Installation Guide for EAServer Windows

Appeon® for PowerBuilder® 2015 Windows

FOR WINDOWS

DOCUMENT ID: ADC00802-01-0700-01

LAST REVISED: October 08, 2014

Copyright © 2000-2014 by Appeon Corporation. All rights reserved.

This publication pertains to Appeon software and to any subsequent release until otherwise indicated in new editions or technical notes. Information in this document is subject to change without notice. The software described herein is furnished under a license agreement, and it may be used or copied only in accordance with the terms of that agreement.

No part of this publication may be reproduced, transmitted, or translated in any form or by any means, electronic, mechanical, manual, optical, or otherwise, without the prior written permission of Appeon Corporation.

Appeon, the Appeon logo, Appeon Developer, Appeon Enterprise Manager, AEM, Appeon Server and Appeon Server Web Component are registered trademarks of Appeon Corporation.

Sybase, Adaptive Server Anywhere, Adaptive Server Enterprise, iAnywhere, PowerBuilder, Sybase Central, and Sybase jConnect for JDBC are trademarks or registered trademarks of Sybase, Inc.

Java and JDBC are trademarks or registered trademarks of Sun Microsystems, Inc.

All other company and product names used herein may be trademarks or registered trademarks of their respective companies.

Use, duplication, or disclosure by the government is subject to the restrictions set forth in subparagraph (c)(1)(ii) of DFARS 52.227-7013 for the DOD and as set forth in FAR 52.227-19(a)-(d) for civilian agencies.

Appeon Corporation, 1/F, Shell Industrial Building, 12 Lee Chung Street, Chai Wan District, Hong Kong.

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 Introduction 4
2.1 Overview 4
2.2 System architecture 4
2.3 Appeon editions 7
2.4 Appeon components 8
2.4.1 Appeon Developer 8
2.4.2 Appeon Server 8
2.4.3 Appeon Server Web Component 8
2.4.4 Appeon Workspace (for Appeon Mobile only) 8
2.4.5 Appeon Help 9
3 Installation Requirements 10
3.1 Client requirements 10
3.1.1 Software requirements 10
3.1.2 Hardware requirements 10
3.2 Appeon Server requirements 10
3.2.1 Software requirements 10
3.2.2 Hardware requirements 11
3.2.3 (Optional) Third-party Web Server requirements 11
3.3 Appeon Developer requirements 11
3.3.1 Software requirements 11
3.3.2 Hardware requirements 11
3.4 Database Server requirements 12
3.5 Offline synchronization requirements 12
3.5.1 Client Database requirements 12
3.5.2 Synchronization Server requirements 13
3.5.3 Server Database requirements 13
4 Installing Appeon for PowerBuilder 2015 14
4.1 Overview 14
4.2 Installation scenarios 14
4.2.1 Overview 14
4.2.2 Developer PC 15
4.2.3 Remote Appeon Server using EAServer HTTP Server 15
4.2.4 Remote Appeon Server using a third-party Web server 15
4.2.5 Appeon Server Cluster 16
4.3 Two installation methods 17
4.4 Appeon new installation 17
4.4.1 Starting the installation 17
4.4.2 Appeon Server installation 22
4.4.2.1 Prerequisites 22
4.4.2.2 Installation instructions 23
4.4.2.3 Installing EAServer license 32

4.4.2.4 Installing Appeon Server to EAServer instances 32
4.4.3 Appeon Developer installation 36
4.4.3.1 Prerequisites 36
4.4.3.2 Installation instructions 36
4.4.4 Appeon Server Web Component installation (for third-party Web servers only) 41
4.4.4.1 Prerequisites 41
4.4.4.2 Installation instructions 42
4.4.5 Appeon Help installation 44
4.5 Appeon upgrade installation 47
4.5.1 Overview 47
4.5.2 Before you upgrade 47
4.5.3 Upgrading to Appeon for PowerBuilder 2015 48
4.5.3.1 Upgrading Appeon Server 48
4.5.3.2 Upgrading Appeon Developer 50
4.5.3.3 Upgrading Appeon Server Web Component 51
4.5.4 Upgrade configuration settings manually 51
4.6 Troubleshoot Appeon installation problems 52
5 Configuring Appeon Server Cluster 53
6 Post-Installation Configuration Tasks 54
6.1 Overview 54
6.2 Configuration for Web client PC 55
6.2.1 Verifying Web browser settings 55
6.2.1.1 Verifying Chrome/Firefox/Opera settings 55
6.2.1.2 Configuring IE settings 57
6.2.2 Logging in as administrator or normal user 59
6.3 System language settings 59
7 Uninstalling Appeon for PowerBuilder 2015 61
7.1 Overview 61
7.2 Uninstalling Appeon Developer 61
7.3 Uninstalling Appeon Server 63
7.3.1 Uninstalling EAServer that is installed with Appeon Server 67
7.4 Uninstalling Appeon Server Web Component (for third-party Web servers only) 68
7.5 Uninstalling Appeon Help 69
Index 72

1 About This Book

1.1 Audience

This book is for a PowerBuilder programmer to set up the Web and/or mobile development and runtime environment by installing the different components of Appeon for PowerBuilder.

1.2 How to use this book

There are seven chapters in this book.

Chapter 1: About This Book

A general description of this book.

Chapter 2: Introduction

An overview of Appeon for PowerBuilder 2015 for EAServer Windows and its system architecture.

Chapter 3: Installation Requirements

The system requirements for installing Appeon for PowerBuilder 2015 for EAServer Windows.

Chapter 4: Installing Appeon for PowerBuilder 2015

Instructions for installing and upgrading Appeon Server, Appeon Developer, and Appeon Server Web Component.

Chapter 5: Configuring Appeon Server Cluster

Instructions for configuring an Appeon Server cluster.

Chapter 6: Post-Installation Configuration Tasks

Instructions on configurations required for Appeon system architecture that affect the running of Web applications.

Chapter 7: Uninstalling Appeon for PowerBuilder 2015

Instructions for uninstalling Appeon for PowerBuilder 2015 for EAServer Windows.

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 though 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 Introduction

2.1 Overview

Appeon for PowerBuilder is the first and revolutionary solution that leverages the PowerBuilder IDE for building an application and deploying it as a Windows client/server app, a Windows browser-based Web app, and an iOS/Android native mobile app. PowerBuilder is a very mature and productive 4GL development environment, running on the Windows platform, and offering distinguished features such as MDI windows, DataWindows, menus, and toolbars. All of these powerful features will be available in the deployed application.

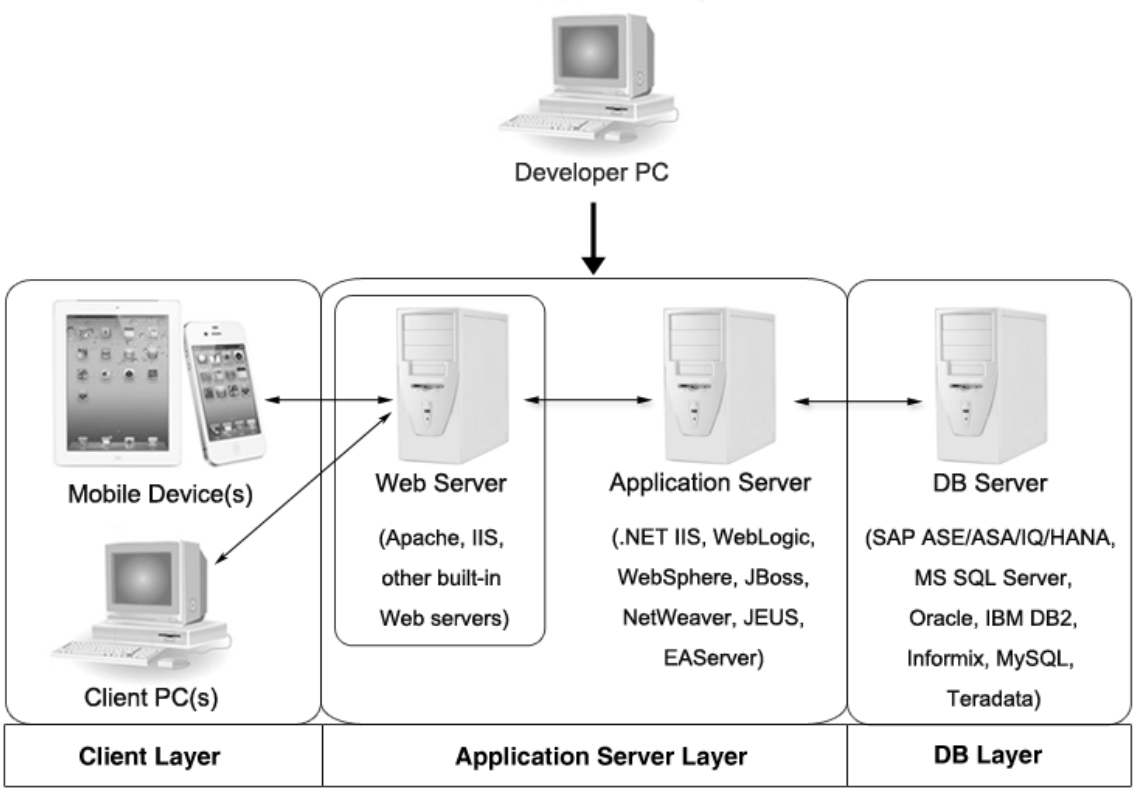
From the native source code of PowerBuilder applications, Appeon for PowerBuilder can generate n-tier applications that can run on the Web or mobile environment. The application that run on the Web environment can automatically and precisely replicate the Client/Server user interface with HTML running in standard Windows Web browsers, while the application that run on the mobile environment can automatically take the typical mobile user interface for the iOS and Android OS. The application business logic including DataWindows, Embedded SQL and dynamic SQLs is deployed to a Java-based or .NET-based back-end. These applications offer the rich user experience of the original PowerBuilder applications and deliver the superior Quality Of Service (QOS) of the n-tier architecture and J2EE platform, as well as greater availability, scalability, security and reliability.

Appeon for PowerBuilder allows the entire application conversion process to be executed within the PowerBuilder IDE. It does not require the developer to write a single line of code. Only standard PowerBuilder programming skills are required.

2.2 System architecture

Appeon for PowerBuilder works with standard n-tier architecture. Each tier serves a specific purpose in the architecture, though it may not necessarily reside in the same physical machine. For example, the Web server, application server and database server can reside in one machine or in different machines. A single tier may also be spread across multiple physical machines. For example, the application server can consist of a cluster of Appeon Server computers to provide load balancing and failover.

Figure 2.1: System architecture



Appeon applications deploy to the standard n-tier architecture - the client tier, middle tier (application server), and data tier (database) are logically separated. Each tier should have appropriate Appeon components and/or third-party software installed according to its role within the architecture. The following table briefly lists the tiers, roles, their purposes and the required Appeon/third-party software.

Table 2.1: Tiers in the Appeon architecture

Tier	Role	Purpose	Appeon Componer	Third-party Software
Client tier	Mobile Device	Runs the Appeon native mobile applications.	Appeon Workspace (Optional)	None
	Client PC	Runs the Appeon Web applications in Web browsers.	None	Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or Opera
Developer PC	Developer PC	Deploys your PowerBuilder application to the server.	Appeon Developer	PowerBuilder
Middle tier	Web Server	Responds incoming requests from the client tier, and dispatches requests to the application server.	Appeon Server Web Component	EAServer HTTP Server or any EAServer-compatible Web server

Tier	Role	Purpose	Appeon Componer	Third-party Software
		Hosts the presentation layer of the deployed Web applications.		
	Application Server	Hosts the DataWindows of the Appeon deployed applications, and provides the necessary run-time services to the deployed applications, such as DataWindow retrieval and update, Embedded SQLs, dynamic SQLs, security authentication etc. Appeon application middle-tier can invoke Java components, external DLL functions, and C ++ components. Furthermore, it supports Web Services for the most flexibility integrating with J2EE and .NET.	Appeon Server	EAServer
Data tier	Database Server	Hosts the application database.	None	JDBC-compliant RDBMS supported by Appeon. Please see Database server requirements for more information.

- Client Tier

  Mobile device: The mobile application client layer is implemented using universal C++ libraries and JavaScript libraries. The C++ libraries render the mobile-style UI and provide interface for calling the device native features, information and hardware (camera, GPS, etc.), and support accessing the client/offline database and running the offline application. The JavaScript libraries support the PowerScript or UI logic coded in the Window object, user object (including NVOs), menu object and any other visual objects. These client libraries are automatically included in Appeon Workspace or the packaged mobile app.

  Client PC: The Web application client layer consists of two ActiveX plug-ins and some C++/JavaScript libraries which are originally built into Appeon Server Web Component and then automatically downloaded to the client when the application is run for the first time. The two ActiveX plug-ins manage the download and caching of the Web application and also act as the bridge to interact between the C++/JS libraries and the Web page. The C++/JS libraries render the PowerBuilder-style Web graphical user interface in the Web browsers.

- Middle Tier

  The middle tier, which hosts the business logic, is implemented with J2EE or .NET components. These components execute the DataWindows, Embedded SQLs, and dynamic

SQLs of the deployed application. The middle tier deploys to the Java or .NET compliant Appeon Server, leveraging dozens of many-years of investments in DataWindows and other business logic.

- Data Tier

  The database stores the raw data for the application and stored procedures, if any. The existing database from the PowerBuilder application can be simply re-used without modification so long as it is an Appeon-certified database.

2.3 Appeon editions

Appeon for PowerBuilder 2015 provides the following editions for the Windows platform.

Table 2.2: Appeon editions

Edition	Component	Description
Enterprise Edition	• Appeon Server • Appeon Server Web Component • Appeon Workspace (for Appeon Mobile only) • Appeon Help	1) Appeon Developer is not provided. 2) The Appeon Server clustering service is provided. 3) Product activation is required within 30 days.
Workgroup Edition	• Appeon Server • Appeon Server Web Component • Appeon Workspace (for Appeon Mobile only) • Appeon Help	1) Appeon Developer is not provided. 2) Product activation is required within 30 days.
Developer Edition	• Appeon Developer • Appeon Server • Appeon Server Web Component • Appeon Workspace (for Appeon Mobile only) • Appeon Help	1) The maximum number of online users is 10 (5 for Web, and 5 for Mobile). 2) Product activation is required within 30 days.
Trial Edition	• Appeon Developer • Appeon Server • Appeon Server Web Component • Appeon Workspace (for Appeon Mobile only)	1) Trial Edition has a 30-day time bomb. 2) The Appeon Server clustering service is provided. 3) The maximum number of online user is unlimited.

Edition	Component	Description
	• Appeon Help	

2.4 Appeon components

2.4.1 Appeon Developer

Appeon Developer is a plug-in to the PowerBuilder IDE installed to the developer's PC. It provides a set of tools that enable the mobile and Web application generation, maintenance, and upgrades within the PowerBuilder IDE. These tools are accessed via a toolbar in the PowerBuilder IDE, which automatically loads each time PowerBuilder is started.

2.4.2 Appeon Server

Appeon Server is a set of server components that is deployed to the application server. It provides the Appeon applications with necessary run-time services such as data connectivity, DataWindow support, transaction management, and security.

Appeon Server also includes Appeon Enterprise Manager (AEM) and Appeon Server Web Component.

AEM is the management console for Appeon Server and the deployed applications. When you install Appeon Server, AEM is automatically installed.

During the Appeon Server installation, the Appeon Server Web Component is automatically installed to the EAServer HTTP Server, therefore, if you are using one EAServer as both the Web server and the application server, you will NOT need to run the Appeon Server Web Component installation.

2.4.3 Appeon Server Web Component

Appeon Server Web Component resides in the Web server. It consists of the Web server redirector plug-in (that dispatches the user requests to the Appeon Server) and a set of runtime libraries for the Web application (that supports the PowerBuilder-style UI in the Web browser).

If you use a third-party Web server (such as Apache or IIS) and/or physically separate the Web server and the Appeon Server, for example, for load balancing purpose, you will need to install Appeon Server Web Component to the Web server and configure the Web server with the redirector plug-in. For detailed instructions on configuring the Web server, refer to Web Server Configuration Guide.

2.4.4 Appeon Workspace (for Appeon Mobile only)

Appeon Workspace is installed on the mobile device to help simplify the distribution and installation of the native mobile app. It consists of a set of mobile client libraries and a graphical user interface. The mobile client libraries generate the mobile-style UI, support the PowerScript and UI logic, provide interfaces for calling the mobile SDK, and support accessing the client/offline database and running the offline mobile application. The graphical user interface allows end users to install and run the mobile application from Appeon Server conveniently, so developers do not need to register their mobile applications in the online application store, and the end users do not need to install them from there.

Appeon Workspace is distributed as a native mobile app thru the online app stores (such as Apple App Store, Google Play) or over-the-air, and it is also automatically included when you package and compile the Appeon mobile application as the iOS application archive (IPA) file or Android application package (APK) file.

2.4.5 Appeon Help

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 Help is a Microsoft compiled HTML help (.chm) which can be installed and viewed on the Windows OS only. To view the Appeon documentation on all OS, you can visit the online web help at the Appeon web site.

3 Installation Requirements

3.1 Client requirements

3.1.1 Software requirements

Requirements for the mobile device:

- Apple iOS 6.0 or above

  iOS devices: iPad 2/3/4/Mini/Air, iPhone 4/4S/5/5C/5S/6/6 Plus, iPod touch 4/5.

- Google Android 4.2 or above

  All the Android devices.

  Android devices that have been certified by Appeon include Samsung Galaxy Note 8.0 GT-N5100, Samsung Galaxy Note 10.1 GT-N8000, Google Nexus 7, LG Nexus 4 E960 (smartphone), Samsung Galaxy Tab 3 10.1 GT-P5210, Samsung Google Nexus 10, and ASUS MeMo Pad FHD 10 ME 302C.

Requirements for the Web client PC:

- Microsoft Internet Explorer 8.0 or later, Mozilla Firefox 29 or later, Google Chrome 35 or later, or Opera 21 or later

- Windows 7, Windows 8/8.1, Windows Server 2008 SP2, or Windows Server 2008 R2

  IE can also support Windows Server 2012, Windows Server 2003 SP2, Microsoft Windows 2000 SP4, & Windows Vista SP2, though the other browsers may not.

- (Optional) Adobe Acrobat Reader 6.0 or above (for viewing printed PDF DataWindows or reports)

3.1.2 Hardware requirements

Requirements for the Web client PC:

- Intel processor(s) running at 1.8 GHz or faster

- At least 2 GB Free RAM

3.2 Appeon Server requirements

3.2.1 Software requirements

- Windows OS that is supported by SAP Sybase EAServer

- SAP Sybase EAServer 6.3.1.04

  Please make sure that EAServer is started by JDK 1.6 or above.

3.2.2 Hardware requirements

- Intel processor(s) running at 1.8 GHz or faster
- At least 2 GB Free RAM (4 GB Free RAM recommended)
- 900 MB hard drive space (for EAServer installation) plus 500 MB hard drive space (for Appeon Server installation)

3.2.3 (Optional) Third-party Web Server requirements

- Apache 1.3, 2.0, or 2.2, or Microsoft IIS 6.0, 7.0, 7.5 or 8.0
- 50 MB hard drive space (for Appeon Server Web Component installation)

To make the third-party Web server work with Appeon Server, you must have the Web server redirector plug-in installed and configured. For detailed instructions, refer to Web Server Configuration Guide.

3.3 Appeon Developer requirements

3.3.1 Software requirements

- (Recommended) Microsoft Internet Explorer 9.0 or later

  (Optional) Mozilla Firefox 30 or later, Google Chrome 35 or later, or Opera 22 or later

  IE is recommended because it works on all Windows OS, while the other browsers may not work on certain Windows OS, please check Client requirements to determine which OS these browsers can support.
- Microsoft Windows 2000 SP4, Windows Server 2003 SP2, Windows Server 2008 SP2, Windows Server 2008 R2, Windows Server 2012, Windows Vista SP2, Windows 7, or Windows 8/8.1
- SAP Sybase PowerBuilder 9.0.3 (build 8784), 10.2.1 (build 9914), 10.5.2 (build 7826), 11.2 (build 8669), 11.5 (build 3127), 12.0 (build 3517), 12.5 (build 2511), 12.5.2 (build 5006), or 12.6 (build 3506)

  If you do not have the required build, download and run the PowerBuilder EBF program from the Sybase Downloads website.
- ODBC database driver or a native database driver for the database server used by your application. Note that you cannot use a native database driver for SAP Sybase ASA/SQL Anywhere or IBM DB2 database.
- (Optional) SAP Sybase ASA/SQL Anywhere 8.0.2, 9.0, 10.0.1, 11.0, 12.0 or 16.0 (for running the PowerBuilder demos included in Appeon installation).

3.3.2 Hardware requirements

- Intel processor(s) running at 1.8 GHz or faster

- At least 2 GB Free RAM (4 GB Free RAM recommended)
- 2 GB hard drive space (for Appeon Developer installation only)

  Each PowerBuilder application conversion project will require additional hard drive space based on the size of the PowerBuilder application.

3.4 Database Server requirements

Appeon for PowerBuilder 2015 can connect to any of the following database servers:

- SAP Sybase ASA/SQL Anywhere 8.0.2, 9.0, 10.0.1, 11.0, 12.0 or 16.0 with Sybase iAnywhere or jConnect JDBC driver
- SAP Sybase ASA/SQL Anywhere WEB Edition with Sybase jConnect or iAnywhere JDBC driver
- SAP Sybase Adaptive Server Enterprise (ASE) 12.5.x or 15.x with Sybase jConnect or iAnywhere JDBC Driver
- SAP Sybase IQ 12.6.x, 12.7.x or 15 with jConnect JDBC driver
- SAP HANA 1.00.36 with SAP In-Memory Database JDBC driver
- IBM DB2 UDB 8.1, 8.2, 9.5 or 10 with IBM JDBC driver
- Informix 9.x, 10.x or 11.x with IBM JDBC driver
- Microsoft SQL Server 2000 SP4, 2005 SP1, 2008 or 2012 with MSFT JDBC driver or JTDS driver
- MySQL 5.5.x or 5.6.x with Connector/J driver
- Oracle 8i, 9i, 10g, 11g or 12c with Oracle JDBC Driver
- Teradata 13.00.00.27 or later with Teradata JDBC driver

For instructions on downloading and installing the driver files, refer to Section 4.2.4, “JDBC driver preparation” in *Appeon Server Configuration Guide for J2EE*.

3.5 Offline synchronization requirements

3.5.1 Client Database requirements

Appeon for PowerBuilder 2015 supports the following client/offline databases:

- UltraLite 12.0.1

  According to SAP Sybase SQL Anywhere Supported Platforms, UltraLite supports Android-ARM only, and does not support Android-X86. Which means, if your Android device is powered by Intel or AMD x86 processors, rather than RISC-based ARM chips, then your device will not have offline accessibility to the local UltraLite database.

- SQLite 3.x

3.5.2 Synchronization Server requirements

Appeon for PowerBuilder 2015 supports the following offline synchronization server:

- MobiLink Server (included in SQL Anywhere 12.0.1 components)

Note: MobiLink can synchronize an UltraLite database, but cannot synchronize a SQLite database. To synchronize a SQLite database, you would need to develop your own synchronization solution.

3.5.3 Server Database requirements

MobiLink Server can connect to the consolidated databases that MobiLink supports.

For detailed information, refer to **MobiLink consolidated database** in SQL Anywhere online help (http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.help.sqlanywhere.12.0.1/mlserver/ml-consdb.html).

4 Installing Appeon for PowerBuilder 2015

4.1 Overview

Appeon for PowerBuilder 2015 (on Windows) consists of five major components: Appeon Developer, Appeon Server, Appeon Server Web Component, Appeon Help, and Appeon Workspace.

Table 4.1: Appeon components

Component	Description	Installed on
Appeon Developer	A plug-in to the PowerBuilder IDE installed to the developer's PC.	PowerBuilder on Windows operating system.
Appeon Server	A set of server components deployed to the application server providing runtime services for the application, such as data connectivity, DataWindows support, transaction management, and security. Appeon Server also includes Appeon Enterprise Manager (AEM) and Appeon Server Web Component.	EAServer on Windows operating system.
Appeon Server Web Component	A set of Web server redirectors that dispatches the user requests to Appeon Server, and a set of runtime libraries that supports a PowerBuilder-style Web UI within standard Windows Web browsers.	Third-party Web server. For EAServer HTTP Server, this installation is unnecessary since the Web Component is included in Appeon Server.
Appeon Help	The compiled HTML help of all Appeon user documents which saves time and conveniently places the help information at your fingertips.	Windows operating system.
Appeon Workspace (for Appeon Mobile only)	A native mobile application installed on the mobile device to simplify distributing, downloading, and running the Appeon mobile applications.	Mobile Device.

4.2 Installation scenarios

4.2.1 Overview

Appeon for PowerBuilder 2015 works with n-tier architecture: different Appeon components should be installed to the computer(s) according to their roles in the network. In this section, some practical scenarios are described to demonstrate how Appeon for PowerBuilder 2015 should be installed according to network architecture.

4.2.2 Developer PC

Table 4.2: Developer PC installation

Scenarios	Requirements	Appeon Components
One physical machine, Computer 1, serves as Developer PC, Web server, application server and database server	Computer 1: Microsoft Windows Server 2003, 2008, or 2012 Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or Opera SAP Sybase PowerBuilder SAP Sybase ASA/SQL Anywhere (Optional) SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on application database	Computer 1: Appeon Developer Appeon Server

4.2.3 Remote Appeon Server using EAServer HTTP Server

Table 4.3: Remote Appeon Server and Web server installation

Scenarios	Requirements	Appeon Components
In this example, 2 computers are used: Computer 1 serves as Developer PC.	Computer 1: Microsoft Windows 2000, 2003, 2008, 2012, 7, 8/8.1, or Vista Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or Opera SAP Sybase PowerBuilder SAP Sybase SQL Anywhere	Computer 1: Appeon Developer
Computer 2 serves as Web server, application server and database server.	Computer 2: Microsoft Windows Server 2003 or 2008, 2012 SAP Sybase SQL Anywhere, SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on application database	Computer 2: Appeon Server

4.2.4 Remote Appeon Server using a third-party Web server

Table 4.4: Remote Appeon Server and Web server installation

Scenarios	Requirements	Appeon Components
In this example, 2 computers are used:	Computer 1:	Computer 1:

Scenarios	Requirements	Appeon Components
Computer 1 serves as Developer PC.	Microsoft Windows 2000, 2003, 2008, 2012, 7, 8/8.1, or Vista Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or Opera SAP Sybase PowerBuilder SAP Sybase SQL Anywhere	Appeon Developer
Computer 2 serves as Web server	Computer 2: Microsoft IIS or Apache	Computer 2: Appeon Server Web Component
Computer 2 serves as Web server, application server and database server.	Computer 2: Microsoft Windows Server 2003, 2008, or 2012 SAP Sybase SQL Anywhere, SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on application database	Computer 2: Appeon Server

4.2.5 Appeon Server Cluster

Table 4.5: Appeon Server cluster installation

Scenarios	Requirements	Appeon Components
In this example, N (N>=4) computers are used: Computer 1 is used for Developer PC.	Computer 1: Microsoft Windows 2000, 2003, 2008, 2012, 7, 8/8.1, or Vista Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or Opera SAP Sybase PowerBuilder SAP Sybase SQL Anywhere	Computer 1: Appeon Developer
Computer 2 is the database server.	Computer 2: SAP Sybase SQL Anywhere, SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on application database	Computer 2: None
Computer 3 is the Web server.	Computer 3: Microsoft IIS or Apache	Computer 3: Appeon Server Web Component
Computers 4 to n are a group of EAServers.	Computers 4 to n: Microsoft Windows Server 2003, 2008, or 2012	Computers 4 to n:

Scenarios	Requirements	Appeon Components
		Appeon Server (After installing Appeon Server to each EAServer, configure the Appeon Servers as a cluster. Refer to Configuring Appeon Server Cluster for details)

4.3 Two installation methods

Appeon for PowerBuilder 2015 provides two installation methods: **new installation** and **upgrade installation**.

- If your computer has not installed any version of Appeon for PowerBuilder, the setup program automatically takes the new installation method.
- If your computer has Appeon 6.2 or an earlier version installed, you must uninstall the version, prepare the environment for Appeon for PowerBuilder 2015 installation, and then use the setup program to install. The setup program takes the new installation method.
- If your computer has Appeon 6.5 or a later version installed, the setup program automatically takes the upgrade installation method.

4.4 Appeon new installation

4.4.1 Starting the installation

Step 1: Double click the **Setup.exe** file in the installation package. The **Appeon for PowerBuilder 2015 Setup** program starts. The entry page has several options to guide you through the various installation tasks.

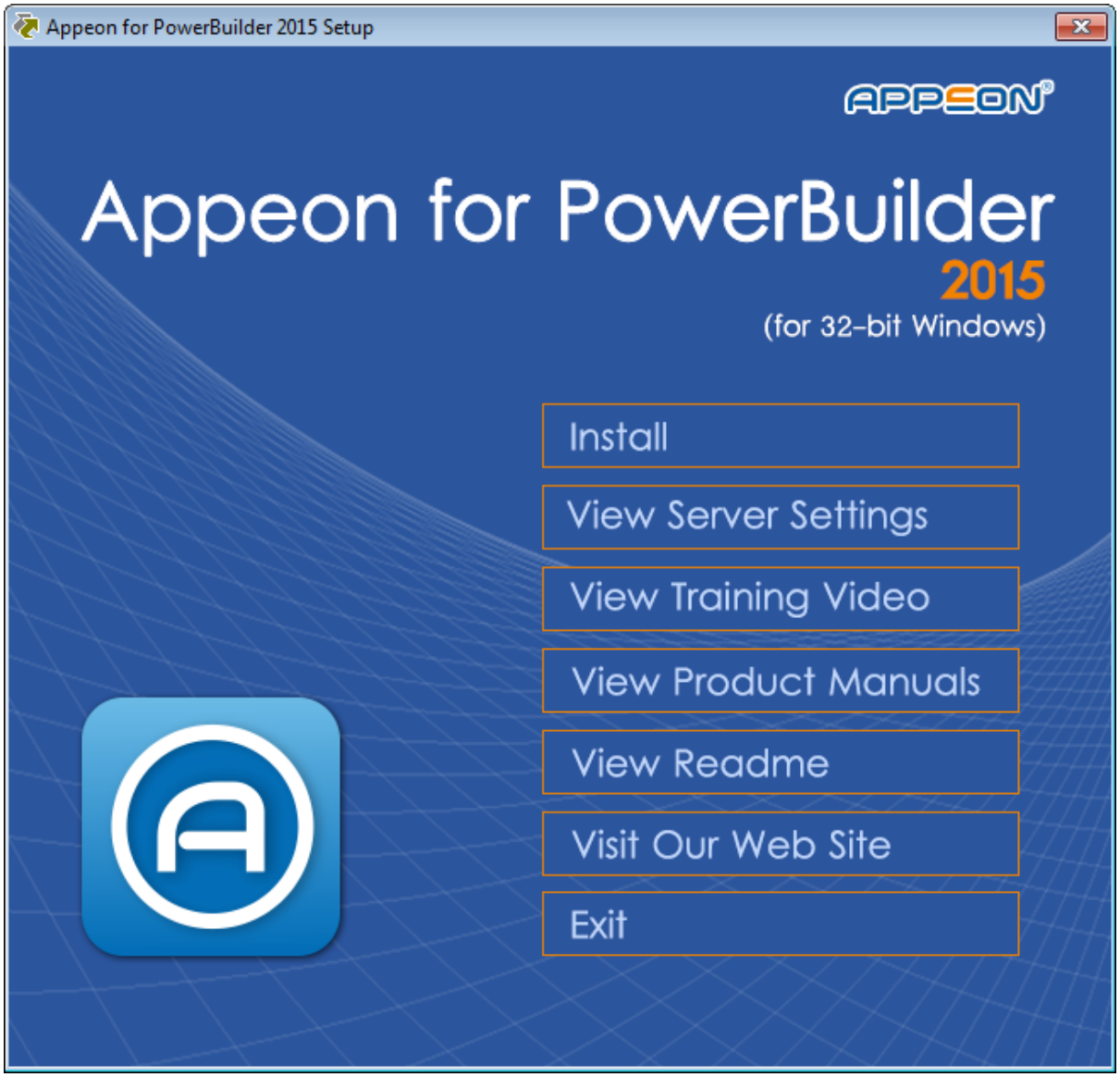
- **Install**: Click this button to start installing the product.
- **View Server Settings**: Click this button to ensure that the application server settings are appropriate for the Appeon Server installation.
- **View Training Video**: Click this button to watch the video to learn how to install the product.
- **View Product Manuals**: Click this button to read the user manuals for the product.
- **View Readme**: Click this button to read the key system requirements and installation information for the product.

- **Visit Our Web Site**: Click this button to visit the Appeon web site.
- **Exit**: Click this button to exit the setup program.

Note: Make sure there is enough space on the C: drive for storing temporary files for installation. Otherwise an error message will pop up, saying "1607: Unable to install InstallShield Scripting Runtime".

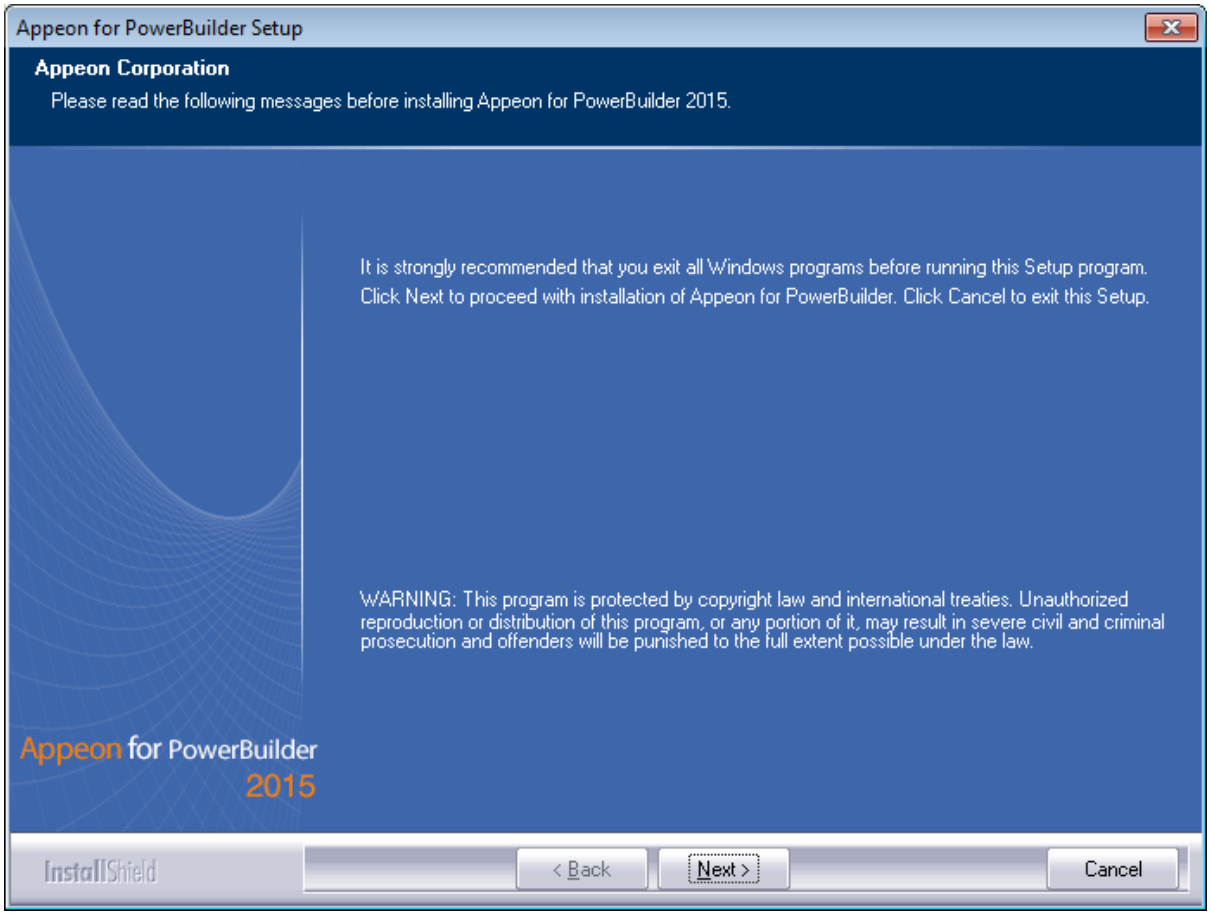
Step 2: Click **Install**.

Figure 4.1: Install Appeon for PowerBuilder



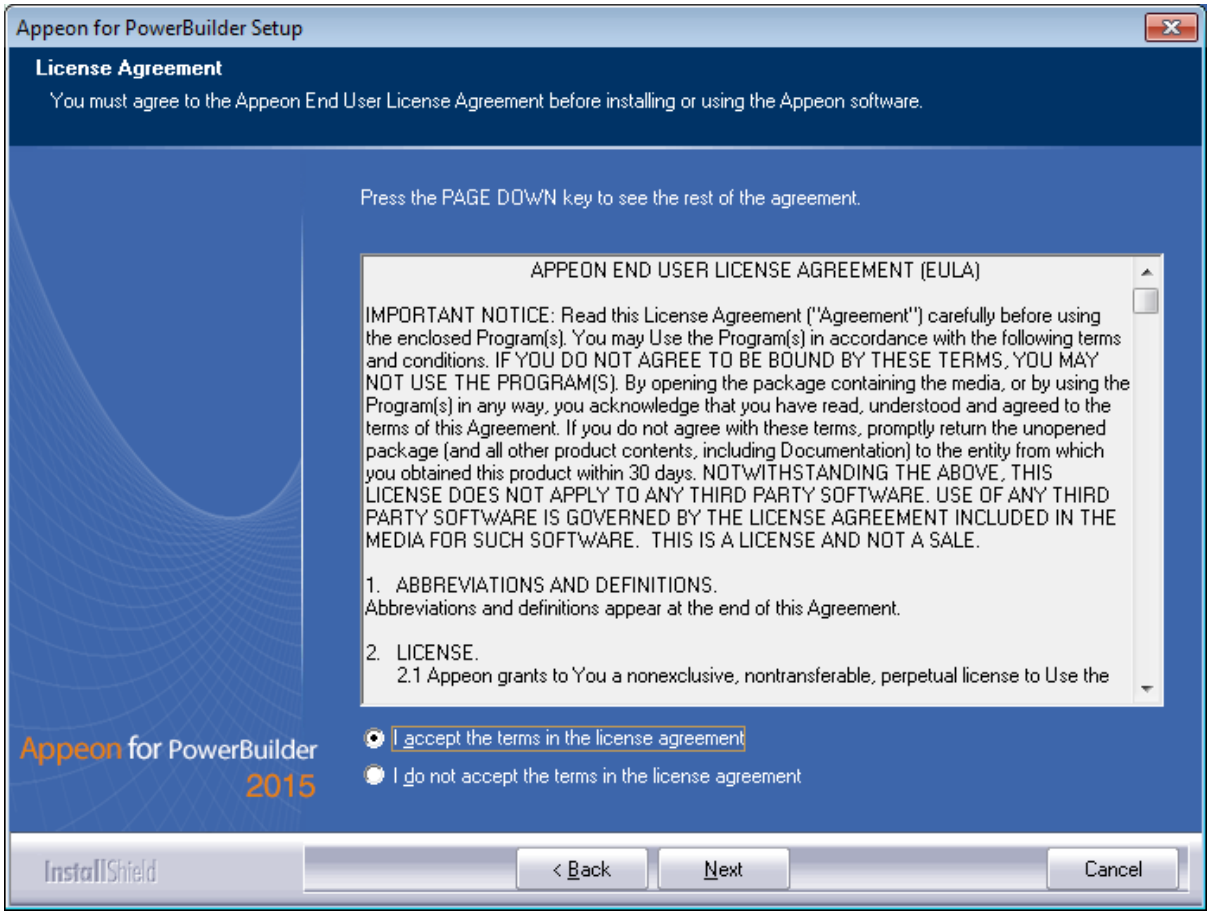
Step 3: Click **Next** on the introduction screen.

Figure 4.2: Introduction page



Step 4: Accept the terms in the license agreement page and click **Next**.

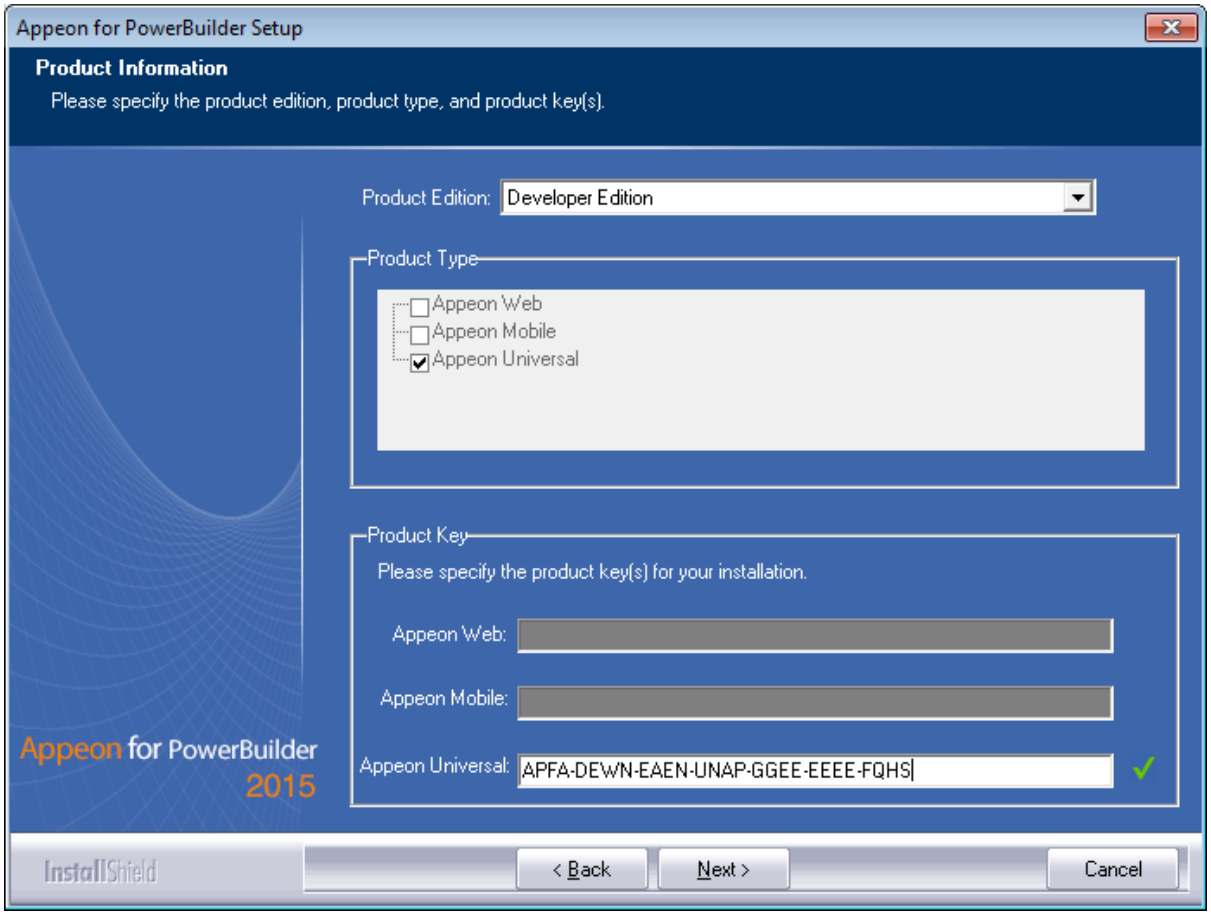
Figure 4.3: License Agreement page



Step 5: According to the license you purchase, select the product edition and the product type: **Appeon Web**, **Appeon Mobile**, or **Appeon Universal**, and then enter the product key which is shipped with the Appeon product. Click **Next**.

If you select the **Trial** or **Developer** edition, **Appeon Universal** will be automatically selected so you can experience both the Web and mobile deployments at no additional charge.

Figure 4.4: Product edition, type and key page

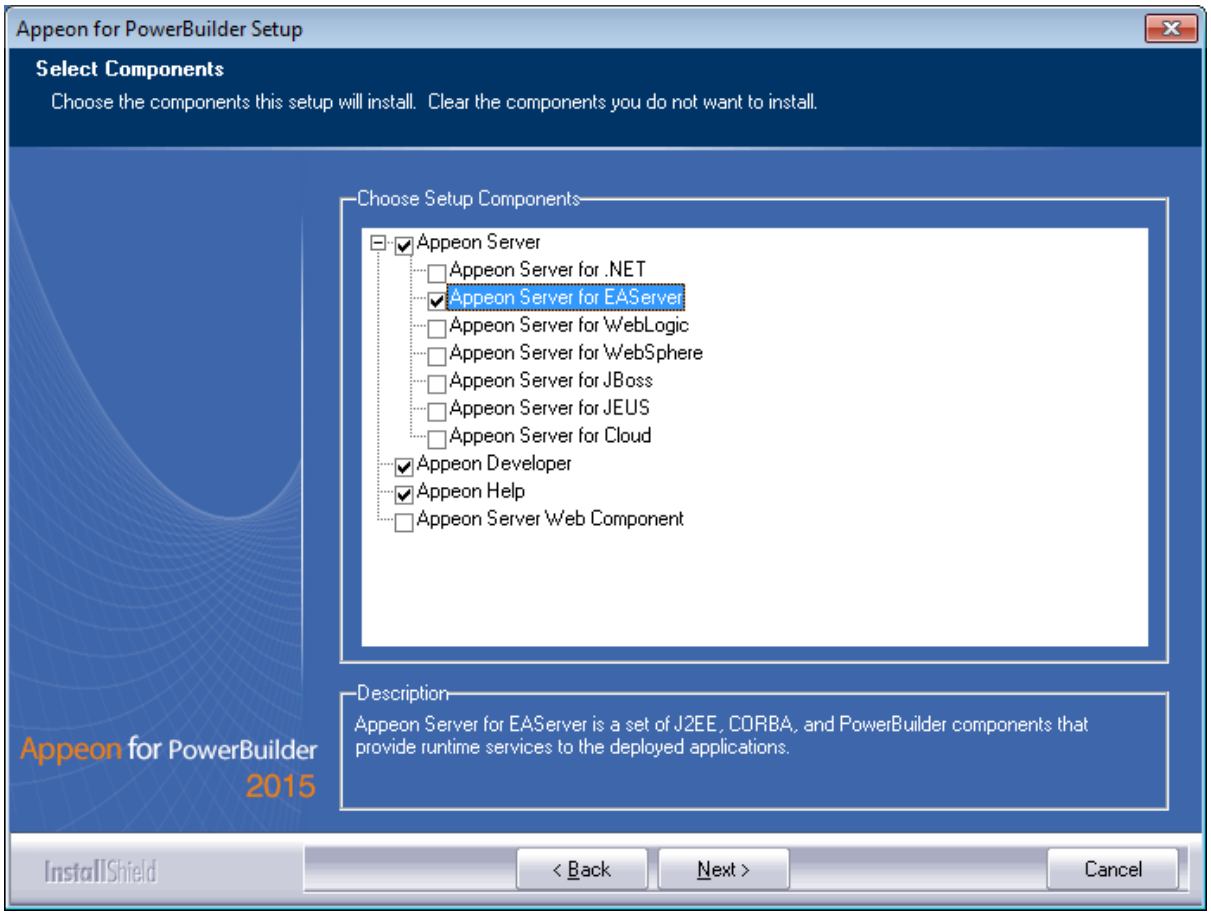


Step 6: Select the component(s) you want to install and click **Next**. The Setup program will install the selected component(s) in the order listed.

For the EAServer application server, be sure to select **Appeon Server for EAServer**, as shown in the following figure.

For Developer Edition and Trial Edition, if more than one application servers such as EAServer, WebLogic, WebSphere etc. are installed on the same computer, you can repeatedly run the setup program to install Appeon Server to these application servers, for example, you can first run the setup program and select **Appeon Server for EAServer** to install Appeon Server to the EAServer, you can then run the setup program again and select **Appeon Server for WebLogic** to install Appeon Server to the WebLogic application server.

Figure 4.5: Select components



Refer to the following sections to complete the installation of each component.

- For Appeon Server installation instructions, refer to Appeon Server installation.
- For Appeon Developer installation instructions, refer to Appeon Developer installation.
- For Appeon Help installation instructions, refer to Appeon Help installation.
- For Appeon Server Web Component installation instructions, refer to Appeon Server Web Component installation.

  If you are using one EAServer as both the Appeon Server and the Web server, then you will not need to install Appeon Server Web Component, because it is included in Appeon Server and will be installed automatically during Appeon Server installation.

4.4.2 Appeon Server installation

4.4.2.1 Prerequisites

- Verify that PBVM is installed. Setup will automatically search the registry for the PBVM location in the following order:

  PBVM installed with PowerBuilder

PBVM installed by running the independent PBVM Setup program

PBVM installed with EAServer

You must make sure PBVM is installed before installing Appeon Server.

- Verify that the Sybase license server (SYSAM) that you intend to use with the Appeon Server does not include the EJB (Enterprise Java Beans) option. If ASE EJB license is present, EAServer will start as "Sybase Enterprise Application Server (ASE Edition)" which only supports EJB components. Other component types, including PowerBuilder, are not supported. PowerBuilder support is required for the Appeon Server to function properly. For instructions on how to check and remove the ASE EJB option, refer to Troubleshooting.

- Before beginning the installation process, make sure that you shut down Sybase PowerBuilder, EAServer, Sybase ASA/SQL Anywhere, Sybase EP Management Agent service and any other Windows programs that are running.

- Verify in Windows Task Manager that the following processes are not running in the processes tab: **EonADTxx.exe, java.exe, jagsrv.exe, jagsrvagent.exe**, and **pbxxx.exe**. If these processes are running, be sure to end them by clicking the **End Process** button on the Windows Task Manager. You will get a Task Manager warning; acknowledge this warning and proceed by clicking **Yes**.

- If you do not have EAServer 6.3 installed on your computer and plan to install it by Appeon installation program, copy the Appeon installation program to the computer where EAServer and Appeon Server will be installed, because the network installation is not allowed.

4.4.2.2 Installation instructions

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Server for EAServer** (see Starting the installation). Wait until Appeon Server completes the preparation.

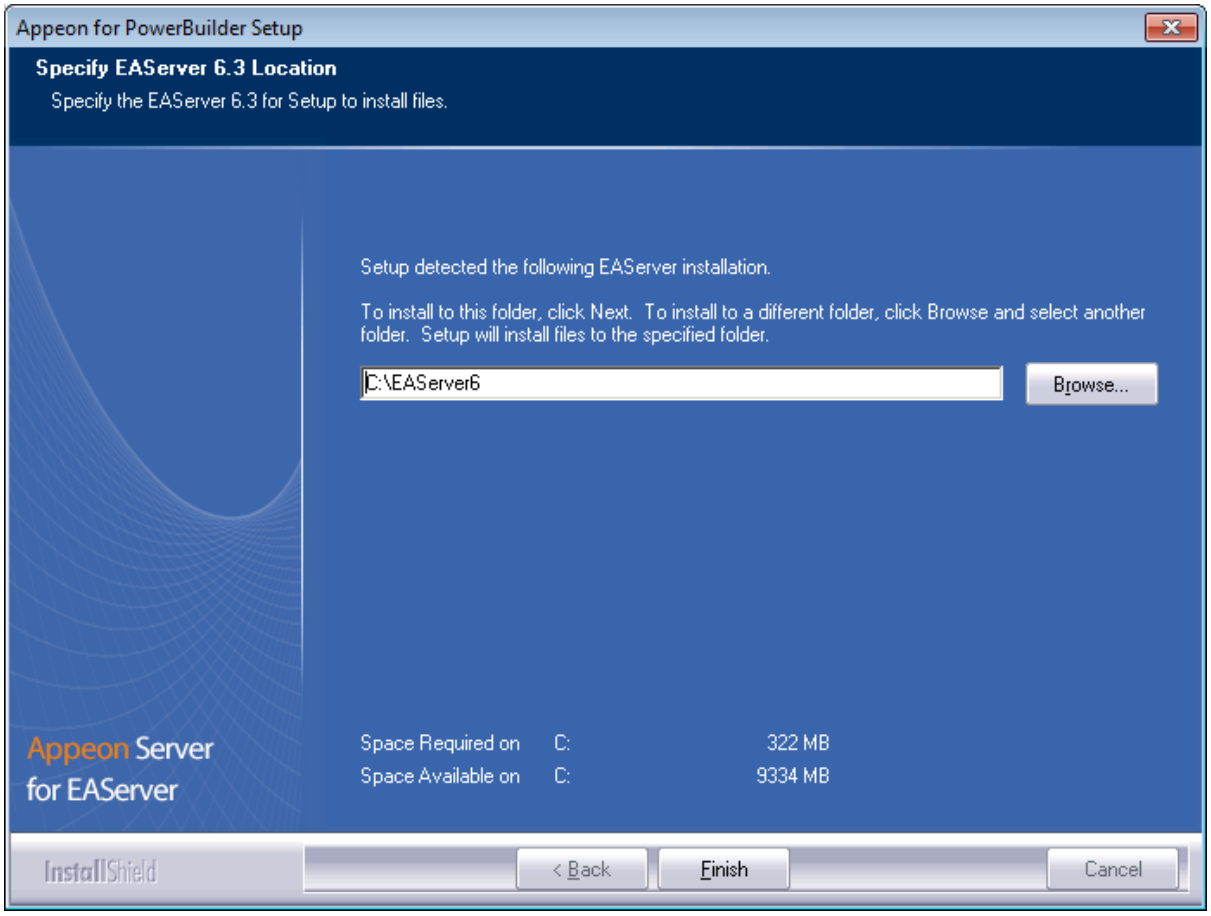
Step 2: Specify the path of EAServer where Appeon Server will be integrated and click **Next**.

Setup displays the EAServer 6.3 location if it detects the EAServer installation. Click **Browse** to select a different location.

If you select a pre-EAServer 6.3 instance, you will be prompted whether to continue installing to the pre-EAServer 6.3 or select an EAServer 6.3 instance. You can simply click **OK** to continue installing to the pre-EAServer 6.3 version or click **Cancel** to select an EAServer 6.3 instance.

Recommendation: Please specify a short path for installing EAServer 6.3, for example, "C:\Sybase\EAServer63". If you specify a long path, for example, "C:\Program files\sybase\EAServer63", Appeon Server may not start with EAServer, hence will not work properly.

Figure 4.6: Specify EAServer Location

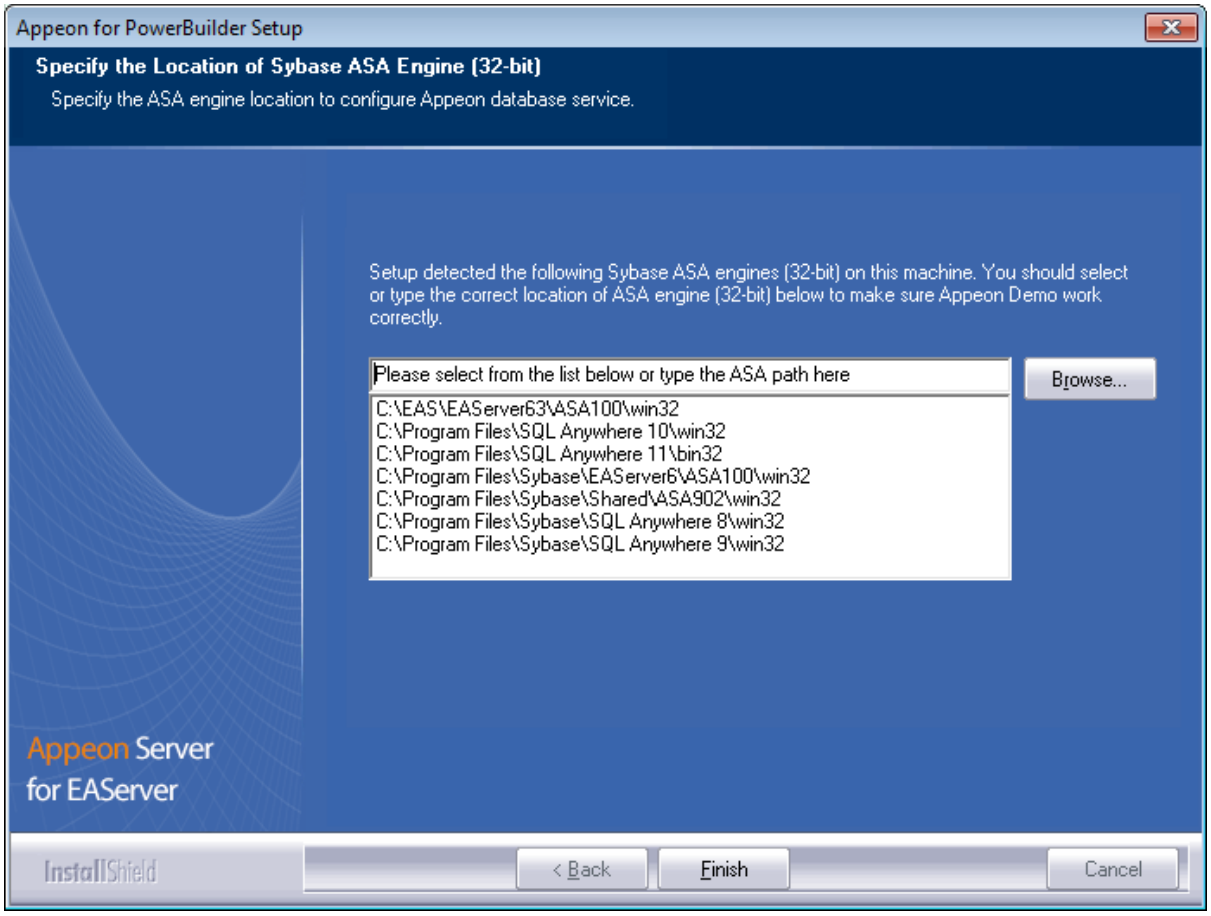


Step 3: Specify the path for the Sybase ASA/SQL Anywhere and click **Next**.

Setup lists all copies of ASA/SQL Anywhere detected in your machine. The reason that Appeon Server requires ASA/SQL Anywhere is that Appeon Server has a private ASA/SQL Anywhere database (Appeondb) for storing profile information and security-sensitive information.

If ASA/SQL Anywhere 10 is installed, please make sure that its build number is 10.0.1.3415 or later. If the selected ASA/SQL Anywhere version is 10 and its build number is lower than 10.0.1.3415, then you will be prompted to upgrade the ASA/SQL Anywhere version. You can upgrade ASA/SQL Anywhere before the Appeon Server installation or after.

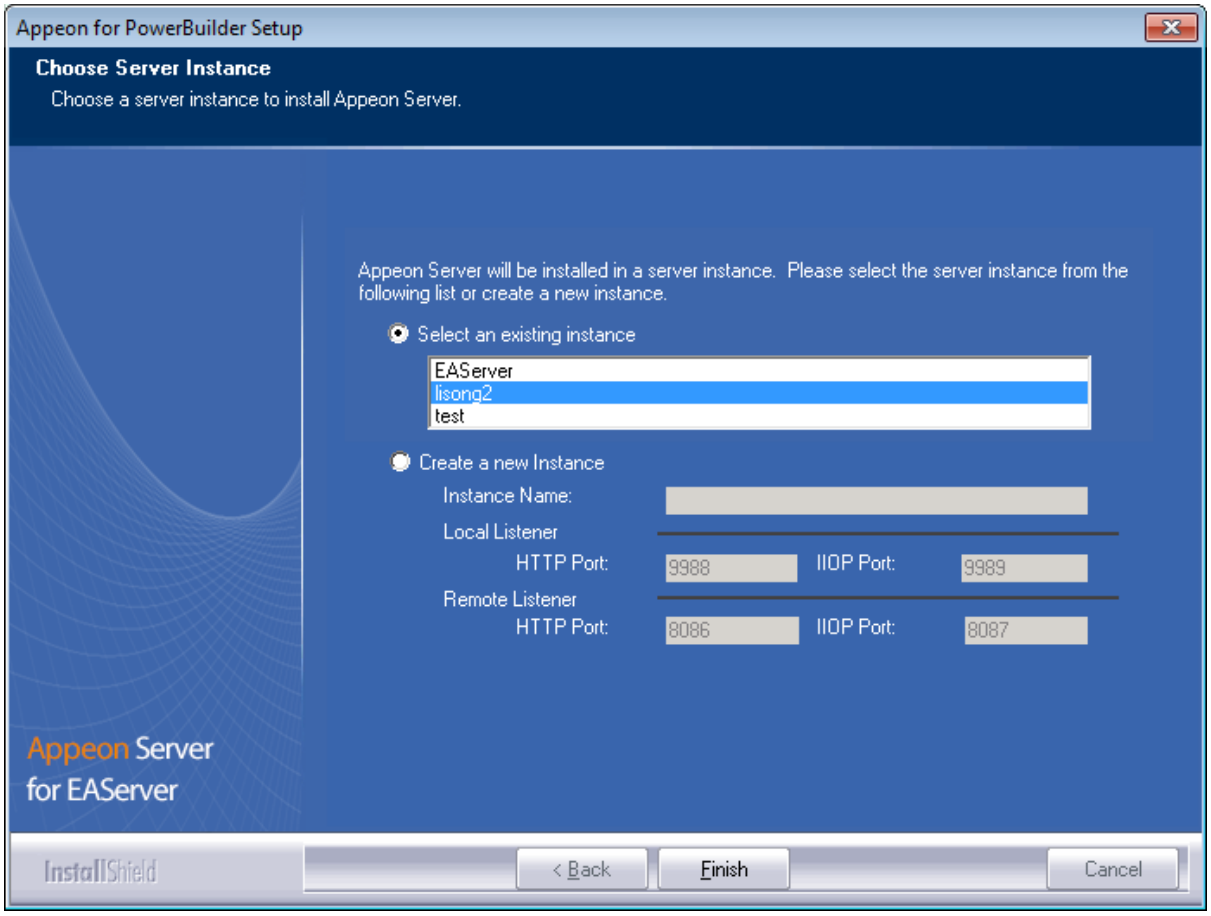
Figure 4.7: Specify the Location of Sybase ASA/SQL Anywhere Engine



Step 4: Select a server instance from the list. Click **Next** to proceed.

Appeon Server can be installed to an existing instance or the new instance.

Figure 4.8: Choose a server instance to install Appeon Server

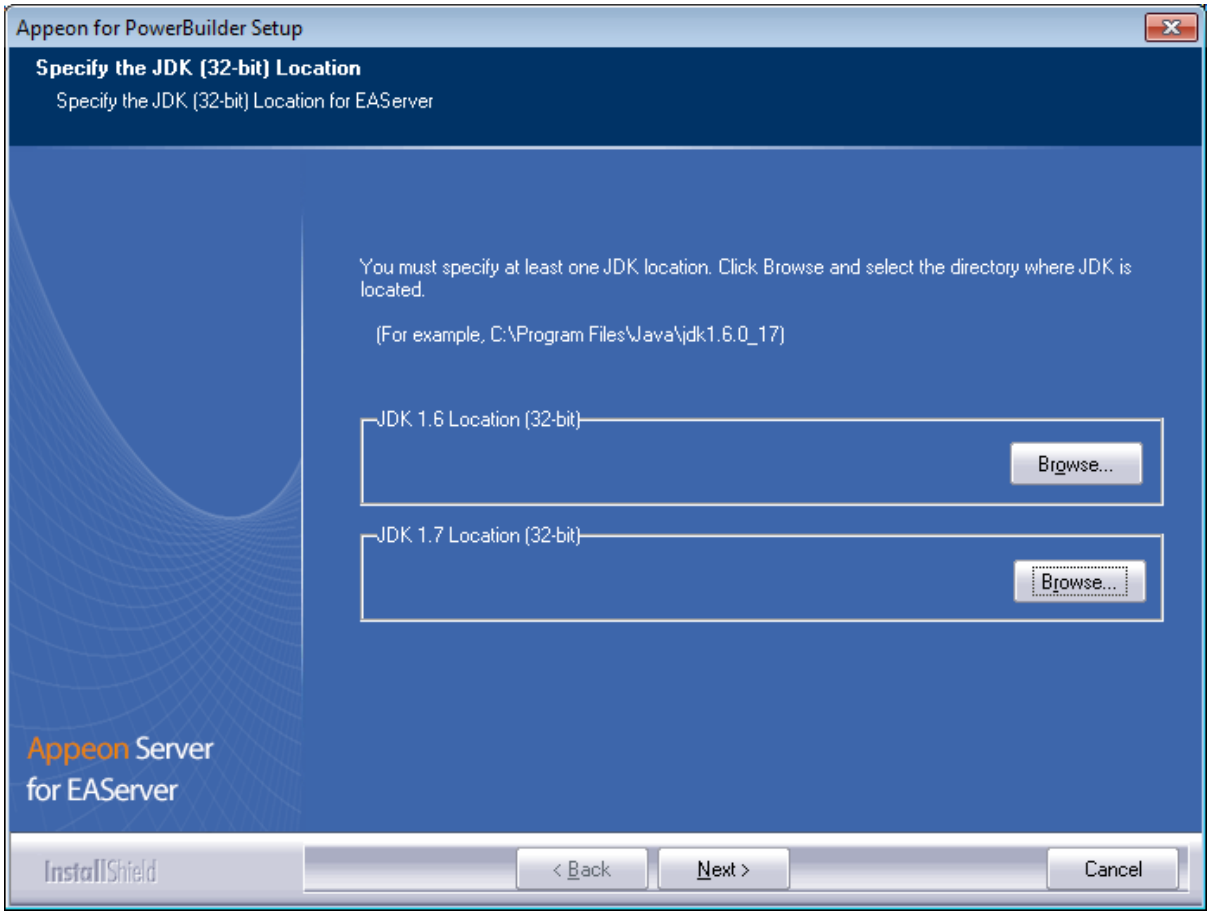


The setup program will check whether the path parameter of JDK 1.6 is valid. If it is invalid, a popup window as **Specify the JDK (32-bit) Location** or **Specify the JDK (64-bit) Location** will appear.

You must choose **JDK** rather than **JRE** here. Click **Browse** to select a valid JDK 1.6 location (32-bit or 64-bit), and JDK 1.7 location is optional for checking its validity, shown as below:

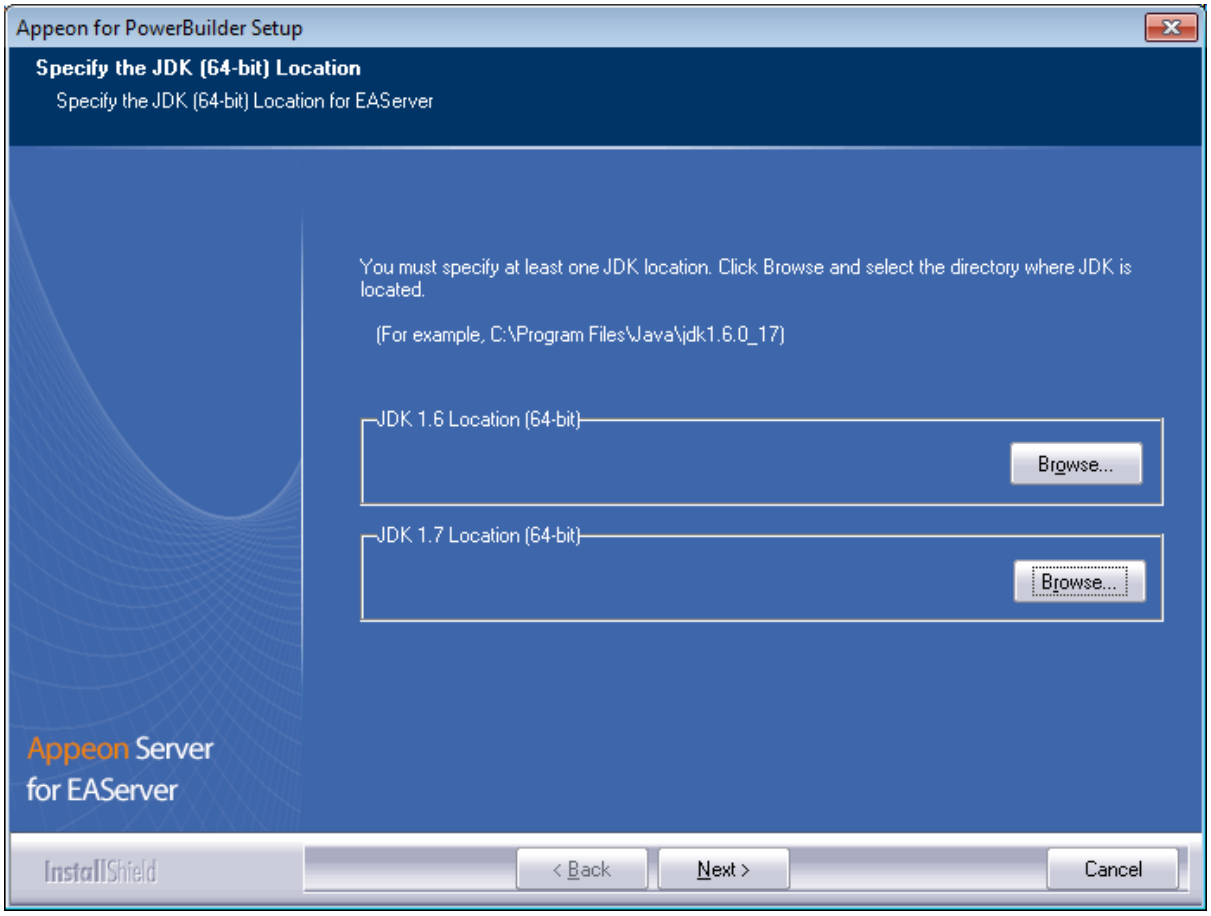
For 32-bit:

Figure 4.9: Specify the JDK (32-bit) Location



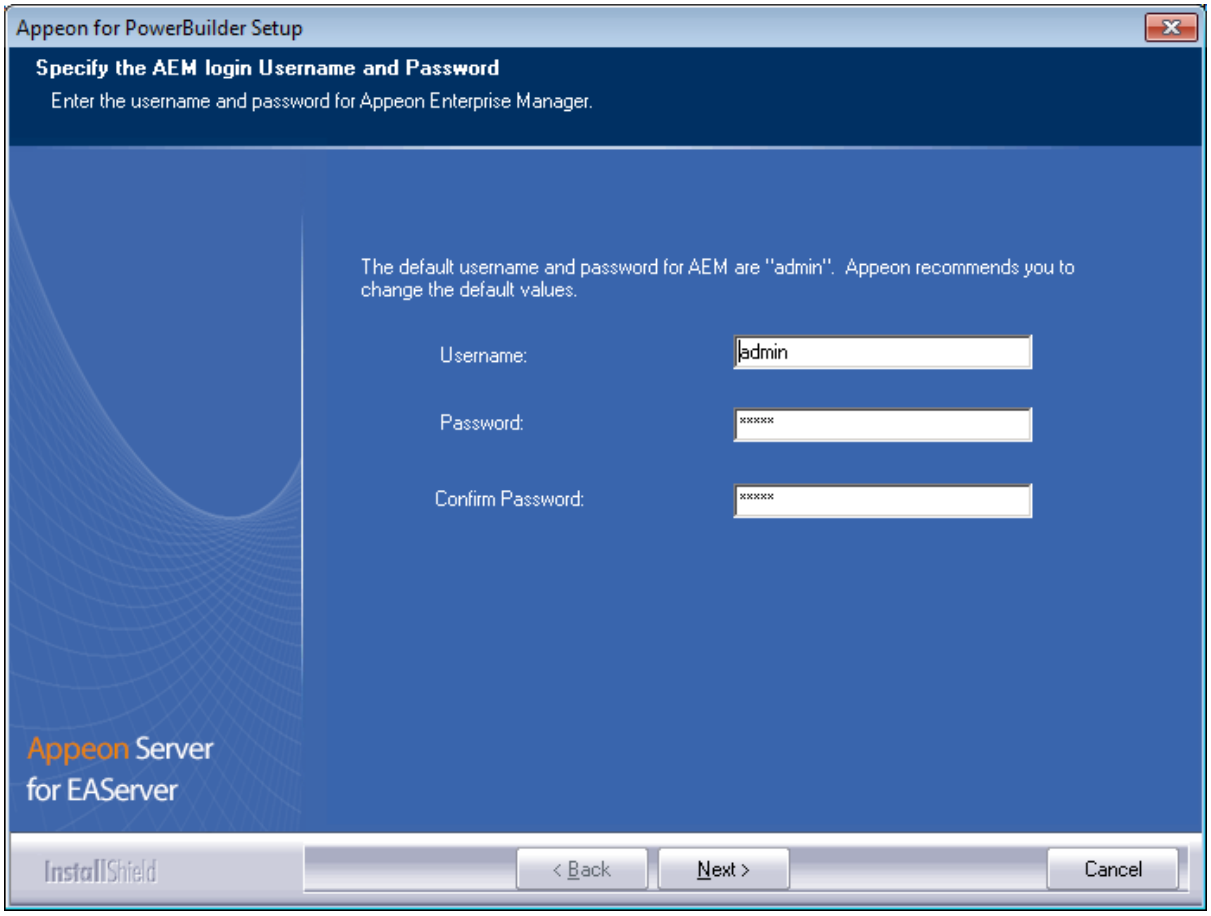
For 64-bit:

Figure 4.10: Specify the JDK (64-bit) Location



Step 5: Specify the user name and password for Appeon Enterprise Manager (AEM).

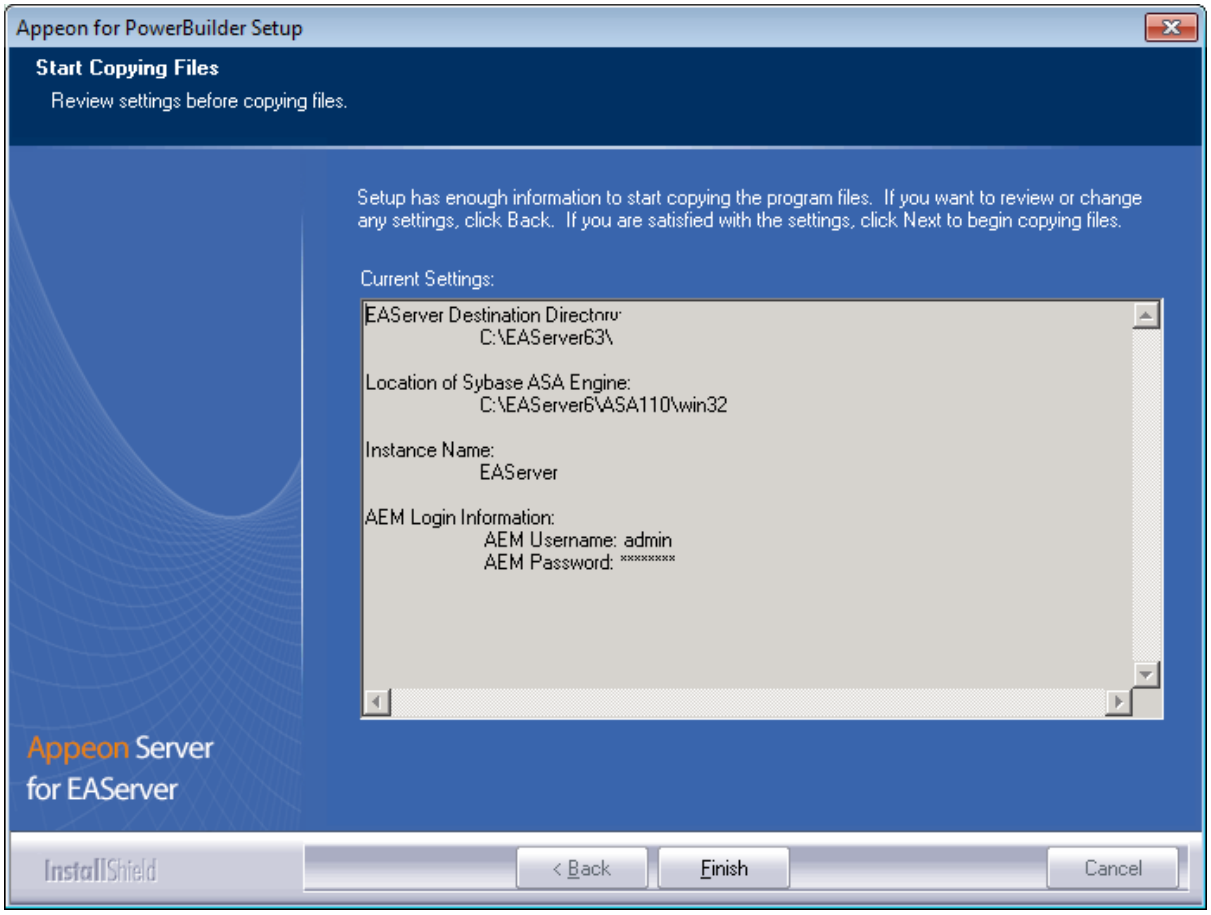
Figure 4.11: Specify the AEM login Username and password



Step 6: Check the summary of settings.

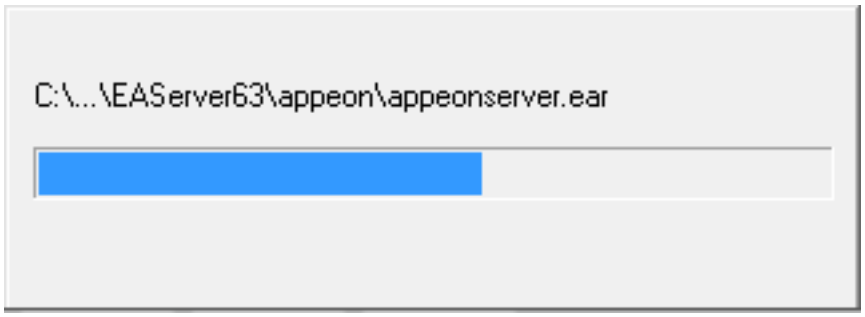
Click **Back** to change any unwanted settings or click **Next** to have Setup begin copying files.

Figure 4.12: Start Copying Files



At the click of the **Next** button, the installation program begins copying files to your computer, as shown in the figure below.

Figure 4.13: EAServer install in Progress



Step 7: Choose whether to **Start Appeon Server**. It is selected by default. To manually start Appeon Server from the Windows shortcut later, uncheck the box. Click the **Finish** button and wait until the installation is complete.

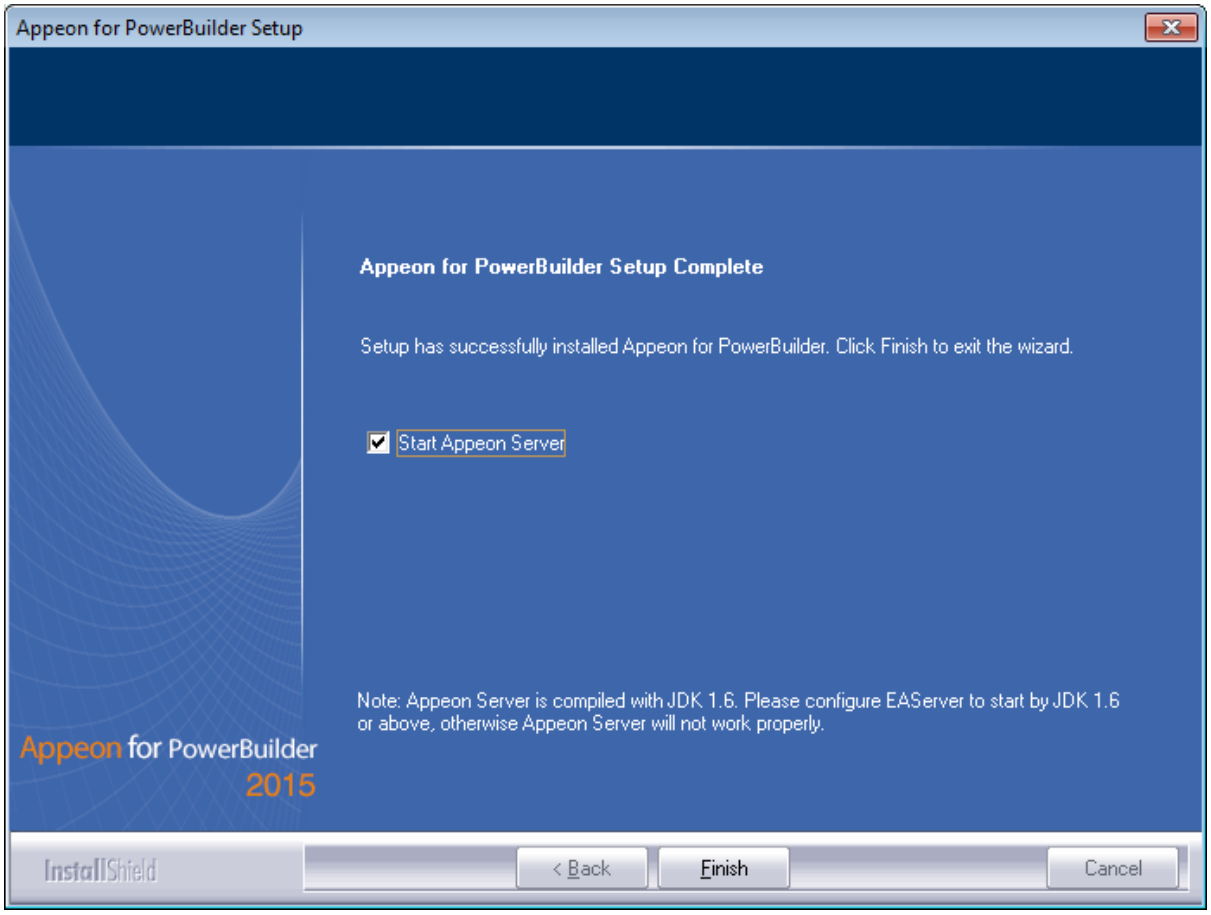
Important

To manually start Appeon Server from the Windows shortcut:

If Appeon Server is installed on Windows Vista/2008/7/8/8.1, and if you are running on a non-Administrator Windows account (such as an Administrators group member or a User

group member), please right click the Windows shortcut menu and then select **Run as administrator** to start Appeon Server.

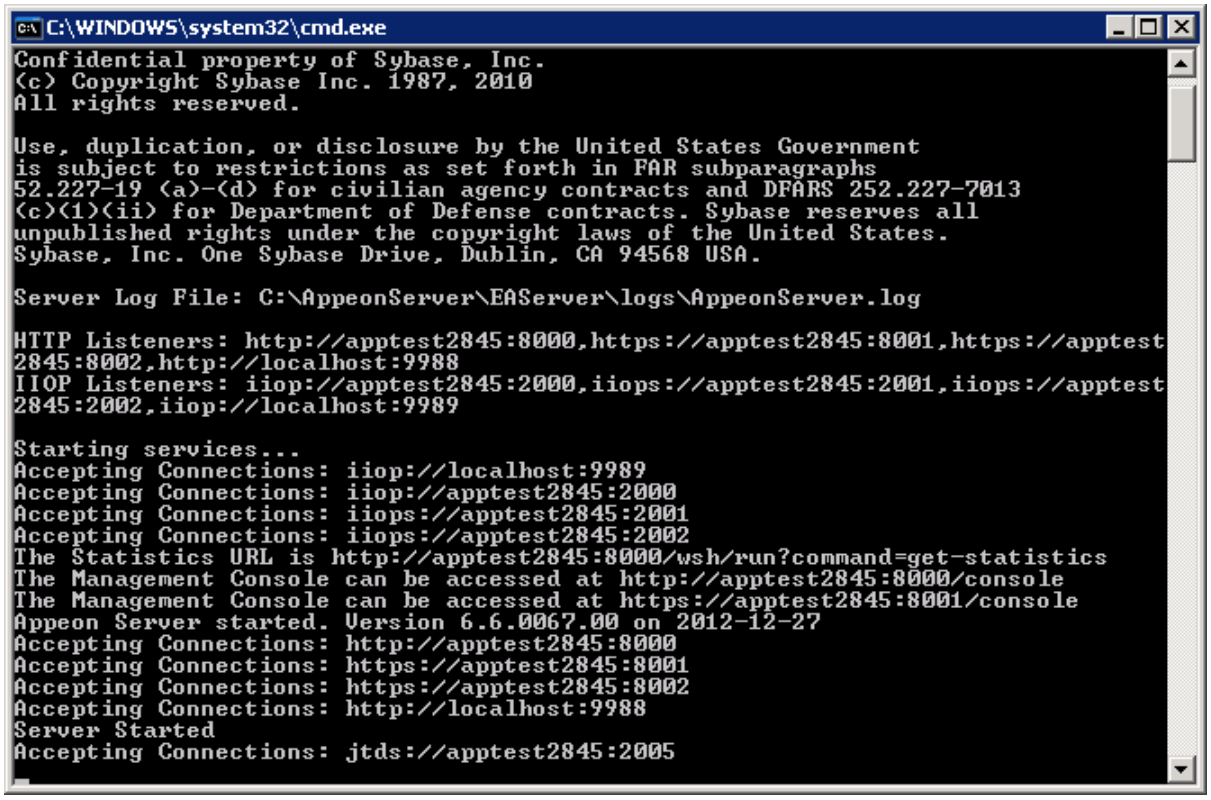
Figure 4.14: Appeon for PowerBuilder Setup Complete



Step 8: Click **Finish** to end the installation of Appeon Server.

EAServer will start if **Start Appeon Server** is checked and you click the **Finish** button. Refer to the following figure for more information.

Figure 4.15: More information



Note that during the Appeon Server installation, the Appeon Enterprise Manager (AEM) Web application and the Appeon Server Web Component are automatically installed to the EAServer HTTP server.

4.4.2.3 Installing EAServer license

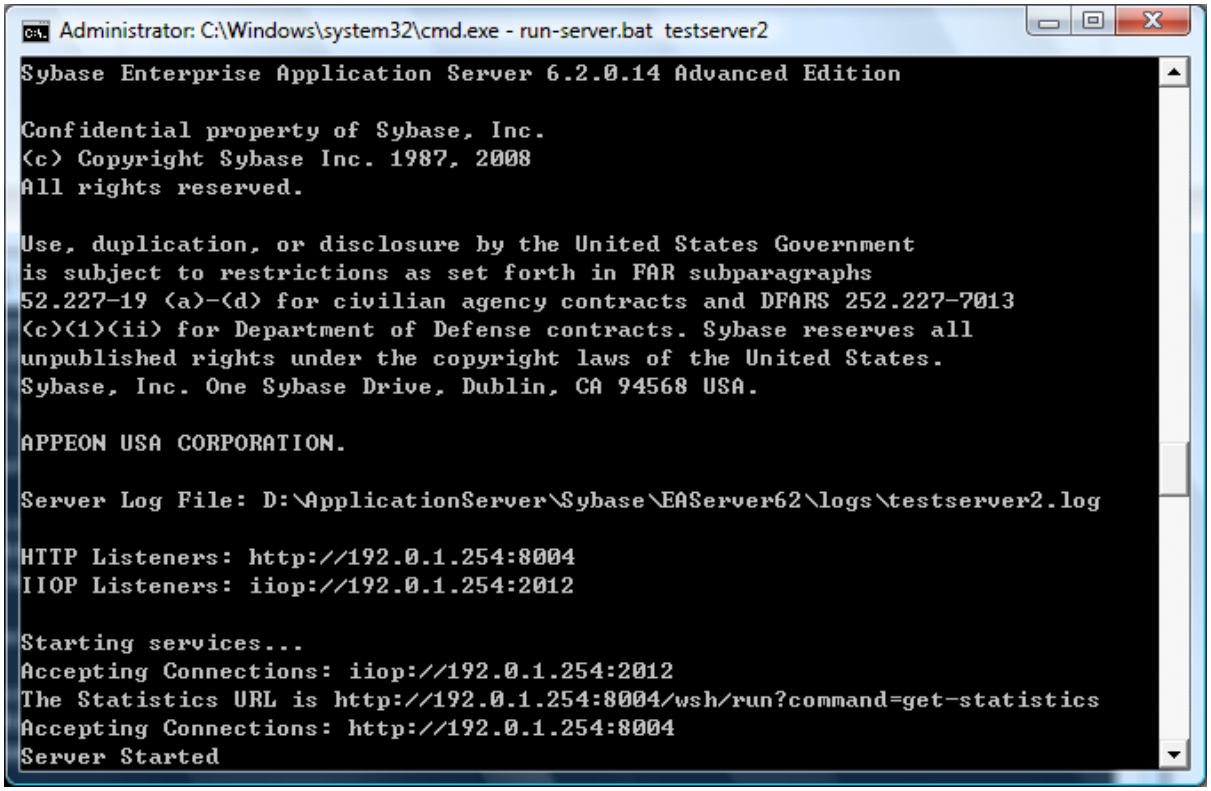
Copy the EAServer license file and replace the one under the %JAGUAR%/licenses folder. EAServer license file is provided by Sybase Inc. after you purchase Appeon Server and EAServer. For detailed instructions, please refer to the EAServer installation guide in the EAServer 6.3 Sybooks CD or http://sybooks.sybase.com/nav/base.do.

4.4.2.4 Installing Appeon Server to EAServer instances

During the Appeon Server installation, you can only install Appeon Server to one EAServer instance, but you may want to install Appeon Server to other EAServer instances on that machine, so that the machine hardware resources can be better utilized. The following section will talk about how to manually install Appeon Server to other instances on the EAServer console. Before this, you must have already installed Appeon Server to an EAServer instance which will be used later as the template to install to other instance.

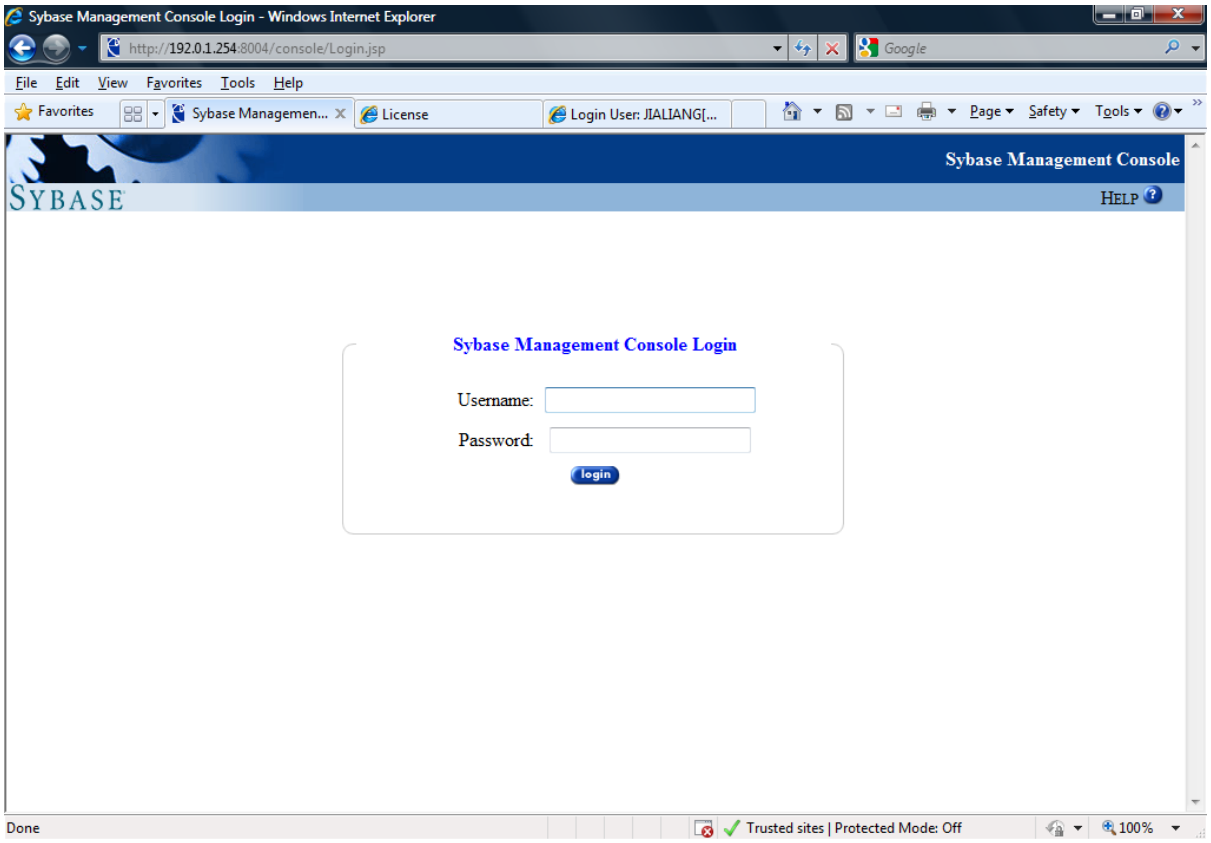
Step 1: Start the default instance of EAServer 6.3.

Figure 4.16: Start EAServer default instance



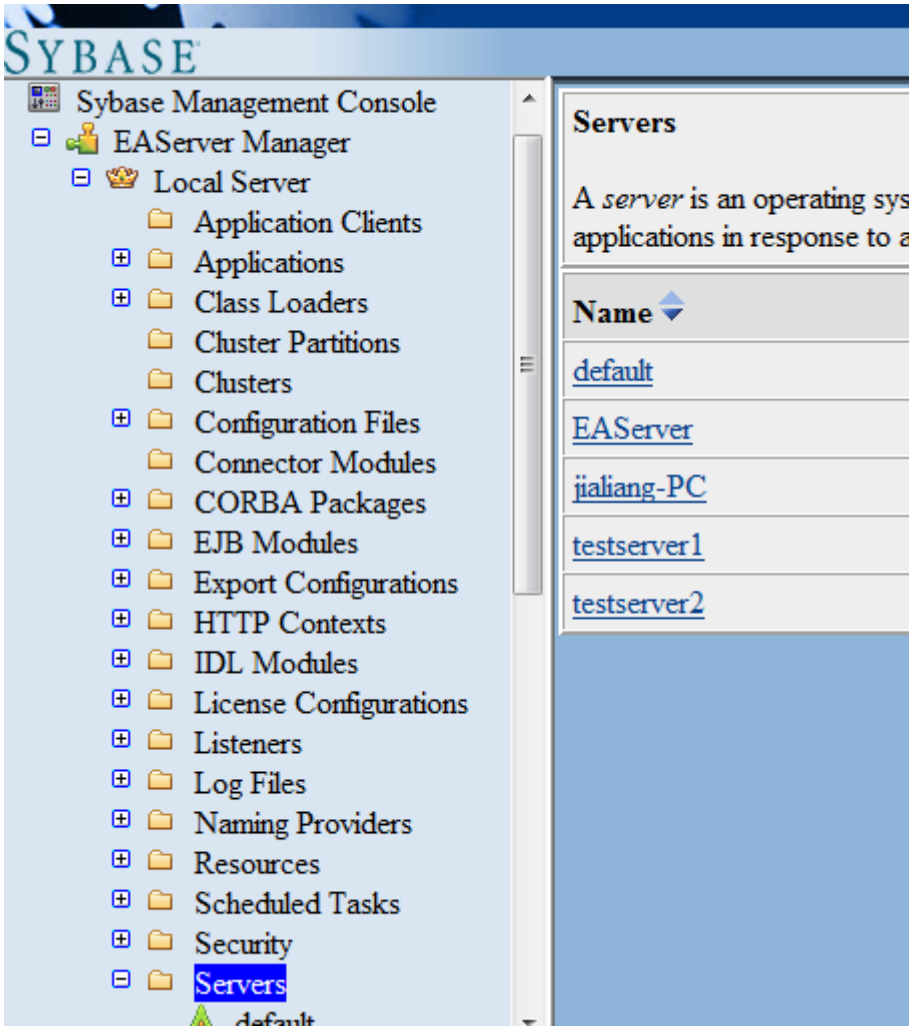
Step 2: Log into the EAServer Web console.

Figure 4.17: EAServer Web console login page



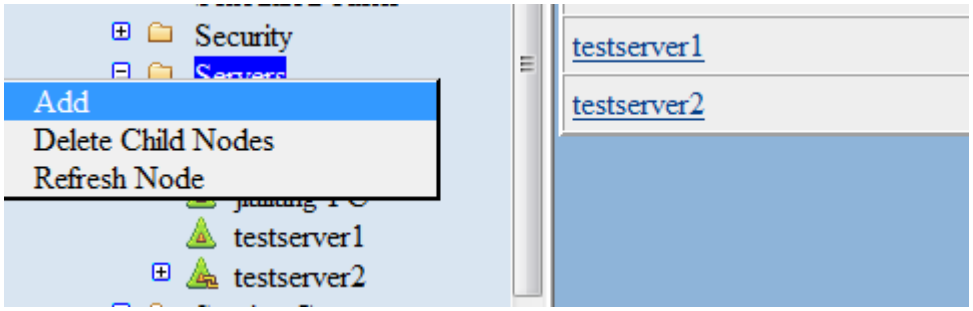
Step 3: On the console tree, click **Sybase Management Console** | **EAServer Manager** | **Local Server** | **Servers**.

Figure 4.18: EAServer console tree



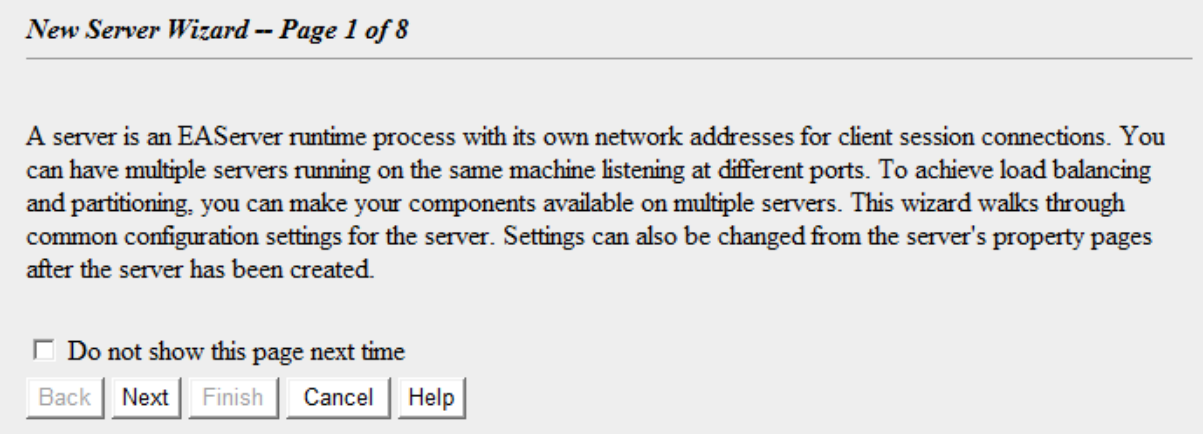
Step 4: Left-click the **Servers** node and select **Add** from the popup menu.

Figure 4.19: Add a server



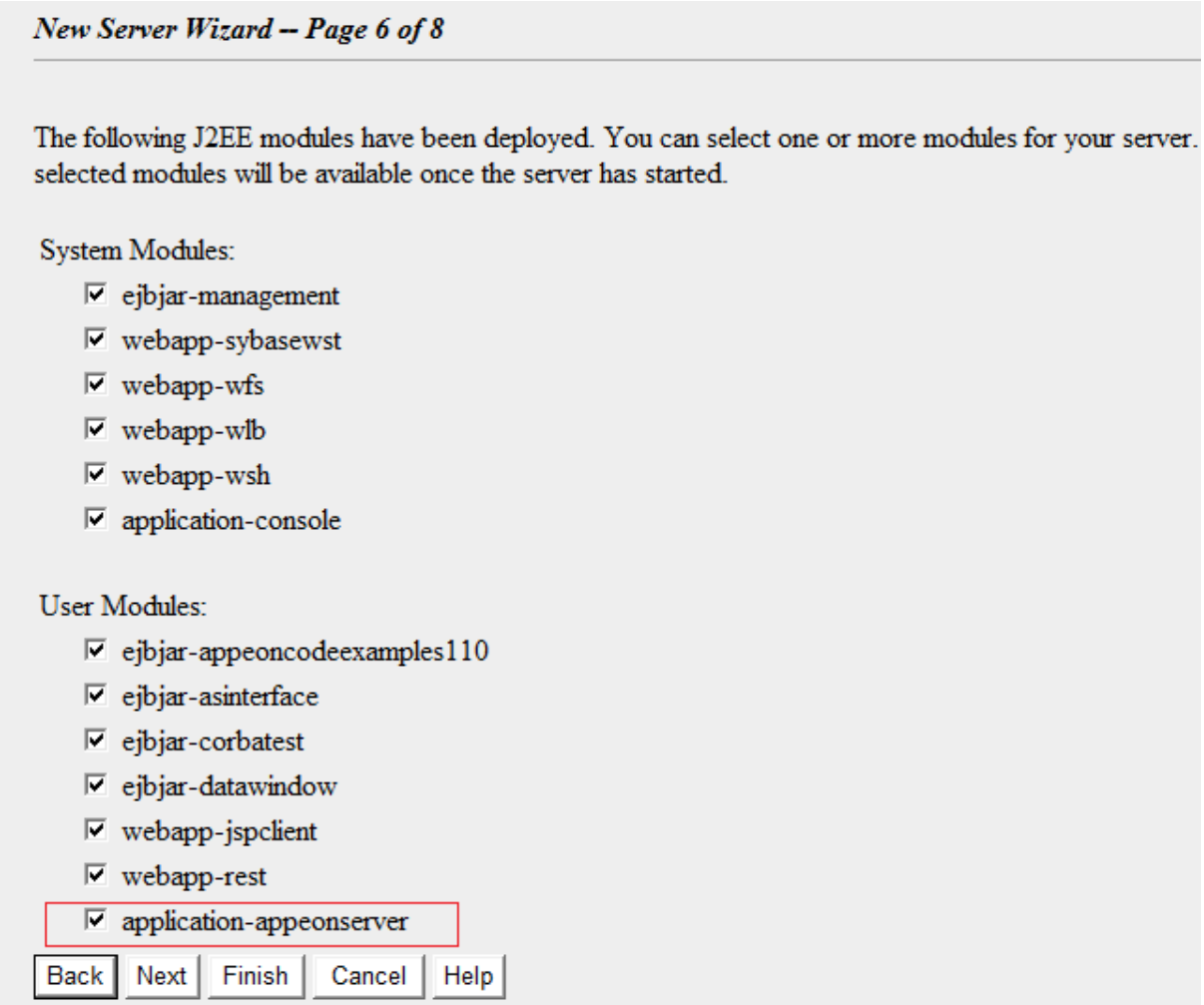
Step 5: Follow the instructions on the **New Server Wizard** to add an EAServer instance and deploy Appeon Server to it.

Figure 4.20: New Server Wizard - page 1 of 8



Note: In **New Server Wizard -- Page 6 of 8**, you must select **application-appeonserver**. This will install Appeon Server to the new EAServer instance.

Figure 4.21: New Server Wizard - page 1 of 8



Step 6: After adding the EAServer instance and deploying Appeon Server to it, you can start the new instance by running %EAServer%/bin/Run-server.bat *instancename*.

4.4.3 Appeon Developer installation

4.4.3.1 Prerequisites

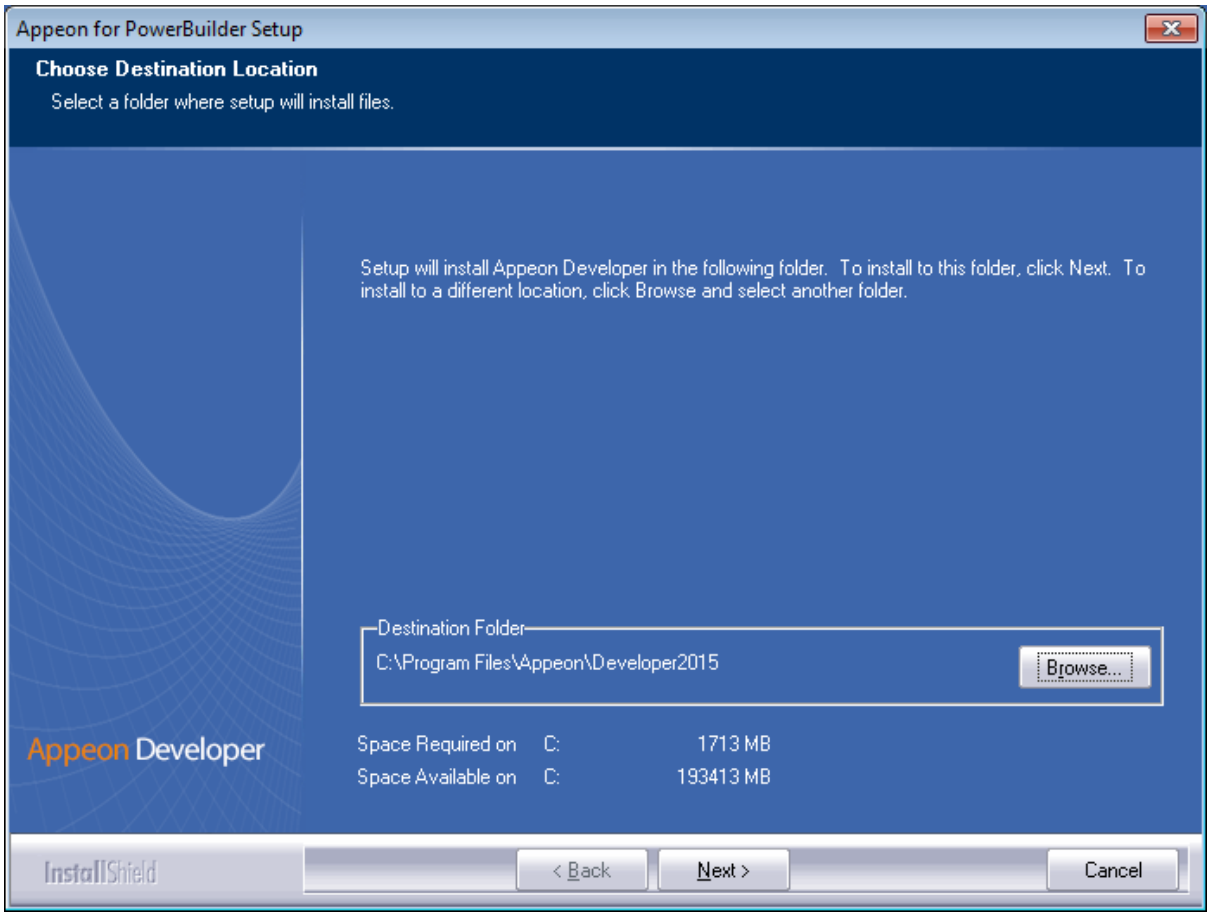
- The Developer PC meets the system requirements in Appeon Developer requirements. Verify that PowerBuilder 9.0.3, 10.2.1, 10.5.2, 11.2, 11.5, 12.0, 12.5, 12.5.2, or 12.6 is installed or updated by running the PowerBuilder Setup program. You cannot install or update the software by copying files and folders from another source.
- Verify that PowerBuilder has been upgraded to the latest available build.
- Shut down PowerBuilder, ASA/SQL Anywhere, and any other Windows programs before beginning the installation process.
- Verify in Windows Task Manager that the following processes are not running under the Process tab: **EonADTxx.exe**, **java.exe**, **jagsrv.exe**, **jagsrvagent.exe**, and **pbxxx.exe**. If these processes are running, be sure to end them.

4.4.3.2 Installation instructions

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Developer** (see Starting the installation).

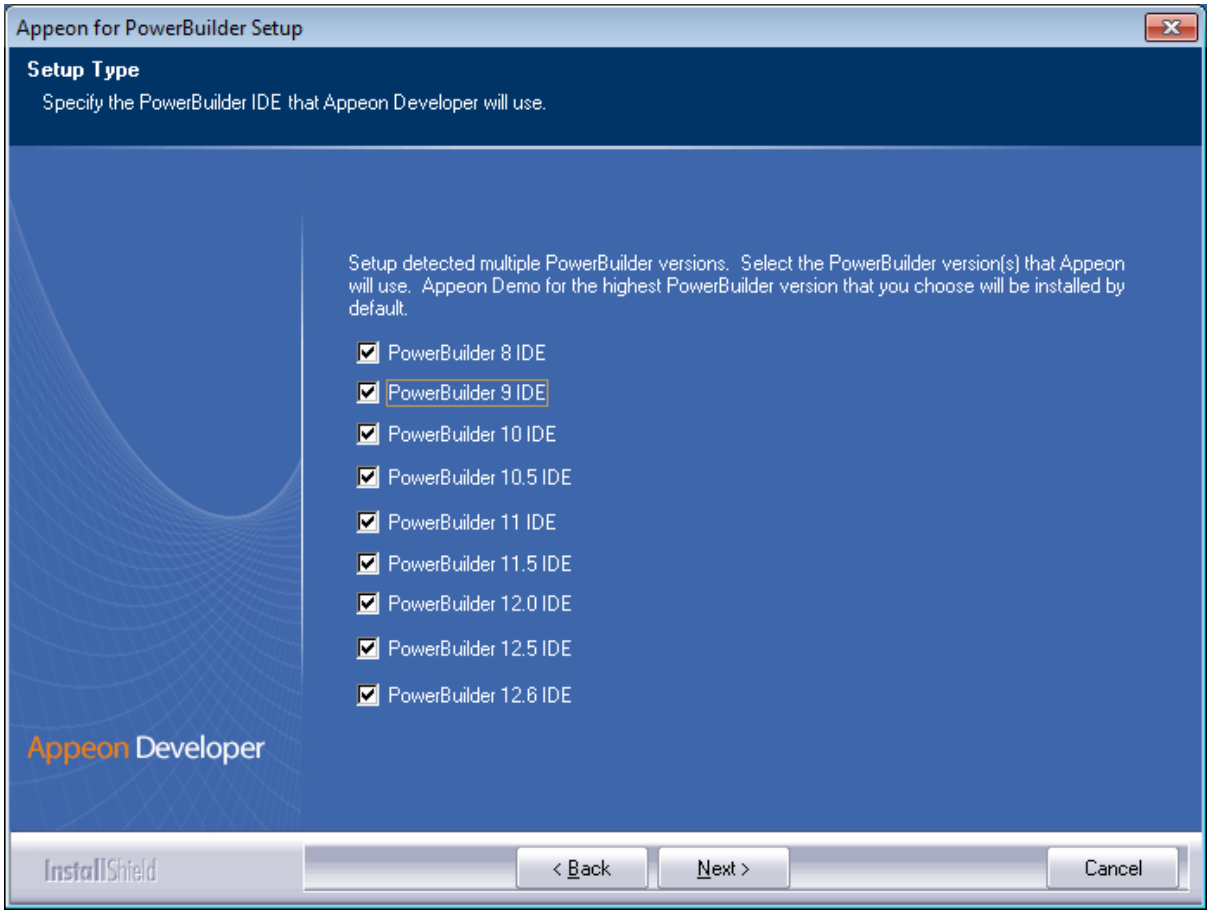
Step 2: Click **Next** to install Appeon Developer to the default location, or click **Browse** to select another location.

Figure 4.22: Appeon Developer location



Step 3: If you have more than one PowerBuilder installed, you will be given a choice of which version(s) to integrate into Appeon Developer.

Figure 4.23: PowerBuilder IDE

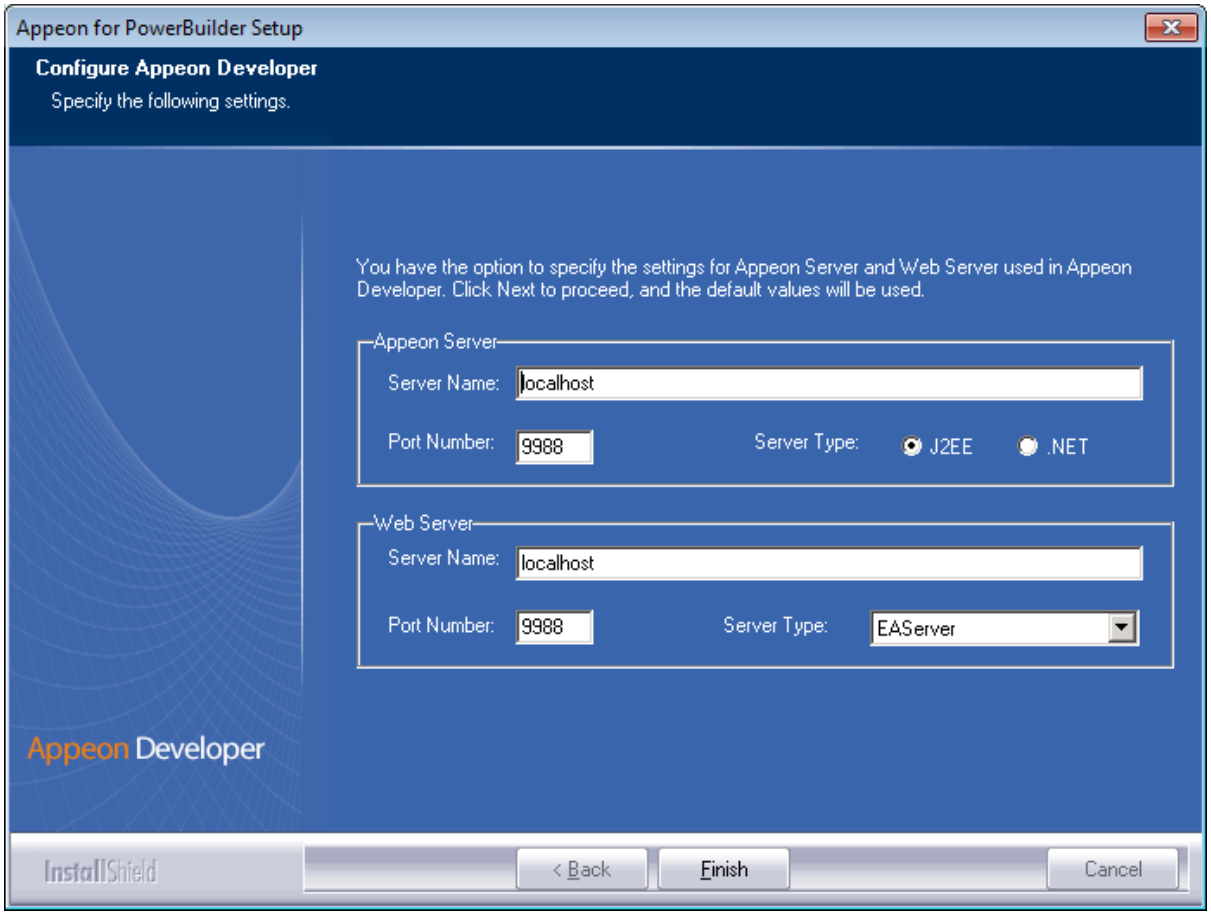


Step 4: Specify the server name, port number and server type for Appeon Server and Web server used in Appeon Developer. Note that for Appeon Server installed to EAServer, you must select **J2EE** as Server Type of Appeon Server. Click **Next**.

If you want to use an Appeon Server that has been already installed to the same machine where Appeon Developer is being installed, use the default values. If you want to use a remote Appeon Server, specify the server name and port number of the remote server. The setup program can automatically configure the **Server Profile** and **Deployment Profile** in the **Appeon Developer Configuration** window for the specified servers.

Yon can change these settings in the **Configure** tool of Appeon Developer after the installation when necessary. For detailed instructions, refer to Section 4.2.3, “Managing server profiles” in *Appeon Developer User Guide*.

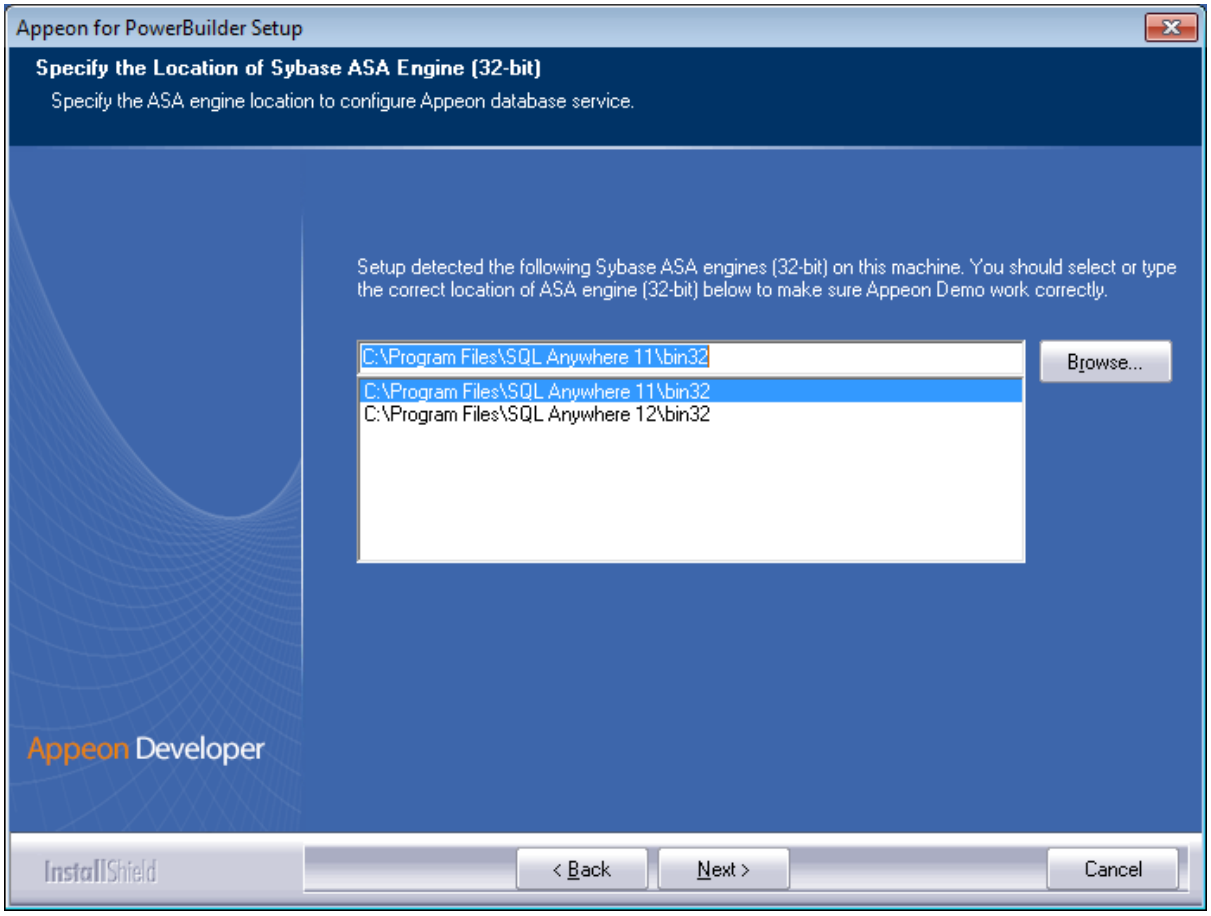
Figure 4.24: Configure Appeon Developer



Step 5: Select the Sybase ASA/SQL Anywhere engine location for running Appeon Demos.

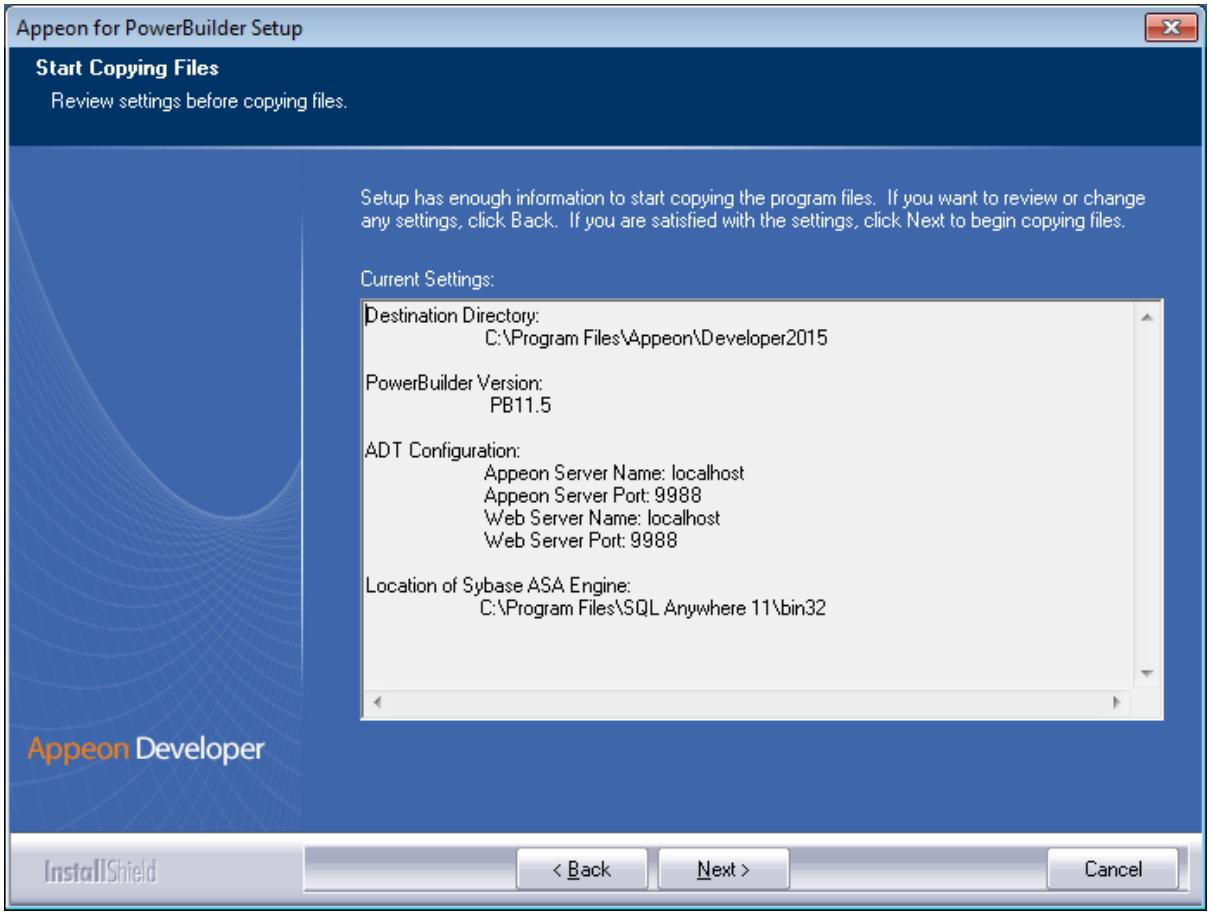
Depending on the version of Appeon Server (32-bit or 64-bit), Setup lists all copies of ASA/SQL Anywhere engines (32-bit or 64-bit) detected in your machine.

Figure 4.25: ASA/SQL Anywhere for Appeon Demo



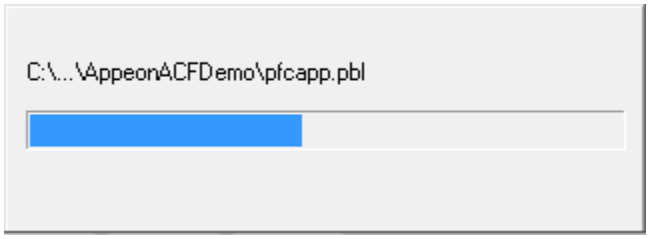
Step 6: Check the summary of settings.

Figure 4.26: Summary of settings



Click **Back** to change any unwanted settings or click **Next** and Setup will begin copying files.

Figure 4.27: Appeon Developer installation progress

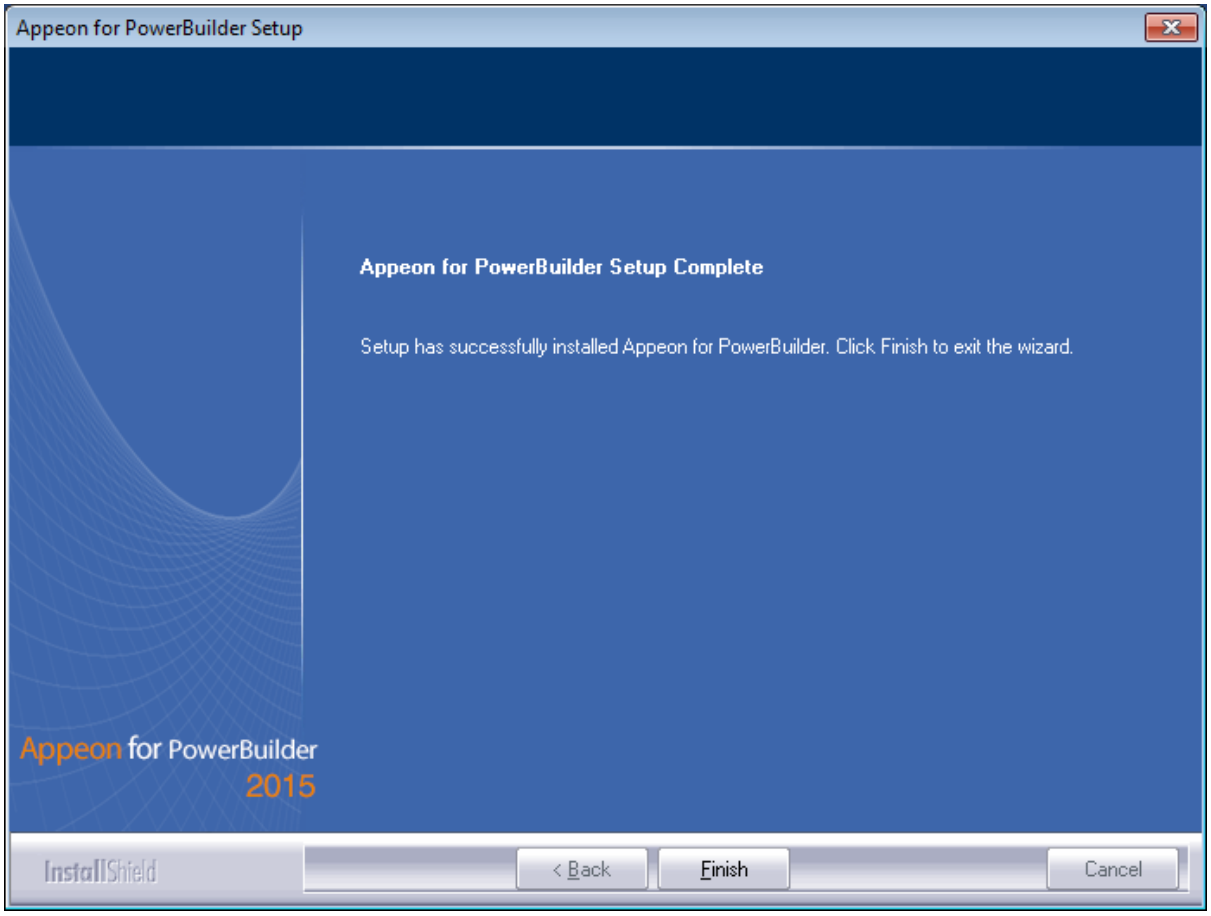


During the installation process of Appeon Developer, the **Microsoft Visual C++ Redistributable Package** will be automatically installed, to support the running of Appeon Emulator in Appeon Developer.

Step 7: Wait until the installation is complete.

Step 8: Click **Finish** to exit.

Figure 4.28: Setup Complete



4.4.4 Appeon Server Web Component installation (for third-party Web servers only)

If you use a third-party Web server (such as Apache or IIS) or set up an individual machine (separate from the application server) as the Web server, you will need to install the Appeon Server Web Component. If not, you do not need to run the installation of the Appeon Server Web Component separately since it is included in Appeon Server.

4.4.4.1 Prerequisites

- Install a third-party Web server that is compatible with the SAP Sybase redirector plug-in. For a list of compatible third-party Web servers, refer to (Optional) Third-party Web server requirements.
- Stop the Web server, the SAP Sybase EP Management Agent service, and any other Windows programs before beginning the installation process.

4.4.4.1.1 Prerequisites if Web Component installed to multiple Web servers

Appeon Server Web Component can be installed to multiple Web servers. Make sure all Web servers meet the above requirements and repeat the installation steps for the Appeon Server Web Component on each Web server.

4.4.4.2 Installation instructions

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Server Web Component** (see Starting the installation).

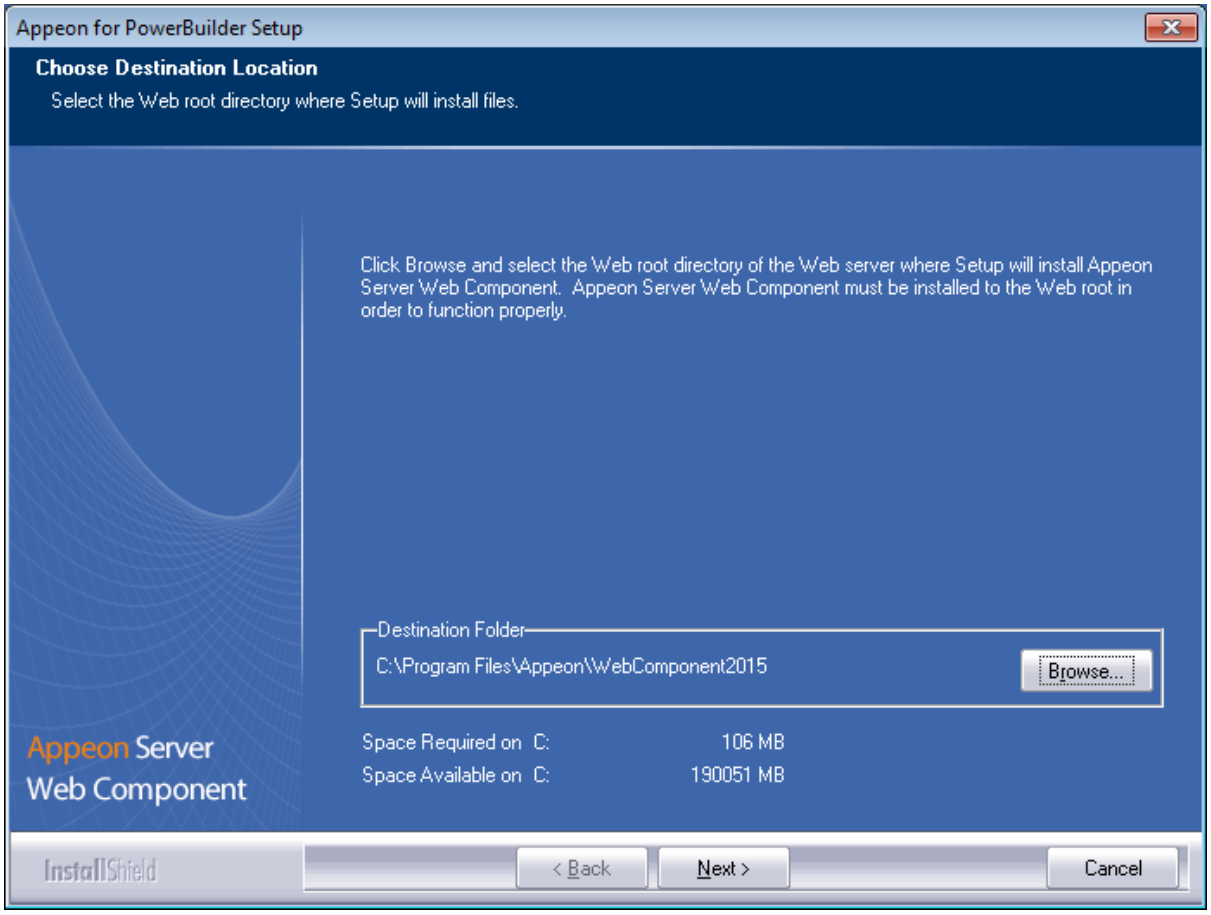
Step 2: Click **Browse** to select the Web root (or document root) for the Web server. Below lists the default Web root (or document root) of the Web server:

Apache 2.0: C:\Program Files\Apache Group\Apache2\htdocs

IIS: C:\inetpub\wwwroot

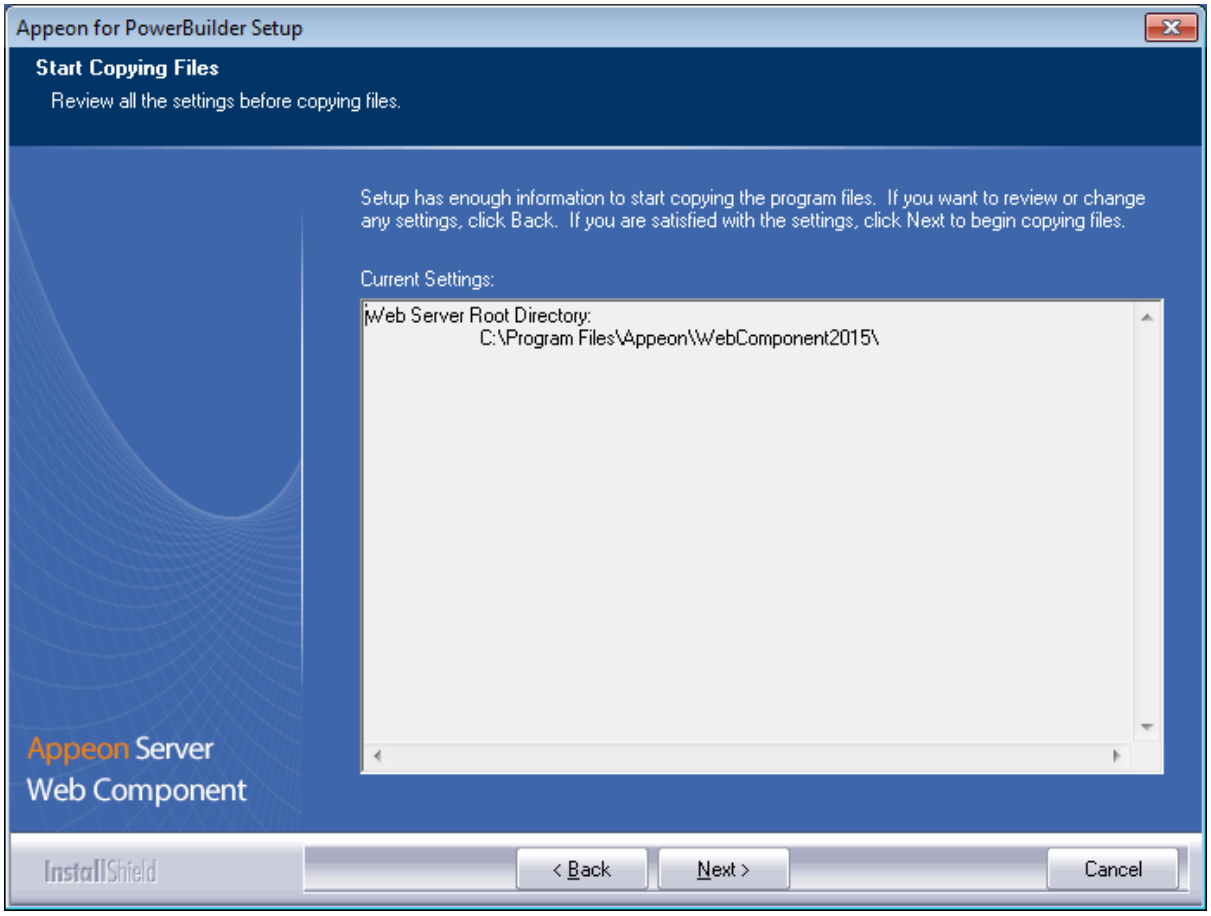
If Appeon Server Web Component is installed to the default path: "C:\Program Files\Appeon \WebComponent2015", instead of the Web root (or document root) of the Web server, you would need to manually copy it to the Web root (or document root) later in order to run the Appeon application.

Figure 4.29: Appeon Server Web Component location



Step 3: Check the summary of settings.

Figure 4.30: Summary of settings

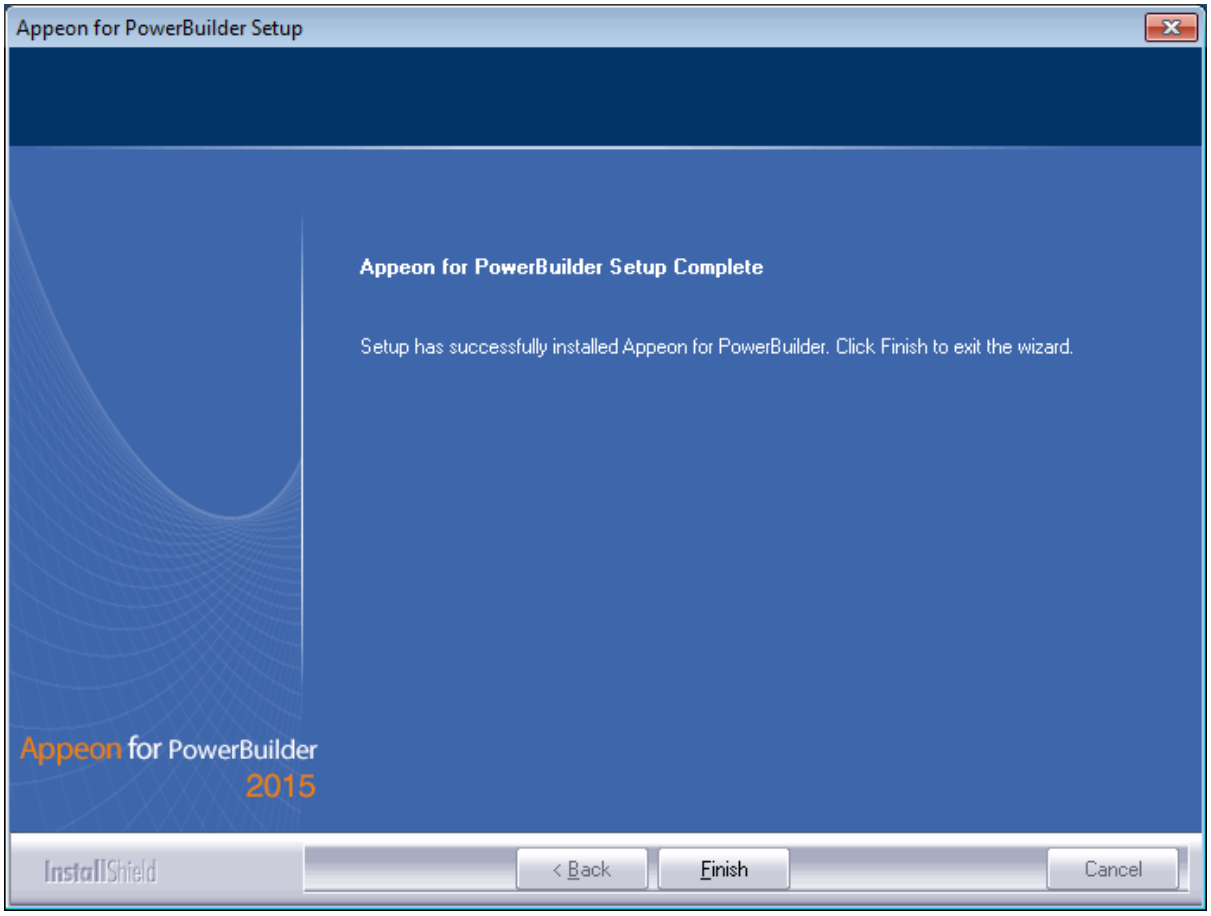


Click **Back** to change any unwanted settings or click **Next** and Setup will begin copying files.

Figure 4.31: Appeon Server Web Component installation progress

Step 4: Click **Finish** when the installation is complete.

Figure 4.32: Setup Complete



4.4.4.2.1 Installing and configuring the Web server redirector plug-in

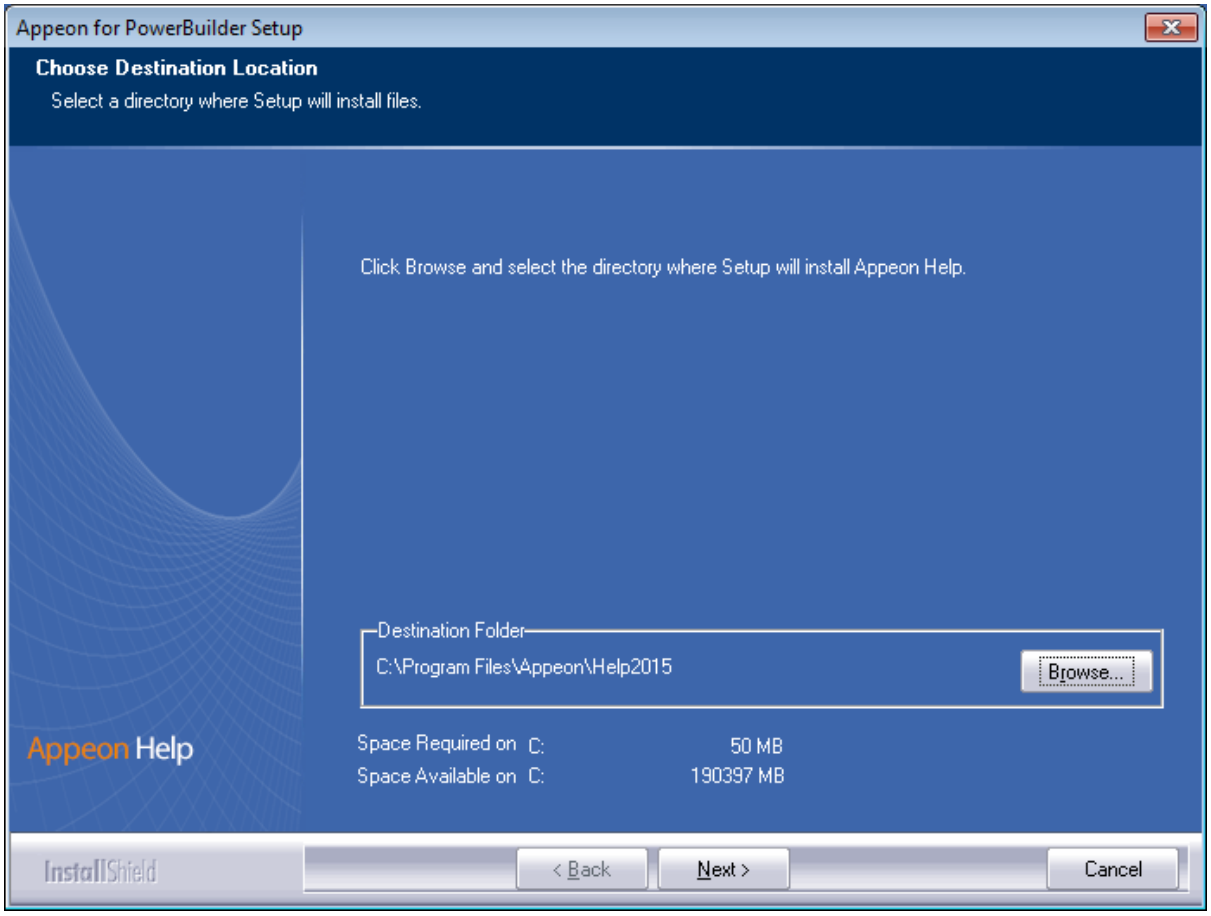
To ensure the third-party Web server works with Appeon Server, install and configure the corresponding redirector plug-in for the Web server. Instructions for installing and configuring the redirector plug-in are provided in Web Server Configuration Guide.

4.4.5 Appeon Help installation

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Help** (see Starting the installation).

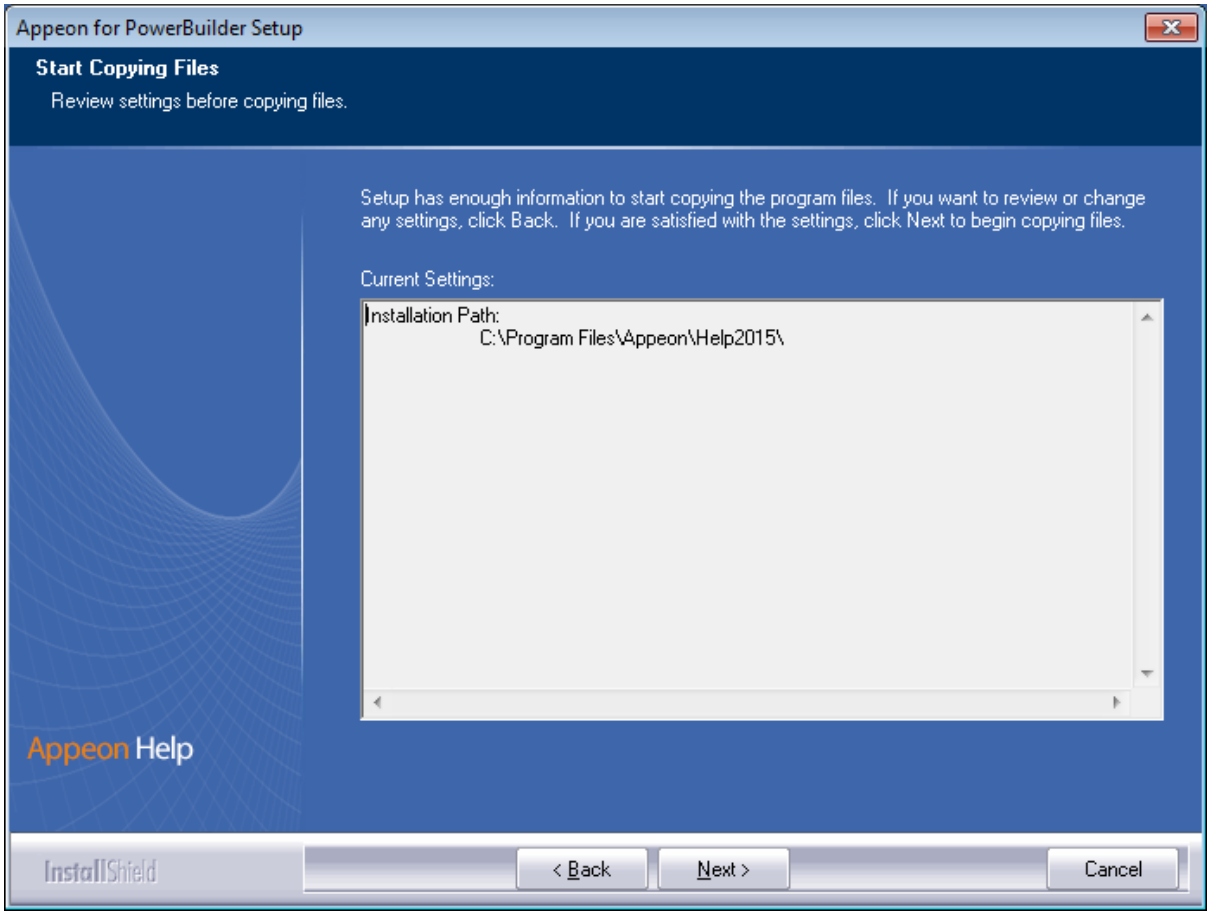
Step 2: Click **Next** to install Appeon Help to the default location, or click **Browse** to select another location.

Figure 4.33: Help location



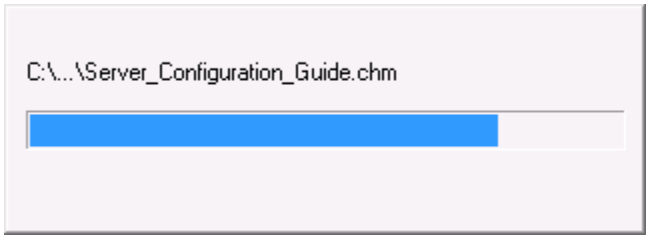
Step 3: Check the summary of settings.

Figure 4.34: Summary of settings



Click **Back** to change any unwanted settings or click **Next** and Setup will begin copying files.

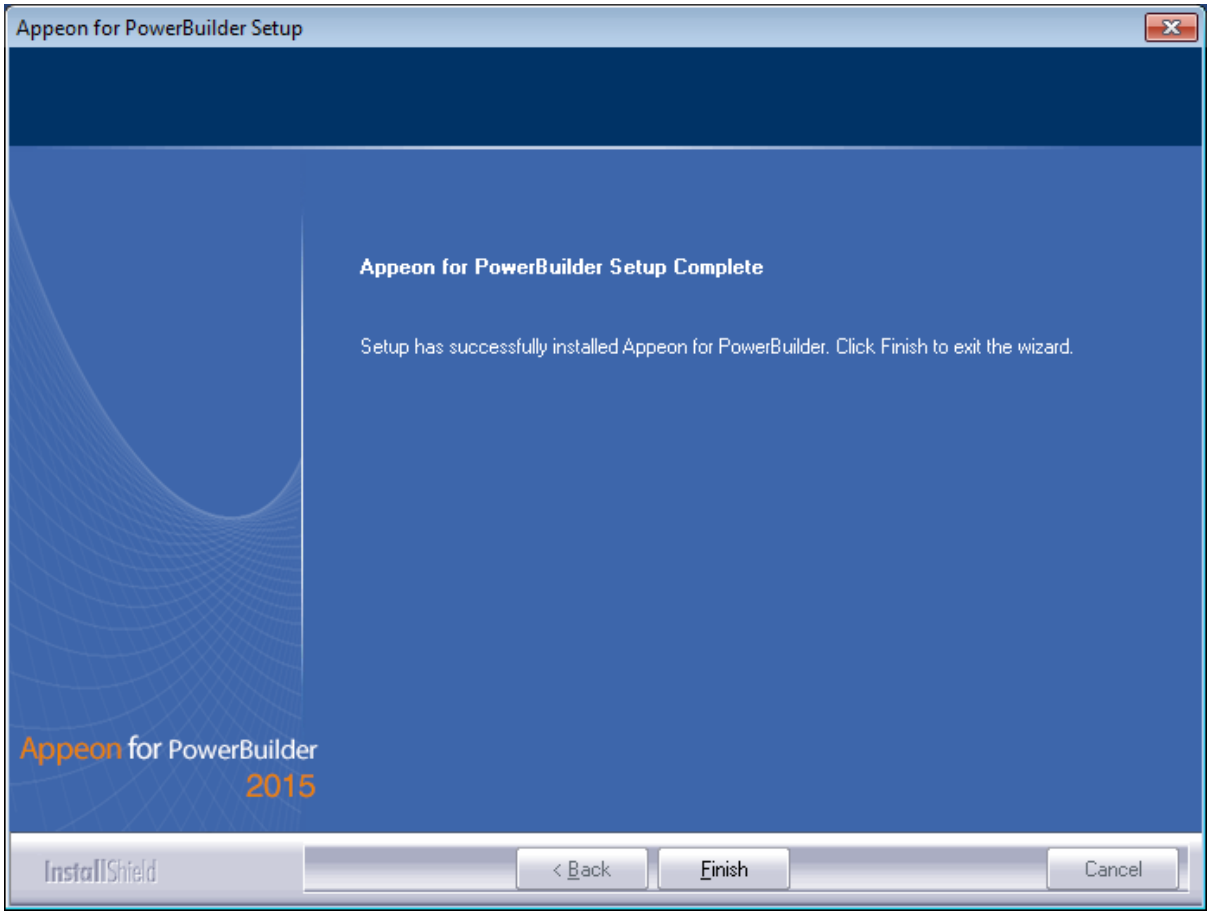
Figure 4.35: Appeon Help installation process



Step 4: Wait until the installation is complete.

Step 5: Click **Finish** to exit.

Figure 4.36: Setup complete



4.5 Appeon upgrade installation

4.5.1 Overview

If you have installed Appeon 6.5 or a later version, you can upgrade to Appeon for PowerBuilder 2015, but you cannot upgrade from Appeon 6.2 or an earlier version. If you are using Appeon 6.2 or an earlier version, uninstall it and then install Appeon for PowerBuilder 2015.

Note that applications deployed with the old version and the demo applications must be redeployed with Appeon for PowerBuilder 2015 after the upgrade.

4.5.2 Before you upgrade

Before upgrading to Appeon for PowerBuilder 2015, upgrade the system environment as required in Installation requirements.

In addition to the system environment requirements, you should meet the installation prerequisites listed in Appeon new installation before upgrading each of the Appeon components.

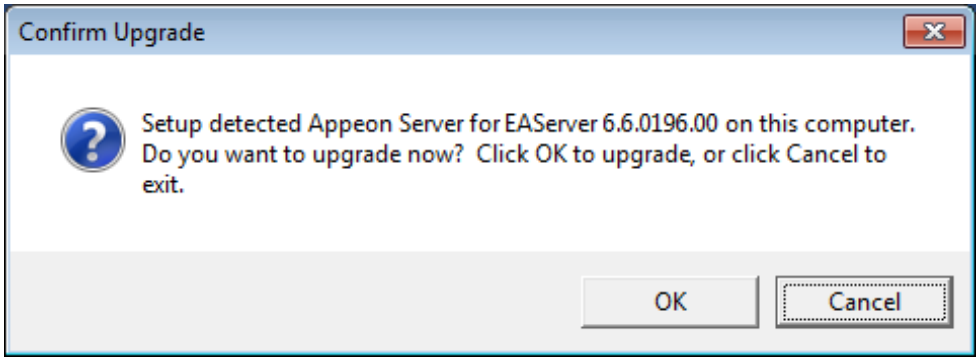
4.5.3 Upgrading to Appeon for PowerBuilder 2015

4.5.3.1 Upgrading Appeon Server

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Server for EAServer** (see Starting the installation).

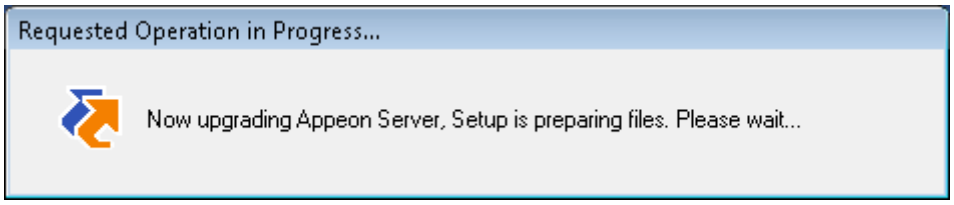
Step 2: Click the **OK** button in the **Confirm Upgrade** message box.

Figure 4.37: Confirm upgrade



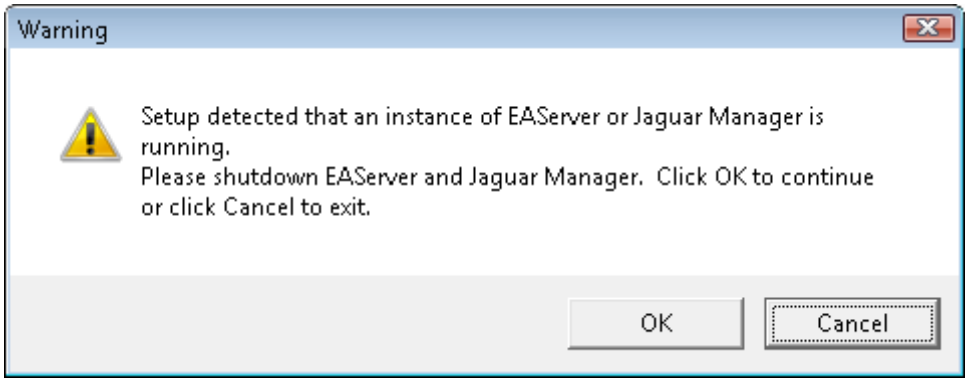
When the **OK** button is clicked, a message box opens indicating that the upgrade is preparing files.

Figure 4.38: Setup is preparing files



Before the upgrade process starts, if the setup program detects that the EAServer service is running, a warning message will pop up reminding you to terminate it, as shown in the following figure.

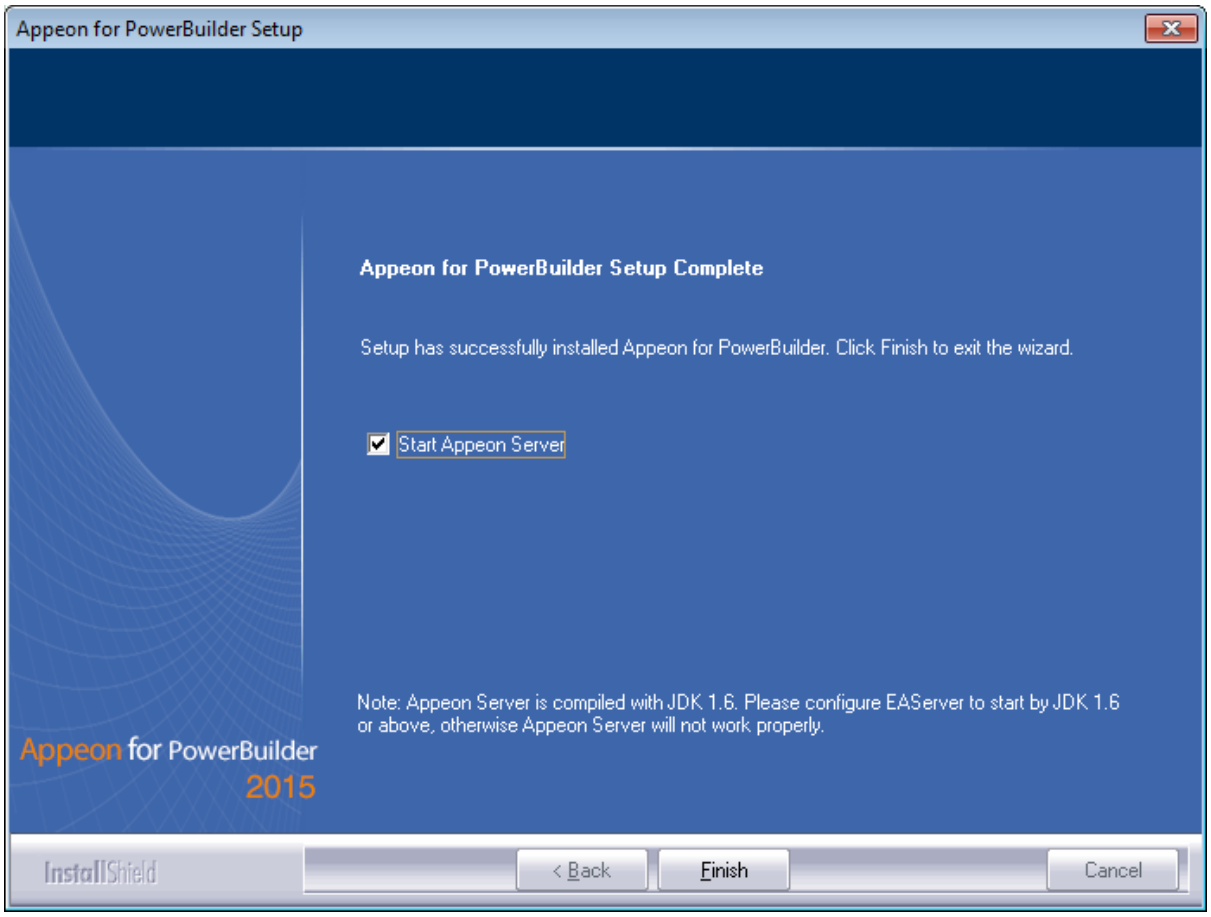
Figure 4.39: Warning message



The upgrade process uninstalls the old version of Appeon Server, backs up configurations and begins the installation of **Appeon Server** based on the backup information. This will take several minutes.

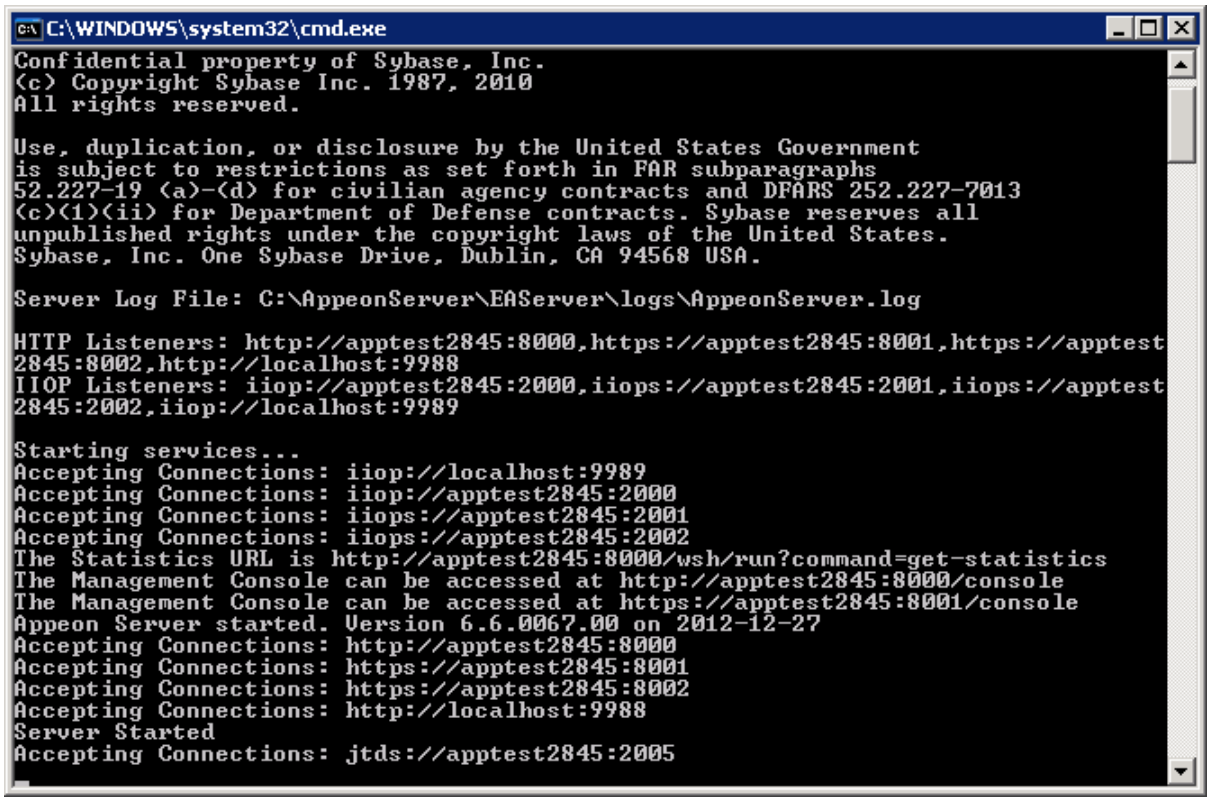
Step 3: When setup is complete, choose whether to **Start Appeon Server**. It is selected by default. To manually start Appeon Server from the Windows shortcut later, uncheck the box. Click the **Finish** button.

Figure 4.40: Appeon for PowerBuilder Setup Complete



EAServer will start if **Start Appeon Server** is checked and you click **Finish**.

Figure 4.41: More information

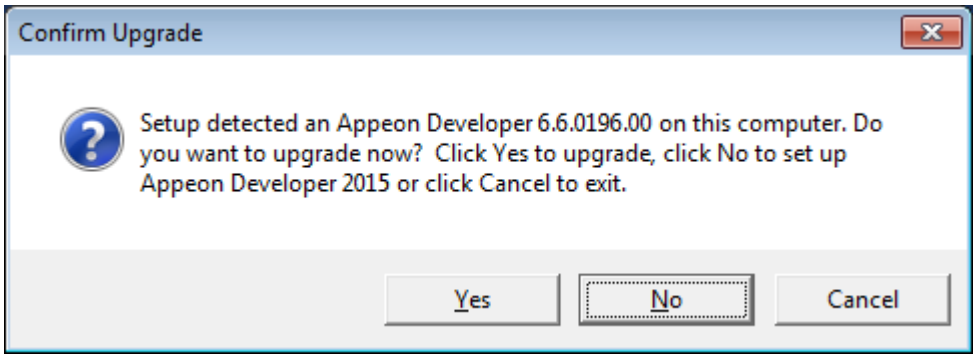


4.5.3.2 Upgrading Appeon Developer

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Developer** (see Starting the installation).

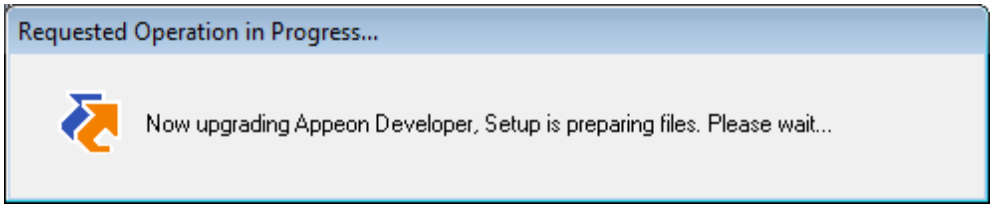
Step 2: Click the **Yes** button in the **Confirm Upgrade** message box.

Figure 4.42: Confirm upgrade



Once you click the **Yes** button, a message box opens indicating that Setup is preparing files.

Figure 4.43: Setup is preparing files



The upgrade process uninstalls the old version of Appeon Developer, backs up configurations then begins the installation of **Appeon Developer** based on the backup information. This will take several minutes.

Wait until the upgrade is complete.

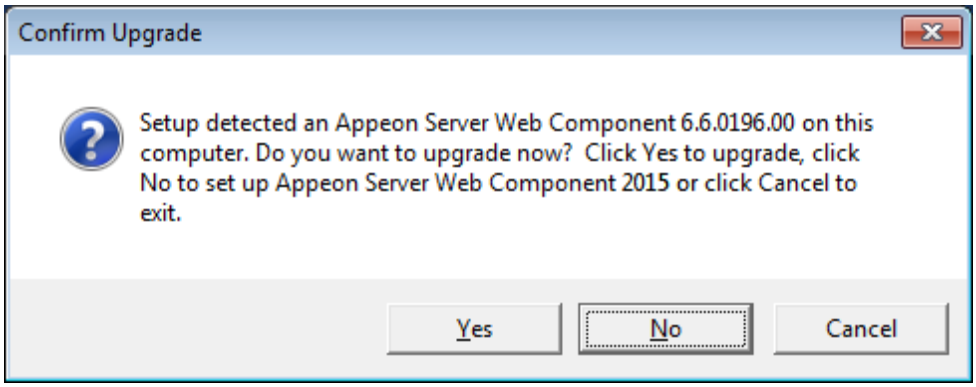
Step 3: Click the **Finish** button.

4.5.3.3 Upgrading Appeon Server Web Component

Step 1: Launch the **Appeon for PowerBuilder 2015 Setup** program and select to install **Appeon Server Web Component** (see Starting the installation).

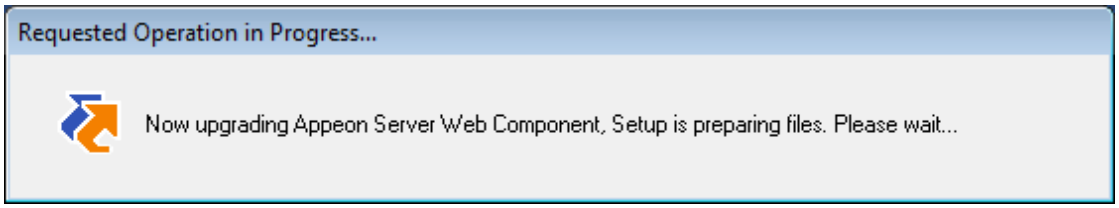
Step 2: Click the **Yes** button in the **Confirm Upgrade** message box.

Figure 4.44: Confirm upgrade



Once you click the **Yes** button, a message box opens indicating that Setup is preparing files.

Figure 4.45: Setup is preparing files



The upgrade process uninstalls the old version of Appeon Server Web Component then begins the installation of **Appeon Server Web Component**. This will take several minutes.

Wait until the upgrade is complete.

Step 3: Click the **Finish** button.

4.5.4 Upgrade configuration settings manually

After the product upgrade, most configurations made in the old version are retained and will continue to work in Appeon for PowerBuilder 2015. However, because the configuration settings of Appeon for PowerBuilder 2015 have been adjusted, it is recommended that you review the configuration settings in Appeon Developer and Appeon Server AEM to become familiar with the new settings and make sure the old ones are not lost or mis-configured.

After verifying all settings, Appeon applications deployed with the old version and Appeon Demos must be redeployed in Appeon for PowerBuilder 2015.

Note: If the application uses Appeon Workarounds PBL, you must use the new Appeon Workarounds PBL to replace those of the old version. If the application contains server NVO(s), redeploy the NVO(s) to EAServer thru PowerBuilder and generate stub and skeleton for the server NVO(s) as required in Migration Guidelines for Appeon Web (Web only).

4.6 Troubleshoot Appeon installation problems

Chapter 1, *Troubleshooting Appeon Install* in *Troubleshooting* provides solutions to some common problems with installing Appeon for PowerBuilder. If you could not find a solution for your problem, it could be because it is a new problem or an intricate problem that happens only under specific circumstance or environment. In both cases, it is highly recommended that you follow steps below to generate and send the log file to us for investigation.

Step 1: Go to the **Appeon** folder in the installation package, open the **Product.ini** file in the text editor, find the **RecordDllLog** parameter in this file and set the value to **1** (this will enable the logging functionality), by default the value is 0 (which disables logging).

For example:

```
[DllLog]
RecordDllLog=1
```

Step 2: Run the installation package and reproduce the installation error.

Step 3: Go to …\System32\AppeonInstallLog (or …\SystemWOW64\AppeonInstallLog\ in 64-bit machine) and find the log files there.

Each Appeon component will have a separate log file, for example, AppeonADT2014.txt for Appeon Developer, AppeonDNS2014.txt for Appeon Server.

5 Configuring Appeon Server Cluster

Appeon provides its own tools and plug-ins to configure an Appeon Server cluster and implement the load balancing and failover functionalities. An Appeon Server cluster is essentially a group of EAServers, each with Appeon Server and Appeon plug-in installed.

Following are high level steps for configuring an Appeon Server cluster. For detailed instructions, please refer to Chapter 6, *Tutorial 5: Configure Appeon Server Cluster* in *Appeon Mobile Tutorials (Mobile only)*.

1. Install **Appeon Server** to multiple EAServers.
2. Create **Appeon Server cluster** in AEM.
3. Configure the **Web server** for the Appeon Server cluster.
4. Install an Appeon application to the Appeon Server cluster and Web server(s).

6 Post-Installation Configuration Tasks

6.1 Overview

The previous chapters provide instructions on how to set up Appeon system architecture, including installing Appeon for PowerBuilder components, as well as configuring Appeon Server cluster. Once the Appeon system is set up and before you start deploying applications, the post-installation configuration tasks listed in the following table will help ensure that the deployed applications run as desired. Post-installation configuration tasks refer to configurations required for Appeon system architecture that affect the running of all applications but do not include configuration tasks performed in Appeon Developer and Appeon Enterprise Manager for specific applications.

Table 6.1: Post-installation tasks

Task	Description	Detailed Instructions Given in...
Configuration for the Web client PC	The IE security settings and Windows login user privileges may prevent downloading the Appeon Xcelerator plug-in for the Web application.	Configuration for client machine
System language setting	Configuration required for the Web client PC, Appeon Server and database server. The operating system language settings can affect the characters that are displayed in the Web application.	System language settings
Database JDBC driver preparation	Configuration required for Appeon Server. You should copy the corresponding JDBC driver files for the database server in use to the EAServer installation folder in the machine hosting Appeon Server.	Section 4.2.4, “JDBC driver preparation” in *Appeon Server Configuration Guide for J2EE*
Configuration for supporting DataWindow Data Cache feature	Configuration required for database server and Web server. The DataWindow Data Cache feature can cache DataWindow data that are frequently used on the Web server to improve runtime performance, but will not work until you fulfill the configuration requirements for database server(s) and Web server(s). This feature is not available for Web servers running on Unix\Linux.	Section 5.4.8.3, “DataWindow Data Cache” in *Appeon Server Configuration Guide for J2EE*
Configuration for supporting dynamic DataWindows	Configuration required for database server.	Section 11.5, “Dynamic DataWindow” in *Supported PB*

Task	Description	Detailed Instructions Given in...
	Configuration at the database server is required for support of dynamic DataWindows.	*Features for Appeon Web (Web only)*
Configuration for fixing an ASE issue	Appeon provides several SQL files for you modifying the chain modes of stored procedures in ASE database to avoid the following error: "Select error: Stored procedure... may be run only in unchained transaction mode"	Section 4.5.2, “ASE Chained mode issue” in *Troubleshooting*

6.2 Configuration for Web client PC

Running the deployed Web application on the client machine is dependent on the Appeon Xcelerator plug-in (ActiveX controls). To ensure (only for the first time) the Appeon ActiveX controls can be downloaded and installed automatically when the Web application is run, the following configuration on the client machine is required.

For more information about the Appeon ActiveX file and the manual installation method, refer to Section 5.1.2, “Installing Appeon ActiveX control” in *Supported PB Features for Appeon Web (Web only)*.

6.2.1 Verifying Web browser settings

There are a few settings in the Web browser that may affect the running of the Appeon Web application, such as the JavaScript and the plug-in. By default, these settings are enabled (appropriate for running the Web application) in Chrome/Firefox/Opera except Internet Explorer. Normally you would not need to go through the following section if you use Chrome/Firefox/Opera, unless you encounter problems when running the Web application. However, if you use Internet Explorer, you are recommended to configure Internet Explorer according to the following section.

6.2.1.1 Verifying Chrome/Firefox/Opera settings

If you use Chrome/Firefox/Opera as the Web browser, you should be able to directly run the Appeon Web application in it without any problems, with the default settings of these browsers, however, if you encounter runtime problems, or if you have changed the default settings before, you are recommended to double check that the following two settings are enabled in the browser:

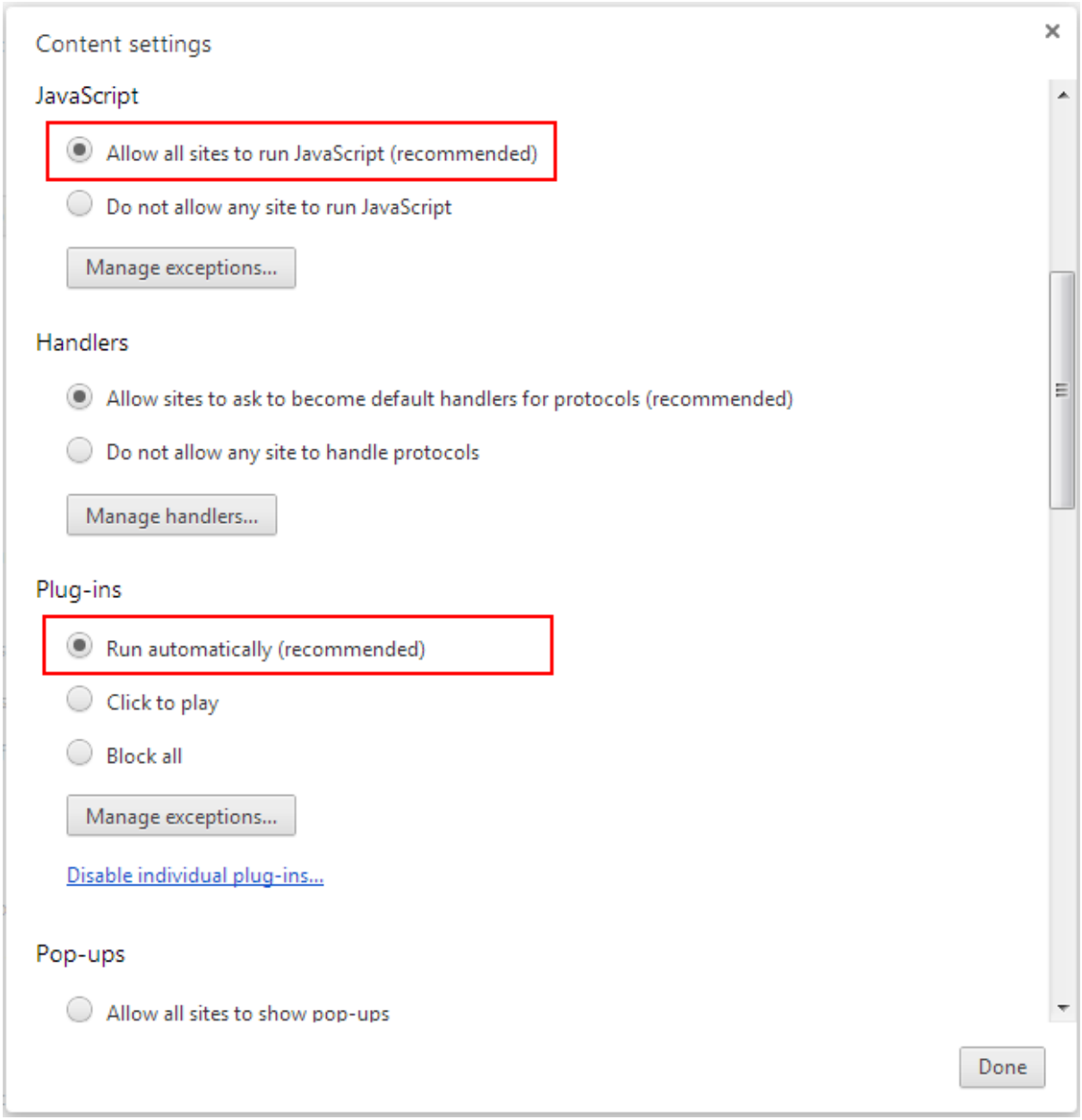
- Enable JavaScript
- Enable plug-in

For Firefox, these two settings are automatically enabled and cannot be changed manually. Therefore, you normally need not to verify the settings in Firefox.

For Chrome, go to **Settings**, then click the **Show advanced settings** link, then click the **Content Settings** button under **Privacy**, and then verify the settings are enabled. If you have

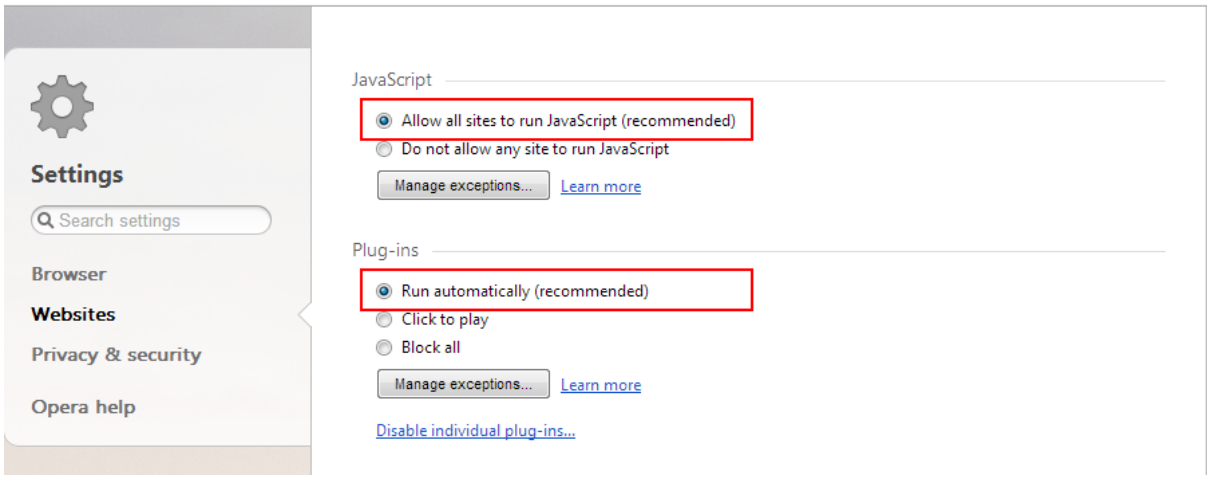
to disable these two settings for some reason, then make sure you add the URL of the Appeon Web application to the exception list.

Figure 6.1: Settings in Chrome



For Opera, go to **Settings**, then select **Websites**, and then verify the settings are enabled. If you have to disable these two settings for some reason, then make sure you add the URL of the Appeon Web application to the exception list.

Figure 6.2: Settings in Opera



6.2.1.2 Configuring IE settings

If you use Internet Explorer, we recommend you add the URL of the deployed application to the **Trusted Sites** zone in Internet Explorer, because the default security settings of this zone are appropriate for downloading and installing the Appeon ActiveX controls. However, if you do not want to add the URL to the Trusted Sites zone, you will need to make sure the security settings (listed in Step 4 below) are enabled for the appropriate zone. The following are detailed steps to add the URL to the Trusted Sites zone.

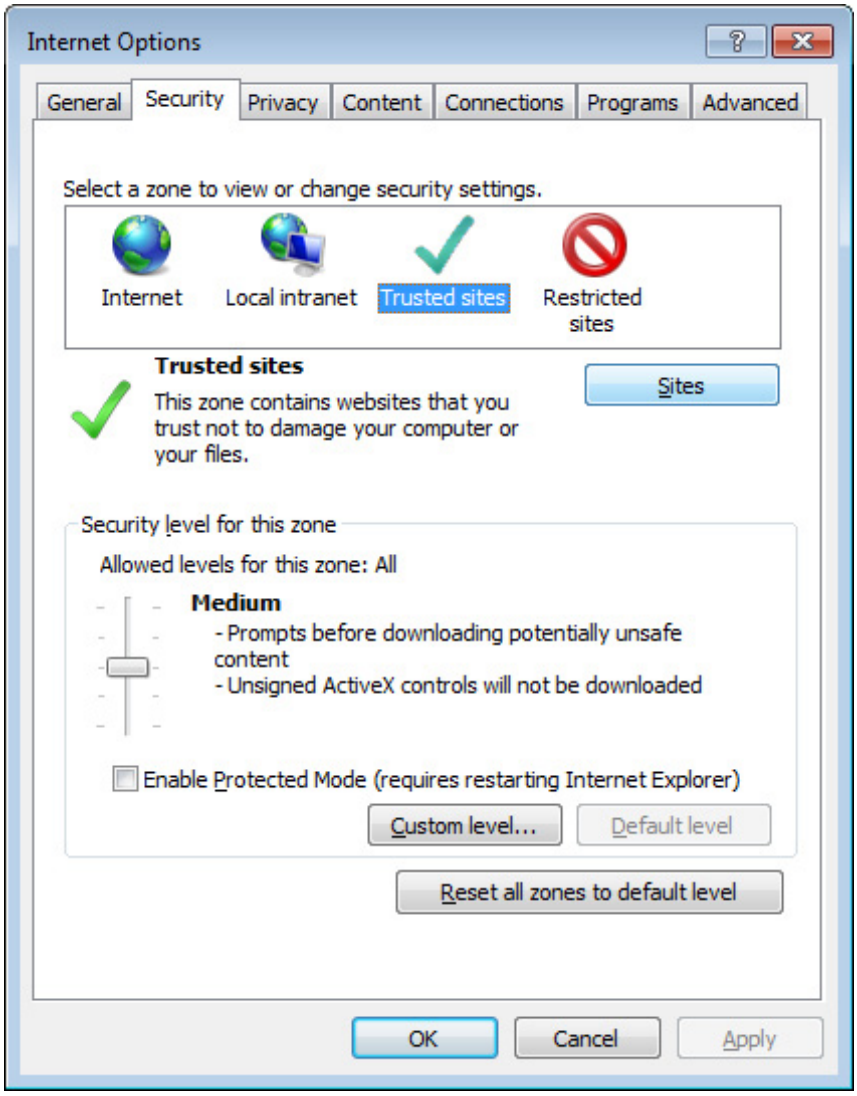
Step 1: In Internet Explorer, on the **Tools** menu, click **Internet Options**.

Step 2: In the Internet Options window, select the **Security** tab. Then select the **Trusted sites** Web content zone, and click the **Sites** button.

Note: **Enable Protected Mode** on the **Security** tab should not be selected (it is not selected by default). If there is any reason this option must be turned on, please make sure to follow the instructions in Section 4.1.3, “"Failed to get resource from Appeon Server" error” in *Troubleshooting* to resolve the issue caused by this option.

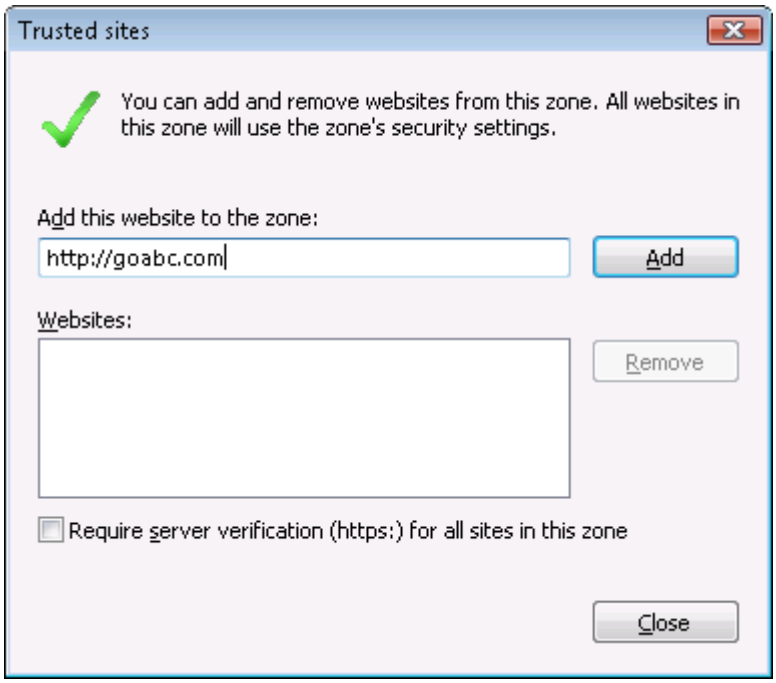
For IE 11, you should also make sure both "**Enable Enhanced Protected Mode**" and "**Enable 64-bit processes for Enhanced Protected Mode**" are unchecked in the **Advanced** tab.

Figure 6.3: IE security settings



Step 3: In the Trusted sites window, input the URL of the deployed application to the "Add this website to the zone" box. Uncheck the checkbox of "Require server verification (https:) for all sites in this zone". Click **Add** then click **Close** to return to the Internet Options window.

Figure 6.4: Trusted sites



Step 4: If you do not want to add the URL to the trusted sites (in Step 3), you will need to select the appropriate zone, then click the **Custom Level** button, and enable the following settings (they are enabled for the trusted sites by default):

- Download signed ActiveX controls
- Run ActiveX controls and plug-Ins
- Script ActiveX controls marked safe for scripting
- Active scripting

Step 5: Click **OK** to save the settings and close IE.

6.2.2 Logging in as administrator or normal user

No special privilege is required to download and install the ActiveX control, no matter you use Chrome, Firefox, Opera, or Internet Explorer, which means, you can log into the Windows OS with any user.

Note when running the Appeon Web application for the first time, the Web browser would prompt you to run the Appeon cross-browser plug-in with two options: "**only this time**" or "**always run for this site**". It is highly recommended that you select the "**always run for this site**" option, especially for Chrome, because the application will fail to run in Chrome if you select "**only this time**".

6.3 System language settings

Sometimes the operating system language settings can affect the characters displayed in the deployed application. To avoid any such display issues, verify that:

- The language of the data in the database used by the application matches the operating system language settings on the machine where Appeon Server is installed.
- The language of the data in the database used by the application matches the Windows language settings on each Client machine where the Web application will be viewed.
- The language of the data in the database used by the Appeon-deployed Web application matches Windows language settings on the machine where Appeon Developer is installed.

To set the language settings in Windows operating system:

Step 1: Open Windows **Start** Menu and select **Settings** | **Control Panel**.

Step 2: Double-click **Regional Options**.

Step 3: Select the appropriate language from the **Your locale** DropDownListBox.

Step 4: Click the **Set Default** button. The Select System Local window displays.

Step 5: Select the appropriate locale. Verify that it is the same as that selected in the **Your locale** list box in Regional Options.

Step 6: Click **OK** to return to the Regional Options window.

Step 7: Verify that the language selected in the **Your locale** list box and the language checked as default in **Language settings for the system** settings are the same. The language can be from different regions as long as it is the same language.

Step 8: Click **Apply** and **OK** in the Regional Options window to accept the settings.

To set the language settings in Unix\Linux operating system:

Step 1: Change to the etc/default folder and edit the init file.

Step 2: Set the value of the LANG command to the appropriate language. You can use command "locale -a" to view the locale languages supported by the operating system.

7 Uninstalling Appeon for PowerBuilder 2015

7.1 Overview

To uninstall Appeon for PowerBuilder 2015, uninstall each of its components separately. The uninstall process reverses the actions performed by the Appeon setup program. Uninstall does not delete any files created by the user in Appeon, such as application files generated while deploying the demo applications or your own application to Appeon Server. Delete these files manually from the Web root (or document root) of the Web server.

Do not try to reverse installation steps or uninstall Appeon by deleting files manually or changing your Registry. This can create serious problems with your system in general and new Appeon releases in particular.

There are two ways to uninstall Appeon components:

- Launch the uninstall program of the Appeon component from Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2015**.
- Launch **Add/Remove Programs** from the Windows **Control Panel**. Select the Appeon component and click **Change/Remove** to begin the uninstall process.

7.2 Uninstalling Appeon Developer

Step 1: Shut down PowerBuilder and any other Sybase software.

Step 2: Verify that Appeon Developer and other Windows programs have been shut down.

Open **Windows Task Manager,** switch to the **Process** tab and verify that the following processes are not running. If they are running, end them:

- **EonADTxx.exe**
- **pbxxx.exe**
- **java.exe, jagsrv.exe** and **jagsrvagent.exe**
- **dbengx.exe** and **dbsrvx.exe**

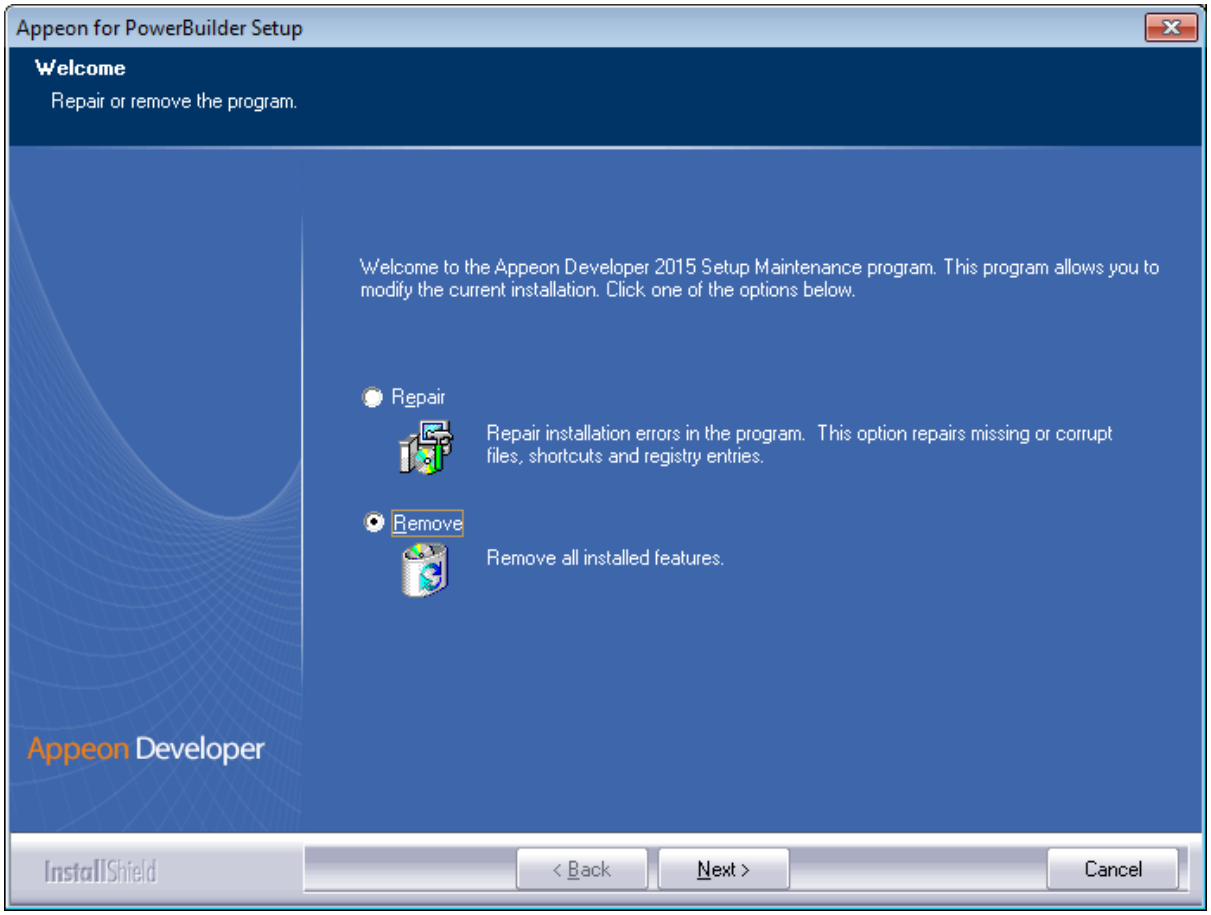
If EonADT*xx*.exe is running when attempting to uninstall Appeon Developer, the Appeon setup program will detect that the processes are running and an error message will appear.

End the processes in the **Processes** tab of **Windows Task Manager** before clicking the **OK** button on the message box. If you click **OK** before ending the process, the message box will continue to display and will not allow you to continue until the processes are ended. In this case, click **Cancel** in the message box, end the process and begin the uninstall process again.

Step 3: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2015** | **Appeon Developer** | **Uninstall Appeon Developer** to begin the uninstall process.

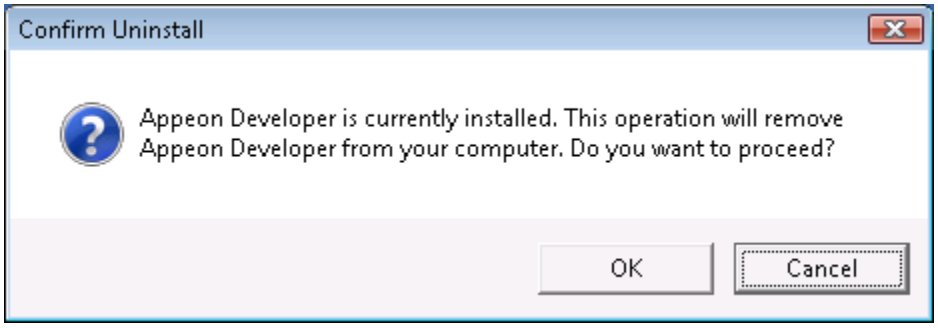
Step 4: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.1: Repair or remove Appeon Developer



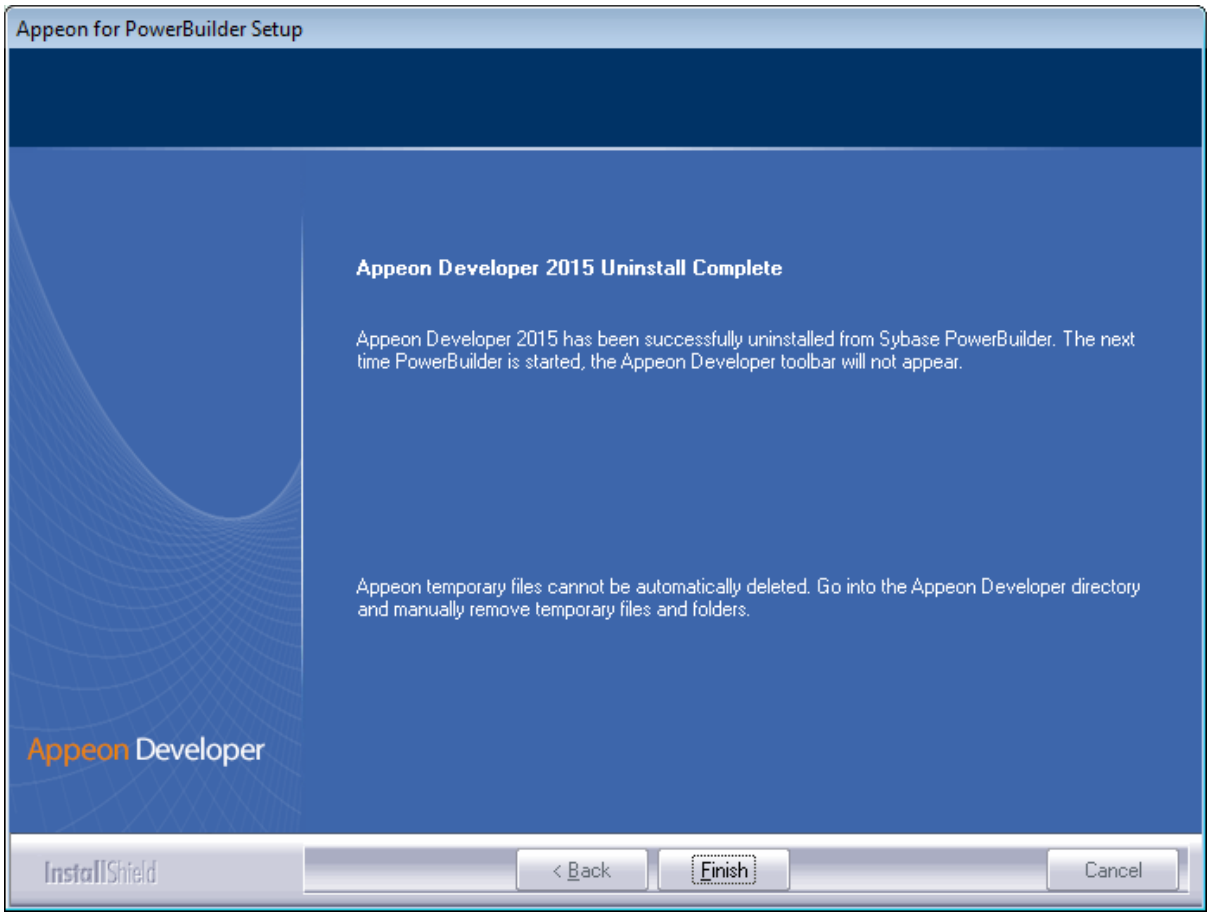
Step 5: Click **OK** to confirm the removal of Appeon Developer.

Figure 7.2: Confirm uninstall



Step 6: Click **Finish** when uninstall is complete.

Figure 7.3: Appeon Developer uninstall complete



Step 7: Use Windows Explorer to manually delete the folder where Appeon Developer was installed. This will remove all Appeon Developer files that are not automatically uninstalled.

7.3 Uninstalling Appeon Server

Step 1: Shut down all Windows programs especially the Sybase software.

- Shut down PowerBuilder
- Shut down EAServer
- Stop the EP Management Service

Step 2: Verify that Appeon Server has been shut down.

Open **Windows Task Manager**, switch to the process tab and verify that the following processes are not running. If they are, end them:

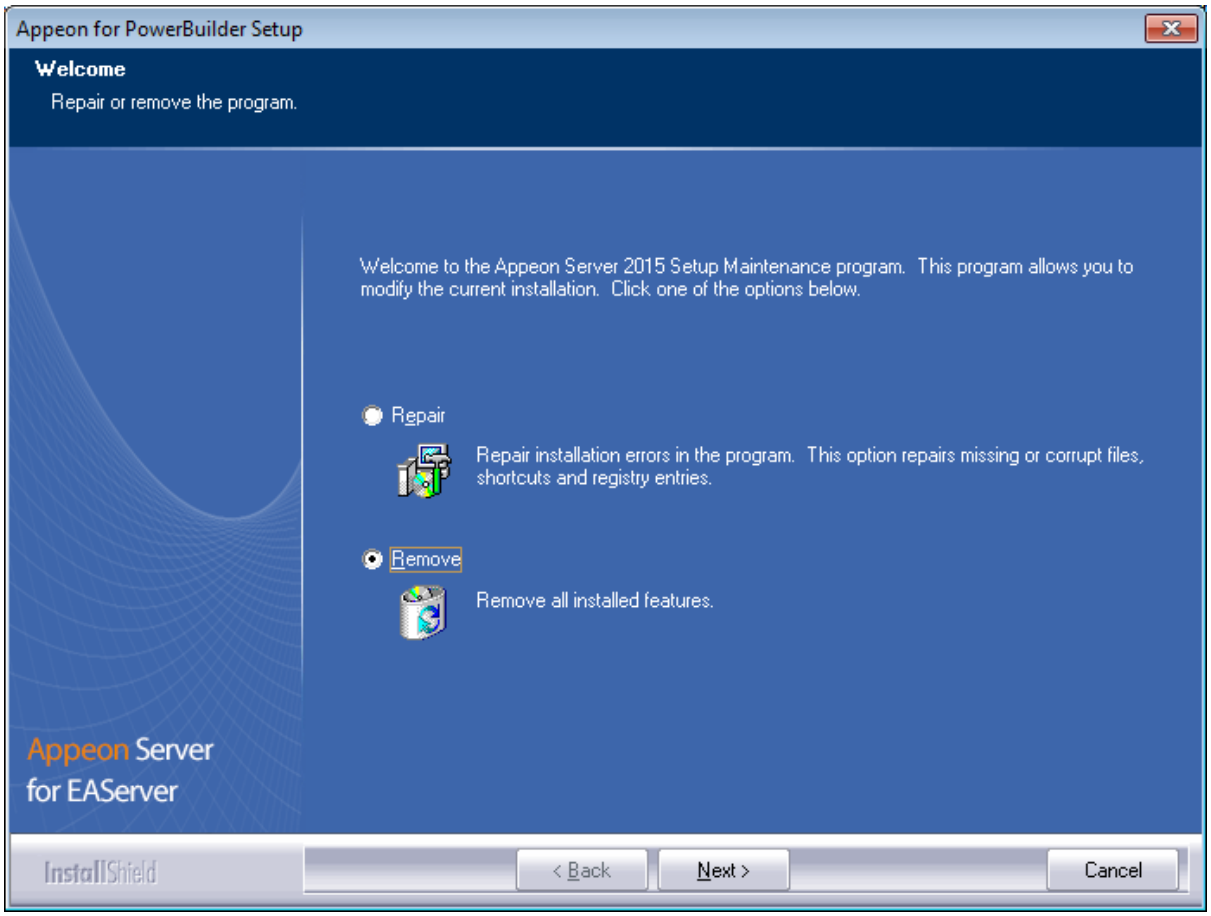
- **EonADTxx.exe**
- **pbxxx.exe**
- **java.exe, jagsrv.exe** and **jagsrvagent.exe**

- **dbengx.exe** and **dbsrvx.exe**

Step 3: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2015** | **Appeon Server for EAServer** | **Uninstall Appeon Server** to begin the uninstall process.

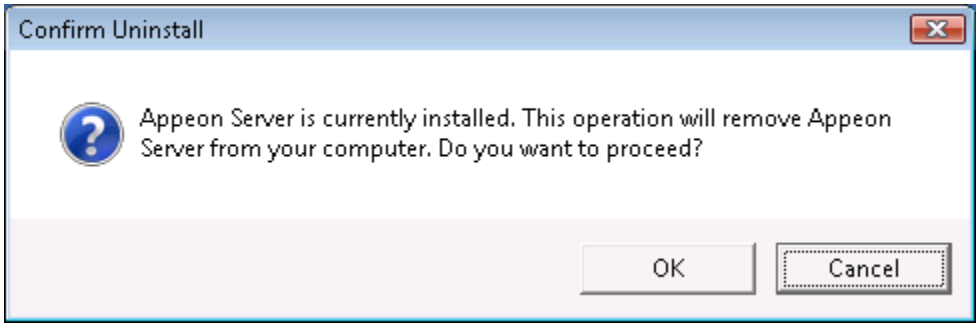
Step 4: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.4: Repair or remove Appeon Server



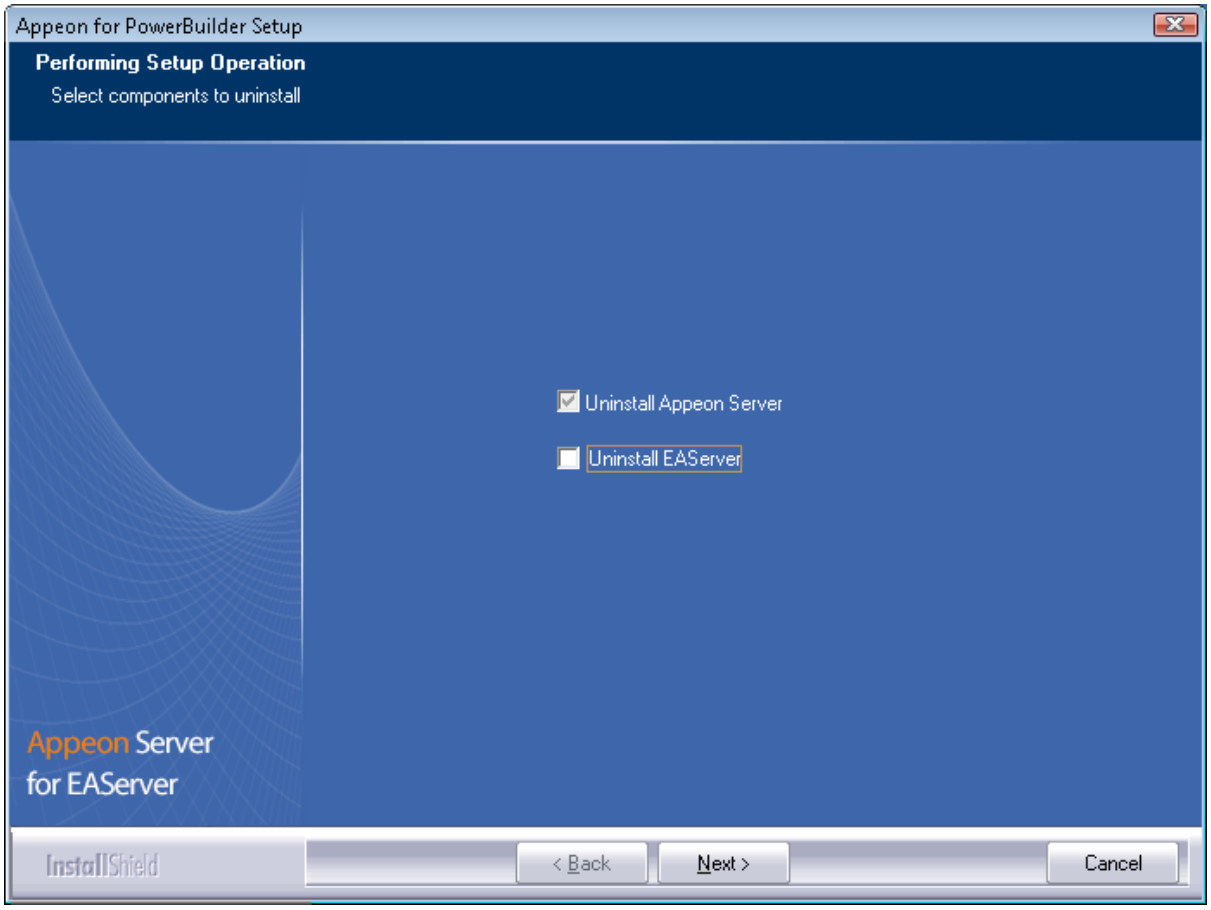
Step 5: Click **OK** to confirm the removal of Appeon Server.

Figure 7.5: Confirm uninstall



Step 6: Choose whether to uninstall EAServer 6.3. Click **Next** and the selected options will be uninstalled. This screen will be displayed only if EAServer 6.3 was silently installed with the Appeon Server installation.

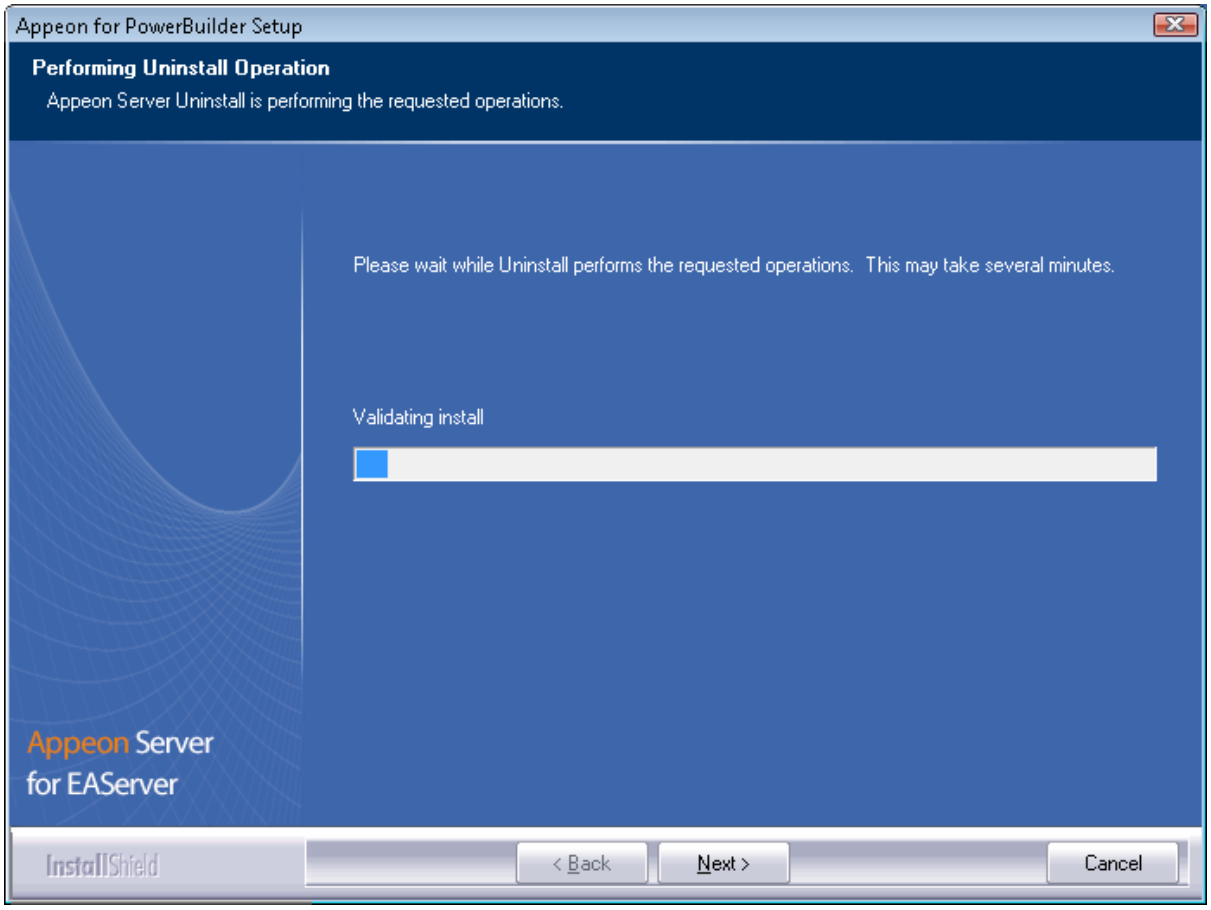
Figure 7.6: Perform Setup Operation



It is recommended that you only uninstall Appeon Server. Keep EAServer for later use in the installation of Appeon Server.

If you choose to uninstall EAServer with Appeon Server, the whole uninstall process, including Appeon Server and the EAServer uninstall process, may take up to twenty minutes. The Appeon Server uninstall process will take place before the EAServer uninstall process.

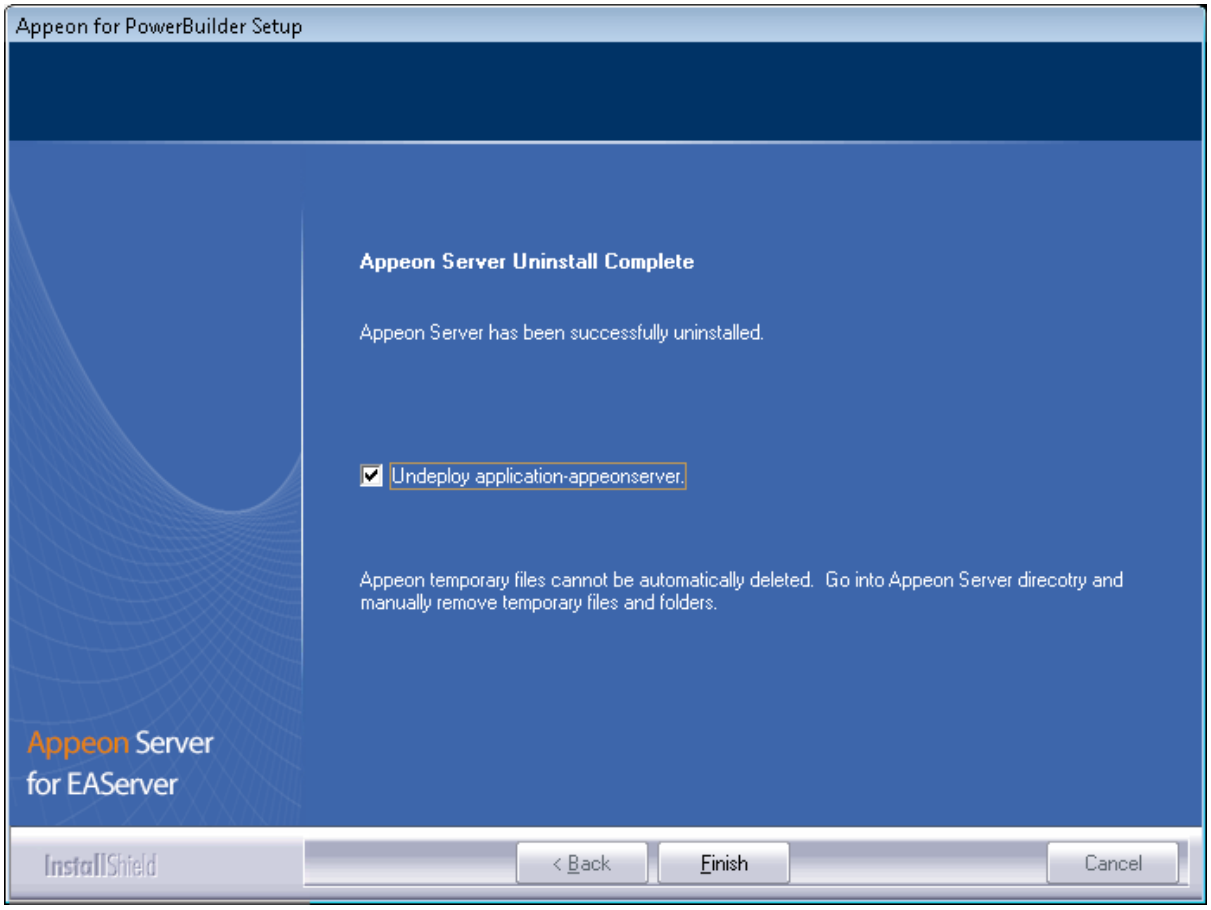
Figure 7.7: Uninstall Appeon Server for EAServer process



Step 7: Click **Finish** to exit.

If you keep the **Undeploy application-appeonserver** option as selected, the program will remove the **appeonserver** application from EAServer before it exits.

Figure 7.8: Appeon Server uninstall complete



7.3.1 Uninstalling EAServer that is installed with Appeon Server

EAServer can be silently installed with Appeon Server or installed separately before Appeon Server. If you installed EAServer by running the independent setup program (before the Appeon Server installation), uninstall it by running the EAServer uninstall program. For detailed instructions, refer to the *EAServer Installation Guide*. If you install EAServer silently with Appeon Server, you can do either of the following to uninstall EAServer:

- Uninstall EAServer with the Appeon Server uninstall program.

  When uninstalling Appeon Server, you can choose whether to uninstall EAServer 6.3 which is installed with Appeon Server. For detailed instructions, refer to Uninstalling Appeon Server.

- Uninstall EAServer separately, after Appeon Server uninstall.

  If you choose not to uninstall EAServer 6.3 with Appeon Server during the Appeon Server uninstall, you can still uninstall it by running the **EASuninstall.exe** program file in the %JAGUAR%\uninstall2 folder, where %JAGUAR% is the EAServer installation path.

After EAServer is successfully uninstalled, some user created files might be left in the EAServer folder. You can manually remove these files.

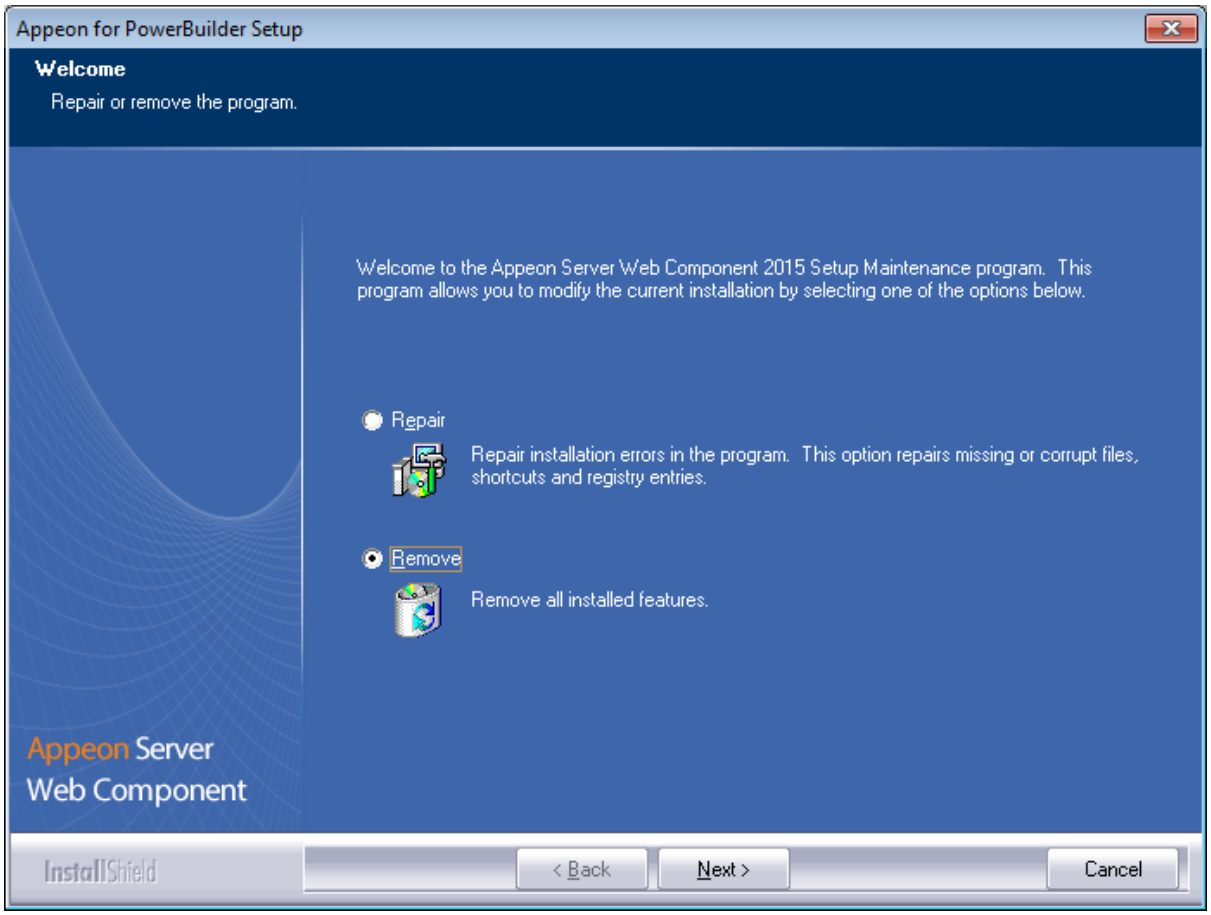
7.4 Uninstalling Appeon Server Web Component (for third-party Web servers only)

Step 1: Stop all Windows programs as well as the Web server.

Step 2: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2015** | **Appeon Server Web Component** | **Uninstall Appeon Server Web Component** to begin the uninstall process.

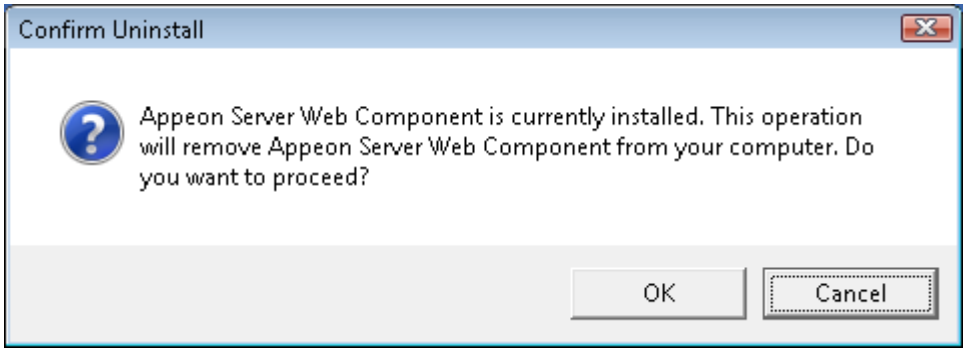
Step 3: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.9: Repair or remove Appeon Server Web Component



Step 4: Click **OK** to confirm the removal of Appeon Server Web Component.

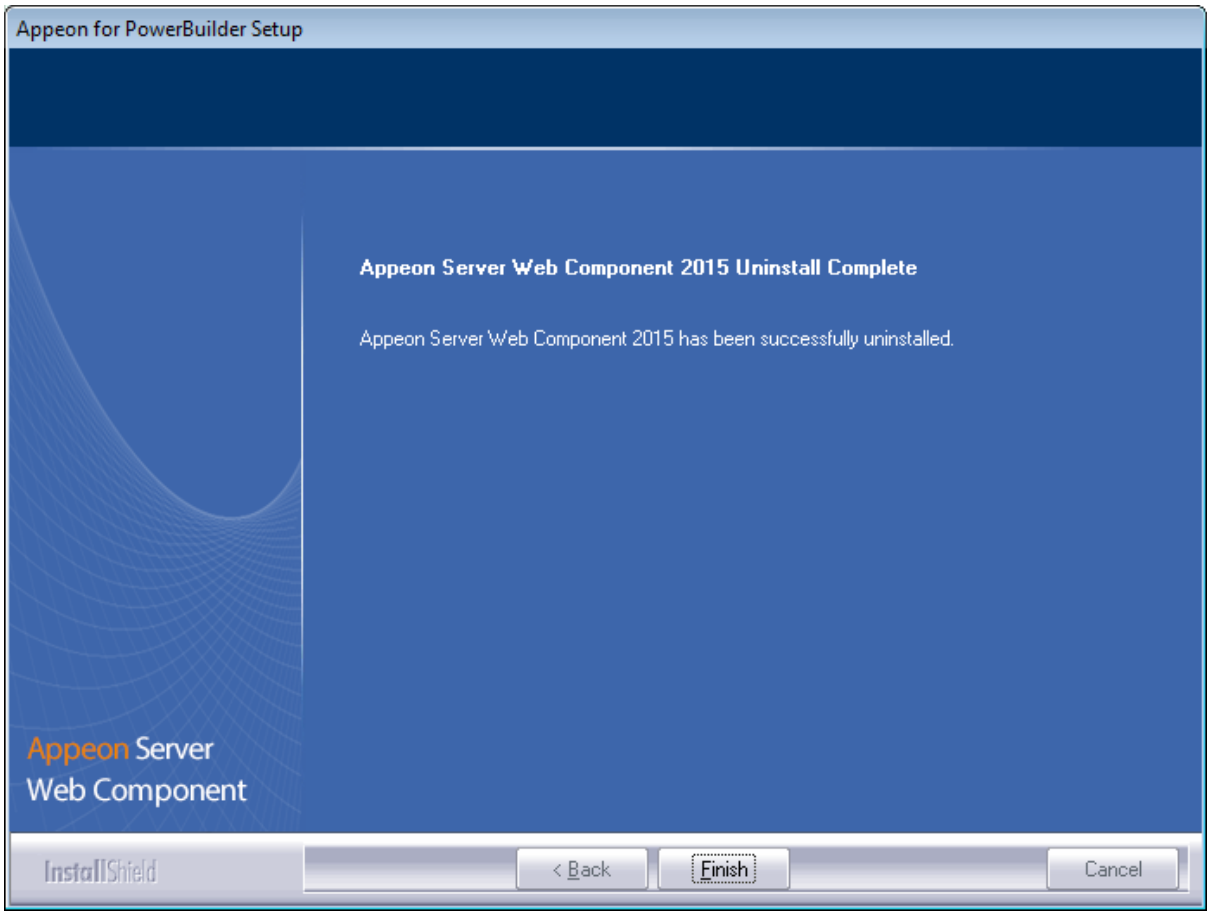
Figure 7.10: Confirm uninstall



Step 5: Wait until the uninstallation is complete.

Step 6: Click **Finish** to exit.

Figure 7.11: Appeon Server Web Component uninstall complete



7.4.1 Uninstalling Web Component if multiple Web servers are involved

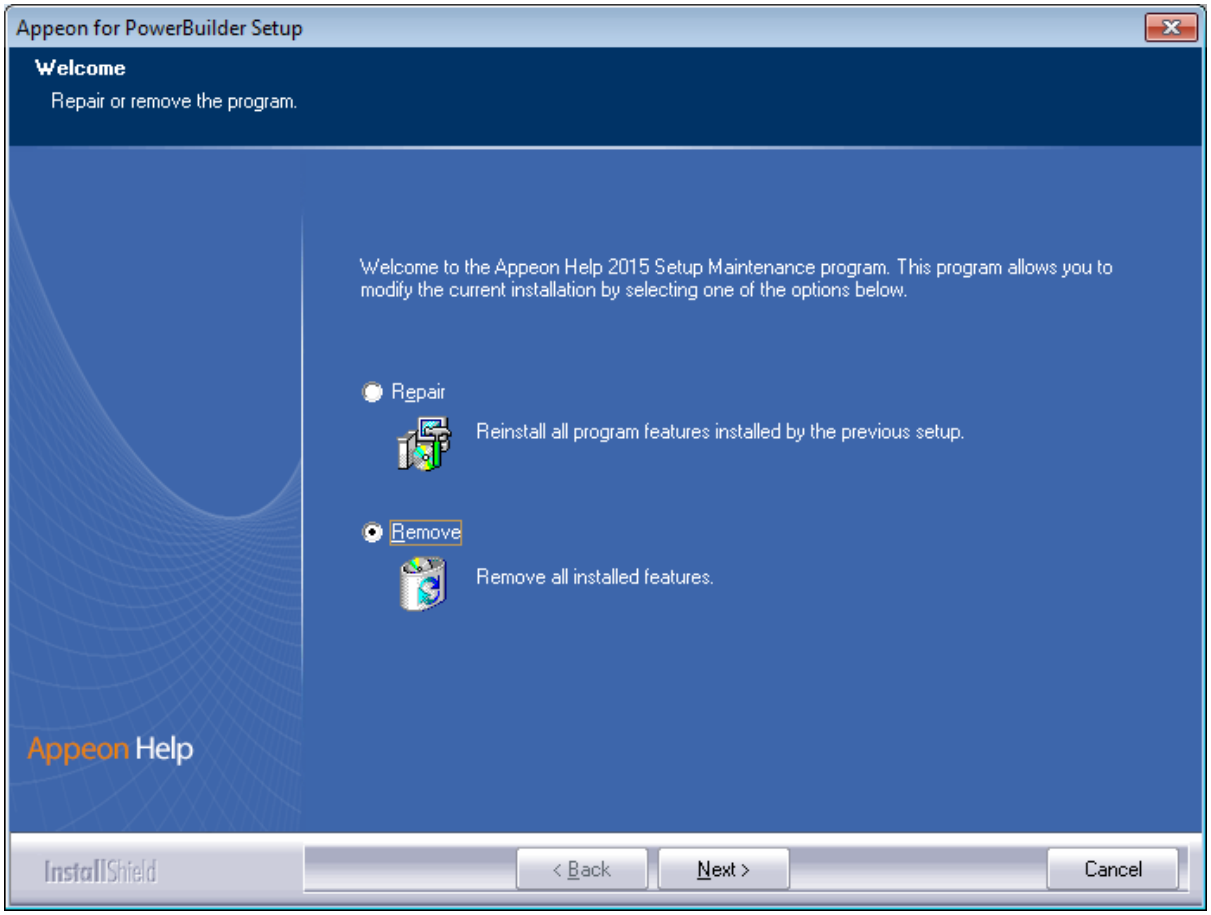
Repeat the Web Component uninstall steps for each Web server.

7.5 Uninstalling Appeon Help

Step 1: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2015** | **Appeon Help** | **Uninstall Appeon Help** to begin the uninstall process.

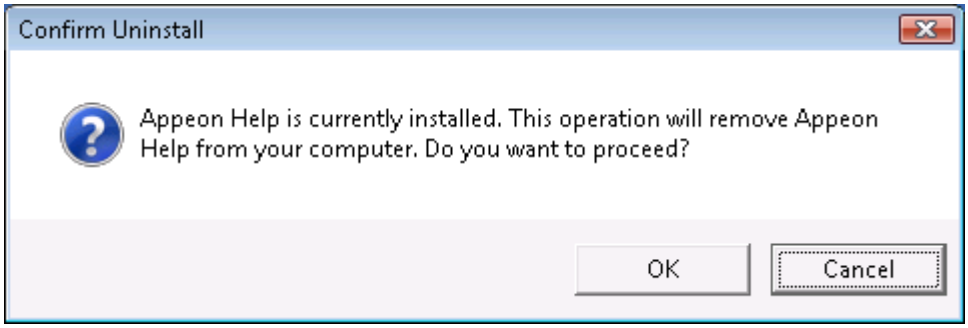
Step 2: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.12: Repair or remove Appeon Help



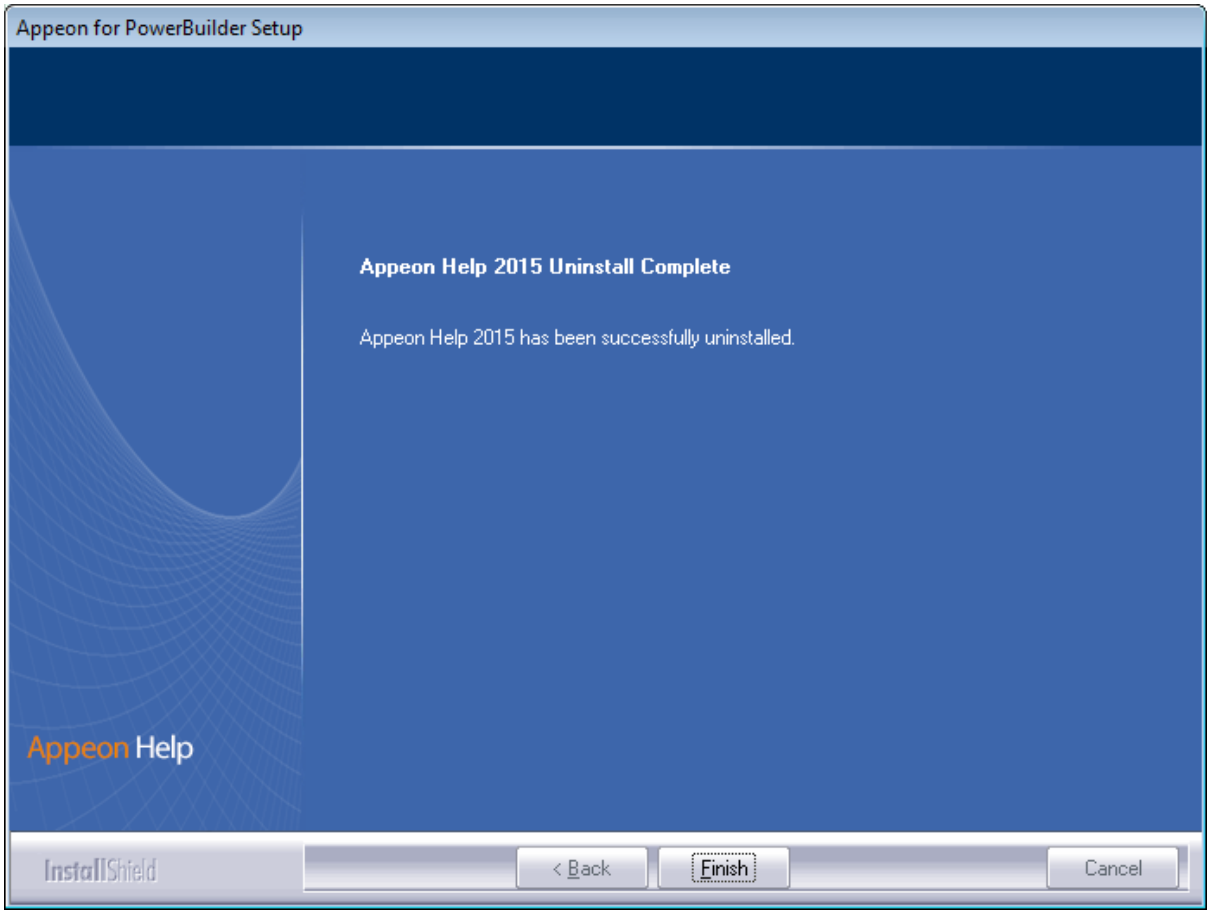
Step 3: Click **OK** to confirm the removal of the Appeon Help.

Figure 7.13: Confirm uninstall



Step 4: Click **Finish** when uninstall is complete.

Figure 7.14: Appeon Help uninstall complete



Index

A

Appeon components, 8
  Appeon Developer, 8
  Appeon Help, 9
  Appeon Server, 8
  Appeon Server Web Component, 8
  Appeon Workspace, 8
Appeon Developer, 8
Appeon Developer installation, 36
  installation instruction, 36
  prerequisites, 36
Appeon Developer requirements, 11
  hardware requirements, 11
  software requirements, 11
Appeon editions, 7
Appeon Help, 9
Appeon Help installation, 44
Appeon Server, 8
Appeon Server cluster, 16
Appeon Server installation
  Install Appeon Server to EAServer instances, 32
  Installing EAServer license, 32
  prerequisites, 22
Appeon Server requirements, 10
  hardware requirements, 11
  software requirements, 10
  Web Server requirements, 11
Appeon Server Web Component, 8
Appeon Server Web Component installation, 41
  installation instruction, 42
  prerequisites, 41
Appeon Workspace, 8

B

before you upgrade, 47

C

Client Database requirements, 12
Client requirements, 10
  hardware requirements, 10
  software requirements, 10
Configuration for Web client PC, 55
configure Appeon Server cluster, 53
configure IE settings, 57

D

database server requirements, 12
Developer PC, 15

H

hardware requirements, 10, 11, 11

I

Install Appeon Server to EAServer instances, 32
Installation instructions, 23
installation instructions, 36, 42
installation scenarios, 14
  Appeon Server cluster, 16
  Remote Appeon Server using a third-party Web server, 15
  Remote Appeon Server using EAServer HTTP Server, 15
Installation scenarios
  Developer PC, 15
Installing EAServer license, 32

L

log in as administrator or normal user, 59

P

prerequisites, 22, 36, 41

R

Remote Appeon Server using a third-party Web server, 15
Remote Appeon Server using EAServer HTTP Server, 15

S

server database requirements, 13
software requirements, 10, 10, 11
start the installation, 17
Synchronization requirements, 12
synchronization server requirements, 13
system architecture, 4
system language settings, 59

U

uninstall Appeon Developer, 61
uninstall Appeon Help, 69
uninstall Appeon Server, 63
uninstall Appeon Server Web Component, 68
upgrade Appeon Developer, 50
upgrade Appeon Server, 48

upgrade Appeon Server Web Component, 51
upgrade configuration settings manually, 51

V

verify Chrome/Firefox/Opera settings, 55
verify Web browser settings, 55

W

Web Server requirements, 11