

Introduction to Appeon

Appeon® for PowerBuilder® 2013 R2
FOR WINDOWS & UNIX & LINUX

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Contents

1 About This Book	1
1.1 Audience	1
1.2 How to use this book	1
1.3 Related documents	1
1.4 If you need help	3
2 Editions	4
3 Appeon Web	6
4 Appeon Mobile	8
5 Appeon® for PowerBuilder® 2013 R2 Copyright and Disclaimer	9
Index	10

1 About This Book

1.1 Audience

This book is intended for users who want to know the basics about Appeon for PowerBuilder.

1.2 How to use this book

There are five chapters in this book.

Chapter 1: About This Book

A general description of this book

Chapter 2: Edition

Introduction to the Appeon Editions.

Chapter 3: Appeon Web

Introduction to the Appeon Web product.

Chapter 4: Appeon Mobile

Introduction to the Appeon Mobile product.

Chapter 5: Copyright and Disclaimer

A general description of the copyright statement.

1.3 Related documents

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

- **Introduction to Appeon:**
Gives general introduction to Appeon for PowerBuilder and its editions.
- **Getting Started (for Appeon Mobile):**
Guides you through installing PowerBuilder and Appeon for PowerBuilder, and developing and deploying a mobile application.
- **New Features Guide:**
Introduces new features and changes in Appeon for PowerBuilder.
- **Appeon Mobile Tutorials:**
Gives instructions on deploying, running, and debugging the mobile application, distributing native mobile apps, and configuring the Appeon Server cluster.
- **Appeon Mobile (Offline) Tutorials:**
Gives instructions on setting up the Appeon Mobile (Offline) environment, and configuring, deploying, running, updating, and debugging the offline application.
- **Appeon Installation Guide:**

Provides instructions on how to install Appeon for PowerBuilder successfully.

- **Installation Guide on Cloud Platform:**

Provides instructions on how to install Appeon for PowerBuilder on the cloud-based platform such as Windows Azure and AWS EC2 and S3.

- **Mobile UI Design & Development Guide:**

Introduces general guidelines on designing and developing the mobile app and UI.

- **Migration Guidelines for Appeon Web:**

A process-oriented guide that illustrates the complete diagram of the Appeon Web migration procedure and various topics related to steps in the procedure, and includes a tutorial that walks you through the entire process of deploying a small PowerBuilder application to the Web.

- **Supported PB Features:**

Provides a detailed list of supported PowerBuilder features which can be converted to the Web/Mobile with Appeon as well as which features are unsupported.

- **Appeon Developer User Guide:**

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

- **Workarounds & API Guide:**

Provides resolutions for unsupported features and various APIs to facilitate you to implement the features (including Web and mobile) that are not easy or impossible to implement in the PowerBuilder IDE.

- **Appeon Workspace User Guide:**

Gives a general introduction on Appeon Workspace and provides detailed instructions on how to use it.

- **Appeon Server Configuration Guide:**

Provides instructions on how to configure Appeon Server Monitor, establish connections between Appeon Servers and database servers, and configure AEM for maintaining Appeon Server and the deployed applications.

- **Web Server Configuration Guide:**

Describes configuration instructions for different types of Web servers to work with the Appeon Server.

- **Troubleshooting Guide:**

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

- **Appeon Performance Tuning Guide:**

Provides instructions on how to modify a PowerBuilder application to achieve better performance from its corresponding Web/mobile application.

- Testing Appeon Web Applications with QTP:

Provides instructions on how to test Appeon Web applications with QTP.

1.4 If you need help

If you have any questions about this product or need assistance during the installation process, access the Technical Support Web site at <http://www.appeon.com/support>.

2 Editions

Apeon for PowerBuilder 2013 R2 contains the following editions.

Table 2.1: Apeon edition

OS	Editions	Application Servers	
Windows	Enterprise Edition	Microsoft .NET Framework	
	Workgroup Edition	\IIS	
	Developer Edition	JBoss	
	Trial Edition		Oracle WebLogic
			IBM WebSphere
			TmaxSoft JEUS
			Sybase EAServer
Unix (IBM AIX, Sun Solaris, HP Unix), Linux (RedHat Linux)	Enterprise Edition	JBoss	
	Workgroup Edition	Oracle WebLogic	
		IBM WebSphere	
		TmaxSoft JEUS	
		Sybase EAServer	

Because of differences between different application servers (.NET Framework\IIS, JBoss, WebLogic, WebSphere, EAServer, or JEUS) and different platforms (Windows and Linux \Unix), some features are only available in certain circumstance. Refer to the following table for details.

Table 2.2: Feature difference

Feature	.NET (IIS)	JBoss \WebLogic \WebSphere \JEUS	EAServer	
	Windows	Windows \Linux \Unix	Windows	Linux\Unix
PowerBuilder NVOs ^a	-	-	Yes	Yes
Save As WMF format	-	-	Yes	Yes
ApeonDataWindow and ApeonDataStore	-	-	Yes	Yes
Distributed DataWindows	-	-	Yes	-
Web Demos	-	Yes	Yes	Yes
EJB Components	-	Yes	Yes	Yes
Com/Com+/NET Components	Yes	-	-	-
DataWindow Data Caching ^b	Yes	Yes	Yes	Yes

Feature	.NET (IIS)	JBoss \WebLogic \WebSphere \JEUS	EAServer	
	Windows	Windows \Linux \Unix	Windows	Linux\Unix
LDAP Security	Yes ^c	Yes	Yes	Yes

^aPB NVOs are supported by EAServer only, and at the same time the corresponding version of PBVM must be installed.

^bAll types of Appeon Server support Application Server data cache and client-side data cache, but support Web server data cache on Windows platform only. If data caching feature is enabled in Web server, but if it does not work due to improper configuration or unsupported platform (such as Unix, Linux), then the Application Server data cache is automatically enabled.

^c.NET (IIS) Version supports only Microsoft Active Directory, while J2EE edition supports IBM LDAP, Netscape LDAP, Sun LDAP, and Microsoft Active Directory.

3 Appeon Web

Appeon Web extends the capabilities of Sybase PowerBuilder so that a PowerBuilder application can be deployed to the Web. The deployment process produces a true n-Tier Web application with a J2EE-based or .NET-based back-end and an HTML UI front-end. The source PowerBuilder application that will be deployed to the Web may be an existing 2-tier application or a new 3-tier Web application in PowerBuilder. A 3-tier Web application can be constructed quickly and easily, using only your PowerBuilder skills. Either way, Appeon Web is the fastest way to: 1) convert PowerBuilder applications into bona fide Web applications, and 2) convert PowerBuilder developers into highly productive Web application developers.

Appeon Web is composed of a developer tool and a set of runtime server components: Appeon Developer, Appeon Server (which includes the Appeon Enterprise Manager), Appeon Server Web Component, and Appeon Help:

- **Appeon Developer.** An extension to PowerBuilder that enables the Web application generation, maintenance, and upgrades within the PowerBuilder IDE.
- **Appeon Server for J2EE Server.** Composed of J2EE and PowerBuilder server components that provide runtime services for the deployed Web application such as data connectivity, complete DataWindows support, transaction management, printing, and security.
- **Appeon Server for .NET.** Composed of Microsoft .NET components that provide runtime services for the deployed Web application such as data connectivity, complete DataWindows support, transaction management, printing, and security.

Appeon Server also includes Appeon Enterprise Manager (AEM), which is essentially the user interface for Appeon Server. This UI is implemented as a JSP Web application enabling the system administrator to manage deployed Web applications and Appeon Server over the Internet, an intranet or an extranet.

- **Appeon Server Web Component.** A series of JavaScript-based Web components generating PowerBuilder-style GUI in standard Microsoft Internet Explorer.
- **Appeon Help.** Provides easy access to all user documents. It saves time and conveniently places the help information, such as, the Appeon supported features, at your fingertips.

Appeon Web provides several additional tools (included in the installation package) to aid you in deploying existing PowerBuilder applications to the Web:

- **Appeon Workarounds PBL.** Provides you several Appeon workaround functions that can help work around the unsupported features, such as DataWindow GetFullState, SetFullState, GetChanges and SetChanges functions. Refer to Chapter 2, *Appeon Workarounds PBL Reference in Workarounds & API Guide* for the functions provided in Appeon Workarounds PBL.
- **Appeon Sales Application Demo.** Familiarize yourself with the Appeon Developer toolbar in PowerBuilder and with the deployment process by converting the Sales Application Demo to the Web.

- **Appeon Code Examples and Appeon ACF Demo.** Explore examples of some of the rich PowerBuilder and PFC functionalities that Appeon Web can support on the Web. Appeon Code Examples also serves as a reference for how to best implement these supported PowerBuilder features. An application that is compliant with Appeon-supported features can be deployed to the Web in a few minutes with the click of a button.

4 Appeon Mobile

Appeon Mobile extends the capabilities of Sybase PowerBuilder so that a PowerBuilder application can be deployed and run on the mobile device. The deployment process produces a true native mobile application with a J2EE-based or .NET-based back-end and an mobile-style UI front-end.

Appeon Mobile is composed of an application workspace, a developer tool, and a set of runtime server components: Appeon Workspace, Appeon Developer, Appeon Server (which includes the Appeon Enterprise Manager), Appeon Server Web Component, and Appeon Help:

- **Appeon Workspace.** A native mobile application installed on the mobile device to simplify distributing, downloading, and running the Appeon mobile applications.
- **Appeon Developer.** An extension to PowerBuilder that enables the mobile application generation, maintenance, and upgrades within the PowerBuilder IDE.
- **Appeon Server for J2EE Server.** Composed of J2EE and PowerBuilder server components that provide runtime services for the deployed application such as data connectivity, complete DataWindows support, transaction management, printing, and security.
- **Appeon Server for .NET.** Composed of Microsoft .NET components that provide runtime services for the deployed application such as data connectivity, complete DataWindows support, transaction management, printing, and security.

Appeon Server also includes Appeon Enterprise Manager (AEM), which is essentially the user interface for Appeon Server. This UI is implemented as a JSP Web application enabling the system administrator to manage the deployed applications and Appeon Server over the Internet, an intranet or an extranet.

- **Appeon Server Web Component.** A series of C++ and JavaScript libraries generating mobile-style UI.
- **Appeon Help.** Provides easy access to all user documents. It saves time and conveniently places the help information, such as, the Appeon supported features, at your fingertips.

Appeon Mobile provides several additional tools (included in the installation package) to aid you in deploying existing PowerBuilder applications to the mobile device:

- **Appeon Workarounds & API PBL.** Provides you APIs that can help work around the unsupported features and call the mobile device native features. Refer to Chapter 2, *Appeon Workarounds PBL Reference in Workarounds & API Guide* for the functions provided in Appeon Workarounds PBL.
- **Appeon Demo Applications.** Including Sales App Demo, Code Examples Demo, ACF Demo, SAPTechEd2012 Demo, and Order Demo (iPhone only) that can familiarize yourself with the features that Appeon Mobile supports.

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Index

A

About This Book, [1](#)

Appeon Mobile, [8](#)

Appeon Web, [6](#)

Audience, [1](#)

E

edition, [4](#)

H

How to use this book, [1](#)

I

If you need help, [3](#)

R

Related documents, [1](#)