUE
Pointer		Supported		tab_1.tabpage_1.Pointer='No!' tab_1.tabpage_1.Pointer ='d:\archive\IBEAM.BMP.cur'
PictureName		Supported		tab_1.tabpage_1.picturename = "Blob!"
PowerTipText		Supported		tab_1.tabpage_1.PowerTipText = ls_value
TabBackColor		Supported		tab_1.tabpage_1.TabBackColor = ll_value
TabTextColor		Supported		tab_1.tabpage_1.TabTextColor = ll_value
Tag		Supported		ls_value = tab_1.tabpage_1.Tag
Text		Supported		ls_value = tab_1.tabpage_1.Text On the Web, ASCII characters (~n & ~t) take no effect in the text of the tabpage.
Visible		Supported		tab_1.tabpage_1.Visible = lb_value Note: If the Visible property of a TabPage is set to False, the TabPage that gets the first focus in the Tab control would fail to display its content correctly. When it occurs, switching between the tab pages may get the content displayed well.
PictureMaskColor		Unsupported		

Events for TabPage object

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor
Destructor		Supported		Destructor
DragDrop		Supported		DragDrop
DragEnter		Supported		DragEnter
DragLeave		Supported		DragLeave
DragWithin		Supported		DragWithin
RButtondown		Supported		RButtonDown
Help		Unsupported		
Other		Unsupported		

Functions for TabPage object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_value = tabpage_1.ClassName()
Drag	Supported	tabpage_1.Drag(Cancel!)
GetParent	Supported	li_returnvalue = tabpage_1.GetParent()
Hide	Supported	li_returnvalue = tabpage_1.Hide()
PostEvent	Supported	lb_returnvalue = tabpage_1.PostEvent(event)
SetRedraw	Supported	li_return= tabpage_1.SetRedraw(True)
Show	Supported	li_returnvalue = tabpage_1.Show()
TriggerEvent	Supported	li_returnvalue = tabpage_1.TriggerEvent(event)

TypeOf	Supported	if tabpage_1.TypeOf() = tabpage! Then
		ls_returnvalue='tabpage!'
		end if

CreatePage	Unsupported	
GetContextService	Unsupported	
PageCreated	Unsupported	
PointerX	Unsupported	
PointerY	Unsupported	

TreeView control

Properties | Events | Functions

Differences

The length of the converted TreeView labels has minor differences to those in PowerBuilder.

Properties for TreeView control

Properties | Events | Functions

Property	Support Level	Example Code
Accelerator	Supported	tv_1.Accelerator = 67
BackColor	Supported	tv_1.BackColor = ll_value tv_1.BackColor = RGB(192,192,192)
Border	Supported	tv_1.Border = lb_value
BorderStyle	Supported	tv_1.BorderStyle=StyleRaised! tv_1.BorderStyle=StyleBox! tv_1.BorderStyle=StyleLowered! Note: StyleShadowBox! is not supported.
BringToTop	Supported	tv_1.BringToTop = TRUE
CheckBoxes	Supported	tv_1.CheckBoxes = lb_value
DeleteItems	Supported	tv_1.DeleteItems = lb_value
DisableDragDrop	Supported	tv_1.DisableDragDrop = TRUE
DragAuto	Supported	tv_1.DragAuto = TRUE
DragIcon	Supported	tv_1.DragIcon='c:\archive\arrow.ico'
EditLabels	Supported	tv_1.EditLabels = lb_value
Enabled	Supported	tv_1.Enabled = lb_value
FontCharSet	Supported	tv_1.FontCharSet = ANSI!
FontFamily	Supported	tv_1.FontFamily = Roman!
FontPitch	Supported	tv_1.FontPitch = Fixed!
FaceName	Supported	tv_1.FaceName = ls_value
FullRowSelect	Supported	tv_1.FullRowSelect = TRUE
HasButtons	Supported	tv_1.HasButtons = lb_value
HasLines	Supported	tv_1.HasLines = lb_value
Height	Supported	tv_1.Height = li_value
HideSelection	Supported	tv_1.HideSelection = FALSE
Indent	Supported	tv_1.Indent = 100
Italic	Supported	tv_1.Italic = lb_value
LinesAtRoot	Supported	tv_1.LinesAtRoot = lb_value
PictureHeight	Supported	tv_1.PictureHeight = 16
PictureMaskColor	Supported	tv_1.PictureMaskColor = RGB(255, 255, 0)

PictureName	Supported	tv_1.PictureName = ls_value
		Assigning values to part of an array and using the default values for the other part is not supported. For example:
		picturename[1] = "aaa.bmp"
		picturename[3] = "bbb.bmp"
		var pic1 = picutrename[1];
		var pic2 = picturename[3];

		A supported example is given as follows:
		picturename[1] = "aaa.bmp"
		picturename[2] = "bbb.bmp"
		picturename[3] = "ccc.bmp"
		var pic1 = picutrename[1];
		var pic2 = picturename[2];
		var pic3 = picturename[3];

PictureWidth	Supported	tv_1.PictureWidth = 16
Pointer	Supported	tv_1.Pointer ='UPArrow!' tv_1.Pointer ='d:\archive\IBEAM.BMP.cur'
SingleExpand	Supported	tv_1.SingleExpand = TRUE
StatePictureHeight	Supported	tv_1.StatePictureHeight = 16
StatePictureMaskColor	Supported	tv_1.StatePictureMaskColor = RGB(255, 255, 0)

StatePictureName[ ]	Supported	ls_value[] = tv_1.StatePictureName[]
		Assigning values to part of an array and using the default values for the other part is not supported. For example:
		statepicturename[1] = "aaa.bmp"
		statepicturename[3] = "bbb.bmp"
		var pic1 = statepicutrename[1];
		var pic2 = statepicturename[3];
		
		A supported example is given as follows:
		statepicturename[1] = "aaa.bmp"
		statepicturename[2] = "bbb.bmp"
		statepicturename[3] = "ccc.bmp"
		var pic1 = statepicutrename[1];
		var pic2 = statepicturename[2];
		var pic3 = statepicturename[3];

StatePictureWidth	Supported	tv_1.StatePictureWidth = 16
TabOrder	Supported	tv_1.TabOrder = 160
Tag	Supported	tv_1.Tag = ls_value
TextColor	Supported	tv_1.TextColor = ll_value
TextSize	Supported	tv_1.TextSize = li_value
ToolTips	Supported	tv_1.ToolTips = TRUE
TrackSelect	Supported	tv_1.TrackSelect = TRUE
Underline	Supported	tv_1.Underline = lb_value
Visible	Supported	tv_1.Visible = lb_value
Weight	Supported	tv_1.Weight = li_value
Width	Supported	tv_1.Width = li_value
X	Supported	tv_1.X = li_value
Y	Supported	tv_1.Y = li_value
ClassDefinition	Unsupported	
SortType	Unsupported	

Events for TreeView control

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
BeginDrag	Supported	BeginDrag(handle)
BeginLabelEdit	Supported	BeginLabelEdit(handle)
BeginRightDrag	Supported	BeginRightDrag(handle)
Clicked	Supported	Clicked(handle)
Constructor	Supported	Constructor()
DeleteItem	Supported	DeleteItem(handle)
Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked(handle)
DragDrop	Supported	DragDrop(source,handle)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source,handle)
EndLabelEdit	Supported	EndLabelEdit(handle,newtext)
GetFocus	Supported	GetFocus()
Key	Supported	Key(key,keyflags)
ItemCollapsed	Supported	ItemCollapsed(handle)
ItemCollapsing	Supported	ItemCollapsing(handle)
ItemExpanded	Supported	ItemExpanded(handle)
ItemExpanding	Supported	ItemExpanding(handle)
ItemPopulate	Supported	ItemPopulate(handle)
LoseFocus	Supported	LoseFocus()
RightClicked	Supported	RightClicked(handle)
RightDoubleClicked	Supported	RightDoubleClicked(handle)

SelectionChanged	Supported	SelectionChanged(oldhandle,newhandle)
SelectionChanging	Supported	SelectionChanging(oldhandle,newhandle)
Help	Unsupported	
Other	Unsupported	
Sort	Unsupported	

Functions for TreeView control

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
AddPicture	Supported	li_returnvalue = tv_1.AddPicture(picturename)
AddStatePicture	Supported	li_returnvalue = tv_1.AddStatePicture(picturename)
ClassName	Supported	ls_returnvalue = tv_1.ClassName()
CollapseItem	Supported	li_returnvalue = tv_1.CollapseItem(itemhandle)
DeleteItem	Supported	li_returnvalue = tv_1.DeleteItem(itemhandle)
DeletePicture	Supported	li_returnvalue = tv_1.DeletePicture(index)
DeletePictures	Supported	li_returnvalue = tv_1.DeletePictures()
DeleteStatePicture	Supported	li_returnvalue = tv_1.DeleteStatePicture(index)
DeleteStatePictures	Supported	li_returnvalue = tv_1.DeleteStatePictures()
Drag	Supported	tv_1.Drag(End!)
EditLabel	Supported	li_returnvalue = tv_1.EditLabel(itemhandle)
ExpandAll	Supported	li_returnvalue = tv_1.ExpandAll(itemhandle)
ExpandItem	Supported	li_returnvalue = tv_1.ExpandItem(itemhandle)
FindItem	Supported	ll_returnvalue = tv_1.FindItem(navigationcode, itemhandle) Note: the argument *navigationcode* can only use the following values: RootTreeItem!, NextTreeItem!, PreviousTreeItem!, ParentTreeItem!, ChildTreeItem!, FirstVisibleTreeItem!, NextVisibleTreeItem!, PreviousVisibleTreeItem!, CurrentTreeItem!. The *navigationcode* value cannot be DropHighlightTreeItem!.
GetItem	Supported	li_returnvalue = tv_1.GetItem(itemhandle,tvi_ret)
GetItemAtPointer	Supported	li_index = tv_1.GetItematPointer ( )
GetParent	Supported	lobj_returnvalue = tv_1.GetParent()

Hide	Supported	li_returnvalue = tv_1.Hide()
InsertItem	Supported	ll_returnvalue = tv_1.InsertItem (handleparent,handleafter,item) ll_returnvalue = tv_1.InsertItem (handleparent,handleafter,label,pictureindex)
InsertItemFirst	Supported	ll_returnvalue = tv_1.InsertItemFirst (handleparent,item) ll_returnvalue = tv_1.InsertItemFirst (handleparent,label,pictureindex)
InsertItemLast	Supported	ll_returnvalue = tv_1.InsertItemLast (handleparent,item) ll_returnvalue = tv_1.InsertItemLast(handleparent, label, pictureindex)
InsertItemSort	Supported	tv_1.InsertItemSort(ll_roothandle, l_tvi)
Move	Supported	li_returnvalue = tv_1.Move(li_xpos,li_ypos)
PointerX	Supported	li_returnvalue = tv_1.PointerX()
PointerY	Supported	li_returnvalue = tv_1.PointerY()
PostEvent	Supported	lb_returnvalue = tv_1.PostEvent(event)
Resize	Supported	li_returnvalue = tv_1.Resize(li_width,li_height)
SelectItem	Supported	ll_returnvalue = tv_1.SelectItem(itemhandle)
SetFirstVisible	Supported	li_tvret = tv_1.SetFirstVisible(ll_tvi)
SetFocus	Supported	li_returnvalue = tv_1.SetFocus() Unsupported: SetFocus(tv_1)
SetItem	Supported	li_returnvalue = tv_1.SetItem(itemhandle,item)
SetLevelPictures	Supported	tv_1.SetLevelPictures(3, li_level, li_level, & li_level, li_level)
SetOverlayPicture	Supported	tv_1.SetOverlayPicture(1, index)
SetPosition	Supported	li_returnvalue = tv_1.SetPosition(position)
SetRedraw	Supported	li_return= tv_1.SetRedraw(True)
Show	Supported	li_returnvalue = tv_1.Show()
Sort	Supported	li_returnvalue = tv_1.Sort()
SortAll	Supported	tv_1.SortAll(ll_tvi , Ascending!)
TriggerEvent	Supported	li_returnvalue = tv_1.TriggerEvent(event)

TypeOf	Supported	if tv_1.TypeOf() = TreeView! Then
		ls_returnvalue = 'TreeView!'
		end if

GetContextService	Unsupported	
Print	Unsupported	
SetDropHighlight	Unsupported	

VProgressBar control

Properties | Events | Functions

Properties for VProgressBar control

Properties | Events | Functions

Property		Support Level		Example Code
BringToTop		Supported		vpb_1.BringToTop = TRUE
DragAuto		Supported		vpb_1.DragAuto = TRUE
DragIcon		Supported		vpb_1.DragIcon = 'Question!'
Height		Supported		vpb_1.Height = li_value
MaxPosition		Supported		vpb_1.MaxPosition = 120
MinPosition		Supported		vpb_1.MinPosition = 20
Pointer		Supported		vpb_1.Pointer = 'Beam!' vpb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
Position		Supported		vpb_1.Position = 50
StdStep		Supported		vpb_1.setstep = 20
SmoothScroll		Supported		vpb_1.SmoothScroll = True
TabOrder		Supported		vpb_1.TabOrder = 20
Tag		Supported		vpb_1.Tag = "VProgressBar control"
Visible		Supported		vpb_1.Visible = TRUE
Width		Supported		vpb_1.Width = 700
X		Supported		vpb_1.X = 280
Y		Supported		vpb_1.Y = 1280
ClassDefinition		Unsupported		

Events for VProgressBar control

Properties | Events | Functions

Event	Support Level	Example Code
Clicked	Supported	Clicked(flags,xpos,ypos)
Constructor	Supported	Constructor()
Destructor	Supported	Destructor()
DoubleClicked	Supported	DoubleClicked(flags,xpos,ypos)
DragDrop	Supported	DragDrop(source)
DragEnter	Supported	DragEnter(source)
DragLeave	Supported	DragLeave(source)
DragWithin	Supported	DragWithin(source)
GetFocus	Supported	GetFocus()
LoseFocus	Supported	LoseFocus()
RButtonDown	Supported	RButtonDown(flags,xpos,ypos)
Help	Unsupported	
Other	Unsupported	

Functions for VProgressBar control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_classnm = vpb_1.classname()
Drag	Supported	li_return = vpb_1.drag(Begin!)
GetParent	Supported	lpo_return = vpb_1.GetParent()
Hide	Supported	li_return = vpb_1.Hide()
Move	Supported	li_return = vpb_1.Move(li_x,li_y)
OffsetPos	Supported	li_return = vpb_1.OffsetPos(10)
PointerX	Supported	li_return = vpb_1.PointerX()
PointerY	Supported	li_return = vpb_1.PointerY()
PostEvent	Supported	vpb_1.PostEvent(Clicked!)

Resize		Supported		li_return = vpb_1.Resize(li_x, li_y)
SetFocus		Supported		li_return = vpb_1.SetFocus()
SetPosition		Supported		li_return = vpb_1.SetPosition(ToTop!)
SetRange		Supported		li_return = vpb_1.SetRange (1, 10)
SetRedraw		Supported		li_return = vpb_1.SetRedraw(FALSE)
Show		Supported		li_return = vpb_1.Show()
StepIt		Supported		li_return = vpb_1.StepIt( )
TriggerEvent		Supported		li_return = vpb_1.TriggerEvent(Clicked!)
TypeOf		Supported		type_obj = vpb_1.typeof()
GetContextService		Unsupported		
Print		Unsupported		

VScrollBar control

Properties | Events | Functions

APPEON

Properties for VScrollBar control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
BringToTop		Supported		vsb_1.BringToTop = TRUE
DragAuto		Supported		vsb_1.DragAuto = TRUE
DragIcon		Supported		vsb_1.DragIcon = 'Question!'
Height		Supported		vsb_1.Height = li_value
MaxPosition		Supported		vsb_1.MaxPosition = 120
MinPosition		Supported		vsb_1.MinPosition = 20
Pointer		Supported		vsb_1.Pointer = 'Beam!' vsb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
Position		Supported		vsb_1.Position = 50
StdWidth		Supported		vsb_1.StdHeight = True

TabOrder		Supported		vsb_1.TabOrder = 20
Tag		Supported		vsb_1.Tag = "VScrollBar control"
Visible		Supported		vsb_1.Visible = TRUE
Width		Supported		vsb_1.Width = 700
X		Supported		vsb_1.X = 280
Y		Supported		vsb_1.Y = 1280
ClassDefinition		Unsupported		

Events for VScrollBar control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LineDown		Supported		LineDown()
LineUp		Supported		LineUp()
LoseFocus		Supported		LoseFocus()
Moved		Supported		Moved(scrollpos)
PageDown		Supported		PageDown()
PageUp		Supported		PageUp()
RButtonDown		Supported		RButtonDown(flags,xpos,ypos)
Help		Unsupported		
Other		Unsupported		

Functions for VScrollBar control

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_classnm = vsb_1.classname()
Drag	Supported	li_return = vsb_1.drag(Begin!)
GetParent	Supported	lpo_return = vsb_1.GetParent()
Hide	Supported	li_return = vsb_1.Hide()
Move	Supported	li_return = vsb_1.Move(li_x,li_y)
PointerX	Supported	li_return = vsb_1.PointerX()
PointerY	Supported	li_return = vsb_1.PointerY()
PostEvent	Supported	vsb_1.PostEvent(Clicked!)
Resize	Supported	li_return = vsb_1.Resize(li_x, li_y)
SetFocus	Supported	li_return = vsb_1.SetFocus()
SetPosition	Supported	li_return = vsb_1.SetPosition(ToTop!)
SetRedraw	Supported	li_return = vsb_1.SetRedraw(FALSE)
Show	Supported	li_return = vsb_1.Show()
TriggerEvent	Supported	li_return = vsb_1.TriggerEvent(Clicked!)
TypeOf	Supported	type_obj = vsb_1.typeof()
GetContextService	Unsupported	
Print	Unsupported	

VTrackBar control

Properties | Events | Functions

Properties for VTrackBar control

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
BringToTop		Supported		vtb_1.BringToTop = TRUE
DragAuto		Supported		vtb_1.DragAuto = TRUE
DragIcon		Supported		vtb_1.DragIcon = 'Question!'
Height		Supported		vtb_1.Height = li_value
LineSize		Supported		vtb_1.LineSize = li_value
MaxPosition		Supported		vtb_1.MaxPosition = 120
MinPosition		Supported		vtb_1.MinPosition = 20
PageSize		Supported		vtb_1.PageSize = li_value
Pointer		Supported		vtb_1.Pointer = 'Beam!' vtb_1.Pointer ='d:\archive\IBEAM.BMP.cur'
Position		Supported		vtb_1.Position = 50
Slider		Supported		vtb_1.Slider = TRUE
SliderSize		Supported		vtb_1.SliderSize = li_value
TabOrder		Supported		vtb_1.TabOrder = 20
Tag		Supported		vtb_1.Tag = ls_tag
TickFrequency		Supported		vtb_1.TickFrequency = li_value
TickMarks		Supported		vtb_1.TickMarks = VTicksOnBottom!
Visible		Supported		vtb_1.Visible = TRUE
Width		Supported		vtb_1.Width = li_value
X		Supported		vtb_1.X = li_x
Y		Supported		vtb_1.Y = li_y
ClassDefinition		Unsupported		

Events for VTrackBar control

Properties | Events | Functions

APPEON

Event		Support Level		Example Code

Constructor		Supported		Constructor()
Destructor		Supported		Destructor()
DragDrop		Supported		DragDrop(source)
DragEnter		Supported		DragEnter(source)
DragLeave		Supported		DragLeave(source)
DragWithin		Supported		DragWithin(source)
GetFocus		Supported		GetFocus()
LineDown		Supported		LineDown()
LineUp		Supported		LineUp()
LoseFocus		Supported		LoseFocus()
Moved		Supported		Moved(scrollpos)
PageDown		Supported		PageDown()
PageUp		Supported		PageUp()
RButtonDown		Supported		RButtonDown(flags,xpos,ypos)
Help		Unsupported		
Other		Unsupported		

Functions for VTrackBar control

Properties | Events | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_classnm = vtb_1.classname()
Drag		Supported		li_return = vtb_1.drag(Begin!)
GetParent		Supported		lpo_return = vtb_1.GetParent()
Hide		Supported		li_return = vtb_1.Hide()
Move		Supported		li_return = vtb_1.Move(li_x,li_y)
PointerX		Supported		li_return = vtb_1.PointerX()
PointerY		Supported		li_return = vtb_1.PointerY()

PostEvent	Supported	vtb_1.PostEvent(Clicked!)
Resize	Supported	li_return = vtb_1.Resize(li_x, li_y)
SelectionRange	Supported	li_return = vtb_1.SelectionRange(30, 70)
SetFocus	Supported	li_return = vtb_1.SetFocus()
SetPosition	Supported	li_return = vtb_1.SetPosition(ToTop!)
SetRedraw	Supported	li_return = vtb_1.SetRedraw(FALSE)
Show	Supported	li_return = vtb_1.Show()
TriggerEvent	Supported	li_return = vtb_1.TriggerEvent(Clicked!)
TypeOf	Supported	type_obj = vtb_1.typeof()
GetContextService	Unsupported	
Print	Unsupported	

Unsupported controls

The following are the controls that Appeon does not support:

- InkEdit control
- InkPicture control
- Animation control

System objects

Supported

- There can only be one Application object in an application.
- The following are the system objects that Appeon supports:

Application	DataStore	Connection	CORBAObject
DataWindowChild	DragObject	DWObject	DynamicStagingArea
DynamicDescriptionArea	Environment	GraphicObject	Graph
grAxis	grDispAttr	Inet	InternetResult
ListViewItem	MenuCascade	mailFileDescription	mailMessage
mailRecipient	mailSession	MDIClient	Menu

Message	NonVisualObject	OLEObject	PowerObject
Timing	Transaction Object	TreeViewItem	UserObject
Window	WindowObject		

- DragObject, GraphicObject, PowerObject and WindowObject cannot be dynamically create using the CREATE statement); they must be defined as static objects, created in PowerBu

Unsupported

- It is strongly recommended that for a given application, no objects have the same name.
- The following are the system objects that Appeon does not support:

ADOResultSet	ArrayBounds	ClassDefinition	ClassDefinit
ConnectionInfo	ConnectObject	ContextInformation	ContextKey
CORBABadTypeContext	CORBABadInvorder	CORBABadOperation	CORBABad
CORBABadTypeCode	CORBACommFailure	CORBACurrent	CORBADat
CORBAFreeMem	CORBAImpLimit	CORBAInitialize	CORBAInte
CORBAIntFrePos	CORBAInvalidTransaction	CORBAInvFlag	CORBAInvl
CORBAMarshal	CORBANoImplement	CORBANoMemory	CORBANoF
CORBANoResources	CORBANoResponse	CORBAOBJAdapter	CORBAObj
CORBAPersistStore	CORBASystemException	CORBATransactionRequired	CORBATra
CORBATranslent	CORBAUnion	CORBAUnknown	CORBAUse
CPlusPlus	DivideByZeroError	DWRuntimeError	Enumeratio
EnumerationItemDefinition	Error	ErrorLogging	Exception
ExtObject	JaguarORB	NullObjectError	OLERuntim
OLEStorage	OLEStream	OLETxnObject	OMControl
OMCustomControl	OMEmbeddedControl	OMObject	OMStorage
OMStream	ORB	PBTocppObject	Pipeline
ProfileCall	ProfileClass	ProfileLine	ProfileRouti
Profiling	RemoteObject	ResultSet	ResultSets
RuntimeError	ScriptDefinition	Service	SimpleType
SSLCallBack	SSLServiceProvider	SystemFunctions	Throwable
TraceActivityNode	TraceBeginEnd	TraceError	TraceESQL
TraceFile	TraceGarbageCollect	TraceLine	TraceObjec
TraceRoutine	TraceTree	TraceTreeError	TraceTreeE
TraceTreeGarbageCollect	TraceTreeLine	TraceTreeNode	TraceTreeC
TraceTreeRoutine	TraceTreeUser	TraceUser	Transaction
Transport	TypeDefinition	VariableCardinalityDefinition	VariableDef

Application object

Properties | Events | Functions

APPEON

Important Requirements

- There can only be one Application object in an application.
- An application cannot be given the same name as a PowerBuilder control type. For example, naming an application "datawindow", "editmask" or "commandbutton" is not supported.
- An application name cannot be a reserved word in JavaScript. See Identifiers for more information.
- A commandline argument in the application Open event is supported.
- It is recommended that the use of Application object is limited to the following well-supported actions:
  1. Launching login screens.
  2. Opening and closing MDI, SDI, Main, Response and Popup windows.
  3. Creating instances of one or more transaction objects.

Additional properties of Application object

- You can specify an icon for the application, but the icon will be displayed in PowerBuilder only and will not be displayed on Web.
- The type of SQLCA can be a transaction user object.
- The type of SQLSA can be a DynamicStagingArea user object.
- The type of SQLDA can be a DynamicDescriptionArea user object.
- The variable type MESSAGE can use the default value "message" or a user-defined message object, and you can also customize the Message object by defining a class user object inherited from the built-in Message object.
- The specification of Error will be ignored.

Properties for Application object

Properties | Events | Functions

Property	Support Level	Example Code
AppName	Supported	String ls_AppName ls_AppName =app_1.AppName //Get the AppName property
DisplayName	Supported	String ls_DisplayName ls_DisplayName = app_1.DisplayName
MicroHelpDefault	Supported	app_1.MicroHelpDefault = 'Ready'
RightToLeft	Supported	app_1.RightToLeft = TRUE
ToolbarFrameTitle	Supported	ls_value = app_1.ToolbarFrameTitle
ToolbarSheetTitle	Supported	ls_value =app_1.ToolbarSheetTitle
ToolbarTips	Supported	lb_value = app_1.ToolbarTips
ToolbarText	Supported	lb_value = app_1.ToolbarText

ClassDefinition	Unsupported	
DDETimeOut	Unsupported	
DWMessageTitle	Unsupported	
FreeDBLibraries	Unsupported	
ToolbarPopMenuText	Unsupported	
ToolbarUserControl	Unsupported	

Events for Application object

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Close	Supported	Close
Idle	Supported	Idle
Open	Supported	Open Note: The *commandline* argument is supported. The Commandline argument cannot include continuous number signs ("#").
ConnectionBegin	Unsupported	
ConnectionEnd	Unsupported	
SystemError	Unsupported	

Functions for Application object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	ls_class = l_app.ClassName()
GetParent	Supported	lobj_parent = l_app.GetParent()
PostEvent	Supported	l_app.PostEvent (Clicked!) l_app.PostEvent (“Clicked!”)

TriggerEvent		Supported		l_app.TriggerEvent (Clicked!) l_app.TriggerEvent (“Clicked!”)

TypeOf		Supported		string ls_applicationtype
				if l_app.TypeOf()=Application! Then
				ls_applicationtype = "Application!"
				end if

GetContextService		Unsupported		
SetLibraryList		Unsupported		
SetTransPool		Unsupported		
Note: in PowerBuilder 9 and above, GetLibrary and SetLibrary are global functions.				

Connection object

Properties | Events | Functions

APPEON

Important Requirements

Connection object can be created dynamically using the CREATE statement.

Properties for Connection object

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
Application	Supported	ls_name = myconnect.application
Driver	Supported	ls_driver = myconnect.Driver Myconnect.Driver = "jaguar"
ErrCode	Supported	ll_rc = myconnect.errcode
ErrText	Supported	ll_rc = myconnect.errtext
Location	Supported	ls_location = myconnect.Location myconnect.location = "192.0.0.217:9000"
UserID	Supported	ls_userid = myconnect.UserID Myconnect.UserID = "jagadmin"
Password	Supported	ls_pwd = myconnect.Password Myconnect.password = ""
ClassDefinition	Unsupported	
ConnectString	Unsupported	

Handle	Unsupported
Options	Unsupported
Trace	Unsupported

Events for Connection object

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor
Error	Unsupported	

Functions for Connection object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	ls_name = Myconnect.ClassName()
ConnectToServer	Supported	ll_rc = Myconnect.ConnectToServer() Note: The return value is always 0 on the Web.
CreateInstance	Supported	ll_rc = Myconnect.CreateInstance (ln_tools,"simpletest/nvo_tools")
DisconnectServer	Supported	ll_rc = Myconnect.disconnectserver() Note: The return value is always 0 on the Web.
GetParent	Supported	lobj_parent = Myconnect.GetParent()
PostEvent	Supported	lb_rc = Myconnect.PostEvent(event)
TriggerEvent	Supported	li_rc = Myconnect.TriggerEvent(event)
TypeOf	Supported	IF Myconnect.TypeOf() = Connection! THEN ls_rc = "Connection"

		END IF
GetContextService	Unsupported	
GetServerInfo	Unsupported	
Lookup	Unsupported	
RemoteStopConnection	Unsupported	
RemoteStopListening	Unsupported	

CORBAObject object

Properties | Events | Functions

APPEON

Important Requirements

The CORBAObject object can be created dynamically using the CREATE statement.

Properties for CORBAObject object

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
ClassDefinition	Unsupported	

Events for CORBAObject object

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor

Functions for CORBAObject object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_name = my_corbaobj.ClassName()
GetParent	Supported	lobj_parent = my_corbaobj.GetParent()
PostEvent	Supported	lb_rc = my_corbaobj.PostEvent(event)
TriggerEvent	Supported	li_rc = my_corbaobj.TriggerEvent(event)

TypeOf	Supported	IF my_corbaobj.TypeOf() = CorbaObject! THEN
		ls_rc = “Connection”
		END IF

_Is_A	Unsupported	
_Narrow	Unsupported	
GetContextService	Unsupported	

DynamicDescriptionArea object

Properties | Events | Functions

Properties for DynamicDescriptionArea object

Properties| Events | Functions

Property	Support Level	Example Code
NumInputs	Supported	Integer li_input li_input = SQLDA.NumInputs
NumOutputs	Supported	Integer li_output li_output = SQLDA.NumOutputs
InParmType[]	Supported	if SQLDA.InParmType[3] = TypeInteger! then ...
OutParmType	Supported	CHOOSE CASE SQLDA.OutParmType[li_Idx]

[]		On the Web, the value of this property may differ from that in PowerBuilder.
ClassDefinition	Unsupported	

Events for DynamicDescriptionArea object

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor

Functions for DynamicDescriptionArea object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_class = dsa_1.ClassName()
GetDynamicDate	Supported	ls_Value = String(SQLDA.GetDynamicDate(li_Idx))
GetDynamicDateTime	Supported	ls_Value = String(SQLDA.GetDynamicDateTime (li_Idx))
GetDynamicNumber	Supported	ls_Value = String(SQLDA.GetDynamicNumber (li_Idx))
GetDynamicString	Supported	ls_Value = SQLDA.GetDynamicString(li_Idx)
GetDynamicTime	Supported	ls_Value = String(SQLDA.GetDynamicTime(li_Idx))
GetParent	Supported	PowerObject lobj_parent_name lobj_parent_name = this.GetParent ()
PostEvent	Supported	this.PostEvent (Clicked!) this.PostEvent ("Clicked")
SetDynamicParm	Supported	SQLDA.SetDynamicParm(1,2004)

TriggerEvent	Supported	this.TriggerEvent (Clicked!) this.TriggerEvent ("Clicked")
TypeOf	Supported	SQLSA.TypeOf()
GetContextService	Unsupported	

DynamicStagingArea object

Properties | Events | Functions

APPEON

Important Requirements

The DynamicStagingArea object can be created dynamically using the CREATE statement.

Properties for DynamicStagingArea object

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
ClassDefinition		Unsupported		

Events for DynamicStagingArea object

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor
Destructor		Supported		Destructor

Functions for DynamicStagingArea object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	ls_class = dsa_1.ClassName()
Destructor	Supported	Destructor
Constructor	Supported	Contructor
GetParent	Supported	lobj_parent_name = this.GetParent ()
PostEvent	Supported	this.PostEvent (Clicked!) this.PostEvent ("Clicked!")
TriggerEvent	Supported	this.TriggerEvent (Clicked!) this.TriggerEvent ("Clicked!")
TypeOf()	Supported	SQLSA.TypeOf()
GetContextService	Unsupported	

Environment object

Properties | Functions

APPEON

Properties for Environment object

Properties | Functions

APPEON

Property	Support Level	Example Code
CharSet	Supported	
CPUType	Supported	
Language	Supported	
MachineCode	Supported	
OSFixesRevision	Supported	
OSMajorRevision	Supported	
OSMinorRevision	Supported	

PBFixesRevision		Supported		
PBMajorRevision		Supported		
PBMinorRevision		Supported		
NumberOfColors		Supported		
ScreenHeight		Supported		
ScreenWidth		Supported		
OSType		Supported		
PBType		Supported		
Win16		Supported		
ClassDefinition		Unsupported		

Functions for Environment object

Properties | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		string varname varname = ClassName(gd_double)
TypeOf		Supported		dw_1.Typeof()
GetContextService		Unsupported		
GetParent		Unsupported		

Graph object

Properties | Events | Functions

APPEON

Properties for Graph object

Properties | Events | Functions

Property	Support Level	Example Code
BackColor	Supported	gr_1.BackColor = RGB(255, 255, 0)
Border	Supported	gr_1.Border = TRUE
BorderStyle	Supported	gr_1.BorderStyle = StyleLowered!
BringToTop	Supported	gr_1.BringToTop = TRUE
Category	Supported	gr_1.Category.Label = "Types of Products"
CategorySort	Supported	gr_1.CategorySort = Unsorted! Note: If the values of Category are multibyte characters (for example, Chinese characters), they are sorted by internal statement number on the Web.
Depth	Supported	gr_1.Depth = 50
DragAuto	Supported	gr_1.DragAuto = TRUE
DragIcon	Supported	gr_1.DragIcon = 'Question!'
Elevation	Supported	gr_1.Elevation = 35
Enabled	Supported	gr_1.Enabled = TRUE
FocusRectangle	Supported	gr_1.FocusRectangle = TRUE
GraphType	Supported	gr_1.GraphType= AreaGraph! Note: The following graph types are unsupported: Area3D!, Bar3DGraph!, Col3DGraph!, Line3D!, Pie3D!
Height	Supported	gr_1.Height = 750
Legend	Supported	gr_1.Legend = AtBottom!
LegendDispAttr	Supported	
OverlapPercent	Supported	gr_1.OverlapPercent = 10
Perspective	Supported	gr_1.Perspective = 25
PieDispAttr	Supported	
Pointer	Supported	gr_1.Pointer = 'Beam!' gr_1.Pointer = 'd:\archive\IBEAM.BMP'
Rotation	Supported	gr_1.Rotation = -45

Series	Supported	gr_1.Series.Scaletype = Log10!
SeriesSort	Supported	gr_1.SeriesSort = Unsorted! Note: 1. The result of executing this property on the Web may differ from that in PowerBuilder. This is because changing other properties may affect the SeriesSort property in PowerBuilder but it does not have such effect on the Web. 2. If the values of Category are multibyte characters (for example, Chinese characters), they are sorted by internal statement numbers on the Web.
ShadeColor	Supported	dw_1.Object.gr_1.ShadeColor = 16600000
Spacing	Supported	gr_1.Spacing = 120
TabOrder	Supported	gr_1.TabOrder = 10
Tag	Supported	gr_1.SetMicroHelp(This.Tag)
TextColor	Supported	gr_1.Series.DispAttr.TextColor = RGB(0,0,255)
Title	Supported	gr_1.TitleBar = TRUE gr_1.Title = "Monthly Report"
TitleDispAttr	Supported	
Values	Supported	ls_value = dw_1.Object.gr_1.Values
Visible	Supported	gr_1.Visible = TRUE
Width	Supported	gr_1.Width = 750
X	Supported	gr_1.X = 215
Y	Supported	gr_1.Y= 400
ClassDefinition	Unsupported	

Evnets for Graph object

Properties | Events | Functions

Event	Support Level	Example Code
Clicked	Supported	Clicked
Constructor	Supported	Constructor

Destructor	Supported	Destructor
DoubleClicked	Supported	DoubleClicked
DragDrop	Supported	DragDrop
DragEnter	Supported	DragEnter
DragLeave	Supported	GragLeave
DragWithin	Supported	DragWithin
GetFocus	Supported	GetFocus
LoseFocus	Supported	LoseFocus
RButtonDown	Supported	RButtonDown
Help	Unsupported	
Other	Unsupported	

Functions for Graph object

Properties | Events | Functions

Function	Support Level	Example Code
AddCategory	Supported	gr_1.AddCategory("PCs")
AddData	Supported	ll_value = gr_1.FindSeries("Costs") gr_1.AddData(ll_value, 12, 3)
AddSeries	Supported	li_value = gr_1.AddSeries("Costs")
CategoryCount	Supported	li_value = gr_1.CategoryCount()
CategoryName	Supported	ls_value = gr_1.CategoryName(5)
ClassName	Supported	ls_value= gr_1.ClassName(gd_double)
Clipboard	Supported	gr_1.Clipboard()
DataCount	Supported	ll_value = gr_1.DataCount("Costs")

DeleteCategory	Supported	gr_1.DeleteCategory(CategName)
DeleteData	Supported	gr_1.DeleteData(SeriesNbr, 7)
DeleteSeries	Supported	gr_1.DeleteSeries(ls_name)
Drag	Supported	gr_1.Drag(Begin!)
FindCategory	Supported	li_value=gr_1.FindCategory(sle_ctgry.Text)
FindSeries	Supported	li_value =gr_1.FindSeries(sle_series.Text)
GetData	Supported	data_value = gr_1.GetData(SeriesNbr, ItemNbr, xValue!)
GetDataPieExplode	Supported	gr_1.GetDataPieExplode(series, datapoint, percentage) Note: This function takes effect only in the pie graph. In other graphs the return value of GetDataPieExplode is -1.
GetDataStyle	Supported	ll_color = gr_emp_data.GetDataStyle(SeriesNbr, 6, Foreground!, color_nbr) On the Web, the GetDataStyle function returns 1 if the specified data point and its series contain data, otherwise it returns -1. This is different from that in PowerBuilder.
GetDataValue	Supported	rtn = gr_1.GetDataValue(SeriesNbr, ItemNbr, data_value)
GetParent	Supported	luo_value = gr_1.GetParent()
GetSeriesStyle	Supported	gr_1.GetSeriesStyle(SeriesName, & line_style, line_width)
Hide	Supported	gr_1.Hide()
ImportClipboard	Supported	gr_1.ImportClipboard() Notes: 1. The *importtype* argument of this function is unsupported. 2. When using this function, you should ensure that the data type imported matches the data type that you specified in a DataWindow control, DataStore object or graph control. Otherwise the output on the Web may be different from that in PowerBuilder. For example, if the date type specified in a DataWindow is string, when you import a file with date number (eg, 2006-08-01), on the Web the date data will be recognized as a string (2006), however in PowerBuilder, it will be recognized as a date data (2006-08-01).
ImportFile	Supported	gr_1.ImportFile("D:\EMPLOYEE.TXT", 2, 30, 3) Note:

		1. The *filename* argument of ImportFile function must be a tab-separated file (TXT) or a comma-separated file (CSV). 2. The *importtype* argument of this function is unsupported. 3. When using this function, you should ensure that the data type imported matches the data type that you specified in a DataWindow control, DataStore object or graph control. Otherwise the output on the Web may be different from that in PowerBuilder. For example, if the date type specified in a DataWindow is string, when you import a file with date number (eg, 2006-08-01), on the Web the date data will be recognized as a string (2006), however in PowerBuilder, it will be recognized as a date data (2006-08-01).
ImportString	Supported	gr_1.ImportString(ls_Text, 2, 30, 3) Notes: 1. The *importtype* argument of this function is unsupported. 2. When using this function, you should ensure that the data type imported matches the data type that you specified in a DataWindow control, DataStore object or graph control. Otherwise the output on the Web may be different from that in PowerBuilder. For example, if the date type specified in a DataWindow is string, when you import a file with date number (eg, 2006-08-01), on the Web the date data will be recognized as a string (2006), however in PowerBuilder, it will be recognized as a date data (2006-08-01).
InsertCategory	Supported	gr_1.InsertCategory("Macs", CategoryNbr)
InsertData	Supported	gr_1.InsertData(SeriesNbr, CategoryNbr + 1, 1250) Note: The data point will be inserted according to the sorting rules of the Category axis.
InsertSeries	Supported	gr_1.InsertSeries("Costs", SeriesNbr)
ModifyData	Supported	gr_1.ModifyData(SeriesNbr, & CategoryNbr, 1250)
Move	Supported	gr_1.Move(150, 200)
ObjectAtPointer	Supported	Object_type = gr_1.ObjectAtPointer(SeriesNbr, ItemNbr)
PointerX	Supported	li_value = gr_1.PointerX()
PointerY	Supported	li_value = gr_1.PointerY()
PostEvent	Supported	gr_1.PostEvent(Clicked!)

Print	Supported	gr_1.Print(1, "1-5", FALSE, TRUE)
Reset	Supported	gr_1.Reset(Series!)
ResetDataColors	Supported	gr_1.ResetDataColors(SeriesNbr, 10)
Resize	Supported	gr_1.Resize(100, 150)
SaveAs	Supported	gr_1.SaveAs()
SeriesCount	Supported	li_value = gr_1.SeriesCount()
SeriesName	Supported	ls_value = gr_1.SeriesName(5)
SetDataPieExplode	Supported	gr_1.SetDataPieExplode(series, datapoint, percentage)
SetDataStyle	Supported	gr_1.SetDataStyle("gr_depts" , SeriesNbr, 6, Background!, 0)
SetFocus	Supported	gr_1.SetFocus()
SetPosition	Supported	gr_1.SetPosition(ToTop!)
SetRedraw	Supported	gr_1.SetRedraw(FALSE)
SetSeriesStyle	Supported	gr_1.SetSeriesStyle("Costs", & SymbolPlus!) Note: When using this function to set the overlay style of Graph DataWindow to “Scatter”, it returns true and displays the DataWindow with all data points connected by lines. This is different from that in PowerBuilder.
Show	Supported	gr_1.Show()
TriggerEvent	Supported	gr_1.TriggerEvent(Clicked!)
TypeOf	Supported	gr_1.Typeof()
GetContextService	Unsupported	

grAxis object

Properties | Functions

Properties for grAxis object

Properties | Functions

Property	Support Level	Example Code
AutoScale	Supported	gr_1.Values.AutoScale = FALSE Note: When this property is set to False, the maximum value for the axis cannot be smaller than the minimum value.
DataType	Supported	gr_1.Values.DataType = AdtDate! Notes: 1. On the Web, if the datatype of axis is set to AdtDateTime!, a graph can only display the data for one day. 2. It is unsupported to dynamically modify the GraphType property, if the datatype of the axis will be changed after the modification.
DispAttr	Supported	
DisplayEveryNLabels	Supported	gr_1.Series.DisplayEveryNLabels = 10
DropLines	Supported	gr_1.Series.DropLines = Dash!
Frame	Supported	gr_1.Series.Frame = Dash!
Label	Supported	gr_1.Values.Label = 'Lawsuits per 1000'
LabelDispAttr	Supported	
MajorDivisions	Supported	gr_1.Values.MajorDivisions = 10
MajorGridLine	Supported	gr_1.Value.MajorGridLine = Dash!
MajorTic	Supported	gr_1.Values.MajorTic = Straddle!
MaximumValue	Supported	gr_1.Values.DataType = AdtDouble! gr_1.Values.MaximumValue = 500000.00
MaxValDateTime	Supported	gr_1.Values.DataType = AdtDate! gr_1.Values.MaxValDateTime = 12/31/1999
MinimumValue	Supported	gr_1.Values.DataType = AdtDouble! gr_1.Values.MinimumValue = 0.00
MinorDivisions	Supported	gr_1.Values.MinorDivisions = 10
MinorGridLine	Supported	gr_1.Value.MinorGridLine = Dot!
MinorTic	Supported	gr_1.Values.MinorTic = Outside!
MinValDateTime	Supported	gr_1.Values.DataType = AdtDate!

		gr_1.Values.MinValDateTime = 01/31/1900
OriginLine	Supported	gr_1.Values.OriginLine = Dash!
PrimaryLine	Supported	gr_1.Values.PrimaryLine = Dash!
RoundTo	Supported	gr_1.Values.DataType = AdtDate! gr_1.Values.RoundToUnit = RndMonths! gr_1.Values.RoundTo = 6
RoundToUnit	Supported	gr_1.Values.DataType = AdtDate! gr_1.Values.RoundToUnit = RndMonths! gr_1.Values.RoundTo = 6
ScaleType	Supported	gr_1.Values.ScaleType=Log10! Notes: 1. Modifying the ScaleType property for an axis on the Web will affect only the involved axis . This may differ from PowerBuilder. 2. Graphs on the Web will be displayed exactly as the settings of MajorDivisions, MinorDivisions, MaximunValue, and RoundTo. There is no displaying difference between the linear and logarithmic scaling.
ScaleValue	Supported	gr_1.Values.ScaleValue = Actual!
SecondaryLine	Supported	gr_1.Values.SecondaryLine = Dash!
ShadeBackEdge	Supported	gr_1.ShadeColor = RGB(240,250,150) gr_1.Category.ShadeBackEdge = TRUE
ClassDefinition	Unsupported	

Functions for grAxis object

Properties | Functions

Function	Support Level	Example Code
ClassName	Supported	gr_1.value.ClassName()
GetParent	Supported	PowerObject lpo_returnvalue lpo_returnvalue = gr_1.value.GetParent()

TypeOf	Supported	If gr_1.value.TypeOf() =grAxis! Then
		ls_returnvalue = "grAxis!"
		End If

GetContextService	Unsupported	

grDispAttr object

Properties | Functions

Properties for grDispAttr object

Properties | Functions

Property	Support Level	Example Code
Alignment	Supported	gr_1.Alignment = Center!
AutoSize	Supported	gr_1.TitleDispAttr.AutoSize = FALSE
BackColor	Supported	gr_1.BackColor = RGB(255, 255, 0)
DisplayExpression	Supported	gr_1.TitleDispAttr.DisplayExpression = 'title + " " + Today()' Note: When specifying the display expression in the Display Expression field, please note that several items in the Columns box may be unsupported in certain situations: 1. (For all graphs)The percentofcategory and The percentofgraph are unsupported. 2. (For all graphs) The percentofseries is unsupported when the text object is set to Value Axis Text or Legend. 3. The categorypercentofgraph and percentofseries are unsupported when the text object is set to Pie Graph Labels and there are multiple series. 4. (For pie graph only) The percentofseries is unsupported when the text object is set to Legend.
Escapement	Supported	gr_1.Value.LabelDispAttr.Escapement = 900 Note: 1) When the value of Escapement is a negative number, the text will not be rotated. 2) The text rotated can be displayed out of the control in PowerBuilder, but not in Web applications. 3) After rotated, the multiple-line text still displays in multiple lines in PowerBuilder, but displays in one line

		on Web.
FaceName	Supported	gr_1.FaceName = ""
FillPattern	Supported	gr_1.FillPattern = Diamond!
FontCharSet	Supported	gr_1.FontCharSet = ANSI!
FontFamily	Supported	gr_1.FontFamily = Roman!
FontPitch	Supported	gr_1.FontPitch = Fixed!
Format	Supported	gr__1.Values.DispAttr.Format = "0.00"
Italic	Supported	gr_1.Italic = TRUE
TextColor	Supported	gr_1.Series.DispAttr.TextColor = RGB(0,0,255)
TextSize	Supported	gr_1.Values.LabelDispAttr.TextSize = 12
Underline	Supported	gr_1.Values.LabelDispAttr.Underline = TRUE
Weight	Supported	gr_1.Weight = 700
ClassDefinition	Unsupported	

Functions for grDispAttr object

Properties | Functions

Function	Support Level	Example Code
ClassName	Supported	gr_1.ClassName()
GetParent	Supported	luo_value = gr_1.GetParent()

TypeOf	Supported	If gr_1.TypeOf() = grDispAttr! Then
		ls_returnvalue = "grDispAttr!"
		End If

GetContextService	Unsupported	

Inet object

Properties | Events | Functions

Properties for Inet object

Properties| Events | Functions

Property	Support Level	Example Code
ClassDefinition	Unsupported	

Events for Inet object

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor

Functions for Inet object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	inet_1 = CREATE inet li_classnm = inet_1.ClassName( )
GetParent	Supported	lpo_return = inet_1.GetParent()
GetURL	Supported	inet_1.GetURL()
HyperLinkToURL	Supported	inet_1.HyperlinkToURL("http://www.appeon.com")
PostEvent	Supported	inet_1.PostEvent(Clicked!)
PostURL	Supported	li_return =Inet_1.PostURL() Note: Appeon supports https address, though PB does not support it.

TriggerEvent	Supported	inet_1.TriggerEvent(Clicked!)
TypeOf	Supported	inet_1.Typeof()
GetContextService	Supported	GetContextService("Internet", inet_base) inet_base.HyperlinkToURL("http://www.appeon.com") Note: This function is supported only when the service name parameter is "Internet"

InternetResult object

Properties | Events | Functions

Properties for InternetResult object

Properties | Events | Functions

Property	Support Level	Example Code
ClassDefinition	Unsupported	

Events for InternetResult object

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor

Functions for InternetResult object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	internetresult_1 = Create InternetResult li_classnm= internetresult_1.ClassName()
GetParent	Supported	lpo_return = internetresult_1.GetParent()
InternetData	Supported	li_return = internetresult_1.InternetData (data)
InternetStatus	Supported	(Not used)
PostEvent	Supported	Internetresult_1.PostEvent(Clicked!)
TriggerEvent	Supported	Internetresult_1.TriggerEvent(Clicked!)
TypeOf	Supported	Internetresult_1.Typeof()
GetContextService	Unsupported	

ListViewItem object

Properties | Functions

APPEON

Properties for ListViewItem object

Properties | Functions

APPEON

Property	Support Level	Example Code
CutHighlighted	Supported	lvi_item1.CutHighlighted = True
Data	Supported	any_value = lvi_item1.Data
DropHighlighted	Supported	lvi_item1.DropHighlighted = True
HasFocus	Supported	lvi_item1.HasFocus = True
ItemX	Supported	

ItemY		Supported		
Label		Supported		ls_value = lvi_item1.Label InPowerBuilder, if the string label is too long to display in one line, the string will display in multiple lines. However, in the Web application, the string will only display in one line.
OverlayPictureIndex		Supported		li_value = lvi_item1.OverlayPictureIndex
PictureIndex		Supported		li_value = lvi_item1.PictureIndex
Selected		Supported		lb_value = lvi_item1.Selected
StatePictureIndex		Supported		li_value = lvi_item1.StatePictureIndex
ClassDefinition		Unsupported		

Functions for ListViewItem object

Properties | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_objectname = lvi_item1.ClassName()

TypeOf		Supported		IF lvi_item1.TypeOf() = ListViewItem! THEN
				  ls_returnvalue = "ListViewItem"
				END IF

GetContextService		Unsupported		
GetParent		Unsupported		

MDIClient object

Properties | Functions

APPEON

Important Requirements

Multiple MDI windows are supported.

Defining the size of the client area in a MDI window is supported.

If there are multiple MDI frames, the second frame window of the Web application will be loaded at a much slower speed up to four times slower than the first one. If the first MDI is closed, the second one will not function.

When the MDI frame is closed in an Appeon-deployed application, the Web browser will also close automatically.

Properties for MDIClient object

Properties | Functions

APPEON

Property		Support Level		Example Code
BackColor		Supported		w_main.mdi_1.BackColor = ll_value
Height		Supported		w_main.mdi_1.Height = li_value
MicroHelpHeight		Supported		li_return = w_main.mdi_1.MicroHelpHeight
Tag		Supported		w_main.mdi_1.Tag = ls_value
Width		Supported		w_main.mdi_1.Width = li_value
X		Supported		w_main.mdi_1.X = li_value
Y		Supported		w_main.mdi_1.Y = li_value
BringToTop		Unsupported		
ClassDefinition		Unsupported		
Visible		Supported		

Functions for MDIClient object

Properties | Functions

APPEON

Function		Support Level		Example Code
ClassName		Supported		ls_classname = w_main.mdi_1.Classname()
GetParent		Supported		PowerObject lpo_returnvalue lpo_returnvalue = this.GetParent()

Hide		Supported		w_main.Hide()
Move		Supported		w_main.Move(150,200)
Resize		Supported		w_main.Resize(100, 150)
SetRedraw		Supported		w_main.SetRedraw(FALSE)
Show		Supported		m_main.Show()
TypeOf		Supported		ls_type = w_main.mdi_1.TypeOf()
GetContextService		Unsupported		

mailFileDescription object

Properties | Functions

APPEON

Properties for mailFileDescription object

Properties | Functions

APPEON

Property		Support Level		Example Code
FileType		Supported		mailFileDescription mattach mAttach.FileType = mailattach!
Filename		Supported		mAttach.Filename = ls_filename
Pathname		Supported		mAttach.Pathname = ls_pathname
Position		Supported		mAttach.Position = ll_position
ClassDefinition		Unsupported		

Functions for mailFileDescription object

Properties | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	ls_classnm = mAttach.classname()
TypeOf	Supported	type_obj = mAttach.typeof()
GetContextService	Unsupported	
GetParent	Unsupported	

mailMessage object

Properties | Functions

Properties for mailMessage object

Properties | Functions

Property	Support Level	Example Code
AttachmentFile[ ]	Supported	mMsg.AttachmentFile[1] = mAttach
ConversationID	Supported	ls_ID = mMsg.ConversationID
DateReceived	Supported	mMsg.DateReceived = ls_today
MessageSent	Supported	lb_sent = mMsg.MessageSent
MessageType	Supported	ls_type = mMsg.MessageType
NoteText	Supported	ls_note = mMsg.NoteText
ReceiptRequested	Supported	lb_return = mMsg.ReceiptRequested
Recipient[ ]	Supported	mailRecipient recip mMsg.Recipient[1] = recip
Subject	Supported	mMsg.subject = ls_subject
Unread	Supported	mMsg.Unread = false
ClassDefinition	Unsupported	

Functions for mailMessage object

Properties | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_classnm = mMsg.classname()
TypeOf	Supported	type_obj = mMsg.typeof()
GetContextService	Unsupported	
GetParent	Unsupported	

mailRecipient object

Properties | Functions

Properties for mailRecipient object

Properties | Functions

Property	Support Level	Example Code
Address	Supported	mRecip.Address = ls_address
EntryID	Supported	ls_return = string(mRecip.EntryID)
Name	Supported	mRecip.Name = ls_name
RecipientType	Supported	mRecip.RecipientType = mailTo!
ClassDefinition	Unsupported	

Functions for mailRecipient object

Properties | Functions

Function		Support Level		Example Code
ClassName		Supported		ls_classnm = mRecip.classname()
TypeOf		Supported		type_obj = mRecip.typeof()
GetContextService		Unsupported		
GetParent		Unsupported		

mailSession object

Properties | Events | Functions

Properties for mailSession object

Properties | Events | Functions

Property		Support Level		Example Code
MessageID[]		Supported		ls_message = mSes.MessageID[li_i]
SessionID		Supported		ll_sessionid = mSes.SessionID
ClassDefinition		Unsupported		

Events for mailSession object

Properties | Events| Functions

Event		Support Level		Example Code
Constructor		Supported		Constructor
Destructor		Supported		Destructor

Functions for mailSession object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	ls_classnm = mSes.classname()
GetParent	Supported	lobj_parent = mSes.GetParent
mailAddress	Supported	mRet = mSes.mailAddress()
mailDeleteMessage	Supported	mRet = mSes.mailDeleteMessage(sID)
mailGetMessages	Supported	mRet = mSes.mailGetMessages()
mailHandle	Supported	mHandle = mSes.mailHandle()
mailLogoff	Supported	mRet = mSes.mailLogoff()
mailLogon	Supported	mRet = mSes.mailLogon ()
mailReadMessage	Supported	mRet = mSes.mailReadMessage(sMessageID, mMsg , mailEntireMessage!, TRUE)
mailRecipientDetails	Supported	mRet = mSes.mailRecipientDetails (mMsg.Recipient[1],TRUE)
mailResolveRecipient	Supported	mRet = mSes.mailResolveRecipient(mRecip,true)
mailSaveMessage	Supported	mRet = mSes.mailSaveMessage (mMsg.ConversationID, mMsg)
mailSend	Supported	mRet = mSes.mailsend (mMsg)
PostEvent	Supported	lb_return = mSes.PostEvent("ue_user")
TriggerEvent	Supported	lb_return = mSes.TriggerEvent("ue_user")
TypeOf	Supported	type_obj = mSes.typeof()
GetContextService	Unsupported	

Menu object

Properties | Events | Functions

Important Requirements

- Menus can be dynamically created (for example, using the CREATE statement).

- When a menu is dynamically created, it is unsupported to create multiple items to the menu at one time.
- Use of Main menu should be limited to no more than five layers of submenus for a single menu item.
- More levels of dropdown menus under a menu bar item are supported.
- Appeon supports user-defined menu events and functions.
- For more information on menu object, refer to:

  Menu features

  Toolbar features

Menu features

APPEON

Supported

- Menu object may be implemented with the following functionalities:
  1. Modifying menu items based on user rights using the enable and visible properties.
  2. User-defined functions in menu object.
- It is supported to have a menu object as a structure variable, or define a structure/declare a structure instance in a menu object.
- It is supported to declare a menu type array.
- It is supported to qualify the item of a child menu with the class name of the parent menu. For example, m_city is the menu for the window w_citysheet, and is inherited from m_main. m_file is an item of the menu m_city.
  The following two lines of code have the same effect on the Web:

```
m_main.m_file.enabled = FALSE
m_city.m_file.enabled = FALSE
```

- It is supported to declare a menu variable, assign value to it, and pass the variable as argument. For example:

```
menu lm_onemenu
lm_ onemenu = create menu
lm_ onemenu.text = "Open a window" //or
lm_ onemenu = m_main.m_file //or
lm_ onemenu = m_main.Item[1].Item[1]
```

- A window object can use the ChangeMenu function to dynamically change the menu. See the ChangeMenu function for Window object.
- Switching between different menus is allowed. However, only one menu can be displayed at one time. For example, the MDI window menu can be dynamically refreshed when a sheet is opened or closed.
- Append the names of open sheets (window list) to a menu item.
- Using the UpArrow/DownArrow/LeftArrow/RightArrow to change the currently selected

menu item issupported.

- Shortcut keys for menu items are supported.

Unsupported

- In PowerBuilder, the menu items always show in front of main window or popup window. In Web applications, the menu items may get hidden behind a main window or a popup window.
- Different from PowerBuilder as follows: In the case of multiple Web windows loading the same menu, when a window (window A) accesses the menu object, the menu object accessed is not the menu in the window A, but the menu in the window that is most recently opened.
- It is not supported to access the menu of the window that currently does not have focus.

Toolbar features

APPEON

Supported

- The toolbar item synchronizes with the relevant menu item. If the property of the menu item changes, the property of the toolbar item changes accordingly.
- Multiple toolbars are supported.
- Multiple toolbars can be displayed at the same time, but docked toolbar or toolbar toggle are not supported.
- Toolbar can only be displayed in the MDI and MDIHelp windows.

Unsupported

- In Web applications, the toolbars are always placed directly below the menu. The Web toolbar cannot be dragged around or placed at any other place.
- In PowerBuilder, if the user right mouse clicks over a toolbar, a popup menu is displayed with the available options, for example: Left, Right, Floating, Show Text, Show PowerTips. The popup menu will not display in Web applications. The toolbar item cannot show text but can show PowerTips.
- Clicking the toolbar item will not trigger the Selected event for Menu object.
- If the ShiftToRight property is set to TRUE, menu objects may shift to right and toolbar items will automatically adjust its places according to the menu changes in PowerBuilder. However, toolbar items will not automatically adjust its places on the Web.

Properties for Menu object

Properties | Events | Functions

Property	Support	Example Code

	Level	
Checked	Supported	m_function.m_testitemforfunction.Checked = lb_value
Default	Supported	m_function.m_testitemforfunction.Default = TRUE
Enabled	Supported	m_function.m_testitemforfunction.Enabled = lb_value
Item [ ]	Supported	Menu lmenu_item[] lmenu_item =m_menu.Item[] Support using Item[] in different ways: lm_ onemenu = m_main.Item[1].Item[1] m_main.Item[1].Item[1].text = “open a Window” m_main.Item[1].Item[1].triggerevent(clicked) Dynamically adding menu items with Item[] is supported.
MicroHelp	Supported	m_function.m_testitemforfunction.MicroHelp = ls_value
ParentWindow	Supported	w_value = m_function.Parentwindow
ShiftToRight	Supported	m_function.m_testitemforfunction.ShiftToRight = true
Shortcut	Supported	
Tag	Supported	m_function.m_testitemforfunction.Tag = ls_value
Text	Supported	m_function.m_testitemforfunction.Text = ls_value
ToolbarItemBarIndex	Supported	m_function.m_testitemforfunction.ToolbarItemBarIndex = li_value Note: If the property ToolbarItemBarIndex is set to 0, the toolbar does not display in PowerBuilder but displays on the Web.
ToolbarItemDown	Supported	m_function.m_testitemforfunction.ToolbarItemDown = true
ToolbarItemDown Name	Supported	m_function.m_testitemforfunction.ToolbarItemDownName = ls_value
ToolbarItemName	Supported	m_function.m_testitemforfunction.ToolbarItemName = ls_value
ToolbarItemOrder	Supported	m_function.m_testitemforfunction.ToolbarItemOrder = li_value
ToolbarItemSpace	Supported	m_function.m_testitemforfunction.ToolBarItemSpace = 5
ToolbarItemText	Supported	m_function.m_testitemforfunction.ToolbarItemText = ls_value
ToolbarItemVisible	Supported	m_function.m_testitemforfunction.ToolbarItemVisible = lb_value
Visible	Supported	m_function.m_testitemforfunction.Visible = lb_value
ClassDefinition	Unsupported	
MenuItemType	Unsupported	
MergeOption	Unsupported	

Events for Menu object

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Clicked	Supported	Clicked Note: The Clicked event cannot be triggered for a menu item that has a submenu.
Selected	Supported	Selected
Help	Unsupported	

Functions for Menu object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
Check	Supported	ll_returnvalue = m_function.m_testitemforfunction.Check()
ClassName	Supported	ls_returnvalue = m_function.m_testitemforfunction.ClassName()
Disable	Supported	ll_returnvalue = m_function.m_testitemforfunction.Disable()
Enable	Supported	ll_returnvalue = m_function.m_testitemforfunction.Enable()
GetParent	Supported	lobj_returnvalue = m_function.GetParent()
Hide	Supported	ll_returnvalue = m_function.m_testitemforfunction.Hide()
PopMenu	Supported	ll_returnvalue = m_function.m_testitemforfunction.PopMenu(xlocation, ylocation)
PostEvent	Supported	ll_returnvalue = m_function.m_testitemforfunction.PostEvent(event)
Show	Supported	ll_returnvalue = m_function.m_testitemforfunction.Show()
TriggerEvent	Supported	ll_returnvalue = m_function.m_testitemforfunction.TriggerEvent(event)

TypeOf	Supported	If m_function.m_testitemforfunction.TypeOf() = menu! Then
		  ls_returnvalue = "menu"
		end if

Uncheck	Supported	ll_returnvalue =

				m_function.m_testitemforfunction.Uncheck()
GetContextService		Unsupported		

MenuCascade object

Properties | Events | Functions

APPEON

Important requirements

- It is unsupported to place a cascading menu in another cascading menu.
- When you extend a cascading menu, the first dropdown item automatically get focus on the Web. Pressing the blank key can trigger the Click event of the item with focus and the focus can be shifted between items if you pressing the Up and Down arrow keys.
- Changes to a Web menu will be updated automatically without calling the Hide and Show functions for the Menu.

Properties for MenuCascade object

Properties | Events | Functions

Property		Support Level		Example Code
Checked		Supported		m_function.m_testitemforfunction.Checked = lb_value
Column		Supported		m_menu.Columns = li_count
CurrentItem		Supported		
Default		Supported		m_menu.Default = TRUE
DropDown		Supported		m_menu.DropDown = False
Enabled		Supported		m_function.m_testitemforfunction.Enabled = lb_value
Item [ ]		Supported		lmenu_item = m_menu.Item[ ]
MicroHelp		Supported		m_function.m_testitemforfunction.MicroHelp = ls_value
ParentWindow		Supported		w_value = m_function.Parentwindow
ShiftToRignt		Supported		m_menu.ShiftToRight = True
Shortcut		Supported		li_retuen = m_menu.Shortcut
Tag		Supported		m_function.m_testitemforfunction.Tag = ls_value

Text		Supported	m_function.m_testitemforfunction.Text = ls_value
ToolbarItemDown		Supported	m_function.m_testitemforfunction.ToolbarItemDown = lb_flag
ToolbarItemDown Name		Supported	m_function.m_testitemforfunction.ToolbarItemDownNa = ls_value
ToolbarItemBarIndex		Supported	m_function.m_testitemforfunction.ToolbarItemBarIndex li_value Note: If the property ToolbarItemBarIndex is set to 0, th toolbar does not display in PowerBuilder but displays o the Web.
ToolbarItemName		Supported	m_function.m_testitemforfunction.ToolbarItemName = ls_value
ToolbarItemOrder		Supported	m_function.m_testitemforfunction.ToolbarItemOrder = li_value Note: the value of ToolbarItemOrder cannot be a negat number.
ToolbarItemText		Supported	m_function.m_testitemforfunction.ToolbarItemText = ls_value
ToolbarItemVisible		Supported	m_function.m_testitemforfunction.ToolbarItemVisible = lb_value
Visible		Supported	m_function.m_testitemforfunction.Visible = lb_value
ClassDefinition		Unsupported	
MenuItemType		Unsupported	
MergeOption		Unsupported	

Events for MenuCascade object

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Clicked		Supported		Clicked Note: The Clicked event cannot be triggered for a menu item that has a submenu.
Selected		Supported		Selected
Help		Unsupported		

Functions for MenuCascade object

Properties | Events | Functions

Function		Support Level		Example Code
Check		Supported		ll_returnvalue = m_function.m_testitemforfunction.Check()
ClassName		Supported		ls_returnvalue = m_function.m_testitemforfunction.ClassName()
Disable		Supported		ll_returnvalue = m_function.m_testitemforfunction.Disable()
Enable		Supported		ll_returnvalue = m_function.m_testitemforfunction.Enable()
GetParent		Supported		lobj_returnvalue = m_function.GetParent()
Hide		Supported		ll_returnvalue = m_function.m_testitemforfunction.Hide()
PopMenu		Supported		ll_returnvalue = m_function.m_testitemforfunction.PopMenu (xlocation, ylocation)
PostEvent		Supported		ll_returnvalue = m_function.m_testitemforfunction.PostEvent(event)
Show		Supported		ll_returnvalue = m_function.m_testitemforfunction.Show()
TriggerEvent		Supported		ll_returnvalue = m_function.m_testitemforfunction.TriggerEvent (event)

TypeOf		Supported		If m_function.m_testitemforfunction.TypeOf() = menu! Then
				  ls_returnvalue = "menu"
				end if

Uncheck		Supported		ll_returnvalue = m_function.m_testitemforfunction.Uncheck()
GetContextService		Unsupported		

Message object

Properties | Events | Functions

Important Requirements

- Both the system message and the user-defined message are supported.

Properties for Message object

Properties | Events | Functions

APPEON

Property	Support Level	Example Code
DoubleParm	Supported	OpenWithParm(w_1, ld_value) ld_value = Message.DoubleParm
LongParm	Supported	ls_value = Message.LongParm
PowerObjectParm	Supported	OpenWithParm(w_1, s_value) ls_value = Message.PowerObjectParm
Processed	Supported	
StringParm	Supported	OpenWithParm(w_1, ls_value) ls_value = Message.StringParm
WordParm	Supported	
ClassDefinition	Unsupported	
Handle	Unsupported	
Number	Unsupported	
ReturnValue	Unsupported	

Events for Message object

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Constructor	Supported	
Destructor	Supported	

Functions for Message object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code

ClassName		Supported		string varname varname = ClassName(gd_double)
GetParent		Supported		lobj_parent = cb_1.GetParent()
PostEvent		Supported		cb_1.PostEvent(Clicked!)
TriggerEvent		Supported		cb_1.TriggerEvent(Clicked!)
TypeOf		Supported		dw_1.Typeof()
GetContextService		Unsupported		

NonVisualObject object

Properties | Events | Functions

Properties for NonVisualObject object

Properties | Events | Functions

Property	Support Level	Example Code
ClassDefinition	Unsupported	

Events for NonVisualObject object

Properties | Events | Functions

Event		Support Level		Example Code
Constructor		Supported		Constructor
Destructor		Supported		Destructor

Functions for NonVisualObject object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	nvo_test.classname()
GetParent	Supported	lobj_parent = nvo_test.GetParent()
PostEvent	Supported	nvo_test.PostEvent(Constructor!)
TriggerEvent	Supported	nvo_test.TriggerEvent(Constructor!)

TypeOf	Supported	If nvo_test.typeof()=nonvisualobject! Then
		ls_value='nonvisualobject!'
		End If

GetContextService	Unsupported	

OLEObject object

Properties | Events | Functions

Unsupported

The shortcut key for OCX is unsupported.

It is unsupported to have blob, DataTime, Date, or Time parameters in functions of OLEObject object.

The datatype of the property value cannot be Datetime, Date, or Time.

Properties for OLEObject object

Properties | Events | Functions

Properties		Support Level		Example Code
ClassDefinition		Unsupported		
Handle		Unsupported		

Events for OLEObject object

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor
Error	Unsupported	
ExternalException	Unsupported	

Functions for OLEObject object

Properties | Events | Functions

Function	Support Level	Coding Examples
ClassName	Supported	ls_return = ole_1.ClassName()
ConnectToNewObject	Supported	OLEObject myoleobject myoleobject = CREATE OLEObject li_return = myoleobject.ConnectToNewObject ("excel.application")
ConnectToObject	Supported	OLEObject myoleobject myoleobject = CREATE OLEObject li_return = myoleobject.ConnectToObject ("c:\excel\expense.xls")
DisconnectObject	Supported	li_return = myoleobject.DisconnectObject()
GetAutomationNativePointer	Supported	UnsignedLong lul_oleptr li_return = ocx_spell.GetNativePointer (lul_oleptr)
IsAlive	Supported	IF ole_1.IsAlive() THEN return
PostEvent	Supported	ole_1.PostEvent("Error")
ReleaseAutomationNativePointer	Supported	li_return = ocx_spell.ReleaseNativePointer (lul_oleptr)
SetAutomationPointer	Supported	li_return = oleChild.SetAutomationPointer (myoleobject)
TriggerEvent	Supported	li_return = ole_1.TriggerEvent("Error")

TypeOf	Supported	
ConnectToNewRemoteObject	Unsupported	
ConnectToRemoteObject	Unsupported	
GetContextService	Unsupported	
GetParent	Supported	
SetAutomationLocale	Unsupported	
SetAutomationTimeout	Unsupported	

Timing object

Properties | Events | Functions

APPEON

Properties for Timing object

Properties| Events | Functions

APPEON

Property	Support Level	Example Code
Interval	Supported	ld_return = timing_1.interval
Running	Supported	lb_return = timing_1.running
ClassDefinition	Unsupported	

Events for Timing object

Properties | Events | Functions

APPEON

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor

Timer	Supported	Timer(10, w_main)

Functions for Timing object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	timing_1 = CREATE uo_timer ls_classnm = timing_1.ClassName( )
GetParent	Supported	lobj_parent_name = timing_1.GetParent()
PostEvent	Supported	timing_1.PostEvent(Clicked!)
Start	Supported	timing_1.Start(60)
Stop	Supported	timing_1.Stop()
TriggerEvent	Supported	timing_1.TriggerEvent(Clicked!)
TypeOf	Supported	timing_1.Typeof()
GetContextService	Unsupported	

Transaction object

Properties | Events | Functions

Important Requirements

The Transaction object can either be global or local. The instance transaction object is unsupported.

The user-defined Transaction object is supported.

The type of SQLCA can be transaction or transaction user object. It is supported if the user defines a transaction user object (for example, u_trans) and sets the type of SQLCA to the transaction user object (for example, u_trans).

An application can have multiple Transactions Objects, and the Transaction Objects can be connected to different type of databases.

The specification of isolation level for a database profile in PowerBuilder is not supported.

Properties for Transaction object

Properties | Events | Functions

Appeon ignores the dynamic property settings for the data source and Transaction Object except for the AutoCommit property.

Property	Support Level	Example Code
AutoCommit	Supported	sqlca.AutoCommit = lb_value Notes: 1). If the database server is Oracle and the driver is native driver, the AutoCommit setting is always interpreted as FALSE. 2). The AutoCommit property is the only property that may be dynamically modified.
Database	Supported	ls_value = sqlca.Database
DBMS	Supported	ls_value = sqlca.DBMS
DBPass	Supported	
DBParm	Supported	i_sqlca.DBParm= "ConnectionString= 'DSN=AppeonSample;UID=dba;PWD=sql'" //DBMS-specific parameters
LogID	Supported	ls_value = sqlca.LogID
LogPass	Supported	ls_value = sqlca.LogPass
ServerName	Supported	ls_value = sqlca.ServerName
SQLCode	Supported	ll_value = sqlca.SQLCode
SQLDBCode	Supported	ll_value = sqlca.SQLDBCode Notes: 1). In PowerBuilder, if sqlca.SQLCode=100,

				sqlca.SQLDBCode = 3. In Appeon, when sqlca.SQLCode=100, sqlca.SQLDBCode = 0. 2). In the Web application, SQLDBCode returns a different value from PowerBuilder. It is recommended not to use SQLDBCode in statements such as IF… ELSE.
SQLErrText		Supported		ls_value = sqlca.SQLErrText
SQLNRows		Supported		ll_value = sqlca.SqlNRows
UserID		Supported		ls_value = sqlca.UserID
ClassDefinition		Unsupported		
Lock		Unsupported		
SQLReturnData		Unsupported		

Events for Transaction object

Properties | Events | Functions

APPEON

Event		Support Level		Example Code
Constructor		Supported		Constructor
Destructor		Supported		Destructor
DBError		Unsupported		
SQLPreview		Unsupported		

Functions for Transaction object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	ls_returnvalue = sqlca.ClassName()

TypeOf	Supported	if this.TypeOf() = transaction! Then
		ls_returnvalue = "transaction!"
		end if

DBHandle	Supported	
PostEvent	Supported	
SyntaxFromSQL	Supported	ls_dw_syntax = SQLCA.SyntaxFromSQL (ls_sql_syntax, ls_style, ls_dw_err) Notes: 1. The following sytax is unsupported: ls_dw_syntax = SyntaxFromSQL(sqlca, ls_sql_syntax, ls_style, ls_dw_err) 2. The data type of computed columns in SyntaxFromSQL cannot be the Appeon unsupported data type. 3. The length of return value on the Web is different from PowerBuilder 4. The return value of the SyntaxFromSQL function on the Web contains a column name for each column although it is not in PowerBuilder. 5. The function cannot generate correct source code for TreeView DataWindow.
TriggerEvent	Supported	
GetContextService	Unsupported	
GetParent	Supported	

TreeViewItem object

Properties | Functions

Properties for TreeViewItem object

Properties | Functions

Property	Support Level	Example Code
Bold	Supported	tv_treeviewitem.Bold = TRUE

Children	Supported	tv_treeviewitem.Children = FALSE
Data	Supported	tv_treeviewitem.Data = sle_prop.text
Expanded	Supported	tv_treeviewitem.Expanded = TRUE Note: the property is supported but is read-only.
ExpandedOnce	Supported	tv_treeviewitem.ExpandedOnce = TRUE Note: the property is supported but is read-only.
HasFocus	Supported	tv_treeviewitem.HasFocus = TRUE Note: the property is supported but is read-only.
ItemHandle	Supported	tv_treeviewitem.Itemhandle = long(sle_prop.text) Note: This property is supported but is read-only.
OverlayPictureIndex	Supported	l_tvi.OverlayPictureIndex = 2
Label	Supported	tv_treeviewitem.Label = sle_prop.text
Level	Supported	tv_treeviewitem.Level = long(sle_prop.text)
PictureIndex	Supported	tv_treeviewitem.PictureIndex = long(sle_prop.text)
SelectedPictureIndex	Supported	tv_treeviewitem.SelectedPictureIndex = long (sle_prop.text)
Selected	Supported	lb_value = tv_treeviewitem.Selected
StatePictureIndex	Supported	li_value = tv_treeviewitem.StatePictureIndex
ClassDefinition	Unsupported	
CutHighLighted	Unsupported	
DropHighLighted	Unsupported	

Functions for TreeViewItem object

Properties | Functions

Function	Support Level	Example Code

ClassName		Supported		ls_returnvalue = tv_treeviewitem.ClassName()

TypeOf		Supported		If ltvi_1.TypeOf() = TreeViewItem! Then
				ls_returnvalue = "TreeViewItem!"
				End If

GetContextService		Unsupported		
GetParent		Unsupported		

UserObject object

Properties | Events | Functions

APPEON

Important Requirements

The UserObject object can be dynamically created (for example, by using the CREATE statement).

Properties for UserObject object

Properties | Events | Functions

APPEON

Property		Support Level		Example Code
BackColor		Supported		uo_test.BackColor = ll_value
Border		Supported		uo_test.Border = lb_value
BorderStyle		Supported		uo_test.BorderStyle = StyleBox! uo_test.BorderStyle = StyleLowered! uo_test.BorderStyle = StyleRaised! Note: StyleShadowBox! is unsupported.
ClassName		Supported		ls_value = uo_test.ClassName
BringToTop		Supported		uo_test.BringToTop = TRUE
Control[]		Supported		WindowObject lobj_control[] lobj_control[] = uo_test.control[]
DragAuto		Supported		uo_test.DragAuto=TRUE
DragIcon		Supported		uo_test.DragIcon='c:\archive\arrow.ico'

Enabled	Supported	uo_test.Enabled = TRUE
Height	Supported	uo_test.Height = 300
HScrollBar	Supported	uo_1.HScrollBar = false
Pointer	Supported	uo_test.Pointer='Help!' uo_test.Pointer='d:\archive\IBEAM.BMP.cur'
PictureName	Supported	uo_test.PictureName = "c:\pictures\pb1.bmp"
PowerTipText	Supported	uo_test.PowerTipText="UserObject PowerTip"
TabBackColor	Supported	uo_tab.tab_page1.TabBackColor = RGB(0,0,255)
TabOrder	Supported	uo_test.TabOrder = li_value
TabTextColor	Supported	uo_tab.tab_page1.TabTextColor =5566
Tag	Supported	uo_test.Tag = ls_value
Text	Supported	uo_test.Text = ls_value
Visible	Supported	uo_test.Visible = lb_value
VScrollBar	Supported	uo_test.VScrollBar = lb_value
Width	Supported	uo_test.Width = li_value
X	Supported	uo_test.X = li_value
Y	Supported	uo_test.Y = li_value
ClassDefinition	Unsupported	
ColumnsPerPage	Unsupported	
LibraryName	Unsupported	
LinesPerPage	Unsupported	
ObjectType	Unsupported	
PictureMaskColor	Unsupported	
Style	Unsupported	
UnitsPerColumn	Unsupported	
UnitsPerLine	Unsupported	

Events for UserObject object

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Constructor
Destructor	Supported	Destructor
DragDrop	Supported	DragDrop
DragEnter	Supported	DragEnter
DragLeave	Supported	DragLeave
DragWithin	Unsupported	DragWithin
RButtonDown	Supported	RButtonDown
Help	Unsupported	
Other	Unsupported	

Functions for UserObject object

Properties | Events | Functions

Function	Support Level	Example Code
ClassName	Supported	uo_test.classname()
Drag	Supported	uo_test.Drag(Begin!)
GetParent	Supported	lobj_parent_name = this.GetParent()
Hide	Supported	uo_test.Hide()
Move	Supported	uo_test.Move(x1,y1)
PointerX	Supported	uo_test.PointerX()
PointerY	Supported	uo_test.PointerY()
PostEvent	Supported	uo_test.PostEvent(Clicked!)
Resize	Supported	uo_test.Resize(x1,y1)
SetFocus	Supported	uo_test.SetFocus()
SetPosition	Supported	uo_test.SetPosition(ToTop!) uo_two.SetPosition(Behind!, uo_three)

SetRedraw		Supported		li_return= uo_test.SetRedraw(TRUE)
Show		Supported		uo_test.Show()
TriggerEvent		Supported		uo_test.TriggerEvent(Clicked!)

TypeOf		Supported		If uo_test.typeof()=CheckBox! Then
				ls_value='CheckBox!'
				End If

AddItem		Unsupported		
CreatePage		Unsupported		
DeleteItem		Unsupported		
GetContextService		Unsupported		
InsertItem		Unsupported		
PageCreated		Unsupported		
Print		Unsupported		

Window object

Properties | Events | Functions

Important Requirements

- There are six window types: Child, Main, MDI, MDIHelp, Popup, and Response.
- Window object cannot be dynamically created (for example, using the CREATE statement); it must be defined in the PowerBuilder painter.
- Main Window can have an associated menu.
- User-defined window events and control events are supported.
- For more information relating to windows refer to the following links:

Window types

Window variables

Opening and closing windows

User operation in windows

Properties for Window object

Properties | Events | Functions

Property	Support Level	Example Code
BackColor	Supported	w_1.BackColor = RGB(0, 0, 255)
Border	Supported	w_1.Border = TRUE
BringToTop	Supported	w_1.BringToTop = TRUE
Center	Supported	w_1.Center = TRUE Note: This property is unsupported for an MDI frame window.
Control [ ]	Supported	Control[] graphicobject lobj_control lobj_control = w_1.control[1] Note: This property cannot be dynamically changed.
ControlMenu	Supported	w_1.ControlMenu= TRUE
Enabled	Supported	w_1.Enabled = TRUE
Height	Supported	w_1.Height = 750 //Specifies the height of the window w_1 Note: The Height property is unsupported for an MDI frame window.
HScrollBar	Supported	w_1.HScrollBar = TRUE
Icon	Supported	PowerBuilder and Web behaves differently if no icon is specified for the window: • For PowerBuilder, the icon (if any) specified for the application will be displayed as the icon for the window; • For Web, the Windows default icon will be displayed as the icon for the window.
MaxBox	Supported	w_1.MaxBox= TRUE
MenuID	Supported	Menu menuvar = w_1.MenuID

MenuName	Supported	ls_value = w_1.MenuName
MinBox	Supported	w_1.MinBox = TRUE
Pointer	Supported	w_1.pointer = 'Icon!' w_1.pointer ='d:\archive\IBEAM.BMP.cur'
Resizable	Supported	w_1.Resizable = TRUE Notes: 1. For MDI frame window, the Resizable property will always be TRUE. 2. At the execution of the ArrangeSheet function, no matter whether the Resizable property of each open sheet is set to TRUE or FALSE, all open sheets will be tiled and resized so that they do not overlap. 3. After setting this property to True, setting Border properties will not be effective.
RightToLeft	Supported	w_1.RightToLeft = TRUE Note: If the RightToLeft property of an MDI Window is set to Yes, the content in the window except for the content in the status bar displays from right to left.
Tag	Supported	w_1.SetMicroHelp(This.Tag) //Set or get the Tag property
Title	Supported	w_1.Title = "Monthly Report"
TitleBar	Supported	w_1.TitleBar = TRUE
ToolbarVisible	Supported	w_1.ToolbarVisible = TRUE Note: The ToolBarVisible is unsupported for Popup and Main windows.
Visible	Supported	w_1.Visible = TRUE Note: This property is unsupported for sheets whose window type is Response, Popup or Main windows.
VScrollBar	Supported	w_1.VScrollBar = TRUE
Width	Supported	w_1.Width = 750

		//Set or get the Width property Note: The Width property is unsupported for an MDI frame window.
WindowState	Supported	w_1.WindowState = Maximized! Note: On the Web, the initial window state for an MDI frame window is not based on the WindowState property. It will be decided by the Internet Explorer state.

WindowType	Supported	IF dw_1.WindowType=Main! THEN
		MessaMessageBox("Window Type", "This is a main window.")
		END IF

X	Supported	w_1.X = 215 //Set or get the X property Notes: The X property is not supported for the MDI frame window.
Y	Supported	w_1.Y = 215 //Set or get the Y property Notes: The Y property is not supported for the MDI frame window.
ClassDefinition	Unsupported	
ClientEdge	Unsupported	
ColumnsPerPage	Unsupported	
ContextHelp	Unsupported	
KeyboardIcon	Unsupported	
LinesPerPage	Unsupported	
PaletteWindow	Unsupported	
ToolbarAlignment	Unsupported	
ToolbarHeight	Unsupported	
ToolbarWidth	Unsupported	
ToolbarX	Unsupported	
ToolbarY	Unsupported	
UnitsPerColumn	Unsupported	
UnitsPerLine	Unsupported	

Events for Window object

Properties | Events | Functions

Event	Support Level	Example Code
Activate	Supported	Activate Note: Activate and Deactivate events are unsupported for dialogue boxes.
Clicked	Supported	Clicked
Close	Supported	Close Note: the Close event is handled the same way as Post in Appeon. In the Web application, the return value of the Close event may be different from that in PowerBuilder.
CloseQuery	Supported	CloseQuery
Deactivate	Supported	Deactivate Notes: 1). With the Web applications, the Activate/Deactivate events will not be triggered if the user shift the focus from a window in the current application to a place outside the application. 2). Activate and Deactivate events are unsupported for dialogue boxes.
DoubleClicked	Supported	DoubleClicked
DragDrop	Supported	DragDrop
DragEnter	Supported	DragEnter
DragLeave	Supported	DragLeave
DragWithin	Supported	DragWithin
Hide	Supported	Hide
HotLinkAlarm	Supported	HotLinkAlarm
Key	Supported	Key
MouseDown	Supported	MouseDown
MouseMove	Supported	MouseMove
MouseUp	Supported	MouseUp
Open	Supported	Open
RButtonDown	Supported	RButtonDown
Resize	Supported	Resize
Show	Supported	Show

Timer	Supported	Timer
Help	Unsupported	
Other	Unsupported	
RemoteExec	Unsupported	
RemoteHotLinkStart	Unsupported	
RemoteHotLinkStop	Unsupported	
RemoteRequest	Unsupported	
RemoteSend	Unsupported	
SystemKey	Unsupported	
ToolbarMoved	Unsupported	

Functions for Window object

Properties | Events | Functions

Function	Support Level	Example Code
ArrangeSheets	Supported	w_mdi.ArrangeSheets(arrangetype)
ChangeMenu	Supported	Parent.ChangeMenu(m_test_menu2) Notes: 1). It is unsupported to use a menu item as the *menuname* argument. 2). The menu you want to make the current menu and the current menu cannot be the same menu.
ClassName	Supported	ls_value = w_test.ClassName()
CloseChannel	Supported	w_test.CloseChannel()
CloseUserObject	Supported	w_test.CloseUserObject()
ExecRemote	Suppported	ExecRemote("[Save()]", "Excel", "REGION.XLS")
GetActiveSheet	Supported	w_test. GetActiveSheet()
GetDataDDE	Supported	w_test.GetDataDDE(Str20)

GetDataDDEOrigin	Supported	string ls_name GetCommandDDEOrigin(ls_name)
GetFirstSheet	Supported	w_test. GetFirstSheet()
GetNextSheet	Supported	w_test. GetNextSheet()
GetRemote	Supported	GetRemote("[Save()]", "Excel", "REGION.XLS")
GetParent	Supported	w_test.GetParent()
Hide	Supported	Parent.Hide()
Move	Supported	w_test.Move(X,Y)
OpenChannel	Supported	long handle handle = OpenChannel("Excel", "REGION.XLS")
OpenUserObject	Supported	w_test.OpenUserObject() Note:The *userobjecttype* argument cannot be a system control.
OpenUserObjectWithParm	Supported	w_test.OpenUserObjectWithParm()
ParentWindow	Supported	w_parent = w_test .parentwindow()
PointerX	Supported	li_dist = w_city.PointerX()
PointerY	Supported	li_dist = w_city.PointerY()
PostEvent	Supported	w_main.PostEvent(Clicked!)
Resize	Supported	w_test.Resize(300,250)

RespondRemote	Supported	IF GetDataDDE(Value) = 1 THEN
		RespondRemote(TRUE)
		END IF

SetFocus	Supported	w_test.SetFocus() Unsupported: SetFocus(w_test)
SetMicroHelp	Supported	w_test.SetMicroHelp (“Preview”)
SetPosition	Supported	w_test.SetPosition(position [, precedingwindow]) Note: The window with property TopMost may not always be the top one in Appeon.
SetRedraw	Supported	li_return= w_test.SetRedraw(FALSE)
SetRemote	Supported	

				SetRemote("R5C7", "4500", handle)
Show		Supported		Parent.Show()
StartHotLink		Supported		StartHotLink("Any", "MyPBApp", "Any")
StopHotLink		Supported		StopHotLink("Any", "MyPBApp", "Any")
TriggerEvent		Supported		w_test.TriggerEvent(close!)

TypeOf		Supported		if this.typeof()=window! then
				  messagebox("show", "test typeof()")
				end if

WorkSpaceHeight		Supported		Height = W_employee.WorkSpaceHeight()
WorkSpaceWidth		Supported		Width = W_employee.WorkSpaceWidth()
WorkSpaceX		Supported		w_test.WorkSpaceX()
WorkSpaceY		Supported		w_test.WorkSpaceY()
GetCommandDDE		Unsupported		
GetCommandDDEOrigin		Unsupported		
GetContextService		Unsupported		
GetToolbar		Unsupported		
GetToolbarPos		Unsupported		
Print		Unsupported		
SetDataDDE		Unsupported		
SetToolbar		Unsupported		
SetToolbarPos		Unsupported		
StartServerDDE		Unsupported		
StopServerDDE		Unsupported		

Window types

APPEON

The six window types, including Child, Main, MDI, MDIHelp, Popup, and Response, are supported well by Appeon with the following behavior differences.

- **MDI and MDIHelp:** If the MDI window for a Web application is closed, the whole Web

application is closed. However, with a PowerBuilder application, if there is a Main window open before the MDI window is opened, the application returns to the Main window when the MDI window is closed.

For a Web application, a MDI sheet will be always behind the windows that are opened with the function Open

For a Web application, events that should be triggered by clicking the Title bar of an MDI frame window will be triggered by clicking the Title bar of Internet Explorer

- **Child:** In PowerBuilder, a Child window is always above its parent window. With Web applications, a Child window can be behind its parent window.

Opening and closing windows

APPEON

Opening Windows

- Open functions

  ```
  Open ( windowvar, windowtype {, parent } )
  ```

  Refer to the Window Functions section of System Functions for the supported syntax for opening the windows.

  In the Web application, if window A is opened by the Open function whereas window B is opened by the OpenSheet function, window A will always display over window B.

- Triggering of events

  When a window is open, the Constructor events for the instance variables and controls are executed in the same order on the Web as in PowerBuilder:

  1. Executing Constructor events for all instance variables is prior to executing Constructor events for all controls.
  2. For the instance variables/controls, the events are triggered by the following order: outside --> inside and top -->bottom.
  3. If a control is a container (tab/tab page/visual user object), the Constructor event for the container is triggered first. Then all the controls in the container are subsequently triggered.

  Events triggered for the window object follows the order Open >> Resize >> Show >> Activate.

- Front-to-back order

  The same rule applies in PowerBuilder: the front-to-back order of all the controls in the window is determined by the Control[] property of the window and the BringToTop property of each specific control.

Closing Windows

- Close functions

  Refer to the Window Functions section for the supported syntax for closing the windows.

- Triggering of events

  When a window is closed, the Destructor events of the variables and controls in the window are executed in the same order on the Web as in PowerBuilder:

  1. The Destructor events for the controls are triggered in the same order as the Constructor events.
  2. Executing Destructor events for all controls happens prior to executing Destructor events for all instance variables.
  3. The Destructor events for the instance variables are triggered in the opposite order as the Constructor events.

User operation in windows

APPEON

Supported

The following major user operations are supported.

- Maximize
- Restore
- Minimize
- Single-click
- Double-click
- Drag
- Close
- Switching between controls in the window with the Tab key
- Switch between windows by pressing the Ctrl + Tab key

Unsupported

- It is unsupported to scroll a window using the PageUp/PageDown, upArrow/downArrow, or leftArrow/rightArrow keys
- It is unsupported to switch between controls in a window by pressing the Enter/UpArrow/DownArrow/LeftArrow/RightArrow key

Window variables

APPEON

Window Variables

- Window type arrays are supported, and window type variable that is a structure member is supported.
- The declaration and assignment of window variable are all supported.
- It is supported to dynamically create a window instance by using CREATE. For example, the following syntax is supported:

```
window lwin_onewindow
lwin_onewindow = create Window
lwin_onewindow.title = "This is a city processing
window"
```

WSConnection object

Properties | Events | Functions

Properties for WSConnection object

Properties | Events | Functions

Property	Support Level	Example Code
Endpoint	Supported	
AuthenticationMode	Unsupported	
ClassDefinition	Unsupported	
ClientCertificateFile	Unsupported	
Password	Unsupported	
ProxyServerHostName	Unsupported	
ProxyServerPassword	Unsupported	
ProxyServerPort	Unsupported	
ProxyServerUserName	Unsupported	
Timeout	Unsupported	
UserDomain	Unsupported	
UserName	Unsupported	
UseWindowsIntegratedAuthentication	Unsupported	

Events for WSConnection object

Properties | Events | Functions

Event	Support Level	Example Code
Constructor	Supported	Activate Note: Activate and Deactivate events are unsupported for dialogue boxes.
Destructor	Supported	Clicked

Functions for WSConnection object

Properties | Events | Functions

APPEON

Function	Support Level	Example Code
ClassName	Supported	w_mdi.ArrangeSheets(arrangetype)
GetParent	Supported	Parent.ChangeMenu(m_test_menu2)
PostEvent	Supported	ls_value = w_test.ClassName()
TriggerEvent	Supported	w_test.CloseChannel()
TypeOf	Supported	w_test.CloseUserObject()
GetContextService	Unsupported	

ArrayBounds object

APPEON

This object, including its events, properties and functions, is not supported.

ClassDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

ConnectionInfo object

APPEON

This object, including its events, properties and functions, is not supported.

ContextInformation object

APPEON

This object, including its events, properties and functions, is not supported.

ContextKeyword object

APPEON

This object, including its events, properties and functions, is not supported.

CPlusPlus object

APPEON

This object, including its events, properties and functions, is not supported.

EnumerationDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

EnumerationItemDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

Error object

APPEON

This object, including its events, properties and functions, is not supported.

OLEStorage object

APPEON

This object, including its events, properties and functions, is not supported.

OLEStream object

APPEON

This object, including its events, properties and functions, is not supported.

Pipeline object

APPEON

This object, including its events, properties and functions, is not supported.

ProfileCall object

APPEON

This object, including its events, properties and functions, is not supported.

ProfileClass object

APPEON

This object, including its events, properties and functions, is not supported.

ProfileLine object

APPEON

This object, including its events, properties and functions, is not supported.

ProfileRoutine object

APPEON

This object, including its events, properties and functions, is not supported.

Profiling object

APPEON

This object, including its events, properties and functions, is not supported.

ScriptDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

SimpleTypeDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

TraceActivityNode object

APPEON

This object, including its events, properties and functions, is not supported.

TraceBeginEnd object

APPEON

This object, including its events, properties and functions, is not supported.

TraceError object

APPEON

This object, including its events, properties and functions, is not supported.

TraceESQL object

APPEON

This object, including its events, properties and functions, is not supported.

TraceFile object

APPEON

This object, including its events, properties and functions, is not supported.

TraceGarbageCollect object

APPEON

This object, including its events, properties and functions, is not supported.

TraceLine object

APPEON

This object, including its events, properties and functions, is not supported.

TraceObject object

APPEON

This object, including its events, properties and functions, is not supported.

TraceRoutine object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTree object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeError object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeESQL object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeGarbageCollect object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeLine object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeNode object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeRoutine object

APPEON

This object, including its events, properties and functions, is not supported.

TraceTreeUser object

APPEON

This object, including its events, properties and functions, is not supported.

TraceUser object

APPEON

This object, including its events, properties and functions, is not supported.

Transport object

APPEON

This object, including its events, properties and functions, is not supported.

TypeDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

VariableCardinalityDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

VariableDefinition object

APPEON

This object, including its events, properties and functions, is not supported.

Overview

APPEON

The PowerBuilder language is PowerScript. PowerScript is used in scripts and user-defined functions to build PowerBuilder applications.

During conversion of a PowerBuilder application, script compiled in PowerScript is converted to JavaScript.

In the following section, PowerScript refers to the PowerBuilder programming language, while JavaScript refers to the programming language used for PowerBuilder-to-Web conversion.

Object-Oriented programming

APPEON

The application may make use of the powerful object-oriented programming techniques that are typically found in PowerBuilder applications:

- Inheritance
  Creating a new control in a child object by copying and pasting an existing control in the PowerBuilder painter is unsupported if the existing control is inherited from the parent

object.
- Encapsulation
- Polymorphism

Language basics

APPEON

Comments

APPEON

Supported

Common Comments

- Double-slash method: Code // Comment

```
A= B + C// Comment
```

- Slash-and-asterisk method: /* Comment */

```
A= /* comment */ B + C
```

Embedded comments

// Comment1 /*Comment2

/* Comment1 // Comment2 */

/* Comment1 /* Comment2*/ Comment3 */

For example:

```
A = B + C /* This comment starts here.
/* This is the start of a nested comment. The nested comment ends here. */
The first comment ends here.
*/ + D + E + F
```

Unsupported

None.

Identifiers

APPEON

Supported

Identifiers in Appeon refer to global/instance/local variable names, or object names, or **menu names & menu item names**. Note that menu names & menu item names are regarded as identifiers.

Rules for identifiers:

- Identifiers can be reserved words in JavaScript, apart from the identifier word "Object".
- Can have up to 40 characters but no spaces.
- Must start with a letter or an _ (underscore) and can include any combination of the letters, numbers and special characters listed in Appeon supported identifiers.
- In the case of duplicate objects, objects earlier in the PBL list overwrite those later in the PBL list.

Unsupported

- Objects of different types cannot have the same names.
- Objects of the same types, even if they are in different PBLs, cannot have the same name.
- The "Ω" will not be automatically converted to "ω" in Appeon.
- Identifiers cannot be reserved words in Appeon: appeondatawindow, appeondatastore, appeonservice, appeon_nvo_db_update, appeonextfuncs, appeonfileservice, ejbserial, ejbobject and parse_retval_object.

Labels

APPEON

Labels and GOTO statements are unsupported.

Special ASCII characters

APPEON

Supported

ASCII character	To Specify This	Enter This
Common ASCII characters	Newline	~n
	Tab	~t
	Carriage return	~r

	Formfeed	In Appeon, "~r" is considered a newline character.
	Backspace	~f
	Double quote	~b
	Single quote	~"
	Tilde	~'
		~~
Any ASCII character	Hexadecimal	~h##
	Octal	~o###

Unsupported

1) In a Web application, a character whose ASCII value is greater than 127 cannot be saved to the database.

2) In PowerBuilder, for characters whose ASCII value is greater than 128, the equal operator will consider them the same. However, in Appeon, the equal operator will not consider them the same.

3) Common ASCII character: Vertical tab (~v)

4) Any ASCII character: Decimal (~###)
Note: Appeon ignores the escape character ("~") specified in the PowerBuilder painter. In SQL statements, "~" is handled as escape character.

(5) Tilde ("~") on the web may not take effect if it is contained in a nested string that is a variable or it is contained in a string whose nested level is up to two.

Null values

APPEON

Supported

NULL means undefined or unknown. It is not the same as an empty string, a zero, or a date of 0000-00-00. For example, NULL is neither 0 nor "" (empty string).

Null in PowerBuilder is directly translated into Null in JavaScript.

Unsupported

Expressions involving Null values may arrive at different values in JavaScript from their values in PowerScript. For example, the expression A + B in PowerScript will return Null if any of A or B is Null. However, in JavaScript, the expression will not return Null even if A or B is Null. >In addition, an arithmetic or relational operation involving a null value always returns null in PowerBuilder. As shown in the following table, the return value is not always null in JavaScript:

Operation		**Return Value**	
Assuming SetNull(A), SetNull(B)		PowerBuilder	JavaScript
Arithmetic	A+1	Null	1
	A+B	Null	0

	A*B	Null	0
Relational	A=1	Null	False
	A<>1	Null	True
	NOT (A=1)	Null	True
	A=A	Null	True
	A=B	Null	True
	IsNull(A=1)	True	False
String concatenation	A+"ABC"	Null	"NULLABC"
	A+B	Null	"NULLNULL"

Reserved words

APPEON

Supported Reserved Words

and	call	case	catch	choose	close	commit	connect
constant	continue	create	cursor	declare	delete	describe	disconnect
do	dynamic	else	elseif	end	event	execute	exit
false	fetch	first	for	forward	from	function	global
halt	if	immediate	insert	into	is	last	loop
next	not	of	on	open	or	parent	post
prior	prepare	ref	return	rollback	rpcfunc	select	step
subroutine	super	then	this	to	trigger	true	try
type	until	update	using	while	with	within	selectblob
updateblob							

- The reserved word HALT is supported, but there cannot be any code after the Halt statement. For example, in the following script, "close(parent)" will be ignored in the Appeon conversion process.

```
Halt //supported
Close(parent) //this will be ignored
```

PROCEDURE can only be used in the DECLARE Procedure SQL statement

Unsupported Reserved Words

enumerated	external	finally	goto	indirect	intrinsic	library	system

systemread	systemwrite	throw	throws				

Pronouns

APPEON

Supported

The following pronouns in PowerScript are supported:

- Parent - refers to the object that contains the current object.

  Using Parent in the script for a visual user object is supported.

- This - refers to the window, user object, menu, application object, or control that owns the current script.
- Super - refer to the immediate ancestor for a descendant object or control.

Unsupported

None.

Statement continuation & separation

APPEON

Supported

- The statement continuation character (&) and syntax are supported. The syntax is as follows:

  Start of statement &
  more statement &
  end of statement

- The statement separation character (;) and syntax are supported. The syntax is as follows:

  Statement1; statement2

Note: White Space (Blanks, tabs, formfeeds, and comments) in the statement is supported and treated the same way as in PowerBuilder.

Unsupported

None.

Data types

APPEON

Standard data types

APPEON

Supported

Appeon supports all standard PowerBuilder data types as outlined in the table below:

Blob	Boolean	Byte	Char or character	Date
DateTime	Decimal or Dec*	Double	Integer or Int	Long
Real	String	Time	UnsignedInteger, UnsignedInt, or Uint	UnsignedLong or ULong

Starting from Appeon 6.0, the decimal precision is extended from 15 digits to 28 digits in DataWindow. However, you cannot manipulate 28-digit Decimal in a datawindow via Get/Set function and dot notation.

⊞ Decimal in DataWindow

Differences

- UnsignedLong (32-bit) and UnsignedInteger (16-bit)

  The UnsignedLong (32-bit) and UnsignedInteger (16-bit) data types are handled as Long and Integer. Therefore, the supported range for UnsignedLong is from 0 to 4,294,967,295, and the supported range for UnsignedInteger is from 0 to 65,535.

- Decimal, Real and Double

  In operations that contain calculations of precision, values/variables of Decimal or Real data type are handled as values/variables of Double data type.

  In operations that do not contain calculations of precision, values/variables of Double or Real data type are handled as values/variables of Decimal data type.

- You must ensure that the result of a numeric expression will not cause overflow in

PowerBuilder. Otherwise the result on the Web is different from that in in PowerBuilder.

Any data type

APPEON

Any data type is fully supported, with the exception as follows:

Assigning the return value of a String function to an Any variable that has not been previously assigned is unsupported.

Using Any in the OCX is unsupported.

Using Any array is only supported in the retrieval argument.

Using Any array in a dot notation is unsupported. To work around it, you can using Any variable instead of Any array. For example:

Unsupported code:

```
la_data[] = dw_1.object.data
```

Supported code:

```
any la_data1
la_data1 = dw_1.object.data
```

System object data types

APPEON

Supported

- Autoinstantiated object data types:
  NVOs (Class User Object) with their Autoinstantiate property checked;
  Structure data types;
  Autoinstantiated system objects: ListViewItem, TreeViewItem.
- Nonautoinstantiated object data types:
  NVOs (Class User Object) with their Autoinstantiate property unchecked;
  Visual controls (user-defined visual controls and system controls)
  Nonautoinstantiated system objects, including: Application, DataStore, DataWindowChild, DynamicStagingArea, MDIClient, Menu, Message, Transaction Object, Window.
- PowerObject classes:
  The supported PowerObject classes include DragObject, DWObject, GraphicObject, PowerObject, and WindowObject.
  Note: In the Web application, because the declaration of a PowerObject does not specify the object type, the initial value of the variable is NULL. Therefore, when the IsValid function is executed, IsValid returns NULL.

Unsupported

- Among all the supported system objects and system controls, if the data type is a non-global Transaction Object, the data type is not supported.
- If the data type is an unsupported system object or system control, it is unsupported.
- Do not refer to a DataWindow object by using global functions or instance variables. Otherwise the executing result will has error on the Web.

Enumerated data types

APPEON

Supported

All system-defined enumerated data types and values are supported, unless the enumerated data type belongs to an unsupported feature.

Unsupported

Enumerated data types have predefined sets of values. Most of the PowerBuilder enumerated data types have default values. Using the default values of enumerated data types is unsupported.

Forced conversion between data types

APPEON

Supported

1. Forced conversion between string and char data type:
   - Assigning strings to char arrays
   - Assigning char arrays to strings
   - When a string literal is assigned to a char variable, the first character of the string literal is assigned to the variable. For example:
     ```
     char c = "xyz" //results in the character x being assigned to the char variable c.
     ```
   - Special characters (such as new line, form feed, octal, hex, etc.) can be assigned to char variables using string conversion. For example:
     ```
     char c = "~n"
     ```
   - A char variable assigned to a string variable results in a one-character string.
   - Expressions using both strings and char arrays promote the chars to strings before evaluation. For example:
     ```
     char c
     if (c = "x") then
     // promotes the contents of c to a string before comparison with the string "x"
     ```
   - Using chars in PowerScript functions. All PowerScript functions that take strings also take chars, subject to the above described conversion rules.

2. Forced conversion between numeric data types:

- The order of precedence in PowerBuilder regarding numeric data types is supported. The following is the order of precedence from highest to lowest (based on the range of values for each data type):

  (High) Double >> Real >> Decimal >> UnsignedLong >> Long >> UnsignedInteger >> Integer (Low)

- If operands in an expression have different data types, the value whose type has lower precedence is converted to the data type with higher precedence. For example:

```
int x; x=2.4
PowerScript result: the value of x is actually 2, because x is defined as an integer. PowerBuilder will cut the digit after the decimal point, then assign 2 to x.
```

- Unsigned type has precedence over signed. So if one operand is signed and the other is unsigned, both are promoted to the unsigned version of the higher type. For example, if one operator is a Long and another an UnsignedInteger, both are promoted to UnsignedLong.
- Transform other numeric data types recessive to integer or int data. A force conversion from other numeric data to int/long data will arrive at the same value in PowerScript and JavaScript.

Unsupported

- In PowerBuilder, when Time data type is automatically converted into DateTime, the date is always 1900-01-01. Thus, the DataWindow always gets a value of DateTime type: Retrieve (1900-01-01 xx:xx:xx). However, if connected to a JDBC SQL Server, the default date is the current day. In other words, DataWindow gets Retrieve(today xx:xx:xx) when Time data type is automatically converted into DateTime.

Difference

When assigning a numeric number to an Any data, a forced conversion from Any to Integer may arrive at different values in PowerBuilder and on the Web. For example,

Integer li_value

any la_value = 3.5

```
li_value = Integer(la_value) // li_value will be 3 on the Web and 4 in PowerBuilder.
```

Declarations

Variables and constants

Arrays

External functions

Variables and constants

Variable scope	**Supported** Global, local and instance Unsupported Shared
Variable declaration syntax	Supported datatype { { size } } { { precision } } variablename { = value } {, variablename2 { = value2 } } The datatype can be any standard type and system object type. Declaring multiple variables of the same type at one time is supported. For example: integer li_a=5, li_b=10. Naming variables with Non-English characters or numbers. Unsupported When a global decimal variable is declared, or a decimal constant is used to declare a variable, the specification of precision for the global decimal or the decimal constant will be ignored. A variable having the same name as a global variable is or a global function is unsupported. A global variable cannot have the same name as a control in a window. For example, if there is a GroupBox control named as gb_1, the following syntax is unsupported: Global Boolean gb_1. Placing a cursor or stored procedure declaration in the declaration of instance variables is unsupported.
Global scope operator (::)	Unsupported Referring to a global variable by using the global scope operator (::) before the variable name is unsupported; (i.e. The syntax with "::globalname" is unsupported).
Constant type	Supported All of the standard data types
Constant declaration syntax	Supported CONSTANT datatype constname = value The constant can only be public. It is supported if the value is an expression. For example: constant date ld_date = today()
Access to Instance Variables	Unsupported When the instance variable is passed by reference to a script and before the execution of this script is finished, if the value of this instance variable is changed, Appeon cannot capture the changes.

	When the instance variable is defined in a custom class, it cannot be accessed directly using the class dot notation, for example, the following script will not work on Web: mle_Result.Text = n_cst_test.COMPANYNAME, n_cst_test is the name of the custom class and COMPANYNAME is its instance variable. But you can work it around by creating an object first and then using the object to access the instance variable.
Initial values of variables and constants	Supported When a variable or constant is declared, a default initial value is automatically assigned or an initial value can be specified in the declaration. The initial values of enumerated data types are converted to null in JavaScript. Except for the initial values of enumerated data types and the Any data type, the default initial values in PowerScript are supported. Unsupported There are different rules in PowerBuilder than in JavaScript if specifying an expression as an initial value: It is unsupported to use the instance constants of a non-instantiated object. With the syntax datatype variable = expression, in PowerBuilder, the expression's value is assigned to the variable when the script is compiled (not during execution). In JavaScript, the expression's value is set to the variable during execution. For example, if the declaration is the following: date d_date = Today( ) The value of d_date is the date when the script is compiled in PowerBuilder, and it is the date when the application is running in JavaScript. Therefore, making the declaration of a variable and assigning it with the initial value in separate PowerScript statements is recommended. For example: date d_date d_date = Today( )

Arrays

Declaration syntax
Initialization and assignment
Passing array as an argument

Declaration syntax

APPEON

Declaration Syntax

The declaration syntax for arrays is supported:

```
{ access } datatype variablename { d1, ..., dn } { = { valuelist } }
```

- The access is always PUBLIC.
- The datatype cannot be an unsupported data type (refer to the data type section). For decimals, you can specify the precision of the data by including an optional value in brackets after the datatype. For example, decimal {2} ld_prices[ ].
- Both variable-size arrays and fixed-size arrays are supported.

```
date ld_birthdays[ ]
string ls_array[10 ]
```

- Arrays with specified lower bound and upper bound are supported, even if the lower bound is a non-integer or a negative value. If the lower bound is not an integer, it will be rounded off.

```
string ls_name[-10 to 15]
```

- Both single-dimensional and multi-dimensional arrays are supported.

```
integer ls_array[10]
integer li_score[2,3]
```

- Using TO to change array index values is supported.

```
integer li_staff[100, 0 to 20, - 3 to 5]
```

- Multiple arrays of the same type can be declared simultaneously.

```
string ls_array1[10], ls_array2[5], ls_array3[100]
```

- Assigning an array to an array is unsupported if the array elements of Any data type. For example,

```
any la_1[3], la_2[4]
...
la_1[1] = la_2[4]          // Unsupported
```

Initialization and assignment

APPEON

Supported

- Each element of an array can be initialized to the same default value as its underlying data type. The default value for string data type elements is ""; the default value for numeric data type element is 0.

- The default length of variable-size arrays is 0, which means that the array does not have any elements. Initializing several elements of variable-size array is supported if the element after the several elements is assigned with a value. Example:
```
integer li_array []
li_array[8]=8            //The values of li_array[1], …, li_array
[7] are initialized to the default value 0
```
- Using arraylists to assign values to an array, or assign values to array elements separately, is supported. There can be expression(s) in the arraylist. The result will be the same as in PowerBuilder.
```
li_array[10] = {1,2,3,4,5}
li_array[3,2] = {1,2,3,4,5}
ld_date = {today(),relativedate(today(),1), 2002-12-31}
```
- Assigning one array to the another is supported. The result will be the same as in PowerBuilder.
  - Assigning a variable-size array to another variable-size array. Example:
```
integer li_test1[]={1,2,3,4,5}
integer li_test2[] ={10,20,21,22,23,24,25,26,27}
…..
```
    li_test2=li_test1
    If the array type is NVO, the assignment operation does not trigger the Constructor event.
  - Assigning a fixed-size array to another fixed-size array. It can be between one-dimensional arrays, or between one-dimensional array and a multi-dimensional array, or between multi-dimensional arrays. Example:
```
integer li_test0[10] ={21,22,23,24,25,26,27,28}
integer li_test1[5]={1,2,3,4,5}
integer li_test2[2,6] = {11,12,13,14,15,16,17,18}
integer li_test3[2,3,5] = {11,12,13,14,15,16,17,18}

li_test1=li_test0     //assign a one-dimensional array to
another one-dimensional array
li_test2=li_test1     //assign a one-dimensional array to a
multi-dimensional array
li_test1=li_test2     //assign a two-dimensional array to a
one-dimensional array
li_test3=li_test2     //assign a multi-dimensional array to
another multi-dimensional array
```
  - Assigning a variable-size array to a fixed-size array. Example:
```
integer li_test0[] ={21,22,23,24,25,26,27,28}
integer li_test1[10]={1,2,3,4,5}
li_test1=li_test0
```
  - Assigning a fixed-size array to a variable-size array. Example:
```
integer li_test1[10]={1,2,3,4,5}
integer li_test0[]
li_test0[30] = 100
li_test0=li_test1     //the element number of the li_test0
will be 10
```
- Reinitializing arrays with the following steps is supported:
  1. Declare a dummy array of the same type (never put any values into the array).
  2. Simply set originalarray = dummyarray.
  This will clear out the original array and cause UpperBound to return the correct value. The same rule applies to PowerBuilder.

- The index of an array can be an expression. Example:

```
for A = 1 to upperbound(ls_array)
ls_array[A,1] = ......
end for
ls_array[integer(ltvi_item.data)] =123
```

Unsupported

- Assigning values between instance variables of structure type is unsupported. For example, the following lines of code are unsupported:

  Str_a L1
  Str_b L2
  L1 = L2
- Assigning structure arrays to non-structure arrays is unsupported. For example, the following lines of codes are unsupported:

  str_dwstruct lst_dwstr[]
  powerobject po_ary[]
  po_ary = lst_dwstr // Unsupported

Passing arrays as arguments

APPEON

Passing a variable-size or fixed-size array as an argument is supported. For example:

```
uf_convertarray(a)      //integer a[]
uf_convertarray(a)      //integer a[10]
```

The following two syntaxes will get the same result for one-dimensional, multi-dimensional, or variable-size arrays:

```
li_upper = upperbound(ls_array)           // string ls_array[]
li_upper = upperbound(ls_array [])        // string ls_array[]
```

Complex arrays

APPEON

Complex arrays

- Structure arrays are supported. The declaration, initialization and assignment of structure arrays comply with the general rules for standard arrays.
- UserObject arrays are supported. Please refer to the User Object section for details.
- Nested arrays are supported.
- Enumerated type arrays are supported.

Unsupported

If arguments of a function are arrays, arguments and corresponding actual parameters cannot be of different dimensions.

External functions

Declare external functions

Supported

- Declaring and calling local external functions
- Declaring and calling global external functions
- Data types of external function arguments can be the following:

  Array, Boolean, Blob, Char, Date, DateTime, Double, Decimal, Integer, Long, Real, String, Structure, and Void

- Data types of external function return values can be the following:

  Array, Boolean, Blob, Char, Date, DateTime, Double, Decimal, Integer, Long, Real, String, Structure, Unsigned Integer, Unsigned Long, and Void

Operators & expressions

Supported operators and expressions

- Arithmetic operators for numeric data types: +, -, *, /, ^, ++, --, +=, -=, *=, /=, ^=
- Relational operators for all data types: =, >, <, <>, >=, <=, NOT, AND, OR
- The concatenation operator for String data types: +
- DataWindow expressions are supported
- The supported features of operators & expressions are related to null values and forced conversion.

Precedence of supported operators

These operators will follow the order of precedence listed in the table below:

Order	Operator	Purpose
1	( )	Grouping
2	+, -, NOT	Unary plus (indicates positive number), unary minus (indicates negative number), Negation

3	^	Exponentiation
4	*, /	Multiplication and division
5	+, -	Addition and subtraction; string concatenation
6	>, <, <=, >=	Relational operators
7	=,	Relational operators
8	AND	Logical and
9	OR	Logical or

Unsupported

Avoid data overflow in the application. If there is data overflow, the Web application handles the data differently from the PowerBuilder application.

Structures

APPEON

Definition and declaration of structures

APPEON

Definition and Declaration of Structures

Defining a structure in the Structure painter or an object painter is supported:

- If the structure is defined in the Structure painter, the structure is global structure, and instances of the structure can be declared in a script or in an object's instance variable.
- If the structure is defined in an object painter, the structure is an object structure, and instances of the structure can only be declared in the object's instance variables and script. An object structure can be defined in any of the following painters: Application, Window, Menu, Function or UserObject.

Declaring global or local instances for global structures is supported. Declaring instance and local instances for object structures is also supported. Several instances for a structure can be declared at one time.

Example: str_emp_data str_emp1, str_emp2

Declaring structure arrays is supported. The arrays can be single or multi-dimensional, variable-sized or fixed sized. The supported features for structure arrays are the same as the supported features for any other arrays. For example:

s_ employee lstr_temp[10]
s_ employee lstr_employee[]

If an object structure's name is identical to that of a global structure, the object structure has higher priority than the global structure (same as in PowerBuilder).

Referring to structure variables

APPEON

The following syntaxes are supported:

structurename.variable //referring to a structure variable by using dot notations
objectname.structurename.variable //referring to a variable of an object structure

For example:

```
str_emp1.emp_lname = "Jones"
This.str_cust1.name
w_customer.str_cust1.name
```

Initialization and assignment of structure variables

APPEON

Initialization and assignment

For each variable of a structure, the variable will be initialized with default values according to its data type. If it is a string type variable, the default value is ""; if it is numeric type variable, the default value is 0.

A structure instance can be assigned when it is declared or after it is declared. Example:

s_employee lstr_ouremployee1, lstr_outemployee2
s_employee lstr_youremployee = lstr_ouremployee1
lstr_youremployee = lstr_ouremployee2

As in PowerBuilder, when assigning one structure to another, the whole structure is copied so that there are two copies of the structure.

Passing structures as arguments

APPEON

Passing structures as arguments

Passing structures as arguments by value, by reference, or as read-only is supported.

Complex structures

APPEON

Complex structures

The following types of complex structures are supported:

- Structures which have one or more of their structure variables being referred to another structure.
- One or more structure variables which are autoinstantiated or non-autoinstantiated objects. Example:

```
s_employee lstr_employee[]            //the structure s_employee
is defined with a DataWindow type variable
long ll_employee
lstr_employee[1].adw_employee=w_employee.dw_1
ll_employee=lstr_employee[1].adw_employee.Retrieve()
```

- One or more structure variables which are arrays that have no unsupported features.

Unsupported

APPEON

- Cross-definition of structures. For example, structure A has a structure variable that is structure B, while structure B has a structure variable that is structure A.
- Inheritance of an object structure is unsupported; inheritance of an object structure instances is unsupported as well.
- If one or more member variables in the structure are unsupported data types, Appeon still supports the structure as long as unsupported variables are not used.
- If there are member variables of enumerated data type in the structure, the default values of the enumerated variables are unsupported.
- Comments of the structure are unsupported.

User objects

User objects

Important Requirements

- For standard class user objects:
  1. Standard class user objects can only inherit from the following non-visual system objects: DataStore, Transaction Object, DynamicStagingArea and OLEObject.
  2. Non-visual standard class user objects must be defined in a PowerBuilder painter. They can be dynamically created (for example, by using the CREATE statement).
  3. If a non-visual object is a local variable, the Destructor event in the non-visual object cannot be triggered unless there is a Destroy statement for the non-visual object as well.
- For custom class user objects:
  1. Non-visual custom class user objects must be defined in PowerBuilder painter. They can be dynamically created (for example, by using the CREATE statement).
  2. The specification of EAServer Project properties is unsupported.
  3. If a non-visual object is a local variable, the Destructor event in the non-visual object cannot be triggered unless there is a Destroy statement for the non-visual object as well.
- For standard and custom visual user objects:
  1. Must be defined in PowerBuilder painter.
  2. The SetFocus function is not supported for custom visual user objects, but is supported for standard visual user objects.
  3. Standard Visual Object is an extension of the visual system object (control), and it is used to customize the function of the visual system object (control). For more details, please refer to System Objects and System Controls.

Supported

- Custom class user objects
- Custom visual user objects
- Standard class user objects
- Standard visual user objects

Unsupported

1. External visual user objects
   In the PowerBuilder application, the Destructor event sequence for a user object will be triggered in accordance with the Control[] property of the user object. In the Web application, the Destructor event sequence is unsupported.
2. Nonvisual objects (Custom Class Objects and Standard Class Objects)
   To insert nonvisual object(s) between objects (window, user object, NVO, application),

you can select any items on the *Insert menu* | *Object menu* of the PowerBuilder painter. However, Appeon does not support this.

Autoinstantiated NVO

APPEON

- Declaring an autoinstantiated NVO

  1. Declaring an autoinstantiated user object creates an instance of that object (just like a structure), and the Constructor events are triggered for the instance variables.
  2. If an instance variable contains an autoinstantiated NVO(b) and the Constructor event is triggered for the instance variable, an instance of NVO (b) is automatically created, and the Constructor events are triggered for the instance variables of NVO(b).

- Assignment for autoinstantiated NVO

  1. When an autoinstantiated object is assigned to another autoinstantiated object, the whole object is copied to the second variable. For example:

     ```
     n_cst_string lnv_string1, lnv_string2
     lnv_string2 = lnv_string1          //lnv_string2 is a copy of lnv_string 1
     ```

  2. Assigning a NonVisualObject object to an autoinstantiated NVO or a NonVisualObject object is **unsupported** (please note that NonVisualObject is a system object and it is different from an NVO (non visual user object)). For example:

     ```
     NonVisualObject lnv_test       //lnv_test is a NonVisualObject object
     n_cst_string lnv_string        //n_cst_string is an autoinstantiated NVO
     lnv_test = lnv_string          //unsupported
     ```

- Defining autoinstantiated NVO

  The following can be included in the definition of an autoinstantiated NVO:

  1. Instance variable. The instance variable can be an autoinstantiated NVO, an object, or have the same name as a window instance variable
  2. System function or user defined function or object function
  3. Constructor event, or object event or user-defined event
  4. Using a Destructor event in the definition of an autoinstantiated NVO is unsupported.

- Autoinstantiated NVO array

  1. If the autoinstantiated NVO array is a fixed-size array and the array is declared, instances of each NVO are created, the instance variables of each NVO are instantiated, and the Constructor event is triggered for each instance variable.

Example:

n_cst_string lnv_string[10]

2. If the autoinstantiated NVO array is variable-size array, the NVO instances are not created when the array is declared. When an array element is named (an NVO), the instances of the element and the foregoing elements are created, the instance variables of each NVO are instantiated, and the Constructor event is triggered for each instance variable. Example:

   n_cst_string lnv_string[]
   lnv_string[10].is_source = ls_model

- Autoinstantiated NVO as a structure member

  When the structure is declared, an instance of the autoinstantiated NVO is created. When the structure is called, the Constructor event is not triggered for the NVO. In PowerBuilder, the Constructor event is triggered when the NVO is first used.

- Inheritance

  Inheritance is supported if the ancestor of an autoinstantiate NVO is a nonautoinstantiated NVO.

Nonautoinstantiated NVO

APPEON

- Declaring a non-autoinstantiated NVO
  1. Declaring a non-autoinstantiated user object does not create an object instance until there is a CREATE statement. Declaring an object variable declares an object reference. Example:

     n_base lnv_base //n_ base is a nonautoinstantiated NVO

     lnv_base = Create n_base //Create an instance of n_base

  2. When the object instance is created, the instance variables of the NVO are instantiated, and the Constructor event is triggered for each instance variable.
  3. Instantiating an ancestor variable with an instance of one of its descendants is supported. Example:

     n_base lnv_base //n_ base is a nonautoinstantiated NVO

     lnv_base = Create using "n_cst_sqlspy" //n_cst_sqlspy is a descendant of n_base

- Assignment for nonautoinstantiated NVO
  1. When a non-autoinstantiated object is assigned to another non-autoinstantiated

object, a reference to the object instance is copied. Only one copy of the object exists. For example:

```
n_cst_string lnv_string1, lnv_string2
lnv_string2 = lnv_string1        //Both point to same object instance
```

2. Unlike autoinstantiated NVOs, assigning a NonVisualObject object to a non-autoinstantiated NVO or assign a non-autoinstantiated NVO to a NonVisualObject object is **supported**. For example:

```
NonVisualObject lnv_test      //lnv_test is a NonVisualObject object
n_cst_string lnv_string2      //n_cst_string is a non-autoinstantiated NVO
lnv_test = lnv_string2        //supported
```

- Defining non-autoinstantiated NVOs

  The following can be included in the definition of a non-autoinstantiated NVO:

  1. Instance variables. An instance variable can be an autoinstantiated NVO, an object, or have the same name as a window instance variable
  2. System, user defined, or object functions
  3. Constructor, Destructor, object, and user-defined events. The Destructor event cannot be triggered unless there is a Destroy statement for the object as well.

- Non-autoinstantiated NVO array

  There can be fixed-size or variable size non-autoinstantiated NVO arrays. When the array is declared, an instance of the object is not created. A non-autoinstantiated NVO will only be created when there is a CREATE statement for the NVO.

- Non-autoinstantiated NVO as a structure member

  1. Defining a non-autoinstantiated NVO in a structure is supported. Example:

```
global type str_model from structure
string s_emplid
Date ld_inputday
n_cst_base lnv_base
end type
```

  2. When the structure is declared, an instance of the non-autoinstantiated NVO is not created. A non-autoinstantiated NVO will only be created when there is a CREATE statement for the NVO.

Calling functions and events

APPEON

Syntax for calling functions and events

APPEON

Supported

- The syntax used to call all PowerBuilder functions and events:

  {objectname.} {type} {calltype} {when} name ({ argumentlist })
  If the *calltype* argument is DYNAMIC, it is unsupported to specify a reference argument in the *argumentlist*.
- The syntax used to call functions and events in an object's ancestor:

```
{objectname.} ancestorclass ::{ type } { when } name
( { argumentlist } )
```

- If the function name is not qualified with an object or a control, PowerBuilder searches for the function and executes the first one it finds that matches the name and arguments. This is supported in Appeon.

Unsupported

- Referring to a global function by using the global scope operator (::) before the function name is unsupported.

Triggering & Posting

APPEON

Triggering	**Supported** • Triggering for functions • Triggering for events Unsupported

	For application and message objects, triggering for functions and events are unsupported.

Posting	**Supported**
	• Posting for functions
	• Posting for events
	• Posting function B that is called inside function A. For example:
	`Function A ()`
	{
	.....
	Post Function B () //unsupported to post function B
	.....
	}
	Unsupported
	Posting a function containing reference arguments, which is a local variable is unsupported. Please use the instance variable to replace the local variable to work around this unsupported feature.

Post function	Supported
	There are three POST syntax supported, and two of them are supported with limitations.
	• Post Close(window)
	• Post Open(window)
	Limitations: the window argument cannot be an array variable. For example:
	//Unsupported
	window winname[2]
	.....
	Post open(winname[1],....)
	- Post open(windowvariable)
	• Post user_function()
	Limitations: The reference argument cannot be a local variable. For example:
	//Unsupported
	Integer gf_string (ref string as_parm1)
	Post gf_String(ls_Parm) // ls_parm is a local variable.

Static & dynamic calls

Supported

- Static calls to functions
- Static calls to events
- Dynamic calls to functions
- Dynamic calls to events

Unsupported

- Dynamic calling for overloaded functions is unsupported.
- Dynamically calling a function that has an argument passed by reference is unsupported .
- If a function is dynamically called, its return value cannot be passed as an argument of another function.
- Nested call of more than one layer dynamic code is unsupported, for example, ll_row2 = invo_test.dynamic of_dynamic1(invo_test.dynamic of_dynamic2(ll_row)).

  The workaround is to execute the dynamic nested call separately. The above example should be modified as below:

tt = invo_test.dynamic of_dynamic2(ll_row)

ll_row2 = invo_test.dynamic of_dynamic1(tt);

Overloading, overriding, and extending functions and events

Supported

- Function overriding is supported.
- Extending and overriding events are supported.

Unsupported

- Overloading system functions is unsupported.
- Dynamic calling for overloaded functions is unsupported.
- Overloading a function that has a dot notation as an argument is unsupported. For example, overloading the following function is unsupported:

  wf_getname(dw_1.object.s_id[1])

- Using the local variable AncestorReturnValue in an event of a descendent object is unsupported, unless the event of the descendent object is an extended event from the ancestor object.
- The following scenario is unsupported:

  In object A (parent object), function g() calls function f(type1 arg 1).

```
g()
{
f(type1 arg1);
}
```

In object B (child object), function f(type2 arg2) is the overloading function of function f (type1 arg 1), and object B inherits function g() from object A.

Passing arguments to functions and events

APPEON

Passing arguments

There are three ways to pass arguments to functions and events:

- By value
- By reference
- Read-only

Arguments can be passed with one **limitation** that each function or event can have a maximum of 20 arguments. If the number of arguments exceeds 20, the arguments after the 20th argument will be invalid.

Unsupported

- If both function A and function B have an argument passed by reference,calling function A that has one argument calling to function B, while the argument (that is passed by reference) in the two functions uses the same variable, is unsupported. example
- Function A has two arguments passed by reference. It is unsupported for the two arguments to use the same variable. example
- Passing a property dot notation as the function argument is unsupported if the property refers to an object, however, this can be worked around.example
- Passing an argument that is an object property by reference is unsupported. example

Using return values of functions and events

APPEON

Supported

To use the return value, assign it to a variable of the appropriate data type or call the function where you can use a value of that data type:

- Return values for built-in PowerScript functions
- User-defined functions or events that have return values
- Return values for system events
- User-defined events that have return values
- The function has parameters of standard data type passed by reference and the return value is used as a condition in RETURN, IF ... THEN, CHOOSE...ASE, or DO ... LOOP statements. example
- The function has parameters of object data type passed by value and the return value is used as a condition in RETURN, IF ... THEN, CHOOSE...ASE, or DO ... LOOP

statements.
- The return value of one function is used as the parameter of another function, for example, func1(func2()).

To use cascaded call and return values:

- It is supported to get/set the property of an object that is the return value of a function:
  Syntax: function.property
  For example: ParentWindow( ).Enabled = TRUE
- It is supported to call the function of an object that is the return value of a function.
  Syntax: function1.function2
  For example: ParentWindow( ).Hide( )
  Ls_test = String(m_main.GetParent( ).ClassName( ))

Limitations of using cascaded call and return values:

- It is unsupported to use the DYNAMIC keyword
- Except the first call in the chain of cascaded calls, it is unsupported to use reference arguments.

Document Interface

APPEON

Important Requirements

The following are limitations for using MDI and SDI:

- When a sheet window is open within MDI, the toolbar of the sheet window will be added as a whole new row below the toolbar of the MDI window. (This is more limited than in PowerBuilder, where you can choose for the sheet toolbar to be added after the MDI toolbar, on the left/right of the screen, to be floating, etc.)
- SDI can have only one menu and one toolbar.

Supported

- Both MDI and SDI are supported, and both multiple MDI windows and multiple MDI frames are supported.
- An MDI window can have its menu and toolbar, and every sheet window can have its own menu and toolbar, exactly like in PowerBuilder.
- When a sheet window is opened within MDI, the menu of the sheet window will replace the menu of the MDI window. (This is called a menu switch, just as it is in PowerBuilder).
- Appending the names of open sheets (Window list) to a menu item is supported.

PowerScript statements

APPEON

Supported

The following table shows the supported PowerScript statements with examples:

Statement	Examples
Assignment	a = b + 2 Note: There must not be any space between the following operators: ++, --, +=, -=, *=, /=, ^=.
CALL	CALL ancestorobject {controlname}::event Call super:: *eventname* Example: `Call super::clicked` Note: It is supported to use the local variable AncestorReturnValue in an event of a descendent object, if the AncestorReturnValue is generated in a Call Super statement. Call windowname:: eventname Example: `Call w_parent::ue_ok` Call windowname`Controlname:: eventname Example:`Call w_parent`dw_1::ue_retrieve`
CHOOSE...CASE	CHOOSE CASE testexpression CASE expressionlist statementblock { CASE expressionlist statementblock . . . CASE expressionlist statementblock } CASE ELSE statementblock } END CHOOSE Notes: Expressionlist can be one of the following expressions: 1). A single value 2). A list of values separated by commas (such as 2, 4, 6, 8) 3). A TO clause (such as 1 TO 30) 4). IS followed by a relational operator and comparison value (such as IS>5) 5). Functions 6). Any combination of the above with an implied OR between expressions (such as 1, 3, 5, 7, 9, 27 TO 33, IS >42)
CONTINUE	integer A=1, B=1 DO WHILE A < 10 A ++ IF A < 3 THEN CONTINUE B+=A LOOP

CREATE	CREATE Support creating object instances for all objects except for PowerObject object, GraphicObject object, WindowObject object, DragObject object, DrawObject object, Function_object object and SystemFunctions object. CREATE USING Support dynamically creating object instances except for: 1). Dynamically creating PowerObject object, GraphicObject object, WindowObject object, DragObject object, DrawObject object, Function_object object and SystemFunctions object. Example: `UserObject luo_1` `luo_1 = create using "PowerObject"` 2). Dynamically creating Transaction object. Example: `lds_main = Create using "Transaction"` 3). Dynamically creating object instances for nested objects. Example: `w_main`cb_1 lcb` `lcb = Create using "w_main`cb_ 1`

DESTROY	DESTROY DBTrans
	Supported:
	1. The Destroy statement in non-visual system objects (DataStore, DynamicStagingArea, and Transaction Object) and non_visual user objects is supported.
	Example:
	`Destroy lnv_string  // lnv_string = create n_cst_string`
	2. The Destroy statement in visual controls and visual user objects is supported.
	Example:
	`commandbutton lcb_1`
	`lcb_1 = create using "cb_2"`
	`Destroy lcb_1`
	
	Note: DESTROY statement is unnecessary for a Web application since an object variable will be automatically destroyed when the Web application exits.

DO...LOOP	Four formats of Do...Loop: Do...Until Do...While Loop...Until Loop...While DO UNTIL a > 15 a = (a + 1) * b LOOP

	Integer a = 1, b = 1
	DO WHILE a <= 15
	  a = (a + 1) * b
	LOOP
	
	Integer a = 1, b = 1
	DO
	  a = (a + 1) * b
	LOOP UNTIL a > 15
	
	Integer a = 1, b = 1
	DO
	  a = (a + 1) * b
	LOOP WHILE a <= 15
	
	Nesting of Do...Loop statement. Example:
	`Int li_array[100,50,200]`
	`FOR i = 1 to 100`
	`  FOR j = 1 to 50`
	`  FOR k = 1 to 200`
	`  ll_array[i,j,k]= i + j + k`
	`  NEXT`
	`  NEXT`
	`NEXT`
	
	Nesting of Do...Loop statement and For...Next statement. Example:
	`FOR ll_i = 5 to 25`
	`DO UNTIL ll_j > 15`
	`ll_j ++`
	`LOOP`
	`  ll_j = 1`
	`NEXT`

EXIT	DO WHILE a < 10 a ++ IF a > 3 THEN EXIT b += a LOOP

FOR…NEXT	Integer a=1
	Integer start, end, increment
	…
	For n=start TO end STEP increment
	a*=n
	Next
	
	1). End the FOR loop with the keywords END FOR instead of NEXT. Example:
	`FOR ll_i = 5 to 25`
	`ll_j = ll_j+10`
	`END FOR`

	2). Using a positive or negative variable for the step increment. Example:
	`FOR N = 5 TO 25 STEP 5`
	`A = A+10`
	`NEXT`
	
	3). Nesting of the For...Next statements or For ... Next statement with Do ... Loop statement. Example:
	`Int li_array[100,50,200]`
	`FOR i = 1 to 100`
	`  FOR j = 1 to 50`
	`  FOR k = 1 to 200`
	`  ll_array[i,j,k]= i + j + k`
	`  NEXT`
	`  NEXT`
	`NEXT`

HALT	IF sle_password.Text <> CorrectPassword THEN HALT CLOSE Notes: 1. There cannot be any code following the Halt statement. 2. The reserved word HALT is supported. 3. If HATL CLOSE statement is invoked in a nested call, Web application won't be closed immediately at the execution of the statement. Instead Web application will be closed when the nest call is completed executed.

IF...THEN	IF num >= 1 THEN result = 1 ELSE result = 0
	
	IF num >= 1 THEN
	  result = 1
	ELSEIF num <= -1 THEN
	  result = -1
	ELSE
	  result = 0
	END IF

RETURN	RETURN 0

Unsupported

- The following statements are unsupported:

GOTO	THROW	THROWS	TRY...CATCH...FINALLY...END TRY

Using PowerBuilder Source Editor

A script that is manually added in the Edit Source window will not be converted to the Web. For example, the following script that follows "on w_1.create"; in the Edit Source window will have no effect: Messagebox ("Welcome","Welcome to Appeon!").

For a descendant object, it is unsupported to declare the event of its ancestor object in the Edit Source window.

Database server and data types

APPEON

Supported

The supported database servers and data types are listed in the table below:

MS SQL Server	Supported		
	binary*	bit	bigint
	char	datetime	decimal
	float	int	image*
	money	nchar	numeric
	ntext	nvarchar	real
	small datetime	small money	smallint
	sql_variant	text	tinyint
	timestamp	unique identifier	varbinary *
	varchar		
	You can only use the default value for the user_quoted_identifier property.		
	Unsupported		
	The data types that are marked with a "*" symbol can only be used in SELECTBLOB and UPDATEBLOB SQL statements.		
	binary & varbinary		
	On the Web, the data length of the two types can exceed 255 digits. Digits that exceed 255 can either be read from or updated to the database by SELECTBLOB or UPDATEBLOB statement.		
Sybase ASE Server	Supported		
	binary	bit	char
	date	datetime	decimal
	float	Image	int
	money	nchar	nvarchar

	numeric	real	smalldatetime
	smallint	smallmoney	text
	timestamp	tinyint	varbinary
	varchar		
	Unsupported		
	In a column, data of timestamp type cannot be displayed correctly.		
	Timestamp data type is unsupported when dynamically creating DataWindows.		
Sybase ASA Server	Supported		
	binary*	bit	bigint
	char	date	decimal
	double	float	integer
	long_binary*	long_varchar	money
	numeric	smallint	smallmoney
	time	timestamp	tinyint
	unsigned_bigint	unsigned_int	unsigned_smallint
	varbinary*	varchar	
	Unsupported		
	The data types that are marked with a "*" symbol can only be used in SELECTBLOB and UPDATEBLOB SQL statements.		
Oracle Server	Supported		
	blob *	char	character
	clob*	date	dec
	decimal	float	integer
	interval_day_to_second	interval_year_to_month	long
	nchar	nvarchar2	number
	numeric	raw*	real
	ref cursor	rowid*	timestamp
	timestampwithtimezone	timestampwithlocaltimezone	urowid*
	varchar	varchar2	
	Unsupported		
	The data types that are marked with a "*" symbol can only be used in SELECTBLOB and UPDATEBLOB SQL statements.		
IBM DB2 Server	Supported		
	bigint	blob*	char

	clob*	date	dbclob*
	decimal	double	graphic
	integer	real	smallint
	time	timestamp	varchar
	vargraphic		
	Unsupported		
	The data types that are marked with a "*" symbol can only be used in SELECTBLOB and UPDATEBLOB SQL statements.		
	Use Double variables instead of Real variables when obtaining float data from the database.		
Sybase IQ	Supported		
	bigint	binary*	blob*
	char	clob	date
	datetime	decimal	float
	hs_blockmapidentity*	hs_vdoidentity*	hs_vdorecid*
	image	int	long_binary*
	long_varchar	money	numeric
	oldbit	real	rowid
	smalldatetime	smallint	sysname
	time	timestamp	text
	tinyint	uniqueidentifier*	uniqueidentifierstr
	unsigned bigint	unsigned int	unsigned smallint
	varbinary*	varchar	xact_id
	xml		
	Unsupported		
	The data types that are marked with a "*" symbol can only be used in SELECTBLOB and UPDATEBLOB SQL statements.		
Informix	Supported		
	blob*	boolean	byte*
	char	clob*	date
	datetime	decimal	float
	int8	integer	interval
	lvarchar	money	nchar
	nvarchar	real	serial
	serial8	smallint	text

time	varchar

Unsupported

The data types that are marked with a "*" symbol can only be used in SELECTBLOB and UPDATEBLOB SQL statements.

(* .NET only) The NumericScale attribute is unsupported. Note: .NET is not available in Sybase distribution. For differences of distributions, refer to Distributions in Getting Started.

Operators

APPEON

Supported

The following are the SQL operators that can be used:

=	<	>	<=	>=	<>	between	exists
in	like	not between	not exists	not in	not like	is	is not
=all	!=all	<all	>all	<=all	>=all	=any	!=any
<any	>any	<=any	>=any	!=any	|	~	

Note: Concatenation operator (+) for String datatype is supported.

Unsupported

"^" is unsupported.

Transaction management statements

APPEON

Supported

Statement		Examples
COMMIT		Commit

CONNECT		Connect
DISCONNECT		Disconnect
RollBack		Rollback
Savepoint *		Note: this statement only supported in Oracle database.

Non-cursor statements

Requirements

1. For SQL Server database, Appeon Server cannot recognize SQL statements with double quotation marks if the SET QUOTED_IDENTIFIER is OFF.
2. For SQL Server and ASE database with JDBC driver, use "SET NOCOUNT ON" before the calls to SQL statements when you create a trigger object. Otherwise, update to the database on the Web may fail with an error “Failed to update database due to java.sql.SQLException… cannot insert the value NULL…” .
3. In SQL statements, if table names and column names are in double quotation mark, string constant should be quoted as single quotation marks.

Supported

Appeon currently supports six types of non-cursor SQL statements:

DELETE	INSERT	SELECT
SELECTBLOB	UPDATE	UPDATEBLOB

The following table provides more information for supported non-cursor SQL statements:

Type	Supported	Details

SELECT	Retrieval list (SELECT clause)	The retrieval list can be column names, IDs, or aliases. The column names can be expressed as characters (for example, "empid") or as dot notation (for example, emp.empid). Example:
		`select s_emplid, s_emplname //Column names`
		`select e.emp_lname //Table aliases`
		`select s_emplid + s_emplname as emplinfo //Column (expression) aliases`
		The retrieval list can be expressions that are functions, sub queries, arithmetic operators or any combination of columns, constants, and expressions. Example:

```
select s_emplid + s_emplname as
emplinfo //Concatenation of strings
select substring(s_emplid + s_emplname,1,3)
as emplinfo,getdate() //Function expression
select f_salary / 12 as
f_persalary //Operation expression
```

The retrieval list can be an asterisk that represents all columns in one table.
Example:

select * //Asterisk symbol representing all columns

Web Ehancement:It is supported to use variable in the Select statement. For example, the following syntax is supported on the Web:

```
string ls_colname="emp_name"
string ls_value
select :ls_colname into:ls_value from
t_employee where id = 1;
```

FROM clause — The FROM clause can contain a single table (view) or multiple tables (views). The table can be expressed using table name or table alias. Example:

```
from Employee, viewbonus
```

from Employee a, viewbonus b

The tables can be locked or unlocked.

WHERE clause — The WHERE clause can contain any of the following:

- Retrieval parameters
- Standard comparison operators (=, >, <, <>, >=, <=)
- Standard logical operators (NOT, AND, OR)
- Special operators (UNION, BETWEEN, IN, LIKE, IS NULL)
- Join conditions
- Special characters ('&','~','[]', '!~~!', '```', '!~@~~~~!', etc.)

HAVING clause — *Supported*

GROUP BY clause — *Supported*

COMPUTED clause — *Supported*

FOR UPDATE clause — *Supported*

Variables list (INTO statement) — The Variables list can be variable(s) or reference(s) to a control property. Example:

```
into: ls_emplid
into: sle_1.Text
```

Example — SELECT f1, f2, ..., fn into :v1, :v2, ..., :vn

		FROM table WHERE w1 = :p1 and w2 = :p2.prop and/or ... and/or wn = :pn
SELECTBLOB	SELECTBLOB INTO clause	*Supported* On the Web, if the result set of SELECTBLOB contains several rows, the first row is returned and the return value of SQLNRows is 1 for every supported DBMS. This is different from PowerBuilder. SelectBlob statement may return “” (empty string) on the Web when it returns NULL in PowerBuilder. The difference is caused by the JDBC driver.
	FROM clause	Supported
	WHERE clause	Supported
	Example	Blob Emp_id_pic SELECTBLOB Emp_pic INTO :Emp_id_pic FROM Employee WHERE Employee.Emp_Num = 100 USING Emp_tran ; p_1.SetPicture(Emp_id_pic)
INSERT	INSERT INTO clause	The INSERT INTO clause can be either table (view) name (s) or a column list.
	VALUES clause	The VALUES clause can contain any of the following: • All supported data types in allowed scope • Space, special characters (‘<>‘, ‘!’, ‘@’, ‘#’, ‘$’, ‘%’, ‘^’, ‘&’, ‘*’) • Initial value, a single record, multiple records (up to 500)
	Validation	The validation will be automatically done by the system.
	Example	INSERT INTO table VALUES(“v1”, 12.3, :p1, :p2, …, :pn)
UPDATE	SET clause	The SET clause can update a single record or multiple records (up to 200). It can contain special characters including '<>', '!', '@', '#', '$', '%', '^', '&', '*'.

	Example	`UPDATE table`
		`SET f1 = :p1, f2 = :p2`
		`WHERE w1 = :p3 and/or … wn = :pn`

UPDATEBLOB	WHERE clause	*Supported* If data is updated by UPDATEBLOB statements without a WHERE clause, on the Web all the data will be updated to the database, and the return value of SQLNRows is equal to the number of rows that you have updated. On the Web, the *BlobVariable* could be NULL.

	Example	`UPDATEBLOB Employee SET emp_pic = :Emp_id_pic WHERE Emp_num = 100 USING Emp_tran ;`
DELETE	DELETE FROM clause	The FROM clause can contain a single table (view) or multiple tables (views). The table can be expressed using a table name or table alias. The DELETE statement can delete a single record or multiple records.
	WHERE clause	The WHERE clause can contain any of the following: • Retrieval parameters • Standard comparison operators (=, >, <, <>, >=, <=) • Standard logical operators (NOT, AND, OR) • Special operators (UNION, BETWEEN, IN, LIKE, IS NULL) • Join conditions • Special characters (‘&’,’~’,’[]’, ‘!~~!’, ‘```’, ‘!~@~~~~!’, etc.)
	Example	`DELETE FROM table WHERE f1 = '1' and f2 = :p1 ... fn = :pn`

Unsupported

- Updateblob statements cannot update multiple blob columns at one time.
- It is unsupported to parenthesize SELECT statements when using EXCEPT ALL or INTERSECT in SQL statements for DB2 database. For example:

  (SELECT DEP_ID FROM PUB_T_DEPARTMENT) EXCEPT ALL (SELECT DEP_ID FROM PUB_T_EMPLOYEE)
  (SELECT DEP_ID FROM PUB_T_DEPARTMENT) INTERSECT (SELECT DEP_ID FROM PUB_T_EMPLOYEE) //Unsupported

  SELECT DEP_ID FROM PUB_T_DEPARTMENT EXCEPT ALL SELECT DEP_ID FROM PUB_T_EMPLOYEE
  SELECT DEP_ID FROM PUB_T_DEPARTMENT INTERSECT SELECT DEP_ID FROM PUB_T_EMPLOYEE //Supported
- If the database is Sybase ASE or SQL Server, SQL statements can contain column name(s) enclosed in double quotes (same as in PowerBuilder). If the database is not Sybase ASE or SQL Server, SQL statements cannot contain column name(s) enclosed in double quotes (same as in PowerBuilder).
- Using a COMPUTE BY clause in the SELECT statement is unsupported if an application uses a JDBC driver.

Cursor statements

Supported

- The following statements for retrieving and updating cursors are supported:

CLOSE	DECLARE	DELETE	FETCH
FETCH FIRST	FETCH LAST	FETCH NEXT	FETCH PRIOR
OPEN	UPDATE		

- Local cursors are supported.
- Global and instance cursors are supported.

Unsupported

- The Cursor SQL statement UPDATE Where Current is unsupported.

```
Syntax:
UPDATE TableName SetStatement WHERE CURRENT OF CursorName;
```

- The Cursor SQL Statement DELETE Where Current is unsupported.

```
Syntax:
DELETE FROM TableName WHERE CURRENT OF CursorName;
```

- If a cursor is declared for retrieving rows from a table, modifying (inserting, deleting, or updating) the table during the cursor open close period is unsupported . Otherwise, the data retrieved is different on the Web than in the PowerBuilder application. example
- Placing the cursor declaration syntax in a statement block that may not be executed at runtime is unsupported. In PowerBuilder, cursor declaration syntax is treated the same way as variable declaration, so the syntax will not be skipped although the statement block is not executed. However, in the Web application, the syntax may be skipped and cause errors. example

Database stored procedures

SQL statements	**Supported**	
	Statements	Examples
	DECLARE	DECLARE lproc_1 PROCEDURE FOR StoreProcedure @f1 = :p1 IN, @f2 = :p2 OUT, ... @fn = :pn USING trans_obj;
	EXECUTE	EXECUTE lproc_1;
	FETCH	FETCH lproc_1 INTO :v1, :v2, :v3, ...;
	FETCH FIRST	FETCH FIRST lcur_1 INTO :v1, :v2, :v3,

		...;
	FETCH LAST	FETCH LAST lcur_1 INTO :v1, :v2, :v3, ...;
	FETCH NEXT	FETCH NEXT lcur_1 INTO :v1, :v2, :v3, ...;
	FETCH PRIOR	FETCH PRIOR lcur_1 INTO :v1, :v2, :v3, ...;
	CLOSE	CLOSE lproc_1;

Notes

Input & output parameters are supported.

Return value for stored procedure is supported.

Declaration syntax

All Supported, Except That ...

Placing the stored procedure declaration syntax in a statement block that may not be executed at runtime is unsupported. In PowerBuilder, stored procedure declaration syntax is treated the same way as variable declaration, so the syntax will not be skipped although the statement block is not executed. However, in the Web application, the syntax may be skipped and cause errors. For example:

```
if li_length = 10 then
  DECLARE proc_empl PROCEDURE FOR dbo.java_debug_request
      debugger = a1,
      request = a2,
      out_request = a3 ;
...
End if
OPEN proc_empl;
FETCH proc_empl INTO :ls_emplid;
...
```

In a Web application with the above syntax, if the li_length is not 10, the cursor declaration syntax cannot be read, and errors occur.

Arguments of stored procedures

Supported

Input, output & inout parameters is supported. The data type of the parameters should match the corresponding data type in database when you declare an stored procedure.

Multiple result sets for a stored procedure.

Unsupported (for Oracle database)

Parameters can not have default values

Parameters can not be expressions..

User-defined data types

Unsupported

(.NET only) You can work around for SQL Server database with the

following instructions.

To use the user-defined data type of SQL Server for stored procedure, you need to take the following steps to modify the configuration file:

1. Open the configuration file named “user2systemdbtype.config” in the <AppeonServerRootDirectory>/appeon/AEM/config directory

2. Add data type mappings in the section named “sqlserver”. For example, if you have created a user-defined data type named “mydatetime” that is derived from the system data type “datetime”, you would need to set the value of the “userdefine-type” attribute to “mydatetime” and then set the value of the “system-type” attribute to “datetime” in the section named “datatype”. If you have more than one user-defined data type, you should add all of them to the configuration file, as shown in the example below.

```
<database name="sqlserver">
    <datatype userdefine-type="mydatetime" system-type="datetime" />
    <datatype userdefine-type="myvarchar" system-type="varchar" />
</database>
```

3. Restart IIS after you make changes to the configuration file.

Calling stored procedures

Supported

Appeon provides nearly full support for calling stored procedures, except for the following requirements and unsupported features.

Requirements (For Informix database)

The sequence of input parameters must stay the same as that in the Informix database. For example:

Create procedure ProcName(Variable1 int,Variable2 varchar(10), ...)

return varchar(10)

End procedure ProcName

Call ProcName(10,"Appeon", ...)

Unsupported

Using an expression as a parameter for calling to an Oracle stored procedure.

Using default values for parameters in an Oracle stored procedure.

Appeon does not support calling an ASA stored procedure with output arguments.

For all databases, Appeon does not support calling an overloading stored procedure.

(.NET only) If the parameter is null, dynamically calling stored procedure in the Informix is unsupported. Note: .NET is not available in Sybase distribution. For differences of distributions, refer to Distributions in Getting Started.

Dynamic SQL

APPEON

Supported

- Dynamic SQL Format 1: executing a SQL statement does not produce a result set and does not require input parameters. Example code:

```
EXECUTE IMMEDIATE :strSQL USING trans_obj;
/*Executing a SQL statement does not produce a result set
and does not require input parameters*/
```

  Notes:
  1. In EXECUTE IMMEDIATE SQL statement, if the number of fetched row(s) is 0, the SQLCODE in the transaction object is 0 in PowerBuilder while it is 100 in Appeon.
  2. Using the syntax EXECUTE IMMEDIATE "set transaction isolation level n" is unsupported.
  3. (.NET* only) Input parameters are unsupported.

- Dynamic SQL Format 2: executing a SQL statement that does not produce a result set but does require input parameters. Example code:

```
INT  emp_id = 56
String fname = "jack";
PREPARE sqlsa FROM "Delete From employee Where emp_id=? And
fname=?"
EXECUTE sqlsa USING :emp_id, :fname;
/*Executing a SQL statement that does not produce a result
set but does require input parameters*/
```

- Dynamic SQL Format 3: Use this format to execute a SQL statement that produces a result set in which the input parameters and result set columns are known at compile time. Example code:

```
DECLARE Cursor | Procedure DYNAMIC CURSOR | PROCEDURE
     FOR DynamicStagingArea ;
PREPARE DynamicStagingArea FROM SQLStatement {USING
TransactionObject} ;
OPEN DYNAMIC Cursor {USING ParameterList} ;
EXECUTE DYNAMIC Procedure {USING ParameterList} ;
FETCH Cursor | Procedure INTO HostVariableList ;
CLOSE Cursor | Procedure ;
/*Use this format to execute a SQL statement that produces a
```

```
result set in which the input parameters and result set
columns are known at compile time*/
```

Note: The default Transaction object name SQLCA is supported.

- Dynamic SQL Format 4: executing a SQL statement that produces a result set in which the number of input parameters, result set columns, or both, are unknown at compile time. Example code:

  DECLARE Cursor | Procedure DYNAMIC CURSOR | PROCEDURE

  FOR DynamicStagingArea ;

  PREPARE DynamicStagingArea FROM SQLStatement { USING TransactionObject} ;

  DESCRIBE DynamicStagingArea INTO DynamicDescriptionArea ;

  OPEN DYNAMIC Cursor | Procedure USING DESCRIPTOR DynamicDescriptionArea ;

  EXECUTE DYNAMIC Cursor | Procedure USING DESCRIPTOR DynamicDescriptionArea ;

  FETCH Cursor | Procedure USING DESCRIPTOR DynamicDescriptionArea ;

  CLOSE Cursor | Procedure ;

  / *Use this format to execute a SQL statement that produces a result set in which the input parameters and result set columns are unknown at compile time*/

  Notes:

  1. The default transaction object name SQLDA is supported.
  2. If you need a DynamicStagingArea variable other than SQLSA, you must declare it and instantiate it with the CREATE statement before using it.
  3. (.NET only) Because of the .NET driver for informix, Web application differs from PowerBuilder application in the following aspect:
     1. The Time data type will be returned as DateTime on the Web.
     2. The Money and Float data type will be returned as Decimal data type.
  4. In Appeon for PowerBuilder, when executing a dynamic embedded SQL in Dynamic SQL Format 4 (example code as shown below), ASE database cannot get the output parameters from the stored procedure.

This problem is caused by ASE database driver. If there are similar codes described below causing problems in ASE database, please turn to relevant technicians of Sybase for support.

```
String ls_execute_sql = 'begin transaction apb ' + '~r~n' +&
'declare @myparm numeric(4) ' + '~r~n' +&
'exec appeon_inout @parin = 4, @parout = @myparm output' + '~r~n' +&
'SELECT @myparm ' + '~r~n' +&
'commit transaction apb '
prepare sqlsa from :ls_execute_sql using sqlca;
describe sqlsa into sqlda;
DECLARE my_cursor DYNAMIC procedure FOR SQLSA ;
execute DYNAMIC my_cursor using descriptor sqlda ;
if sqlca.sqlcode < 0 then
messagebox('1',sqlca.sqlerrtext)
```

```
end if
FETCH my_cursor using descriptor sqlda ;
if sqlca.sqlcode < 0 then
            messagebox('2',sqlca.sqlerrtext)
else
ls_Value = String(SQLDA.GetDynamicNumber(1))
If IsNull(ls_Value) Then
ls_value = 'Null'
ElseIf ls_value = '' then
ls_value = "Empty string('')"
End If
messagebox('3',ls_Value)
end if
close my_cursor;
```

Difference

- Calling Fetch Prior when the cursor position is on the first row or calling Fetch Next when the cursor position is on the last row returns a different sqldbcode than in PowerBuilder and on the Web.
- It is suggested to use “colname is null” instead of “colname = null”.

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* Not available in Sybase distribution. For differences of distributions, refer to Distributions in Getting Started.

System functions

APPEON

Supported

The following are the categories with some or all of their functions supported:

Array Functions	Blob Function	Data Type Checking and Conversion Functions
Date, Day, and Time Functions	DDE Client Functions	File Functions
International Functions	Miscellaneous Functions	Numeric Functions
Print and Printer Functions	Registry Functions	String Functions
System and Environment Functions	Timing Functions	Window Functions

Unsupported

- The following are the unsupported system function categories that do not contain any supported individual functions:

Class Definition Functions	DDE Server Functions	Garbage Collection Functions
Help Functions	Library Functions	Shared Object Functions (SharedObject Functions)
Tracing Functions		

- Having a parent object dynamically call a system function that is overloaded by its child object is unsupported.

Array functions

APPEON

Function	Support Level	Coding Examples
LowerBound	Supported	Int b[-5 to 2,5],a[5],c[] li_lower = LowerBound(b,2) li_lower = LowerBound(b,1) li_lower = LowerBound(a) li_lower = LowerBound(a,1) li_lower = LowerBound(c)
UpperBound	Supported	Int b[-15 to -5,5],a[5],c[] li_upper = UpperBound(b,2) li_upper = UpperBound(b,1) li_upper = UpperBound(a) li_upper = UpperBound(a,1) li_upper = UpperBound(c)

Blob functions

APPEON

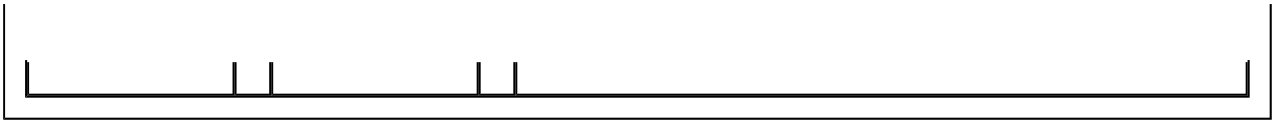
Function	Support	Coding Examples

		Level		
Blob		Supported		blob lb_data = blob("convert string to blob") string ls_data lb_data = blob(ls_data)
BlobEdit		Supported		ulong ll_var blob lb_data ll_var = BlobEdit(lb_data, 1, "String") ll_var = BlobEdit(lb_data, 3, 12345) ll_var = BlobEdit(lb_data, 9, 2004-12-03) ll_var = BlobEdit(lb_data, 1, blob("blob")) Note: The *data* argument cannot be Any data type.
BlobMid		Supported		blob lb_data,lb_subdata lb_subdata = BlobMid(lb_data,3) lb_subdata = BlobMid(lb_data,5)
Len		Supported		long ll_len blob lb_data,lb_subdata ll_len = len(lb_data) ll_len = len(lb_subdata)
Lenw		Supported		long ll_len blob lb_data,lb_subdata ll_len = LenW(lb_data) ll_len = LenW(lb_subdata)
String		Supported		blob lb_data,lb_subdata string ls_data ls_data = string(lb_data) ls_data = string(lb_subdata)

Byte functions

APPEON

Function		Support Level		Coding Examples
Byte		Supported		
GetByte		Supported		
SetByte		Supported		
GetByteArray		Supported		



Data type checking and conversion functions

Function	Support Level	Coding Examples
Asc	Supported	li_test = Asc('adfsd') li_test = Asc('~nern') li_test = Asc(ls_test) li_test = Asc(wf_getstring()) //wf_getstring() is a function that has a string return value
Char	Supported	ls_test1 = Char(65) ls_test1 = Char("~n~~djfksdl")

Dec	Supported	ldec_test = Dec("1.234567")
		//Return the string as a decimal
		ldec_test = Dec("1234567")
		ldec_test = Dec(dw_1.object.data[1,2])

Double	Supported	ldb_test = Double("78.7956") //Return the string as a double
Integer	Supported	li_test = Integer("93") //Return the string as an integer

Long	Supported	ll_test = long("99.88")
		//Return the string as a long
		ll_test = long (16119,26930)
		//Convert the two UnsignedIntegers into a long

Real	Supported	lr_test = Real ("88.56") //Return the string as a real

Date	Supported	ld_test = Date(ldt_test)
		//ldt-test is a datetime variable
		ld_test = Date(now())
		ld_test = Date(ls_test)
		//ls_test is a string variable
		ld_test = Date (2003, 4, 1)
		
		Note: if the argument contains an invalid date, Date returns NULL in PowerBuilder, whereas in the Web application, it returns an empty string (“”).

DateTime	Supported	ldt_test = Datetime(ld_test) ldt_test = Datetime(ld_test, lt_test) Note: After conversion, the microsecond portion in the *time* argument will be omitted.
IsDate	Supported	If IsDate("Jan 32, 1993") = TRUE Then... //Determines whether the string is a valid date
IsNull	Supported	Integer a, b... lb_value = isnull(a+b) //If the value of expression a+b is null, the lb_value is set as True; otherwise, False
IsNumber	Supported	If IsNumber("23.45") Then ... //Return True since the value of the string is a number Note: PowerBuilder does not support 1E123 (more than two digits after E). Functions such as IsNumber ("1E123") in PowerBuilder return FALSE, but after conversion, IsNumber returns TRUE.
IsTime	Supported	IsTime(timevalue) If IsTime("23: 11") Then ... //hh:mmIf

		IsTime("23: 11:33") Then ...
		//hh:mm:sslf
		IsTime("23: 11:33.123456") Then ...
		//hh:mm:ss.xxxxxx

String	Supported	String(*data* {, *format* })
		ls_test = string(1993-05-17, "mm/dd/yyyy")
		//Convert a date to string
		ls_test = string(07:12:28,"hh:mm:ss")
		//Convert a time to string
		ls_test = string(44.56, "$#,##0.00")
		//Convert a numeric to string
		ls_test = string("gf", "@*@")
		//Convert a string to formatted string
		Notes:
		1. String(data, format) cannot be used in DataWindow property expression.
		2. When a format is specified in the String function, make sure that the format is one of the supported types for EditMask. The string argument cannot contain special case conversion formats such as "!!!", "aaa"
		3. The format argument cannot be [currency].

Time	Supported	lt_test = time("23:00") Note: After conversion, the microsecond portion of the time will be omitted.
LongLong	Unsupported	

Date, Day and Time functions

APPEON

Function	Support Level	Coding Examples
Day	Supported	li_test = Day(2003-04-01) li_test = Day(ld_today) li_test = Day(today())
DayName	Supported	ls_test = DayName(2003-04-01) ls_test = DayName(ld_today) ls_test = DayName(today())
DayNumber	Supported	li_test = DayNumber(2003-04-01) li_test = DayNumber (ld_today) li_test = DayNumber (today())
DaysAfter	Supported	ll_test = DaysAfter(2003-04-01, 2003-04-01) ll_test = DaysAfter(ld_test1, today())
Hour	Supported	Hour(*time*) li_test = Hour(21:00:00) li_test = Hour(lt_test) li_test = Hour(Now())
Minute	Supported	li_test = Minute (21:00:00) li_test = Minute (lt_test) li_test = Minute (Now())

Month		Supported		li_test = Month (2003-04-01) li_test = Month (ld_today) li_test = Month (today())
Now		Supported		ldt_test = Now()
RelativeDate		Supported		ld_test = RelativeDate (2003-04-01, 27) ld_test = RelativeDate (ld_test1, li_after) ld_test = RelativeDate (today(), li_after)
RelativeTime		Supported		lt_test = RelativeTime (21:00:00, 60) lt_test = RelativeTime (ld_test1, li_after) lt_test = RelativeTime (now(), li_after)
Second		Supported		li_test = Second (21:00:00) li_test = Second (lt_test) li_test = Second (Now())
SecondsAfter		Supported		ll_test = SecondsAfter (21:00:00, 09:00:00) ll_test = SecondsAfter (lt_test1, now())
Today		Supported		ld_test = Today()
Year		Supported		li_test = Year (2003-04-01) li_test = Year (ld_today) li_test = Year (today())

DDE client functions and events

Function		Support Level		Coding Examples
CloseChannel		Supported		CloseChannel(handle, Handle(w_sheet))
ExecRemote		Supported		
GetDataDDE		Supported		string Str20 GetDataDDE(Str20)
GetDataDDEOrigin		Supported		string WhichAppl, WhatTopic, WhatLoc GetDataDDEOrigin(WhichAppl, WhatTopic, WhatLoc)
GetRemote		Supported		
OpenChannel		Supported		long handle handle = OpenChannel("Excel", "REGION.XLS") Note: It is recommended to determine whether the execution succeeds by its returning -1, -9 or a positive integer. Do not assume that it has failed

				because it returns a negative integer.
RespondRemote		Supported		IF GetDataDDE(Value) = 1 THEN RespondRemote(TRUE)
SetRemote		Supported		
StartHotLink		Supported		StartHotLink("Any", "MyPBApp", "Any")
StopHotLink		Supported		StopHotLink("Any", "MyPBApp", "Any")

Event		Support Level		Coding Examples
HotLinkAlarm		Unsupported		

File functions

APPEON

Important Requirements

On the Web, the reference of the relative path is the Desktop directory, however in PowerBuilder, the reference of relative path is the target application's current directory.

Function	Support Level	Coding Examples
ChangeDirectory	Supported	int li_return li_return = ChangeDirectory(sle_path.text)
CreateDirectory	Supported	int li_return li_return = CreateDirectory(sle_path.text)
DirectoryExists	Supported	if DirectoryExists(sle_path.text) then ls_tosting = "The directory exists!"
FileClose	Supported	li_return = FileClose(li_FileNum)
FileCopy	Supported	li_return = FileCopy(li_FileNum)
FileDelete	Supported	if FileDelete(sle_filename.text) then ls_tosting = "True:FileDelete "+sle_filename.text
FileEncoding	Unsupported	
FileExists	Supported	if FileExists(sle_filename.text) then ls_tosting = "The file exists!"
FileOpen	Supported	integer li_FileNum

		li_FileNum = FileOpen("D:\temp\new.txt", TextMode!, Write!,LockReadWrite!, Replace!, EncodingUTF8!)
FileLength	Supported	long ll_FileLen ll_FileLen = FileLength(sle_filename.text)
FileLength64	Unsupported	
FileMove	Supported	li_return = FileMove(sle_filename.text,sle_2.text)
FileRead	Supported	blob Emp_Id_Pic li_bytes = FileRead(li_FileNum, Emp_Id_Pic)
FileReadEx	Supported	blob Emp_Id_Pic li_bytes = FileReadEx(li_FileNum, Emp_Id_Pic)
FileSeek	Supported	ll_FileLen = FileSeek(li_FileNum, 14, FromCurrent!) FileSeek(li_FileNum, -14, FromEnd!)
FileSeek64	Unsupported	
FileWrite	Supported	blob Emp_Id_Pic FileWrite(li_FileNum, "New Employees") FileWrite(li_FileNum, emp_id_pic)
FileWriteEx	Supported	blob Emp_Id_Pic FileWriteEx(li_FileNum, "New Employees") FileWriteEx(li_FileNum, emp_id_pic)
GetCurrentDirectory	Supported	sle_1.text = GetCurrentDirectory() Note: GetCurrentDirectory returns full path name of Desktop on the Web, and it returns the full path name of the current directory in PowerBuilder.
GetFileOpenName	Supported	li_return = GetFileOpenName (sle_po.text, sle_path.text, ls_file[], "TXT", "Text Files (*.TXT),*.TXT, Doc Files (*.DOC),*.DOC") li_return = GetFileOpenName (sle_po.text, sle_path.text, sle_filename.text, "TXT", "Text Files (*.txt),*.txt" , sle_2.text)
GetFileSaveName	Supported	li_return = GetFileSaveName (sle_po.text, sle_path.text, ls_file[], "TXT", "Text Files (*.TXT),*.TXT, Doc Files (*.DOC),*.DOC") li_return = GetFileSaveName (sle_po.text, sle_path.text, sle_filename.text, "TXT", "Text Files (*.txt),*.txt" , sle_2.text)
GetFolder	Supported	li_return = GetFolder("Folder", sle_path.text)
RemoveDirectory	Supported	li_return = RemoveDirectory(sle_path.text)

International functions

Function	Support Level	Coding Examples
Reverse	Supported	ls_return = Reverse(ls_test)
IsAllArabic	Unsupported	
IsAllHebrew	Unsupported	
IsAnyArabic	Unsupported	
IsAnyHebrew	Unsupported	
IsArabic	Unsupported	
IsArabicAndNumbers	Unsupported	
IsHebrew	Unsupported	
IsHebrewAndNumbers	Unsupported	
FromAnsi	Unsupported	
FromUnicode	Unsupported	
ToAnsi	Unsupported	
ToUnicode	Unsupported	

Miscellaneous functions

APPEON

Function	Support Level	Coding Examples
Beep	Supported	Beep(5)
ChooseColor	Supported	li_color = ChooseColor(red, custom [ ])
ClassName	Supported	ls_classname = ClassName(li_array) Note: If the argument is a numeric data type, the function returns number.
DebugBreak	Supported	IF IsNull(auo_ext) THEN DebugBreak()
DraggedObject	Supported	DragObject poj_ctr poj_ctr = DraggedObject()
GetFolder	Supported	integer li_result li_result = GetFolder("my targets", ls_path)
IntHigh	Supported	li_high = IntHigh(ll_value)
IntLow	Supported	li_low = IntLow(ll_value)
IsValid	Supported	IF IsValid(w_emp) = FALSE THEN Open(w_emp)
KeyDown	Supported	KeyDown (keycode)

				Notes: 1. In an application deployed with Appeon celerator, the function returns TRUE only when the key is being pressed and FALSE if not. However, the KeyDown function returns TRUE once the key is pressed and FALSE if not. 2. The following enumerated Keycode value are unsupported: KeyApps, KeyLeftWindows, KeyNull, KeyPrintScreen, KeyRightWindows.
MessageBox		Supported		li_return = MessageBox ('Title1','Text1',Information!,OK!,1)
PixelsToUnits		Supported		li_return = PixelsToUnits(35, XPixelsToUnits!)
RGB		Supported		ll_color = RGB(255, 255, 255) The RGB value scope supported: 0~16777215 The custom color scope supported: 16777216~33554431 Note: If the color value is -2 or -1 (Transparent), the color display effect will be different in the Web from in the PowerBuilder application. If it is a color unsupported (the color value is less than -2), the color will be replaced with ButtonFace color.
SetNull		Supported		SetNull(ls_test)
SetPointer		Supported		SetPointer(Cross!)
Sleep		Supported		Sleep (5)
UnitsToPixels		Supported		li_return = UnitsToPixels(350, YUnitsToPixels!)
PopulateError		Unsupported		
SignalError		Unsupported		

Numeric functions

APPEON

Function		Support Level		Coding Examples
Abs		Supported		ldec_return = Abs(-15725.12) ldec_return = Abs(ai_num)
ASin		Supported		ldb_ return = ASin(.84147)

				ldb_ return = ASin(af_num)
ACos		Supported		ldb_ return = ACos(.84147) ldb_ return = ACos(af_num)
ATan		Supported		ldb_ return =Atan(.84147) ldb_ return = ATan(af_num)
Ceiling		Supported		li_ return = Ceiling(3558.5) li_ return = Ceiling(af_num)
Cos		Supported		ldb_ return = Cos(10586.3) ldb_ return = Cos(af_num)
Exp		Supported		ldb_ return = Exp(17438.15) ldb_ return = Exp(af_num)
Fact		Supported		ldb_ return = Fact(14) ldb_ return = Fact(af_num)
Int		Supported		li_ return = Int(8314.11) li_ return = Int(af_num)
Log		Supported		ldb_ return = Log(7628) ldb_ return = Log(af_num)
LogTen		Supported		ldb_ return = LogTen(30975.5) ldb_ return = LogTen(af_num)
Max		Supported		ldec_ return = Max(1019,21120) ldec_ return = Max(af_num,bf_num)
Min		Supported		ldec_ return = Min(1019,21120) ldec_ return = Min(af_num,bf_num)
Mod		Supported		ldec_ return = Mod(32526,8261.15) ldec_ return = Mod(af_num,bf_num)
Pi		Supported		ldb_ return = Pi(20852) ldb_ return = Pi(af_num)
Rand		Supported		ldec_ return = Rand(14888) ldec_ return = Rand(af_num)
Randomize		Supported		Randomize(0)
Round		Supported		ldec_ return = Round(6655.16973,3) ldec_ return = Round(af_num,b_num) Executing Round in SQL statements, decimals will be ignored on the Web.
Sign		Supported		li_ return = Sign(0) li_ return = Sign(-543534) li_ return = Sign(4563) li_ return = Sign(af_num)
Sin		Supported		ldb_ return = Sin(-751) ldb_ return = Sin(751) ldb_ return = Sin(af_num)
Sqrt		Supported		ldb_ return = Sqrt(740752012)

				ldb_ return = Sqrt(af_num)
Tan		Supported		ldb_ return = Tan(28713.4) ldb_ return = Tan(af_num)
Truncate		Supported		ldec_ return = Truncate(21133.24473,3) ldeci_ return = Truncate(af_num)

Print functions

APPEON

Function	Support Level	Example Code
Print	Supported	Print(Job, "Sybase Corporation", 5000) Note: You can call Print in DataWindow to workaround the PrintDataWindow function.
PrintBitmap	Supported	PrintBitmap(li_job, "d:\PB\BITMAP1.BMP", & 50,100, 0,0)
PrintCancel	Supported	PrintCancel(li_job)
PrintClose	Supported	PrintClose(li_job)
PrintDataWindow	Supported	PrintDataWindow(job, dw_EmpHeader)
PrintDefineFont	Supported	PrintDefineFont(li_job, 1, "Courier 10Cpi", -18, & 400, Default!, Decorative!, FALSE, FALSE) Note: Using user-defined fonts that cannot be supported by the system is unsupported.
PrintLine	Supported	PrintLine(li_job,0,5,7500,5,10)
PrintOpen	Supported	Ulong li_job = PrintOpen("Phone List")
PrintOval	Supported	PrintOval(li_job, 4000, 3000, 1000, 1000, 10)
PrintPage	Supported	PrintPage(li_job)
PrintRect	Supported	PrintRect(li_job, 4000,3000, 1000,1000, 125)
PrintRoundRect	Supported	PrintRoundRect(li_job, 1000,1000, 6250,9000, &300,300, 125)
PrintScreen	Supported	PrintScreen(li_job,500,1000,5000,5000)
PrintSetFont	Supported	PrintSetFont(li_job, 2)
PrintSetSpacing	Supported	PrintSetSpacing(li_job, 1.5)

PrintSetup	Supported	PrintSetup()
PrintText	Supported	PrintText(li_job,"PowerBuilder", 3700, 10,3)
PrintWidth	Supported	Int W = PrintWidth(li_job,"PowerBuilder")
PrintX	Supported	Int LocX = PrintX(li_job)
PrintY	Supported	Int LocY = PrintY(li_job)
PrintSend	Unsupported	Note: This function is obsolete for PowerBuilder, so Appeon does not support it either

Printer functions

Function	Support Level	Example Code
PrintGetPrinter	Supported	String ls_fullstring=PrintGetPrinter( )
PrintGetPrinters	Supported	String ls_prntrs = PrintGetPrinters ( )
PrintSetPrinter	Supported	String ls_setprn PrintSetPrinter (ls_setprn)
PrintSetupPrinter	Supported	PrintSetupPrinter ()

Registry functions

Function	Support Level	Coding Examples
RegistryDelete	Supported	RegistryDelete ("HKEY_LOCAL_MACHINE\Software\MyApp.Settings\Fonts", "
RegistryGet	Supported	RegistryGet("HKEY_USERS\MyApp.Settings\Fonts", "NameOfEntryNum", RegULong!, ul_num) Note:

		The ValueType argument: • can be RegString!, RegExpandString!, ReguLong!, ReguLongBigEndian!, or RegMultiString!. • cannot be RegMultiString! when implementing this functic the client. • cannot be RegBinary!, RegMultiString! or RegLink! when implementing this function on the server.
RegistryKeys	Supported	li_rtn = RegistryKeys("HKEY_CLASSES_ROOT\MyApp", & ls_subkeylist)
RegistrySet	Supported	RegistrySet("HKEY_USERS\MyApp.Settings\Fonts", "NameOfEntryNum", RegULong!, ul_num) Notes: 1). The ValueType argument: • can be RegString!, RegExpandString!, ReguLong!, ReguLongBigEndian!, or RegMultiString!. • cannot be RegMultiString! when implementing this functic the client. • cannot be RegBinary!, RegMultiString! or RegLink! when implementing this function on the server. 2). The ValueType argument must be used in the syntax.
RegistryValues	Supported	string ls_valuearray[] RegistryValues ("HKEY_LOCAL_MACHINE\Software\MyApp.Settings\Fonts", ls_valuearray)

When setting the value for a key and value name in the system registry, the value name will be converted into lowercase. Therefore, the functions are case insensitive.

Naming rules for the files, sections, registry keys used in the Registry and Profile functio

- Must start with an '_' (underscore), a '$' (dollar sign), or a letter.
- Can include any combination of characters, numbers, '.' (point), '_' (underscore), '-' (dash), space, '\' (backslash) and '$' (dollar sign).
- Cannot include single quotation marks, quotation marks, '&' (ampersand sign), or '/' (slash)

Functionality difference in different Restisry Mode:

If the Registry Mode in AEM is set to "Use client machine Windows registry", the registry functio supported the same way as in PowerBuilder.

If the Registry Mode in AEM is set to "Use Appeon registry emulation", Web applications cannot RegistryGet and RegistryValues for accessing the Windows registry directly. The Registry functi are implemented as workarounds. They do not read from the actual Windows registry. Instead, Appeon creates a mock registry in the Appeon Server database, which initially has no values. Therefore, you must first set a value using the RegistrySet function before trying to use RegistryGet and RegistryValues functions. In this case the registry functions are only supported

work with existing registry keys, and it is not supported to create new keys during application run

String functions

APPEON

String functions for PowerBuilder 9

String functions for PowerBuilder 10 or above

System and environment functions

APPEON

Function	Support Level	Coding Examples
Clipboard	Supported	string ls_CoName ls_CoName = Clipboard()
CommandParm	Supported	String ls_command_line ls_command_line = CommandParm()
GetEnvironment	Supported	environment env integer rtn rtn = GetEnvironment(env)
GetFocus	Supported	Lobj_control = GetFocus()
GetApplication	Supported	application app app = GetApplication()
Handle	Supported	Note: the Handle property is partially supported • Supported syntax: Handle (objectname) • Unsupported syntax: Handle (objectname, previous)
Post	Supported	Post(Handle(w_date), 277, 3, 0) Note: the *message#* argument cannot be a user defined message number.
ProfileInt	Supported	ProfileInt ("C:\PROFILE.INI", "PB", "maximized", 3)
ProfileString	Supported	ProfileString ("C:\PROFILE.INI", "Employee","Name", "None")
Run	Supported	run("notepad") run("notepad.exe") run("C:\winnt\system32\notepad") run("C:\winnt\system32\notepad.exe")
Send	Supported	Send(Handle(w_emp), 277, 2, 0) Note: the *message#* argument cannot be a user defined message number.

SetProfileString		Supported		SetProfileString("C:\PROFILE.INI", "Position", "Title", "MGR")
Yield		Supported		Yield()
Restart		Unsupported		
SignalError		Unsupported		

Naming rules for the files, sections, registry keys used in the Registry and Profile functions:

- Must start with an '_' (underscore) or an '$' (dollar sign) or a letter.
- Can include any combination of characters, numbers, '.' (point), '_' (underscore), '-' (dash), space, '\' (backslash) and '$' (dollar sign).
- Cannot include single quotation mark, quotation mark, '&' (ampersand sign), or '/' (slash).
- Note: files that have the same names cannot be used in Profile functions.

Timing functions

APPEON

Function		Support Level		Coding Examples
CPU		Supported		long ll_start ll_start = Cpu()
Idle		Supported		Idle(300)
Timer		Supported		Timer(10, w_main)
Start		Unsupported		

Window functions

APPEON

Function		Support Level		Coding Examples
Close		Supported		close(w_commandbutton) close(parent)
CloseWithReturn		Supported		CloseWithReturn(parent,"return value")

		Notes: 1. In PowerBuilder, the return value is Null when there are two Nulls in the parameter. In this case, the return value in JavaScript is not Null. 2. On the Web, if the *returnvalue* parameter is NULL, the return value will be stored in the PowerObjectParm property of the Message object.
Open	Supported	Open(w_main, parent)

OpenSheet	Supported	OpenSheet(w_main,w_parent)
		OpenSheet(lw_main , "w_main", w_frame , 2, Cascaded!)
		
		Notes:
		
		1. When opening the same local window variables more than once within the same function, the result is unpredictable. Avoid using the OpenSheet window function in the following manner:
		
		`w_11 ww`
		`opensheet( ww , "w_111", w_2 , 2, Cascaded! )`
		`opensheet ( ww, "w_11", w_2, 0, Cascaded! )`
		
		2. The following syntax is supported:
		
		`OpenSheet ( sheetrefvar {, windowtype }, mdiframe {, position {, arrangeopen } } )`
		
		3. Appeon supports appending a window list to a menu item on the Web.
		
		4. The ArrangeOpen argument can be Cascaded!, Layered!, Original!. For the argument is Cascaded!, The size of the sheet on the Web is different from in PowerBuilder.
		
		5. In Windows 7, the upper part of the window (sheet) that is opened by using OpenSheet or OpenSheetWithParm may be overlapped by the MDI frame window. If this happens, you can work it around by using the Post function with OpenSheet or OpenSheetWithParm as shown below:
		
		`post opensheet(w_main, w_mdi, ...)`

OpenSheetWithParm	Supported	String ls_str OpenSheetWithParm(w_main,ls_str,w_parent) Note: The window type in the function cannot be

			MDI or MDIHelp. The following syntax is supported: `OpenSheetWithParm ( sheetrefvar, parameter {, windowtype }, mdiframe {, position {, arrangeopen } } )` Appeon supports appending a window list to a menu item on the Web.
OpenWithParm		Supported		OpenWithParm(w_main,w_parent) Notes: 1. The window type in the function cannot be MDI or MDIHelp. 2. On the Web, if the *parameter* argument is NULL, the argument will be stored in the PowerObjectParm property of the Message object.
*Note that Open, OpenSheet, OpenWithParm and OpenSheetWithParm support *windowtype* strings as parameters (see PowerBuilder syntax).			

Class definition functions

APPEON

This system function type is not supported.

DDE server functions

APPEON

This system function type is not supported.

Garbage collection functions

APPEON

This system function type is not supported.

Help functions

APPEON

This system function type is not supported.

Library functions

APPEON

This system function type is not supported.

Shared object (SharedObject) functions

APPEON

This system function type is not supported.

Tracing functions

APPEON

This system function type is not supported.

User functions

APPEON

Supported

- Object Functions
- Global Functions
- Global and local External Functions
- Global and local Remote Procedure Calls (RPC)

Unsupported

- Dynamic creation of global functions.

Event types

Supported

- User-defined events can be attached to the Application object.
- User-defined events without an ID are supported.
- User-defined events with an ID are supported to the extent that the system message is supported.

Unsupported

- User-defined system messages are not supported.
- The system messages specific for the unsupported system objects/controls are unsupported.
- Selecting the same event ID to declare two events that have different names is not supported.
- Using the local variable AncestorReturnValue in an event of a descendent object is unsupported unless the event of the descendent object is an extended event from the ancestor object, or the AncestorReturnValue is generated in Call Super statement.
- If a system event involves a UI operation, the subsequent event will not be triggered until the UI operation is done.
- Avoid the following code, because it will cause system error to the deployed application:

  An event in an event sequence destroys some container (such as closing a window or destroying a user object), and then a subsequent event in the sequence calls to the container or controls/objects in the container.

  For example, in case uo_1 contains cb_1 and there is an event sequence (ue_1、ue_2、ue_3), if uo_1 is deleted in ue_2 but cb_1 is called in ue_3, the Internet Explorer that runs the sequence will crash.
- In some cases, the event triggering sequence is inconsistent between PB and Web, for example, the code as shown below:

```
event open;
String    ls_Title,ls_FilePath,ls_FileName
Post Event pfc_PostOpen()
is_EventTrack += This.ClassName() + '.Open1()~r~n'
GetFileOpenName(ls_Title,ls_FilePath,ls_FileName)
is_EventTrack += This.ClassName() + '.Open2()~r~n'
end event
```

  On PB, the pfc_PostOpen event is triggered only after the Open event is executed completely. Whereas, on the Web, the pfc_PostOpen event is triggered right after the GetFileOpenName function is executed.

System messages

APPEON

Supported

The following table lists the supported system messages. The Notes in the table indicate that the event and event ID are partly supported:

Object/Control	Event ID	System Event using the ID
All	pbm_constructor	Constructor
	pbm_destructor	Destructor
	pbm_keydown	Key
Controls and windows	pbm_rbuttondown	RButtonDown
Window	pbm_activate	Activate
	pbm_close	Close
	pbm_closequery	CloseQuery
	pbm_deactivate	Deactivate
	pbm_dragdrop	DragDrop
	pbm_dragenter	DragEnter
	pbm_dragleave	DragLeave
	pbm_dragwithin	DragWithin
	pbm_hidewindow	Hide
	pbm_lbuttonclk	Clicked
	pbm_lbuttondblclk	DoubleClicked
	pbm_lbuttondown	MouseDown
	pbm_lbuttonup	MouseUp
	pbm_mousemove	MouseMove
	pbm_open	Open
	pbm_showwindow	Show
	pbm_size	Resize
	pbm_timer	Timer
CheckBox, CommandButton, Picture PictureButton, RadioButton, StaticText	pbm_bnclicked	Clicked
	pbm_bndragdrop	DragDrop
	pbm_bndragenter	DragEnter
	pbm_bndragleave	DragLeave
	pbm_bndragwithin	DragWithin
	pbm_bnkillfocus	LoseFocus
	pbm_bnsetfocus	GetFocus
DropDownListBox/ DropDownPictureListBox	pbm_cbnkillfocus	LoseFocus
	pbm_cbnmodified	Modified

	pbm_cbnselchange	SelectionChanged
	pbm_cbnsetfocus	GetFocus
DataWindow, DataStore	pbm_dwnchanging	EditChanged
	pbm_dwnbuttonclicked	ButtonClicked
	pbm_dwnbuttonclicking	ButtonClicking
	pbm_dwndragdrop	DragDrop
	pbm_dwndragenter	DragEnter
	pbm_dwndragleave	DragLeave
	pbm_dwndragwithin	DragWithin
	pbm_dwndberror	DBError
	pbm_dwnhscroll	ScrollHorizontal
	pbm_dwnitemchange	ItemChanged
	pbm_dwnitemchangefocus	ItemFocusChanged
	pbm_dwnitemvalidationerror	ItemError
	pbm_dwnkillfocus	LoseFocus
	pbm_dwnlbuttonclk	Clicked
	pbm_dwnlbuttondblclk	DoubleClicked
	pbm_dwnrbuttondown	RButtonDown
	pbm_dwnresize	Resize
	pbm_dwnretrieveend	RetrieveEnd
	pbm_dwnretrievestart	RetrieveStart
	pbm_dwnrowchange	RowFocusChanged
	pbm_dwnrowchanging	RowFocusChanging
	pbm_dwnsetfocus	GetFocus
	pbm_dwnupdateend	UpdateEnd
	pbm_dwnupdatestart	UpdateStart
SingleLineEdit, EditMask, MultiLineEdit, StaticText	pbm_endragdrop	DragDrop
	pbm_endragenter	DragEnter
	pbm_endragleave	DragLeave
	pbm_endragwithin	DragWithin
	pbm_enkillfocus	LoseFocus
	pbm_enmodified	Modified
	pbm_ensetfocus	GetFocus
OLEControl	(none)	Clicked
	(none)	PropertyChanged
	(none)	PropertyRequestEdit
	pbm_omnclose	Close

	pbm_constructor	Constructor
	pbm_doubleclick	DoubleClicked
	pbm_omndragdrop	DragDrop
	pbm_omndragenter	DragEnter
	pbm_omndragleave	DragLeave
	pbm_omndragwithin	DragWithin
	pbm_omnrename	Rename
	pbm_omnsave	Save
	pbm_omnsaveobject	SaveObject
	pbm_omnviewchange	ViewChange
HScrollBar, HTrackBar, VScrollBar, VTrackBar	pbm_sbndragdrop	DragDrop
	pbm_sbndragenter	DragEnter
	pbm_sbndragleave	DragLeave
	pbm_sbndragwithin	DragWithin
	pbm_sbnlinedown	LineDown, LineRight
	pbm_sbnlineup	LineLeft, LineUp
	pbm_sbnthumbtrack	Moved
	pbm_sbnpagedown	PageDown, PageRight
	pbm_sbnpageup	PageLeft, PageUp
ListBox, PictureListBox	pbm_lbndblclk	DoubleClicked
	pbm_lbndragdrop	DragDrop
	pbm_lbndragenter	DragEnter
	pbm_lbndragleave	DragLeave
	pbm_lbndragwithin	DragWithin
ListView	pbm_lvnbegindrag	BeginDrag
	pbm_lvnbeginlabeledit	BeginLabelEdit
	pbm_lvnbeginrightdrag	BeginRightDrag
	pbm_lvncolumnclick	ColumnClick
	pbm_lvnclicked	Clicked
	pbm_lvndeleteallitems	DeleteAllItems
	pbm_lvndeleteitem	DeleteItem
	pbm_lvndoubleclicked	DoubleClicked
	pbm_lvndragdrop	DragDrop
	pbm_lvndragenter	DragEnter
	pbm_lvndragleave	DragLeave
	pbm_lvndragwithin	DragWithin

	pbm_lvnendlabeledit	EndLabelEdit
	pbm_lvnsetfocus	GetFocus
	pbm_lvnitemchanging	ItemChanging
	pbm_lvnkillfocus	LoseFocus
	pbm_lvnrclicked	RightClicked
	pbm_lvnrdoubleclicked	RightDoubleClicked
Tab	pbm_tcnclicked	Clicked
	pbm_tcndoubleclicked	DoubleClicked
	pbm_tcnrclicked	RightClicked
	pbm_tcnrdoubleclicked	RightDoubleClicked
	pbm_tcndragdrop	DragDrop
	pbm_tcndragenter	DragEnter
	pbm_tcndragleave	DragLeave
	pbm_tcndragwithin	DragWithin
	pbm_tcnsetfocus	GetFocus
	pbm_tcnselchanging	SelectionChanging
TreeView	pbm_tvnbegindrag	BeginDrag
	pbm_tvnbeginlabeledit	BeginLabelEdit
	pbm_tvnbeginrightdrag	BeginRightDrag
	pbm_tvnclicked	Clicked
	pbm_tvndeleteitem	DeleteItem
	pbm_tvndoubleclicked	DoubleClicked
	pbm_tvndragdrop	DragDrop
	pbm_tvndragenter	DragEnter
	pbm_tvndragleave	DragLeave
	pbm_tvndragwithin	DragWithin
	pbm_tvnitemexpanded	ItemExpanded
	pbm_tvnitemexpanding	ItemExpanding
	pbm_tvnitempopulate	ItemPopulate
	pbm_tvnkillfocus	LoseFocus
	pbm_tvnselchanged	SelectionChanged
	pbm_tvnselchanging	SelectionChanging
	pbm_tvnsetfocus	GetFocus
	pbm_tvnrclicked	RightClicked
	pbm_tvnendlabeledit	EndLabelEdit

Application	(None)	Open
	(None)	Close
	(none)	Idle
User Object	pbm_uondragdrop	DragDrop
	pbm_uondragenter	DragEnter
	pbm_uondragleave	DragLeave
	pbm_uondragwithin	DragWithin
Menu	(None)	Clicked
	(None)	Selected

Unsupported

The following table lists the unsupported system messages for the supported system objects/controls:

Object/Control	Event ID	System Event using the ID
Controls and windows	pbm_other	Other
Window	pbm_help	Help
	pbm_ddedata	HotLinkAlarm
	pbm_ddeexecute	RemoteExec
	pbm_ddeadvise	RemoteHotLinkStart
	pbm_ddeunadvise	RemoteHotLinkStop
	pbm_dderequest	RemoteRequest
	pbm_ddepoke	RemoteSend
	pbm_syskeydown	SystemKey
	pbm_tbnmoved	ToolbarMoved
DataWindow, DataStore	(none)	Error
	pbm_dwnretrieverow	RetrieveRow
	pbm_dwnvscroll	ScrollVertical
ListView	pbm_lvnitemactivate	ItemActivate
	pbm_lvnsort	Sort
Application	(none)	IdleSystemError
OLEControl	(none)	Error
	(none)	ExternalException
	pbm_help	Help
	pbm_other	Other

System message (non-standard EventID)

Supported

The following table lists the supported system messages. The Notes in the table indicate that the event and event ID are partly supported:

Object/Control	Event ID (non-standard)	System Event using the ID
All	pbm_contextmenu	ContextMenu Note: Event bubbling is unsupported.
DataWindow	pbm_dwnkey	KeyDown
	pbm_dwndropdown	DropDown
	pbm_dwnrbuttonup	Rbuttonup
	pbm_dwnprocessenter	Processenter
	pbm_rbuttondown	
	pbm_lbuttondown	
	pbm_rbuttonup	
	pbm_lbuttonup	

Unsupported

Except for the system messages listed in the table above, all other system messages with non-standard event IDs are unsupported by Appeon. For example, pbm_enchange event is unsupported. Refer to PowerBuilder Help for more details.

DataWindow data sources

APPEON

Supported

The following PowerBuilder data sources are supported:

- Quick Select
- SQL Select
- Query
- Stored Procedure
- External
- Web Service

Notes:

1. You can group your stored procedure in ASE Server.
2. If a DataWindow uses an external data source, the content of the DataWindow can only be saved as TXT type.

3. In the Web Service DataWindow, if the date data is empty or null, it will return a default value "0001-1-1" which will be parsed as "2001-1-1" on Web, whereas parsed as "0001-1-1" in PowerBuilder.

Unsupported

- Dynamically changing the SQL statement of an external data source is unsupported.
- If a DataWindow uses a stored procedure as its data source and the stored procedure has multiple result sets, the deployed DataWindow always takes the first result set.
- If a DataWindow uses a stored procedure as its data source, the Table.Select *property* cannot be modified, and the SetSQLSelect function cannot be executed.
- If a DataWindow uses an ASE stored procedure as its data source, the AutoCommit property must be set to TRUE and the chain must be off.

Using SQL statements in DataWindows

APPEON

Requirements

If you specify the table owner in the Specify Update Properties window in PowerBuilder, please make sure the Enclose table and column names in Quote option is not selected in Appeon Developer during the deployment or errors will occur.

If you specify the argument name in Specify Retrieval Arguments window in PowerBuilder, use ASCII characters.

Do not use FOR UPDATE non-cursor statement in the SQL statement for DataWindows.

DataWindow presentation styles

APPEON

CrossTab, Composite, Freeform, Graph, Grid, Group, Label, N-Up, Tabular, TreeView and RichText presentation styles	**Supported** DataWindow objects and controls in a DataWindow can be dynamically created (e.g. by using the CREATE statement). CrossTab, Composite, Freeform, Graph, Grid, Group, Label, N-Up, Tabular, TreeView and RichText style DataWindows are implemented in XML in Appeon deployed applications. Shortcut keys "Ctrl + Home" and "Ctrl + End" are supported in Grid, Freeform, Tabular and N-up DataWindows. The Web UI and behavior are identical with the original PowerBuilder DataWindows, except for a few differences listed below. Decimal retrieval argument is supported. Differences

For all supported DataWindows, it ignores the upper or lower case when sorting by the column names.

For CrossTab style

Refer to the detailed description of differences CrossTab DataWindow.

For Composite style

Refer to the detailed description of differences Composite DataWindow.

For Freeform style:

When a user adjusts a scrollbar up and down, before the user releases the scrollbar, the DataWindow's contents are scrolled up and down in correspondence with the scrollbar's position. This does not happen in PowerBuilder applications.

For Grid style:

1) Web application supports dragging and dropping columns in different locations on a Grid DataWindow. You can select a column header and drag it over other columns and drop the column in any location within the DataWindow. The selected column will be highlighted.

2) Sorting a column or selecting all the items by clicking the column header is unsupported.

3) In PowerBuilder, the tab sequence in a Grid DataWindow object is always left to right (except for right-to-left operating systems). Changing the tab value to any number other than 0 has no effect. In the Web Grid DataWindow, changing the tab value to any number other than 0 does have an effect. If the user presses Tab, the focus will change according to the predefined tab order.

4) The color of the DataWindow border will be changed as the background color changes in the PowerBuilder application. This is not so in the Web application.

For Group style:

Refer to the detailed description of differences Grouping in DataWindow.

For Graph style:

Refer to the detailed description of differences Graph DataWindow.

For Label style:

RowFocusChange event is unsupported.

	For N-Up style: When dynamically changing the height of DataWindow, the number of pages is recalculated on the Web but it is not recalculated in PowerBuilder. For TreeView style: Refer to the detailed description of differences TreeView DataWindow. For RichText style: Refer to the detailed description of differences RichText DataWindow. For more DataWindow user operation differences, refer to DataWindow enhancements and differences.
Other DataWindow presentation styles	Unsupported OLE DataWindow

Composite DataWindow

APPEON

Nested reports in a Composite DataWindow	Supported Nested reports that are of the following presentation styles can be added into the Composite DataWindow, and the Web Composite DataWindow is implemented in XML: CrossTab Freeform Graph Grid Group Label N-Up Tabular RichText TreeView Placing reports in the Group band is supported. Placing Group reports in any DataWindow band is supported.
Retrieval arguments	Supported Retrieval arguments of the nested report is supported in the composite DataWindow.
Row-scrolling functions	Unsupported

Calling the following DataWindow functions in nested reports is unsupported:

ScrollToRow ScrollPriorPage ScrollNextPage ScrollPriorRow

ScrollNxetRow

Performance differences between PowerBuilder and Web

Differences

On the Web, if the Y property of a nested report is negative, the header band of the nested report overlaps the detail band.

On the Web, if the Trail_Footer property of a nested report control is set to True, the footer band of the nested report will be displayed after the summary band. If the Trail_Footer property is set to False, the footer band will always be displayed at the bottom of current DataWindow band.

On the Web, if the content in a Composite DataWindow cannot be displayed in one page horizontally, it will be displayed on a separate page.

On the Web, if you want to do a data retrieval for the Composite DataWindow, a transaction object always needs to be set.

If the Visible property of a nested report is dynamically changed from TRUE to FALSE, the nested report is counted as visible in PowerBuilder, but invisible on the Web, when the Composite DataWindow breaks pages or counts the height of the detail band.

The NewPage property will have effect in all DataWindow bands on the Web. However, it can only have effect in the detail band in PowerBuilder.

In the Detail band, the Height.Autosize property cannot be changed by using the Modify function.

In PowerBuilder, if the Summary band cannnot be displayed within one page, the last row of the detail band and the whole summary band will be displayed in the next new page. However, on the Web, the summary band that cannot be fully displayed within the rest space of the page will be ignored.

If you set different print scales for a Composite DataWindow and the nested reports in the DataWindow, the scale for the nested reports will have no effect; instead, the scale for the Composite DataWindow will be effective for the DataWindow and the reports.

Scrolling a composite DataWindow using the PageUp/PageDown, UpArrow/DownArrow, or LeftArrow/RightArrow keys is unsupported.

If the width of the content of a nested crosstab datawindow cannot be displayed within the report control, the exceeding content will be ignored on the Web.

CrossTab DataWindow

APPEON

Controls in CrossTab DataWindow	Supported	
	Button	Text
	Picture	GroupBox
	Line	Oval
	Rectangle	RoundRectangle
	Computed Field	Graph
	GroupBox is visible before inputting any data and is invisible after inputting data	
	Unsupported	
	Column	Report
	TableBlob	
DataWindow object properties for CrossTab presentation style	Supported	
	Crosstab.SourceNames(r/w)	Crosstab.Rows(r)
	Crosstab.Columns(r)	Crosstab.Values(r)
	Crosstab.StaticMode (r)	Table.CrosstabData (r)
	Properties marked with "(r)" can be read - but not changed - in script. Properties marked with "(r/w)" can be read or changed in script.	
	It is supported to use expressions like sum (units for crosstab) only in CrossTab.Values. It is unsupported to use such expressions in other properties that can contain expressions.	
	Unsupported	
	Help.TypeID.SetCrosstab	
DataWindow control methods for CrossTab DataWindow	Supported	
	GetMessageText	
	Unsupported	
	CrosstabDialog	
DataWindow expression functions for CrossTab DataWindow	Supported	
	CrosstabAvg	CrosstabCount
	CorsstabMax	CrosstabMin
	CrosstabSum	
Performance	Differences	

differences between PowerBuilder and Web	Adding columns in CrossTab DataWindow is unsupported, If you add a column in CrossTab DataWindow by "copy" and "paste" in PowerBuilder, the new column will not display on the Web. When the footer band of a Crosstab DataWindow is higher than the DataWindow, detail band displays in PowerBuilder while footer band displays on the Web. If the argument of SetFilter() is NULL, in the Specify Filter dialog it displays the columns in detail band in PowerBuilder. On the Web, it displays the columns in detail band as well as the dynamically generated columns. After dynamically modifying Expression property of a computed field control in CrossTab DataWindow, data will be recalculated according to the new expression on the Web. In PowerBuilder, the data will not be recalculated. When dynamically modifying the properties that affect position, it automatically refreshes the interface on the Web but it does not in PowerBuilder. After retrieving data in CrossTab DataWindow, the position of controls (excluding Text control, Column control and Computed Filed control) will be rearranged on the Web. This is different from in that in PowerBuilder.
Unsupported features	Unsupported SlideLeft property is unsupported in CrossTab DataWindow. For graph control in CrossTab DataWindow, Values cannot contain aggregate functions. For a CrossTab nested report with arguments, retrieval arguments are unsupported.

Grouping in DataWindow

APPEON

Grouped DataWindow objects can be created in two ways:

- Use the Group presentation style to create a grouped DataWindow object from scratch.
- Take an existing DataWindow object and define grouping

Group bands	**Supported** Group Header band & Group Trailer band **Unsupported** None
Group bands	**Supported**

options in the PowerBuilder painter

Color Height* Group Definition

Reset Page Count New Page on Group Break Autosize Height*

Group Sort*

Height

When the Group Header is higher than the page, the header content will be printed into the footer area, and the content printed in the footer area will be printed again at the beginning of the next page. This is the behaviour on Web which is different from PowerBuilder.

Group Sort

If a DataWindow contains multiple groups and more than one group is specified with sort criterion in the Group Sort option, the criterion of the group with the largest group band ID will be valid for all the groups on the Web, while the other criteria will be ignored.

It is only support to use aggregate functions in Group sort.

Autosize Height

the Autosize Height option is unsupported in Group Header and Group Trailer bands.

Unsupported

None

Properties for the Group keyword

Supported

New page
SytaxFromSQL: `Group ( colnum1, colnum2 NewPage )`

ResetPageCount
SytaxFromSQL: `Group (col1 {col2 ...} ... ResetPageCount )`

Unsupported

None

DataWindow functions for grouping

Supported

Groupcalc * FindGroupChange

Groupcalc

In Web applications, the Groupcalc function will be executed automatically when values in a group are changed by dot notation or SetItem method.

DataWindow expressions for grouping

Supported

Last First Percent

CumulativeSum CumulativePercent

Unsupported

Large Median Mode

Small	Stdev	Stdevp
Var	Varp	

Graph DataWindow

APPEON

Controls in Graph DataWindow	Supported Graph DataWindow supports the following controls: Button, Column, Computed field, Graph, GroupBox, Line, Oval, OLE, Rectangle, RoundRectangle, Report, Picture, Text **Unsupported** None.
Graph axises	Differences **Category axis** 1. When setting the categories on the Category axis, you should ensure that the category type and the Category axis type are the same. If they are not, Appeon adopts the first category type you input for this axis and will ignore the one that does not match along with the following. 2. If the expressions are for graphs (for example, sum (units for graph)), do not use it for the category axis. Value axis When setting the values on the Value axis, you should ensure that the value type and the Value axis type are the same. If they are not, Appeon adopts the first category type you input for this axis and will ignore the one that does not match along with the following.
Properties for Graph DataWindow	Differences The following DataWindow object properties can be read but not

	changed in Graph DataWindow: Bandname.Text HorizontalScrollMaximum HorizontalScrollMaximum2 QueryMode QuerySort Rows_Per_Detail VerticalScrollMaximum Zoom
Performance differences between PowerBuilder and Web	Differences On the Web, the UI will be automatically refreshed after executing RowsCopy, RowsDiscard, RowsMove and Sort. This is different from in PowerBuilder. Executing GetObjectAtPoint function of DataWindow control does not return the row number. When multiple series are of different data types, the series will be sorted and displayed according to the order of the String data type. It is unsupported to have a nested report in a Graph DataWindow. It is unsupported to operate the properties before drawing a Graph DataWindow. It is unsupported to use overlays in graphs in the DataWindow. The value of the header height cannot be smaller than 0. In pie graph, if there is negative data in a series, the graph displays differently on the Web from in PowerBuilder. In PowerBuilder, the total percentage exceeds 100%. But Appeon ignores the negative data, it display 100% on the Web.

RichText DataWindow

APPEON

DataWindow control properties in RichText DataWindow	**Unsupported** DragAuto property is unsupported.
DataWindow control events in RichText DataWindow	Differences For ItemFocusChange event: After retrieving data in a RichText DataWindow on the Web, it triggers the ItemFocusChange event. Executing SetRow function triggers the ItemFocusChange event on the Web. For RowFocusChanged event:

	On the Web, executing InsertRow or DeleteRow may not trigger the RowFocusChanged event. This is different from that in PowerBuilder. Executing Clipboard, ImportFile and ImportString functions do not trigger the RowFocusChanged event on the Web. This is different from that in PowerBuilder. For KeyDown event: Some keystrokes do not affect the formatting of documents in RichText DataWindow on the Web. For example, pressing Esc after updating data in an inputfield reverts to the old data in PowerBuilder but pressing the Esc key on the Web does not affect the updating of the data and the changes will be made. Unsupported PrintStart and Printed events are unsupported.
DataWindow control functions for RichText DataWindow	Supported The following functions of DataWindow control are effective only in RichText DataWindow: CopyRTF InsertDocument* PasteRTF ShowHeadFoot InsertDocument The value of the *filetype* argument can be FileTypeRichText! or FileTypeText!. the FileTypeHTML! and FileTypeDoc! are still unsupported values in current version. Differences For Clicked function, Xpos argument specifies the distance of the pointer from the left side of the DataWindow workspace and Ypos argument specifies the distance of the pointer from the top of the DataWindow workspace on the Web. This is different from the actual behavior of PowerBuilder. On the Web, the return value of GroupCalc function in RichText DataWindow is the same as in DataWindows of other presentation styles, which differs from that in PowerBuilder. On the Web, some functions have differences in triggering events in RichText DataWindow with that in PowerBuilder. They behave the same as in DataWindows of other presentation styles. These functions are AcceptText, ShareDataOff, SetSQLSelect, SetSort, Sort, SetFilter, Filter, SetFormat, RowsCopy, RowsDiscard and RowsMove. Unsupported GetClickedRow and GetBandAtPointer functions are unsupported.
Performance differences between PowerBuilder and Web	Differences For RichText DataWindows, clicking the header or footer bands triggers the GetFocus event on the Web. This is different from that in PowerBuilder. It will not verify the type of the column if it has the initial value when inserting a column on the Web. This is different from that in PowerBuilder.

On the Web, if all data is filtered when executing SetFilter, it displays “??”. This is different from that in Powerbuilder.

Double clicking a picture in a RichText DataWindow triggers DoubleClicked event on the Web. This is different from that in PowerBuilder.

On the Web, if the focus is in a computed field, executing GetColumnName returns only the column name excluding the name of the computed field. This is different from that in PowerBuilder.

If there are multiple DataWindows of RichText and other presentation styles in a Window, the last-created RichText DataWindow is always on the top.

If the size of the pasted picture is larger than the RichTextEdit control, the horizontal and vertical scroll bars will be automatically displayed on the Web, though the HScrollBar and VScrollBar properties are set to False.

Alignment buttons on the Web are only effective if the WordWrap property is set to True. This is different from that in PowerBuilder.

The display of scroll bars in RichText DataWindow is the same as that in RichTextEdit control. Also, if the WordWrap property of RichTextEdit control is set to True on the Web, it does not display the horizontal scroll bar.

The behavior of the RichText bars on the Web is consistent with that in PowerBuilder 9.

Find and Replace methods are partially supported.

Chinese font family will not take effect on the Web.

For RichText DataWindows without containing any filed, if it is created in PowerBuilder 9 and 10, the RichText DataWindow will cause IE crash when it converts to the Web.

Unsupported features

Unsupported

It is unsupported to use Appeon DataWindow menu.

It is unsupported to modify the column value in the pop-up window when right clicking a input field in a RichText DataWindow.

It is unsupported to dynamically create RichText DataWindows. (for example, using Create statement.)

It is unsupported to use RichText DataWindow as NVO, DataStore and DropDownDataWindow.

End identifier is unsupported.

It is unsupported to use the shortcut "Ctrl+Z" on the Web.

It is unsupported to set the paragraph alignment for the Text Object on the Web.

The "text-wrap" is unsupported on the Web.

TreeView DataWindow

DataWindow object properties for TreeView presentation style	**Supported**		
	AccessibleDescription	AccessibleName	AccessibleRole
	CollapsedTreeNodeIconName	DefaultExpandToLevel	ExpandedTreeNode
	Indent	Level	SelectNodeByMous
	ShowNodeConnectLines	ShowLeafNodeConnectLines	ShowTreeNodeIcon
	StateIconAlignMode	TreeNodeIconName	
	Unsupported		
	QueryMode	QuerySort	QueryClear
	RtoLLayout		
DataWindow control functions for TreeView DataWindow	**Supported**		
	Collapse	CollapseAll	CollapseAllChildren
	CollapseLevel	Expand	ExpandAll
	ExpandAllChildren	ExpandLevel	IsExpanded
	SelectTreeNode		
DataWindow control events for TreeView presentation style	**Supported**		
	Collapsing	Collapseed	Expanding
	Expanded	TreeNodeSelecting	TreeNodeSelected
	Unsupported		
	None		
Performance differences between PowerBuilder and Web	**Limitations**		
	DataWindows in TreeView presentation style are restrained by all limitations for DataWindows in Group presentation style.		
	Collapsing, Collapsed, Expanding, and Expanded events cannot be triggered if t nested TreeView DataWindows.		

	If the nest level in a TreeView DataWindow is 3, the user may not correctly expa collapse the tree node when clicking the mouse.
	The height for the Tree.level band cannot be negative value.
	You can not set a column to current column using **SetColumn** function if the col cannot be focused.
	If the **ScrollNextPage** function is called in the last page, the current row on the \ be set to the last row. This is different from that in PowerBuilder.
	On the Web, the **SetSort** function sorts data before groups data. This is differen that in PowerBuilder.
	If the Shortcut in PowerBuilder application is the same as the shortcut of IE, sho has high priority than shortcut settings in PowerBuilder.
Event sequence difference	Difference
	The TreeNodeSelecting, TreeNodeSelected, RowFocusChanging and RowFocusChanged events cannot be triggered in the preview mode.
	Selecting Tree Node on the Web will sequently trigger the events TreeNodeSele TreeNodeSelected, RowFocusChanging, RowFocusChanged.
	Clicking the TreeView DataWindow on the Web will trigger the following events i sequence: LButtonDown, RowFocusChanging, RowFocusChanged, TreeNodeD and TreeNodeSelected.
	On the Web calling **ScrollNextPage** function will trigger the following event in se Rowfocuschanging ,Rowfocuschanged, and ScrollVertial.
	Collapsing or expanding the tree node will trigger the collapsing(/expanding), col (/expanded)and Resize events on the Web in sequence.
	Do not assign values to rows in the grouping column in a loop. You can use dot to directly assign values to corresponding rows.

Displaying and validating data

Data validation

Appeon supports data validation in the following two ways:

- Validating whether the data is of a correct data type and in the allowed data scope
- User-defined validation expression

The validation expressions must be DataWindow expressions that Appeon supports (see DataW operators and expressions section).

Define display format

- For Web applications, formats specified in the PowerBuilder application has a higher priori

formats specified in the client machine.

- The format property is supported for column edit style Edit and EditMask. The display form in the following table:

Using sections	Supported
	Each type of display format can have multiple sections, with each section co to a form of the number, string, date, or time. Only one section is required. O the sections can be no longer than two. For example:
	$#,##0;($#,##0) //Supported
	$#,##0;($#,##0);($#,##0.00) //Unsupported

Number	Supported Special characters: "#", "0", "%", "$", "E-", "E+", "e-", "e+", "~" Keywords: [General], [Currency] Separator: ",", "." Default format: ###,###.00 Unsupported If the currency is not US dollars, it is better to specify the format with the dolla replaced with the actual currency symbol to ensure that the currency symbol correctly in the deployed Web application. For example, if the format is ￥#,## do not rely on the setting of the client machine to add the actual currency syr
String	Supported Special characters: "d", "dd", "ddd", "dddd", "m", "mm", "mmm", "mmmm", "y Separator: "-", ":", "/", ".", " "(space), ", " Separator: Chinese characters for year, month or day can be separators Keywords: [ShortDate], [LongDate] Default format: mm/dd/yy Unsupported None.
Time	Supported Special characters: "h", "hh", "m", "mm", "s", "ss", "ffffff", "AM/PM", "am/pm", Separators: "-", ":", "/", ".", " "(space), "," Keywords: [Time] Default format: hh:mm:ss:fff Unsupported Chinese characters as AM and PM symbols in the Control Panel | Regional C unsupported for Web applications.
DateTime	Supported Separators: "/", "-" , " " (space)

Default format: mm/dd/yyyy hh:mm:ss:ffff

When setting the date format to mm/dd/yyyy, an invalid date will turn to 01/0
Appeon while 00/00/0000 in PowerBuilder.

Unsupported

None.

Dynamic DataWindow

APPEON

DataWindow objects and all entities in them have a set of properties. You can look at and change the values of these properties during execution using DataWindow methods or property expressions. You can also create DataWindow objects during execution. Appeon supports dynamically creating DataWindows with the following presentation style: FreeForm, Tabular, Grid, Graph, CrossTab, N-Up, Label, Composite, Group, TreeView. However, dynamically created RichText DataWindow is unsupported. Also DataWindow cannot be dynamically created if the database type is Informix.

Important: Configuration required for supporting dynamic DataWindows

Configuration at the database server is required for support of dynamic DataWindows: find the following sql files in %Appeon_Server_Installation_Path%\appeon\sql\dynamicsql, and install the corresponding SQL for the database you are using. Note that you should execute the SQL statement in the database console and executing it in PowerBuilder may cause errors.

install_appeon_syntaxfromsql_ORACLE.sql
install_appeon_syntaxfromsql_MSSQL.sql
install_appeon_syntaxfromsql_ASE.sql
install_appeon_syntaxfromsql_ASA.sql
install_appeon_syntaxfromsql_DB2.sql
install_appeon_syntaxfromsql_IQ.sql
install_appeon_syntaxfromsql_teradata.sql
install_appeon_userfunction_teradata.sql
Appeon_teradata_extfun.jar

You can uninstall the SQL files and disable the support of dynamic DataWindows by running the following files in the same folder:

uninstall_appeon_syntaxfromsql_ORACLE.sql
uninstall_appeon_syntaxfromsql_MSSQL.sql
uninstall_appeon_syntaxfromsql_ASE.sql
uninstall_appeon_syntaxfromsql_ASA.sql
uninstall_appeon_syntaxfromsql_DB2.sql
uninstall_appeon_syntaxfromsql_IQ.sql
uninstall_appeon_syntaxfromsql_teradata.sql
uninstall_appeon_userfunction_teradata.sql

Notes:

1. When installing or uninstalling Appeon-provided SQL files, you must use the corresponding SQL executing tool of each database as listed below:

ASA	Interactive SQL
SQL Server	Query Analyzer
DB2	Command Editor
Oracle	SQLPlus WorkSheet
Sybase IQ	Interactive SQL
SQL Server	Query Analyzer
Teradata	Teradata client tool

2. (**For Teradata only**) Before installing the SQL file install_appeon_syntaxfromsql_teradata.sql for the Teradata database, you will need to:
    1. Copy Appeon_teradata_extfun.jar and install_appeon_userfunction_teradata.sql to the machine where the Teradata database client tool is installed.
    2. Open install_appeon_userfunction_teradata.sql and modify the first line to point to the physical path of Appeon_teradata_extfun.jar.
    3. Execute install_appeon_userfunction_teradata.sql via the Teradata client tool.
3. After installing the SQL files, you should restart Appeon Server or redeploy the application to disable the caches.
4. When you use the transaction SyntaxFromSQL method, please note the following differences between PowerBuilder and the Web:
    - The length of return value on the Web is different from PowerBuilder, because the return value on the Web carries the names of all columns while the return value in PowerBuilder does not.
    - Text, the object keyword, is unsupported if there are calculation involved in SQL statements, For example, " Select emp_ID,emp_Name,salary/12,"Dept="+emp_deptname from employee".
5. When using transaction SyntaxFromSQL method for DB2 on the Web, please note that the generated DataWindow contains no primary key information and cannot be updated on the Web under the following conditions:
    - The database table contains only a simple index.
    - The database table contains a primary key that uses alias.
    - Access a table that contains a primary key as the table owner. (for example, using SELECT * FROM DB2ADMIN.PUB_T_DEPARTMENT)

Executing SaveAs function for dynamically created DataWindows

1. A dynamic DataWindow can only be saved as TXT, HTML or XLS file. Saving it to WMF will give the error "DataObject information does not exist". The reason is that SaveAs to TXT, HTML or XLS is directly executed at the client while SaveAs to other formats is executed by the server. Appeon Server cannot save the DataWindow since it cannot get the dynamically-created SQL.
2. Timestamp data type is unsupported when dynamically creating DataWindows.
3. It is unsupported to have stored procedure with input parameters as the data source when dynamically creating DataWindow.
4. It is unsupported to use EXECUTE statement to execute the SQL when dynamically creating DataWindows. For example,

```
Execute ('select * from employee'). //Unsupported
```

5. If the DataWindow object is created dynamically, the SetSQLSelect function is

unsupported.

Methods of dynamically creating DataWindows

1. Using DataWindow Create method

   Supported syntax: Integer dwcontrol.Create (string syntax {, string errorbuffer })

   Unsupported: Using PBSELECT statement in *syntax* to create DataWindows is unsupported.

2. Using transaction SyntaxFromSQL method for ASE, ASA, SQL Server and Oracle database type.

   Supported syntax: transaction.SyntaxFromSQL(sqlselect, presentation, err).

   When you use the transaction SyntaxFromSQL method, please note the following differences between PowerBuilder and Web: The length of return value on the Web is different from PowerBuilder, because the return value on the Web carries the names of all columns while the return value in PowerBuilder does not.

Note : It is unsupported to dynamically create DataWindow if the column alias specified in the SQL has the same name as the column name in the quoted table. For example, if a table t1 has the column c1, c2 and c3, syntax like " SELECT c1= c2* 10, c3 FROM t1" is unsupported.

Methods of dynamically modifying DataWindow properties

1. Using property expression

   Please refer to DataWindow | DataWindow operators and expressions for detailed information.

2. Using DataWindow Modify function

   Supported syntax: string dwcontrol.Modify(string modstring)

   When you use the Modify function, be aware of that: If the Modify function is used to modify the WHERE clause of the DataWindow object's SQL SELECT statement, make sure that the new SQL SELECT statement is correct in syntax. Otherwise, syntax errors can occur because PowerBuilder does not validate the statement whereas JavaScript does.

   You should verify that the data types of both sides of the equal symbol in the expression are compatible.

Adding or deleting controls in DataWindow objects

You can use Modify method to create and destroy the controls in a DataWindow object while noting the following issues.

1. When you use this method to adding controls in a DataWindow, the name of the controls should not be same.
2. If it is failed to add or delete a control in the DataWindow object, the error message reported on the Web may be different from in PowerBuilder.

DataWindow operators and expressions

APPEON

DataWindow operators	Supported
	Arithmetic operators: +, -, *, /, ( ), ^

	Relational operators: =, >, <, <>, >=, <=, BETWEEN...AND, IN, LIKE, and any of these operators in combination with NOT
	Logical operators for all data types: NOT, AND, OR
	Concatenation for string data types: +
	Unsupported
	Subtraction (-). The setting of the DashesInIdentifiers property is ignored. For example, "A-B" always means subtract B from A.
Operator precedence in DataWindow expressions	Difference from PowerBuilder
	Operator precedence in DataWindow expressions
	Difference from PowerBuilder
	The precedence of "AND" is higher than that of "OR" (in PowerBuilder, "AND" and "OR" have the same precedence).
	The operators >, <, <=, >= are of higher precedence than = and <> (in PowerBuilder, the operators >, <, <=, >=, =, <> are of the same precedence).
	Note: You can use parentheses to make sure the Web application has correct precedence effect as in the PowerBuilder application
	Original expression: a OR b AND c
	Modifed expression:(a OR b) AND c
Supported & Unsupported expressions	Supported
	Conditional expressions for property values (such as Visible, X, Y, Width, Height, BackgroundColor, TextColor)
	Expressions for computed fields
	Validation rules
	Filter and sort criteria
	Note: The information on the limitations for these types of expressions is provided in the Specific Requirements for Using Expressions section.
	Unsupported
	Series and values in graphs
	Columns, rows, and values in crosstabs
Functions used in DataWindow expressions	Supported

Abs	Acos
Asc	Asin
Atan	Avg
Bitmap	Ceiling
Describe	Char

Case	Cos
Count	CrosstabAvg
CrosstabCount	CrosstabMax
CrosstabMin	CrosstabSum
CumulativePercent	CumulativeSum
CurrentRow	Date
DateTime	Day
DayName	DayNumber
DaysAfter	Exp
Fact	Fill
First	GetText
GetRow	Hour
If	Int
Integer	IsDate
IsNull	IsNumber
IsRowModified	IsRowNew
IsSelected	IsTime
Last	Large
LastPos	Left
LeftTrim	Len
Log	LogTen
Long	LookUpDisplay
Lower	Match
Max	Median
Mid	Min
Minute	Mod
Month	Now
Number	Page
PageCount	Percent
Pi	Pos
Rand	Real
RelativeDate	RelativeTime
Replace	RGB

Right	RightTrim
Round	RowCount
Second	SecondsAfter
Sign	Sin
RowHeight	Small
Space	Sqrt
Stdevp	Stdev
String	Sum
Tan	Time
Today	Trim
Truncate	Upper
WordCap	Year

In addition to the above functions, User functions can be used in DataWindow expressions

Unsupported

Mode	PageAcross
PageCountAcross	ProfileInt
ProfileString	Var
VarP	

In addition to the above functions, System functions and External functions cannot be used in DataWindow expressions.

Specific Requirements for Using Expressions

Rule for all DataWindow expressions

1. Expressions involving Null values may arrive at different values in JavaScript from their values in PowerScript. For more details, please refer to the Null Values section.
2. Expressions cannot contain "~~t".
3. Expressions cannot be used in cursor or stored procedure arguments.
4. For nested structures, please verify that:
   - It is supported to have single quotes nested with single quotes or double quotes nested with single quotes.
   - It is unsupported to have single quotes nested with double quotes or double quotes nested with double quotes.
   - A multi-layer nested structure may cause problems.
5. If using user-defined global functions in DataWindow expressions,
   - Arguments and returned values can only be simple data tapes: Int/Integer,

Boolean, String, Character, Long, UnsignedLong, UnsignedInteger.
- Arguments cannot be references.
- If the computed field expression is a computed field or global function, the formatting for the computed filed will not take effect on the Web.

Sort and Filter expressions

1. Unsupported functions: Avg, Count, Max, Min & Sum
2. Behavioral difference: In a Web application, if a Find, Filter or Sort expression contains any special characters (for example, ".", "", "/"), the execution result may differ from PowerBuilder. In a Web application, the DataWindow rows may display in a different order from PowerBuilder

Property expressions

1. Overlapped quotes, for example, "sdf~"sdf", "dfg'sdf"
2. In the Web application, modifying a DataWindow property in a DataWindow expression may conflict with the settings in the application's source code

String expressions

Operands in the string expression cannot a mix of constants and variables.

Decimal Precision in DataWindow expression

28-digit Decimal is only supported in the following DataWindow expressions: Abs, Avg, CamulativeSum, Medium Sign, Sum,

DataWindow objects and their properties

APPEON

DataWindow object

Controls in a DataWindow and their properties

DataWindow object properties

DataWindow object

Controls in a DataWindow	Supported & Unsupported Refer to the Controls in a DataWindow and their properties section for details.
Column edit styles	**Supported** CheckBox, DropDownDataWindow, DropDownListBox, Edit, EditMask*, RadioButtons

	Unsupported InkEdit RichText DropDown Calendar property of EditMask is unsupported.
DataWindow bands	Supported All DataWindow bands, including Header band, Detail band, Summary band, Footer band, Trailer band, and Tree.Level band are supported. All DataWindow bands can contain any supported control. Unsupported The height of the Header band cannot be smaller than 0. The header and footer bands are unsupported in the DataWindow with the RichText presentation style. Notes 1) Do not use the band name as the name of the DataWindow object, otherwise the execution result on Web will be different from that on PowerBuilder. 2) If the content in the summary band cannot be displayed fully on the last page of the deployed DataWindow, an additional page will be displayed to show the rest of the content.
Other	Supported DataWindows that contain Blob columns are unsupported.

DataWindow object properties

APP

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read in script, changed in script, and setting the property in the painter has no effect in the converted applicatio

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or c in script, and setting the property is effective in the painter.

The table below lists the supported properties for DataWindow object:

Property	What's Supported	What's Unsupported
Attributes	Supported (r)	
Bandname.property	(r/w): Detail.Color, Detail.Height, Detail.Height.Autosize, Detail.Pointer, Footer.Color, Footer.Height, Footer.Pointer, Header.Color, Header.Height, Header.Pointer,	

	Summary.Color, Summary.Height, Summary.Pointer, Trailer.Color, Trailer.Height, Trailer.Pointer; Height.Autosize	
*Bandname.*Text	Supported (r/w)	
Bands	Supported	
BitmapName	Supported	
Color	Supported (r/w)	
Column.count	Supported	
Crosstab.*property*	(r/w):Crosstab.SourceNames (r): Rows, Columns, Values, StaticMode, CrossTabData	
Data	Supported	
Data.XML	Supported	
Data.XMLDTD	Supported	
Data.XMLSchema	Supported	
FirstRowOnPage	Supported	
Grid.ColumnMove	Supported	
Grid.Lines	Fully supported (r/w).	
HTMLDW	Supported	
HTMLGen.property	Supported	
HTMLTable.property	Supported	
Label.property	Supported	
LastRowOnPage	Supported (r)	
Message.Title	Supported	
Name	Supported	
Nested	Supported	
Objects	Fully supported (r) Note: In the Web application, the returned object names are listed in a different order from that in PowerBuilder.	
Pointer	Fully Supported (r/w)	
Print.*property*	Supported (r/w): Color, Collate, Columns, Columns.Width, Copies, DocumentName, Duplex, Filename, Margin.Botton, Margin.Left, Margin.Right, Margin.Top, Orientation, Page.Range, Page.RangeInclude, Paper.Size, Paper.Source, Preview, Preview.Rulers, Preview.Zoom, PrinterName, Prompt, Quality, Scale, CustomPage.Width, CustomPage.Length Notes:	Unsupported CanUserDefaultPrinter, ClipT OverridePrintJob

	1. When Paper.Size is the default value (0), in PowerBuilder application, the default paper size for the printer will be used for the output; while in Appeon Web application, the paper size for the local printer will be used, but if it cannot be obtained, then the monitor screen size (for example 1024x768) will be used. 2. In Appeon Web application, the Copies property will not take effect and only one copy will be printed. 3. In Appeon Web application, the Scale property will not take effect and the output always prints as 100% of scale. 4. The value of MarginBottom, MarginLeft, printMarginTop, MarginRight, PreviewZoom, Scale cannot be negative. 5. In PowerBuilder, if a printer driver does not support scaling, scaling is not supported in either DataWindow printing or preview. However, in the same scenario on the Web, scaling can work in DataWindow preview. 6. When executing PDF printing, if the DocumentName is an empty string, on the Web, the DataWindow will be automatically saved as naming DataWindow.pdf. 7. Filename cannot be an empty string. 8. Newspaper Columns Across option under Columns property is supported for all DataWindows except for composite and nested DataWindows.	
Print.Buttons	Supported	
Print.Preview.Buttons	Supported	
Printer	Supported (r/w)	
Processing	Supported (r)	
ReadOnly	Supported (r)	
Rows_Per_Detail	Supported	
QueryClear	Supported (r/w) Note: By setting the QueryClear property	

	to Yes, events that are triggered by the property on the web are different from in PowerBuilder.	
QueryMode	Supported (r/w): **Extending support:** For columns of all types (except string), if the QueryMode is set to Yes, calling Find functions will take effect on the Web but not in PowerBuilder. **Limitations:** In the query mode, calling the following functions is not recommended because the result of calling functions on the Web is different from in PowerBuilder: InsertRow, DeleteRow, ResetUpdate, RowsDiscard, Update, SetItemStatus, Sort, GroupSort, CopyData, MoveData, GetFullState, SetFullState, GetChanges, SetChanges. If the QueryMode is set to Yes, it is unsupported to insert or delete rows in a DataWindow. If the QueryMode is set to Yes, retrieving data by column alias will cause errors on the Web. QueryMode is unsupported in TreeView DataWindow. If the QueryMode is set to Yes, executing DataWindow SaveAs function will not reset the query criteria on the Web.	
QuerySort	Supported (r/w)	
RichText.property	Supported	
Selected	Supported	
Selected.Data	Supported	
Selected.Mouse	Supported (r/w)	If the Selected.Mouse is set t it is unsupported to select mu columns by pressing Shift and keys.
ShowDefinition	Supported	
SlideLeft	Supported	
SlideUp	Supported	
Sparse	Supported	
Storage	Supported	
StoragePageSize	Supported	
Syntax	Supported	
Syntax.Data	Supported	

Syntax.Modified	Supported	
Table.*property*	(r/w): Arguments, CrosstabData, Data.Storage, Delete.Argument, Delete.Method, Delete.Type, Filter, Select.Attribute, Update.Argument, Update.Method, Update.Type, Select, GridColumns, Insert.Argument, Insert.Method, Insert.Type, Select.Attribute, Sort, Update.Argument, Update.Method, Update.Type, UpdateKeyInPlace, UpdateTable, UpdateWhere (r) :SQLSelect, Procedure In PowerBuilder, the Table.Select property contains the escape character "~" But after the execution of the SetTransObject function, "~" will be removed. During parsing of the application, "~" will be translated into a newline return. After parsing, no "~" will be found in the Table.Select property. In PowerBuilder, by default, the Ascending criteria will be included in the value of the Table.Sort property. However, in the Web application, the Sort is a string containing the sort criteria set by the user. Even though the string will not include the default Ascending criteria, the result will be the same as in PowerBuilder. For a Web application that has more than one user accessing the same tables concurrently, set the DataWindow Table.UpdateWhere property to 1 ("Key and updatable columns") to avoid data loss.	Table.property is not supporte External data sources.
VerticalScrollMaximum	Supported	
VerticalScrollPosition	Supported	
Zoom	Partially Supported Notes: 1.It is unsupported to zoom datawindow object when the window's size is also changing. 2.The effect of a zoom factor appears differently in PowerBuilder than in the Web application.	
Units	Supported Only the type of PowerBuilder units is supported	

Unsupported

None of the Graphical DataWindow properties are supported.

The table below lists the unsupported properties for DataWindow objects:

Data.HTML.Table	Data.XMLWeb	HideGrayLine	Data.XSLFO
Font.Bias	Help.property	HorizontalScrollMaximum	HorizontalScrollMa
HorizontalScrollPosition	HorizontalScrollPosition2	HorizontalScrollSplit	HTMLDW
OLE.Client.property	Retrieve.AsNeeded	Row.Resize	Table.sqlaction.pro
Timer_Interval			

Controls in a DataWindow and their properties

APPEON

Button control

Column control

Computed Field control

Graph control

GroupBox control

Line control

Oval control

Picture control

Report control

Rectangle control

RoundRectangle control

Text control

Unsupported controls

Notes:

- Avoid placing controls above or behind other controls in a DataWindow, as overlapping controls are displayed differently on the Web than in PowerBuilder. For example, if there is a Text control behind a DropDownDataWindow column in a DataWindow, the DropDownDataWindow field cannot be pulled down correctly.

Button control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted

application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Action	(r/w): User Defined, Retrieve, PageNext, PagePrior, PageFirst, PageLast, Sort, Filter, DeleteRow, AppendRow, InsertRow, Update, SaveRowsAs, Print, Cancel, Preview, PreviewWithRulers, QueryMode, QuerySort, Query, Clear	This property cannot be set by using DataWindow expression. Retrieve (Yield)
Attributes	Supported (r)	
Background.property	Fully supported (r/w): Color, Mode This property can be set by using DataWindow expression.	
Band	Supported (r): Band, Background, Foreground	
Color	Fully supported (r/w)	This property can be set by using DataWindow expression.
DefaultPicture	Supported (r/w)	This property cannot be set by using DataWindow expression.
Filename	Fully supported (r/w)	
Font.property	(r/w): Charset, Escapement, Face, Family, Height, Italic, Pitch, Strikethrough, Underline, Weight Note: 1) When the value of Escapement is a negative number, the text will not be rotated. 2) The text rotated can be displayed out of the control in PowerBuilder, but not in the Web application. 3) After rotated, the multiple-line text still displays in multiple lines in PowerBuilder, but displays in one line on Web.	Width
Height	Fully supported (r/w) This property can be set by using DataWindow expression.	
HTextAlign	Fully supported (r/w)	
Name	Supported (r)	
Pointer	Fully supported (r/w)	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	

Tag	Fully supported (r/w)	
Text	Fully supported (r/w)	
Type	Supported (r)	
VTextAlign	Supported (r/w)	
Visible	Fully supported (r/w) This property can be set by using DataWindow expression.	
Width	Fully supported (r/w) This property can be set by using DataWindow expression.	
X	Fully supported (r/w) This property can be set by using DataWindow expression.	
Y	Fully supported (r/w) This property can be set by using DataWindow expression.	

Unsupported

HideSnaked Movable Resizable SuppressEventProcessing

Column control

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted applicatio

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsuppor
Accelerator	Fully supported (r/w)	
Alignment	Left!, Center!, Right!, Justify! In PowerBuilder, when the Edit.password property is YES and the alignment of the column's text is center-aligned, the text is left-aligned when it is being edited. After the editing, the text is center-aligned. In the Web application, the text is always center-aligned.	None

Attributes	Supported (r)	
Background.*property*	Fully supported (r/w): Color, Mode	
Band	(r): Band	
BitmapName	Fully supported (r/w)	
Border	(r/w): NoBorder!, Box!, Lowered!, Raised!, ShadowBox!, Underline!, ResizeBorder!	
CheckBox.*property*	(r/w): LeftText, Off, On, Other, Scale, Text, 3D, ThreeD	It is unsupporte to dynamicall change the edit style o column by modifying t property.
Color	Fully supported (r/w) Set this property using DataWindow expression.	

ColType	Supported (r)
	`dw_control.object.columnname.coltype`
	`dw_control.Describe("columnname.coltype")`	

Criteria.*property*	Fully supported (r/w)	
dbName	Supported (r) Example: `dw_control.object.columnname.dbName` `dw_control.Describe("columnname.dbName")`	

dddw.*property*	(r/w): AllowEdit, AutoHScroll, AutoRetrieve, DataColumn, DisplayColumn, HscrollBar, Limit, Name, NilIsNull, PercentWidth, Required, UseAsBorder, VscrollBar, Case Lines, ShowList.
	(r): HSplitScroll
	The size and font size of Web DropdownDataWindows are determined by the size of the deployed DataWindow; the width of Web DropdownDataWindows, if set to be smaller than the column width, will be displayed in the same width as the column.
	When executing Modify function to change the Dddw.property on the Web, the value variable must be contained in single quotation marks. For example,
	dw_1.Modify (""emp_id.dddw.name=dw_dddw_dropdown"") //Unsupported
	dw_1.Modify (""emp_id.dddw.name='dw_dddw_dropdown'"") //Supported
		It is unsupporte to dynamicall change the edit style o column by modifying t property.

ddlb.*property*	(r/w): AllowEdit, AutoHScroll, Case, Limit, NilIsNull,	It is

	Required, ShowList, Sorted, UseAsBorder, VScrollBar	unsupporte to dynamicall change the edit style o column by modifying t property.
Edit.*property*	(r/w): AutoHScroll, AutoSelect, AutoVScroll, Case, CodeTable, DisplayOnly, Format, HscrollBar, Limit, Name, NilIsNull, Password, Required, Style, VscrollBar, FocusRectangle, ValidateCode	Modifying ValidateCo takes no effect. It is unsupporte to dynamicall change the edit style o column by modifying t property.
EditMask.*property*	(r/w): AutoSkip, CodeTable, Mask, ReadOnly, Required, Spin, SpinIncr, SpinRange, UseFormat, FocusRectangle In the Web application, if the Mask of a column is set to [General], the values in the column are all displayed as integers when the column gets focus. In the Web application, if the Mask is set to General by default, the displaying data of a column with the EditMask edit style will be converted into an integer when the column gets focus.	If a Mask is set as a fou digit string, the columr will only retrieve the first four di of the ente value wher you use SetItem to a value in t EditMask column wh is different from what occurs in PowerBuild It is unsupporte to dynamicall change the edit style o column by modifying t property.
Font.*property*	(r/w): Charset, Escapement, Face, Family, Height, Italic, Pitch, Strikethrough, Underline, Weight	Width

	Note: 1) When the value of Escapement is a negative number, the text will not be rotated. 2) The text rotated can be displayed out of the control in PowerBuilder, but not in the Web application. 3) After rotated, the multiple-line text still displays in multiple lines in PowerBuilder, but displays in one line on Web.	
Format	Edit	
Height	Set the Height property using a DataWindow expression.	
Height.AutoSize	Supported (r)	
HideSnaked	Supported (r)	
Identity	Fully supported (r/w)	
ID	Supported (r)	
Initial	Fully supported (r/w)	
Key	Fully supported (r/w)	
LineRemove	Supported (r)	
Multiline	Fully supported (r/w)	
Name	Supported (r)	
Pointer	Supported (r/w)	
Protect	This property can be set by using DataWindow expression.	
RadioButtons.property	Fully supported (r/w): 3D, Columns, LeftText, Scale	It is unsupporte to dynamicall change the edit style o column by modifying t property.
RightToLeft	Supported This property is partially supported. It only supports the right-to-left display of characters.	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	
TabSequence	Fully supported (r/w)	
Tag	Fully supported (r/w)	
Type	Supported (r)	
Update	Fully supported (r/w)	

Validation	Supported (r)	This prope cannot be dynamicall changed.
ValidationMsg	Supported (r/w)	
Values	Supported (r/w) This property is supported for columns with the following edit styles: DropDownListBox, CheckBox, and RadioButtons.	
Visible	Supported (r/w) This property can be set by using DataWindow expression.	
Width	Fully supported (r/w) This property can be set by using DataWindow expression.	
Width.Autosize	Supported (r)	
X	Supported (r/w)	
Y	Supported (r/w)	

Unsupported

Movable Resizable HTML.*property*

Notes:

1. Automatically adjusting the height of DropDownDataWindow and DropDownListBox object Column controls is unsupported.
2. Make sure that the length of data you specified for Column control in PowerBuilder exactly matches the length of data of the corresponding column in the database.
3. It is unsupported to nest a DropDownDataWindow with another DropDownDataWindow.

Computed Field control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

LineRemove Supported (r)

Property	What's Supported	What's Unsupported
Alignment	Fully supported (r/w): Left!,	None

	Center!, Right!, Justify!	
Attributes	Supported (r)	
Background.property	Fully supported (r/w): Color, Mode	
Band	Fully supported	
Border	(r/w): NoBorder!, Box!, Lowered!, Raised!, ShadowBox!, Underline!, ResizeBorder!	
Color	Fully supported (r/w) This property can be set by using DataWindow expression.	
ColType	Supported (r)	
Expression	Supported (r/w) Note: 1) After dynamically modifying this property in CrossTab DataWindow, data will be recalculated according to the new expression on the Web. In PowerBuilder, the data will not be recalculated. 2) If the expression starts with spaces (for example, ' ' + mail_from), in the Web application the computed field value after the spaces always starts in a new line, despite the column height. This is different from PowerBuilder.	
Font.property	(r/w):Charset, Escapement, Face, Family, Height, Italic, Pitch, Strikethrough, Underline, Weight Note: 1) When the value of Escapement is a negative number, the text will not be rotated. 2) The text rotated can be displayed out of the control in PowerBuilder, but not in Web applications. 3) After rotated, the multiple-line text still displays in multiple lines in PowerBuilder, but displays in one line on Web.	Width
Format	Supported (r/w)	
Height	Fully supported (r/w) This property can be set by using DataWindow expression.	
Height.Autosize	Supported	

HideSnaked	Supported (r)	
HTML.*property*	(r): AppendedHTML, Link, LinkArgs, LinkTarget, ValueIsHTML	
Multiline	Supported	
Name	Supported	
Pointer	Supported	
SlideLeft	Supported	
SlideUp	Supported	
Tag	Supported	
Type	Supported	
Visible	Supported	
Width	Supported	
Width.Autosize	Supported	
X	Supported	
Y	Supported	

Unsupported

Movable	Resizable			

Graph control

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Fully supported	
Axis	Fully supported	
Axis.property	Fully supported	
Axis.DispAttr	Fully supported	

BackColor	Fully supported	
Border	Fully supported	
Category	Fully supported	
Category.property	Fully supported	
Category.DispAttr	Fully supported	
Color	Fully supported	
Depth	Fully supported	
Elevation	Fully supported	
GraphType	(r/w): AreaGraph!, BarGraph!, BarStackGraph!, Bar3DObjGraph!, BarStack3DObjGraph!, Col3DObjGraph!, ColStack3DObjGraph!, ColGraph!, ColStackGraph!, LineGraph!, PieGraph!, ScatterGraph!	Area3D!, Bar3DGraph!, Col3DGraph!, Line3D!, Pie3D!
Height	Fully supported	
HideSnaked	Supported	
Legend	Fully supported	
Legend.DispAttr.property	Fully supported	
Name	Fully supported	
OverlapPercent	Fully supported	
Perspective	Fully supported	
Pie.DispAttr.fontproperty	Fully supported	
Pointer	Fully supported	
Range	Fully supported	
Rotation	Fully supported	
Series	Fully supported	
Series.property	Fully supported	
Series.DispAttr	Fully supported	
ShadeColor	Fully supported	
SizeToDisplay	Fully supported	
SlideLeft	Fully supported	
SlideUp	Fully supported	
Spacing	Fully supported	
Tag	Fully supported	
Title	Fully supported	
Title.DispAttr.fontproperty	Fully supported	
Type	Supported	
Values	Fully supported	
Values.property	Fully supported	
Values.DispAttr	Fully supported	
Visible	Fully supported	

Width	Fully supported	
X	Fully supported	
Y	Fully supported	

Unsupported

Movable Resizable

GroupBox control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Supported (r)	
Background.*property*	Fully supported (r/w): Color, Mode	
Band	Supported (r)	
Border	Supported (r)	
Color	Fully supported (r/w)	
Font.*property*	(r/w): Charset, Escapement, Face, Family, Height, Italic, Pitch, Strikethrough, Underline, Weight Note: 1) When the value of Escapement is a negative number, the text will not be rotated. 2) The text rotated can be displayed out of the control in PowerBuilder, but not in Web applications. 3) After rotated, the multiple-line text still displays in multiple lines in PowerBuilder, but displays in one line on Web.	Width
Height	Fully supported (r/w)	
HideSnaked	Supported (r)	
Name	Supported (r)	

Pointer	Fully supported (r/w):	
SlideLeft	Supported (r/w):	
SlideUp	Supported (r/w):	
Tag	Fully supported (r/w)	
Text	Fully supported (r/w)	
Type	Supported (r)	
Visible	Fully supported (r/w)	
Width	Fully supported (r/w)	
X	Fully supported (r/w)	
Y	Fully supported (r/w)	

Unsupported

Movable Resizable

Line control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Supported (r)	
Background.*property*	(r/w): Color, Mode	
Band	Supported (r)	
Name	Supported (r)	
Pen.*property*	Fully supported (r/w)	
Pointer	Fully supported (r/w)	
SlideLeft	Fully supported (r/w)	
SlideUp	Fully supported (r/w)	
Tag	Fully supported (r/w)	
Type	Supported	
Visible	Fully supported (r/w)	
X1, X2	Fully supported (r/w)	

Y1, Y2	Fully supported (r/w)	

Unsupported

Movable Resizable

Oval control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Supported(r)	
Background.*property*	Fully supported (r/w): Color, Mode	
Band	Supported (r)	
Brush.*property*	(r/w): Color, Hatch	
Height	Supported (r/w)	
HideSnaked	Supported (r)	
Name	Fully supported	
Pen.*property*	(r/w): Color, Style, Width	
Pointer	Fully supported (r/w)	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	
Tag	Fully supported (r/w)	
Type	Supported (r)	
Visible	Fully supported (r/w)	
X	Fully supported (r/w)	
Y	Fully supported (r/w)	

Unsupported

Movable Resizable

Picture control

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Supported(r)	
Band	Supported (r)	
Border	Fully supported (r/w)	
Filename	Fully supported (r/w)	
Height	Fully supported (r/w)	
HideSnaked	Supported (r)	
HTML.*property*	(r): AppendedHTML, Link, LinkArgs, LinkTarget	
Invert	Supported (r)	
Name	Supported (r)	
Pointer	Supported (r/w):	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	
Tag	Fully supported (r/w)	
Type	Supported (r)	
Visible	Fully supported (r/w)	
Width	Fullysupported (r/w)	
X	Fullysupported (r/w)	
Y	Fullysupported (r/w)	

Unsupported

Movable	Resizable

Rectangle control

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Supported (r)	
Background.*property*	Fully supported (r/w): Color, Mode	
Band	Supported (r)	
Brush.*property*	(r/w): Color, Hatch	
Height	Fully supported (r/w)	
HideSnaked	Supported (r)	
Name	Supported (r)	
Pen.*property*	(r/w): Color, Style, Width	
Pointer	Fully supported (r/w)	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	
Tag	Fully supported (r/w)	
Type	Supported (r)	
Visible	Fully supported (r/w)	
X	Fully supported (r/w)	
Y	Fully supported (r/w)	

Unsupported

Movable Resizable

Report control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Fully supported	
Band	Fully supported	
Border	Fully supported	
DataObject	Supported (r/w)	DataWindows with the following presentation styles cannot be the DataObject: RichText, OLE and TreeView.
Height	Fully supported	
Name	Fully supported	
Nested Arguments	Fully supported	
NewPage	Supported	
Pointer	Fully supported	
Slideleft	Supported	
SlideUp	Supported	
Tag	Fully supported	
Trail footer	Supported	
Type	Fully supported	
Visible	Fully supported	
X	Fully supported	
Y	Fully supported	

Unsupported

Criteria	HideSnaked	Movable	Resizable

Note:

- In a single data retrieval, the number of report queries cannot be over 65,535.
- It is unsupported to assign a nested report to a DataWindow object.
  Unsupported example:
  Dwobject ldwo
  String ls_1
  Ldwo = Dw_1.object.dw_report[1] // dw_report is a nested report.
  Ls_1 = ldwo.object.lastname[2]

  Supported example:
  Ls_1 = Dw_1.object.dw_report[1].object.lastname[2]

RoundRectangle control

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported
Attributes	Supported (r)	
Background.*property*	(r/w): Color, Mode	
Band	Supported (r)	
Brush.*property*	(r/w): Color, Hatch	
Height	Fully supported (r/w)	
HideSnaked	Supported (r)	
Name	Supported (r)	
Pen.*property*	(r/w): Color, Style, Width	
Pointer	Fully supported(r/w)	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	
Tag	Fully supported (r/w)	
Type	Supported (r)	
Visible	Fully supported (r/w)	
X	Fully supported (r/w)	
Y	Fully supported (r/w)	

Unsupported

Movable Resizable

Text control

APPEON

Supported

If a property is marked as "supported (r)" or "(r)", it means that the property can be read - but not changed - in script, and properties set in the painter will not take effect in the converted application.

If a property is marked as "supported (r/w)" or "(r/w)", it means that the property can be read or changed in script, and properties set in the painter will take effect.

Property	What's Supported	What's Unsupported

Alignment	Fully supported (r/w): Left!, Center!, Right!, Justify!	None
Attributes	Supported (r)	
Background.*property*	Fully supported (r/w): Color, Mode	
Band	Supported (r): Band	Background, Foreground
Border	(r/w): NoBorder!, Box!, Lowered!, Raised!, ShadowBox!, Underline!, ResizeBorder!	
Color	Supported (r/w) This property can be set by using DataWindow expression.	
Font.*property*	(r/w): Charset, Escapement, Face, Family, Height, Italic, Pitch, Strikethrough, Underline, Weight Note: 1) When the value of Escapement is a negative number, the text will not be rotated. 2) The text rotated can be displayed out of the control in PowerBuilder, but not in Web applications. 3) After rotated, the multiple-line text still displays in multiple lines in PowerBuilder, but displays in one line on Web.	Width
Height	Fully supported (r/w) This property can be set by using DataWindow expression.	
HideSnaked	Supported (r)	
HTML.*property*	(r): AppendedHTML, Link, LinkArgs, LinkTarget, ValueIsHTML	
Name	Supported (r)	
Pointer	Fully supported(r/w)	
SlideLeft	Supported (r/w)	
SlideUp	Supported (r/w)	
Tag	Fully supported (r/w)	
Text	Supported (r/w)	
Type	Supported (r)	
Visible	Fully supported (r/w) This property can be set by using DataWindow expression.	

Width	Fully supported (r/w) This property can be set by using DataWindow expression.	
X	Fully supported (r/w) This property can be set by using DataWindow expression.	
Y	Fully supported (r/w) This property can be set by using DataWindow expression.	

Unsupported

Height.AutoSize	Movable	Resizable

Unsupported controls

APPEON

The properties of all the following unsupported controls are unsupported:

OLE	TableBlob

DataWindow data and property expressions

APPEON

Supported

- The following DataWindow data expressions are supported:

  1.Syntax for one or all data items in a named column

  dwcontrol.Object.*dwcolumnname{.buffer} {.datasource}{[rownum]}*

  2.Syntax for selected data in a named column

  dwcontrol.Object.*dwcolumnname{.Primary}{.datasource}*.Selected

  3.Syntax for a range of data in a named column

  dwcontrol.Object.*columnname{.buffer}{.datasource}[startrow,endrow]*

  4.Syntax for a single data item in a DataWindow

  dwcontrol.Object.Data *{.buffer}{.datasource}[rownum, colnum]*

  5.Syntax for data in a block of rows and columns

dwcontrol.Object.Data*{.buffer}{.datasource}[startrow,startcol, endrow, endcol]*

6.Syntax for data in a single row or all rows

dwcontrol.Object.Data*{.buffer}{.datasource}{[rownum]}*

7.Syntax for all data from selected rows

dwcontrol.Object.Data*{.Primary}{.datasource}*.Selected

- The expression for accessing the text displayed in the column header is supported:

  dwcontrol.Object.*ColumnName.Text*

- Basic syntax for DataWindow property expressions is supported:

  dwcontrol.Object.*dwcontrolname{.property}.property{=value}*

- Setting or getting the value of a dot notation is supported, except that there is structure data in the expression

Unsupported

- Getting the data value from a filter buffer according to the row number is unsupported. This is because data is stored in a different order in Appeon than in PowerBuilder. For example, the following script is unsupported:

  ```
  dw_control.object.filter[startrow, startcol, endrow,
  endcol]     //unsupported
  ```

- Setting the value of a dot notation to a structure array, or setting a structure array to a dot notation, is unsupported. For example, the following syntax is unsupported:

  ```
  struct1 t[10]

  t = dw_1.object.data[1]
  ```

  Note: The Appeon Unsupported Features Analysis tool cannot detect unsupported features in DataWindow dot notations. You must make sure the specifications about dot notations are satisfied in the application. Otherwise, it will cause errors. For more information on undetected features, refer to the Undetected Features section.

- Selected and Data are unsupported to be directly accessed by a DataWindow object via the dot notation. For example:

  ldwo_target.Primary = ldwo_column.selected //Unsupported

  ldwo_target.Primary = dw_1.object.id.selected //Supported

- It is unsupported to contain Data in a dot notation to obtain the data of a column. For example:

  Supported example:

  ```
  string ls_an
  dwobject dwo
  dwo = dw_1.object.id
  ls_an = string(dwo.data.primary[1])
  ```

  Unsupported example:

  ```
  string ls_an
  dwobject dwo
  dwo = dw_1.object.id
  ```

ls_an = string(dwo.primary[1])

- It is unsupported to use the following syntax in obtaining data in a row of a report.

  dw_1.Object.dw_report[1] //Unsupported

DataWindow constants

Supported

In PowerBuilder, constants are defined in the DataWindow control for values of properties and arguments for methods. They are sets of values associated with enumerated data types. Values for enumerated data types always end with an exclamation point. The following list is the PowerBuilder constants Appeon supports:

Constant	Supported Values	Unsupported Values
Alignment	Left! Center! Right! Justify!	None
Band	Detail! Header! Footer!	None
Border	NoBorder! Box! Lowered! Raised!	ShadowBox! Underline! ResizeBorder!
BorderStyle	StyleBox! StyleLowered! StyleRaised!	StyleShadowBox!
CharSet	CharSetAnsi! CharSetUnicode! CharSetAnsiHebrew! CharSetAnsiArabic!	CharSetDBCS-Japanese!
DWBuffer	Primary! Delete! Filter!	None
DWItemStatus		None

	NotModified! DataModified! New! NewModified!	Note: It is not recommended to change status in script. Frequent or inappropriate user modification may result in unpredictable problems. The following operation is not recommended for new rows with no specified values for their columns: Changing a row's status from New! to NewModified and updating in script.
SaveAsType	Excel! Excel5! HTMLTable! PDF! Text! WMF! XML! Note: Up to 256 characters are supported and anything larger will be automatically truncated.	CSV!, SYLK!, WKS!, WK1!, DIF!, dBASE2!, dBASE3!, SQLInsert!, Clipboard!, PSReport!, XSLFO!, Excel8!, EMF!
SQLPreviewFunction	PreviewFunctionRetrieve!	PreviewFunctionReselectRow! PreviewFunctionUpdate!
SQLPreviewType	PreviewSelect!	PreviewInsert! PreviewDelete! PreviewUpdate!

If a constant is set to an unsupported value, Appeon will use the default enumerated value as the constant value. For example, unsupported BorderStyle will be read as NoBorder.

Unsupported

The following constants are not supported:

ConnectionSource	DriverType	DWConflictResolution	FillPattern
grColorType	grDataType	grObjectType	grSymbolType
LineStyle	RowFocusInd		

DataWindow control

Properties | Events | Functions

Properties of DataWindow control

Properties | Events | Functions

Supported

The supported properties of DataWindow controls are listed in the table below:

Border	BorderStyle*	BringToTop	ControlMenu
DataObject	DragAuto	DragIcon	Enabled
Height	HScrollBar*	HSplitScroll	LiveScroll
Icon	MaxBox	MinBox	Object
Resizeable*	RightToLeft	TabOrder	Tag
Title	TitleBar	Visible	VScrollBar*
Width	X	Y	

- BorderStyle
  Three types of BorderStyle are supported: Box, 3D Raised, 3D Lowered, but Shadow Box is unsupported.
- VScrollBar or HScrollBar
  In PowerBuilder, when the property VScrollBar or HScrollBar is changed from visible to invisible or from invisible to visible, the Resize event will be triggered. However, in the same scenario on the Web, the Resize event will not be triggered.
- Resizeable
  The Resizeable property cannot be dynamically changed.

  After setting this property to True, setting Border properties will not be effective.

Unsupported

The unsupported properties of DataWindow controls are listed in the table below:

ClassDefinition

Events of DataWindow control

Properties | Events| Functions

Events for the DataWindow control	Supported	
	ButtonClicked	ButtonClicking
	Clicked	Constructor
	Collapsed	Collapsing
	DBError	Destructor
	DoubleClicked	DragDrop
	DragEnter	DragLeave

DragWithin	EditChanged
Expanded	Expanding
GetFocus	ItemChanged
ItemError	ItemFocusChanged
LoseFocus	PrintPage
RButtonDown	Resize
RetrieveEnd	RetrieveStart
RowFocusChanged	RowFocusChanging
SQLPreview	WSError
ScrollHorizontal	ScrollVertical

DBError

The sqlsyntax and row arguments do not work in the DBError event. The row argument is always considered to be 0.

The GetSQLPreview function will be ignored if used in the DBError event.

SQLPreview

Only the value previewselect! can be used as the SQLPreview sqltype argument.

Unsupported

Error	Help
Other	PrintEnd
PrintStart	RetrieveRow

Using instance variables or global variables to store the dwo argument (argument type is dwobject) for a DataWindow event is unsupported.

Triggering of DataWindow events

Supported

Nearly full support is available for Triggering supported DataWindow events, except for the following limitations and differences.

(For ItemChanged event) In a Web application, if the ItemChanged event is triggered for a field whose new value does not pass validation, the focus will not go back to the column being edited.

(For Resize event) When the Width or Height of a DataWindow control is reset, the Resize event will be triggered, regardless of whether the value is changed or remains the same.

(For RowFocusChanged event) In PowerBuilder, RowFocusChanged will be triggered twice upon execution of the RowsCopy or RowsMove function. However, in the same scenario on the Web, the RowsFocusChanged event will only be triggered once.

(For SQLPreview event) The SQLPreview event can only be triggered by

the Retrieve function, not by Update or ReselectRow.

If a DataWindow event requires interaction with the server, its subsequent event may not be triggered due to the time delay caused by the interaction with the server.

For label DataWindows, clicking different lines cannot trigger the RowFocusChanging and RowFocusChanged events.

Functions of DataWindow control

Properties | Events | Functions

Supported

There are some limitations or differences for calling functions marked with the "*" symbol. Refer to the **Limitations and Differences for Calling Functions**

AcceptText	CategoryCount	CategoryName
ClassName	Clear	ClearValues
ClipBoard	Copy	CopyRTF
Collapse	CollapseAll	CollapseAllChildren
CollapseLevel	Cut	DataCount
DeletedCount	DeleteRow	Describe *
Drag	Expand	ExpandAll
ExpandAllChildren	ExpandLevel	Filter
FilteredCount	Find	FindCategory
FindGroupChange	FindNext	FindSeries
GetBandAtPointer	GetBorderStyle	GetChanges
GetChild	GetClickedColumn	GetClickedRow*
GetColumn	GetColumnName	GetData
GetDataPieExplode	GetDataStyle	GetDataValue
GetFormat	GetFullState*	GetItemDate
GetItemDataTime	GetItemDecimal	GetItemFormattedString
GetItemUnformattedString	GetItemNumber	GetItemStatus
GetItemString	GetItemTime	GetNextModified
GetObjectAtPointer	GetParent	GetRow
GetRowFromRowId	GetSelectedRow	GetSeriesStyle
GetSQLPreview	GetSQLSelect	GetText

GetValidate	GetValue*	GroupCalc
Hide	ImportClipboard*	ImportFile*
InsertDocument	InsertRow	ImportString*
IsExpanded	IsSelected	LineCount
ModifiedCount	Modify*	ObjectAtPointer
Paste	PasteRTF	Position
PointerX	PointerY	PostEvent
Print*	PrintCancel	Reset*
ResetDataColors	ResetUpdate	Resize
Retrieve*	RowCount	RowsCopy*
RowsDiscard	RowsMove	SaveAs*
SaveAsAscii	ScrollNextPage	ScrollNextRow
ScrollPriorPage	ScrollPriorRow	ScrollToRow
SelectedLength	SelectedStart	SelectedText
SelectedLine	SelectRow	SelectText
SelectTextLine	SelectTextAll*	SelectTextWors
SetChanges	SeriesCount	SeriesName
SetBorderStyle	SetColumn	SetDataPieExplode
SetDataStyle	SetDetailHeight*	SetFilter
SetFocus	SetFormat	SetFullState
SetItem	SetItemStatus	SetPosition*
SetRedraw	SetRow	SetRowFocusIndicator
SetSeriesStyle	SetSort*	SetSQLPreview
SetSQLSelect*	SetTabOrder	SetText
SetTransObject	SetValidate	SetValue*
SetWSObject*	ShareData	ShowHeadFoot
ShareDataOff	Show	Sort*
TextLine	TriggerEvent*	Typeof
Undo	Update	

Unsupported

CanUnDo	CrosstabDialog	DBCancel

DBErrorCode	DBErrorMessage	GenerateHTMLForm
GenerateResultSet	GetContextService	GetMessageText
GetStateStatus	GetTrans	GetUpdateStatus
OLEActivate	ResetInk	ReselectRow
SaveInk	SaveInkPic	Scroll
ResetTransObject	SetActionCode	SetHTMLAction
SetTrans		

Limitations and Differences for Calling Functions

1. Limitations

- GetFullState
  The Retrieve argument is unsupported in the GetFullState function.
- GetValue
  The *column* argument only works when the edit style of the column is CheckBox, DropDownListBox, Edit, or RadioButton.
- ImportFile, ImportString, ImportClipboard
  1. The *filename* argument of ImportFile function must be a tab-separated file (TXT) or a comma-separated file (CSV).
  2. The importtype arguments (e.g. Text!, CSV! and XML!) of ImportString function are unsupported.
     The importtype arguments (e.g. Text!, CSV!, XML!, DBase2!, DBase3!) of ImportFile function are unsupported.
  3. When using these functions, you should ensure that the data type imported matches the data type that you specified in a DataWindow control, DataStore object or graph control. Otherwise the output on the Web may be different from that in PowerBuilder. For example, if the date type specified in a DataWindow is string, when you import a file with date number (e.g., 2006-08-01), on the Web the date data will be recognized as a string (2006), however in PowerBuilder, it will be recognized as a date data (2006-08-01).
- Modify
  Refer to Dynamic DataWindow.
- Print
  1. Arguments specified in the Print function will be ignored in a Web application. Even if the CancelDialog argument is set to TRUE or FALSE, no Cancel dialog will be displayed on the Web to cancel printing.
  2. When the Print function is executed for a DataWindow that contains a Text control with BorderType as None and actual length of the content larger than the length of the control, the printing result shows the content in the Text control the same way as the control is displayed in the application, although in PowerBuilder, the printing result shows the full content in the Text control.
  3. For controls, print function is only supported when called in Graph controls with the following syntax.
     integer objectname.Print (long printjobnumber, integer x, integer y {, integer width, integer height })
- Reset
  The unsupported syntax: Reset(dwcontrol).
  The supported syntax: dwcontrol.Reset.

- SaveAs
  1. On the Web, Nillable attribute is unsupported in an XML schema.
  2. The supported SaveAs syntax :
     ll_testvalue = dw_test.SaveAs(filename, saveastype, colheading, encoding)

     In the syntax:
     The value of a *saveastype* argument can be TEXT, HTMLTable, WMF (EAServer only), XML, PDF*, EXCEL, or EXCEL5. For the EXCEL format, only up to 256 characters are supported and anything larger will be automatically truncated.
     SaveAs PDF cannot support the colheading arguments, for example, the following syntax is unsupported:
     Integer dwcontrol.SaveAs({string filename, saveastype saveastype, boolean colheading{, encoding encoding}})
     The unsupported SaveAs syntax:
     dw_test.SaveAs([filename,]graphcontrol[, saveastype, colheading])
  3. If the DataWindow without any data is saved as an HTML file or XML file, on Web the DataWindow header will not be saved, whereas it will be saved on PB.
- SetPosition
  The supported syntax:
  dwcontrol.SetPosition (position {, precedingobject })
  the *position* can be ToTop!, ToBottom!, but cannot be Behind!

  The unsupported syntax
  dwcontrol.SetPosition (objectname, band, bringtofront)
- SetSQLSelect
  If a DataWindow uses a stored procedure as its data source, the SetSQLSelect function cannot be executed for the DataWindow.
- SetValue
  The SetValue *column* argument only works if the edit style of the column is DropdownListBox.
- SetSort
  1. If the Format argument of the SetSort contains sorting criteria for more than one column, the criteria of the columns must be separated with commas.
  2. Using desc or asc as the Order will not have any effect. Please use the standard Order value A for ascending or D for descending order.
- SetWSObject
  The SetWSObject function is used to set the authentication info for accessing Web service.
- TriggerEvent
  The following TriggerEvent syntax is unsupported:
  object1.TriggerEvent (object2, event).

2. Differences

- Describe
  If there is no value for a property in the propertylist argument, Describe returns a question mark (?) in PowerBuilder, but returns the default value (for example, Arrow!) of the property on the Web.
- GetClickedRow
  In a Web application, if the user clicks or double-clicks any area within a DataWindow, the GetClickedRow function returns the same value as in PowerBuilder. If the GetClickedRow is called in some control or window for a DataWindow, the return value is different on the Web than in PowerBuilder. For example, if the *dw_1.GetClickedRow()*

function is called in the Clicked event of a CommandButton, it returns -1 in PowerBuilder and 0 on the Web.

- GetItemDecimal
  The return value of the *GetItemDecimal* function will omit the zero(s) to the right of the decimal value on the Web. For example: 3000.100 will be returned as 3000.1 on the Web but 3000.100 in PowerBuilder.
- Retrieve
  1. Because Appeon Web applications cannot check whether the retrieve result set matches the DataWindow definition syntax, the DBError event will not be triggered.
  2. If the data type of an EditMask control is numeric, the value of the control cannot be set to "0".
- SetDetailHight
  Setting detail.height.autosize to true after specifying the height by this function, executing Describe returns the auto sized height on the Web. But in PowerBuilder it returns the height specified by this function.
- RowDiscard
  For Composite, Group, Label and RichText DataWindows, if the current row is the start row, calling RowDiscard will not trigger RowFocusChanged on the Web. This is different from that in PowerBuilder.
- SaveAsAscii When executing the SaveAsAscii function in PowerBuilder, invisible controls which lay in rows will not be saved as empty rows or " " (quotation marks). However, these invisible controls will be ignored on the Web.
- SelectTextAll
  If the focus is in the header or footer band, executing SelectTextAll (detail!) on the Web returns -1 and no text will be selected. However, in PowerBuilder, the text in the band, which the focus is in, will be selected.
- ShareData and ShareDataOff
  1. Supported:
     CONNECT USING SQLCA;
     dw_corp.SetTransObject(SQLCA)
     dw_corp.Retrieve()
     dw_corp.ShareData(dw_emp)
     dw_corp.ShareData(dw_dept)
     ... // Some processing
     dw_emp.ShareDataOff()
  2. In Web applications, if any data in two data-sharing Group DataWindows are changed, the primary Group DataWindow will be re-grouped and re-sorted automatically, while the secondary Group DataWindow will only be re-grouped.
  3. The row and column status is shared between the primary DataWindow and secondary DataWindow on the Web, although not shared in PowerBuilder.
- Sort
  1. Different from the Sort in PowerBuilder, the Web Sort function considers the "~" symbol to have precedence over characters. For this reason, the sort result may be a little different in Web and PowerBuilder applications.
  2. In the Web application, when the user sorts a DataWindow on a specified column, rows containing special characters (e.g. ".", "", "/") will be sorted in different order than in PowerBuilder.

DataStore object

Properties | Events | Functions

A DataStore is a nonvisual DataWindow control. DataStores act just like DataWindow controls except that many of the visual properties associated with DataWindow controls do not apply to DataStores. Because you can print DataStores, PowerBuilder provides some events and functions for DataStores that pertain to the visual presentation of the data.

However, graph functions such as CategoryCount, CategoryName, GetData, SeriesCount, and so forth depend on the visual graph control, which is not created for a DataStore object. These functions return an error value or an empty string when used with DataStores.

Properties of DataStore object

Properties | Events | Functions

Supported

The supported properties of DataStore are listed in the table below:

DataObject	Object

Unsupported

The unsupported property of DataStore is ClassDefinition.

Events of DataStore object

Properties | Events | Functions

Supported

The following DataStore events are supported:

Constructor	DBError	Destructor*	ItemChanged
ItemError	PrintPage	RetrieveEnd	RetrieveStart
SQLPreview*	UpdateEnd	UpdateStart	WSError

- Destructor
  If a non-visual object is a local variable, the Destructor event in the non-visual object cannot be triggered unless there is a Destroy statement for the non-visual object as well.
- SQLPreview
  The SQLPreview event can be triggered by Retrieve method, but cannot be triggered by the Update or ReselectRow methods.

Unsupported

The following DataStore events are unsupported:

Error	PrintEnd	PrintStart	RetrieveRow

Functions of DataStore object

Properties | Events | Functions

Supported

There are some limitations or differences for calling functions marked with the "*" symbol. Refer to the Limitations and Differences for Calling Functions.

AcceptText	ClassName	ClearValues
Create	DeletedCount	DeleteRow
Describe	FindGroupChange	Filter
FilteredCount	Find	FindRequired
GenerateHTMLForm	GetChanges	GetChild
GetColumn	GetColumnName	GetFormat
GetFullState	GetItemDate	GetItemDateTime
GetItemDecimal	GetItemNumber	GetItemStatus
GetItemString	GetItemTime	GetNextModified
GetParent	GetRow	GetRowFromRowId
GetRowIdFromRow	GetSelectedRow	GetSQLSelect
GetText	GetValidate	GetValue*
GroupCalc	ImportClipboard*	ImportFile*
ImportString*	InsertRow	IsSelected
ModifiedCount	Modify*	PostEvent
Print	Reset	ResetUpdate
Retrieve	RowCount	RowsCopy
RowsDiscard	RowsMove*	SaveAs*
SaveAsAscii	SetDetailHeight	SelectRow
SetChanges	SetColumn	SetFilter
SetFormat	SetFullState	SetItem
SetItemStatus	SetPosition	SetRow
SetSort*	SetSQLPreview	SetSQLSelect*

SetText	SetTransObject	SetValidate
SetValue*	SetWSObject*	ShareData
ShareDataOff	Sort	TriggerEvent*
TypeOf	Update	

Unsupported

CategoryCount	CategoryName	Clipboard
CopyRTF	CreateFrom	DataCount
DBCancel	FindCategory	FindSeries
GenerateResultSet	GetBorderStyle	GetContextService
GetClickedColumn	GetClickedRow	GetData
GetDataPieExplode	GetDataStyle	GetDateValue
GetSeriesStyle	GetStateStatus	GetTrans
InsertDocument	PasteRTF	PrintCancel
ReselectRow	ResetDataColors	ResetTransObject
SeriesCount	SeriesName	SetBorderStyle
SetDataPieExplode	SetDataStyle	SetHTMLAction
SetSeriesStyle	SetTrans	

Limitations and Differences for Calling Functions

- GetValue
  The *column* argument works only if the edit style of the column is CheckBox, DropDownListBox, Edit, or RadioButton.
- ImportFile, ImportString, ImportClipboard
  1. The *filename* argument of ImportFile function must be a tab-separated file (TXT) or a comma-separated file (CSV).
  2. The importtype arguments (e.g. Text!, CSV! and XML!) of ImportString function are unsupported.
     The importtype arguments (e.g. Text!, CSV!, XML!, DBase2!, DBase3!) of ImportFile function are unsupported.
  3. When using the three functions, you should ensure that the data type imported matches the data type that you specified in a DataWindow control, DataStore object or graph control. Otherwise the output on the Web may be different from that in PowerBuilder. For example, if the date type specified in a DataWindow is string, when you import a file with date number (eg, 2006-08-01), on the Web the date data will be recognized as a string (2006), however in PowerBuilder, it will be recognized as a date data (2006-08-01).
- Modify

If the Modify function is used to modify the WHERE clause of the DataWindow object's SQL SELECT statement, please make sure that the new SQL SELECT statement is correct in syntax. Otherwise, syntax errors can occur on the Web because PowerBuilder does not validate the statement whereas JavaScript does.

- RowsMove
  Events cannot be triggered while the application moves data within the primary buffer of one DataWindow.
- SaveAs
  1. The *saveastype* argument can be TEXT, HTMLTable, WMF (EAServer only), XML, PDF*, EXCEL, or EXCEL5. For the EXCEL format, only up to 256 characters are supported and anything larger will be automatically truncated.
  2. The supported SaveAs syntax:
     ```
     ll_testvalue = dw_test.SaveAs(filename,saveastype,
     colheading, encoding)
     ```
     SaveAs PDF cannot support the colheading arguments, for example, the following syntax is unsupported:
     ```
     Integer dwcontrol.SaveAs({string filename, saveastype
     saveastype, boolean colheading{, encoding encoding}})
     ```
     The unsupported SaveAs syntax:
     ```
     dw_test.SaveAs([filename, ]graphcontrol[, saveastype,
     colheading])
     ```
  3. On the Web, Nillable attribute is unsupported in an XML schema.
  4. If the DataStore without any data is saved as an HTML file or XML file, on Web the header will not be saved, whereas it will be saved on PB.
- SaveAsAscii
  Retainnewlinechar argument is unsupported.
- SetValue
  The *column* argument works only if the edit style of the column is DropdownListBox.
- SetSort
  Using " desc" or "asc" as the Order will not have any effect. Please use the standard Order value A for ascending or D for descending order.
- TriggerEvent
  The following TriggerEvent syntax is unsupported:
  ```
  object1.TriggerEvent (object2, event)
  ```

DataWindowChild object

Properties | Functions

APPEON

Properties of DataWindowChild object

Properties | Functions

APPEON

Supported

None.

Unsupported

The unsupported property of DataWindowChild is ClassDefinition.

Functions for DataWindowChild

Properties | Functions

Supported

There are some limitations or differences for calling functions marked with the "*" symbol. Refer to the Limitations and Differences for Calling Functions

AcceptText	ClassName	DeletedCount
DeleteRow	Describe	Filter
FilteredCount	Find	FindGroupChange
FindRequired	GetBandAtPointer	GetBorderStyle
GetChanges	GetChild	GetClickedColumn
GetClickedRow	GetColumn	GetColumnName
GetFormat	GetItemDate	GetItemDateTime
GetItemDecimal	GetItemNumber	GetItemStatus
GetItemString	GetItemTime	GetNextModified
GetObjectAtPointer	GetParent	GetRow
GetSelectedRow	GetSQLPreview*	GetSQLSelect*
GetText	GetValidate	GetValue
GroupCalc	ImportClipboard*	ImportFile*
ImportString*	InsertRow	IsSelected
ModifiedCount	Modify*	Reset
ResetUpdate	Retrieve	RowCount
RowsCopy	RowsDiscard	RowsMove
SaveAs*	ScrollNextPage	ScrollNextRow
ScrollPriorPage	ScrollPriorRow	ScrollToRow
SetChanges	SetColumn	SetFilter
SetDetailHeight	SetFormat	SetItem
SetItemStatus	SetPosition*	SetRedraw
SetRow	SetRowFocusIndicator	SetSort*

SetSQLPreview	SetSQLSelect	SetTabOrder
SetText	SetTransObject	SetValue
SetValidate	SetWSObject*	ShareData
SharedDataOff	Sort*	TypeOf
Update		

Unsupported

CrosstabDialog	DBCancel	DBErrorCode
DBErrorMessage	GetContextService	GetRowIDFromRow
GetRowFromRowID	GetTrans	GetUpdateStatus
OLEActivate	ReselectRow	ResetTransObject
SelectRow	SetBorderStyle	SetTrans

Limitations and Differences for Calling Functions

- GetValue
  The column argument does not work only if the edit style of the column is CheckBox, DropDownListBox, Edit, or RadioButton.
- ImportFile, ImportString, ImportClipboard
  1. The *filename* argument of ImportFile function must be a tab-separated file (TXT) or a comma-separated file (CSV).
  2. The importtype arguments (e.g. Text!, CSV! and XML!) of ImportString function are unsupported.
     The importtype arguments (e.g. Text!, CSV!, XML!, DBase2!, DBase3!) of ImportFile function are unsupported.
  3. When using the three functions, you should ensure that the data type imported matches the data type that you specified in a DataWindow control, DataStore object or graph control. Otherwise the output on the Web may be different from that in PowerBuilder. For example, if the date type specified in a DataWindow is string, when you import a file with date number (e.g., 2006-08-01), on the Web the date data will be recognized as a string (2006), however in PowerBuilder, it will be recognized as a date data (2006-08-01).
- Modify
  If the Modify function is used to modify the WHERE clause of the DataWindow object's SQL SELECT statement, please make sure that the new SQL SELECT statement is correct in syntax. Otherwise, syntax errors can occur because PowerBuilder does not validate the statement whereas JavaScript does.
- SaveAs
  1. The saveastype argument can be TEXT, HTMLTable, WMF (EAServer only), XML, PDF*, EXCEL, or EXCEL5. For the EXCEL format, only up to 256 characters are supported and anything larger will be automatically truncated.

2. On the Web, Nillable attribute is unsupported in an XML schema.
3. The supported SaveAs syntax:
   ll_testvalue = dw_test.SaveAs(filename,saveastype, colheading, encoding)
   SaveAs PDF cannot support the colheading arguments, for example, the following syntax is unsupported:
   ```
   Integer dwcontrol.SaveAs({string filename, saveastype
   saveastype, boolean colheading{, encoding encoding}})
   ```
   The unsupported SaveAs syntax:
   dw_test.SaveAs([filename,]graphcontrol[, saveastype, colheading])
4. If the DataWindowChild without any data is saved as an HTML file or XML file, on Web the header will not be saved, whereas it will be saved on PB.

- SetSort
  Using " desc" or "asc" as the Order will not have any effect. Please use the standard Order value A for ascending or D for descending order
- SetPosition
  The following syntax is supported:
  dwcontrol.SetPosition (position {, precedingobject })
  the position can be ToTop!, ToBottom!, and cannot be Behind!

  The following syntax is unsupported:
  dwcontrol.SetPosition (objectname, band, bringtofront)
- SetWSObject
  The SetWSObject function is used to set the authentication info for accessing Web service.
- Sort
  If the items in a Web DropDownDataWindow are double-byte (such as, Chinese, Korean, or Japanese), sorting the DropDownDataWindow has a different result from PowerBuilder. This is because the sorting method of PowerScript and JavaScript is different. For example, if the charset is Chinese, PowerScript sorts by the spelling while JavaScript sorts by Unicode.

DataWindow performance considerations

APPEON

Strong suggestion: reduce usage of DataWindow SQLPreview event

Each time the DataWindow SQLPreview event is triggered, the Web application will interact with Appeon Server twice, which costs 1-2 seconds. Therefore, Appeon recommends you minimize writing script into the SQLPreview event of the DataWindow.

Suggestion: use Describe and Modify to get and set DataWindow object properties

Dot notation is much less efficient than Describe and Modify functions. In general, the Describe and Modify functions are about two to three times faster than dot notation. Therefore, Appeon recommends you use Describe function to replace dot notation that gets the DataWindow object properties, and use the Modify function to replace dot notation that sets the DataWindow object properties.

Suggestion: minimize modifying DataWindow DataObject

It takes 0.3 seconds each time the DataObject property of DataWindow/DataStore is modified

during application run time. Therefore, modifying the DataObject property frequently could slow down performance significantly. Appeon recommends you minimize modifying the DataObject property.

DBParm parameters in Database

APPEON

Supported

The following DBParm parameters are supported: CommitOnDisconnect, CacheName, DelimitIdentifier, DateTimeAllowed, DisableBind, TrimSpaces and Identity.

1. The data source name for the CacheName parameter is case sensitive in JBoss, JEUS, WebLogic and WebSphere (but not in EAServer or IIS .NET).
2. DisableBind parameter is only supported in ESQL.
3. In PowerBuilder, the data source name only applies when a PowerBuilder NVO is deployed to EAServer. In Appeon, the data source specified applies for the connection of the deployed application to the database. Settings to the other parameters in the script will be ignored.
4. To support DelimitIdentifier parameter, you must set the "Enclose table and column names in double quotes" option in the Appeon Developer | DB Type Profile Configuration page before deployment.
5. If table and column names are keywords that must be enclosed in double quotation marks (with DelimitIdentifier set to "yes"), the SQL statement cannot be a PowerBuilder SELECT statement, otherwise, PDF Print and Save As PDF will fail.
6. The DelimitIdentifier parameter is unsupported when the updated table name of DataWindow contains the owner name. In this case, be sure to clear the "Enclose table and column names in double quotes" check box in Appeon Developer.
7. It is unsupported to dynamically set the DelimitIdentifier parameter. For all supported DBParm parameters (excluding DelimitIdentifier) you can only dynamically set them before executing Connect.
8. Supports the Identity property of Transaction DBParm, for example: Identity='@@IDENTITY'.

Unsupported

Except the parameters above, other DBParm parameters are unsupported.

Calling Web Service

APPEON

Appeon supports two ways to call Web Service on the Web.

- **Call SoapConnection object and SoapException object.**

They are standard PowerBuilder system objects. To make the Web Service call work on the Web, you also need to

Step 1. Upload the Service Proxy in Appeon Developer. Refer to the section Application

profile settings in working with Appeon Developer.

Step 2. Install **Soap ToolKit 3.0** on every end users' machine.

- Call **AppeonWebService object.**

  This is an Appeon customized object, provided in Appeon Wokarounds PBL. You can only successfully call a Web Service via AppeonWebService object on the Web. The Web Service call will fail in client/server PowerBuilder application. No need to install any add-on on end users' machine.

Calling SoapConnection & SoapException Objects

APPEON

Supported

Appeon supports using the **SoapConnection object** and **SoapException object** to implement the Web Service call.

Unsupported

Appeon does not support UDDI Proxy.

Appeon does not support .NET WSDL engine.

SoapConnection object

APPEON

SoapConnection object contains the following methods. the GenerateProxy method is unsupported since it is not implemented even in PowerBuilder.

Method	Support Level	Example Code
CreateInstance	Supported	syb_myport myproxy long ret ret = Conn.CreateInstance(myproxy, "syb_myport", "http://my.server/soap/myport")
SetOptions	Supported	lOpt=Conn.SetOptions ("SoapLog=~"airportweather.log~"")
SetProxyServerOptions	Supported	long ll_return string ls_string ls_string = "address='http://Srvr:8080/endpnt'," ls_string += "userID='MyName',

		password='mypass'" ll_return = Conn.SetProxyServerOptions (ls_string)
DynamicCast	Unsupported	
RemoveAuthentication	Unsupported	
SetBasicAuthentication	Unsupported	
SetClientCertificateFile	Unsupported	
SetOptions	Unsupported	
SetProxyServer	Unsupported	
SetProxyServerOptions	Unsupported	
SetSoapLogFile	Unsupported	
SetTimeout	Unsupported	
UseConnectionCache	Unsupported	
UseIntegratedWindowsAuthentication	Unsupported	
GenerateProxy	Unsupported	

SoapException object

APPEON

Appeon supports the following properties and functions of SoapConnection object.

Exception property	**Supported**	
	Text	
Exception function	**Supported**	
	SetMessage	SetMessage

Calling AppeonWebService

APPEON

AppeonWebService, is an Appeon customized object, provided in Appeon Wokarounds PBL. You can only successfully call a Web Service via AppeonWebService object on the Web. and you don' t need to install any add-on on end users' machine.

Undetected features

Overview

Appeon provides an Unsupported Features Analysis tool for detecting unsupported features in a PowerBuilder application before generating Web files for the application. The Unsupported Features Analysis scans each object within a PowerBuilder application for unsupported features and generates a report that, when combined with the *Migration User Guide* and *Appeon Help,* provides a foundation for bringing a PowerBuilder application to specification.

The Appeon Unsupported Features Analysis is capable of highlighting the majority of unsupported features contained in the PowerBuilder application; however, there are some features that the Unsupported Features Analysis will not detect, and thus will not list in the Analysis Report. Approximately 5% of PowerBuilder features that are not supported by Appeon may not be detected in the Unsupported Features Analysis.

An application containing unsupported features can still be converted to the Web and work correctly, depending on the type and number of unsupported features. If the Web application does not work correctly but the Unsupported Features Analysis does not indicate any unsupported features that are likely to cause such a problem, the problem may be caused by an unsupported feature that has not been detected. In this case, it is strongly recommended that you carefully read the undetected features listed below and examine your application to determine if it contains any of these features.

Undetected Features Listing

The following are unsupported features that are not detected during Unsupported Features Analysis.

Naming conventions	• Duplicate object names. No two objects should have the same name in an application, whether they are of the same type or not. The Unsupported Features Analysis cannot detect whether object names are duplicated in an application. • More than one Application object. Having more than one Application object in an application is unsupported. Unsupported Features Analysis cannot detect whether more than one Application object is present. • Applications named as objects or controls. Application names that have the same name as PowerBuilder control/object types are not supported. Unsupported Features Analysis cannot detect whether this unsupported issue is present in an application.
Null values	• Unsupported operation • Expressions with Null value

ASCII characters	Unsupported special ASCII characters : • Vertical tab (~v)
Non-visual UserObject	A NonVisualObject object assigned to an autoinstantiated NVO or an autoinstantiated NVO assigned to a NonVisualObject object.
Variables and constants	• Instance variables have identical names as global variables. • longlong variable • PUBLIC, PROTECTED, PRIVATE qualifier in the variable declaration
Forced conversion	Forced conversion between types
Window	Multiple MDI windows in an application.
Overloading, overriding functions	• Dynamic calling for overloaded functions • Dynamic calling for overriding functions
Using the return value of some supported functions	The return value of the Open or OpenSheet functions
User functions	Remote procedure call (RPC)
Operators	The operator '^' with embedded SQL statements.
Stored procedure	• Stored procedures declared in the conditional statement • DB2 stored procedures • Stored procedures placed inside an Oracle package • Oracle stored procedures with Appeon unsupported features
Cursor declare requirement	• Cursor declared in the conditional statement • If a cursor is declared for retrieving rows from table X, the table X (insert, delete, update) is modified during the cursor declare-close period.
Cursor statements	• The following two syntax: 1. UPDATE TableName SetStatement WHERE CURRENT OF CursorName; 2. DELETE FROM TableName WHERE CURRENT OF CursorName;
DataWindow data expressions	• Unsupported features in the DataWindow dot notations. You must make sure the specifications about dot notations are satisfied in the application. Otherwise, it will cause errors. • The return values of the DataWindow dot notations are assigned to user objects.
DataWindow expression function	• lastpos • lastposw • mode • pageAcross • pageCountAcross • profileint

	• profilestring • stdev • var • varp
Partly supported features	Some partly supported features (such as DataWindow Modify and Describe functions).
User interface interactions	Unsupported features in the UI such as shortcut key.
Enumerated data type	Default values of enumerate type variable
Data source	The data sources of dynamically created DataWindows are stored procedures with input parameters.
Dynamic calls	• Dynamically call the method of a menu object. • Dynamically call the method that contains reference arguments.
Others	• PBX • PSR, for example: dw.dataobject='*.psr' • Unsupported DBParm parameters • Encoding parameter of the Blob functions • filename & importtype arguments of ImportFile, ImportString, & ImportClipboard (filename can only be a text file (TXT)) • Property defined in the string variable • Structure member has comment property
System events	The following are unsupported and undetected system events.

cbgetcount	dderequest	gettextlength	mmmomclose	sbnpageup
cbgetcursel	ddeterminate	globalrcchange	mmmomdone	sbnsetfocus
cbgetdroppedcontrolrect	ddeunadvise	heditctl	mmmomopen	sbnthumbpo
cbgetdroppedstate	deactivate	help	mmwimclose	sbnthumbtra
cbgeteditsel	deadchar	hookrcresult	mmwimdata	sbntop
cbgetextendedui	deleteitem	hscroll	mmwimopen	setcursor
cbgetitemdata	destroyclipboard	hscrollclipboard	mmwomclose	setfont
cbgetitemheight	devmodechange	iconerasebkgnd	mmwomdone	settext
cbgetlbtextlen	drawclipboard	initdialog	mmwomopen	sizeclipboar
cbinsertstring	drawitem	initmenu	mouseactivate	skb
cblimittext	dropfiles	initmenupopup	move	spoolerstatu
cbncloseup	dwclosedropdown	keyup	ncactivate	syschar
cbndblclk	dwescape	lbaddstring	nccalcsize	syscolorcha

cbndelayedrecogfail
cbndragdrop
cbndragenter
cbndragleave
cbndragwithin
cbndropdown
cbneditchange
cbneditupdate
cbnendrec
cbnerrspace
cbnkillfocus
cbnmodified
cbnrcresult
cbnselchange
cbnselendcancel
cbnselendok
cbnsetfocus
cbresetcontent
cbselectstring
cbsetcursel
cbseteditsel
cbsetextendedui
cbsetitemdata
cbsetitemheight
cbshowdropdown
changecbchain
char
chartoitem
childactivate
dwnbacktabout
dwndropdown
dwngraphcreate
emgetwordbreakproc
emlimittext
emlinefromchar
emlineindex
emlinelength
emlinescroll
emreplacesel
emscroll
emsetfont
emsethandle
emsetmodify
emsetpasswordchar
emsetreadonly
emsetrect
emsetrectnp
emsetsel
emsettabstops
emsetwordbreak
emsetwordbreakproc
emundo
enable
enchange
endsession
enerrspace
enhscroll
enmaxtext
lbdeletestring
lbdir
lbfindstring
lbfindstringexact
lbgetcaretindex
lbgetcount
lbgetcursel
lbgethorizontalextent
lbgetitemdata
lbgetitemheight
lbgetitemrect
mbuttondown
mbuttonup
mdiactivate
mdicascade
mdiconarrange
mdicreate
mdidestroy
mdigetactive
mdimaximize
mdinext
mdirestore
mdisetmenu
mditile
measureitem
menuchar
menuselect
mmjoy1buttondown
mmjoy1buttonup
nccreate
ncdestroy
nchittest
nclbuttondblclk
nclbuttondown
ncmbuttondblclk
ncmbuttondown
ncmbuttonup
ncmousemove
ncpaint
ncrbuttondblclk
ncrbuttondown
ncrbuttonup
nextdlgctl
omnclose
omndatachange
omndragdrop
omndragenter
omndragwithin
querynewpalette
queryopen
queuesync
quit
rcresult
renderallformats
renderformat
renhscroll
renvscroll
sbnbottom
syscomman
sysdeadcha
syskeydowr
systemerror
sysykeyup
tbnmoved
tcnclicked
tcndoublecli
tcndragdrop
tcndragente
tcndragleav
tcndragwithi
tcnenterkey
tcnkeydown
tcnkillfocus
tcnrclicked
tcnrdoublec
tcnselchang
tcnselchang
tcnsetfocus
timechange
tvnenterkey
uondragdro
uondragente
uondragleav
uondragwith
uonexternal
vbxevent01
vbxevent02

commnotify
compacting
compareitem
ctlcolor
ddeack
ddeadvise
ddedata
ddeexecute
ddepoke
enteridle
enupdate
envscroll
erasebkgnd
fontchange
getdlgcode
getfont
getminmaxinfo
gettext
mmjoy1move
mmjoy1zmove
mmmcinotify
mmmimclose
mmmimdata
mmmimerror
mmmimlongdata
mmmimlongerror
mmmimopen
sbndragdrop
sbndragenter
sbndragleave
sbndragwithin
sbnendscroll
sbnkillfocus
sbnlinedown
sbnlineup
sbnpagedown
vbxevent03
vbxevent04
vbxevent05
vbxevent06
vbxevent07
vbxevent08
vbxevent09
vbxevent10
vbxevent11