

Appeon Web Installation Guide for .NET

Appeon Web® 2013 R2 (on .NET)
FOR WINDOWS

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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 .NET and its system architecture.

Chapter 3: Installation Requirements

The system requirements for installing Appeon Web 2013 R2 for .NET.

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 .NET.

1.3 Related documents

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

- Introduction to Appeon:
Gives general introduction to Appeon for PowerBuilder and its editions.
- Getting Started (for Appeon Mobile):
Guides you through installing PowerBuilder and Appeon for PowerBuilder, and developing and deploying a mobile application.
- New Features Guide:
Introduces new features and changes in Appeon for PowerBuilder.

- **Appeon Mobile Tutorials:**
Gives instructions on deploying, running, and debugging the mobile application, distributing native mobile apps, and configuring the Appeon Server cluster.
- **Appeon Mobile (Offline) Tutorials:**
Gives instructions on setting up the Appeon Mobile (Offline) environment, and configuring, deploying, running, updating, and debugging the offline application.
- **Appeon Installation Guide:**
Provides instructions on how to install Appeon for PowerBuilder successfully.
- **Installation Guide on Cloud Platform:**
Provides instructions on how to install Appeon for PowerBuilder on the cloud-based platform such as Windows Azure and AWS EC2 and S3.
- **Mobile UI Design & Development Guide:**
Introduces general guidelines on designing and developing the mobile app and UI.
- **Migration Guidelines for Appeon Web:**
A process-oriented guide that illustrates the complete diagram of the Appeon Web migration procedure and various topics related to steps in the procedure, and includes a tutorial that walks you through the entire process of deploying a small PowerBuilder application to the Web.
- **Supported PB Features:**
Provides a detailed list of supported PowerBuilder features which can be converted to the Web/Mobile with Appeon as well as which features are unsupported.
- **Appeon Developer User Guide:**
Provides instructions on how to use the Appeon Developer toolbar in Appeon for PowerBuilder.
- **Workarounds & API Guide:**
Provides resolutions for unsupported features and various APIs to facilitate you to implement the features (including Web and mobile) that are not easy or impossible to implement in the PowerBuilder IDE.
- **Appeon Workspace User Guide:**
Gives a general introduction on Appeon Workspace and provides detailed instructions on how to use it.
- **Appeon Server Configuration Guide:**
Provides instructions on how to configure Appeon Server Monitor, establish connections between Appeon Servers and database servers, and configure AEM for maintaining Appeon Server and the deployed applications.

- **Web Server Configuration Guide:**
Describes configuration instructions for different types of Web servers to work with the Appeon Server.
- **Troubleshooting Guide:**
Provides information on troubleshooting issues; covering topics, such as product installation, application deployment, AEM, and Appeon application runtime issues.
- **Appeon Performance Tuning Guide:**
Provides instructions on how to modify a PowerBuilder application to achieve better performance from its corresponding Web/mobile application.
- **Testing Appeon Web Applications with QTP:**
Provides instructions on how to test Appeon Web applications with QTP.

1.4 If you need help

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

2 Introduction

2.1 Overview

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

From the native source code of PowerBuilder applications, Appeon 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 .NET platform, as well as greater availability, scalability, security and reliability.

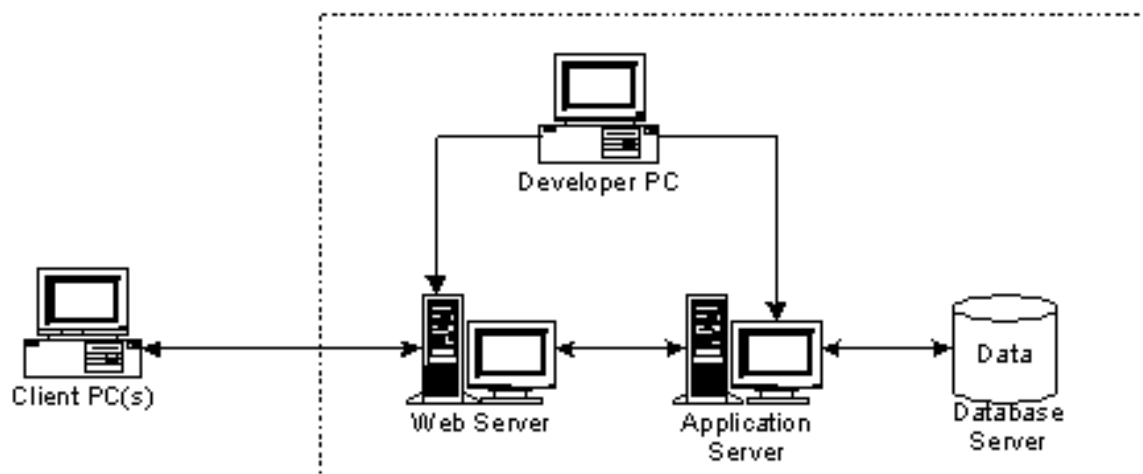
Appeon for PowerBuilder allows the entire Web application conversion process to be executed within the PowerBuilder IDE. It does not require the developer to write a single line of HTML, Java, .NET or JavaScript code. Only standard PowerBuilder programming skills are required.

With Appeon 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

Appeon 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 Appeon Server computers to provide load balancing and failover.

Figure 2.1: Appeon 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 Appeon Web 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 Microsoft Internet Explorer
Web Server	Hosts the presentation layer of Appeon deployed applications, responds to incoming requests from Client PC and dispatches requests to the application server.	Appeon Server Web Component	IIS
Application Server	Hosts the DataWindows and INI files of Appeon 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	.NET IIS
Database Server	Hosts the application database.	None	Oracle, SAP Sybase ASA/SQL Anywhere, SAP Sybase ASE, SAP HANA, Microsoft SQL Server, MySQL, Informix, or Teradata. Please see Database server requirements for more information.

2.3 Appeon editions

Appeon Web 2013 R2 contains the following editions.

Table 2.2: Appeon editions

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

Edition	Component	Description
	<ul style="list-style-type: none"> • Appeon Server Web Component • Appeon Help 	2) The Appeon Server clustering service is provided in Enterprise Edition only. 3) Product activation is required within 30 days.
Workgroup Edition	<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	<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	<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

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, therefore, if you are using one IIS 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 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 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 Appeon plug-in. For detailed instructions on configuring the Web server, refer to *Web Server Configuration Guide*.

2.4.4 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.

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 running at 1.8 GHz or faster
- At least 2 GB Free RAM

3.2 Appeon Server requirements

3.2.1 Software requirements

- (Recommended) Windows Server 2003 SP2, Windows Server 2008 SP2 or Windows Server 2012
(Optional) Windows Vista SP2, Windows 7 or Windows 8/8.1
- Microsoft .NET Framework 4.x
- Microsoft IIS 6.0, 7.0, 7.5 or 8.0

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)
- 500 MB hard drive space (for Appeon Server installation)

3.2.3 (Optional) Web Server requirements

- Windows Server 2003 Server SP2, Windows Server 2008 SP2, Windows Server 2012, Windows Vista SP2, Windows 7 or Windows 8/8.1
- Microsoft IIS 6.0, 7.0, 7.5 or 8.0

- 50 MB hard drive space (for Appeon Server Web Component installation)

If you physically separate the Web server and the Appeon Server, you will need to make the Web server work with the Appeon Server by installing and configuring the Appeon plug-in. For detailed instructions, refer to the **Web Server Configuration Guide** in Appeon Help.

3.3 Appeon 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, update it by running the PowerBuilder EBF program provided on the Appeon Installation program or downloaded 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 running at 1.8 GHz or faster
- At least 2 GB Free RAM
- 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 Web 2013 R2 can run with any of the following database servers:

- SAP Sybase ASA/SQL Anywhere 8.0.2, 9.0, or 10.0.1 with ODBC Driver
- SAP Sybase SQL Anywhere 11.0, 12.0 or 16.0 with SQL Anywhere .NET Data Provider driver

- SAP Sybase Adaptive Server Enterprise (ASE) 12.5.x or 15.x with ASE Native Driver
- SAP HANA 1.00.36 with ODBC Driver
- Informix 7.x, 8.x, 9.x, 10.x or 11.x with IBM Informix .NET Provider
- Microsoft SQL Server 2000 SP4, 2005 SP1, 2008 or 2012 with MS SQL Server Native Driver
- MySQL 5.5.x or 5.6.x with ADO.NET Data Provider driver
- Oracle 8i, 9i, 10g, 11g or 12c with Oracle Native Driver
- Teradata 13.1.0.0 or later with Teradata .NET Data Provider driver

Note: Usually, whether the database can be connected via a 32-bit driver and/or a 64-bit driver is determined by the database itself, so we recommend you make sure of this by checking the documents provided by the corresponding database vendor. If the database can be connected by both drivers, then you can decide which driver to install and use according to the Appeon Server version: if you have installed a 32-bit Appeon Server, then you should install and use the 32-bit driver, otherwise, install and use the 64-bit driver.

4 Installing Appeon Web 2013 R2

4.1 Overview

Appeon Web 2013 R2 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 Microsoft .NET components that provide runtime services for the Appeon Web applications, such as data connectivity, DataWindows support, transaction management, and security. Appeon Server also includes Appeon Enterprise Manager (AEM) and Appeon Server Web Component.	IIS 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.	IIS on Windows operating system.
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 Web 2013 R2 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 .NET Framework Microsoft IIS Microsoft Internet Explorer SAP Sybase PowerBuilder SAP Sybase ASA/SQL Anywhere (Optional) SAP Sybase ASE, Oracle, Microsoft SQL Server, Informix, Teradata, MySQL, or SAP HANA depending on the application database	Appeon Developer Appeon Server

4.2.3 Remote Appeon Server and Web 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, 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 Microsoft .NET Framework Microsoft IIS SAP Sybase ASA/SQL Anywhere, SAP Sybase ASE, Oracle, Microsoft SQL Server, Informix, Teradata, MySQL, or SAP HANA depending on the application database	Computer 2: Appeon Server

4.2.4 Appeon Server Cluster

Table 4.4: Appeon Server cluster installation

Scenarios	Requirements	Appeon Components
In this example, N (N≥4) computers are used:	Computer 1: Microsoft Windows 2000, 2003, 2008, 2012, 7, 8/8.1, XP, or Vista	Computer 1: Appeon Developer

Scenarios	Requirements	Appeon Components
Computer 1 is used for Developer PC.	Microsoft Internet Explorer SAP Sybase PowerBuilder SAP Sybase ASA/SQL Anywhere	
Computer 2 is the database server.	Computer 2: SAP Sybase ASA/SQL Anywhere, SAP Sybase ASE, Oracle, Microsoft SQL Server, Informix, Teradata, MySQL, or SAP HANA depending on the application database	Computer 2: None
Computer 3 is the Web server.	Computer 3: Microsoft IIS	Computer 3: Appeon Server Web Component
Computers 4 to n are a group of Appeon Servers.	Computers 4 to n: Microsoft Windows Server 2003, 2008, or 2012 Microsoft .NET Framework Microsoft IIS	Computers 4 to n: Appeon Server (After installing Appeon Server to each IIS, configure the Appeon Servers as a cluster. Refer to Configuring Appeon Server Cluster for details)

4.3 Two installation methods

Appeon Web 2013 R2 for .NET provides two installation methods: "new installation" and "upgrade installation".

- If your computer has not installed any version of Appeon for PowerBuilder, the installation 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 Web 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 Web 2013 R2 new installation

4.4.1 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.

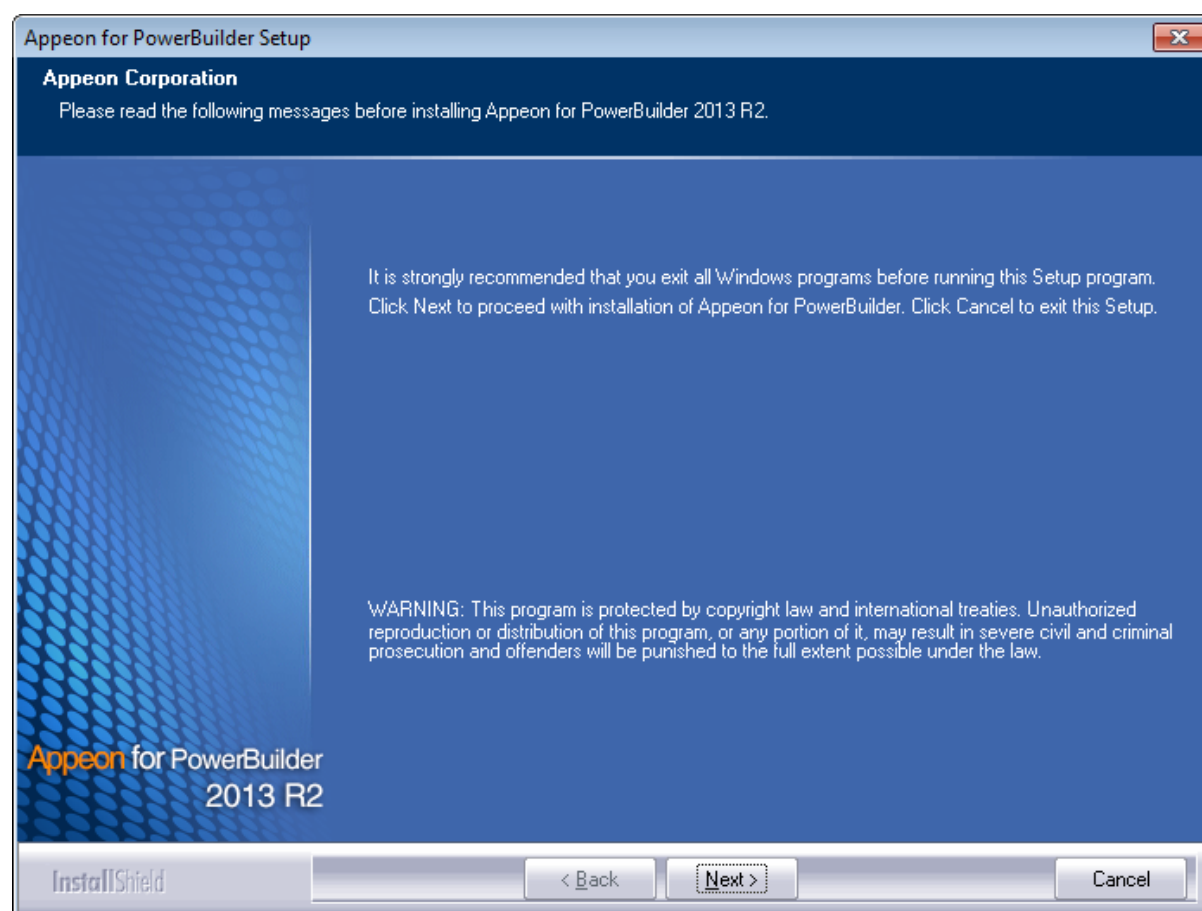
- **Install:** Click this button to start installing the product.
- **View Server Settings:** Click this button to ensure that the application server settings are appropriate for the Appeon Server installation.
- **View Training Video:** Click this button to watch the video to learn how to install the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

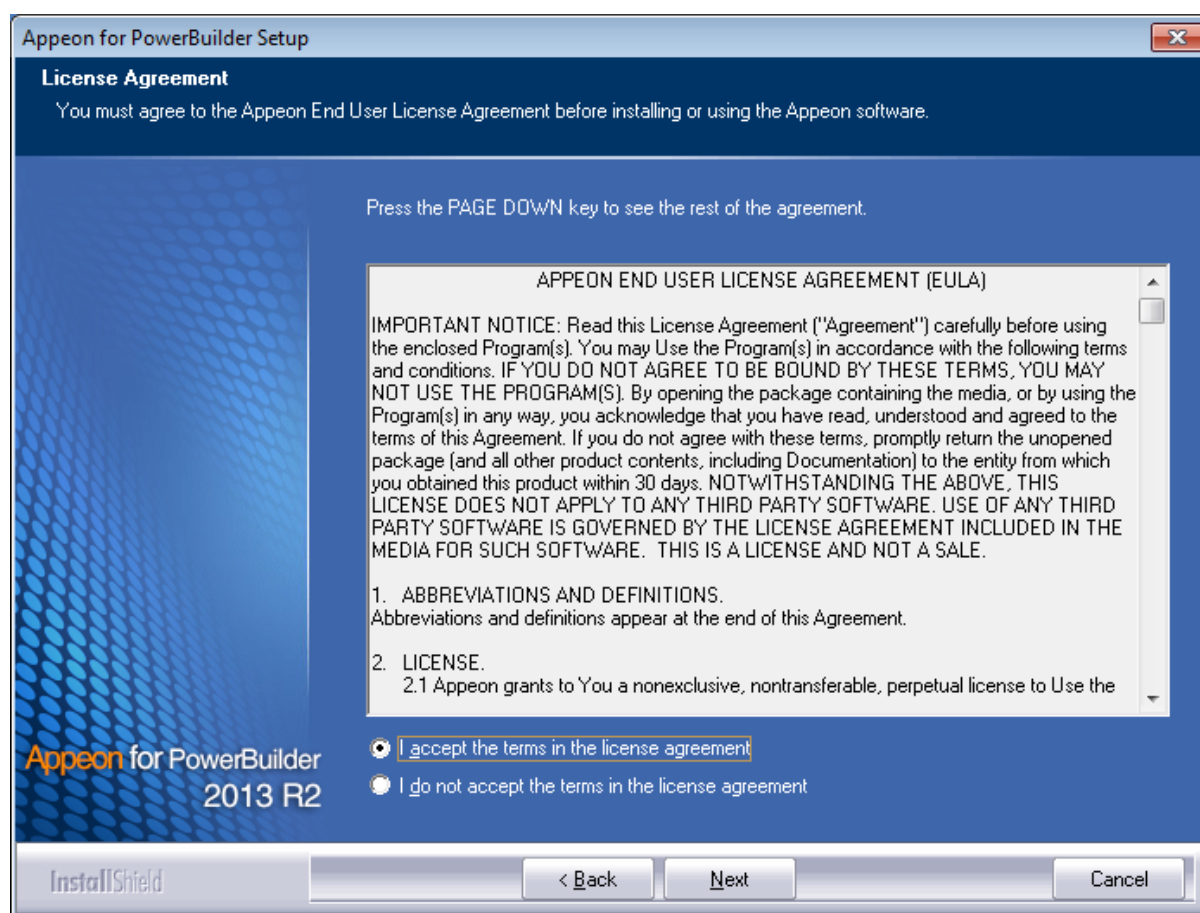
Step 2: Click **Install**.

Figure 4.1: Install Appeon for PowerBuilder

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

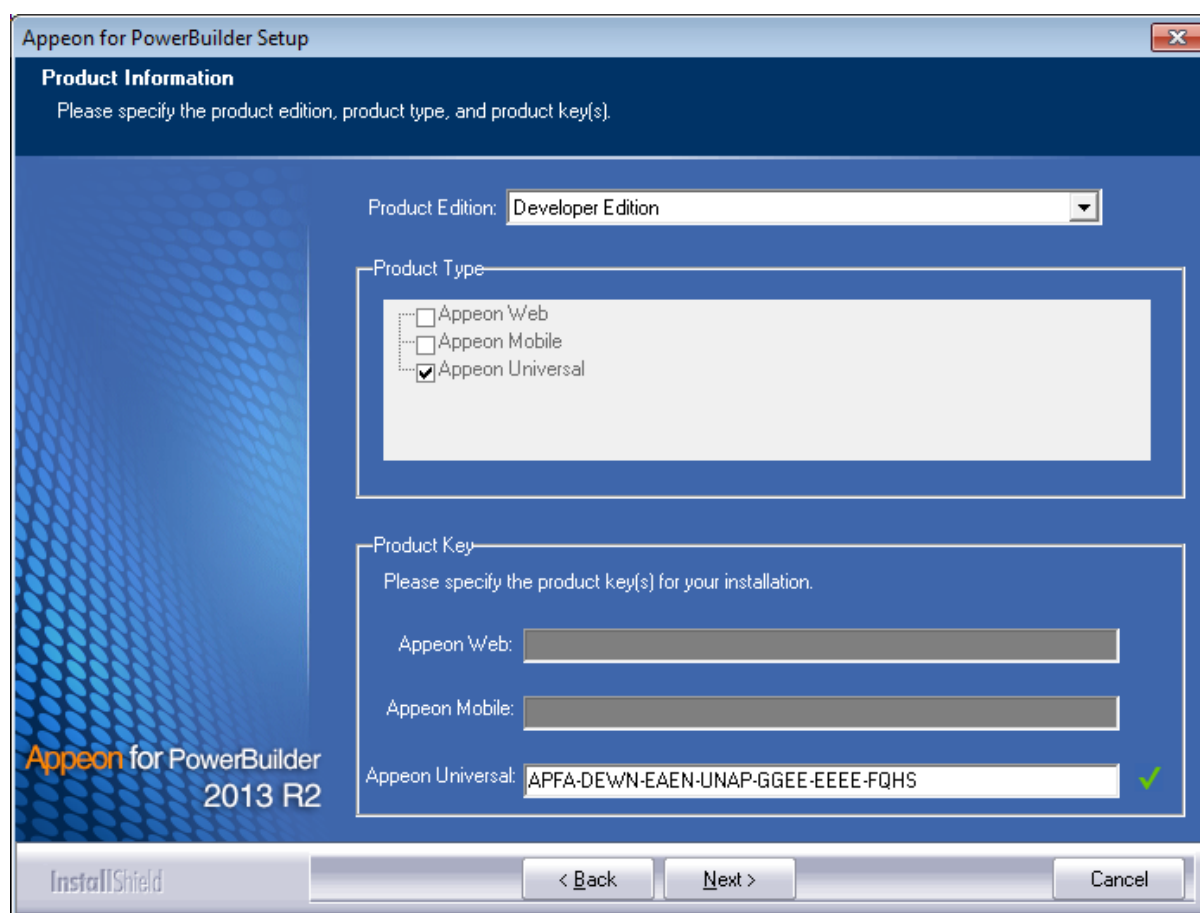
Figure 4.2: Introduction page

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**.

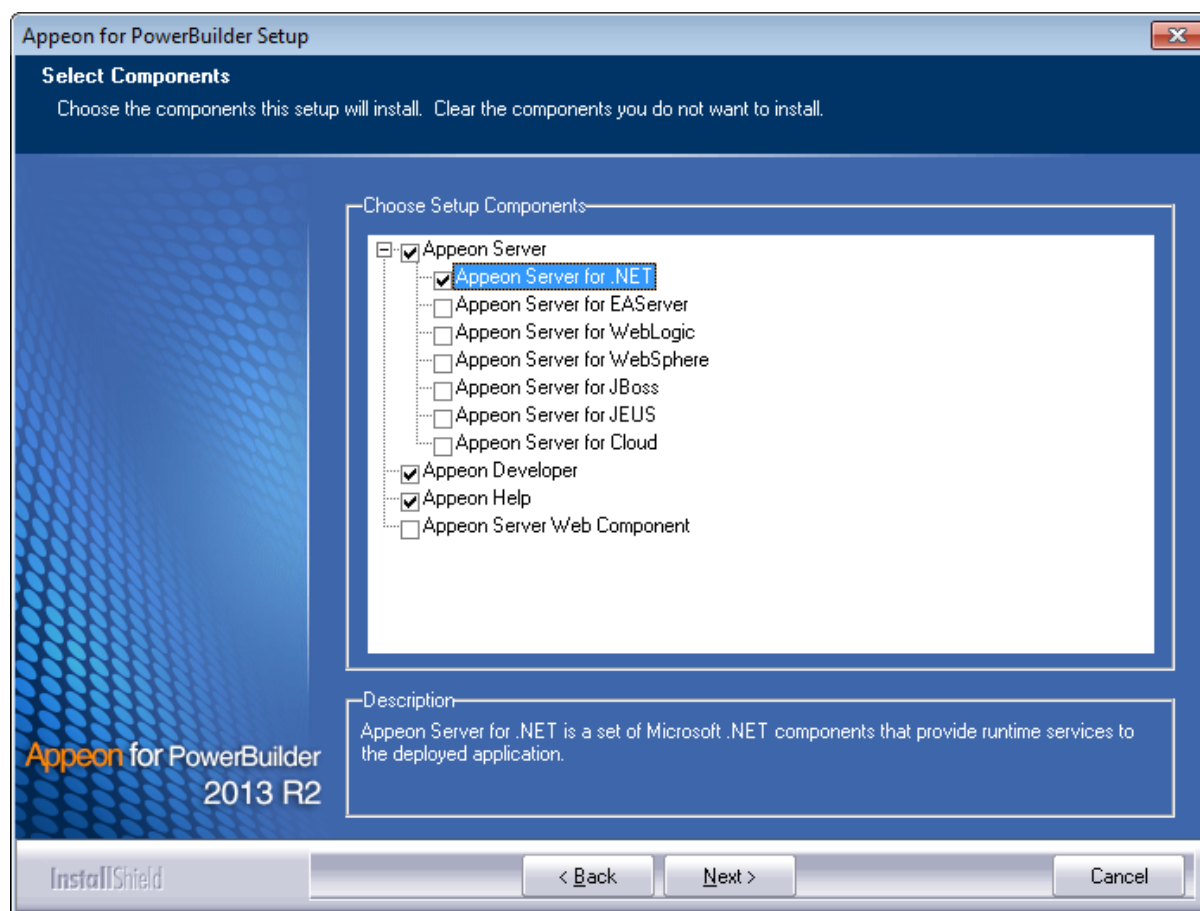
If you select the **Trial** or **Developer** edition, **Appeon Universal** will be automatically selected so you can experience both the Web and Mobile deployments at no additional charge.

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 .NET IIS server, be sure to select **Appeon Server for .NET**, as shown in the following figure.

For Developer Edition and Trial Edition, if more than one application servers such as .NET IIS, WebLogic 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 .NET" to install Appeon Server to the .NET IIS server, 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 IIS 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

Before you install Appeon Server make sure

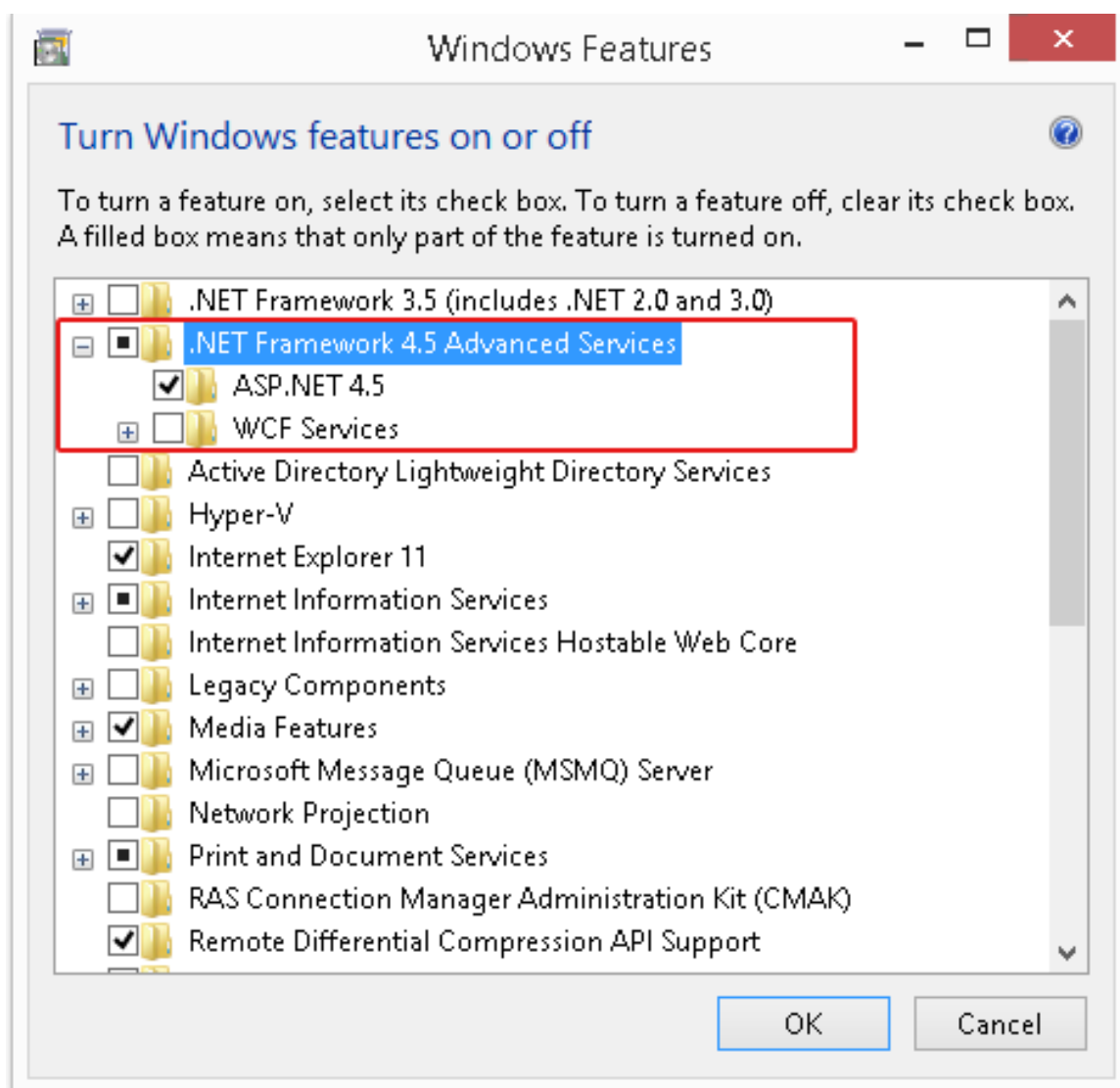
1. .NET Framework 4.x is successfully installed.
2. IIS 6.0, 7.0, 7.5 or 8.0 is correctly installed with necessary components.

If you want to install **Appeon File Server** later, you will also need to install the components listed under **IIS 6 Management Compatibility**.

4.4.2.1.1 Installing .NET Framework 4.x

If you are using one of the latest versions of the Windows or Windows Server operating system, the .NET Framework might already be installed on your computer. Specifically, the .NET Framework 3.5.1 is included with Windows 7, the .NET Framework 4.5 is included with Windows 8/8.1 and Windows Server 2012. Appeon for PowerBuilder 2013 R2 requires **.NET Framework 4.x** to be installed.

- If you are using Windows 7 or earlier version, you need to manually install **.NET Framework 4.x**. You can download and install .NET Framework 4.x from <http://www.microsoft.com/en-us/download/details.aspx?id=17851>.
- If you are using Windows 8 or 8.1, you need to enable the **.NET Framework 4.5** through Control Panel.
 1. In Control Panel, click **Programs > Turn on or off Windows features**.
 2. In the **Windows Features** dialog box, select the **.NET Framework 4.5 Advanced Services** checkbox, and then expand the list and select the item **ASP.NET 4.5**.

Figure 4.6: .NET Framework 4.5 Advanced Services

3. Click **OK** to let Windows finish the installation and reboot the system.

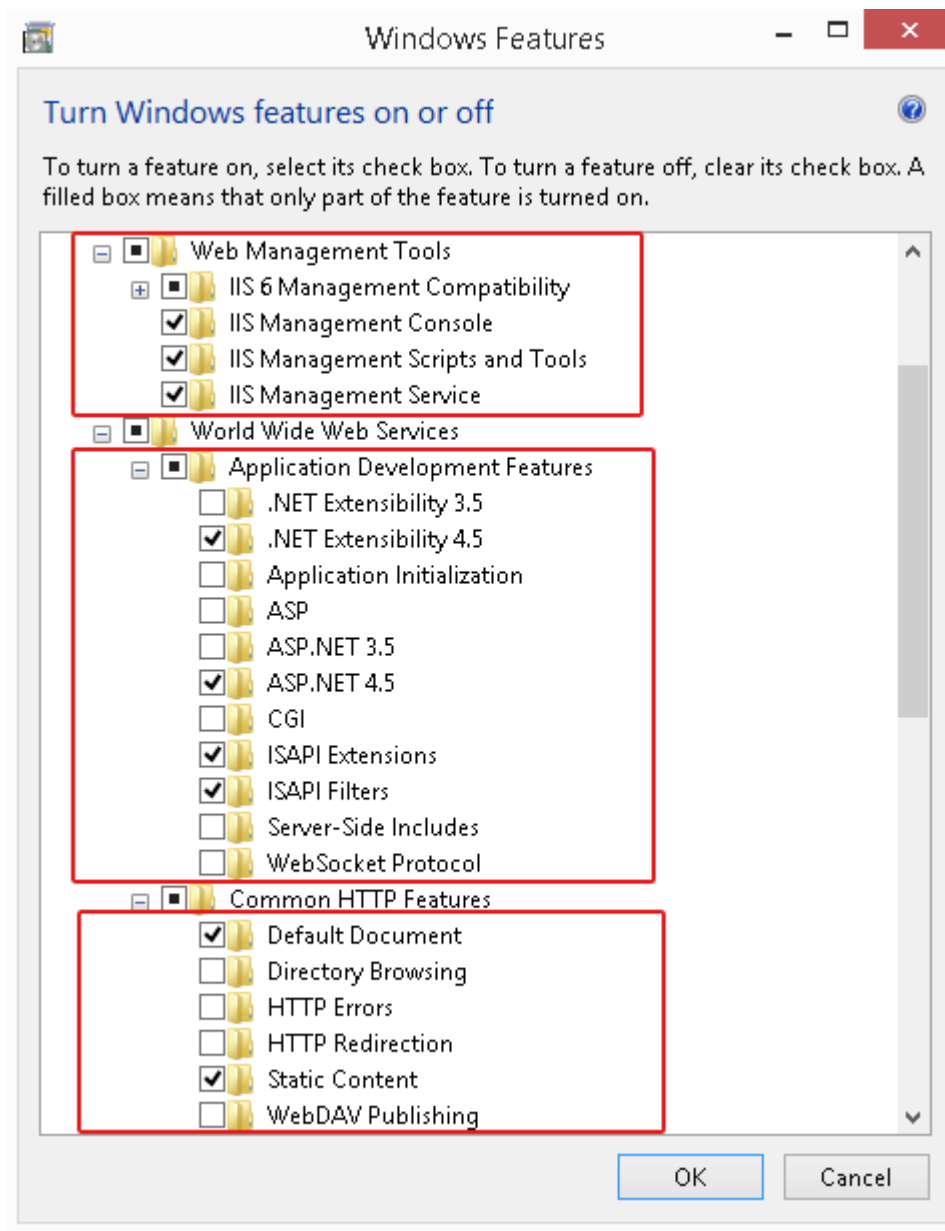
4.4.2.1.2 Installing IIS 8.0 on Windows 8

IIS 8.0 is included with Windows 8/8.1, but it is not installed on Windows 8/8.1 by default. You need to manually install it. Follow the instructions below and make sure that the following highlighted features are installed; these features are not selected to install by default, you will need to manually select them during the IIS installation.

1. In Control Panel, click **Programs > Turn on or off Windows features**.
2. In the **Windows Features** dialog box, select the check box of **Internet Information Services**, then expand the list and select the items listed under **Application Development Features** and under **Common HTTP Features**. Click **OK**. These features of IIS provide runtime support for Apeon Server.

Note: The features checked above are the necessary features for Apeon Server. If you want to better manage your IIS or to install Apeon File Server, you can select the items listed under **IIS 6 Management Compatibility**.

Figure 4.7: Windows features in Windows 8



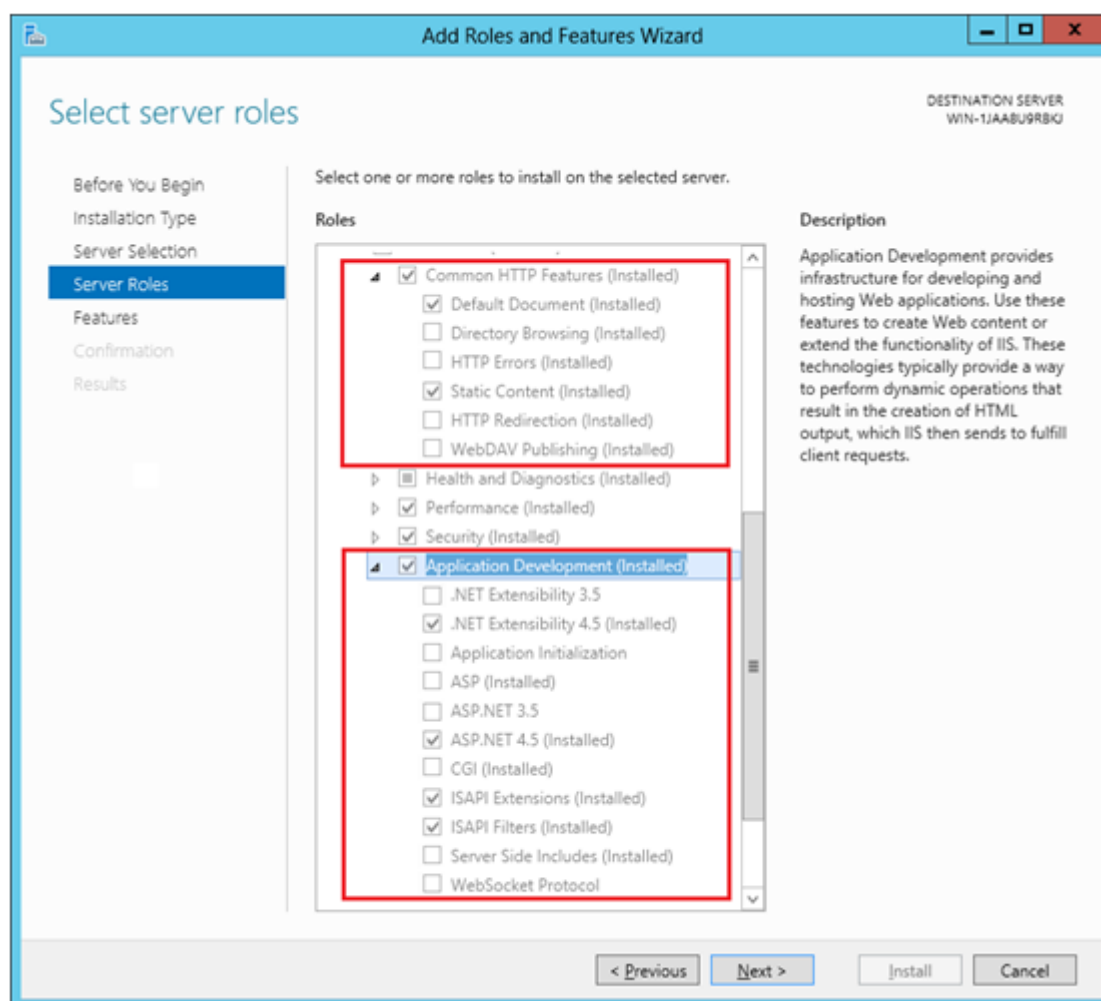
3. Click **OK** to let Windows finish the installation and reboot the system.

4.4.2.1.3 Installing IIS 8.0 on Windows Server 2012

IIS 8.0 is included with Windows Server 2012, but it is not installed on Windows Server 2012 by default. You need to manually install it. Follow the instructions below and make sure that the following highlighted features are installed; these features are not selected to install by default, you will need to manually select them during the IIS installation.

1. In Control Panel, click **Turn on or off Windows features** to enter **Add Roles and Features Wizard**. Click **Next** until you enter the **Server Roles** page.
2. In the **Server Roles** page, select the check box of **Web Server (IIS)** -> **Web Server**, then expand the list and select the items under the **Application Development Features** and under **Common HTTP Features** (as shown in the red boxes in the figure below). Click **OK**. These features of IIS provide runtime support for Appeon Server.

Figure 4.8: Windows features in Windows 2012

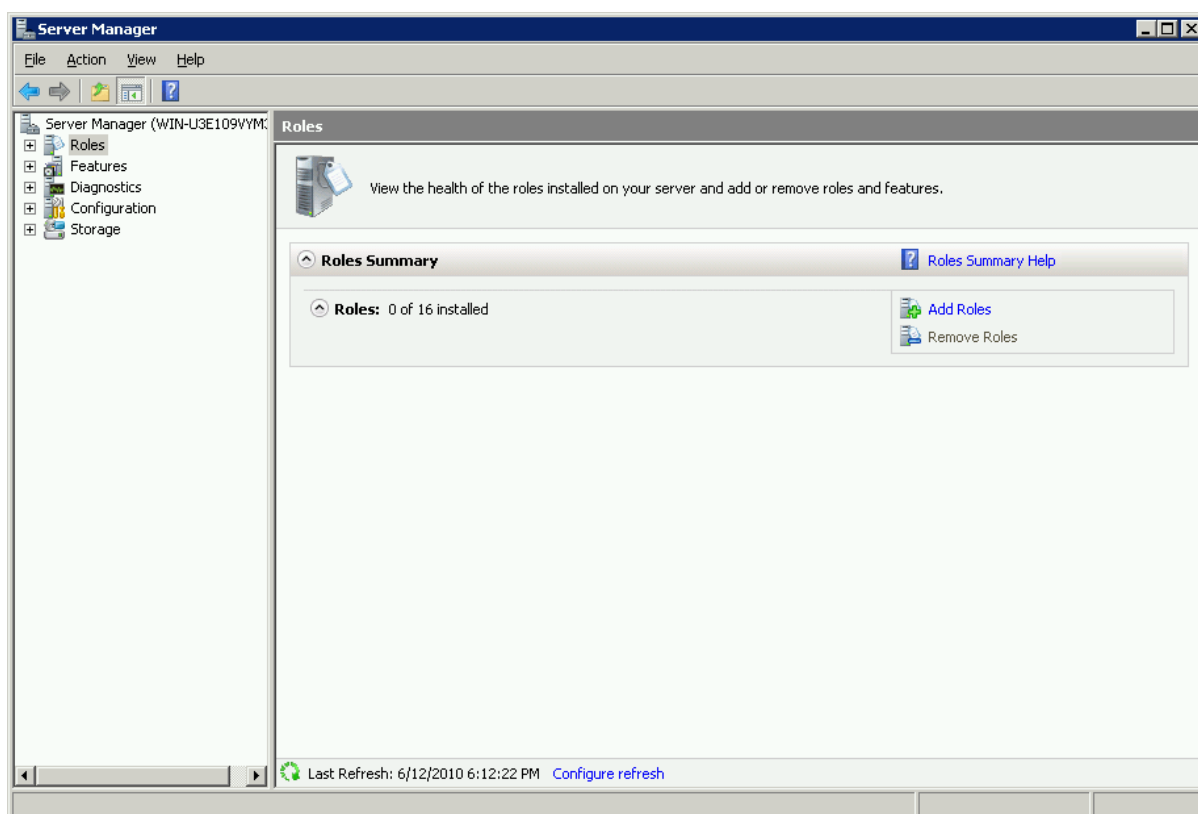


3. Click **OK** to let Windows finish the installation and reboot the system.

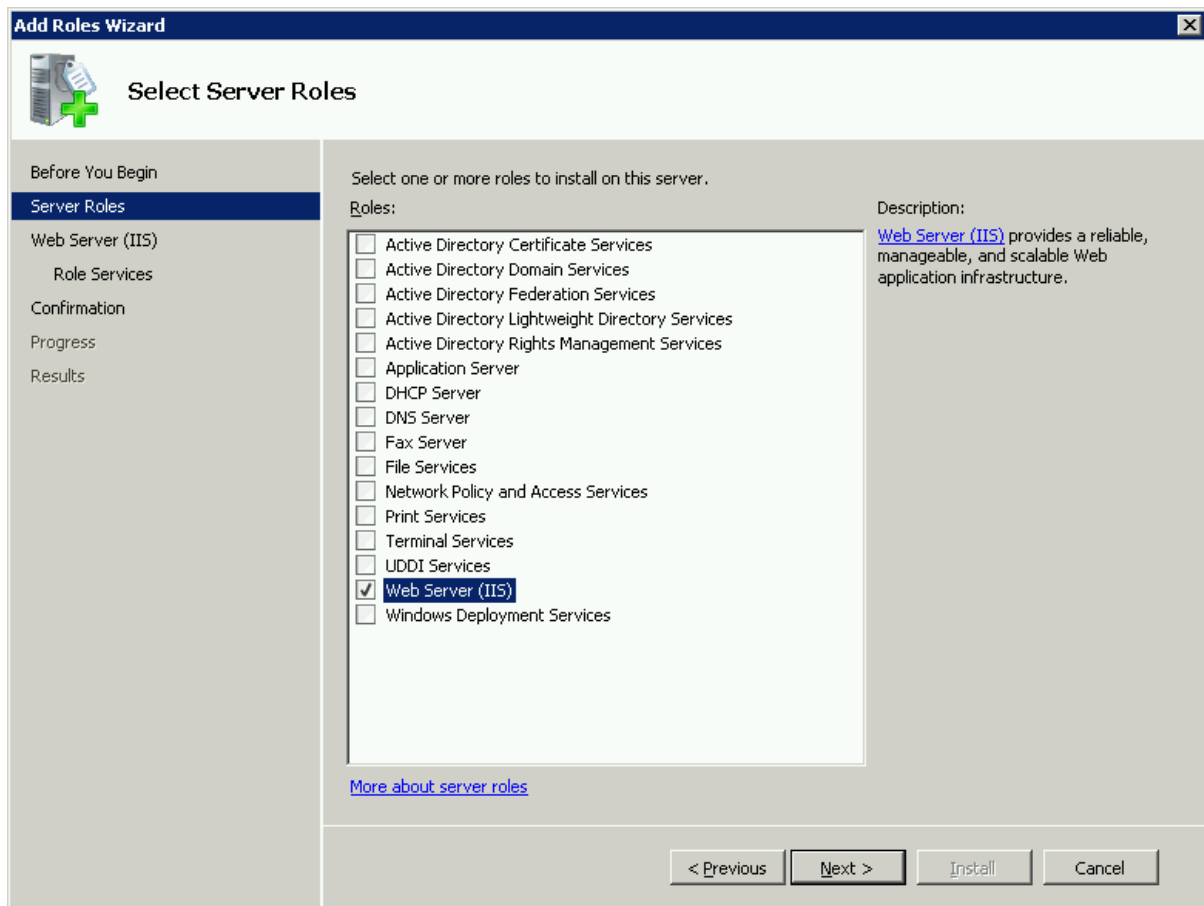
4.4.2.1.4 Installing IIS 7.5 on Windows Server 2008 R2

IIS 7.5 is included with Windows Server 2008 R2, but it is not installed on Windows Server 2008 R2 by default. You need to manually install it. Follow the instructions below and make sure that the following highlighted features are installed; these features are not selected to install by default, you will need to manually select them during the IIS installation.

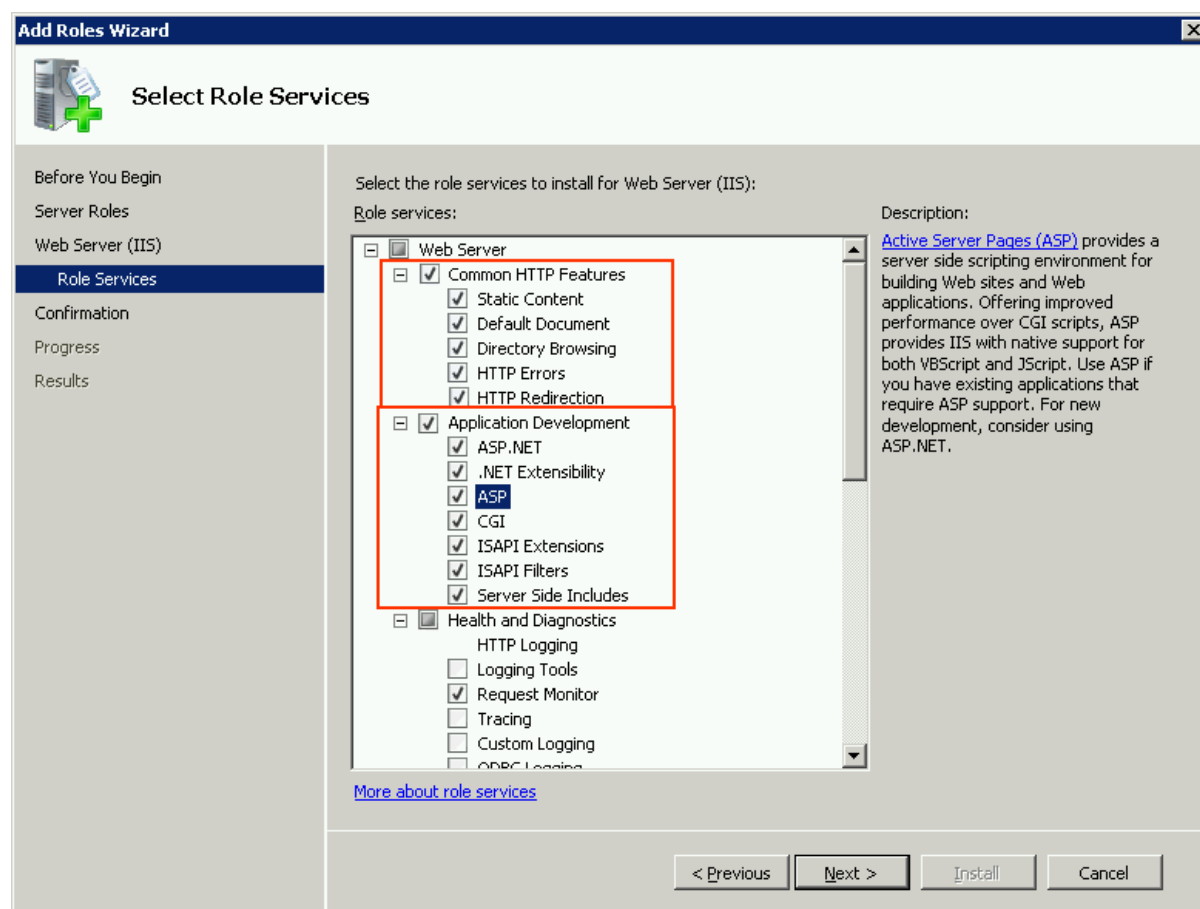
1. Click **Start**, point to **Administrative Tools** and then click **Server Manager**. Click **Roles** under **Server Manager**, and the **Roles Summary** view is displayed.

Figure 4.9: Server manager

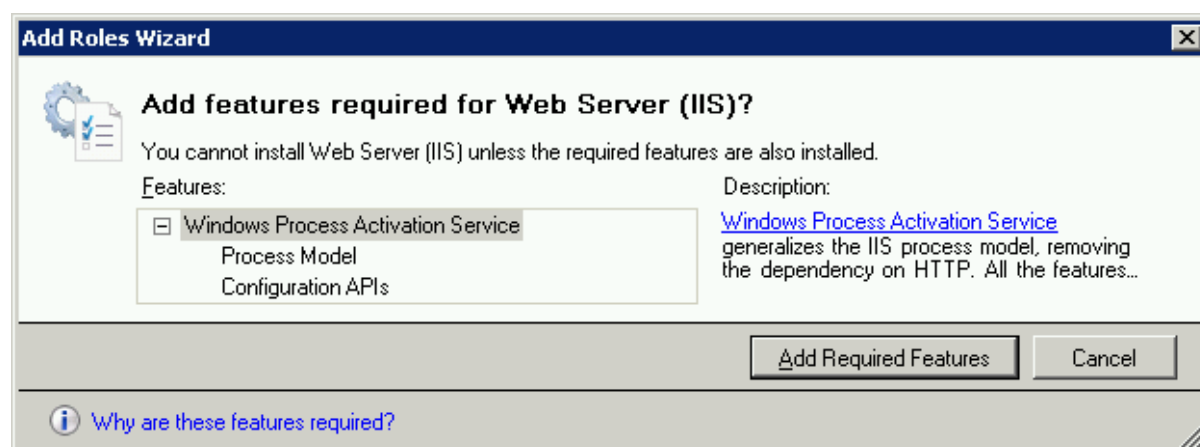
2. In **Roles Summary**, click **Add Roles**, and follow the instructions of the **Add Roles Wizard**.
3. Select **Web Server (IIS)** in **Select Server Roles**, and click **Next**.

Figure 4.10: Select Web Server (IIS)

4. In the **Select Role Services** page, select the items listed under **Common HTTP Features** and **Application Development** (as shown in the red boxes in the figure below).

Figure 4.11: Select Application Development features

5. Since IIS depends on the **Windows Process Activation Service (WAS)** feature, the following informational dialog displays. Click **Add Required Features** to continue when the **Add Roles Wizard** notifies you on any required dependencies.

Figure 4.12: Add Required Features

6. Go through the installation with the wizard and reboot the system.

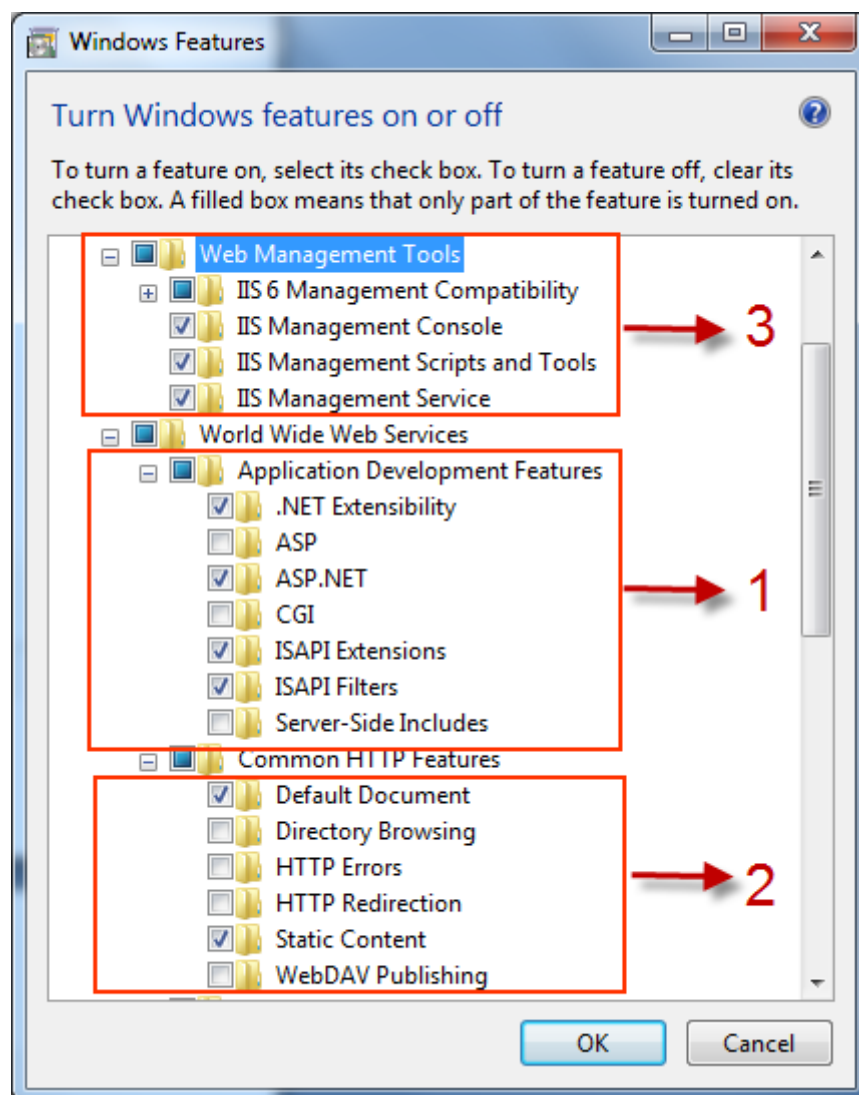
4.4.2.1.5 Installing IIS 7.5 on Windows 7

IIS 7.5 is included with Windows 7, but it is not installed on Windows 7 by default. You need to manually install it. Follow the instructions below and make sure that the following highlighted features are installed; these features are not selected to install by default, you will need to manually select them during the IIS installation.

1. Click **Start > Control Panel > Programs > Turn on or off Windows features**.
2. In the **Windows Features** dialog box, select the check box of **Internet Information Services**, then expand the list and select the items listed under **Application Development Features** and under **Common HTTP Features** (as shown in the red boxes marked with "1" and "2" in the figure below). Click **OK**. These features of IIS provide runtime support for Appeon Server.

Note: The features checked above are the necessary features for Appeon Server. If you want to better manage your IIS or to install Appeon File Server, you can select the items listed under **IIS 6 Management Compatibility** (as shown in the red box marked with "3" in the figure below).

Figure 4.13: Windows features



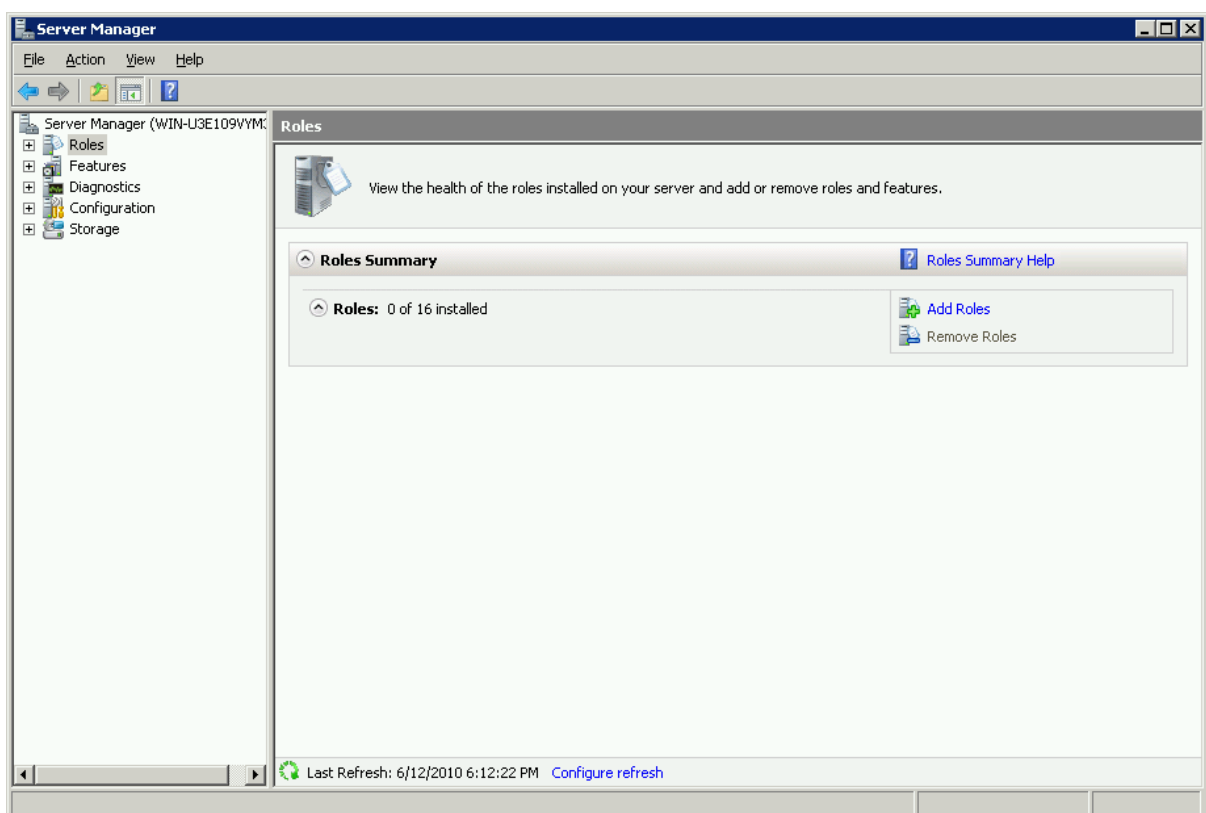
3. Click **OK** to let Windows finish the installation and reboot the system.

4.4.2.1.6 Installing IIS 7.0 on Windows Server 2008

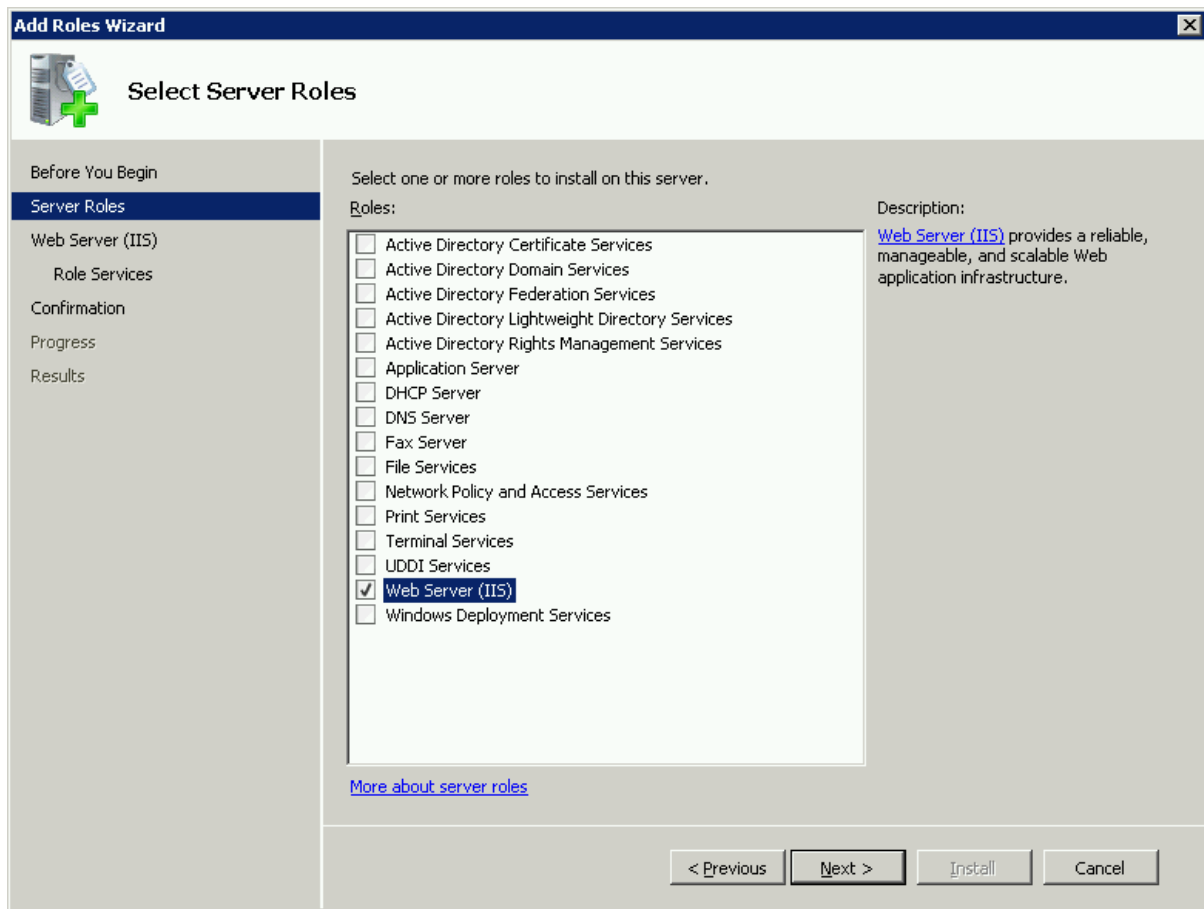
IIS 7.0 is included with Windows Server 2008, but it is not installed on Windows Server 2008 by default. You need to manually install it. Follow the instructions below and make sure that the following highlighted features are installed; these features are not selected to install by default, you will need to manually select them during the IIS installation.

1. Click **Start**, point to **Administrative Tools** and then click **Server Manager**. Click **Roles** under **Server Manager**, and the **Roles Summary** view is displayed.

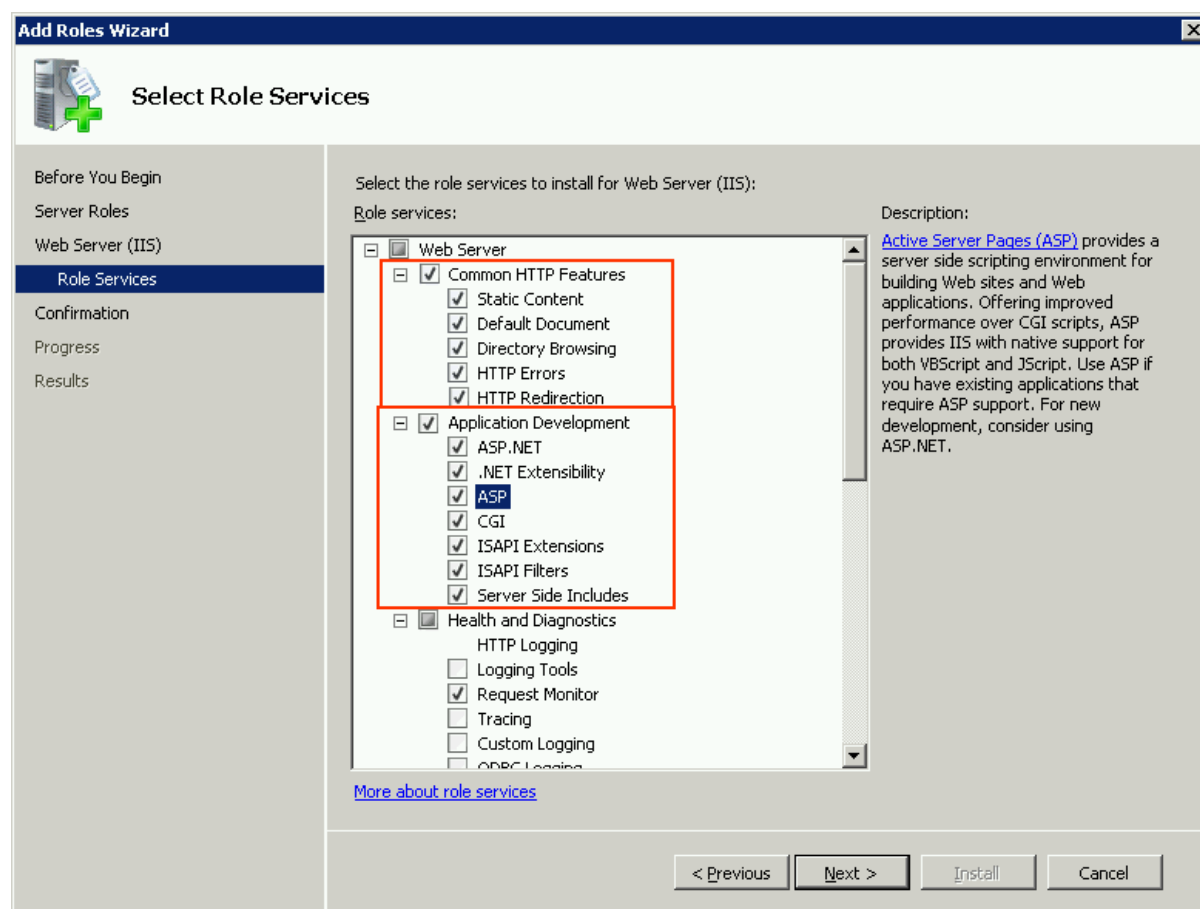
Figure 4.14: Server manager



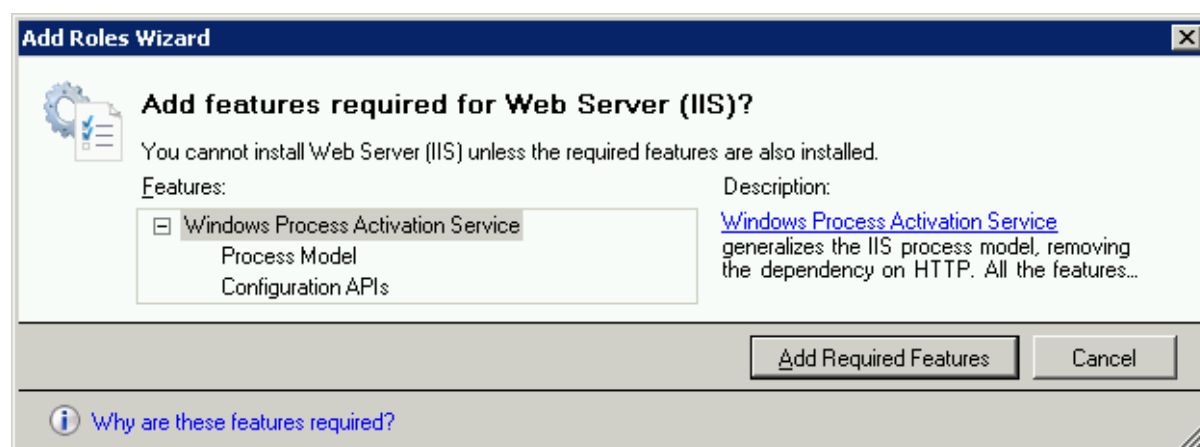
2. In **Roles Summary**, click **Add Roles**, and follow the instructions of the **Add Roles Wizard**.
3. Select **Web Server (IIS)** in **Select Server Roles**, and click **Next**.

Figure 4.15: Select Web Server (IIS)

4. In the **Select Role Services** page, select the items listed under **Common HTTP Features** and **Application Development** (as shown in the red boxes in the figure below).

Figure 4.16: Select Application Development features

5. Since IIS depends on the **Windows Process Activation Service (WAS)** feature, the following informational dialog displays. Click **Add Required Features** to continue when the **Add Roles Wizard** notifies you on any required dependencies.

Figure 4.17: Add Required Features

6. Go through the installation with the wizard and reboot the system.

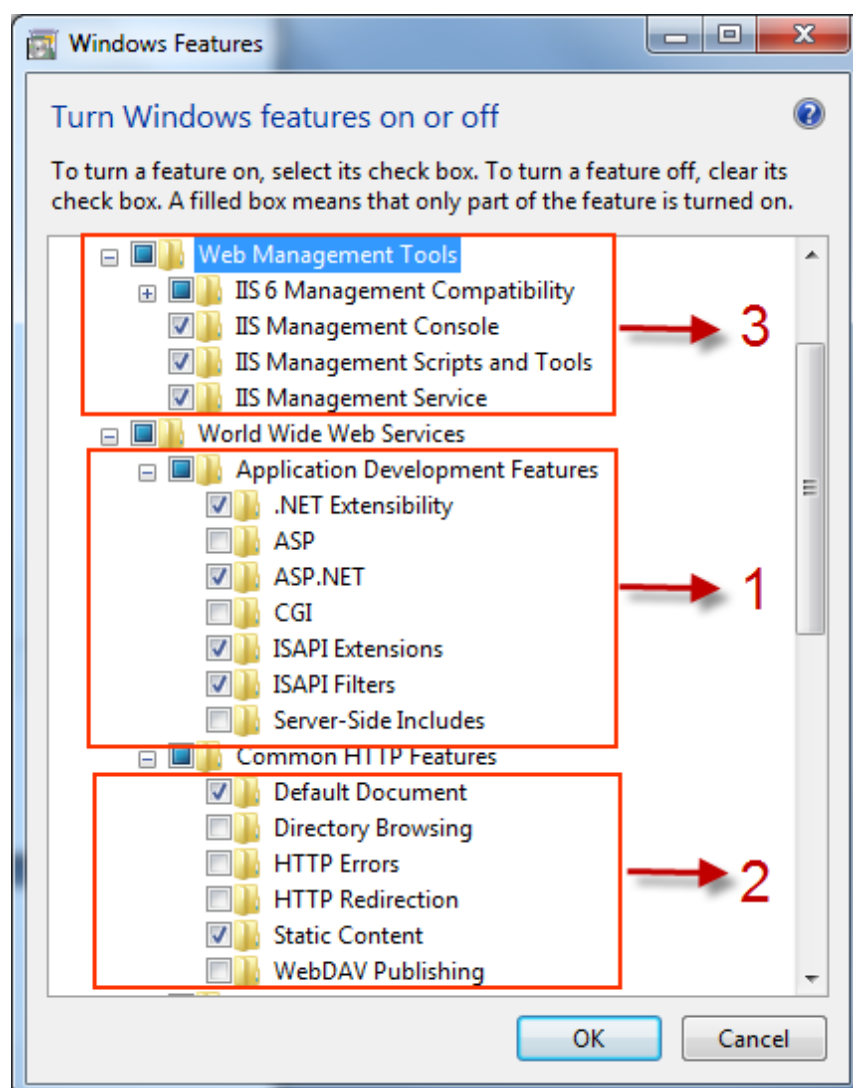
4.4.2.1.7 Installing IIS 7.0 on Windows Vista

IIS 7.0 is included with Windows Vista, but it is not installed on Windows Vista by default. You need to manually install it. Follow the instructions below and make sure that the following highlighted features are installed; these features are not selected to install by default, you will need to manually select them during the IIS installation.

1. Click **Start > Control Panel > Programs > Turn on or off Windows features**.
2. In the **Windows Features** dialog box, select the check box of **Internet Information Services**, then expand the list and select the items listed under **Application Development Features** and under **Common HTTP Features** (as shown in the red boxes marked with "1" and "2" in the figure below). Click **OK**. These features of IIS provide runtime support for Appeon Server.

Note: The features checked above are the necessary features for Appeon Server. If you want to better manage your IIS or install Appeon File Server, you can select the items listed under **IIS 6 Management Compatibility** (as shown in the red box marked with "3" in the figure below).

Figure 4.18: Windows features



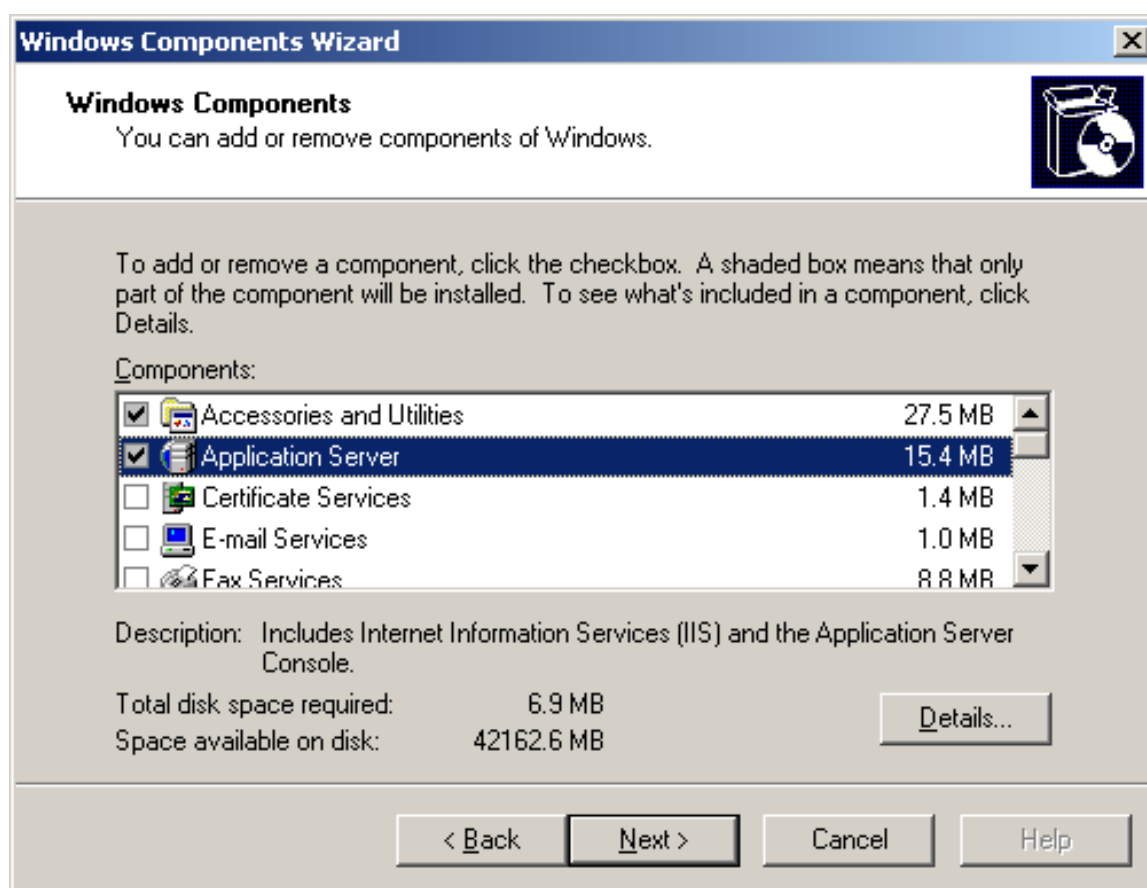
3. Click **OK** to let Windows finish the installation and reboot the system.

4.4.2.1.8 Installing IIS 6.0 on Windows Server 2003

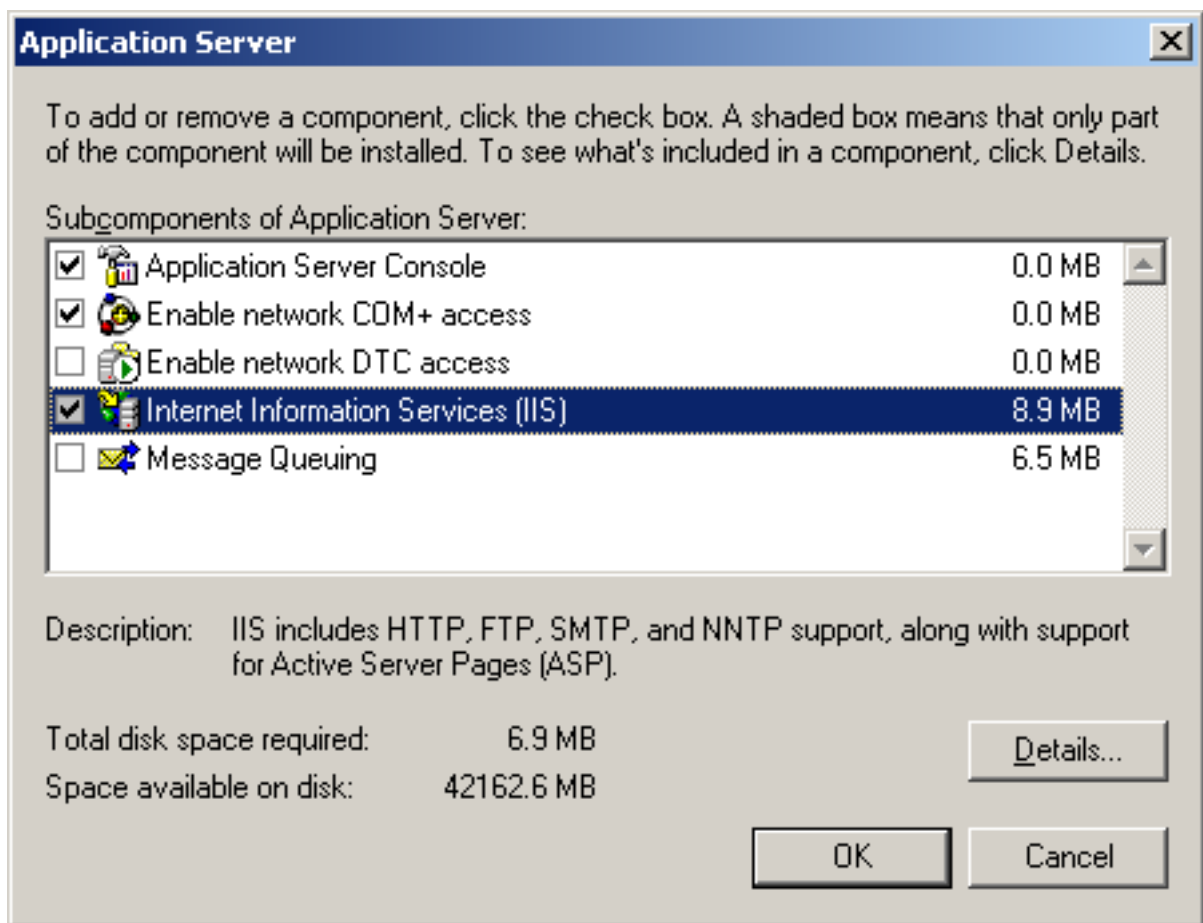
IIS 6.0 is included with Windows Server 2003, but it is not installed on Windows Server 2003 by default. You need to manually install it. Following are the key steps to complete the IIS install.

1. Go to **Control Panel | Add/Remove Programs**.
2. Click **Add/Remove Windows Components**.
3. In the **Components** list box, click **Application Server** (as shown in the figure below), then click **Next**.

Figure 4.19: Select "Application Server"

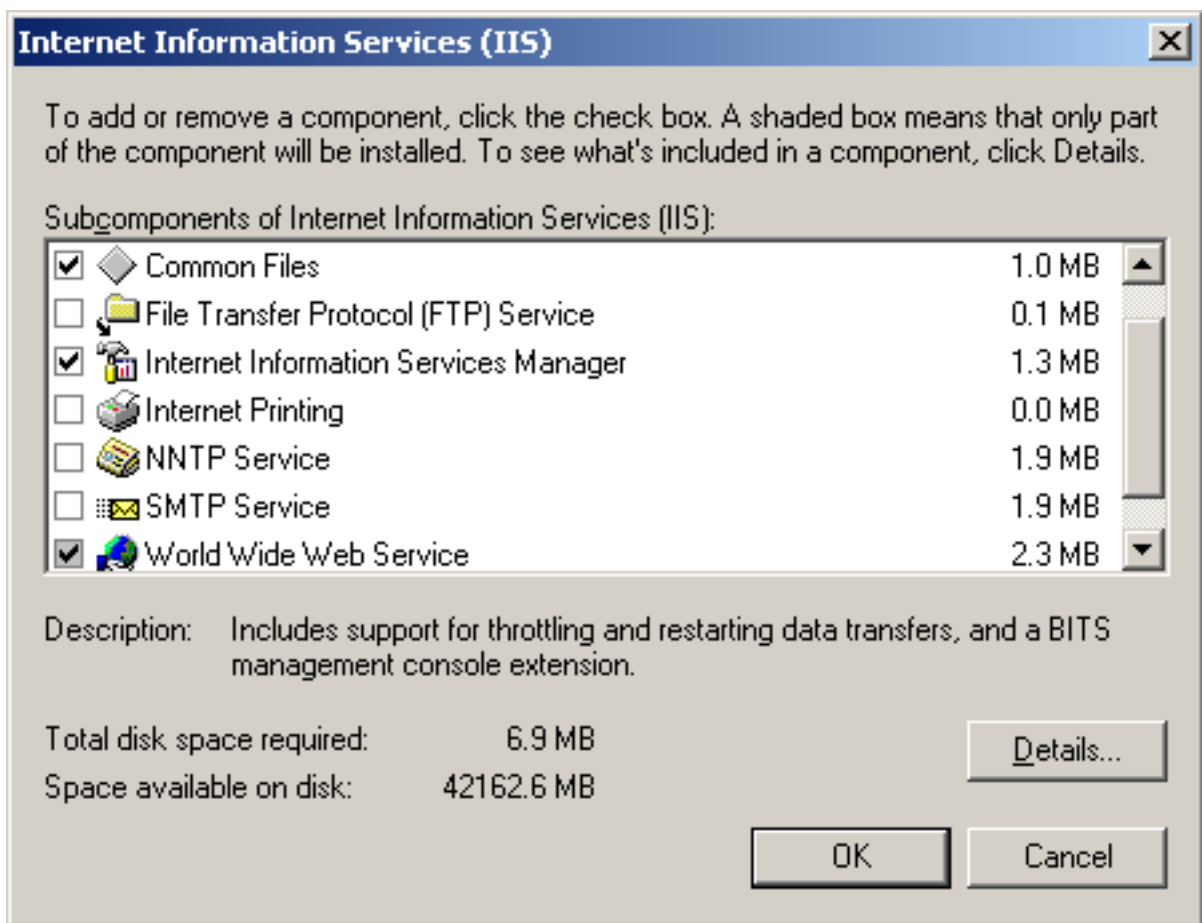


4. Select **Internet Information Services (IIS)** (as shown in the figure below).

Figure 4.20: Select "Internet Information Services (IIS)"

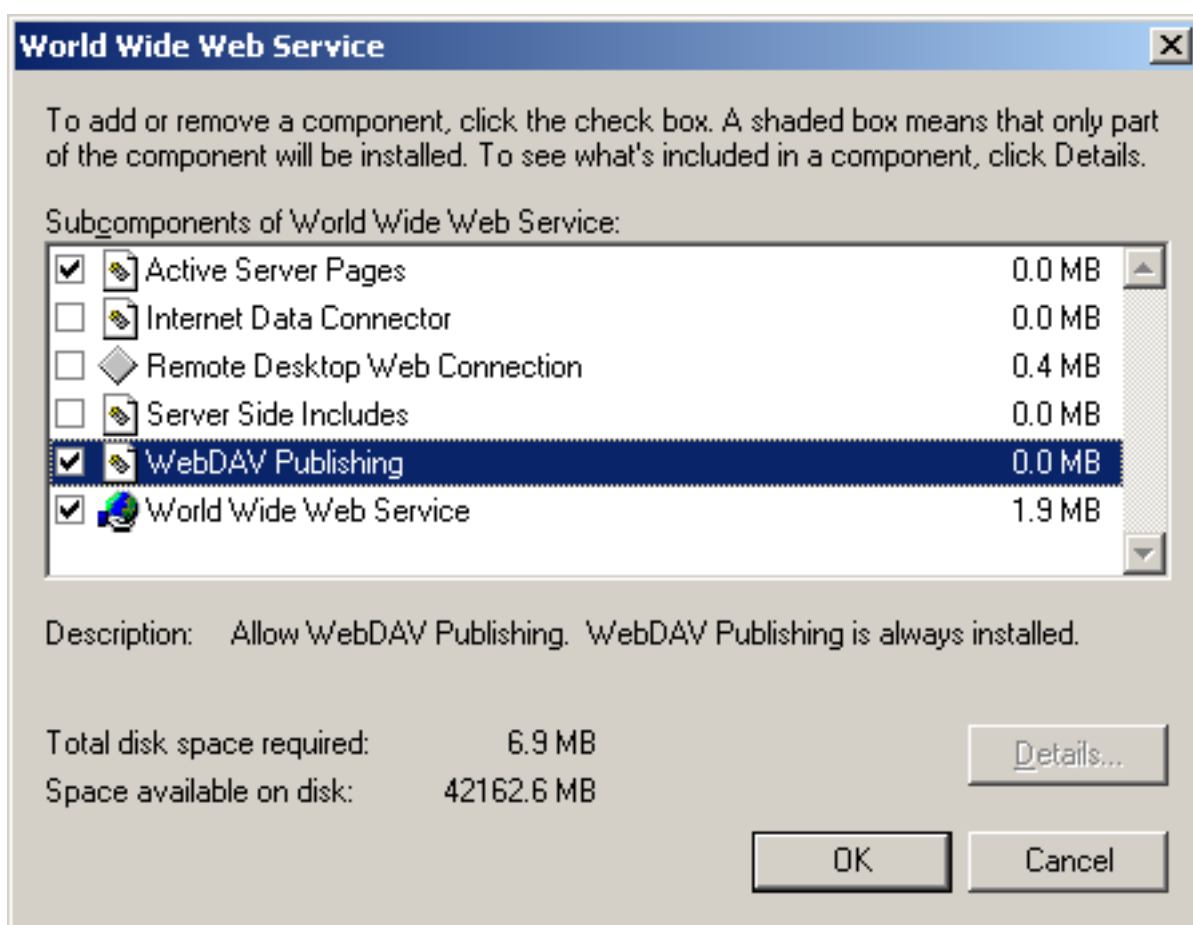
5. Click **Details** and select the following components:

- Common Files
- Internet Information Services Manager
- World Wide Web Service

Figure 4.21: Select components under Internet Information Services

6. Select **World Wide Web Service** and click **Details** to select the following components (as shown in the following figure):

- Active Server Pages
- WebDAV Publishing
- World Wide Web Service

Figure 4.22: Select components under World Wide Web Service

7. Click **OK** to install IIS 6.0 and reboot the system.

4.4.2.2 Installation instructions

During the Appeon Server installation, the setup program will automatically configure the .NET IIS server so Appeon Server and IIS can work with each other. In very few cases, the automatic configuration may fail due to reasons such as environmental issues, user privileges, configuration changes etc., and Appeon Server is not working as expected. When this happens, you can go through the configurations in the **Install Appeon Server to .NET IIS** section of *Appeon Troubleshooting Guide* to fix the problem.

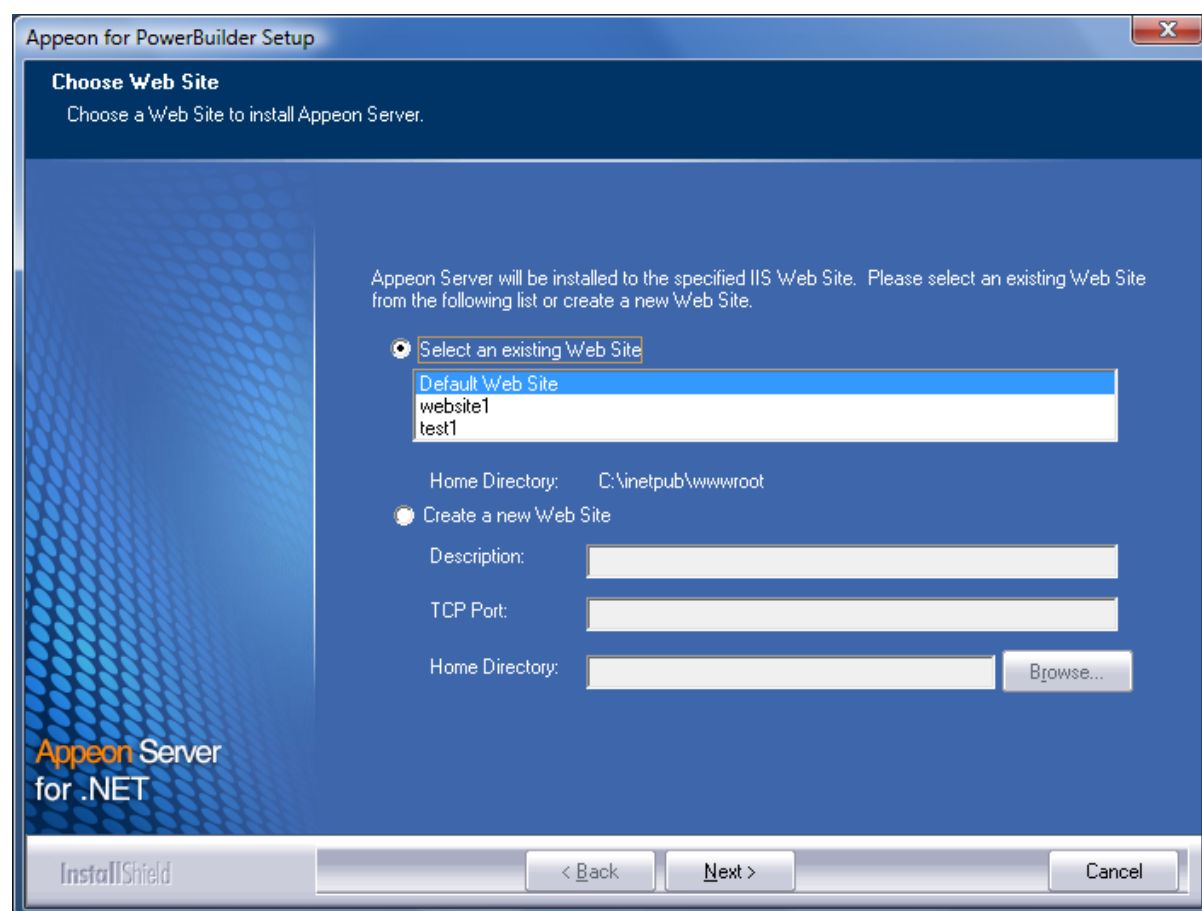
Step 1: Launch the **Appeon for PowerBuilder 2013 R2 Setup** program and select to install **Appeon Server for .NET** (see [Starting the installation](#)). Wait until Appeon Server completes the preparation.

Step 2: Specify the IIS Web site where Appeon Server will be installed and click **Next**.

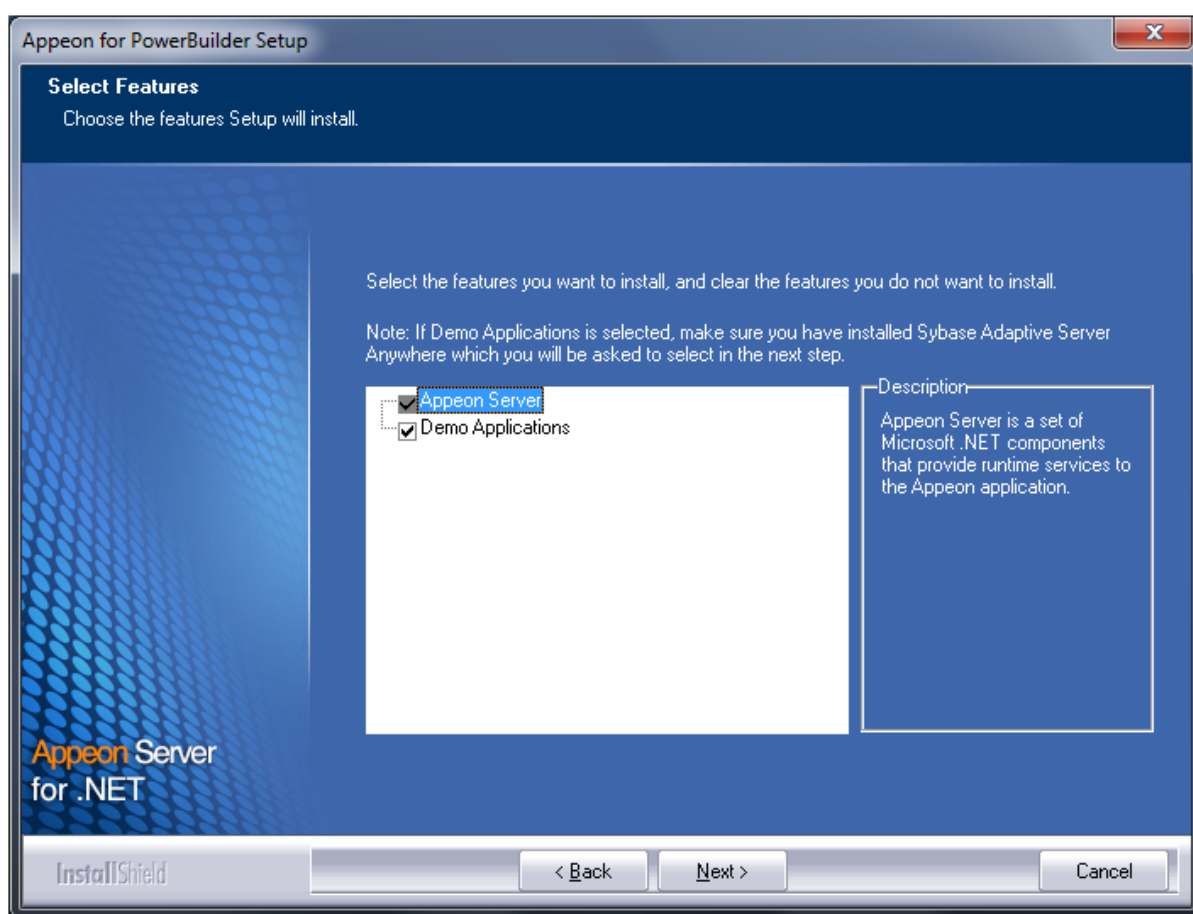
Appeon Server will be installed to an existing Web site or a new Web site. If you want to install Appeon Server to a new Web site, create one by selecting the "Create a new Web Site" option and inputting the Web site description, TCP port, and home directory. The Description, TCP Port, and Home Directory of the new Web site cannot be the same as the existing Web site.

Table 4.5: New IIS Web site

Setting	Instructions
Description	Type a name to be used as the new Web site name.
TCP Port	Type a port number to be used as the new Web site port.
Home Directory	Click Browse... to specify a root path of the new Web site.

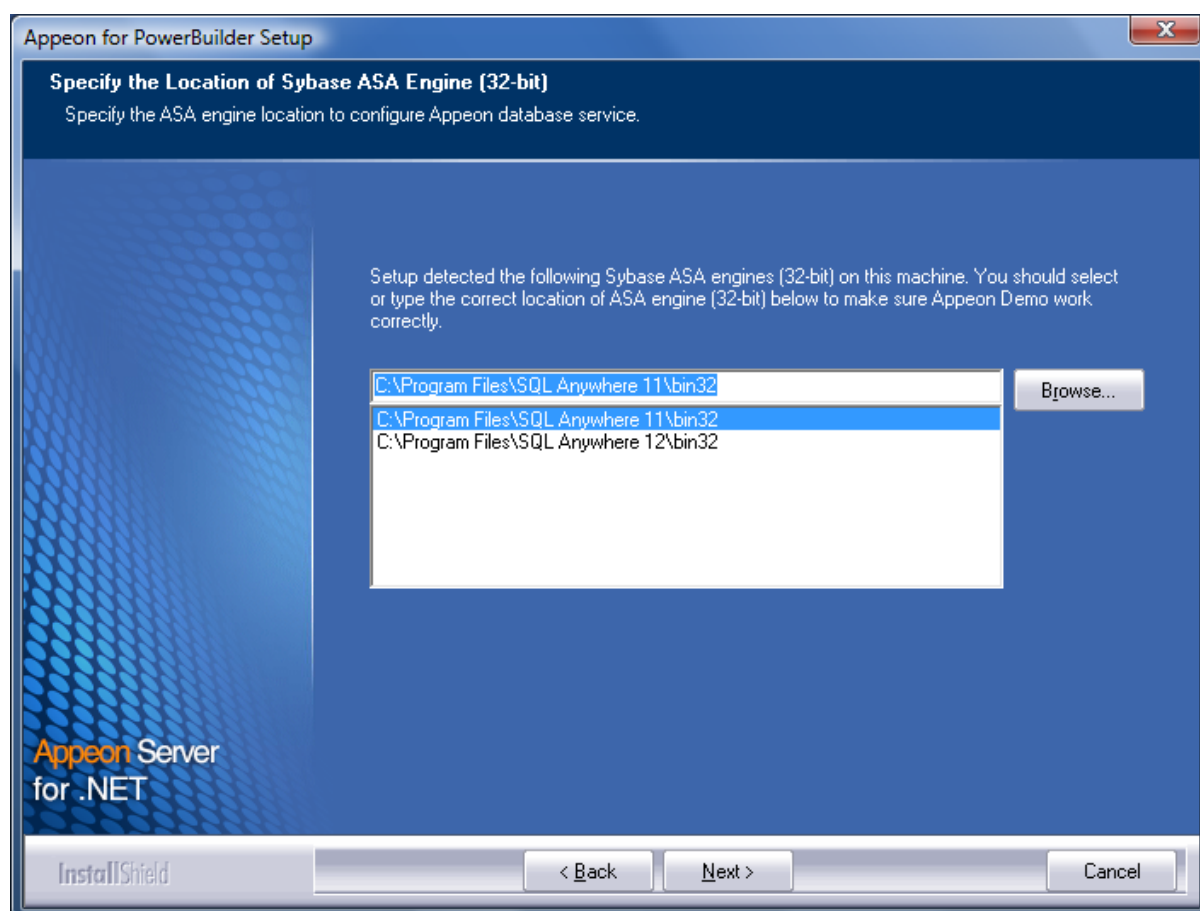
Figure 4.23: Web site location

Step 3: Select whether to install the Web version of Appeon Demo and click **Next**.

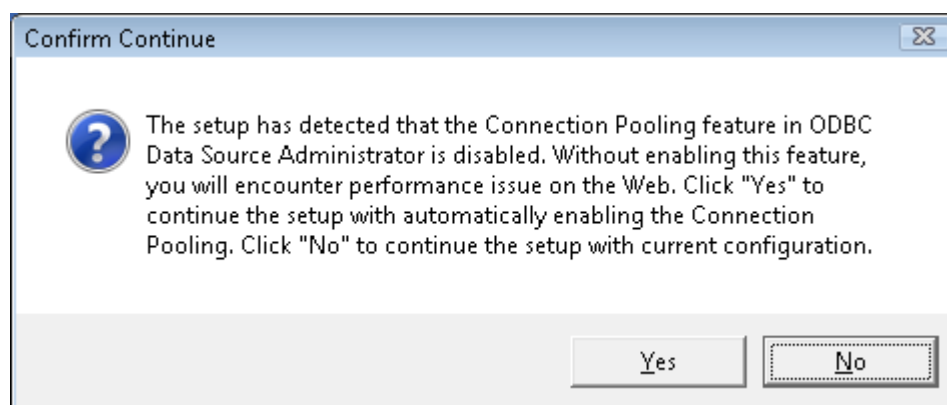
Figure 4.24: Custom Setup

Step 4: If you selected to install the demo application, specify the path for the Sybase ASA/SQL Anywhere engine and click **Next**. Appeon Demo requires ASA/SQL Anywhere to run.

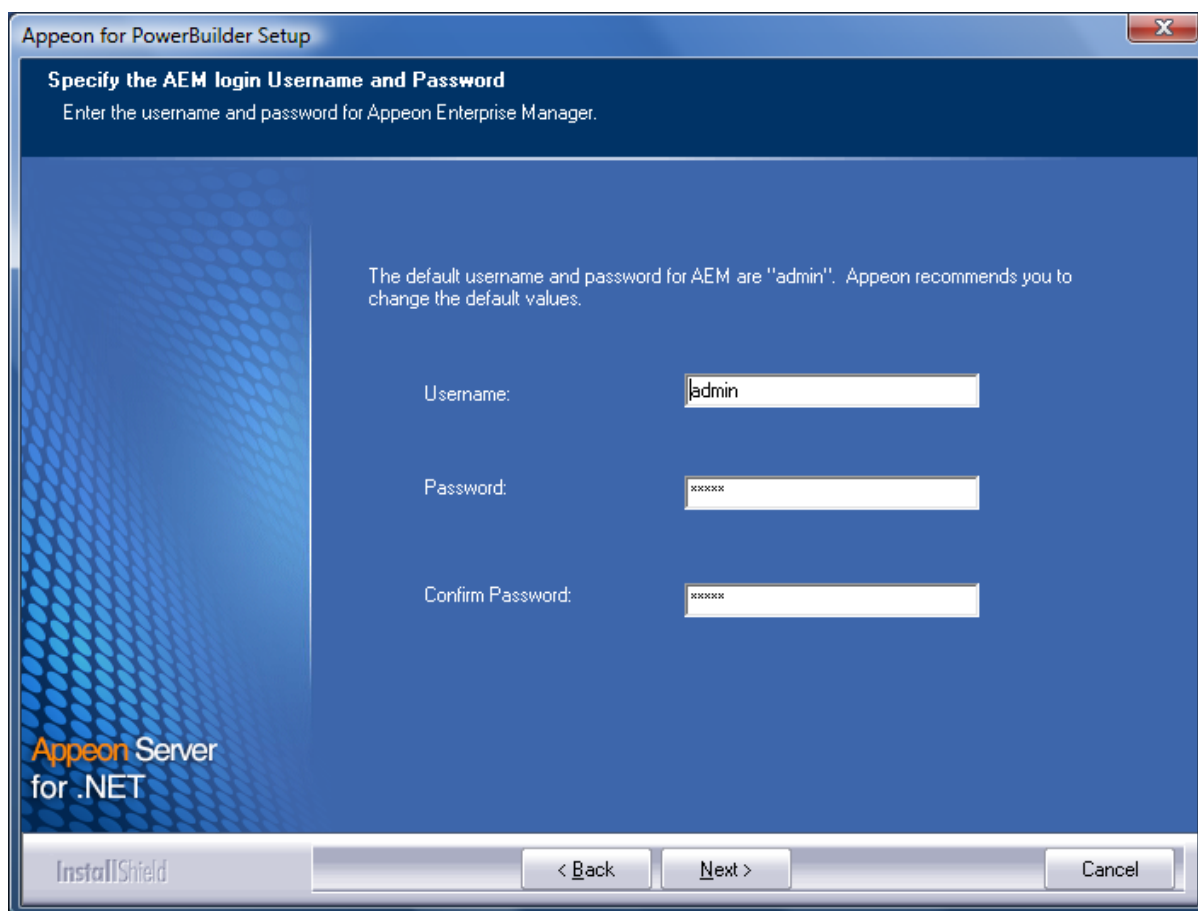
Depending on the version of Appeon Server (32-bit or 64-bit), Setup lists all copies of ASA/SQL Anywhere engines of the corresponding version (32-bit or 64-bit) detected in your machine.

Figure 4.25: ASA/SQL Anywhere location

If you encounter the following message, Appeon recommends you click **Yes** to allow the setup program to enable the connection pooling in ODBC Data Source Administrator, this eliminates the likelihood of having any performance issues at runtime.

Figure 4.26: Detect connection pooling

Step 5: Specify the AEM login user name and password.

Figure 4.27: AEM login username and password

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:

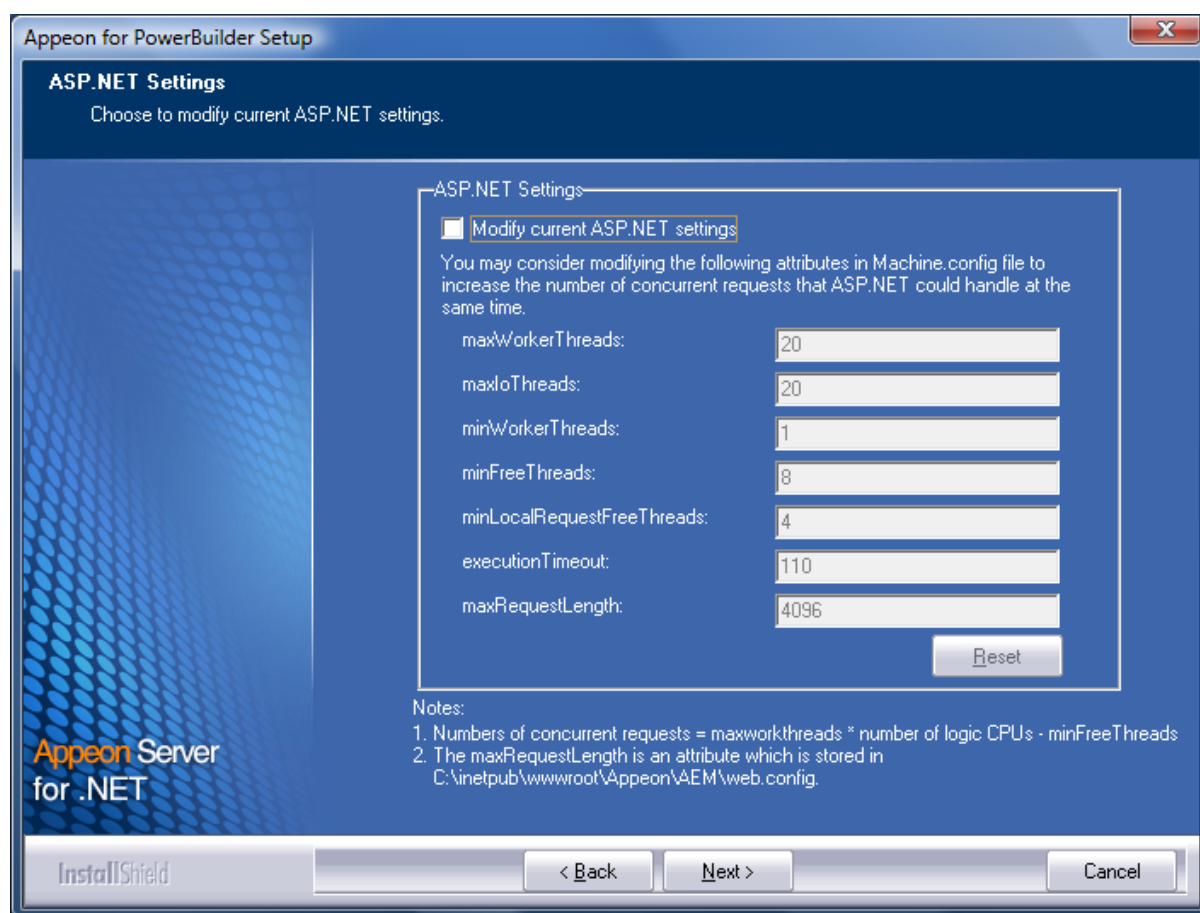
Appeon Server
for .NET

InstallShield

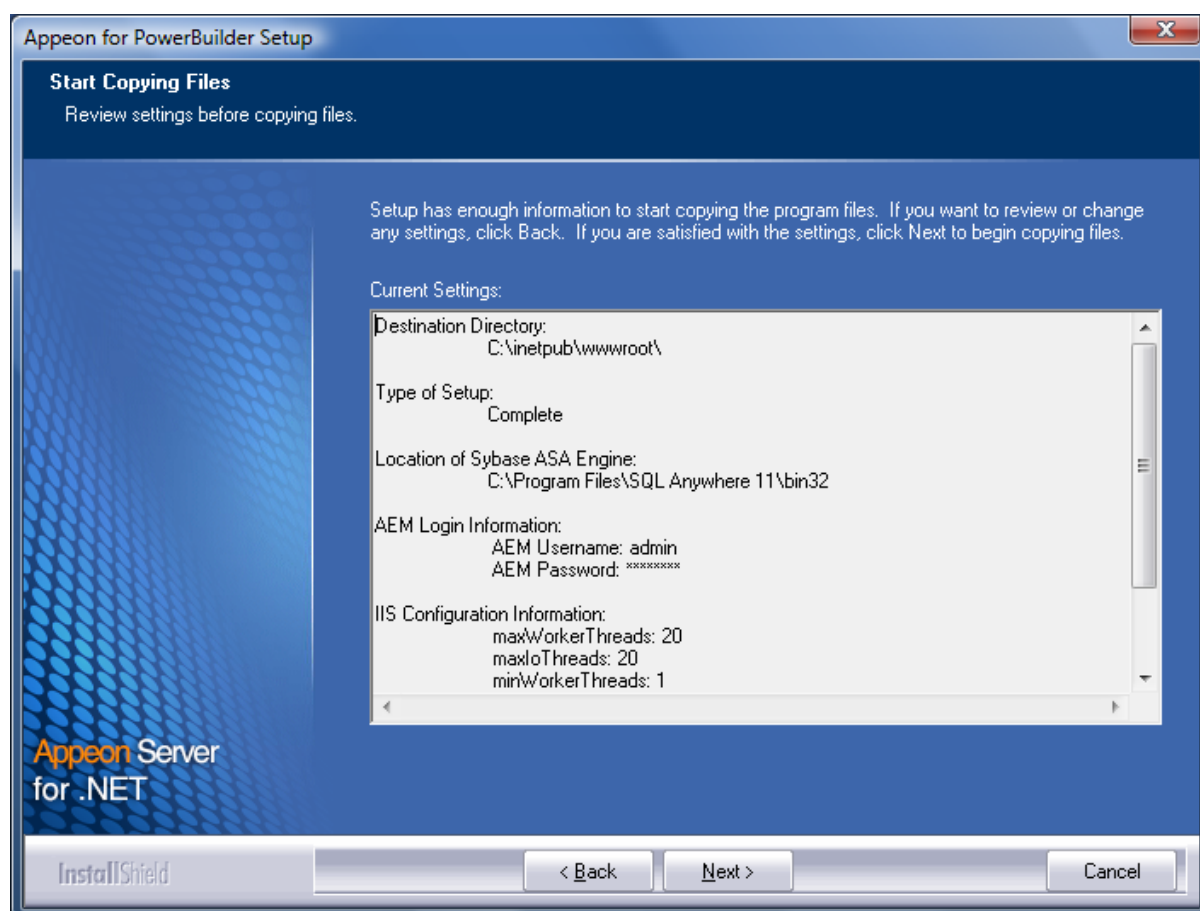
< Back Next > Cancel

Step 6: Modify the settings for ASP.NET when necessary.

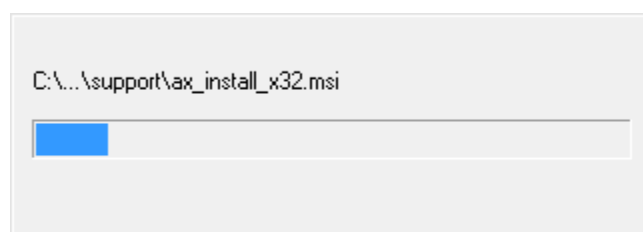
Select the "Modify current ASP.NET settings" checkbox and then modify the attribute values; or click **Reset** to restore the default values. These values are used to determine the maximum number of concurrent users that Appeon Server can support, therefore, setting proper values can help improve the Appeon Server performance. For detailed instructions, refer to the **Microsoft IIS Server** section in **Appeon Performance Tuning Guide**.

Figure 4.28: ASP .NET settings

Step 7: Check the summary of settings. Click **Back** to change any unwanted settings or click **Next** to have Setup begin copying files.

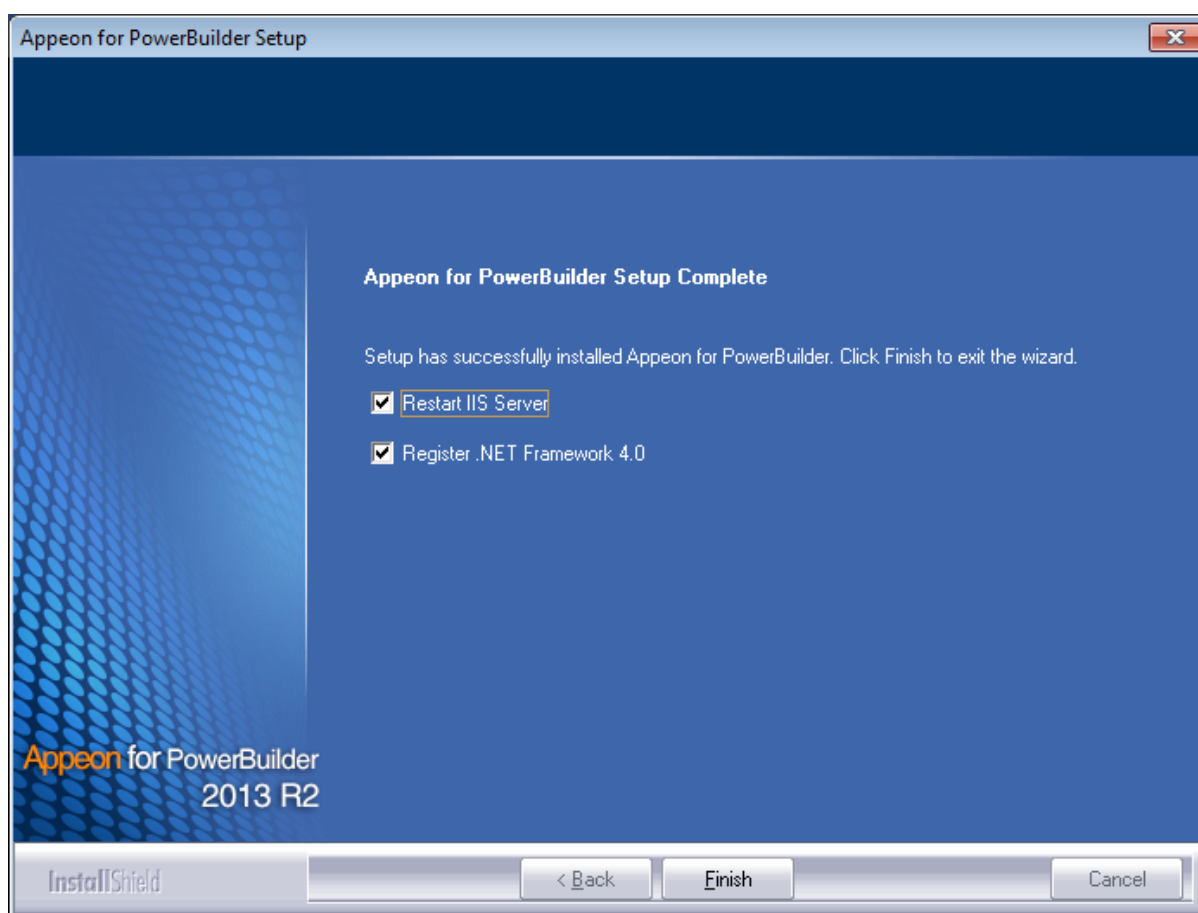
Figure 4.29: Summary of settings

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

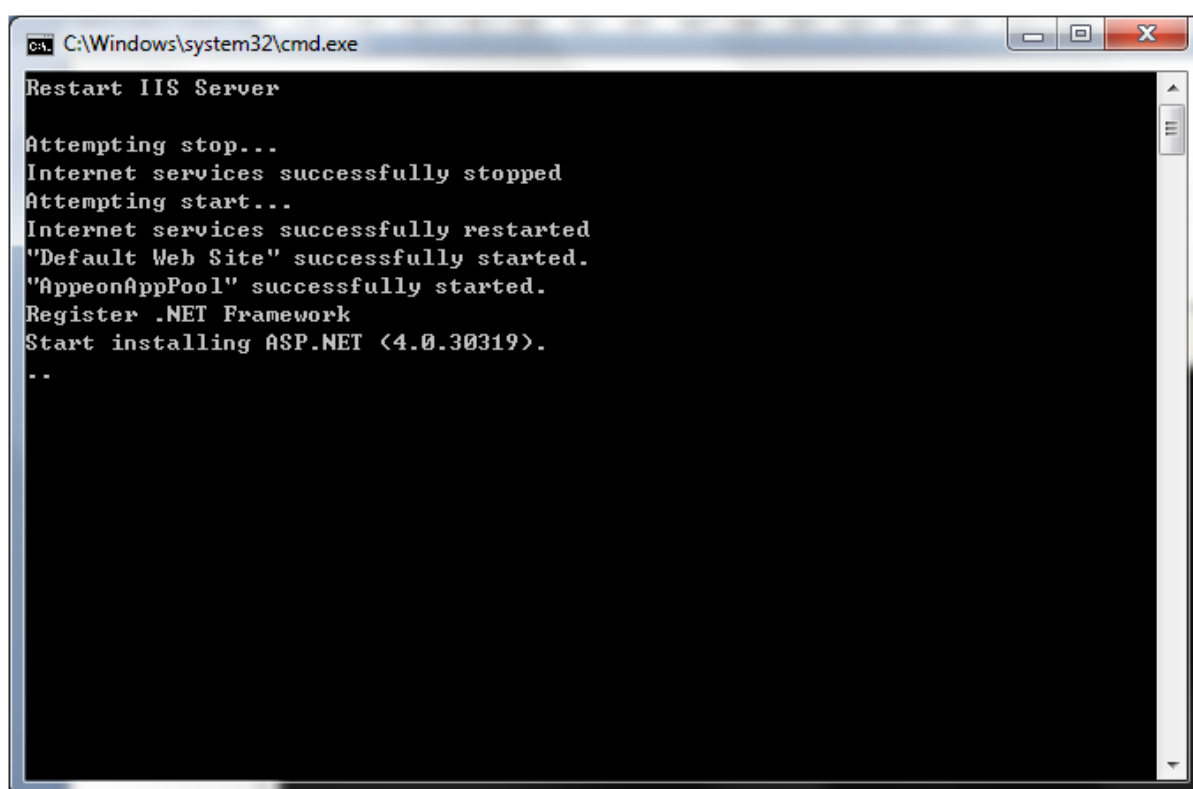
Figure 4.30: Appeon Server installation process

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

It is recommended that you keep **Restart IIS Server** and **Register .NET Framework 4.0** selected when clicking **Finish**.

Figure 4.31: Setup complete

The setup program will restart the IIS server and then register .NET Framework, as shown in the following figure.

Figure 4.32: Register .NET Framework

During the Appeon Server installation, the Appeon Enterprise Manager Web application (installed to %appeonserver%\AEM) and the Appeon Server Web Component (installed to %appeonserver%\weblibrary_ax) are automatically installed. %appeonserver% indicates the Appeon Server installation directory, for example, C:\Inetpub\wwwroot\appeon.

4.4.2.3 Appeon Server Instance Configuration

4.4.2.3.1 Overview

During the Appeon Server installation, you can select to install Appeon Server to an IIS Web site, but you may want to create the Appeon Server instances on the other IIS Web sites on that machine, so that the machine hardware resources can be better utilized, and the application on different Web sites can run more stably and independently, as the Appeon Server instances work independently from each other, and use different Application Pool and work process, like they are installed on different machines.

The following sections will talk about how to use the Appeon Server Instance Configuration Wizard to create the Appeon Server instance on IIS Web site(s) on the same machine.

Before creating the Appeon Server instance, you must have already installed Appeon Server to an IIS Web site which will be used later by the Appeon Server Instance Configuration Wizard as the template to create the instance.

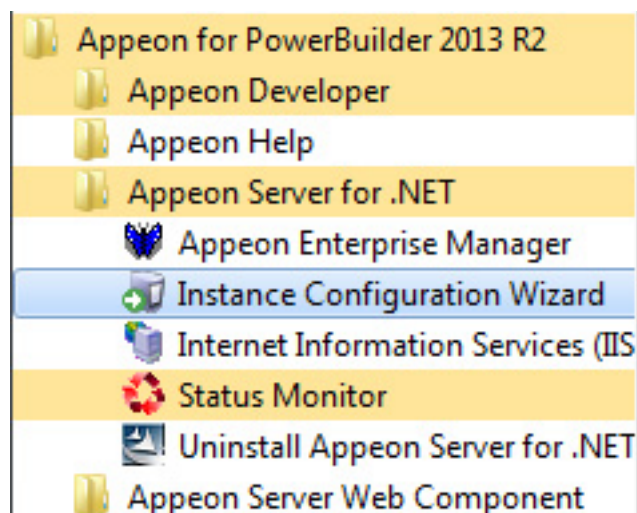
To create an Appeon Server instance by the Appeon Server Instance Configuration Wizard, you can directly create an instance on the existing IIS Web site(s) or create a new IIS Web site and then create an instance on it. See the following sections for detailed instructions.

4.4.2.3.2 Creating an Appeon Server instance on an existing Web site

To create an Appeon Server instance on an existing IIS Web site, follow the steps below:

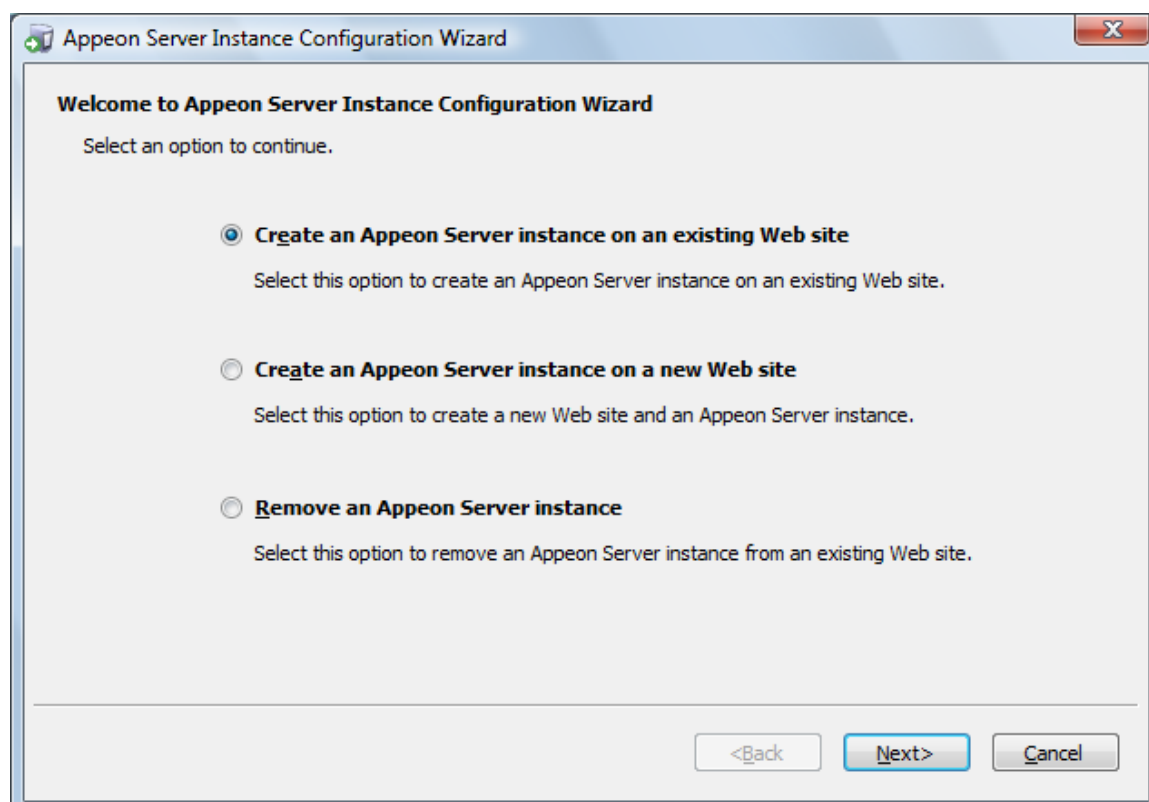
Step 1: Run the Instance Configuration Wizard from **Start | Programs | Appeon for PowerBuilder 2013 R2 | Appeon Server for .NET | Instance Configuration Wizard**.

Figure 4.33: Run instance configuration wizard



Step 2: In the **Appeon Server Instance Configuration Wizard** (referred as "Wizard" later in this section), select **Create an Appeon Server instance on an existing Web site** and click **Next**.

Figure 4.34: Create an Appeon Server instance on an existing Web site

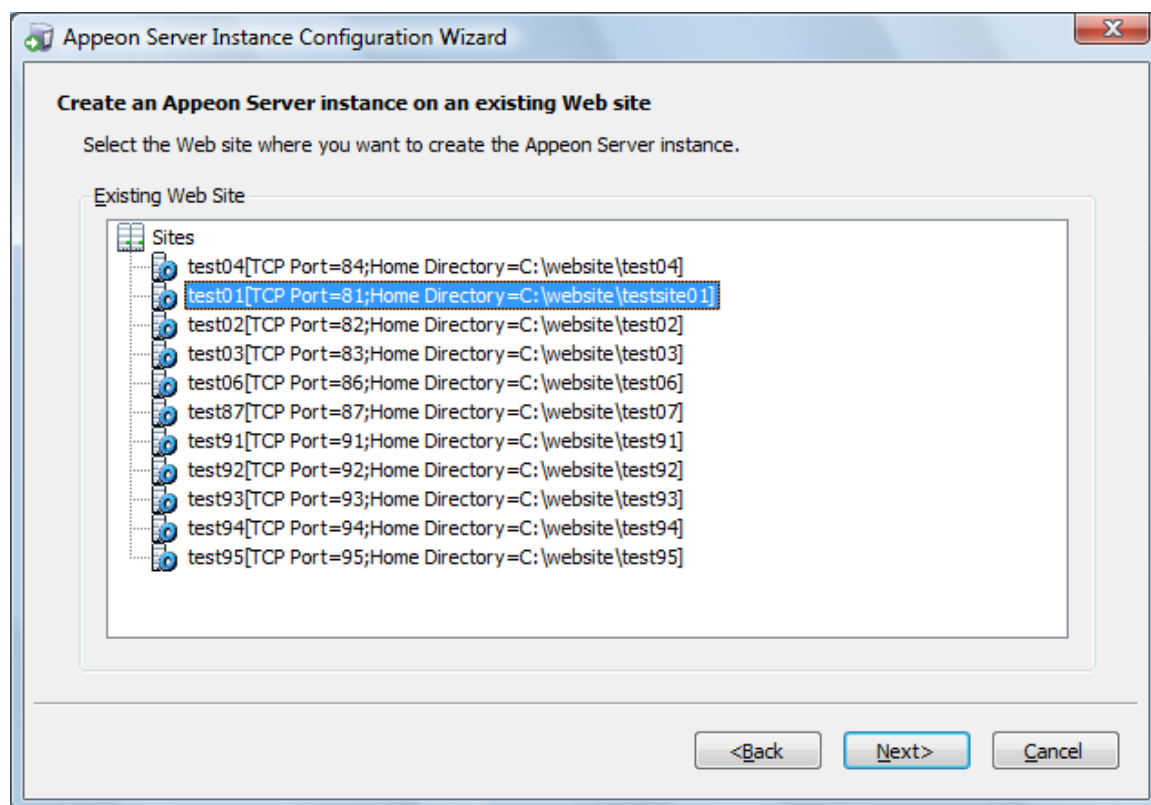


Step 3: From the Existing Web Site list, select a Web site where you want to create the Appeon Server instance and click **Next**.

The Wizard automatically detects and lists all existing Web sites where no Appeon Server instance is installed.

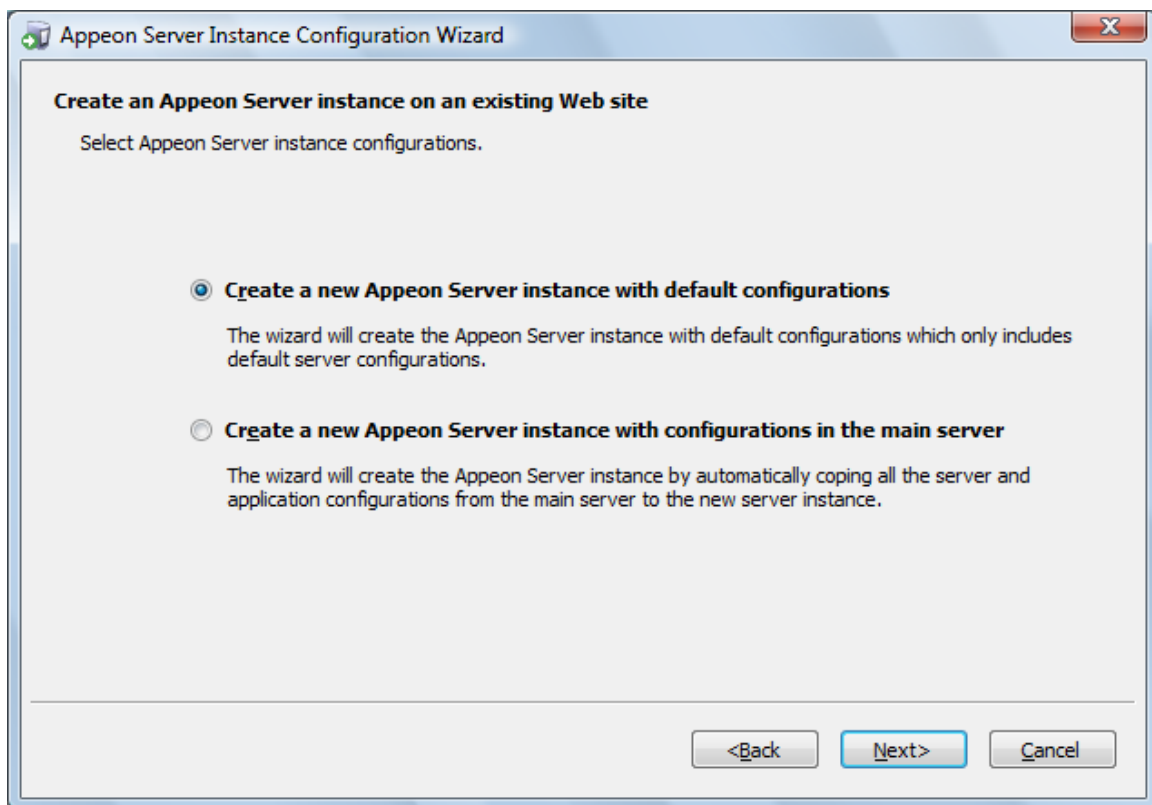
Note: More than one IIS Web sites are allowed to share the same home directory; but if one of these Web sites already has an Appeon Server instance installed, then the other Web sites (that use the same home directory) cannot have the Appeon Server instance installed.

Figure 4.35: Select a Web site



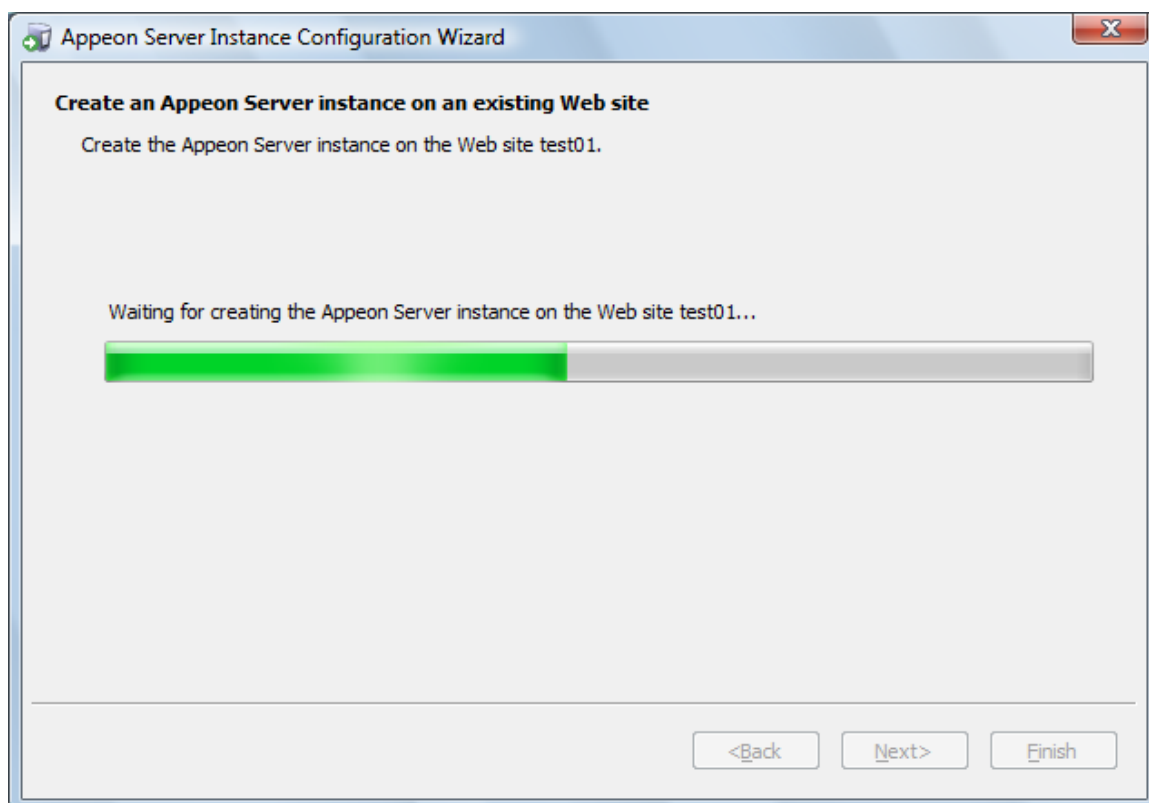
Step 4: Select to create the Appeon Server instance based on the default configurations or on the existing configurations and then click **Next**.

- **Create a new Appeon Server instance with default configurations** indicates the Appeon Server instance to be created will have the default configurations of Appeon Server.
- **Create a new Appeon Server instance with configurations in the main server** indicates the Appeon Server instance to be created will have all of the existing configurations, including the default configurations and the configurations made later, such as AEM configurations.

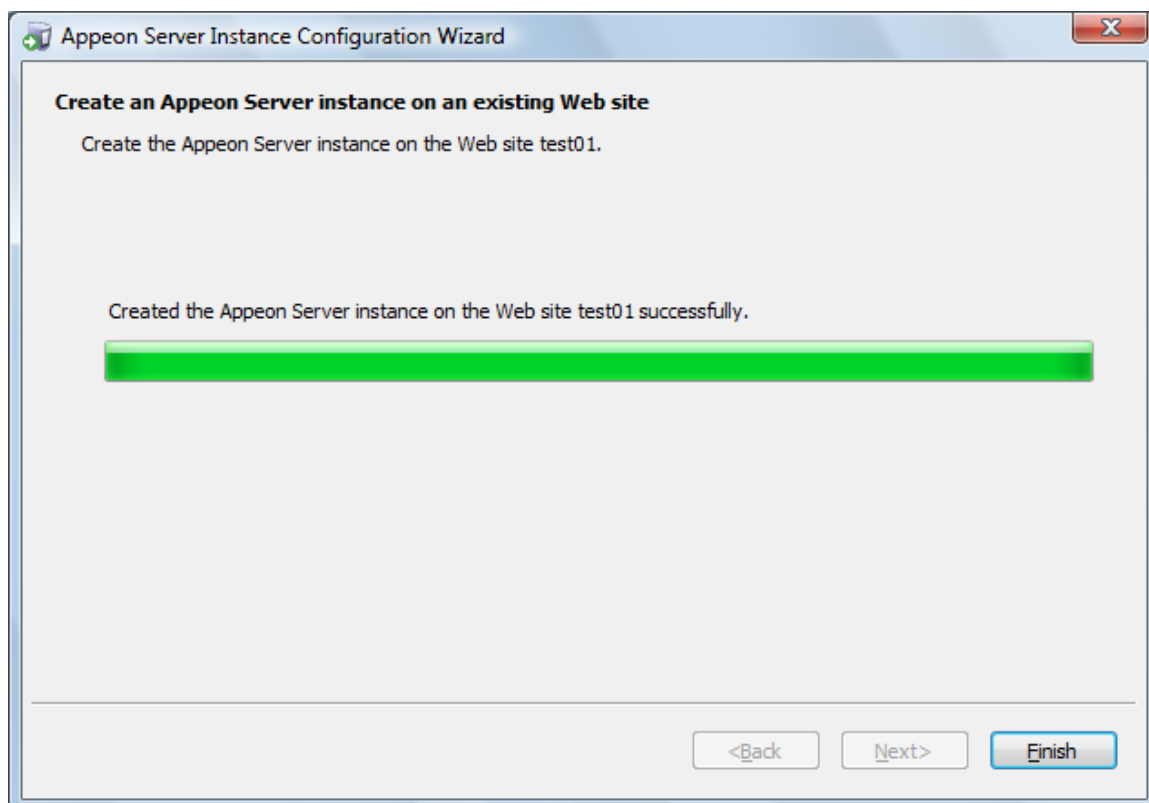
Figure 4.36: Select the configuration template

The Wizard is now creating a new Appeon Server instance on the selected Web site with the selected configurations.

If you are on Windows Vista and if you receive error messages such as "Failed to create the Appeon folder", please resolve the error by applying SP1 or above.

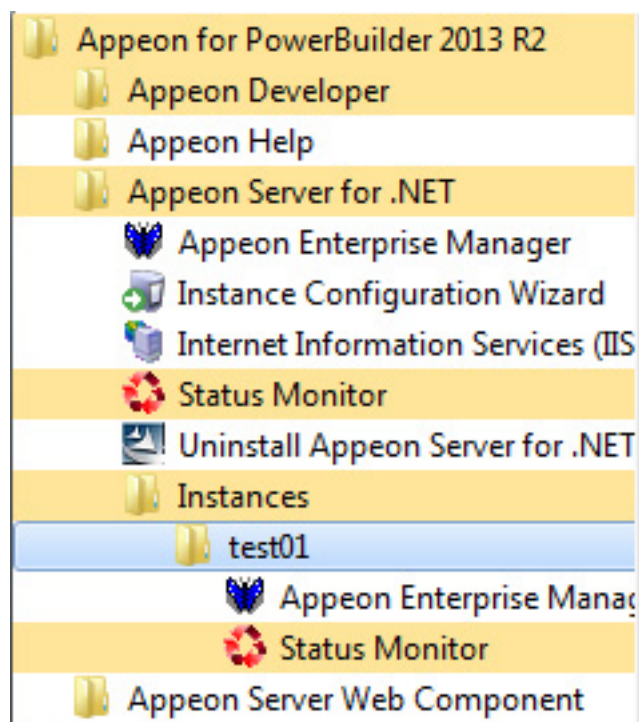
Figure 4.37: Creating the Appeon Server instance

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

Figure 4.38: Creation complete

If the Appeon Server instance is created successfully, a shortcut for the new instance will be added to the Start menu, as shown in the following figure.

Figure 4.39: Shortcut for new instance

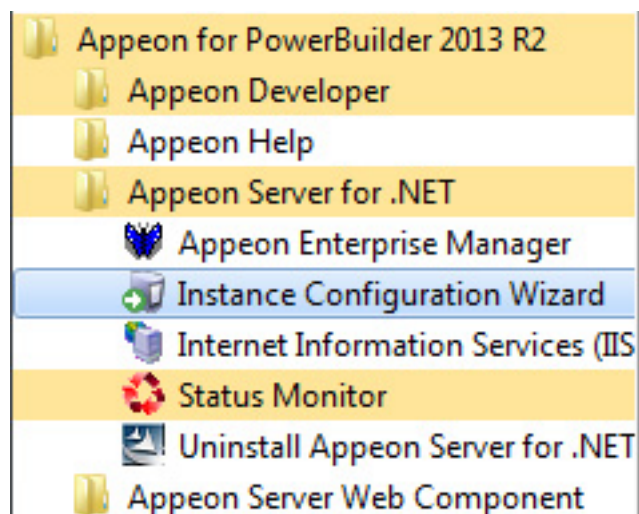


4.4.2.3.3 Creating an Appeon Server Instance on a new Web site

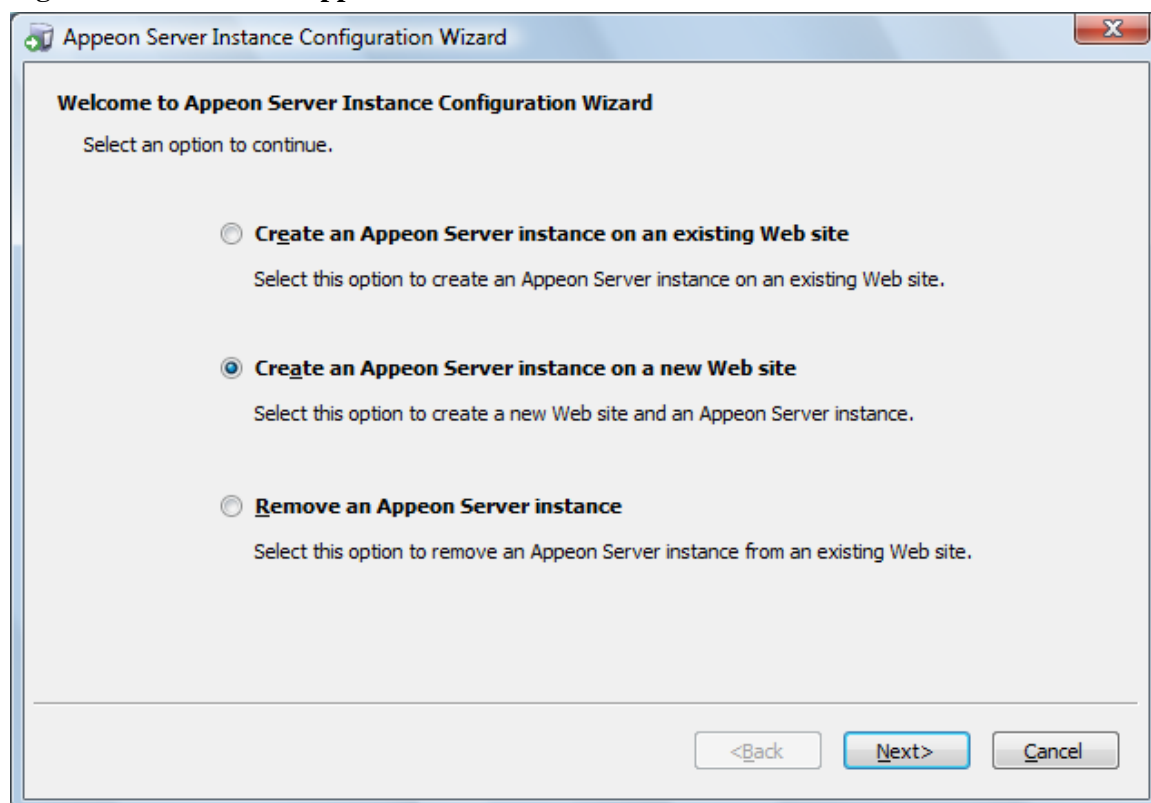
To create an Appeon Server instance on a new IIS Web site, follow the steps below:

Step 1: Run the Instance Configuration Wizard from **Start | Programs | Appeon for PowerBuilder 2013 R2 | Appeon Server for .NET | Instance Configuration Wizard**.

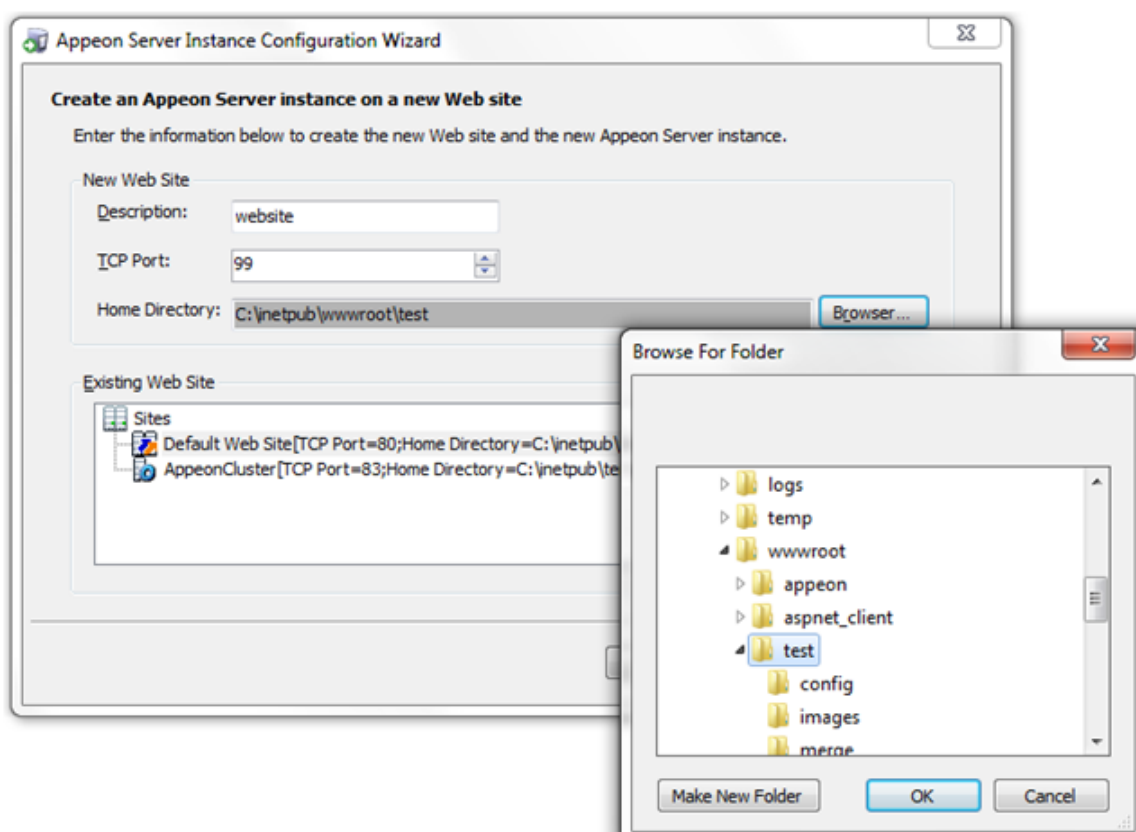
Figure 4.40: Run instance configuration wizard



Step 2: In the **Appeon Server Instance Configuration Wizard** (referred as "Wizard" later in this section), select **Create an Appeon Server instance on a new Web site** and click **Next**.

Figure 4.41: Create an Apeon Server instance on a new Web site

Step 3: Specify the information needed for creating a new Web site and click **Next** to proceed.

Figure 4.42: Create a Web site

To create a new Web site, specify the description, TCP Port, and Home Directory.

Table 4.6: New IIS Web site settings

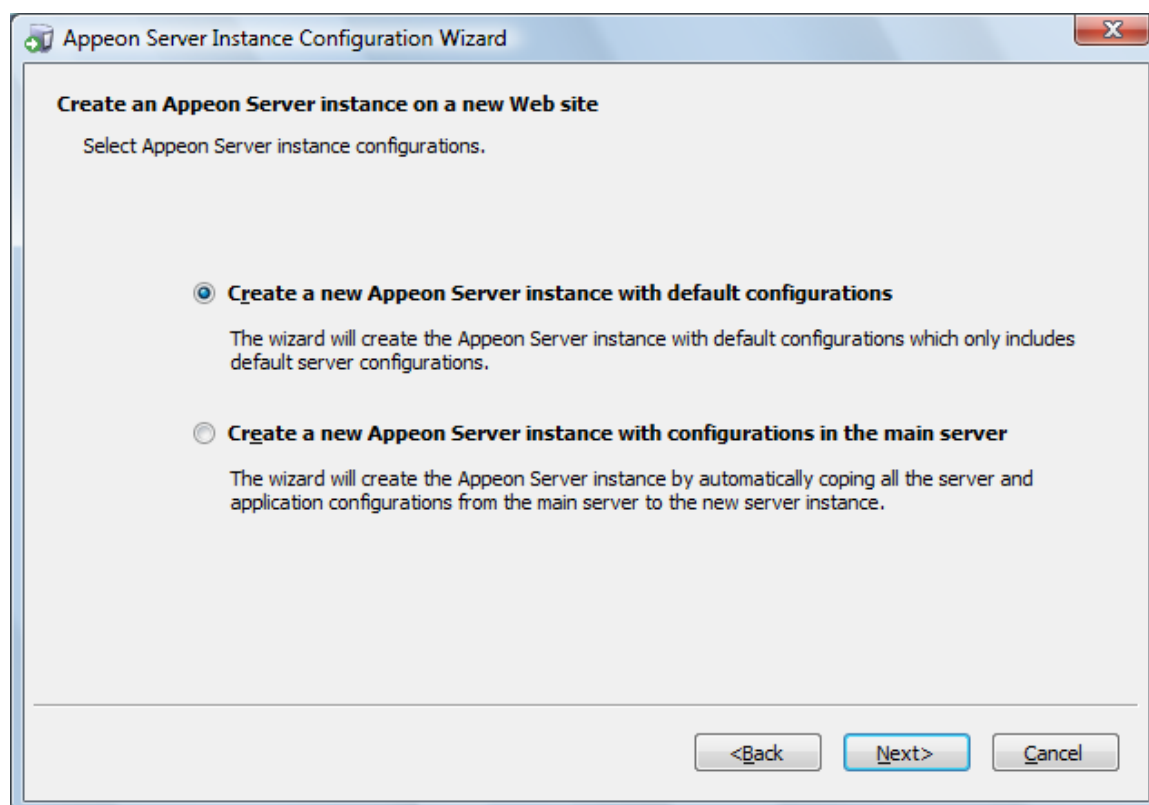
Setting	Instructions
Description	Type in a name to be used as the new Web site name.
TCP Port	Type in a port number to be used as the new Web site port.
Home Directory	Click Browse... to specify a root path of the new Web site.

Notes: The Description and TCP Port of the new Web site cannot be the same as the existing Web site, and the Home Directory cannot be the same as the existing Web site where an Appeon Server instance has already been installed. You can see the Description, TCP Port and Home Directory of the existing Web sites in the Existing Web Site group box.

Step 4: Select to create the Appeon Server instance based on the default configurations or on the existing configurations and then click **Next**.

- **Create a new Appeon Server instance with default configurations** indicates the Appeon Server instance to be created will have the default configurations of Appeon Server.
- **Create a new Appeon Server instance with configurations in the main server** indicates the Appeon Server instance to be created will have all of the existing configurations, including the default configurations and the configurations made later, such as AEM configurations.

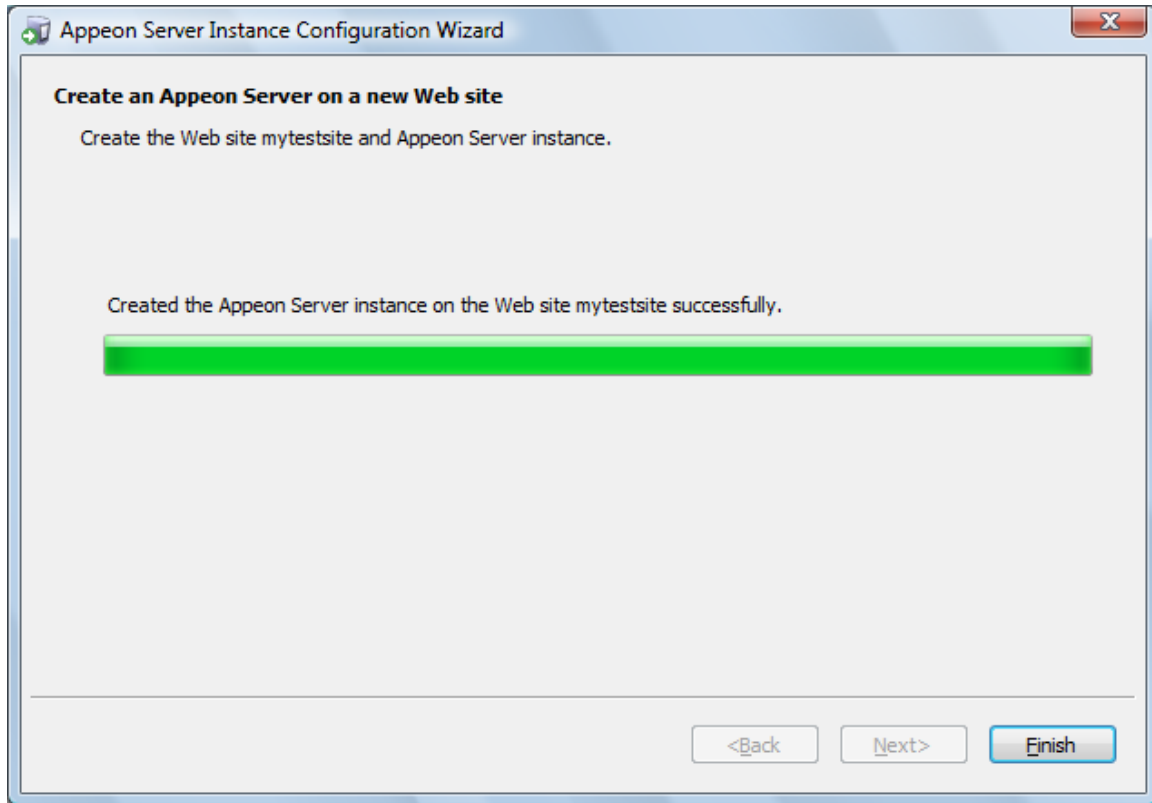
Figure 4.43: Select the configuration template



The Wizard will be creating a new Web site and then creating an Appeon Server instance on this new Web site.

Step 5: Click **Finish**.

Figure 4.44: Creation complete

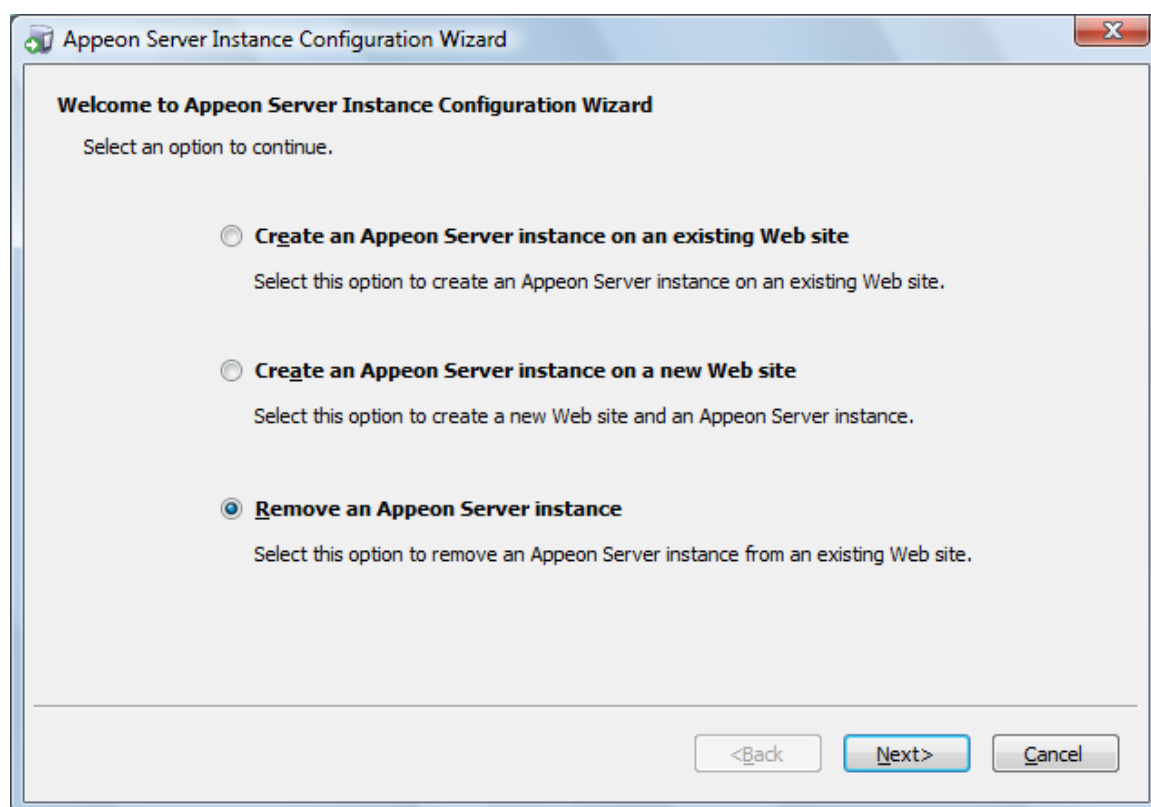


4.4.2.3.4 Removing an Appeon Server Instance

To remove an Appeon Server instance from the IIS Web site, follow the steps below:

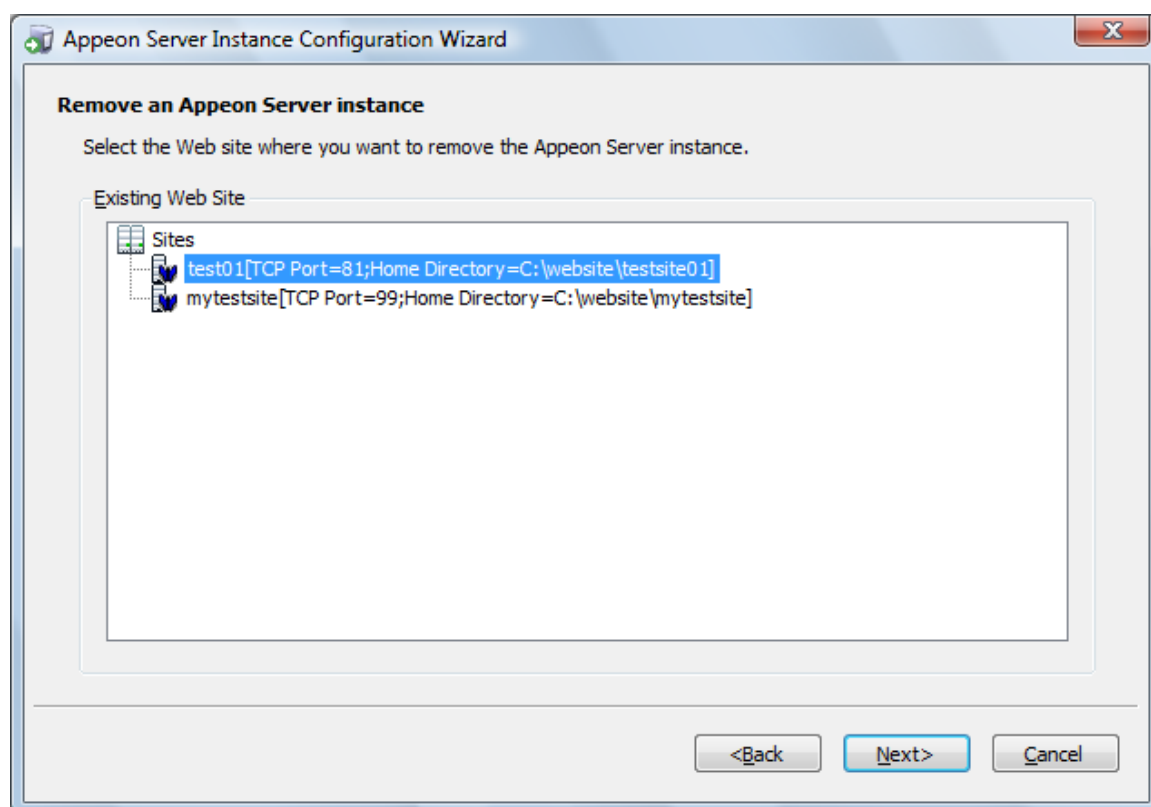
Step 1: Run the Instance Configuration Wizard from **Start | Programs | Appeon for PowerBuilder 2013 R2 | Appeon Server for .NET | Instance Configuration Wizard**.

Step 2: In the **Appeon Server Instance Configuration Wizard** (referred as "Wizard" later in this section), select **Remove an Appeon Server instance** and click **Next**.

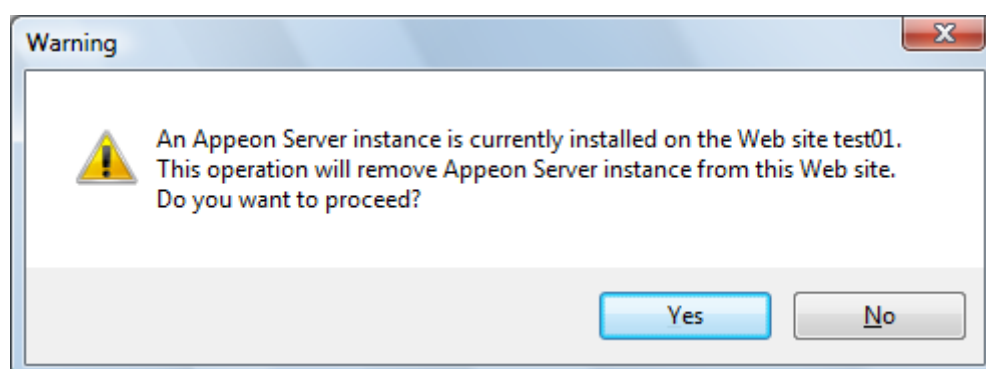
Figure 4.45: Remove an Appeon Server instance

Step 3: Select the Web site where you want to remove the Appeon Server instance and click **Next**.

The Wizard automatically detects and lists all of the Web sites where an Appeon Server instance has been created.

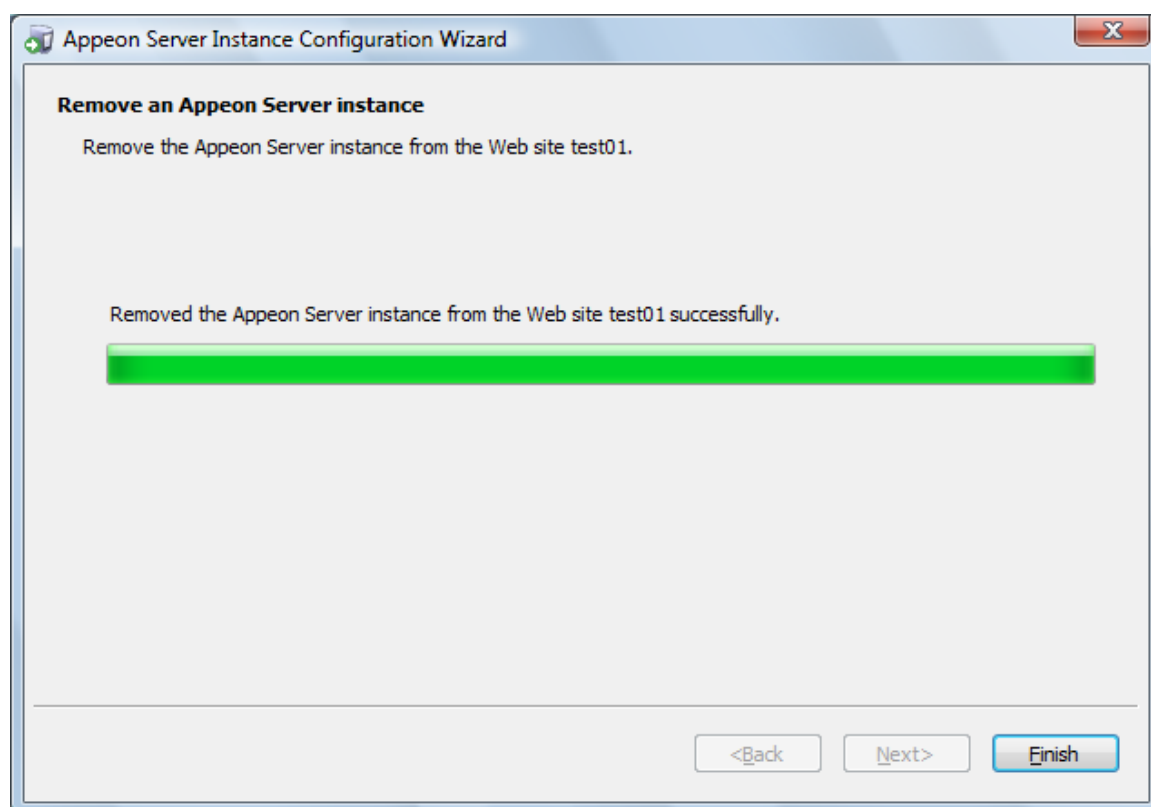
Figure 4.46: Select a Web site

Step 4: In the popup Warning window, click **Yes** to confirm the deletion (or click **No** to cancel the deletion).

Figure 4.47: Confirm deletion

The Wizard will be removing the Appeon Server instance from the selected Web site.

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

Figure 4.48: Deletion complete

4.4.3 Appeon Developer installation

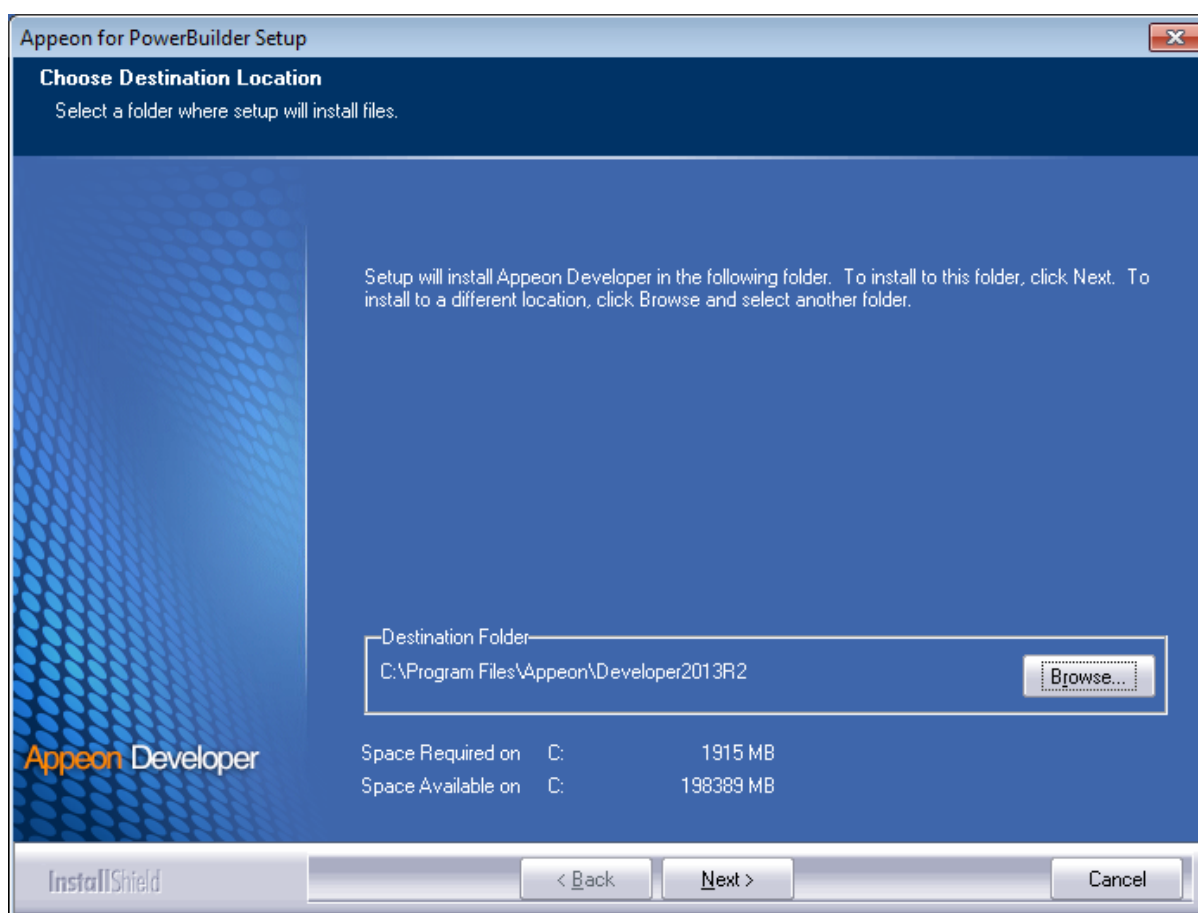
4.4.3.1 Prerequisites

- 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 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 Sybase 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**, and **pbxxx.exe**. If these processes are running, be sure to end them.

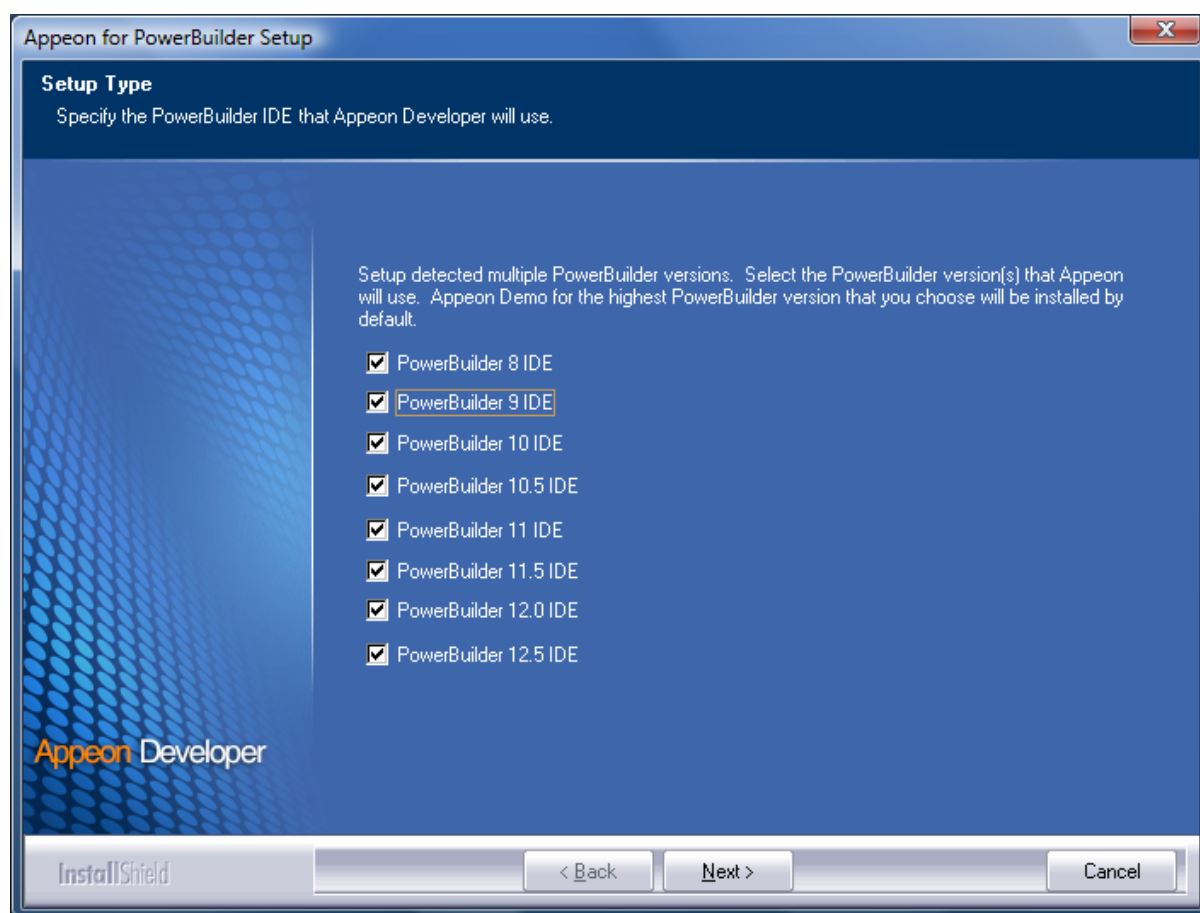
4.4.3.2 Installation instructions

Step 1: Launch the **Appeon for PowerBuilder 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 4.49: Appeon Developer location

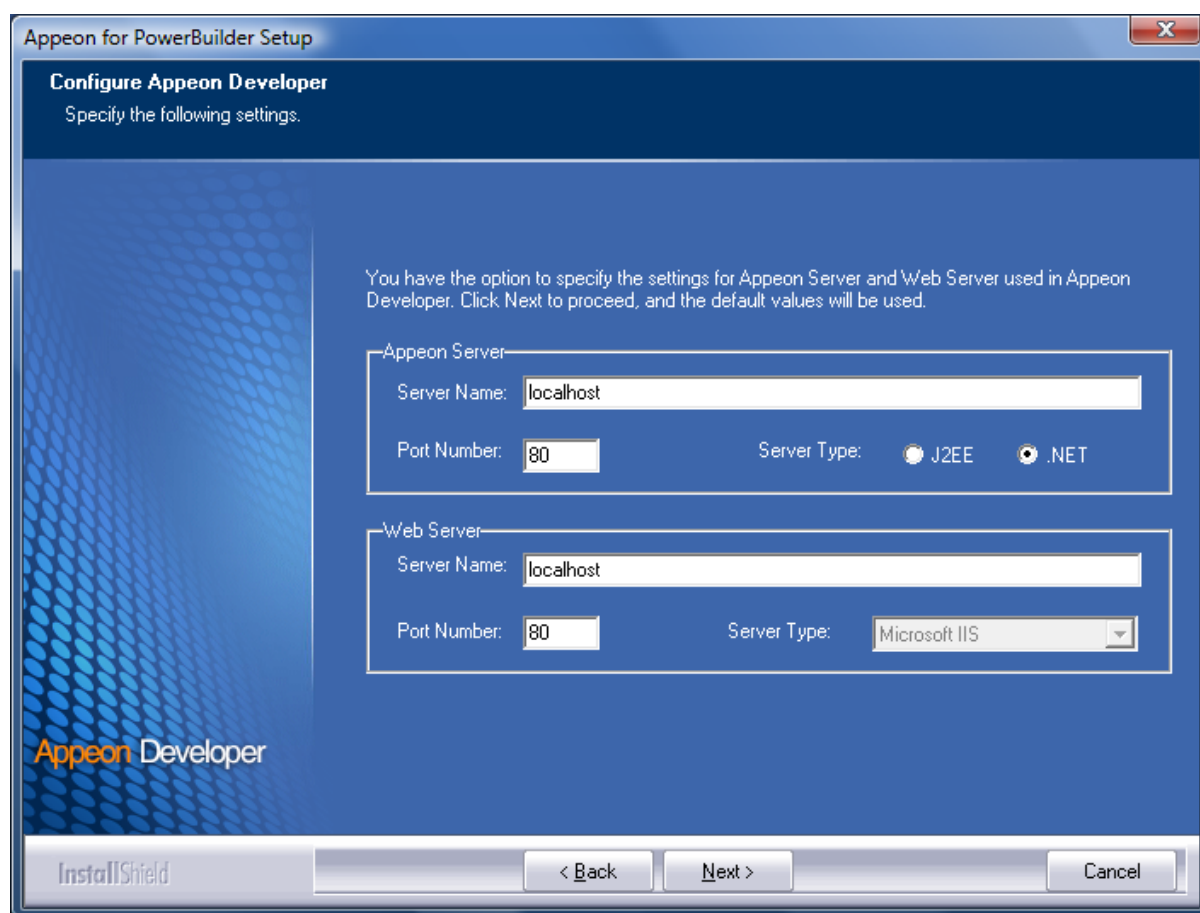
Step 3: If you have more than one PowerBuilder installed, you will be given a choice of which version(s) to integrate into Appeon Developer.

Figure 4.50: PowerBuilder IDE

Step 4: Specify the server name and port number for Appeon Server and Web server used in Appeon Developer. Click **Next**.

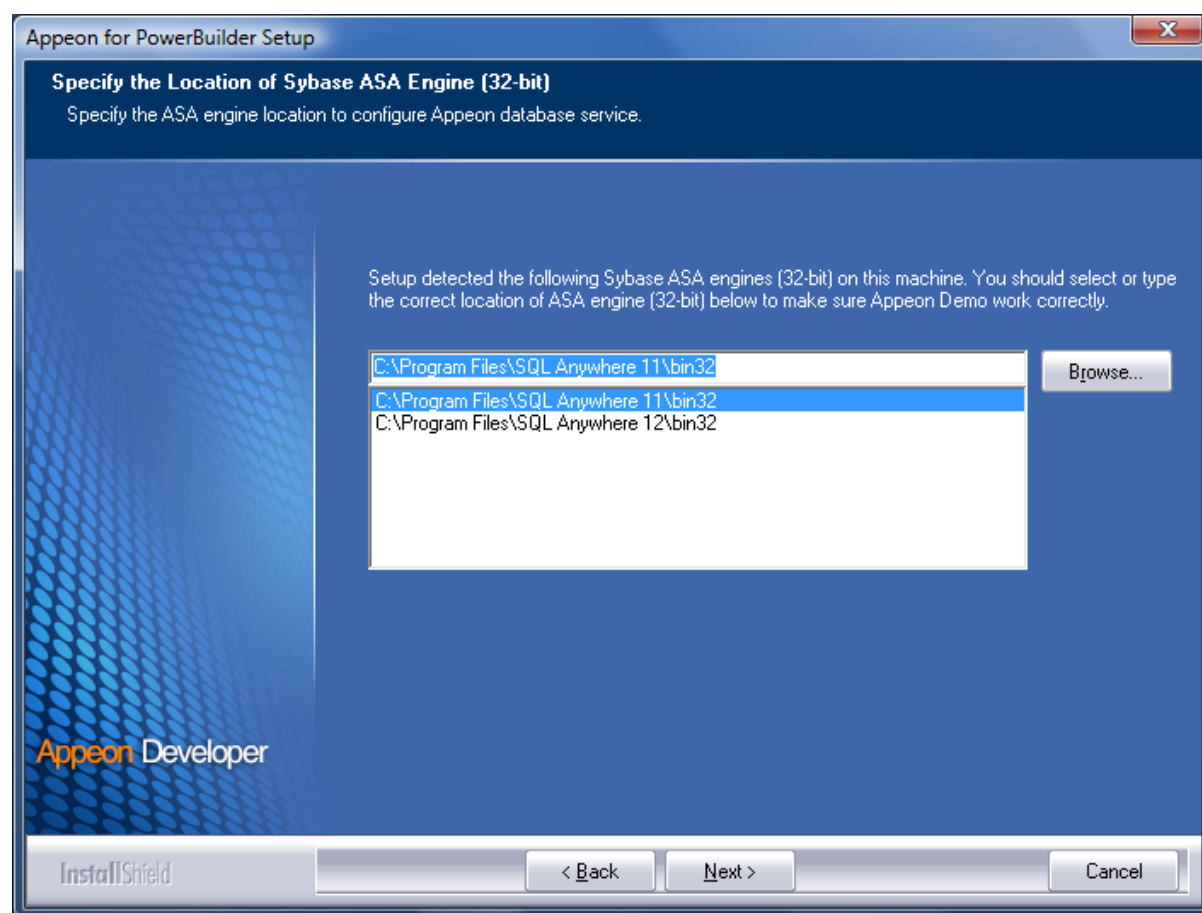
If you want to use an Appeon Server that has been already installed to the same machine where Appeon Developer is being installed, use the default values. If you want to use a remote Appeon Server, specify the server name and port number of the remote server. The setup program can automatically configure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

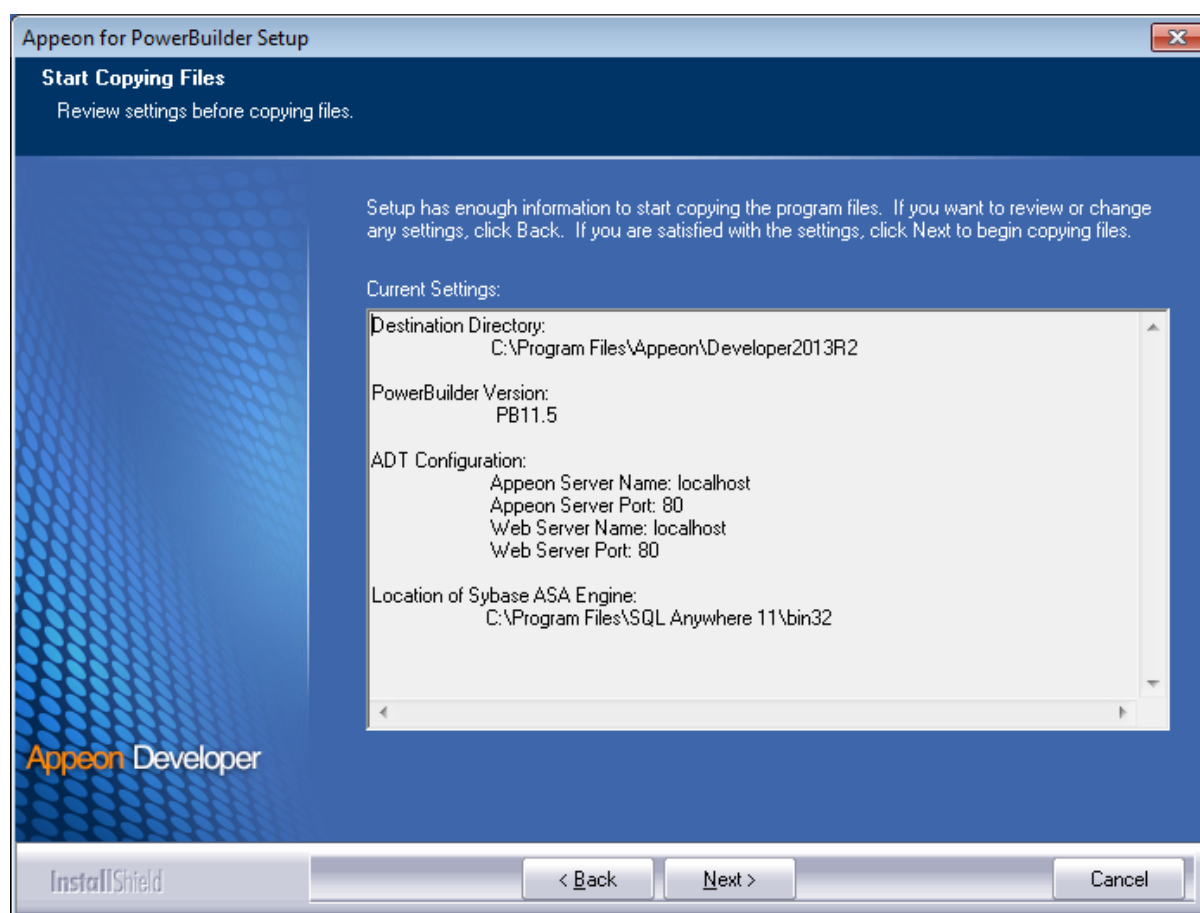
Figure 4.51: Configure Appeon Developer

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

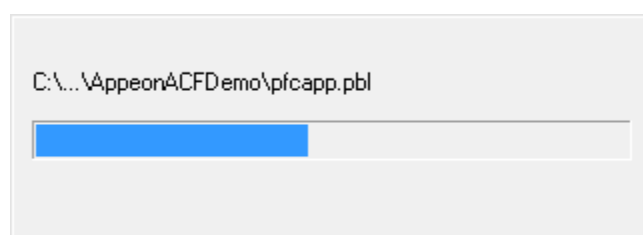
Depending on the version of Appeon Server (32-bit or 64-bit), Setup lists all copies of ASA/SQL Anywhere engines (32-bit or 64-bit) detected in your machine.

Figure 4.52: ASA/SQL Anywhere for Appeon Demo

Step 6: Check the summary of settings.

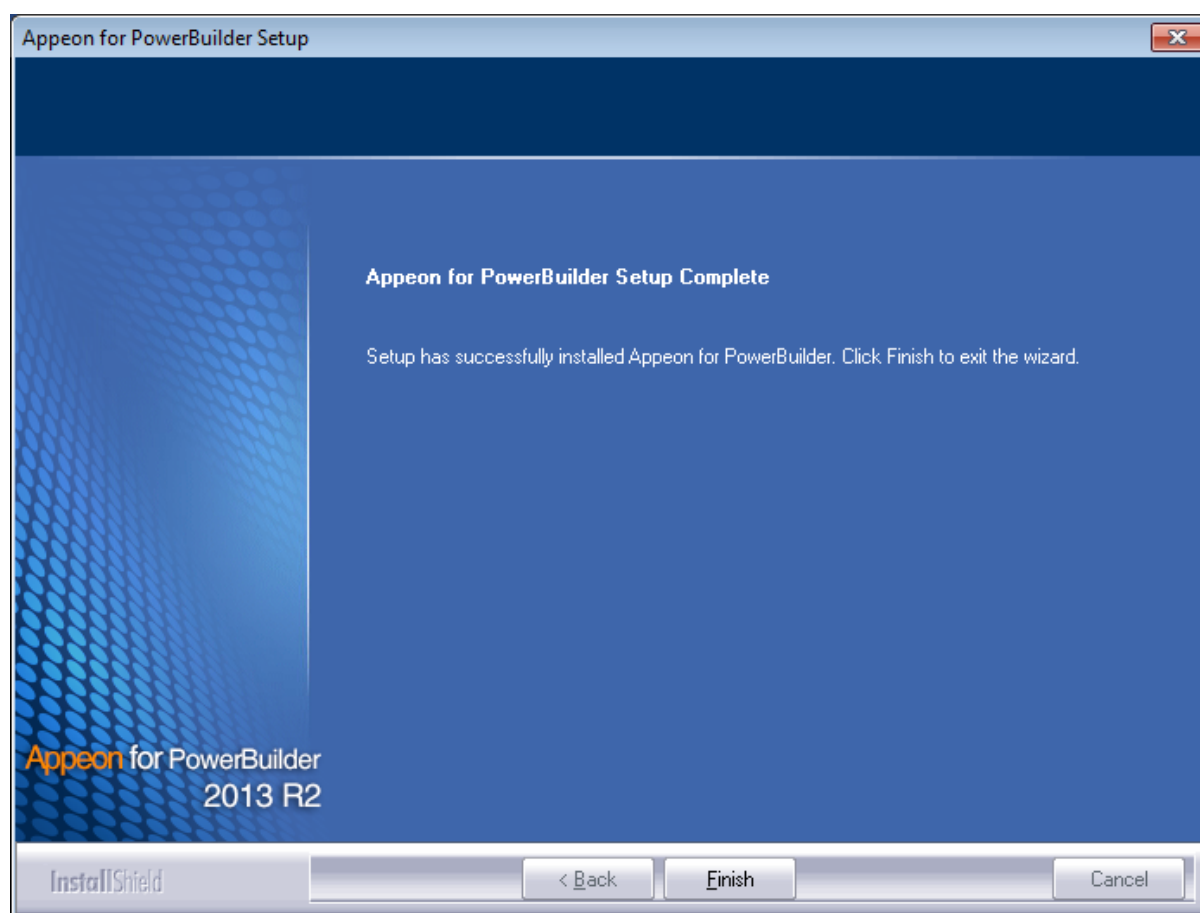
Figure 4.53: Summary of settings

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

Figure 4.54: Appeon Developer installation progress

Step 7: Wait until the installation is complete.

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

Figure 4.55: Setup Complete

4.4.4 Appeon Server Web Component installation (for remote Web servers only)

If you set up an individual machine (separate from the application server) as the remote 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 IIS 6.0, 7.0, 7.5 or 8.0 on Windows Server 2003, 2008, 2012, Vista, or Windows 7, 8/8.1.
- Shut down the IIS service and any other Windows programs before beginning the installation process.

4.4.4.1.1 Prerequisites if Web Component installed to multiple remote Web servers

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

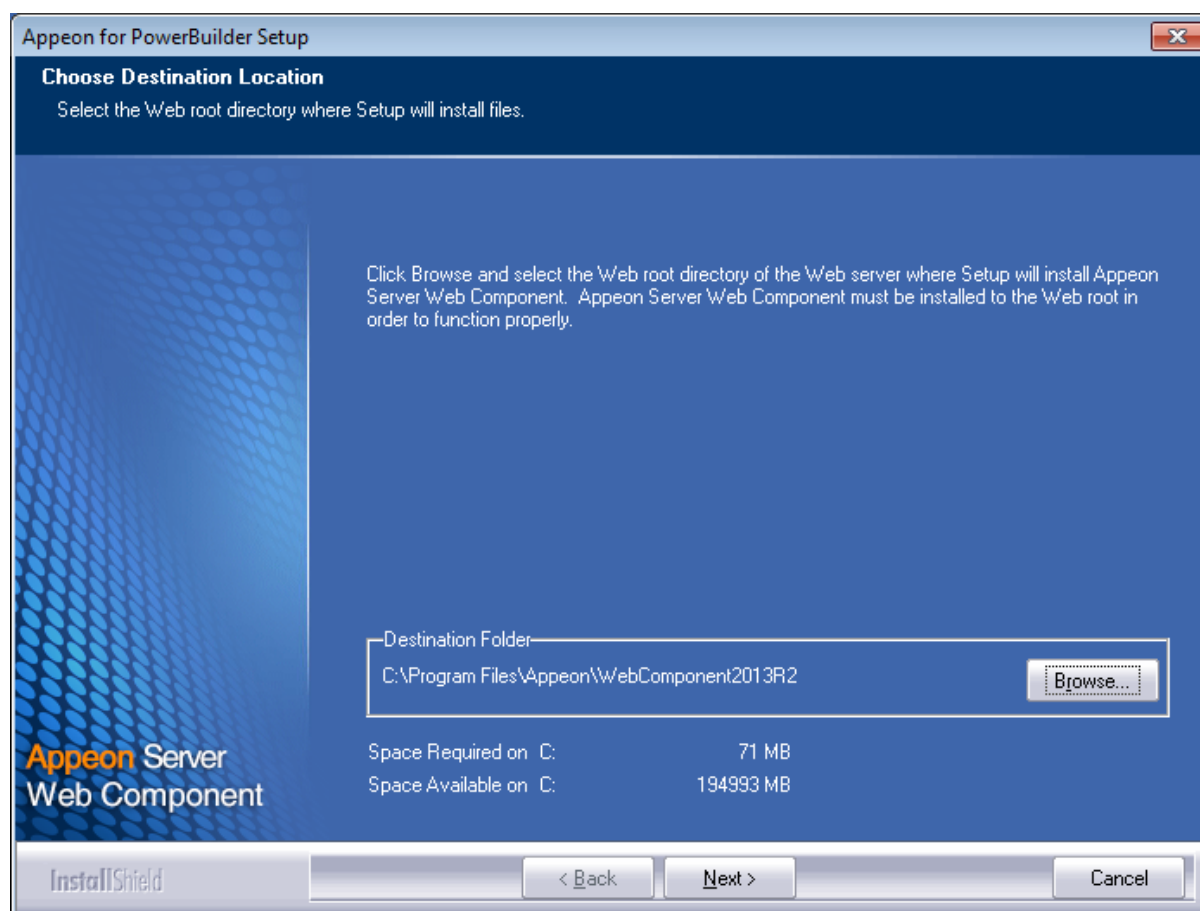
4.4.4.2 Installation instructions

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

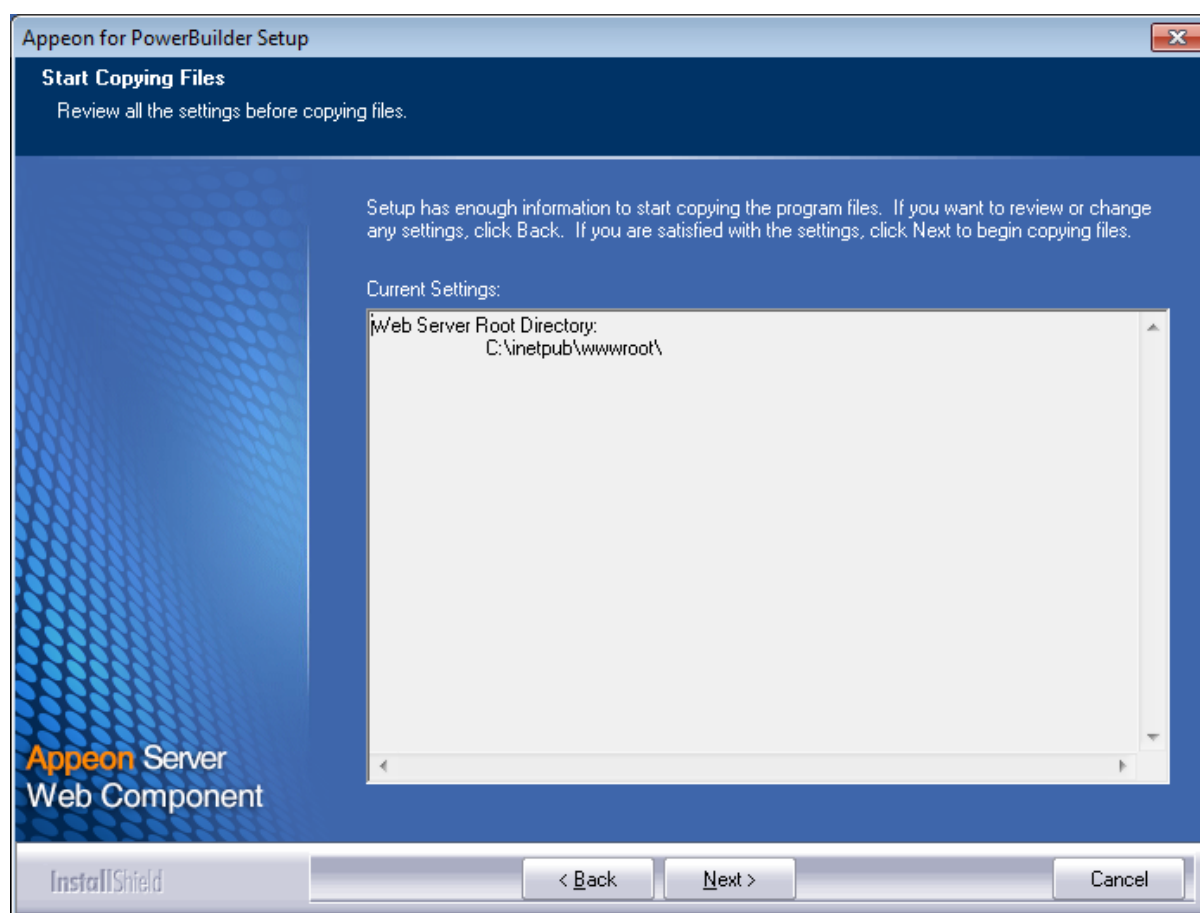
Step 2: Click **Browse** to select the Web root for the IIS Web server (for example, "C:\Inetpub\wwwroot").

If Appeon Server Web Component is installed to the default path: "C:\Program Files\Appeon\WebComponent2013R2", rather than 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.

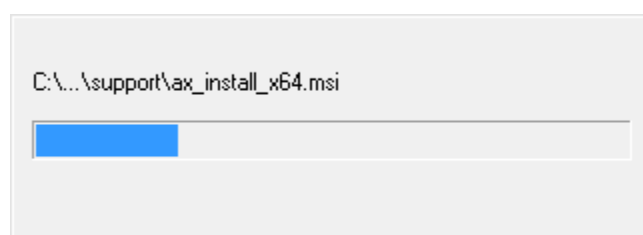
Figure 4.56: Appeon Server Web Component location



Step 3: Check the summary of settings.

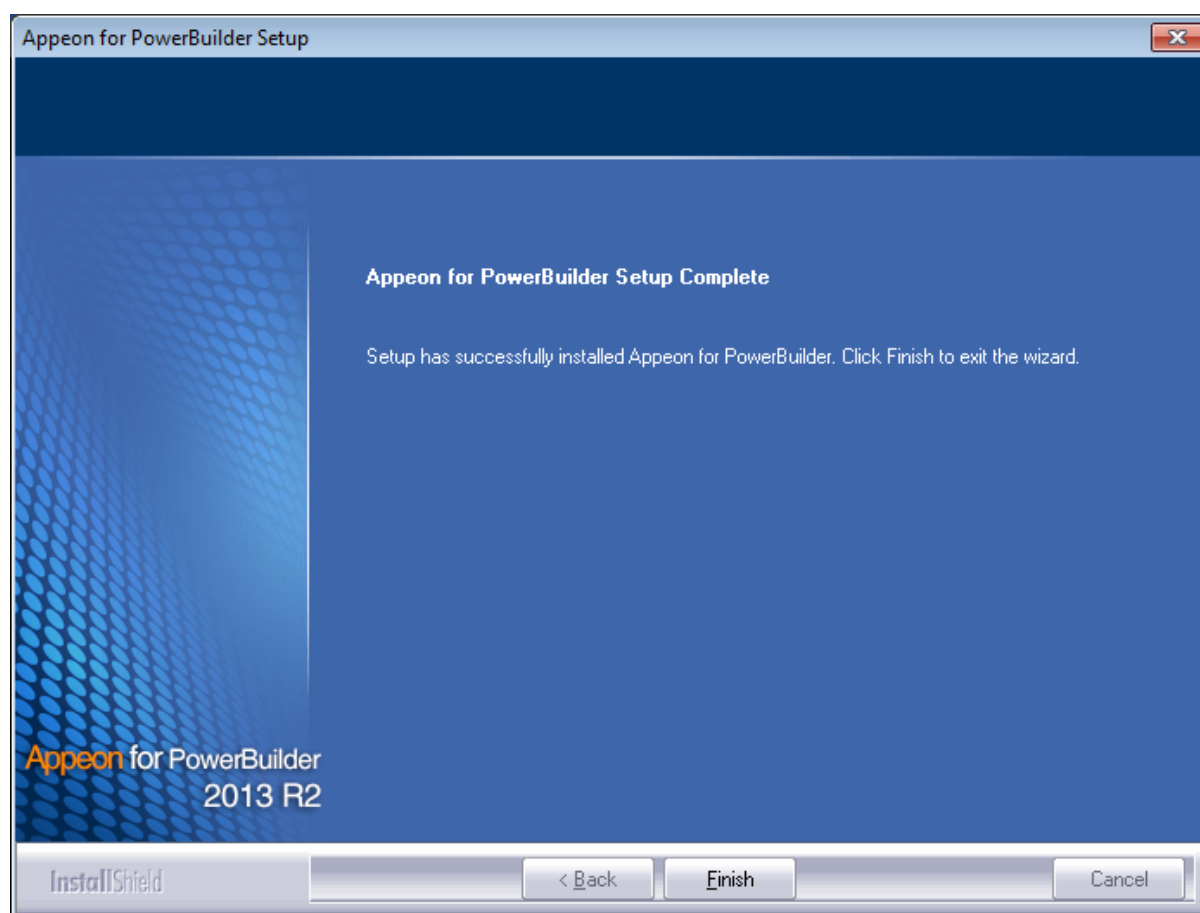
Figure 4.57: Summary of settings

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

Figure 4.58: Appeon Server Web Component installation progress

Step 4: Wait until the installation is complete.

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

Figure 4.59: Setup Complete

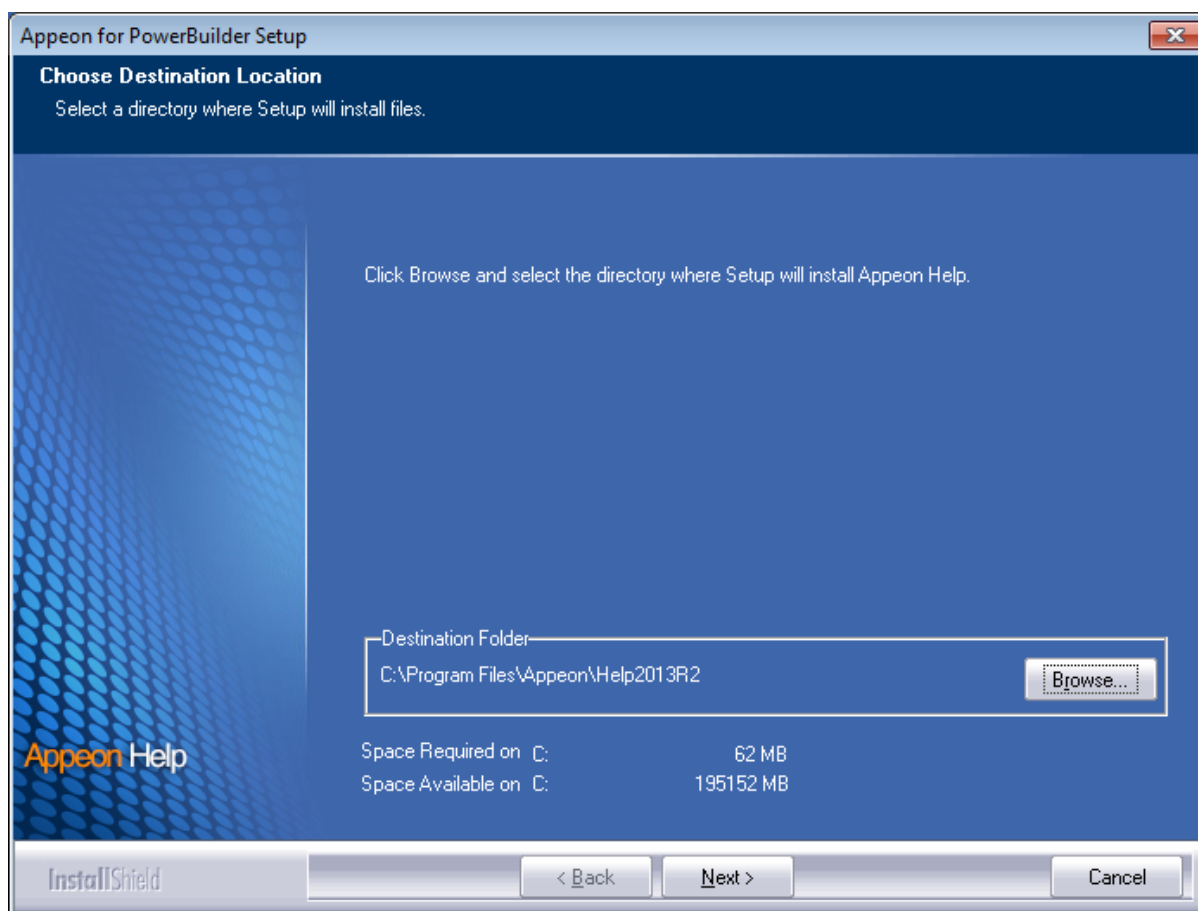
4.4.4.2.1 Installing and configuring Appeon plug-in

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

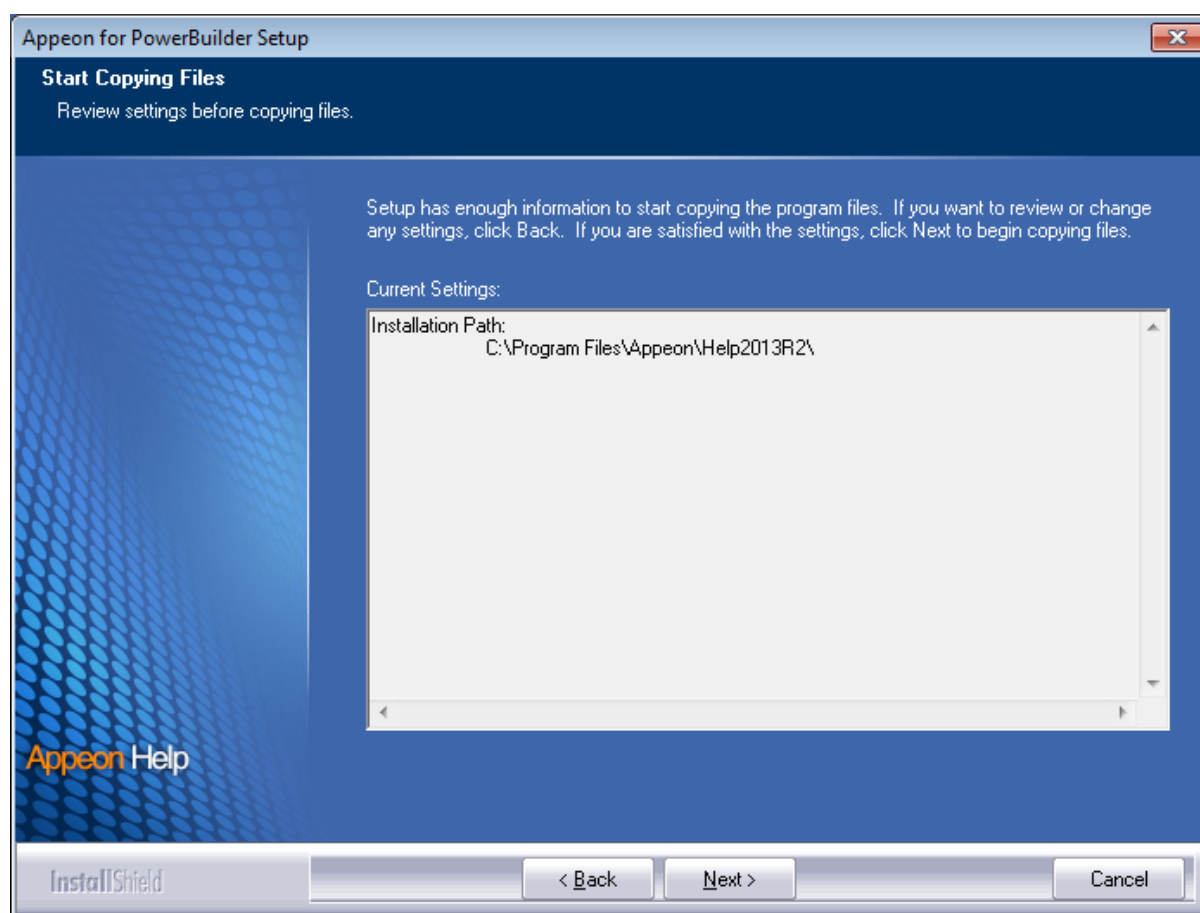
4.4.5 Appeon Help installation

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

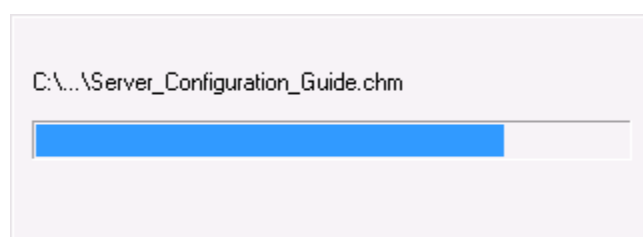
Step 2: Click **Next** to install Appeon Help to the default location, or click **Browse** to select another location.

Figure 4.60: Help location

Step 3: Check the summary of settings.

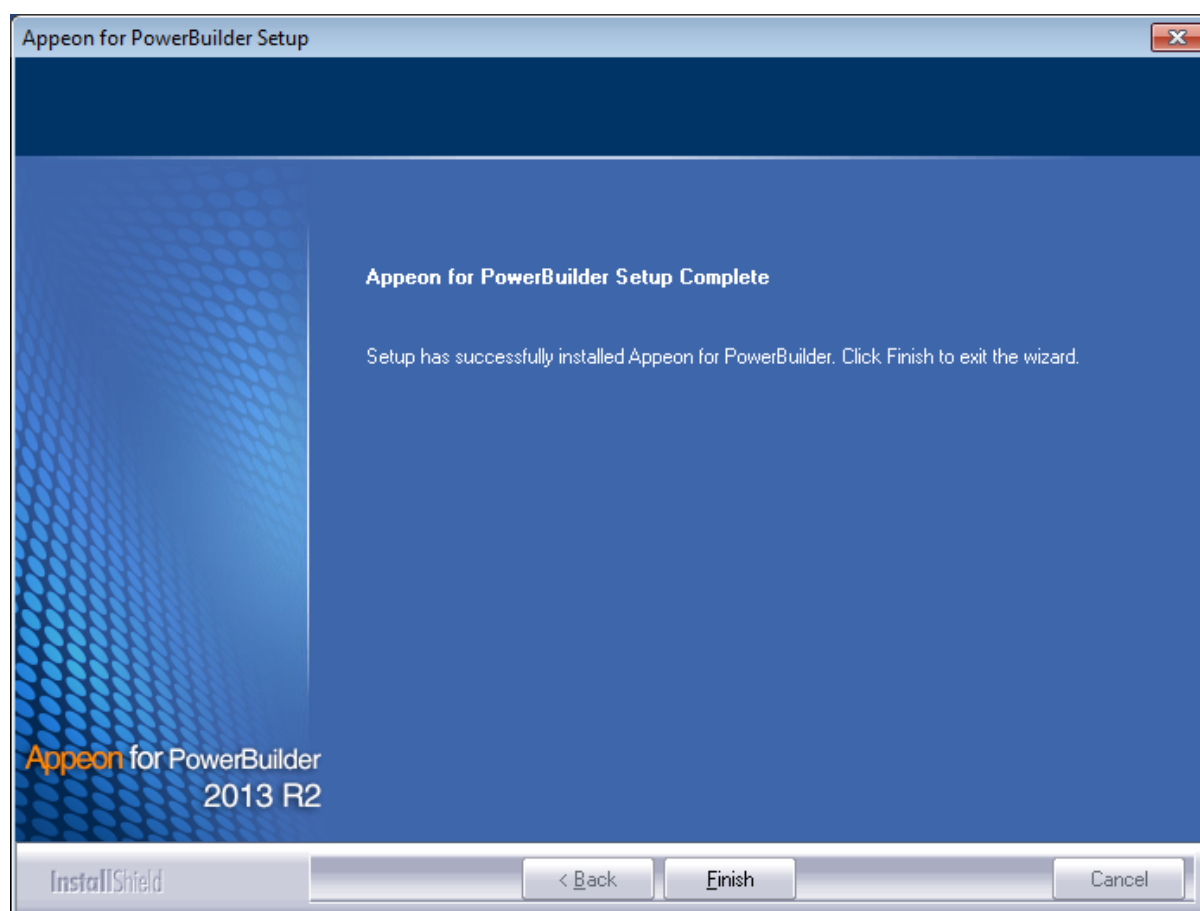
Figure 4.61: Summary of settings

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

Figure 4.62: Appeon Help installation process

Step 4: Wait until the installation is complete.

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

Figure 4.63: Setup complete

4.5 Appeon Web 2013 R2 upgrade installation

4.5.1 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.

4.5.2 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.

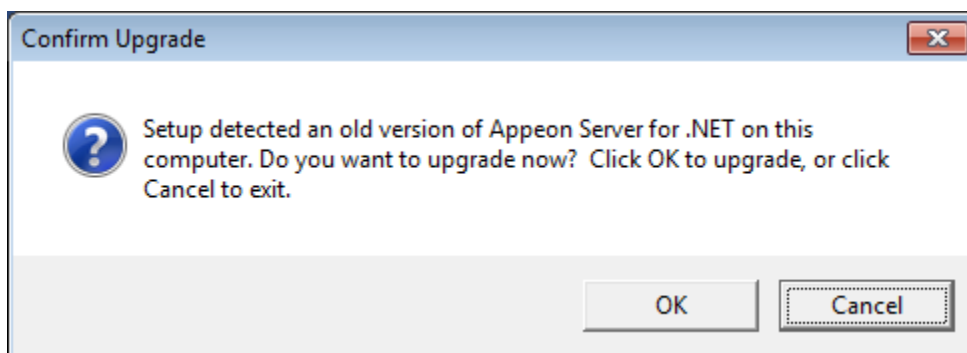
4.5.3 Upgrading to Appeon Web 2013 R2

4.5.3.1 Upgrading Appeon Server

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

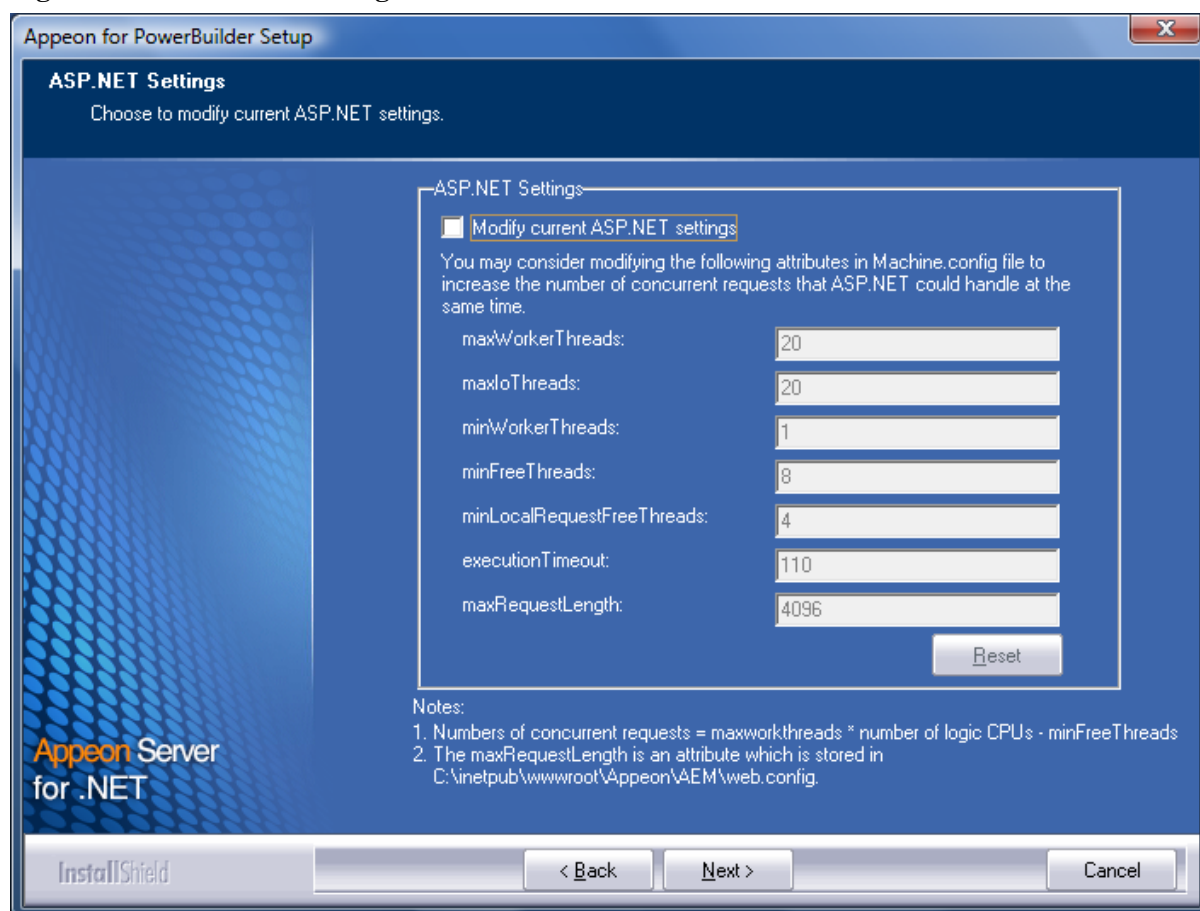
Step 2: Click the **OK** button in the **Confirm Upgrade** message box.

Figure 4.64: Confirm upgrade

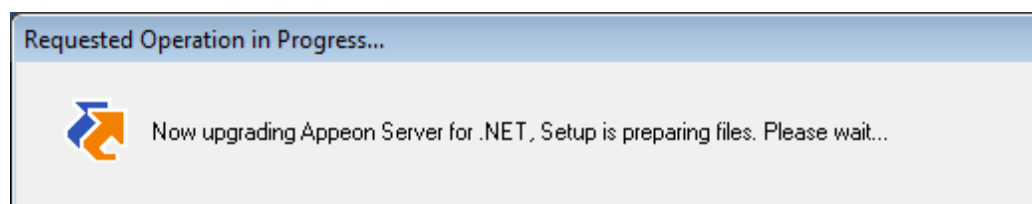


Step 3: Specify the settings for ASP.NET when necessary, and then click **Next**.

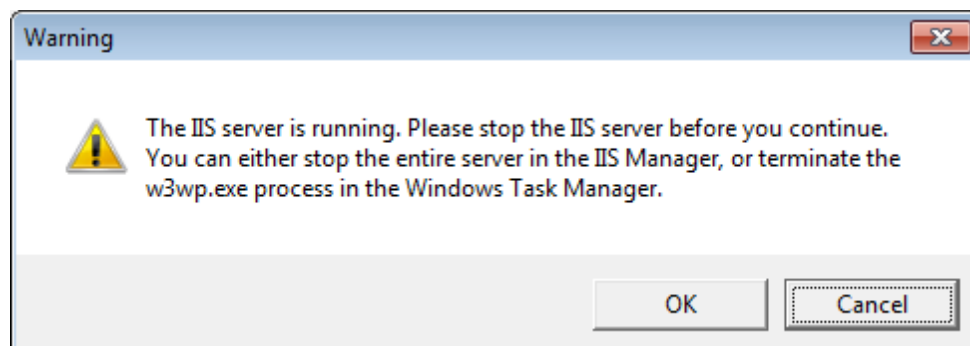
Select the **Modify current ASP.NET settings** checkbox and then modify the attribute values; or click **Reset** to restore the default values. These values are used to determine the maximum number of concurrent users that Appeon Server can support, therefore, setting proper values can help improve the Appeon Server performance. For detailed instructions, refer to the **Microsoft IIS Server** section in **Appeon Performance Tuning Guide**.

Figure 4.65: ASP .NET settings

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

Figure 4.66: Setup is preparing files

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

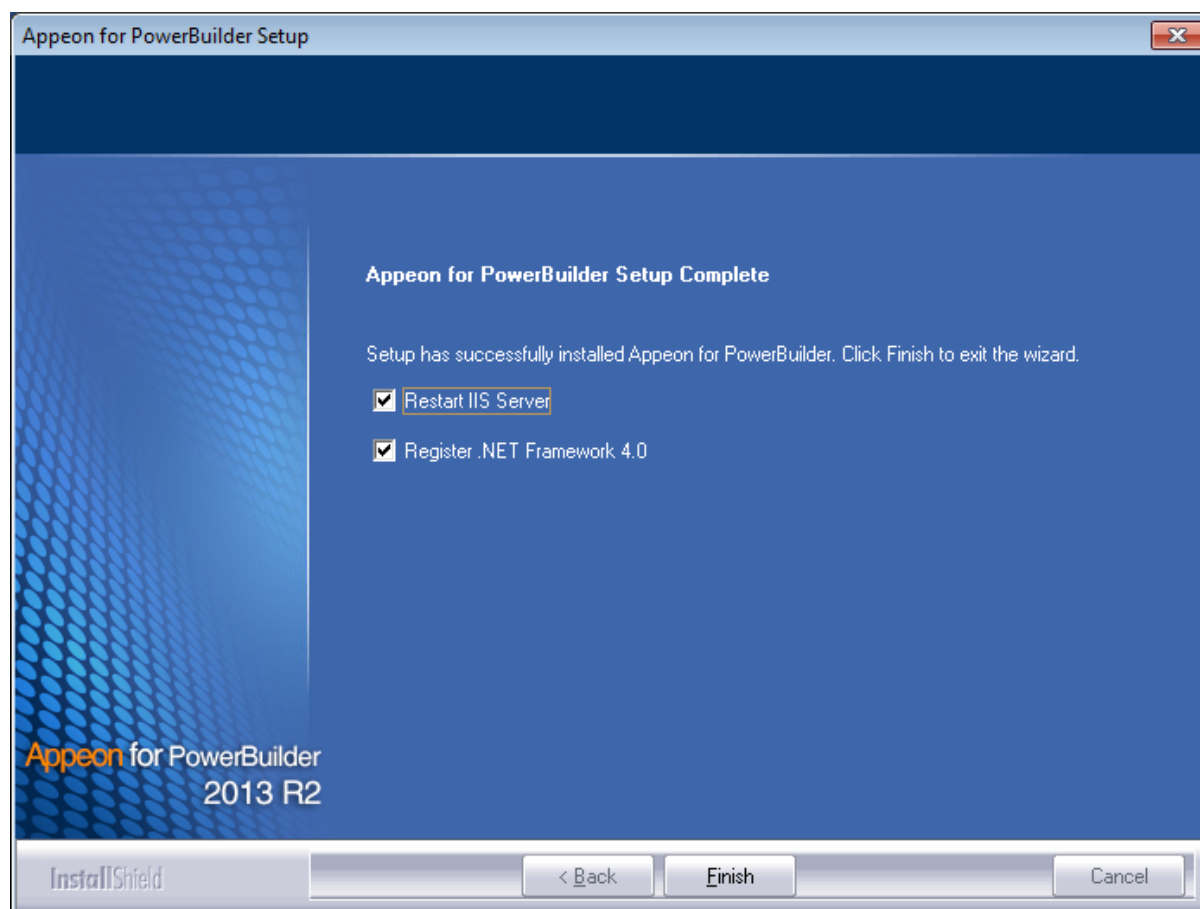
Figure 4.67: Check Task Manager

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

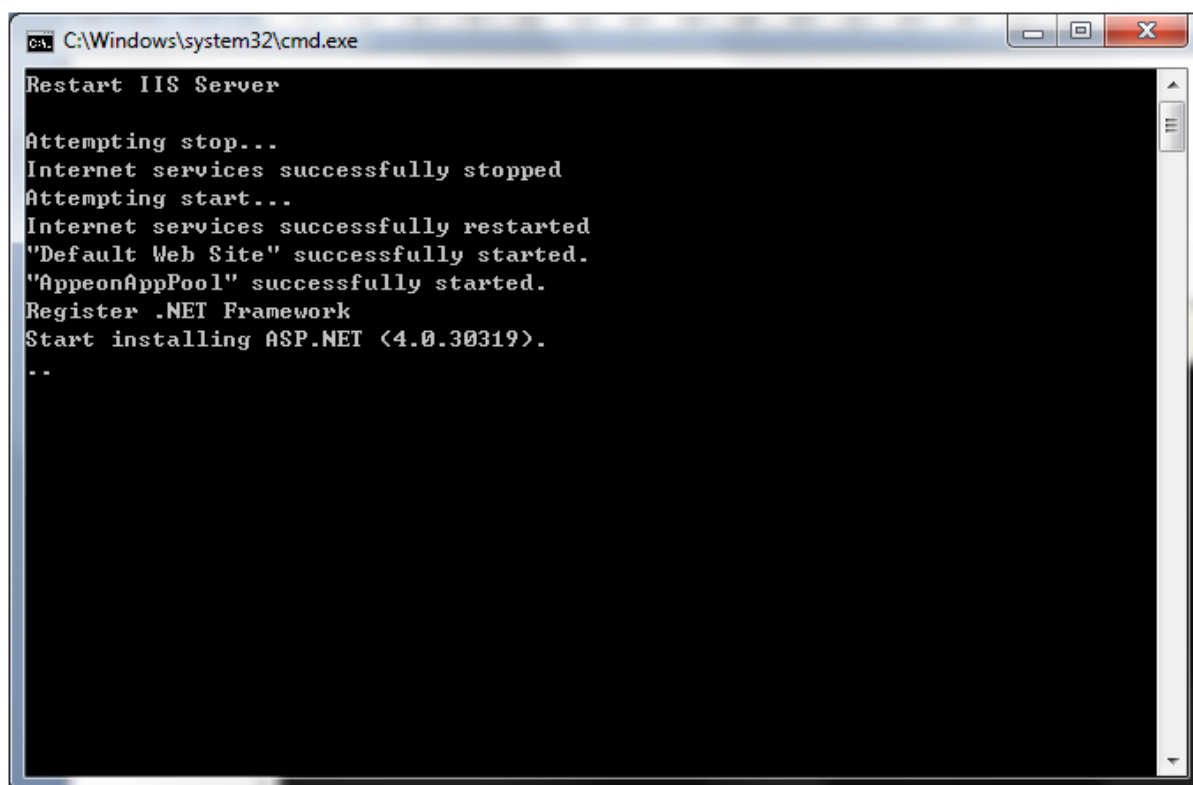
Step 4: When setup is complete, Click **Finish** to complete the installation of Appeon Server.

It is recommended that you keep **Restart IIS Server** and **Register .NET Framework 4.0** selected when clicking **Finish**.

Figure 4.68: Setup is complete



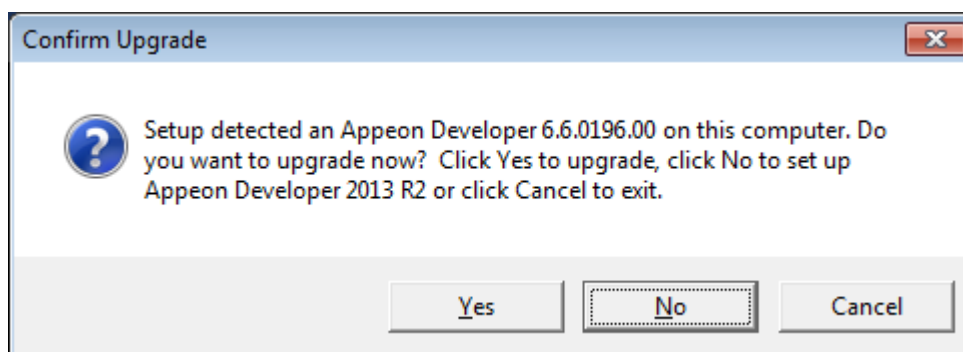
The setup program will restart the IIS server and then register .NET Framework, as shown in the following figure.

Figure 4.69: Register .NET Framework

4.5.3.2 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 4.70: Confirm upgrade

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

Figure 4.71: 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.

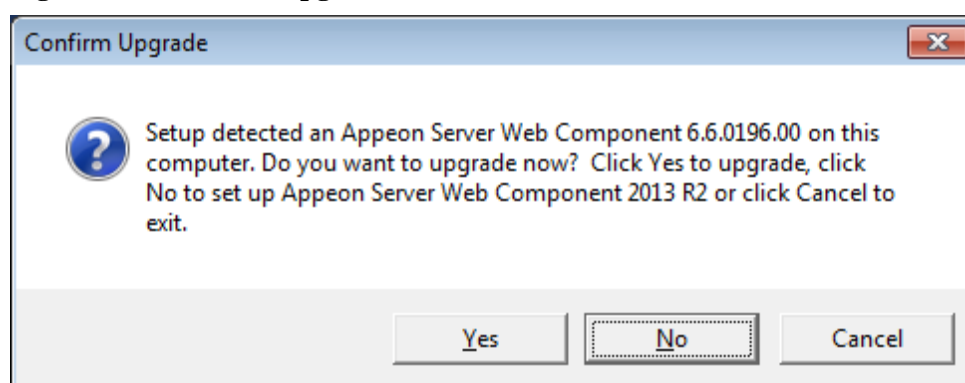
Step 3: Click the **Finish** button when the upgrade is complete.

4.5.3.3 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](#)).

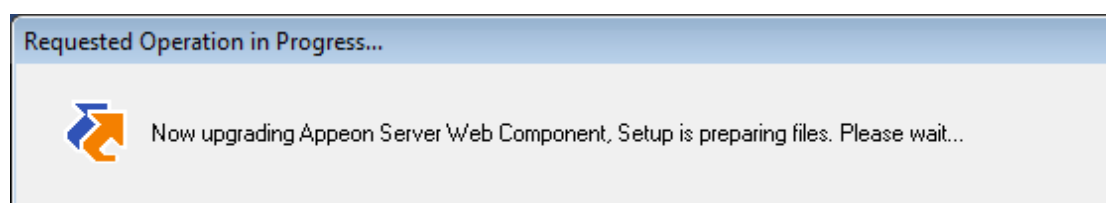
Step 2: Click the **Yes** button in the **Confirm Upgrade** message box.

Figure 4.72: Confirm upgrade



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

Figure 4.73: 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.

Step 3: Click the **Finish** button when the upgrade is complete.

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 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.

4.5.4.1 Settings lost in upgrade (for Appeon Demos)

- The data source settings in AEM.

You need to manually create the following data sources: appeonsample and appeonsample2. The "appeonsample" data source connects to appeonsampleforserver SQL Anywhere ODBC data source, and the "appeonsample2" data source connects to appeonsample2forserver SQL Anywhere ODBC data source.

- The transaction object settings in AEM.

You need to manually map transaction object(s) to data source, mainly, map sqlca to appeonsample. For appeon_code_examples, you also need to map its_sql to appeonsample and its_sqt to appeonsample2.

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 IIS 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 IIS 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 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 client machine	The IE security settings and Windows login user privileges may prevent downloading the Appeon Xcelerator plug-in.	Configuration for client machine
System language setting	Configuration required for the client, Appeon Server and database server. The operating system language settings can affect the characters that are displayed in the Appeon Web application.	System language settings
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 Supported PB Features for Appeon Web
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"	ASE Chained mode issue in the Appeon Troubleshooting Guide

6.2 Configuration for client machine

Running Appeon 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 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.

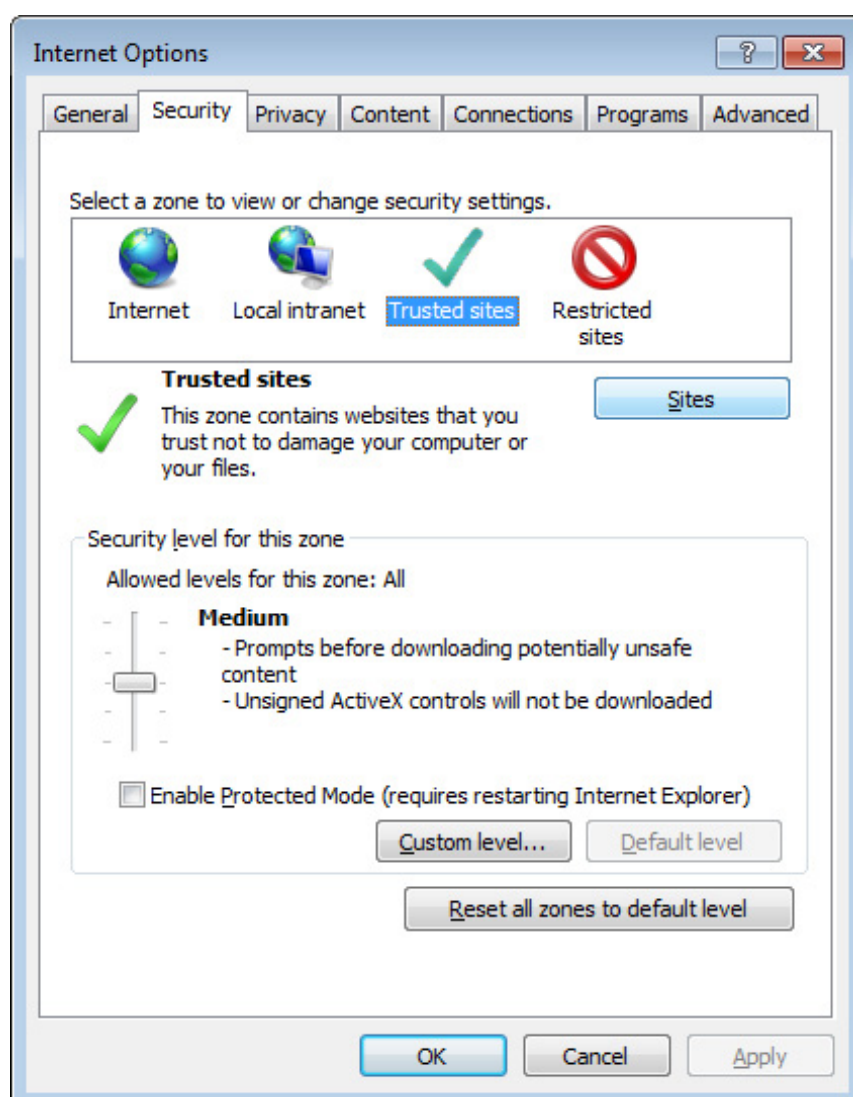
6.2.1 Configuring IE security settings

We recommend you add the URL of 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 Apeon 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.

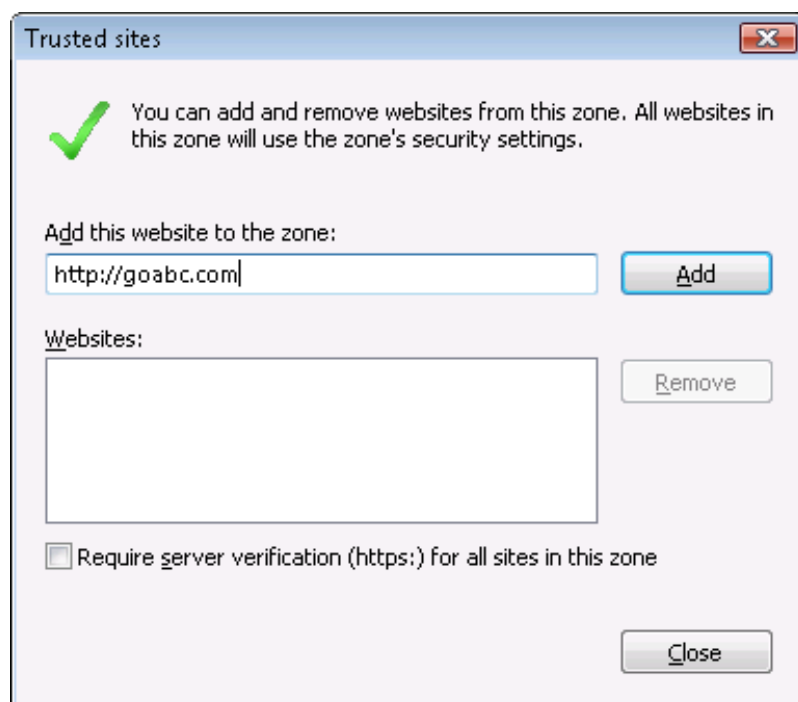
Step 1: In Internet Explorer, on the **Tools** menu, click **Internet Options**.

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 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 6.2: 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 10.0 on Windows Vista/7/2008/2012, 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 10.0 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 "Appeon 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 deployed application runs successfully, restart IE in the normal way.

6.2.2.1 Using IE 8.0, 9.0 or 10.0

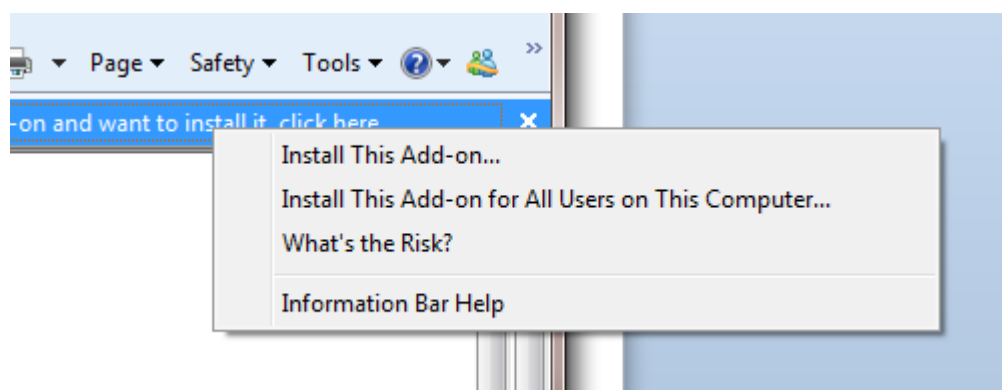
- If you are using IE 8.0, 9.0 or 10.0 on Windows Vista/7/2008/2012, follow the prompts in IE information bar to install the ActiveX control, no matter which user account (administrator or normal user) you use.
- If you are using IE 8.0, 9.0 or 10.0 on Windows XP/2003, first log in as an Administrator 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:

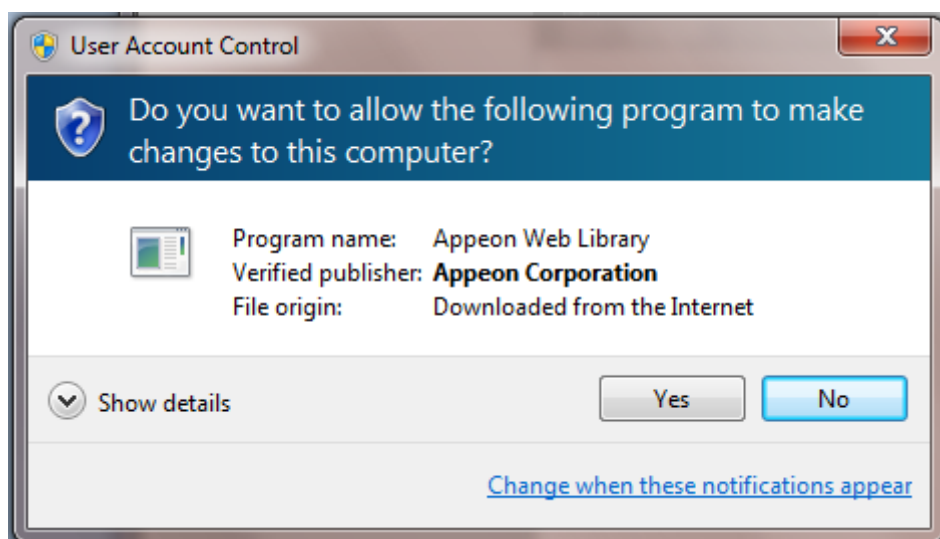
Step 1: Click the IE information bar, the yellow message bar at the top, that says, "This website wants to install the following add-on: 'Appeon Web Library' from 'Appeon Corporation'. If you trust the website and the add-on and want to install it, click here...".

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

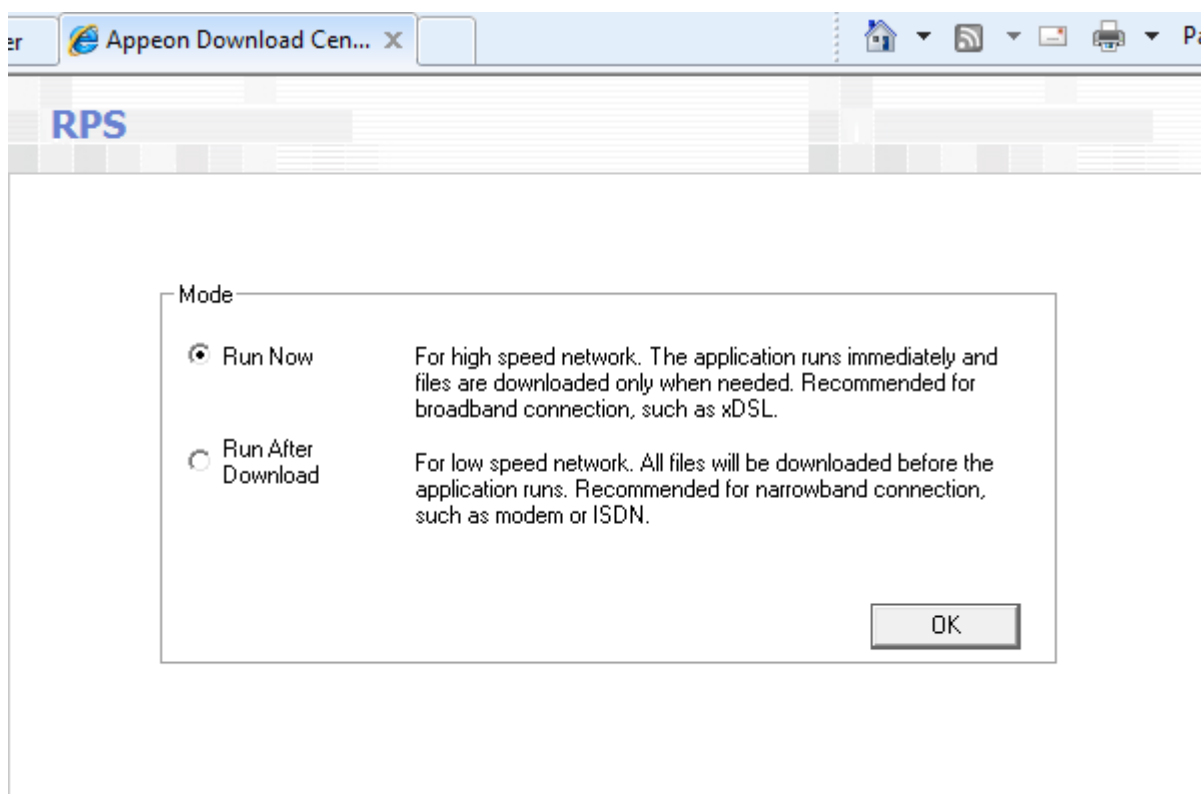
Figure 6.3: IE information bar



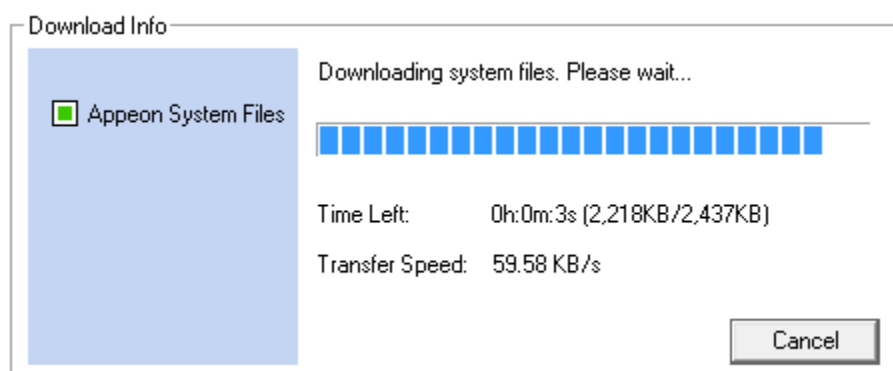
Step 3: Click **Yes** if Windows display the following "User Account Control" screen confirming that you want to install the component.

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 "Appeon 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.

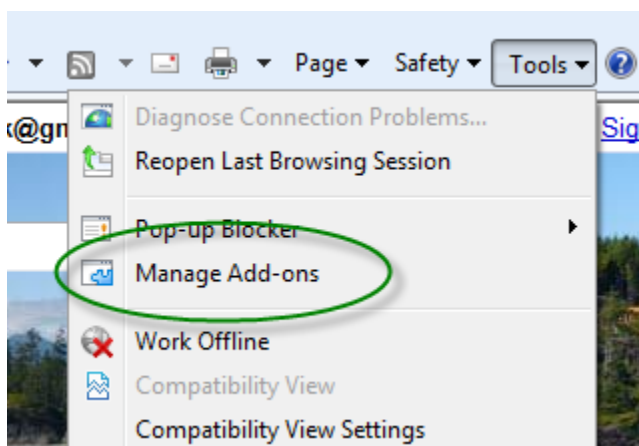
Figure 6.7: User Account Control

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 Windows language settings can affect the characters displayed in the Apeon Web application. To avoid any such display issues, verify that:

- The language of the data in the database used by the application matches the Windows 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:

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.

7 Uninstalling Appeon Web 2013 R2

7.1 Overview

To uninstall Appeon Web 2013 R2, 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:

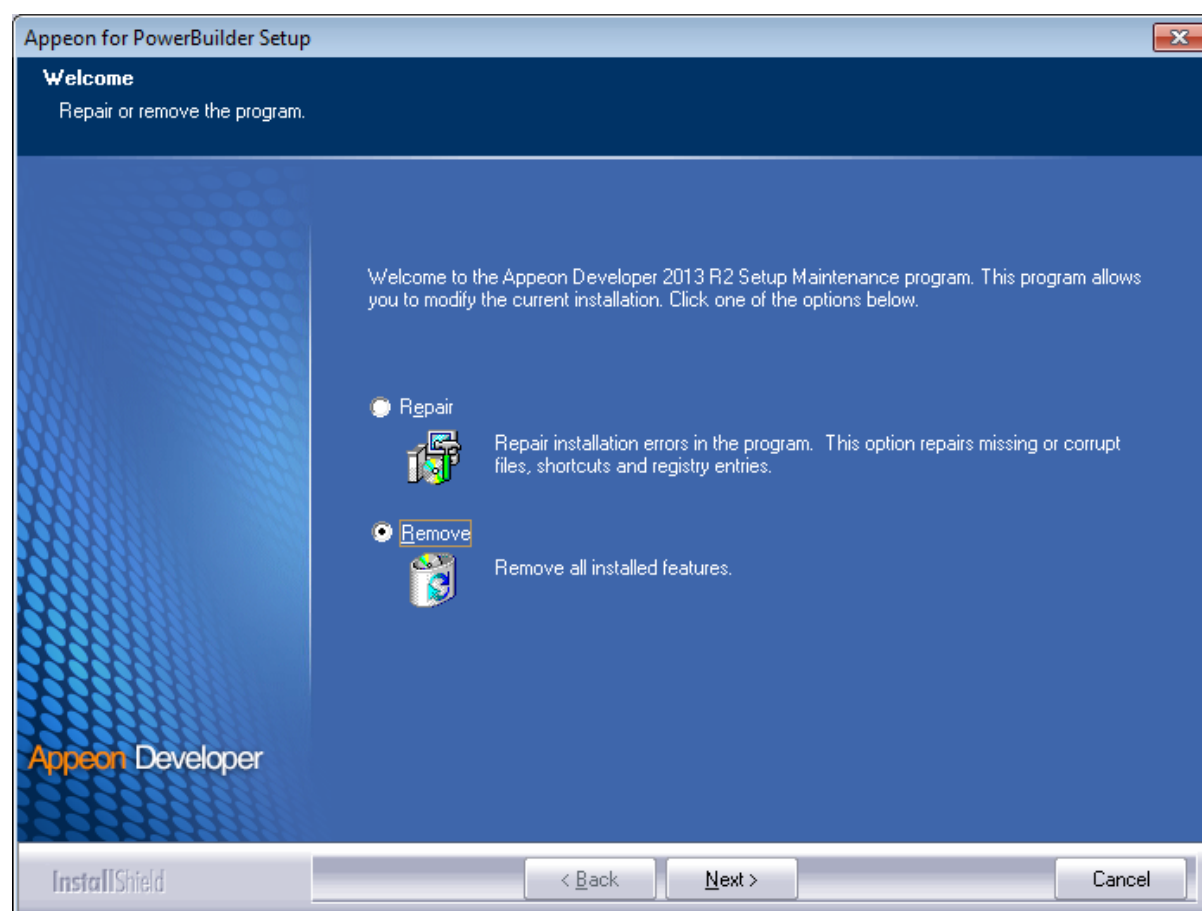
- EonADTxx.exe
- pbxxx.exe

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.

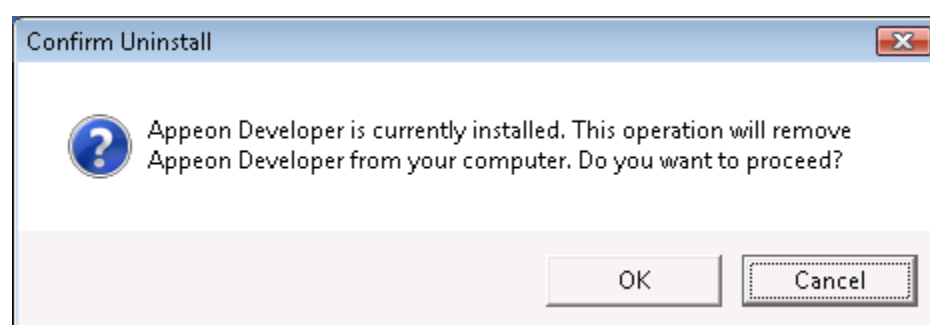
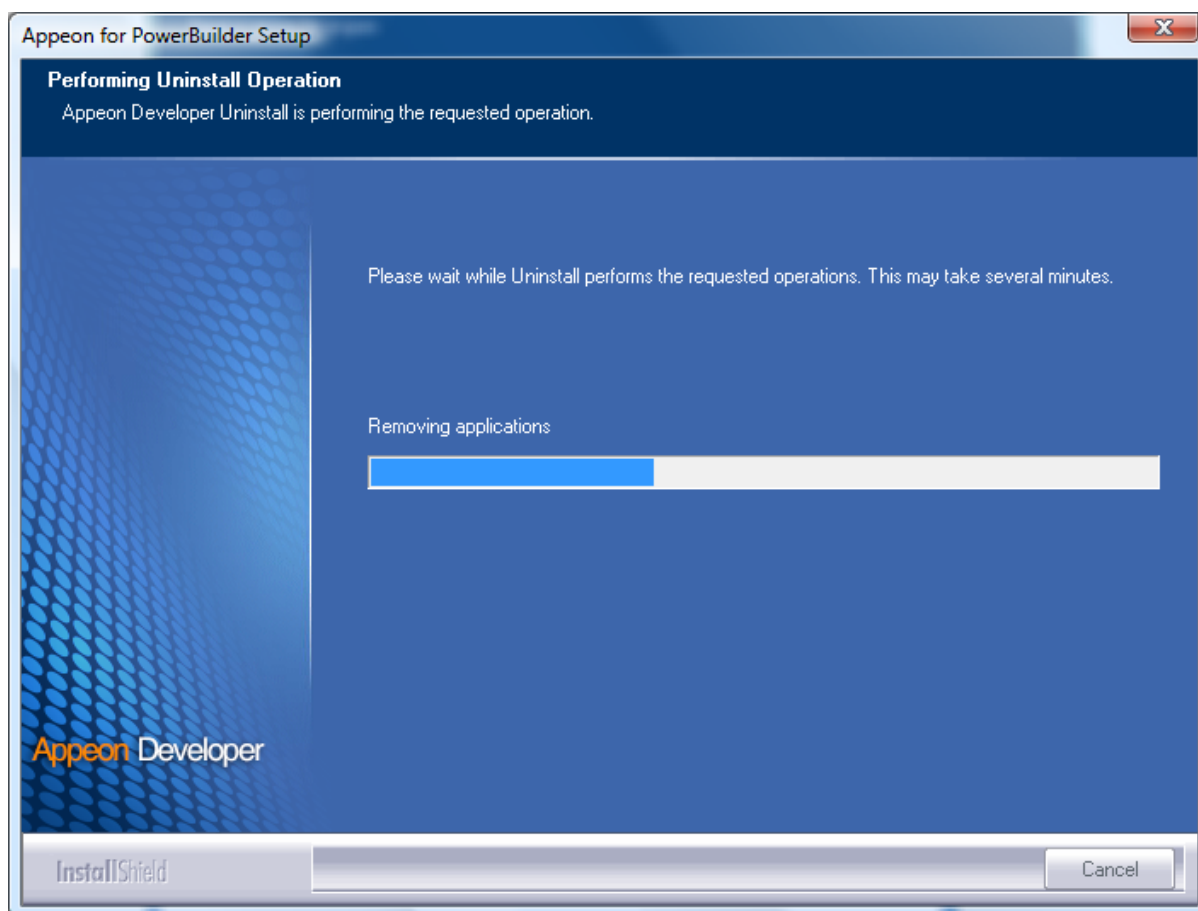
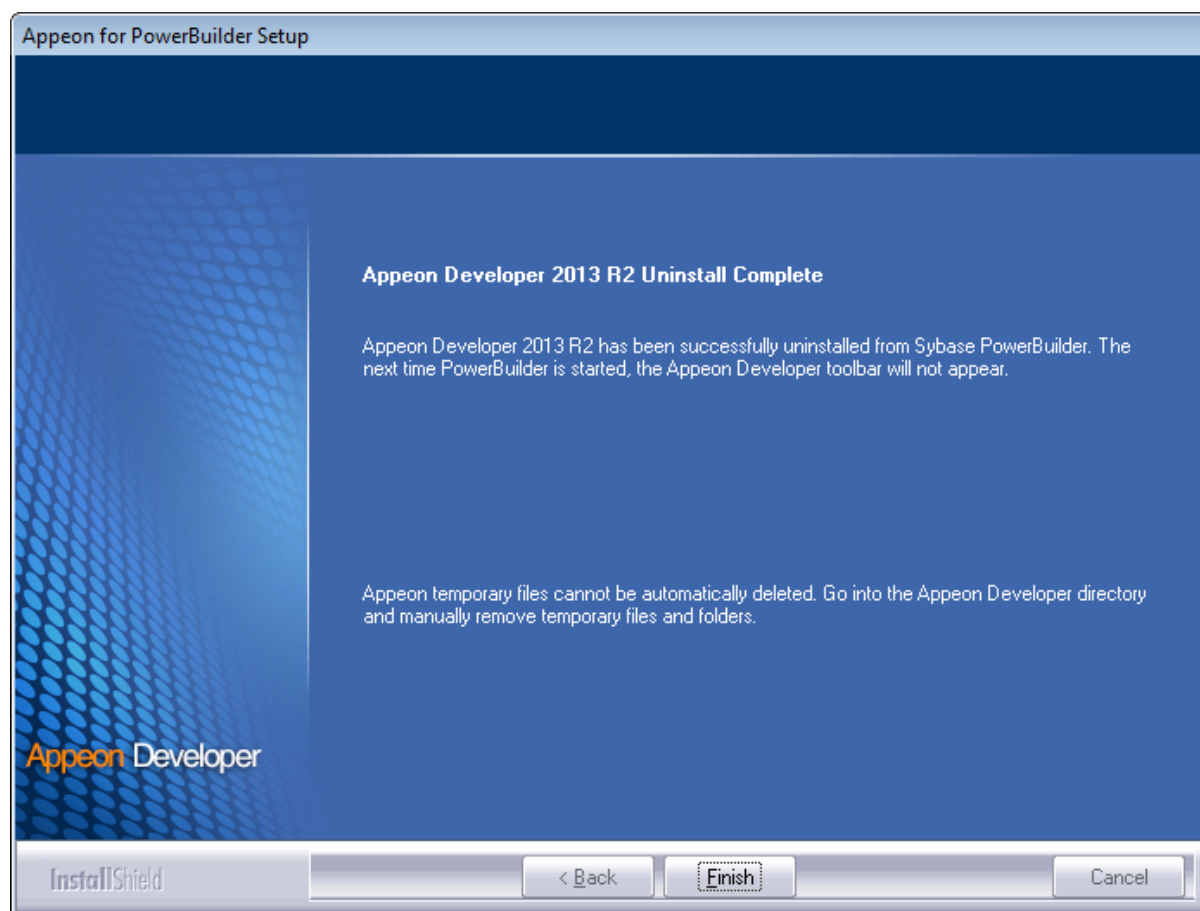
Figure 7.2: Confirm uninstall

Figure 7.3: Perform Appeon Developer uninstall

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

Figure 7.4: Appeon Developer uninstall complete

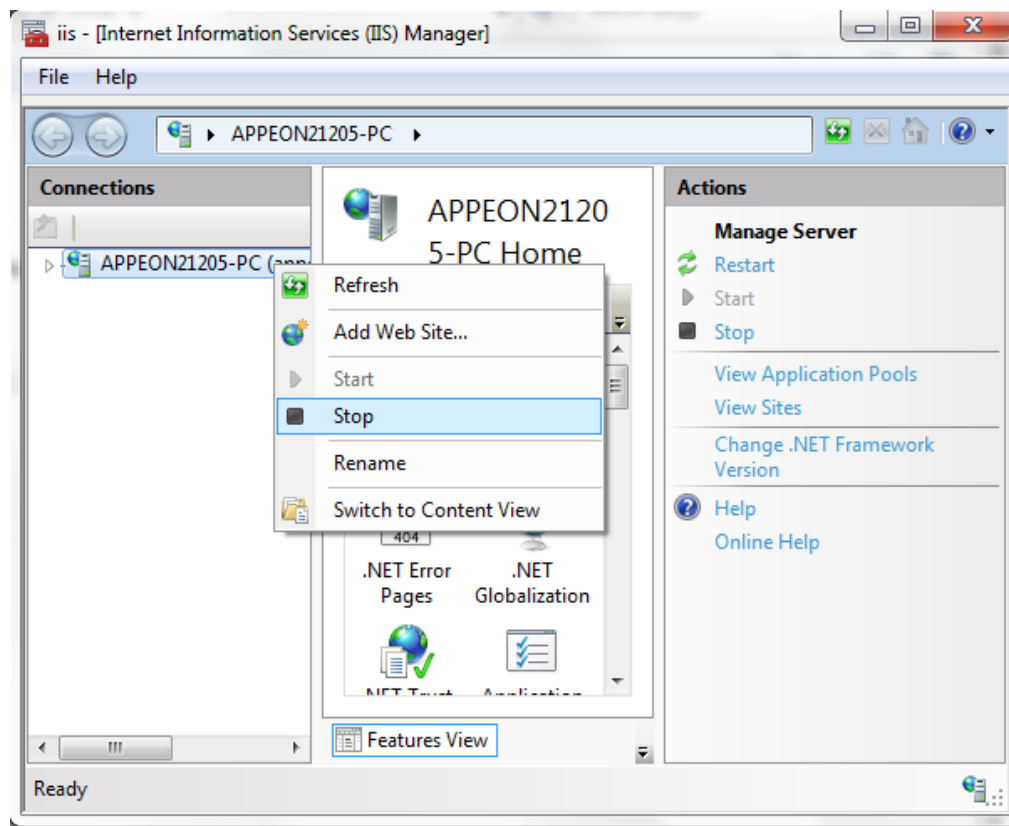
Step 7: Use Windows Explorer to manually delete the folder where Appeon Developer was installed. This will remove all Appeon Developer files that are not automatically uninstalled.

7.3 Uninstalling Appeon Server

Step 1: Shut down all Windows programs.

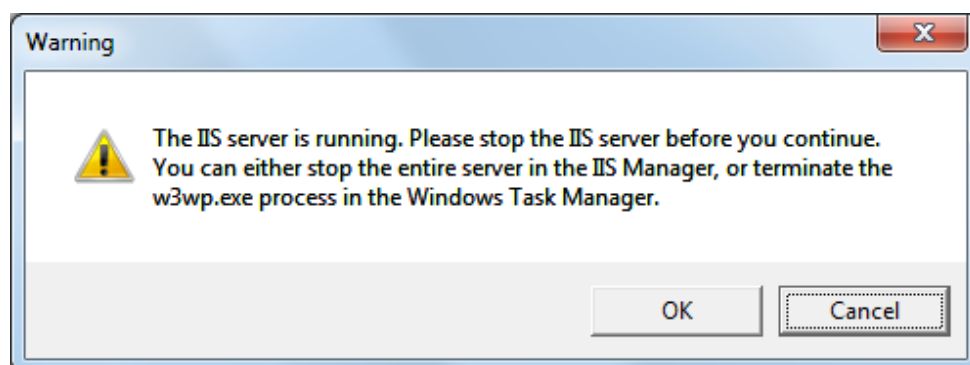
Step 2: Stop IIS server.

To stop the server in the IIS Manager, right click the **top** node (not the website node) in the left tree and select **Stop** from the popup menu. This will stop the entire IIS server, as shown in the following figure.

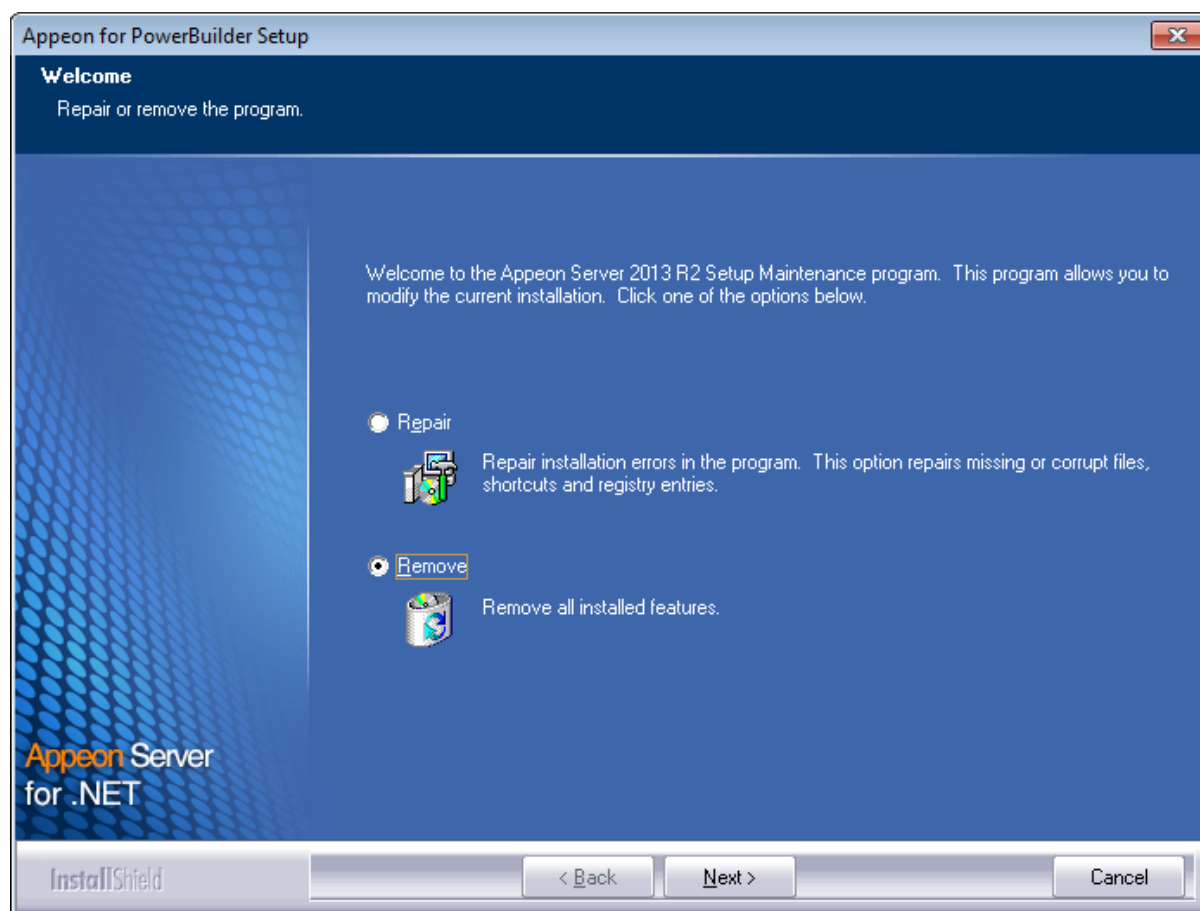
Figure 7.5: Stop the server in IIS Manager

Step 3: Select Windows **Start** menu | **Programs** | **Appeon for PowerBuilder 2013 R2** | **Appeon Server for .NET** | **Uninstall Appeon Server** to begin the uninstall process.

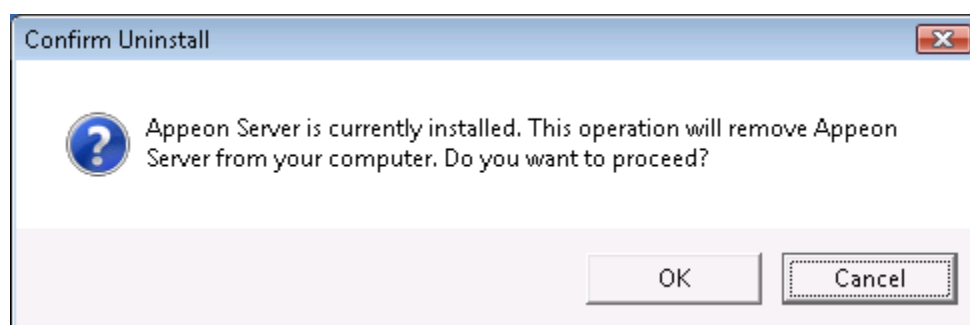
Before uninstall process starts, if the setup program detects that the IIS server is running, a warning message will pop up reminding you to terminate it, as shown in the following figure.

Figure 7.6: Stop IIS server

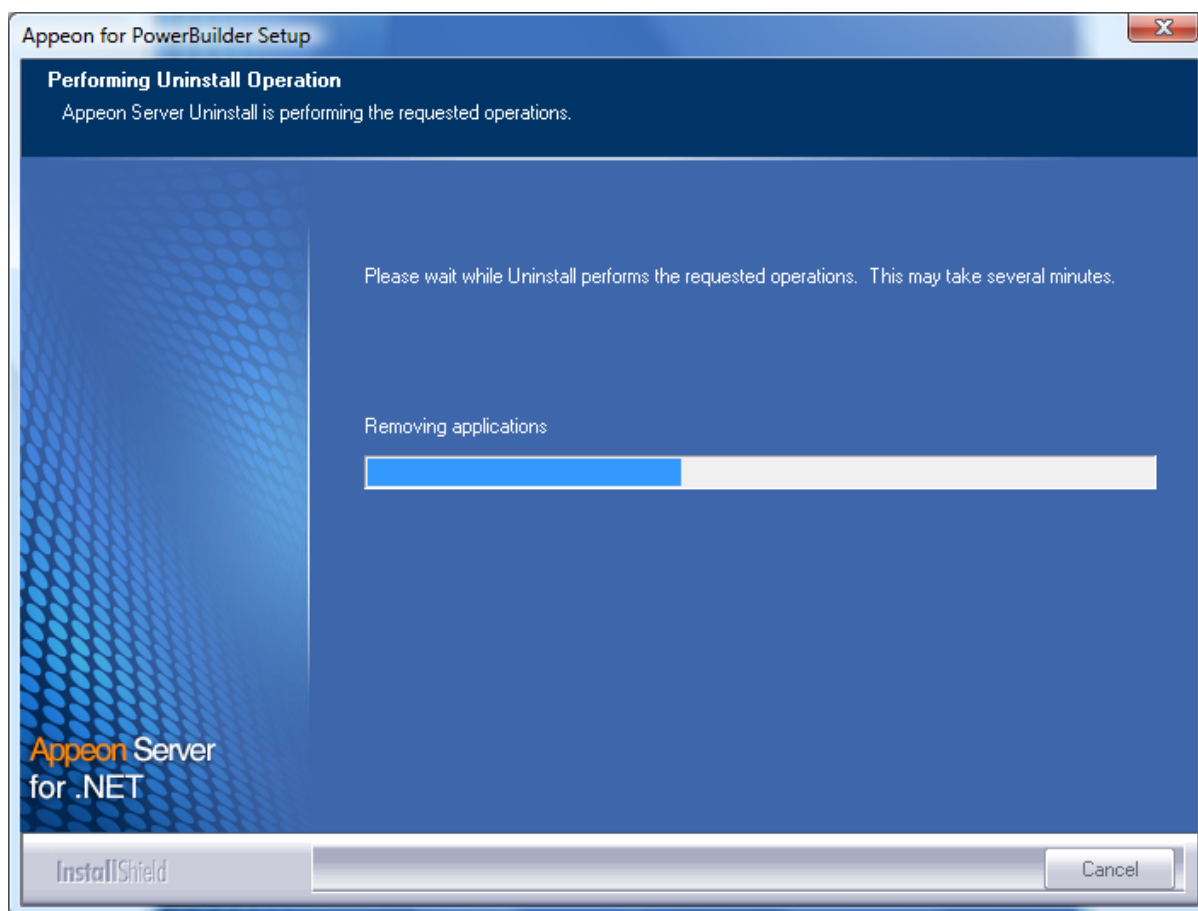
Step 4: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.7: Repair or remove Appeon Server

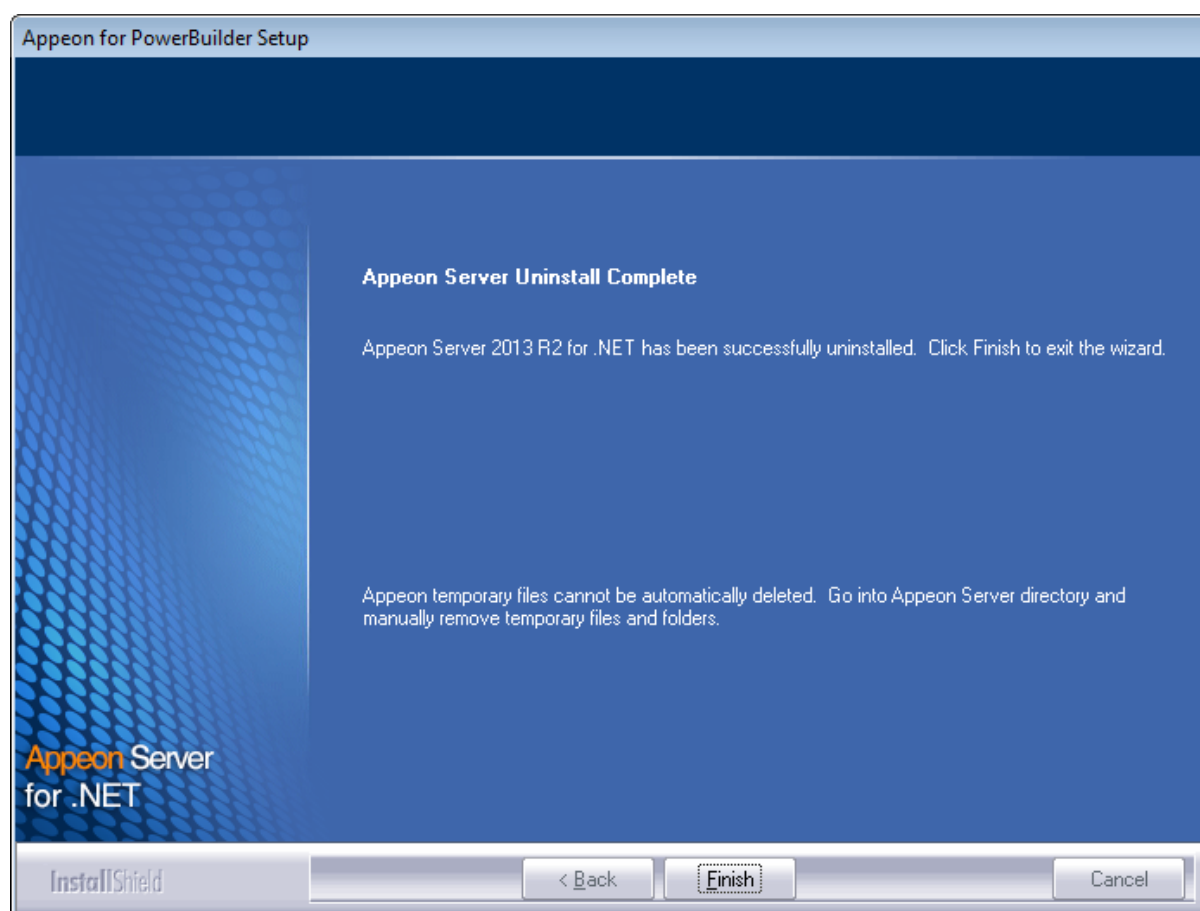
Step 5: Click **OK** to confirm the removal of Appeon Server.

Figure 7.8: Confirm uninstall

Step 6: Wait until the uninstallation is complete.

Figure 7.9: Perform Appeon Server uninstall

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

Figure 7.10: Appeon Server uninstall complete

7.4 Uninstalling Appeon Server Web Component (for remote Web servers only)

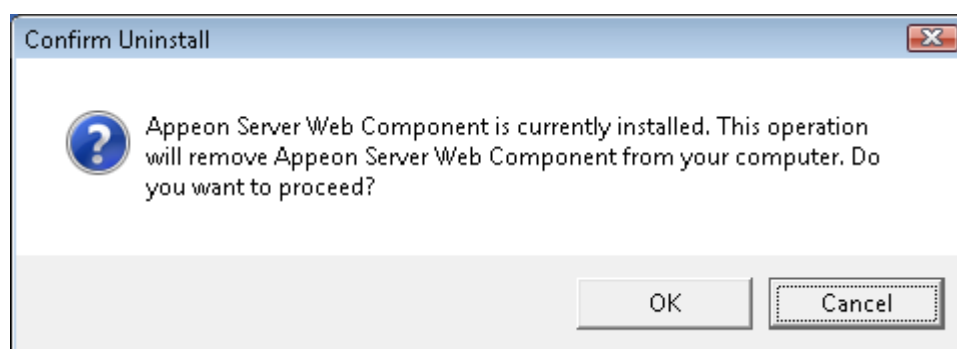
Step 1: Shut down all Windows programs as well as the IIS service.

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.

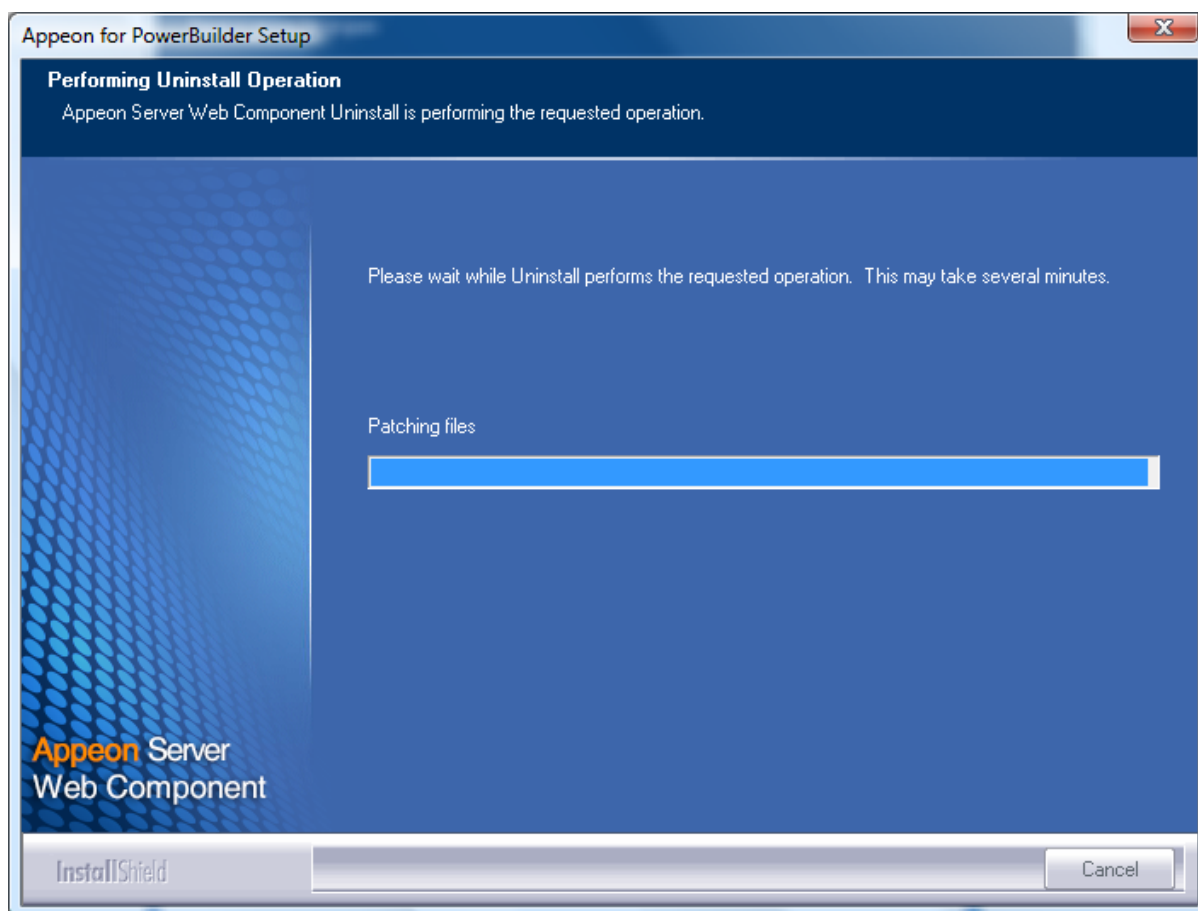
Step 3: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.11: Repair or remove Appeon Server Web Component

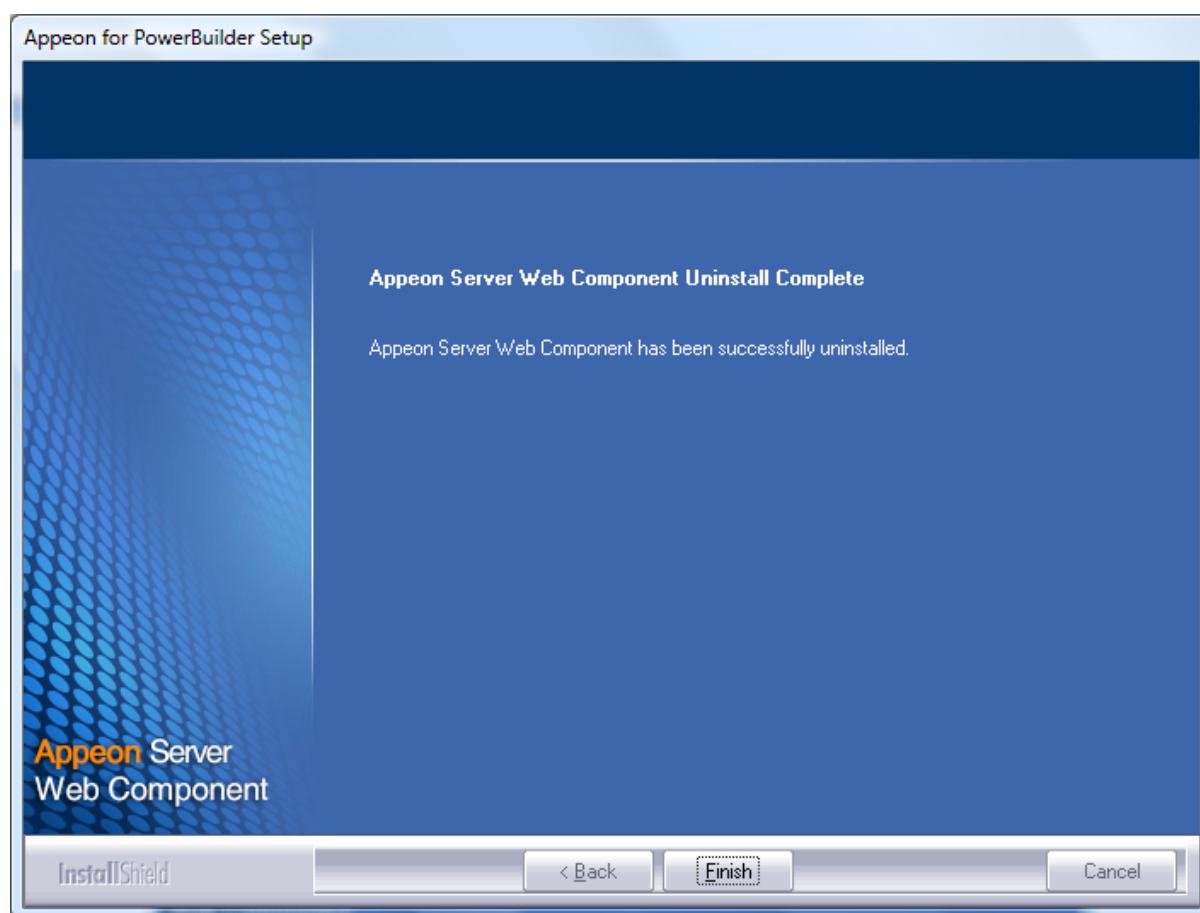
Step 4: Click **OK** to confirm the removal of Appeon Server Web Component.

Figure 7.12: Confirm uninstall

Step 5: Wait until the uninstallation is complete.

Figure 7.13: Perform Appeon Server Web Component uninstall

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

Figure 7.14: Appeon Server Web Component uninstall complete

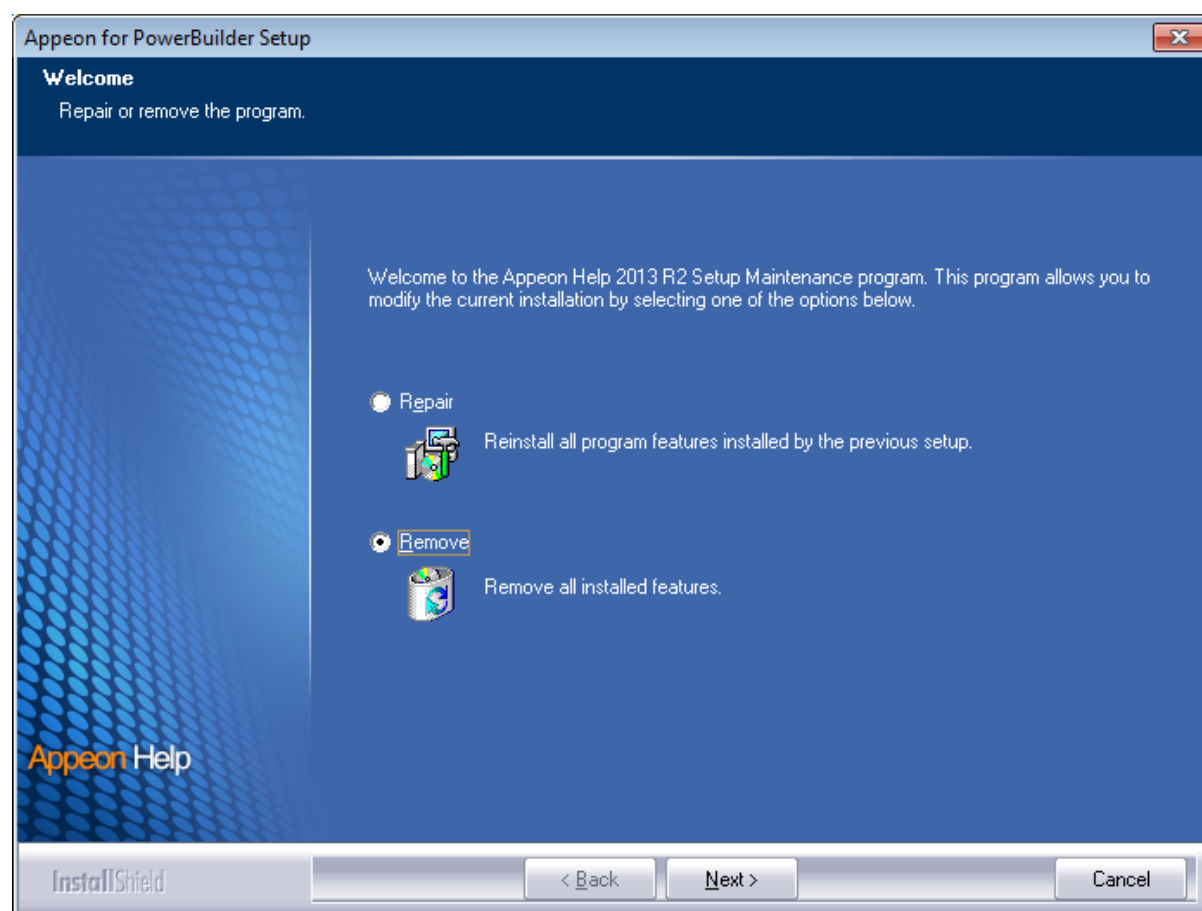
7.4.1 Uninstalling Web Component if multiple remote Web servers are involved

Repeat the Web Component uninstall steps for each remote Web server.

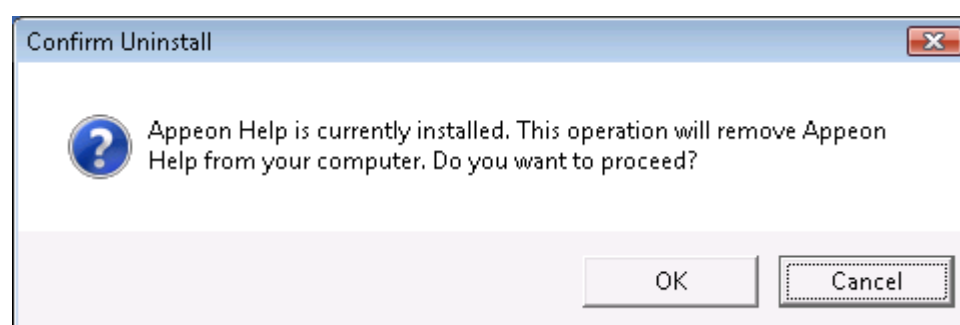
7.5 Uninstalling Appeon Help

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

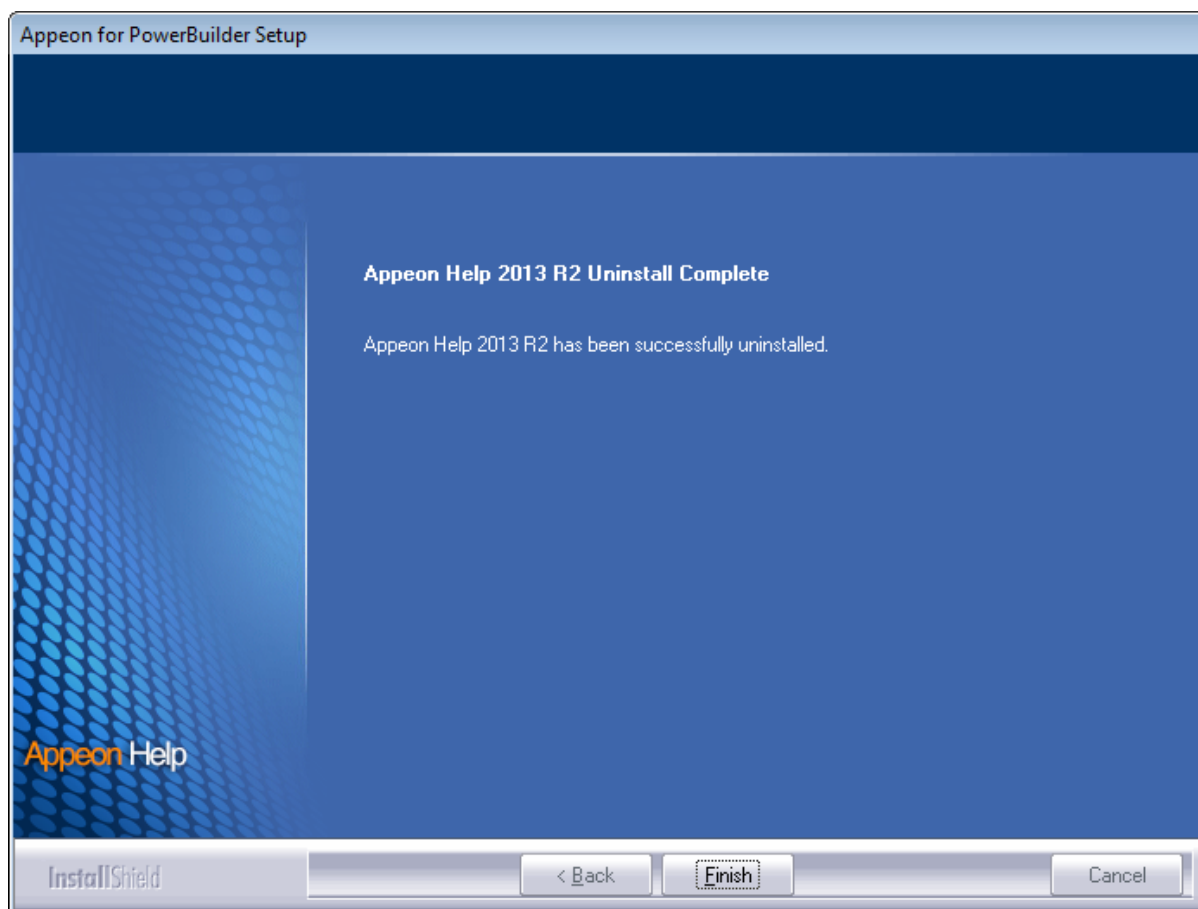
Step 2: Choose **Remove** to delete all installed features. Click **Next**.

Figure 7.15: Repair or remove Appeon Help

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

Figure 7.16: Confirm uninstall

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

Figure 7.17: Appeon Help uninstall complete

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