

# Appeon Installation Guide

Appeon® 6.2 for PowerBuilder® (on JEUS)  
FOR UNIXLINUX

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

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# 1 About This Book

## 1.1 Audience

This book is for users who want to install Appeon® 6.2 for PowerBuilder® for JEUS Unix/Linux.

## 1.2 How to use this book

There are eight chapters in this book.

Chapter 1: About This Book

A general description of this book

Chapter 2: Introduction

An overview of Appeon for PowerBuilder for JEUS Unix/Linux and its system architecture

Chapter 3: Installation Requirements

The system requirements for installing Appeon for PowerBuilder for JEUS Unix/Linux

Chapter 4: Installing Appeon 6.2

Instructions for installing Appeon Server and Appeon Server Web Component

Chapter 5: Configuring Appeon Server Cluster

Instructions for configuring an Appeon Server cluster

Chapter 6: Post-Installation Configuration Tasks

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

Chapter 7: Uninstalling Appeon 6.2

Instructions for uninstalling Appeon for PowerBuilder for JEUS Unix/Linux

Chapter 8: Technical Support

Important information for technical support

## 1.3 Related documents

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

- **Appeon Demo Applications Tutorial:**  
Introduces Appeon's demo applications, including the Appeon Sales Application Demo, Appeon Code Examples, Appeon ACF Demo, and Appeon Pet World, which show Appeon's capability in converting PowerBuilder applications to the Web.
- **Appeon Developer User Guide (or Working with Appeon Developer Toolbar)**  
Provides instructions on how to use the Appeon Developer toolbar in Appeon 6.2.

Working with Appeon Developer Toolbar is an HTML version of the Appeon Developer User Guide.

- **Appeon Server Configuration Guide**

Provides instructions on how to configure Appeon Server Status Monitor, establish connections between Appeon Server and database server and configure AEM for maintaining Appeon Server and Appeon deployed Web applications.

- **Appeon Supported Features Guide (or Appeon Features Help):**

Provides a detailed list of supported PowerBuilder features which can be converted to the Web with Appeon 6.2 as well as which features are unsupported.

*Appeon Features Help* is an HTML version of the *Appeon Supported Features Guide*.

- **Appeon Installation Guide:**

Provides instructions on how to install *Appeon for PowerBuilder* successfully.

- **Appeon Migration Guide:**

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.

- **Appeon Performance Tuning Guide:**

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

- **Appeon Troubleshooting Guide:**

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

- **Introduction to Appeon:**

Guides you through all the documents included in Appeon 6.2 for PowerBuilder.

- **New Features Guide (or What's New in Appeon):**

Introduces new features and changes in Appeon 6.2 for PowerBuilder.

What's New in Appeon is an HTML version of the New Features Guide.

## 1.4 If you need help

Each Sybase installation that includes a support contract has one or more designated people who are authorized to contact Sybase Technical Support or an Authorized Sybase Support Partner. If you have any questions about this product or need assistance during the installation process, ask a designated person to contact Sybase Technical Support or an Authorized Sybase Support Partner listed in your support contract. You may access the Technical Support Web site at <http://www.sybase.com/support>.

## 2 Introduction

### 2.1 Overview

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

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

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

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

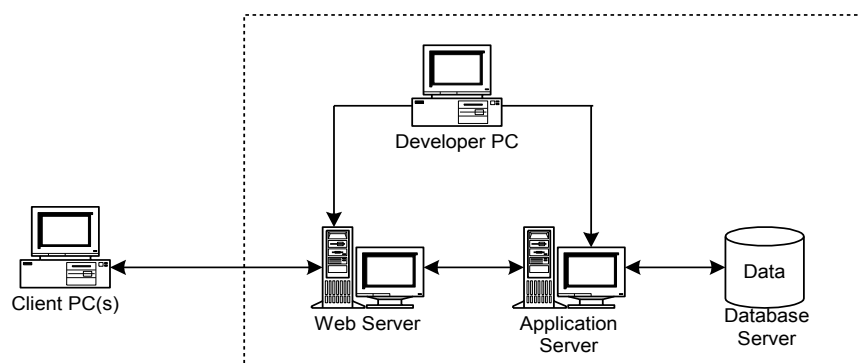
### 2.2 Section 508 compliance

The Apeon installation program conforms to the US Government Section 508 Accessibility Guidelines.

### 2.3 System architecture

Apeon for PowerBuilder works with standard n-Tier Web architecture (see Figure 2-1). Each tier serves a specific purpose in the architecture, though it may not necessarily reside in the same physical machine. For example, the Web server, application server and database server can reside in one machine or in different machines. A single tier may also be spread across multiple physical machines. For example, the application server can consist of an Apeon Server cluster involving multiple computers to provide load balancing and failover.

Figure 2-1: Apeon for PowerBuilder system architecture



Each tier should have appropriate Appeon components and/or third-party software installed according to its role within the architecture. The following table briefly lists the tiers, their purposes and the required Appeon/third-party software.

**Table 2-1: Tiers in the Appeon Web architecture**

Tier	Purpose	Appeon Component	Third-party Software
Client	Runs Appeon Web applications	None	The default Microsoft Internet Explorer Web browser
Developer PC	Deploys your PowerBuilder application to the testing and production Web environments with the n-Tier architecture.	Appeon Developer	PowerBuilder Internet Explorer
Web Server	Hosts the presentation layer of Appeon Web applications, responds to incoming requests from Client PC's and dispatches requests to the application server.	Appeon Server Web Component	JEUS HTTP Server or any JEUS-compatible Web server, such as Apache or IIS.
Application Server	Hosts the DataWindows and n-Tier components of Appeon Web applications, provides necessary runtime services to the Web application, such as DataWindow retrieval and update, execution of business logic, security authentication and printing.	Appeon Server	TmaxSoft JEUS
Database Server	Hosts the application database.	None	JDBC-compliant RDBMS supported by Appeon. Please see Section 3.3: <a href="#">Database server requirements</a> for more information.

## 2.4 Appeon editions

Appeon 6.2 for PowerBuilder for JEUS Unix/Linux contains the following editions. The Appeon Server clustering service is provided in the Enterprise Edition only.

**Table 2-2: Appeon editions**

Edition	Platform	Component
Enterprise Edition	IBM AIX, Sun Solaris, HP Unix, RedHat Linux	<ul style="list-style-type: none"> <li>• Appeon Server</li> <li>• Appeon Server Web Component</li> </ul>
Workgroup Edition	IBM AIX, Sun Solaris, HP Unix, RedHat Linux	<ul style="list-style-type: none"> <li>• Appeon Server</li> <li>• Appeon Server Web Component</li> </ul>

## 2.5 Appeon components

### 2.5.1 Appeon Developer (Windows only)

Appeon Developer is an add-on to PowerBuilder that allows applications to be deployed to the Web with Appeon Server.

When Appeon Developer is installed, it provides a set of tools that enable the entire PowerBuilder-to-Web conversion process to take place within the PowerBuilder IDE. These tools are accessed via a toolbar in the PowerBuilder IDE which automatically loads each time PowerBuilder is opened.

### 2.5.2 Appeon Server

Appeon Server is a set of J2EE, CORBA and PowerBuilder server components that provide runtime services such as data connectivity, DataWindows support, n-Tier component support, transaction management, printing and security for Appeon Web applications.

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

AEM is a Web application used to manage Appeon Server and deployed Web applications over the Internet or intranet. When you install Appeon Server, AEM is automatically installed to JEUS.

Appeon Server Status Monitor backs up Appeon Server session information, monitors whether Appeon Server is in “started” status, and automatically restarts Appeon Server and recovers the runtime information when it detects Appeon Server has shut down.

During the Appeon Server installation, the Appeon Server Web Component is copied to the JEUS HTTP server. If you are using one JEUS server as both the Web server and the application server, you will NOT need to run the Appeon Server Web Component installation.

### 2.5.3 Appeon Server Web Component (for third-party Web servers)

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

If you use a third-party Web server, physically separate the Web server and the application server and install the Appeon Server Web Component to the third-party Web server. The Appeon Server Web Component will be installed to the Web root of the Web server. You are also required to configure the Web server with the JEUS redirector plug-in. For detailed instructions, refer to the *Web Server Configuration Guide* in Appeon Help.

### 2.5.4 Appeon Help (Windows only)

Appeon Help provides easy access to all user documents. It saves time and conveniently places the help information, such as, the Appeon supported features, at your fingertips.

## 3 Installation Requirements

### 3.1 Client requirements

#### 3.1.1 Software requirements

- Microsoft Internet Explorer 6.0 SP2, 7.0, or 8.0
- Windows Server 2000 SP4, Windows Server 2003 SP2, Windows Server 2008 SP1, Windows XP SP3, or Windows Vista SP1

To run Apeon Web Application under Windows Vista, you need to previously configure the Internet Explorer security setting properly. Refer to [Additional Configuration of IE 7 under Windows Vista](#) for more information.

#### 3.1.2 Hardware requirements

- A Pentium-class processor running at 1 GHz or faster
- At least 512 MB RAM

### 3.2 Apeon Server requirements

#### 3.2.1 Software requirements

- Unix OS (such as IBM AIX, Sun Solaris, or HP Unix), or Linux (such as RedHat Linux) that is supported by TmaxSoft® JEUS
- TmaxSoft JEUS 5.0 or 6.0

#### 3.2.2 Hardware requirements

- Processor(s)

Platform	Processor Type
Linux	86 Pentium IV above, X86 AMD above
IBM AIX	IBM Power4
Solaris	UltraSparcIII, Solaris X86 Pentium
HP-Unix	HP Itanium, HP PA-Risc

- 1 GB RAM
- 260 MB hard drive space (for JEUS installation) plus 250 MB hard drive space (for Apeon Server installation)
- DVD-ROM drive (for Apeon installation from DVD)

#### 3.2.3 (Optional) Third-party Web server

- Apache 1.3 or 2.0 on Windows or Unix/Linux, or Microsoft IIS 5.0 or 6.0 on Windows

If you use IIS 6.0 as the Web server, the only compatible operating system is Windows Server 2003. IIS 6.0 does not work in other operating systems.

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

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

### 3.3 Database server requirements

Appeon 6.2 for PowerBuilder can run with any of the following database servers and their drivers:

- Sybase Adaptive Server Anywhere 7.0.4, 8.0.2, 9.0, 10.0, or 11.0 with Sybase iAnywhere or jConnect JDBC driver
- Sybase Adaptive Server Enterprise (ASE) 12.5.x or 15.x with Sybase jConnect or iAnywhere JDBC driver
- Sybase Adaptive Server Anywhere WEB Edition with Sybase jConnect or iAnywhere JDBC driver
- Sybase IQ 12.7.x with jConnect JDBC driver
- Oracle 8i, 9i, 10g, or 11g with Oracle JDBC driver

Download the Oracle JDBC driver from the Oracle Web site

([http://www.oracle.com/technology/software/tech/java/sqlj\\_jdbc/index.html](http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html)).

Note: Verify that the version of the downloaded driver is compatible with the Oracle database in use.

- Microsoft SQL Server 2000 SP4, 2005 SP1, or 2008 with MSFT JDBC driver or JTDS driver

Download the latest version of the Microsoft SQL Server JDBC driver from the Microsoft Web site (<http://www.microsoft.com/sql/downloads>).

- IBM DB2 UDB 8.1, 8.2, or 9.5 with IBM JDBC driver
- Informix 7.x, 8.x, 9.x, or 10.x with IBM JDBC driver

Copy the corresponding driver files for the database server in use to the \$WAS\_HOME/lib folder on the machine hosting Appeon Server. \$WAS\_HOME indicates the JEUS installation path. Refer to the *JDBC driver preparation* section in the *Appeon Server Configuration Guide* for more information.

## 4 Installing Appeon 6.2

### 4.1 Overview

Appeon for PowerBuilder for JEUS Unix/Linux consists of two components: Appeon Server and Appeon Server Web Component. To deploy the application to Appeon Servers and Web servers running on Unix/Linux, you can use an Appeon Developer installed from an Appeon for PowerBuilder for **Windows** edition.

**Table 4-1: Appeon components**

Component	Description	Installed on
Appeon Developer	An add-in that provides the Web deployment option to PowerBuilder.	PowerBuilder running on Windows 2000, 2003, 2008, XP, or Vista.
Appeon Server	A set of PowerBuilder server components that provide runtime services for the Appeon Web applications, such as data connectivity, DataWindows support, transaction management, printing and security. Appeon Server also includes Appeon Enterprise Manager (AEM) and Appeon Server Web Component.	JEUS running on Unix/Linux.
Appeon Server Web Component	The runtime environment that supports a PowerBuilder-style Web graphical user interface within standard Microsoft Web browsers. Appeon Server Web Component is a library of JavaScript, HTML and XML files that form the foundation of the/an Appeon Web application.	Third-party Web server (Apache Web server on Windows, Unix, or Linux, or IIS Web server on Windows) (For JEUS HTTP server, this installation is unnecessary since the Web Component is included in Appeon Server.)
Appeon Help	The online help of all Appeon user documents which saves time and conveniently places the help information at your fingertips.	Windows 2000, 2003, 2008, XP, or Vista.

### 4.2 Installation scenarios

#### 4.2.1 Overview

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

## 4.2.2 Remote Appeon Server using JEUS HTTP server

**Table 4-2: Remote Appeon Server installation**

Scenarios	Requirements	Appeon Components
In this example, 2 computers are used: Computer 1 serves as Developer PC;	Computer 1: Microsoft Windows 2000, 2003, 2008, XP, or Vista Microsoft Internet Explorer Sybase PowerBuilder Sybase ASA	Computer 1: Appeon Developer
Computer 2 serves as Web server, application server and database server.	Computer 2: Unix/Linux TmaxSoft JEUS Sybase ASA, Sybase ASE, Sybase IQ, Oracle, Microsoft SQL Server, Informix or IBM DB2 depending on application database	Computer 2: Appeon Server

## 4.2.3 Remote Appeon Server using a third-party Web server

**Table 4-3: Remote Appeon Server installation**

Scenarios	Requirements	Appeon Components
In this example, 3 computers are used: Computer 1 serves as Developer PC;	Computer 1: Microsoft Windows 2000, 2003, 2008, XP, or Vista Microsoft Internet Explorer Sybase PowerBuilder Sybase ASA	Computer 1: Appeon Developer
Computer 2 serves as Web server;	Computer 2: Microsoft IIS or Apache	Computer 2: Appeon Server Web Component
Computer 3 serves as application server and database server.	Computer 3: Unix/Linux TmaxSoft JEUS Sybase ASA, Sybase ASE, Sybase IQ, Oracle, Microsoft SQL Server, Informix or IBM DB2 depending on application database	Computer 3: Appeon Server

## 4.2.4 Appeon Server Cluster

Table 4-4: Appeon Server cluster installation

Scenarios	Requirements	Appeon Components
In this example, N (N $\geq$ 4) computers are used:  Computer 1 is used for Developer PC;	Computer 1: Microsoft Windows 2000, 2003, 2008, XP, or Vista  Microsoft Internet Explorer Sybase PowerBuilder Sybase ASA	Computer 1: Appeon Developer
Computer 2 is used for Web server.	Computer 2: Microsoft IIS or Apache	Computer 2: Appeon Server Web Component
Computer 3 is the database server.	Computer 3: Sybase ASA, Sybase ASE, Sybase IQ, Oracle, Microsoft SQL Server, Informix or IBM DB2 depending on application database	Computer 3: None
Computers 4 to n are a group of JEUS servers.	Computers 4 to n: Unix/Linux TmaxSoft JEUS	Computers 4 to n: Appeon Server (After installing Appeon Server to each JEUS, configure the Appeon Servers as a cluster. Refer to <a href="#">Configuring Appeon Server Cluster</a> for details)

## 4.3 Appeon 6.2 installation

### 4.3.1 Appeon Server installation

Follow the instructions below to install Appeon Server:

Step 1 – Verify that JEUS server, as well as any other programs you may be running, is closed.

Step 2 – Open the *Appeon4JEUS* folder from the Appeon installation program and run the *install.sh* file using the command below:

```
./install.sh
```

Notes:

- 1) If you copy the Appeon installation program to the computer before installation, make sure that the directory does not contain special characters or spaces.
- 2) When you input the command, please be aware that file names and directory names are case sensitive.

The Appeon Server installation process starts. Follow the step-by-step prompts to install Appeon Server.

Step 3 – Input “Next” or press Enter to proceed.

```

Step 1. Welcome Message
-----

#####

Welcome to Apeon Server 6.2 for JEUS installation!

#####

Press Enter to start the installation [Exit][Next]>

```

You can input “n”, “N”, “next” or “Next” to indicate “Next”, “p”, “P”, “previous”, or “Previous” to indicate “Previous”, and “e”, “E”, “exit” or “Exit” to indicate “Exit”. Notice that the input is case sensitive.

Step 4 – Specify the JEUS server home directory as the Apeon Server installation directory, for example, /export/home/TmaxSoft/JEUS5.0.

```

Step 2. Install Directory
-----

Input the directory you want to install the Apeon Server 6.2.
Please input the install directory OR [Exit][Previous]>

```

Step 5 – Confirm the installation directory. Press Enter to begin copying the required files or input “p” to modify the setup settings.

```

Step 3. Confirm Informations
-----

#####

Confirm the installation
The install directory is "/home/appeon/TmaxSoft/JEUS5.0"
The installer will start installing the files on your system.
Go back if you want to change any settings for the installation.
#####

Please select an option to continue[Exit][Previous][Next]>

```

Step 6 – Wait until Apeon Server installation is completed.

```

Start installing the files...
Copying apeon/template/config/aem-config.xml
.....

#####

Congratulations! The installation has been successfully completed.

#####

```

An appeon folder has been created under the specified JEUS directory, and the Appeon Server EAR package (appeonserver.ear) has been copied to the JEUS deploy\_home directory. JEUS will detect the deploy\_home directory periodically and deploy the new packages in this folder automatically.

Step 7 – Start Appeon Server or not.

```
Start Appeon Server
-----
Do you want to start the Appeon Server now? [Yes][No]>
```

You can press “Y” to start Appeon Server at once or "n" to start it later. For details on starting JEUS server, refer to Section 4.4: [Starting/Stopping Appeon Server](#).

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

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

#### 4.3.2.1 Prerequisites

- Install a third-party Web server that is compatible with the JEUS redirector plug-in. For a list of compatible third-party Web servers, refer to Section 3.2.3: [\(Optional\) Third-party Web server](#).
- Shut down the Web server and any other programs before beginning the installation process.

##### 4.3.2.1.a Prerequisites if Web Component installed to multiple third-party Web servers

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

#### 4.3.2.2 Installation instructions

There is no Setup program for installing Appeon Server Web Component in Unix/Linux. You can directly copy the Appeon Server Web Component source files to the Web server Web root in Unix/Linux.

Step 1 – Locate the *AppeonWebComponent.tar* file in the *\AppeonWebComponent* directory on the Appeon installation program.

Step 2 – Uncompress the *AppeonWebComponent.tar* file into the Web root of the Web server. For example, the Web root of Apache 1.3 is *\$Apache/htdocs*.

#### 4.3.2.3 Installing and configuring a Web server redirector plug-in

To ensure that the third-party Web server works correctly with Appeon Server, install and configure the corresponding redirector plug-in for the Web server. Instructions for installing

and configuring the redirector plug-in are provided in the *Web Server Configuration Guide* in Appeon Help.

## 4.4 Starting/Stopping Appeon Server

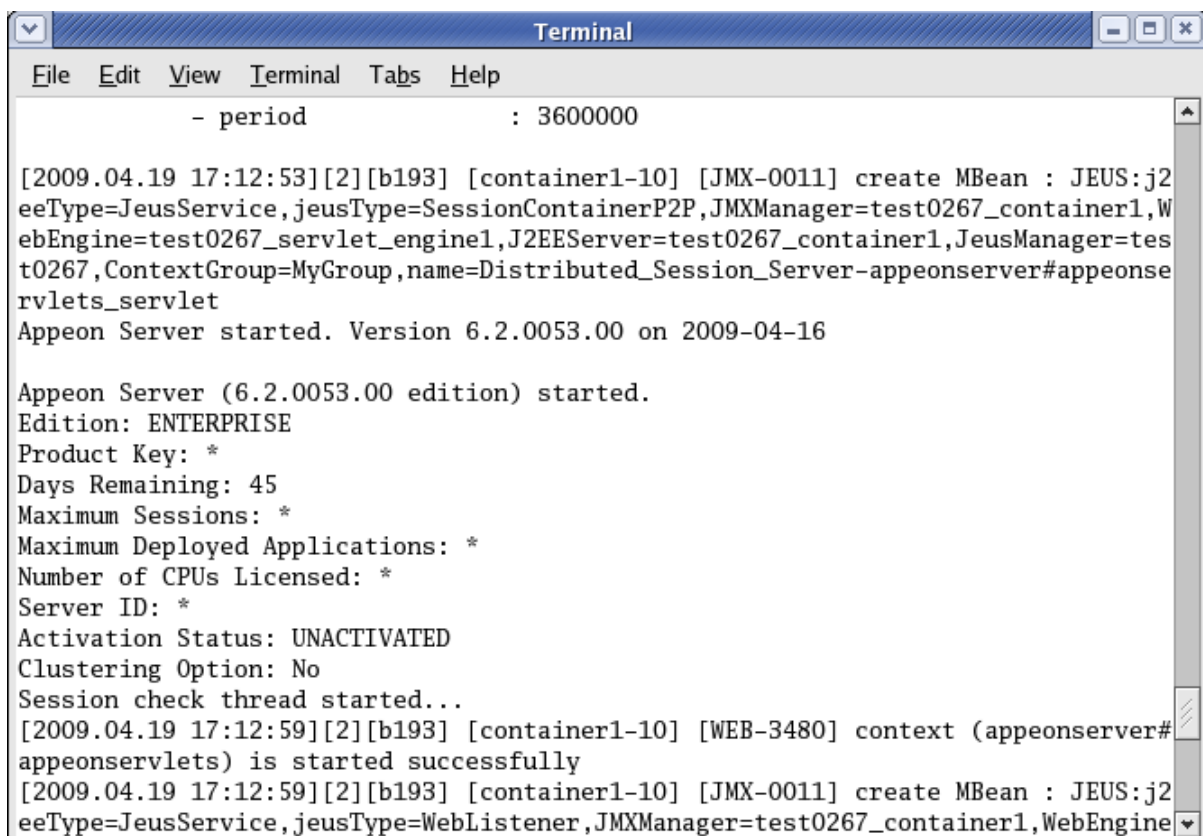
### 4.4.1 Starting Appeon Server

Change to the \$appeon/bin/ folder, for example, /export/home/tmaxsoft/IEUS/AppServer/appeon/bin/, and run the *appeonserverstart.sh* file, and then input the boot command.

When the server startup process is complete, the following message will appear in the command window:

```
Appeon Server (6.2.0053.00 edition) started.
Edition: ENTERPRISE
Product Key: *
Days Remaining: 45
Maximum Sessions: *
Maximum Deployed Applications: *
Number of CPUs Licensed: *
Server ID: *
Activation Status: UNACTIVATED
Clustering Option: No
```

Figure 4-1: JEUS server startup window



## 4.4.2 Logging in to JEUS Server Administrative Console

Step 1 – Enter any of the following URLs in a Web browser to access the Administrative Console:

- From the computer on which the server is running:

`http://localhost:8088/admin/`

- From any other computer:

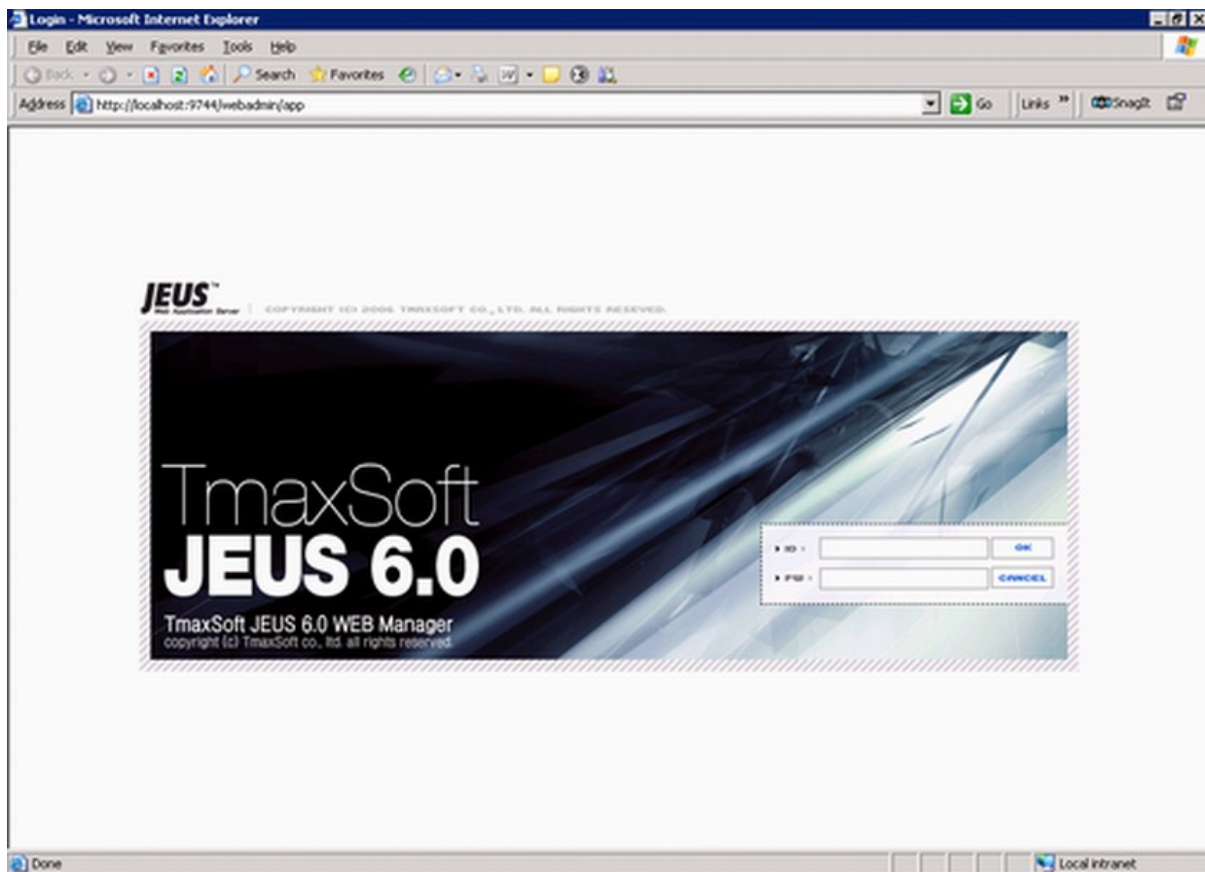
`http://HOST:8088/admin/`

*HOST* indicates the machine name or the IP address of the computer on which the server is running.

Make sure no other programs are using the same port.

The Administrative Console will be loaded, as shown in Figure 4-2.

Figure 4-2: Logon page



Step 2 – Log in to the Administrative Console using the appropriate user name.

The “JEUS Server Administrative Console” main page displays.

## 4.4.3 Stopping Apeon Server

Change to the `$JEUS/AppServer/bin/` folder, for example, `/export/home/TmaxSoft/JEUS/AppServer/bin/`, and run the `stopServer.sh` file.

```
./stopServer.sh server1
```

# 5 Configuring Appeon Server Cluster

## 5.1 Overview

Appeon 6.2 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 JEUS servers, each with Appeon Server and Appeon plug-in installed.

## 5.2 Configuration instructions

1. Install Appeon Server to multiple JEUS servers.
  - Set up a group of JEUS servers.
  - Install Appeon Server to each JEUS server by following the installation instructions in Section 4.3.1: [Appeon Server installation](#).
2. Create Appeon Server cluster in AEM.
  - Run AEM and configure the *Cluster* tool in the *Server Properties* to add Appeon Servers into a cluster. Instructions are provided in the *Appeon Server Configuration Guide*.
3. Configure the Web server for the Appeon Server cluster.
  - Set up one or more separate third-party Web server(s).
  - Install the Appeon Server Web Component on each third-party Web server by following the installation instructions in Section 4.3.2: [Appeon Server Web Component installation](#).
  - Configure the third-party Web server(s) with the Appeon plug-in. For detailed instructions, refer to the *Web Server Configuration Guide* in Appeon Help.
4. Deploy the application to the Appeon Server cluster and Web server(s). For detailed instructions, refer to the *Appeon Developer User Guide*.

## 6 Post-Installation Configuration Tasks

The previous chapters provide instructions on how to set up Apeon system architecture, including installing Apeon for PowerBuilder components, as well as configuring Apeon Server cluster.

Once the system is set up and before you start deploying applications, the post-installation configuration tasks listed in Table 6-1 will help ensure that the deployed applications run as desired. *Post-installation configuration tasks* refer to configurations required for Apeon system architecture that affect the running of all applications but do not include configuration tasks performed in Apeon Developer and Apeon Enterprise Manager for specific applications.

**Table 6-1: Post-installation tasks**

Task	Description	Detailed Instructions Given in...
Client account configuration	Configuration required for the client. Windows login account may not have rights to download the Apeon Xcelerator plug-in.	Section 6.1 in this book
Internet Explorer configuration	Configuration required for the client. Sometimes settings in Internet Explorer can prevent the deployed application from running	Section 6.2 in this book
System language setting	Configuration required for the client, Apeon Server and database server. The operating system language settings can affect the characters that are displayed in the Apeon Web application.	Section 6.3 in this book
JScript.dll version checking	Configuration required for the client. The version of jscript.dll at the client cannot be lower than 5.6.	Section 6.4 in this book
Database JDBC driver preparation	Configuration required for Apeon Server. You should copy the corresponding driver files for the database server in use to the \$WAS_HOME/lib/ folder in the machine hosting Apeon Server. \$WAS_HOME indicates the JEUS home directory.	<i>JDBC driver preparation</i> section in the <i>Apeon Server Configuration Guide</i>
Configuration for supporting DataWindow Data Cache feature	The configuration is required for database server and Web server. The DataWindow Data Cache feature can cache DataWindow data that are frequently used on the Web server to improve runtime performance, but will not work until you fulfill the configuration requirements for database server(s) and Web server(s). This feature is not available for Web servers running on Unix/Linux.	<i>DataWindow Data Cache</i> section in the <i>Apeon Server Configuration Guide</i>

Configuration for supporting dynamic DataWindows	The configuration is required for database server. Additional configuration at the database server is required for support of dynamic DataWindows.	Section 6.5 in this book
Configuration for fixing an ASE issue	Appeon provides several SQL files for you modifying the chain modes of stored procedures in ASE database to avoid the following error: “Select error: Stored procedure ... may be run only in unchained transaction mode”	Section 6.6 in this book

## 6.1 Windows account with administrator privileges

When you run an Appeon Web application for the first time, the Xcelerator plug-in must be downloaded to the client. If the login account of the Windows system does not have administrator rights, the Xcelerator plug-in download will be blocked and the application will fail to run.

Ask your administrator to assign the current login account to the Administrators group, so that it can successfully download and register the Xcelerator plug-in. For detailed instructions on how to turn off the UAC, please refer to section 6.1 in *Appeon Installation Guide for EAServer Unix/Linux*.

If using Internet Explorer 7 whose settings are closely bundled with group, you need to also make sure that the group which contains the current login account has rights to download and register ActiveX controls.

## 6.2 Internet Explorer configuration

### 6.2.1 Overview

Internet Explorer settings can prevent the Appeon Web application from running. For example, if your security is set too high, the Web files needed may not be downloaded or run properly. Verify that your Internet Explorer settings are correct before you install and use Appeon.

### 6.2.2 Verifying Internet Explorer settings are correct

You can check the Internet Explorer settings by attempting to run the Appeon Web Demos over the Internet from the Try.Sybase.Com Website:  
(<http://www.try.sybase.com/trysybase/AvailableDemos.aspx>)

Click the Appeon Web demos in the list. If you have already signed into MySybase, you will be led directly to the Appeon Demonstration page. If you are not signed in, you will be prompted for your MySybase login credentials. If you do not have a MySybase account, you can create one immediately at no cost.

If you receive error messages, such as “Create session failed” or “Load application failed”, while running Web applications, check your Security and Advanced Internet Explorer settings. Follow the instructions in Section 6.2.3: [Security settings](#) to configure Internet Explorer correctly.

## 6.2.3 Security settings

### 6.2.3.1 Choosing security level and zone

It is recommended that you set Internet Explorer's security level to the Default or Custom Level. The security level should not be set to "High".

For Apeon Web applications using any of the following features – call OLE objects or DLL files or run executable programs on the Client – it is recommended that you specify Custom Level security settings appropriately so Internet Explorer will not prevent the ActiveX control or the Apeon Xcelerator plug-in from being downloaded. Refer to Section 6.2.3.3 for information on how to specify Custom Level settings.

If you use a firewall, make sure that it does not block JavaScript files and permits connection to the specified port number if port 80 is not used.

Typically, if Web applications are within a corporate LAN, they fall into the *Local intranet* zone; if you access Apeon Web applications on the Internet, they belong to the *Internet* zone. Ask your network administrator if you cannot decide to which zone you should apply the security settings.

### 6.2.3.2 Specifying Default level settings

To set the Internet Explorer security level to the default level:

- Select Tools | Internet Options; the Internet Options dialog box is displayed.
- Click the Security tab.
- Click the appropriate zone.
- Click the *Default Level* button on the Security tab and click *Apply*.

### 6.2.3.3 Specifying Custom level settings

If you plan to use a custom level, select the zone used to access and run Apeon Web applications and verify that the security options are as shown below:

- Allow previously unused ActiveX controls to run without prompt (If Internet Explorer 7) (Enabled)
- Download signed ActiveX controls (or Download unsigned ActiveX controls in Windows XP) (Enabled)
- Initialize and script ActiveX controls not marked as safe (Prompt)
- Run ActiveX controls and plug-ins (Enabled)
- Script ActiveX controls marked safe for scripting (Enabled)
- File download (Enabled)
- Active scripting (Enabled)
- Allow active content to run in files on My Computer (If the version of Internet Explorer is 6.0 SP2) (Enabled)

To keep you protected from browsing with unsafe settings, Internet Explorer 7 warns you with an Information Bar when current security settings may put you at risk. You can instantly reset Internet Explorer security settings to the "Medium-High" default level by clicking the "Fix My Settings" option in the Information Bar. However, after performing this action, the

access to Apeon applications may fail, because settings of ActiveX control may be disabled. In this case, check that settings listed above are correctly set.

### 6.2.4 Add-on settings (for Internet Explorer 7)

Internet Explorer add-on settings determine whether Apeon Xcelerator plug-in can run correctly, therefore you need to perform the following configuration.

#### 6.2.4.1 Enabling Xcelerator add-on

After Apeon Xcelerator plug-in is successfully downloaded and before the application is run, the plug-in must be enabled in Internet Explorer using Add-on Management with the following steps:

Step 1 – Select Tools | Internet Options from Internet Explorer 7.

Step 2 – In the Internet Properties dialog box, click the Programs tab.

Step 3 – On the Programs tab, click *Manage Add-ons*.

Step 4 – Select Xcelerator plug-in from the list and then click *Enable*.

Step 5 – In the Add-on Status box, click *OK*.

Step 6 – Click *OK* to close Manage Add-ons.

#### 6.2.4.2 Discarding add-on disabled mode

To help troubleshoot difficulties launching Internet Explorer or reaching specific websites, you can start in "No-Add-ons" mode where only critical system add-ons are enabled. However, browser window started in "No-Add-ons" mode will not be able to access the Apeon application. In this case, exit Internet Explorer and restart it in normal mode.

### 6.2.5 Internet Explorer files caching

The Web file caching functionality of Internet Explorer should be fully used in order to ensure optimal performance. This will significantly reduce the time required to load and start an application following the initial load. The configuration outlined below will ensure that you achieve the best performance while safeguarding your application from becoming “stale” (such that out of date cache settings override recent changes).

Step 1 – Open Internet Explorer and select Tools | Internet Options. Verify that the *Empty Temporary Internet Files folder when browser is closed* option is not checked under the Advanced tab of Internet Options.

Step 2 – Click the *Settings* button under the General tab to configure the Temporary Internet Files settings.

Step 3 – Select the *Automatically* radio button and verify that the *Amount of disk space to use* scroll box is set to a reasonable number, such as 200 MB.

Now the browser is set to automatically check for newer versions of a Web application. The browser will also check to see that there is enough allocated space in the Temporary Internet Files folder to allow for caching Apeon Web applications as well as other Web applications and Web sites.

Note: If you experience problems or errors when accessing a Web application after deployment, the cached Web application files may be the cause. There are two ways to solve this problem:

- Check the *Empty Temporary Internet Files folder when browser is closed* option (under the Advanced tab of Internet Options) to ensure that no cached files remain whenever Internet Explorer is restarted or
- Manually delete the temporary Internet files: go to Tools | Internet Options, click the *Delete Files...* button, restart Internet Explorer and try again.

Allowing the temporary Internet files folder to be emptied each time the browser is closed is an option recommended for use only during the development stage. During development, it is best to have the latest Web application loaded in the browser to avoid any problems caused by cached files. When your Web application is ready for production deployment, this setting can be disabled (unchecked) so that the Web application can be cached at each Client PC for better scalability and Client-side performance.

### 6.2.6 Internet Explorer advanced settings

Some options under the Advanced tab will prevent Apeon Web applications from running properly, such as when *Always send URLs as UTF-8* is disabled. If you cannot load an Apeon Web application, you should try restoring the default settings to see if that resolves the problem. You can restore the default settings by clicking the *Restore Defaults* button.

Note: Clicking the *Default Settings* button will remove the check from *Use HTTP 1.1 through proxy connections*. This setting is required if you access your application through a proxy server.

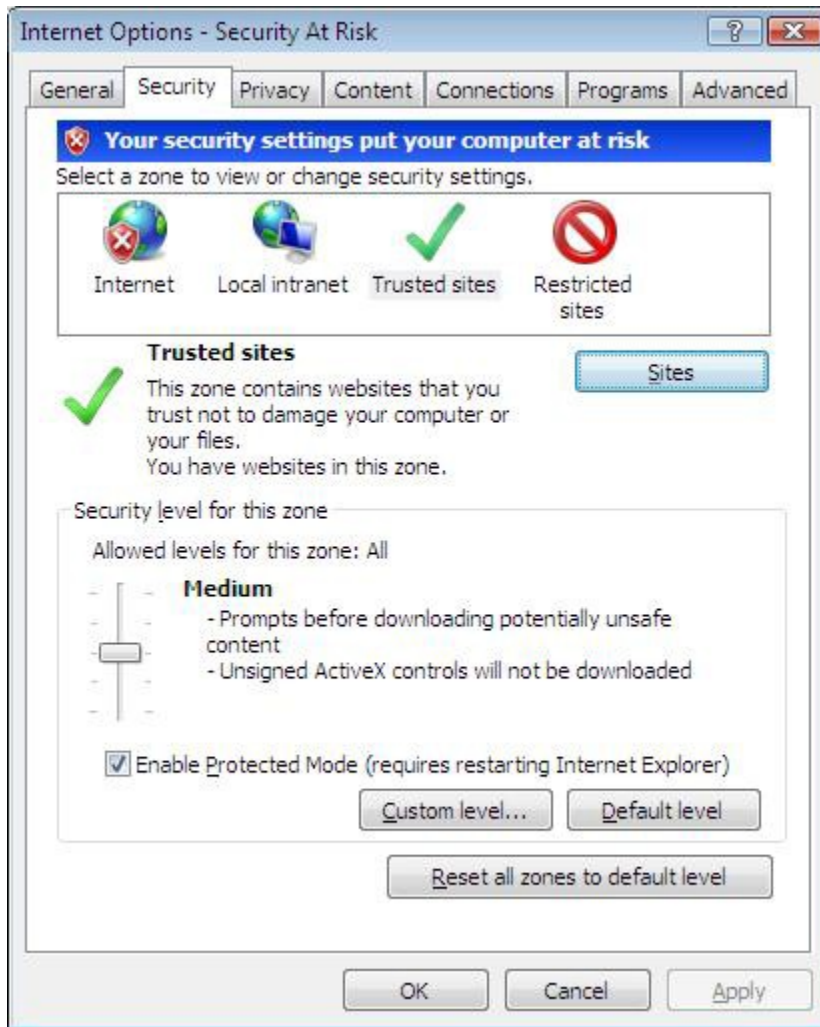
### 6.2.7 Additional configurations of IE 7 under Windows Vista

To run Apeon Web application in Internet Explorer 7 under Windows Vista, the Internet Explorer security settings must be properly configured. There are two ways:

**1st way (recommended):** Add the application website to Trusted sites zone. Below are detailed steps.

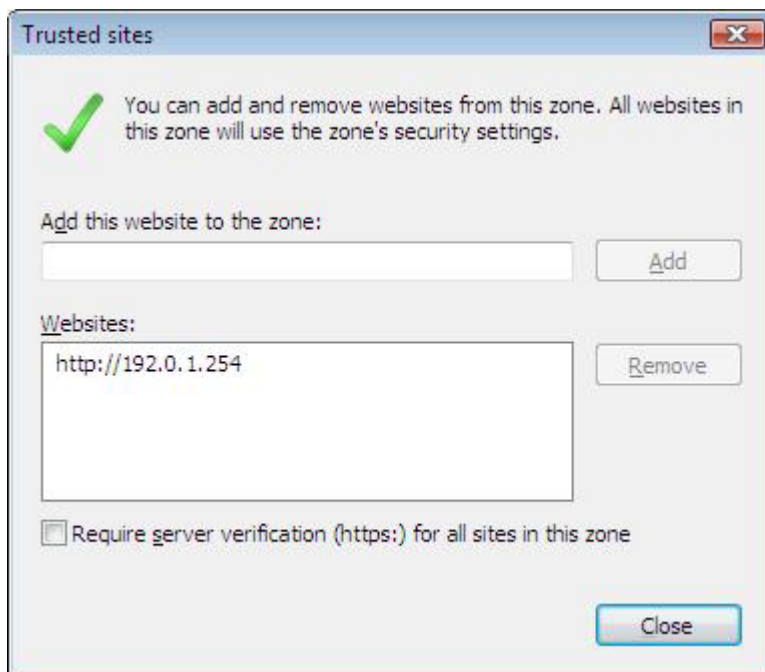
Step1 – Click *Trusted sites* and then click the *Sites* button, as shown in the Figure 6-1.

**Figure 6-1: Trusted sites zone settings**



Step 2 – Add the application website to the Websites list.

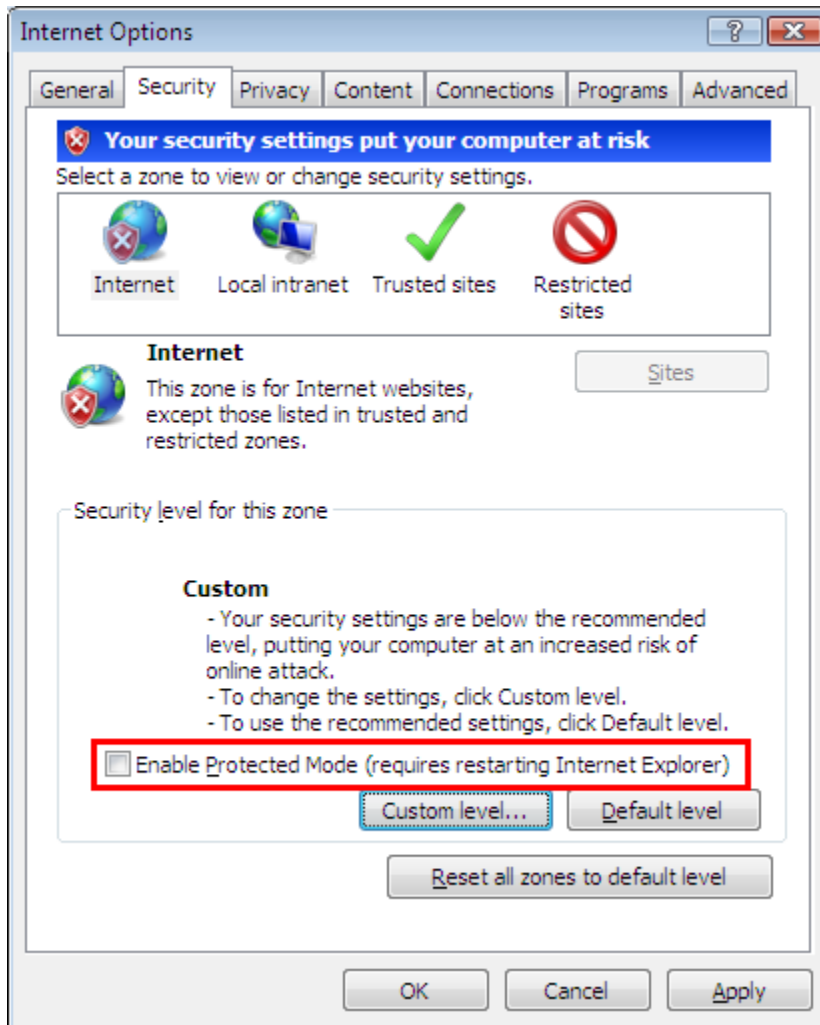
**Figure 6-2: adding application website**



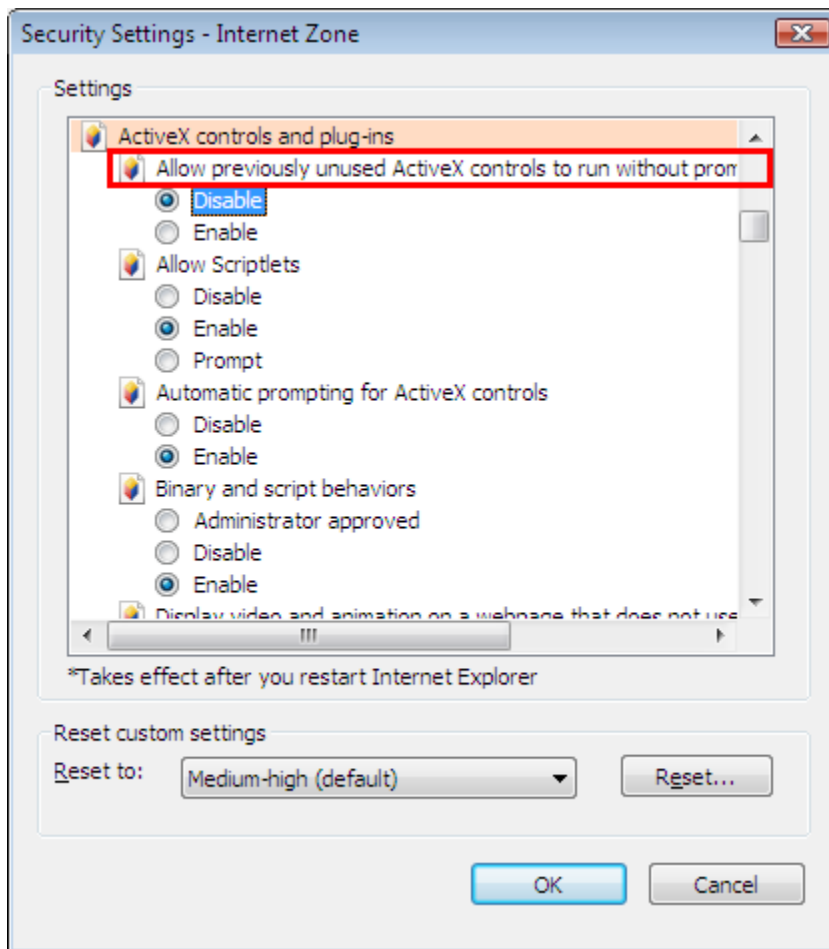
**2<sup>nd</sup> way:** configure the security settings of Internet zone. Below are detailed steps.

Step1 – Disable the “Enable Protected Mode” option.

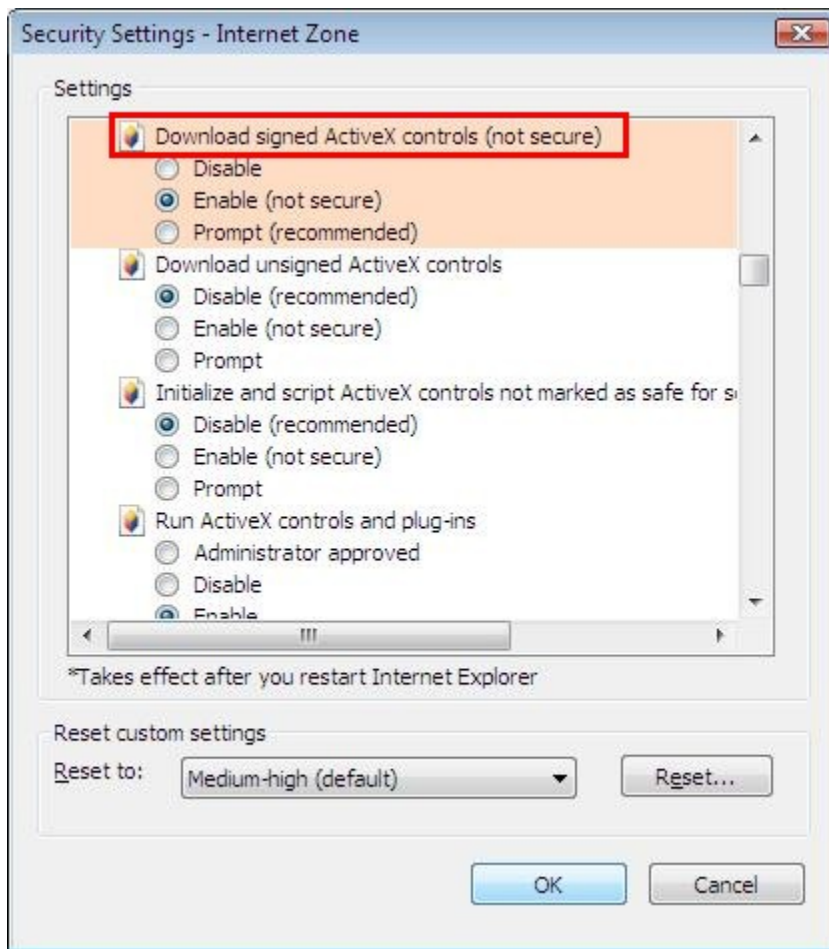
**Figure 6-3: Internet zone settings**



Step 2 – Enable the “Allow Previously unused ActiveX control to run without prompting” option.

**Figure 6-4: Internet zone settings**

Step 3 – Enable the “Download signed ActiveX controls” option.

**Figure 6-5: Internet zone settings**

### 6.3 System language settings

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

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

#### To set the language settings in Windows operating system:

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

Step 2 – Double-click *Regional Options*.

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

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

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

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

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

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

### **To set the language settings in the Unix/Linux operating system:**

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

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

## **6.4 Checking the version of JScript.dll**

Check the version of JScript.dll at the client with the following steps:

Step 1 – Go to the `\WINNT\system32` folder at the client.

Step 2 – Open the Properties window for the `jscript.dll` file.

Step 3 – Get the version information in the Version tab of Properties.

The version of `jscript.dll` should be 5.6.x.xxxx or above. If the version number is older than 5.6.x.xxxx, please download the latest Windows Script Engine for JScript from <http://www.microsoft.com/downloads/>.

## **6.5 Configuration for supporting dynamic DataWindows**

The following configuration at the database server is required for support of dynamic DataWindows: Find the following SQL files in the “`/sql/dynamicsql`” folder under the Apeon Server installation directory (for example, `$WAS_HOME/appeon/sql/dynamicsql`) and install the corresponding SQL for the database you are using.

- `install_appeon_syntaxfromsql_ASA.sql`
- `install_appeon_syntaxfromsql_ASE.sql`
- `install_appeon_syntaxfromsql_DB2.sql`
- `install_appeon_syntaxfromsql_IQ.sql`
- `install_appeon_syntaxfromsql_MSSQL.sql`
- `install_appeon_syntaxfromsql_ORACLE.sql`

For detailed instructions, refer to the *Dynamic DataWindow* section in *Apeon Features Help*.

## **6.6 Configuration for ASE Chained mode issue**

### **6.6.1 Known issue with ASE Chained Mode**

A PowerBuilder application can execute ASE stored procedures successfully. However, when the PowerBuilder application is converted to the Web, the following error may occur:

“Select error: Stored procedure 'dbo.up\_edw001\_001' may be run only in unchained transaction mode. The 'SET CHAINED OFF' command will cause the current session to use unchained transaction mode”

There are three ASE stored procedure (SP) modes: chained, unchained and anymode. There are two ASE transaction modes: chained and unchained. For Web applications:

- (1) If the transaction mode is chained, the SP running mode must be chained or anymode.
- (2) If the transaction mode is unchained, the SP running mode must be unchained or anymode.
- (3) If the transaction mode and SP mode do not match the requirements in (1) or (2), the error occurs.

### **6.6.2 Stored procedures provided for solving the issue**

Appeon provides two stored procedures that help modify the modes of ASE stored procedures to ensure that the stored procedures meet the requirements in (1) or (2). The following files are located in the “/sql/asechain\_sql” folder under the Appeon Server installation directory (for example, \$WAS\_HOME/appeon/sql/asechain\_sql).

- (1) readme.txt
- (2) install\_appeon\_rebuildchainmode.sql: modifies the modes of ASE stored procedures
- (3) uninstall\_appeon\_rebuildchainmode.sql: restores the original modes of ASE stored procedures

Follow the instructions in the “readme.txt” for the method of modifying the stored procedure modes with the two SQL files.

## 7 Uninstalling Appeon 6.2

### 7.1 Overview

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

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

### 7.2 Uninstalling Appeon Server

Step 1 – Shut down Appeon Server and JEUS.

Step 2 – Remove the *appeonserver* application deployed to the JEUS through the JEUS Console.

Step 3 – Run the *apbuninstall.sh* file in the “\_uninst” folder of the JEUS directory, for example, `/export/home/TmaxSoft/JEUS/AppServer/_uninst`.

Step 4 – Input “y” and press Enter to confirm uninstall of Appeon Server.

Step 5 – After the uninstall process is complete, remove any files or folders left in the Appeon installation folder.

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

To uninstall Appeon Server Web Component on Unix/Linux, go directly to the Web root of the Web server and remove the entire “appeon” folder.

#### 7.3.1 Web Component uninstall if multiple third-party Web servers are involved

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

## 8 Technical Support

Technical support information is available at <http://www.sybase.com/support>. Please click the *Contact Support* link for help.

When logging a case, you may be requested to provide Sybase Technical support with your environment information as well as a reproducible test case. The following table outlines some of the information that you may need to provide to aid in troubleshooting your issue.

**Table 8-1: Files required for technical support**

File Type	File Name
JEUS configuration file	\$WAS_HOME/startServer.sh \$WAS_HOME indicates the home directory of the JEUS server.
JEUS log file	Files in the \$WAS_HOME/logs/server1 folder
Appeon Server configuration file	All files in the \$WAS_HOME/appeon/repository/\$instancename/config folder
Appeon Server log file	All files in the \$WAS_HOME/appeon/repository/\$instancename/log folder
Appeon Server Repository DB	\$WAS_HOME/appeon/db/appeondb.script
Appeon license file	\$WAS_HOME/appeon/license.appeon
Web server configuration file	httpd.conf
Web Page file	Web server path\application name>window name.html Web server path\application name>window name.js Web server path\application name\all DataWindows on window.xml Notes: 1) The Web server Web root of JEUS is usually \$WAS_HOME/installedApps. 2) If the window named includes inheritance, then also supply all ancestor HTML and JavaScript files.
PowerBuilder exported source code file	PowerBuilder application path\exported window name.srw PowerBuilder application path\exported DataWindow names.srd Note: Exported windows should include exported ancestor windows and exported ancestor user objects.

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