Appeon Mobile Tutorials

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

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1 About This Book

1.1 Audience

This book is intended for users who want to install Appeon Mobile 1.0, deploy and run the mobile application, package and distribute the application, or configure the Appeon Server cluster.

1.2 How to use this book

There are six chapters in this book.

Chapter 1: About This Book

A general description of this book

Chapter 2: Tutorial 1: Set up the Environment

Detailed instructions for setting up the Appeon Mobile 1.0 environment.

Chapter 3: Tutorial 2: Config, Deploy & Run the Application

Detailed instructions for configuring and deploying an existing PowerBuilder application, and then running the application on mobile device.

Chapter 4: Tutorial 3: Develop & Debug with Appeon Mobile

High-level guidelines for developing and debugging the application with Appeon Mobile.

Chapter 5: Tutorial 4: Package & Distribute Native Mobile Apps

Detailed instructions for packaging and distributing the app as a native iOS app.

Chapter 6: Tutorial 5: Configure Appeon Server Cluster

Detailed instructions for configuring an Appeon Server cluster.

1.3 Related documents

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

• Introduction to Appeon:

Guides you through all the documents included in Appeon for PowerBuilder.

• New Features Guide:

Introduces new features and changes in Appeon for PowerBuilder.

• Appeon Mobile Tutorials:

Gives instructions on deploying, running, and debugging Appeon applications, distributing native mobile apps, and configuring Appeon server clusters.

• Appeon Installation Guide:

Provides instructions on how to install Appeon for PowerBuilder successfully.

• Development Guidelines for Appeon Mobile:

Introduces general guidelines on developing apps with Appeon Mobile.

• 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 the user through the entire process of deploying a small PowerBuilder application to the Web.

• Features Help for Appeon:

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 issues, such as unsupported features, etc,. encountered when using Appeon for PowerBuilder.

• Appeon Workspace User Guide:

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

• 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 Appeon deployed applications.

• Web Server Configuration Guide:

Describes configuration instructions for Web Servers to work with a single Appeon Server or an Appeon Server cluster.

• Troubleshooting:

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 <u>http://www.appeon.com/support</u>.

2 Tutorial 1: Set up the Environment

You will need to go through the following tasks to set up the Appeon Mobile 1.0 environment for deploying and running the mobile application:

2.1 Task 1: Prepare the machine

The simplest scenario will be used in this guide, which requires 1 Windows PC and 1 iPad or iPhone.

- 1 Windows PC: used as the development machine and the Appeon Server
- 1 iPad or iPhone: used as the mobile client

The **Appeon Mobile for .NET** edition will be used to walk you through this guide, so please prepare the environment according to the following requirements.

Software requirements for Windows PC:

• Windows 7 (32-bit or 64-bit)

Appeon Mobile 32-bit version can be installed to the 64-bit OS without any special considerations. But if you have installed **Appeon for PowerBuilder 64-bit** version before please uninstall it first. See <u>Task 1.1: Uninstall previous version of 64-bit Appeon</u>.

- Internet Explorer 8, 9, or 10
- PowerBuilder 9.x, 10.x, 11.x, or 12.x
- (Optional) Sybase Adaptive Server Anywhere (32-bit engine) 8.0.2, 9.0, 10.0.1, 11.0, or 12.0 (for running the demos included with the Appeon installation)
- .NET Framework 4.0

Download the .NET Framework 4.0 setup program from <u>http://www.microsoft.com/en-us/</u> <u>download/details.aspx?id=17718</u>.

• IIS 7.5

See Task 1.2: Install IIS and Task 1.3: Configure IIS.

- Appeon Server
- Appeon Developer

See Task 2: Install Appeon Server & Appeon Developer

Software requirements for the iPad or iPhone:

- iOS 5.1 or above
- Appeon Workspace
 See Task 3: Install Appeon Workspace (on the iPad or iPhone)

2.1.1 Task 1.1: Uninstall previous version of 64-bit Appeon

If you are using a 64-bit machine you can install **Appeon Mobile (32-bit)** to the 64-bit OS without any special considerations. But if you have a previous version of **Appeon for PowerBuilder (64-bit)** already installed on this machine then you must uninstall it first.

Step 1: Open **IIS Manager**, right click the **top** node (not the website node) in the treeview and select **Stop** from the popup menu. This will stop the entire IIS.

Image: Stop Image: Stop Image: Stop Image: Stop NET NET NET Start Image: Stop NET Start Start Image: Stop NET Start Start Image: NET Framework Image: Stop NET Start Image: NET Framework Image: Stop NET Start Image: NET Framework Image: Stop NET Online Help Image: NET Framework Image: Stop Image: NET Framework Image: Stop Image: NET Framework Image: Stop Image: Stop Image: Stop Image: NET Framework Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop Image: Stop	Internet Information Services (IIS) Ma	inager	
Connections HXXIA-PC HOME HXXIA-PC HOME HXXIA-PC HOME HXXIA-PC HOME Add Web Site Start Start Rename Switch to Content View NET Error NET From NET From Switch to Content View NET Error NET Pages Globalization Manage Server Restart Start Start Manage Server Restart Start Manage Server Restart Start Manage Server Restart Start Manage Server Restart Start Manage Server Restart Manage Server Restart Rest	() () HXXIA-PC →		🖬 🖾 🔂 -
HXXIA-PC HXXIA-PC HXXIA-PC HOME Refresh Add Web Site Start Start Stop Interference Interference NET Interference Interference<	File View Help		
Image Server Image Server <th>Connections</th> <th></th> <th>Actions</th>	Connections		Actions
Refresh Add Web Site Start Stop Rename NET Switch to Content View Add NET Fror Pages Globalization Site Online Help Online Help			
Start Image: Stop View Application Pools Rename .NET Change .NET Framework Switch to Content View Image: Globalization Image: Globalization Image: NET Error .NET Online Help Image: Optimization Image: Globalization Image: Globalization Image: Optimization Image: Globalization Image: Globalization	S Refresh		Start
Image: Stop .NET Rename .NET Switch to Content View Image: Stop Image: All stop .NET Image: All stop	▶ Start		View Application Pools
404 Online Help .NET Error .NET Pages Globalization Image: Contract of the second seco			Change .NET Framework
	Switch to Conter	.NET Error .NET	
Ready		NFT Trust Application	

Figure 2.1: Stop the entire IIS Manager

Step 2: Close any opened window, especially Sybase PowerBuilder and IIS Manager.

Step 3: Uninstall all of the Appeon components including Appeon Server, Appeon Developer, and Appeon Help. You will need to uninstall these components one by one.

Step 4: Verify Appeon is cleanly uninstalled by the following two steps:

- Double check the **Control Panel****Programs****Programs and Features** and make sure no Appeon component is listed.
- Open a command prompt window and then type "regedit"<Enter>. Double check that no ADT or ASN keys are listed under HKEY_LOCAL_MACHINE\SOFTWARE\Appeon \<version_number>.

Step 5: Clear the Internet Explorer cache and temporary files.

Step 6: Delete the entire Appeon folder from C:\Users\User_Name\AppData\Roaming\.

Step 7: Delete all the Appeon application folders from the IIS Web root. For example, under $C:\langle inetpub | wwwroot \rangle$ at minimum you should delete the following folders, appeon, appeon_acf_demo, appeon_code_examples, pet_world, sales_application_demo.

Step 8: Restart the machine.

Step 9: Start IIS by right-clicking the **top** node in the treeview in the IIS Manager and selecting **Start** from the popup menu.

After that, you can proceed to install Appeon Mobile by following steps in <u>Task 2: Install</u> <u>Appeon Server & Appeon Developer</u>.

2.1.2 Task 1.2: Install IIS

IIS 7.5 is not installed on Windows 7 by default. You need to manually install it. Before you install IIS 7.5 make sure you have installed .NET Framework 4.0. If it is not installed please download the setup program from <u>http://www.microsoft.com/en-us/download/details.aspx?</u> id=17718 and install .NET Framework 4.0 first.

Below are steps for installing IIS.

Step 1: Click **Start** and then click **Control Panel**. In Control Panel, click **Programs** and then click **Turn on or off Windows features**.

Step 2: Select the check box of **Internet Information Services**, then expand the list and select the items under **Web Management Tools**, **Application Development Features** and **Common HTTP Features** according to the figure below. Click **OK** to let Windows finish the install.

Figure 2.2: Select the Web Management Tools

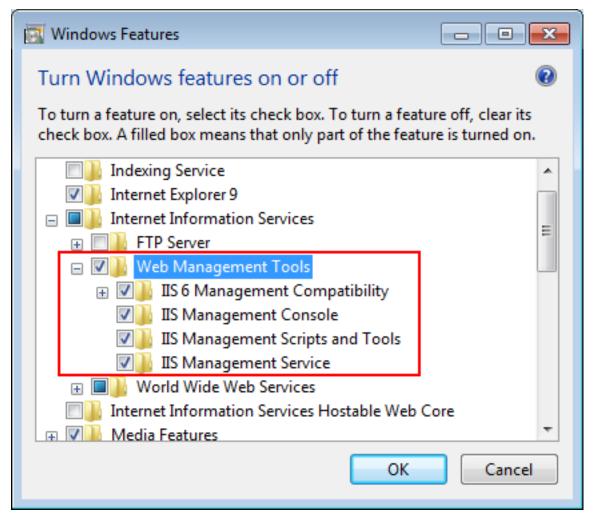
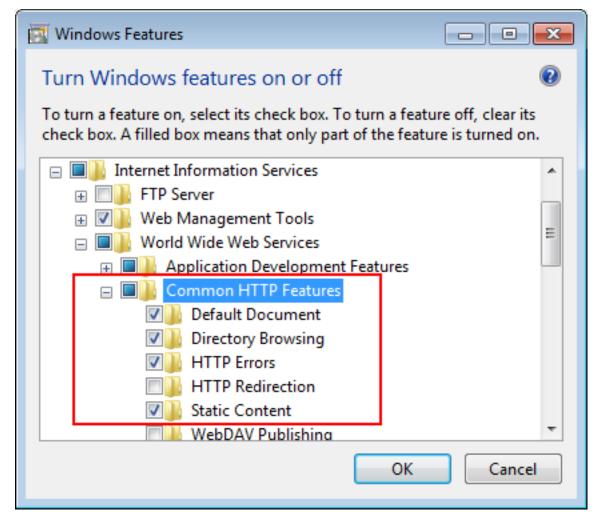


Figure 2.3: Select the Application Development Features

Windows Features	×
Turn Windows features on or off	0
To turn a feature on, select its check box. To turn a feature off, clear i check box. A filled box means that only part of the feature is turned o	
Internet Information Services	
🕀 🗔 🔒 FTP Server	
🕀 🖃 🔛 Web Management Tools	
🖃 🔲 📔 World Wide Web Services	E
Application Development Features	
.NET Extensibility	
ASP	
ASP.NET	
CGI	
ISAPI Extensions	
ISAPI Filters	
Server-Side Includes	Ŧ
OK Canc	el

Figure 2.4: Select the Common HTTP Features



Step 3: After IIS is installed, go to **IIS Manager**, right click the **Default Web Site**, select **Binding**, and make sure **IP Address** is indicated with an asterisk "*". If not, please click **Edit** and select **All Unassigned** for the IP address.

Step 4: Run http://*IP_Address*:80/ in Internet Explorer. If the welcome screen displays, then IIS is working properly.

Tip: to obtain the IP address of the server, open a command prompt window and then type **ipconfig**<Enter>. Remember this IP address as it is also needed when you configure the mobile app in Appeon Workspace.

If IIS is not working, please re-install IIS or fix the IIS configuration by following the IIS help.

2.1.3 Task 1.3: Configure IIS

Follow steps below to grant IIS_IUSRS account with full controls to the IIS Web root folder:

Step 1: Right click C:\Inetpub\wwwroot and select Properties from the popup menu.

Step 2: On the **Security** tab, select **IIS_IUSRS** in the **Group or user names** list box, and then click the **Edit** button.

Figure 2.5: Select IIS_IUSRS

🚶 www.root Properties 🛛 💽				
General Sharing Security Previous Versions Customize				
Object name: C:\inetpub\wwwroot				
Group or user names:				
& Users (hoxia-PC\Users)				
& IIS_IUSRS (hoxia-PC\IIS_IUSRS)				
StrustedInstaller				
· · · · · · · · · · · · · · · · · · ·				
4 III III				
To change permissions, click Edit.				
Permissions for IIS_IUSRS Allow Deny				
Full control				
Modify				
Read & execute 🗸 🗉				
List folder contents				
Read				
Write				
For special permissions or advanced settings, Advanced click Advanced.				
Learn about access control and permissions				
OK Cancel Apply				

Step 3: Select **IIS_IUSRS** in the **Group or user names** list box, and then select the **Allow** check box for the **Full control**.

Figure 2.6: Select Full control for IIS_IUSRS

Permissions for wwwroot					
Security	Security				
Object name: C:\inetpub\www	root				
Group of upor pomoo:					
Group or user names:					
SCREATOR OWNER					
SYSTEM .					
& Administrators (hoxia-PC\Adm	iinistrators)				
& Users (hxxia-PC\Users)					
8 IIS_IUSRS (hxxia-PC\IIS_IU)	SRS)				
88 TrustedInstaller					
A <u>d</u> d <u>R</u> emove					
Permissions for IIS_IUSRS	Allow	Deny			
Full control	V				
Modify					
Read & execute	v				
List folder contents	v				
Read					
Learn about access control and permissions					
ОК	Cancel	Apply			

Step 4: Click **OK** to save the settings.

2.2 Task 2: Install Appeon Server and Appeon Developer

2.2.1 Task 2.1: Install Appeon Server and Appeon Developer

On the Windows PC, install Appeon Server and Appeon Developer by the following steps.

Step 1: Start IIS server: open IIS Manager, right click the **top** node (not the website node) in the treeview and select **Start** from the popup menu.

Step 2: Launch the Appeon product setup program by double-clicking **setup.exe**. Click **Next** until you reach the screen for selecting the product components. Make sure the checkboxes for **Appeon Server for .NET** and **Appeon Developer** are selected.

Step 3: Click **Next** until you reach the screen for specifying the IIS Web site where Appeon Server will be installed. Make sure **Select an existing Web Site** and **Default Web Site** are selected.

Step 4: Click **Next**. Choose whether to install the **Demo Applications**. If you have ASA database server installed, select to install the demo; otherwise, do not install the demo since the demo requires ASA database server to be previously installed.

Step 5: If you selected to install the **Demo Applications**, specify the path for the ASA database server engine.

Step 6: Click Next until Setup begins copying files for the Appeon Server installation.

When Appeon Server installation is completed, Appeon Developer installation automatically starts.

Step 7: Click Next until Setup begins copying files for the Appeon Developer installation.

Step 8: When the installation is completed, select the checkbox for **Restart IIS Server** and **Register .NET Framework 4.0** and then click **Finish**.

You can also restart IIS by typing **iisreset** in the command prompt window.

2.2.2 Task 2.2: Verify the installation

On the Windows PC, run http://IP_Address:80/. If AEM is launched successfully, then Appeon Server is installed successfully.

2.3 Task 3: Install Appeon Workspace (on the iPad or iPhone)

On the iPad or iPhone, search for **Appeon** in Apple Store and then tap **Install** to download and install Appeon Workspace.

You can also download <u>Appeon Workspace</u> from iTunes Store to your PC and then synchronize it to the iPad or iPhone via iTunes.

2.4 Task 4: Configure the network connection

Step 1: On the Windows PC first disable all anti-virus software. It is highly likely that the anti-virus software will prevent the Appeon Server from running properly and/or your iPad/ iPhone connecting to the Appeon Server. For example, there are known conflicts with AVG and Avast, just to mention a few popular free anti-virus commonly used.

Step 2: On the Windows PC, turn off the Windows firewall for both the Home and Work network locations (**Control Panel** > **Windows Firewall**).

Figure 2.7: Turn off the Windows firewall

🚱 🗢 🖬 « System and Security + Windows Firewall + Customize Settings - 4	٩
Customize settings for each type of network	
You can modify the firewall settings for each type of network location that you use.	
What are network locations?	
Home or work (private) network location settings	
💿 💿 Turn on Windows Firewall	
Block all incoming connections, including those in the list of allowed programs	
Notify me when Windows Firewall blocks a new program	
Turn off Windows Firewall (not recommended)	
Public network location settings	
💿 💿 Turn on Windows Firewall	
Block all incoming connections, including those in the list of allowed programs	
W Notify me when Windows Firewall blocks a new program	
 Turn off Windows Firewall (not recommended) 	
OK Cancel	

Step 3: Check and make sure the Windows PC and the iPad or iPhone connected to the same Wi-Fi router. To verify this, on the iPad or iPhone, open the Safari Web browser and type http://Server_IP:80/. If AEM is launched successfully, it means that the Appeon Server is properly installed and that the iPad or iPhone is able to connect to the Windows PC.

NOTE: Mobile Internet is supported in Appeon Mobile 1.0. However, in order for the Appeon Workspace to connect to your Appeon Server you will need an external IP address. You can verify that your external IP address is properly working by typing *http:// External_IP_Address:80* into a Web browser of any device connected to the Internet. If you get a page not found error or other HTTP error then your network is not configured properly for external access.

3 Tutorial 2: Config, Deploy & Run the Application

This tutorial will use the Appeon Mobile for .NET edition to walk you through the following tasks:

3.1 Task 1: Configure the database type

Step 1: On the Appeon Developer toolbar, click the **Configure** icon (2).

Step 2: On the Appeon Developer Configuration window, click the DB Type Profile tab.

Step 3: View the **Configured** column of the database type used by your application, if it displays **Yes**, you can skip the remaining steps in this task. Otherwise, select the database type used by your application, and then click **Configure**.

Figure 3.1: DB Type Profile in ADT

plication Profiles DB Type	Profiles Server P	ofiles	Deployment Profiles	Data Source Profiles	
Database Type Configuratio	n				
				ype is used to convert Power ual application in the Applica	
Supported Database Type	es			Configured	
Sybase ASE 12.x/15.x				No	
Sybase ASA 8/9/10/11/1	12			Yes	
Sybase IQ				No	Ξ.
Oracle 10g/11g				No	
Oracle 9i				No	
Oracle 8i				No	
MSSQLServer 2000/2005	5/2008			No	
IBM DB2 UDB 8.x/9.5				No	
IBM Informix 9.x/10.x				No	+
				C	o <u>n</u> figure

Step 4: On the **Database Type Profile Configuration** window, do the following (take **Sybase ASA** as an example):

1. Select the **ODBC Interface** radio button from the **Database Interface** option.

2. Select a data source from the **Data Source** dropdown list box. It can be any data source (ODBC DSN) provided it is the same type as used by your application. It does NOT have to be the actual ODBC DSN used by your particular application. The database type is what is important and that a connection can be established to the specified ODBC DSN.

- 3. Keep the rest as default, and then click **Test Connection**.
- 4. Make sure that the database connection is successful.
- 5. Click **OK**.

Figure 3.2: Database Type Profile Configuration

🗴 Database Type Profile Configuration 📃 💌				
For each database type used in your application(s), you must provide an ODBC or Native Interface connection to a database of that type in order for Appeon Developer to connect to the data source during deployment.				
You need only provide one c	onnection to each type of dat	tabase used in your application.		
Database Settings				
Database Type:	Sybase ASA 8/9/10/11/12	2		
Database Interface:	ODBC Interface	Native Interface		
Syntax:	☑ Enclose table and colum	nn names in Quotes		
Outer Join Syntax:	ANSI	•		
ODBC Interface		Native Interface		
Data Source: Appeo	nSample 👻	Server:		
User ID:		User [D:		
		Pass <u>w</u> ord:		
Password:		D <u>a</u> tabase:		
00)BC Administrator	Rejease:		
Lest Connection		OK Cancel		

Now the **Configured** column of your database type will be indicated by **Yes**. You can select the database type when you create the application profile for your application in <u>Task 3</u>: <u>Configure and deploy the application</u>.

3.2 Task 2: Configure the database connection

Step 1: In the Appeon Developer Configuration window, click the Data Source Profile tab.

Step 2 -- Select Local Appeon Server from the Appeon Server dropdown list box.

Step 3: Click the Add button to create a data source in the selected Appeon Server.

Figure 3.3: Connection Cache Profiles

🗴 Appeon Developer Configuration		X
Application Profiles DB Type Profiles S	erver Profiles Deployment Profiles Data Source Pr	ofiles
Data Source Configure the data source only if your A Servers will be automatically displayed Appeon <u>S</u> erver: Local Appeon Se		selected Appeon
Name	DB Host	<u> </u>
appeonsample appeonsample2	AppeonSampleForServer AppeonSample2ForServer	<u>A</u> dd
youhoops SAPTechEd2012	YouHoopsForServer SAPTechEd2012ForServer	Delete
	(OK Cancel

Step 4 -- On the Add Data Source window, specify the data source settings. Below we take Sybase ASA and Microsoft SQL Server database as examples.

Steps for configuring a data source for Sybase ASA database:

1. In the Name text box, input any text you like as the name of the data source.

2. Select **ODBC Driver** from the **Driver** dropdown listbox.

3. Select the data source from the **ODBC Data Source** dropdown listbox.

4. Input the database login user name and password respectively in the **User Name** text box and the **Password** text box.

5. Keep the rest as default, and then click **Test**. Make sure the test is successful.

6. Click **OK**.

Figure 3.4: Add Data Source

🗴 Add Data Source				
<u>N</u> ame:	Unnamed1			
Database				
<u>D</u> river:	ODBC Driver		•]	
<u>H</u> ost:				
P <u>o</u> rt:	1433			
OD <u>B</u> C Data Source:	AppeonSample		•	
<u>U</u> ser Name:	dba			
Password:	•••			
Character Set:	ASCII		-	
Session Mode:	DEFAULT		-	
Maximum Connection Pool Size: 100				
Minimum Connection Po	ol Size:	10		
Connection Timeout (se <u>c</u> onds):		0		
Command Timeout (seco	onds):	30		
Connection Lifetime (sec	onds):	0		
Other Options:				
Dynamic Database Connection Verify Pooling				
<u>I</u> est		OK Cancel		

Steps for configuring a data source for **Microsoft SQL Server** database:

- 1. In the **Name** text box, input any text you like as the name of the data source.
- 2. Select **MS SQL Server Native Driver** from the **Driver** dropdown listbox.
- 3. Input the IP address or machine name of the database server in the **Host** field.

4. Input the port number of the database server in the **Port** field.

5. Input the database name, database login user name and password respectively in the **Database Name**, the **User Name** and the **Password** text boxes.

6. Keep the rest as default, and then click **Test**. Make sure the test is successful.

7. Click **OK**.

Tip: you should check with your SQL Server administrator to verify the port number, the username, and the password are correct.

🗴 Add Data Source		— ×
<u>N</u> ame:	northwind	
Database		
<u>D</u> river:	MS SQL Server Native D	river 🔻
<u>H</u> ost:	192.0.0.205	
P <u>o</u> rt:	1433	
Databas <u>e</u> Name:	northwind	
<u>U</u> ser Name:	sa	
<u>P</u> assword:	1	
Character Set:	ASCII	
Session Mode:	DEFAULT	
Maximum Connection Po	ool Size:	100
Minimum Connection Po	ol Size:	10
Connection Timeout (se	gonds):	0
Command Timeout (seco	onds):	30
Connection Lifetime (sec	conds):	0
Other Options:		
🔲 Dynamic Database C	Connection 🛛 📝 Pooling	
Iest		OK Cancel

Figure 3.5: MS SQL Server Native Driver

Now the data source you added will be listed in the **Data Source Profiles** tab. You can select it when you create the application profile for your application in <u>Task 3: Configure and</u> <u>deploy the application</u>.

3.3 Task 3: Configure and deploy the application

Step 1: On the Appeon Developer toolbar click the first icon **Config Wizard** (1).

Step 2: In the welcome screen click Next.

Step 3: Specify following settings and then click Next.

1. Specify the application profile name in the **Application Profile Name** text box.

2. Specify the application URL in the **Web Folder** text box.

3. Select a project type from the **Project Type** dropdown list box.

Make sure **Mobile** is selected from the **Project Type** dropdown list box. The specified text is also used as the name of the folder created under the Web root of the Web server for storing the files when the application is deployed.

4. Select a device type from the **Device Type** dropdown list box.

Tablet, Smartphone, and Both are listed for choices. For applications that are designed for tablets, select "Tablet"; for applications that are designed for smartphones, select "Smartphone"; for applications that are designed for both devices, select "Both".

5. Enter an app name in the **Mobile App Name** text box.

6. In the **Mobile App Icon** text box, specify an icon for your application by clicking **Browse** to select the image file of the following format: PNG, GIF, JPG, BMP, and ICO. The image that you choose will be displayed as the application icon in the Appeon Workspace. Recommended size is 86 x 86 pixels (or above) for non-retina display and 172 x 172 pixels (or above) for retina display. To ensure the best display quality in both high-resolution and low-resolution screens, you must supply an image of 172 x 172 or above. The image will be automatically adjusted to fit properly. If you leave this field empty, the default icon will be displayed in Appeon Workspace.

7. Enter a brief description in the **Mobile App Description** text box. This description will be displayed in the Appeon Workspace next to the application icon. If you leave this field empty, no app description will be displayed in the Appeon Workspace.

Figure 3.6: Appeon Developer Configuration Wizard

🗊 Appeon Developer Configuration Wizard				
Welcome	Please configure the following options:			
	Application Profile Name:	appname		
Configure basic settings	<u>W</u> eb Folder:	appname		
Select PBL files	Project Type:		•	
Configure deployment settings				
Select DB types	Device Type:	Tablet	•	
Declare transaction object(s)	Mobile App Name:	appname		
	Mobile App Icon:		Browse	
Select image files	Mobile App Description:		*	
Select INI files				
Deploy External Files			~	
Summary				
Help	< <u>B</u> ack	Next > Cancel	<u>F</u> inish	

Step 4: Add the PBT from the **PBT** dropdown list box (and all related PBLs will be automatically added for you) or add the PBL files individually that are used in your application by clicking the **Add File** button in the **PBL File List** group box, and then select a PBL version from the **PBL Version** dropdown list box. Click **Next**.

Figure 3.7: Add the PBT in ADT Wizard

🗉 Appeon Developer Configuration Wizard				
Welcome	Select the P	BL files used in your application:		
 Configure basic settings Select PBL files Configure deployment settings 	<u>Р</u> ВТ:			
 Select DB types Declare transaction object(s) 	PBL <u>V</u> ersion: PBL File <u>L</u> ist:	PowerBuilder 11.5		
 Select image files Select INI files Deploy External Files Summary 	۲	Add		
Help		< <u>B</u> ack Next > Cancel Einish		

Step 5: Keep the default settings and click Next.

Since you have installed Appeon Developer and Appeon Server on the same machine, you can directly use the **Local Appeon Server** profile, the **Local Web Server** profile, and the **Local Deployment** profile, all of which are configured automatically by the product setup program.

When you click **Next** the config wizard will automatically test the connection to the server. You will not be able to proceed if the connection test failed.

Figure 3.8: Select the Appeon Server(s) and Web Server(s)

💷 Appeon Developer Configuration Wizar	d	×
Welcome	Please select the Appeon Server(s) and We that your application will be deployed to:	eb server(s)
Configure basic settings	Deployment Profile Name: Local Deployment	•
Select PBL files	Appeon Servers	
Configure deployment settings	Selected Name	<u>E</u> dit
Select DB types	Local Appeon Server	Add
Declare transaction object(s)		
Colort impere filme	Web Servers	
Select image files	Selected Name	Edjt
Select INI files	Local Web Server	Add
Deploy External Files		Delete
Summary		
Help	< <u>B</u> ack Next > Cancel	<u> </u>

Step 6: Select the database type used by your application and click Next.

If the required database type has not been configured, you should highlight the database type, then click **Edit**, and then follow Step 4 in <u>Task 1: Configure the database type</u> to configure it.

Figure 3.9: Select the database type(s)

📳 Appeon Developer Configuration Wizar	d			×
Welcome	Select the database type(s) used by your application:			:
Configure basic settings Select PBL files Configure deployment settings	necessary to setting enab	nust specify the database type(s) that your applicati o specify the exact database(s) used in this particul iles Appeon Developer to apply the correct type of he correct database syntax for PowerBuilder SQL s	ar application. T database driver	This r for
Select DB types	Used	Supported Database Types	Configured	
Declare transaction object(s)		Sybase ASE 12.x/15.x	No	Ξ
 Select image files Select INI files Deploy External Files Summary 	■ ✓ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	Sybase ASA 8/9/10/11/12 Sybase IQ Oracle 10g/11g Oracle 9i Oracle 8i MCSOL Common 2000 / 2005 / 2000 Image: Image	Yes No No No	
Help		< <u>B</u> ack Next > Cancel	<u> </u>	

Step 7: Click **Add** to specify the transaction object(s) used in your application.

Figure 3.10: Specify the transaction object

🗄 Appeon Developer Configuration Wizard				
Welcome	Please specify the transaction object(s) used in the application and the corresponding data source(s):			
Configure basic settings	Transaction Object	Data Source	DB Type	
Select PBL files				
Configure deployment settings				
Select DB types				
Declare transaction object(s)				
Select image files				
Select INI files				
Deploy External Files				
Summary		Configure	Delete	
Help	< <u>B</u> ack	Next > Cancel	<u>F</u> inish	

In the Add Transaction Object window, specify the following settings:

a. Input the transaction object name used by the application to the **Transaction Object** text box. Default transaction object for most PB applications is **SQLCA**.

b. Select the database type from the **Database Type** list box.

c. Select Local Appeon Server from the Appeon Server dropdown list box.

d. Select the data source from the table. The data source should connect to the same database that the PowerBuilder application connects to. If the required data source does not exist, you should click **Add**, and then follow Step 4 in <u>Task 2: Configure the database connection</u> to create it.

Figure 3.11: Select the connection cache

Add Transaction	Object			X
<u>T</u> ransaction Ot	pject:	sqica		
Database Ty <u>p</u> e	e:	Sybase ASE 12.x/15	ō.x	•
<u>D</u> ata Source:				
source in the b Data Source Appeon <u>S</u> er	elow Data Sour ver:	ce group box.	Iso select, edit, add, or dele	
Selected	Name		DB Host	
	<u>A</u> dd.	<u>D</u> elete		
			ОК	Cancel

Tip: If you have more than one transaction object you can add additional transaction objects by repeating the above steps.

Step 8: Click **Browse** to select the image file or the folder that contains the image files, if any. Click **Next**.

Step 9: Click Add File or Add Directory to select the INI file, if any. Click Next.

Step 10: Click **Add File** or **Add Directory** to select any other external files such as TXT file etc., if any. Click **Next**.

Step 11: In the configuration summary screen, keep the **Deploy the application now** option as selected. Click **Finish**.

Once you click **Finish**, the **Appeon Deployment Wizard** automatically starts deploying the application. To manually starts **Appeon Deployment Wizard**, you can click the **Deploy** icon

) on the Appeon Developer toolbar.

Step 12: Click Finish when the deployment process is complete.

Appeon Deployment Wizard - sales	;			
Deployment Information				
Application deployed:		sales		
Deployment mode:		Full Application Deploy	yment	
Deployment profile used:		Local Deployment		
Deployment Task Summary				
Task		Status	Time	
Task 1: Application Source Code Expo	nt	Completed	< 1 Minutes	
Task 2: Appeon Application File Gener	ation	Completed	< 1 Minutes	
Task 3: Appeon Application Deployme	nt	Completed	< 1 Minutes	
Total Time Elapsed for Automatic Conv	version		< 3 Minutes	
Log Information				
Warnings and Errors Summary:	Errors: 0;	Warnings: 0	iew Log	
Reports				
Features Analysis report available:			<u>A</u> nalysis Report	

Figure 3.12: Appeon Deployment Wizard_sales

3.4 Task 4: Run the Web version of the application (in IE)

Before you run the application on the iPad or iPhone, make sure your application can run successfully in the Internet Explorer Web browser (to aid debugging your application is automatically deployed as both a Web application using Appeon Web 6.6 and a mobile application using Appeon Mobile 1.0):

Step 1: Open Internet Explorer and navigate to the trusted sites list (**Internet Option** > **Security** > **Trusted Sites** > **Sites**). Uncheck the **HTTPS** checkbox and add the IP address of your IIS as well as the localhost. For example, if your IP address is 192.168.1.117 then it should look as follows:

Figure 3.13: Add the IP address of IIS

Trusted sites	×
You can add and remove websites from this zon this zone will use the zone's security settings.	e. All websites in
Add this website to the zone:	
http://192.168.1.117/	Add
Websites:	
http://223.255.243.247	Remove
http://appcrm.appeon.com	
http://appeon.gnway.net	
http://most.cloudapp.net	
Require <u>server</u> verification (https:) for all sites in this	zone
	Close



Trusted sites	×
You can add and remove websites from this zone this zone will use the zone's security settings.	e. All websites in
Add this website to the zone:	
http://localhost/	Add
Websites:	
http://223.255.243.247	Remove
http://appcrm.appeon.com	
http://appeon.gnway.net http://most.cloudapp.net	
Require server verification (https:) for all sites in this	zone
	Close

Step 2: Input the application URL in the Internet Explorer address bar and start the application. The application URL must contain index.htm, for example http://192.168.1.117/ myApplication/index.htm.

Note: The application URL is specified in Step 3 of <u>Task 3</u>: <u>Configure and deploy the</u> <u>application</u>.

Step 3: Install the Web browser plug-in, when you are prompted. You will be prompted twice, please accept both times.

Step 4: When the application is loaded successfully in Internet Explorer, test it carefully.

If you notice any issues, please debug the application according to the <u>Tutorial 3: Develop &</u> <u>Debug with Appeon Mobile</u>.

3.5 Task 5: Run the mobile version of the application (on the iPad or iPhone)

Now that you have run the application successfully in IE, you are ready to run your application on the iPad or iPhone.

Step 1: Install Appeon Workspace. See Task 3 in Tutorial 1: Set up the Environment.

Step 2: Configure the network connection. See Task 4 in Tutorial 1: Set up the Environment.

Step 3: Tap the AppeonMobile icon on your iPad or iPhone to launch Appeon Workspace.

Step 4: Tap the **New** icon $(\textcircled{\bullet})$ to the left of the title bar.

Step 5: In the **App URL** text box, enter the application URL in this format: *http:// server_ip:port/app_name*. For example, if your IIS IP address is 192.168.1.117 on port 80 and you specified myApplication in the Appeon Developer configuration as the URL folder name then the URL would be http://192.168.1.117:80/myApplication/.

Step 6: Tap the **Test Connection** button to test the server connections. If successful please proceed to Step 7, otherwise please enter the correct URL.

Step 7: Tap the **Back** icon ((S)) on the title bar to save the information and return to the main screen of the Appeon Workspace.

Once you return to the main screen of the Appeon Workspace, the downloading and installation process of the application occurs automatically.

Step 8: After the installation process has completed, tap the application icon on the main screen to run the mobile app that is installed.

4 Tutorial 3: Develop & Debug with Appeon Mobile

Please keep in mind the following points when developing and debugging Appeon Mobile applications for the iPad/iPhone. For detailed instructions on how to use the Appeon Developer toolset you may refer to the <u>Appeon Developer User Guide</u>.

4.1 Point 1: iPad UI Considerations

Many aspects of the UI for mobile applications differ significantly from traditional PowerBuilder best practices. How you layout controls on the window, the size of the window, controls, and other visual objects, and how the user expects to interact with your application are fundamentally different for mobile devices.

Please carefully read the <u>Best Practices</u> section of *Development Guidelines*, including the **Window** subsection of the <u>Best Practices</u>. We have compiled valuable tips and suggestions that will help you develop user-friendly mobile applications.

Once you have a good understanding of the Best Practices, we strongly recommend using the

Size Calculator tool (**FF**) in the Appeon Developer toolbar to properly size the application windows and controls to display appropriate on the iPad or iPhone.

4.2 Point 2: Unsupported Features

Appeon Mobile supports nearly all the same features as Appeon Web. Those experienced with Appeon Web know that it supports many powerful PB features. So you should be able to build equally robust applications with Appeon Mobile also.

When developing applications for Appeon Mobile, it is critical to ensure that your application does not contain unsupported features. Appeon provides several tools to assist you with this:

- Tool 1: The **UFA** tool (⁽⁾) in the Appeon Developer toolbar will automatically scan your application and list major unsupported features found based on a keyword scan.
- Tool 2: The **Code Insight** tool () in the Appeon Developer toolbar will pop-up a window, when you are writing dot notation in the PB script editor, that prevents you from writing PowerScript that is unsupported.
- Tool 3: The <u>Features Help</u> is a searchable online help that lists all unsupported features.

These tools have some limitations. Please keep in mind the following limitations when using these tools:

- The **UFA** tool uses a keyword scan. As such, not all unsupported features can be found, especially those that are dynamically occurring in runtime.
- The **Code Insight** tool is limited to unsupported PowerScript and essentially based on keywords (like the **UFA** tool). As such, it will not prevent all unsupported features from being added to the application, such as unsupported objects, unsupported expressions, etc.

We recommend you develop your mobile applications with Appeon Developer as follows:

Step 1: Use the **Code Insight** tool (from the Appeon Developer toolbar to code PowerScript that is compatible with Appeon Mobile. For details about how to configure and use the **Code Insight** tool, see the <u>Appeon Developer User Guide</u>.

Step 2: Run the **UFA** tool (^(C)) from the Appeon Developer toolbar to generate the unsupported features report. For details about how to run the UFA report, see the <u>Appeon</u> <u>Developer User Guide</u>.

Step 3: Remove or rewrite any unsupported features found by the **UFA** tool. Please make note of the unsupported features found such that in the future you do not reintroduce these same unsupported features.

Step 4: After you have deployed the application, attempt to run the Web version in the Internet Explorer Web browser. The Web version is based on Appeon Web 6.6 that has been on the market for over 10 years. As such, if you find something in your application is not working in the Web version chances are it is an unsupported feature rather than a product bug.

Step 5: Since the **UFA** tool and **Code Insight** cannot prevent 100% unsupported features, should you find something that does not work in the Web version please go back to the object or area of PowerScript in question and cross-reference that with the <u>Features Help</u> to see if your application contains any unsupported features.

Step 6: If after cross-referencing the <u>Features Help</u> you believe your application is free of unsupported features but it fails to run or operate properly please contact <support@appeon.com> for help.

4.3 Point 3: Previewing & Debugging

To preview the application UI and layout, use the **Appeon Workspace Emulator** (¹¹) from the Appeon Developer toolbar.

Note: Please ensure UAC is turned off before you run the Appeon Workspace Emulator, otherwise you may encounter an error saying "Failed writing received data to disk/ application".

To debug the application business logic, first ensure that the UFA report does not contain any unsupported features, or at least no unsupported features in the area of the application you

are trying to debug. Then, launch the **Appeon Debugger** (¹¹⁾) from the Appeon Developer toolbar, which will load the Web version of your application in the IE Web browser.

The **Appeon Debugger** requires the Microsoft Script debugger to be installed on your system and that your Internet Explorer is version 8, 9 or 10. There are also special configurations you need to perform in the Appeon Developer and Internet Explorer. Please see the <u>Appeon Developer User Guide</u> for more information about how to properly configure your environment for the Appeon Debugger.

Please note that Appeon Mobile 1.0 does not contain a mobile-specific debugger, so we have included the Web debugger in lieu. While not exactly the same, it can still help to identify problems in the application business logic or areas that Appeon is having trouble converting.

5 Tutorial 4: Package & Distribute Native Mobile Apps

5.1 Overview

After you successfully deploy a PowerBuilder application as a native mobile application using the Appeon Developer Toolbar, you can choose to run the app immediately in Appeon Workspace, or package the app and distribute it to the iOS App Store. By distributing the app to the App Store, it can be downloaded and installed just like other native iOS apps. In this section, you will go through all the required steps for packaging the distributing an Appeon Mobile app as a standalone native iOS app:

- 1. Task 1: Generate the Xcode project.
- 2. Task 2: Prepare a Mac machine and your Apple ID
- 3. Task 3: Enroll in an Apple Developer Program
- 4. Task 4: Create & install distribution certificates and provisioning profiles.
- 5. Task 5: Create the app archive.
- 6. Task 6: Distribute the app archive.

5.2 Task 1: Generate the Xcode project

Step 1: Use the **Package** tool in the Appeon Developer toolbar to package the app files into an Xcode project.

During the package process, you will be able to specify the settings, such as the app name, icons, etc., that are required by the Xcode project. See the *Packaging a native mobile project* section in *Appeon Developer User Guide* for detailed instructions.

After the package process is complete, you will find the following two zip packages generated under the specified destination folder.

- The zip package of the application.
- AppeonMobile.framework.zip: this zip package is necessary for all apps (including the customized Appeon Workspace) to be distributed on iOS.

Step 2: Extract the above two zip packages respectively and then copy the extracted **AppeonMobile.framework** folder into the **reference** folder under the extracted app package.

The following screenshot shows the **reference** folder where the **AppeonMobile.framework** folder should be copied.

Figure 5.1: reference folder

🗲 🕞 🗢 🔰 « Sales App Demo_install	 Sales App Demo + refe 	rence 🕨
Organize 🔻 🗦 Open 🛛 Include in	n library 🔻 🦷 Share with ୟ	 New folder
Name	Date modified	Туре
퉬 AppeonMobile.framework	5/10/13 9:22 AM	File folder
AppeonWS.bundle	6/7/13 9:14 AM	File folder
App_running\$.zip	5/10/13 5:42 PM	WinRAR ZIP 压缩.

The following screenshot shows the **AppeonMobile.framework** folder and the subfolders and files it contains.

Figure 5.2: AppeonMobile.framework folder

 $\overline{}$

🗸 🤝 🗢 🚺 < Sales App Demo 🕨	reference AppeonMobile.fr	amework 🕨
Organize 👻 Include in library 👻	Share with 🔻 New fol	der
Name	Date modified	Туре
🐌 Versions	5/10/13 9:22 AM	File folder
AppeonMobile	5/10/13 9:22 AM	File
Documentation	5/10/13 9:22 AM	File
Headers	5/10/13 9:22 AM	File
Resources	5/10/13 9:22 AM	File

Step 3: Copy the entire app folder to a Mac machine.

The following screenshot shows the subfolders that the app folder (*Sales App Demo* for example) contains.

Figure 5.3: app folder

🕽 🔵 🗢 🕌 « Sales App Demo_ins	tall 🕨 Sales App Demo 🕨	✓ Searce
Organize 👻 Include in library 💌	Share with 🔻 New fold	der
Name	Date modified	Туре
퉬 EonNativeApp	6/7/13 9:14 AM	File folder
퉬 EonNativeApp.xcodeproj	6/7/13 9:14 AM	File folder
퉬 images	6/7/13 9:14 AM	File folder
la reference	6/7/13 9:15 AM	File folder

5.3 Task 2: Prepare the Mac machine and your Apple ID

5.3.1 Task 2.1: Prepare the Mac machine

Buy a Mac machine and install Xcode on the Mac machine.

You will need to have a Mac machine with the Xcode tool installed already to

- 1. create and install the distribution certificate and the provisioning profile;
- 2. run the Xcode project and create the app archive;
- 3. distribute the app archive.

5.3.1.1 Install Xcode

Click <u>https://developer.apple.com/xcode/</u> to download and install the Xcode tool.

You will need an Apple ID registered as an Apple Developer to access the Xcode tool. See <u>Task 2.2 Create an Apple ID</u> to create an Apple ID, and then sign in with your Apple ID, follow the onscreen instructions to register your Apple ID as an Apple developer, and download and install the Xcode tool at the above mentioned website.

For more information on Xcode, see Xcode User Guide.

5.3.2 Task 2.2: Create an Apple ID

Follow the onscreen instructions on <u>My Apple ID</u> to create an Apple ID if you do not have one.

5.4 Task 3: Enroll in an Apple Developer Program

Enroll in an Apple Developer program at https://developer.apple.com/programs/start/ios/.

Carefully compare the programs and choose one that suits you best, because different distribution types (App Store, Ad Hoc, In-House, etc.) will be available in different programs, for example, **App Store Distribution** is available in **iOS Developer** program only, while **In-House Distribution** is available in **iOS Developer Enterprise** program only.

Here is a brief introduction to the three distribution types that are commonly used and are provided with detailed instructions in <u>Section 5.7</u>, "<u>Task 6</u>: <u>Distribute the app archive</u>" in this tutorial:

• **App Store Distribution**: allows you to submit the app for publication to the iOS App Store.

You would need to enroll in the **iOS Developer** program.

• **In-House Distribution**: allows you to install the app to an unlimited number of devices inside your company.

You would need to enroll in the iOS Developer Enterprise program.

• Ad Hoc Distribution: allows you to install the app on a limited number (up to 100) of registered devices.

You would need to enroll either in the **iOS Developer** program or the **iOS Developer Enterprise** program. And you would need to register the devices by their unique device ID (UDID) and add them to the provisioning profile. For details, refer to <u>Registering Devices</u> <u>Using Member Center</u> in Apple document *App Distribution Guide*.

Figure 5.4: Compare programs

Compare Programs

	iOS Developer For individuals and organizations creating apps for distribution on the App Store. Learn more >	iOS Developer Enterprise For companies and organizations distributing proprietary apps for internal use. Learn more >	iOS Developer University For higher education institutions introducing iOS app development into their curriculum. Learn more >
ios sdk	×	×	×
iOS SDK (Pre-release)	\checkmark	✓	N/A
Test apps on iOS devices	~	~	✓
Code-level Technical Support	\checkmark	✓	N/A
Ad Hoc Distribution	~	×	N/A
App Store Distribution	\checkmark	N/A	N/A
Custom B2B App Distribution	✓	N/A	N/A
iAd Network	\checkmark	N/A	N/A
In-house Distribution	N/A	×	N/A
Cost	\$99 year	\$299 year	Free
Requirements	If you're enrolling as an organization, a D-U-N-S Number registered to your legal entity is required.	A D-U-N-S Number registered to your legal entity is required.	The University Program is only available to qualified, degree granting, higher education institutions.

5.5 Task 4: Create & install distribution certificates and provisioning profiles

This section introduces how to create and install the distribution certificates and the provisioning profiles.

5.5.1 Task 4.1: Create & install distribution certificates

Before you can create and install the provisioning profile, you need to create and install the distribution certificates. You only need to install the distribution certificates for the very first time. Follow steps below to create and install them.

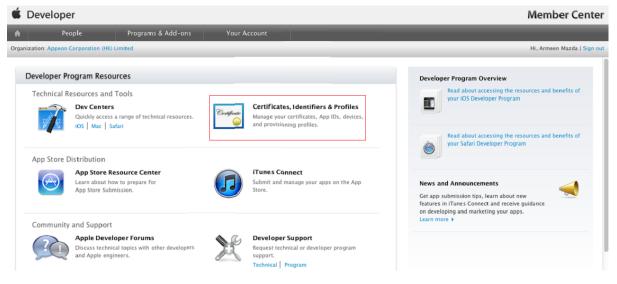
Step 1: On your Mac machine, log in to the <u>Member Center</u> with your Apple ID and Password.

Figure 5.5: Member Center

🗯 Developer	Technologies	Resources	Programs	Support	Member Center	Q Search Developer	D
Member Cente							
Manage your account and access the reso your Developer Program from the Member and Password associated with your Devel	Center. Sign in using t		S	ign in to the	Member Center		
				Apple ID			
			1	Password			
		<u> </u>	F	Forgot Passwo	ord?	Sign In	
	Not registered as a	n Apple Develop	er? Learn mor	e about our pi	ograms 🕨		

Step 2: Click the icon or text for **Certificates, Identifiers & Profiles** under **Developer Program Resources**.

Figure 5.6: Certificates, Identifiers & Profiles



Step 3: Choose **Certificates** > **Distribution**, click the add certificate icon (), and then drag down the page and click **Worldwide Developer Relations Certificate Authority** to download the AppleWWDRCA.cer.

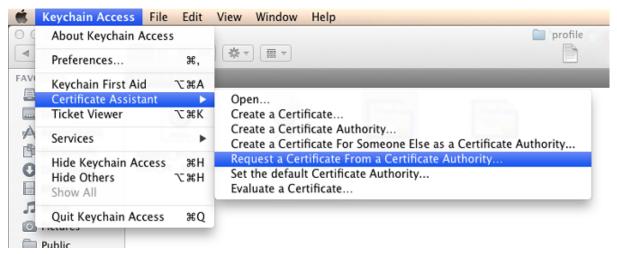
Figure 5.7: Download the AppleWWDRCA.cer

É Developer	Technologies Resources Programs Support Member Center Q Search Developer
Certificates, Identifiers &	Profiles Armeen Mazda 🗸
iOS Apps 👻	Add iOS Certificate 🔫 🕞
Certificates All Pending Development	Select Type Request Generate Download Generate Download What type of certificate do you need?
Distribution Identifiers	
Devices	Development
Provisioning Profiles All Development Distribution	 iOS App Development Sign development versions of your iOS app. Apple Push Notification service SSL (Sandbox) Establish connectivity between your notification server and the Apple Push Notification service sandbox environment. A separate certificate is required for each app you develop.

Step 4: Double-click the downloaded AppleWWDRCA.cer to open the Keychain Access and install it.

Step 5: Choose Keychain Access > Certificate Assistant > Request a Certificate From a Certificate Authority....

Figure 5.8: Request a Certificate



Step 6: In the **Certificate Assistant** dialog box, do the following:

1. In the **User Email Address** text box, enter your email address (use the same address as you used to register in the iOS Developer Program);

- 2. In the **Common Name** text box, enter a name (use the same name as you used to register in the iOS Developer Program);
- 3. In the CA Email Address text box, enter your CA email address;
- 4. Select the **Save to disk** radio button and click **Continue**.

Figure 5.9: Certificate Assistant

000	Certificate Assistant	
	Certificate Information	
	Enter information for the certificate you are request Click Continue to request a certificate from the CA.	ing.
Cer	User Email Address: Common Name: mac7 CA Email Address: Required Request is: • Emailed to the CA Saved to disk Let me specify key pair information	
		Continue

Step 7: Specify a filename (usually the *CertifocateSigningRequest.certSigningRequest* by default) and click **Save**.

The CertifocateSigningRequest.certSigningRequest file is then saved, and you are ready to submit the generated CSR file.

Step 8: Go back to **Certificates, Identifiers & Profiles**, select a certificate type and then click **Continue**. On the page that appears, read the information and click **Continue** again.

Step 9: Click **Choose File** to select the saved CSR (CertifocateSigningRequest.certSigningRequest) file, and then click **Generate**.

Step 10: Click **Download**.

Figure 5.10: Download Distribution Certificate

Download, Install and Backup

Download your certificate to your Mac, then double click the .cer file to install in Keychain Access. Make sure to save a backup copy of your private and public keys somewhere secure.

Certificate Sumdard	Name: Type: Expires:	iOS Distribution: Appeon Corporation (HK) Limited iOS Distribution May 08, 2014
		Download

Documentation

For more information on using and managing your certificates read:

App Distribution Guide

Step 11: Double-click the downloaded distribution certificate (ios_distribution.cer) file to open the **Keychain Access** and install your certificate in your default keychain (usually the login keychain). The certificate is then listed in the Keychain, as shown in the following figure.

Figure 5.11: Installed Certificate	Figure	5.11:	Installed	Certificate
------------------------------------	--------	-------	-----------	-------------

00	Keychain Access		
Click to lock the lo	igin keychain.	Q	
Keychains login Micrertificates System System Roots	iPhone Distribution: Appeon Corporation (HK) Limited Issued by: Apple Worldwide Developer Relations Certification Authority Expires: Saturday, 9 November 2013 1:45:30 PM China Standard Time This certificate is marked as trusted for this account		
	Name	Kind	Date Modified
	[0] 192.0.0.129 [0]	Internet password	Today, 5:09 PM
	[0] 192.0.0.60 [0]	Internet password	Today, 5:08 PM
	[0] 192.0.1.98 [1]	Internet password	Today, 5:08 PM
Category	[0] 192.0.3.112 [1]	Internet password	Today, 5:08 PM
All Items	[0] [192.0.3.116	Internet password	Today, 5:08 PM
2. Passwords	A Apple Persistent State Encryption	application password	9/10/2012 8:4
Secure Notes	Apple Worldwide Developer Relations Certification Authority	certificate	
My Certificates	🕆 Armeen Mazda	private key	
	@ daw.apple.com (Passwords not saved)	Internet password	Today, 5:08 PM
🖗 Keys	iPhone Developer: Armeen Mazda (6YKPA94G65)	certificate	
📴 Certificates	📷 iPhone Distribution: Appeon Corporation (HK) Limited	certificate	
	(a) rambo	Internet password	Today, 5:08 PM
	A Remote Desktop Connection 2 Password for 192.0.1.98	application password	22/01/2013 1
	A Remote Desktop Connection 2 Password for 192.168.168.252	application password	1/09/2012 8:5
	A Safari	application password	Today, 5:09 PM
	A SVN: http://192.0.0.193	application password	10/10/2012 1
	A SVN: http://192.0.0.193/mobdev/trunk/	application password	11/12/2012 1
	A SVN: http://192.0.0.193/mobiletest/	application password	29/10/2012 4
	A SVN: http://102.0.0.103/cun/	application paceword	21/03/2013 1
	+ i Copy 20 items		

5.5.2 Task 4.2: Create & install distribution provisioning profiles

Depending on how you will distribute the app (App Store, In-House, or Ad Hoc), you need to create different distribution provisioning profiles.

The steps for creating the different distribution provisioning profiles are similar. To create a **Store** provisioning profile or an **In-House** provisioning profile, you select 1) an App ID and 2) a single distribution certificate. To create an **Ad Hoc** provisioning profile, you select 1) an App ID, 2) a single distribution certificate, and 3) multiple test devices. For details, refer to the below steps, or refer to <u>Creating Store Provisioning Profiles</u>, and <u>Creating Ad Hoc</u> <u>Provisioning Profiles</u> in the Apple document *App Distribution Guide*.

Step 1: Go back to Certificates, Identifiers & Profiles, then choose Provisioning Profiles >

Distribution, and then click the add icon (

Step 2: Select a distribution type and click **Continue** in the **Select Type** tag.

You will be provided with different distribution types according to the programs you enrolled in. If you enrolled in the **Apple Developer** program, you would choose between **App Store** and **Ad Hoc**; if you enrolled in the **Apple Developer Enterprise** program, you would choose between **Ad Hoc** and **In-House**.

Step 3: Select your App ID and click Continue.

Step 4: Select the distribution certificate you have created in <u>Task 4.1: Create & install</u> <u>distribution certificates</u> and click **Continue**.

Step 5: Select the devices you want to use for testing, and click Continue.

Note: This step is only required for creating the Ad Hoc provisioning profile.

Step 6: Enter a profile name and click Generate.

Step 7: After the profile is generated, click **Download** to download and use it.

Step 8: Double-click the downloaded file to install the provisioning profile in Xcode.

Step 9: In **Xcode**, choose **Window** > **Organizer**, and then click **Device**. The installed provisioning file is listed.

Figure 5.12: Installed provisioning profile

00					Organizer - Devices			R _M
				Devices Re	epositories Projects Archives Documentatio	n		
LIBRARY							Q* Profile Name	
🔀 Provisioning Profiles	Name	Platform	Creation	Expiration	App Identifier	Team	Status	
🕡 Software Images	Appeon Product Mobile Provision for AdHoc	iOS Profile	29/01/13	8/11/13	ERV593G6X6.com.appeon.mobile.*	Unknown	Valid profile	
Device Logs	Appeon Product Mobile Provision for AdHoc	iOS Profile	4/12/12	9/11/13	ERV593G6X6.com.appeon.mobile.*	Unknown	Valid profile	
Screenshots	Appeon Product Mobile Provision for AppStore	iOS Profile	8/12/12	9/11/13	ERV593G6X6.com.appeon.mobile.*	Unknown	Valid profile	

Now that you have finished creating and installing the distribution certificate and the provisioning profile containing code signing, you are ready to create the app archive.

5.6 Task 5: Create the app archive

Since you have configured all the required information for the Xcode project, such as, the app icons, URL, etc., by using the **Package** tool in the Appeon Developer Toolbar, you are ready to create an app archive right away.

Step 1: In the extracted app package folder, double-click the **EnoNativeApp.xcodeproj** project to open the Xcode.

Make sure you have extracted the zip packages and copied the extracted **AppeonMobile.framework** folder to the **reference** folder according to <u>Task 1: Generate the Xcode project</u>.

Step 2: Choose **Product** > **Scheme** > **Edit Scheme** to open the scheme editor, as shown in the following figure.

Figure 5.13: Edit Scheme

📫 Xcode File Edit View Navigate	Editor Produc	Window I	Help		-
00	Run		₩R	📩 EonNativeApp.xcodeproj	
Run Stop Scheme	Profil	-	₩U %I	Xcode	
	▶ No Sel Archi		ĉ₩₿		
EonNativeApp Itarget, IOS SDK 6.1 images forsbisitionapp	Build Perfo	For rm Action	*		
Construction Construction	Build Clear Stop		#₿ ☆ #K ⊮.		
	Scher Desti	ne nation	•	Select Next Scheme Select Previous Scheme	~光] ~光[
	Gene	rate Output	•	✓ EonNativeApp	
		g g Workflow h to Process	* * *	Edit Scheme New Scheme Manage Schemes	¥ <

Step 3: In the scheme editor, do the following:

- 1. In the left column, select Archive;
- 2. Select the project from **Scheme**;
- 3. Select **iOS Device** from **Destination**;
- 4. Select Release from Build Configuration;
- 5. Modify the archive name or use the default name in the Archive Name field.
- 6. Click **OK** to save the settings.

	EonNativeApp	‡ iOS Device		÷) 🕒	
	Scheme	De	estination	Breakpoints	
Build 1 target		Build Configuration R	elease	\$)
	NativeApp	Archive Name Eo	nNativeApp		
Sebug		Options 🥑	Reveal Archive in C	Organizer	
Release	onNativeA				
Analyze Debug					
Release					
Duplicate \$	Scheme Manage	Schemes			ОК

Figure 5.14: Archive Release

Step 4: (Optional) Click the target project for the app, select **Summary**, and then configure the Xcode project for distribution. All the information specified in the **Appeon Developer Package** tool can be reconfigured here and you can also configure those that are not listed in the **Appeon Developer Package** tool (only the required information are listed for configuration in the **Appeon Developer Package** tool).

For details, read <u>Configuring Your Xcode Project for Distribution</u> in the Apple document *App Distribution Guide*.

Step 5: Select **Building Settings**, drag down the screen to find the **Code Signing** group, then click **Release**, and then select the corresponding code signing profile.

🗮 Xcode File Edit View N	Navigate Editor Prod	luct Window Help		🕙 🔺 🛄 🜒 F
00		📩 Eont	NativeApp.xcodeproj	
EonNativeApp > iOS Dev	vice	Download	Don't Code Sign	이(12:22) (19)
Run Stop Sch	neme	Breakpoints	Automatic Profile Selector (Recommended)	
EonNativeApp	IIII < 🖻 EonNative	App Summary Info	iPhone Developer iPhone Distribution	
1 target, iOS SDK 6.1	PROJECT	Basic All Combined Levels	APPEONFORADHOC (for bundle identifiers 'com.appeon.mobile.") profile doesn't match any valid certificate/private key pair in your keychains	
	TARGETS	Scan All Source Files for Includes	AppeonTest (for bundle identifiers 'com.appeon.mobile.*')	
	A EonNativeApp	▼Validate Built Product	iPhone Distribution: Appeon Corporation (HK) Limited (ERV593G6X6)	
		Debug Release ▼Code Signing	appeon mobile workspace (for bundle identifiers 'com.appeon.mobile.1.0.1') profile doesn't match bundle identifier 'com.appeon.mobile.order'	
		Code Signing Entitlements Code Signing Identity	Appeon Workspace (for bundle identifiers 'com.appeon.mobile') profile doesn't match bundle identifier 'com.appeon.mobile.order'	
		Debug Any iOS SDK ‡	Other	
		Release	✓ iPhone Distribution: Appeon Corporation (HK) Limited 0E008828-38EA-432D-85	C4-CED0175C7DAC
		Any iOS SDK ‡	iPhone Distribution: Appeon Corporation (HK) Limited ‡	
		Code Signing Resource Rules Path		
		Other Code Signing Flags		

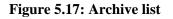
Figure 5.15: Code signing

Step 6: In **Xcode**, choose **Product** > **Archive**.

Figure 5.16: Archive

🐔 Xcode File Edi	t View Navigate	Editor	Product Windo	w Help
00			Run	₩R
EonNativeA	app) iOS Device		Test Profile	жU жI
Run Stop	Scheme		Analyze	ŵжв
EonNativeApp.xcode	proj		Archive	
	🛗 🔍 🕨 🔀 EonN	ativeApp	Build For	*
▼ 📩 EonNativeApp 🛛 🕅	PROJECT		Perform Action	
ZipArchive	📩 EonNativeApp	Basic		
InAppSettingsKit	TARGETS	Setting	Build	₩B Re

After the project is built successfully, it will appear in the Archives organizer, as shown below.



00			Organizer - Archives			H _M
		Devices R	epositories Projects Archives Documentation			
SAPTechED						
Aws	APP	EON	SAPTechED EonNativeApp Archive Type: iOS App Archive Creation Date: May 10, 2013 10:20 AM Version: Unspecified Identifier: com.appeon.mobile.SAPTechED Estimated App Store Size: Estimate Size		(Validate Distribute
	Name	Creation Date		Status	Qr Name	
	EonNativeApp	May 10, 2013	Show in Finder			
			Delete Archive			
			Archives Organizer Help			

Now the app archive is ready. You can submit the archive to App Store or save the file for enterprise or Ad-Hoc distribution.

5.7 Task 6: Distribute the app archive

Xcode allows you to distribute the app archive in the following methods:

- App Store distribution: submits the app for publication to the iOS App Store. Refer to <u>Section 5.7.1, "Method 1: App Store distribution"</u> for detailed instructions.
- In-House distribution: installs the app to an unlimited number of devices inside your company. Refer to <u>Section 5.7.2</u>, "Method 2: In-house or Ad-Hoc distribution" for detailed instructions.
- Ad Hoc distribution: installs the app on a limited number (up to 100) of registered devices. Refer to <u>Section 5.7.2</u>, "<u>Method 2</u>: <u>In-house or Ad-Hoc distribution</u>" for detailed instructions.

The detailed instructions for Ad Hoc distribution and In-House distribution are the same, though their provisioning profiles are different.

• Export as Xcode Archive: this method is not relevant to our distribution strategy, hence it is left out of this tutorial.

5.7.1 Method 1: App Store distribution

Step 1: In the Archives organizer, select the application archive you want to distribute, and click **Distribute**.

Step 2: Select **Submit to the iOS App Store** and click **Next**. Then follow instructions in <u>App</u> <u>Store Submission Tutorials</u> to submit your app to the iOS App Store.

5.7.2 Method 2: In-house or Ad-Hoc distribution

Step 1: In the Archives organizer, select the application archive you want to distribute.

Step 2: Optionally, click the Validate button.

You can validate the archive and fix any problems before distributing it.

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

Step 4: Select Save for Enterprise or Ad-Hoc Deployment and click Next.

Figure 5.18: Select distribution method

	Select the method of distribution:	1
	Account of the states	Validate. Distribute
-	Submit to the IOS App Store Sign, package and submit application to the iOS App Store.	
TE	• Save for Enterprise or Ad-Hoc Deployment Sign and package application for distribution outside of the iOS App Store.	
APPOLITION APP	Export as Xcode Archive Export the entire Xcode archive of this application.	

Step 5: Choose your distribution certificate (the one contained in your distribution provisioning profile) from the **Code Signing Identity** pop-up menu and then click **Next**, as shown in the following figure.

Figure 5.19: Choose an identity

	Devices Repositories Proje	Archives Documentation
APPRICATION APP	Code Signing Ide	Vali Distribution Don't Re-sign Appeon Product Mobile Provision for AdHoc (from '(null) , for ✓ Appeon Corporation (HK) Limited (iOS Distribution) Appeon0626 (from '(null)', for 'com.appeon.*') Armeen Mazda (iOS Development) Refresh code signing identity
	Cancel	Previous Next

Step 6: Specify the file name and the location of the IPA file and the relevant settings.

- Select the Save for Enterprise Distribution check box.
- In the **Application URL** field, specify the URL to the IPA file on a server.
- In the **Title** field, specify the app name that will be displayed during installation.
- In the Large Image URL and the Small Image URL fields, specify the app icon that will be displayed during installation.
- Click Save.

A .ipa file and a .plist file will be generated. The above settings will be saved in an XML manifest (.plist) file.

Navigate Editor Produ	ict Window Help		4) 🔺 🛄 🖣
0 0 0	Organizer – Archives		H <u>51</u>
	Devices Repositories Projects Archives Documentatio	n	
SAPTechED	Save As: EonNativeApp		
	(◄ ▶) (# □ □□ □□ □□ □□ □□ □□ □□	٩	Validate
A part of the second seco	FAVORITES Name Ame Applications CertificateSigningRcertSigningRequest Desktop sales Downloads SAPTechED Movies SAPTechED.zip Music Save for Enterprise Distribution Application URL: Required Title: Required Subtitle: Large Image URL: Small Image URL: Small Image URL:	Date Modified Today 10:08 AM Yesterday 4:36 PM Yesterday 10:00 AM Today 9:44 AM Today 9:41 AM Feb 18, 2013 10:50 A	Distribute
	Add Shine Effect to Images		-
	New Folder Can	cel Save	

Figure 5.20: Save for Enterprise Distribution

Now you can distribute the app to your users in the following four ways:

- Distribute the .ipa file and .plist file to your users, and users perform the installation using **iTunes**. See <u>the section called "Install apps using iTunes"</u> for detailed instructions.
- Distribute the .ipa file and .plist file to your users, and users perform the installation using **iPhone Configuration Utility** or **Apple Configurator** (Using **Apple Configurator** is left out in this tutorial). See <u>the section called "Install apps using iPhone Configuration Utility</u>" for detailed instructions.
- Post the .ipa file and .plist file on a secure Web server, and users perform the installation wirelessly. See <u>the section called "Install apps wirelessly"</u> for detailed instructions.
- Use your MDM server to instruct managed devices to install the app, if your MDM server supports it. This is left out in this tutorial.

For more information on deploying apps, refer to <u>Distributing Enterprise Apps for iOS</u> <u>Devices</u>.

5.7.2.1 Install apps using iTunes

Step 1: Copy the .ipa file for the app to a machine (either Windows or Mac) with iTunes already installed.

Step 2: In **iTunes**, choose **File** > **Add to Library**, and then select the .ipa file.

Step 3: Connect a device to the computer, and then select it in the **Device** list in **iTunes**.

Step 4: Click the Apps tab, and then select the Sync Apps checkbox and the app in the list.

Step 5: Click Apply (or Sync).

If your user's computers are managed, you can deploy the files to their computers and ask them to sync their device. iTunes automatically installs the files found in iTunes Mobile Application and Provisioning Profiles folders.

5.7.2.2 Install apps using iPhone Configuration Utility

Step 1: Copy the .ipa file for the app to a machine (either Windows or Mac) with **iPhone Configuration Utility** already installed.

Step 2: In **iPhone Configuration Utility**, choose **File** > **Add to Library**, and then select the .ipa file.

Step 3: Connect a device to the computer, and then select it in the **Device** list.

Step 4: Click the Applications tab, and then select the .ipa file.

Step 5: Click Install.

5.7.2.3 Install apps wirelessly

Step 1: Construct and configure the server.

- 1. Install IIS on the server.
- 2. Copy the app (.ipa) file, the manifest (.plist) file, and the icons to a location on the IIS website that is accessible to the users.
- 3. Create a page that links to the manifest file.

Here is a sample link:

```
<a href="itms-services://?action=download-manifest&url=http://example.com/
?manifest.plist">Install App</a>
```

Step 2: Set the MIME type of the server, so the server can correctly transfer the manifest file and the application.

• For Mac OS X Server, use the Server Admin to add the following MIME types to the Web service's **MIME Types** settings:

application/octet-stream ipa text/xml plist

• For IIS, use the IIS Manager to add the following MIME types on the server's **Properties** page:

.ipa application/octet-stream

.plist text/xml

Now your app is ready for installation.

Step 3: Distribute the URL for downloading the manifest file by SMS or email to the users.

Step 4: The user clicks the URL to download the manifest file from the website to the iOS device, and the manifest file instructs the device to download and install the apps referenced in the manifest file.

6 Tutorial 5: Configure 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 application servers, each with Appeon Server and Appeon plug-in installed.

Following are high level steps for configuring an Appeon Server cluster. For detailed instructions, you may need to go through the documents and sections as specified below.

1. Task 1: Install Appeon Server to multiple application servers.

- 2. Task 2: Create Appeon Server cluster in AEM.
- 3. Task 3: Configure the Web server for the Appeon Server cluster.
- 4. Task 4: Install an Appeon application to the Appeon Server cluster and Web server(s).

6.1 Task 1: Install Appeon Server to multiple application servers

Step 1: Set up a group of application servers.

The application server must be of the same type and of the same version. Appeon supports the following application server types: .NET IIS, JBoss, WebLogic, WebSphere, JEUS, EAServer, and NetWeaver. For more details, refer to the **Appeon Server requirements** section in *Appeon Installation Guide*.

Step 2: Install Appeon Server to each application server by following the installation instructions in the **Appeon Server installation** section in *Appeon Installation Guide*. In the **Select Components** page, make sure you select to install the appropriate edition of Appeon Server, for example, select Appeon Server for .NET if the application server is .NET/IIS.

6.2 Task 2: Create Appeon Server cluster in AEM

Once you have installed Appeon Server to several application servers, you can use the AEM **Cluster** tool to create an Appeon Server cluster and configure the load balancing and failover settings of the cluster. The following are the detailed instructions.

Step 1: Log into AEM. Each Appeon Server has an AEM. You only need to log in to one of them for the cluster, make configurations there, and then synchronize the settings to the other AEMs in the cluster.

Step 2: In the Server | Resource | Cluster tool, add the Appeon Servers one by one. It is **important** that the first Appeon Server you add is the one hosting the AEM you are currently logged into.

- 1. Click the Add Appeon Server button under the Cluster Server List table. The Add New Appeon Server page opens.
- 2. Verify that the Appeon Server to be configured is running and provide the required information (IP address, port, AEM user name, and password). For example:

• IP address: 161.0.0.1

Use the IP address or machine name of the Appeon Server when adding an Appeon Server. Do not use "localhost" or "127.0.0.1". The IP address or machine name and port number must match the settings of HTTP listeners in the application server.

- Port: 80
- AEM User Name: admin
- AEM Password: admin
- 3. Click the **Save and Add** button to add the other Appeon Servers. The program will automatically test the connection and add the Appeon Server if the test is successful.

Adding an Appeon Server will succeed only if:

- The Appeon Server is new to AEM.
- The information provided is correct.
- The Appeon Server is running.
- The first Appeon Server that you add is the one hosting AEM you are currently logged into.

The Appeon Servers listed in the **Cluster Server List** group will work as a cluster in supporting the requests from their associated Web server.

Step 3: Configure the load balancing and the fail-over settings by following instructions in the *Cluster* section in the *Server Configuration Guide*.

Step 4: Check status of Appeon Servers and verify that all servers are running.

Step 5: Click Save to synchronize AEM settings to the other servers in a cluster.

Once an Appeon Server is added to the cluster server list, you can use the AEM which maintains the list to manage all servers in the cluster. Whenever you change the settings of this AEM and click **Save**, the settings will be saved to the other servers in the cluster. Therefore, you do not need to repeat the configuration in each AEM. However, not all of the AEM settings will be synchronized, because some settings are not necessary to be the same for all servers.

Figure 6.1: Cluster

V	/elcome > Serve	er > <u>Resource</u> > Cluster				^	
Ξ	Cluster Server Lis	t					
	Actions IP Address Port Status						
	Actions	IP Address	Port	Status			
	Add Appeon Ser	ver Remove All					
Ξ	Load Balancing						
	Load balancing algo	rithm: Random Sequence 					
Ξ	Failover						
	Enable Session	n Backup					
(Session Le	evel				=	
	Request I	evel					
	Enable Heartb	eat Backup					
	Enable Re	mote Backup					
	Interval T	ime 30 seco	onds				
	Mirror	Backup					
	Rotat	tion Backup					
	Enable Lo	gical Restore with Status Monitor					
	Save						

6.3 Task 3: Configure the Web server for the Appeon Server cluster

6.3.1 Task 3.1: Install the Appeon Server Web Component on Web server

Step 1: Set up one or more separate Web server(s).

For detailed system requirements, refer to the (**Optional**) Web server requirements section in *Appeon Installation Guide*.

Step 2: Install the Appeon Server Web Component on each Web server.

For detailed instructions, please follow the installation instructions in **Appeon Server Web Component installation** section in *Appeon Installation Guide*.

6.3.2 Task 3.2: Configure the Web server with the Appeon plug-in

6.3.2.1 Type 1: IIS Web server

6.3.2.1.1 Method 1: Automatic configuration

Installing Appeon Cluster Plug-in

Step 1: Get the Appeon cluster plug-in installation package.

After you install **Appeon Server Web Component**, you can find the **Appeon Cluster plugin** folder under the **WebComponent2013**\appeon**IISSupport**\ directory, and this folder is the Appeon cluster plug-in installation package, as shown in the following figure.

Figure 6.2: Appeon	Cluster plugin
--------------------	-----------------------

<u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp						
rganize 👻 Include in library 👻	Share with 🔻 New folder				8== -	
4 퉬 WebComponent2013	^ Name	Date modified	Туре	Size		
4 퉲 appeon	APBCluster	4/25/2013 11:22 AM	File folder			
Apache13Support	appeon	4/25/2013 11:22 AM	File folder			
Apache20Support	AppeonCloud	4/25/2013 11:22 AM	File folder			
Apache22Support	a AppeonCluster	4/23/2013 11:01 AM	Application	262 KB		
4 🎉 IISSupport	AppeonCluster.exe	4/23/2013 10:56 AM	XML Configuratio	1 KB		
4 🍌 Appeon Cluster plugin	AppeonCluster	4/25/2013 11:29 AM	Text Document	1 KB		
APBCluster	instance	4/25/2013 11:27 AM	XML Configuratio	1 KB		
> 🍌 appeon	Interop.ActiveDs	4/23/2013 10:56 AM	DLL File	94 KB		
AppeonCloud	Interop.IISOle	4/23/2013 10:56 AM	DLL File	10 KB		
b conf	Interop.IWshRuntimeLibrary	4/23/2013 10:56 AM	DLL File	37 KB		
i modules	log4net	4/23/2013 10:56 AM	DLL File	244 KB		
b b weblibrary_ax	📋 log4net	4/23/2013 10:56 AM	XML File	1,258 KB		
Apple Software Update	🚳 regiis	4/23/2013 10:56 AM	Windows Batch File	1 KB		
Beyond Compare 3 Bonjour	ilentinstall	4/23/2013 10:56 AM	Configuration sett	3 KB		
Bonjour Common Files						
Common Files DVD Maker						
Socole						

Step 2: Copy the **Appeon Cluster plugin** folder to the Web server in the cluster, and then double-click **AppeonCluster.exe** under this folder.

The Appeon Cluster Plug-in Installation Wizard is displayed.

Step 3: Select Create an Appeon Cluster Plug-in on a new Web site, and click Next.

If you want to install to an existing Web site, select **Create an Appeon Cluster Plug-in on an existing Web site**, and click **Next**.

Figure 6.3: Create plugin on a Web site

🕣 Appeon Cluster Plug-in Installation Wizard	x
Welcome to Appeon Cluster Plug-in Installation Wizard Select an option to continue.	
Create an Appeon Cluster Plug-in on an existing Web site Select this option to create an Appeon Cluster Plug-in on an existing Web site.	
Create an Appeon Cluster Plug-in on a new Web site Select this option to create a new Web site and an Appeon Cluster Plug-in.	
Remove an Appeon Cluster Plug-in	
Select this option to remove the Appeon Cluster Plug-in from an existing Web site.	
< <u>B</u> ack <u>N</u> ext> <u>C</u> ance	3

Step 4: To create the Appeon cluster plug-in on a new Web site, configure **Description**, **Port** and **Home Directory**, then click **Next**.

The new Web site will be created.

Figure 6.4: Configure the Web site

đ	👔 Appeon Cluster Plug-in Installation Wizard	
	Create an Appeon Cluster Plug-in on a new Web site	
	Enter the information below to create the new Web site and the new Appeon Cluster Plug-in.	
	New Web Site	
	Description:	
	TCP Port:	
	Home Directory: Browse	
	Existing Web Site	
	Sites Default Web Site[TCP Port=80;Home Directory=C:\inetpub\wwwroot] Test[TCP Port=80;Home Directory=C:\Program Files\Inetpub\wwwroot]	
_	< <u>B</u> ack <u>N</u> ext> <u>C</u> ancel	_

Step 5: Select the Appeon cluster plug-in run mode (32 bit or 64 bit), and click Next.

Figure 6.5: Select run mode

ſ	🗊 Appeon Cluster Plug-in Installation Wizard	x
	Create an Appeon Cluster Plug-in on a new Web site	
	Select Appeon Cluster Plug-in run mode.	
	Create a new Appeon Cluster Plug-in (32-bit)	
	The Appeon Cluster Plug-in will run as a 32-bit program.	
	Create a new Appeon Cluster Plug-in (64-bit)	
	The Appeon Cluster Plug-in will run as a 64-bit program.	
	<back next=""> Cance</back>	
		· · · · · · · · · · · · · · · · · · ·

Step 6: Specify the Windows administrator user name and password, and click **Next**. Make sure to input the correct user name and password, otherwise you may not be able to access the Appeon Cluster Manager in Internet Explorer.

Florence ((.	Windows	a during the tax		m a garren a mal
righre o.o.	windows	administrator	username and	Dassword
I Igui e olor			aber manne and	passion

	🗊 Appeon Cluster Plug-in Installation	n Wizard	×
	Specify the Windows administrator user name and password		
1	Enter the username and password	of an administrator group member for the IIS application pool.	
	The user name and password is r an administrator user name and p	required by Appeon Cluster Plug-in to support the cluster environm assword of the Windows operating system login account.	ient. It must be
1			
	Usemame:		
	Password:		
	Confirm Password:		
		< <u>B</u> ack <u>N</u> ext>	Cancel

Step 7: When the plug-in is created successfully, click **Finish** to exit the **Appeon Cluster Plug-in Installation Wizard**.

Figure 6.7: Create the plug-in

ſ	appeon Cluster Plug-in Installation Wizard	ſ
	Create an Appeon Server on a new Web site Create the Web site "AppeonCluster" and Appeon Cluster Plug-in.	
	Created the Appeon Cluster Plug-in on the Web site AppeonCluster successfully.	
	< <u>B</u> ack <u>N</u> ext> <u>Finish</u>	

6.3.2.1.2 Method 2: Manual configuration

Configuring Windows IIS 7.x with .NET server

Choose an existing Web site, or create a new site. The Default Web Site will be used as examples in the following guide.

1. Copying the Appeon Server Web component to the Web root of the IIS server.

During the installation of Appeon Server Web Component, an **IISSupport** folder will be created under the directory which (if you did not specify) is C:\Program Files\Appeon \WebComponent2013\appeon by default. **IISSupport** contains files and components that help IIS 7.x run with the Appeon Server cluster. Check if the **appeon****IISSupport** folder exists under the Web root of the IIS server, if not, perform the following steps to copy it from an existing Appeon Server Web Component installation directory:

Step 1: Create an **appeon** folder under the Web root of IIS server (**for example, C:** **inetpub****wwwroot**).

Step 2: Copy the **IISSupport** folder from the installation path to the created **appeon** folder (for example, C:\Inetpub\wwwroot\appeon).

2. Creating a virtual directory.

Step 1: Open Control Panel | Administrative Tools | Internet Information Service (IIS) Manager.

Step 2: Right click the **Default Web Site** and select **Add Virtual Directory**.

Step 3: Input the alias name, for example, "ApbCluster".

Step 4: Choose a local path in the **Physical** path box; for example, "d:\iisplugin".

Step 5: Click OK.

Figure 6.8: Add virtual directory

Add Virtual Directo	pry		<u>? ×</u>
Site name: Defa Path: /	ault Web Site		
Alias:			
ApbCluster			
Example: images			
Physical path:			
d:\iisplugin			
Pass-through auth	entication		
Connect as	Test Settings		
		ОК	Cancel

Step 6: Right click the ApbCluster Virtual Directory and select Edit Permissions.

Step 7: Choose the **Security** tab page, select **IIS_IUSRS** (**WIN-TDTR6ISIYCD \IIS_IUSRS**) in the **Group or user names** list box, and then click the **Edit** button.

Figure 6.9: appeoncluster properties

📙 appeoncluster Properties	×
General Sharing Security Previous Versions	Customize
Object name: C:\inetpub\www.root\appeoncl	uster
Group or user names:	
Administrators (WIN-TDTR6ISIYCD\Admin	istrators)
& Users (WIN-TDTR6ISIYCD\Users)	
IIS_IUSRS (WIN-TDTR6ISIYCD\IIS_IUSF	RS)
🧟 Inistediostaller	
To change permissions, click Edit.	Edit
Permissions for IIS_IUSRS Allow	v Deny
Full control	<u> </u>
Modify	
Read & execute 🗸	
List folder contents 🗸	
Read 🗸	
Write	
For special permissions or advanced settings, click Advanced.	Advanced
Leam about access control and permissions	
OK Cano	el Apply

Step 8: Select IIS_IUSRS (WIN-TDTR6ISIYCD\IIS_IUSRS) in the Group or user names list box, and then select Modify and Write in the Allow column of the Permissions for IIS_IUSRS list box.

Figure 6.10: appeoncluster permissions

Permissions for appeonclust	er	×
Security		
Object name: C:\inetpub\www Group or user names:	root\appeoncluster	,
CREATOR OWNER SYSTEM Administrators (WIN-TDTR6I Users (WIN-TDTR6ISIYCD) SIIS_IUSRS (WIN-TDTR6ISIY SIIS_IUSRS (WIN-TDTR6ISIY	Users)	ors)
	Add	Remove
Permissions for IIS_IUSRS	Allow	Deny
Modify Read & execute List folder contents Read Write		
Learn about access control and p	emissions	
ОК	Cancel	Apply

Step 9: Click **OK** to go back to the IIS window.

3. Copying Appeon plug-in (ApbCluster.dll or ApbCluster64.dll).

Copy the **ApbCluster.dll** (for 32-bit OS) or **ApbCluster64.dll** (for 64-bit OS) plug-in from appeon\IISSupport\modules to the newly created virtual directory (d:\iisplugin in this guide).

In the 64-bit OS, you can either use **ApbCluster.dll** or **ApbCluster64.dll**. If you use **ApbCluster.dll**, you will need to set the **Enable 32-Bit Applications** to **True** for the **AppeonAppPool** application pool, as shown in figure below. If you use **ApbCluster64.dll**, then set this option to **False**.

4. Editing Appeon Cluster configuration file (cluster-config.xml).

Step 1: Copy the **cluster-config.xml** configuration file to the newly created virtual directory ("d:\iisplugin" in this guide).

cluster-config.xml resides in the %appeon%\plugin\IIS directory under the Appeon Server installation directory. You can get it from any machine with Appeon Server .NET installed.

Step 2: Modify the following information in the cluster-config.xml file: Appeon Server IP address, Appeon Server port number, and load balancing algorithm.

```
<?xml version="1.0" encoding="UTF-8" ?>
<cluster-config local="true" log="debug" timeout="30" polling="5"
arithmetic="sequence">
    <extention>/ApbCluster/ApbCluster.dll</extention>
    <filters>
        <filter>/AEM</filter>
        <filter>/servlet</filter>
        <filter>/reportfile</filter>
        <filter>/imagefile</filter>
        <filter>/dwfile</filter>
        <filter>/ajsdown</filter>
    </filters>
    <servers>
        <server host="192.0.0.168" port="88"/>
        <server host="192.0.3.131" port="80"/>
        <server host="192.0.3.145" port="80"/>
    </servers>
</cluster-config>
```

Notes:

- Local specifies whether to read the configurations on the local server or the cloud server. For the cloud server, set Local to False.
- **log** specifies the level of information to be recorded in the log file. It can be set to the following level: **debug**, **info**, **warning**, **error**, or **off**.
- **timeout** specifies the number of seconds the Web server waits between sending an HTTP request to Appeon Server and receiving information from it. The HTTP connection timeout value is 2 times of this value.
- polling indicates the number of seconds when the configurations will be read again.
- **arithmetic**="random" indicates that the random algorithm is used to pick an Appeon Server; **arithmetic**="sequence" indicates that the round-robin algorithm is used.
- **extention** specifies the location of the virtual directory which contains ApbCluster.dll (or ApbCluster64.dll), that is /virtual-directory-alias-name/ApbCluster.dll (/ApbCluster/ApbCluster.dll in this guide).
- filter specifies the type of pages to redirect.
- host indicates the IP address (recommended) or machine name of the Appeon Server.
- **port** indicates the port number of the Appeon Server.
- 5. Installing Appeon plug-in as ISAPI Filters.

Step 1: Open Control Panel | Administrative Tools | Internet Information Services (IIS) Manager.

Step 2: Click the Default Web Site and then double-click ISAPI Filters on the right side.

Step 3: Right-click the blank area on the ISAPI Filters page, and click Add.

Step 4: Input **ApbCluster** in the **Filter name** box and specify **ApbCluster.dll** (or **ApbCluster64.dll**) as the ISAPI filter in the **Executable** box (d:\iisplugin\ApbCluster.dll in this guide). Click **OK**.

Figure 6.11: Add ISAPI filter

Add ISAPI Filter	<u>? ×</u>
Filter name:	
ApbCluster	
Executable:	[
d:\iisplugin\ApbCluster.dll	<u> </u>
	OK Cancel

6. Creating the redirector configuration file.

Step 1: Create the redirector configuration file as the name **ApbCluster.cfg** under the virtual directory (d:\iisplugin in this guide).

Step 2: Copy and paste the following to the file:

```
Extension_URI=/ApbCluster/ApbCluster.dll
MatchExpression=/AEM
MatchExpression=/servlet
MatchExpression=/reportfile
MatchExpression=/imagefile
MatchExpression=/dwfile
MatchExpression=/ajsdown
Log=On
```

Notes:

- The **Extension_URI** command points to the virtual directory where ApbCluster.dll resides, that is /virtual-directory-alias-name/ApbCluster.dll (/ApbCluster/ApbCluster.dll in this guide).
- The MatchExpression command specifies the pages to be redirected.
- The **Log** command specifies whether logging is enabled. On indicates logging is enabled; Off indicates logging is disabled.
- The **TimeOut** command specifies the number of seconds the Web server waits between sending an HTTP request to Appeon Server and receiving information from it. The HTTP connection timeout value is 2 times of this value.
- The commands and parameters are case insensitive.
- 7. Setting ISAPI and CGI Restrictions.

Step 1: Open Control Panel | Administrative Tools | Internet Information Services (IIS) Manager.

Step 2: Right-click the local machine, and then double-click **ISAPI and CGI Restrictions** on the right side.

Step 3: Right-click the blank area of the **ISAPI and CGI Restrictions** page and click **Add**.

Step 4: Specify the local path of **ApbCluster.dll** (or **ApbCluster64.dll**) in the **ISAPI** or **CGI path** box and input **ApbCluster** in the **Description** box, and then select **Allow** extension path to execute.

Step 5: Click OK.

Figure 6.12: Add ISAPI or CGI

Add ISAPI or CGI Restriction	<u>? ×</u>
ISAPI or CGI path:	
d:\iisplugin\ApbCluster.dll	
Description:	
ApbCluster	
Allow extension path to execute	
	cont 1
OK	Cancel

8. Enabling ISAPI-dll.

Step 1: Open Control Panel | Administrative Tools | Internet Information Services (IIS) Manager.

Step 2: Expand the **Default Web Site**, click **ApbCluster**, and then double-click **Handler Mappings** on the right side.

Step 3: Right-click ISAPI-dll, and select Edit Feature Permissions.

Step 4: Select Read, Script, Execute, and click OK.

Figure 6.13: Edit feature permissions

Edit Feature Permissions	? ×
Permissions:	
☑ <u>R</u> ead	
☑ <u>S</u> cript	
Execute	
OK Car	icel

9. Adding MIME type.

Add a MIME type for loading the files with no extensions or MIME type definition.

Step 1: Click the **Default Web Site** and then double-click **MIME Types** on the right of the page.

Step 2: Right-click the blank area of the MIME Types page, and click Add.

Step 3: Specify the following settings:

- Extension: *
- MIME Type: application/octet-stream

Step 4: Click OK.

Figure 6.14: Add MIME type

Add MIME Type		<u>? ×</u>
File name extension:		
application/octet-stree	am	
	ОК	Cancel

10.Restarting IIS.

Restart IIS to make the new settings effective.

Configuring Windows IIS 6.0 with .NET server

Choose an existing Web site, or create a new site. The following takes the existing Default Web Site as an example.

1. Copying the Appeon Server Web component to the Web root of the IIS server.

During the installation of Appeon Server Web Component, an **IISSupport** folder will be created under the directory which (if you did not specify) is C:\Program Files\Appeon \WebComponent2013\appeon by default. **IISSupport** contains files and components that help IIS 6.0 run with the Appeon Server cluster. Check if the **appeon****IISSupport** folder exists under the Web root of the IIS server, if not, perform the following steps to copy it from an existing Appeon Server Web Component installation directory:

Step 1: Create an **appeon** folder under the Web root of IIS server (**for example, C:** **inetpub****wwwroot**).

Step 2: Copy the **IISSupport** folder from the installation path to the created appeon folder (**for example, C:\inetpub\wwwroot\appeon**).

2. Specifying properties of IIS Web site.

Step 1: Open Control Panel | Administrative Tools | Internet Service Manager.

Step 2: Right click Web Sites | Default Web Site and select Properties.

Step 3: In the **Default Web Site Properties** window, select the **Home Directory** tab and set the **Execute permissions** to **Scripts only**.

🐮 Internet Information Services (D	efault Web Site Properties ?>
Section View Window Image: Section Image: Section Image: Section Internet Information Services Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: Section Image: S	Directory Security HTTP Headers Custom Errors Server Extensions 2002 Web Site Performance ISAPI Filters Home Directory Documents The content for this resource should come from: A girectory located on this computer C A share located on another computer C A redirection to a URL
	Logal path: c:\inetpub\wwwroot Browse ✓ Script source access ✓ Log visits ✓ Read ✓ Index this resource ✓ Write ✓ Index this resource ✓ Directory browsing ✓ ✓
images images tempcase images testcase images images testcase images images testcase images images images testcase images images images images testcase images images images testcase images im	Application settings Application name: Default Application Starting point: <default site="" web=""> Execute permissions: Scripts only</default>
	Application protection: Medium (Pooled) Implies OK Cancel Apply Help

3. Creating virtual directory.

Step 1: Right click the **Default Web Site** and select **New** | **Virtual Directory**.

Step 2: Input the alias name (for example, "ApbCluster"), and select a mapping directory (for example, "d:\iisplugin").

Step 3: Allow the following permissions to the mapping directory: **Read**, **Run scripts** (such as ASP), and **Execute** (such as ISAPI application or CGI)

Figure 6.16: Virtual directory

Virtual Directory Creation Wizard
Virtual Directory Access Permissions Set the access permissions for this virtual directory.
Allow the following permissions:
 Read Run scripts (such as ASP) Execute (such as ISAPI applications or CGI)
☐ <u>W</u> rite □ Br <u>o</u> wse
To complete the wizard, click Next .
< <u>B</u> ack <u>N</u> ext > Cancel

4. Copying Appeon plug-in.

Copy the **ApbCluster.dll** (for 32-bit OS) or **ApbCluster64.dll** (for 64-bit OS) plug-in from **appeon\IISSupport\modules** to the newly created virtual directory (d:\iisplugin in this guide).

In the 64-bit OS, you can either use **ApbCluster.dll** or **ApbCluster64.dll**. If you use **ApbCluster.dll**, you will need to set the **Enable 32-Bit Applications** to **True** for the **AppeonAppPool** application pool, as shown in figure below. If you use **ApbCluster64.dll**, then set this option to **False**.

5. Editing Appeon Cluster configuration file.

Step 1: Copy the configuration file **Cluster-config.xml** to the newly created virtual directory ("d:\iisplugin" in this guide).

cluster-config.xml resides in the %appeon%\plugin\IIS directory under the Appeon Server installation directory. You can get it from any machine with Appeon Server .NET installed.

Step 2: Modify the following information in the cluster-config.xml file: Appeon Server IP address, Appeon Server port number, and load balancing algorithm, etc.

```
<?xml version="1.0" encoding="UTF-8" ?>
<cluster-config local="true" log="debug" timeout="30" polling="5"
arithmetic="sequence">
    <extention>/ApbCluster/ApbCluster.dll</extention>
    <filters>
        <filter>/AEM</filter>
        <filter>/servlet</filter>
        <filter>/reportfile</filter>
        <filter>/imagefile</filter>
        <filter>/dwfile</filter>
        <filter>/ajsdown</filter>
    </filters>
    <servers>
        <server host="192.0.0.168" port="88"/>
        <server host="192.0.3.131" port="80"/>
        <server host="192.0.3.145" port="80"/>
    </servers>
</cluster-config>
```

Notes:

- Local specifies whether to read the configurations on the local server or the cloud server. For the cloud server, set Local to False.
- **log** specifies the level of information to be recorded in the log file. It can be set to the following level: **debug**, **info**, **warning**, **error**, or **off**.
- **timeout** specifies the number of seconds the Web server waits between sending an HTTP request to Appeon Server and receiving information from it. The HTTP connection timeout value is 2 times of this value.
- polling indicates the number of seconds when the configurations will be read again.
- **arithmetic**="random" indicates that the random algorithm is used to pick an Appeon Server; **arithmetic**="sequence" indicates that the round-robin algorithm is used.
- **extention** specifies the location of the virtual directory which contains ApbCluster.dll (or ApbCluster64.dll), that is /virtual-directory-alias-name/ApbCluster.dll (/ApbCluster/ApbCluster.dll in this guide).
- filter specifies the type of pages to redirect.
- host indicates the IP address (recommended) or machine name of the Appeon Server.
- **port** indicates the port number of the Appeon Server.
- 6. Installing IIS filter.

Step 1: Right click the **Default Web Site** and select **Properties**.

Step 2: In the **Default Web Site Properties** window, select the **ISAPI Filters** tab. Click **Add** to add **ApbCluster.dll** (or **ApbCluster64.dll**) as the ISAPI filter. Click **OK**.

7. Creating redirector configuration file.

Create the redirector configuration file as the name **ApbCluster.cfg** under the virtual directory d:\iisplugin and copy the following commands to the file:

```
Extension_URI=/ApbCluster/ApbCluster.dll
MatchExpression=/AEM
MatchExpression=/servlet
MatchExpression=/reportfile
MatchExpression=/imagefile
MatchExpression=/dwfile
MatchExpression=/ajsdown
Log=On
```

Notes:

- The **Extension_URI** command points to the virtual directory where ApbCluster.dll resides (/ApbCluster/ApbCluster.dll in this example).
- The MatchExpression command specifies the pages to be redirected.
- The **Log** command specifies whether logging is enabled. On indicates logging is enabled; Off indicates logging is disabled.
- The **TimeOut**command specifies the number of seconds the Web server waits between sending an HTTP request to Appeon Server and receiving information from it. The HTTP connection timeout value is 2 times of this value.
- The commands and parameters are case insensitive.
- 8. Activating ISAPI.

Step 1: Select the **Web Services Extension**. The ISAPI status will be displayed on the right.

Step 2: Select All Unknown ISAPI Extensions and click the Allow button.

Figure 6.17: Allow ISAPI

Web Sites Web Service Extensions Web Service Extensions Default NNTP Virtual Server Allow Prohibit Properties Properties	2.1. 전문 1. 전문 2. 전문 2
ITEST37 (local computer) Image: Web Service Extensions Image: Web Service Extensions Image: Web Se	own CGI Extensions Prohibite own ISAPI Extensions Prohibite erver Pages Allowed
Add a new Web service extension	r_extensions Allowed ge Server Extensions 2002 Allowed Data Connector Allowed ide Includes Allowed

9. Adding new MIME type.

Step 1: Right click the Local computer and select **Properties**.

Step 2: In the properties window, click the **MIME Types** button. In the **MIME Types** window, click **New**.

Input the following information:

- Extension: *
- MIME type: application/octet-stream

This is to ensure that pages without extension names or pages without MIME types defined can be accessed.

Figure 6.18: MIME Types

Internet Information Services ()	15) Manager	
Eile Action View Window	EST37 (local computer) Properties	?× ==
• • 🔁 🗷 😭 🔂	Internet Information Services	
Internet Information Services		
TEST37 (local computer)	MIME Types	ब
Web Sites		
	Registered MIME types (file extensions): .* application/octet-stream New	
🗄 🥘 Default NNTP Virtual Serve	.323 text/h323	
	.aaagif image/gif <u>E</u> dit	
	MIME Type	ส
	Extension:	
	MIME type: application/octet-stream	
	OK Cancel	
		- 11
	Extension: ,*	
	MIME type: application/octet-stream	
	OK Cancel	EI.

10.Restarting IIS.

Restart IIS to make the new settings effective.

Configuring IIS 7.x with J2EE server

J2EE servers refer to Java servers, such as EAServer, WebLogic, WebSphere, JBoss, JEUS etc. The configuration is the same for the J2EE application servers than Appeon supports.

Choose an existing Web site, or create a new site. The Default Web Site will be used as examples in the following guide.

1. Copying the Appeon Server Web component to the Web root of the IIS server.

During the installation of Appeon Server Web Component, an **IISSupport** folder will be created under the directory which (if you did not specify) is C:\Program Files\Appeon \WebComponent2013\appeon by default. **IISSupport** contains files and components that help IIS 7.x run with the Appeon Server cluster. Check if the **appeon\IISSupport** folder exists under the Web root of the IIS server, if not, perform the following steps to copy it from an existing Appeon Server Web Component installation directory:

Step 1: Create an **appeon** folder under the Web root of IIS server (**for example, C: \Inetpub\wwwroot**).

Step 2: Copy the **IISSupport** folder from the installation path to the created **appeon** folder (**for example, C:\inetpub\wwwroot\appeon**).

2. Creating a virtual directory.

Step 1: Open Control Panel | Administrative Tools | Internet Information Service (IIS) Manager.

Step 2: Right click the **Default Web Site** and select **Add Virtual Directory**.

Step 3: Input the alias name, for example, "ApbCluster".

Step 4: Choose a local path in the **Physical** path box; for example, "d:\iisplugin".

Step 5: Click OK.

Figure 6.19: Add virtual directory

Add Virtual Directory	<u>?</u> ×
Site name: Default Web Site Path: /	
Alias:	17.
ApbCluster	
Example: images	
Physical path: C:\inetpub\wwwroot\appeoncluster	
Pass-through authentication	
Connect as Test Settings	
ок с	ancel

Step 6: Right click the ApbCluster Virtual Directory and select Edit Permissions.

Step 7: Choose the **Security** tab page, select **IIS_IUSRS** (**WIN-TDTR6ISIYCD** **IIS_IUSRS**) in the **Group or user names** list box, and then click the **Edit** button.

Figure 6.20: appeoncluster properties

📙 appeoncluster Properties	×
General Sharing Security Previous Versions	Customize
Object name: C:\inetpub\www.root\appeonclus	ter
Group or user names:	
& Administrators (WIN-TDTR6ISIYCD\Administ	rators) 🔺
Sers (WIN-TDTR6ISIYCD\Users)	
)
R Trustedinstaller	
To change permissions, click Edit.	Edit
Permissions for IIS_IUSRS Allow	Deny
Full control	
Modify	
Read & execute 🗸	
List folder contents 🗸	
Read 🗸	
Write	
For special permissions or advanced settings, click Advanced.	Advanced
Leam about access control and permissions	
OK Cancel	Apply

Step 8: Select **IIS_IUSRS (WIN-TDTR6ISIYCD\IIS_IUSRS)** in the **Group or user names** list box, and then select **Modify** and **Write** in the **Allow** column of the **Permissions for IIS_IUSRS** list box.

Figure 6.21: appeoncluster properties

🕌 Permissions for appeonclust	er	×	
Security			
Object name: C:\inetpub\www	oot\appeoncluste	r	
Group or user names:			
& CREATOR OWNER			
& SYSTEM & Administrators (WIN-TDTR6)		tam)	
& Users (WIN-TDTR6ISIYCD)		loisj	
& IIS_IUSRS (WIN-TDTR6ISI)			
StrustedInstaller			
	Add	Remove	
Permissions for IIS_IUSRS	Allow	Deny	
Modify			
Read & execute	1		
List folder contents	\checkmark		
Read	\checkmark		
Write	\checkmark		
Leam about access control and p	Learn about access control and permissions		
ОК	Cancel	Apply	

Step 9: Click **OK** to go back to the IIS window.

3. Copying Appeon plug-in (ApbCluster.dll or ApbCluster64.dll).

Step 1: Copy the **ApbCluster.dll** (for 32-bit OS) or **ApbCluster64.dll** (for 64-bit OS) plug-in from appeon\IISSupport\modules.

Step 2: Paste it to the newly created virtual directory: C:\inetpub\wwwroot\appeoncluster in this guide.

In the 64-bit OS, you can either use **ApbCluster.dll** or **ApbCluster64.dll**. If you use **ApbCluster.dll**, you will need to set the **Enable 32-Bit Applications** to **True** for the **AppeonAppPool** application pool, as shown in figure below. If you use **ApbCluster64.dll**, then set this option to **False**.

4. Copying Appeon Cluster configuration file (cluster-config.xml).

Step 1: Copy the **cluster-config.xml** file from %appeon%\repository\<instancename> \config. %appeon% is the installation directory of Appeon Server, and <instancename> refers to the name of a server instance.

Step 2: Paste it into the newly created virtual directory: C:\inetpub\wwwroot \appeoncluster in this guide.

Note: The **cluster-config.xm**l file acts as the redirector configuration file as it helps Web server redirect requests to Appeon Servers according to the IP addresses of Appeon Servers, the ports and load balancing algorithm that it stores. This file cannot be modified manually and is automatically updated when you change the settings in the Cluster tool of AEM. Each time after you change the settings, be sure to copy this file and replace the old file in the virtual directory and restart IIS.

5. Installing Appeon plug-in as ISAPI Filters.

Step 1: Open Control Panel | Administrative Tools | Internet Information Service (IIS) Manager.

Step 2: Click the **Default Web Site** and then double-click **ISAPI Filters** on the right side.

Step 3: Right-click the blank area on the ISAPI Filters page, and click Add.

Step 4: Input **ApbCluster** in the Filter name box and specify **ApbCluster.dll** (or **ApbCluster64.dll**) as the ISAPI filter in the **Executable** box (*C:\inetpub\wwwroot* *appeoncluster\ApbCluster.dll* in this guide). Click **OK**.

Figure 6.22: Add ISAPI filter

Add ISAPI Filter	? ×
Filter name:	
ApbCluster	
Executable:	
C:\inetpub\wwwroot\appeoncluster\ApbCluster.dll	
	1
OK	Cancel

6. Creating the redirector configuration file.

Step 1: Create the redirector configuration file as the name **ApbCluster.cfg** under the virtual directory (*C:\inetpub\wwwroot\appeoncluster*) in this guide.

Step 2: Copy and paste the following to the file:

```
Extension_URI=/ApbCluster/ApbCluster.dll
MatchExpression=/AEM
MatchExpression=/servlet
MatchExpression=/reportfile
MatchExpression=/imagefile
MatchExpression=/dwfile
MatchExpression=/ajsdown
Log=On
```

Notes:

- The Extension_URI command specifies the location of the virtual directory which contains ApbCluster.dll (or ApbCluster64.dll), that is /virtual-directory-alias-name/ ApbCluster.dll (/ApbCluster/ApbCluster.dll in this guide).
- The MatchExpression commands specify the type of pages to redirect.
- The **Log** command specifies whether to enable logging.
- The **TimeOut** command specifies the number of seconds the Web server waits between sending an HTTP request to Appeon Server and receiving information from it. The HTTP connection timeout value is 2 times of this value.
- The commands and parameters are case insensitive.
- 7. Setting ISAPI and CGI Restrictions.

Step 1: Open Control Panel | Administrative Tools | Internet Information Services (IIS) Manager.

Step 2: Right-click the local machine, and then double-click **ISAPI and CGI Restrictions** on the right side.

Step 3: Right-click the blank area of the **ISAPI and CGI Restrictions** page and click Add.

Step 4: Specify the local path of **ApbCluster.dll** (or **ApbCluster64.dll**) in the **ISAPI** or **CGI** path box and input **ApbCluster** in the **Description** box, and then select **Allow** extension path to execute.

Step 5: Click OK.

Figure 6.23: Add ISAPI or CGI

: \inetpub \www.root \appeo	ncluster\ApbCluster.dll	
Description:		
ApbCluster		
Allow extension path to	execute	

8. Enabling ISAPI-dll.

Step 1: Open Control Panel | Administrative Tools | Internet Information Services (IIS) Manager.

Step 2: Expand the **Default Web Site**, click **ApbCluster**, and then double-click **Handler Mappings** on the right side.

Step 3: Right-click ISAPI-dll, and select Edit Feature Permissions.

Step 4: Select Read, Script, Execute, and click OK.

Figure 6.24: Edit feature permissions

Edit Feature Permissions	? ×
Permissions:	
Read	
☑ <u>S</u> cript	
Execute	
OK Can	cel

9. Adding MIME type.

Add a MIME type for loading the files with no extensions or MIME type definition.

Step 1: Click the **Default Web Site** and then double-click MIME Types on the right of the page.

Step 2: Right-click the blank area of the MIME Types page, and click Add.

Step 3: Specify the following settings:

- Extension: *
- MIME Type: application/octet-stream

Step 4: Click OK.

Figure 6.25: Add MIME type

Add MIME Type		? ×
File name extension:		
MIME type:		
application/octet-stream		
	ОК	Cancel

10.Restarting IIS.

Restart IIS to make the new settings effective.

Configuring IIS 6.0 with J2EE server

J2EE servers refer to Java servers, such as EAServer, WebLogic, WebSphere, JBoss, JEUS etc. The configuration is the same for the J2EE application servers that Appeon supports.

Choose an existing Web site, or create a new site. The following takes the existing Default Web Site as an example.

1. Copying the Appeon Server Web component to the Web root of the IIS server.

During the installation of Appeon Server Web Component, an **IISSupport** folder will be created under the directory which (if you did not specify) is *C:\Program Files\Appeon* *WebComponent2013\appeon* by default. **IISSupport** contains files and components that help IIS 7.x run with the Appeon Server cluster. Check if the **appeon\IISSupport** folder exists under the Web root of the IIS server, if not, perform the following steps to copy it from an existing Appeon Server Web Component installation directory:

Step 1: Create an **appeon** folder under the Web root of IIS server (**for example, C:** **inetpub****wwwroot**).

Step 2: Copy the **IISSupport** folder from the installation path to the created **appeon** folder (**for example, C:\inetpub\wwwroot\appeon**).

2. Specifying properties of IIS Web site.

Step 1: Open Control Panel | Administrative Tools | Internet Information Service (IIS) Manager.

Step 2: Right click the **Default Web Site** and select **Add Virtual Directory**.

Step 3: Click the **Home Directory** tab and select **Scripts only** in the **Execute Permissions** dropdown list.

ault Web Site Prope	erties		?
Directory Security	HTTP Headers	Custom Errors	Server Extensions
Web Site	ISAPI Filters	Home Directory	Documents
When connecting to	this resource, the	content should come from	:
0	A directory locat	ed on this computer	
C	A share located	on another computer	
0	A redirection to a	a <u>U</u> RL	
Lasal Dalla	c:\inetpub\www.rd	unt	December 1
Lo <u>c</u> al Path:			Br <u>o</u> wse
Scrip <u>t</u> source acc	ess	Log visits	
✓ <u>R</u> ead ✓ Write		Index this resource	
Directory browsin	a		
Application Settings	2		
			- 1
Application name:	Default Applic	cation	R <u>e</u> move
Starting point:	<default td="" web<=""><td>Site></td><td> I</td></default>	Site>	I
Execute Permissions:	Scripts only		Configuration
-			the level 1
Application Protection	n: Medium (Poo	led) 🗾	Unjoad
	ОК	Cancel Appl	ly Help
			· · · · · · · · · · · · · · · · · · ·

Figure 6.26: Default Web site properties

3. Creating a virtual directory.

Step 1: Right click the **Default Web Site** and select **New**.

Step 2: Click the **Virtual Directory** tab and input **ApbCluster** in the **Application name** box.

Step 3: Choose a local path; for example, *d:\iisplugin*.

Step 4: Enable read, run script, and execute on the virtual directory. Or select **Read** and **selecting Scripts and Executables** from the **Execute Permissions** dropdown list.

ApbCluster Properties	? ×
Virtual Directory Documents Directory Security HTTP Heade	ers Custom Errors
When connecting to this resource, the content should come fr	
 A directory located on this computer 	
C A share located on another computer	
C A redirection to a <u>U</u> RL	
Logal Path: D:\iisplugin	Br <u>o</u> wse
□ Script source access ▼ Log visits ▼ Read ▼ Index this resour □ Write □ Directory browsing	ice
Application Settings	
Application name: ApbCluster	R <u>e</u> move
Starting point: <default\apbcluster< td=""><td></td></default\apbcluster<>	
Execute Permissions: Scripts and Executables	Configuration
Application Protection: Medium (Pooled)	Unjoad
OK Cancel A	spply Help

Figure 6.27: Apbcluster properties

4. Copying Appeon plug-in.

Step 1: Copy the **ApbCluster.dll** (for 32-bit OS) or **ApbCluster64.dll** (for 64-bit OS) plug-in from **appeon****IISSupport****modules**.

Step 2: Paste it to the virtual directory: d:\iisplugin.

In the 64-bit OS, you can either use **ApbCluster.dll** or **ApbCluster64.dll**. If you use **ApbCluster.dll**, you will need to set the **Enable 32-Bit Applications** to **True** for the **AppeonAppPool** application pool, as shown in figure below. If you use **ApbCluster64.dll**, then set this option to **False**.

5. Copying Appeon Cluster configuration file (cluster-config.xml).

Step 1: Copy the **cluster-config.xml** file from *%appeon%\repository\<instancename>* *config.* %appeon% is the installation directory of Appeon Server, and <instancename> refers to the name of a server instance.

Step 2: Paste it to the virtual directory: *d*:*iisplugin*.

Note: The **cluster-config.xm**l file acts as the redirector configuration file as it helps Web server redirect requests to Appeon Servers according to the IP addresses of Appeon Servers, the ports and load balancing algorithm that it stores. This file cannot be modified manually and is automatically updated when you change the settings in the Cluster tool of AEM. Each time after you change the settings, be sure to copy this file and replace the old file in the virtual directory and restart IIS.

6. Installing Appeon plug-in as ISAPI Filters.

Step 1: Open Control Panel | Administrative Tools | Internet Information Service (IIS) Manager.

Step 2: Right click the **Default Web Site** and choose **Properties**.

Step 3: Click the **ISAPI Filters** tab page. Click **Add** to add **ApbCluster.dll** (or **ApbCluster64.dll**). Click **OK**.

7. Creating the ApbCluster.cfg file.

Step 1: Create the **ApbCluster.cfg** file in the virtual directory d:\iispulgin.

Step 2: Copy and paste the following:

```
Extension_URI=/ApbCluster/ApbCluster.dll
MatchExpression=/AEM
MatchExpression=/servlet
MatchExpression=/reportfile
MatchExpression=/imagefile
MatchExpression=/dwfile
MatchExpression=/ajsdown
Log=On
```

Notes:

- The **Extension_URI** command specifies the location of the virtual directory which contains ApbCluster.dll (or ApbCluster64.dll), that is /virtual-directory-alias-name/ ApbCluster.dll (/ApbCluster/ApbCluster.dll in this guide).
- The MatchExpression commands specify the type of pages to redirect.
- The Log command specifies whether to enable logging.
- The **TimeOut** command specifies the number of seconds the Web server waits between sending an HTTP request to Appeon Server and receiving information from it. The HTTP connection timeout value is 2 times of this value.
- The commands and parameters are case insensitive.
- 8. Enabling Web Services Extension.

Step 1: Click Web Services Extension in the IIS Manager.

Step 2: Select All Unknown ISAPI Extensions and click the Allow button.

🐚 Internet Information Servic	es (IIS) Manager		
🐚 File Action View Window	w <u>H</u> elp		_ Ð ×
	是 ▶ ■ Ⅱ		
internet Information Services	🃁 Web Service Extensions	_	
🕀 📁 Application Pools		A Web Service Extension	Status
🕀 🍎 Web Sites		M Unknown ISAPI Extensions	Prohibited
Web Service Extension	Allow	Y All Unknown CGI Extensions	Prohibited
	Prohibit	Active Server Pages	Prohibited
		ASP.NET v1.1.4322	Allowed
	Properties	ASP.NET v2.0.50727	Allowed
		Internet Data Connector Server Side Includes	Prohibited Prohibited
	Tasks	WebDAV	Prohibited
			Tronibiced
	Add a new Web service extension		
	Allow all Web service extensions for a specific application		
	Prohibit all Web service extensions		
	@ Open Help		
	<u> </u>	•	
	Extended Standard		

Figure 6.28: IIS Manager

9. Adding MIME type.

Add a MIME type for loading the files with no extensions or MIME type definition.

Step 1: Right click the Local computer and select **Properties**.

Step 2: Click the **MIME Types** button.

Step 3: Click the **New** button and specify the following settings:

- Extension: *
- MIME type: application/octet-stream

Figure 6.29: MIME Type

МІМЕ Туре	×
Extension:	*
MIME type:	application/octet-stream
	OK Cancel

10.Restarting IIS.

Restart IIS to make the new settings effective.

6.3.2.2 Type 2: Apache Web server

6.3.2.2.1 Method 1: Manual configuration

Configuring Apache 2.0/22 with J2EE servers

J2EE servers refer to Java servers, such as EAServer, WebLogic, WebSphere, JBoss, JEUS etc. The configuration is the same for the J2EE application servers than Appeon supports.

1. Copying the Appeon Server Web component to the Web root of the Apache server.

Before configuration, make sure that you have copied Appeon Server Web Component from the installation path to %APACHE% htdocs, where %APACHE% refers to the home directory of Apache.

- a. Create an **appeon** folder under the Web root of Apache server (%Apache%\htdocs\).
- b. Copy the **Apache20Support** or **Apache22Support** folder from the installation path to the created **appeon** folder (%Apache%\htdocs\appeon).
- 2. Copying Appeon plug-in.

Copy the **mod_appeon2.so** or **mod_appeon22.so** plug-in file from %APACHE%\htdocs \appeon\Apache2xSupport\modules to the %APACHE%\modules folder.

3. Copying Appeon Cluster configuration file.

Copy the **cluster-config.xml** file from the %appeon%\repository\<instancename>\config folder to the %APACHE%\conf folder, where %appeon% is the installation directory of Appeon Server, and <instancename> refers to the name of a server instance.

Note: The **cluster-config.xml** file acts as the redirector configuration file as it helps Web server redirect requests to Appeon Servers according to the IP addresses of Appeon Servers, the ports and load balancing algorithm that it stores. This file cannot be modified manually and is automatically updated when you change the settings in the Cluster tool of AEM. Each time after you change the settings, be sure to copy this file and replace the old file in the %APACHE%\conf folder and restart Apache.

4. Modifying httpd.conf.

If the application server (such as EAServer, WebLogic, WebSphere, JBoss, or JEUS) is running on Windows, add the following statements into the httpd.conf file under the %APACHE%\conf folder (take mod_appeon2.so as an example):

```
LoadModule appeon_module modules\mod_appeon2.so
<IfModule mod_appeon.c>
MatchExpression /AEM
MatchExpression /servlet
MatchExpression /reportfile
MatchExpression /imagefile
MatchExpression /dwfile
MatchExpression /ajsdown
</IfModule>
```

If the application server is running on UNIX/LINUX, add the following statements into the httpd.conf file under the %APACHE%\conf folder (take mod_appeon2.so as an example):

```
LoadModule appeon_module modules/mod_appeon2.so
<IfModule mod_appeon.c>
MatchExpression /AEM
MatchExpression /servlet
MatchExpression /reportfile
MatchExpression /imagefile
MatchExpression /dwfile
MatchExpression /ajsdown
</IfModule>
```

5. Restarting Apache.

Restart Apache for the new settings to take effect.

Configuring Apache 1.3 with J2EE servers

J2EE servers refer to Java servers, such as EAServer, WebLogic, WebSphere, JBoss, JEUS etc. The configuration is the same for the J2EE application servers than Appeon supports.

1. Copying the Appeon Server Web component to the Web root of the Apache server.

Before configuration, make sure that you have copied Appeon Server Web Component from the installation path to %APACHE%\htdocs, where %APACHE% refers to the home directory of Apache.

- a. Create an **appeon** folder under the Web root of Apache server (%Apache%\htdocs\).
- b. Copy the **Apache20Support** or **Apache22Support** folder from the installation path to the created **appeon** folder (%Apache%\htdocs\appeon).
- 2. Copying Appeon plug-in.

Copy the **mod_appeon.so** plug-in file from %APACHE%\htdocs\appeon \Apache13Support\modules to the %APACHE%\modules folder.

3. Copying Appeon Cluster configuration file.

Copy the **cluster-config.xml** file from the %appeon%\repository\<instancename>\config folder to the %APACHE%\conf folder, where %appeon% is the installation directory of Appeon Server, and <instancename> refers to the name of a server instance.

Note: The **cluster-config.xml** file acts as the redirector configuration file as it helps Web server redirect requests to Appeon Servers according to the IP addresses of Appeon Servers, the ports and load balancing algorithm that it stores. This file cannot be modified manually and is automatically updated when you change the settings in the Cluster tool of AEM. Each time after you change the settings, be sure to copy this file and replace the old file in the %APACHE%\conf folder and restart Apache.

4. Modifying httpd.conf.

Add the following statements into the httpd.conf file under the %APACHE%\conf folder:

```
LoadModule appeon_module modules\mod_appeon.so
<IfModule mod_appeon.c>
MatchExpression /AEM
MatchExpression /servlet
MatchExpression /reportfile
MatchExpression /imagefile
MatchExpression /dwfile
MatchExpression /ajsdown
</IfModule>
```

5. Restarting Apache.

Restart Apache for the new settings to take effect.

6.4 Task 4: Deploy or Install the application to the Appeon Server cluster and Web server(s)

To install an Appeon application to the Appeon Server cluster and Web server(s), you can either deploy the application via the **Appeon Deployment Wizard** (see *Appeon Developer User Guide*), or run the deployment project generated by using the **Appeon Application Package Wizard** (see *Appeon Developer User Guide*). This section will talk about how to install an application by running the deployment project generated via the **Appeon Application Package Wizard**.

6.4.1 Points to note before installation

Be aware of the following points before installing an Appeon application:

- The Setup program of the Web application or the mobile application runs on the Windows platform only. To install applications to servers running on Unix\Linux, you must run the Setup program on the Windows platform and then install the application to remote servers running on Unix\Linux.
- The target Web servers must have the Appeon Server Web Component correctly installed.
- The packaged EAServer components, if any, can only be installed to EAServer application server.

6.4.2 Installing an application

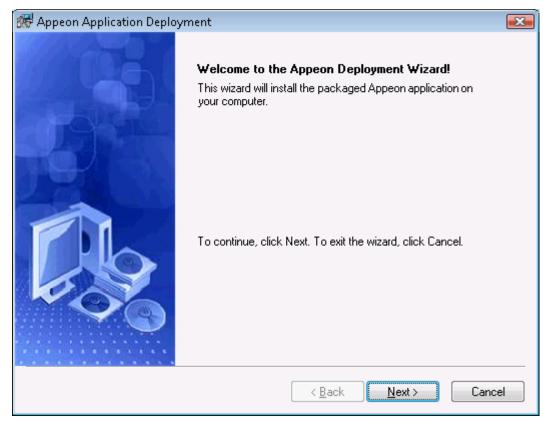
You can copy the generated package to any computer running Windows and install the application to any number of Appeon Servers and Web servers. Installing an application using the generated package is the same as deploying an application using the **Appeon Deployment Wizard**.

Step 1: Start the target Appeon Server(s) and Web server(s) where you want to install the application.

Step 2: Run the Setup.exe file in the generated package.

The Appeon Application Deployment wizard is displayed. Click Next to proceed.

Figure 6.30: Welcome page



Step 3: Select the deploy-config file (config.xml) to ease your configuration of the installation wizard. The installation wizard will use the settings in the config.xml file.

If you do not want to use the deploy-config file, simply skip this option and click **Next** to configure the settings step by step.

Figure 6.31: Select the configuration file

🕷 Appeon Application Deployment 🛛 💦
Select an Existing Deploy-config File Image: Config File Please select an existing deploy-config file for quick configuration. Image: Config File
The wizard automatically loads the configuration file for the current package and uses the settings in this file as the default settings for the subsequent steps. You can modify the settings in this file or select another configuration file.
Note: You can clear the configuration file path in the Destination File box and click Next to configure the settings manually. Destination File
S\Appeon\WebAppPackage\appeon_code_examples_install\ini\config.xml Browse
< <u>B</u> ack <u>N</u> ext > Cancel

Step 4: Input the Application Profile Name and the Application URL for the application and click **Next**.

The Application Profile Name is used as the application name to identify an application. If you want to install multiple instances of the same application on the same server, you can run the setup package repeatedly and specify different Application Profile Name here. For example, input appeon_code_examples_test as the Application Profile Name in the first installation, and input appeon_code_examples_production as the Application Profile Name in the second installation. The Application Profile Name will be used as the application name to distinguish the multiple application instances on the same server, so they can be run independently from each other.

Appeon Application Deployment
Please specify the profile name and the URL for the application.
Please specify the URL for the application.
Application Profile Name: appeon_code_examples
Application URL
http://web.server:port/appeon_code_examples
< <u>B</u> ack <u>N</u> ext > Cancel

Figure 6.32: Specify Application Profile Name and Application URL

Step 5: Configure and select profiles for the Appeon Server(s) and the Web server(s) where the application will be installed.

To install the application to an Appeon Server cluster, please create an Appeon Server profile for each Appeon Server in the cluster. For detailed instructions on how to create the Appeon Server profile and Web server profile, refer to the **Managing server profiles** section in *Appeon Developer User Guide*.

Figure 6.33: Specify server settings

💏 Appeon Application Deployment 👘			EX
Server Settings			
Please select the Appeon Server and t	he Web Server.		E S
Appeon Servers			
Selected Profile Name		erver Type	<u>E</u> dit
■ 192.0.1.56_EAServer		J2EE	<u>A</u> dd
•	111		Delete
Web Servers Selected Profile Name			Edįt
■ 192.0.1.56_EAServer			Add
			Delete
	< <u>B</u> ac	k <u>N</u> ext>	Cancel

Step 6: Select whether to deploy EAServer components.

After NVO components are deployed, you must generate stub/skeleton in EAServer. Detailed instructions are provided in **Generating Stub/Skeleton in EAServer** in the *Appeon Migration Guide*.

Figure 6.34: Specify EAServer settings

🕷 Appeon Application Dep	loyment		
EAServer Settings			
Please select whether to	deploy EAServer component	8.	
Please select whether to the EAServer configuratio	leploy EAServer component n settings.	s. To deploy compone	nts, please specify
will be skipped.	ponents option is not select	ed, the step for selectir	ng NVO components
EAServer Component	š —		
Profile Name	Server Name Po	t Number Log	in <u>E</u> dit
			<u>A</u> dd
			Delete
•			Þ
		< <u>B</u> ack <u>N</u> ex	kt > Cancel

If EAServer components are used in the application, select the *EAServer Components* option and then create connection profiles for EAServers where you want to deploy the components. Follow instructions below to create EAServer profiles:

- Click Add to open the Edit EAServer Profile dialog box.
- Input the connection parameters: profile name, host name or IP address, port number, user name and password.
- Click **Test** to verify the connection and the click **OK** to finish the creation.

Figure 6.35: Edit EAServer Profile

😹 Edit EAServer Profil	e (×		
Profile Name:				
<u>S</u> erver Name:				
P <u>o</u> rt Number:				
Login Name:				
P <u>a</u> ssword:				
Note: Input the real IP address in the Server Name field. For example, 192.0.0.1.				
Iest	OK Cancel			

Step 7: If the **EAServer Components** option is selected in the previous step, select the EAServer profile from the list and the components to deploy. Click **Next** to proceed.

Figure 6.36: Deploy NVOs

🕷 Appeon Application Deployment 🔤
Deploy NVOs Please select which EAServer components to deploy.
Please select which EAServer components will be deployed to the specified EAServer.
EAServer List: 192.0.1.56
⊡… ⊡ i Component List
< <u>B</u> ack <u>N</u> ext > Cancel

Step 8: Select whether to install AEM settings and data sources for the current application and click **Next**.

Figure 6.37: Deploy AEM settings

🕷 Appeon Application Deployment	
Deploy AEM Settings Please specify how to deploy the AEM settings.	P
Please select whether to deploy the AEM settings and data source settings to the spe Appeon Server.	ecified
Data Source	
If a data source with the same name already exists in the Appeon Server, then	
< <u>B</u> ack <u>N</u> ext >	Cancel

Step 9: Specify the destination folder for the undeployment tool and the log file and click **Next**.

Figure 6.38: Specify location for the Appeon Undeployment Tool

😹 Appeon Application Deployment 🛛 💽
Install the Appeon Undeployment Tool Please select the folder where the Appeon Undeployment Tool will be installed.
Please specify where the Appeon Undeployment Tool will reside. The deploy-config file and the deploy log will also be stored in this folder.
Destination Folder C:\Program Files\Appeon\Undeploy\appeon_code_examples Browse Browse
< <u>B</u> ack <u>N</u> ext > Cancel

Step 10: Specify the destination file and source file that you want to replace for the Appeon application package, and click **Next**.

Files (also called "destination file") under the "wcode" folder of Appeon application package can be replaced by files of the same type (also called "source file"), so that the source file will be installed instead of the destination file. When you click the **Add** button, the **File Replacement** dialog box is opened. To select the destination file, click **Browse** to display the Open file dialog which will automatically open the "wcode" folder of Appeon application package, so you can conveniently select a file from the "wcode" folder or from its subfolder. To select the source file, click **Browse** to navigate to the folder where the source file is stored.

Replace Files Image: Constraint of the application package No. Destination File Source File Edit Image: Constraint of File Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of File Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of File Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package Image: Constraint of the application package	Fi			
No. Destination File Source File Edit				
	ase sp	pecify the files that you want to	o replace for the application package.	
	No.	Destination File	Source File	
			<u>A</u> dd	
			Delete	
4 III				
۲ التان ا				
✓ III	_			
	•	III	4	
			< <u>B</u> ack <u>N</u> ext > Cancel	
		No.	No. Destination File	No. Destination File Edit

Figure 6.39: Specify files to replace for the application package

Step 11: Wait while the wizard is installing files and settings.

Figure 6.40: Deploying the application

💏 Appeo	in Applicat	ion Deployment	×		
	Deploying the Application Image: Comparison of the sequested operations. The deployment wizard is performing the requested operations. Image: Comparison of the sequested operations.				
15	Please wai minutes.	it while the deployment wizard is deploying the application. This may take several			
	Time	Run Information			
(پ	18:19:23	Deploying application name to Appeon Server			
	18:19:24	Deploying INI file(s) to Appeon Server			
٩	18:19:24	Deploying DataWindow SQL to Appeon Server			
٩	18:19:24	Committing changes to Appeon Server			
٩	18:19:25	Deploying embedded SQL to Appeon Server			
٩	18:19:25	Committing changes to Appeon Server			
٩	18:19:25	Deploying DataWindow Syntax to Appeon Server			
•	m	•			
			_		
		< <u>B</u> ack <u>N</u> ext > Cancel			

Step 12: Once the operation is complete, click **Finish** to exit the installation wizard.

To run the application immediately, select the **Run Application Now** option and click **Finish**. Or you can run the application later from the Windows **Start** | **Programs** | **Appeon Web Application** | *ApplicationName*.

To view the log information generated during the installation process, select the **View Log** box and then click **Finish**. The log file will be displayed.

Figure 6.41: Deployment complete

😿 Appeon Application Deployment 🛛 💽			
	Finished deploying the Appeon application. The deployment wizard has finished installing the application and the related settings to the computer. Image: Bun Application Now! Image: Yiew Log Click Finish to exit the wizard.		
	< <u>B</u> ack <u>F</u>inish Cancel		

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