

Appeon Web Installation Guide for JBoss Windows

Appeon Web® 2013 R2 (on JBoss)
FOR WINDOWS

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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	Introduction	4
2.1	Overview	4
2.2	System architecture	4
2.3	Appeon editions	5
2.4	Appeon components	6
2.4.1	Appeon Developer (Windows only)	6
2.4.2	Appeon Server	6
2.4.3	Appeon Server Web Component (for third-party Web servers)	7
2.4.4	Appeon Help (Windows only)	7
3	Installation Requirements	8
3.1	Client requirements	8
3.1.1	Software requirements	8
3.1.2	Hardware requirements	8
3.2	Appeon Server requirements	8
3.2.1	Software requirements	8
3.2.2	Hardware requirements	8
3.2.3	(Optional) Third-party Web Server requirements	8
3.3	Appeon Developer requirements	9
3.3.1	Software requirements	9
3.3.2	Hardware requirements	9
3.4	Database server requirements	9
4	Installing Appeon Web 2013 R2	11
4.1	Overview	11
4.2	Installation scenarios	11
4.2.1	Overview	11
4.2.2	Developer PC	11
4.2.3	Remote Appeon Server using JBoss HTTP server	12
4.2.4	Remote Appeon Server using a third-party Web server	12
4.2.5	Appeon Server Cluster	13
4.3	Appeon Web 2013 R2 installation	14
4.3.1	Starting the installation	14
4.3.2	Appeon Server installation	19
4.3.3	Appeon Developer installation	24
4.3.3.1	Prerequisites	24
4.3.3.2	Installation instructions	24
4.3.4	Appeon Server Web Component installation (for third-party Web servers only)	30
4.3.4.1	Prerequisites	30
4.3.4.2	Installation instructions	31
4.3.5	Appeon Help installation	33
4.4	Appeon Web 2013 R2 upgrade installation	36

4.4.1 Overview	36
4.4.2 Before you upgrade	36
4.4.3 Upgrading to Appeon Web 2013 R2	37
4.4.3.1 Upgrading Appeon Server	37
4.4.3.2 Upgrading Appeon Developer	37
4.4.3.3 Upgrading Appeon Server Web Component	38
4.4.4 Upgrade configuration settings manually	39
4.5 Starting/Stopping Appeon Server	39
4.5.1 Starting Appeon Server	39
4.5.2 Logging in to JBoss Server Administration Console	40
4.5.3 Stopping Appeon Server	42
5 Configuring Appeon Server Cluster	43
6 Post-Installation Configuration Tasks	44
6.1 Overview	44
6.2 Configuration for client machine	45
6.2.1 Configuring IE security settings	45
6.2.2 Logging in as administrator or normal user	47
6.2.2.1 Using IE 8.0, 9.0 or 10	48
6.2.2.2 Using IE 7.0 (or earlier)	50
6.2.3 Verifying Appeon ActiveX control installation	51
6.3 System language settings	52
7 Uninstalling Appeon Web 2013 R2	54
7.1 Overview	54
7.2 Uninstalling Appeon Developer	54
7.3 Uninstalling Appeon Server	56
7.4 Uninstalling Appeon Server Web Component (for third-party Web servers only)	58
7.4.1 Uninstalling Web Component if multiple third-party Web servers are involved	60
7.5 Uninstalling Appeon Help	60
Index	63

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 Web 2013 R2 for JBoss Windows and its system architecture.

Chapter 3: Installation Requirements

The system requirements for installing Appeon Web 2013 R2 for JBoss Windows.

Chapter 4: Installing Appeon Web 2013 R2

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 all applications.

Chapter 7: Uninstalling Appeon Web 2013 R2

Instructions for uninstalling Appeon Web 2013 R2 for JBoss 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 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 Apppeon Server.
- **Troubleshooting Guide:**
Provides information on troubleshooting issues; covering topics, such as product installation, application deployment, AEM, and Apppeon application runtime issues.
- **Apppeon Performance Tuning Guide:**
Provides instructions on how to modify a PowerBuilder application to achieve better performance from its corresponding Web/mobile application.
- **Testing Apppeon Web Applications with QTP:**
Provides instructions on how to test Apppeon 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.apppeon.com/support>.

2 Introduction

2.1 Overview

Apeon for PowerBuilder deploys entire PowerBuilder applications to the Web automatically.

From the native source code of PowerBuilder applications, Apeon for PowerBuilder can generate **bona fide** n-Tier Web applications that precisely replicate the Client/Server user interface with HTML running in standard Microsoft Web browsers. These Web applications offer the rich user experience of the original PowerBuilder applications and deliver the superior Quality Of Service (QOS) of the n-Tier Web architecture and J2EE platform, as well as greater availability, scalability, security and reliability.

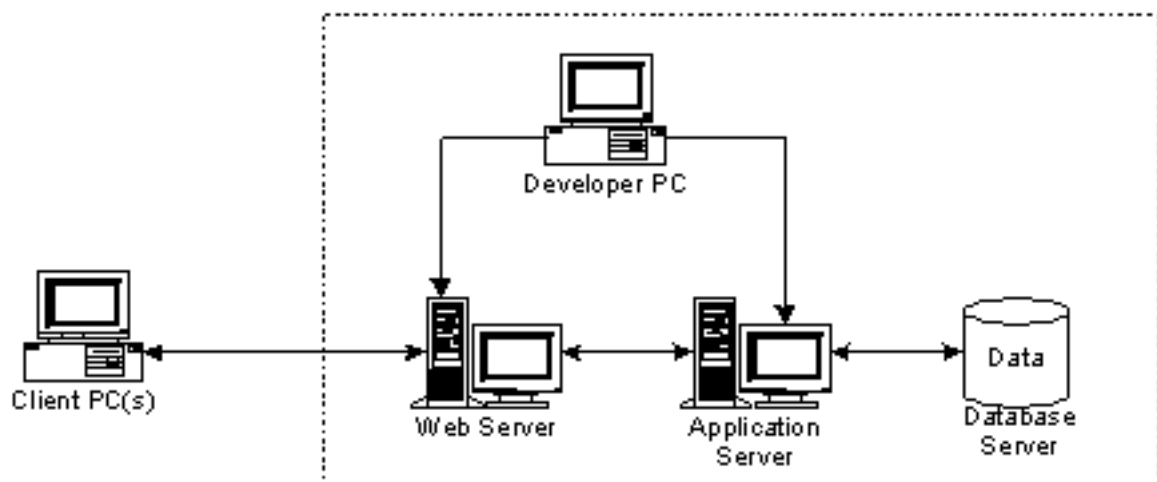
Apeon for PowerBuilder allows the entire Web application conversion process to be executed within the PowerBuilder IDE. It does not require the developer to write a single line of HTML, Java, .NET or JavaScript code. Only standard PowerBuilder programming skills are required.

With Apeon for PowerBuilder, enterprises can continue to use PowerBuilder to build Client/Server applications. At the click of a button, the applications can be deployed to the Web. Enterprises can also transform existing Client/Server applications into Web applications. It is no longer a daunting task to develop Web applications. The task can become a familiar and easy routine for optimizing existing PowerBuilder applications or building new PowerBuilder applications.

2.2 System architecture

Apeon for PowerBuilder works with standard n-Tier Web 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 Apeon Server computers to provide load balancing and failover.

Figure 2.1: Apeon for PowerBuilder system architecture



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, their purposes and the required Appeon/third-party software.

Table 2.1: Tiers in the Appeon Web architecture

Tier	Purpose	Appeon Component	Third-party Software
Client	Runs the deployed applications	None	The default Microsoft Internet Explorer Web browser
Developer PC	Deploys your PowerBuilder application to the testing and production Web environments with the n-Tier architecture.	Appeon Developer	PowerBuilder Internet Explorer
Web Server	Hosts the presentation layer of the deployed applications, responds to incoming requests from Client PC and dispatches requests to the application server.	Appeon Server Web Component	JBoss Web Server or any JBoss-compatible Web server, such as Apache or IIS.
Application Server	Hosts the DataWindows and n-Tier components of the deployed applications, provides necessary runtime services to the deployed application, such as DataWindow retrieval and update, execution of business logic, and security authentication.	Appeon Server	JBoss
Database Server	Hosts the application database.	None	JDBC-compliant RDBMS supported by Appeon. Please see Database server requirements for more information.

2.3 Appeon editions

Appeon Web 2013 R2 (on JBoss Windows) contains the following editions.

Table 2.2: Appeon editions

Edition	Platform	Component	Description
Enterprise Edition	Windows	<ul style="list-style-type: none"> Appeon Server Appeon Server Web Component Appeon Help 	1) Appeon Developer is not provided.

Edition	Platform	Component	Description
			2) The Appeon Server clustering service is provided. 3) Product activation is required within 30 days.
Workgroup Edition	Windows	<ul style="list-style-type: none"> • Appeon Server • Appeon Server Web Component • Appeon Help 	1) Appeon Developer is not provided. 2) Product activation is required within 30 days.
Developer Edition	Windows	<ul style="list-style-type: none"> • Appeon Developer • Appeon Server • Appeon Server Web Component • 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	Windows	<ul style="list-style-type: none"> • Appeon Developer • Appeon Server • Appeon Server Web Component • Appeon Help 	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 5.

2.4 Appeon components

2.4.1 Appeon Developer (Windows only)

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 deployed 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 deployed applications with necessary run-time services such as data connectivity, DataWindows 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 JBoss Web server, therefore, if you are using one JBoss AS 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 (for third-party Web servers)

Appeon Server Web Component resides in the Web server as the runtime environment supporting a PowerBuilder-style Web graphical user interface within standard Microsoft Web browsers. Appeon Server Web Component is a set of JavaScript, HTML and XML files that enable the rich PowerBuilder-style UI in standard Microsoft Web browsers.

If you use a third-party Web server 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 Help (Windows only)

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.

3 Installation Requirements

3.1 Client requirements

3.1.1 Software requirements

- Microsoft Internet Explorer 6.0 SP2, 7.0, 8.0, 9.0, 10.0, or 11.0
- Microsoft Windows 2000 SP4, Windows Server 2003 SP2, Windows XP SP3, Windows Vista SP2, Windows Server 2008 SP2, Windows Server 2012, Windows 7, or Windows 8/8.1
- (Optional) Adobe Acrobat Reader 6.0 or above (for viewing printed PDF DataWindows or reports)

3.1.2 Hardware requirements

- Intel processor(s) running at 1.8 GHz or faster
- At least 2 GB Free RAM

3.2 Apeon Server requirements

3.2.1 Software requirements

- Windows OS that is supported by JBoss AS and JBoss EAP
- JBoss Application Server 5.1.0.GA, 7.0.2.Final or 7.1, or JBoss EAP 6.0.1
Please make sure that the JBoss Application Server is started by JDK 1.6 or above.

3.2.2 Hardware requirements

- Intel processor(s) running at 2 GHz or faster
- At least 2 GB Free RAM (4 GB Free RAM recommended)
- 900 MB hard drive space (for JBoss AS installation) plus 500 MB hard drive space (for Apeon 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 available hard drive space (for Apeon Server Web Component installation)

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

3.3 Apeon Developer requirements

3.3.1 Software requirements

- Microsoft Internet Explorer 6.0 SP2, 7.0, 8.0, 9.0, 10.0 or 11.0
- Microsoft Windows 2000 SP4, Windows Server 2003 SP2, Windows Server 2008 SP2, Windows Server 2012, Windows XP SP3, 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 15

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 Apeon installation).

3.3.2 Hardware requirements

- Intel processor(s) running at 1.8 GHz or faster
- At least 2 GB Free RAM
- 2 GB hard drive space (for Apeon 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

Apeon Web 2013 R2 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 Adaptive Server Enterprise (ASE) 12.5.x or 15.x with Sybase jConnect or iAnywhere JDBC Driver
- SAP Sybase ASA/SQL Anywhere WEB Edition 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 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 the *JDBC driver preparation* section in the *Appeon Server Configuration Guide*.

4 Installing Appeon Web 2013 R2

4.1 Overview

Appeon Web 2013 R2 (on JBoss Windows) consists of the following components.

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 that provide runtime services for the deployed applications, such as data connectivity, DataWindows support, transaction management, and security. Appeon Server also includes Appeon Enterprise Manager (AEM) and Appeon Server Web Component.	JBoss on Windows operating system.
Appeon Server Web Component	The runtime environment that supports a PowerBuilder-style Web graphical user interface within standard Microsoft Web browsers. Appeon Server Web Component is a library of JavaScript, HTML and XML files that form the foundation of the/an Appeon Web application.	Third-party Web server. For JBoss HTTP server, this installation is unnecessary since the Web Component is included in Appeon Server.
Appeon Help	The online help of all Appeon user documents which saves time and conveniently places the help information at your fingertips.	Windows operating system.

4.2 Installation scenarios

4.2.1 Overview

Appeon for PowerBuilder works in network 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 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:	Computer 1:

Scenarios	Requirements	Appeon Components
Computer 1, serves as Developer PC, Web server, application server and database server	Microsoft Windows Server 2003, 2008, or 2012 Microsoft Internet Explorer SAP Sybase PowerBuilder JBoss AS SAP Sybase SQL Anywhere (Optional) SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on the application database	Appeon Developer Appeon Server

4.2.3 Remote Appeon Server using JBoss HTTP server

Table 4.3: Remote Appeon 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, XP, or Vista Microsoft Internet Explorer SAP Sybase PowerBuilder SAP Sybase ASA/SQL Anywhere	Computer 1: Appeon Developer
Computer 2 serves as Web server, application server and database server.	Computer 2: Microsoft Windows Server 2003, 2008, or 2012 JBoss AS SAP Sybase SQL Anywhere, SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on the application database	Computer 2: Appeon Server

4.2.4 Remote Appeon Server using a third-party Web server

Table 4.4: Remote Appeon Server installation

Scenarios	Requirements	Appeon Components
In this example, 3 computers are used: Computer 1 serves as Developer PC.	Computer 1: Microsoft Windows 2000, 2003, 2008, 2012, 7, 8/8.1, XP, or Vista Microsoft Internet Explorer SAP Sybase PowerBuilder	Computer 1: Appeon Developer

Scenarios	Requirements	Appeon Components
	SAP Sybase ASA/SQL Anywhere	
Computer 2 serves as Web server	Computer 2: Microsoft IIS or Apache	Computer 2: Appeon Server Web Component
Computer 3 serves as application server and database server.	Computer 2: Microsoft Windows Server 2003, 2008, or 2012 JBoss AS SAP Sybase SQL Anywhere, SAP Sybase ASE, SAP Sybase IQ, Oracle, Microsoft SQL Server, Informix, IBM DB2, Teradata, MySQL, or SAP HANA depending on the 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, XP, or Vista Microsoft Internet Explorer SAP Sybase PowerBuilder SAP Sybase ASA/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 JBoss servers.	Computers 4 to n: Microsoft Windows Server 2003, 2008, or 2012	Computers 4 to n: Appeon Server

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

4.3 Appeon Web 2013 R2 installation

4.3.1 Starting the installation

Step 1: Double click the **Setup.exe** file in the installation package. The **Appeon for PowerBuilder 2013 R2 Setup** program starts. The entry page has several options to guide you through the various installation tasks.

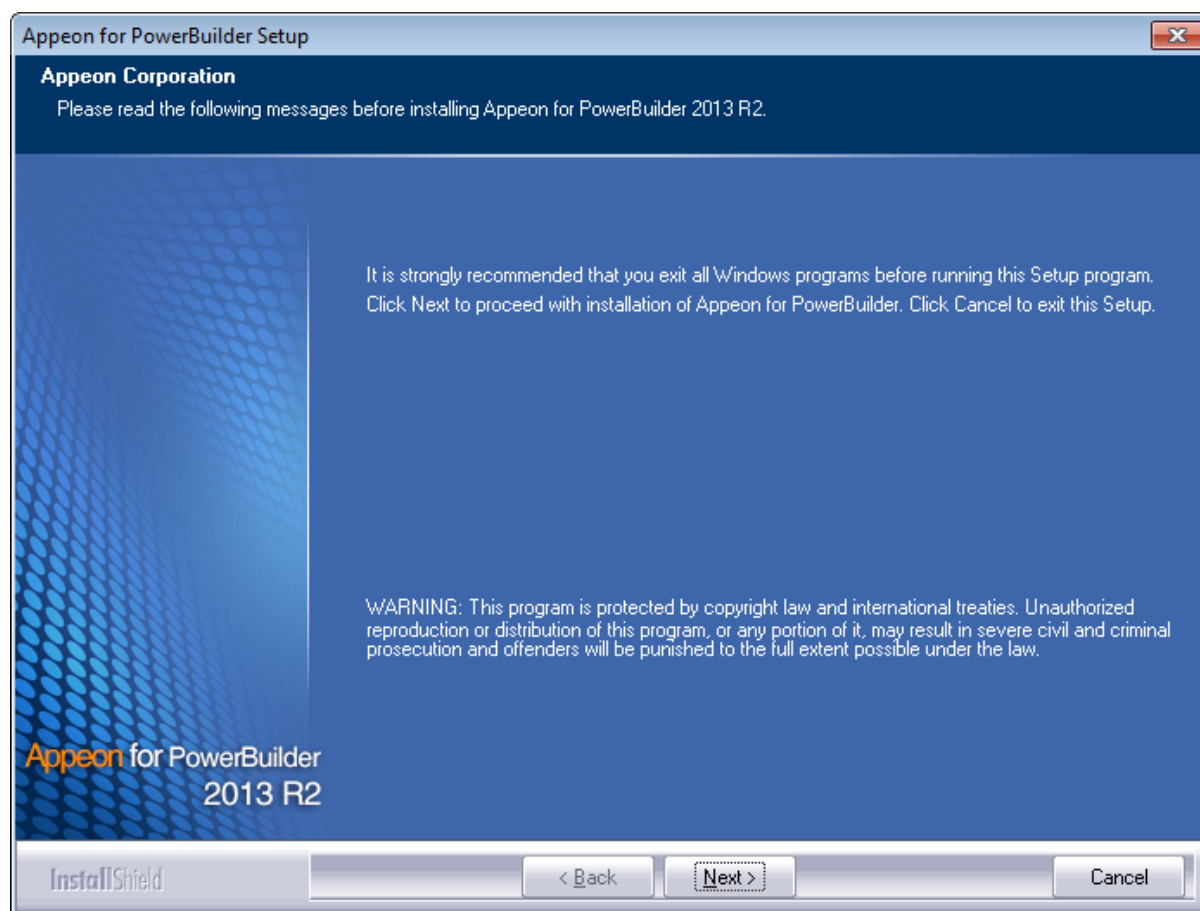
- **Install:** Click this button to start installing the product.
- **View Server Settings:** Click this button to ensure that the application server settings are appropriate for the Appeon Server installation.
- **View Training Video:** Click this button to watch the video to learn how to install the 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".

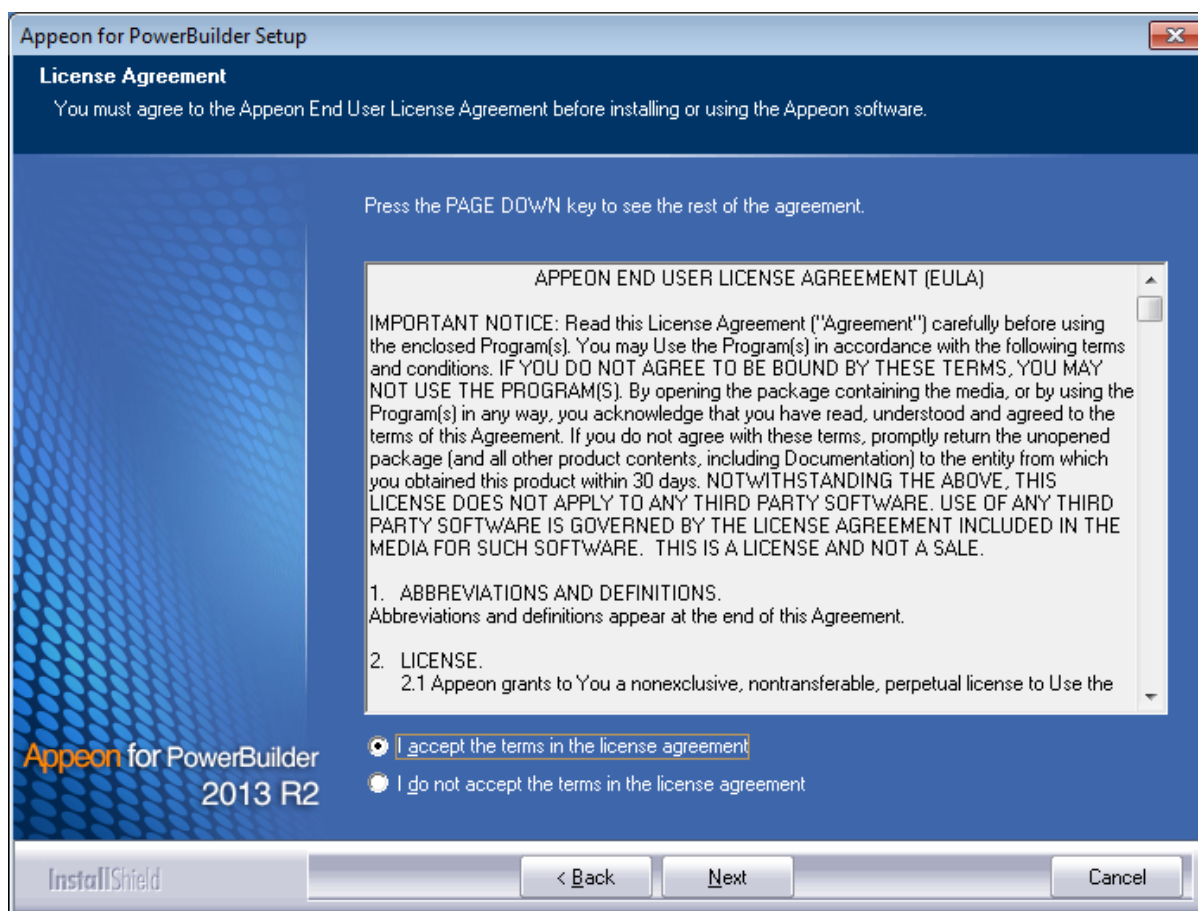
Step 2: Click **Install**.

Figure 4.1: Install Appeon for PowerBuilder

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

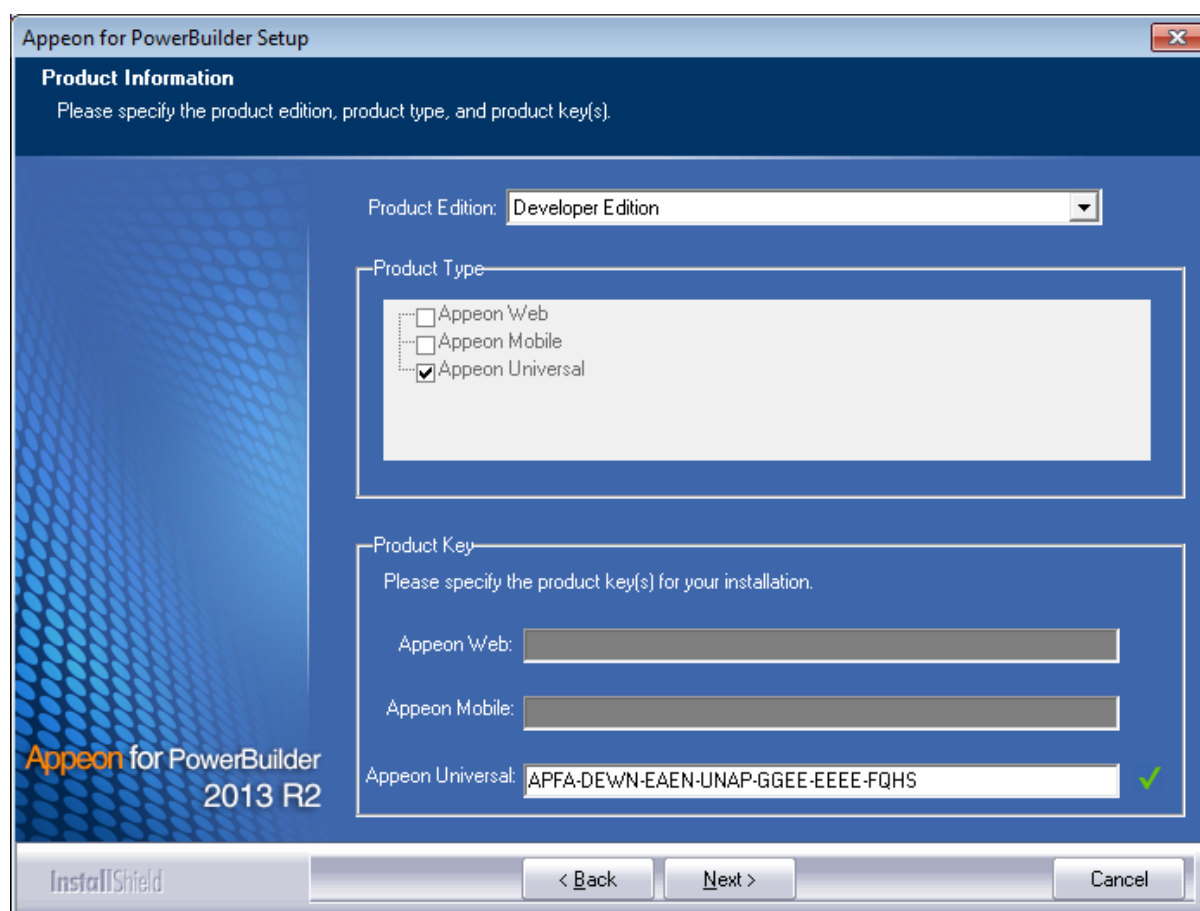
Figure 4.2: Introduction page

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** or **Appeon Universal**, and then enter the product key which is shipped with the Appeon product. Click **Next**.

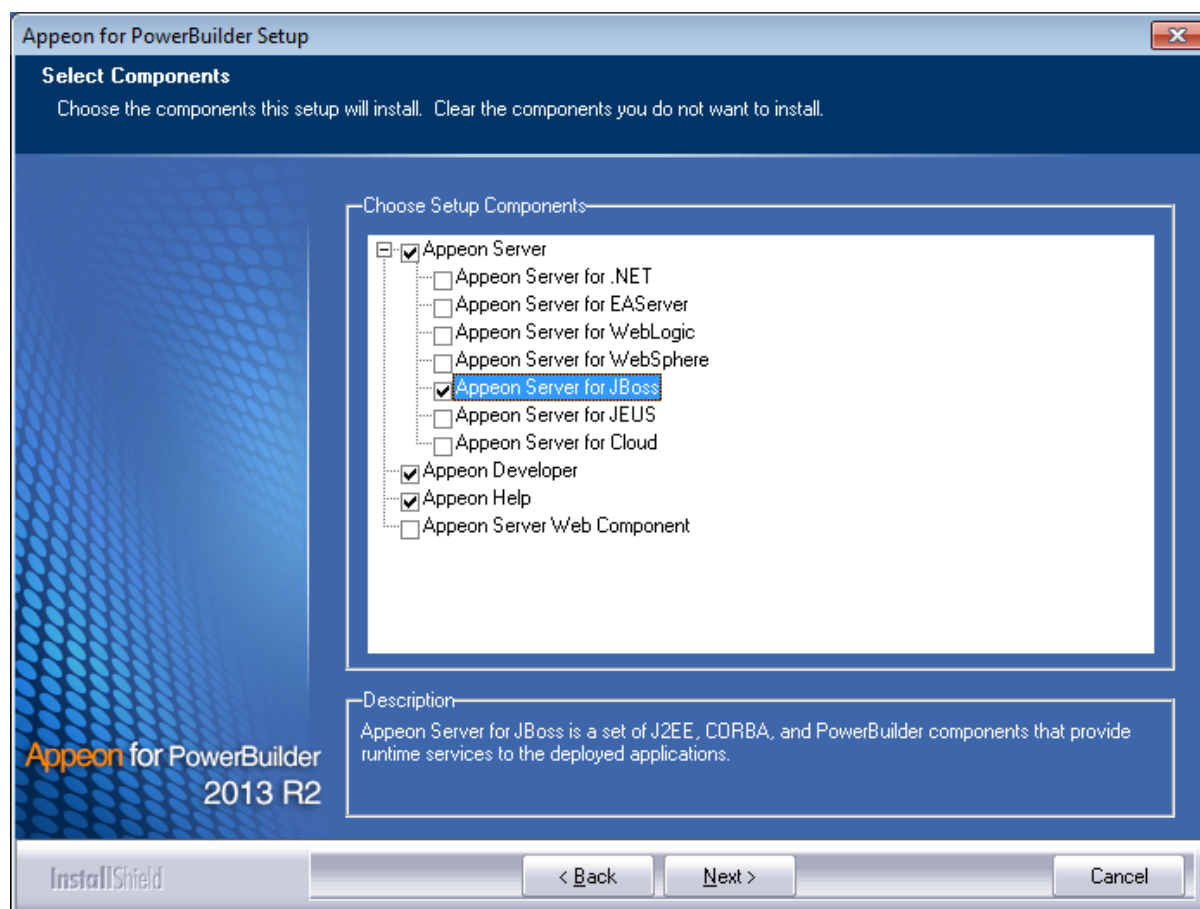
If you select the **Trial** or **Developer** edition, **Appeon Universal** will be automatically selected so you can experience both the Web and Mobile deployments at no additional charge.

Figure 4.4: Product 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 JBoss application server, be sure to select **Appeon Server for JBoss**, as shown in the following figure.

For Developer Edition and Trial Edition, if more than one application servers such as JBoss, 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 JBoss** to install Appeon Server to the JBoss Application Server, you can then run the setup program again and select **Appeon Server for WebSphere** to install Appeon Server to the WebSphere 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 JBoss server 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.

4.3.2 Appeon Server installation

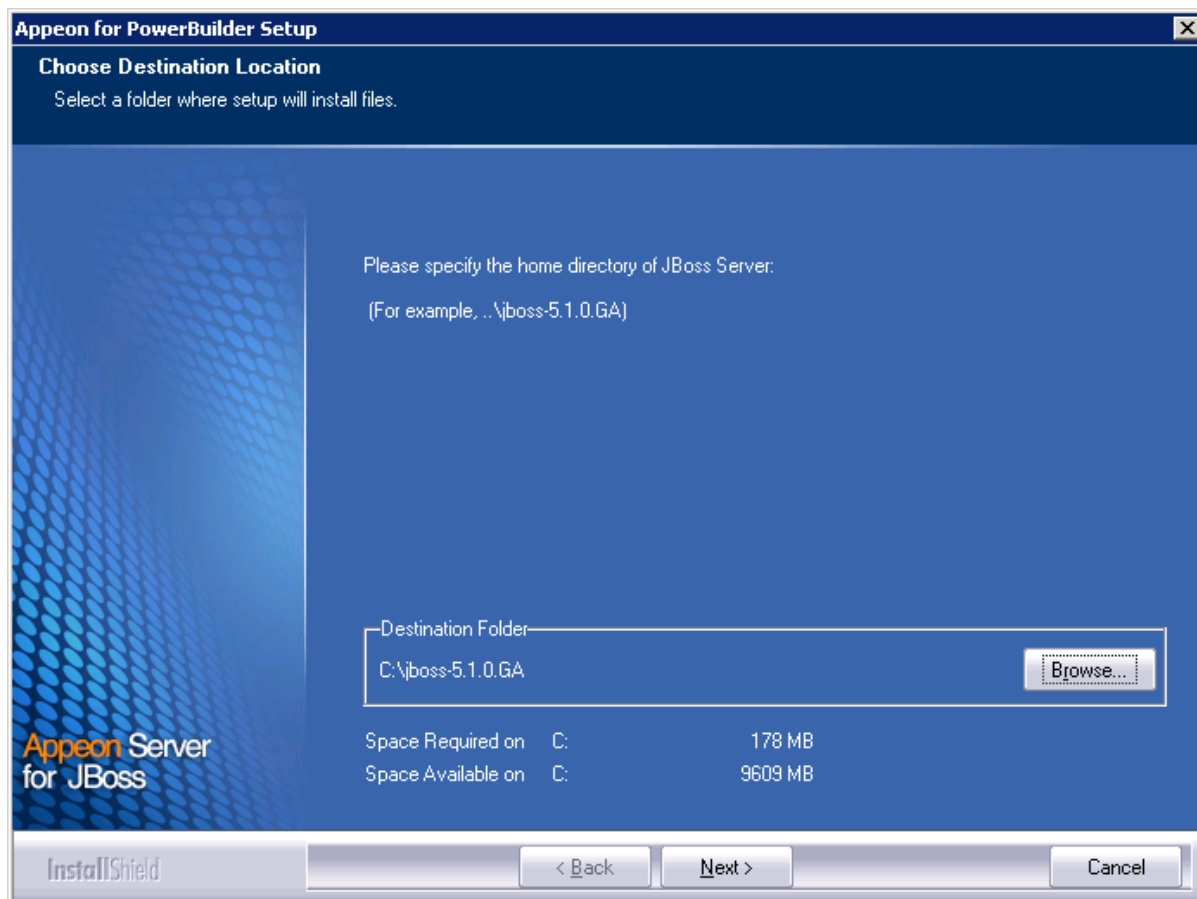
Follow the instructions below to install Appeon Server to the JBoss Application Server:

Step 1: Verify that JBoss Application Server, as well as any other programs you may be running, is stopped.

Step 2: Launch the **Appeon for PowerBuilder 2013 R2 Setup** program and select to install **Appeon Server for JBoss** (see [Starting the installation](#)). Wait until Appeon Server completes the preparation.

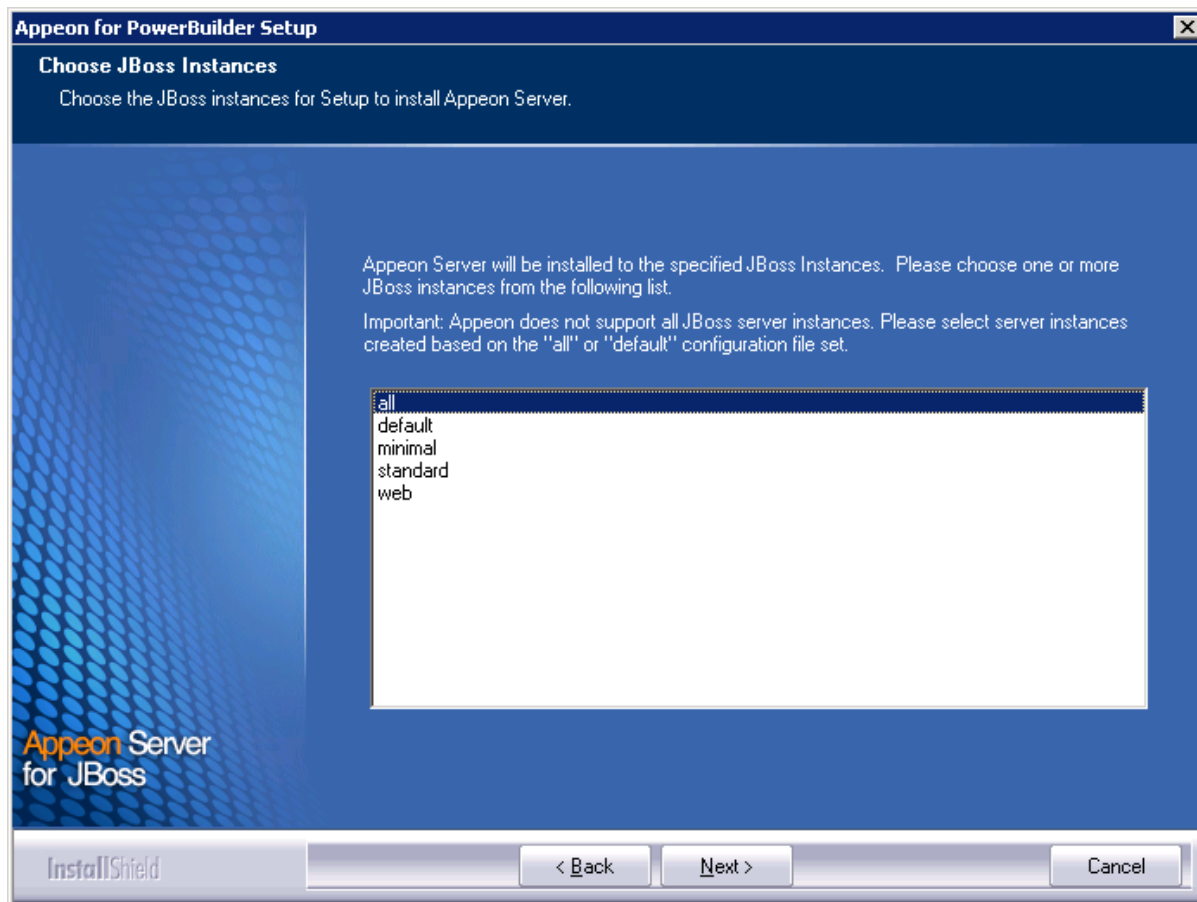
Step 3: Click **Browse** to specify the home directory of the JBoss Application Server where Appeon Server will be installed, for example, C:\Jboss-5.1.0GA. Click **Next**.

Figure 4.6: Specify installation directory

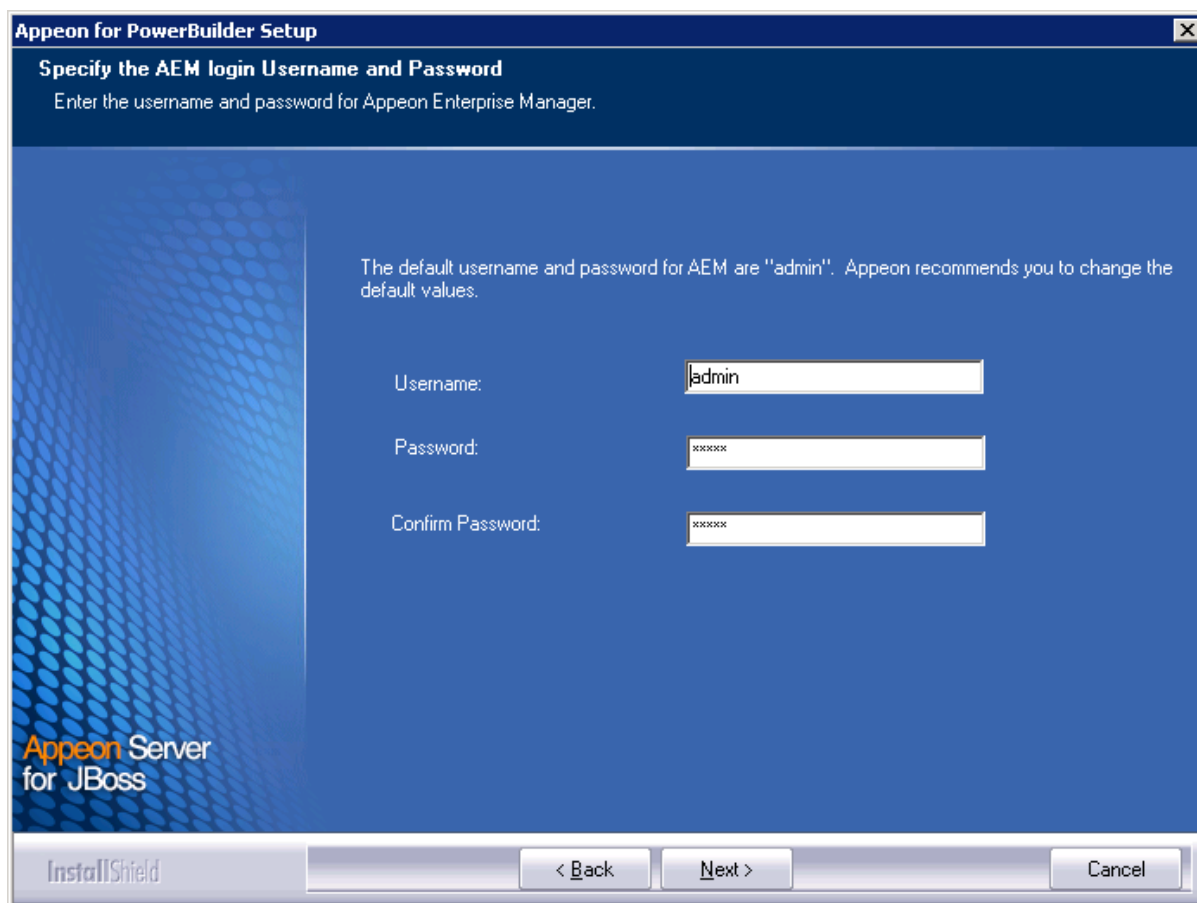


Step 4: Choose one or more JBoss instance(s) from the list. An Appeon Server EAR package (appeonserver.ear) will be deployed to the specified JBoss instance(s).

Please notice that not every JBoss instance is supported by Appeon, only instances created from the **all** or **default** configuration set are supported.

Figure 4.7: Choose JBoss instance

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

Figure 4.8: Configure AEM

Appeon for PowerBuilder Setup

Specify the AEM login Username and Password
Enter the username and password for Appeon Enterprise Manager.

The default username and password for AEM are "admin". Appeon recommends you to change the default values.

Username:

Password:

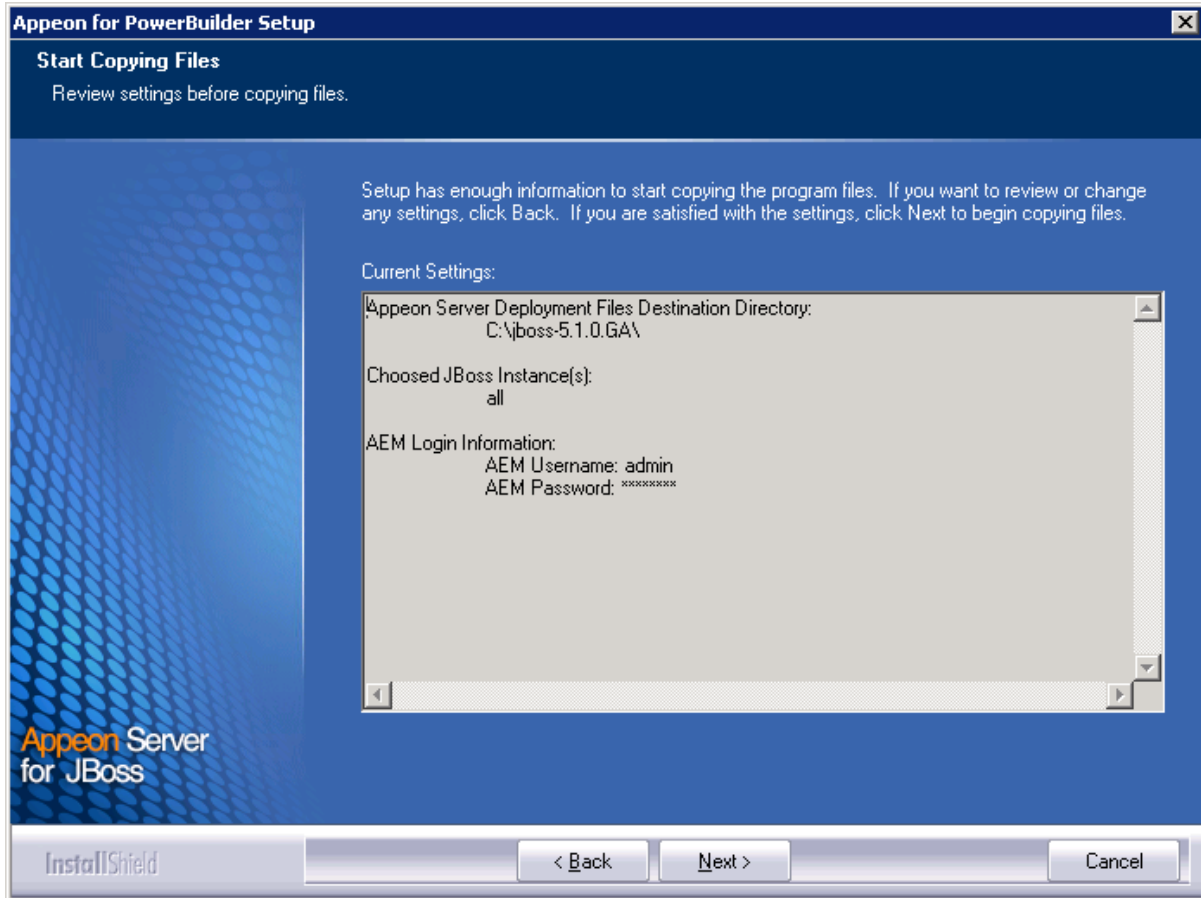
Confirm Password:

InstallShield

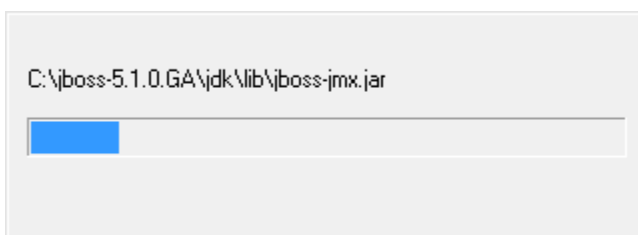
< Back Next > Cancel

Step 6: Check the summary of settings.

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

Figure 4.9: Summary of settings

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

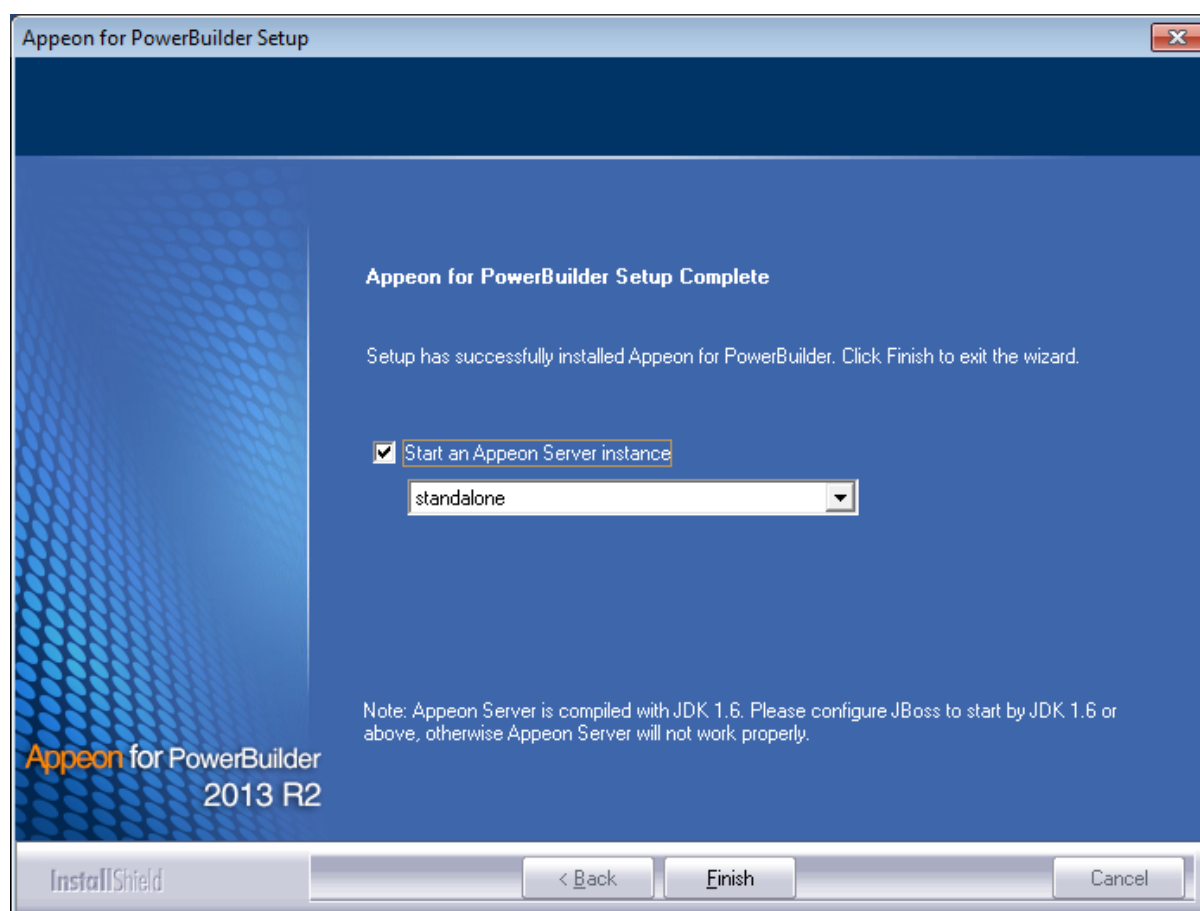
Figure 4.10: Apeon Server installation process

Step 7: Wait until Apeon Server installation is completed.

Apeon Server has been successfully installed to the specified JBoss Application Server home directory and an Apeon Server EAR package (apeonserver.ear) has been successfully deployed to the selected JBoss server instance(s).

Step 8: Choose whether to **Start Apeon Server**. It is selected by default. Then choose an Apeon Server instance to start. To manually start Apeon Server from the Windows shortcut later, uncheck the box, then click **Finish** to end the installation of Apeon Server.

For details about starting Apeon Server, refer to [Starting/Stopping Apeon Server](#).

Figure 4.11: Appeon Server finish page

4.3.3 Appeon Developer installation

4.3.3.1 Prerequisites

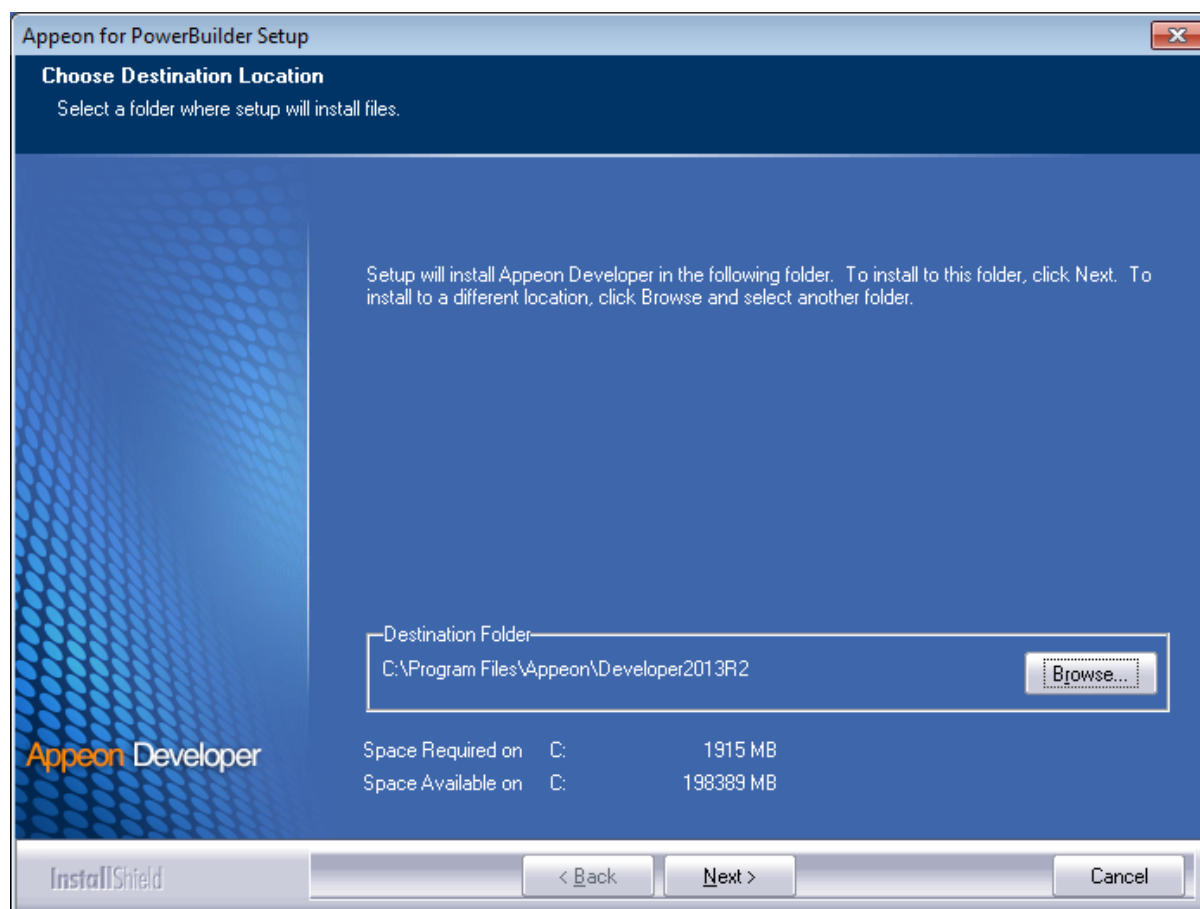
- The Developer PC meets the system requirements in [Appeon Developer requirements](#). Verify that PowerBuilder 9.0.3, 10.2.1, 10.5.2, 11.2, 11.5, 12.0, 12.5, 12.5.2, or 15 is installed or updated by running the PowerBuilder Setup program. You cannot install or update the software by copying files and folders from another source.
- Verify that PowerBuilder has been upgraded to the latest available build.
- Shut down PowerBuilder, ASA/SQL Anywhere, Enterprise Portal Management Agent service, 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.

4.3.3.2 Installation instructions

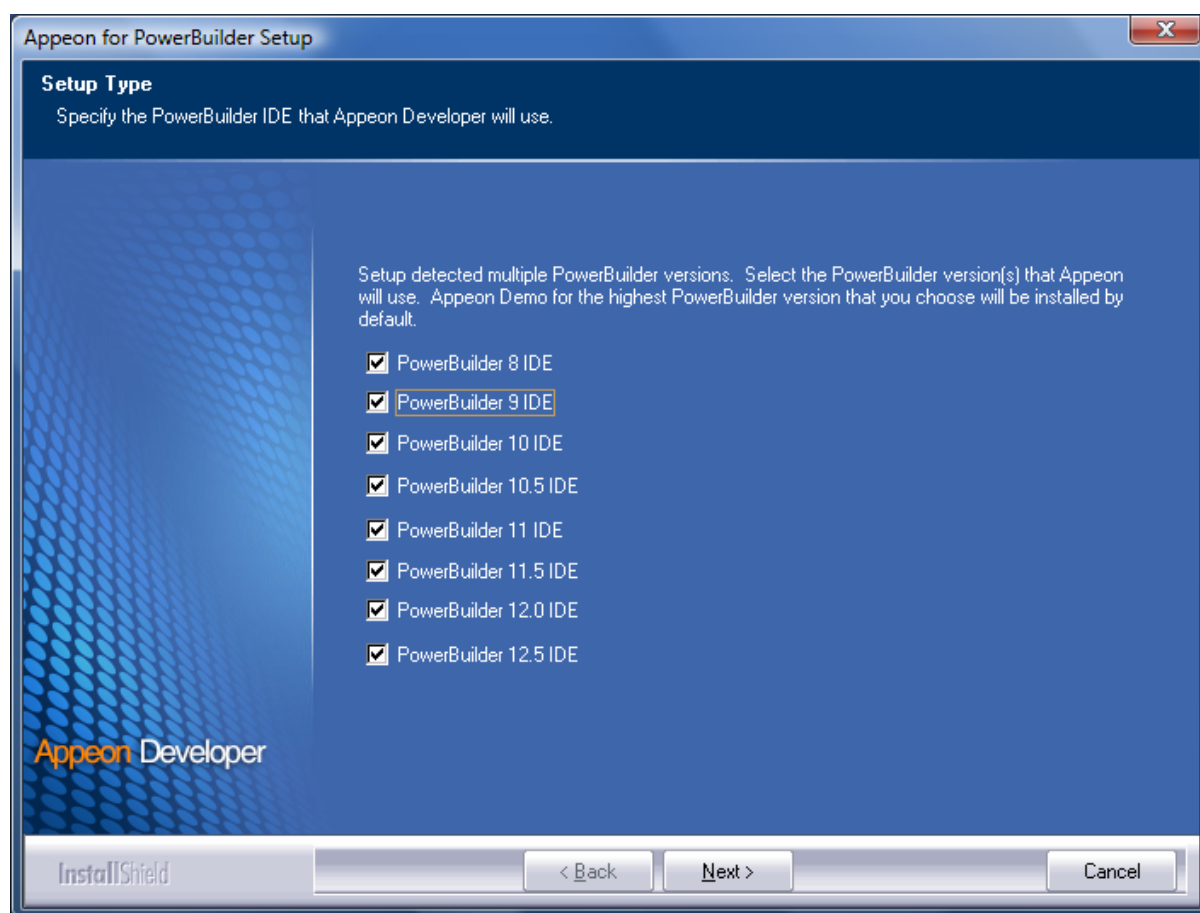
Step 1: Launch the **Appeon for PowerBuilder 2013 R2 Setup** program and select to install **Appeon Developer** (see [Starting the installation](#)).

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

Figure 4.12: Appeon Developer location



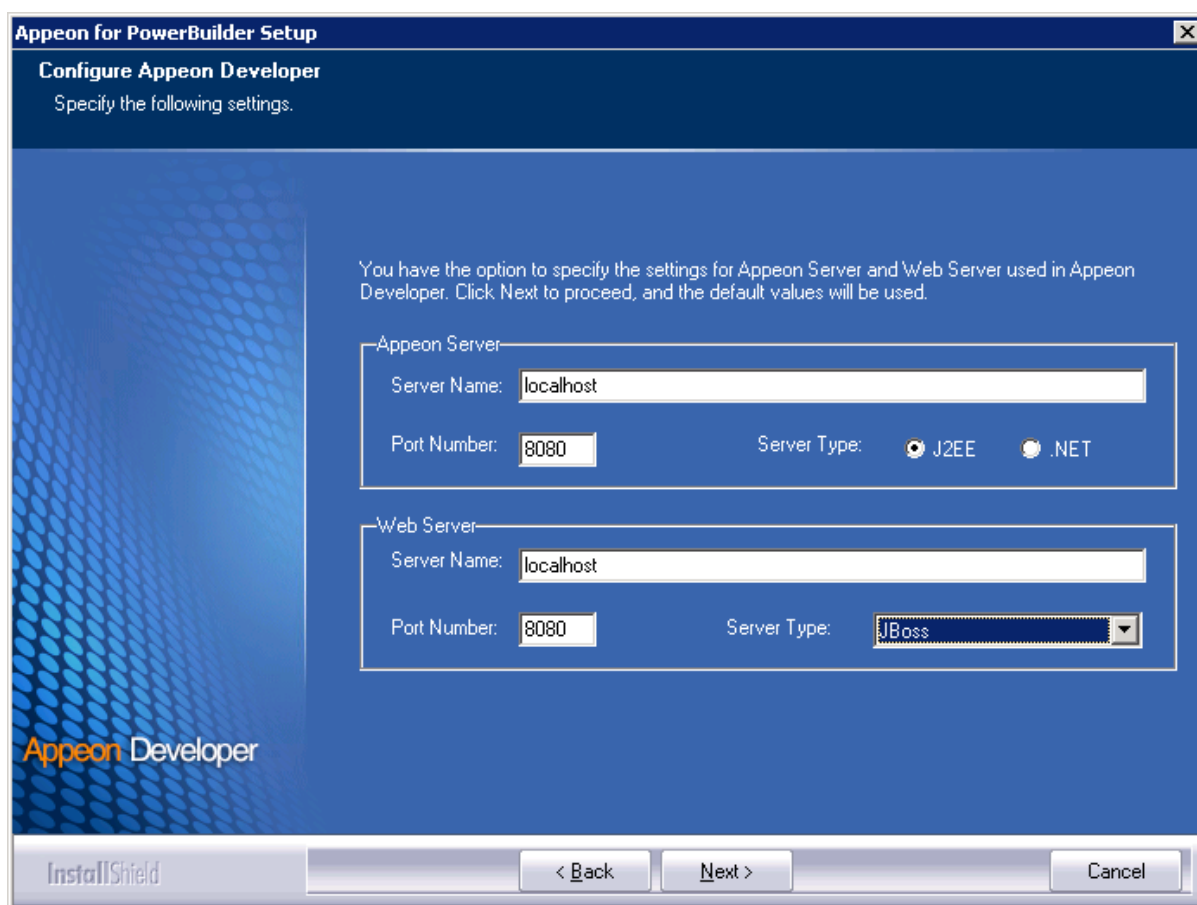
Step 3: If you have more than one PowerBuilder installed, you will be given a choice of which version(s) to integrate into Appeon Developer.

Figure 4.13: 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 JBoss, you must select **J2EE** as Server Type of Appeon Server. Click **Next**.

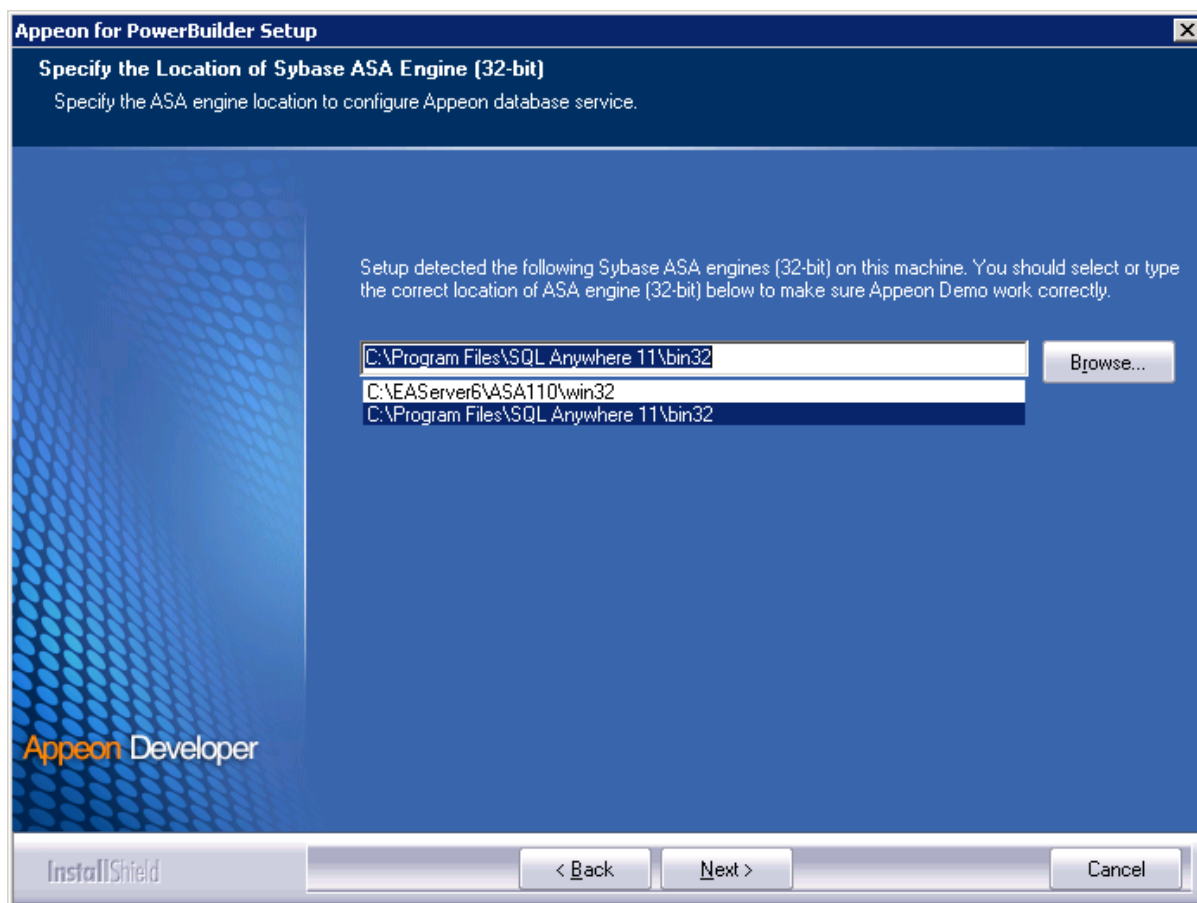
If you want to use an Appeon Server that has been already installed to the same machine where Appeon Developer is being installed, use the default values. If you want to use a remote Appeon Server, specify the server name and port number of the remote server. The setup program can automatically configure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

You can change these settings in the **Configure** tool of Appeon Developer after the installation when necessary.

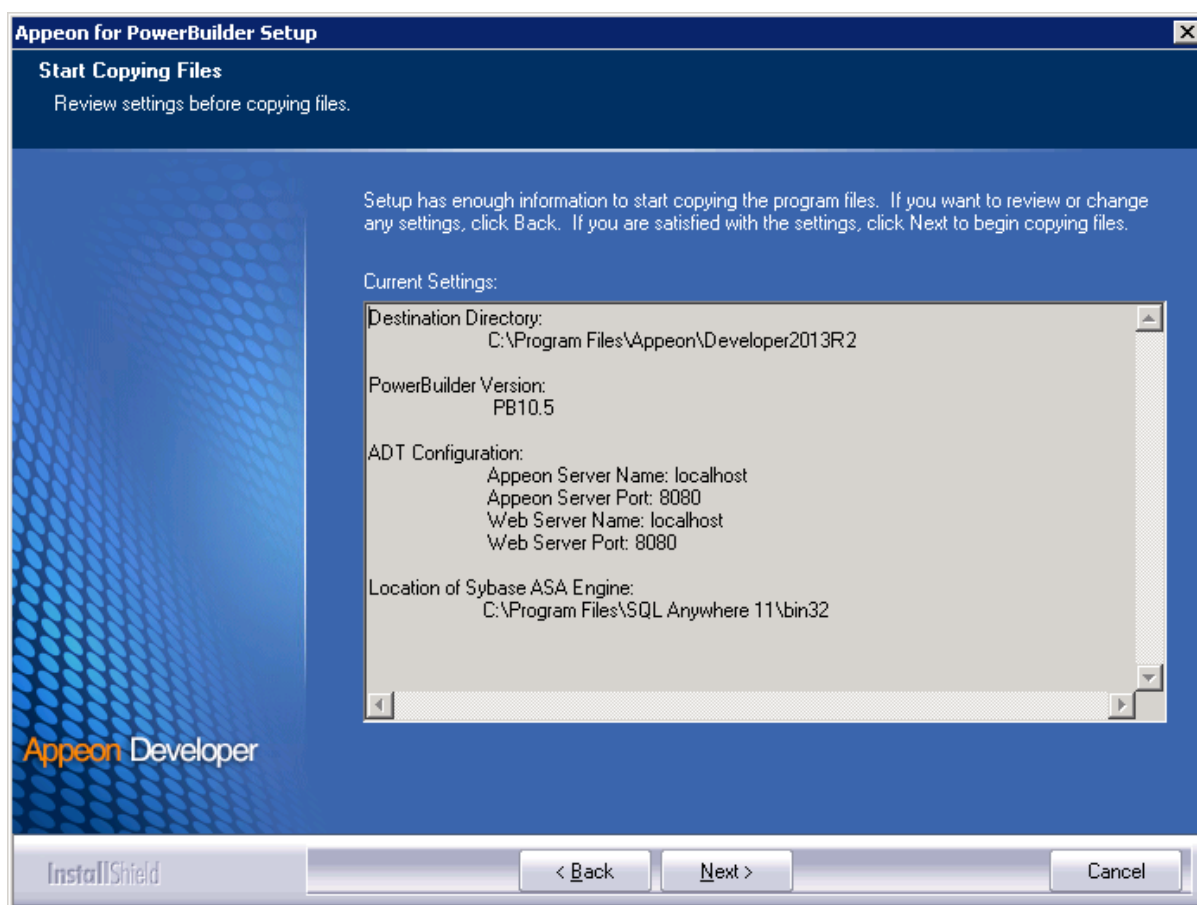
Figure 4.14: Configure Appeon Developer

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

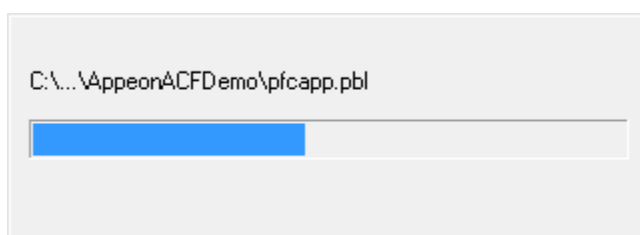
Depending on the version of Appeon Server (32-bit or 64-bit), Setup lists all copies of ASA/SQL Anywhere engines (32-bit or 64-bit) detected in your machine.

Figure 4.15: ASA/SQL Anywhere for Apeon Demo

Step 6: Check the summary of settings.

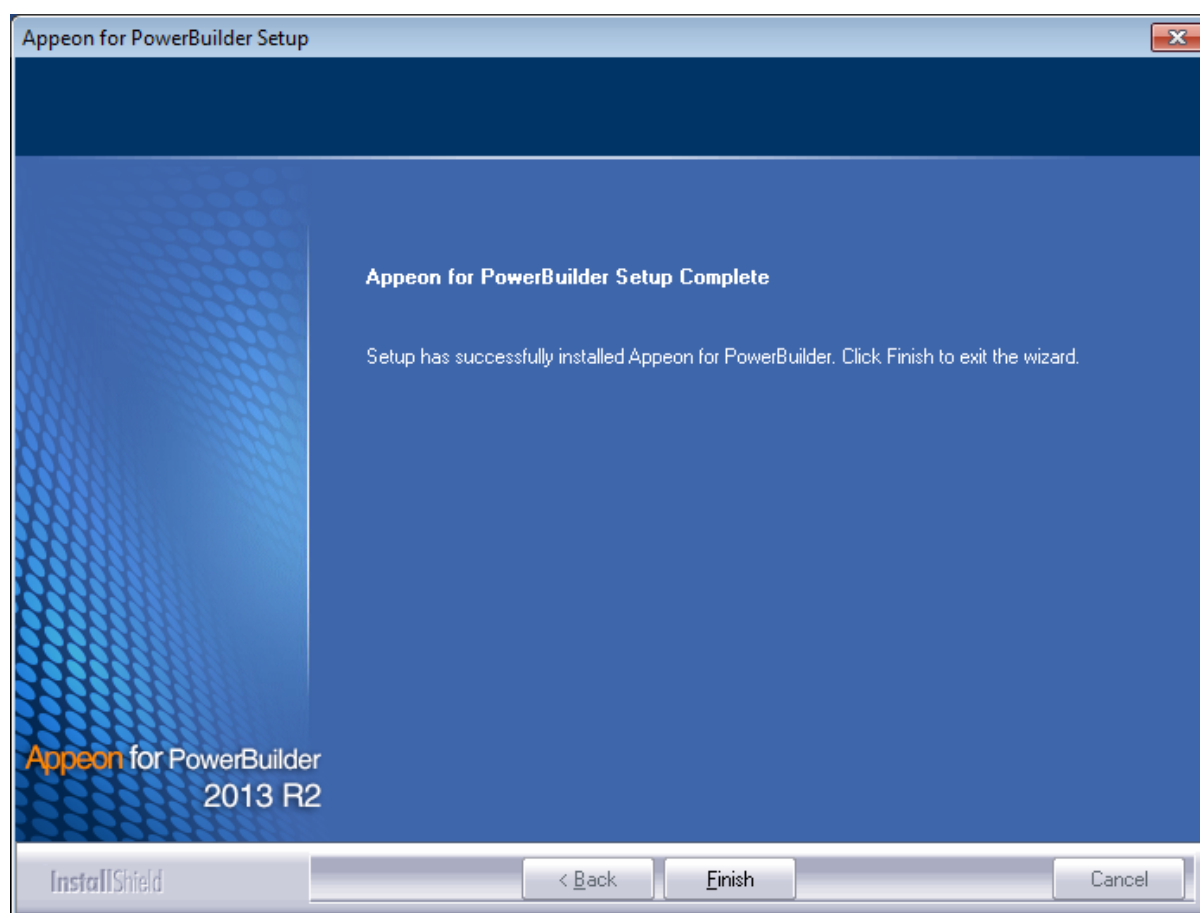
Figure 4.16: Summary of settings

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

Figure 4.17: Appeon Developer installation progress

Step 7: Wait until the installation is complete.

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

Figure 4.18: Setup Complete

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

If you use a third-party Web server 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.

4.3.4.1 Prerequisites

- Install a third-party Web server that is compatible with the JBoss redirector plug-in. For a list of compatible third-party Web servers, refer to [\(Optional\) Third-party Web server requirements](#).
- Stop the Web server and any other Windows programs before beginning the installation process.

4.3.4.1.1 Prerequisites if Web Component installed to multiple third-party Web servers

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

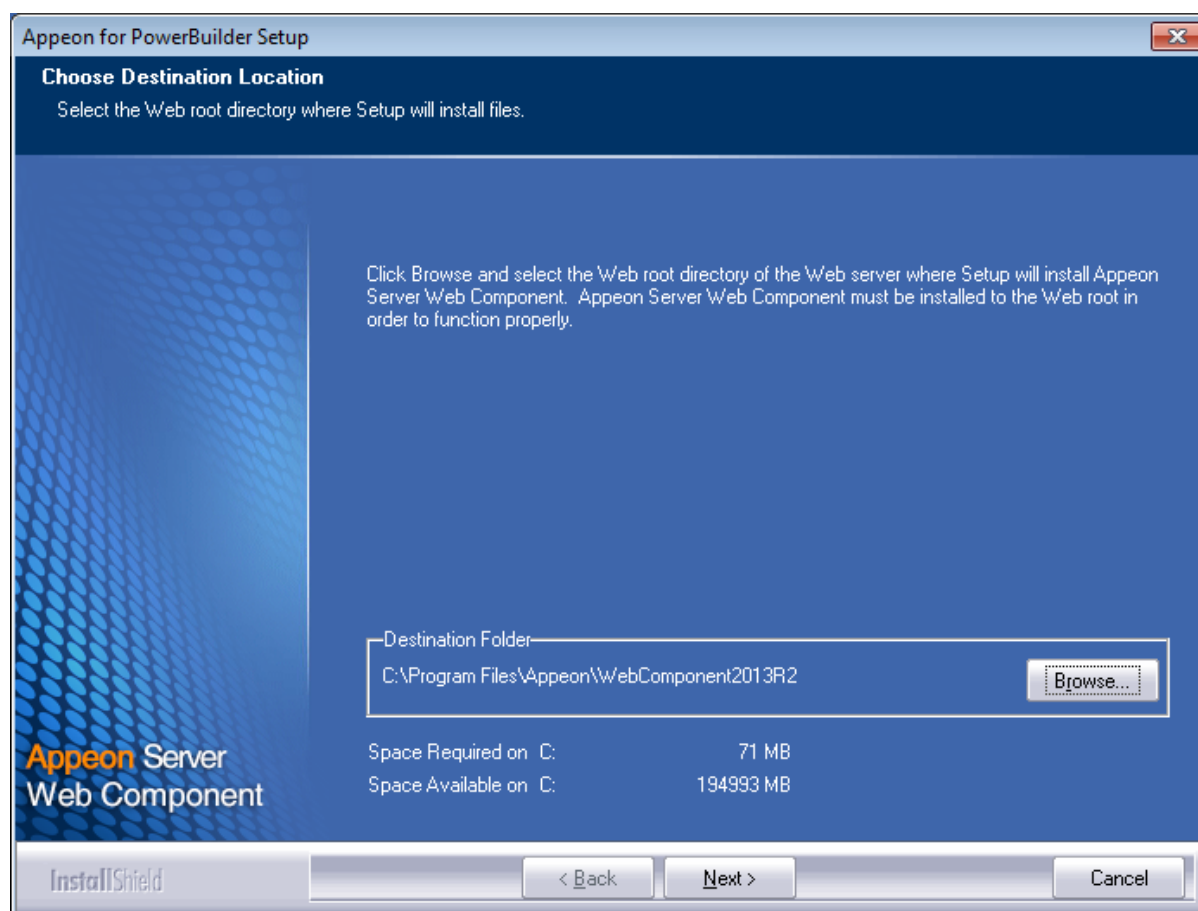
4.3.4.2 Installation instructions

Step 1: Launch the **Appeon for PowerBuilder 2013 R2 Setup** program and select to install **Appeon Server Web Component** (see [Starting the installation](#)).

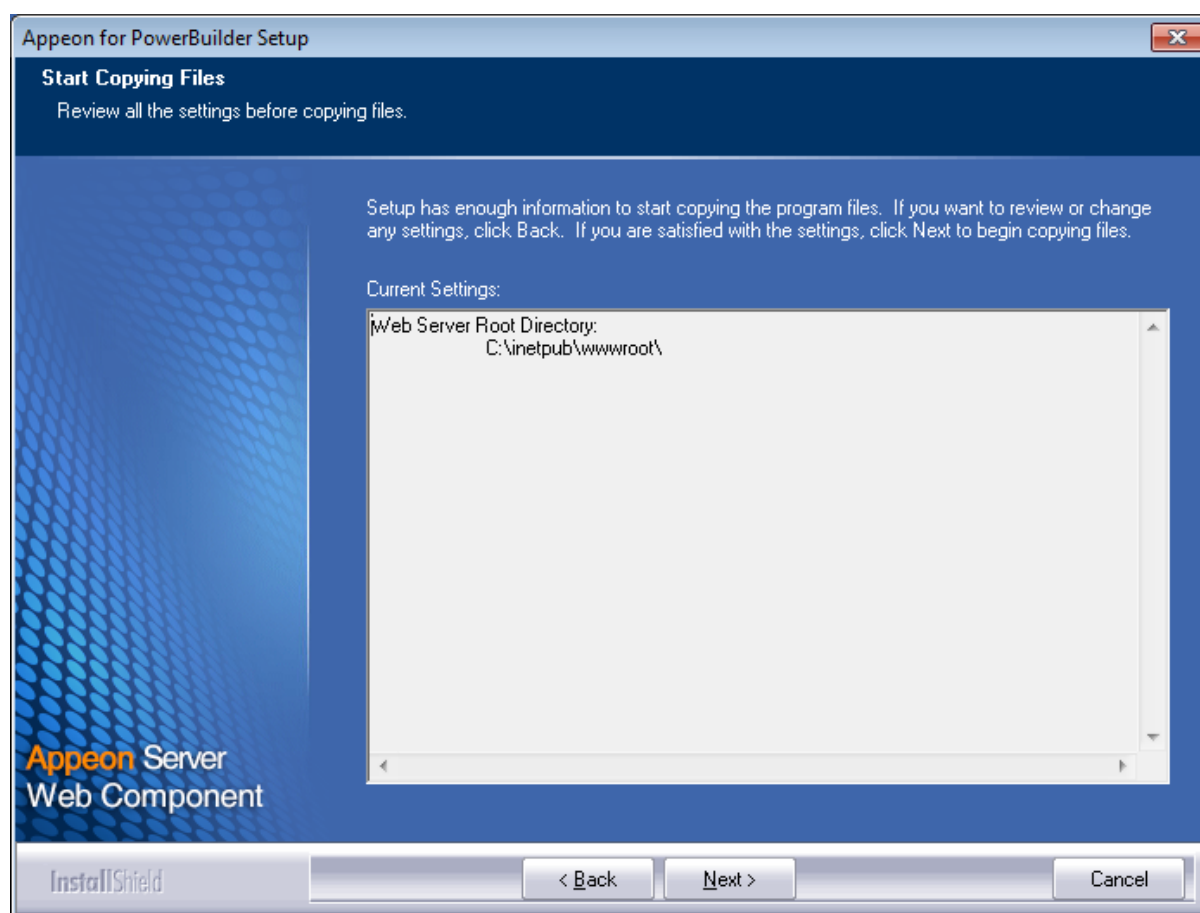
Step 2: Click **Browse** to select the Web root for the Web server (for example, "C:\Program Files\Apache Group\Apache2\htdocs" for Apache 2.0 Web server).

If Appeon Server Web Component is installed to the default path: "C:\Program Files\Appeon\WebComponent2013R2", instead of the Web root of the Web server, you would need to manually copy it to the Web server Web root later in order to run Appeon application.

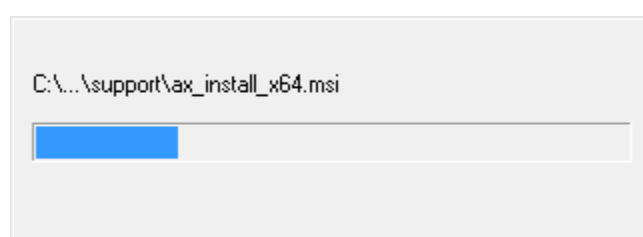
Figure 4.19: Appeon Server Web Component location



Step 3: Check the summary of settings.

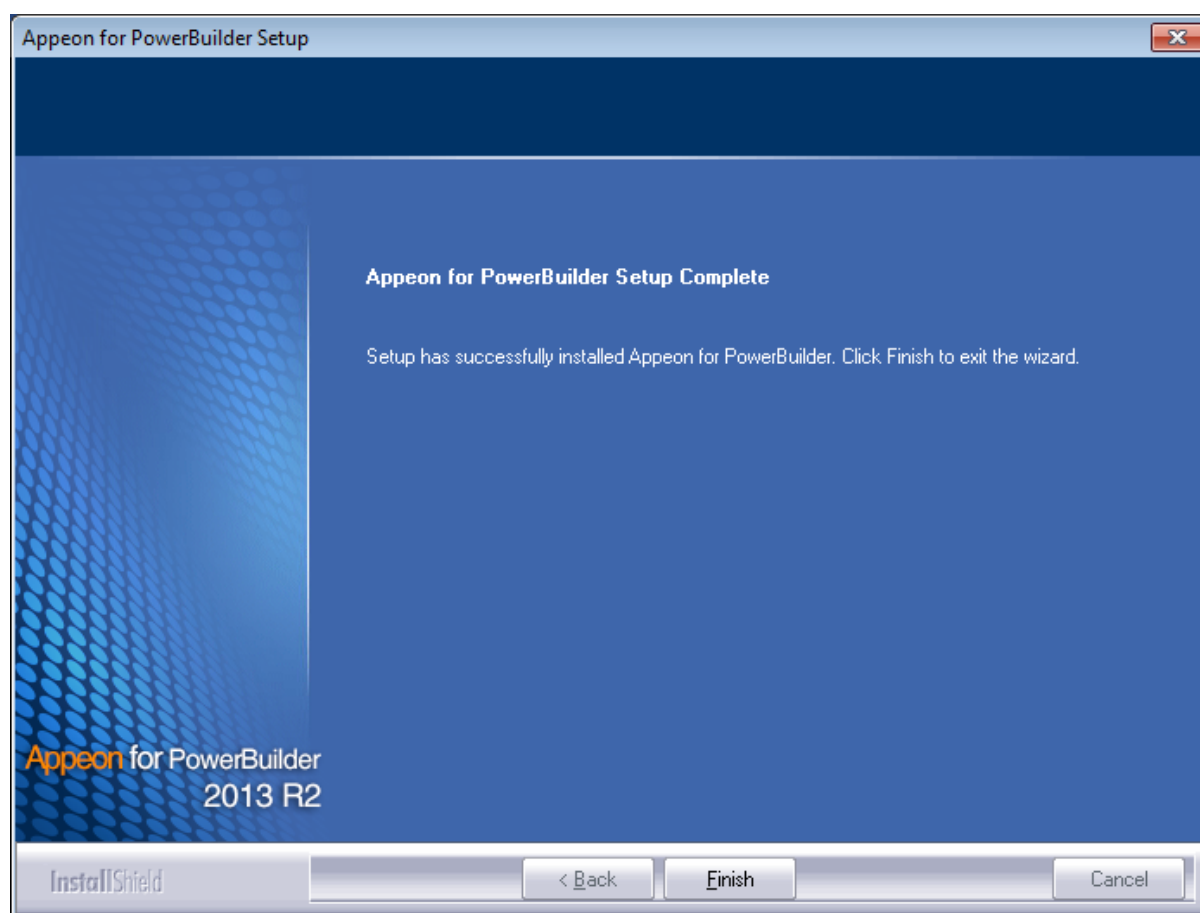
Figure 4.20: Summary of settings

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

Figure 4.21: Apeon Server Web Component installation progress

Step 4: Wait until the installation is complete.

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

Figure 4.22: Setup Complete

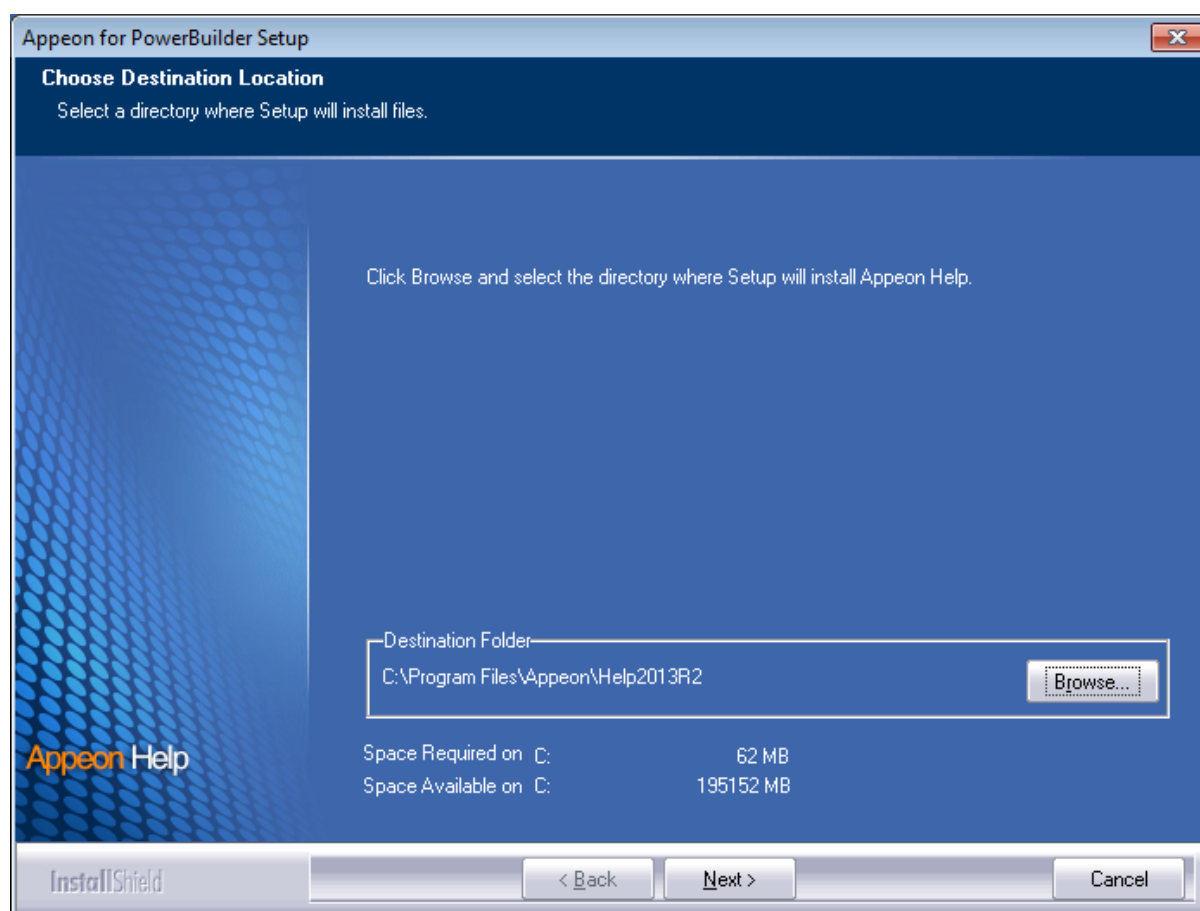
4.3.4.2.1 Installing and configuring the Web server redirector plug-in

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 the *Web Server Configuration Guide*.

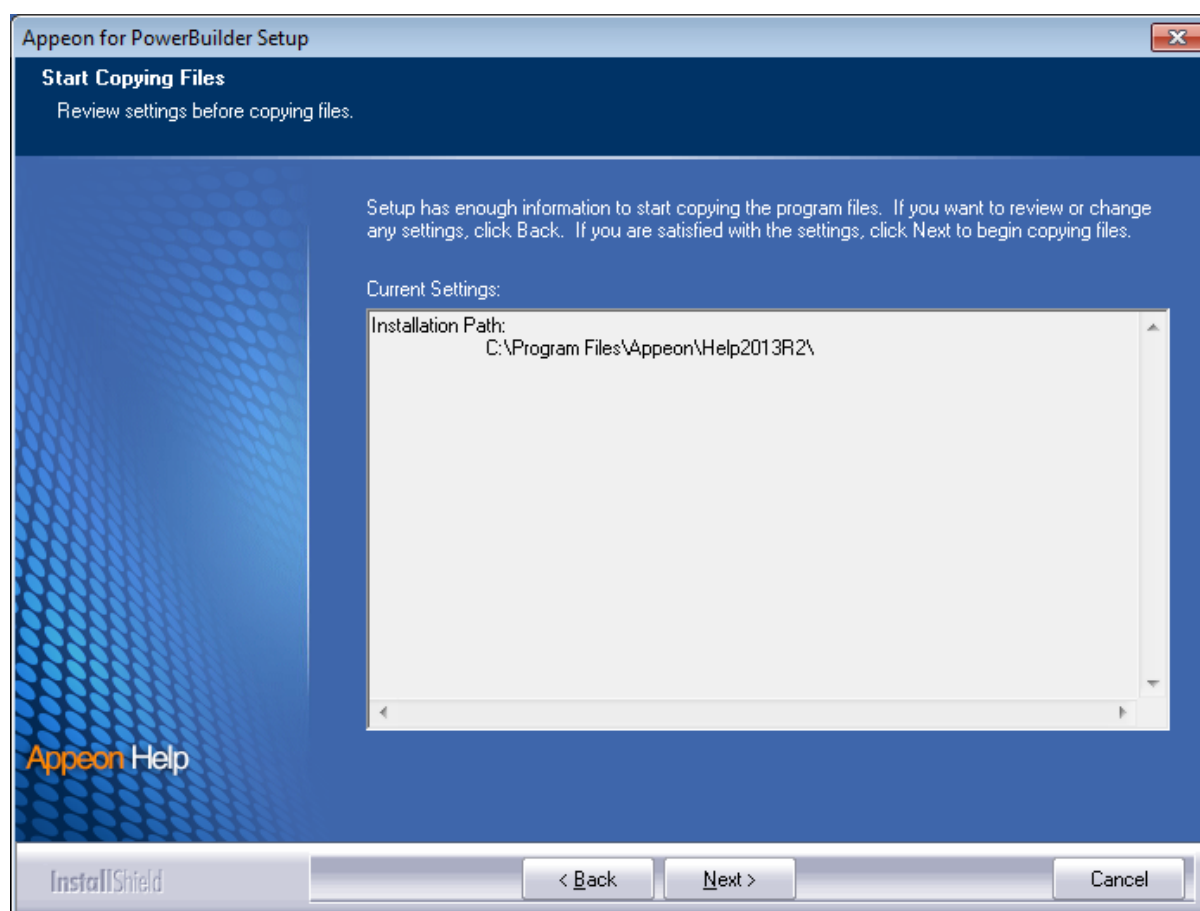
4.3.5 Appeon Help installation

Step 1: Launch the **Appeon for PowerBuilder 2013 R2 Setup** program and select to install **Appeon Help** (see [Starting the installation](#)).

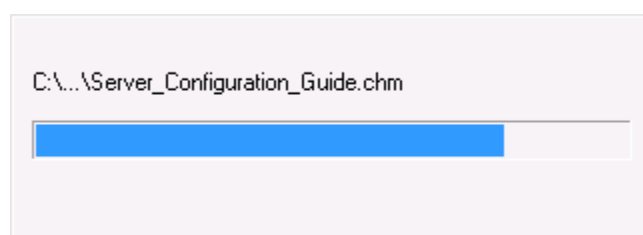
Step 2: Click **Next** to install Appeon Help to the default location, or click **Browse** to select another location.

Figure 4.23: Help location

Step 3: Check the summary of settings.

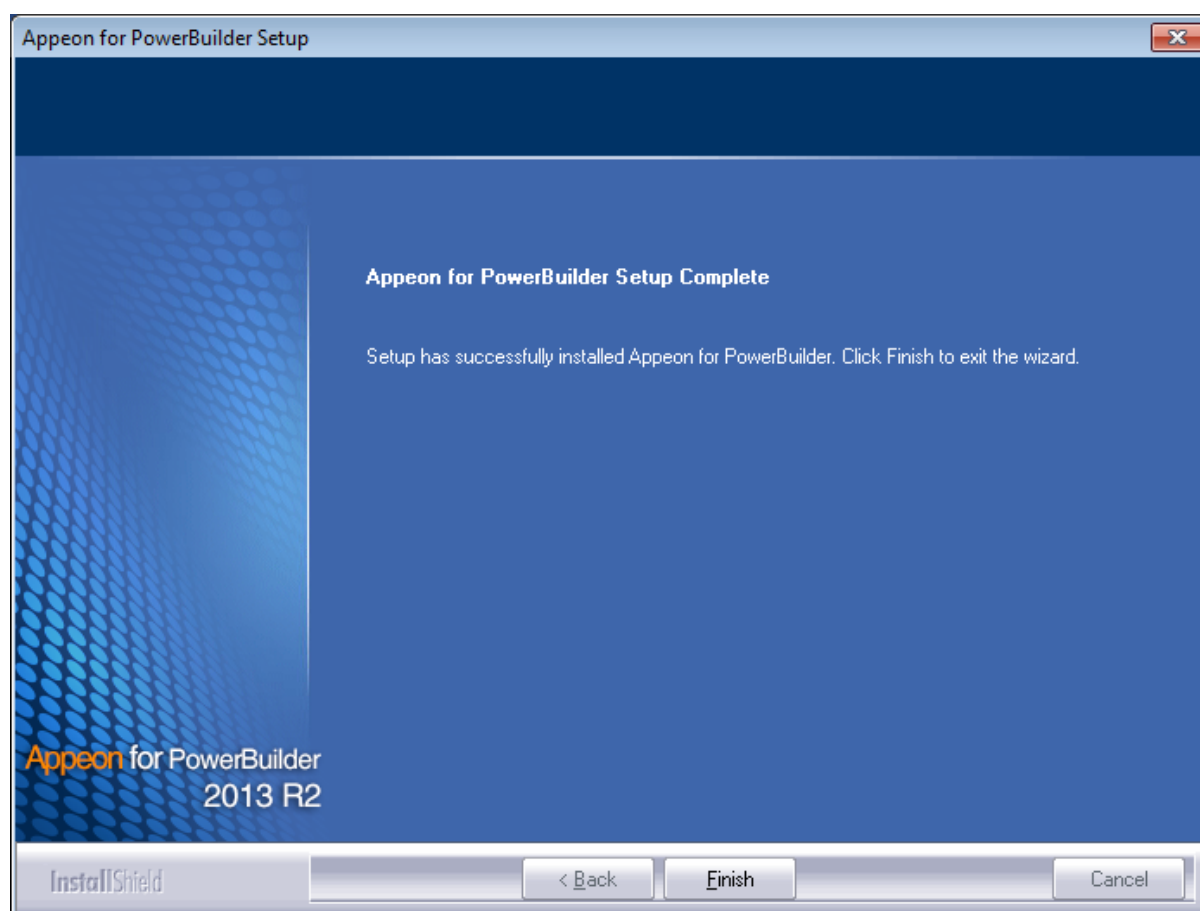
Figure 4.24: Summary of settings

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

Figure 4.25: Appeon Help installation process

Step 4: Wait until the installation is complete.

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

Figure 4.26: Setup complete

4.4 Appeon Web 2013 R2 upgrade installation

4.4.1 Overview

If you have installed Appeon 6.5 or a later version, you can upgrade to Appeon Web 2013 R2, 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 Web 2013 R2.

Note that applications deployed with the old version and the demo applications must be redeployed with Appeon Web 2013 R2 after the upgrade.

4.4.2 Before you upgrade

Before upgrading to Appeon Web 2013 R2, upgrade the system environment as required in [Installation requirements](#). The following highlights key installation requirements added in Appeon Web 2013 R2.

- Upgrade the PowerBuilder version to 9.0.3, 10.2.1, 10.5.2, 11.2, 11.5, 12.0, 12.5, 12.5.2, or 15.
- If using Windows XP as the operating system for Appeon Developer, upgrade to Windows XP SP3.

In addition to the system environment requirements, you should meet the installation prerequisites listed in [Appeon Web 2013 R2 new installation](#) before upgrading each of the Appeon components.

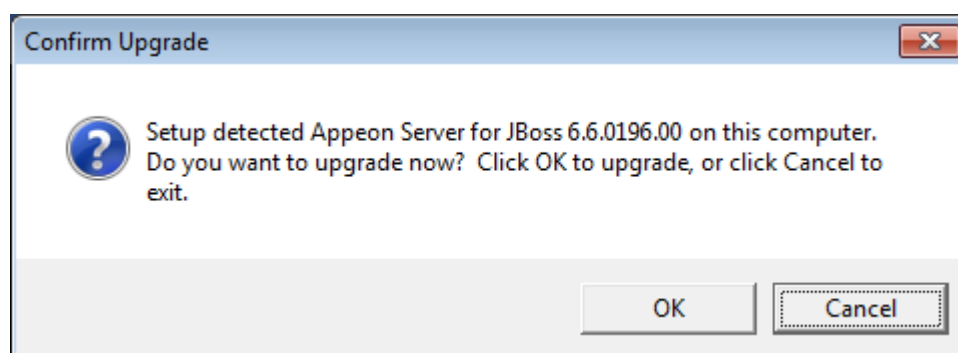
4.4.3 Upgrading to Appeon Web 2013 R2

4.4.3.1 Upgrading Appeon Server

Step 1: Launch the **Appeon for PowerBuilder 2013 R2 Setup** program and select to install **Appeon Server for JBoss** (see [Starting the installation](#)).

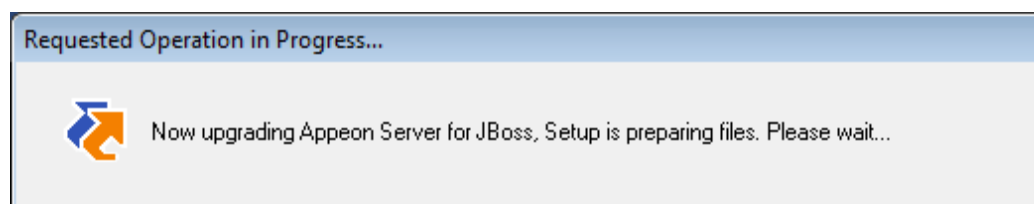
Step 2: Click the **OK** button in the **Confirm Upgrade** message box.

Figure 4.27: Confirm upgrade



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

Figure 4.28: Setup is preparing files



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.

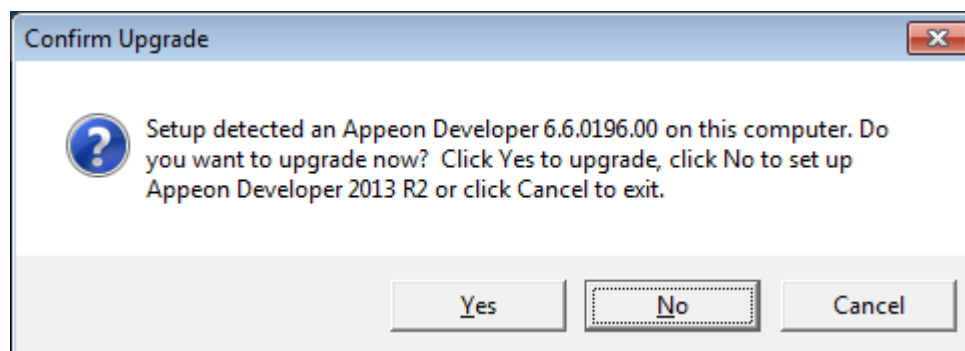
Wait until the upgrade is complete.

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

4.4.3.2 Upgrading Appeon Developer

Step 1: Launch the **Appeon for PowerBuilder 2013 R2 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 4.29: Confirm upgrade

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

Figure 4.30: 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.

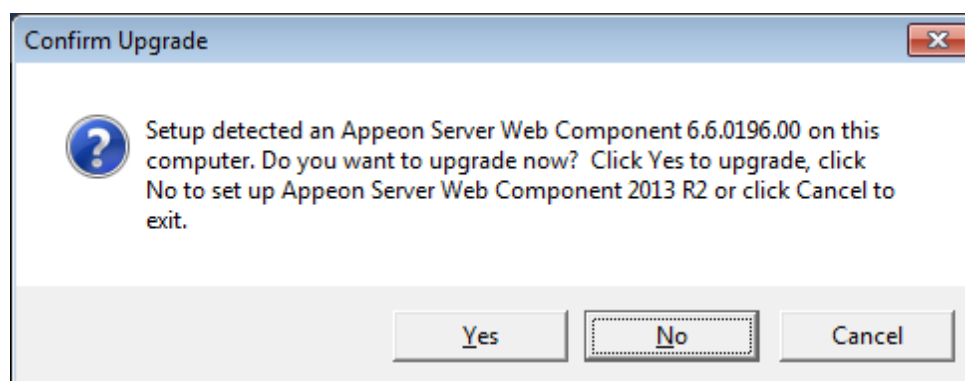
Wait until the upgrade is complete.

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

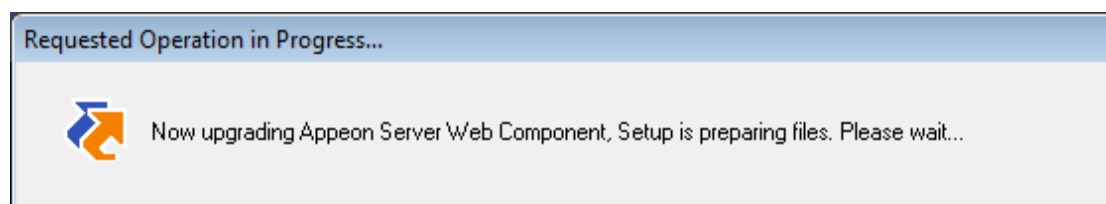
4.4.3.3 Upgrading Appeon Server Web Component

Step 1: Launch the **Appeon for PowerBuilder 2013 R2 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 4.31: Confirm upgrade

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

Figure 4.32: 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.

4.4.4 Upgrade configuration settings manually

After the product upgrade, most configurations made in the old version are retained and will continue to work in Appeon Web 2013 R2. However, because the configuration settings of Appeon Web 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 Web 2013 R2.

Note: If the application uses Appeon Workarounds PBL, you must use the new Appeon Workarounds PBL to replace those of the old version.

4.5 Starting/Stopping Appeon Server

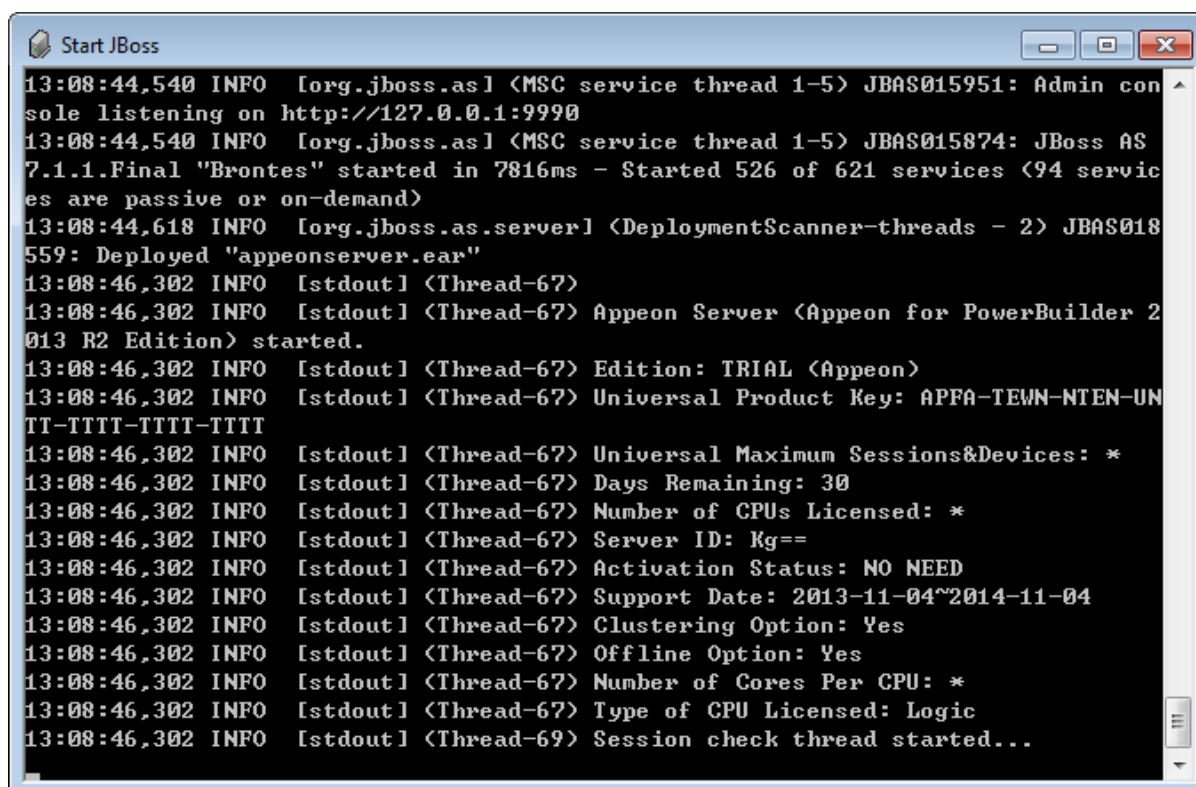
4.5.1 Starting Appeon Server

Once Appeon Server has been installed and integrated into JBoss, starting JBoss server will automatically start Appeon Server. To start JBoss/Appeon Server:

Open the Windows **Start** menu and select **Programs | Appeon for PowerBuilder 2013 R2 | Appeon Server for JBoss | Instances | InstanceName | Start JBoss**.

For Windows Vista, 2008, or 7 with UAC turned on, 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 **Start JBoss** shortcut menu and then select **Run as administrator** to start JBoss AS/Appeon Server.

When the server startup process is completed, the following message will appear in the command window.

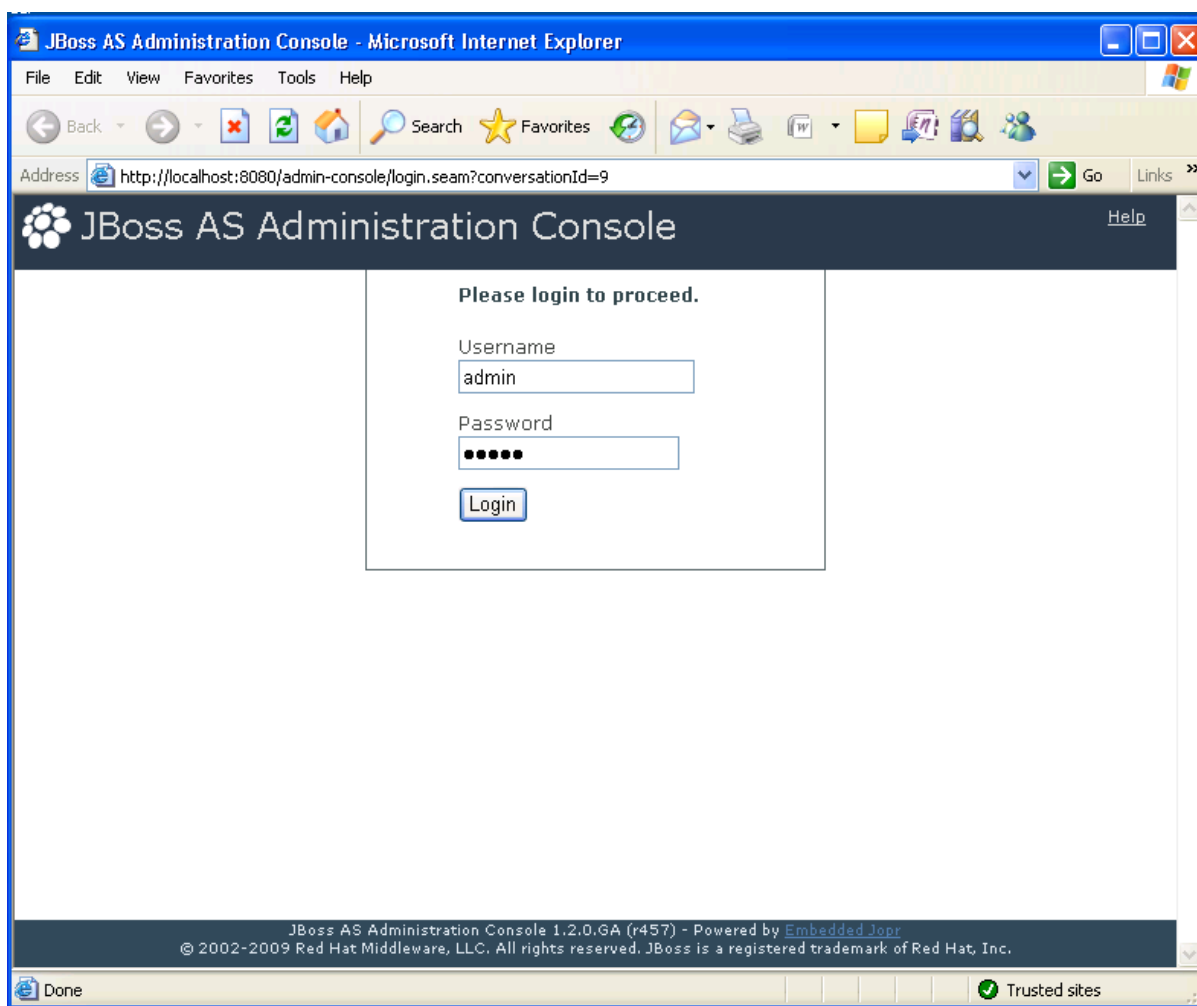
Figure 4.33: Startup complete

```
Start JBoss
13:08:44,540 INFO [org.jboss.as] (MSC service thread 1-5) JBAS015951: Admin console listening on http://127.0.0.1:9990
13:08:44,540 INFO [org.jboss.as] (MSC service thread 1-5) JBAS015874: JBoss AS 7.1.1.Final "Brontes" started in 7816ms - Started 526 of 621 services (94 services are passive or on-demand)
13:08:44,618 INFO [org.jboss.as.server] (DeploymentScanner-threads - 2) JBAS018559: Deployed "appeonserver.ear"
13:08:46,302 INFO [stdout] (Thread-67)
13:08:46,302 INFO [stdout] (Thread-67) Appeon Server (Appeon for PowerBuilder 2013 R2 Edition) started.
13:08:46,302 INFO [stdout] (Thread-67) Edition: TRIAL (Appeon)
13:08:46,302 INFO [stdout] (Thread-67) Universal Product Key: APFA-TEWN-NTEN-UNTT-TITT-TITT-TITT
13:08:46,302 INFO [stdout] (Thread-67) Universal Maximum Sessions&Devices: *
13:08:46,302 INFO [stdout] (Thread-67) Days Remaining: 30
13:08:46,302 INFO [stdout] (Thread-67) Number of CPUs Licensed: *
13:08:46,302 INFO [stdout] (Thread-67) Server ID: Kg==
13:08:46,302 INFO [stdout] (Thread-67) Activation Status: NO NEED
13:08:46,302 INFO [stdout] (Thread-67) Support Date: 2013-11-04~2014-11-04
13:08:46,302 INFO [stdout] (Thread-67) Clustering Option: Yes
13:08:46,302 INFO [stdout] (Thread-67) Offline Option: Yes
13:08:46,302 INFO [stdout] (Thread-67) Number of Cores Per CPU: *
13:08:46,302 INFO [stdout] (Thread-67) Type of CPU Licensed: Logic
13:08:46,302 INFO [stdout] (Thread-69) Session check thread started...
```

4.5.2 Logging in to JBoss Server Administration Console

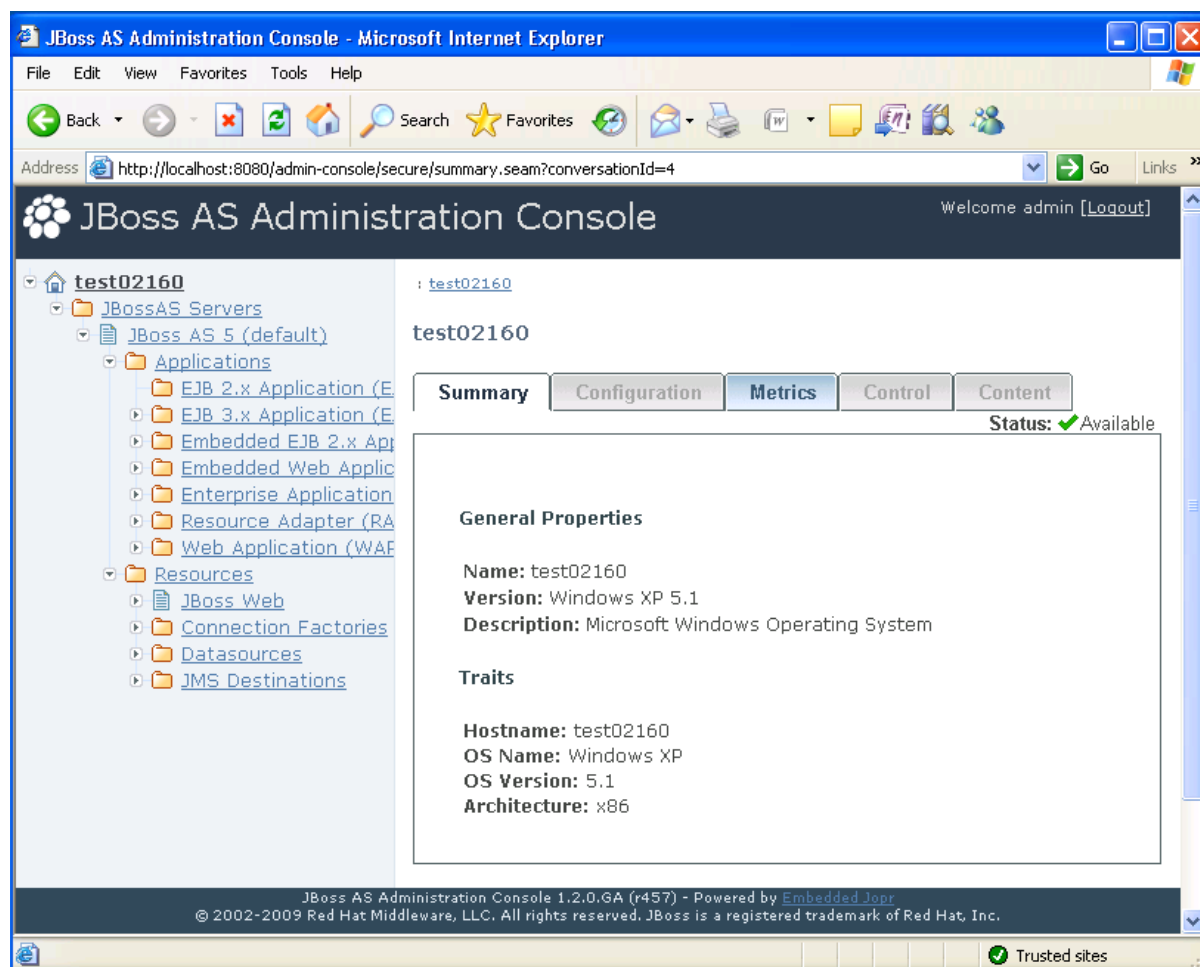
Step 1: From the computer on which the JBoss server is running, open the Windows **Start** menu and select: **Programs | Appeon for PowerBuilder 2013 R2 | Appeon Server for JBoss | Instances | InstanceName | JBoss Manager**.

The Logon page of **JBoss AS Administration Console** appears.

Figure 4.34: Logon page

Step 2: Input user name and password to log in to the Administration Console.

The **JBoss AS Administration Console** main page appears.

Figure 4.35: Main page

4.5.3 Stopping Apeon Server

Stopping JBoss server will shut down Apeon Server.

If you have any problems in using JBoss Server, refer to the JBoss server documents at <http://www.jboss.org/docs/index>.

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 JBoss servers, 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 **Tutorial 5: Configure Appeon Server Cluster** in *Appeon Mobile Tutorials*.

1. Install **Appeon Server** to multiple JBoss servers.
2. Create **Appeon Server cluster** in AEM.
3. Configure the **Web server** for the Appeon Server cluster.
4. Deploy the 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 Apeon system architecture, including installing Apeon for PowerBuilder components, as well as configuring Apeon Server cluster. Once the Apeon 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 Apeon system architecture that affect the running of all applications but do not include configuration tasks performed in Apeon Developer and Apeon Enterprise Manager for specific applications.

Table 6.1: Post-installation tasks

Task	Description	Detailed Instructions Given in...
Configuration for the client machine	The IE security settings and Windows login user privileges may prevent downloading the Apeon Xcelerator plug-in.	Configuration for client machine
System language setting	Configuration required for the client, Apeon Server and database server. The operating system language settings can affect the characters that are displayed in the deployed application.	System language settings
Database JDBC driver preparation	Configuration required for Apeon Server. You should copy the corresponding driver files for the database server in use to the JBoss server installation folder in the machine hosting Apeon Server.	JDBC driver preparation in the <i>Apeon Server Configuration Guide</i>
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 Unix/Linux.	DataWindow Data Cache in the <i>Apeon Server Configuration Guide</i>
Configuration for supporting dynamic DataWindows	Configuration required for database server. Configuration at the database server is required for support of dynamic DataWindows.	Dynamic DataWindow in the <i>Supported</i>

Task	Description	Detailed Instructions Given in...
		<i>PB Features for Appeon Web</i>
Configuration for fixing an ASE issue	<p>Appeon provides several SQL files for you modifying the chain modes of stored procedures in ASE database to avoid the following error:</p> <p>"Select error: Stored procedure... may be run only in unchained transaction mode"</p>	ASE Chained mode issue in the <i>Appeon Troubleshooting Guide</i>

6.2 Configuration for client machine

Running the deployed 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 application is run, the following configuration on the client machine is required.

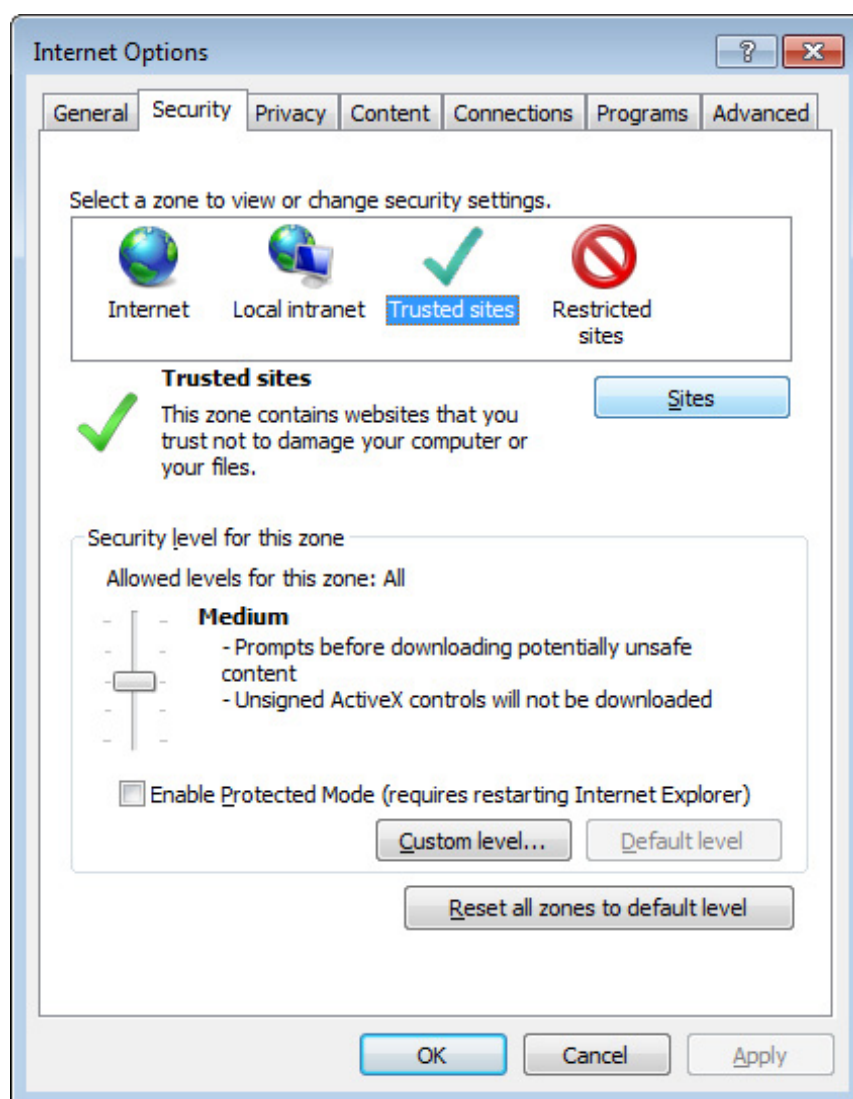
For more information about the Appeon ActiveX file and the manual installation method, refer to the "Installing Appeon ActiveX Control" section in Supported PB Features for Appeon Web.

6.2.1 Configuring IE security settings

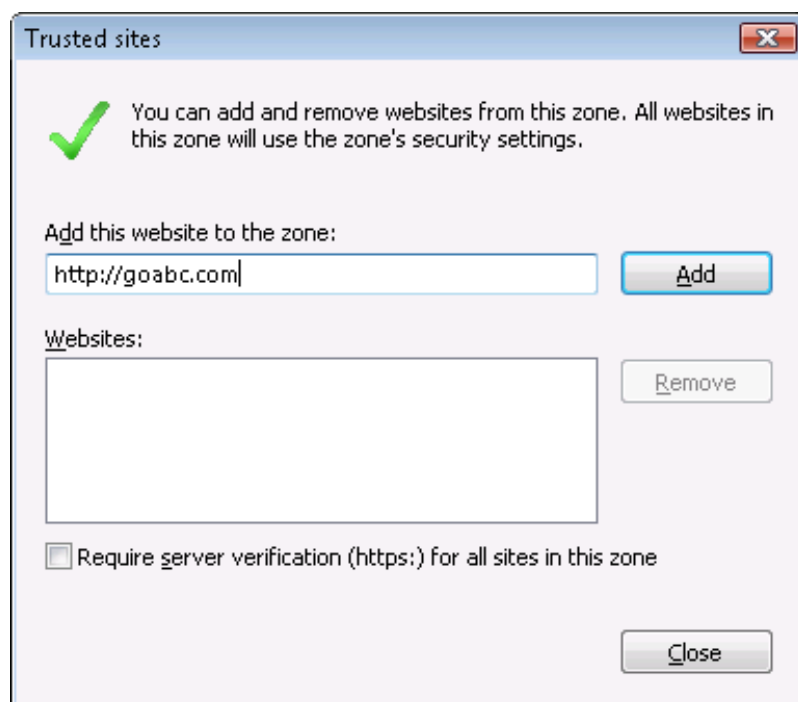
We recommend you add the URL of Appeon Web application to the **Trusted Sites** zone in Internet Explorer, because the default security settings of this zone are appropriate for downloading and installing the Appeon ActiveX controls. However, if you do not want to add the URL to the Trusted Sites zone, 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.

Figure 6.1: IE security settings

Step 3: In the Trusted sites window, input the URL of the Web 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 6.2: 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

Different Internet Explorer versions require different user privileges for installing the ActiveX control.

- If using IE 8.0, 9.0 or 10 on Windows Vista/7/2008, you do not need administrative privileges to download and register the ActiveX control; you can log into the machine as a normal user.
- If using IE 8.0, 9.0 or 10 on Windows XP/2003, or if using IE 7.0 or earlier, you must log in as a member of the Administrator group so you have the permissions to download and register the ActiveX control successfully.

Please read the appropriate section for the IE version you are using.

A useful tip: In very rare cases, even after making the required configurations, you still get errors such as "Apeon Xcelerator plug-in cannot be loaded" or "Internet Explorer cannot open the Internet site http://<Web site>. Operation aborted.", you can try this to resolve the error: right click the **Internet Explorer** icon on desktop, choose **Run as administrator**; after the Web application runs successfully, restart IE in the normal way.

6.2.2.1 Using IE 8.0, 9.0 or 10

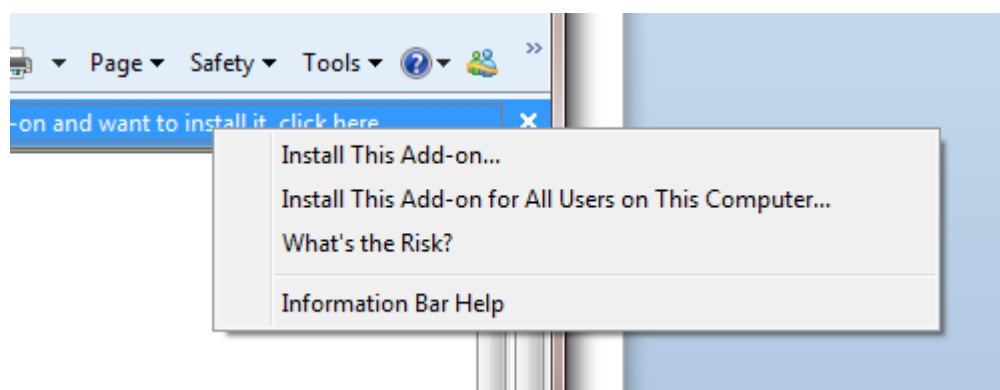
- If you are using IE 8.0, 9.0 or 10 on Windows Vista/7/2008, follow the prompts in IE information bar to install the ActiveX control, no matter which user account (administrator or normal user) you use.
- If you are using IE 8.0, 9.0 or 10 on Windows XP/2003, first log in as an Administrator group member, then follow the prompts in IE information bar to install the ActiveX control, then log off and log in again as a normal user.

The following are detailed steps to install the ActiveX control from the IE information bar:

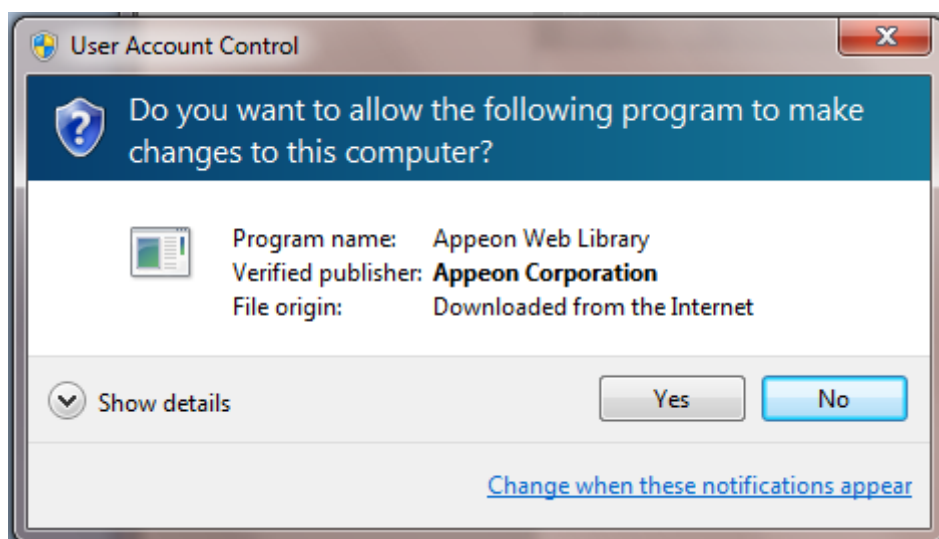
Step 1: Click the IE information bar, the yellow message bar at the top, that says, "This website wants to install the following add-on: 'Apeon Web Library' from 'Apeon Corporation'. If you trust the website and the add-on and want to install it, click here...".

Step 2: Select "Install This Add-on for All Users on This Computer...". This will complete the installation of the first Apeon ActiveX control. (Note: you will need to do this step one more time, as there are two Apeon ActiveX controls to install.)

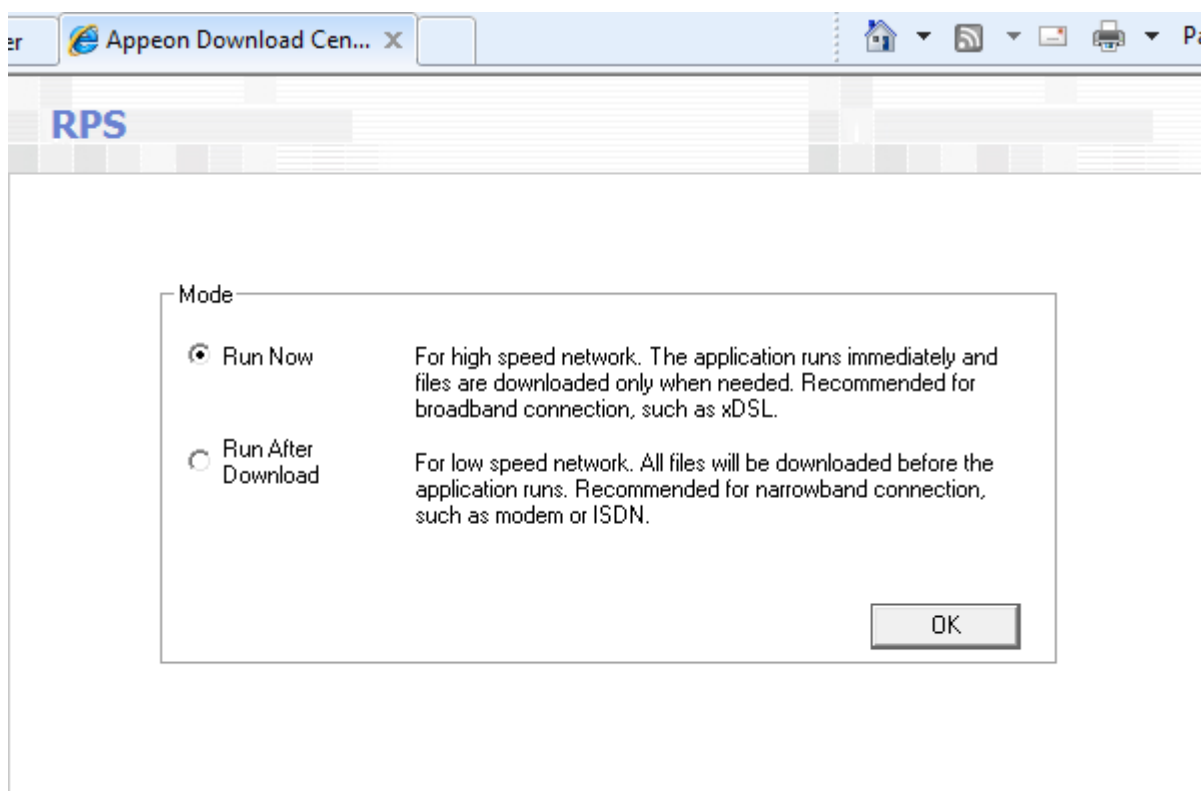
Figure 6.3: IE information bar



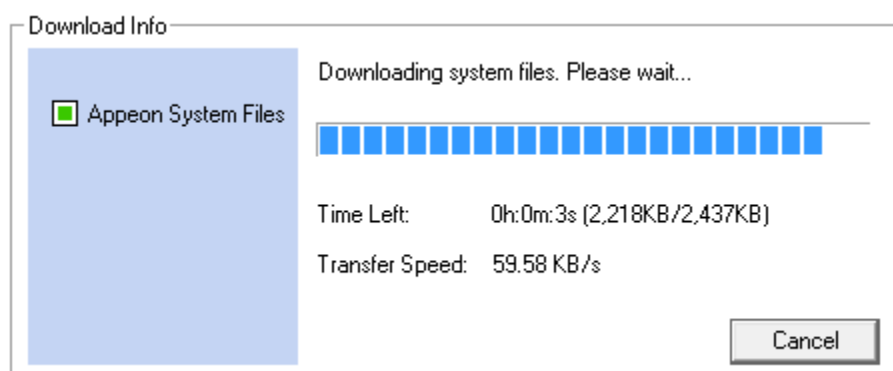
Step 3: Click **Yes** if Windows display the following "User Account Control" screen confirming that you want to install the component.

Figure 6.4: UAC window

The installation will proceed and when it is successful, the following web page will be displayed.

Figure 6.5: Appeon download center

Step 4: Click the **OK** button and the system will begin the download process.

Figure 6.6: Download file

Step 5: After this process is complete, you will see the "Apeon Xcelerator plug-in cannot be loaded" screen again. Click the IE information bar and select "Install This Add-on for All Users on This Computer..." one more time (this will install the second plug-in). This time you will see a spiraling wait icon and at the bottom left side on the status bar, you will see several program files being loaded. Once this process is completed, the application is ready to be used.

6.2.2.2 Using IE 7.0 (or earlier)

If you are using IE 7.0 or earlier, you need to first log in as an Administrator group member, then follow the prompts in IE information bar to install the ActiveX control, then log off and log in again as a normal user.

For Windows Vista, 2008, or 7, if UAC is on, when you follow the prompts in the IE information bar to install the ActiveX control, a window as below may appear, you need to input the administrator password and click **OK**; then the ActiveX control will be installed successfully.

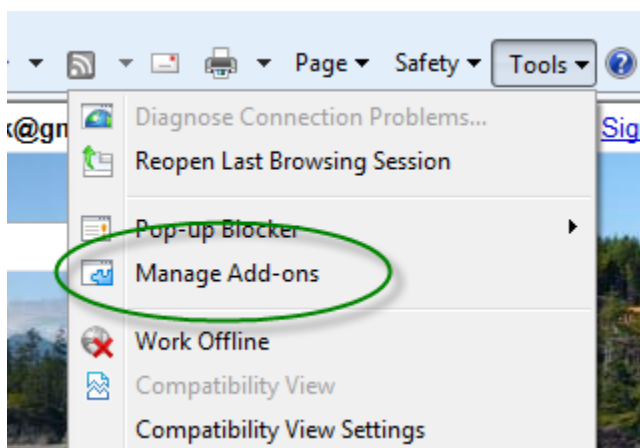
Figure 6.7: User Account Control

If you are using IE 7, make sure IE is not started in "No-Add-ons" mode, as IE browser started in this mode will not be able to run the Apeon ActiveX control. In this case, exit IE and restart it in normal mode.

6.2.3 Verifying Apeon ActiveX control installation

We recommend you verify the installation of Apeon ActiveX controls, especially after you upgrade Internet Explorer or Apeon for PowerBuilder. The following are detailed steps.

Step 1: In Internet Explorer, on the **Tools** menu, click **Manage Add-ons**.

Figure 6.8: Manage add-ons

Step 2: From the list of add-ons, there are two listed for Apeon Corporation: EonDownloadCenter Class and EonUISpace Class. Make sure their status are Enabled.

Figure 6.9: Verify ActiveX control status

Name	Publisher	Status	File date	Version	Load t
Adobe PDF Link Helper	Adobe Systems, Incorpo...	Enabled	02/27/2009 12:07 P...	9.1.0.163	0.03 s
Adobe PDF Reader	Adobe Systems, Incorpo...	Enabled	02/27/2009 12:07 P...		
Apeon Corporation					
EonDownloadCenter Class	Apeon Corporation	Enabled	07/01/2010 9:16 PM	6.5.106.0	
EonUISpace Class	Apeon Corporation	Enabled	07/01/2010 9:17 PM	6.5.0106.0	
Apple Inc.					
QuickTime Object	Apple Inc.	Enabled	09/09/2010 4:01 PM	QuickTime...	
Control name is not available					
Web Test Recorder	Control name is not avai...	Enabled		4.0.31106.0	

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 Apeon 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 Apeon-deployed Web application matches Windows language settings on the machine where Apeon 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 Web 2013 R2

7.1 Overview

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

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 **Appeon uninstall program** from Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2013 R2**.
- 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 all Windows programs, including all Sybase softwares:

- Shut down PowerBuilder
- Stop the EP Management Service.

Step 2: Verify that Appeon Developer and all Sybase softwares 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**

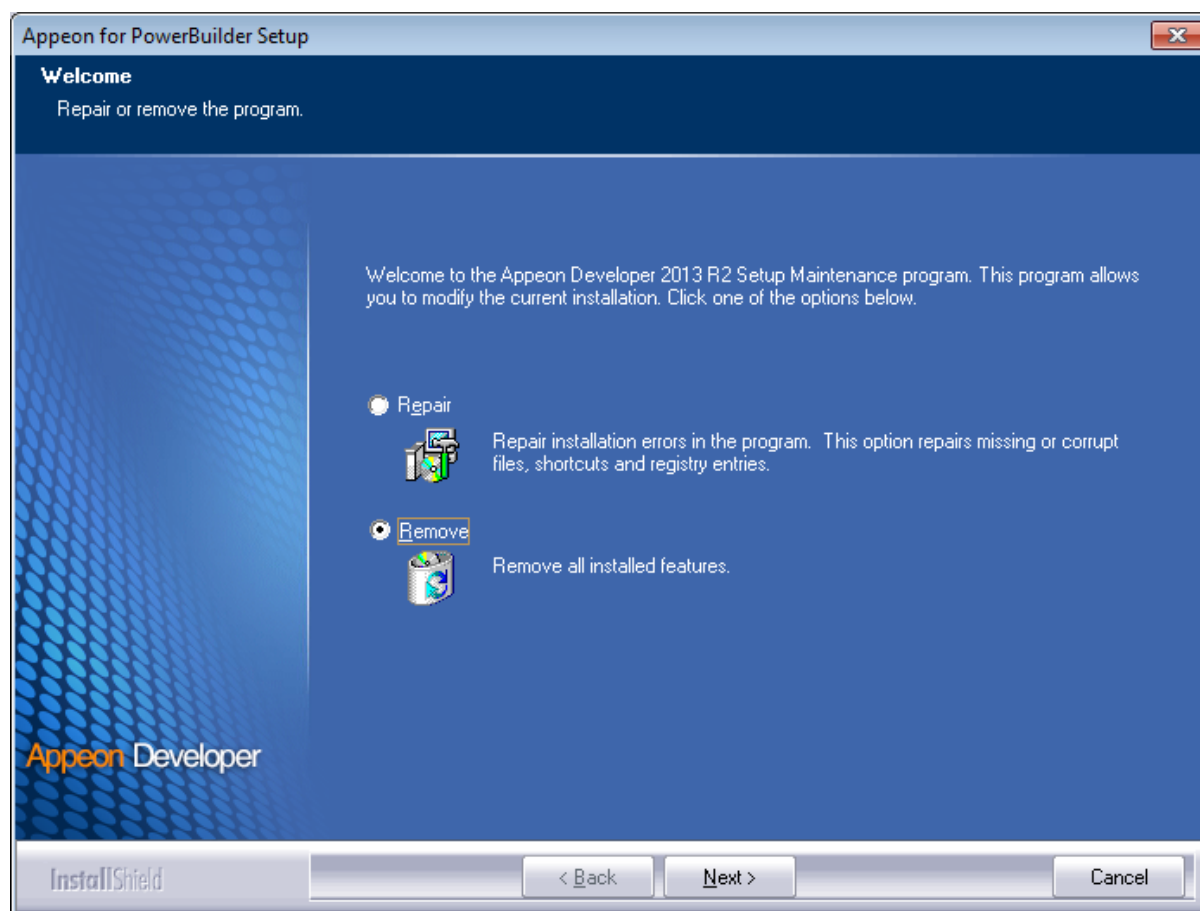
If **EonADTxx.exe** is running when attempting to uninstall Appeon Developer, Appeon Setup will detect that the processes are running and an error message will appear.

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 2013 R2** | **Appeon Developer** | **Uninstall Appeon Developer** to begin the uninstall process.

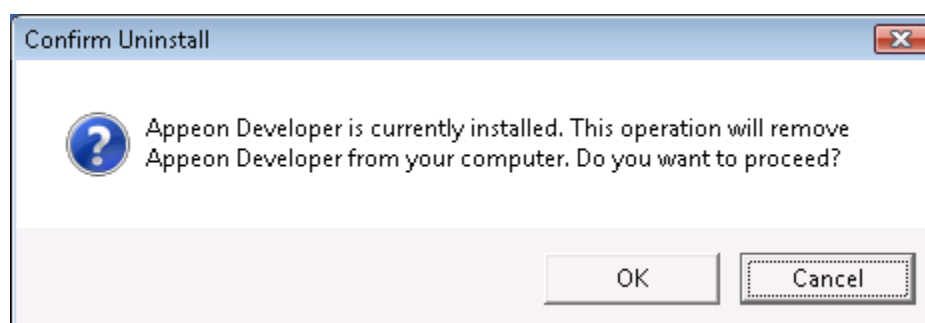
Step 4: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.1: Repair or remove Appeon Developer

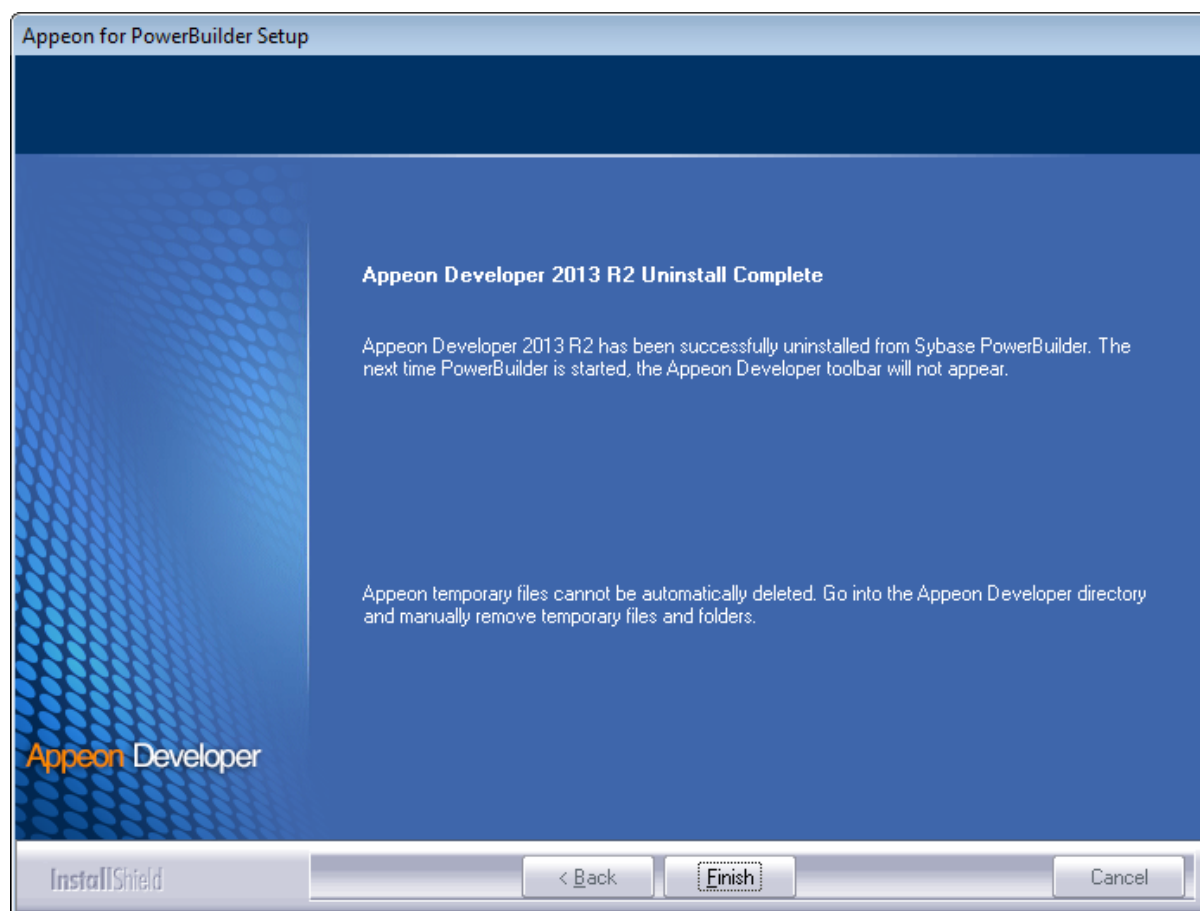


Step 5: Click **OK** to confirm the removal of Appeon Developer.

Figure 7.2: Confirm uninstall



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

Figure 7.3: Appeon Developer uninstall complete

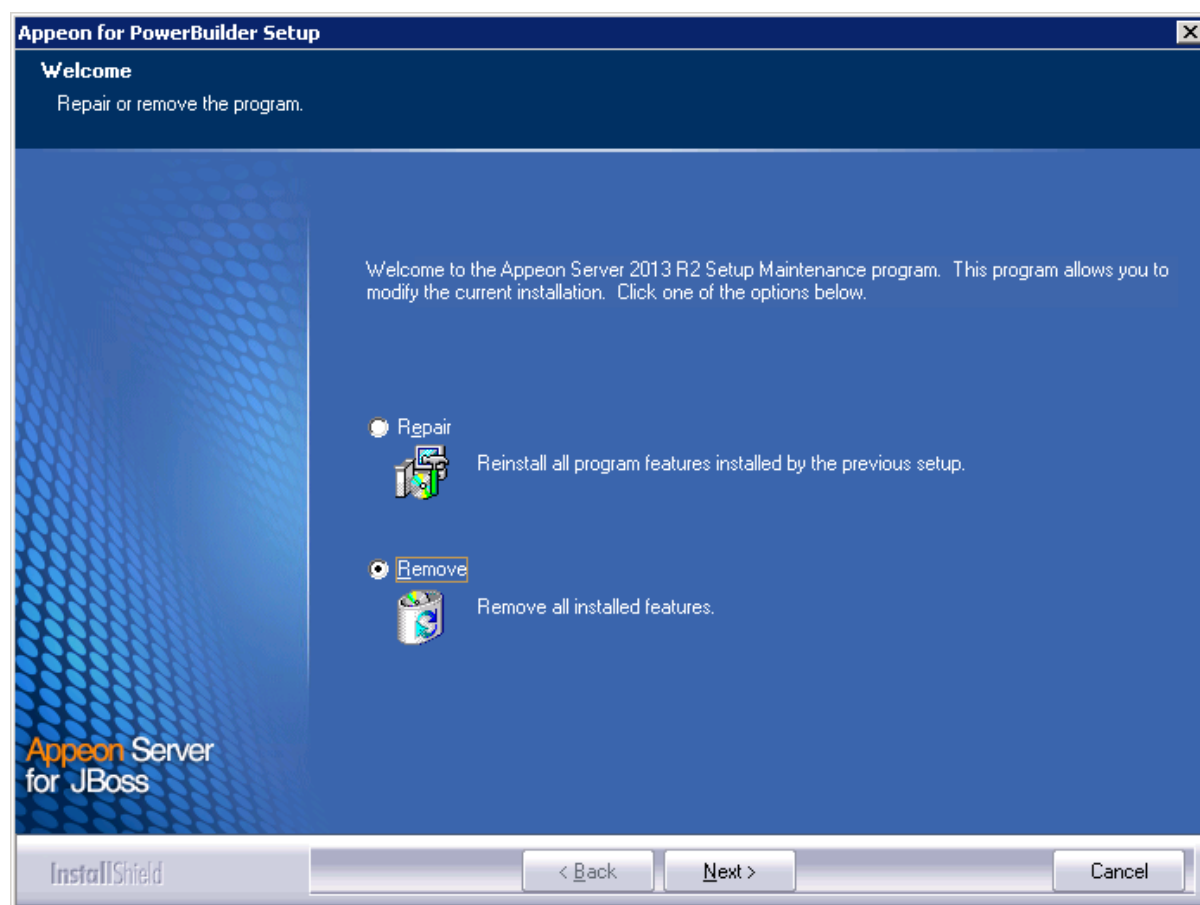
Step 7: Use Windows Explorer to manually delete the folder where Appeon Developer was installed. This will remove all Appeon Developer files that are not automatically uninstalled.

7.3 Uninstalling Appeon Server

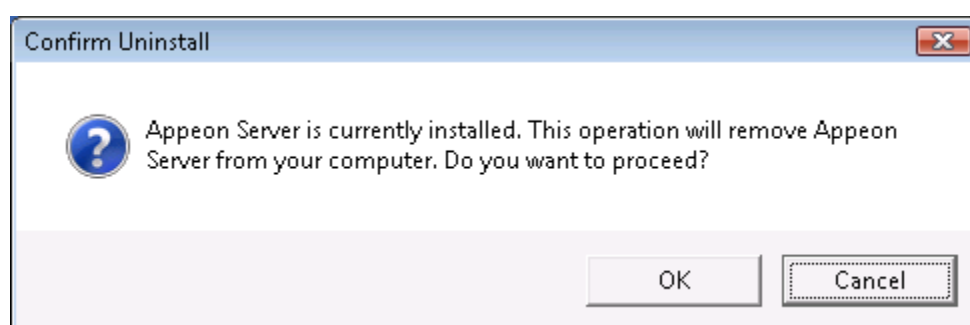
Step 1: Shut down Appeon Server and JBoss.

Step 2: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2013 R2** | **Appeon Server for JBoss** | **Uninstall Appeon Server** to begin the uninstall process.

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

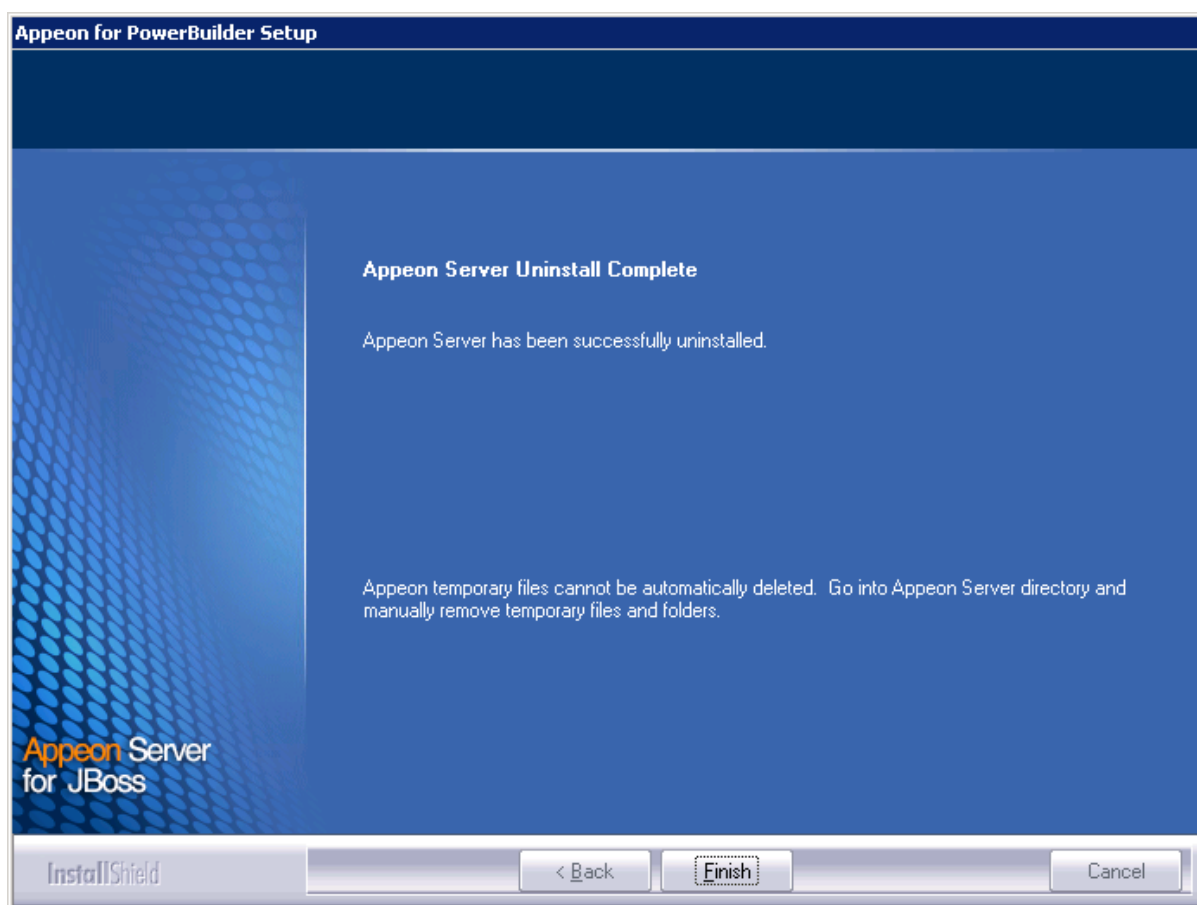
Figure 7.4: Repair or remove Appeon Server

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

Figure 7.5: Confirm uninstall

Step 5: Wait until Appeon Server is completely uninstalled.

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

Figure 7.6: Appeon Server uninstall complete

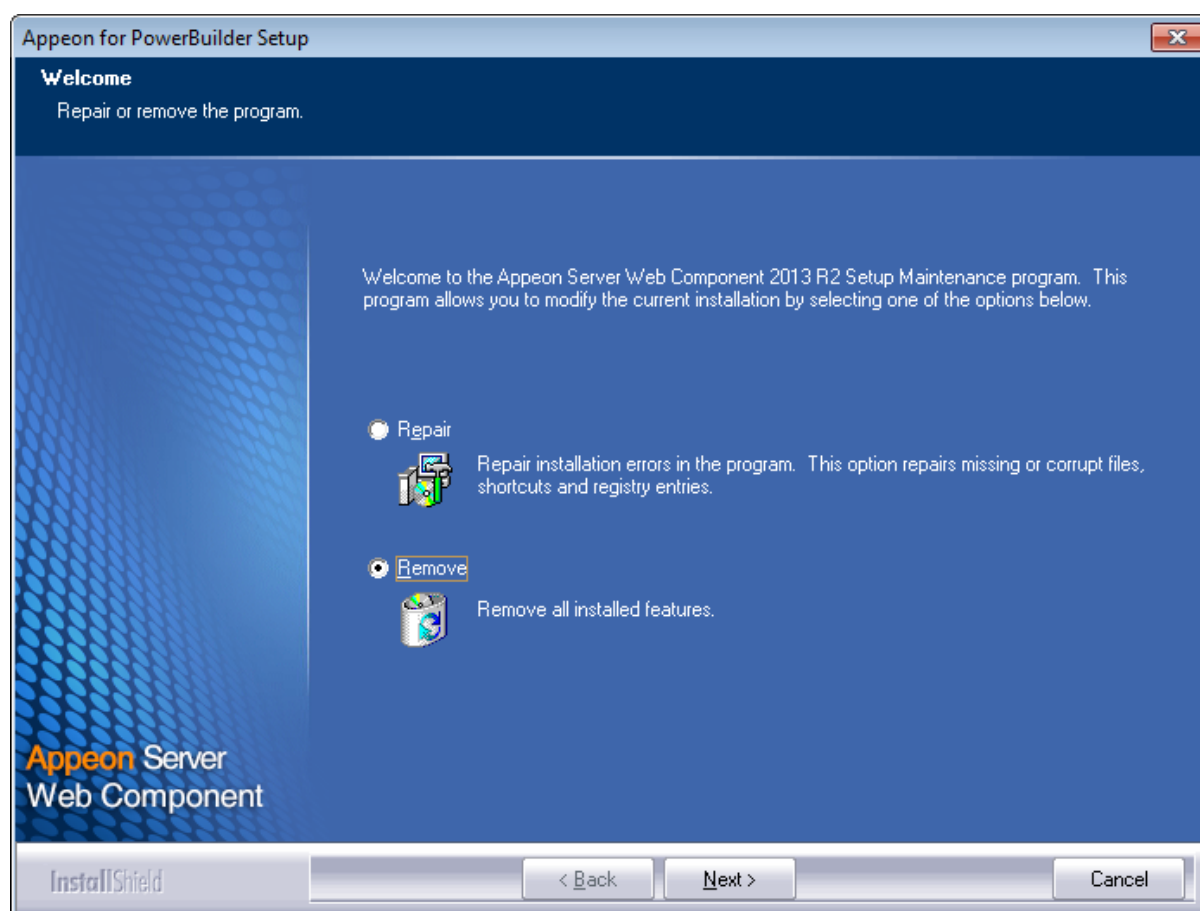
Step 7: After the uninstall process is complete, remove any files or folders left in the Appeon installation folder.

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

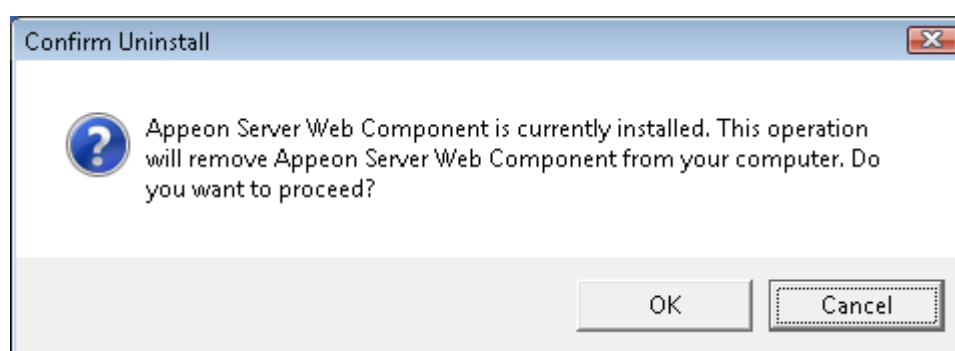
Step 1: Stop all Windows programs as well as the Web server.

Step 2: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2013 R2** | **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**.

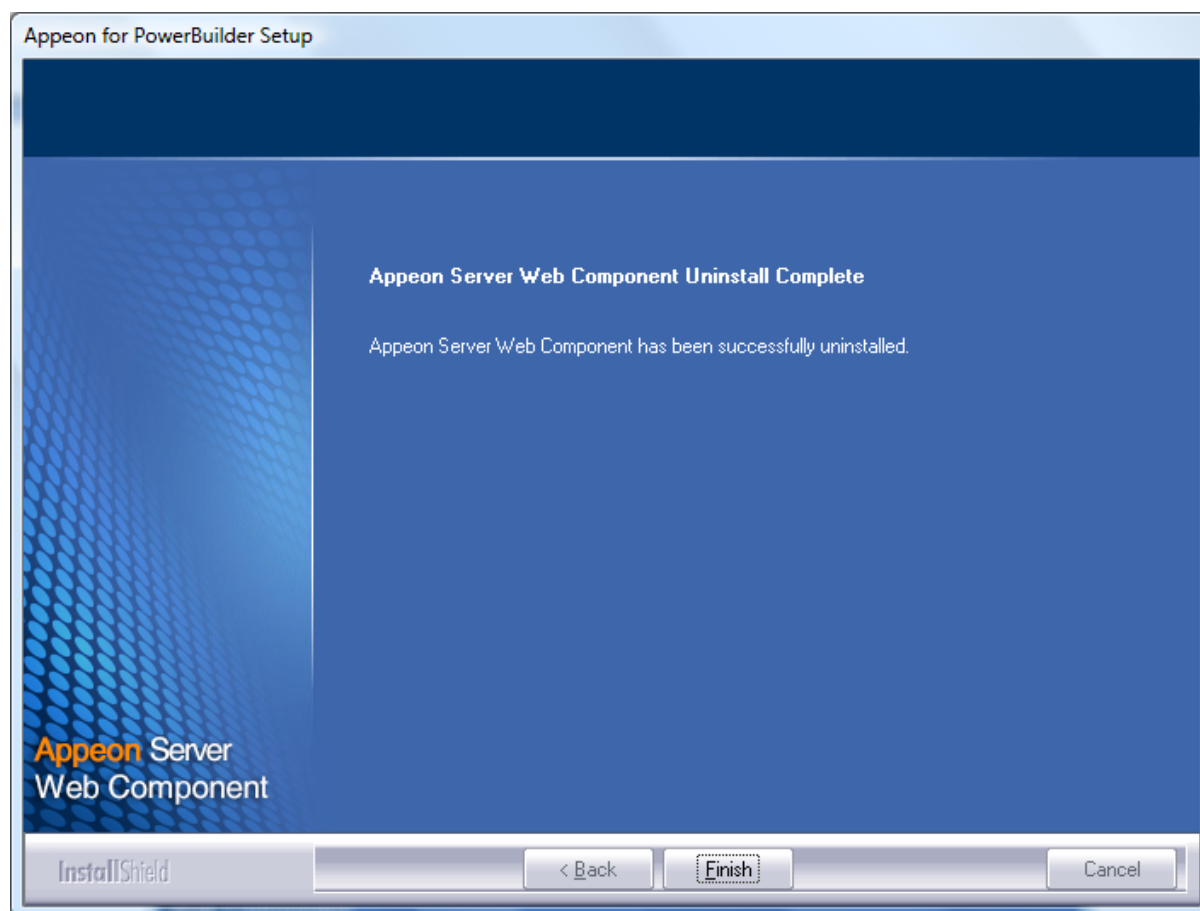
Figure 7.7: Repair or remove Appeon Server Web Component

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

Figure 7.8: Confirm uninstall

Step 5: Wait until the uninstallation is complete.

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

Figure 7.9: Appeon Server Web Component uninstall complete

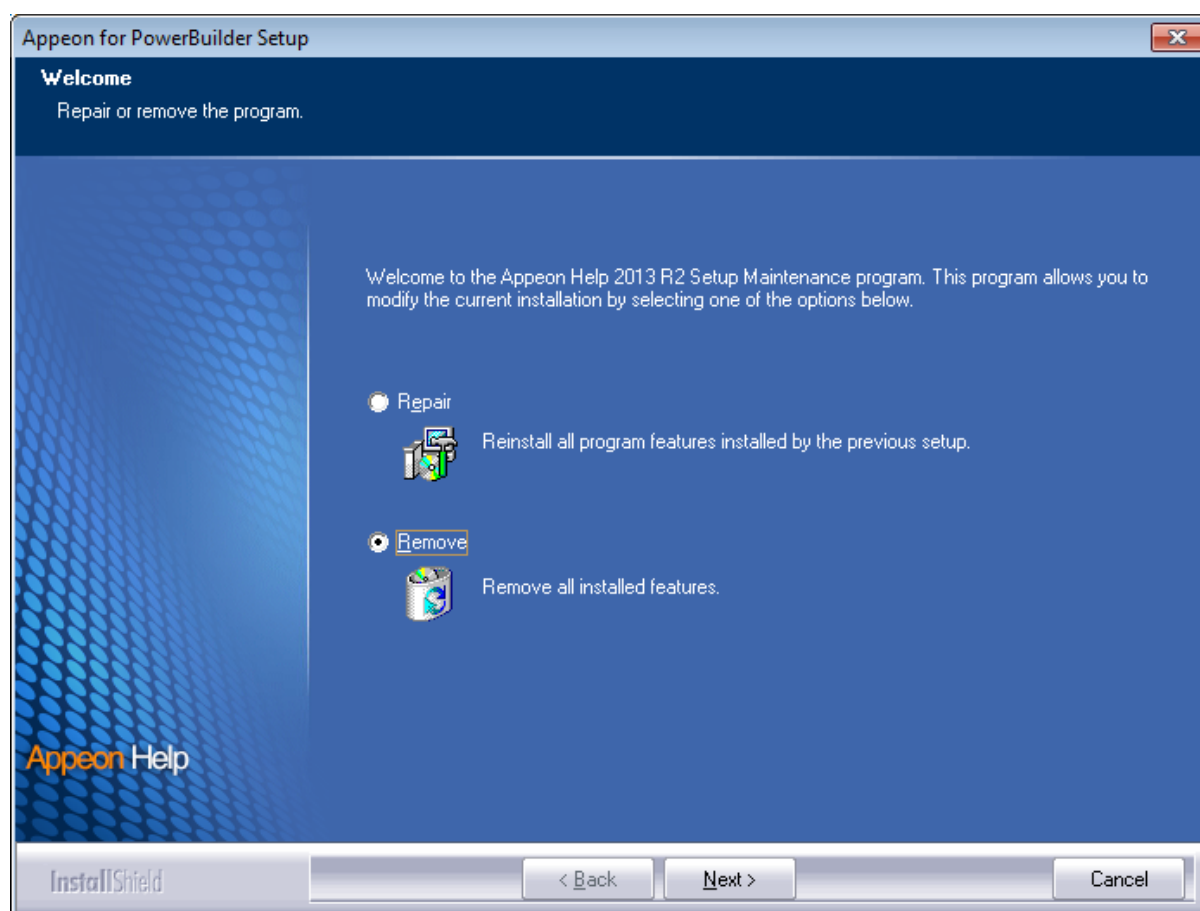
7.4.1 Uninstalling Web Component if multiple third-party Web servers are involved

Repeat the Web Component uninstall steps for each third-party Web server.

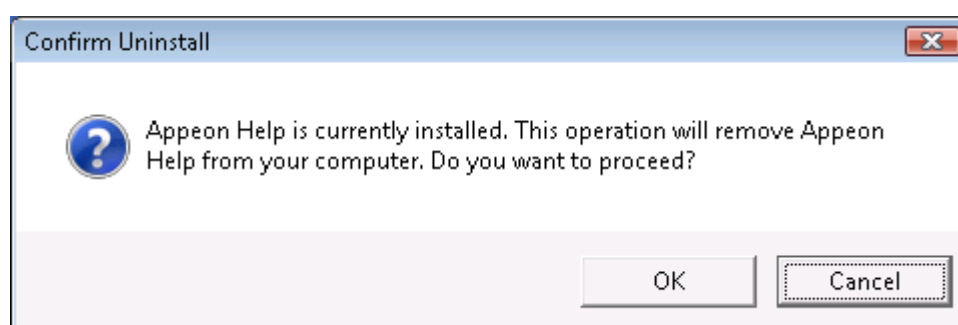
7.5 Uninstalling Appeon Help

Step 1: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2013 R2** | **Appeon Help** | **Uninstall Appeon Help** to begin the uninstall process.

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

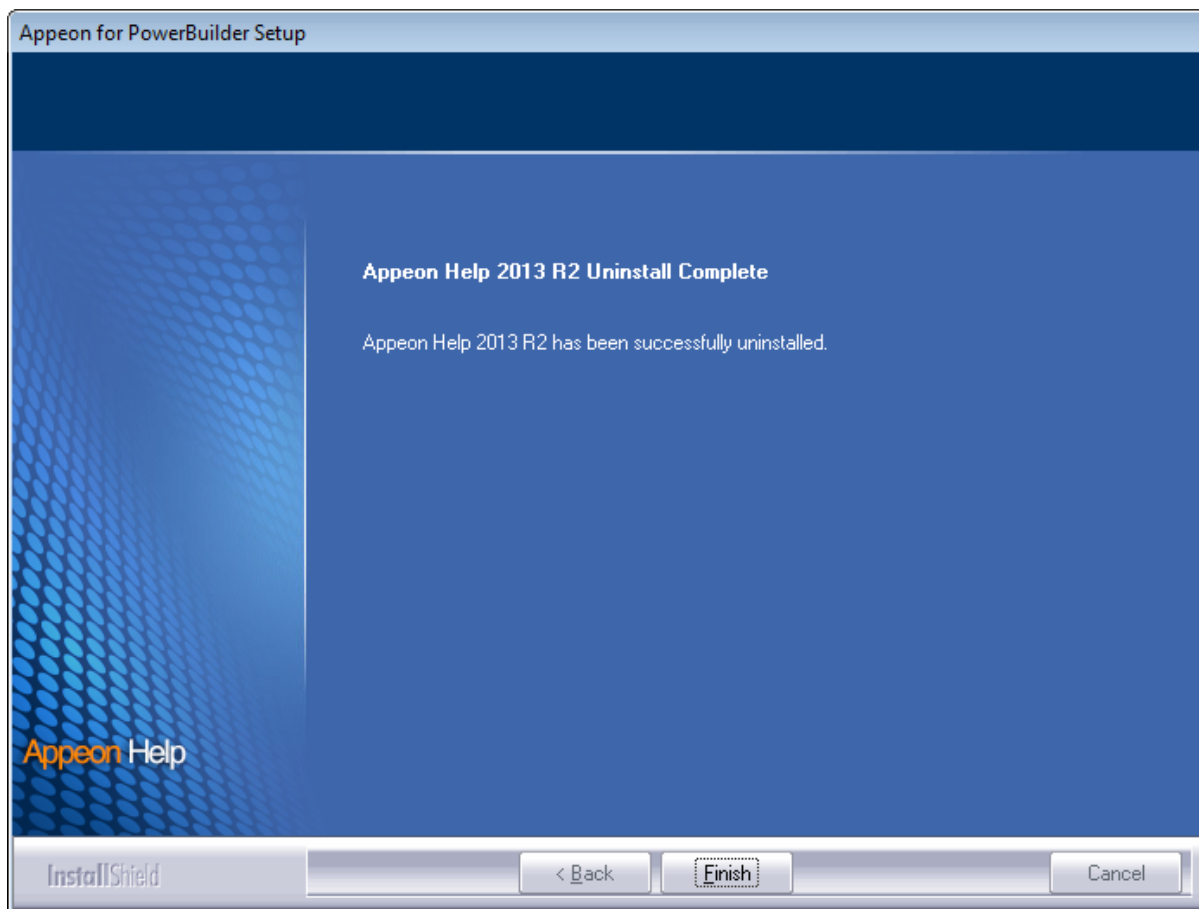
Figure 7.10: Repair or remove Apeon Help

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

Figure 7.11: Confirm uninstall

Step 4: Click **Finish** to exit.

Figure 7.12: Appeon Help uninstall complete



Index

A

- Appeon components, [6](#)
- Appeon Developer, [6](#)
- Appeon Help, [7](#)
- Appeon Server, [6](#)
- Appeon Server Web Component, [7](#)
- Appeon Developer, [6](#)
- Appeon Developer installation, [24](#)
 - installation instruction, [24](#)
 - prerequisites, [24](#)
- Appeon Developer requirements, [9](#)
 - hardware requirements, [9](#)
 - software requirements, [9](#)
- Appeon editions, [5](#)
- Appeon Help, [7](#)
- Appeon Help installation, [33](#)
- Appeon Server, [6](#)
- Appeon Server cluster, [13](#)
- Appeon Server installation, [19](#)
- Appeon Server requirements, [8](#)
 - hardware requirements, [8](#)
 - software requirements, [8](#)
 - Web Server requirements, [8](#)
- Appeon Server Web Component, [7](#)
- Appeon Server Web Component installation, [30](#)
 - installation instruction, [31](#)
 - prerequisites, [30](#)

B

- before you upgrade, [36](#)

C

- Client requirements, [8](#)
 - hardware requirements, [8](#)
 - software requirements, [8](#)
- configuration for client machine, [45](#)
- configure Appeon Server cluster, [43](#)
- configure IE security settings, [45](#)

D

- database server requirements, [9](#)
- Developer PC, [11](#)

H

- hardware requirements, [8](#), [8](#), [9](#)

I

- installation instructions, [24](#), [31](#)
- installation scenarios, [11](#)
 - Appeon Server cluster, [13](#)
 - Developer PC, [11](#)
 - remote Appeon Server using a third-party Web server, [12](#)
 - remote Appeon Server using JBoss HTTP server, [12](#)

L

- log in as administrator or normal user, [47](#)
- log in to JBoss console, [40](#)

P

- prerequisites, [24](#), [30](#)

R

- remote Appeon Server using a third-party Web server, [12](#)
- remote Appeon Server using JBoss HTTP server, [12](#)

S

- software requirements, [8](#), [8](#), [9](#)
- start Appeon Server, [39](#)
- start the installation, [14](#)
- stop Appeon Server, [42](#)
- system architecture, [4](#)
- system language settings, [52](#)

U

- uninstall Appeon Developer, [54](#)
- uninstall Appeon Help, [60](#)
- uninstall Appeon Server, [56](#)
- uninstall Appeon Server Web Component, [58](#)
- upgrade Appeon Developer, [37](#)
- upgrade Appeon Server, [37](#)
- upgrade Appeon Server Web Component, [38](#)
- upgrade configuration settings manually, [39](#)

W

- Web Server requirements, [8](#)