

# What's New in Appeon for PowerBuilder

Appeon® 3.1 for PowerBuilder®  
FOR WINDOWS

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# 1 About This Book

## 1.1 Audience

This book introduces new features added **since** Appeon 2.8 for PowerBuilder.

## 1.2 How to use this book

There are six chapters in this book.

Chapter 1: [About This Book](#)

A general description of this book

Chapter 2: [New Supported PowerBuilder Features](#)

Describes PowerBuilder supported features that have been added since Appeon 2.8

Chapter 3: [New Installation Features](#)

Describes the new Appeon installation environment and features added since Appeon 2.8

Chapter 4: [New Appeon Developer Features](#)

Describes new features of Appeon Developer added since Appeon 2.8

Chapter 5: [New Appeon Enterprise Manager Features](#)

Describes new features of Appeon Enterprise Manger added since Appeon 2.8

Chapter 6: [New Features in Appeon Demo Applications](#)

Describes new features in Appeon demo applications added since Appeon 2.8

## 1.3 Related documents

Appeon provides the following user documents to assist you in understanding Appeon for PowerBuilder and its capabilities:

- *Appeon Demo Applications Tutorial*:

Introduces Appeon's demo applications; including the Appeon Sales Application Demo, Appeon Code Examples, and the Appeon ACF Demo, which show Appeon's capabilities in converting PowerBuilder applications to the Web.

- *Appeon Developer User Guide* (or *Working with Appeon Developer Toolbar*)

Provides instructions on how to use the Appeon Developer toolbar in Appeon 3.1.

*Working with Appeon Developer Toolbar* is an HTML version of the *Appeon Developer User Guide*.

- *Appeon Enterprise Manager User Guide*:

Introduces the Appeon Enterprise Manager, a Web application for maintaining Appeon Web applications and Appeon Server over the Internet, an intranet, or an extranet.

- *Apppeon Supported Features Guide for Apppeon Xcelerator* (or *Apppeon Features Help for Apppeon Xcelerator*):

Provides a detailed list of supported PowerBuilder features, which can be converted to the Web with Apppeon 3.1 using the Apppeon Xcelerator deployment option, as well as a list of unsupported features.

*Apppeon Features Help for Apppeon Xcelerator* is an HTML version of the *Apppeon Supported Features Guide for Apppeon Xcelerator Deployment*.

- *Apppeon Supported Features Guide for Pure-JavaScript* (or *Apppeon Features Help for Pure-JavaScript*):

Provides a detailed list of supported PowerBuilder features, which can be converted to the Web with Apppeon 3.1 using the Pure-JavaScript deployment option, as well as a list of unsupported features.

*Apppeon Features Help for Pure-JavaScript* is an HTML version of the *Apppeon Supported Features Guide for Pure-JavaScript Deployment*.

- *Apppeon Installation Guide*:

Provides instructions for installing *Apppeon for PowerBuilder*.

- *Apppeon Migration Guide*:

A process-oriented guide that illustrates the Apppeon Web migration procedure and includes various topics related to steps in the procedure.

- *Apppeon Migration Tutorial*:

A tutorial that walks the user through the entire process of deploying a small PowerBuilder application to the Web.

- *Apppeon Performance Tuning Guide*:

Provides instructions on modifying a PowerBuilder application to achieve better performance from the corresponding Web application.

- *Apppeon Troubleshooting Guide*:

Provides information on troubleshooting issues; covering topics such as product installation, Web deployment, AEM, and Web application runtime.

- *Introduction to Apppeon*:

Guides you through all the documents included in Apppeon 3.1 for PowerBuilder.

- *Using the PowerBuilder Foundation Class Library with Apppeon* (or *Apppeon-compliant Framework Reference*):

Provides a detailed list of supported PowerBuilder PFC features, which can be converted to the Web with Apppeon as well as a list of unsupported features.

*Apppeon-compliant Framework Reference* is an HTML version of the *Using the PowerBuilder Foundation Class Library with Apppeon*.

- *What's New in Apppeon*:

Introduces new features and changes in Apppeon 3.1 for PowerBuilder.

## 1.4 If you need help

Each Sybase installation that includes the purchase of a support contract provides for one or more designated people within your organization to be authorized to contact Sybase Technical Support or an Authorized Sybase Support Partner. If you have any questions about this product or need assistance during the installation process, ask the designated person to contact Sybase Technical Support or an Authorized Sybase Support Partner according to your support contract. You may access the Technical Support Web site at: <http://www.sybase.com/support>).

## 2 New Supported PowerBuilder Features

### 2.1 Overview

Appeon 3.0 and 3.1 adds support for many important features since Appeon 2.8. Web migration using Appeon for PowerBuilder becomes much easier with the newly added features.

Note: The supported feature set for Pure-JavaScript deployment has changed little since Appeon 2.8. In this chapter, unless specified explicitly, the new features are only for Appeon Xcelerator deployment.

### 2.2 (Appeon 3.1 new feature) PowerBuilder 10 support

This new feature is applicable to both Appeon Xcelerator and Pure-JavaScript deployments.

Appeon 3.0 supports PowerBuilder 8 and 9 applications. Appeon 3.1 supports PowerBuilder 8, 9 and 10 applications.

### 2.3 (Appeon 3.1 new feature) Unicode support

#### 2.3.1 Encoding enumeration

Appeon 3.1 supports the optional encoding parameter in the Blob, BlobEdit, SaveAs and String functions, and does not support the optional encoding parameter in File-related functions.

#### 2.3.2 String related functions

Appeon 3.1 supports the string related functions in PowerBuilder 10 as well as PowerBuilder 8 and 9. The following changes, made in PowerBuilder 10, are also supported.

1. Modified processing of String-manipulation functions
2. Asc and Char functions
3. Blob and String conversion functions

#### 2.3.3 Calling external functions

Appeon 3.1 supports both Unicode encoding and ANSI encoding when the Web application calls external functions.

### 2.4 Support for applications up to 400MB in size

Appeon 3.0 and Appeon 3.1 can support large complex applications up to 400 megabytes. Appeon has successfully tested a PFC application that was artificially inflated to over 400 MB.

The size of the application source code is no longer a significant factor in Appeon Xcelerator deployments. A large application only affects deployment time in two ways: there may be more unsupported features due to the sheer size of the application and the deployment wizard will take longer to work.

## 2.5 New DataWindow features

- DataWindows of Composite and Group presentation styles on the Web can be displayed with more similarity to the originals as well as supporting client-side printing. They are supported as HTML DataWindows in Appeon 3.0 and Appeon 3.1. In Appeon 2.8, DataWindows of Composite and Group styles are supported as Image DataWindows. This sometimes causes images to be distorted and the DataWindows can only be printed at the server.
- DataWindow Grouping
- Report control in a DataWindow
- Case DataWindow expression
- DataWindow functions: Copy, Cut, GetObjectAtPointer, Paste, ReplaceText, SaveAsAscii, SelectedLength, SelectedStart, SelectedText, SelectTextAll, SelectTextLine, SelectTextWord, SetFormat, SetValidate, and TextLine
- DataWindow properties: Data, Height.AutoSize, QueryClear, QueryMode, QuerySort, RightToLeft, and Syntax
- (Appeon 3.1 new feature) DataWindow properties: SlideUp and SlideLeft properties for all supported controls in a DataWindow
- Ability to dynamically modify DataWindow property expressions
- Ability to dynamically create DataWindows\*

\* Configuration at the database server is required for support of dynamic DataWindows: Find the following SQL files in %JAGUAR%\appeon\sql\dynamicsql, and install the corresponding SQL for the database in use.

install\_appeon\_syntaxfromsql\_ORACLE.sql

install\_appeon\_syntaxfromsql\_MSSQL.sql

install\_appeon\_syntaxfromsql\_ASE.sql

install\_appeon\_syntaxfromsql\_ASA.sql

## 2.6 New system functions

- Blob and File functions
- CPU function
- Appeon enhancement functions are provided in the Appeon Workarounds PBL. Of the functions listed below, the AppeonGetHttpInfo function is only available in Appeon Xcelerator deployment, and the other functions are available in both Appeon Xcelerator and Pure-JavaScript deployment.
  - AppeonPopupMenu function
  - AppeonPopupMenuOn function
  - AppeonGetAppeonUserName function
  - AppeonGetBrowserVersion function
  - AppeonGetClientID function

- AppeonGetClientIP function
- AppeonGetClientType function
- AppeonGetHttpInfo function
- AppeonGetOSType function
- AppeonGetSessionCount function
- (Appeon 3.1 new feature) AppeonPrint2PDF function

## 2.7 New system objects and controls

- MAPI objects; including mailSession, mailMessage, mailFileDescription, and mailRecipient
- MenuCascade object
- OLEControl and OLECustomControl
- ActiveX control (OCX)
- HProgressBar, VProgressBar, HTrackBar, VTrackBar, HScrollBar, and VScrollBar controls
- Drag and Drop is supported in most supported controls and objects
- More properties, events, and functions are now supported by system controls. For details, refer to Appeon Help for Appeon Xcelerator Deployment.
- More properties and functions are now supported by system objects. For details, refer to Appeon Help for Appeon Xcelerator Deployment.

## 2.8 User operations

- Support for switching between windows in MDI by typing Ctrl + Tab
- All standard controls supported by Appeon Xcelerator are Section 508 compliant.
- Automatic downloading and installation of user DLLs

## 2.9 Special solution for ASE Chained mode issue

The solution is applicable to both Appeon Xcelerator and Pure-JavaScript deployments.

### 2.9.1 Known issue with ASE Chained Mode

A PowerBuilder application can execute ASE stored procedures. However, once the PowerBuilder application is converted to the Web, the following error may occur:

“Select error: Stored procedure 'dbo.up\_edw001\_001' may be run only in unchained transaction mode. The 'SET CHAINED OFF' command will cause the current session to use the unchained transaction mode”

There are three ASE stored procedure (SP) modes: chained, unchained, and anymode, as well as two transaction modes: chained and unchained. For Web applications:

- (1) If the transaction mode is chained, the SP running mode must be chained or anymode.
- (2) If the transaction mode is unchained, the SP running mode must be unchained or anymode.

(3) If the transaction mode and SP mode do not match the requirements in (1) or (2), an error occurs.

### 2.9.2 Stored procedures provided for solving the issue

Apeon provides two stored procedures to help modify the modes of ASE stored procedures in order to ensure that the stored procedures meet the requirements. The following files are located in the “\sql\asechain\_sql” folder under the Apeon Server installation directory.

(1) readme.txt

(2) install\_appeon\_rebuildchainmode.sql: modifies the modes of ASE stored procedures

(3) uninstall\_appeon\_rebuildchainmode.sql: restores the original modes of ASE stored procedures

Follow the instructions in the “readme.txt” to modify the stored procedure modes with the two SQL files.

### 2.10 Other key features

- In case of duplicate objects, objects occurring earlier in the PBL list overwrite later objects.
- Complex arguments in calls to DLLs:
  - Structure arguments
  - Array arguments
  - Blob arguments
- PFC service for the Error Object
- Using dot notation to access function return values such as:

```
Function_A().Property_B =5  
Function_A().Function_C()
```

## 3 New Installation Features

### 3.1 Upgrade installation

Appeon 2.8 can be upgraded directly to Appeon 3.0 or Appeon 3.1. If using Appeon 2.7 or an earlier version; first uninstall the existing version and then install Appeon 3.0 or Appeon 3.1 using the new installation method.

The upgrade process is simpler than new installation and can retain most of the configurations made in Appeon Developer and Appeon Server. However, you may prefer a new installation (after uninstalling the old version) because, with new installation, you are required to specify configuration settings from the beginning. Whereas upgrading presents the following issues:

- If the system does not meet the requirements of Appeon 3.0 or Appeon 3.1, the upgrade may fail.
- The configuration settings of Appeon 3.0 and 3.1 have been adjusted since Appeon 2.8, so some of the settings will be lost or changed during the upgrade. Upgrade these settings after the installation. *Section 4.4.4: Upgrade of configuration settings* in the *Appeon Installation Guide*, includes instructions on upgrading configuration settings.

Note: (1) Web applications deployed with Appeon 2.8 must be redeployed with Appeon 3.0 or Appeon 3.1 after the upgrade.

(2) To deploy PowerBuilder 10 applications with Appeon 3.1, you must use the new installation method for installing Appeon 3.1.

### 3.2 Software version checking

The Appeon Server installation program checks whether the server environment meets the version requirements for the following software:

- Microsoft Windows 2000 SP4 (Professional, Server, and Advanced Server Edition), Windows XP SP1 (Professional Edition), Windows XP SP2 (Professional Edition), or Windows Server 2003 (WebServer and Enterprise Edition)
- Sybase EAServer 5.2 Build 52025 (Developer, Workgroup and Advanced Edition). If not previously installed, EAServer 5.2 will be installed during the Appeon Server installation.
- (Appeon 3.0 requirement) PBVM 8.0.4 Build 10784 or 9.0.2 Build 7578
- (Appeon 3.1 requirement) PBVM 8.0.4 Build 10784, 9.0.2 Build 7578, or 10.2 Build 8050

The Appeon Developer installation program checks whether the user environment meets the version requirements for the following software:

- (Appeon 3.0 requirement) Sybase PowerBuilder® 8.0.4 Build 10784 or PowerBuilder 9.0.2 Build 7578
- (Appeon 3.1 requirement) Sybase PowerBuilder® 8.0.4 Build 10784, PowerBuilder 9.0.2 Build 7578, or PowerBuilder 10.2 Build 8050

- Microsoft Windows 2000 SP4 (Professional, Server, and Advanced Server Edition), Windows XP SP1 (Professional Edition), Windows XP SP2 (Professional Edition), or Windows Server 2003 (WebServer and Enterprise Edition)

### 3.3 System requirements

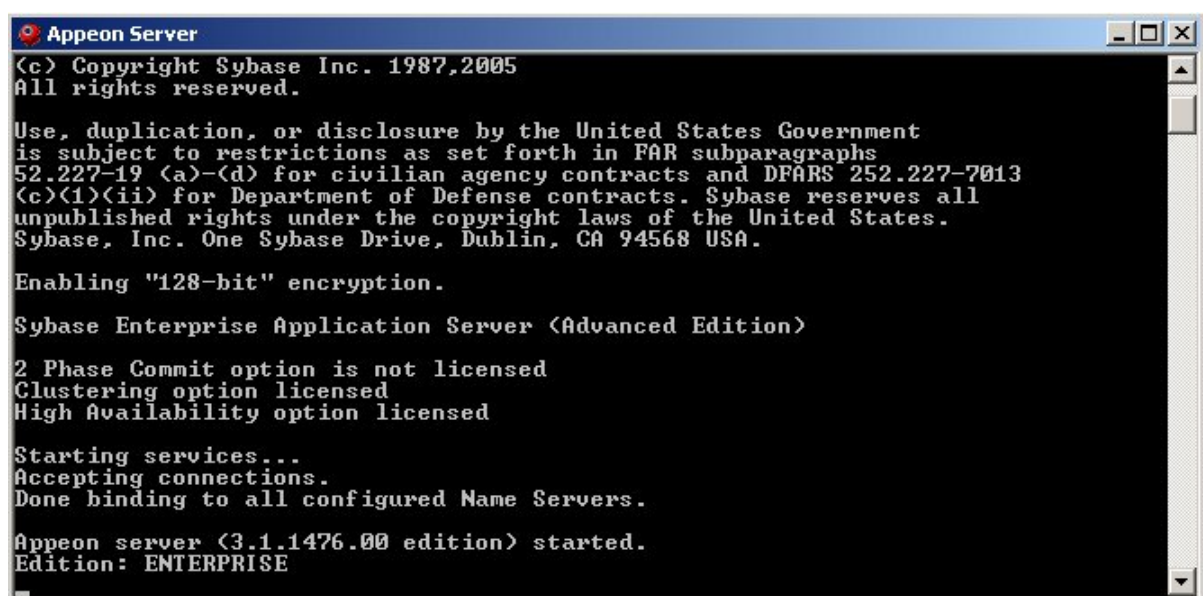
Refer to Chapter 3: *Installation Requirements* in the *Appeon Installation Guide* for details on system requirements. The following highlights the key system requirements for Appeon 3.0 and 3.1.

- (Appeon 3.0 requirement) Upgrade the PowerBuilder version and PBVM version to 8.0.4 Build 10784 or 9.0.2 Build 7578
- (Appeon 3.1 requirement) Upgrade the PowerBuilder version and PBVM version to 8.0.4 Build 10784, 9.0.2 Build 7578, or 10.2 Build 8050
- Do not install Appeon Developer to Windows NT, but to Windows 2000 SP4, Windows XP SP1, Windows XP SP2, or Windows Server 2003.
- If using Windows XP as the operating system for Appeon Server or Appeon Developer, upgrade to Windows XP SP1 or SP2.
- Do not use iPlanet, Netscape, or IIS 4.0. Instead, use EAServer Web server, Apache 1.3 or 2.0, IIS 5.0 or 6.0.
- Upgrade the EAServer version from 5.0 to 5.2.

### 3.4 Product version information in the Appeon Server console

When Appeon Server starts to accept connections, the Appeon Server console shows the Appeon for PowerBuilder version and edition information, as shown in Figure 3-1.

Figure 3-1: Appeon Server console



```
Appeon Server
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(c)(1)(ii) for Department of Defense contracts. Sybase reserves all
unpublished rights under the copyright laws of the United States.
Sybase, Inc. One Sybase Drive, Dublin, CA 94568 USA.

Enabling "128-bit" encryption.

Sybase Enterprise Application Server (Advanced Edition)

2 Phase Commit option is not licensed
Clustering option licensed
High Availability option licensed

Starting services...
Accepting connections.
Done binding to all configured Name Servers.

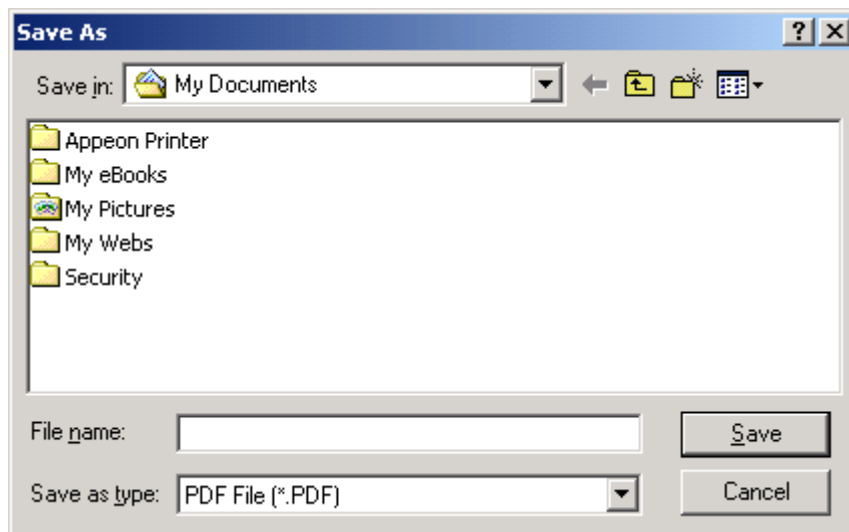
Appeon server (3.1.1476.00 edition) started.
Edition: ENTERPRISE
```

### 3.5 Customer PDFPrinter

The Customer PDFPrinter is an additional printer provided in Appeon 3.0 and Appeon 3.1 for client-side PDF printing. The Customer PDFPrinter installation program is available from the *Customer PDFPrinter* folder in the Appeon installation package. Run the installation program at the client for client-side PDF printing and set the Customer PDFPrinter as the default printer.

The Customer PDFPrinter allows you to specify the PDF file location and name while the PDFPrinter provided in the main setup screen (“Appeon PDFPrinter”) does not. When printing with the Customer PDFPrinter, the Customer Printer shows a Save As dialog; as shown in Figure 3-2. This dialog does not appear when using the Appeon PDFPrinter.

**Figure 3-2: Save As dialog**



**Important:** Do not install the Customer PDFPrinter to Appeon Server for PDF printing, because the Save As dialog would block the server from responding to requests from clients.

## 4 New Appeon Developer Features

### 4.1 Overview

The Appeon Developer features introduced in this chapter are available in both Appeon 3.0 and 3.1.

### 4.2 Key changes to Appeon Developer

#### 4.2.1 Appeon Developer user interface (UI) rewritten

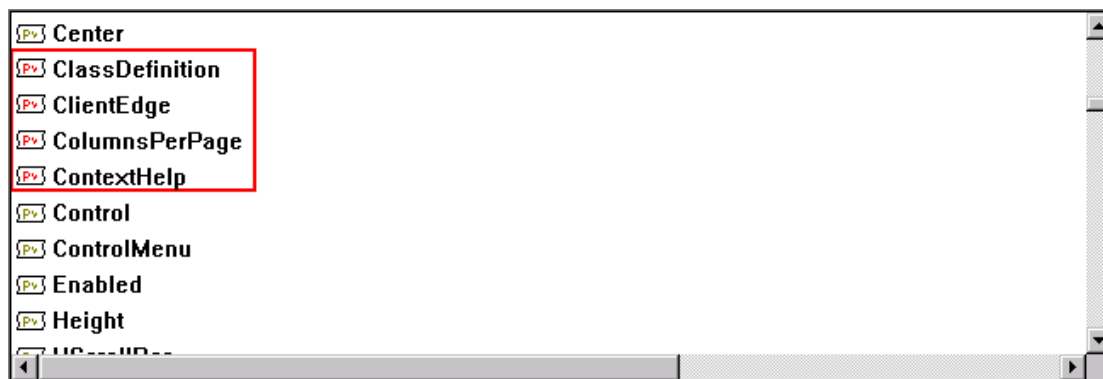
Appeon Developer UI is written in C++. The new UI conforms to the US Section 508 Accessibility Guidelines.

#### 4.2.2 New Code Insight tool

Code Insight is a tool designed to help in writing Appeon-supported PowerScript code more quickly by providing a lookup and paste service within the PowerBuilder Script view. Use this tool to develop PowerBuilder applications that are free of unsupported features and tailored to Web migration.

If Code Insight is enabled during writing of a dot notation, an alphabetical list of properties, events or functions, which can be referred to in the dot notation, will appear. Unsupported properties, events and methods in the list will be identified with a red icon on the left. Avoid using these options.

**Figure 4-1: Appeon unsupported features are marked with a red icon**



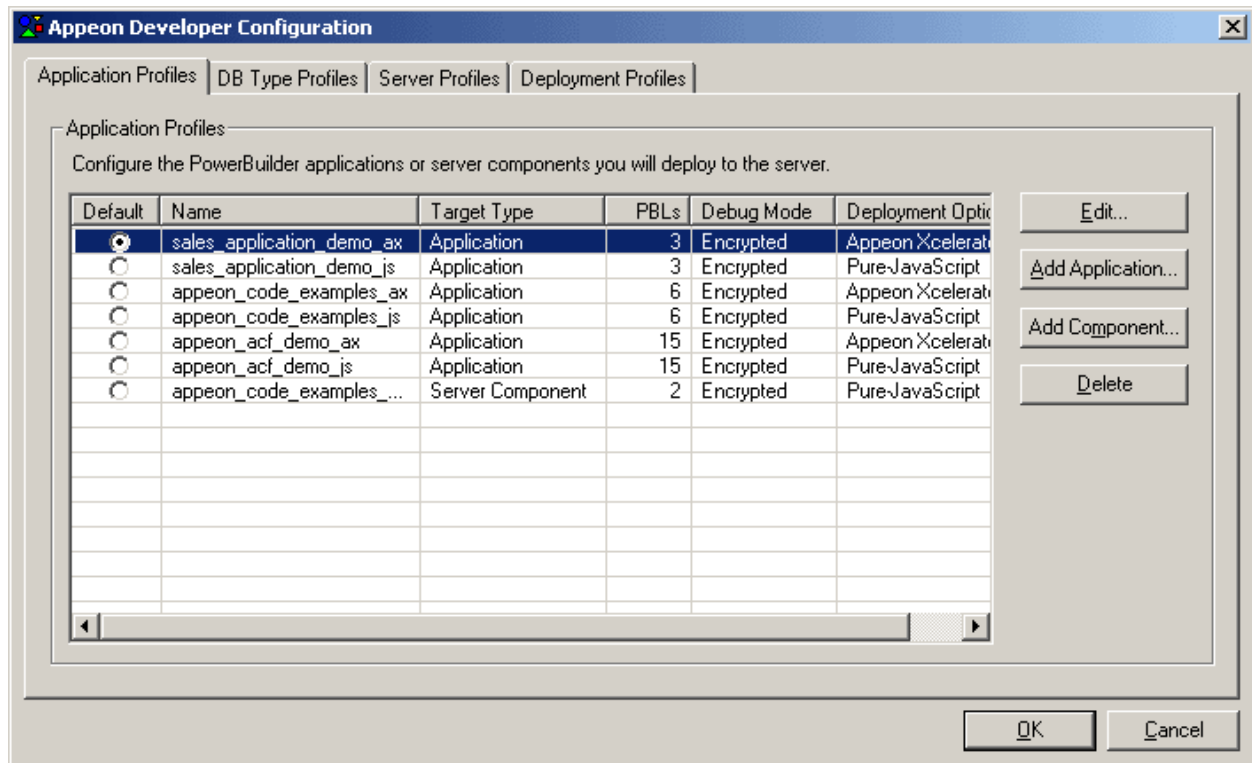
#### 4.2.3 Preview tools removed

The preview tools have been removed from Appeon Developer 3.0 and 3.1. The main purpose of the preview in previous versions was to allow the Web UI of a window, menu, or DataWindow to be viewed quickly without having to go through application deployment. Because deployment performance has increased substantially since Appeon 2.8, the preview shortcut is unnecessary. Instead, use the Appeon Deployment Wizard to deploy applications in order to view the Web UI.

#### 4.2.4 Two application profile types

Both “Add Application” and “Add Component” may be used when creating an application profile.

**Figure 4-2: Appeon Developer Configuration Window**



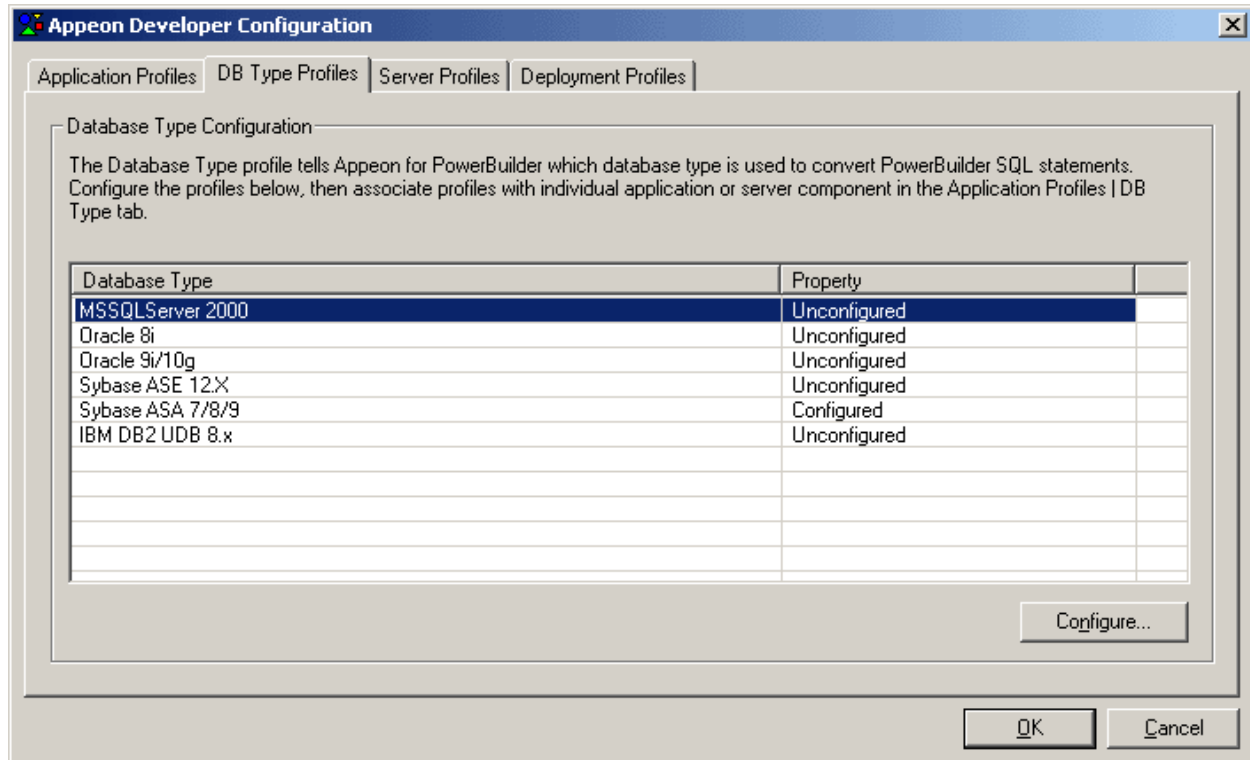
There are two types of profiles: 1) the application profile is the same as the profile created in previous versions, 2) the component profile is a new feature. Create an application profile and/or a component profile according to the following different situations:

If you want to configure...	And if you want to use the following deployment option...	You should...
1) Non-distributed applications, or 2) Distributed applications <b>without</b> distributed DataWindows.	Appeon Xcelerator or Pure-JavaScript	Click <i>Add Application</i> to create an application profile. Creating an application profile is necessary for any type of application and deployment option.
Distributed applications <b>with</b> distributed DataWindows.	Pure-JavaScript	1) Click <i>Add Application</i> to create an application profile for the client application in your distributed application. 2) Click <i>Add Component</i> to create a component profile for the server application in your distributed application.
	Appeon Xcelerator	Click <i>Add Application</i> to create an application profile. Note: You do not need to create the component profile.

## 4.2.5 Database type profile management

Database type profiles configuration is the easiest way to manage the database types for application deployments supported by the Appeon Deployment Wizard. Configure database type profiles in the *DB Type Profiles* tab and apply a database type profile for an application deployment by enabling the profile in the *DB Type* tab of the Application Profile Configuration window.

Figure 4-3: DB Type Profiles



For MSSQLServer 2000, Oracle 8i/9i/10G and Sybase ASE 12 x, use either a native database interface or an ODBC interface for configuring database type profiles.

For Sybase ASA 7/8/9 or IBM DB2, you can only use the ODBC interface for configuring a database type profile.

## 4.2.6 Deployment security settings

Deployment security authentication has been added to the Appeon Server Profile settings. If the deployment security is enabled in AEM, an authorized user name and password must be entered. Otherwise, no application can be deployed to the Appeon Server profile.

**Figure 4-4: Deployment Security settings**

**Appeon Server Profile Configuration**

Profile Settings  
Profile Name:

Appeon Server Settings  
Server:   
Server Port (http):

AEM Settings  
When using HTTPS, please ensure you have configured a listener for your SSL connection to this Appeon Server.  
AEM URL:   
Connection Method:  HTTP  HTTPS

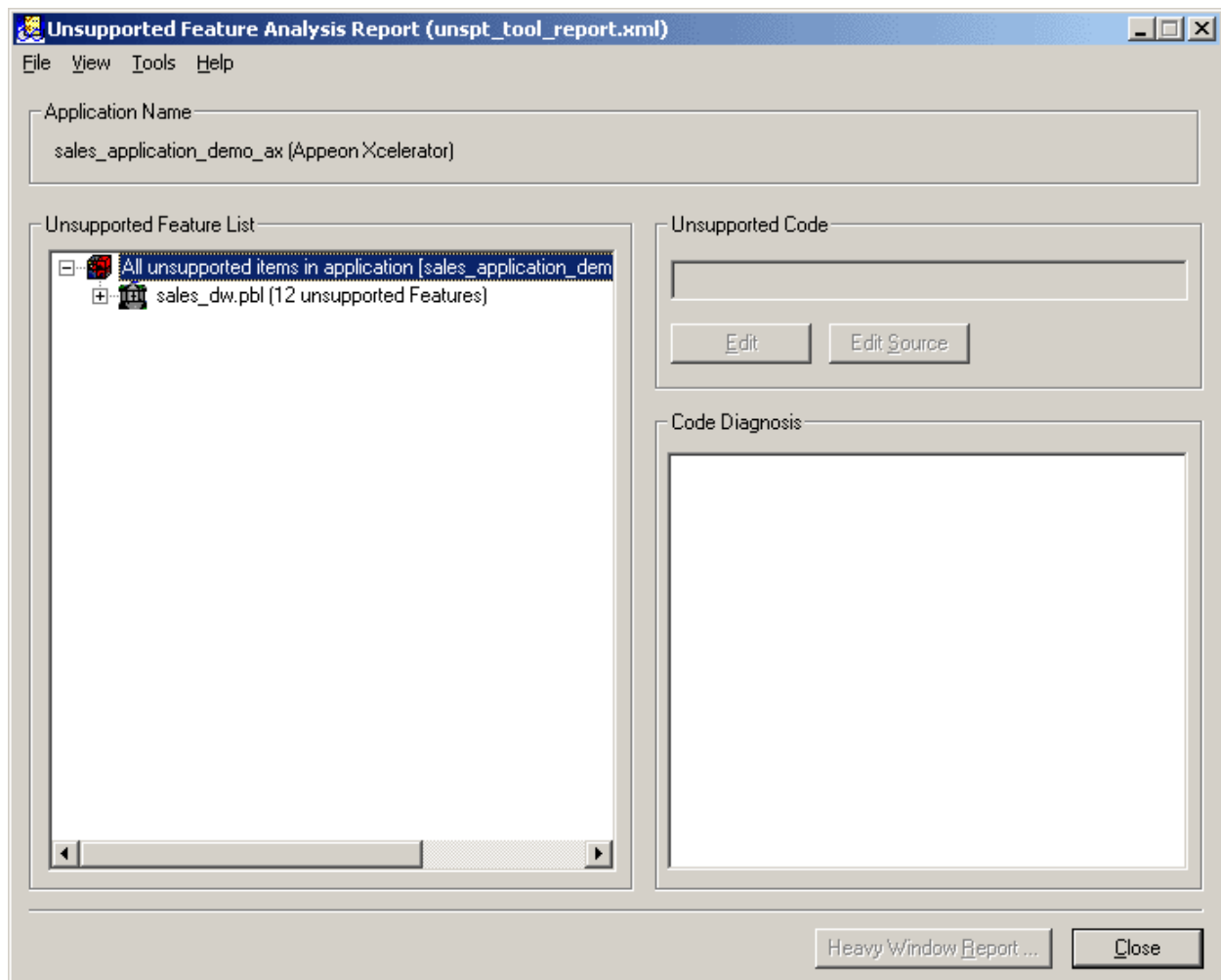
**Deployment Security Settings**  
Username and Password should be configured in AEM.  
Username:   
Password:

Test Settings  
After entering the Appeon Server settings, we recommend you test the settings by clicking the button below.

## 4.2.7 Enhanced UFA tool

### 4.2.7.a New UFA Report window

Once the feature analysis of an application is completed, the Unsupported Feature Analysis Report window (UFA Report Window) will be displayed showing the UFA Report as well as a button for accessing the Heavy Window Report.

**Figure 4-5: UFA Report Window**

The new UFA Report window is different from the one in Appeon 2.8 in four ways:

- The display of the UFA Report can be adjusted according to a user's needs. You can filter the unsupported features as well as view the UFA Report by category, hierarchy, or priority, and even configure the priorities of the unsupported features.
- The UFA Report window allows you to directly go to unsupported code and modify it while reading the UFA Report. When a section of unsupported code is selected and the *Edit Source* button is clicked, the PowerBuilder Script view automatically opens and scrolls to display the unsupported code; a red bullet will appear on the left side, identifying unsupported code.
- The Incremental Report has been removed. After the initial analysis, all subsequent analysis are incremental by default in order to save time, but the report generated still contains all the information as if it were a full analysis. Use filtering to view unsupported information as desired.
- (Only for Appeon Xcelerator deployments) The UFA Report provides more detailed information when a DataWindow is not correctly upgraded to PowerBuilder 8, 9 or 10 formats.

#### 4.2.7.b (Appeon 3.1 new feature) Enhanced UFA Report

The UFA report can catch the following two types of unsupported code: 1) unsupported code that dynamically creates visual controls and user objects (for example, `uo=create using 'test'`); 2) unsupported code that calls to `SetTrans` function.

#### 4.2.8 Appeon Help

Appeon provides a comprehensive HTML help system that includes:

- Working with Appeon Developer: the HTML version of the Appeon Developer User Guide
- Appeon Features Help for Appeon Xcelerator: the HTML version of the Supported Features Guide for Appeon Xcelerator Deployment
- Appeon Features Help for Pure-JavaScript: the HTML version of the Supported Features Guide for Pure-JavaScript Deployment
- Appeon-compliant Framework Reference: the HTML version of the Using the PowerBuilder Foundation Class with Appeon.

### 4.3 Additional adjustments made to Appeon Developer

#### 4.3.1 Application profile configuration

The contents of the Application Profile Configuration tabs have been reorganized, with many settings either added or fine-tuned to be more user-friendly.

New settings include:

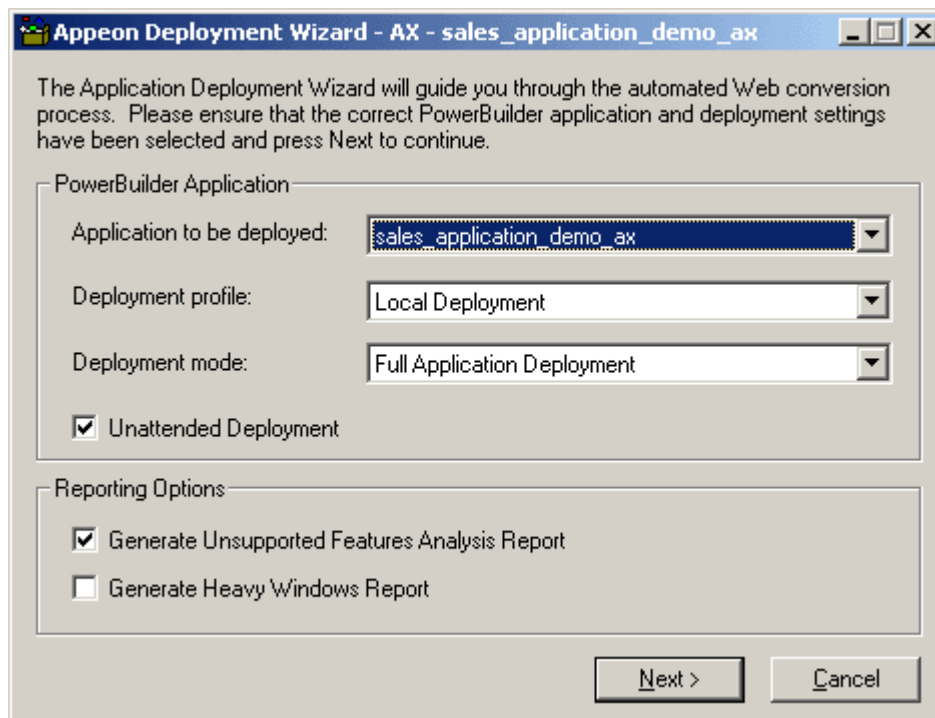
- *DB Type* tab: requires that the database types used by the application be specified.
- *Additional Files* tab: requires that files outside the application source code and necessary for running the PowerBuilder application (including INI, image, and DLL/OCX files) be specified.

The *Misc Settings* tab in the Application Profile Configuration now includes:

- Command Line settings
- Language Options
- Performance settings
- Log settings

#### 4.3.2 Reporting options in Appeon Deployment Wizard

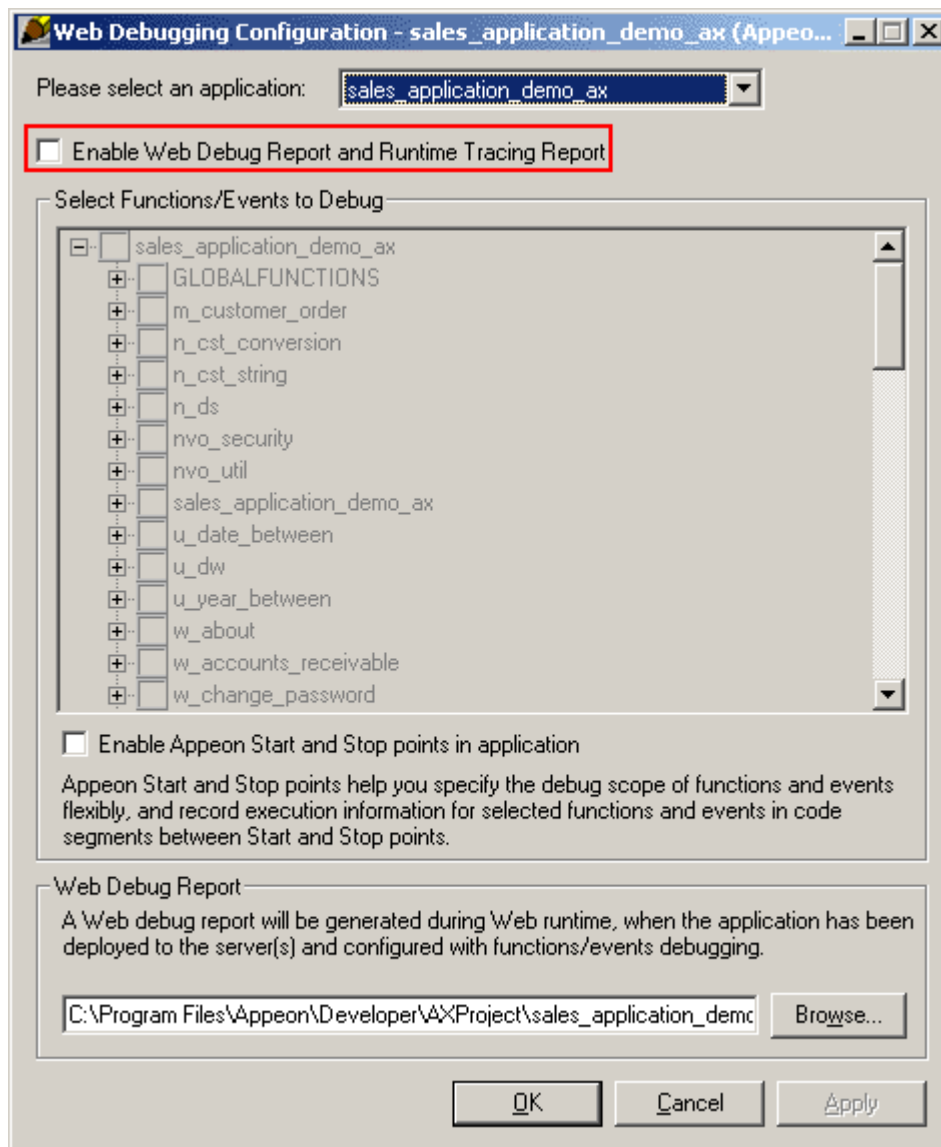
The Appeon Deployment Wizard provides options to specify whether to generate Heavy Window Report and UFA Report for the deployed application.

**Figure 4-6: Appeon Web Application Deployment Wizard**

### 4.3.3 Web Debug Report and Web Performance Report

The report configuration window which formerly contained configurations for both Web Debug Report and Web Performance Report now appears as two windows: a *Web Debugging Configuration* window and a *Performance Tracing Configuration* window. These can be accessed via icons located on the Appeon Developer toolbar: *Trace Configure* (🔧) and *Debug Configure* (🐛).

Report generation must be enabled in the corresponding report configuration window, rather than on the *Application Profiles* tab page in Appeon 2.8. Generation of both reports can be enabled or disabled in the *Web Debugging Configuration* or *Performance Tracing Configuration* windows.

**Figure 4-7: Web Debugging Report Configuration window**

#### 4.3.4 Logs created when installing a packaged application

If problems occur with installing a deployed application after it has been packaged with the Packaging Wizard, the *apeon\_install.log* file can be used for troubleshooting. The file can be found in the following locations:

1. The corresponding application sub-folder under the *apeon\_uninstall* folder; or
2. The Windows system temporary folder (for example, C:\Documents and Settings\Administrator\Local Settings\Temp).

By default, the *apeon\_install.log* file for each application will be created under the corresponding application sub-folder; however, if the *apeon\_uninstall* folder or application sub-folder cannot be created during the installation process, the log file will be generated in the system temporary folder.

### **4.3.5 “About” dialog**

An “About” button that opens a window containing Appeon version and build information has been added to the Appeon Developer toolbar.

# 5 New Appeon Enterprise Manager Features

## 5.1 Overview

The Appeon Enterprise Manager features introduced in this chapter are available in both Appeon 3.0 and 3.1.

## 5.2 Key changes to Appeon Enterprise Manager

### 5.2.1 Fast AEM loading

Appeon can pre-compile AEM Web (JSP) pages during Appeon Server installation. This greatly reduces AEM's initial load time. For more information on pre-compiling AEM, refer to the *Appeon Installation Guide*.

### 5.2.2 New DataWindow Data Cache tool

The new DataWindow Data Cache tool allows frequently used DataWindow data on the Web Server to be cached. DataWindow data cache can significantly reduce server load and network traffic to increase performance and scalability.

As illustrated in Figure 5-1, this tool enables the Web server cache for all or a selection of DataWindow objects for each deployed application.

Figure 5-1: DataWindow Data Cache

The screenshot shows the 'DataWindow Data Cache' configuration page in the Appeon Enterprise Manager console. The page is titled 'AEM Console > Application Properties > DataWindow Data Cache > [sales\_application\_demo\_ax]'. It features a 'Click to return to the previous page.' link and an 'Application Cache Setting' section with a checkbox for 'Enable Web server cache' and a 'Server Side' checkbox. Below this is a 'DataWindow Object Cache Setting' table with two columns for selecting objects to be cached.

DataWindow Object Cache Setting	
<input checked="" type="checkbox"/>	DataWindow Object Cache
<input checked="" type="checkbox"/>	d_cust_ar_tabular
<input checked="" type="checkbox"/>	d_cust_list_all
<input checked="" type="checkbox"/>	d_customer
<input checked="" type="checkbox"/>	d_customer_maintenance
<input checked="" type="checkbox"/>	d_customer_modify
<input checked="" type="checkbox"/>	d_dddw_customers
<input checked="" type="checkbox"/>	d_dddw_sales_reps
<input checked="" type="checkbox"/>	d_order
<input checked="" type="checkbox"/>	d_order_cust_modify
<input checked="" type="checkbox"/>	d_cust_filter
<input checked="" type="checkbox"/>	d_cust_product_edit
<input checked="" type="checkbox"/>	d_customer_info
<input checked="" type="checkbox"/>	d_customer_master
<input checked="" type="checkbox"/>	d_customer_new
<input checked="" type="checkbox"/>	d_dddw_products
<input checked="" type="checkbox"/>	d_dddw_states
<input checked="" type="checkbox"/>	d_order_cust_list
<input checked="" type="checkbox"/>	d_order_cust_new

### 5.2.3 New Custom Libraries tool

The new Custom Libraries tool allows configuration of the Custom Libraries install settings. As illustrated in Figure 5-2, this tool can be used to determine how the DLL and OCX files will be downloaded and installed, as well as how to tackle file conflict problems during those processes.

**Figure 5-2: Custom Libraries**

[AEM Console](#) > [Application Properties](#) > [Custom Libraries](#) > [sales\_application\_demo\_ax]

 [Click to return to the previous page.](#)

Install Mode
<input checked="" type="radio"/> Install automatically without asking user
<input type="radio"/> Confirm with user, then install automatically
<input type="radio"/> Install manually (no automatic installation)

Conflict Resolution Mode
If a different file with the same name already exists, then:
<input checked="" type="radio"/> Install anyway without asking user
<input type="radio"/> Do not install; use existing file
<input type="radio"/> Ask the user what to do

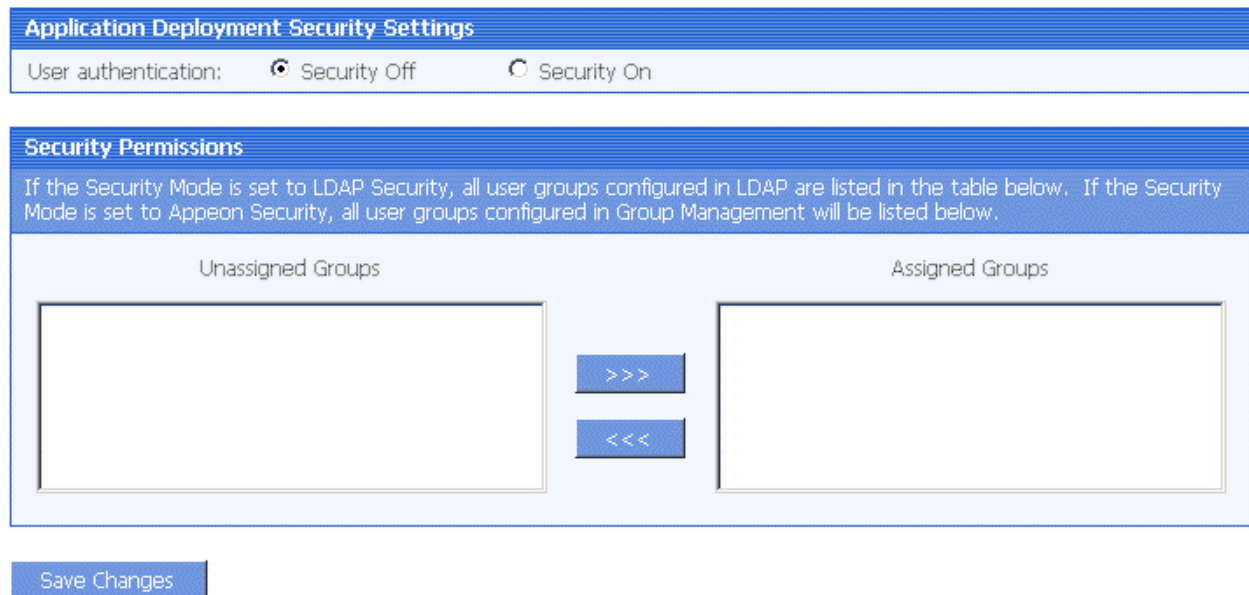
<a href="#">Save Settings</a>	<a href="#">Apply to all applications</a>
-------------------------------	-------------------------------------------

### 5.2.4 New Deployment Security Settings tool

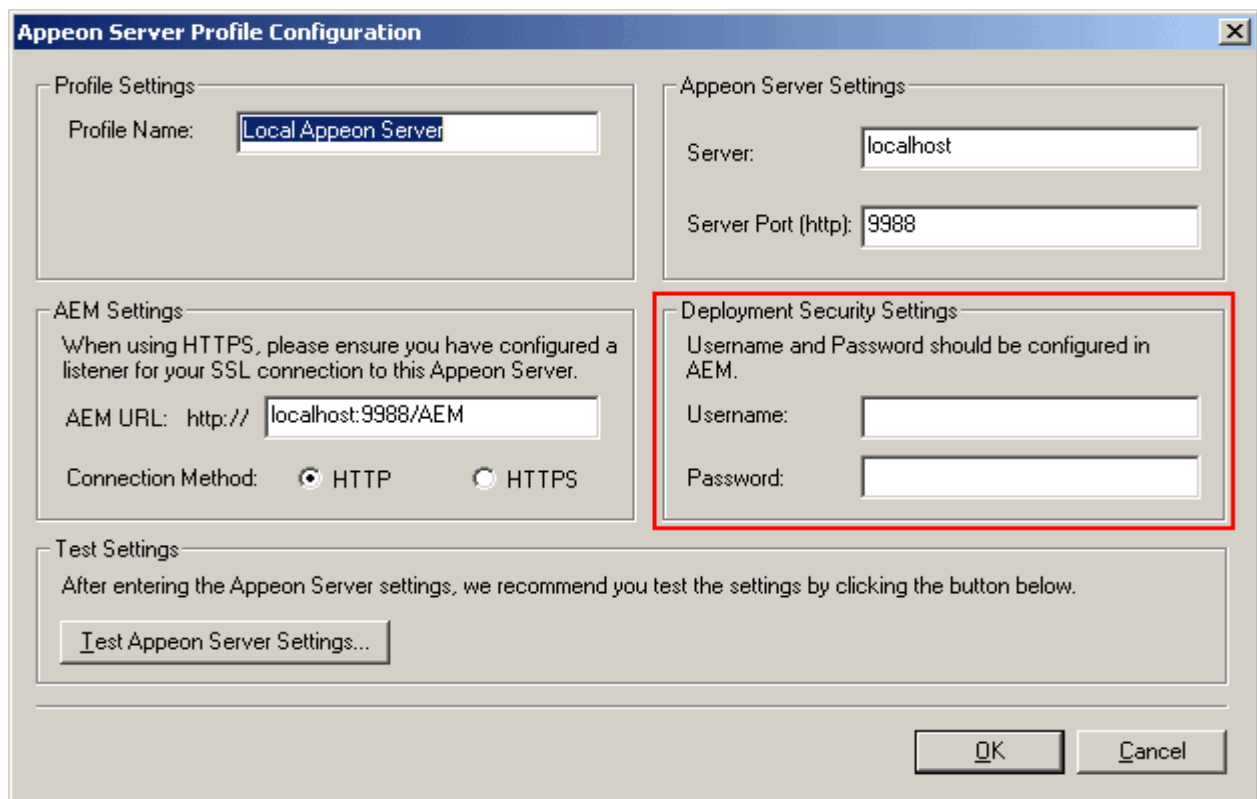
The Deployment Security Settings tool allows management of Appeon Server deployment security, which controls access to Appeon Server by developers (refer to Figure 5-3). If the Deployment Security is enabled for an Appeon Server, a PowerBuilder developer must specify the user name of a member of an authorized group when configuring a profile for the Appeon Server profile in the Appeon Developer Configuration dialog box, as shown in Figure 5-4.

**Figure 5-3: Deployment security settings**

**AEM Console > Security > Deployment Settings**



**Figure 5-4: Specify user permission to deploy an application**



### 5.2.5 Removing the Appeon DataWindow menu option

Starting from Appeon 3.0, the “Appeon DataWindow right mouse button menu enabled” option, which allows the user to enable or disable the Appeon DataWindow Menu in applications, is not provided. However, this feature can still be added for deployed applications by using the following two PowerBuilder global functions: `AppeonPopupMenu` and `AppeonPopupMenuOn`. These functions apply to both Pure-JavaScript and Appeon

Xcelerator deployment and are located in *Appeon\_workarounds\_js.pbl* (for Pure-JavaScript deployment) and *Appeon\_workarounds\_ax.pbl* (for Appeon Xcelerator deployment). For more information on using the *AppeonPopupMenu* and *AppeonPopupMenuOn* functions in a *DataWindow*, refer to the *Appeon Migration Guide*.

## 5.3 Additional adjustments made to Appeon Enterprise Manager

### 5.3.1 Add Application button removed

In Appeon 2.8 for PowerBuilder, the *Add Application* button in the Transaction Object tool is tailored to the Appeon Developer preview. Since the Preview tools are no longer provided, the button has been removed from the Transaction Object Configuration page.

### 5.3.2 New Temporary Files Cleanup tool

Appeon provides the new Temporary Files Cleanup tool for managing the cleanup of temporary files either automatically or manually in AEM; as shown in Figure 5-5. Because this tool performs the same tasks as the *Auto Cleanup* and *Manual Cleanup* tools in Appeon 2.8 for PowerBuilder, these two tools have been removed.

Figure 5-5 Temporary Files Cleanup tool

[AEM Console](#) > [Server Properties](#) > [Temporary Files Cleanup](#)

**Cleanup Periodically**

Clean up the temporary files created over  days ago at

Clean up DataWindow data files, DataWindow image files, and PDF files.

Clean up the info that is last accessed over:  days  hours ago

Clean up temp register and profile config files.

---

**Cleanup Now**

Clean up DataWindow data files, DataWindow image files, and PDF files.

Clean up temp register and profile config files.

### 5.3.3 Sybase ASA 7/8/9 option for Database type

Because Appeon 3.0 and Appeon 3.1 support Sybase ASA 7, 8 and 9, a “Sybase ASA 7/8/9” option, rather than the “Sybase ASA” option, is provided for the user to choose the Database Type. Refer to Figure 5-6.

**Figure 5-6: Sybase ASA7/8/9 option for Database type**

[AEM Console > Application Properties > Transaction Objects > \[appeon\\_code\\_examples\\_ax\]](#)

[Click to return to the previous page.](#)

Configure Transaction Object			
Actions	Transaction Object	Connection Cache	Database Type
Update  Delete	its_sql	appeonsample	Sybase ASA 7/8/9
Update  Delete	its_sqt	appeonsample2	Sybase ASA 7/8/9
Update  Delete	sqlca	appeonsample	Sybase ASA 7/8/9

[Add Transaction Object](#)

### 5.3.4 Log File Path setting removed

The setting used to specify the log files path for Appeon Server in AEM has been removed. The log files are directly stored under %JAGUAR%\appeon\log, where %JAGUAR% indicates the installation path of the EAServer that Appeon Server is installed to.

### 5.3.5 Process time provided in Active Transactions

A new column named “Process Time” is added in the AEM Active Transactions tool. The column shows the process time taken for each active transaction. The information can help you decide which transactions should be killed.

**Figure 5-7: Process Time column in Active Transactions**

[AEM Console > Server Properties > Active Transactions](#)

Viewing active transactions for:  [Refresh](#)

Active Transactions							
The active transactions for <i>all Appeon Servers</i> are listed.							
							Total: 1
<input type="checkbox"/>	Transaction ID	Session ID	User Name	IP Address	Application Name	Server ID	Process Time
<input type="checkbox"/>	sqlca	1236361580		127.0.0.1	appeon_code_examples_ax	localhost	3 S

[Rollback Checked Transactions](#)

# 6 New Features in Appeon Demo Applications

Appeon Xcelerator deployment of Appeon 3.0 and 3.1 provides more powerful support for PowerBuilder features than previous versions; this is showcased in the Appeon Code Examples demo (refer to Figure 6-1).

**Figure 6-1: Appeon Code Examples demo with Appeon Xcelerator**

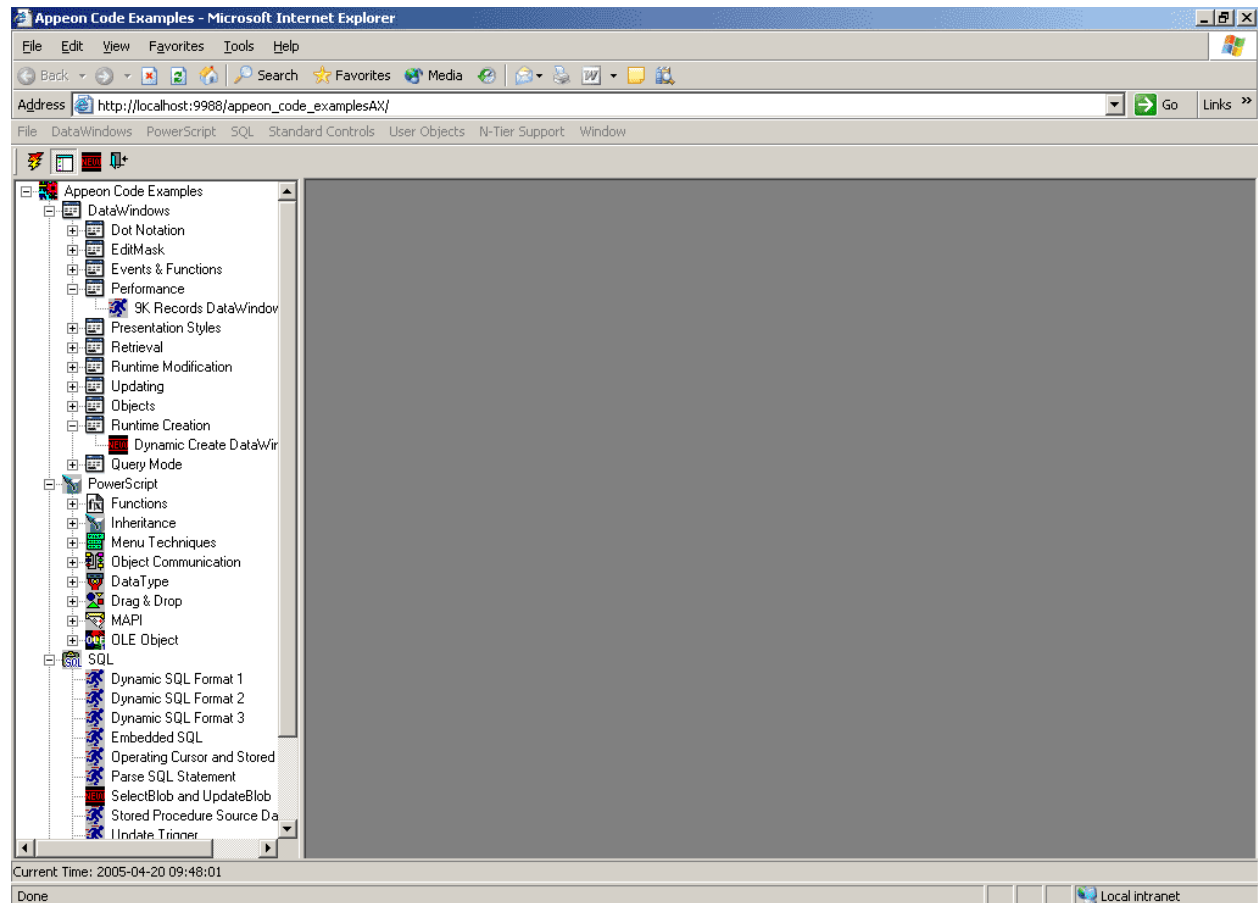


Table 6-1 lists the newly added examples in the Appeon Code Examples demo. You can also refer to the *Appeon Demo Application Tutorial* for more details.

**Table 6-1: New features for Appeon Code Examples**

Category	Sub-category	Example	Description
DataWindow	Events & Functions	Clipboard Functions	Demonstrates how to work with the Copy, Cut, and Paste functions in a DataWindow.
		Selection Functions	Demonstrates how to work with the Selection functions in a DataWindow.
	Object	Bitmap	Demonstrates how to set properties for the Bitmap, Button, Computed Field, GroupBox, Line, Oval, Rectangle, Report, RoundedRectangle and Text DataWindow objects, and how to create these objects.
		Button	
		Computed Field	
GroupBox			
Line			

		Oval	
		Rectangle	
		Report	
		RoundRectangle	
		Text	
	Runtime Creation	Dynamic Create DataWindow	Demonstrates how to dynamically create a DataWindow using SQL or DataWindow syntax.
	Query Mode	QueryMode And QuerySort	Demonstrates how to retrieve and sort data using the QueryMode and QuerySort properties.
PowerScript	Functions	File Functions	Demonstrates how to work with the File functions.
		Profile Functions	Demonstrates how to work with the Profile functions.
		Send and Post Function	Demonstrates how to work with the Send and Post functions.
	Menu Techniques	Cascading menu	Demonstrates how the Cascading menu works.
	Data Type	Blob	Demonstrates how to work with the Blob data type and the Blob function.
	Drag & Drop	ListView Drag/Drop	Demonstrates how the Drag & Drop feature works.
	MAPI	Mail	Demonstrates how to use the mailMessage object.
	OLE Object	OLE Object	Demonstrates how to work with the OLE object.
SQL		SelectBlob and UpdateBlob	Demonstrates how the SelectBlob and UpdateBlob functions work.
Standard Controls		HProgressBar	Demonstrates how to work with the properties, functions and events of the newly supported standard controls: HProgressBar, HScrollbar, HTrackBar, OLE, VProgressBar, VScrollBar, and VTrackBar.
		HScrollbar	
		HTrackBar	
		OLE	
		VProgressBar	
		VScrollBar	
		VTrackBar	
User Objects		Dynamic TabPage Objects	Demonstrates how to dynamically create the TabPage object.

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