JD Edwards EnterpriseOne

HTML Server on WebSphere Reference Guide

Release 9.1 for UNIX

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JD Edwards EnterpriseOne HTML Server on WebSphere Reference Guide, Release 9.1 for UNIX

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Preface

Welcome to the JD Edwards EnterpriseOne Tools HTML Server on WebSphere Reference Guide for UNIX.

Audience

This guide is intended for system administrators and technical consultants who are responsible for installing and configuring IBM WebSphere and JD Edwards EnterpriseOne.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

You can access related documents from the JD Edwards EnterpriseOne Release Documentation Overview pages on My Oracle Support. Access the main documentation overview page by searching for the document ID, which is 876932.1, or by using this link:

https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=876932.1

To navigate to this page from the My Oracle Support home page, click the Knowledge tab, and then click the Tools and Training menu, JD Edwards EnterpriseOne, Welcome Center, Release Information Overview.

This guide contains references to server configuration settings that JD Edwards EnterpriseOne stores in configuration files (such as jde.ini, jas.ini, jdbj.ini, jdelog.properties, and so on). Beginning with the JD Edwards EnterpriseOne Tools Release 8.97, it is highly recommended that you only access and manage these settings for the supported server types using the Server Manager program. See the *JD Edwards EnterpriseOne Server Manager Guide*.

Conventions

The following text conventions are used in this document:

Convention	Meaning
Bold	Indicates field values.
Italics	Indicates emphasis and JD Edwards EnterpriseOne or other book-length publication titles.
`Monospace`	Indicates a JD Edwards EnterpriseOne program, other code example, or URL.

1

Accessing Certifications (formerly Minimum Technical Requirements)

Customers must conform to the supported platforms for the release as detailed in the Certifications for JD Edwards EnterpriseOne. In addition, JD Edwards EnterpriseOne may integrate, interface, or work in conjunction with other Oracle products. Refer to the following link for cross-reference material in the Program Documentation for Program prerequisites and version cross-reference documents to assure compatibility of various Oracle products.

http://www.oracle.com/corporate/contracts/index.html

Access the Certifications from My Oracle Support (https://support.oracle.com) by searching for this product from the Certifications tab:

- **JD Edwards EnterpriseOne HTML Server**

2

Understanding Server Manager and This Guide

Beginning with JD Edwards EnterpriseOne Tools Release 8.97, a new tool called Server Manager is provided. This tool is a complete replacement for the JD Edwards EnterpriseOne legacy management and installation tools including internal components known as Server Administration Workbench (SAW), Server Management Console (SMC), and the InstallShield based installers previously used to install or upgrade JD Edwards EnterpriseOne servers. As a result, you should refer to the *JD Edwards EnterpriseOne Server Manager Guide* for details on installing and configuring all JD Edwards EnterpriseOne server products, with the exception of the JD Edwards EnterpriseOne Deployment Server, whose installation is described in this guide. This guide only contains reference information for functionality outside the Server Manager tool.

> **Note:** Management of JD Edwards EnterpriseOne Tools Release 8.96 or earlier must be done using the existing tools. Server Manager cannot be used to manage any JD Edwards EnterpriseOne Tools Release prior to 8.97.

The Server Manager tool provides:

- **Web Based System Management**

  You can securely access and manage your JD Edwards EnterpriseOne installation from anywhere using a standard web browser.

- **Remote Deployment and Upgrades**

  You can install, uninstall, and update your JD Edwards EnterpriseOne servers regardless of their physical location or platform.

- **Remote Operational Control**

  You can start and stop any of your JD Edwards EnterpriseOne servers, Oracle J2EE application servers, or supported third party J2EE application servers directly from the Management Console.

- **Secure Administrative Tasks**

  Server Manager permits you to specify which existing JD Edwards EnterpriseOne users have access to the Management Console control which JD Edwards EnterpriseOne servers the user may view, and specify which administrative tasks the user may perform on those servers.

- **Configuration Management**

Server Manager provides a web-based interface for managing the configuration of all managed servers. The application presents each configuration item along with integrated help describing the configuration setting.

> **Note:** Beginning with the availability of Server Manager, it is strongly advised that all changes to configuration files (such as jde.ini, jas.ini, jdbj.ini, jdelog.properties, etc.) for any JD Edwards EnterpriseOne server managed by Server Manager be accomplished using only the Management Console interface of Server Manager. In addition to providing usability improvements, using Server Manager reduces the risk of introducing configuration errors by providing dropdowns that contain only valid values where applicable. Further, the tool provides a useful audit history for any modifications made to configurations using Server Manager.

- **Configuration Comparison**

  Use Server Manager to compare the configuration of two or more servers to identify configuration differences. You can compare configurations through the Management Console application regardless of the platform or location of the actual JD Edwards EnterpriseOne server. You can also compare individual servers with the default configuration of the corresponding server groups to which the servers belong.

- **Audit History**

  Server Manager maintains a history of changes made to the managed servers. This includes a history of each configuration change, each server start and stop, and each tools release update, including the user that performed the change or operation. The Management Console application provides mechanisms to query and view the audit history that is maintained.

- **Integrated EnterpriseOne Software Management**

  Use Server Manager to centrally maintain all your JD Edwards EnterpriseOne server tools releases, including the ability to copy the software to the remote server machines.

- **Logical Server Grouping**

  Server Manager allows you to group servers with a similar purpose. These groups can include any of the server types such as Enterprise Server, HTML Server, and so on. A default, or template, configuration is maintained for each server group.

- **Application Release Independence**

  Server Manager is delivered with JD Edwards EnterpriseOne Tools Release 8.97 and is compatible with any supported JD Edwards EnterpriseOne application release beginning with Application Release 8.9 through the currently supported release. No electronic software updates (ESUs) are required to support Server Manager.

- **Self-Contained Installation**

  The installation of Server Manager delivers all components that are required by the Management Console application. There are no third party requirements regardless of your existing or intended middleware topology (for example, WebLogic Server, Oracle Application Server, WebSphere Application Server, or no application server).

■ **Tools Release Independence**

Newer versions of the Server Manager application will continue to support the management of earlier tools releases back to JD Edwards EnterpriseOne Tools Release 8.97.

3

Installing, Updating, and Configuring WebSphere 8.5 and 8.5.5

> **Note:** Unless otherwise noted, all references to WebSphere version 8.5 are also applicable to WebSphere version 8.5.5.

Beginning with JD Edwards EnterpriseOne Tools Release 9.1 Update 2.3, the IBM WebSphere Application Server Release 8.5 is supported.

Beginning with JD Edwards EnterpriseOne Tools Release 9.1 Update 3.3, the IBM WebSphere Application Server Release 8.5.5 is supported. This fix pack can be installed as a new installation or an update.

Relative to WebSphere 7.0, with IBM WebSphere 8.5 the installation procedure has changed dramatically. You will now use the IBM Installation Manager as a central hub to manage the installation process. The IBM Installation Manager is designed to make the installation procedure much simpler and easier than in prior releases.

Additionally IBM WebSphere Application Server 8.5 supports SDK 1.6 as the basic configuration but with SDK 1.7 as an optional configuration. For JD Edwards EnterpriseOne, the implementation requires SDK 1.7 as the default run-time configuration for WebSphere Application Server 8.5. Therefore, after WebSphere Application Server is installed with the basic configuration, you **MUST** change the default SDK to 1.7.

This chapter describes these tasks:

- Section 3.1, "Before You Begin"
- Section 3.2, "Installing the IBM Installation Manager"
- Section 3.3, "Installing an IBM WebSphere Application Server 8.5 or 8.5.5"
- Section 3.4, "Creating a New Profile for WebSphere Application Server 8.5"
- Section 3.5, "Installing the IBM HTTP Server 8.5"
- Section 3.6, "Installing Web Server Plug-ins for IBM WebSphere Application Server"
- Section 3.7, "Enabling SDK 7.0 on WebSphere Application Server 8.5"
- Section 3.8, "Switching to SDK 7.0 on WebSphere Application Server 8.5"
- Section 3.9, "Installing the WebSphere Customization Toolbox"
- Section 3.10, "Installing or Updating to WebSphere 8.5 Fix Pack"
- Section 3.11, "Configuring the IBM Web Server Plug-in"

- Section 3.12, "Setting the HTTP Server Properties"
- Section 3.13, "Manually Generating a Plug-in"
- Section 3.14, "Manually Editing the HTTP Configuration File"

3.1 Before You Begin

Before you begin the installation of WebSphere 8.5 on UNIX systems, you should perform the steps in this section.

- In WebSphere Application Server Version 8.5 information Center, review the section entitled: "Preparing the operating system for product installation". Update your system according to the requirements.

  http://pic.dhe.ibm.com/infocenter/wasinfo/v8r5/index.jsp?topic=%2Fcom.ibm.websphere.installation.nd.doc%2Fae%2Ftins_prepare.html

- By default, the IBM WebSphere Application Server runs as root. However, it can also be run by using a non-root user ID. The non-root user can install WebSphere Application Server in both silent and interactive nonAdmin mode for full product installations and removals, incremental feature installations, and edition upgrades.

- Non-administrator installations install an operational product

  If some portion of an installation requires administrator privileges, Installation Manager provides an option so that the non-administrator can install an operational product without enabling the privileged option whenever possible.

- Install Manager identifies root-only options

  Installation Manager clearly identifies privileged options by disabling such option in the interface of the non-administrator.

  - Open the install.ini from the Installation Manager directory
  - Change the -accessRights from **admin** to **nonadmin**

- Download all the required software from Oracle JD Edwards Update Center

  - WebSphere Application Server Network Deployment - 3 Disk Images
  - WebSphere Application Server Supplement - 3 Disk Images
  - WebSphere Application Server SDK 1.7 - 3 Disk Images

- Update the server with the latest OS patches.

3.2 Installing the IBM Installation Manager

For all supported platforms, you must install the IBM Installation Manager before an IBM WebSphere Application Server can be installed. Follow the steps below to install the Installation Manager.

1. After you have downloaded and unzipped the IBM Installation Manager software, locate the install executable.

Install Packages
Select packages to install:

Installation Packages	Status	Vendor	License Key Type
▽ ☑ 🗊 IBM® Installation Manager			
☑ 🗊 Version 1.5.2	Will be installed	IBM	No key required

☐ Show all versions

Check for Other Versions, Fixes, and Extensions

Details

IBM® Installation Manager 1.5.2

⑦   < Back   Next >   Install   Cancel
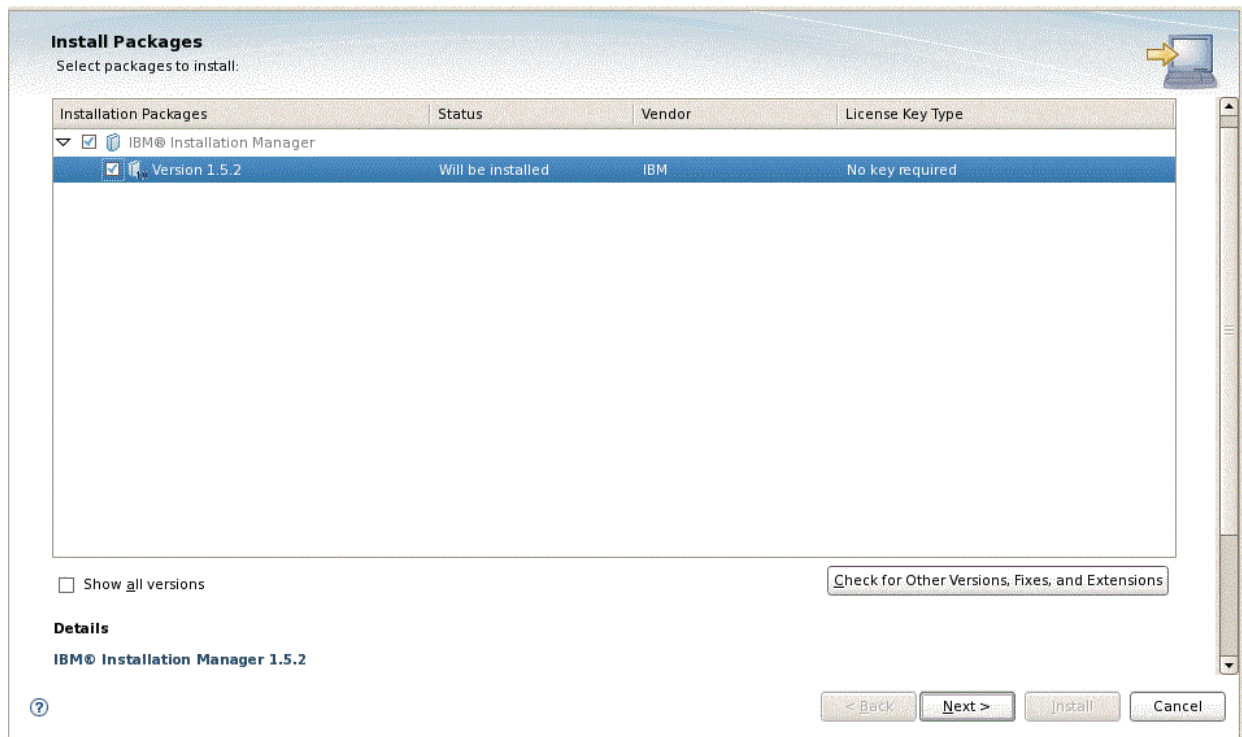
2. On Install Packages, package selection, select the check box for the latest version of the IBM Installation Manager.

3. Click the **Next** button.
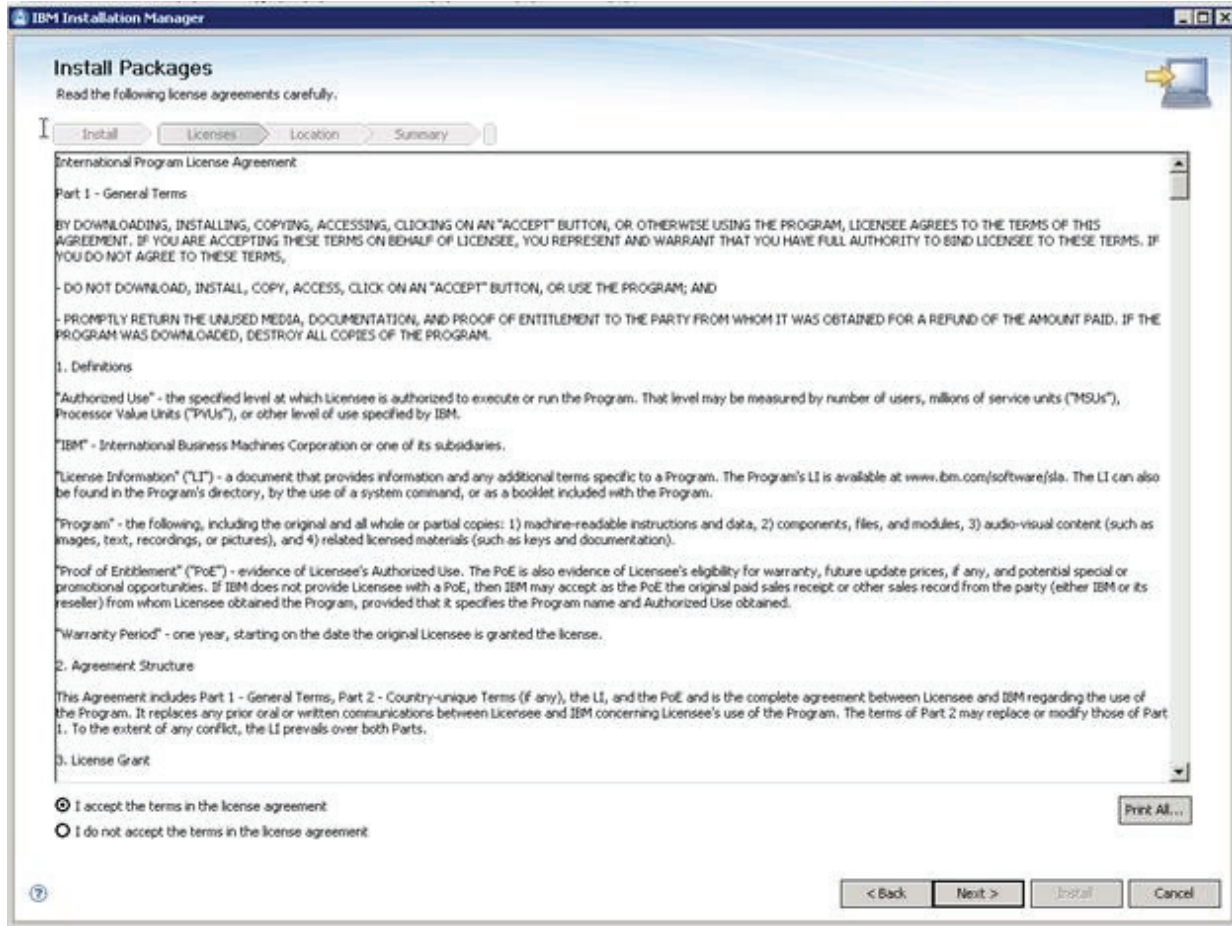
4. On Install Packages, review the International Program License Agreement and click the radio button to accept the terms if you want to continue with the installation.

5. Click the **Next** button.

Install Packages
Select a location for Installation Manager.

| Install | Licenses | Location | Summary |

Once installed, IBM Installation Manager will be used to install, update, modify, manage and uninstall your packages.

Installation Manager Directory: `/u01/WebSphere85/InstallationManager/eclipse` [Browse...]

Disk Space Information

Volume	Available Space
/u01	297.16 GB

[< Back] [Next >] [Install] [Cancel]

6. On Install Packages, select a location for Installation Manager, enter an installation directory.

For example:

`/u01/WebSphere85/InstallationManager/eclipse`

7. On Install Packages, summary information, review the summary information and click the **Install** button to begin the installation.

8. On Install Packages, if you are ready to install using the IBM Installation Manager, click the **Restart Installation Manager** button.

9. After the Installation Manager is restarted, continue to the next section in this chapter entitled: Section 3.3, "Installing an IBM WebSphere Application Server 8.5 or 8.5.5".

3.3 Installing an IBM WebSphere Application Server 8.5 or 8.5.5

IBM WebSphere Application Server (WAS) 8.5 is installed through the IBM Installation Manager. Fix Pack 8.5.5 can be installed as a new installation or an update. For purposes of this procedure, all references are to release 8.5, but you can substitute 8.5.5 where applicable.

To install an IBM WebSphere Application Server 8.5:

1. Start the IBM Installation Manager, which you must have previously installed as described in the preceding chapter of this guide entitled: Section 3.2, "Installing the IBM Installation Manager".

   To start the Installation Manager manually, execute IBMIM from `<IM_HOME>/eclipse` folder. For example:

   `/u01/WebSphere85/InstallationManager/eclipse`

   The IBM Installation Manager screen displays.

2. You must configure the software repository in the Installation Manager before you can start the product installation. On the initial screen of the IBM Installation Manager, navigate File > Preferences.
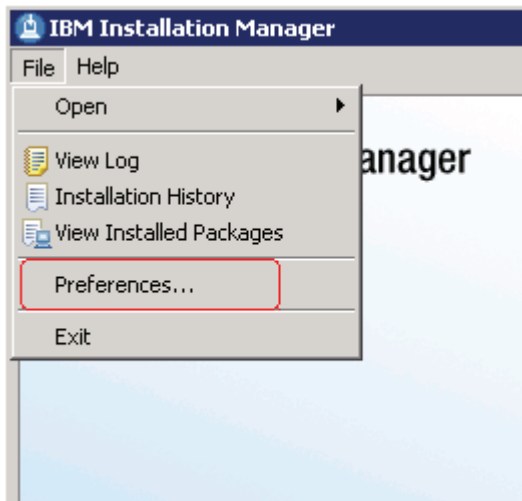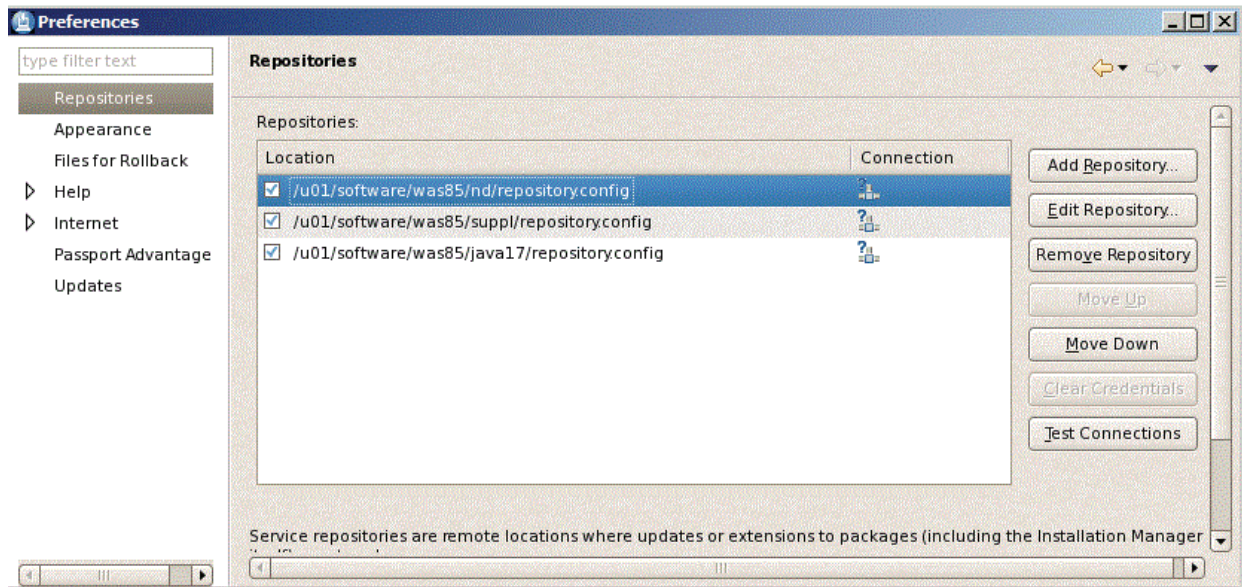
3. On Preferences, click on the **Add Repository...** button and enter the location of the `repository.config` for each of the product. For example:

`/u01/software/was85/nd/repository.config`

`/u01/software/was85/suppl/repository.config`

`/u01/software/was85/java17/repository.config`
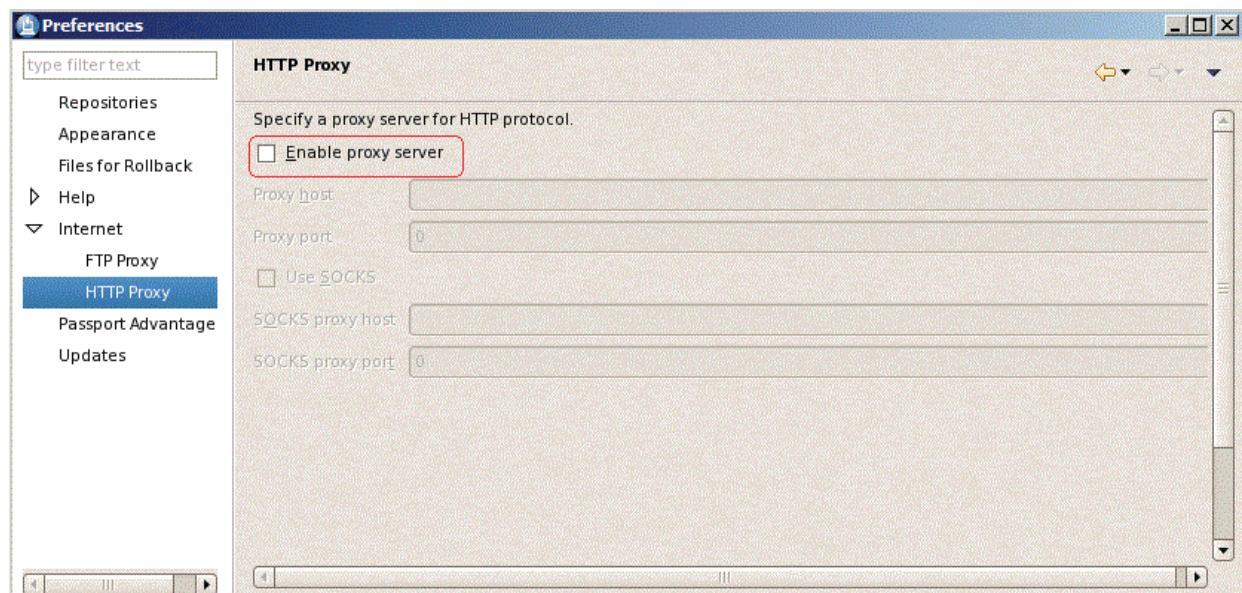
4. Optionally, if needed for your installation, you should enable a proxy server and enter proxy information.

5. After all repositories are added, click the **Install** option from the Installation Manager.

IBM Installation Manager displays a list of available products, as shown in the following example:
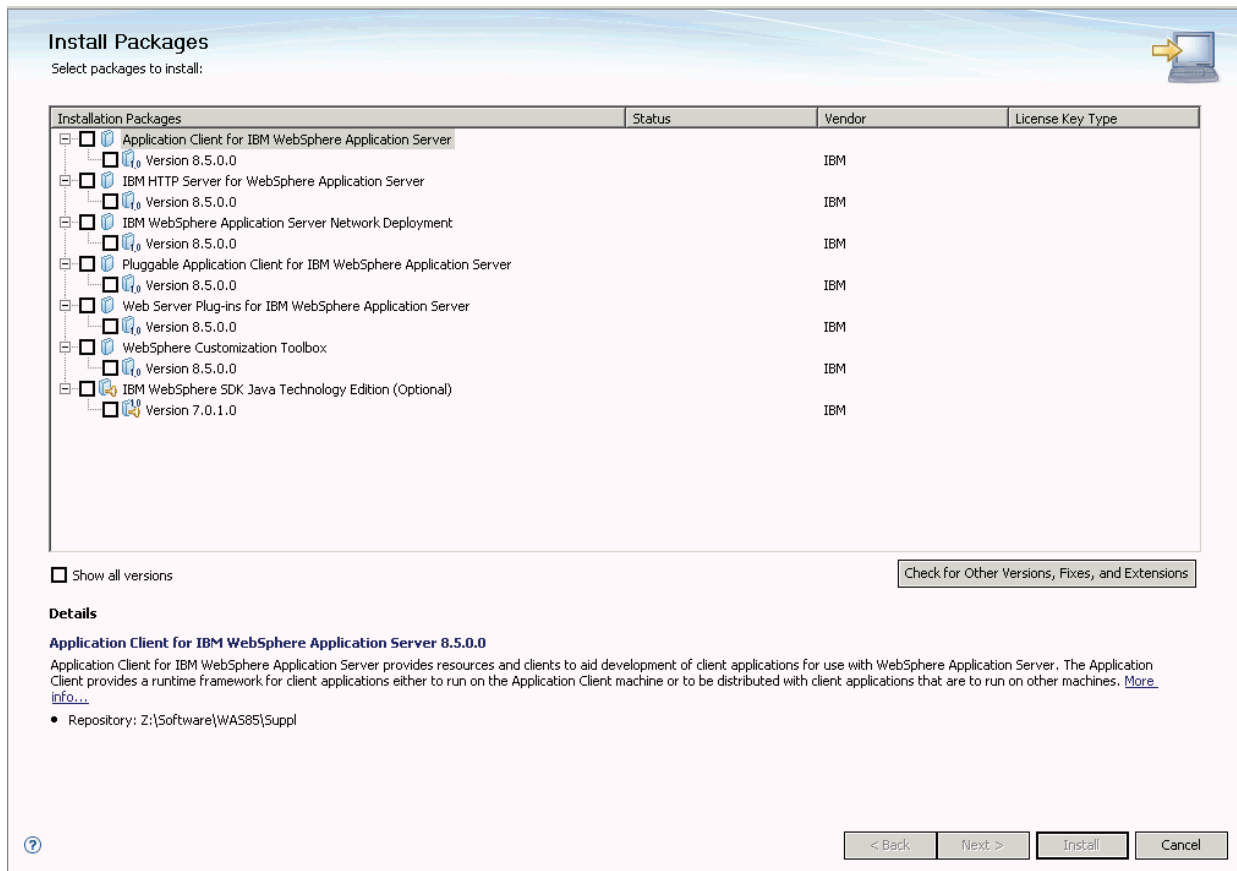
6. The IBM Install Manager displays a list of available products (packages) to install.
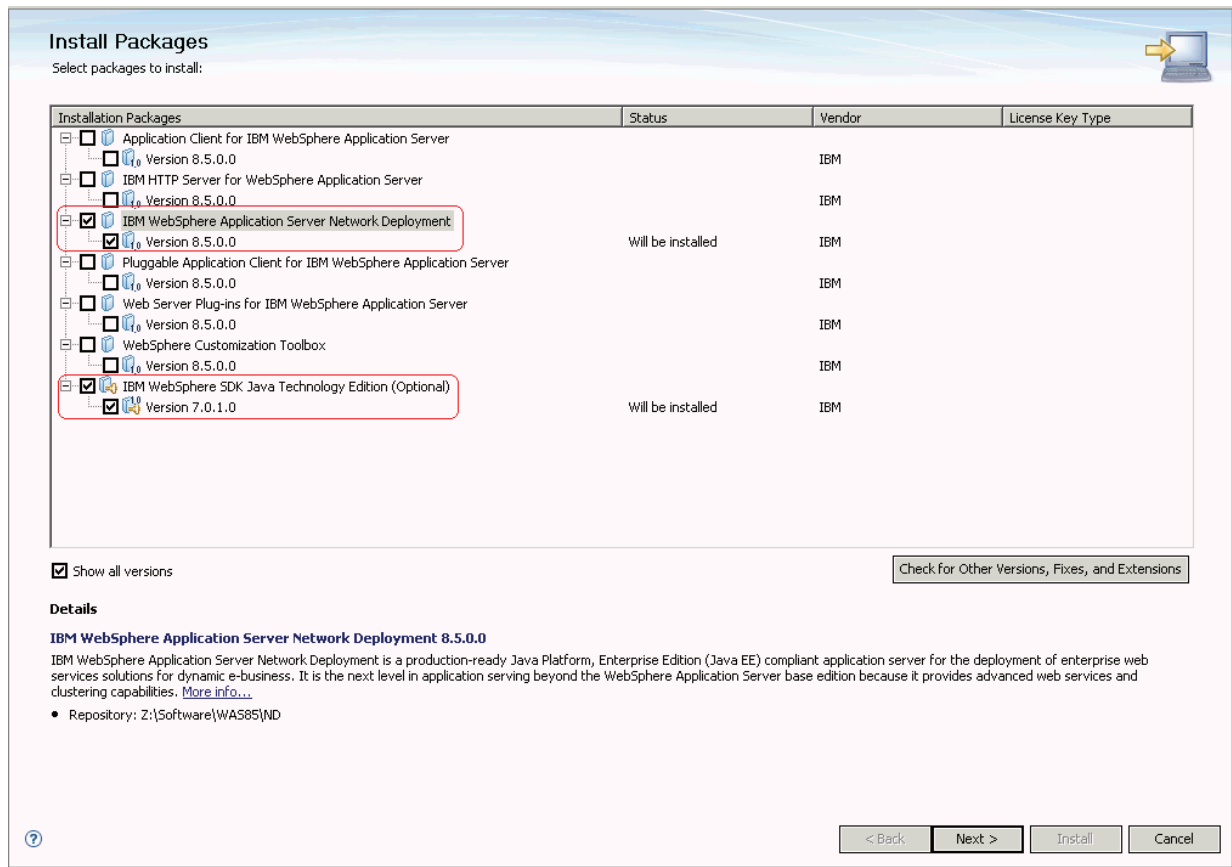
7. On Install Packages, select packages, select the products you want to install such as:

   ■ WebSphere Network Deployment

   ■ SDK 1.7

8. Click the **Next** button.

> **Note:** Once the installation begins, the installer may prompt to inform you that updates are available.

If Updates are available, the installer will display a list as shown in this example:

Fixes	Recommended	Vendor
☐☑ 🛡 IBM WebSphere Application Server Network Deployment 8.5.0.0		IBM
☑ 🗎 **8.5.0.0-WS-WAS-IFPM62795 8.5.0.20120503_1150**	✓	
☑ 🗎 **8.5.0.0-WS-WAS-IFPM63690 8.5.0.20120611_1318**	✓	
☑ 🗎 **8.5.0.0-WS-WAS-IFPM63827 8.5.0.20120503_1507**	✓	
☑ 🗎 **8.5.0.0-WS-WASND-DistExceptIBMi-IFPM64890 8.5.0.20120608_1634**	✓	
☑ 🗎 **8.5.0.0-WS-WASND-DistExceptIBMi-IFPM66137 8.5.0.20120615_0733**	✓	
☑ 🗎 **8.5.0.0-WS-WASProd-IFPM64186 8.5.0.20120611_1543**	✓	
☑ 🗎 **8.5.0.0-WS-WASProd-MultiOS-IFPM63479 8.5.0.20120613_2056**	✓	

☑ Show recommended only   [Select Recommended] [Check for Other Fixes]

9. If the IBM Install Manager displays a list of updates, it is recommended that you click the **Select Recommended** button to accept and install the updates.
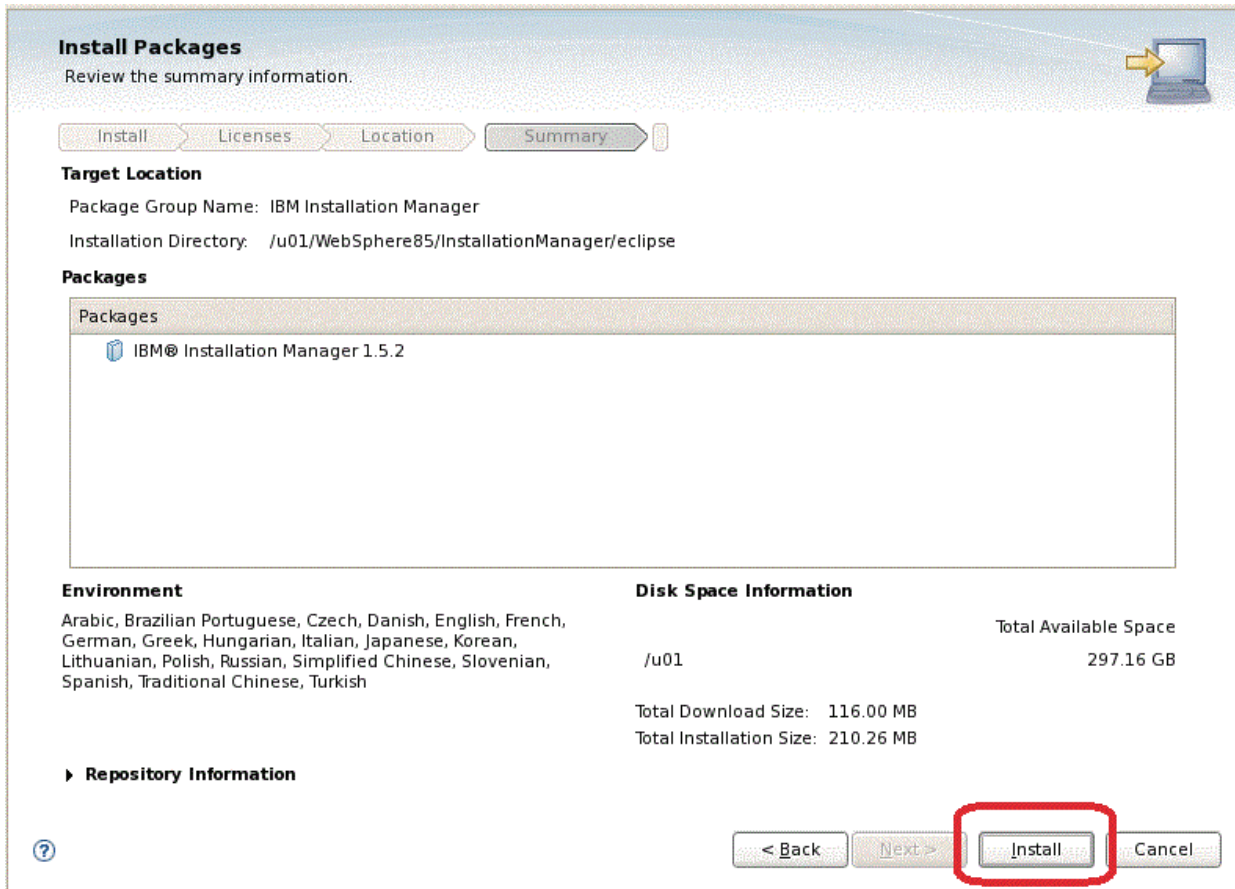
10. On Install Packages, review the International Program License Agreement and click the radio button to accept the terms if you want to continue with the installation.
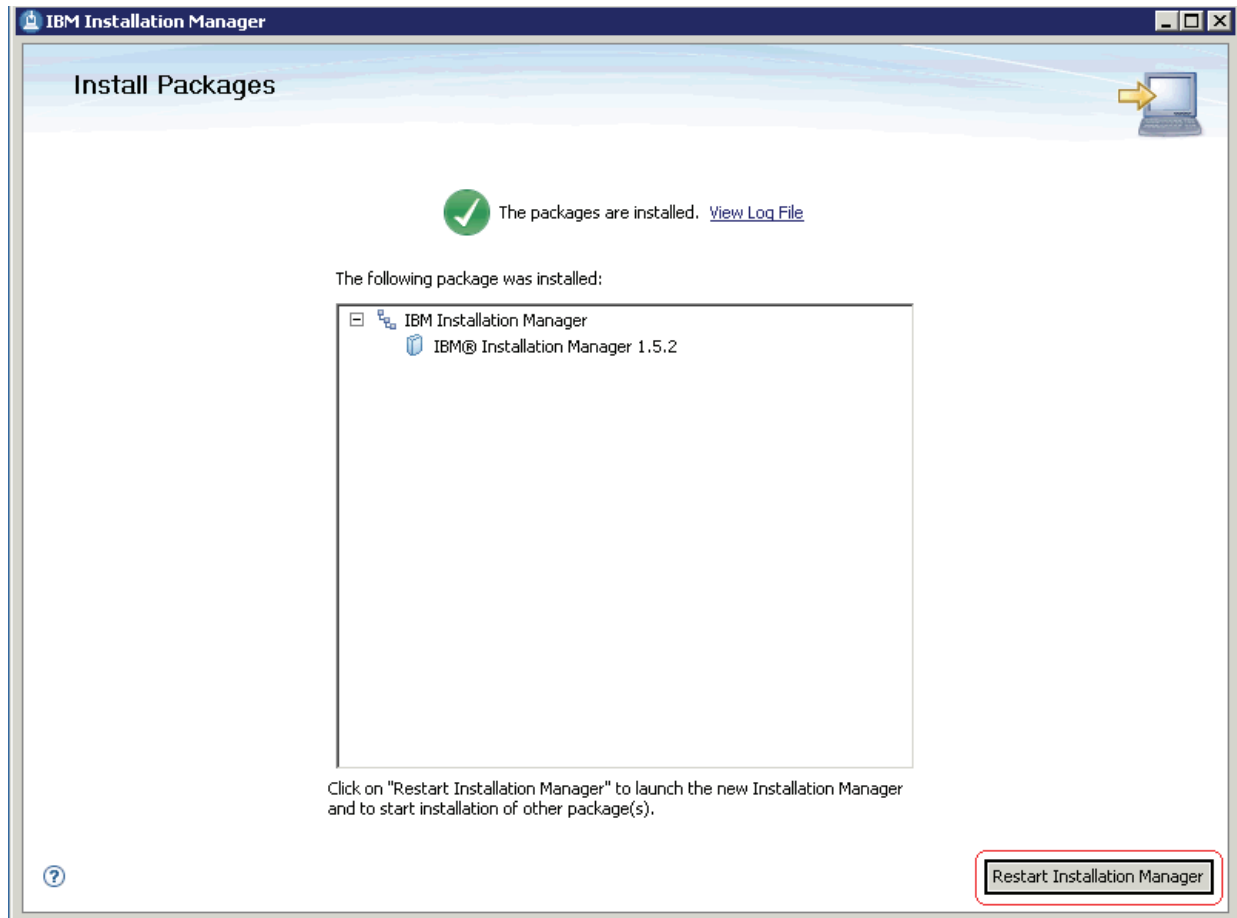
Install Packages
Select a location for the shared resources directory.

(Install) (Licenses) (Location) (Features) (Summary)

When you install packages, files are stored in two locations:

1) The shared resources directory - resources that can be shared by multiple packages.
2) The installation directory - any resources that are unique to the package that you are installing.

Important: You can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best results select the drive with the most available space because it must have adequate space for the shared resources of future packages.

Shared Resources Directory: /u01/WebSphere85/IMShared   [Browse...]

Disk Space Information

Volume	Available Space
/u01	297.00 GB

11. On Install Packages, select location for the shared resources directory, enter an appropriate location for **IMShared**. These files will be used by all IBM products installed through the Installation Manager (such as HTTP Server and Customization Toolbox).

For example:

```
/u01/WebSphere85/IMShared
```

12. Click the **Next** button.

13. On Install Packages, package group, click the radio button entitled: **Create a new package group**.

    In the Installation Directory field, enter an appropriate location to install the IBM WebSphere Application Server 8.5 software. It does not have to be the same location as the shared location.

    For example:

    `/u01/WebSphere85/AppServer`

14. Click the **Next** button.

15. On Install Packages, translations, select your desired language.

16. Click the **Next** button.
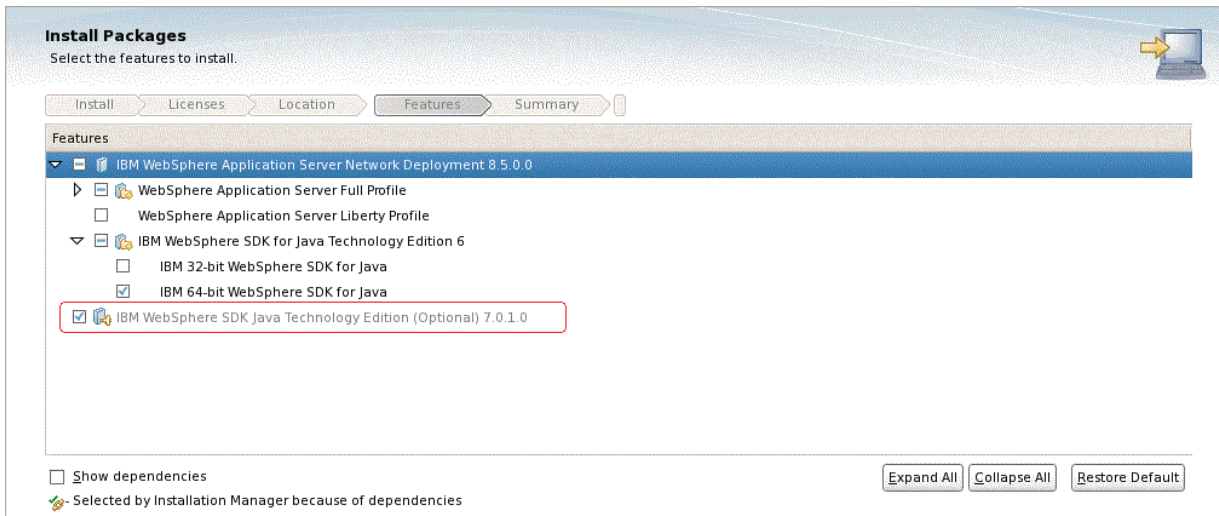
17. On Install Packages, select features, verify that the package for Java JDK 1.7 is selected.

> **Caution:** Although JDK 1.6 is the default installation, you must choose to install JDK 1.7 in order to be compatible with JD Edwards EnterpriseOne.

18. Click the **Next** button.

19. Click the **Install** button.
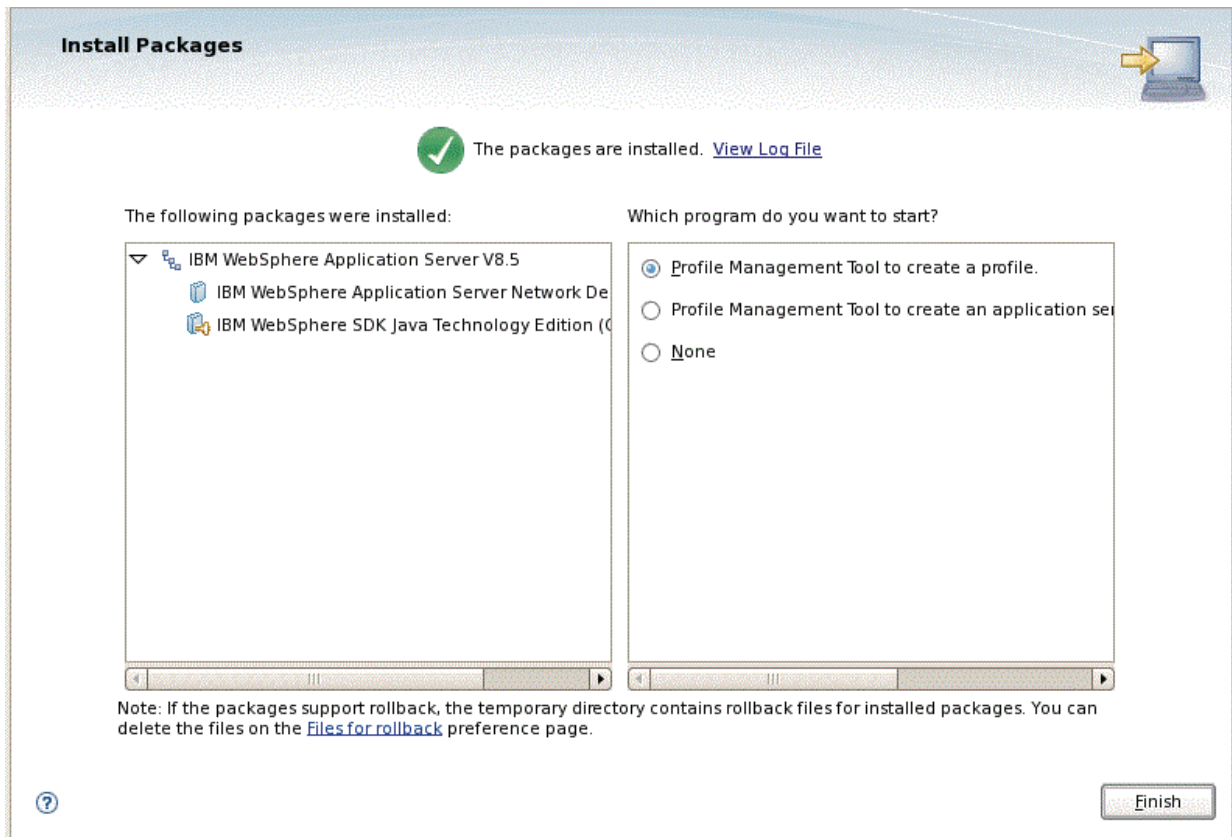
20. On Install Packages, the packages are installed, click the **Finish** button.

21. To create a profile, ensure this radio button in the right pane is selected:

Profile Management Tool to create a profile.

Continue to the next section of this chapter entitled: Section 3.4, "Creating a New Profile for WebSphere Application Server 8.5".

3.4 Creating a New Profile for WebSphere Application Server 8.5

The section describes how to create a new profile. This profile will be used later in the installation process to create a web server and configure the plugin.

Note: This document describes how to create a "standalone" application server. For information on how to create a cell and managed node, refer to IBM's Infocenter:

http://www-01.ibm.com/software/webservers/appserv/was/library/

You can choose to create your first profile now or after the remaining software packages have been installed. If you create your profile now, you will need to manually define the web server before configuring the plug-in later in this chapter. As an alternative, you can use the advanced profile creation option to automatically create a web server, but this must be done **after** all of the other software components described in this guide are installed and updated to the correct level.

This procedure assumes you are creating a new profile at this time so that you can verify your installation.

Note: If the Profile Management wizard did not launch, you might have encountered a bug within the eclipse XWindow Client product. You might see this error:

show 'BadWindow (invalid Window parameter)'

If you see the above error, follow the suggestions in IBM doc PM56382 at the below link, and re-launch the Profile Management Tools:

http://www-01.ibm.com/support/docview.wss?uid=swg1PM56382

---

1. If you followed the last step in the preceding chapter entitled: Section 3.3, "Installing an IBM WebSphere Application Server 8.5 or 8.5.5", the Profile Management Tool was launched.
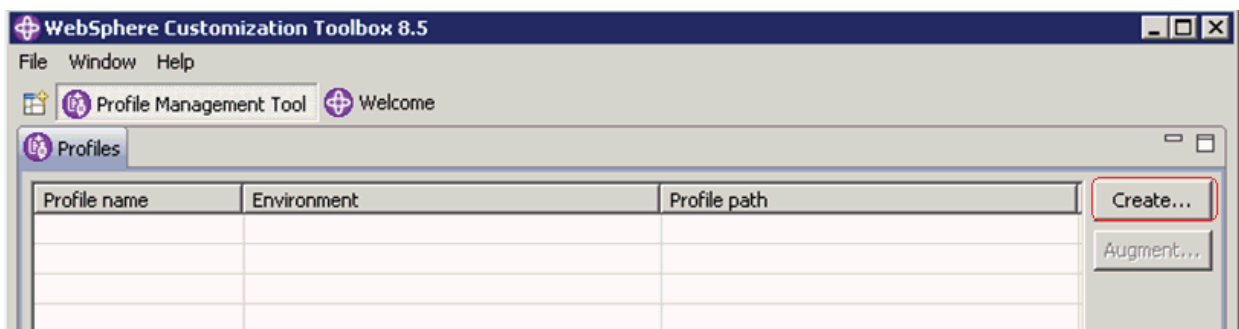
2. On WebSphere Customization Toobox, Profile Management Tool, with the Profiles tab selected, click the **Create** button.

3. On Profile Management Tools, Environment Selection, highlight the Application server environment type.

4. Click the **Next** button.
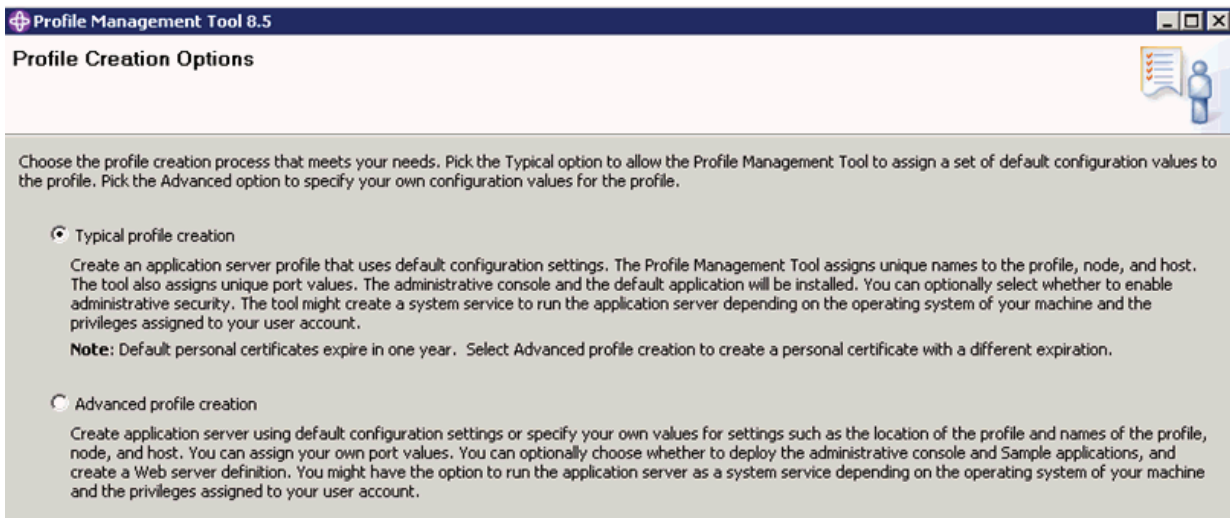
5. On Profile Creation Options, select the **Typical profile creation** radio button.

Note: Choosing **Typical profile creation** uses the default configuration settings. It assigns unique names to the profile, node, and host. The tool also assigns unique port values.

Alternatively, you can choose **Advanced profile creation** to specify your own values for settings such as the location of the profile and names of the profile, node, and host.

---

6. Click the **Next** button.

7. On Administrative Security, clear the **Enable administrative security** checkbox.

8. Click the **Next** button.

Profile Creation Summary

Review the information in the summary for correctness. If the information is correct, click **Create** to start creating a new profile. Click **Back** to change values on the previous panels.

Application server environment to create: Application server
Location: /u01/WebSphere85/AppServer/profiles/AppSrv01
Disk space required: 200 MB

Profile name: AppSrv01
Make this profile the default: True
Performance tuning setting: Standard

Node name: dnptlx105Node01
Server name: server1
Host name: dnptlx105.mlab.jdedwards.com

Deploy the administrative console (recommended): True
Deploy the default application: True

Enable administrative security (recommended): False

Administrative console port: 9060

[< Back] [Create] [Cancel] [Finish]
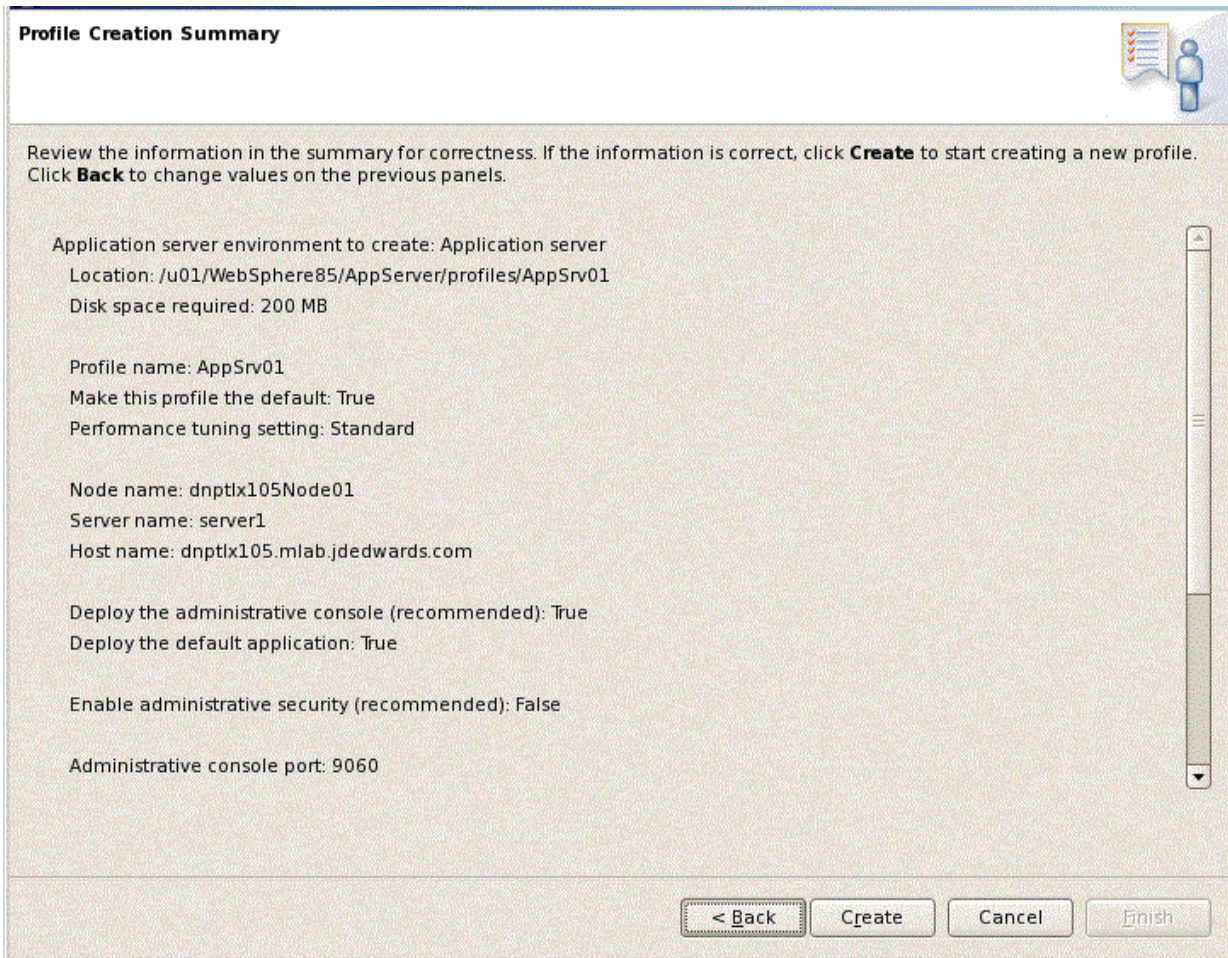
9. On Profile Creation Summary, review the information for accuracy and click the **Create** button.
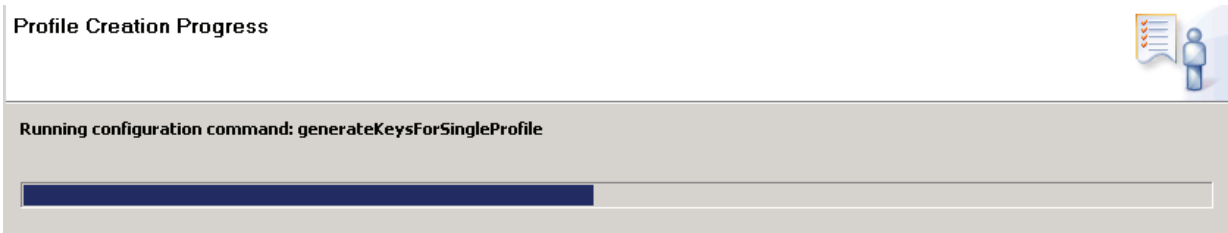
Profile Creation Progress

Running configuration command: generateKeysForSingleProfile

The progress screen is displayed. Wait for the progress to complete 100%, which may take several minutes.
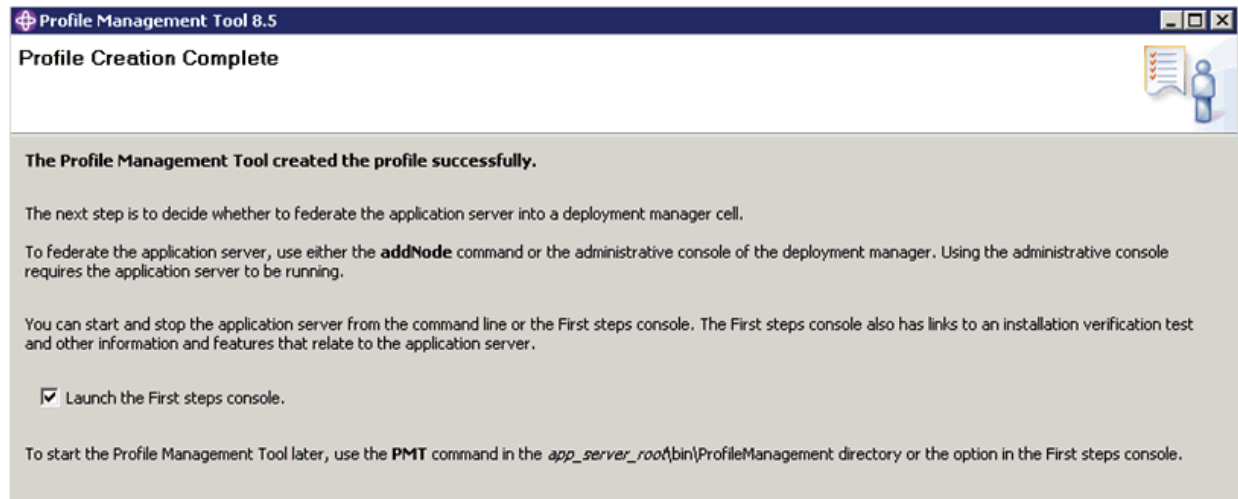
10. Optionally, on Profile Creation Complete, you can select the check box for **Launch the First steps console**.

11. Click the **Finish** button.
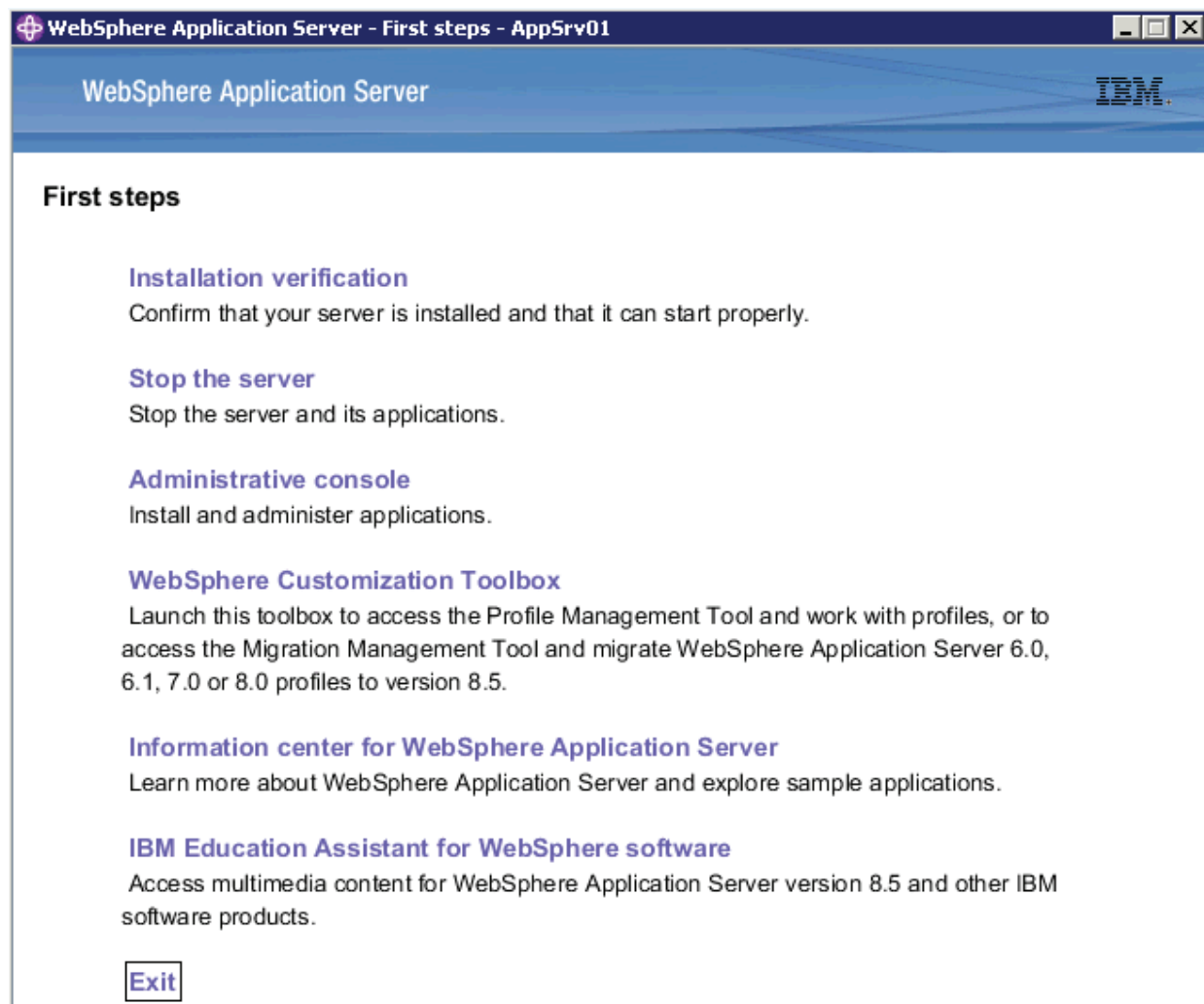
12. If you chose to run First Steps, on WebSphere Application Server, First steps, select the first option, which is entitled: **Installation verification**.
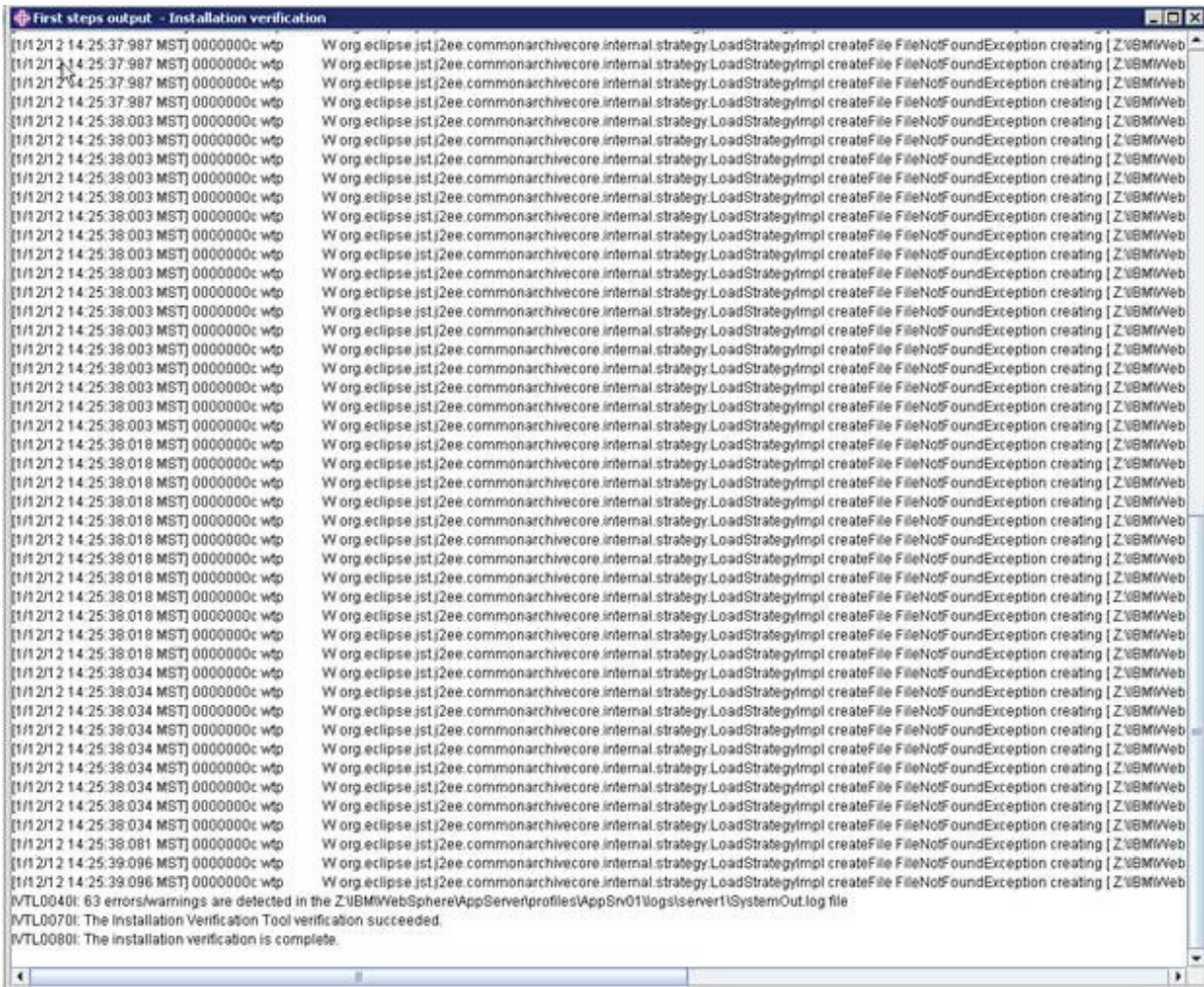
13. Verify that the installation verification completed successfully. You should get the message entitled: The installation verification is complete.

14. Close the screen for the First steps output.

15. Verify that you can sign on to the Administration Console. For example:

```
http://host:9060/ibm/console
```

3.5 Installing the IBM HTTP Server 8.5

The IBM HTTP Server 8.5 must be installed through the IBM Installation Manager.

In order to install the IBM HTTP server, you must have the Supplemental images in the repository, as shown in the second line item in the following screen sample.

To install an IBM HTTP Server 8.5:

1. Start the IBM Installation Manager, which you must have previously installed as described in the preceding chapter of this guide entitled: Section 3.2, "Installing the IBM Installation Manager".

2. Click the **Install** option.

3. On Install Packages, select packages, click the checkboxes for the **HTTP Server for WebSphere Application Server** and the **HTTP Server Version (8.5.x)**.

4. Click the **Next** button.

5. Review the International Program License Agreement and click the radio button to accept the terms if you want to continue with the installation.

6. Click the **Next** button.
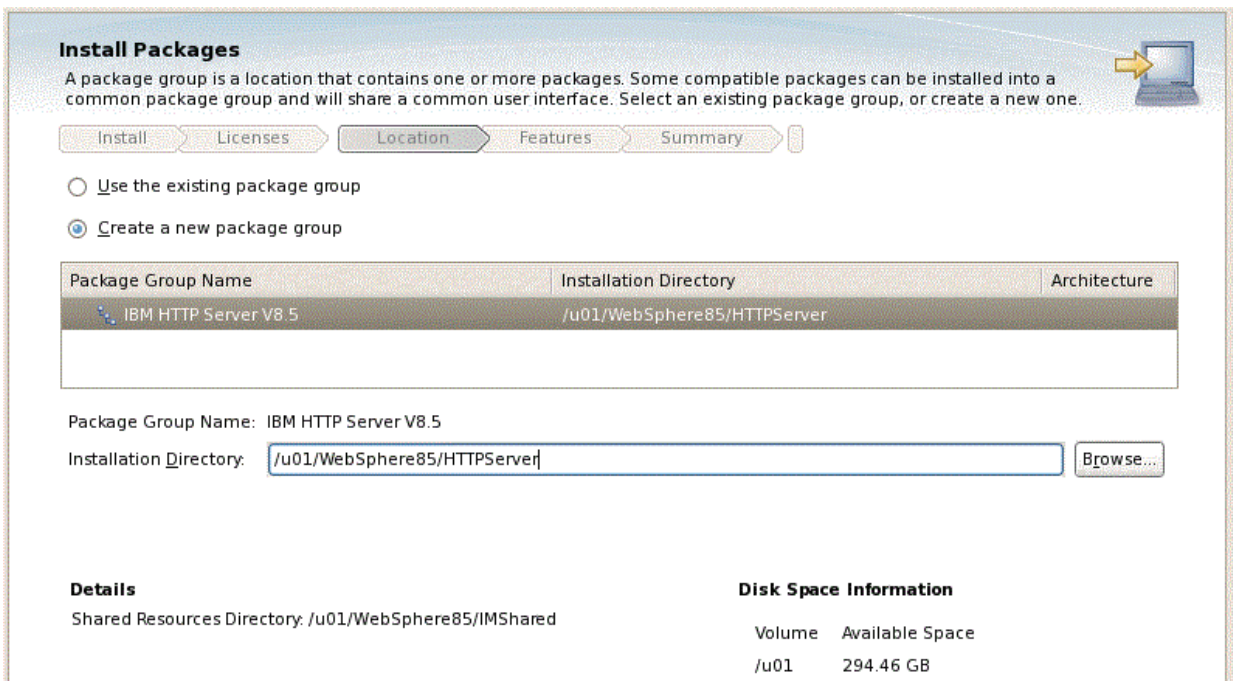
7. On Install Packages, package group, click the radio button entitled: **Create a new package group**. In the Installation Directory field, enter an appropriate location to install the IBM HTTP Server 8.5 software. It does not have to be the same location as the shared location.

   For example:

`/u01/WebSphere85/HTTPServer`

This document refers to a local IBM HTTP server installed on the same machine as the IBM WebSphere Application Server. For instructions on how to install a remote HTTP server, refer to the IBM info center:

http://www-01.ibm.com/software/webservers/appserv/was/library/

Also note that the shared location that you defined when you installed the IBM WebSphere Application Server in the previous section cannot be changed.

8. Click the **Next** button.
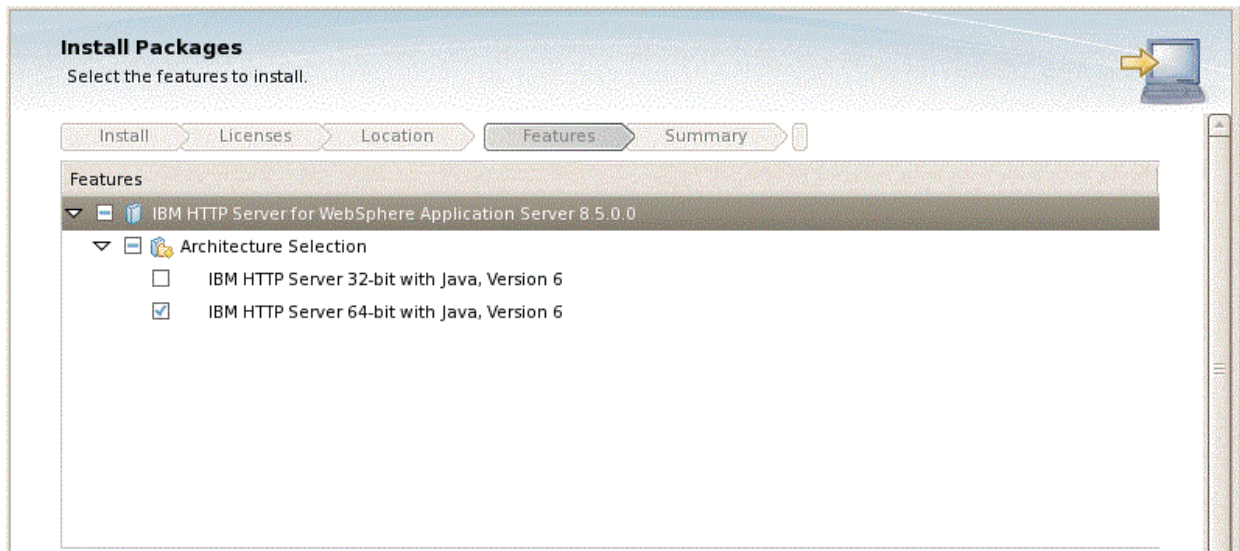
9. On Install Packages, select the features to install, verify the package you chose is selected.

10. Click the **Next** button.
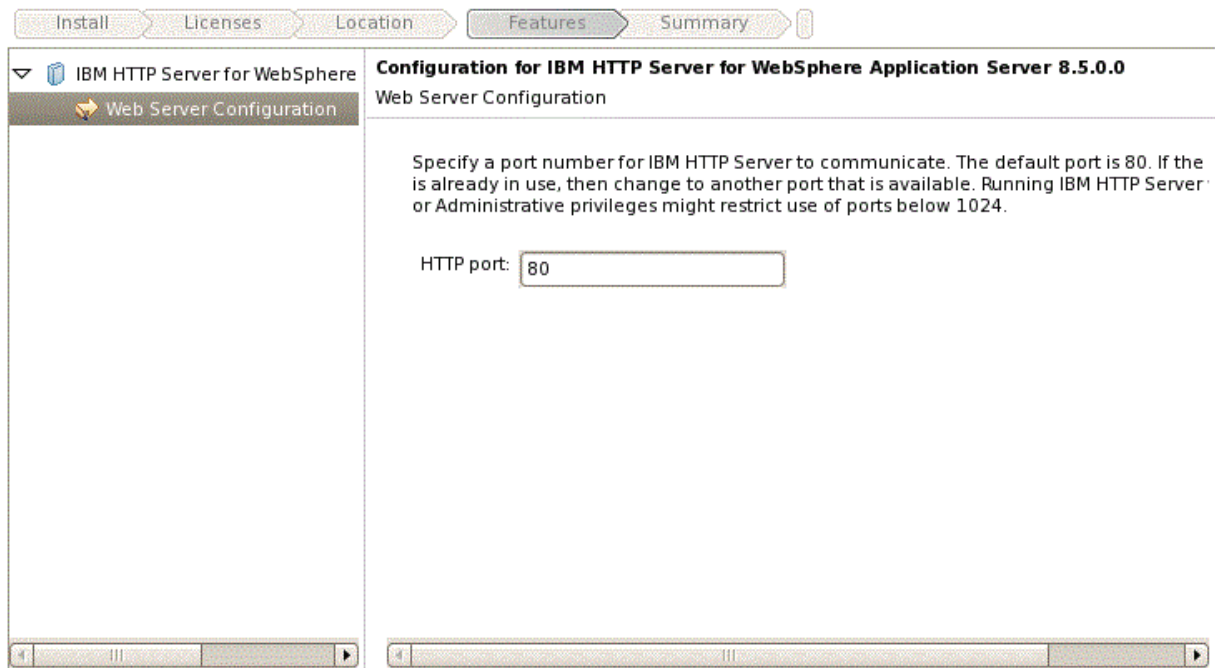
11. On Install Packages, configuration, complete these fields:

- *HTTP Port*

  Specify a port for IBM HTTP Server to communicate. The default port is 80. If the default port is already in use, then change to another port that is available. Running IBM HTTP Server without root or Administrative privilege might restrict use of ports below 1024.

12. Click the **Next** button.

Install Packages
Review the summary information.

| Install | Licenses | Location | Features | Summary |

Target Location

Package Group Name:	IBM HTTP Server V8.5
Installation Directory:	/u01/WebSphere85/HTTPServer
Shared Resources Directory:	/u01/WebSphere85/IMShared

Packages

Packages

▽ 📦 IBM HTTP Server for WebSphere Application Server 8.5.0.0
　　▽ 🔧 Architecture Selection
　　　　🔧 IBM HTTP Server 64-bit with Java, Version 6

Environment
English

Disk Space Information

	Total Available Space
/u01	294.46 GB

Total Download Size:　31.59 MB
Total Installation Size:　233.50 MB

▸ **Repository Information**

[< Back]　[Next >]　[Install]　[Cancel]

13. On Install Packages, review summary information, verify the accuracy of the selections.

14. Click the **Install** button to begin the installation of the IBM HTTP Server.
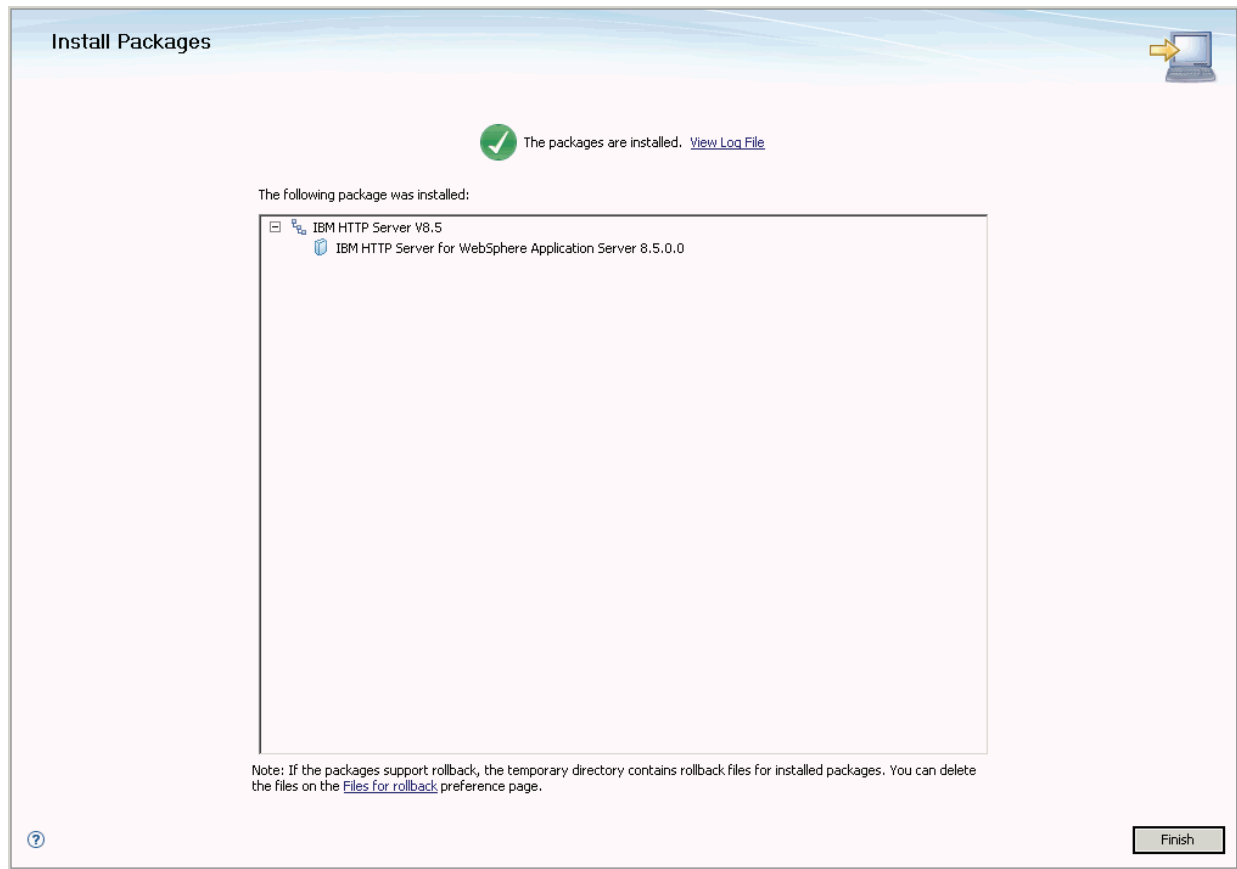
15. On Install Packages, verify the installation completed successfully. You may want to click the link: View Log File.

16. Click the **Finish** button.

   You are returned to the IBM Installation Manager home screen.

17. To install the plug-ins, continue to the next section entitled: Section 3.6, "Installing Web Server Plug-ins for IBM WebSphere Application Server".

3.6 Installing Web Server Plug-ins for IBM WebSphere Application Server

As with the previous software packages described in this guide, the plug-ins for IBM WebSphere Application Server 8.5 must be installed using the IBM Installation Manager.

In order to install the IBM HTTP server, you must have the Supplemental images in the repository, as shown in the second line item in the following screen sample.

To install Web Server Plug-ins for IBM WebSphere Applications Server:

1. Start the IBM Installation Manager, which you must have previously installed as described in the preceding chapter of this guide entitled: Section 3.2, "Installing the IBM Installation Manager".
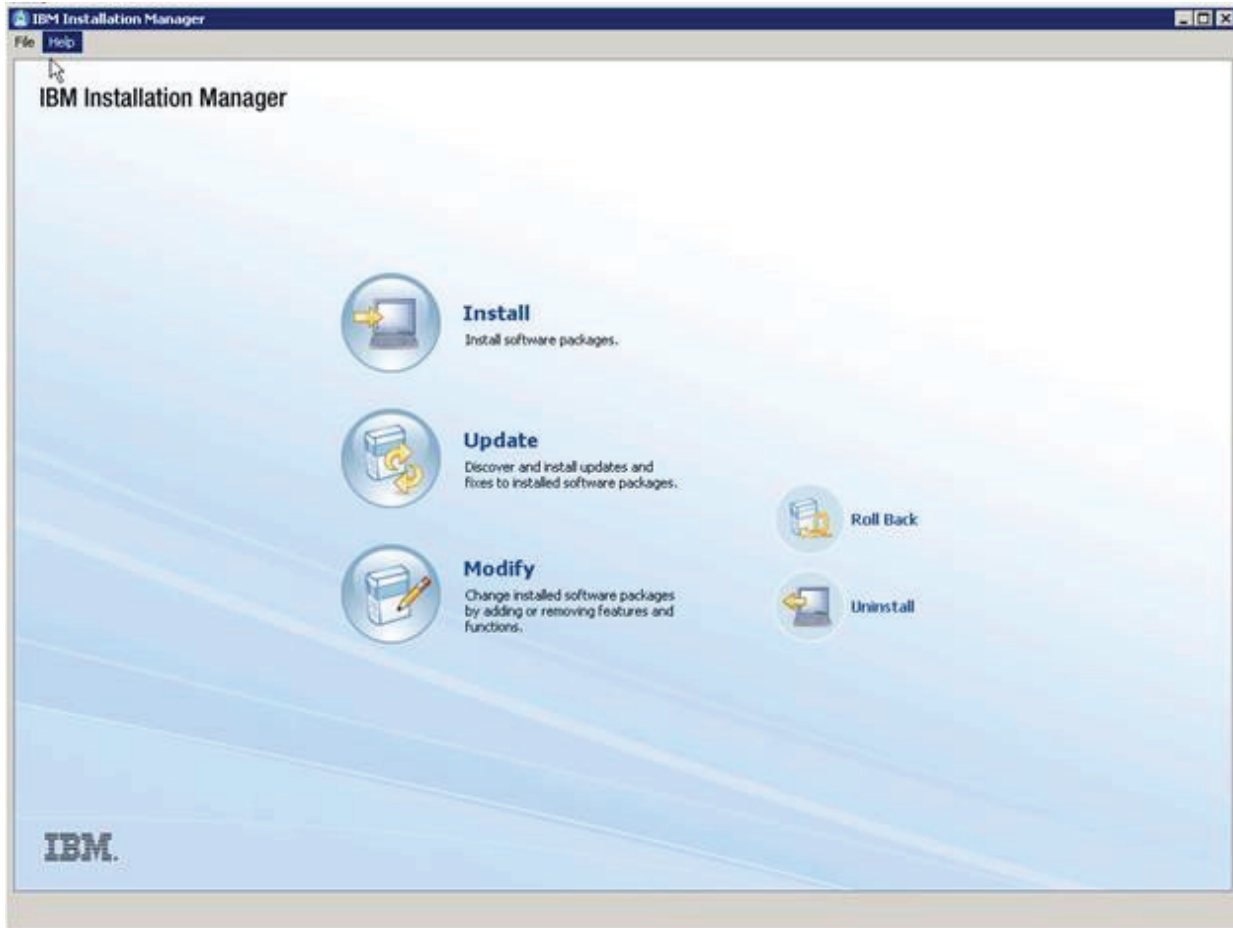
2. On IBM Installation Manager, click the **Install** option.
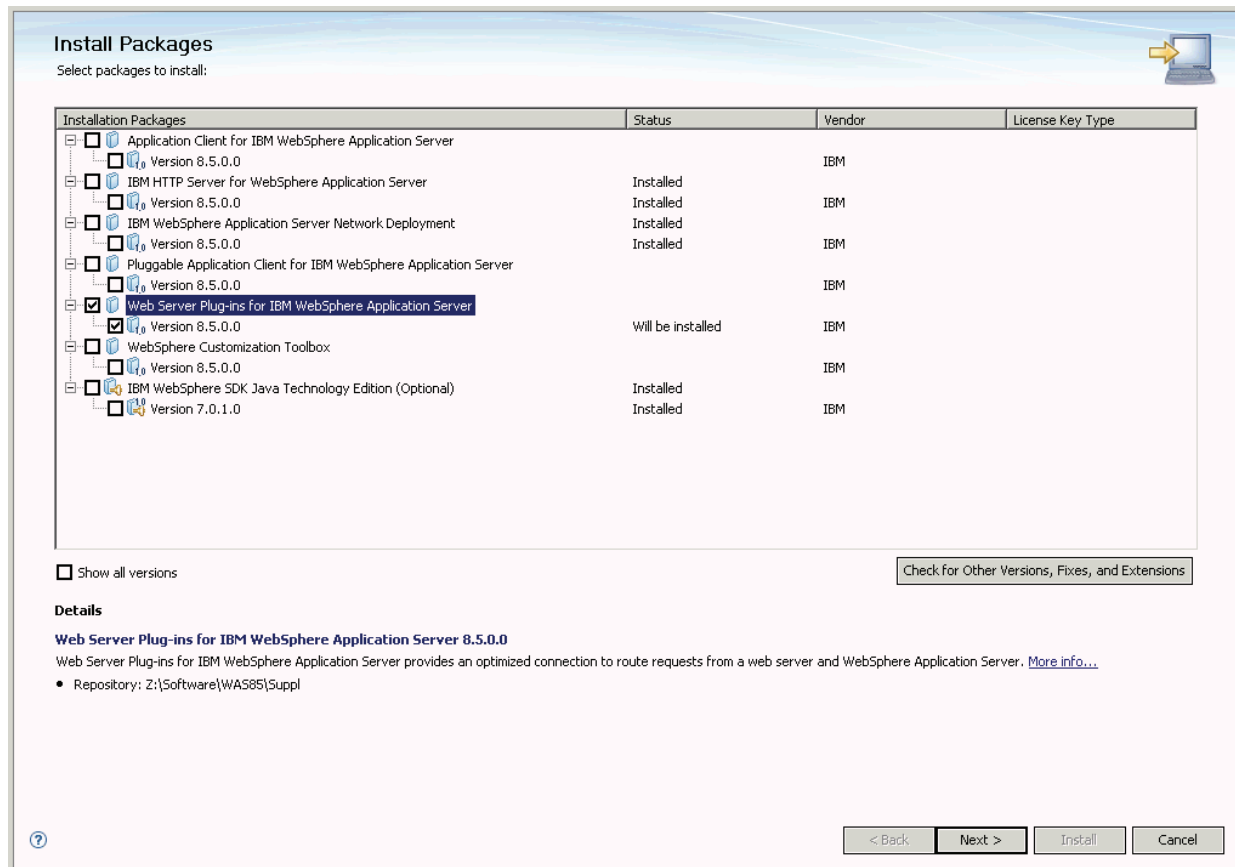
3. On Install Packages, select packages, click the checkboxes for the **Web Server Plug-ins for WebSphere Application Server** and the **HTTP Server Version (8.5.x)**.

4. Click the **Next** button.

5. On Install Packages, review the International Program License Agreement and click the radio button to accept the terms if you want to continue with the installation.

6. Click the **Next** button.

7. On Install Packages, package group, click the radio button entitled: **Create a new package group**.

   In the Installation Directory field, enter an appropriate location to install the Web Server Plugins for IBM WebSphere Application Server 8.5.

   For example:

   `/u01/WebSphere85/Plugins`

Install Packages

Select the features to install.

Install 〉 Licenses 〉 Location 〉 Features 〉 Summary 〉

Features

▼ ▣ 📦 Web Server Plug-ins for IBM WebSphere Application Server 8.5.0.0
   ▼ ▣ 🔧 IBM WebSphere SDK for Java Technology Edition 6
      ☐   IBM 32-bit WebSphere Runtime Environment for Java
      ☑   IBM 64-bit WebSphere Runtime Environment for Java

☐ Show dependencies   [Expand All] [Collapse All] [Restore Default]

🖌- Selected by Installation Manager because of dependencies

Details

Web Server Plug-ins for IBM WebSphere Application Server 8.5.0.0

Web Server Plug-ins for IBM WebSphere Application Server provides an optimized connection to route requests from a web server and WebSphere Application Server

ⓘ   [< Back] [Next >] [Install] [Cancel]

8. Verify the SDK level. At this point in the process in this guide, SDK 1.6 is still the default installation.
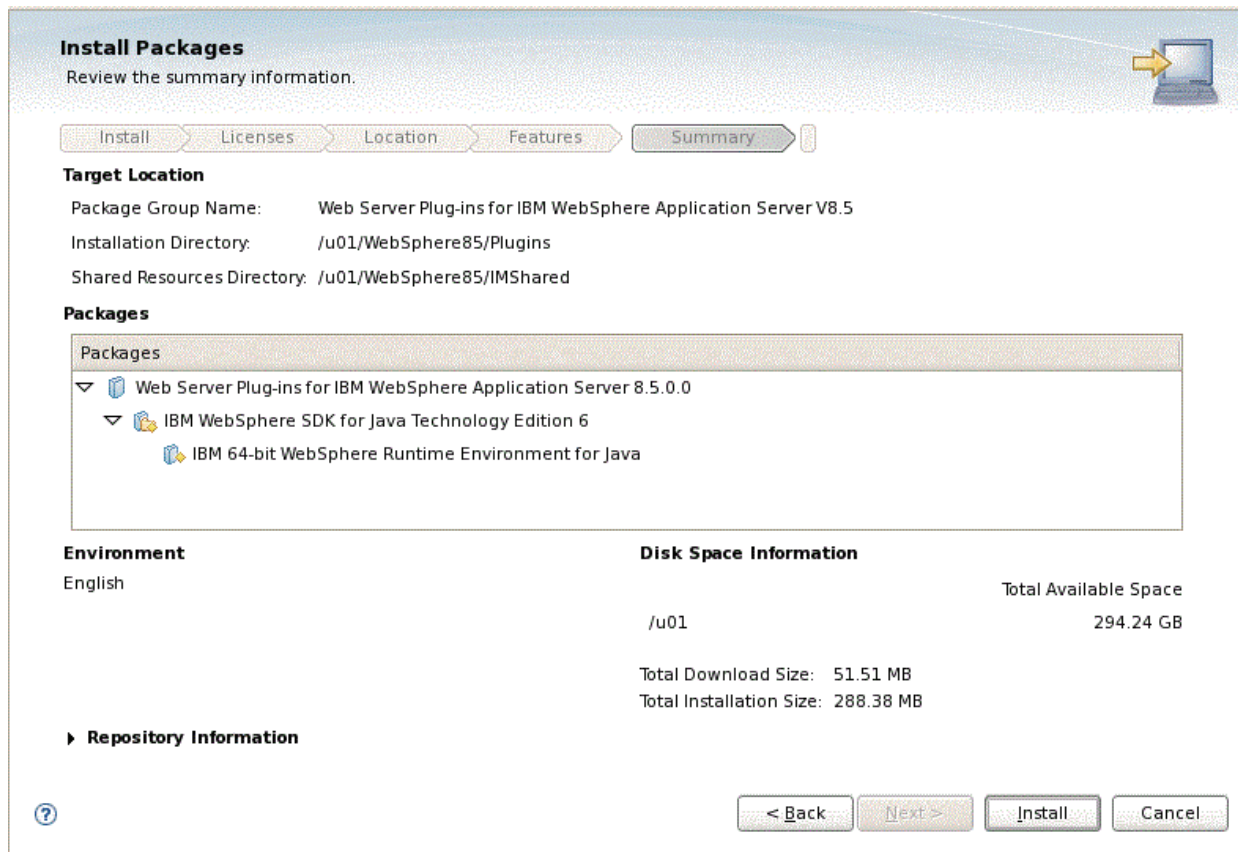
9. On Install Packages, review summary information, verify the accuracy of the selections.

10. Click the **Install** button to begin the installation of the JDK.

The progress screen is displayed. Wait for the progress to complete 100%, which may take several minutes.
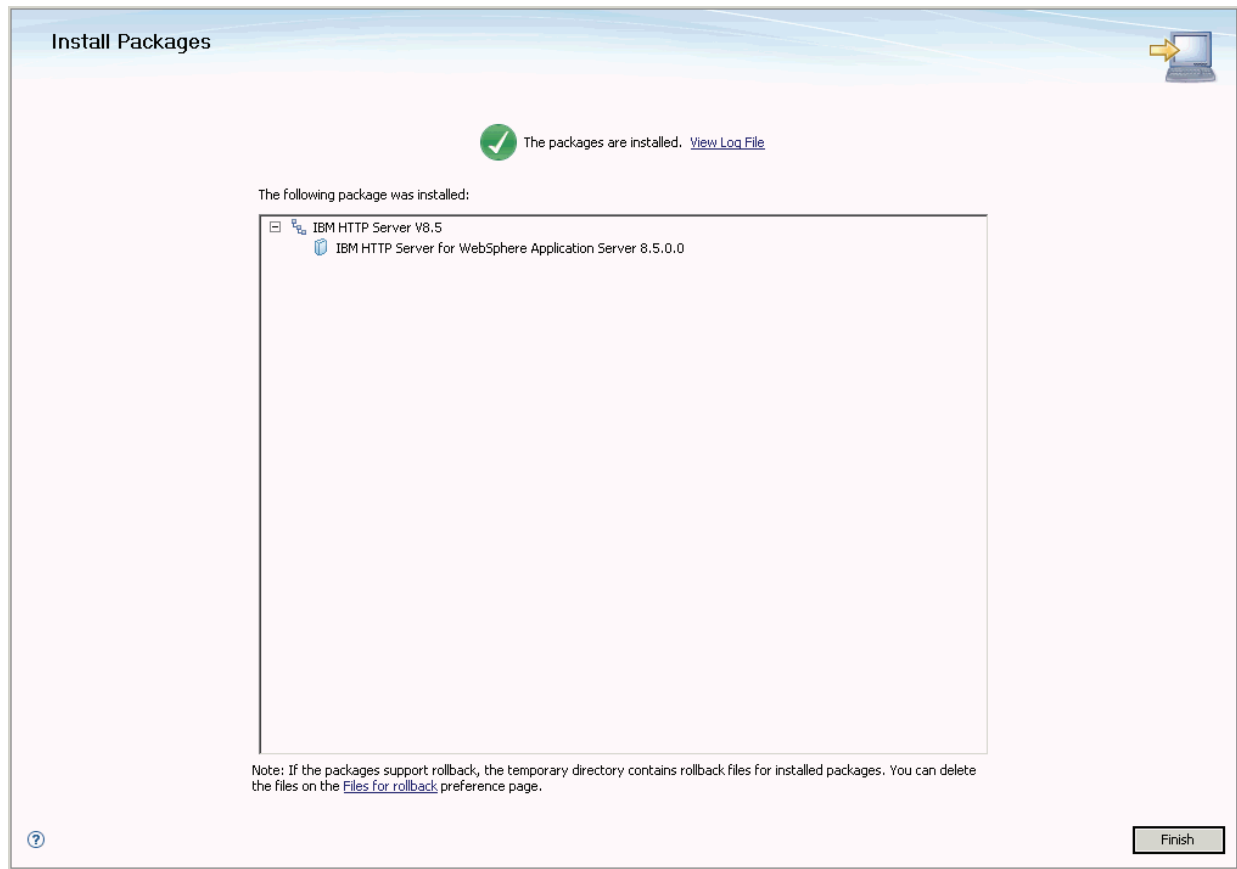
11. On Install Packages, verify the installation completed successfully. You may want to click the link: View Log File.

12. Click the **Finish** button.

You are returned to the IBM Installation Manager home screen.

13. To install the plug-ins, continue to the next section entitled: Section 3.9, "Installing the WebSphere Customization Toolbox".

3.7 Enabling SDK 7.0 on WebSphere Application Server 8.5

Starting with WebSphere Application Server 8.5, SDK 7.0 is supported as an optional feature. The java 1.6 is still the default installation.

> **Caution:** JD Edwards EnterpriseOne supports WebSphere
> Application Server 8.5 running with SDK 7.0 only. You must switch
> the java level after the installation is completed.

You can switch the java level by using the **managesdk** command. The executable for the **managesdk** command is located in the bin directory of your application server. For example:

```
/u01/WebSphere85/AppServer/bin
```

This section discusses how to use the **managesdk** command for these purposes:

■ View Available Java Products

- *View Available Java Products with Detail Information*
- *Syntax Examples using the managesdk Command*

View Available Java Products

Use this command to view the available Java products:

```
managesdk.sh -listAvailable
```

The following shows a sample of returned information.

```
[root@dnptlx102 bin]# ./managesdk.sh -listAvailable
CWSDK1003I: Available SDKs :
CWSDK1005I: SDK name: 1.6_64
CWSDK1005I: SDK name: 1.7_64
CWSDK1001I: Successfully performed the requested managesdk task.
```

View Available Java Products with Detail Information

Use this command to view the available Java products with detail information:

```
managesdk.sh -listAvailable -verbose
```

The following shows sample returned information.

```
[root@dnptlx102 bin]# ./managesdk.sh -listAvailable -verbose
CWSDK1003I: Available SDKs :
CWSDK1005I: SDK name: 1.6_64
 - com.ibm.websphere.sdk.version.1.6_64=1.6
 - com.ibm.websphere.sdk.bits.1.6_64=64
 - com.ibm.websphere.sdk.location.1.6_64=${WAS_INSTALL_ROOT}/java
 - com.ibm.websphere.sdk.platform.1.6_64=linux
 - com.ibm.websphere.sdk.architecture.1.6_64=x86_64
 - com.ibm.websphere.sdk.nativeLibPath.1.6_64=${WAS_INSTALL_ROOT}/lib/native/linux/x86_64
/

CWSDK1005I: SDK name: 1.7_64
 - com.ibm.websphere.sdk.version.1.7_64=1.7
 - com.ibm.websphere.sdk.bits.1.7_64=64
 - com.ibm.websphere.sdk.location.1.7_64=${WAS_INSTALL_ROOT}/java_1.7_64
 - com.ibm.websphere.sdk.platform.1.7_64=linux
 - com.ibm.websphere.sdk.architecture.1.7_64=x86_64
 - com.ibm.websphere.sdk.nativeLibPath.1.7_64=${WAS_INSTALL_ROOT}/lib/native/linux/x86_64
/

CWSDK1001I: Successfully performed the requested managesdk task.
```

Syntax Examples using the managesdk Command

The following examples demonstrate correct syntax when you run the **managesdk** command:

```
managesdk.sh -listAvailable [-verbose]

managesdk.sh -listEnabledProfile -profileName AppSrv01 [-verbose]

managesdk.sh -listEnabledProfileAll [-verbose]

managesdk.sh -enableProfile -profileName AppSrv01 -sdkname 1.7_64 -enableServers

managesdk.sh -enableProfileAll -sdkname 1.7_64 -enableServers
```

```
managesdk.sh -getNewProfileDefault [-verbose]

managesdk.sh -setNewProfileDefault -sdkname 1.7_64

managesdk.sh -getCommandDefault [-verbose]

managesdk.sh -setCommandDefault -sdkname 1.7_64
```

3.8 Switching to SDK 7.0 on WebSphere Application Server 8.5

> **Caution:** JD Edwards EnterpriseOne supports WebSphere Application Server 8.5 running with SDK 7.0 only. You must switch the java level after the installation is completed.

This section describes these topics:

- Section 3.8.1, "Working with the managesdk Command"
- Section 3.8.2, "Modify the JD Edwards EnterpriseOne Server Manager Agent with JRE 1.7.0"

3.8.1 Working with the managesdk Command

This section discusses how to use the **managesdk** command for these purposes:

- View List of Available SDK Names
- Set the command default to the version 7.0 SDK
- Set the New Profile Default to the Version 7.0 SDK
- If Profiles Already Exist, Enable the Profiles to use the Version 7.0 SDK

View List of Available SDK Names

Use this command to view a list of available SDK names for the product installation:

```
managesdk.sh -listAvailable
```

The following shows sample returned information.

```
[root@dnptlx102 bin]# ./managesdk.sh -listAvailable
CWSDK1003I: Available SDKs :
CWSDK1005I: SDK name: 1.6_64
CWSDK1005I: SDK name: 1.7_64
CWSDK1001I: Successfully performed the requested managesdk task.
```

Set the command default to the version 7.0 SDK

Use this command to set the command default to the version 7.0 SDK:

```
managesdk.sh -setCommandDefault -sdkname 1.7_64
```

The following shows sample returned information.

```
[root@dnptlx102 bin]# ./managesdk.sh -setCommandDefault -sdkname 1.7_64
CWSDK1021I: The command default SDK name is now set to 1.7_64.
CWSDK1001I: Successfully performed the requested managesdk task.
```

Set the New Profile Default to the Version 7.0 SDK

Use this command to set the new profile default to version 7.0 SDK:

```
managesdk.sh -setNewProfileDefault -sdkname 1.7_64
```

The following shows sample returned information.

```
[root@dnptlx102 bin]# ./managesdk.sh -setNewProfileDefault -sdkname 1.7_64
CWSDK1022I: New profile creation will now use SDK name 1.7_64.
CWSDK1001I: Successfully performed the requested managesdk task.
```

If Profiles Already Exist, Enable the Profiles to use the Version 7.0 SDK

If profiles already exist, use this command to enable the profiles to use the version 7.0 SDK:

```
managesdk.sh -enableProfileAll -sdkname 1.7_64 -enableServers
```

The following shows sample returned information.

```
[root@dnptlx102 bin]# ./managesdk.sh -enableProfileAll -sdkname 1.7_64 -enableServers
CWSDK1017I: Profile AppSrv01 now enabled to use SDK 1.7_64.
CWSDK1001I: Successfully performed the requested managesdk task.
```

> **Note:** To change federated profiles in a Network Deployment installation, the deployment manager must be running. The **managesdk** command updates the master configuration repository. After the command runs, a synchronization operation must occur before the new SDK can be used for federated profiles.

3.8.2 Modify the JD Edwards EnterpriseOne Server Manager Agent with JRE 1.7.0

Use this procedure to modify the Server Manager Agent with JRE 1.7.0:

1. Stop the JD Edwards EnterpriseOne Server Manager Agent.

2. Copy the JRE folder from the JDK 1.7 version to this folder:

   ```
   /jde_home/SCFHA/jdk
   ```

3. Start the JD Edwards EnterpriseOne Server Manager Agent.

> **Note:** **AIX Platform.** You must obtain the IBM JDK for the AIX platform.
>
> **HP-UX Platform.** You must obtain the HP JDK for HP-UX.

3.9 Installing the WebSphere Customization Toolbox

New tool functionality with IBM WebSphere 8.5 includes the requirement to install the WebSphere Customization Toolbox. This tool aids in configuring your plug-in properly. The WebSphere Customization Toolbox comes from the supplemental software repository that was downloaded, decompressed, and added to the repository list as described in previous procedures in this document.

1. Start the IBM Installation Manager.

2. On IBM Installation Manager, click the **Install** option.

3. On Install Packages, select packages, select the two check boxes for **WebSphere Customization Toolbox** and his package and version Version 8.5.x.

4. Click the **Next** button.

5. On Install Packages, review the International Program License Agreement and click the radio button to accept the terms if you want to continue with the installation.

6. Click the **Next** button.

7. On Install Packages, package group, click the radio button entitled: **Create a new package group**.

In the Installation Directory field, enter an appropriate location to install the WebSphere Customization Toolbox 8.5.

For example:

```
/u01/WebSphere85/Toolbox/WCT/wct.sh
```

8. Click the **Next** button.
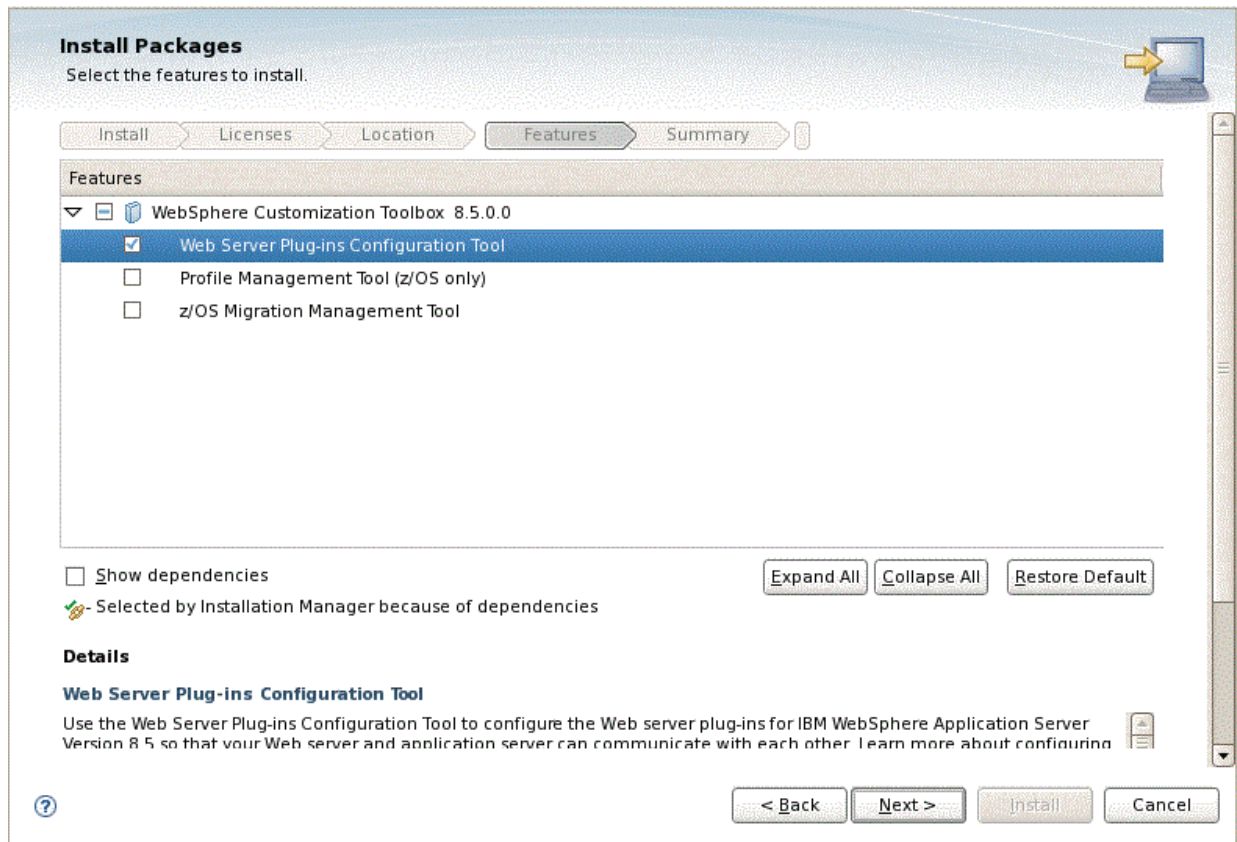
9. On Install Packages, select features, select **Web Server Plug-ins Configuration Tool**.

10. Click the **Next** button.
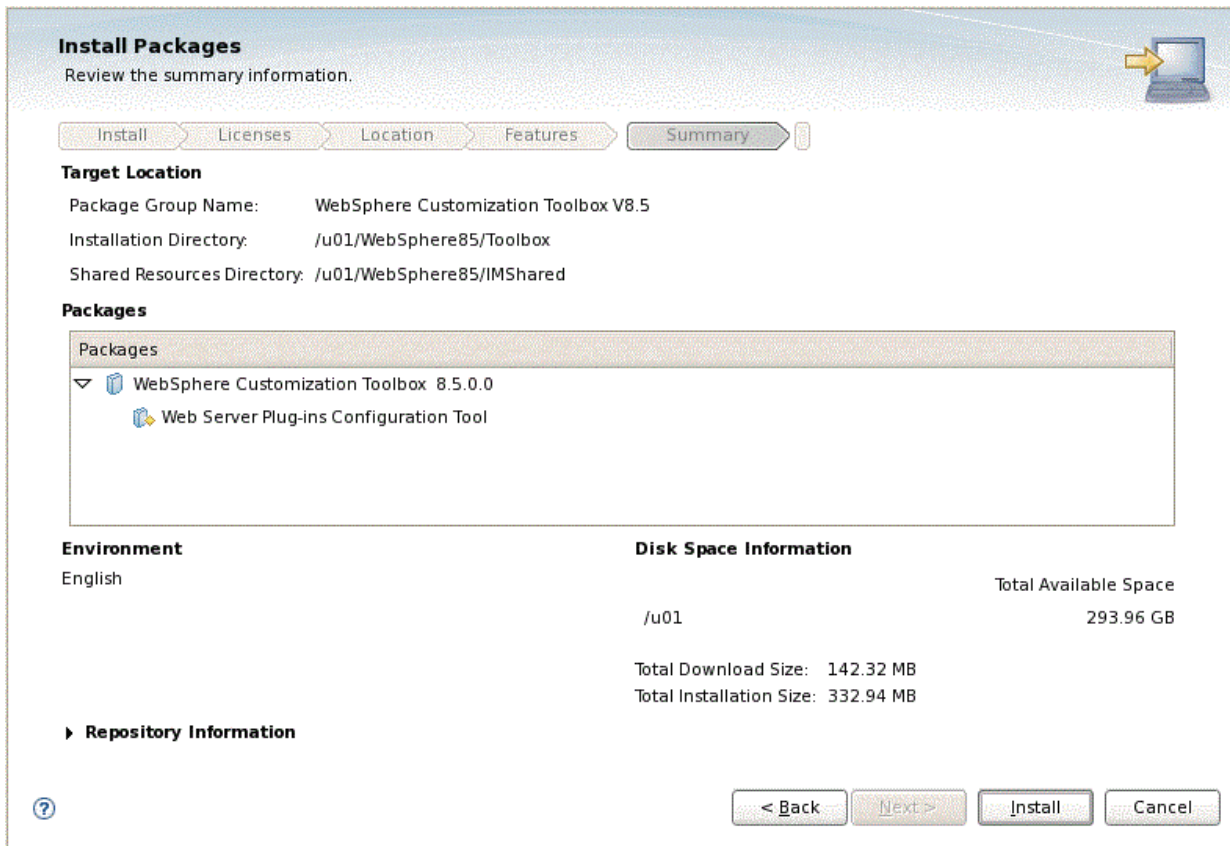
11. On Install Packages, review summary information, verify the accuracy of the selections.

12. Click the **Install** button to begin the installation of the WebSphere Customization Toolbox.

Install Packages
Review the summary information.

| Install | Licenses | Location | Features | Summary |

Target Location

Package Group Name: WebSphere Customization Toolbox V8.5

Installation Directory: /u01/WebSphere85/Toolbox

Shared Resources Directory: /u01/WebSphere85/IMShared

Packages

Packages
▽ 📦 WebSphere Customization Toolbox 8.5.0.0
📦 Web Server Plug-ins Configuration Tool

Environment

English

Disk Space Information

	Total Available Space
/u01	293.96 GB

Total Download Size: 142.32 MB
Total Installation Size: 332.94 MB

▸ **Repository Information**

Installing.: Retrieving files at 19.8 MB/s. 126 MB of 142 MB (89%) completed.

[Pause Download] [Cancel]

The progress screen is displayed. Wait for the progress to complete 100%, which may take several minutes.
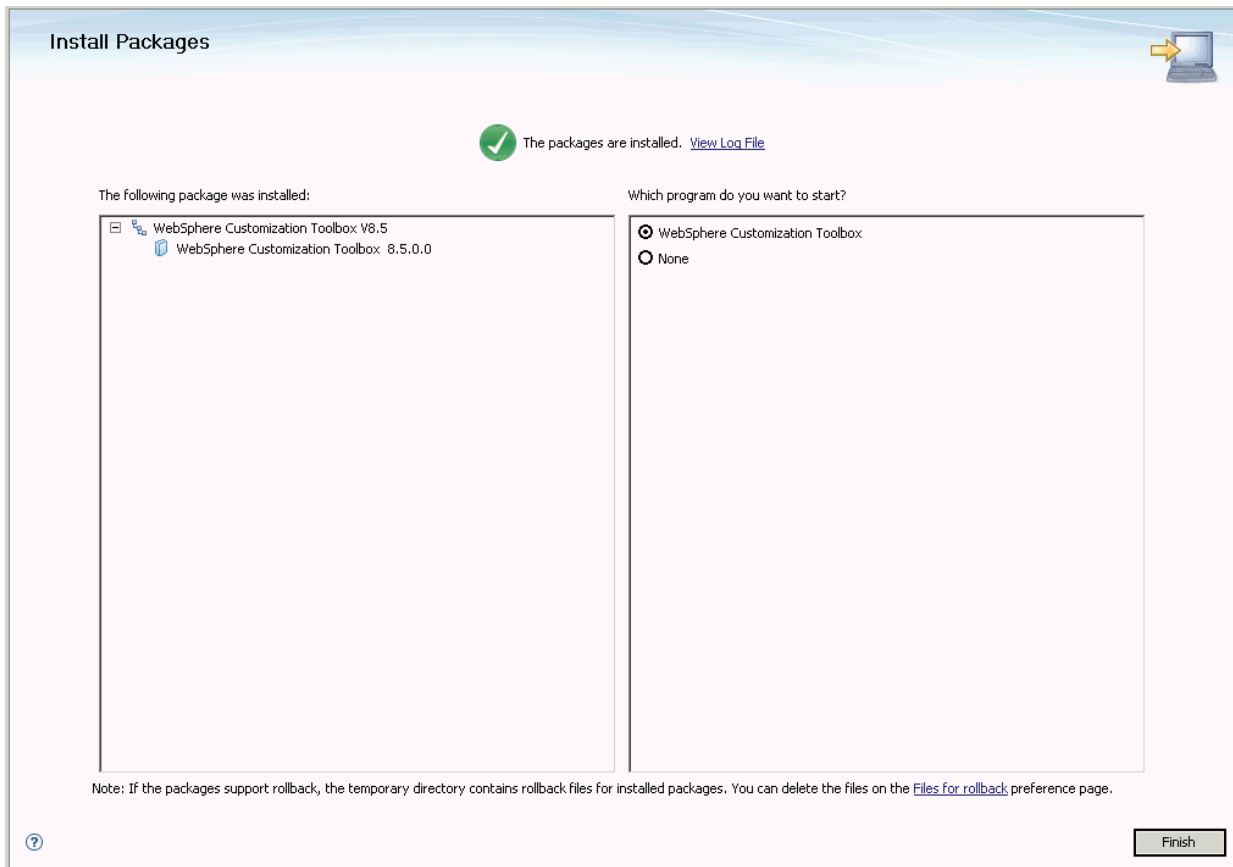
13. On Install Packages, verify the installation completed successfully. You may want to click the link: View Log File.

14. Click the **Finish** button.

    You are returned to the IBM Installation Manager home screen.

3.10 Installing or Updating to WebSphere 8.5 Fix Pack

Use these procedures to install or update your existing WebSphere components to WebSphere 8.5.0 Fix Pack:

- Section 3.10.1, "Updating the IBM Installation Manager to WebSphere 8.5 or Greater"

- Section 3.10.2, "Updating WebSphere Application Server 8.5 or Greater"

- Section 3.10.3, "Working with the HTTP Server Component"

- Section 3.10.4, "Working with the Plug-ins Component"

- Section 3.10.5, "Working with the Customization Toolbox Component"

3.10.1 Updating the IBM Installation Manager to WebSphere 8.5 or Greater

Use this procedure to update the IBM Installation Manager.

> **Note:** For instructions on installing the Update Installer itself, refer to the section of this guide entitled: Section 4.4, "Installing the WebSphere Update Installer".

1. Start the IBM Installation Manager using the `IBMIM` executable..

2. Open the Preferences of the IBM Installation Manager.
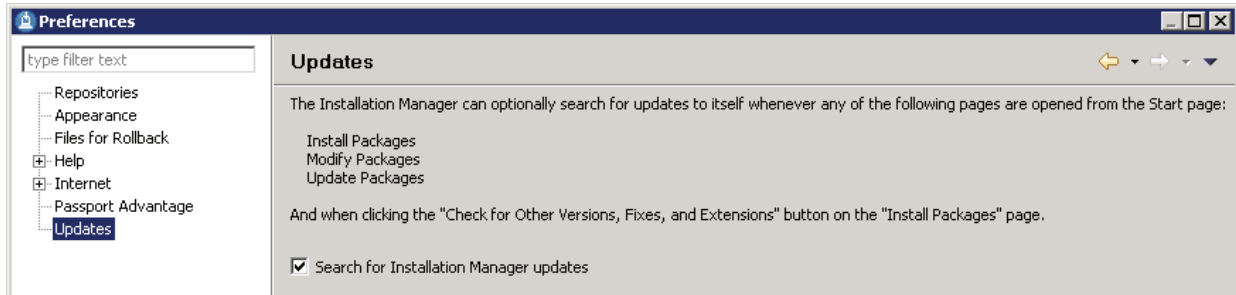
3. Highlight the **Updates** node and select this checkbox:

   Search for Installation Manager Updates

4. Log out of IBM Installation Manager.

5. Log in to the Installation Manager and you will be prompted if a new version of Installation Manager is available.
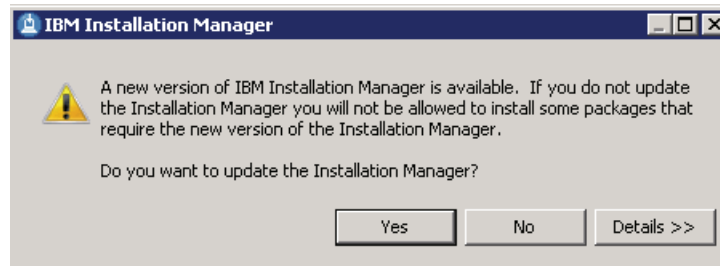
6. On IBM Installation Manager, click the **Yes** button and follow the installation wizard to complete the upgrade.

3.10.2 Updating WebSphere Application Server 8.5 or Greater

Use this procedure to update WebSphere 8.5 or greater.

1. Stop all the WebSphere Processes including the HTTP Server and Web Server.

2. Launch the IBM Installation Manager using the `IBMIM` executable.

3. Select the **Update** option.
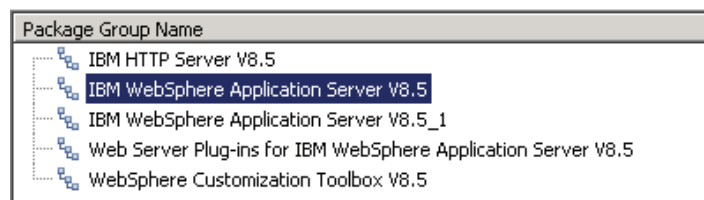
4. On Package Group Name, select the **IBM WebSphere Application Server** product to which you wish to upgrade. For example:

IBM WebSphere Application Server V8.5
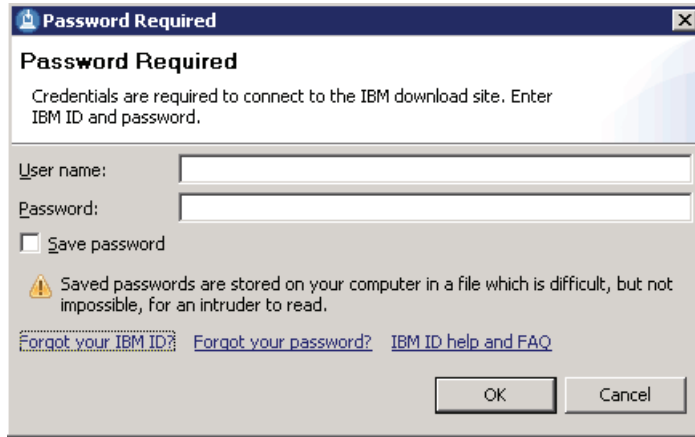
5. On Password Required, enter valid credentials for your IBM ID to connect to the IBM download site by completing these fields:

- **User name**

- **Password**
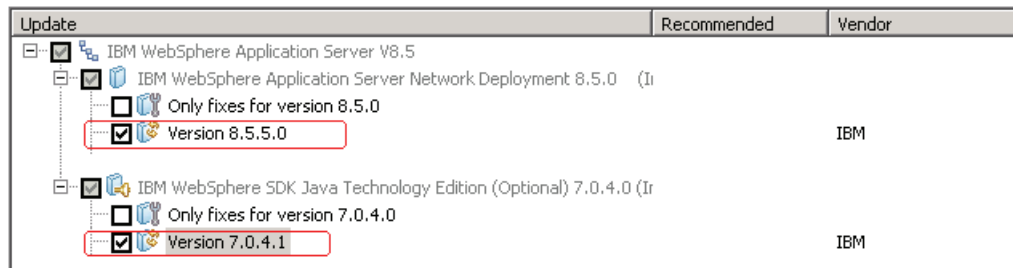
> **Note:** You can uncheck the **Show Recommended only** option to list all available fix packs.

6. Review the license agreement and accept the terms in order to continue.
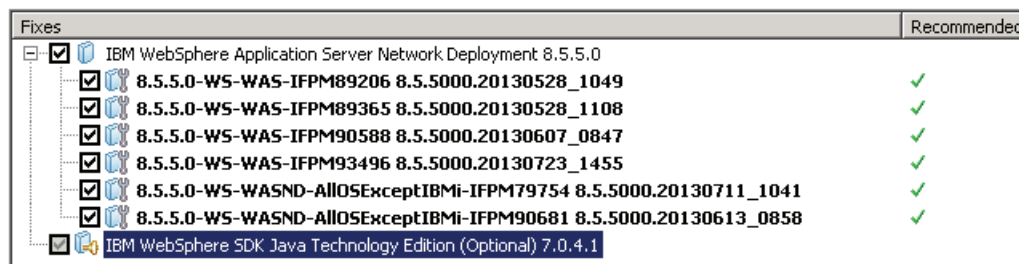
7. You can accept the recommended fix packs that are automatically checked.

> **Note:** The recommended fix packs may vary depends on the platform.

8. On Features, use the checkboxes to select the components you want to install.
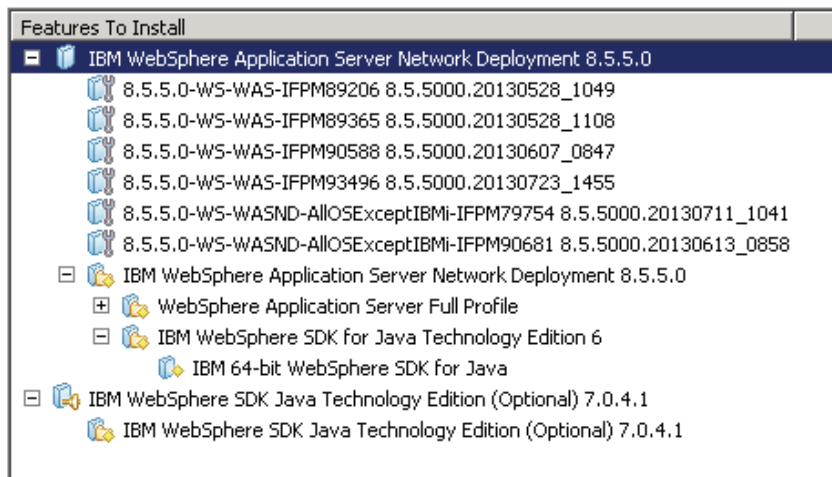
9. On Features to Install, review the summary of components that you have selected and click the **Update** button.

The update process downloads the fix pack from the IBM web site. The download speed depends on the network connections.

The packages are updated. View Log File

All the following updates were installed:

Update	Installation Directory
☐ 🔧 IBM WebSphere Application Server V8.5	
☐ 📦 IBM WebSphere Application Server Network Deployment 8.5.5.0	
🔧 8.5.5.0-WS-WAS-IFPM89206 8.5.5000.20130528_1049	
🔧 8.5.5.0-WS-WAS-IFPM89365 8.5.5000.20130528_1108	
🔧 8.5.5.0-WS-WAS-IFPM90588 8.5.5000.20130607_0847	
🔧 8.5.5.0-WS-WAS-IFPM93496 8.5.5000.20130723_1455	
🔧 8.5.5.0-WS-WASND-AllOSExceptIBMi-IFPM79754 8.5.5000.20130711_1041	
🔧 8.5.5.0-WS-WASND-AllOSExceptIBMi-IFPM90681 8.5.5000.20130613_0858	
📦 IBM WebSphere SDK Java Technology Edition (Optional) 7.0.4.1	

10. Click the **Finish** button when the update is completed as indicated by this message:

The packages are updated.

3.10.3 Working with the HTTP Server Component

Use this procedure to install or update the IBM HTTP Server Component for WebSphere 8.5 or greater.

1. Launch the IBM Installation Manager using the `IBMIM` executable.

2. Select the **Update** option.

Update	Recommended	Vendor
☐☑ 🔧 IBM HTTP Server V8.5		
☐☑ 📦 IBM HTTP Server for WebSphere Application Server 8.5.0 (Install		
☑ 🔧 Version 8.5.5.0		IBM

3. On Update, select this component for the version you want to install or update:

IBM HTTP Server

Updates

Features To Install	
☐ 📦 IBM HTTP Server for WebSphere Application Server 8.5.5.0	
🔧 8.5.5.0-WS-WASIHS-MultiOS-IFPM87808 8.5.5000.20130725_1119	
☐ 📦 IBM HTTP Server for WebSphere Application Server 8.5.5.0	

4. On Features to Install, review the summary of selected features and click **Update**.

The packages are updated. View Log File

All the following updates were installed:

Update	Installation Directory
☐ 🔧 IBM HTTP Server V8.5	
☐ 📦 IBM HTTP Server for WebSphere Application Server 8.5.5.0	
🔧 8.5.5.0-WS-WASIHS-MultiOS-IFPM87808 8.5.5000.20130725_1119	

5. Click the **Finish** button when the update is completed as indicated by this message:

   The packages are updated.

3.10.4 Working with the Plug-ins Component

Use this procedure to install or update the Plug-ins Component for WebSphere 8.5 or greater.

1. Launch the IBM Installation Manager using the `IBMIM` executable.

2. Select the **Update** option.
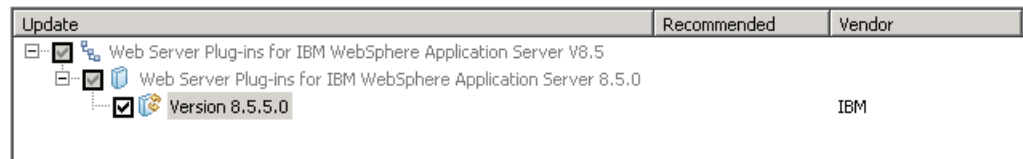
3. On Update, select this component for the version you want to install or update:

   Web Server Plug-ins for IBM WebSphere Application Server
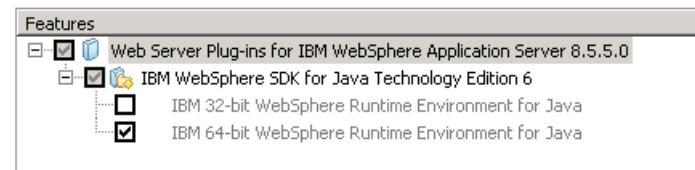
4. On Features, review the summary of selected features and click **Update**.

5. Click the **Finish** button when the update is completed as indicated by this message:

   The packages are updated.

3.10.5 Working with the Customization Toolbox Component

Use this procedure to install or update the Customization Toolbox Component to WebSphere 8.5 or greater.

1. Launch the IBM Installation Manager using the `IBMIM` executable.

2. Select the **Update** option.
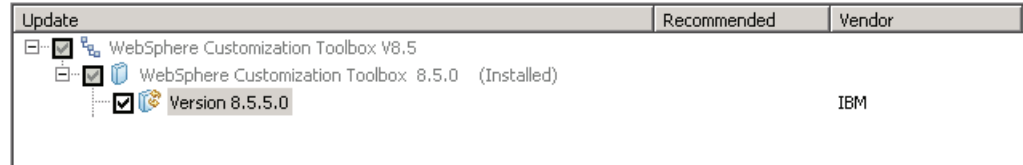
3. On Update, select this component for the version you want to install or update:

   WebSphere Customization Toolbox
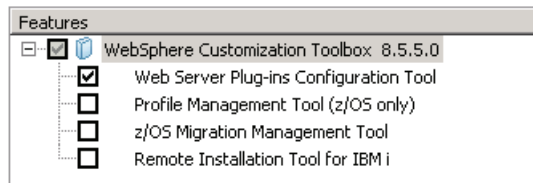
4. On Features, verify the component you want to installed is selected..
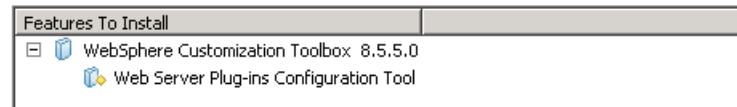
5. On Update, review the summary of selected features and click **Update**.
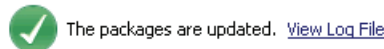
6. Click the **Finish** button when the update is completed as indicated by this message:

   The packages are updated.

7. Restart all HTTP Services.

8. Restart all Web Server instances.

3.11 Configuring the IBM Web Server Plug-in

After you have updated all software packages as described in the preceding section of this document entitled: Section 3.10, "Installing or Updating to WebSphere 8.5 Fix Pack", you must configure the plug-in. This process is performed through the IBM WebSphere Customization Toolbox. You must complete this configuration before you install the JD Edwards EnterpriseOne HTML Web Server.

1. Start the WebSphere Customization Toolbox by starting the executable in this directory:

   ```
   /u01/WebSphere85/Toolbox/WCT/wct.sh
   ```
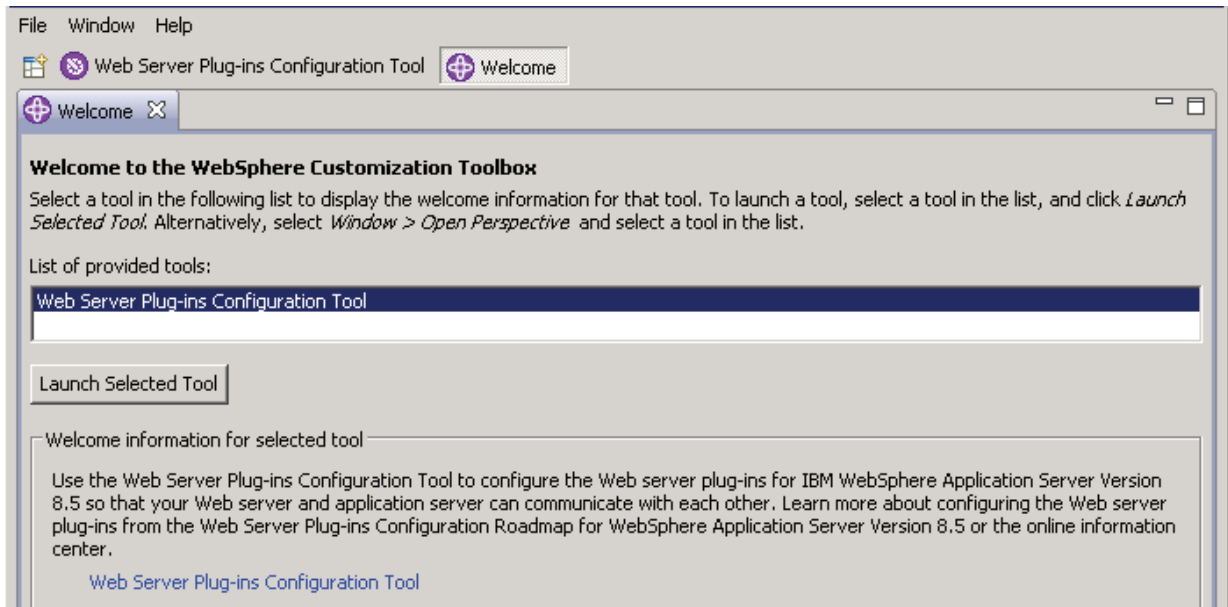
2. On WebSphere Customization Toolbox, Welcome, in the list of provided tools, highlight the Web Server Plug-ins Configuration Tool.

3. Click the **Launch Selected Tool** button.
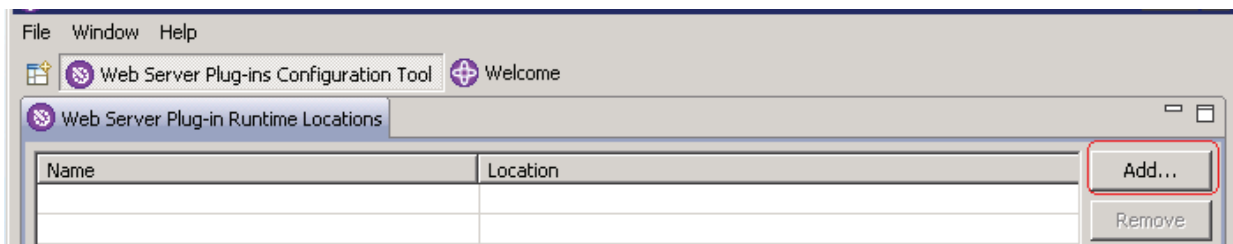
4. In the Web Server Plug-in Runtime Location section, click the **Add** button.
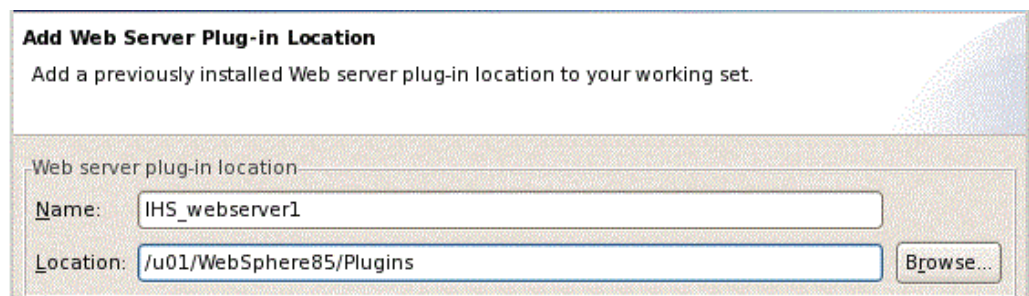
5. On Add Web Server Plug-in Location, complete these fields:

   ■ *Name*

   Enter a name for the plug-in location. For example:

   IHS_webserver1

   ■ *Location*

   Enter the location of your plug-in. The default plug-in directory is:

   `/u01/WebSphere85/Plugins`

6. Click the **Finish** button.
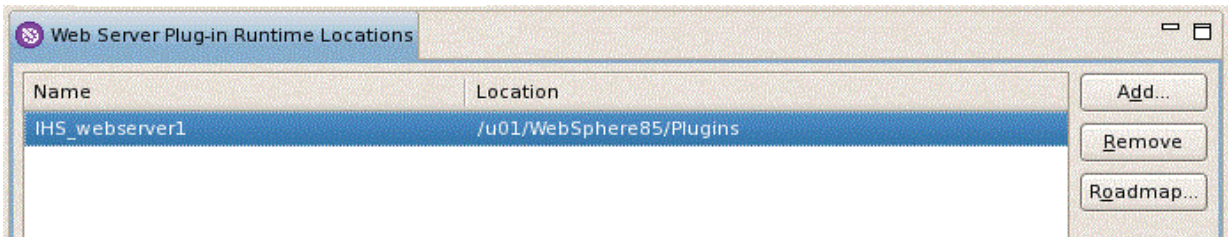
7. In the upper half of the form (shown above), verify the plug-in location that you just defined is displayed in the Web Server Plug-in Runtime Locations section in the upper half of the form.
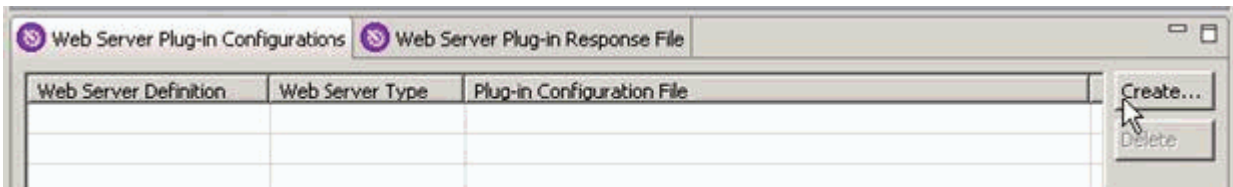
8. In the lower half of the screen (shown above), click the **Create** button.
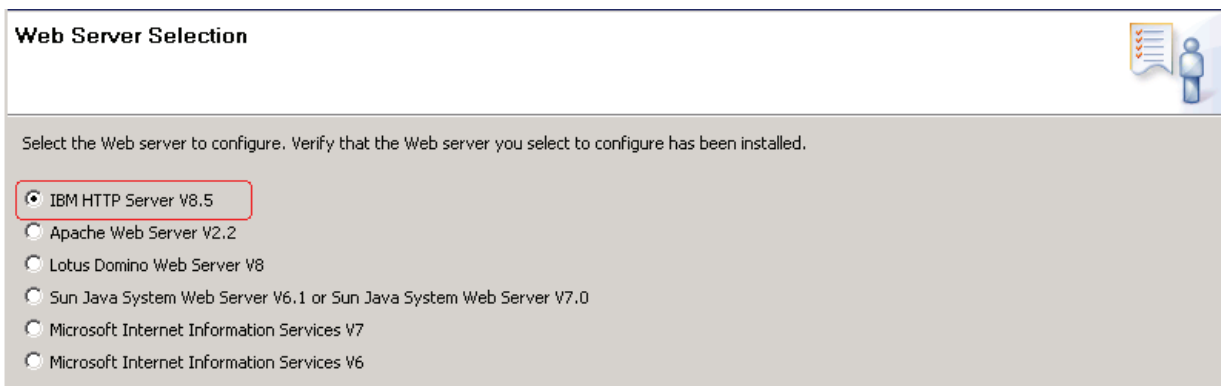
9. On Web Server Selection, choose this radio button:

   IBM HTTP Server V8.5.
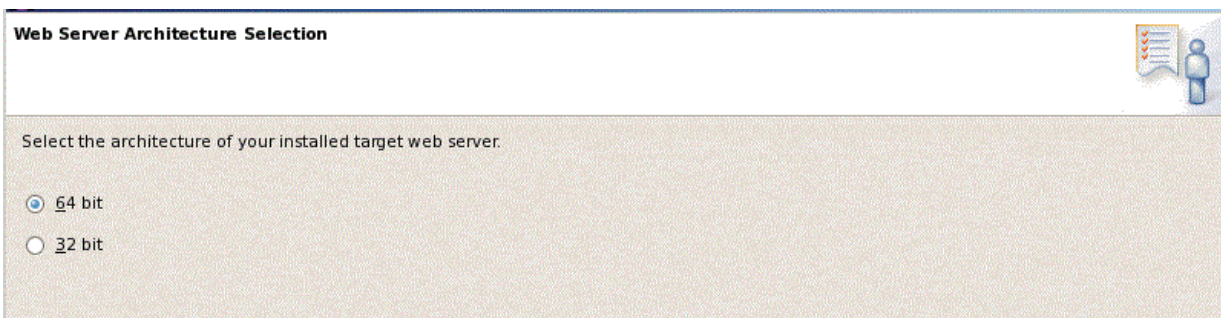
10. On Web Server Architecture Selection, choose your bitness.

11. On Web Server Configuration File Selection, complete these fields:

   ▪ *Select the existing IBM HTTP Server httpd.conf file*

   Enter in the location of your `httpd.conf` file. For example:

```
/u01/WebSphere85/HTTPServer/conf/httpd.conf
```

■ *Specify the Web server port*

Specify a web server port that matches the port used by your HTTP server.

12. Click the **Next** button.

You will receive the Non-Administrative user configuration limitation screen if you are not logged on as an administrative user.

13. Click the **Next** button.
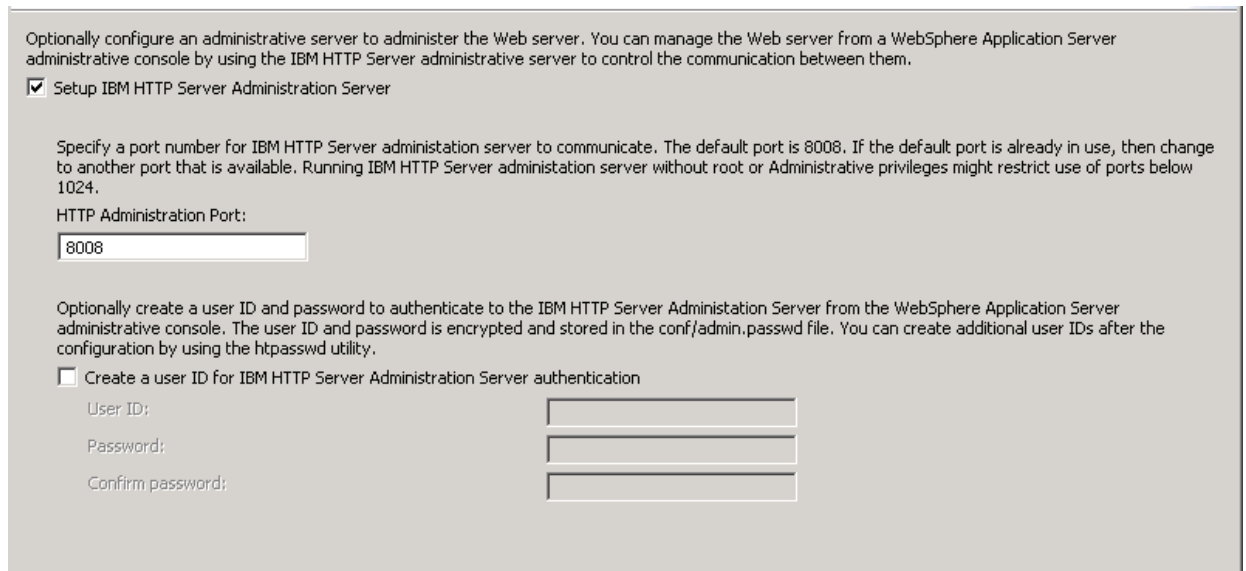
14. If you are signed on as an Administrative User, you will see the above screen. You can choose to create a user ID for IBM HTTP Server.

15. Click the **Next** button.

16. You can choose whether to use a Windows service to run IBM HTTP Server administration server. It is recommended that you select to run the Server as a Windows Service. Optionally you can change the startup type to Manual if you are not going to use the HTTP Administration server often.

17. On Web Server Definition name, specify a web server name. If you already have a web server defined (for example, webserver1), then you should use the same name here.

For the purposes of this guide, it is assumed that the HTTP Server and WebSphere Application Server are located on the same machine. Therefore, on Configuration Scenario Selection, the radio button for **(Local) Installation location of WebSphere Application Server** is selected.

18. Use the **Browse** button to locate the installation location of the WebSphere Application Server. For example:

`/u01/WebSphere85/AppServer`

19. Click the **Next** button.
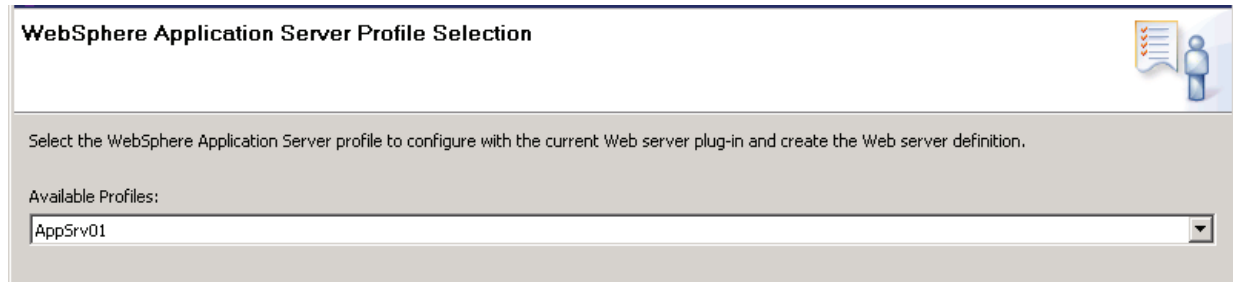
20. On WebSphere Application Server Profile Selection, use the drop-down menu in Available Profiles to select the WebSphere Application Server profile to configure with the current Web server plug-in and create the Web server definition. For example, an available profile might be named AppSvr01.

Note: If the Available Profiles field is blank and no options show on the drop down, you must Cancel from this procedure. Create a profile and either use the advanced option to automatically create a web server definition or manually create the web server in the IBM WebSphere Application Server Administrative Console. For more information on either option, refer to the IBM info center:

`http://www-01.ibm.com/software/webservers/appserv/was/library/`

21. Click the **Next** button.

22. On Plug-in Configuration Summary, review the information for accuracy.

23. Click the **Configure >** button.

```
Success:
   The configuration has been completed successfully.

The stand-alone application server is configured with a Web server definition. You may start up your Web sever and application server to
test your configuration.

Web server type configured:
   IBM HTTP Server V8.5

Web server definition:
   webserver1

Plug-in configuration file:
   /u01/WebSphere85/Plugins/config/webserver1/plugin-cfg.xml
```

24. On Plug-in Configuration Result, verify that the configuration completed successfully. If necessary, follow the instructions to correct any errors.

25. Click the **Finish** button.

Web Server Plug-in Configurations	Web Server Plug-in Response File		
Web Server Definition	Web Server Type	Plug-in Configuration File	Create...
webserver1	IBM HTTP Server	/u01/WebSphere85/Plugins/config/webserver1/plugin-cfg.xml	Delete
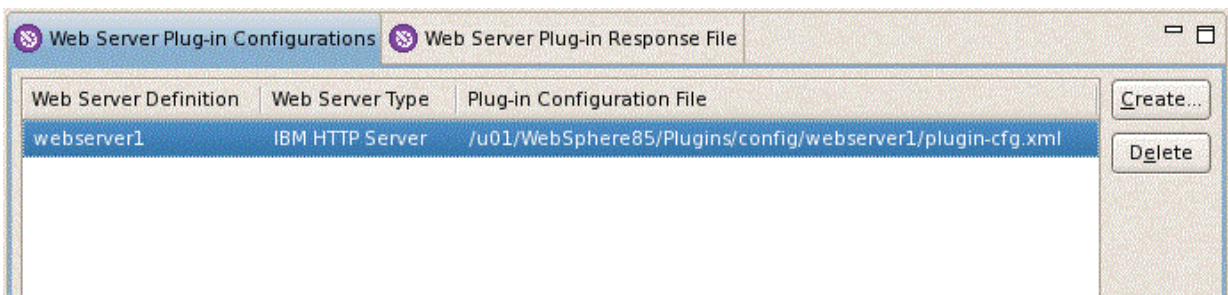
26. On WebSphere Customization Toolbox, with the Web Server Plug-in Configurations tab selected, verify that the server definition exists.

3.12 Setting the HTTP Server Properties

To use IBM WebSphere Application Server 8.5 properly with Oracle JD Edwards EnterpriseOne, you must set the HTTP server to automatically generate and propagate the plug-in. These steps briefly describe this process.

1. Log into the admin console for IBM WebSphere Application Server

2. Select Servers > Server Types > Web Servers.

3. Select your web server.

4. On the right hand side of the screen, select Additional Properties > Plug-in properties.

5. Make any necessary changes and ensure the checkboxes are selected next to these two properties:

- Automatically generate the plug-in configuration file
- Automatically propagate plug-in configuration file

6. Click **Apply**.

7. Click the **Save** button to save all changes.

3.13 Manually Generating a Plug-in

Occasionally, you may to manually generate the web server plug-in. The most common error that requires manual plug-in generation is the "HTTP 404" when trying to access the software. This section briefly explains how to manually generate the plug-in.

1. Log in to the WebSphere Application Server Administration Console for your profile.

2. Select Server Types > Web Servers.

3. Check the box next to the web server definition.

4. Click the **Generate Plug-in** button.

5. Click the **Propagate Plug-in** button.

6. Log off of the Admin Console.

> **Note:** **Federated (Clustered) Web Servers.** If you are using WebSphere Application Server and running JD Edwards EnterpriseOne as part of a federated (or clustered) web server, you may need to regenerate the WebSphere global plugin configuration after deploying the newest tools release. This is required when new servlets have been added to the tools release you are deploying.
>
> To update (regenerate) plugins, refer to the following procedure.

To update (regenerate) and propagate the global web server plugin configuration:

1. Log on to the Deployment Manager Administration Console using the Dmgr01 profile.

2. Expand the Environment node and select **Update global Web server plug-in configuration**.

3. Review the content in the right-hand pane and note the location of the plug-in file in the description. For example, the description might say:

The global plugin-cfg.xml file is placed in the %was_profile_home%/config/cells directory.

4. Click the **OK** button.

3.14 Manually Editing the HTTP Configuration File

> **Caution:**   You must perform this step in order for JD Edwards
> EnterpriseOne HTML Server to work correctly.

To manually edit the HTTP configuration file (`httpd.conf`):

1. Locate your `httpd.conf` file. Typically the file is located in this directory:

    `/u01/WebSphere85/HTTPServer/config`

2. Open the file with an ASCII editor.

3. Assuming the location of your `httpd.conf` is that shown in the previous step, add
    the following lines to the bottom of the file:

    `LoadModule  was_ap22_module  "/u01/WebSphere85/Plugins/bin/64bits/mod_`
    `was_ap22_http.so"`

    > **Note:**   The extension of the `mod_was_ap22_http` file varies based on
    > platform.

    `WebSpherePluginConfig`
    `"/u01/WebSphere85/Plugins/config/webserver1/plugin-cfg.xml"`

4. Save and close the `httpd.conf` file.

5. Stop the HTTP Server from the bin directory using this command:

    `./apachectl stop`

6. Restart the HTTP Server from the bin directory using this command:

    `./apachectl start`

4

Installing and Configuring WebSphere 7.0

This chapter describes how to install and configure WebSphere 7.0. It contains the following topics:

- Section 4.1, "Installing WebSphere Application Server 7.0 (Using Network Deployment CD or Downloaded Image)"

- Section 4.2, "Installing the IBM HTTP Server 7.0"

- Section 4.3, "Installing IBM HTTP Server Plug-ins for WebSphere Application Server"

- Section 4.4, "Installing the WebSphere Update Installer"

- Section 4.5, "Installing WebSphere 7.0 Fix Pack 29"

- Section 4.6, "Installing the IBM HTTP Server Fix Pack"

- Section 4.7, "Installing the WebSphere 7.0 Plug-ins Fix Pack"

- Section 4.8, "Verifying the Versions of Installed WebSphere Products"

- Section 4.9, "Starting the WebSphere Application Server"

- Section 4.10, "Stopping the WebSphere Application Server"

- Section 4.11, "Determining the Name and Status of the WebSphere Application Server"

- Section 4.12, "Starting the IBM HTTP Server"

- Section 4.13, "Stopping the IBM HTTP Server"

- Section 4.14, "Accessing the WebSphere Administration Console"

- Section 4.15, "Testing the WebSphere and IBM HTTP Server Installation"

- Section 4.16, "Generating and Propagating WebSphere Plug-ins (optional)"

- Section 4.17, "Creating a New Application Server Profile (optional)"

- Section 4.18, "Deleting a Profile (optional)"

- Section 4.19, "Adding a New Web Server for a New Profile (optional)"

4.1 Installing WebSphere Application Server 7.0 (Using Network Deployment CD or Downloaded Image)

> **Note:** It is important to follow the exact sequence of steps in this procedure.

Complete these steps to install the WebSphere Application Server version 7.0, and then install the EnterpriseOne Web Server to that installation. The WebSphere 7.0 Network Deployment CD may be used to install WebSphere Application Server for a base or standalone configuration.

> **Note:** The typical IBM WebSphere installation includes the Application Server itself, HTTP Server, and the Plug-in components. You must install all these components to ensure WebSphere Application Server 7.0 is functioning correctly. For any additional requirements and Fix Packs once the basic install is completed, review the minimum technical requirements (MTRs) as described in Accessing Certifications (formerly Minimum Technical Requirements) in this document.

1. If you have not already set the display, complete this step. For example, if your local display has an IP address of 10.139.157.46:0.0, enter this command to properly set the display:

   ```
   export DISPLAY=10.139.157.46:0.0
   ```

   > **Note:** For Solaris only, verify that you are in the ksh shell before executing the command using the `echo $SHELL` command.

2. If you are installing WebSphere 7.0 on Solaris with Exceed, enter this command to set the environment variable:

   ```
   export NO_J2D_DGA=1
   ```

3. Insert the WebSphere Application Server Network Deployment CD, Version 7.0 or extract the downloaded image into a temporary location.

4. Enter this command to mount the CD drive:

   ```
   mount /cdrom
   ```

   > **Note:** The syntax of the mount command can vary by platform, and is not required for Sun platforms.

5. Enter this command to change to the CD drive:

   ```
   cd /cdrom
   ```

6. Run the launchpad executable from the extracted directory:

   ```
   ./launchpad.sh
   ```
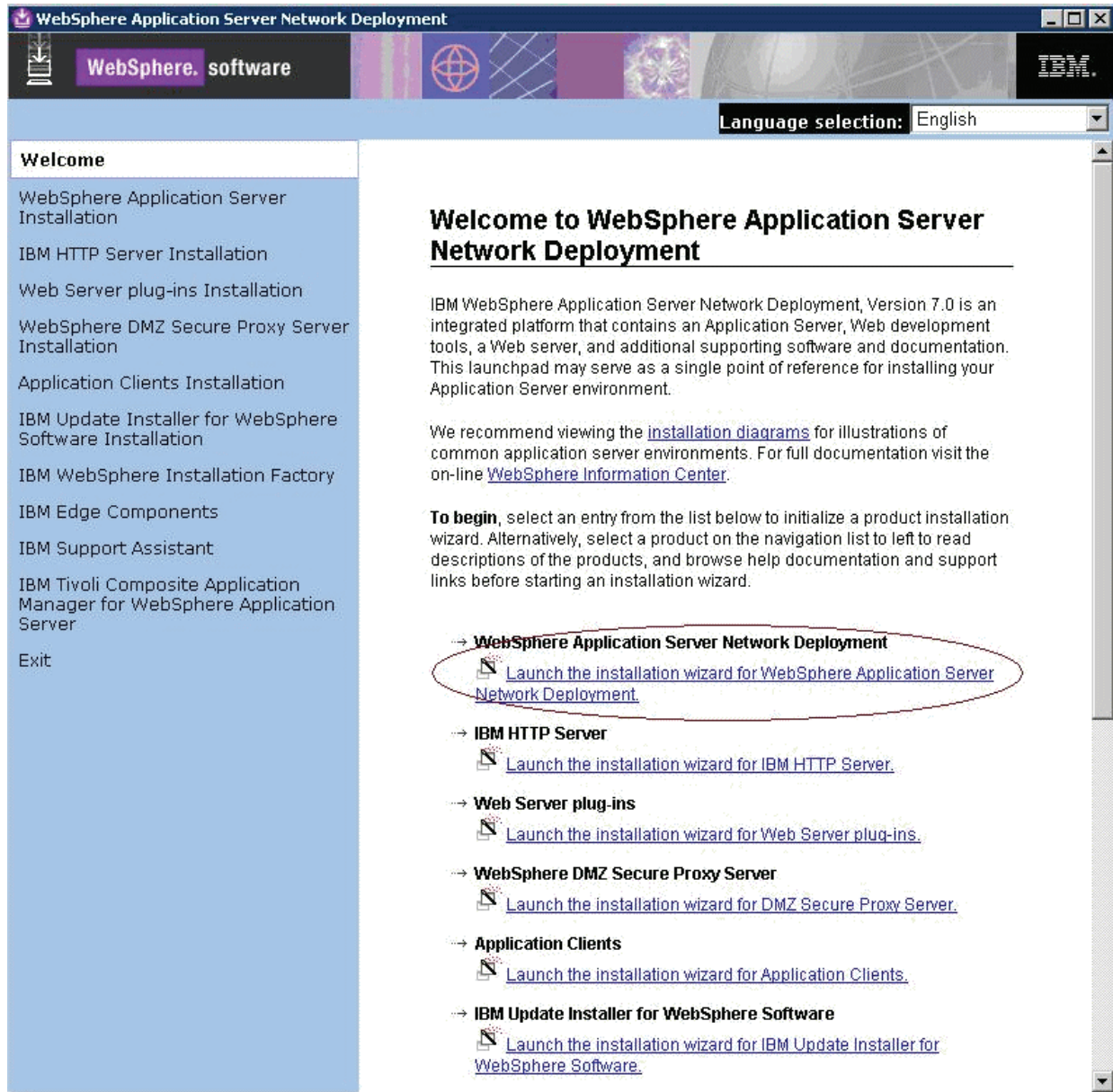
7. From that launchpad window, select the first link on the right panel:

Launch the installation wizard for WebSphere Application Server Network Deployment
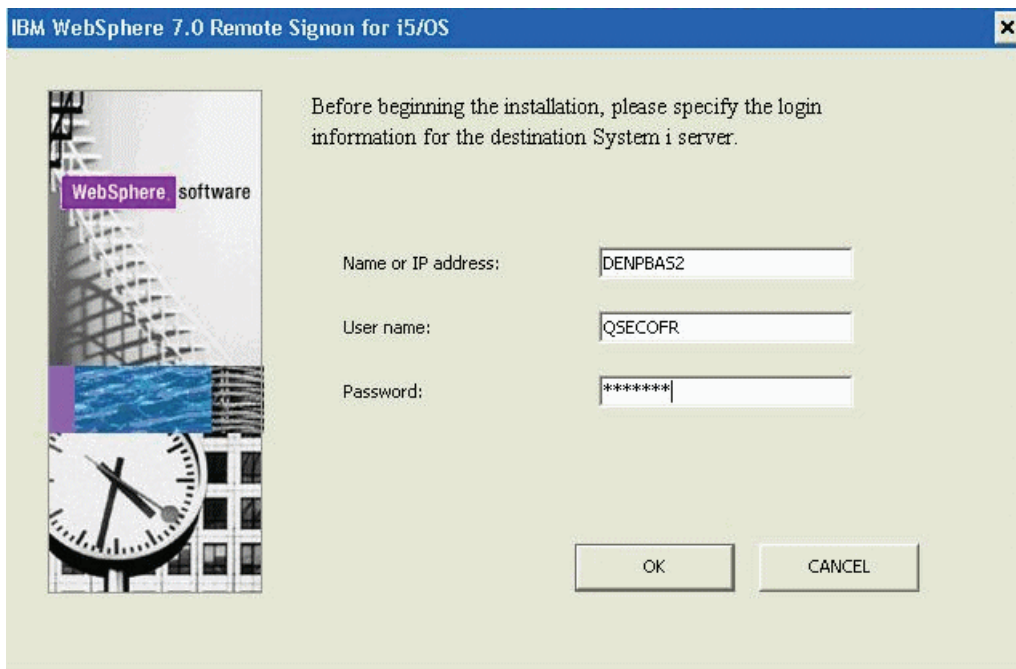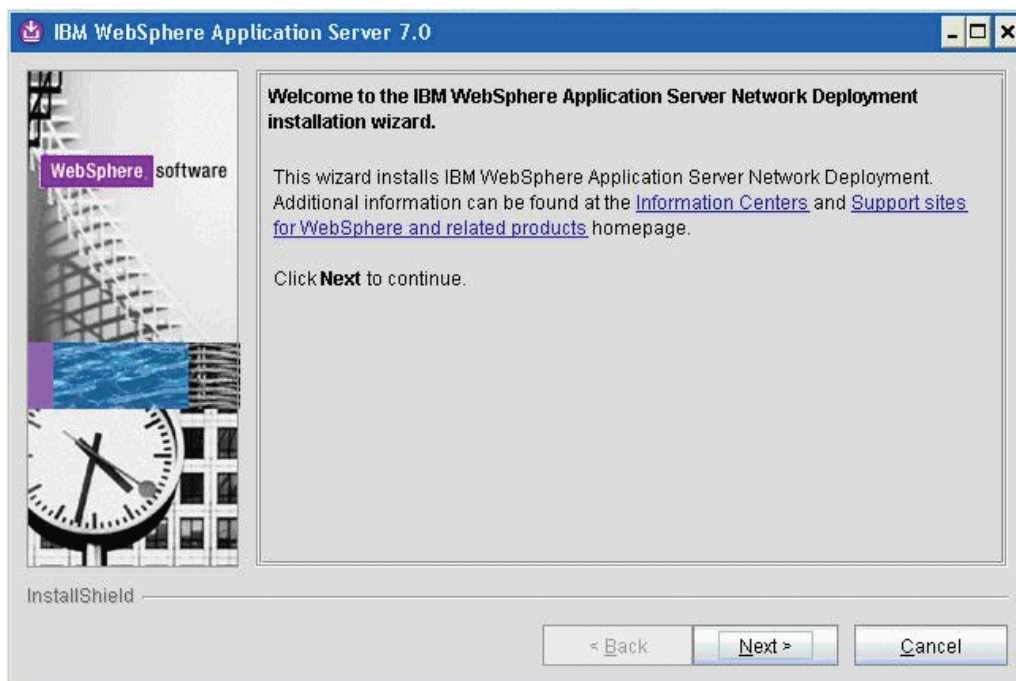
8. On the Welcome panel, click the *Next* button to continue.
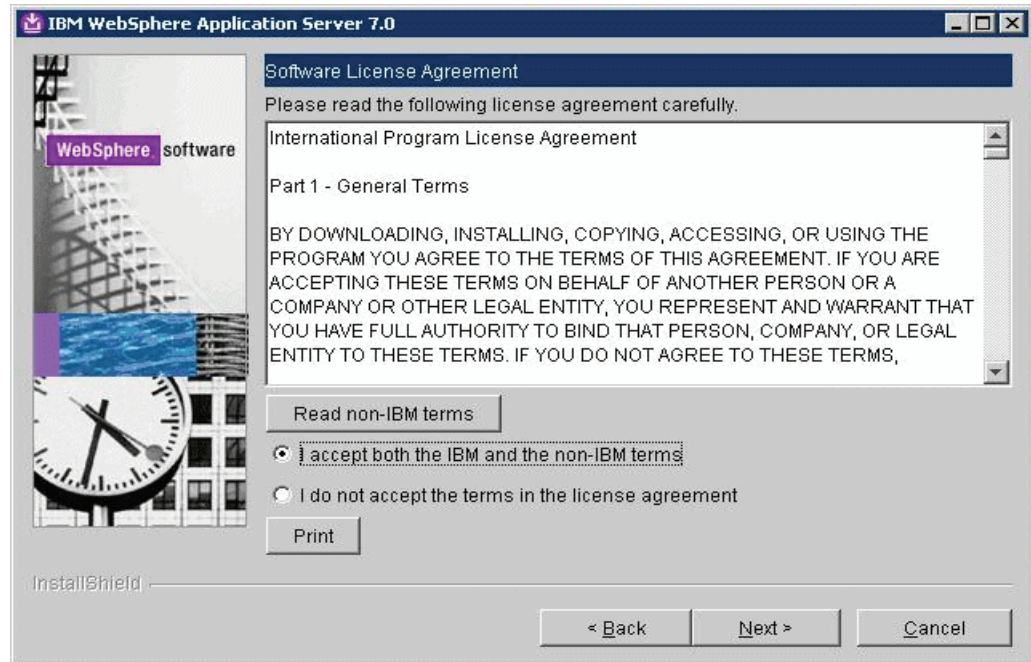
9. On Software License Agreement, review the License Agreement and select a radio button to accept or decline.

If you chose to accept, click the *Next* button to continue.

If you do not accept the terms of the license agreement, you cannot continue with the installation.
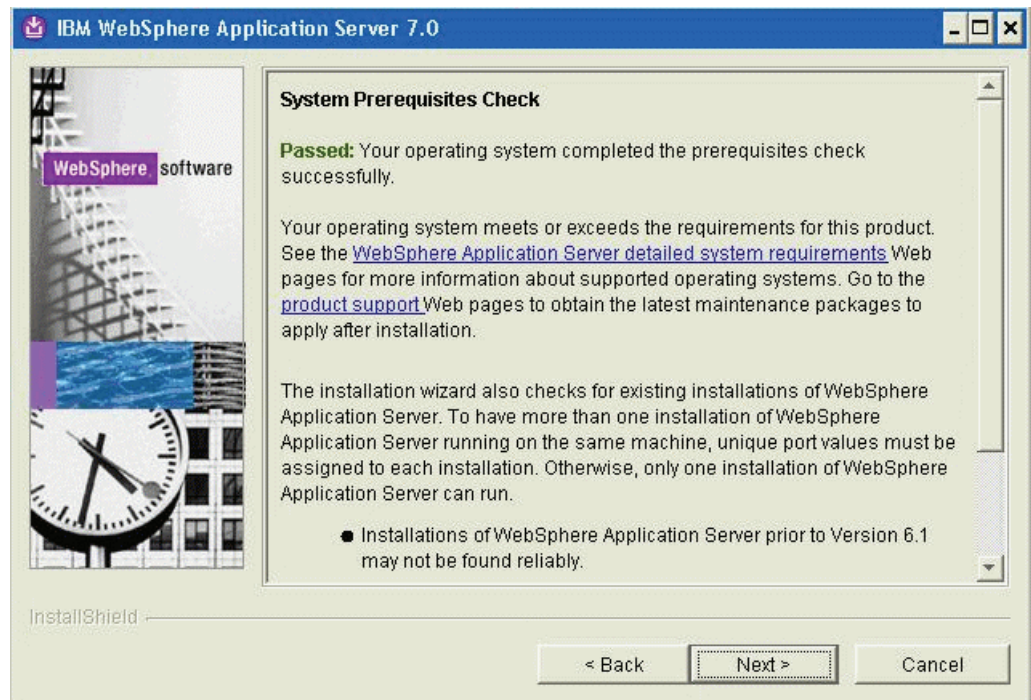
10. On System Prerequisites Check, the installer performs a quick system requirements check on the server. Once the check is complete and successful, click the *Next* button to continue.
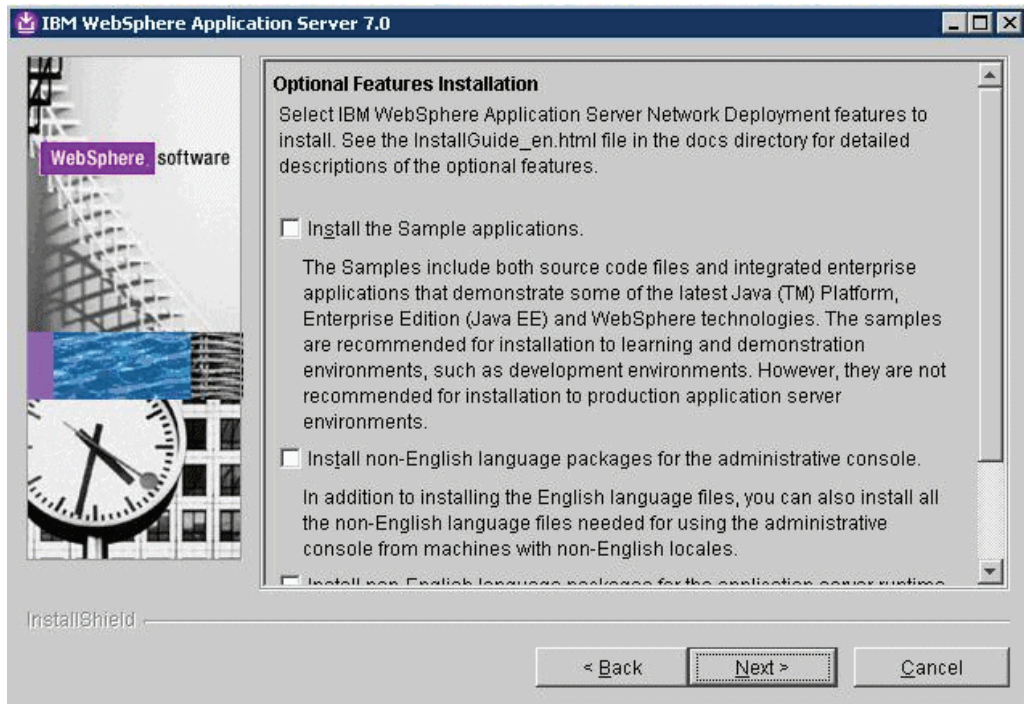
11. On the Optional Features Installation screen, click the *Next* button to continue.

> **Tip:** For production environments, it is recommended that you *not* enable the *Install the Sample application* check box.

> You should enable the check box for non-English support for the WebSphere Administrative Console if applicable to your installation.
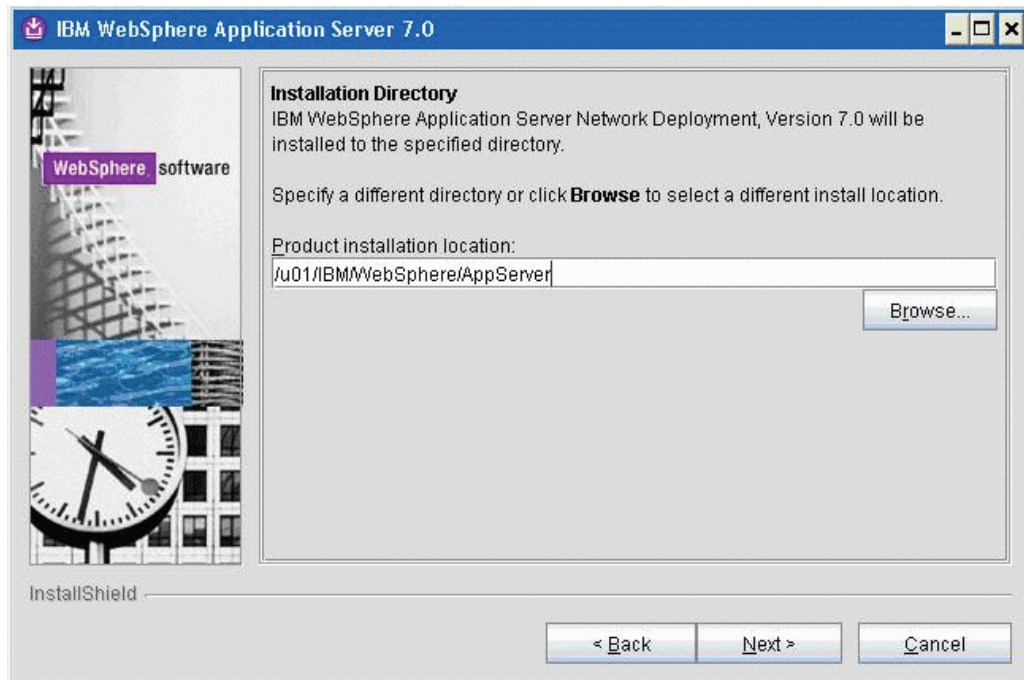
12. On Installation Directory, enter or browse to a valid location where you want to install WebSphere Application Server Network Deployment (the default is opt/IBM/WebSphere/AppServer). For example:

```
/u01/IBM/WebSphere/AppServer
```

13. Click the *Next* button to continue.

14. On WebSphere Application Server Environments, select *Application Server* to create a standalone application server profile and then click the *Next* button to continue.

> **Note:** The *Application Server* environment will create a default stand-alone application server called AppSrv01 during the installation. To use federated nodes configuration, select *Cell* environment to create a deployment manger (such as Dmgr01) and a managed node (for example, AppSrv01) during the installation.

15. On Enable Administrative Security, the check box for the application server profile is checked by default. You can choose either to:

    ■ Clear the check box for *Enable administrative security* to disable server administrative security, or

    ■ If the check box is enabled for *Enable administrative security*, server administration security will be enabled and you must enter the User ID and Password

    When you enable the check box the fields on this screen are enabled and you must enter valid credentials for the WebSphere administrator for this installation.

    Tip: *JD Edwards EnterpriseOne Business Services Server.* If you are using these instructions to install a JD Edwards EnterpriseOne Business Services Server into this WebSphere instance, you must enable administrative security.

16. Click the *Next* button to continue.
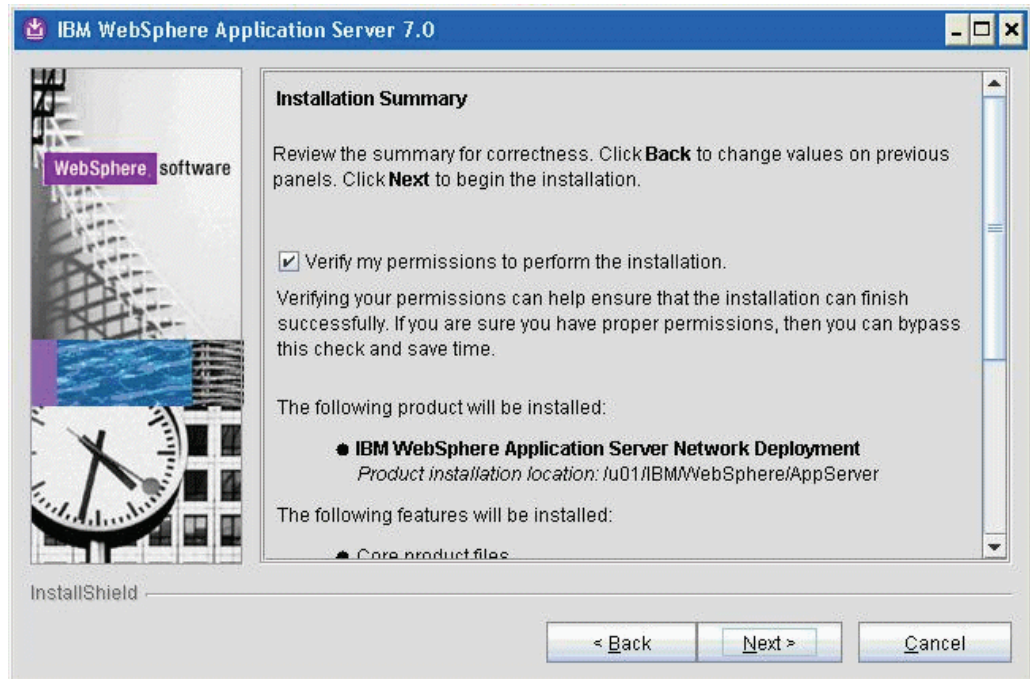
17. On Installation Summary, review the information and click the *Next* button to begin the installation of WebSphere Application Server Network Deployment.

> **Note:** You should enable the check box for *Verify my permissions to perform the installation* in order for the installer to validate the permissions required for installation of the product.
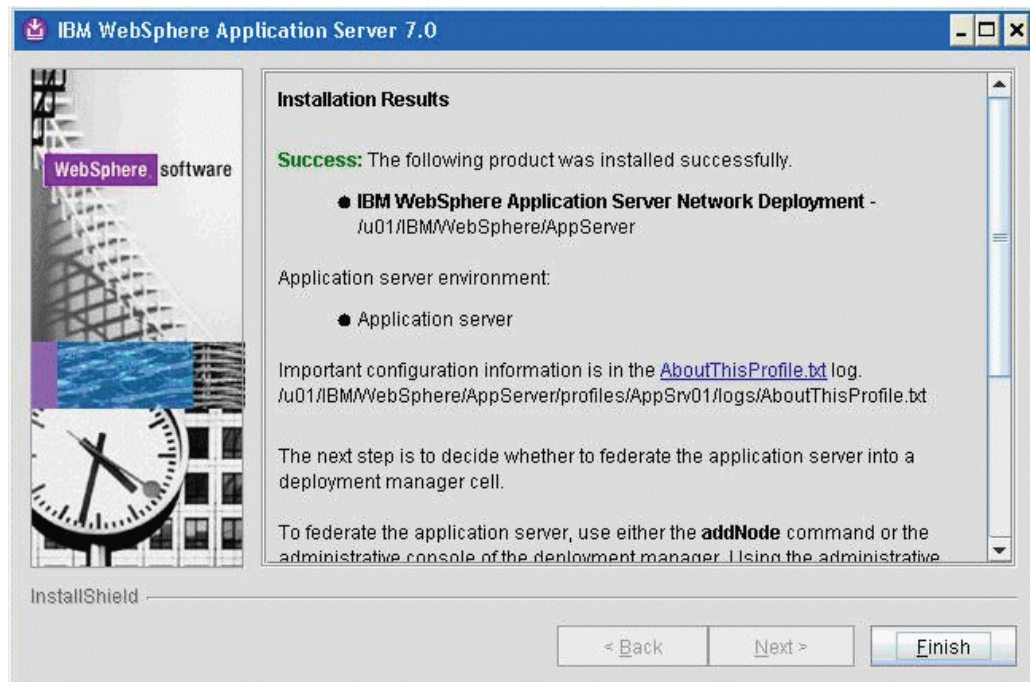
> **Note:** On Installation Results, you can click on the
> *AboutThisProfile.txt* link to see the port assignment for this profile.
> Note the Administrative console port on which AppSrv01 will be
> running (for example, 9060). You can use *Profile Management Tool* to
> create as many profiles as you like. Each profile is a separate instance
> of the WebSphere running on a different set of ports.

18. On Installation Results, click Finish.
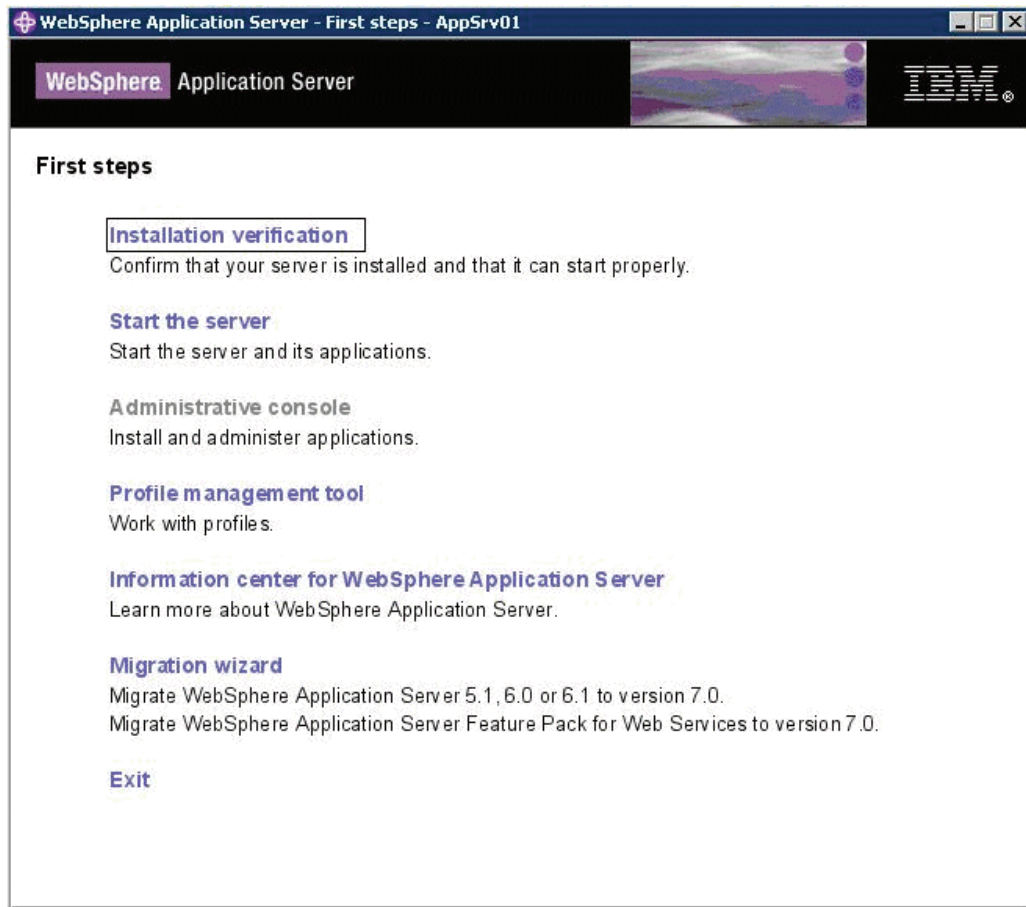
The First steps menu is launched.

19. On the First steps menu, click *Installation verification* to verify the installation.

After you click *Installation verification*, you can verify the success of the installation
by reviewing the contents of the resulting display. For example:

```
First steps output  - Installation verification
Server name is:server1
Profile name is:AppSrv01
Profile home is:/u01/IBM/WebSphere/AppServer/profiles/AppSrv01
Profile type is:default
Cell name is:densun30Node01Cell
Node name is:densun30Node01
Current encoding is:ISO646-US
Start running the following command:/u01/IBM/WebSphere/AppServer/profiles/AppSrv01/bin/startServer.sh server1 -profileName AppSrv01
>ADMU0116I: Tool information is being logged in file
>       /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/logs/server1/startServer.log
>ADMU0128I: Starting tool with the AppSrv01 profile
>ADMU3100I: Reading configuration for server: server1
>ADMU3200I: Server launched. Waiting for initialization status.
>ADMU3000I: Server server1 open for e-business; process id is 19674
Server port number is:9080
IVTL0010I: Connecting to the densun30 WebSphere Application Server on port: 9080
IVTL0015I: WebSphere Application Server densun30 is running on port: 9080 for profile AppSrv01
Testing server using the following URL:http://densun30:9080/ivt/ivtserver?parm2=ivtservlet
IVTL0050I: Servlet engine verification status: Passed
Testing server using the following URL:http://densun30:9080/ivt/ivtserver?parm2=ivtAddition.jsp
IVTL0055I: JavaServer Pages files verification status: Passed
Testing server using the following URL:http://densun30:9080/ivt/ivtserver?parm2=ivtejb
IVTL0060I: Enterprise bean verification status: Passed
IVTL0035I: The Installation Verification Tool is scanning the /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/logs/server1/SystemOut.log file for errors and warnings.
[7/6/09 19:03:07:618 MDT] 0000000a WSKeyStore    W   CWPKI0041W: One or more key stores are using the default password.
[7/6/09 19:03:17:456 MDT] 0000000a ThreadPoolMgr W   WSVR0626W: The ThreadPool setting on the ObjectRequestBroker service is deprecated.
IVTL0040I: 2 errors/warnings are detected in the /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/logs/server1/SystemOut.log file
IVTL0070I: The Installation Verification Tool verification succeeded.
IVTL0080I: The installation verification is complete.
```

20. Ensure that the Installation Verification utility completes with a success message.

21. Close the First steps output and click *Exit* on the First steps screen.

This completes the profile creation activity.

4.2 Installing the IBM HTTP Server 7.0

> **Note:**   Although the IBM HTTP Server is integrated into the WebSphere Application Server, the installation is a separate process.

To install the IBM HTTP Server:

1. Insert the WebSphere Application Server Supplement CD, Version 7.0 or extract the downloaded image (if you haven't done so already).

2. Run the install executable that is located in the IHS directory from the extracted location by typically using these commands:

```
mount /cdrom
cd /cdrom
./IHS/install.sh
```

> **Note:**   The syntax of the mount command can vary by platform, and is not required for Sun platforms.
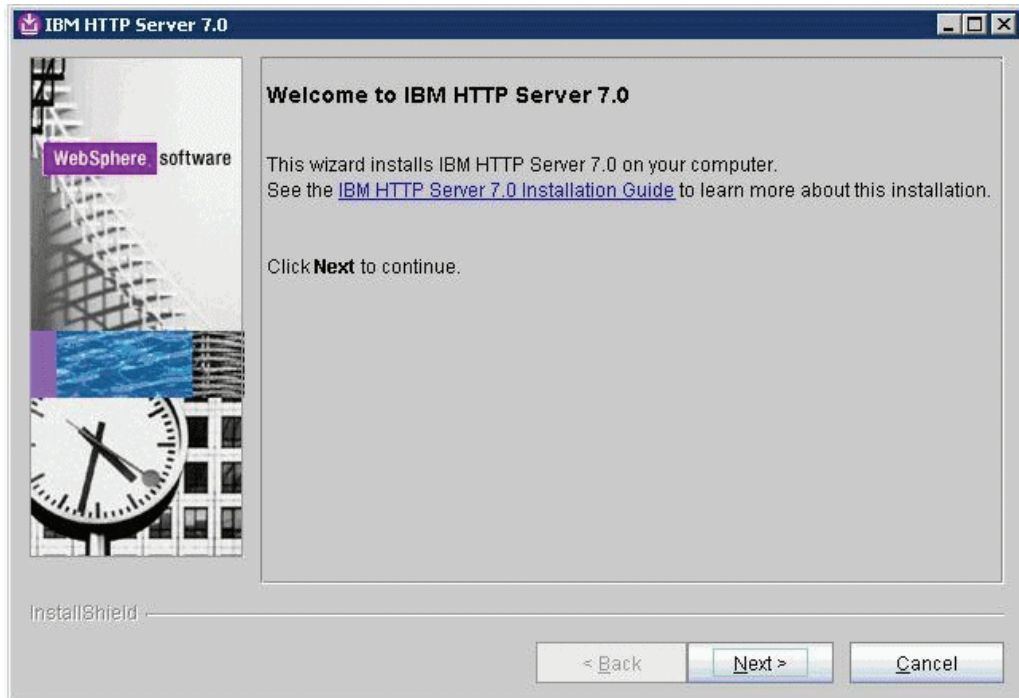
3. On Welcome, click the *Next* button to continue.
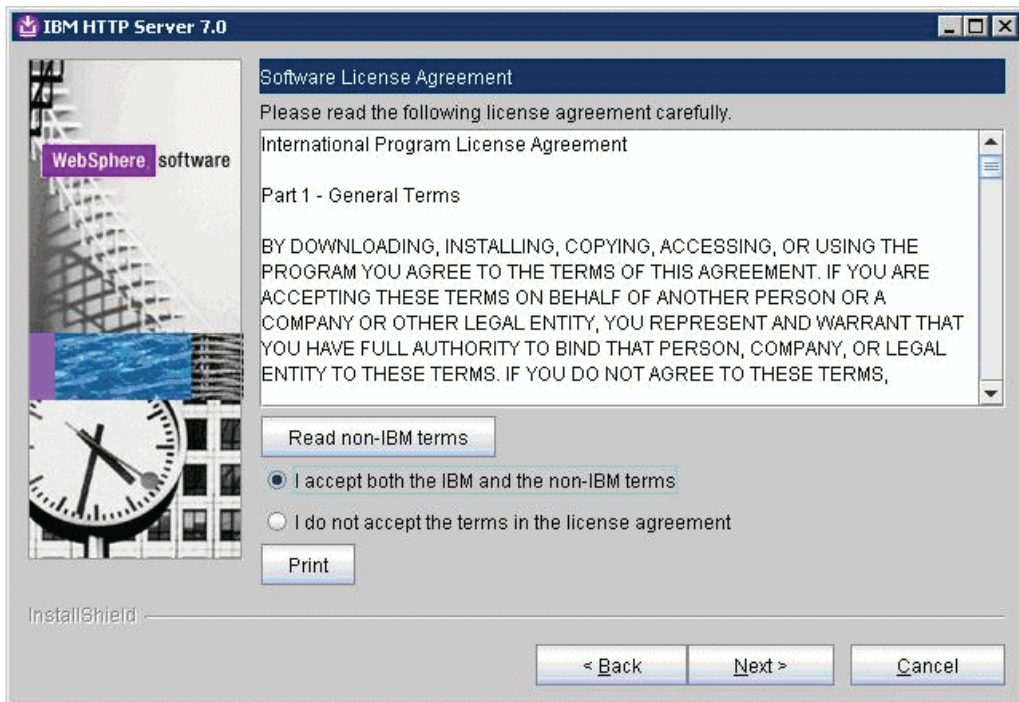
4. On Software License Agreement, review the License Agreement and choose an option to accept or decline.

5. Click the *Next* button to continue.
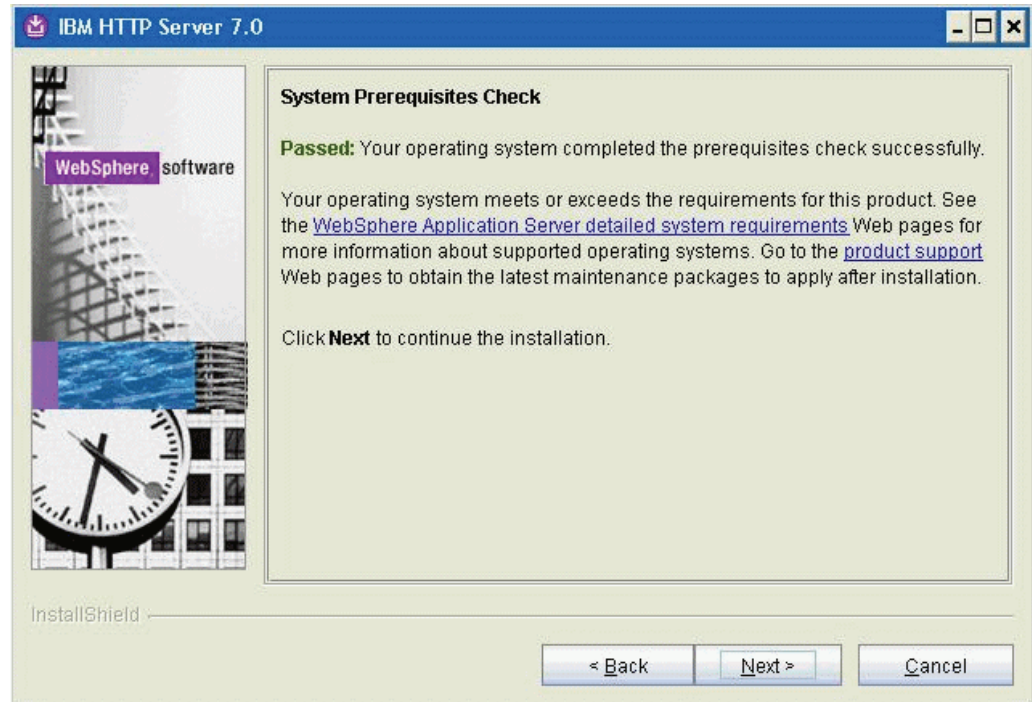
6. On System Prerequisites Check, the installer performs a quick system requirements check on the server. Once the check is complete and successful, click the *Next* button to continue.
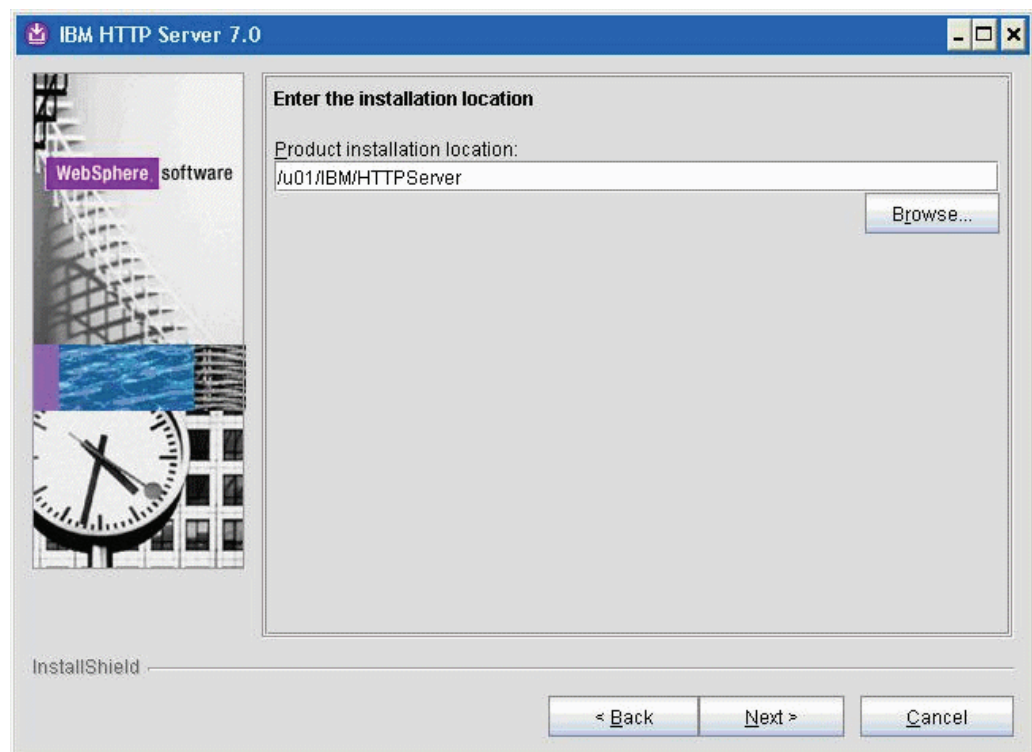
7. For the install location, enter a valid value for your IBM HTTP Server installation directoryopt/IBM/HTTPServer). Use a value such as:
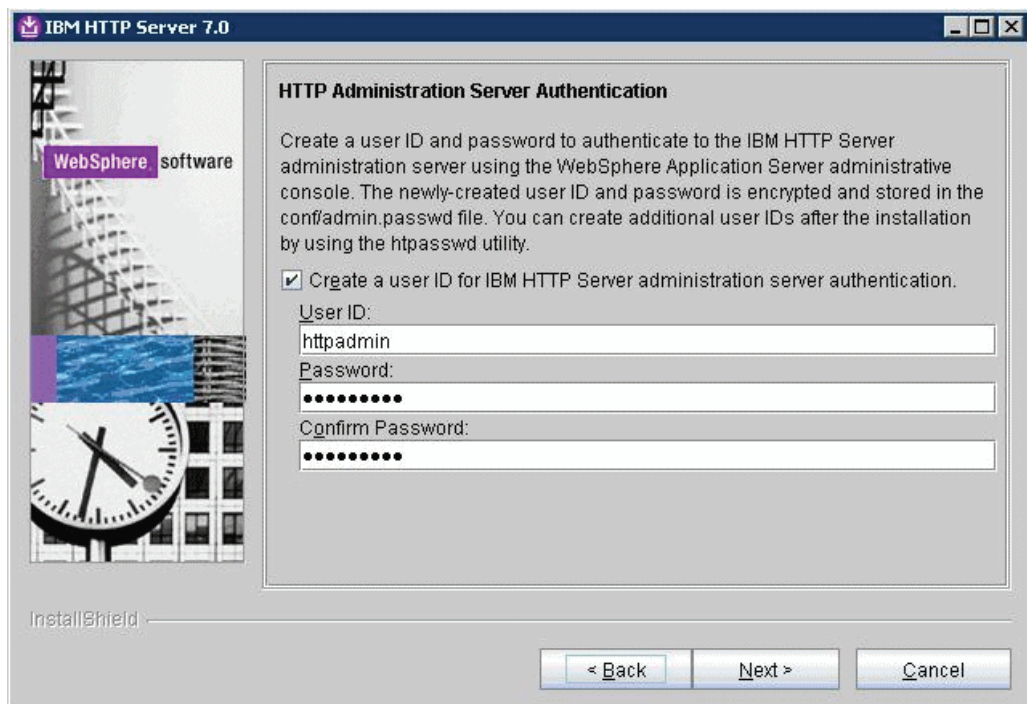
```
/u01/IBM/HTTPServer
```

8. Click the *Next* button to continue.

9. On Port Values Assignment, use the default port or enter different ports.

10. Click the *Next* button to continue.

11. Click the *Next* button to continue.

12. On HTTP Administration Server Authentication, the check box enabling HTTP server administration security is checked by default. You can choose either to:

■ Clear the check box for *Create a user ID for IBM HTTP administration server authentication* to disable HTTP server administration security, or

■ If the check box is enabled for *Create a user ID for IBM HTTP administration server authentication*, HTTP server administration security will be enabled and you must enter the User ID and Password

13. Click the *Next* button to continue.
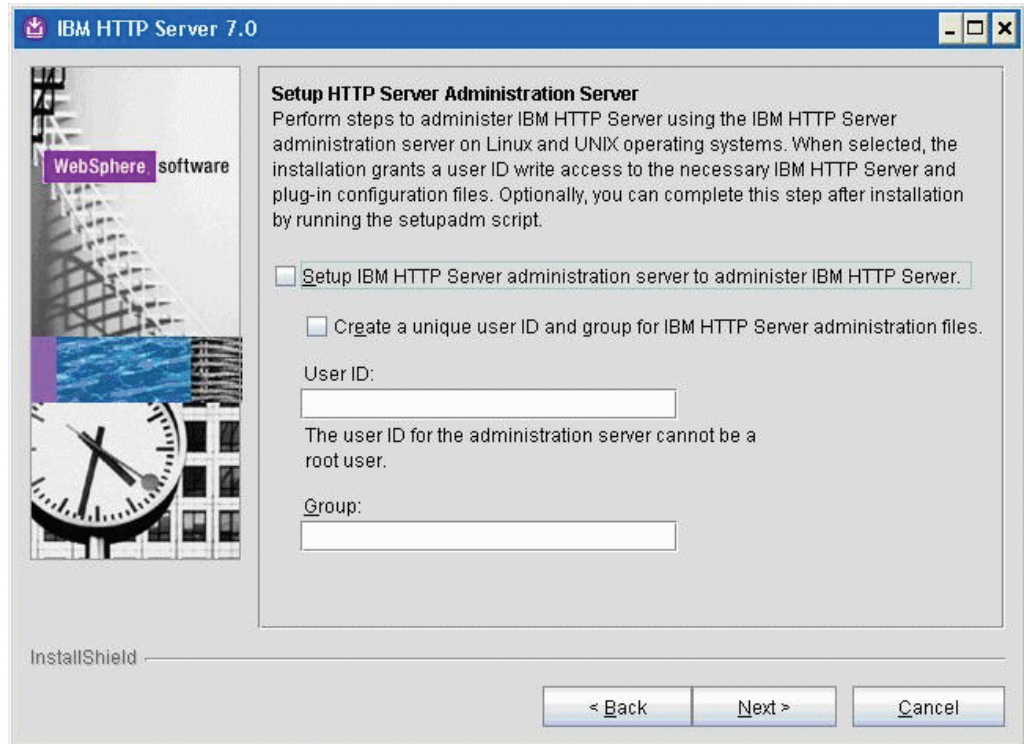
14. On Setup HTTP Administration Server, clear the Setup IBM HTTP administration server to administer IBM HTTP Server or enter an User ID and Group to Setup IBM HTTP administration server.

15. Click the *Next* button to continue.
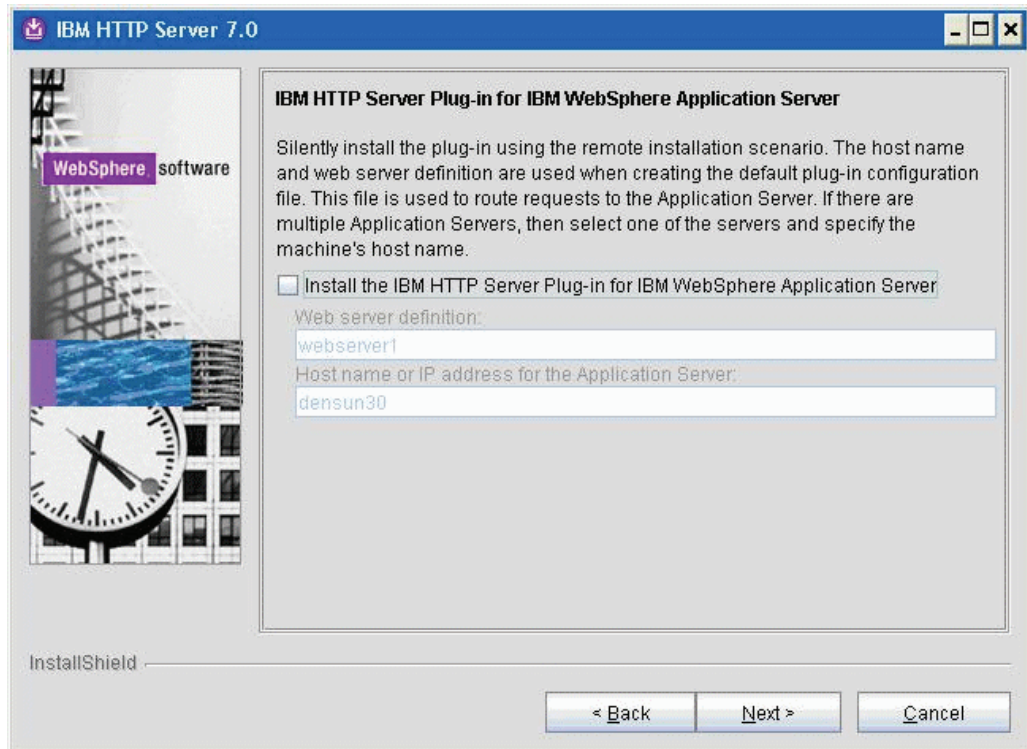
16. On IBM HTTP Administration Server Plug-in For IBM WebSphere Application Server, clear the check box for *Install the IBM HTTP Server Plug-in for IBM WebSphere Application Server* to disable the silent install of the plug-in at this time. The installation of IBM HTTP Server Plug-in for IBM WebSphere Application Server will be described in the section Installing IBM HTTP Server Plug-ins for WebSphere Application Server.

17. Click the *Next* button to continue.
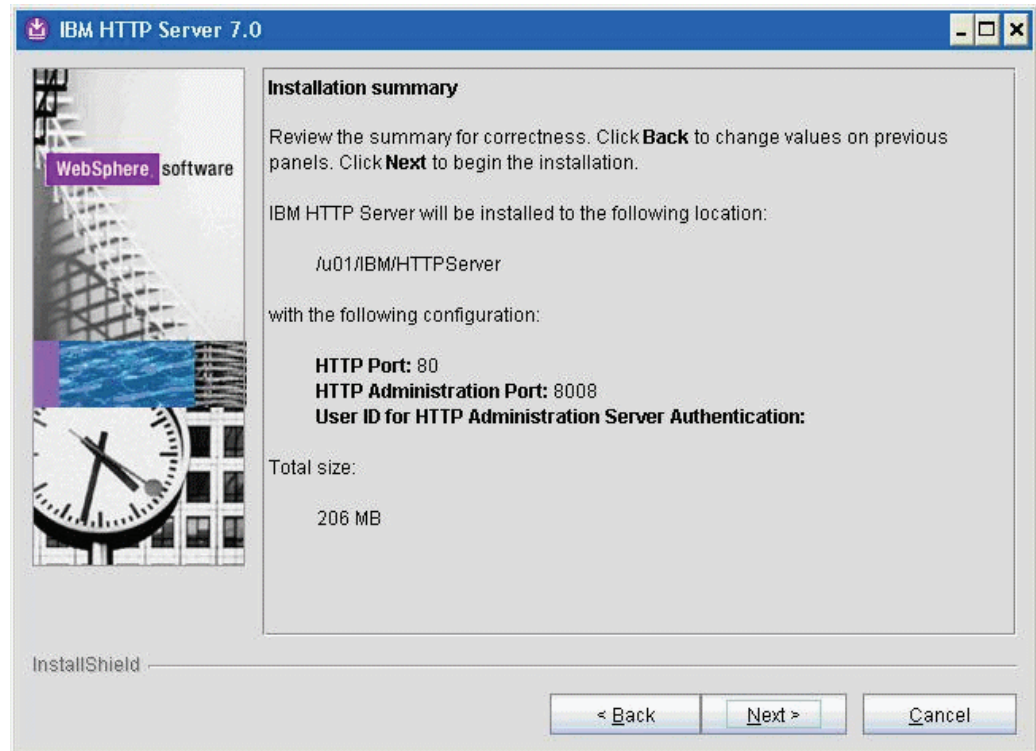
18. On the summary screen, click the *Next* button to begin the installation.
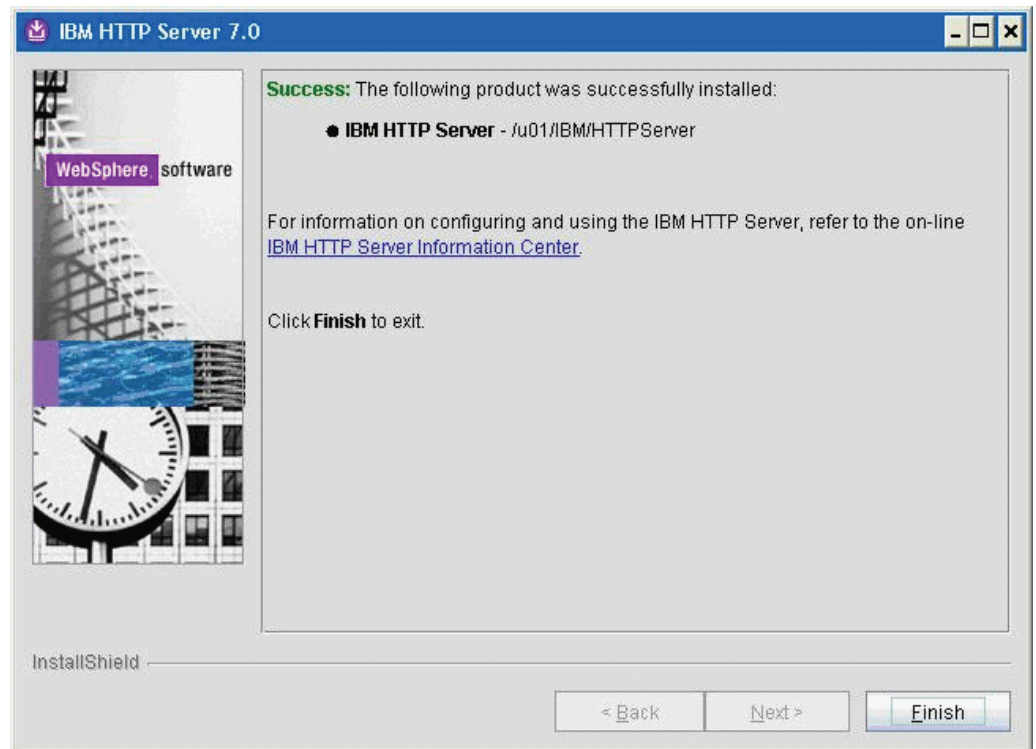
19. On the successfully installed screen, click Finish.

4.3 Installing IBM HTTP Server Plug-ins for WebSphere Application Server

With the IBM HTTP Server successfully installed, the final portion of the WebSphere Application Server installation is to install WebSphere Plug-ins.

Prior to installing WebSphere Plug-ins, it is recommended to ensure the IBM HTTP Server services (Apache) are not already running.

To install WebSphere Plug-ins:

1. Insert the WebSphere Application Server Supplement CD, Version 7.0 or extract the downloaded image (if you haven't done so already).

2. Run the install executable in the plugin directory. For example:

```
mount /cdrom
cd /cdrom
./plugin/install.sh
```

> **Note:**   The syntax of the mount command can vary by platform, and is not required for Sun platforms.
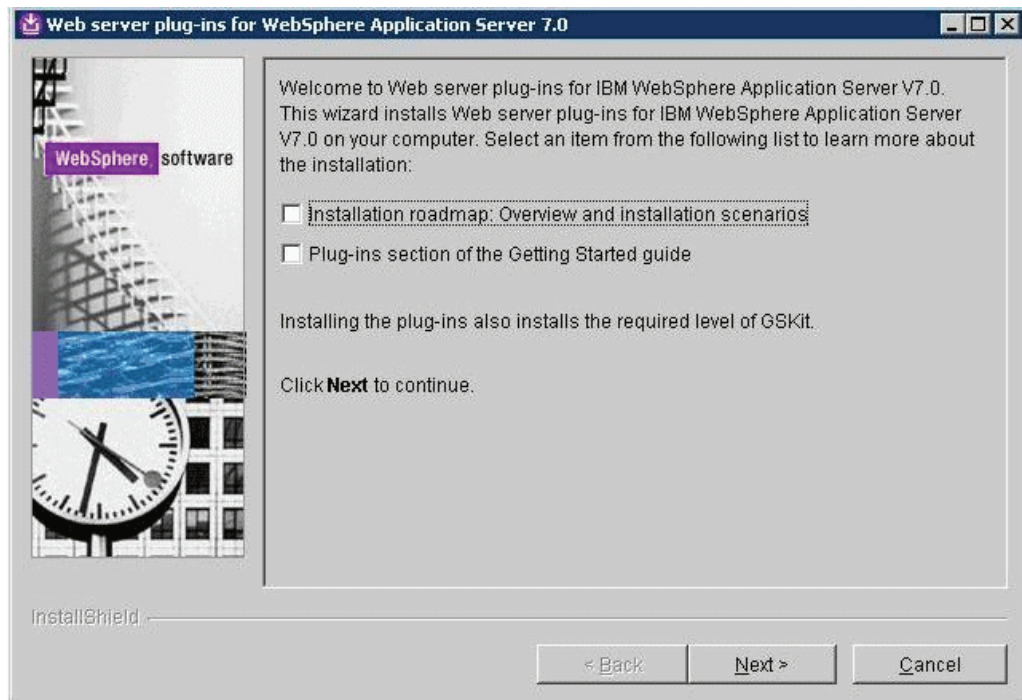
3. On the Welcome screen, you can deselect all "learning" options and click the *Next* button to begin the wizard.
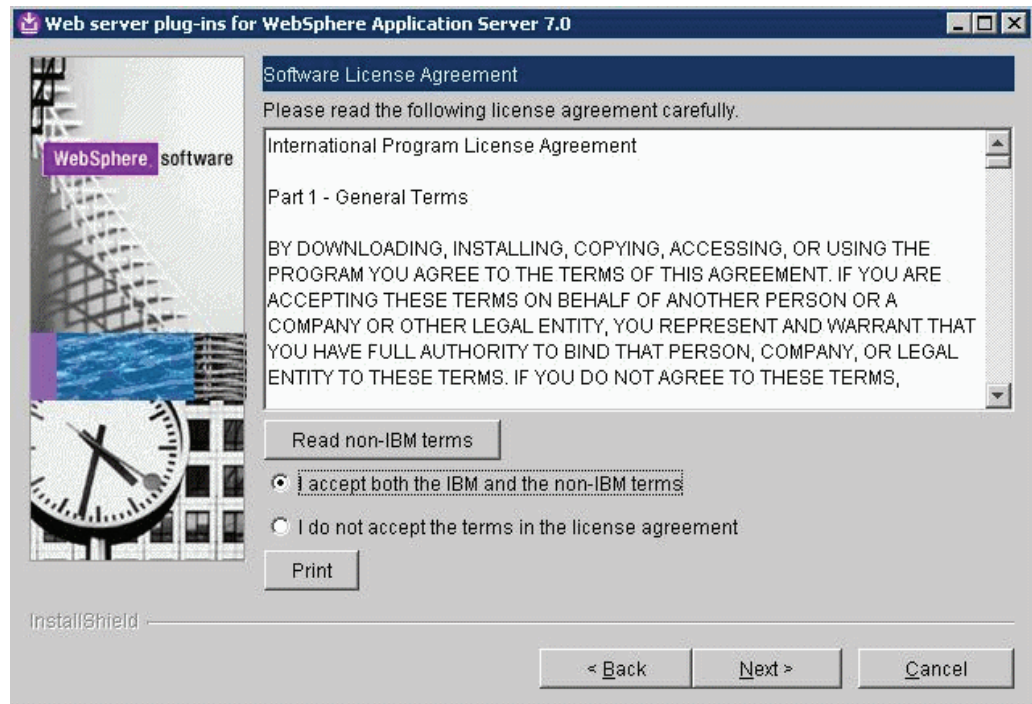
4. On Software License Agreement, review the License Agreement and choose an option to accept or decline.

5. Click the *Next* button to continue (not available if license agreement is not accepted).
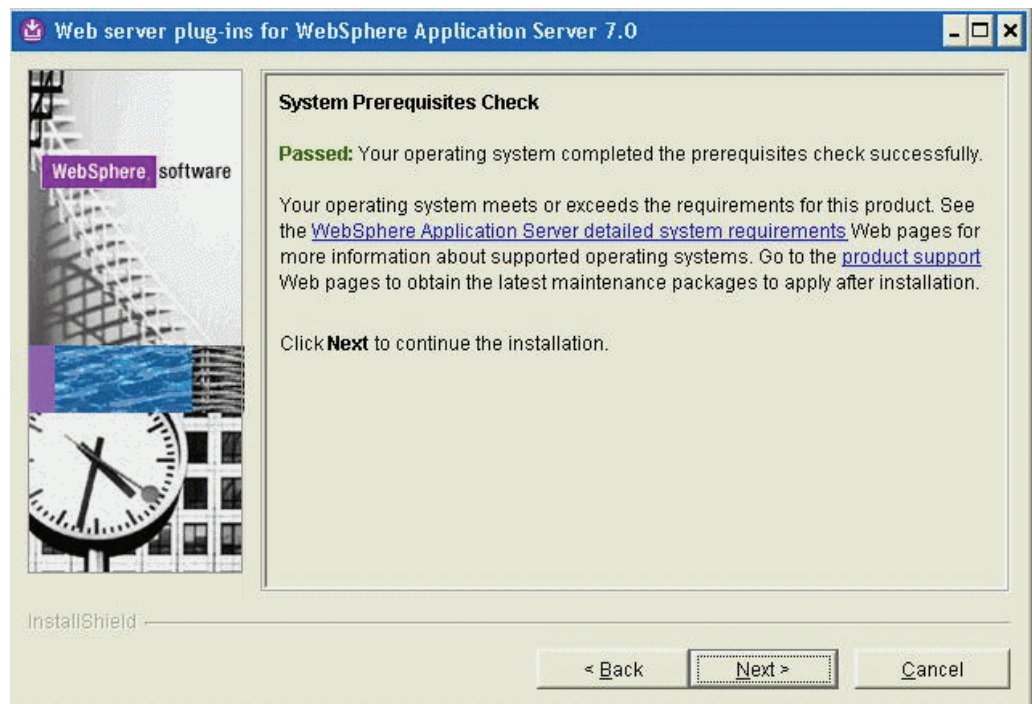
6. On System Prerequisites Check, the installer performs a verification of system requirements.

After the installer indicates the check was successful, click the *Next* button to continue.
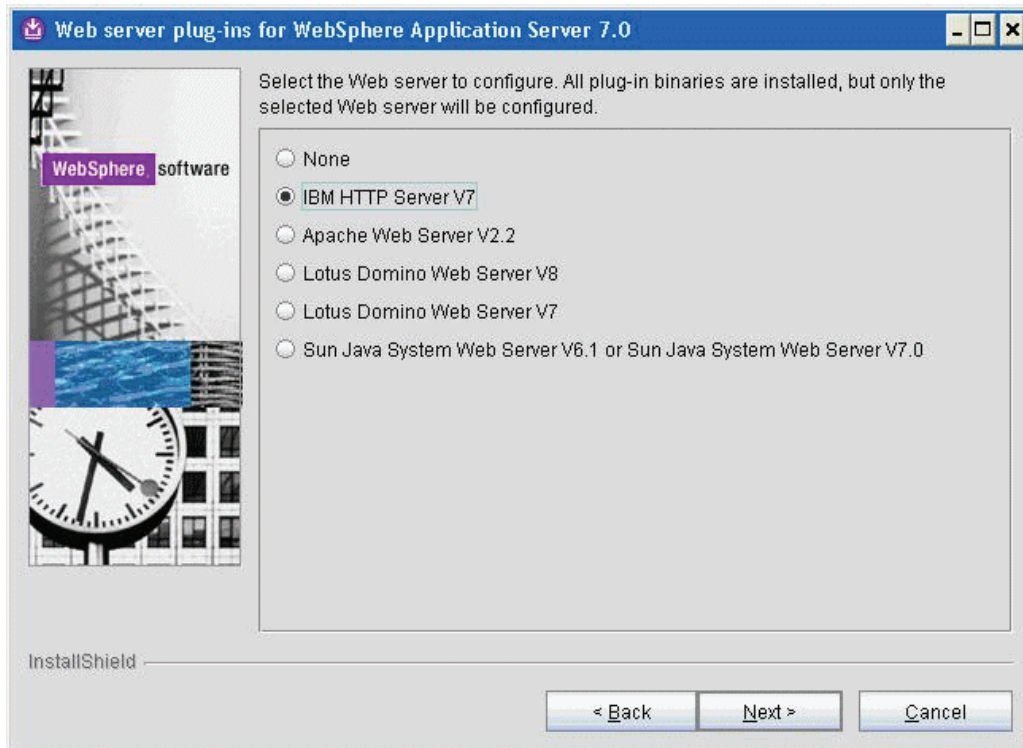
7. On Select the Web server to configure, select the following radio button:

IBM HTTP Server V7

> **Note:** All plug-in binaries are installed, but only the selected Web
> server will be configured.

8. Click the *Next* button to continue.
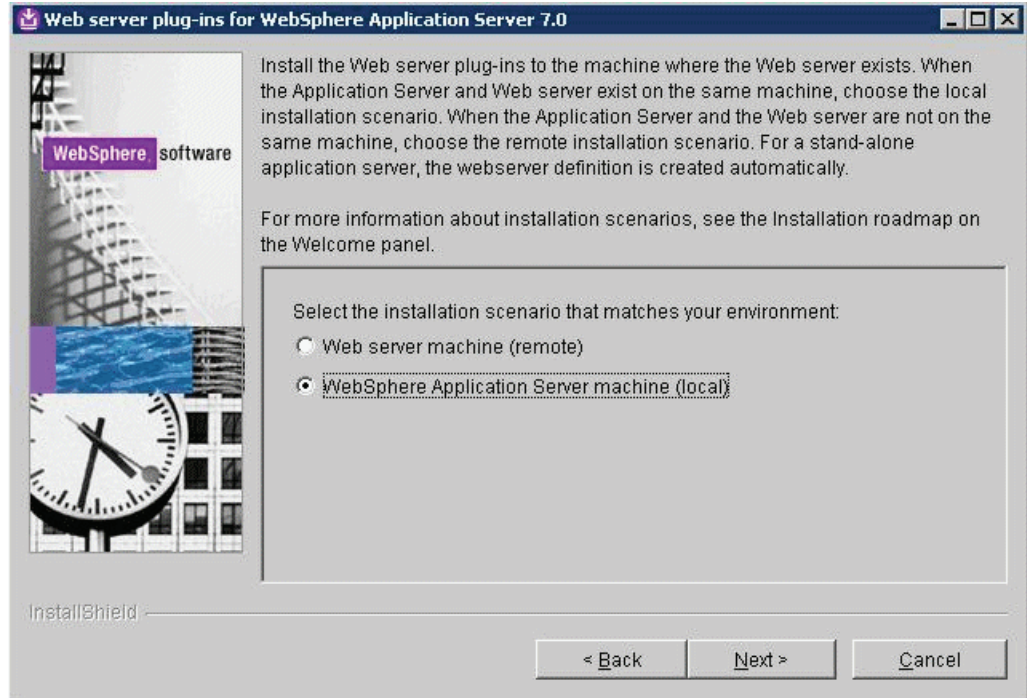
9. On Select installation scenario, if your WAS server is located on the same machine
   on which you are installing, select this radio button:

   WebSphere Application Server machine (local)

   If your WAS server is located on a different machine than the one on which you
   are running the installer, select this radio button:

   Web server machine (remote)

10. Click the *Next* button to continue.
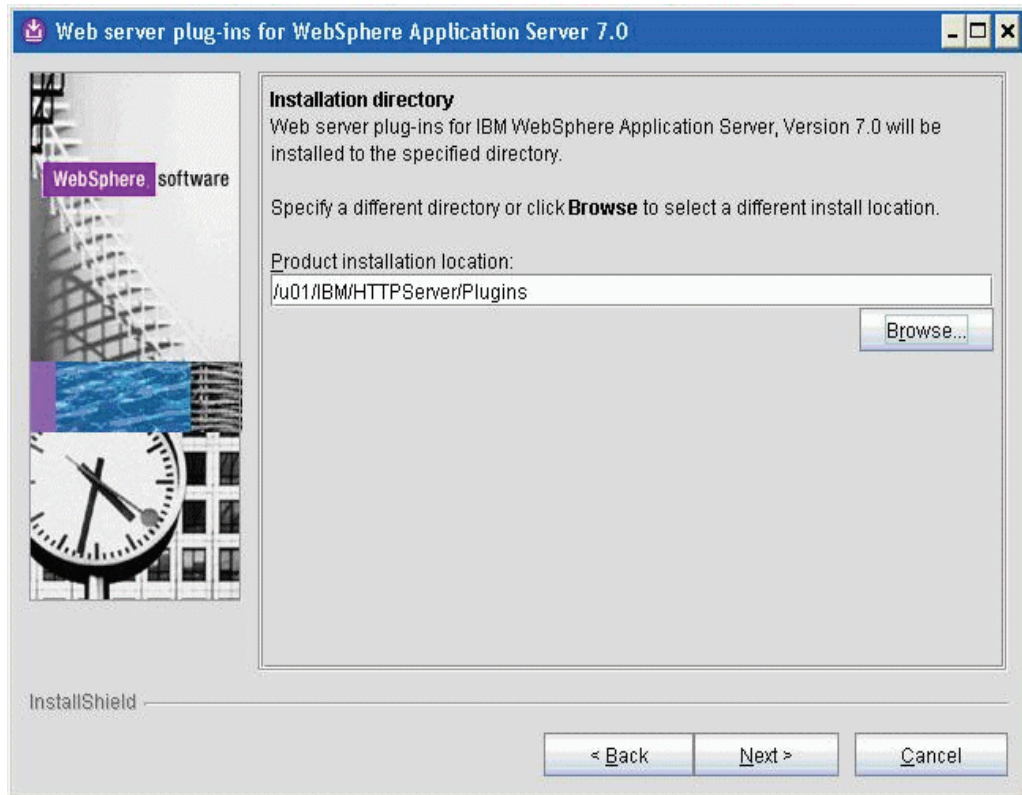
11. On Web server plug-ins installation location, enter a directory. The default directory is:

    `/opt/IBM/HTTPServer/Plugins`

    For example:

    `/u01/IBM/HTTPServer/Plugins`

12. Click the *Next* button to continue.
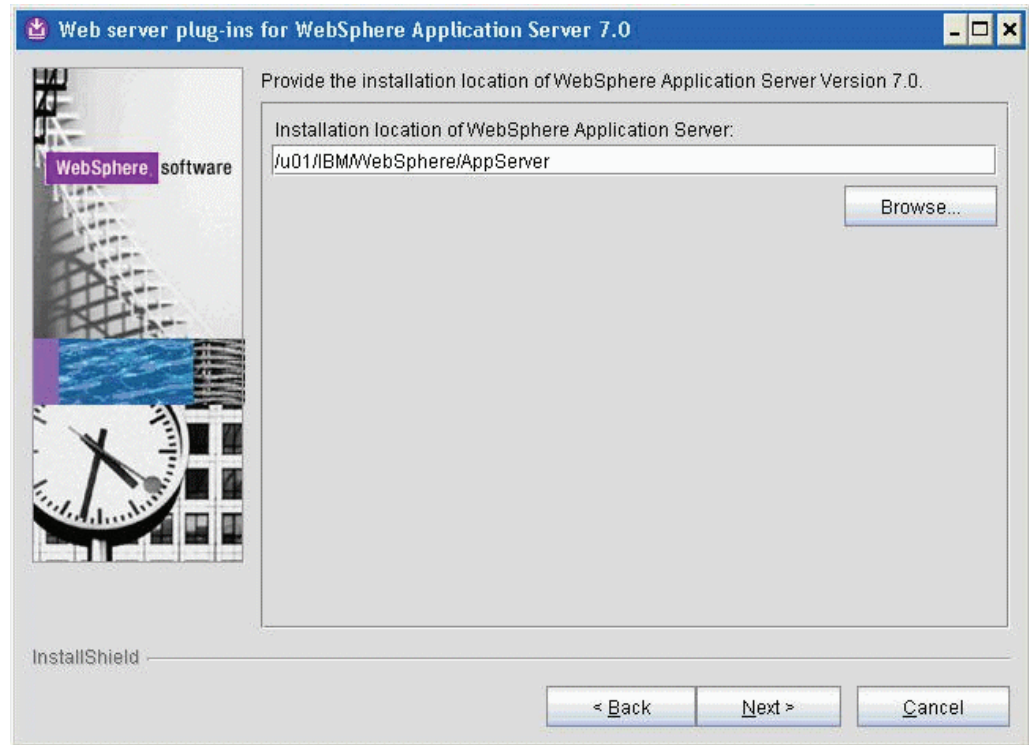
13. On Installation location of WebSphere Application Server V7.0, enter a directory. For example:

    `/u01/IBM/WebSphere/AppServer`

14. Click the *Next* button to continue.
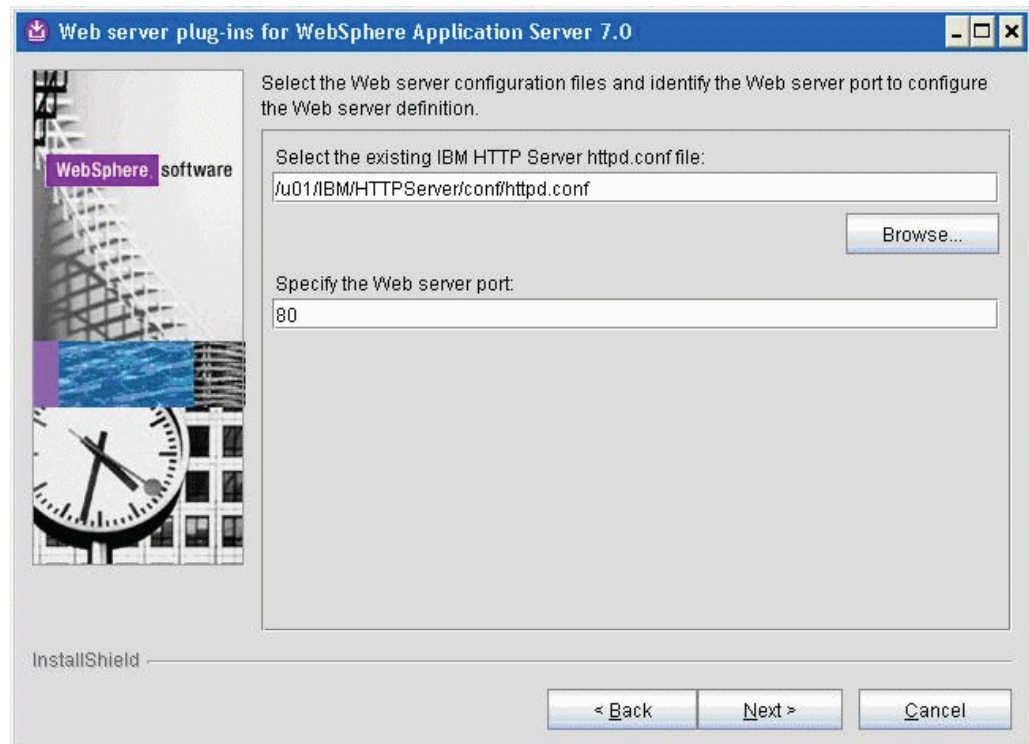
15. On Select the existing IBM HTTP Server httpd.conf file, enter a directory path. For example:

`/u01/IBM/HTTPServer/conf/httpd.conf`

You must also specify the Web Server port. Typically you can accept the default value of 80 for the IBM HTTP server.

> **Note:** The plug-ins installer directly modifies the IBM HTTP Server configuration file with the information you specify on this screen.

16. Click the *Next* button to continue.
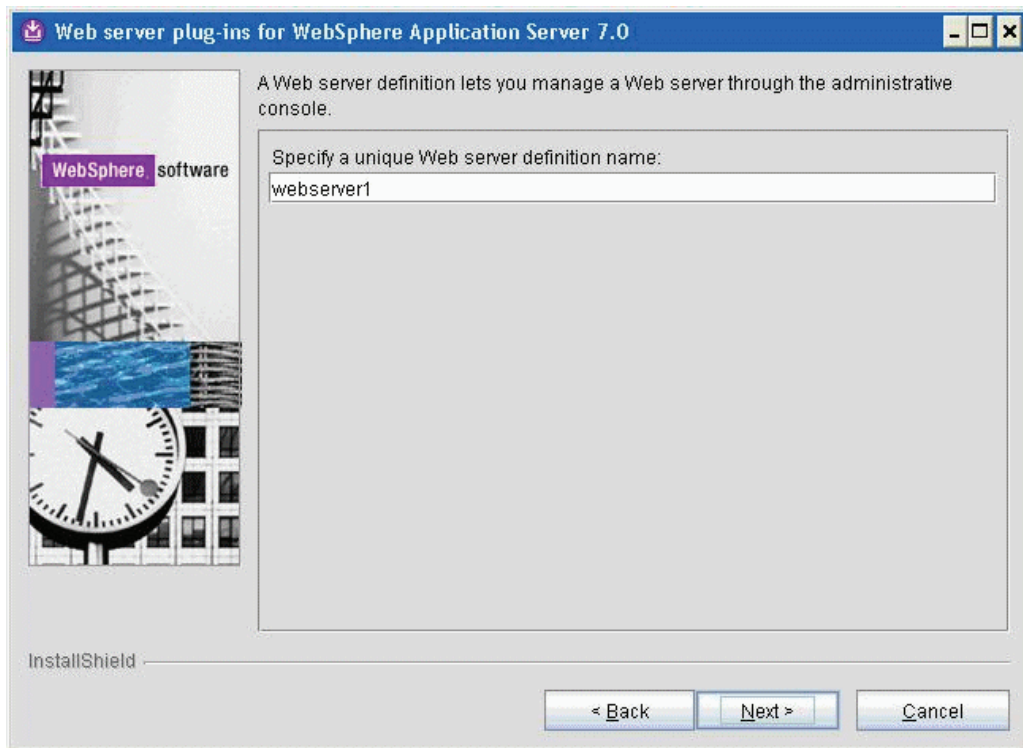
17. On Specify a unique Web Server definition name, enter the name of your IBM HTTP to allow the WebSphere Administration Console to administer the IBM HTTP configuration and status.

Typically you can accept the default value of *webserver1*.

18. Click the *Next* button to continue.
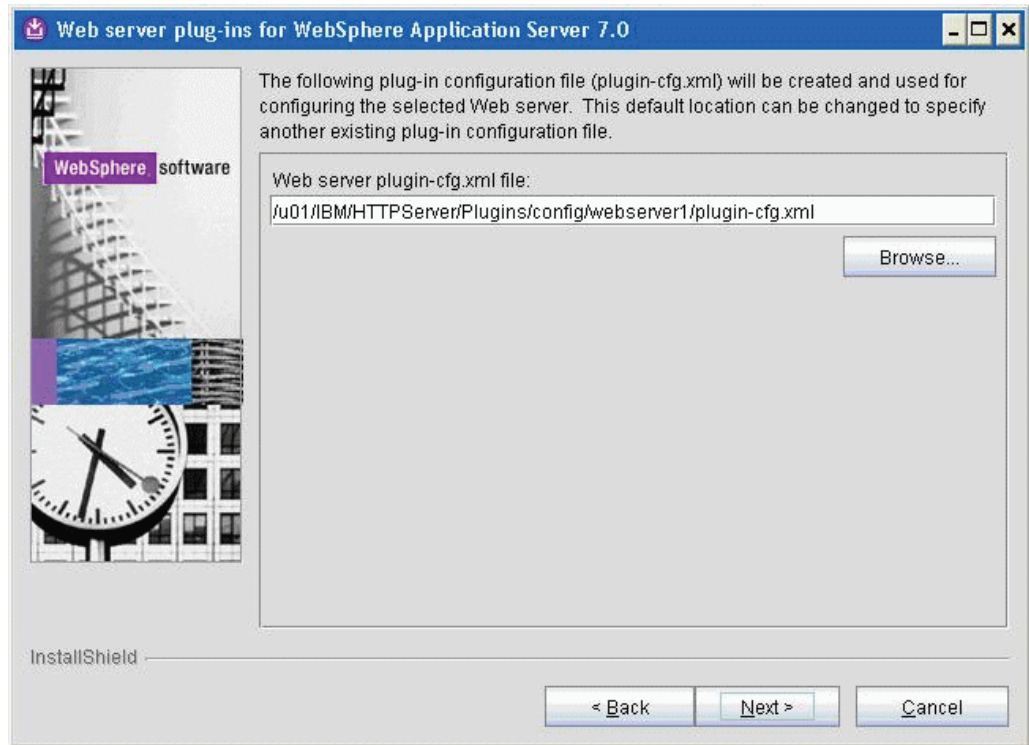
19. On Web Server plugin-cfg.xml file, you can accept the default location for the `plugin-cfg.xml` file.

20. Click the *Next* button to continue.
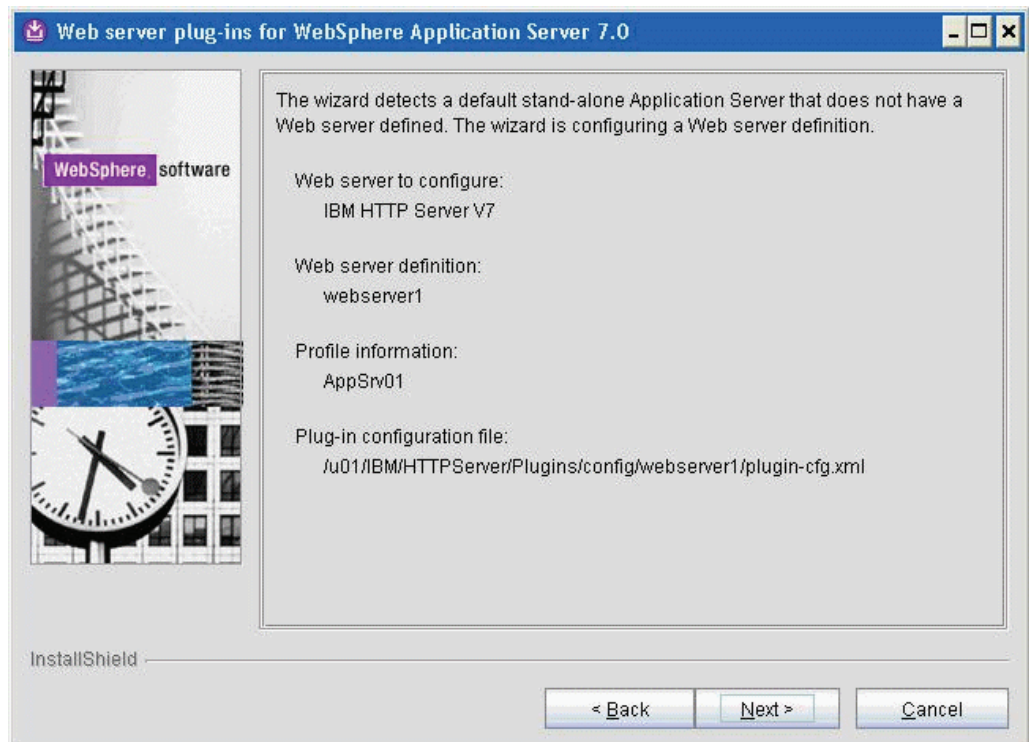
21. The installation wizard detects the default profile (such as AppSrv01) that does not have a Web server defined. Click the *Next* button to continue.
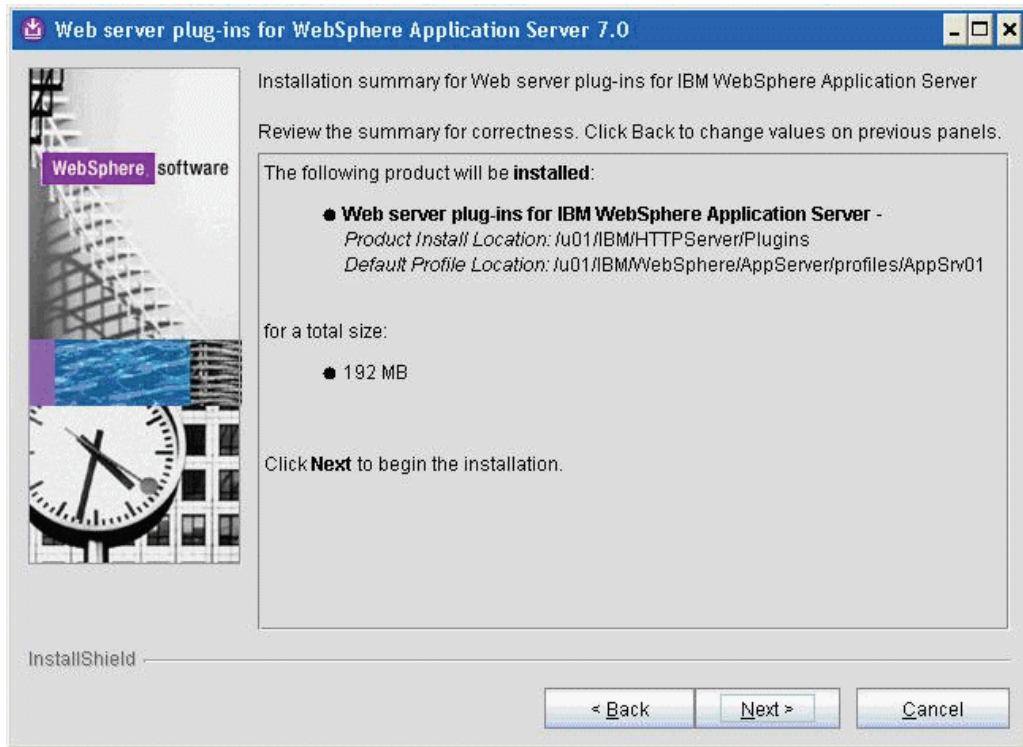
22. On the Summary screen, click the *Next* button to begin the installation.
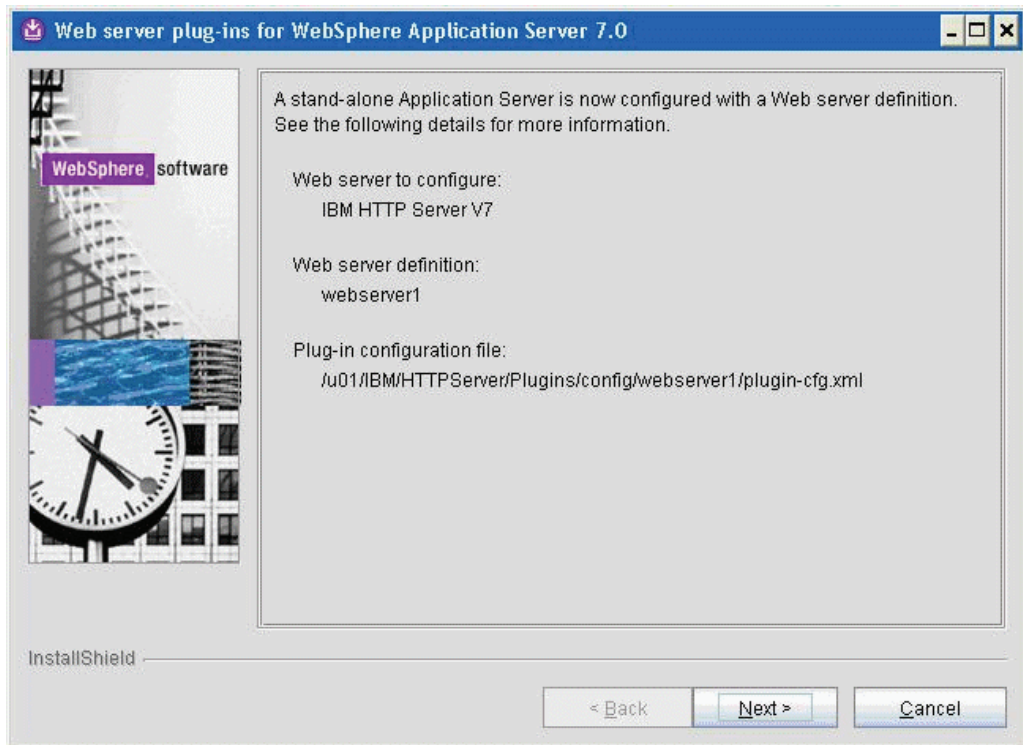
23. The installation wizard shows that a Web server definition is created for the default Application server profile (such as AppSrv01).

24. Click the *Next* button to proceed.

The installation wizard launches a web browser with more detailed information about the Plug-ins road map. You can close the browser at any time or return to the installation wizard.
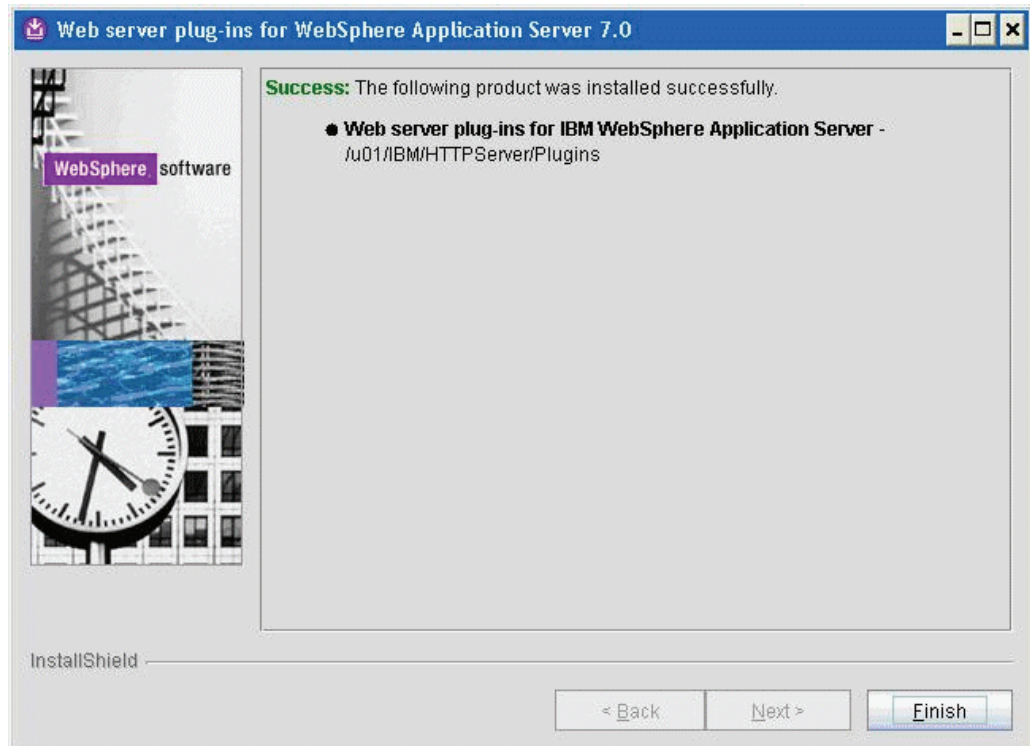
25. On the completion screen, click Finish to exit the WebSphere Plug-ins installation wizard.

4.4 Installing the WebSphere Update Installer

The Update Installer for WebSphere Software includes a new installation program for IBM WebSphere Version 7.0, Installation Wizard starting with Fix Pack 7. The Update Installer is backwards compatible. You should download the Update Installer that match with your WebSphere product. You can use a single installation of the Update Installer to install maintenance packs on all the WebSphere software products such as WebSphere Application Server, Java SDK, IBM HTTP Server, and Web server plug-ins.

Before you can install Refresh or Fix pack for WebSphere software, you need to install the Update Installer engine as described in this procedure.

> **Note:** Make sure all WebSphere processes including IBM HTTP Server V7 are not running before starting Update Installer installation.

This document uses Fix Pack 29 (7.0.0.29) to describe the process of installing WebSphere Fix Pack. Check the Certification for the latest supported WebSphere Fix Pack for the JD Edwards EnterpriseOne HTML Web Server (refer to Chapter 1, "Accessing Certifications (formerly Minimum Technical Requirements)").

To install the WebSphere update installer:

1. Enter these commands:

```
mount /cdrom

cd /cdrom
```

2. From the downloaded image run the install executable using this command:

```
./u01/WebSphere/UpdateInstaller/update.sh
```
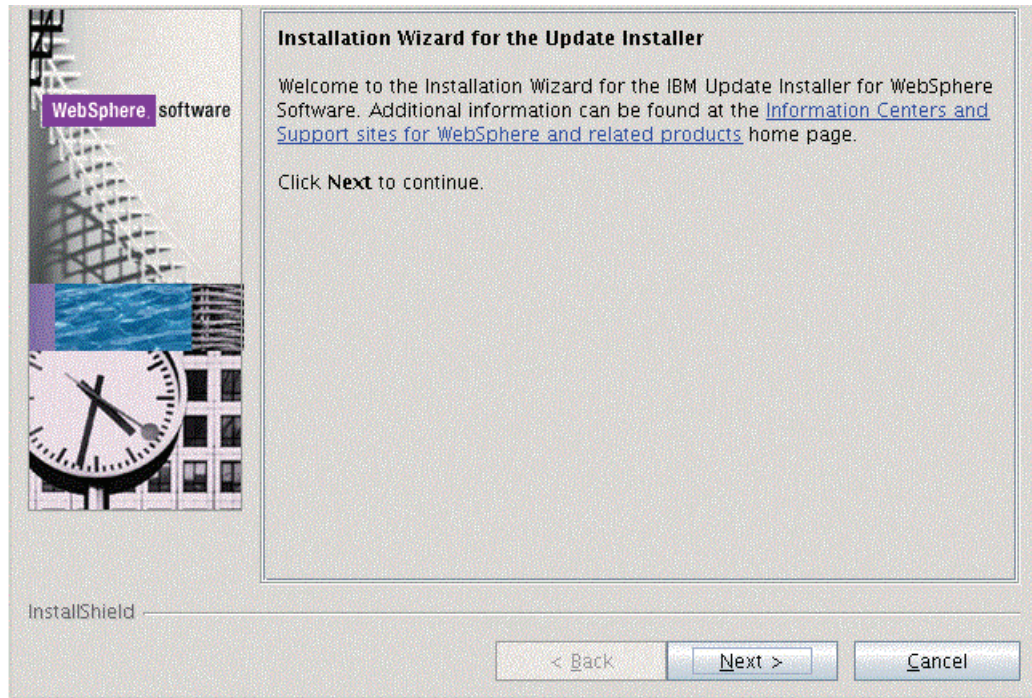

3. On the Welcome screen, click the *Next* button to begin the wizard.
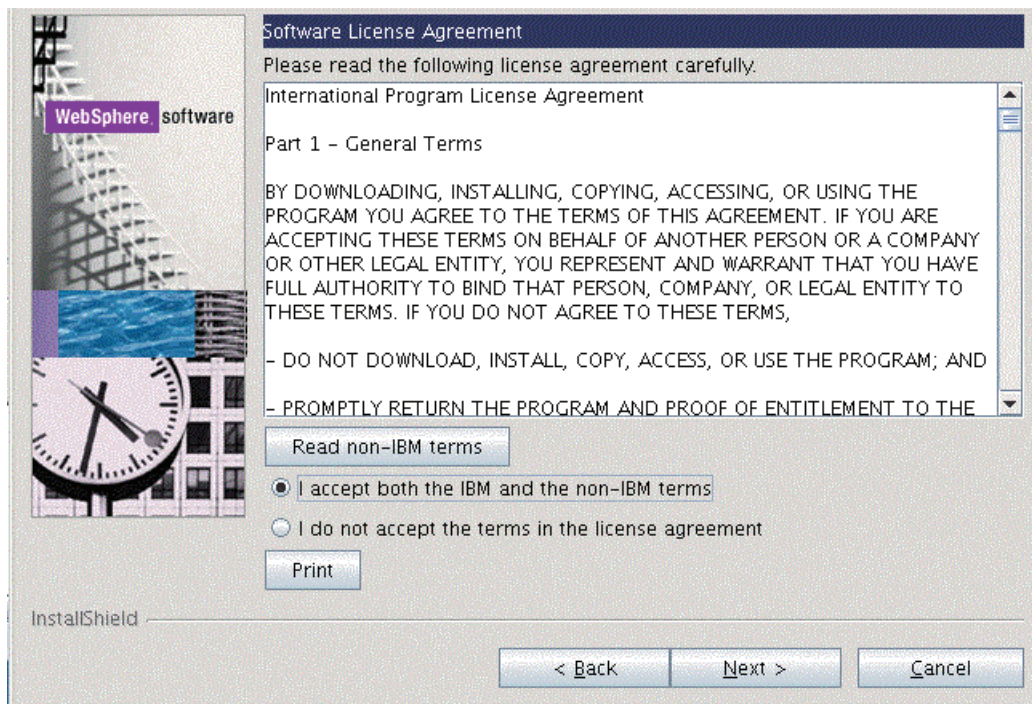
4. On Software License Agreement, review the License Agreement and choose an option to accept or decline.
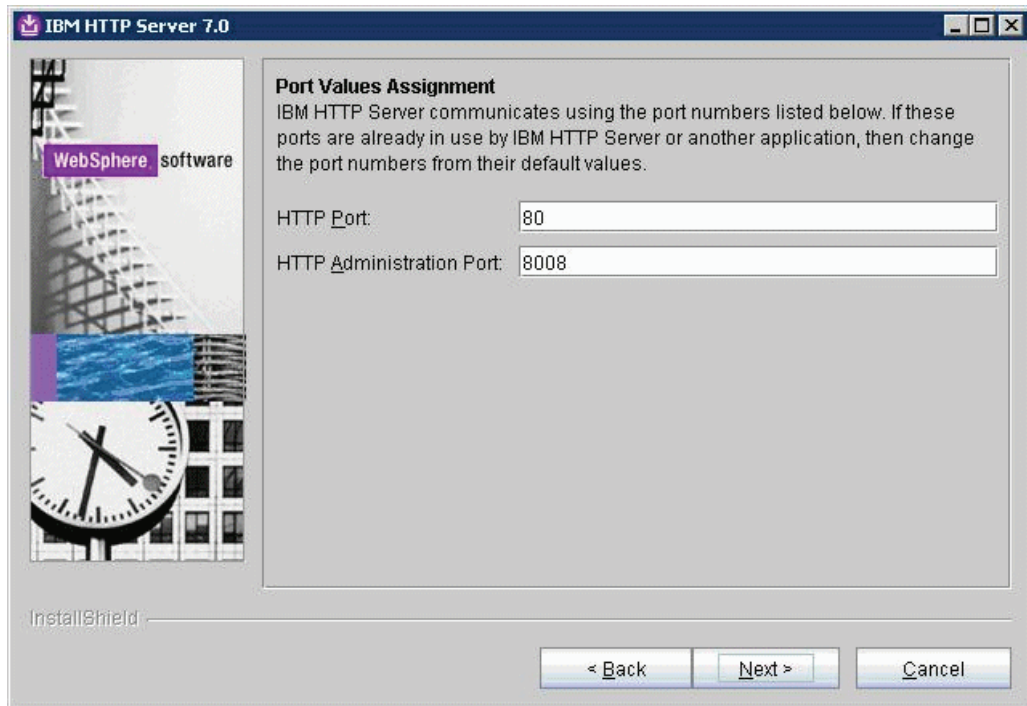
5. Click the *Next* button to continue.

System Prerequisites Check

Passed: Your operating system completed the prerequisites check successfully.

Your operating system meets or exceeds the requirements for this product. See the WebSphere Application Server detailed system requirements Web pages for more information about supported operating systems. Go to the product support Web pages to obtain the latest maintenance packages to apply after installation.

Click **Next** to continue the installation.

InstallShield

[< Back] [Next >] [Cancel]
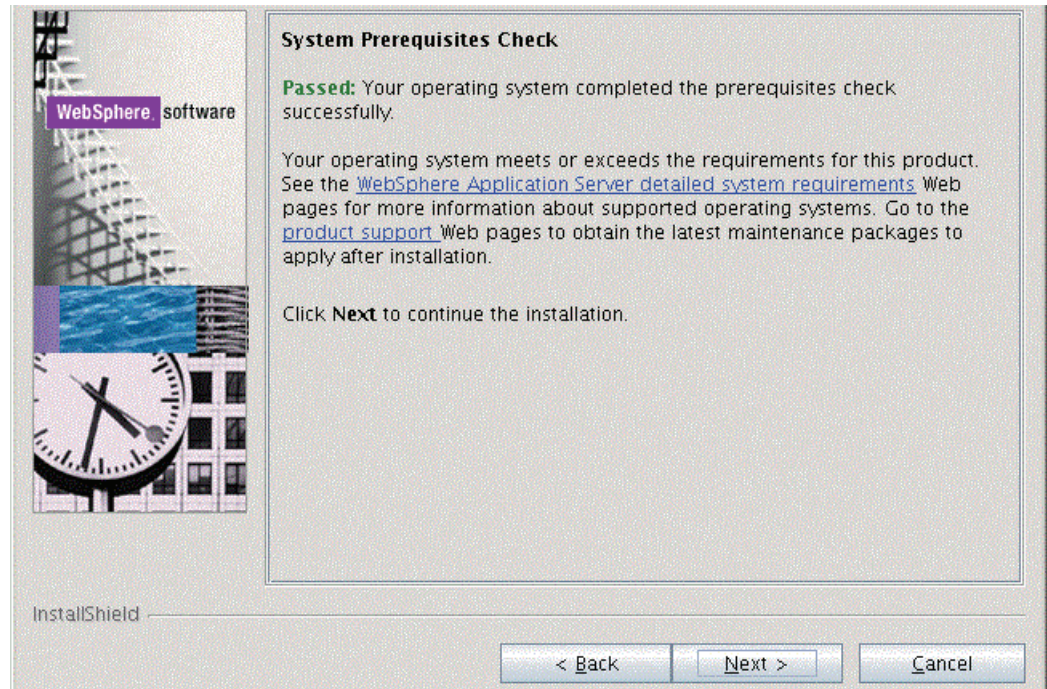
6. On System Prerequisites Check, the Installer performs a verification of system requirements.

7. After the Installer indicates the check was successful, click the *Next* button to continue.

Installed Locations Detected

The update installer is installed already. To update an existing installation, select the option and choose an existing installation to update. Otherwise, choose to install a new copy.

◉ /u01/IBM/WebSphere/UpdateInstaller
○ New Installation

Only one copy of the Update Installer needs to be installed. If there are multiple copies installed, then you should update one of the installations. Afterwards, you should uninstall all of the other older installations.

Click **Cancel** to exit this wizard and uninstall the other copies.
Click **Next** to continue with the update or new installation.

InstallShield

[< Back] [Next >] [Cancel]

8. If you have an existing installation, the installer will detect it and give you the option to update that installation. Otherwise you can choose to perform a New Installation.

If you choose to update an existing location, click the radio button for the location that the installer detects. For example:

```
/u01/IBM/WebSphere/UpdateInstaller
```

> **Note:** To facilitate maintenance, it is recommended that you install the Update Installer under the WebSphere root directory. For example:
>
> ```
> /u01/IBM/WebSphere/UpdateInstaller
> ```

9. Click the *Next* button to continue.
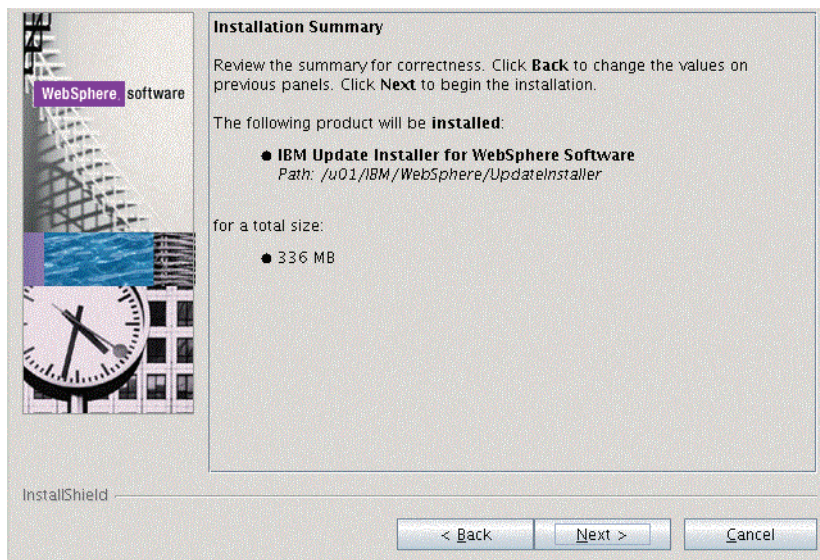
10. On Installation Summary, click the *Next* button to begin the installation.
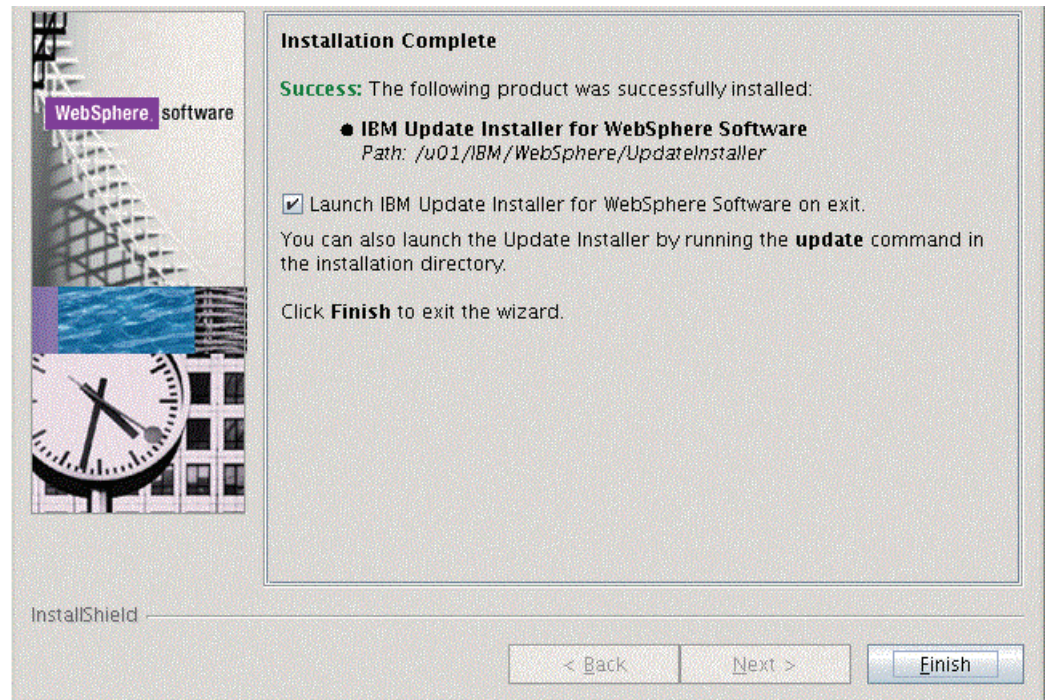
11. On Installation Complete, deselect the check box for *Launch IBM Update Installer for WebSphere software on exit*.

12. Click the *Finish* button.

4.5 Installing WebSphere 7.0 Fix Pack 29

> **Note:** This document uses Fix Pack 29 (7.0.0.29) to describe the process of installing WebSphere Fix Pack. Check the Certification for the latest supported WebSphere Fix Pack for the JD Edwards EnterpriseOne HTML Web Server (refer to Chapter 1, "Accessing Certifications (formerly Minimum Technical Requirements)").

To install the WebSphere 7.0 Fix Pack:

1. Ensure that all WebSphere and HTTP Services are stopped prior to updating the software.

2. Download all the fix pack files to the "maintenance" directory under the installation directory of the Update Installer, such as:
   `/u01/IBM/WebSphere/UpdateInstaller/maintenance`

   For example on Linux the files are named:

   7.0.0-WS-WAS-LinuxX64-FP00000xx.pak

   7.0.0-WS-WASSDK-LinuxX64-FP00000xx.pak

   `7.0.0-WS-IHS-LinuxX64-FP00000xx.pak`

   7.0.0-WS-PLG-LinuxX64-FP00000xx.pak

> **Note:** The example filename for the `.pak` file is specific to Linux. Other versions of UNIX will have their own unique filenames. You do not need to untar these files, just put them in the `\UpdateInstaller\maintenance` directory.

3. Run the `update` executable from the `UpdateInstaller` directory using these commands:

```
cd /u01/IBM/WebSphere/UpdateInstaller

./update.sh
```
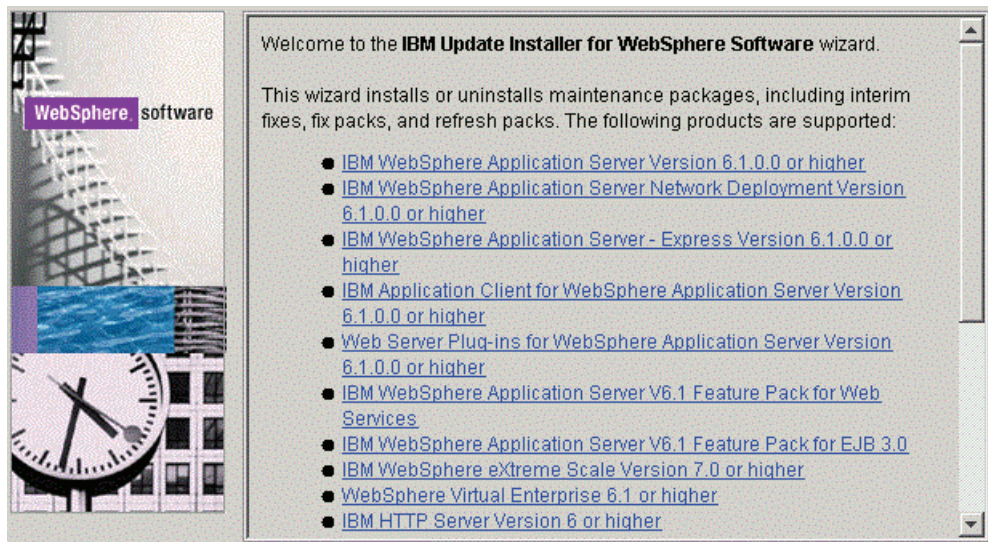

4. Click the *Next* button to continue.
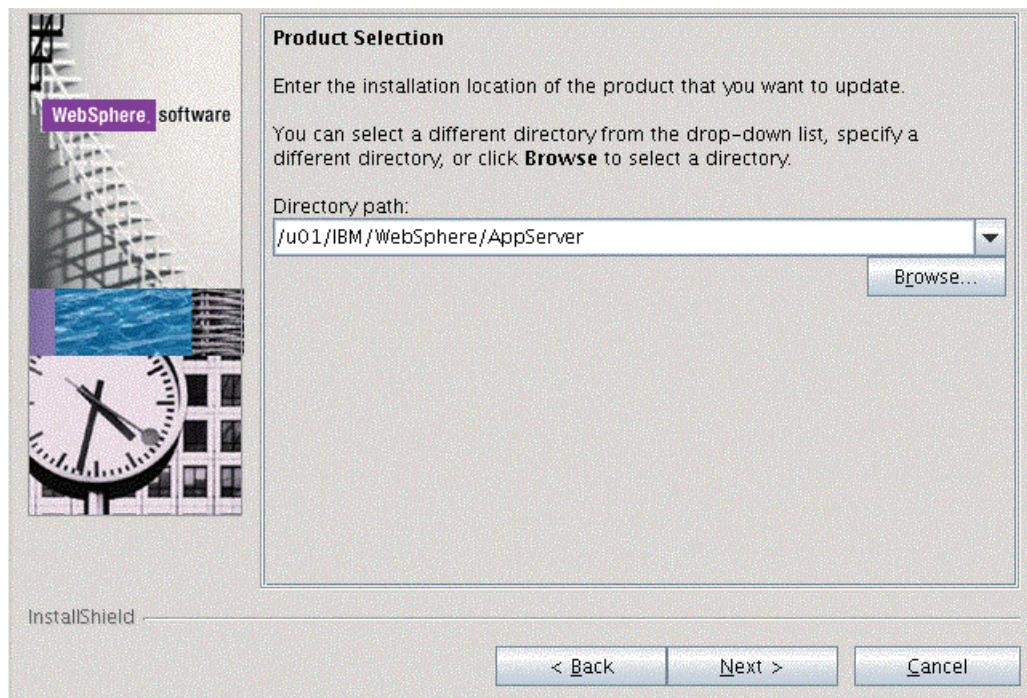
5. On the Product selection screen, use the drop down to select the installation location of the WebSphere Application Server. For example:

    `/u01/IBM/WebSphere/AppServer`

6. Click the *Next* button to continue.
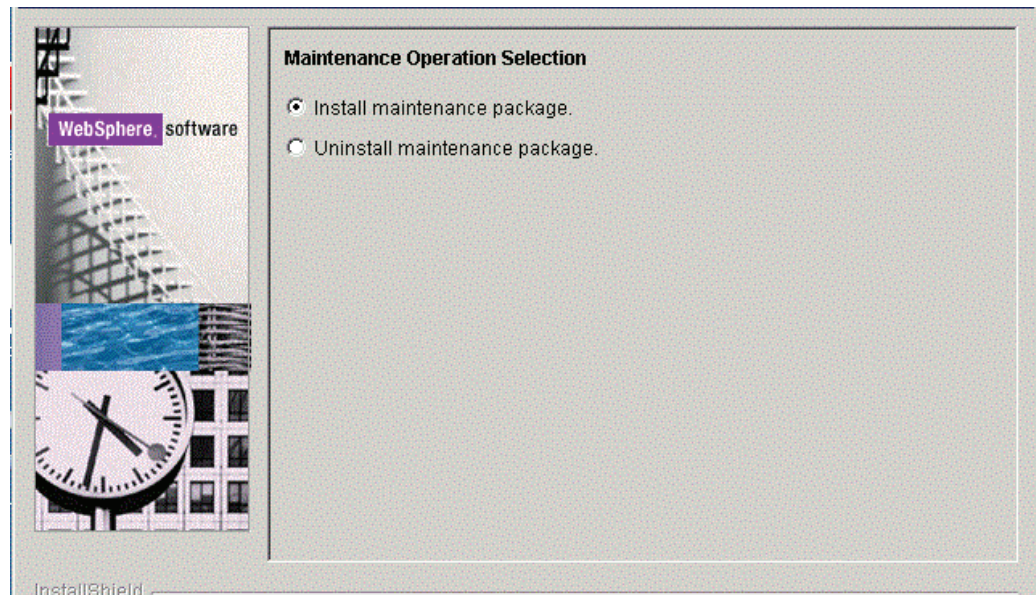
7. On Maintenance Operation Selection, select the following radio button:

    Install maintenance package

8. Click the *Next* button to continue.

    The installer inspects the `UpdateInstaller` directory for maintenance packages (.pak files); specifically in the `maintenance` sub-directory.
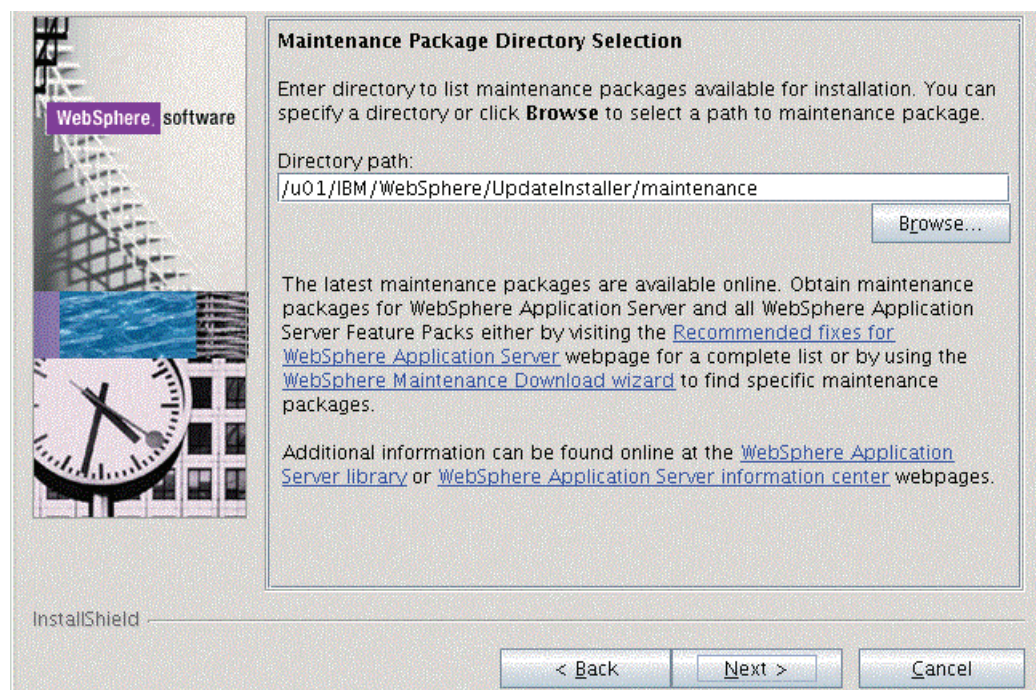
9. On Maintenance Package Selection, validate the directory name that was located by the Installer wizard.
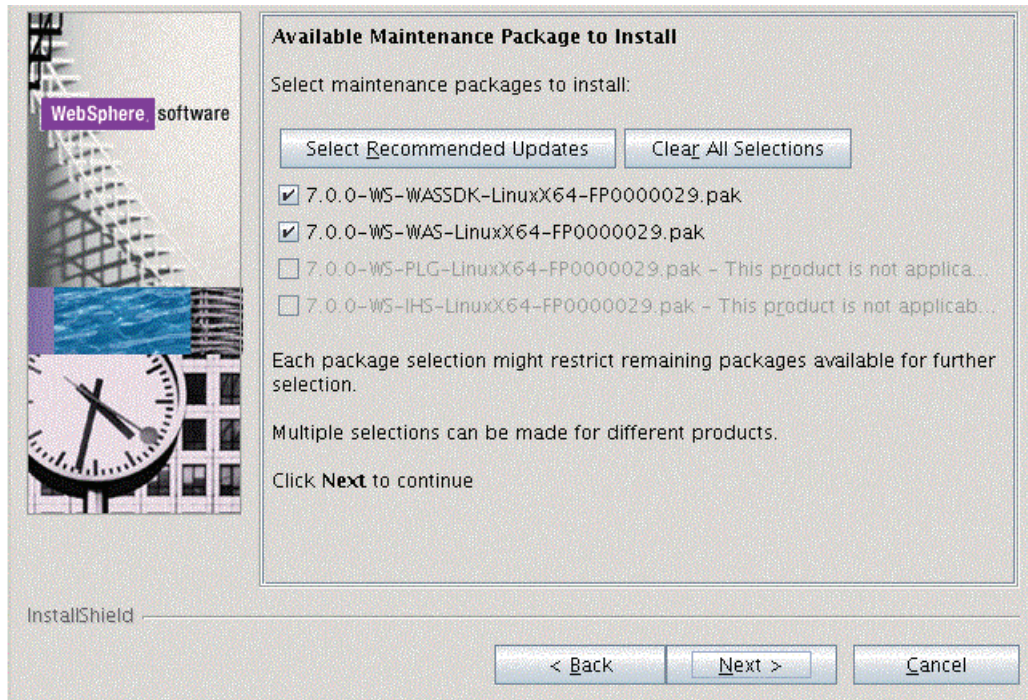
10. On Available Maintenance Package to Install, check the WAS and WASSDK fix pack files since the WebSphere Application Server components are being updated.
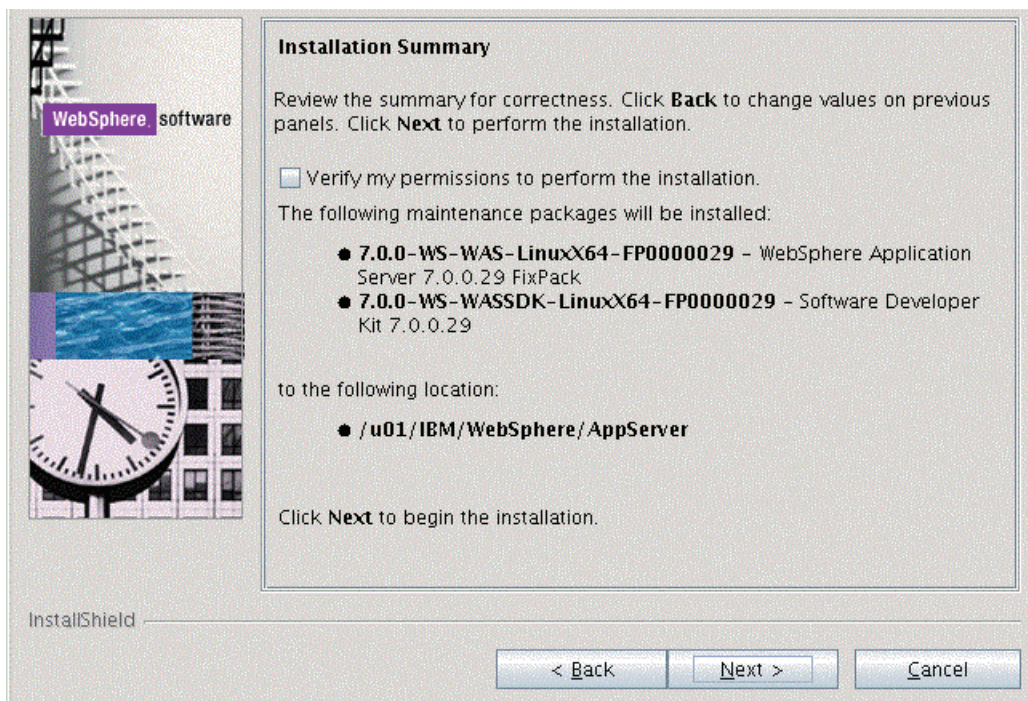
11. Click the *Next* button to continue.

12. On Installation Summary, review the information and click the *Next* button to begin the installation.

> **Note:** You should check the **Verify my permissions to perform the installation check box** in order for the installer to validate the permissions required for installation of the product.

13. Click the *Next* button to continue.
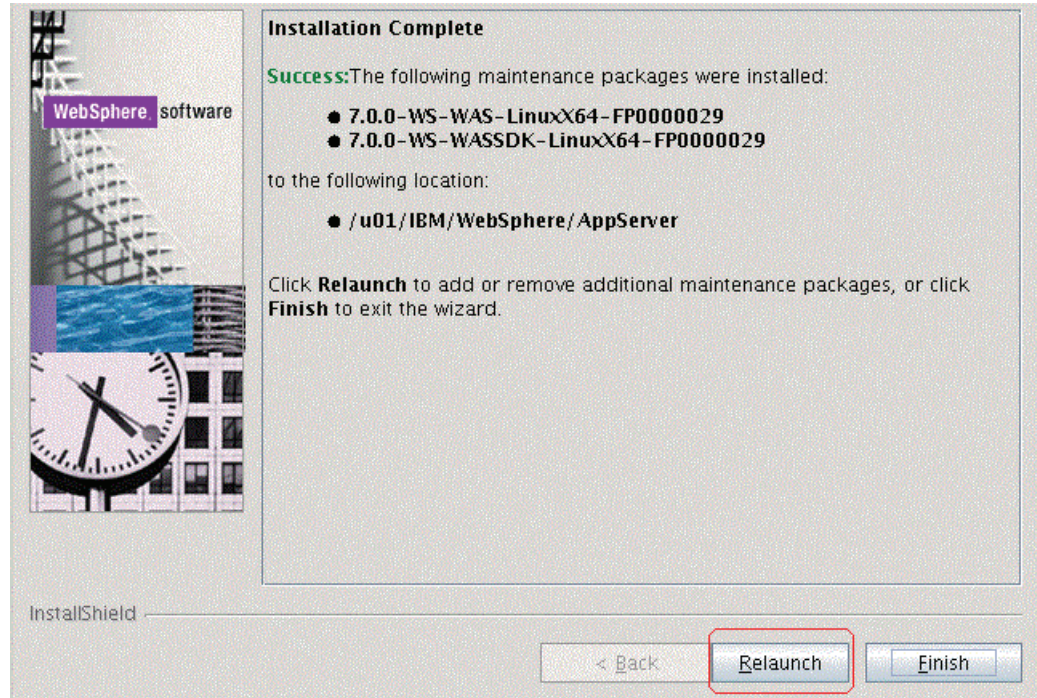
14. On Installation Complete, Success, click the *Relaunch* button to relaunch the wizard and install the HTTP server components.

4.6 Installing the IBM HTTP Server Fix Pack

To install the IBM HTTP Server Fix Pack:

1. Ensure that all WebSphere and HTTP Services are stopped prior to updating the software.

2. Download and copy the fix pack file for the IBM HTTP Server to the `\UpdateInstaller\maintenance` directory.

   For example, on Solaris the file is named:

   `7.0.0-WS-IHS-SolarisSparc-FP0000005.pak`

3. Once the wizard has restarted, select the HTTP server components.
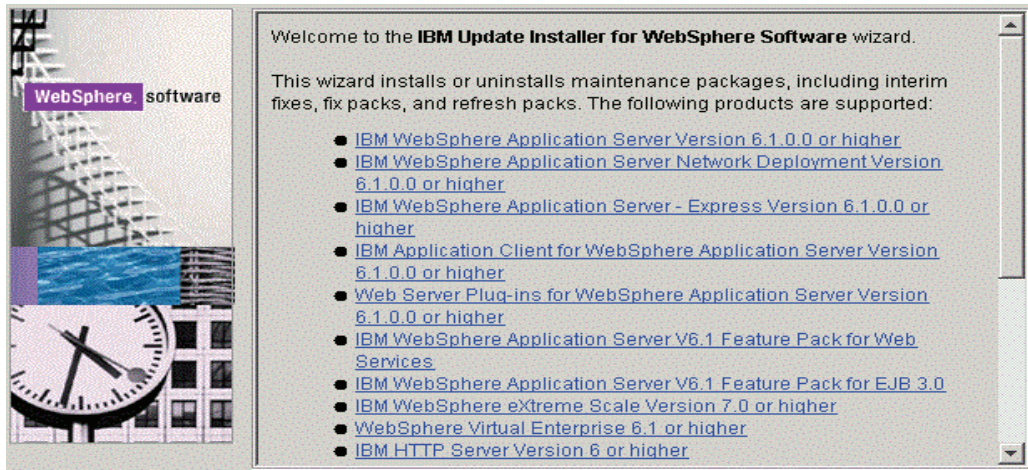
4. On the Welcome screen, click the *Next* button to begin the Update Installer wizard.
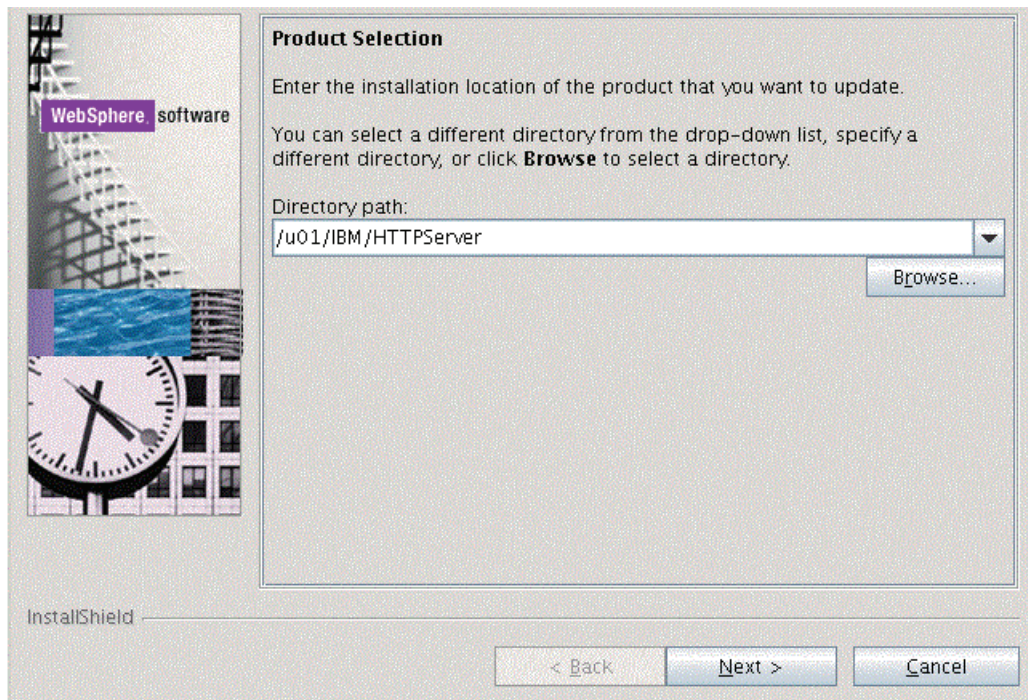
5. On Product Selection, use the drop down to select the installation location of the IBM HTTP Server. For example:

   `/u01/IBM/HTTPServer`

6. Click the *Next* button to continue.
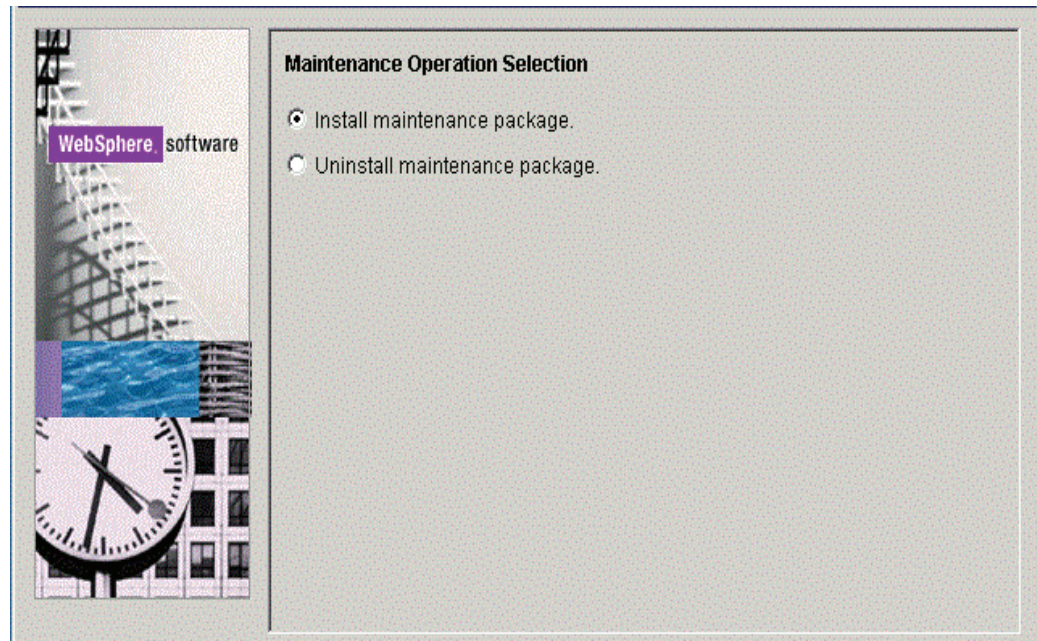
7. On Maintenance Operation Selection, select this radio button:

   Install maintenance package
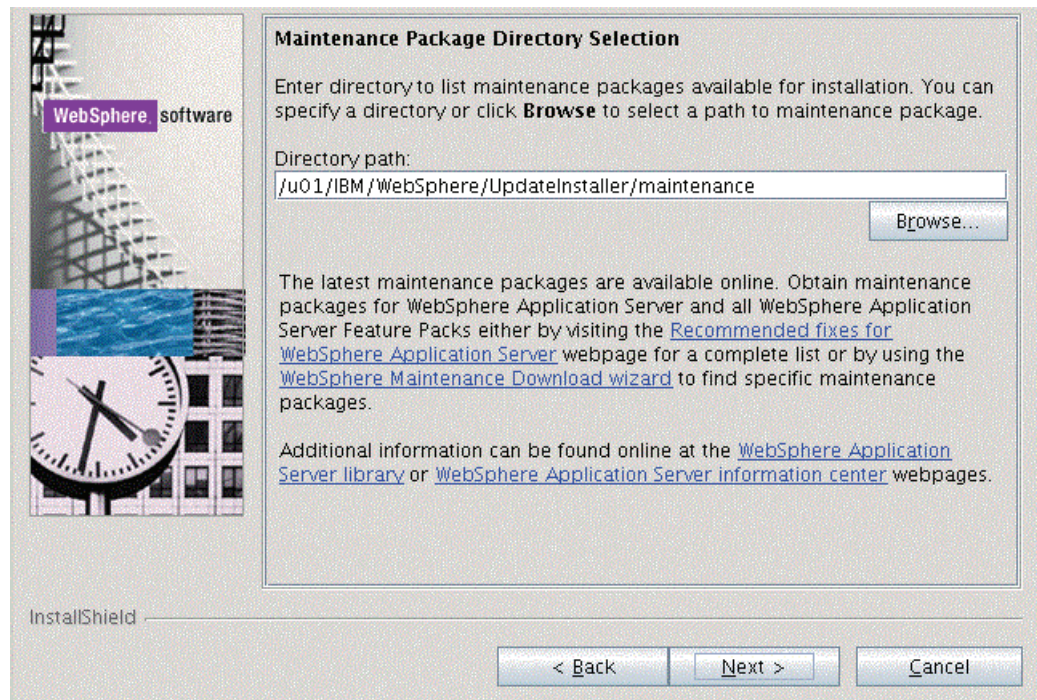
8. Click the *Next* button to continue.

9. On Maintenance Package Directory Selection, validate the directory path that was located by the Installer wizard.

10. Click the *Next* button to continue.
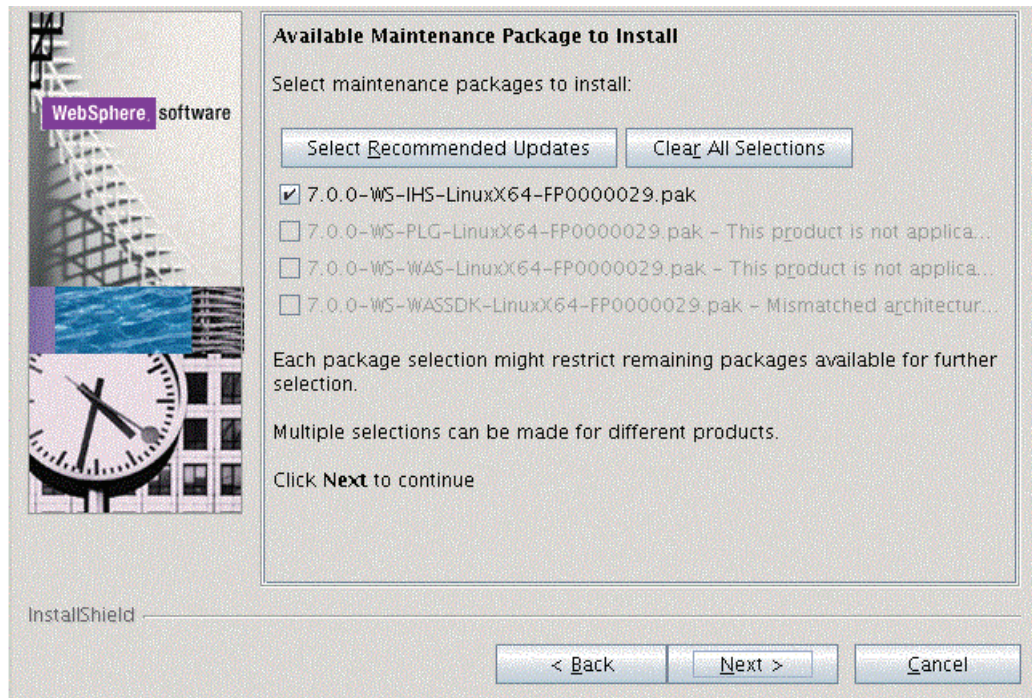
11. On Available Maintenance Package to Install, ensure that the available IHS and WASSDK fix pack files are checked since the IBM HTTP Server components are being updated.

12. Click the *Next* button to continue.
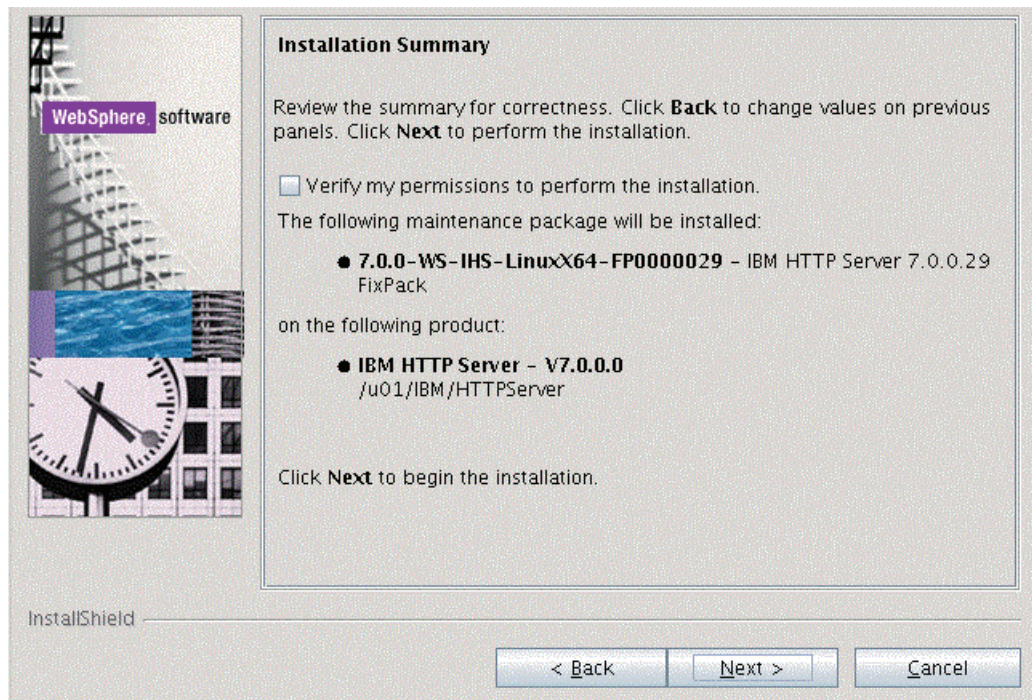
13. On Installation Summary, click the *Next* button to begin the installation.

> **Note:** You should check the **Verify my permissions to perform the installation check box** in order for the installer to validate the permissions required for installation of the product.
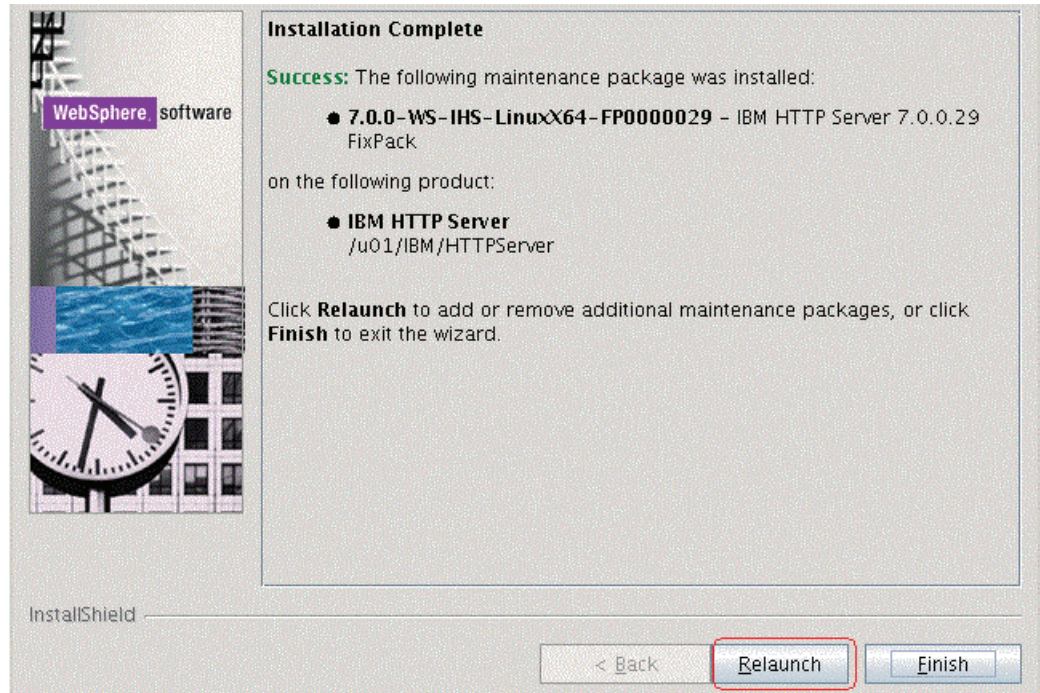
14. On Installation Complete, verify that the proper maintenance packages for the IBM HTTP Server were successfully installed.

15. Click the *Relaunch* button and continue to the next section to install WebSphere Plug-ins Fix Pack.

4.7 Installing the WebSphere 7.0 Plug-ins Fix Pack

> **Note:** It is very important to following the exact sequence of steps in this procedure.

To install the WebSphere 7.0 Plug-ins Fix Pack:

1. Ensure that all WebSphere and IBM HTTP Services are stopped prior to updating the software.

2. Download and copy the fix pack file for the WebSphere Plug-ins to the `\UpdateInstaller\maintenance` directory.

   For example, on Solaris:

   ```
   7.0.0-WS-PLG-SolarisSparc-FP0000005.pak
   ```

   > **Note:** The example filename is specific to Solaris. Other versions of UNIX with have their own unique filenames.

3. Run the `update` executable from the copied `UpdateInstaller` directory using these commands:

```
cd /u01/IBM/WebSphere/UpdateInstaller
```

```
./update.sh
```
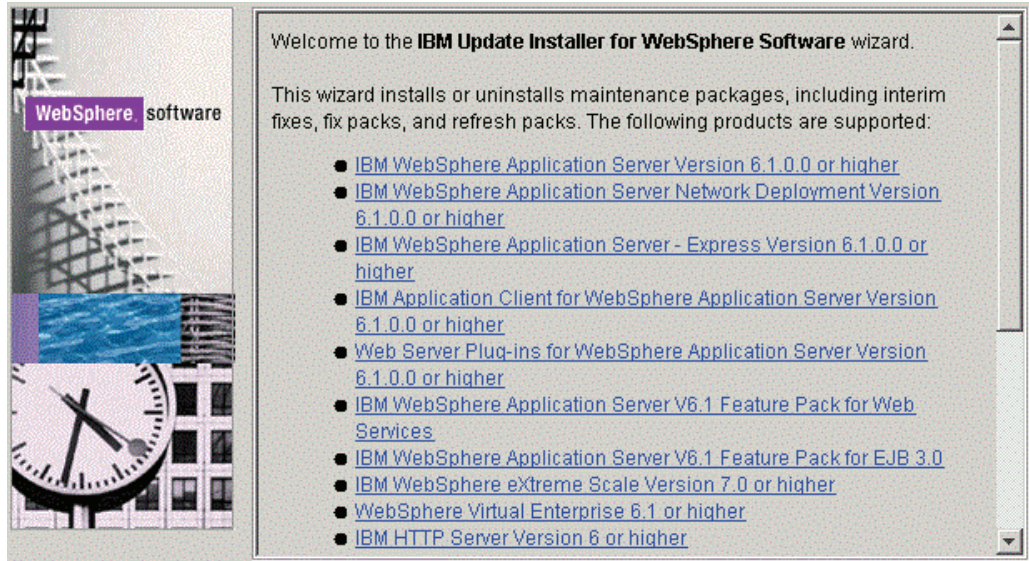

4. Once is wizard is restarted, select the Plugins component.
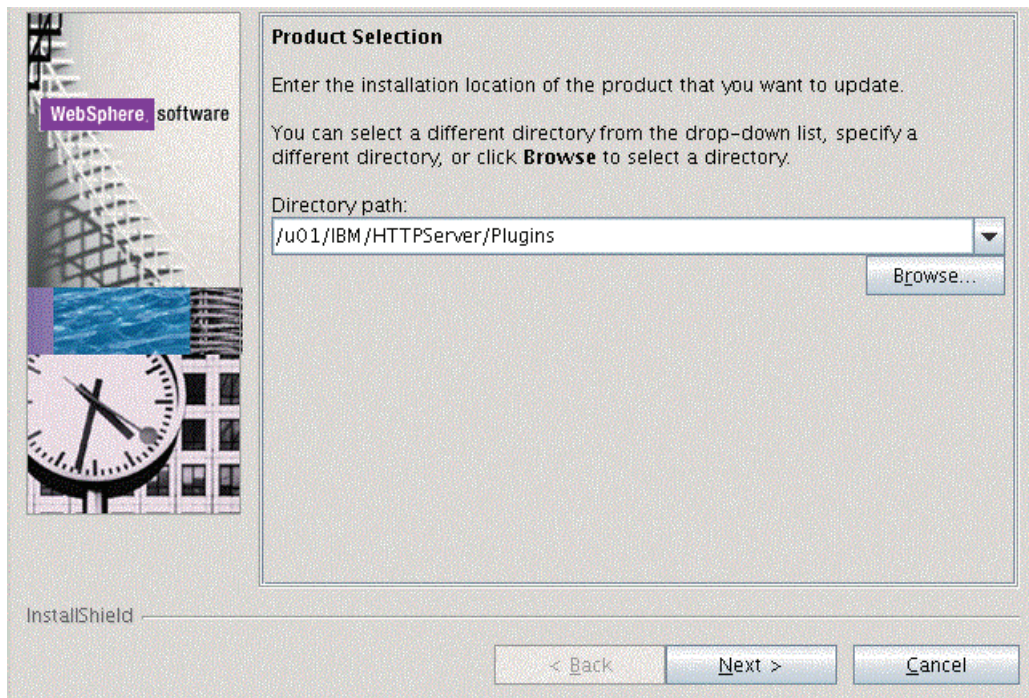
5. On Product Selection, use the drop down to select the installation location of the Web server plugin. For example:

```
/u01/IBM/HTTPServer/Plugins
```

6. Click the *Next* button to continue.
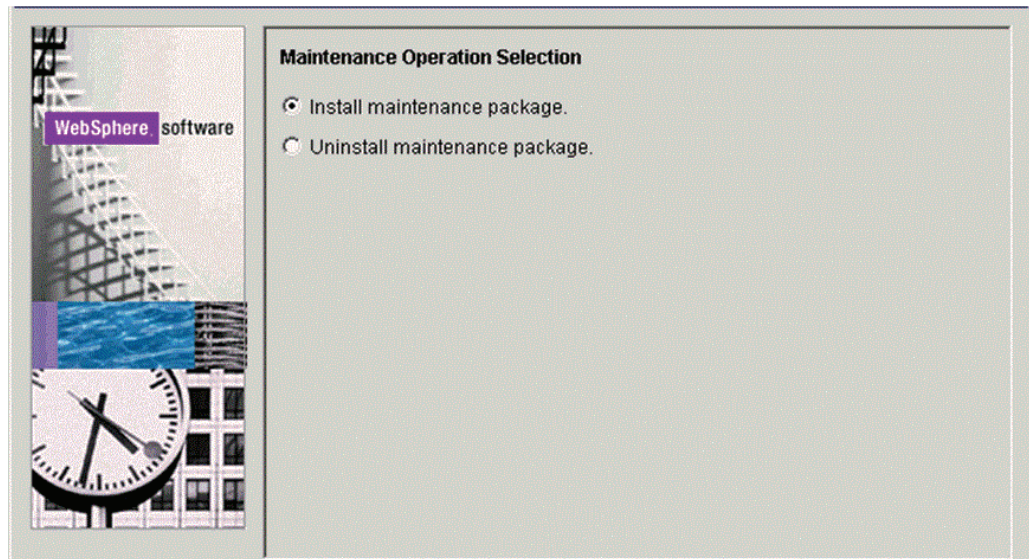
7. On Maintenance Operation Selection, select the following radio button:

   Install maintenance package

8. Click the *Next* button to continue.
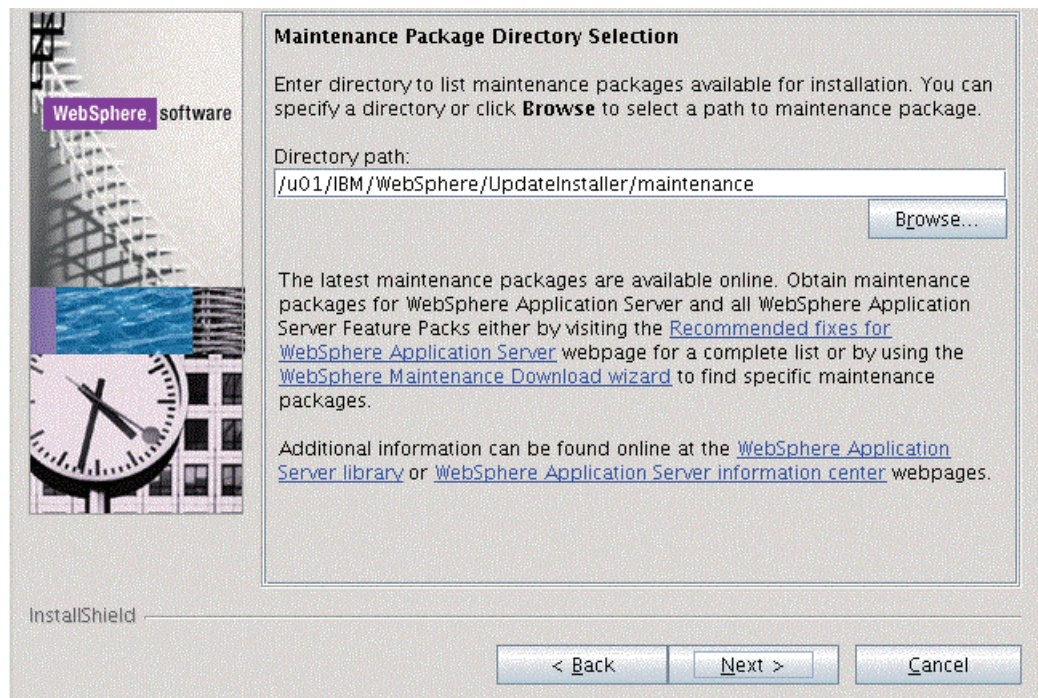
9. On Maintenance Package Directory Selection, validate the directory path that was located by the Installer wizard.

   Note: The installer inspects the `\UpdateInstaller\maintenance` directory for maintenance packages (`.pak` files).

   ---

10. Click the *Next* button to continue.
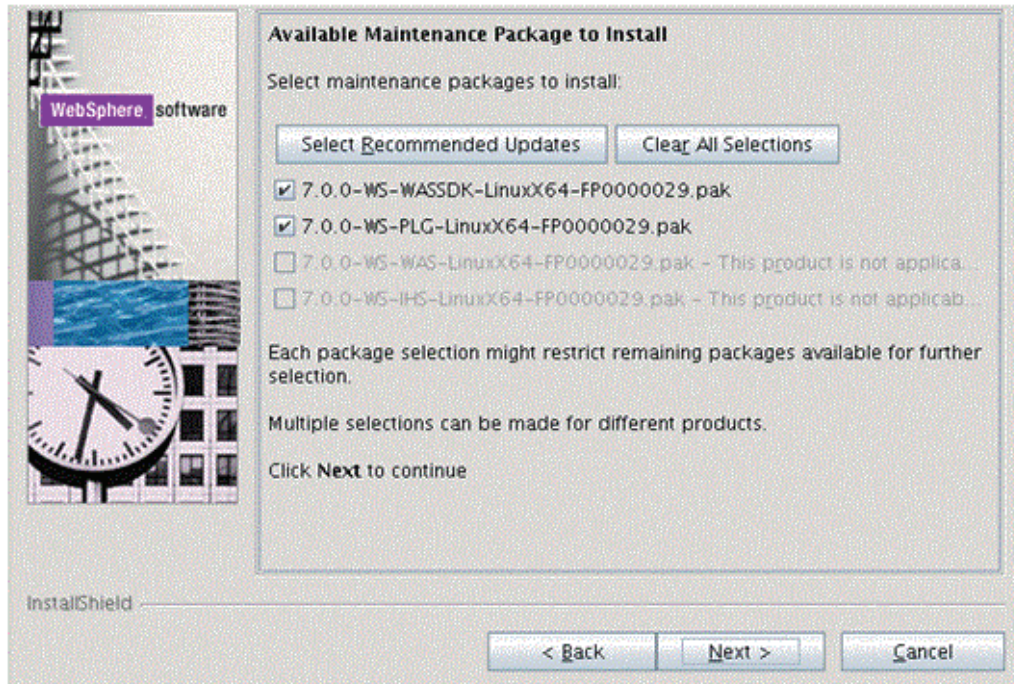
11. On Available Maintenance Package to Install, ensure that the PLG and WASSDK fix pack files are checked since the WebSphere Plugin components are being updated.

12. Click the *Next* button to continue the update for the WebSphere Plug-ins.
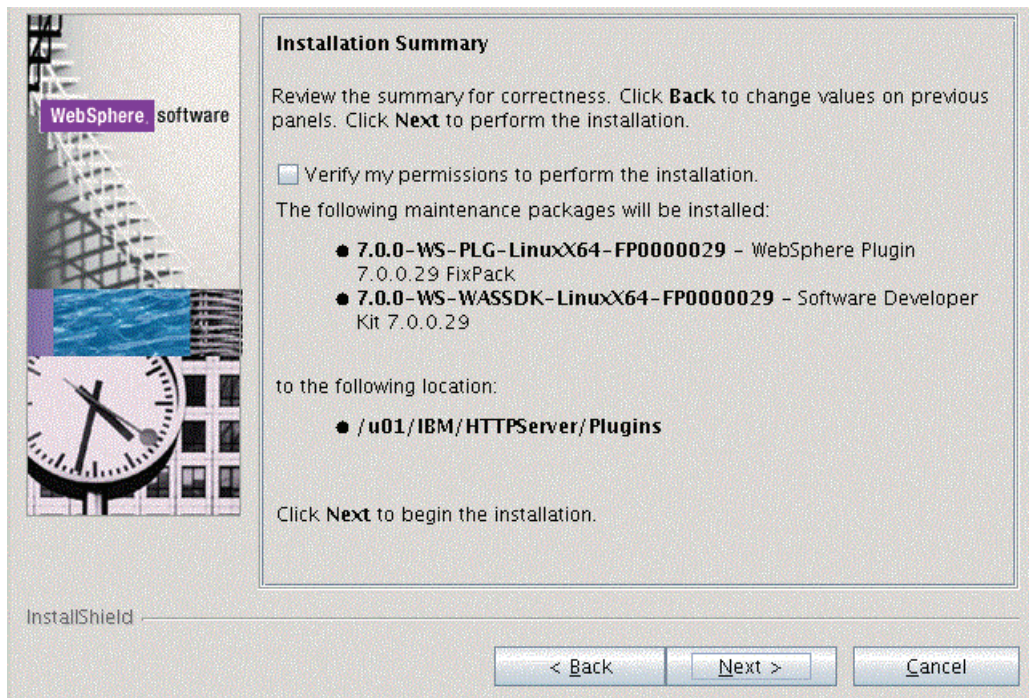
13. On the Installation Summary screen, review the information and click the *Next* button to begin the installation.
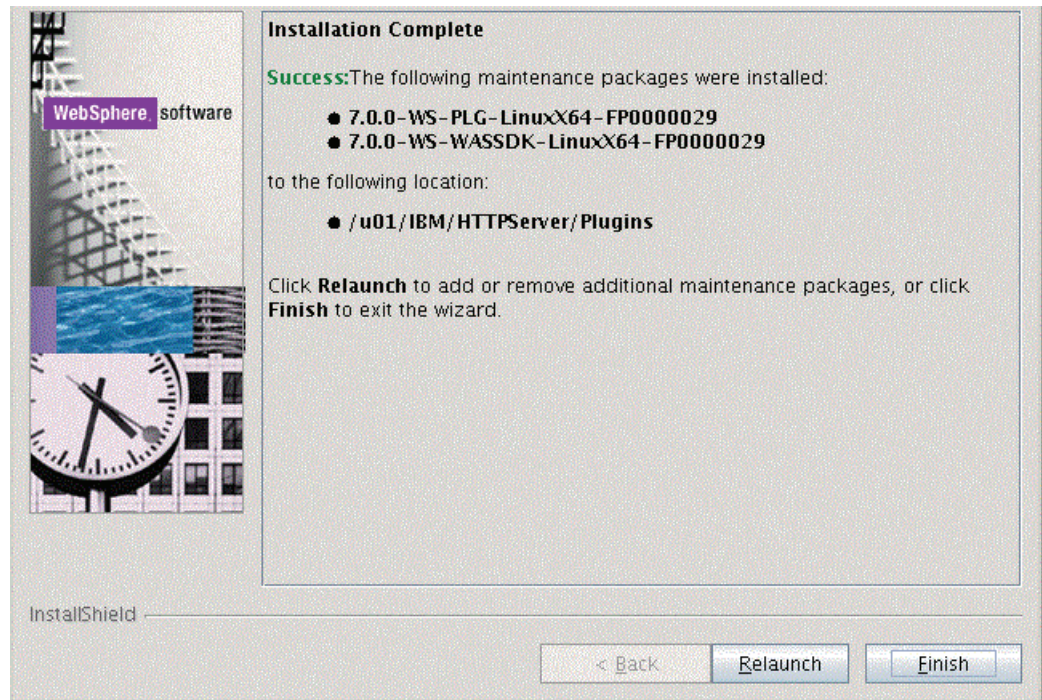
14. After the Plug-ins update is complete, the Success screen indicates the status of the maintenance package installation.

15. Click the *Finish* button to exit the Update Installer wizard.

4.8 Verifying the Versions of Installed WebSphere Products

This section describes how to verify the versions of these installed WebSphere products:

- WebSphere Application Server

- IBM HTTP Server

- WebSphere Plugins for IBM WebSphere Application Server

4.8.1 WebSphere Application Server

Use this procedure to verify the version of the IBM WebSphere Application Server.

1. Navigate to this folder:

   `/u01/IBM/WebSphere/AppServer/bin`

2. From the above folder, execute this shell script:

   `./versionInfo.sh`

   Verify the installed version of the IBM WebSphere Application Server is 7.0.0.29 as shown in the example below:

```
Product List
--------------------------------------------------------------------
ND                         installed

Installed Product
--------------------------------------------------------------------
Name                       IBM WebSphere Application Server - ND
Version                    7.0.0.29
ID                         ND
Build Level                cf291321.01
Build Date                 5/26/13
Architecture               AMD (64 bit)

--------------------------------------------------------------------
```

4.8.2 IBM HTTP Server

Use this procedure to verify the version of the IBM HTTP Server.

1. Navigate to this folder:

   `/u01/IBM/HTTPServer/bin`

2. From the above folder, execute this shell script:

   `./versionInfo.sh`

   Verify the installed version of the IBM WebSphere Application Server is 7.0.0.29 as shown in the example below:

```
Product List
--------------------------------------------------------------------
--------------
IHS                        installed

Installed Product
--------------------------------------------------------------------
--------------
Name                       IBM HTTP Server
Version                    7.0.0.29
ID                         IHS
Build Level                cf291321.01
Build Date                 5/26/13
Architecture               Intel (32 bit)

--------------------------------------------------------------------
```

4.8.3 WebSphere Plugins for IBM WebSphere Application Server

Use this procedure to verify the version of the WebSphere Plugins for IBM WebSphere Application Server.

1. Navigate to this folder:

   `/u01/IBM/HTTPServer/Plugins/bin`

2. From the above folder, execute this shell script:

./versionInfo.sh

Verify the installed version of the IBM WebSphere Application Server is 7.0.0.29 as shown in the example below:

```
Product List
---------------------------------------------------------------------
PLG                     installed

Installed Product
---------------------------------------------------------------------
Name                    Web server plug-ins for IBM WebSphere Application Server
Version                 7.0.0.29
ID                      PLG
Build Level             cf291321.01
Build Date              5/26/13
Architecture            AMD (64 bit)

---------------------------------------------------------------------
```

4.9 Starting the WebSphere Application Server

Note: By default, WebSphere Application Server 7.0 creates and configures a default server named server1 during installation. If you named your server something other than the default value, then substitute that name for server1 in the following steps.

To start the WebSphere Application Server:

1. Start a command prompt.

2. Navigate to the WebSphere/AppServer/profiles/profile_name/bin directory. For example:

   cd /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/bin

3. Issue the command startServer followed by the Application Server name. For example:

   ./startServer.sh server1

This command is case sensitive.

Note: Starting with Tools Release 8.97, you can use the Server Manager to start the WebSphere process.

4.10 Stopping the WebSphere Application Server

Note: By default, WebSphere Application Server 7.0 creates and configures a default server named server1 during installation. If you named your server something other than the default value, then substitute that name for server1 in the following steps.

To stop the WebSphere Application Server:

1. Start a command prompt.

2. Navigate to the `WebSphere/AppServer/profiles/profile_name/bin` directory. For example:

   ```
   cd /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/bin
   ```

3. Issue the command `stopServer` followed by the Application Server name. For example:

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

This command is case sensitive.

> **Note:** Starting with Tools Release 8.97, you can use the Server Manager to stop the WebSphere process.

4.11 Determining the Name and Status of the WebSphere Application Server

To determine the name and status of any or all WebSphere Application servers:

1. Start a command prompt.

2. Navigate to the `WebSphere/AppServer/profiles/profile_name/bin` directory. For example:

   ```
   cd /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/bin
   ```

3. Issue the command *serverStatus* followed by the Application Server name (or with the all option to view the status of all the servers in the profile). For example, to view the status of all Application Servers:

   ```
   ./serverStatus.sh -all
   ```

4.12 Starting the IBM HTTP Server

To start the IBM HTTP Server:

1. Start a command prompt.

2. Navigate to the `<ibm_http_server_location>/bin` directory and issue the start command with the -k option. For example:

   ```
   cd /u01/IBM/HTTPServer/bin
   ```

   ```
   ./apachectl -k start
   ```

This command is case sensitive.

> **Note:** Starting with Tools Release 8.97, you can use the Server Manager to start the IBM HTTP Server process.

4.13 Stopping the IBM HTTP Server

To stop the IBM HTTP Server:

1. Start a command prompt.

2. Navigate to the `<ibm_http_server_location>/bin` directory and issue the stop command with the -k option. For example:

   ```
   cd /u01/IBM/HTTPServer/bin
   ```

```
./apache -k stop
```

This command is case sensitive.

> **Note:** Starting with Tools Release 8.97, you can use the Server Manager to stop the IBM HTTP Server process.

4.14 Accessing the WebSphere Administration Console

The WebSphere Administration Console is completely web-based and can be accessed from any supported web browser. The default URL is:

```
http://<machinename>:<profile_port>/admin
```

where `machine_name` is the name of the machine on which WebSphere Application Server has been installed, and

where `profile_port` was defined during the profile creation in the profile creation wizard. For the first profile created, the default value is usually `9060`.

To access the WebSphere Administration Console on the installed machine:

1. Ensure that the WebSphere Application Server (default name is `server1`) is started.

2. Start a web browser.

3. Enter this URL to access the WebSphere Administration Console:

```
http://localhost:9060/admin
```

> **Tip:** If the port number is unknown and the default port is not working, the `AboutThisProfile.txt` file contains the key `Administrative console port`, which typically lists the assigned admin port number. Typically this file is located in this directory:
>
> `/u01/IBM/WebSphere/AppServer/profiles/AppSrv01/logs/AboutThisProfile.txt`
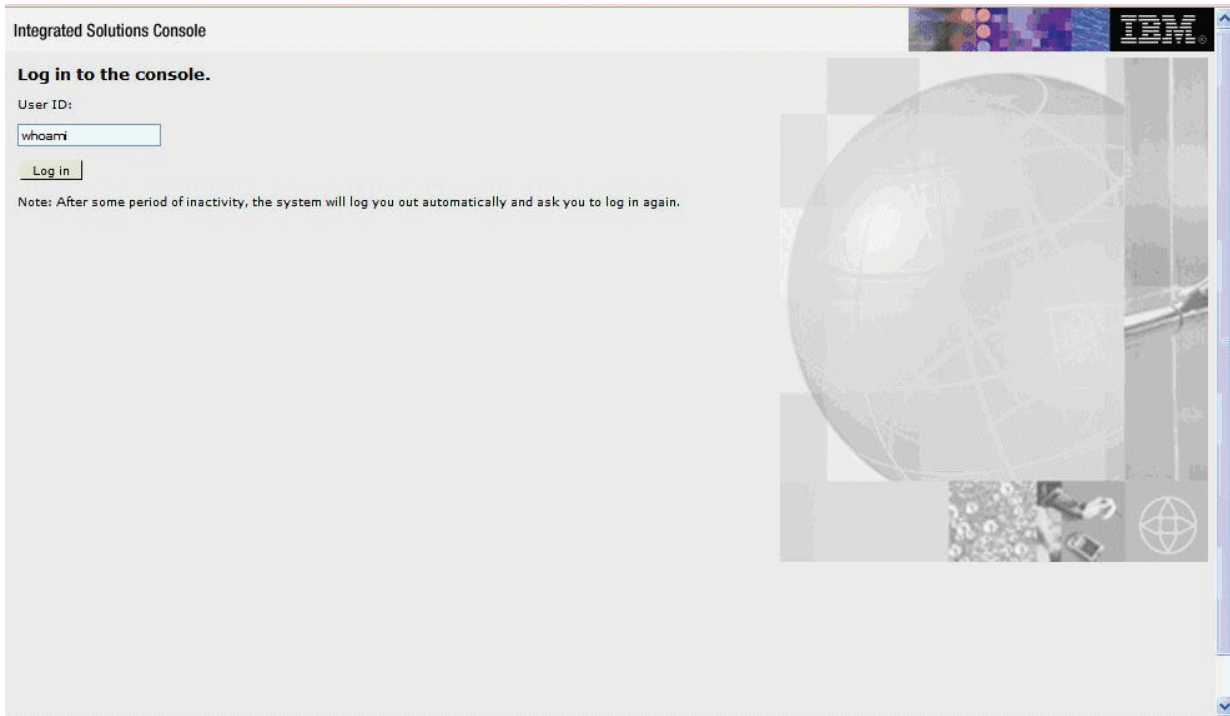
4. On the Log in to the console screen, enter a valid or new user.
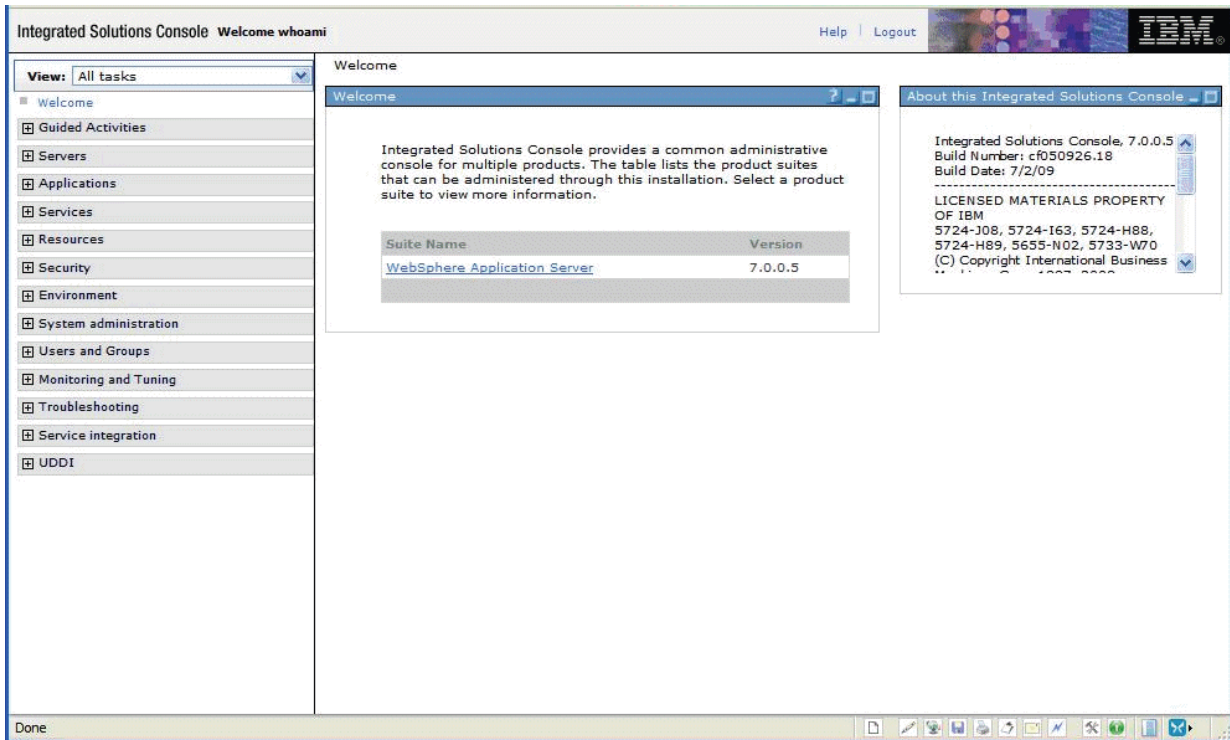
Upon successful logon, the WebSphere Application Server welcome screen is displayed. You can use this application to manage your WebSphere servers and related machines.

4.15 Testing the WebSphere and IBM HTTP Server Installation

To test the WebSphere Administration Console:

1. Ensure that the WebSphere Application Server (default name is `server1`) is started.

2. Ensure that the IBM HTTP Server is started.

3. Start a web browser.

4. Enter this URL to test the WebSphere Administration Console:

   `http://<machine_name>:<http_port>/snoop`

   where `machine_name` is your server, and

   where `http_port` is the port of your IBM HTTP Server. The default value is 80.

   For example:

   `http://localhost:80/snoop`

Upon successful execution, the resulting page should display information similar to the above. This indicates that your WebSphere Application Server is successfully installed and functioning.

4.16 Generating and Propagating WebSphere Plug-ins (optional)

> **Note:** This section is informational only and is not required before you install the Oracle JD Edwards EnterpriseOne HTML Web server.

Whenever you install new enterprise applications, or create new virtual hosts, you must regenerate Web Server plug-ins. If your WebSphere installation is on a single machine, you can generate plug-ins from the WebSphere Administrative console.

However, your configuration is across multiple machines, you might need to manually generate plug-ins.

This section describes these topics:

- Generating WebSphere Plug-ins
- Propagating WebSphere Plug-ins

4.16.1 Generating WebSphere Plug-ins

To generate WebSphere plug-ins:

1. Log on to the WebSphere Administrative console as described in Accessing the WebSphere Administration Console.

2. On the left hand navigation pane, select Servers > Server Types > Web servers
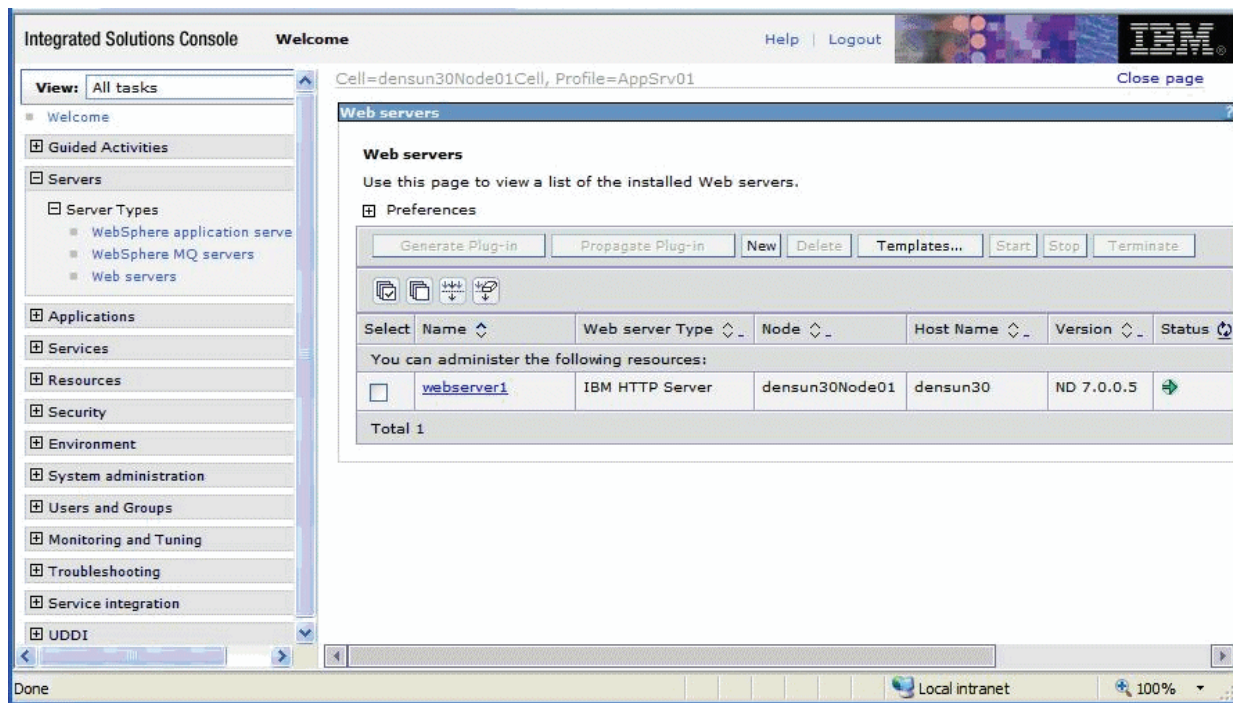
3. Click the check box next to the webserver definition for which you want to regenerate plug-ins.

4. To generate plug-ins, click the *Generate Plug-in* button, which is located above the webserver definition.

   The Plug-in file `plugin-cfg.xml` is regenerated in place, typically at this location:

   ```
   /u01/IBM/WebSphere/AppServer/profiles/AppSrv01/config/cells/
   densun30Node01Cell/nodes/densun30Node01/servers/webserver1
   ```

   A status message will display under the Web servers section.
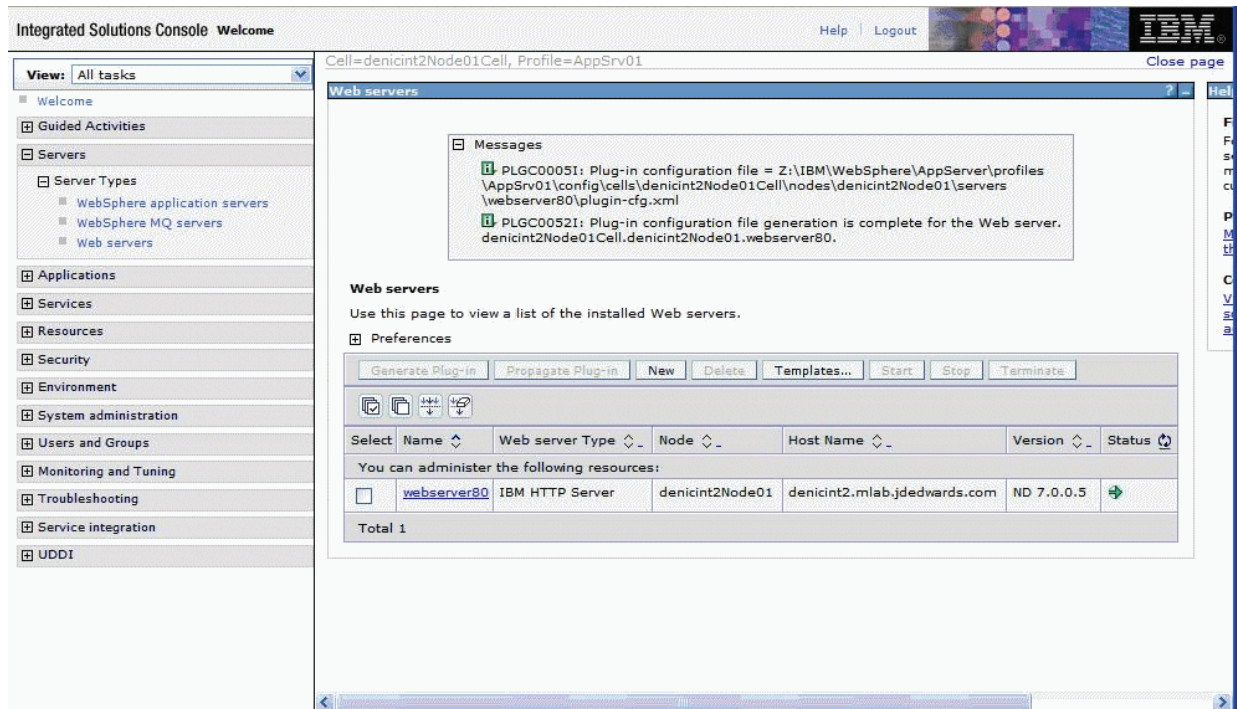
5. You must restart the IBM HTTP for any plug-in changes to take effect.

4.16.2 Propagating WebSphere Plug-ins

To propagate the generated WebSphere plug-ins:

1. Log on to the WebSphere Administrative console as described in Accessing the WebSphere Administration Console.

2. On the left hand navigation pane, select Servers > Server Types > WebServers.

3. Click the check box next to the webserver definition for which you want to propagate plug-ins.

4. To generate plug-ins, click the *Propagate Plug-in* button, which is located above the webserver definition.

   The Plug-in file plugin-cfg.xml is propagated in place, typically at this location:

   `/u01/IBM/HTTPServer/Plugins/config/webserver1/plugin-cfg.xml`

   A status message displays under the Web servers section as indicated in this screenshot sample:

Note: **Federated (Clustered) Web Servers.** If you are using WebSphere Application Server and running JD Edwards EnterpriseOne as part of a federated (or clustered) web server, you may need to regenerate the WebSphere global plugin configuration after deploying the newest tools release. This is required when new servlets have been added to the tools release you are deploying.

To update (regenerate) plugins, refer to the following procedure.

To update (regenerate) and propagate the global web server plugin configuration:

1. Log on to the Deployment Manager Administration Console using the Dmgr01 profile.

2. Expand the Environment node and select **Update global Web server plug-in configuration**.

3. Review the content in the right-hand pane and note the location of the plug-in file in the description. For example, the description might say:

   The global plugin-cfg.xml file is placed in the %was_profile_ home%/config/cells directory.

4. Click the **OK** button.

4.17 Creating a New Application Server Profile (optional)

> **Note:**   This section is informational only and is not required before you install Oracle JD Edwards EnterpriseOne HTML Web server.

To create a new application server profile:

1. Launch the profile creation wizard. For example:

   ```
   cd /u01/IBM/WebSphere/AppServer/bin/ProfileManagement
   ./pmt.sh
   ```
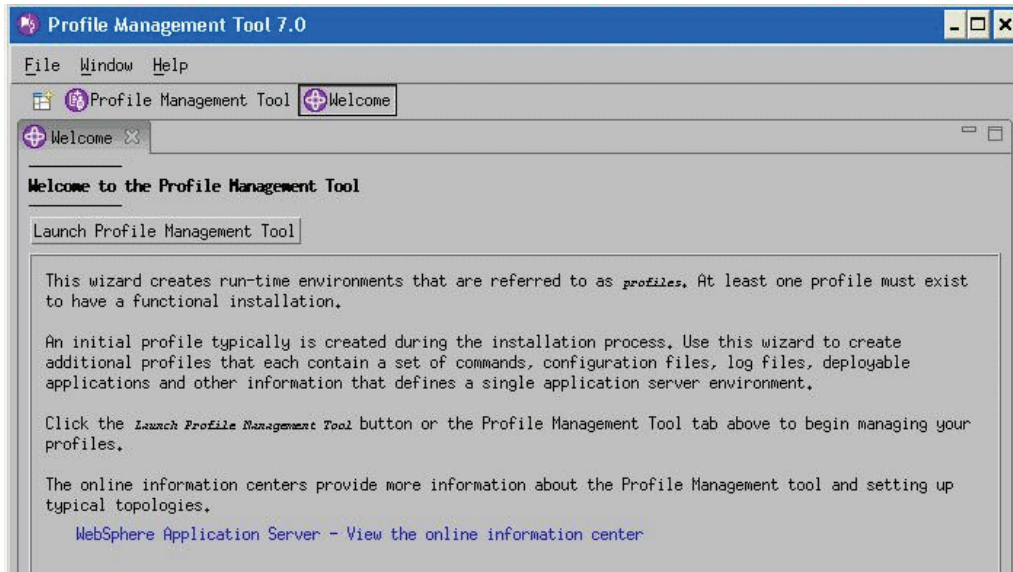
2. On the Welcome screen, click the *Launch Profile Management Tool* button.
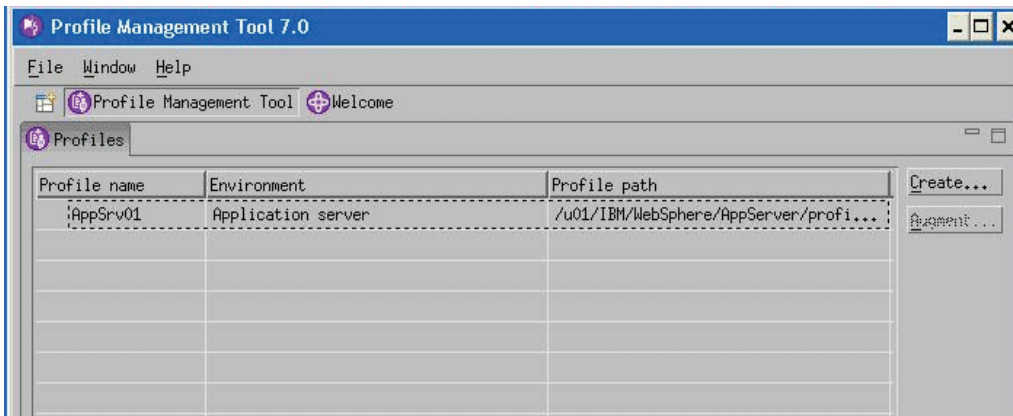
3. On Profile Management Tool, click the *Create* button to begin the profile configuration.
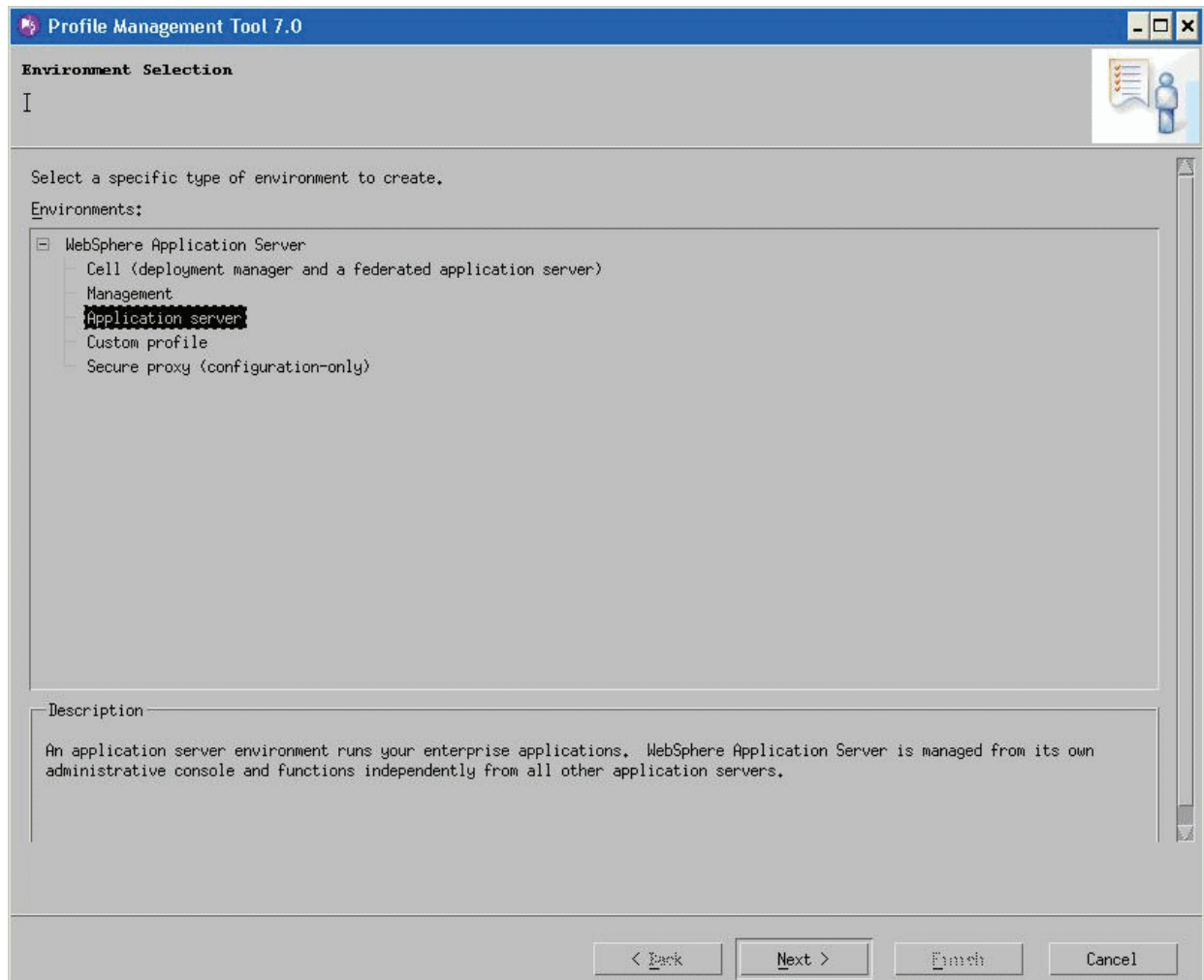
4. On Environment Selection, select *Application Server* as the type of environment to create.

5. Click the *Next* button to continue.
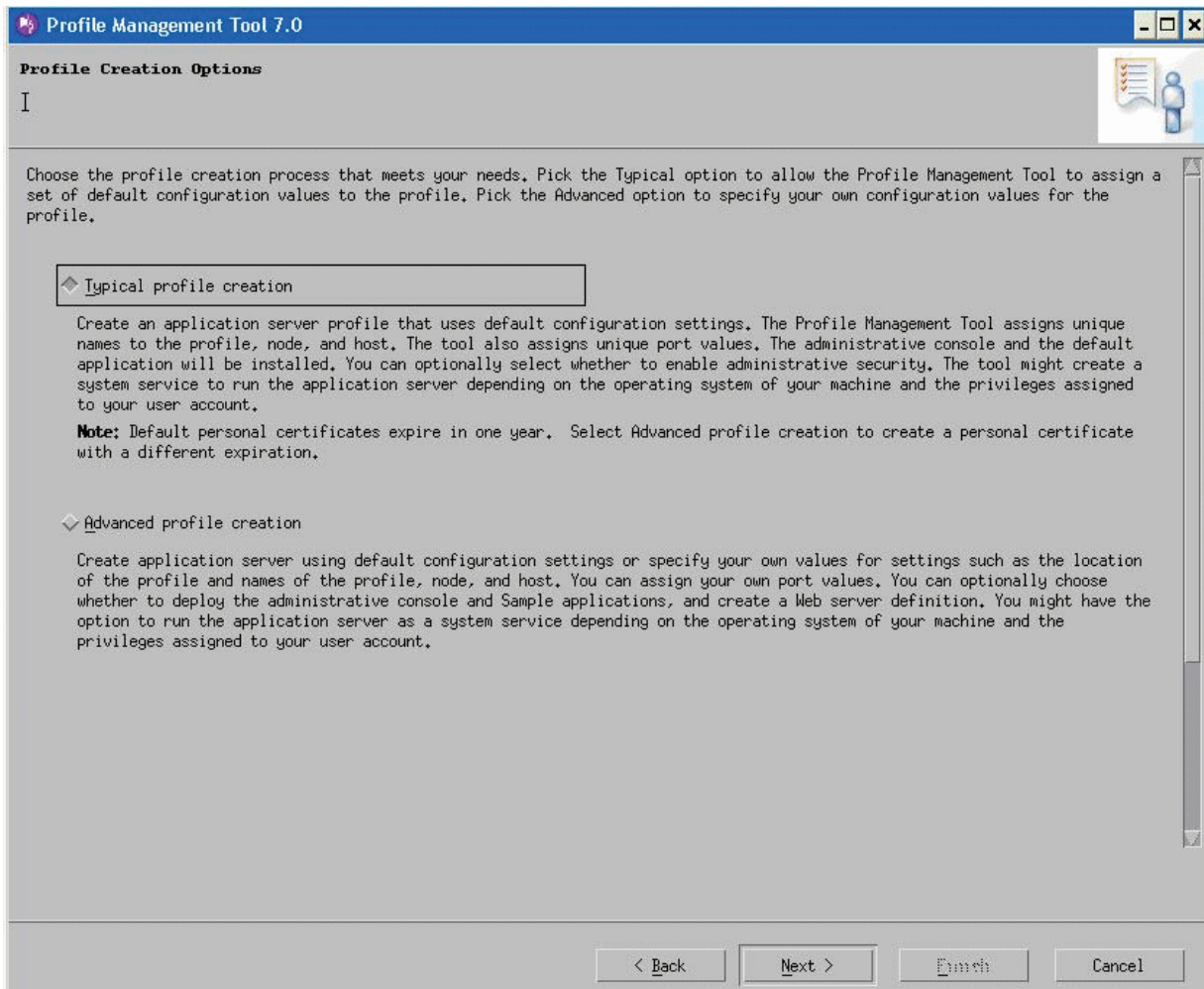
6. On Profile Creation Options, select the **Typical profile creation** radio button.

7. Click the *Next* button to continue.

8. Administrative security is enabled for the profile by default. Clear the check box to disable administrative security or enter the user name and password.

   On Enable Administrative Security, the check box for the application server profile is checked by default. You can choose either to:

   - Clear the check box for **Enable administrative security** to disable server administrative security, or

   - If the check box is enabled for **Enable administrative security**, server administration security will be enabled and you must enter the User ID and Password

9. Click the *Next* button to continue.

Profile Management Tool 7.0

Profile Creation Summary

Review the information in the summary for correctness. If the information is correct, click **Create** to start creating a new profile. Click **Back** to change values on the previous panels.

Application server environment to create: Application server

  Location: /u01/IBM/WebSphere/AppServer/profiles/AppSrv02

  Disk space required: 200 MB

  Profile name: AppSrv02

  Make this profile the default: False

  Node name: densun30Node02

  Server name: server1

  Host name: densun30

  Deploy the administrative console (recommended): True

  Deploy the default application: True

  Enable administrative security (recommended): True

  Administrative console port: 9061

  Administrative console secure port: 9044

  HTTP transport port: 9081

[< Back] [Create] [Finish] [Cancel]

10. On Profile summary, review your selections.

11. Click the *Create* button to start the profile creation.
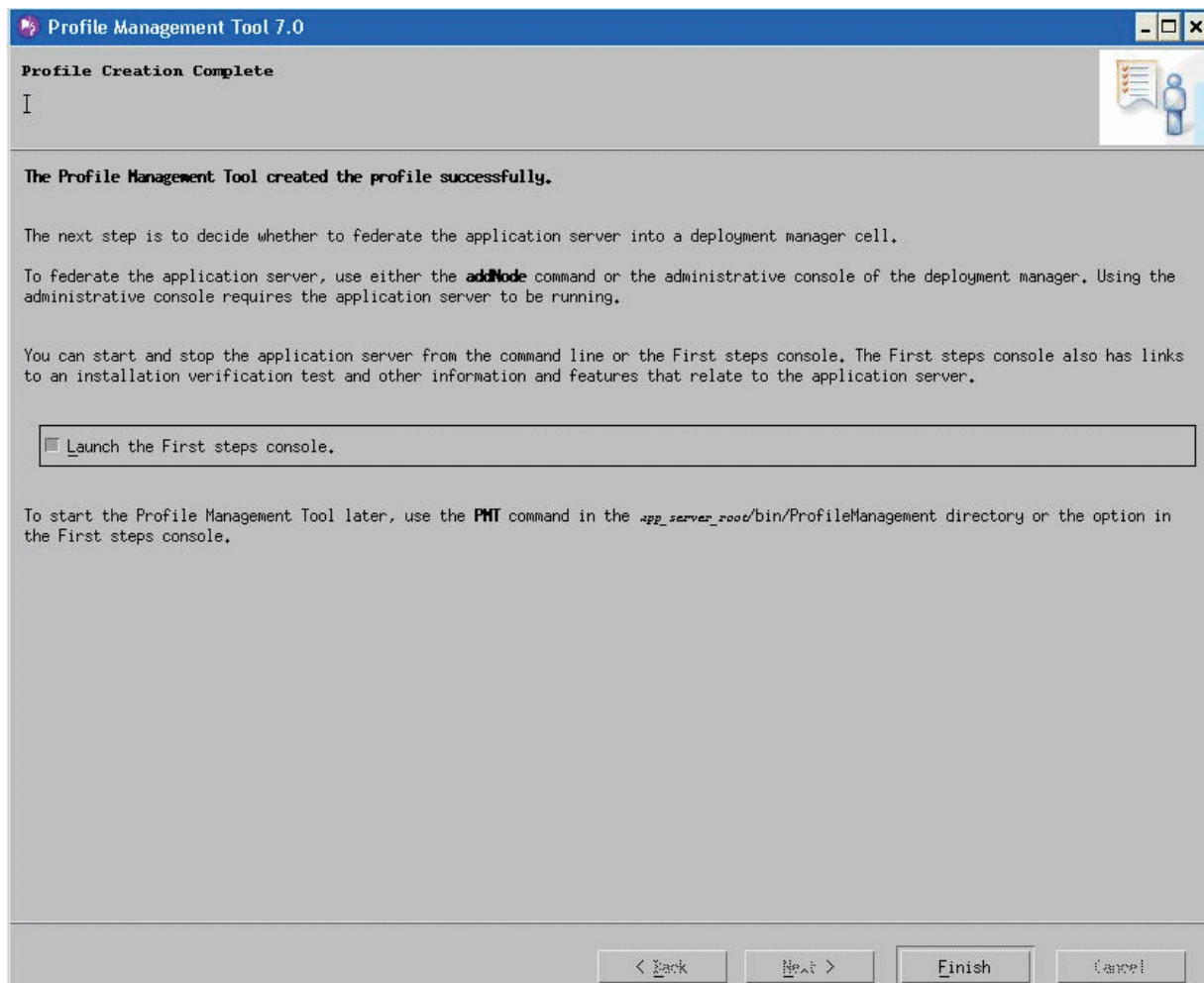
When complete, the installer displays the message: **The Profile Management Tool created the profile successfully**. It is not necessary to Launch the First Steps console at this time; you can clear the check box, which is checked by default.

12. Click the *Finish* button to complete the wizard and the profile configuration and proceed to the final *Profiles* screen.

13. Exit the Profile Management Tool by choosing File > Exit.

4.18 Deleting a Profile (optional)

This section is provided as reference in case you need to delete a WebSphere base or Network Deployment profile.

1. From a command prompt, change to this directory:

```
cd /u01/IBM/WebSphere/AppServer/bin
```

2. To delete a profile, issue this command:

```
./manageprofiles.sh delete profileName profile_name
```

where `profile_name` is the name of the profile to be deleted.

If the `profile_name` is valid, and the command successfully executed, the system returns this message:

```
INSTCONFSUCCESS: Success: The profile no longer exists.
```

When you delete a profile, the profile and its directory are deleted, except for the logs directory. You must manually delete the logs directory and then delete the profile directory.

4.19 Adding a New Web Server for a New Profile (optional)

Each profile should be associated with a Web Server. The EnterpriseOne HTML Web Server install fails if it does not find a webserver associated with the profile specified during the install. If the newly created profile is an ND profile, you can create the Web Server by using the button *Create a New Web Server* from the Web Servers page on the WebSphere Administrator Console. However, if the newly created profile is not an ND profile, the option to *Create a New Web Server* is not available. Instead, you must create a new web server must be created from the command line.

To add a new web server for a new profile from the command line:

1. Locate a copy of this Web Server configuration file which is typically located in this directory with this name:

    `/u01/IBM/HTTPServer/Plugins/bin`

2. Make a copy of the `configurewebserver<webserver_port>.bat` file assigning a new port value to the copy. For example, assuming you have changed directory to `/u01/IBM/HTTPServer/Plugins/bin`:

    `cp configurewebserver1.sh configurewebserver2.sh`

    Do not manually copy the `configurewebserver1.sh` file to the specific profile directory.

3. Edit the new configuration file (`configurewebserver2.sh`) file that resides in the `/u01/IBM/HTTPServer/Plugins/bin` directory to change the settings to be unique to and specific to your newly created profile.

    Change the settings to be unique to and specific to your newly created profile.

    A sample file is provided below where:

    the newly created profile is called *AppSrv02*, and

    the new webserver will be called *webserver81*, and

    the name of the node that we specified for our new profile is *SERVERNode02*, and

    the name of the server itself is *SERVER.domain.com*.

    The above is illustrated by the bolded settings in this sample file:

```
/u01/IBM/WebSphere/AppServer/profiles/AppSrv02/bin/wsadmin.sh
$PRO-FILE_NAME_PARAMETER
$WSADMIN_USERID_PARAMETER
$WSADMIN_PASSWORD_PARAMETER
-conntype NONE -f
'/u01/IBM/WebSphere/AppServer/bin/configureWebserverDefinition.jacl'
web-server2 IHS '/u01/IBM/HTTPServer'
'/u01/IBM/HTTPServer/conf/httpd.conf' 81
MAP_ALL '/u01/IBM/HTTPServer/Plugins' managed
densun30Node02 den-sun30.mlab.jdedwards.com solaris
```

> **Note:** Where the original settings for these bolded entries were probably something similar to these:
>
> - *AppSrv01*
> - *web-server1*
> - *80*
> - *SERVERNode01*

4. Save the file.

5. From the directory where the shell script exists, execute it using this command:

   `./configurewebserver2.sh`

   The console displays these messages when the shell script is running and finishes:

```
Creating the web server definition for webserver2.
Parameters for administering IHS web server can also be updated using wsadmin script or admin console.
Step ServerConfigStep successful for Web server definition webserver2
Step RemoteServerConfigStep successful for Web server definition webserver2
Web server definition for webserver2 is created.

Start computing the plugin properties ID.
Plugin properties ID is computed.

Start updating the plugin install location.
Plugin install location is updated.

Start updating the plugin log file location.
Plugin log file location is updated.

Start updating the RemoteConfigFilename location.
Plugin remote config file location is updated.

Start updating the RemoteKeyRingFileName location.
Plugin remote keyring file location is updated.

Start saving the configuration.

Configuration save is complete.

Computed the list of installed applications.

Processing the application DefaultApplication.
Get the current target mapping for the application DefaultApplication.


Computed the current target mapping for the application DefaultApplication.
Start updating the target mappings for the application DefaultApplication.
Target mapping is updated for the application DefaultApplication.

Processing the application ivtApp.
Get the current target mapping for the application ivtApp.


Computed the current target mapping for the application ivtApp.
Start updating the target mappings for the application ivtApp.
Target mapping is updated for the application ivtApp.

Processing the application query.
Get the current target mapping for the application query.
Computed the current target mapping for the application query.
Start updating the target mappings for the application query.
Target mapping is updated for the application query.

Start saving the configuration.

Configuration save is complete.
# ■
```

6. Verify your newly created Web Server is created by logging into the WebSphere Admin Console and clicking on Web Servers. For example:

5
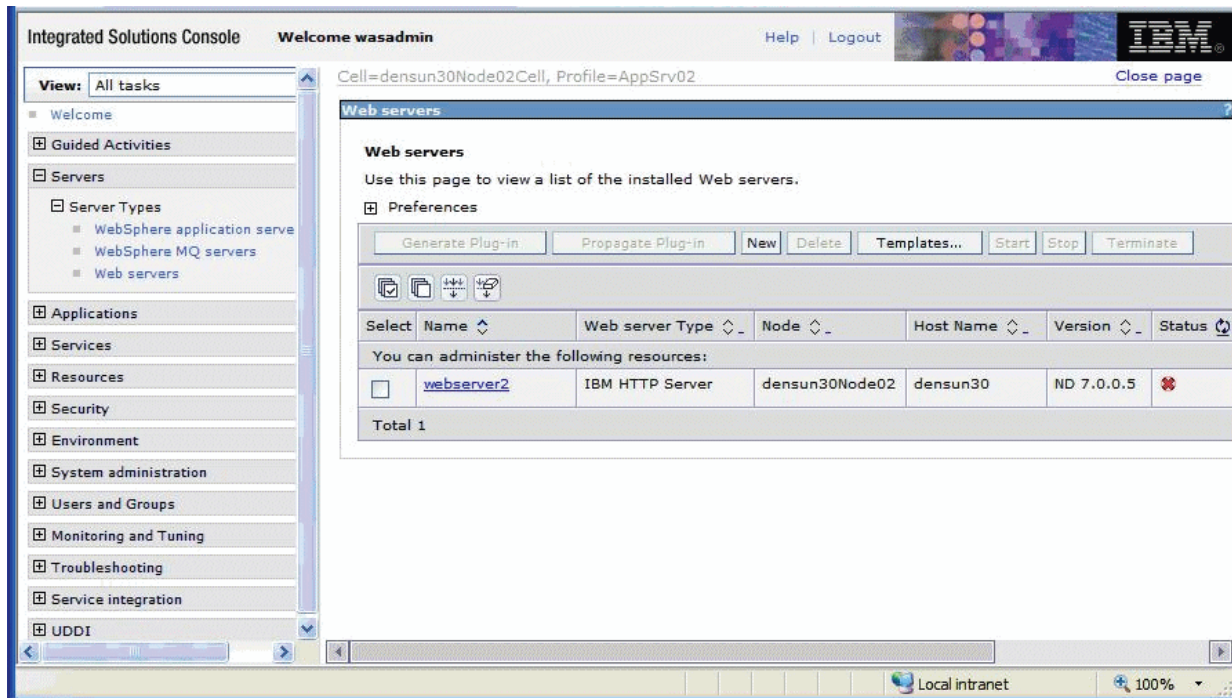
Running the HTML Server

This chapter contains the following topics:

- Section 5.1, "Starting the HTML Server"
- Section 5.2, "Stopping the HTML Server"
- Section 5.3, "Accessing the HTML Server"
- Section 5.4, "Generating Serialized Objects for the HTML Server"
- Section 5.5, "Configuring the HTML Server for Non-Western European Languages"
- Section 5.6, "Enabling the Browser Side Debugging Feature on the Web Client"
- Section 5.7, "Customizing the Disclaimer for the Sign-In Page"
- Section 5.8, "Setting Up Quick Links for Pervasive Device Support"
- Section 5.9, "Clearing File Attachments from the Browser Cache"

> **Tip:** In order to enable any modifications, you should always stop and restart the Application Server any time you modify the configuration.

> **Note:** Beginning with Tools Release 8.97, many administrative tasks (such as starting and stopping services) for both the HTTP server and the JD Edwards EnterpriseOne HTML Web server can be performed through the Server Manager Console.

5.1 Starting the HTML Server

The JD Edwards EnterpriseOne HTML Server is installed in the instance of the application server that you defined when you installed the Web Server (for example, AS_JS_81). Complete this task to start the server.

To start the HTML Server:

1. Start the Server Manager console.

2. Select the Server and Instance you want to start.

3. Select the *Start* button.

4. If you are using the 64-bit instance of DB2 8.1, 8.2, 9.1 on a 64-bit kernel, open the `startServer.sh` script and verify that the environment variable is correct for your platform.

> **Note:** This step does not apply to the Linux platform, since JD Edwards EnterpriseOne is not supported on 64-bit db2 on Intel 32 hardware.

Note that `$<DB2_Instance_Home>/sqllib/lib32` must be in the path. If the path to lib32 is missing, add the path as shown in these examples:

- For AIX:

  ```
  LIBPATH="$WAS_LIBPATH":$<DB2_Instance_Home>/sqllib/lib32:$LIBPATH
  ```

- For Solaris:

  ```
  LD_LIBRARY_PATH="$WAS_LIBPATH":$<DB2_Instance_Home>/sqllib/lib32:
  $LD_LIBRARY_PATH
  ```

- For HP-UX:

  ```
  SHLIB_PATH="$WAS_LIBPATH":$<DB2_Instance_Home>/sqllib/lib32:$SHLIB_
  PATH
  ```

5.2 Stopping the HTML Server

The JD Edwards EnterpriseOne HTML Server is installed in an instance of the application server that you defined when you installed the Web Server (for example, AS_JS_81). Complete this task to stop the server.

To Stop the HTML Server:

1. Start the Server Manager console.
2. Select the Server and Instance you want to stop.
3. Select the *Stop* button.

5.3 Accessing the HTML Server

You can access the HTML Server from any web browser connected to your network.

To access the HTML Server:

1. Open the JD Edwards HTML client by opening a browser and entering this URL:

   ```
   http://<web_server_name>:<port_number>/jde/owhtml
   ```
   or
   ```
   http://<web_server_name>:<port_number>/jde/E1Menu.maf
   ```

   For example:

   ```
   http://jdewebs1.myserver.com:81/jde/owhtml
   ```
   or
   ```
   http://jdewebs1.myserver.com:81/jde/E1Menu.maf
   ```

5.4 Generating Serialized Objects for the HTML Server

Starting with application release 8.12, JD Edwards EnterpriseOne specs are delivered in XML format, which allows for on-demand generation of serialized Java objects from these XML specs. Objects are now automatically generated when the first user accesses

an application, and the only objects not automatically generated are FDA-created portlets.

eGenerator can still be used to manually generate serialized objects. eGenerator is the only method for generating FDA-created portlets, so it is required if you installed a Portal and created portlets in the FDA application.

To install the eGenerator and manually generate serialized objects, refer to Appendix A, "Generating JD Edwards EnterpriseOne Serialized Objects".

5.5 Configuring the HTML Server for Non-Western European Languages

If you are setting up the HTML Server to run Non-Western European Languages, complete this task to ensure that the Application Server is properly configured for Unicode.

To configure the HTML Server for Non-Western European Languages:

1. Open the WebSphere Administrative Console, and select the Application Server for the JD Edwards HTML Server.

2. Using Server Manager, verify this code page parameter and setting:

   `codePage=1252`

3. Using Server Manager, verify this UBE queue parameter and setting:

   `UBEQueue=QB900`

5.6 Enabling the Browser Side Debugging Feature on the Web Client

In past releases, a user working on a form in the web client could press the Ctrl+D keys to display GUI elements at the bottom of the page that are used for browser side debugging. Starting with release 8.96, this feature is disabled in the default mode, and the web client no longer displays this debugging feature when Ctrl+D is pressed. To enable this feature for developers and support personnel, the system administrator must modify the `JDEDTA.js` file as described in this task.

To enable the browser side debugging feature:

1. On the HTML Server, navigate to the `webclient.war/js/` directory, and open the `JDEDTA.js` file in a text editor.

2. Search for the following line:

   `var allowDebug=false;`

   and change the value to `true`.

3. Save the file.

   You do not need to restart the server to activate the change.

4. Open Internet Explorer, and press the **Refresh** button to reload the page.

   This action refreshes the `.js` files cached in the browser to activate the Ctrl-D feature.

5.7 Customizing the Disclaimer for the Sign-In Page

When web-based clients log on to JD Edwards EnterpriseOne, the sign-in page includes a default disclaimer that is included in a file shipped with the HTML Server software. This task describes how to modify this file to include your own disclaimer.

To specify an additional disclaimer for the sign-in page:

1. Open this file in a text editor:

    ```
    <JAS_HOME>\webcontent\share\html4login.jsp
    ```

    where *<JAS_HOME>* is the installation directory of the HTML Server.

2. Make a backup of this file.

3. Locate the following line and specify your disclaimer with the following element:

    ```
    String companyDisclaimerHTML = "";
    ```

    For example:

    ```
    String companyDisclaimerHTML = "By signing in, you agree to the <a
    href=\"http://server/path-to/privacypolicy.html\">privacy policy</a>.";
    ```

    > **Tip:** This element is Java code. Therefore, quotation marks must be preceded by a back-slash character, as shown above.

4. Save the file.

    Your changes should take effect immediately. If not, restart the portal.

5.8 Setting Up Quick Links for Pervasive Device Support

JD Edwards EnterpriseOne offers support for Pervasive Devices. Developers can write custom applications for PocketPC 2003 devices using the EnterpriseOne toolset. However, JD Edwards EnterpriseOne menus are not supported on Pervasive Device clients, so a new XML file (`PervasiveAppQuickLinks.xml`) was added to the HTML Server that allows a system administrator define the list of applications that can be executed on the Pervasive Device client. This file can be edited to add, modify, or delete JD Edwards EnterpriseOne applications that are accessible to Pervasive Device clients. Each application listed in this file is defined by a quick-link tag that describes the application, form, and version of the object, and includes a description. A sample quick-link tag is shown below:

```
<quick-links>

<quick-link launchAction="launchForm"
              appID="P0411"
              formID="W0411G"
              version="ZJDE0001"
              description="3 G0411 - Standard Voucher Entry
              (P0411_W0411G_ZJDE0001)"/>

</quick-links>
```

Quick-link tags can include the following attributes:

Attribute	Required?	Description
launchActi on	yes	Specifies the action that occurs when users click on the quick-link. Valid values are: ■ launchForm Launch the form directly. ■ promptForValue Request values for the processing options. ■ promptForVersion Request which version of the form to open.
appID	yes	Program number of the application. For UBE type objects, the AppID is the UBE name.
appType	Required for promptForVersion action.	Type of application. Valid values are: ■ APP ■ UBE
formID	Required for launchForm and promptForValue actions. Also required with the appType attribute.	Number of the specific form within the application.
version	No	Version number of the form.
description	Yes	Description of the form. This description appears in the list displayed on the Pervasive Device client.

To edit the PervasiveAppQuickLinks.xml file

1. On the HTML Server, navigate to this directory: `<JAS_ Home>/installedApps/<node_name>/EA_JS_81.ear/webclient.war/classes`.

   Open the `PervasiveAppQuickLinks.xml` file in a text editor.

2. Add quick-link tags for each of the JD Edwards EnterpriseOne applications you want to make accessible to Pervasive Devices.

   You can also delete or modify existing tags to remove or change the forms that Pervasive Device clients can access. When clients access JD Edwards EnterpriseOne from a Pervasive Device, the forms are listed as links in the same order they appear in the `PervasiveAppQuickLinks.xml` file.

Save and exit the file.

Below is an example of the `PervasiveAppQuickLinks.xml` file:

```
<?xml version="1.0" encoding="UTF-8" ?>
<quick-links>
  <quick-link launchAction="launchForm" appID="P0411" formID="W0411G"
version="ZJDE0001" description="3 G0411 - Standard Voucher Entry
(P0411_W0411G_ZJDE0001)" />
  <quick-link launchAction="launchForm" appID="P01012"
formID="W01012B" version="ZJDE0001" description="P01012_W01012B" />
  <quick-link launchAction="promptForValue" appID="P01012"
formID="W01012B" version="ZJDE0001" mode="1" appType="APP"
description="Prompt for Values(P01012_W01012B,ZJDE0001,1,APP)" />
  <quick-link launchAction="promptForValue" appID="P4210"
formID="W4210E" description="Prompt for Values(P4210_W4210E)" />
```

```
   <quick-link launchAction="promptForVersion" appID="P01012"
formID="W01012A" appType="APP" description="Prompt for
Version(P01012_W01012A)" />
   <quick-link launchAction="promptForVersion" appID="R0006P"
appType="UBE" description="Prompt for Version(R0006P)" />
   <quick-link launchAction="launchForm" appID="P98TREE"
formID="W98TREEA" description="P98TREE_W98TREEA" />
   <quick-link launchAction="launchForm" appID="P98SYSGR"
formID="W98SYSGRB" description="P98SYSGR_W98SYSGRB" />
   <quick-link launchAction="launchForm" appID="P98CTRL"
formID="W98CTRLA" description="P98CTRL_W98CTRLA" />
   <quick-link launchAction="launchForm" appID="P98RUNPC"
formID="W98RUNPCM" description="P98RUNPC_W98RUNPCM" />
   <quick-link launchAction="launchForm" appID="P98SYSFM"
formID="W98SYSFMA" description="P98SYSFM_W98SYSFMA" />
   <quick-link launchAction="launchForm" appID="P98SYSFM"
formID="W98SYSFMB" description="P98SYSFM_W98SYSFMB" />
   <quick-link launchAction="launchForm" appID="P98FRMFL"
formID="W98FRMFLA" description="P98FRMFL_W98FRMFLA" />
   <quick-link launchAction="launchForm" appID="P98MEDIA"
formID="W98MEDIAA" description="P98MEDIA_W98MEDIAA" />
   <quick-link launchAction="launchForm" appID="P90CB050"
formID="W90CB050A" description="P90CB050_W90CB050A" />
   <quick-link launchAction="launchForm" appID="P55SFRU1"
formID="W55SFRU1A" description="P55SFRU1_W55SFRU1A" />
   <quick-link launchAction="launchForm" appID="P99WIZ01"
formID="W99WIZ01B" description="P99WIZ01_W99WIZ01B" />
   <quick-link launchAction="launchForm" appID="P99WIZ03"
formID="W99WIZ03A" description="P99WIZ03_W99WIZ03A" />
   <quick-link launchAction="launchForm" appID="PMODAL"
formID="WMODALA" description="PMODAL_WMODALA" />
   <quick-link launchAction="launchForm" appID="P42101"
formID="W42101C" description="New Sales Order Application" />
   </quick-links>
```

5.9 Clearing File Attachments from the Browser Cache

In a typical environment, file attachments (such as Media Object attachments and JD Edwards EnterpriseOne reports) are automatically cached into the \Temporary Internet Files directory on web-based client machines when these attachments are opened from a browser. This situation allows copies of confidential documents, such as Media Objects, images, and web pages, to proliferate across workstations on which these objects are opened.

To prevent these objects from persisting in the internet cache, administrators should configure the browsers to automatically clear the cache when the client closes the browser. This protection is particularly important in a kiosk environment. The procedure for clearing the cache depends on the type of browser. Refer to the relevant task below to secure the browser used in your system.

In addition to securing the browser cache, Media Object Security was added in 8.96 to ensure that media objects can be secured within the application. For more information on this topic, see "Managing Media Object Security" in the *JD Edwards EnterpriseOne Tools Security Administration Guide*.

This section describes these tasks:

- Securing Internet Explorer

- Securing Safari

- Securing Mozilla Firefox

5.9.1 Securing Internet Explorer

Complete this task to automatically clear the cache in Internet Explorer.

1. In Internet Explorer, select **Tools**, **Internet Options** from the drop down menu.

2. Click the **Advanced** tab.

3. In the "**Settings**" box, scroll down to the section labeled "**Security**," and select the check box next to `Empty Temporary Internet Files folder when browser is closed`."

4. Click **OK** to save the change.

   This option does not delete cookies, but will clear your cache of other files when you close the browser.

   > **Tip:**   Access the following web page for more details:
   >
   > `http://www.microsoft.com/windows/ie/using/howto/customizing/`
   > `clearcache.mspx`

5.9.2 Securing Safari

Activate the Private Browsing feature of Safaris to secure the browser. When activated, no web addresses, personal information, or pages are saved or cached on the browser, and no trace of any activity is recorded.

5.9.3 Securing Mozilla Firefox

Activate the Clear Private Data tool to secure Firefox. This tool allows you to delete all personal data, including browsing history, cookies, Web form entries and passwords with a single click. Mozilla Firefox can also be configured to automatically clear this information when you close the browser.

6

Understanding EnterpriseOne HTML Server Package Discovery

This chapter contains the following topics:

- Section 6.1, "Overview of EnterpriseOne HTML Server Package Discovery"
- Section 6.2, "Impacts to End Users"
- Section 6.3, "Understanding the Manifest"

6.1 Overview of EnterpriseOne HTML Server Package Discovery

Starting with JD Edwards EnterpriseOne release 8.12, EnterpriseOne specs are delivered in XML format. The new format enables the specs to be stored in database tables instead of the TAM files, and is called Shared Object Configuration. In this configuration, both Enterprise Servers and HTML Servers access the same database for the same set of specs.

Before release 8.12, whenever a new package was deployed to the Enterprise Server, you had to install the package on a development client and manually generate serialized objects for the HTML Server. With release 8.12, however, manual generation is now optional. Instead, the JD Edwards EnterpriseOne now automatically generates objects on the fly if they do not exist in the serialized object tables.

When you deploy a package to the Enterprise Server, the HTML Server automatically discovers the new package and purges all serialized records impacted by the package. If a full package is deployed, the HTML Server deletes all serialized object records. If an update package is deployed, the HTML Server deletes only those records that are included in the update package. It also removes the impacted objects from in-memory cache. After the package deployment is complete, when a user accesses an EnterpriseOne object, this object is generated on the fly using the new specs delivered in the package.

To ensure the integrity of the specs, the HTML Server must be configured so that:

- Each EnterpriseOne JAS instance includes only one path code and one package within the path code.
- All users accessing a JD Edwards EnterpriseOne HTML Server instance access only one package.
- Serialized object databases are not shared among multiple EnterpriseOne JAS instances, unless all these instances run on the same path code and same package.

6.2 Impacts to End Users

During package deployment, the HTML Server stops responding to user requests until the package is deployed and serialized objects are purged. During this process, user will not able to log in. Users that are already logged in prior to the package deployment will not be able to launch new forms until the package deployment is complete.

6.3 Understanding the Manifest

Each package now contains a package manifest. The manifest is a record in a new table that is created every time a package is built. The package manifest contains a date/time stamp for the package build and information about the package content. For update packages, it also contains a list of objects included in the package.

Each serialized object table now contains a serialized object manifest. This manifest indicates what specs are used to generate the serialized objects. For example, the manifest includes the name of the package used to generate the serialized objects. To ensure the integrity of the system, all serialized objects are generated from the same package.

When the HTML Server detects a package deployment, it compares the package manifest with the serialized object manifest. If a new package is deployed, the package manifest will be different than the serialized object manifest. The HTML Server purges the serialized objects table of objects listed in the package manifest. The HTML Server then updates the serialized object manifest so it is consistent with the package manifest. This entire process is automatic and does not need administrator involvement.

If you decide to generate objects manually using the eGenerator, you must generate the manifest manually for the discovery process to work. For instructions on how to generate the manifest, see Generating the Serialized Object Manifest in Generating JD Edwards EnterpriseOne Serialized Objects.

A

Generating JD Edwards EnterpriseOne Serialized Objects

This appendix describes the tasks to install eGenerator and generate JD Edwards EnterpriseOne JAS objects from a set of JD Edwards EnterpriseOne objects. It contains the following topics:

- Section A.1, "Generating JD Edwards EnterpriseOne Serialized Objects Overview"
- Section A.2, "Installing eGenerator"
- Section A.3, "Working with the eGenerator"
- Section A.4, "Configuring eGenerator"
- Section A.5, "Generating the Serialized Object Manifest"
- Section A.6, "Generating All Standard Serialized Objects"
- Section A.7, "Generating a List of Objects (Bulk Generation)"
- Section A.8, "Verifying the Generation Process"
- Section A.9, "Generating Other Selected Objects"

A.1 Generating JD Edwards EnterpriseOne Serialized Objects Overview

The first step is determine which JDK to use:

- **HTML Server with WebSphere Application Server 7.0**

  You must use JDK version 1.6 on your eGenerator script.

- **HTML Server with WebSphere Application Server 8.5.x**

  You must use JDK version 1.7 on your eGenerator script.

  > **Note:** If you are running eGenerator on your Development Client for WebSphere 8.5.x, you will need JDK 1.6 32-bit for your Development Client and JDK 1.7 for the eGenerator.

On UNIX systems, the Java program that will be executed on your system is determine by this variable setting for WebSphere Express:

set JAVA_PGM=%BASE_WEBSPHERE_EXPRESS_DIR%\java\bin\java.exe

Starting with application release 8.12, JD Edwards EnterpriseOne specs are delivered in XML format, which allows for on-demand generation of serialized objects from

these XML specs. Objects are now automatically generated when the first user accesses an application.

eGenerator can still be used to manually generate serialized objects. It is the only method for generating FDA-created portlets, so is required if you installed a JD Edwards EnterpriseOne Portal. eGenerator is also an optional path for generating any set of objects, including a complete set of objects.

The eGenerator allows manual control over the process that turns JD Edwards EnterpriseOne specifications into Java code, which enables you to access JD Edwards EnterpriseOne applications in HTML. The JD Edwards EnterpriseOne forms and applications that you generate, either manually from eGenerator, or automatically using on-demand generation, are serialized Java objects. JD Edwards EnterpriseOne stores these objects in a database (in serialized object tables F989998 & F989999), and retrieves them at runtime.

eGenerator requires a specific machine configuration. While it is possible to configure a web server as the generation machine for release 8.12, you should dedicate a separate generation machine for this process. The configuration of this machine depends on the release of JD Edwards EnterpriseOne you installed.

If you upgraded to JD Edwards EnterpriseOne from a previous release and customized your JD Edwards EnterpriseOne objects, you should first test your custom modifications, then generate serialized JAS objects from the upgraded path code.

A.2 Installing eGenerator

This topic discusses the tasks you follow to install the eGenerator:

- Section A.2.1, "Prerequisites"
- Section A.2.2, "Preparing JD Edwards EnterpriseOne for Serialized Objects"
- Section A.3.3, "Bypass the Web Server and Generate Serialized Objects Directly to the Serialized Object Tables"

A.2.1 Prerequisites

Before you install the eGenerator, verify that the tasks below are completed for your version of JD Edwards EnterpriseOne:

- Complete the task: "Copying the JDBC Drivers and the tnsnames.ora file to the Deployment Server" in the *JD Edwards EnterpriseOne Development Client Installation Guide*.

  > **Caution:**   This task must be completed by a JD Edwards EnterpriseOne system administrator before you complete any of the tasks below.

- Install the Web Development Client to set up eGenerator.

  If the Web Development Client installs successfully, eGenerator is automatically configured to run without modifying any of the files used in the generation process.

  Refer to the *JD Edwards EnterpriseOne Development Client Installation Guide*.

- Complete this task if you are using IBM DB2 on the Enterprise Server.

On the Generation machine, open the `db2cli.ini` file and comment out or remove the LobCachSize parameters under database aliases associated with JD Edwards EnterpriseOne. This file is typically located under `DB_HOME\SQLLIB\`.

A.2.2 Preparing JD Edwards EnterpriseOne for Serialized Objects

Before you generate serialized Java objects in JD Edwards EnterpriseOne, complete this task to link to the JD Edwards EnterpriseOne serialized object tables on the Java generation machine.

Complete this task only if you want to generate serialized objects on a different location other than the datasouce listed in the Object Configuration Manager (OCM). If you choose this option, you can use this procedure to edit the JD Edwards EnterpriseOne Spec database.

1. Sign on to Server Manager Console.

2. Open the database configuration of the HTML instance.

3. On JDBj Spec Datasource, enter the Spec Datasource information.

4. Save the configuration and restart the HTML instance.

A.3 Working with the eGenerator

This section describes these topics:

- Section A.3.1, "Running the eGenerator Diagnostic Tool"

- Section A.3.2, "Generate Using the Web Server"

- Section A.3.3, "Bypass the Web Server and Generate Serialized Objects Directly to the Serialized Object Tables"

Each method of generation has a specific way to log into eGenerator. Select the task that corresponds to the way you want to generate objects.

A.3.1 Running the eGenerator Diagnostic Tool

eGenerator now includes an application that is automatically launched every time eGenerator is started. This application is a diagnostic tool that checks the configuration of eGenerator and reports incorrect settings. The diagnostic tool categorizes errors into two types: fatal and non-fatal. If a fatal error is detected, the application displays an error message and does not enable eGenerator to launch. If a non-fatal error is detected, the application displays an error message but enables you to continue with the Generation process.

> **Note:** The auto diagnostic tool can be suppressed by launching `gen.bat` with the `-nodiag` parameter.

The auto diagnostic tool performs these operations for general use:

The auto diagnostic tool performs these operations for general use for Direct Generation:

Operation	Fatal Error
Generates a Web Code Level Object, which is used by JAS at startup to determine if its code matches the generated objects.	X
Checks the location of the `jas.ini` file and validates these key parameters in the file.	
Checks the location of the location of the jas logs.	

For JAS Generation only

Operation	Fatal Error
Verifies that the Tools Release of the JAS code on the generation machine matches the Tools Release of the JAS code on the HTML Server (fatal error).	X

A.3.2 Generate Using the Web Server

Complete this task to generate objects using the web server.

1. On your generation machine, select your configuration below, navigate to this directory:

   `x:\<release>\JAS`

   > **Note:** If you do not want to run the diagnostic program, include the parameter `-nodiag` in the command statement when you run `launchGen.bat`. See the section, Running the eGenerator Diagnostic Tool, for more information about the autodiagnostic tool.

2. From the above directory, run the `launchGen.bat` file.
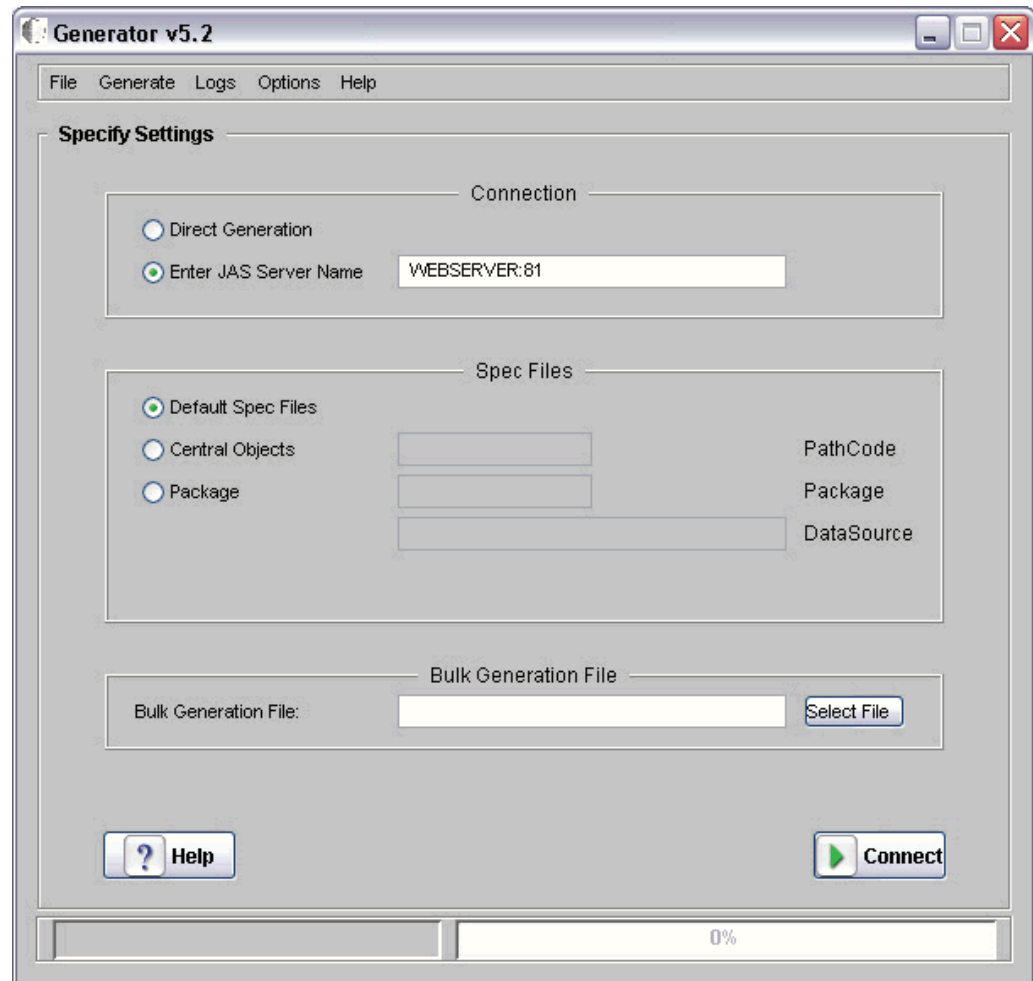
3. On Generator, complete this field:

   ■ `JAS Server Name`

      Enter `machine name:port`, where *machine name* is the name of your web server and *port* is the port number for the EnterpriseOne instance.

4. Click the **Connect** button.

5. Enter the login information for JD Edwards EnterpriseOne. After the connection is successful, the eGenerator is properly configured to generate the objects through the Web Server you specified.

6. Select where the specs exist for generation. You can generate specs from a specific set of Central Objects or a particular path code. By default, `Default Spec Files` will be used. Default Spec Files reside on the local machine.

   Choose one of the following options:

   ■ To generate specs from a particular set of Central Objects:

      Click the `Central Objects` radio button, and enter the `Path Code` where the specs are stored.
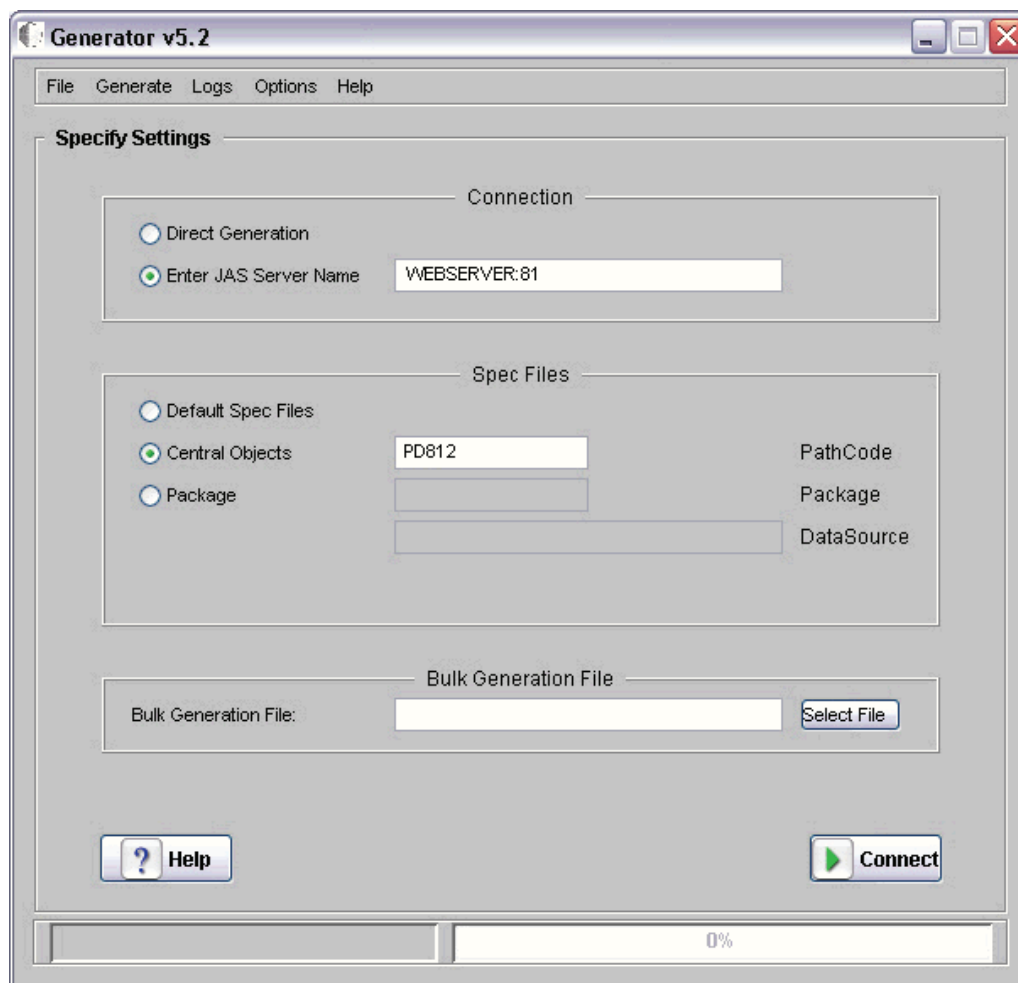
■ To generate specs from a specific package:

Click the `Package` radio button, and enter the name of the `Package` and the `DataSource` where the specs are stored.
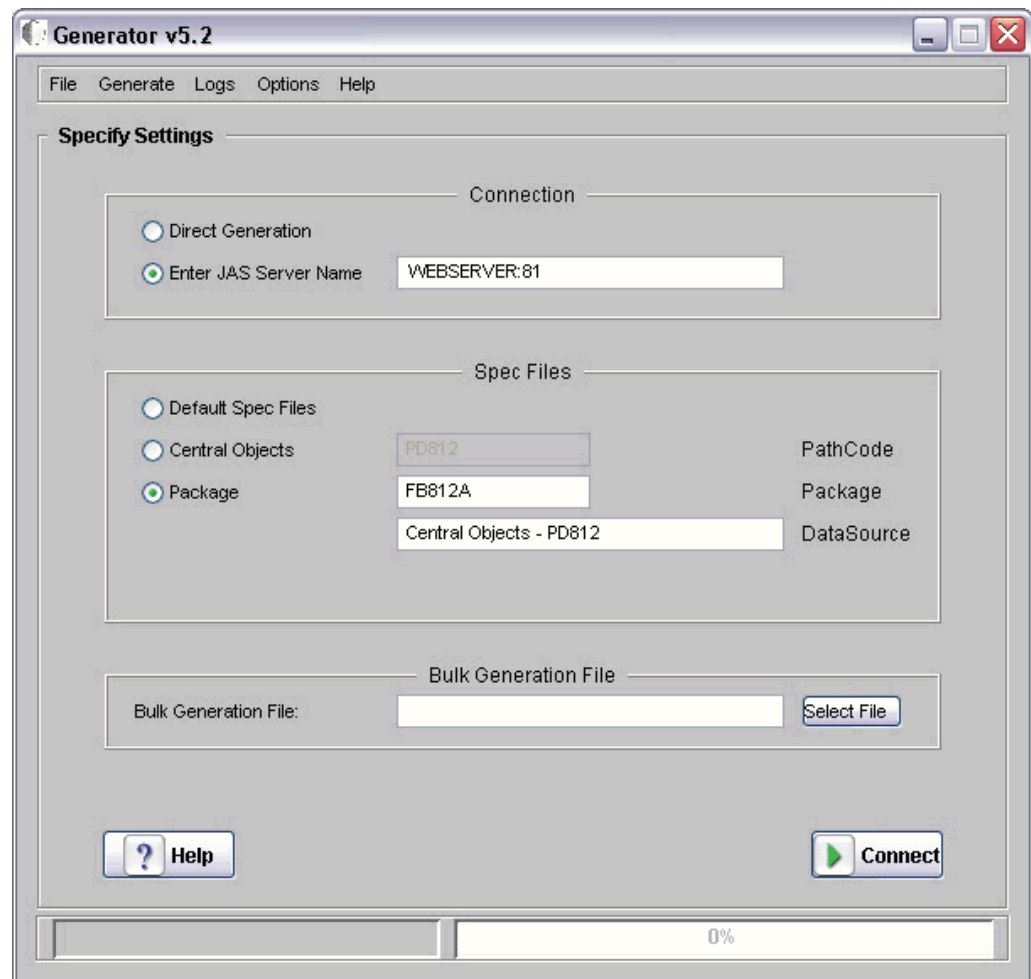
7. Click **Connect**.

The system connects to the Web server that you indicated. A message appears on the status bar when login is complete.

Once you have logged in to a Web server, skip the following task and refer to the sections below it for information on how to generate objects.

A.3.3 Bypass the Web Server and Generate Serialized Objects Directly to the Serialized Object Tables

Select direct generation by clicking the **Direct Generation** radio button in the Connection section on the eGenerator application.

In this mode, the generator initializes a "mini" HTML Web Server instance on the generation machine. During generation, the generator will by-pass the actual HTMl Web Server and store the objects directly to the serialized object tables. After you complete this task, you can set up the HTML Server to read from the pre-populated serialized object tables.

Advantages:

- Can generate objects before setting up the HTML Server.

- Faster for all forms of generation.

- Easier to maintain.

Disadvantages: You must configure the generation machine.

Complete this task to generate objects directly to a database.

1. Run the `launchGen.bat` file.

> **Note:** If you do not want to run the diagnostic program, include the parameter `-nodiag` in the command statement when you run `launchGen.bat`. See the section, Section A.3.1, "Running the eGenerator Diagnostic Tool", for more information about the autodiagnostic tool.
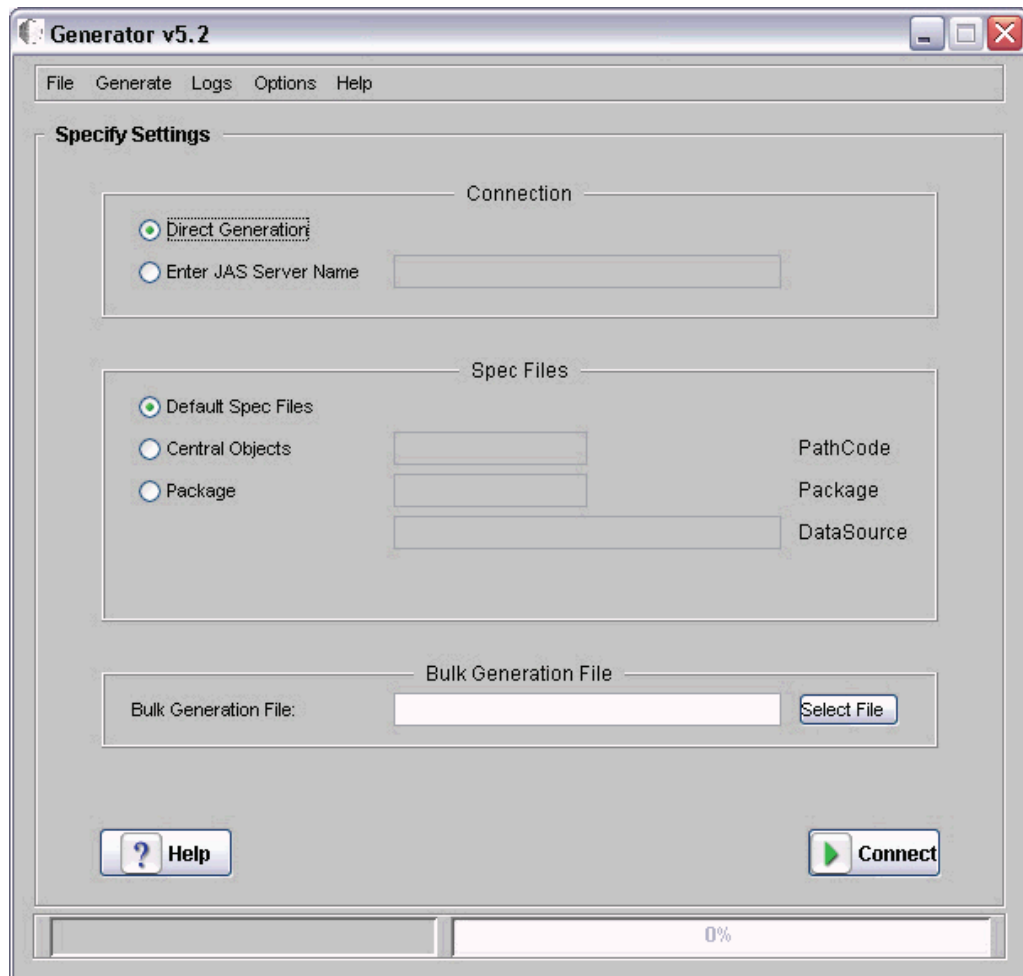

2. On Generator, click the **Direct Generation** radio button.

    In Direct Generation Mode the eGenerator locates the serialized object database by looking for the database server in the `server=` setting of the `JDBj-SPEC DATA SOURCE` section of the `jdbj.ini` file located on the generation machine.

3. Click the **Connect** button and enter the login information for JD Edwards EnterpriseOne.

    The system bypasses the Web server and connects directly to the database specified in the `jdbj.ini` file.

A.4 Configuring eGenerator

eGenerator includes a number of options you can set up for your particular environment. The configuration process consists of these tasks:

- Setting eGenerator Options

- Choosing Languages

- Configuring the genapp.ini File

A.4.1 Setting eGenerator Options

Before generating objects, you can define a variety of parameters that affect how the eGenerator functions.

1. From the pull-down menu, select **OptionsAdvanced Settings**.

2. On Advanced Settings, select the options appropriate for your generation requirements
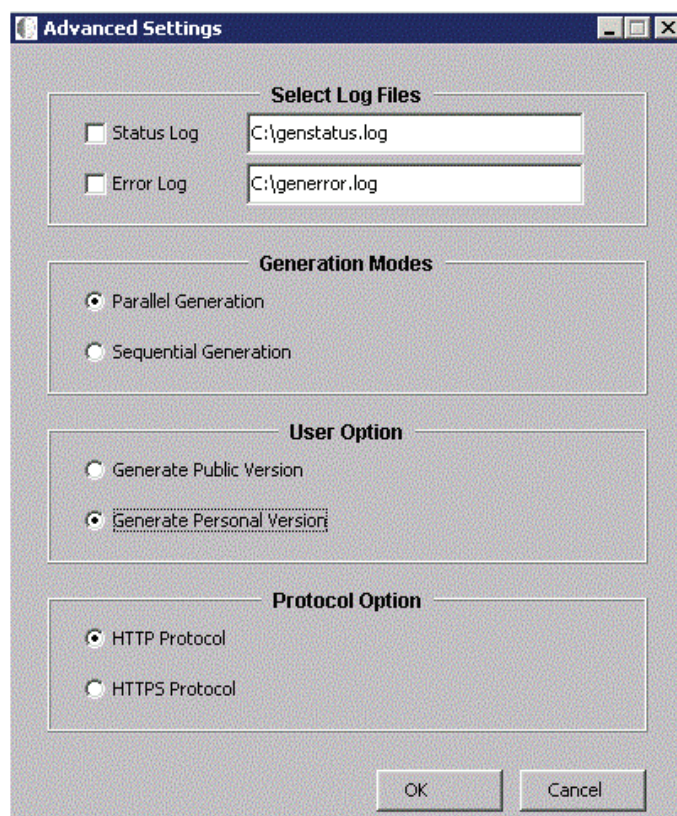
- **Logging**

   Specify whether to log the generation process by clicking the check boxes next to the Status and Error logs. You can also enter the location of the log files. Logging is crucial for troubleshooting problems with the generation process.

- **Generation Modes**

   Specify if the generation of All Objects will be done in parallel mode or sequential mode by checking the appropriate radio button.

   For more information on Generation Modes, see Generation Modes.

■ **User Option**

You can generate a public version of the applications or a personal version by choosing the relevant option. Personal versions are only available to the person who created the versions, and are only intended for developers.

■ **Protocol Option**

Starting with Tool Release 9.1.4, you can choose the HTTPS Protocol connection to the Web Server. You must include the HTML server certificate location in the **gen.bat** file. The location is set by the `-Djavax.net.ssl.trustStore=` parameter (bolded) as shown in this example:

```
%JAVA_PGM% -Xss1m -Xms128m -Xmx512m -Ddefault_path=%INI_DIR%
-Djavax.net.ssl.trustStore=Z:/E910/e1keystore -classpath %GEN_CLASSPATH%
com.jdedwards.runtime.generator.Generator %1
%JAVA_PGM% -Xss1m -Xms128m -Xmx512m -Ddefault_path=%INI_DIR%
-Djavax.net.ssl.trustStore=Z:/E910/e1keystore -classpath %GEN_
CLASSPATH% com.jdedwards.runtime.generator.Generator %1
```

A.4.1.1 Generation Modes

The eGenerator has these modes for generating web objects:

- Sequential Generation
- Parallel Generation

A.4.1.1.1 Sequential Generation In this mode the web objects are generated one after the other when you select the **Generate-All Objects** option. You can set this mode by clicking **OptionsAdvanced Settings**, then clicking **Sequential Generation**.

Advantages:

- Most stable mode of generation.
- Requires the least system resources, e.g. memory.
- Safe to use during a JITI (Just in Time Install) process.

Disadvantage: The generation process can take longer.

A.4.1.1.2 Parallel Generation This is the default mode of generation. You can turn off this mode of generation by clicking **Advanced Settings**, then clicking **Sequential Generation**.

In this mode of generation the web objects are generated concurrently when you select the **Generate-All Objects** option

Advantage: Faster than Sequential Generation, especially with multi-processor workstations and fast database connections.

Disadvantages:

- Cannot be used when the user doesn't have the full set of spec files, because JITI might occur.
- If a JITI occurs during parallel generation, the spec files can get corrupted.

A.4.2 Choosing Languages

You can generate applications and reports in the language you desire by selecting any of the supported languages on the eGenerator application.

> **Note:** You must install the Language CD for each language you want to use.

To select languages

1. On eGenerator, select **OptionsLanguages** from the pull-down menu.
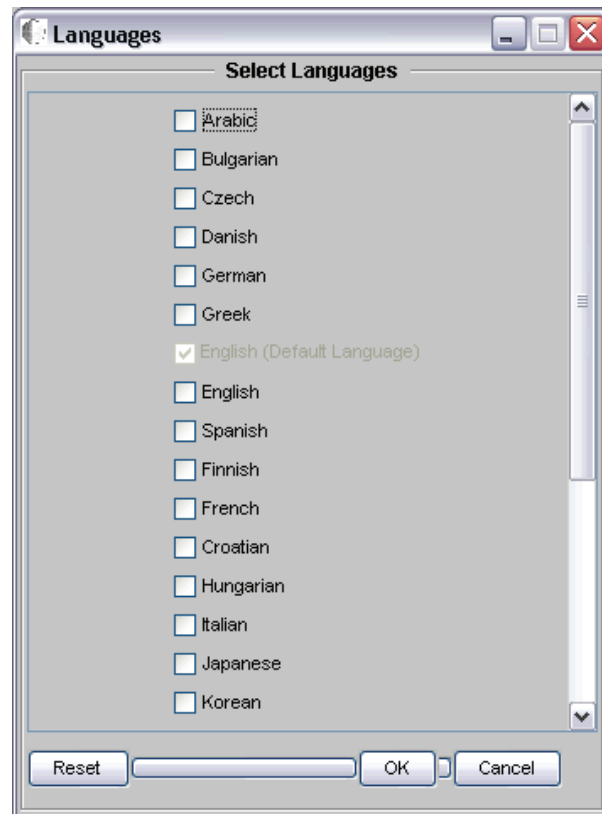
2. Click the check box next to each of the languages you want to use.

3. Click **OK**.

A.4.3 Configuring the genapp.ini File

The `genapp.ini` file contains the list of applications that you want generated in a mode other than the default mode, which is mode 1. In the genapp.ini file, you can list applications you want generated in one of the other modes: Mode 2 or Mode 3.

Do not modify this file unless you created custom applications using Mode 2 or Mode 3.

A.5 Generating the Serialized Object Manifest

The section describes how to generate the manifest for the set of objects in the serialized object tables. For an overview of the serialized object manifest and a description of the package discovery process, refer to Understanding EnterpriseOne HTML Server Package Discovery.

To generate serialized object manifests

1. From the pull-down menu, select **GenerateManifest**.

2. Click **Create Manifest**.
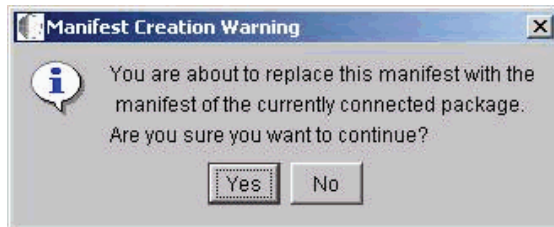
3. Click **Yes**.

The program creates the manifest and closes the window.

4. To view the manifest that was created, from the pull down menu, select **GenerateManifest**.

The Manifest Info section displays the name of the package, the build date, and the deployment date. This manifest shows that no update packages were deployed.

The `Manifest Audit Info` field contains information about the user and the machine that created the manifest.

A.6 Generating All Standard Serialized Objects

eGenerator can generate a complete set of Java Serialized Objects from JD Edwards EnterpriseOne objects. These serialized objects enable you access to all JD Edwards EnterpriseOne objects when you run your web server. If, however, you only want to generate a partial set of objects, skip this task and complete the relevant task in the section: Section A.9, "Generating Other Selected Objects".

Complete this task to generate a complete set of JD Edwards EnterpriseOne objects.

1. From the pull-down menu, select File > Core Objects.

    For more information on generating core objects, see Section A.9.1, "Generating Core Objects".

2. If the core objects generate successfully, from the pull-down menu, select Generate > All Objects.
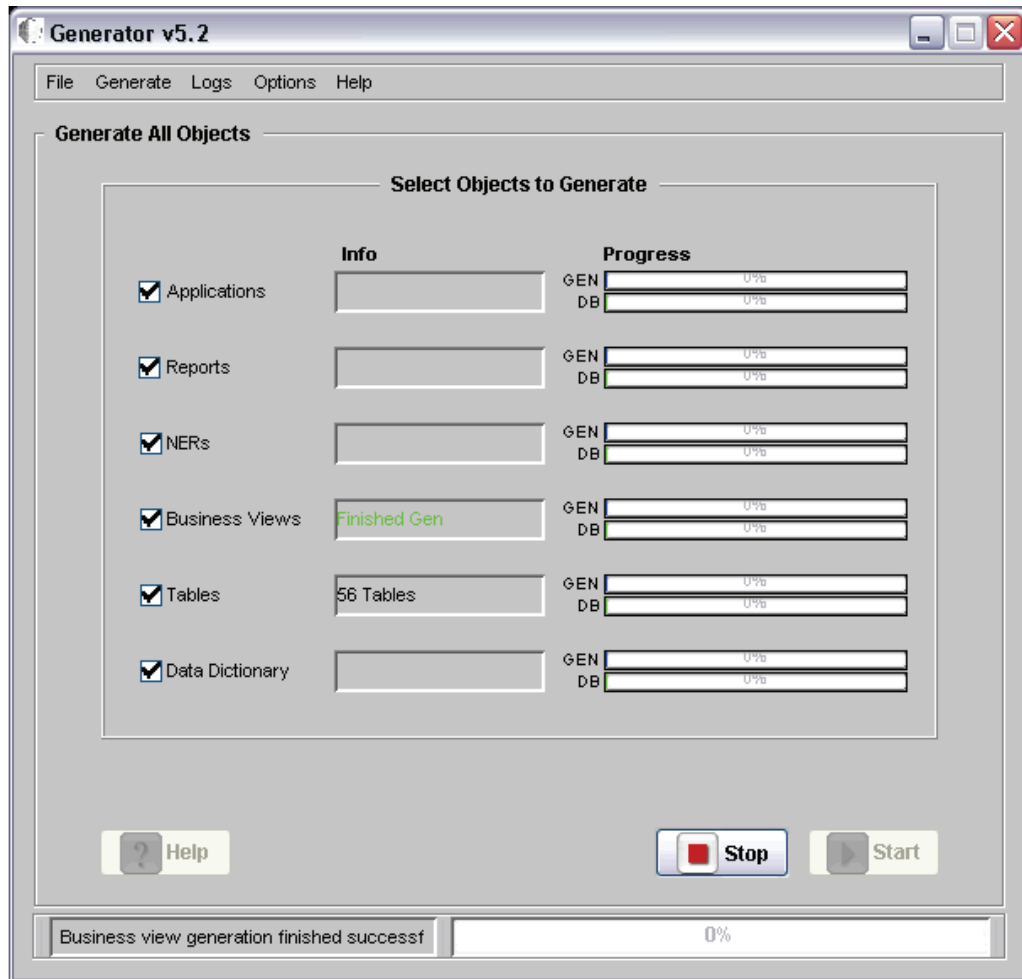
3. On Generate All Objects, check all the objects listed.

4. Click the **Start** button.

   eGenerator checks the database connection before it attempts to generate objects.

   If it cannot connect to the database, eGenerator displays this screen:
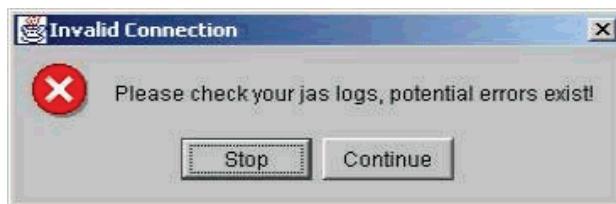
5. If this screen displays, click the **Stop** button and verify the connection to the database.

6. If the last Generate-All session did not conclude successfully, eGenerator displays a screen with the details of the failed generation.

   Select one of these options:

   ■ To resume the previous generation process, click **RESUME OLD SESSION**. You should select this option, which restarts the previous process from the

point of failure. Once the previous process completes, you can repeat this task to generate the new set of objects.

■ To cancel the previous generation process and generate the new objects, click **CREATE NEW SESSION**.

Select this option if you are currently generating a complete new set of all object types.

In either case, an object set starts generating. The progress of object generation is displayed on the screen: the blue progress bar indicates the progress of the generation process, and the green progress bar indicates the progress of objects inserted into the database.

If the database insertion of objects is not complete when the generation is done, the eGenerator displays the number of objects remaining in the queue.

Once all the objects are inserted into the database, the program displays a message that the "Generation completed successfully."

A.7 Generating a List of Objects (Bulk Generation)

If you are running EnterpriseOne release 812, the JAS servers generates objects on demand. To reduce the performance impact of on-demand generation, you can manually generate a list of the most frequently used applications from a list defined in a text file, and let other applications or reports to be generated on demand.

A sample text file named `BulkGen.txt` is included with the HTML Server or Web Development Client under the WEB-INF directory. This file contains sample entries in the format that can be read by the eGenerator. Modify this file to include just the large, frequently used applications.

To run the bulk generation file

1. Run `launchGen.bat`.

2. On eGenerator, complete this field:

   ■ `Bulk Generation File`: Enter the name of the file, or click **Select File**, and select the Bulk Generation File.

   It may take some time for the system to connect to the file.

3. Select a `Connection` option (either `Direct Generation` or `JAS Server`).

4. Select `Default Spec Files`.

5. Click **Connect**.

6. Log on to JD Edwards EnterpriseOne and click **OK**.

7. From the pull-down menu at the top of the screen, select **FileBulk Generation**.

8. Click **Start**.

   eGenerator will generate all the objects listed in the file you selected. When the process is complete, eGenerator displays a message: `Generation Completed Successfully`.

   > **Tip:** The update package build generates a `GeneratorList.txt` file in the work directory of the package. The `GeneratorList.txt` file is a well formed bulk generation file that lists the objects included in the update package. You can use this file for Bulk Generation after deploying the update package.

A.8 Verifying the Generation Process

Complete these tasks to verify the generation is successful:

- Checking Log Files
- Checking Database Acknowledgements

A.8.1 Checking Log Files

eGenerator enables you to automatically display the Status Log and Error Log files by selecting these options from a menu.

To display the Status Log

1. On eGenerator, select **LogsStatus Log** from the pull-down menu.

 To display the Error Log

1. On Generator, select **LogsError Log** from the pull-down menu.

A.8.2 Checking Database Acknowledgements

The status log records whether an object is successfully inserted in the database. This enables the user to monitor the generation process and verify that objects are successfully generated.

These acknowledgments will not be printed for data dictionary Items or Data Structures, however, because they are too numerous to be printed on the command line screen.

Below is an example of the output:

```
Generating application P01012 ...
-->Database Ack:ER_P01012_W01012D successfully inserted into database
-->Database Ack:P01012_HTML_W01012D successfully inserted into database
-->Database Ack:ER_P01012_W01012B successfully inserted into database
-->Database Ack:P01012_HTML_W01012B successfully inserted into database
-->Database Ack:ER_P01012_W01012A successfully inserted into database
-->Database Ack:P01012_HTML_W01012A successfully inserted into database App
generation finished Generating 2 NERs -->Database Ack: ER_P01012_W01012C
successfully inserted into database -->Database Ack: P01012_HTML_W01012C
successfully inserted into database -->Database Ack: NER_PlugAndPlay_P0101
successfully inserted into database NER generation finished Generating 1 PO
Data Structure Items PO Data Structure generation finished Generating 2
Business Views Business View generation finished Generating 5 Tables Table
generation finished Generating 294 Data Dictionary Items Data Dictionary
generation finished Generating 30 Data Structure Items Data Structure
generation finished -->Database Ack:NER_UpdateChangedGeoCode successfully
inserted into database -->Database Ack: PODATAP01012 successfully inserted
into database -->Database Ack:VIEW_V0101E successfully inserted into
database -->Database Ack: TABLE_F0101 successfully inserted into database
-->Database Ack: TABLE_F0111 successfully inserted into database
-->Database Ack: TABLE_F0116 successfully inserted into database
-->Database Ack: TABLE_F03012successfully inserted into database
-->Database Ack: TABLE_F0401 successfully inserted into database
```

A.9 Generating Other Selected Objects

When you deploy an update package of JD Edwards EnterpriseOne objects, you can either depend on the on-demand feature of the HTML Server to generate serialized

objects, or you can manually generate selected objects using eGenerator. eGenerator includes several methods of generating a partial set of serialized objects. All but one method, "Generating objects using the Bulk Generation File," are performed by selecting options from the eGenerator screen. The Bulk Generation file enables you to type selected objects directly into a text file and run this file in eGenerator.

Complete one of these tasks to generate a partial set of serialized objects.

- Generating Core Objects.

- Generating Applications.

- Generating Forms.

- Generating Reports.

- Generating NERs.

- Generating Data Dictionary Items.

- Generating Tables.

- Generating Business Views.

- Generating Data Structures.

A.9.1 Generating Core Objects

The core objects are the foundation objects required by other JD Edwards EnterpriseOne components. Generating these objects enables the Java server to run Task Explorer and the Portal without installing specific applications.

To generate core objects, on eGenerator, select **FileCoreObjects** from the pull-down menu.

eGenerator begins generating the core objects and their dependent Data Dictionary Items.

The eGenerator displays the status of the generation once the process is complete.

A.9.2 Generating Applications

Complete one of these tasks to generate one or more applications:

- From the pull-down menu, select Generate -> Applications.

- From the pull-down menu, select Generate ->Application.

- From the pull-down menu, select Generate -> Application.

To generate an application:

1. From the pull-down menu, select Generate -> Applications.
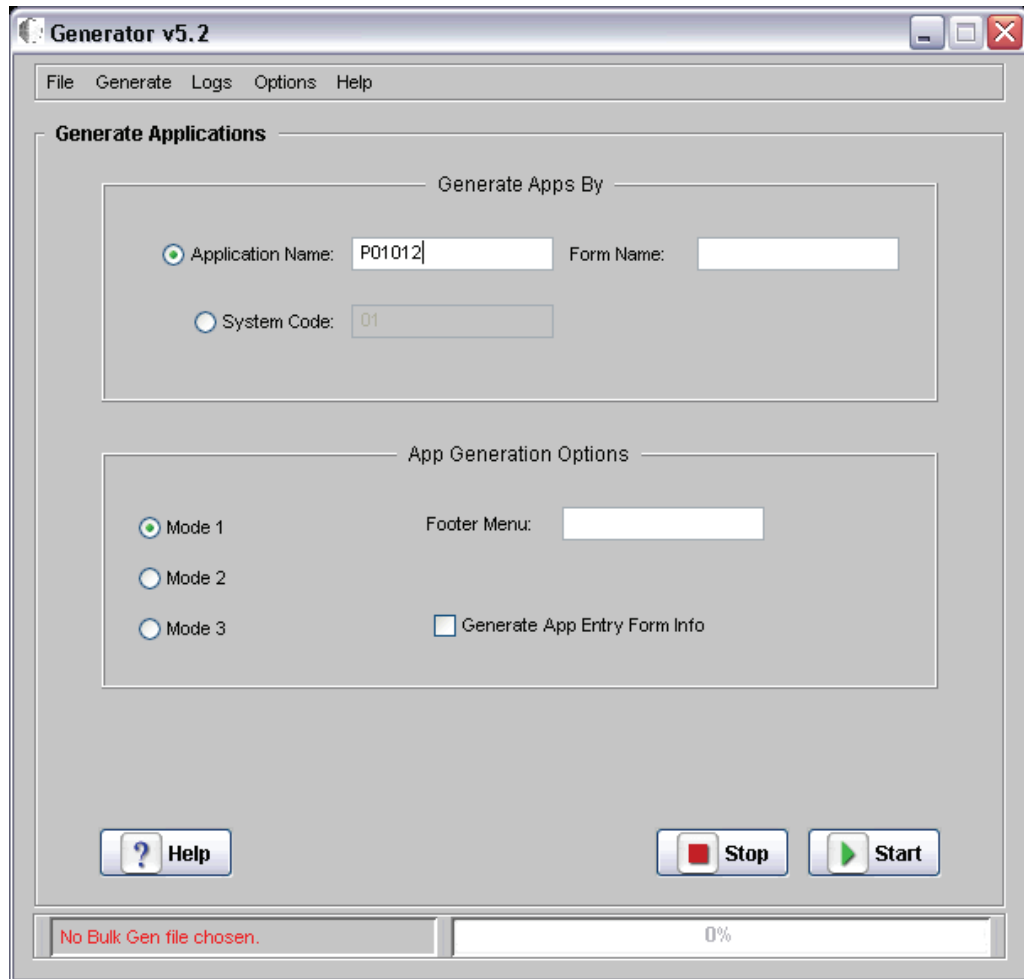
2. Select `Application Name`, and enter the program number of the application (for example, P01012).

3. Click **Start**.

   The Generator generates all forms contained in the application and all dependent objects used by the application.

4. Check the Status Log for status of generation.

To generate applications by system code

1. From the pull-down menu, select Generate ->Application.

2. Select `Generate by System Code`, and type the number of the System Code in the field to the right.
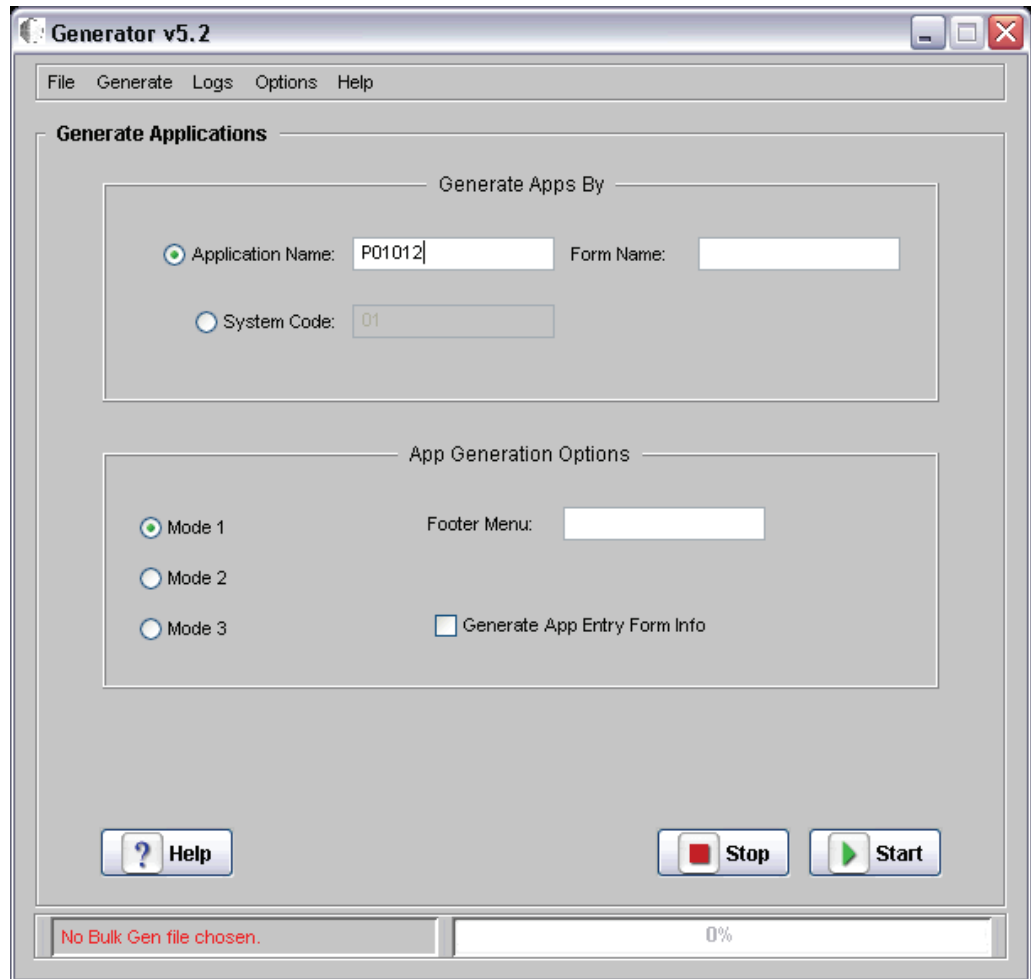
3. Click **Start**.

   eGenerator fetches all the applications under that system code.

4. Confirm the applications were generated by checking the status and error logs.

5. Use this SQL command to verify the applications reside in the database:

   SQL> `select wboid from f989999 where wboid like P%W%;`

You can generate applications by modes 1, 2 or 3. These modes determine the look and feel of the applications. For more information on Generation Modes, see the section "Generating Options" in Designing JD Edwards EnterpriseOne Web Applications.

To Generate applications by mode

1. From the pull-down menu, select Generate -> Application.

2. Select a mode.
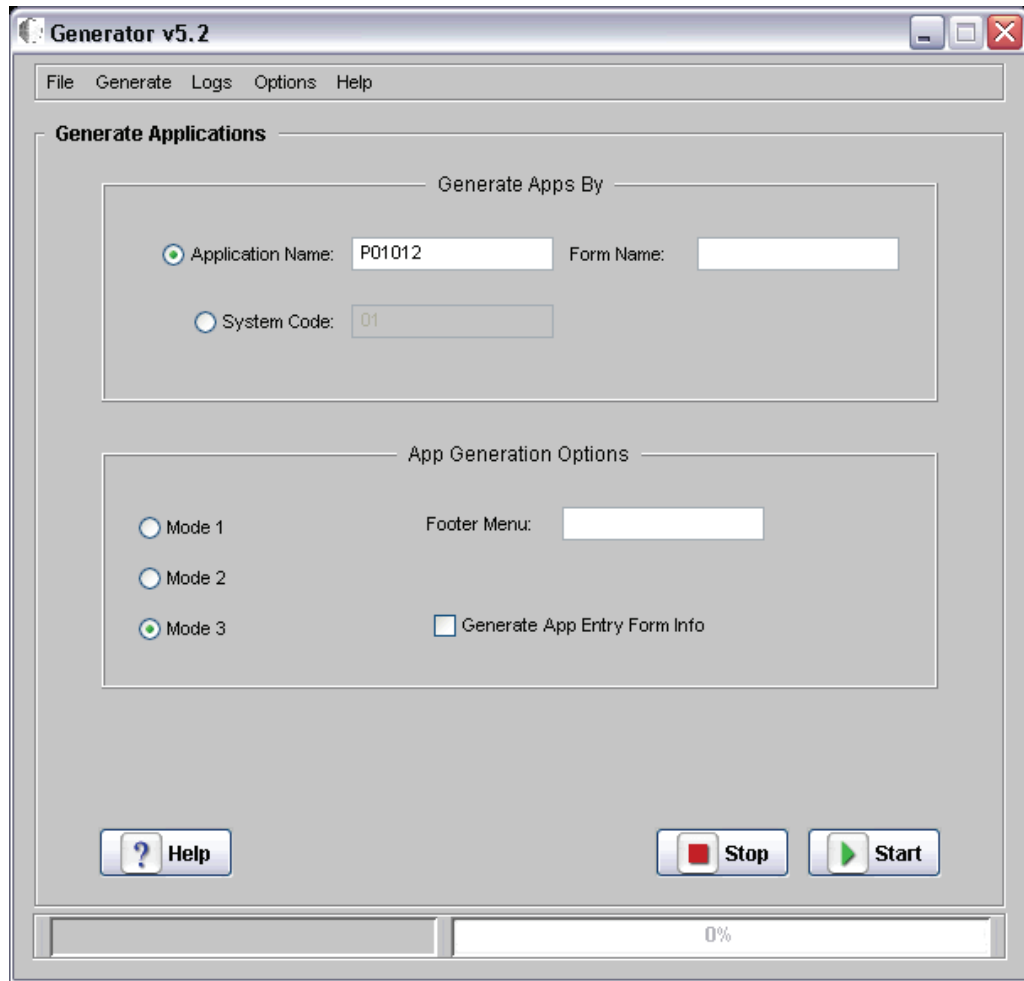
3. Click `Application Name`, and enter the name of an application (for example, P01012).

4. Click **Start**.

A.9.3 Generating Forms

To generate a form

1. From the pull-down menu, select **GenerateApplications**.

2. Enter the form name in the `Form Name` field, for example, P01012_W01012A.

3. Click **Start**.

   If the form name is invalid, this error message appears:
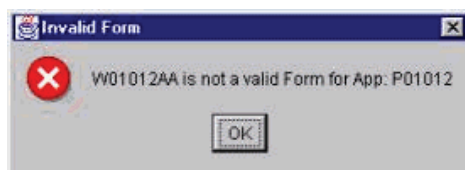
   If the application name is invalid, this error message appears:

4. Check the status log for the generation status.

A.9.4 Generating Reports

Complete one of these tasks to generate one or more reports:

- From the pull-down menu, select Generate -> Reports.

- From the pull-down menu, select Generate -> Reports.

- From the pull-down menu, select Generate ->Reports.

To generate a report

1. From the pull-down menu, select Generate -> Reports.

2. Enter the name of a report, (for example, R0006P).

3. Click **Start**.

4. Check the status log for the generation status.

   The Generator generates all versions of the report and their corresponding data selection, data sequencing, and Print Information Objects.

5. Confirm the presence of the objects by checking the Status logs, or use this query to check the database:

   SQL> `select wboid from f989999 where wboid like %<report_name>%;`

To generate a report version

1. From the pull-down menu, select Generate -> Reports.

2. Enter a Report Name and Report Version, for example, R0006P, and XJDE0001.
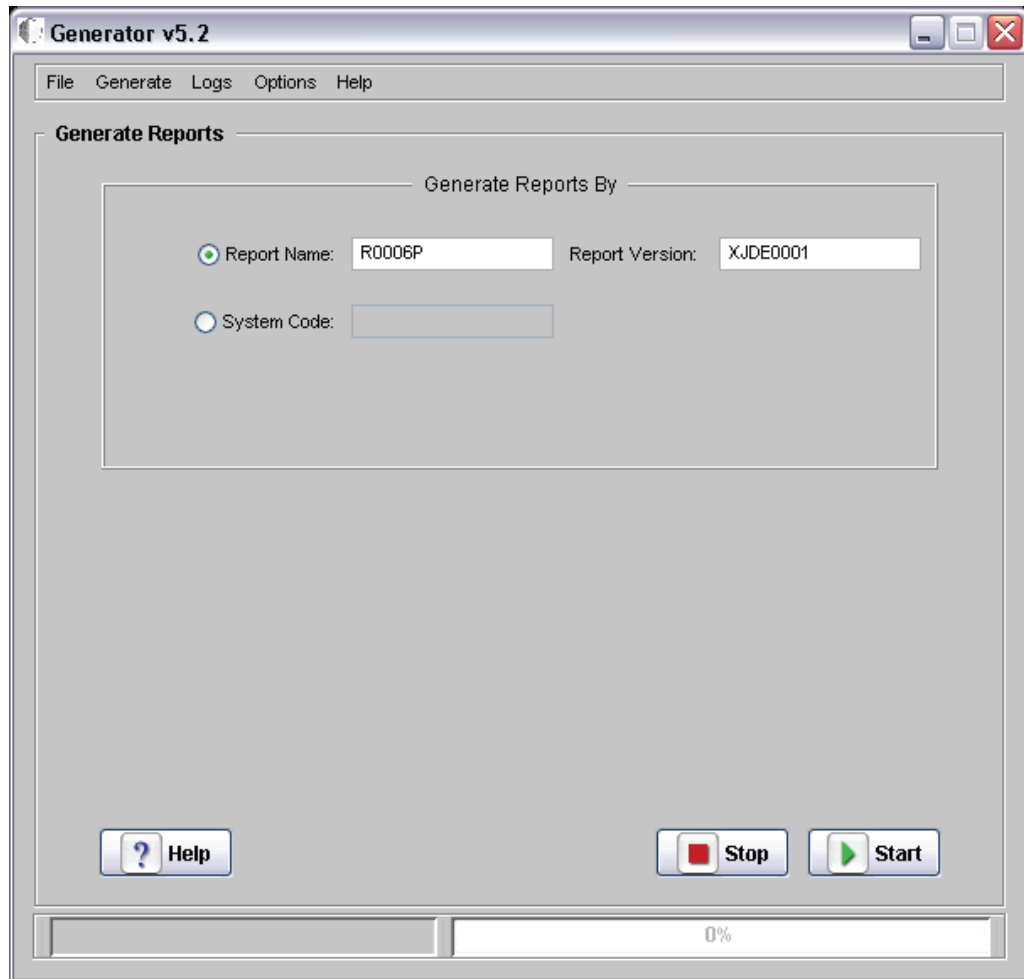
3. Click **Start**.

   The Generator generates the version and any dependent objects.

4. Check the status log for the generation status.

To generate reports by system code

1. From the pull-down menu, select Generate ->Reports.

2. Select `Generate by System Code`, and enter a number for the code.

3. Click **Start**.
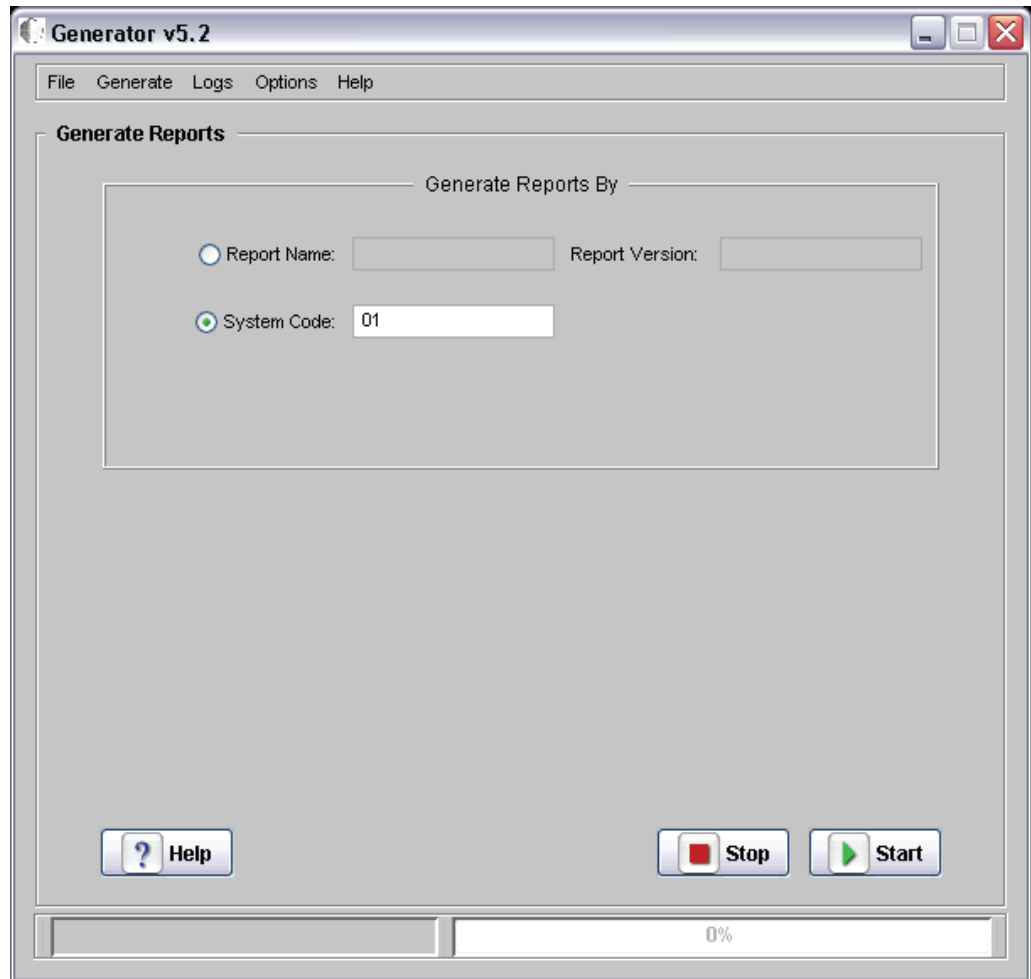
eGenerator fetches all the reports under that system code.

4. Check the status and error logs to confirm that all the reports for that system code were generated.

A.9.5 Generating NERs

To generate NERs

1. From the pull-down menu, select **GenerateNERs**.

2. Enter the name of an NER, for example, GetObjectDesc.

Note: NERs are case sensitive.
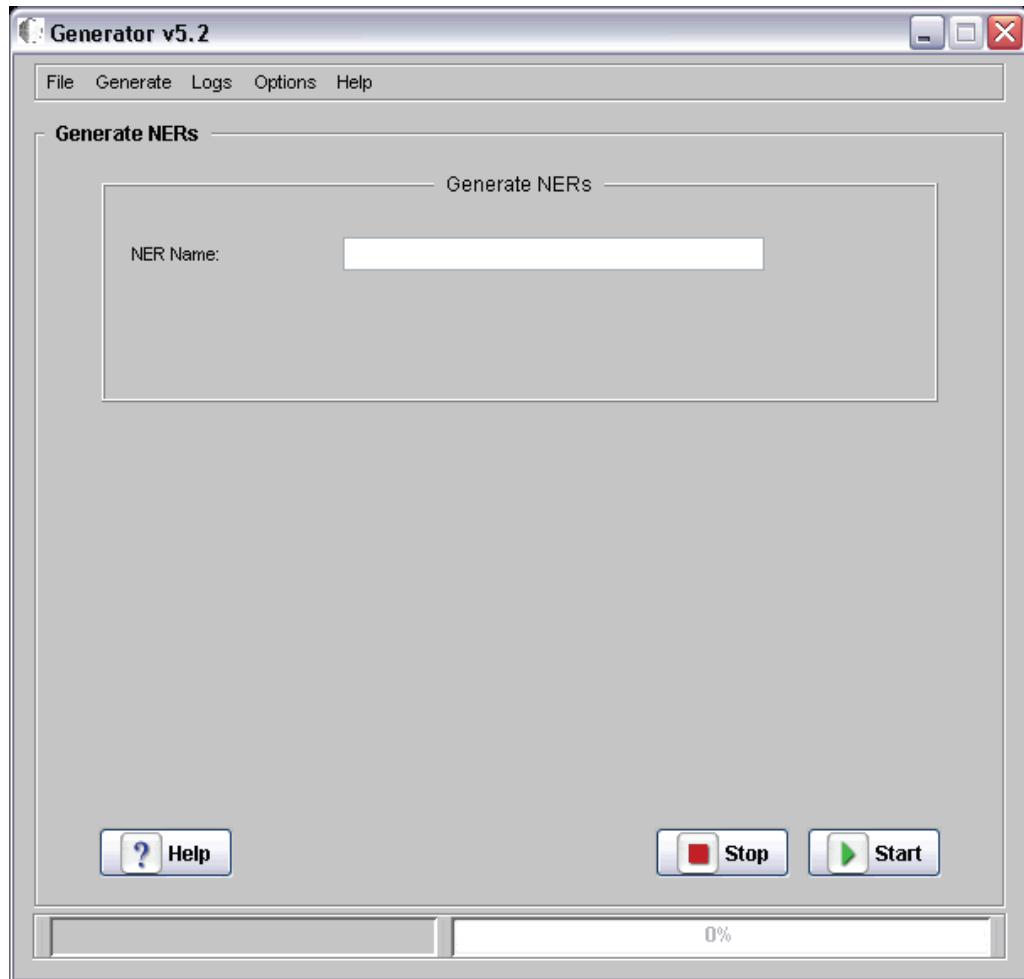
---

3. Click **Start**.

4. Check the status log for the generation status.

5. Use this SQL command to verify that the objects reside in the database.

   SQL> `select wboid from f989999 where wboid like <NER_ name>`

A.9.6 Generating Data Dictionary Items

To generate Data Dictionary items

1. From the pull-down menu, select Generate -> Data Dictionary.

2. Generate any data dictionary item, for example, OBNM.

3. Check the status log for the generation status.

4. Use this SQL command to verify that the objects reside in the database.

   SQL> `select wboid from f989999 where wboid like 'DICT_<dd_name>';`

A.9.7 Generating Tables

To generate tables

1. From the pull-down menu, select Generate -> Tables.

2. Enter a table number, for example, F9860.

3. Click **Start**.

   eGenerator generates the table and all data dictionary items used by the table.

4. Check the status log for the generation status.

A.9.8 Generating Business Views

To generate business views

1. From the pull-down menu, select Generate -> Business Views.

2. Enter the name of a business view, for example, e.g. V9001B.

3. Click **Start**.

   eGenerator generates the View and all associated tables and data dictionary items.

4. Check the status log for the generation status.
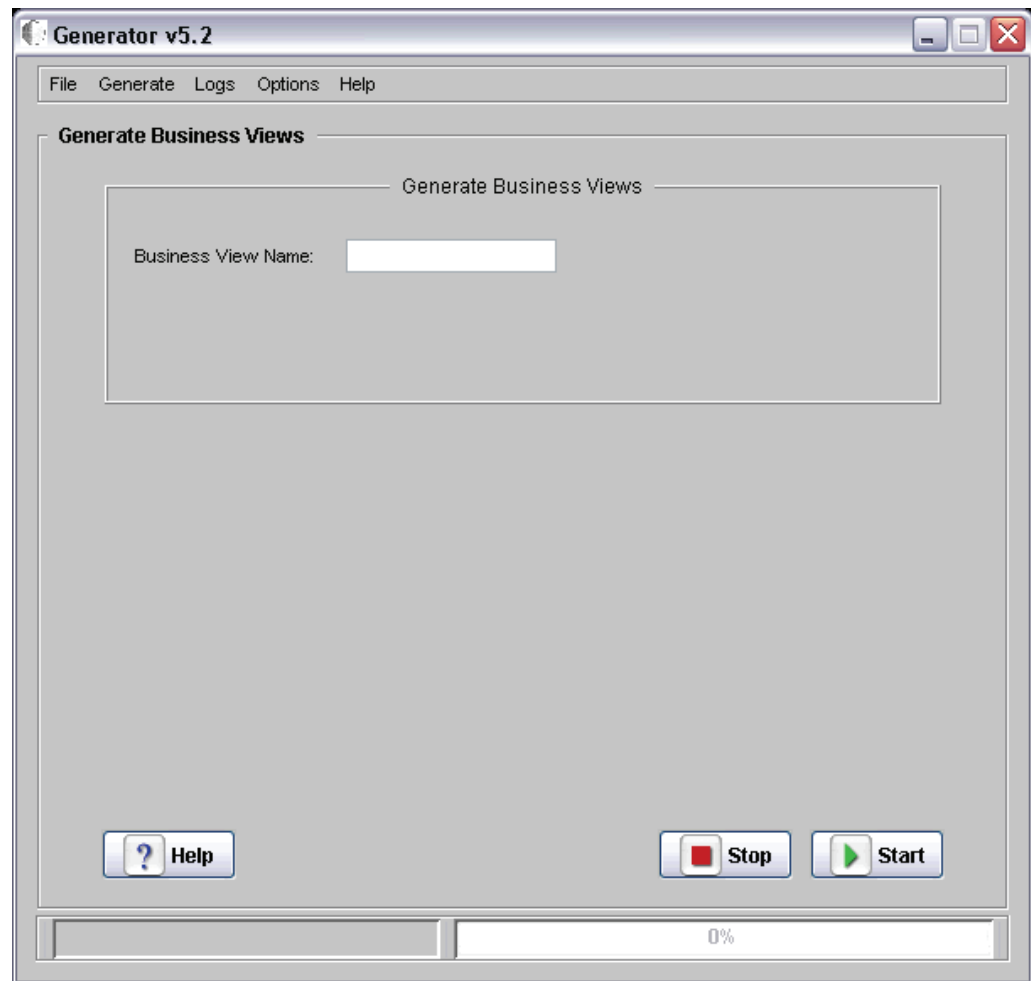
A.9.9 Generating Data Structures

To generate data structures

1. From the pull-down menu, select Generate -> Data Structures.

2. Enter the name of a data structure, for example, D9800150C.
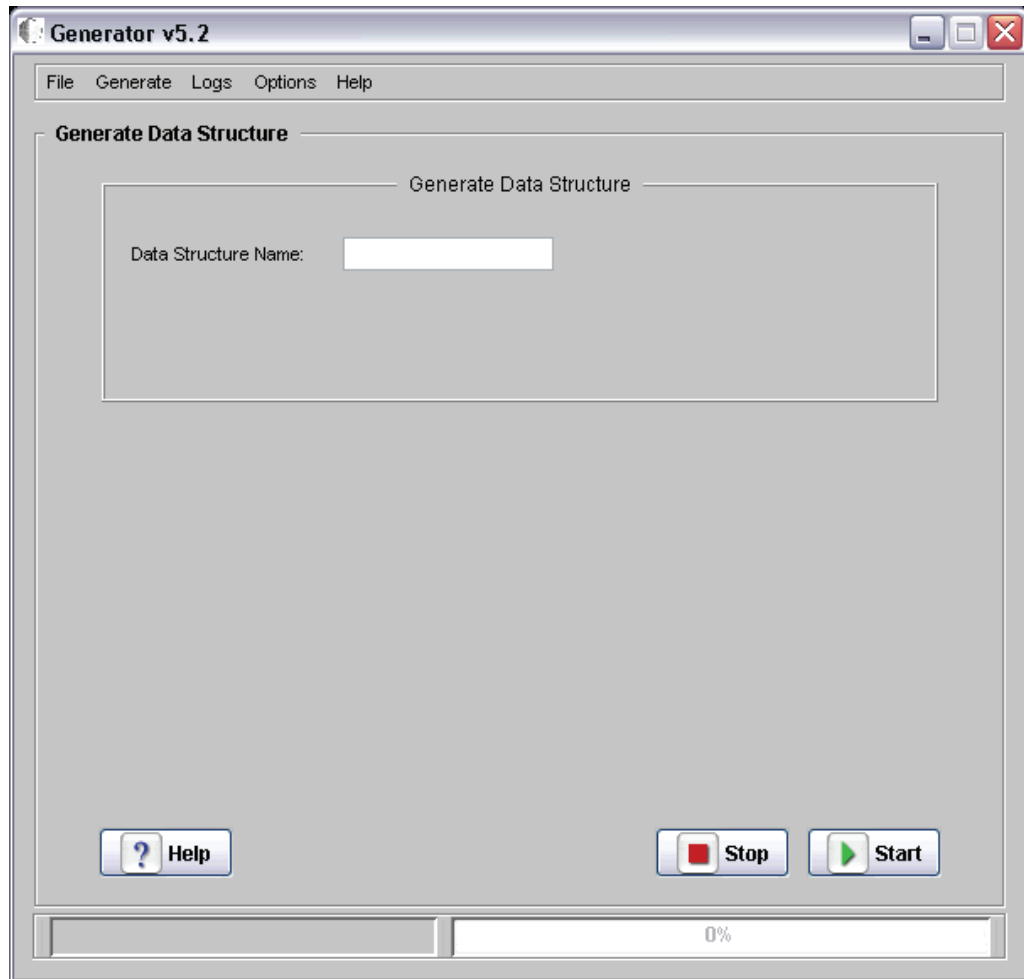
3. Click **Start**.

   eGenerator generates the data structure.
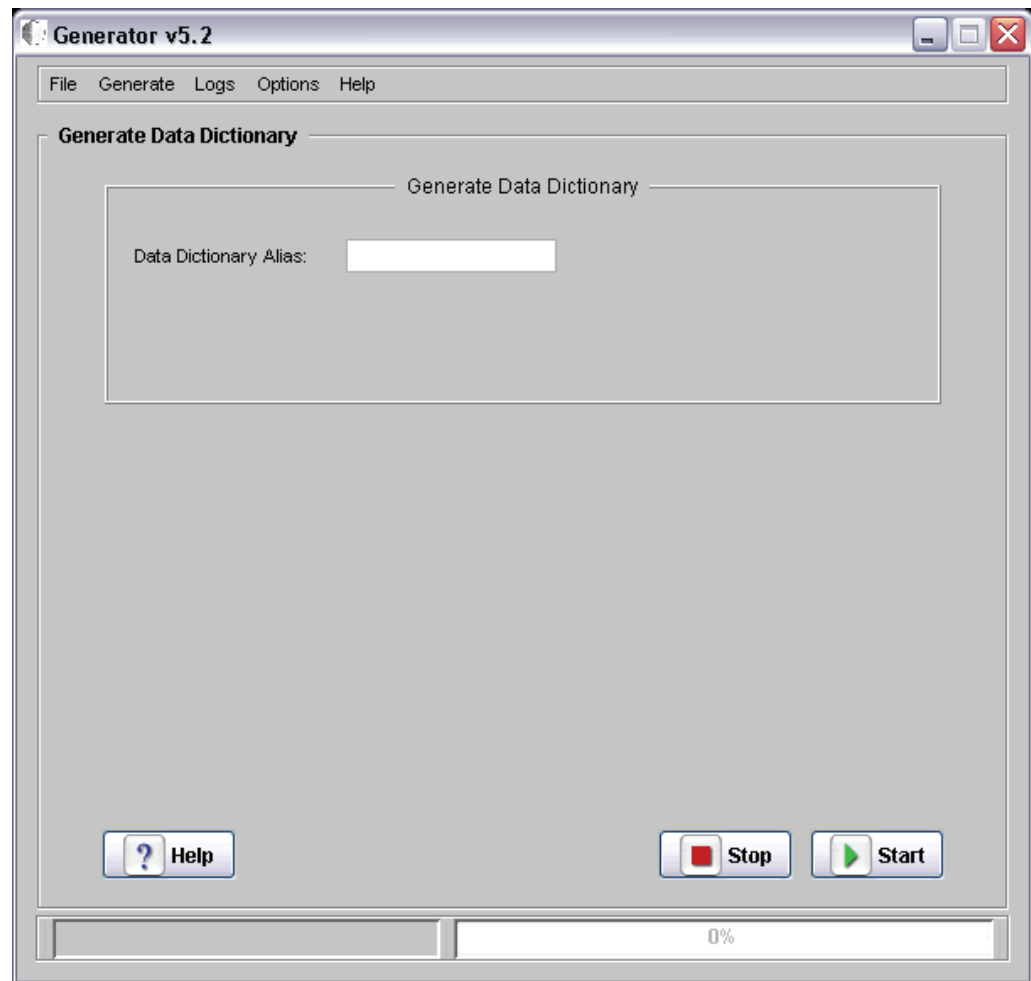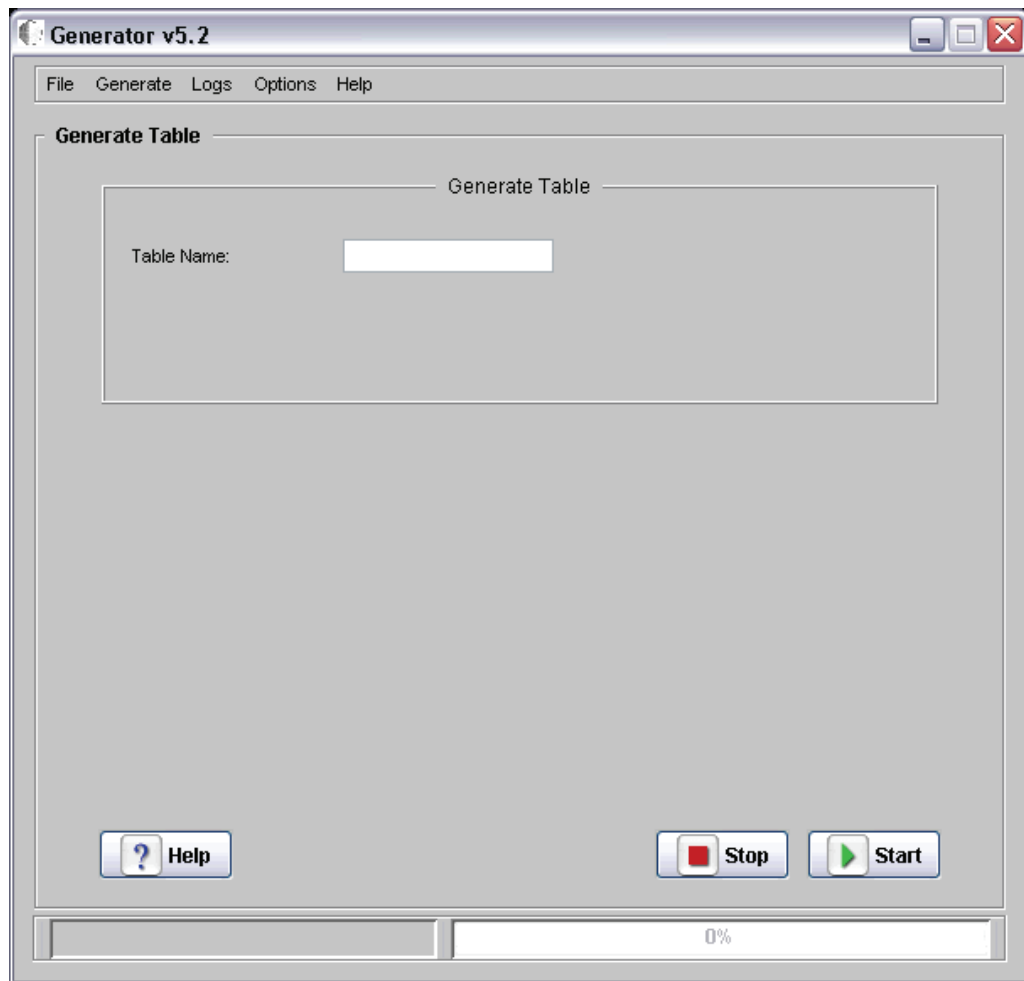
4. Check the status log for the generation status.

5. Use this SQL command to verify that the objects reside in the database:

   ```
   SQL> select wboid from f989999 where wboid like 'DSTR_ <datastructure_
   name>'
   ```

B

Configuring Secure Socket Layer with the HTML Server

The chapter describes how to configure Secure Socket Layer (SSL) with the HTML Server, and includes the following tasks:

- Configuring SSL on the IBM HTTP Server
- Configuring SSL on IBM WebSphere

B.1 Configuring SSL on the IBM HTTP Server

SSL requires a Signed Personal Certificate. You can either request a CA-Signed Personal Certificate directly from IBM, or you can generate a Self-Signed Certificate yourself. This task describes how to generate and use a Self-Signed Certificate. For production environments, we recommend you request one from CA. For instructions to request a CA-Signed Personal Certificate, refer to the IBM Info Center.

1. Create a folder named `keys` in the HTTP Server installation directory.

2. Start the `ikeyMan` utility which is located in the bin directory of your HTTP Server. For example:

   `/u01/IBM/WebSphere/AppServer/bin`

3. In the IikeyMan utility, create a *Key Database File* by navigating *Key Database File > New*.
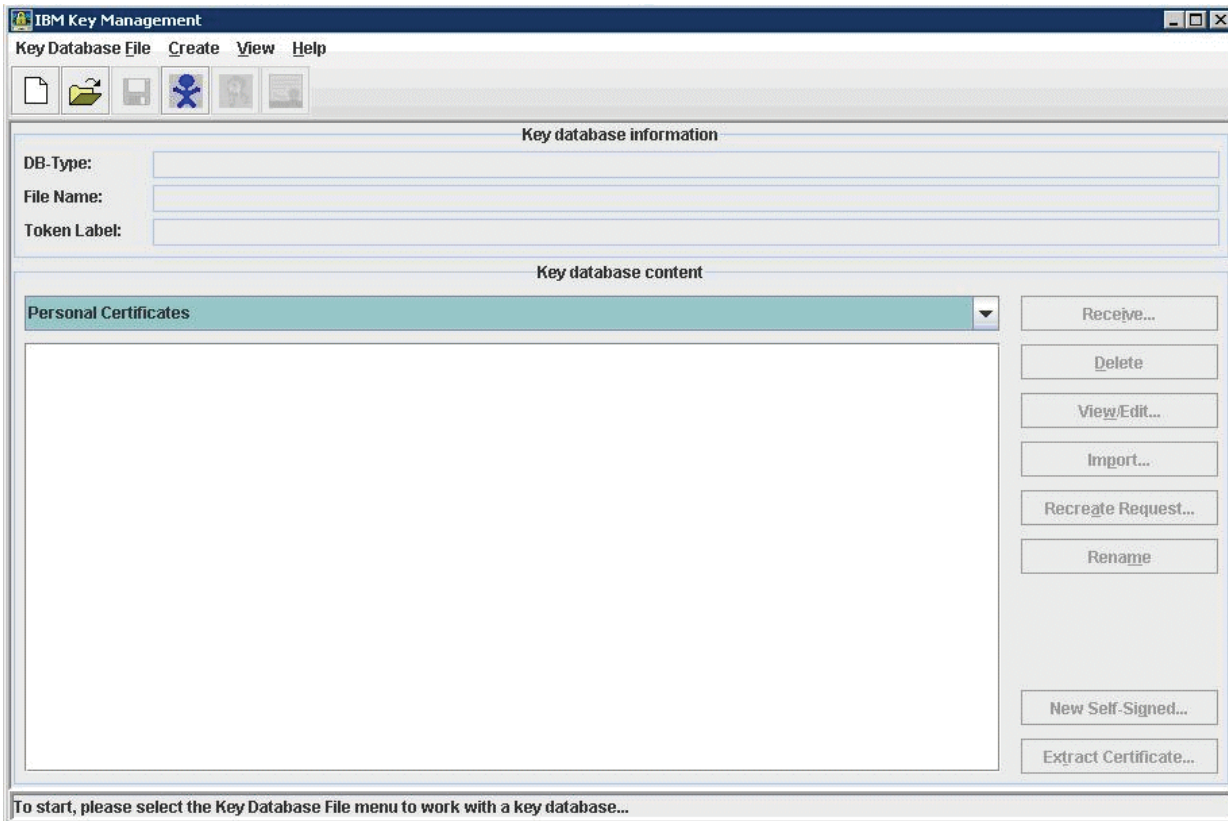
4. At the prompt, enter the following information:

   ▪ Key Database Type = CMS

     Only CMS is supported with the IBM HTTP Server.

   ▪ File Name = serverkey.kdb

   ▪ Location = /u01/IBM/HTTPServer/keys

5. Enter the password (for example, "serverkey") and select the option *stash the password file*.

6. Click the *OK* button.

7. From the drop down box, select *Personal Certificates*.

8. Click *New Self-Signed*.

9. Enter following information on the screen that appears:

   ▪ Key Label= Enter any label (for example, server_cert)

   ▪ Version= X509V3

   ▪ Key Size = 1024

   ▪ Common Name = Fully Qualified Server Name (for example, denicint2.mlab.jdedwards.com)

   ▪ Organization = your organization name (for example, Oracle).

   ▪ Country or region = US

   ▪ Validity Period = 365 days

   A sample screen shot is provided below:
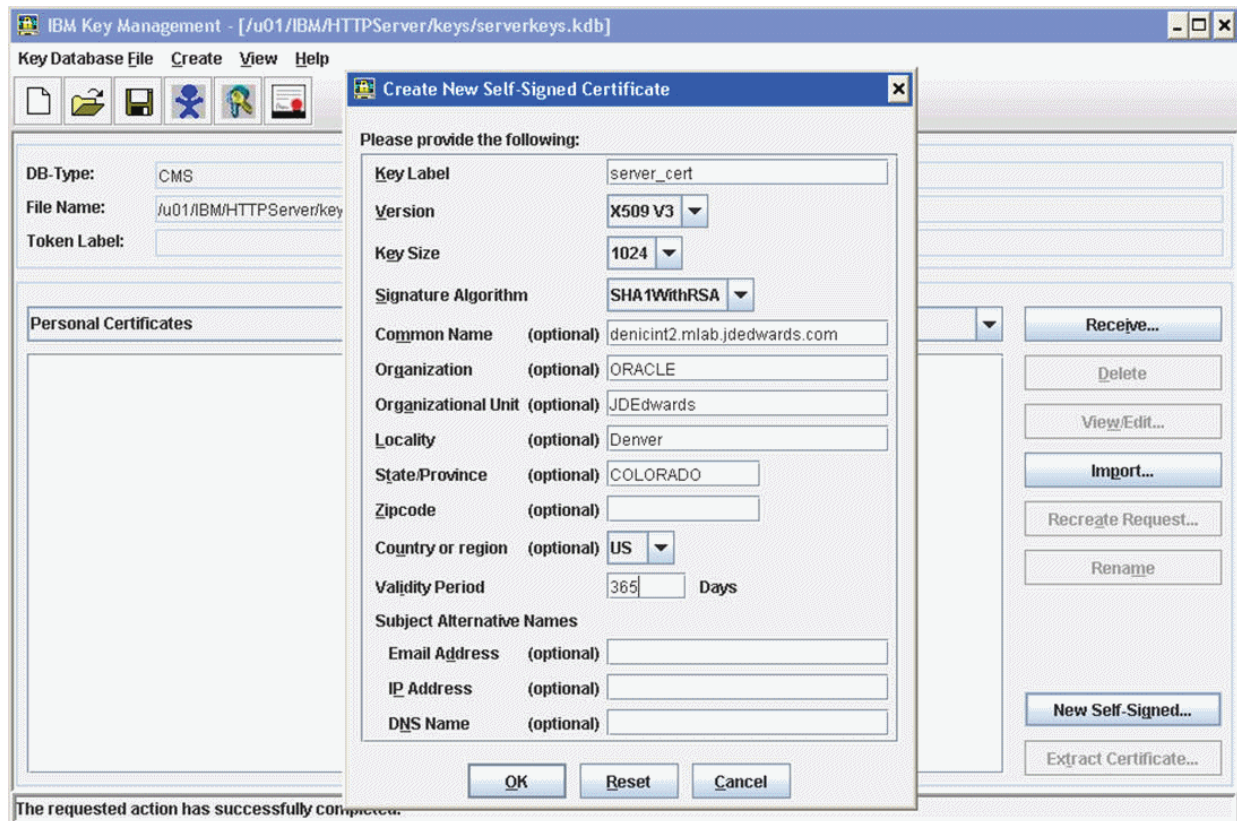
10. On Create New Self-Signed Certificate, after the fields are complete click the *OK* button.

   The program displays your certificate in the list.

11. Delete all the other certificates.

12. Open the `httpd.conf` file in a text editor, and add the following virtual host definition.

> **Note:** The text in the `httpd.conf` is case sensitive; type the host definition exactly as shown.

If you have already configured a port on the HTTP Server (for example, port 91), the file will include an Alias. Use the same alias under your Virtual Host definition as described here.

```
# Example SSL configuration which supports SSLv3 and TLSv1
# To enable this support:
#   1) Create a key database with ikeyman
#   2) Update the KeyFile directive below to point to that key database
#   3) Uncomment the directives up through the end of the example
#      Note: The IPv6 Listen directive must only be uncommented if
#      IPv6 networking is enabled.
#
# uncomment below line to enable ssl
LoadModule ibm_ssl_module modules/mod_ibm_ssl.so
<IfModule mod_ibm_ssl.c>
Listen 0.0.0.0:443
# IPv6 support:
```

```
# Listen [::]:443
<VirtualHost *:443>
Alias /jde
"/u01/IBM/WebSphere/AppServer/profiles/AppSrv02/installedApps/denicint2Node01Ce
ll/EA_JS_91.ear/webclient.war"
SSLEnable
SSLProtocolDisable SSLv2
</VirtualHost>
<Directory
"/u01/IBM/WebSphere/AppServer/profiles/AppSrv02/installedApps/denicint2Node01Ce
ll/EA_JS_91.ear/webclient.war/WEB_INF">
Order Deny,Allow
Deny from All
</Directory>
<Directory
"/u01/IBM/WebSphere/AppServer/profiles/AppSrv02/installedApps/denicint2Node01Ce
ll/EA_JS_91.ear/webclient.war">
Order Deny,Allow
Allow from All
</Directory>
</IfModule>
KeyFile /u01/IBM/HTTPServer/keys/WebServerKeys.kdb
SSLDisable
# End of example SSL configuration
```

This definition is taken from the `httpd.conf` file itself. It is advisable to backup the `httpd.conf` file before making changes to the file. After the IBM HTTP Server SSL Configuration, test the setup by typing in the URL as below:

`https://<machine_name>:443/`

A sample screen shot of the expected result is as below:
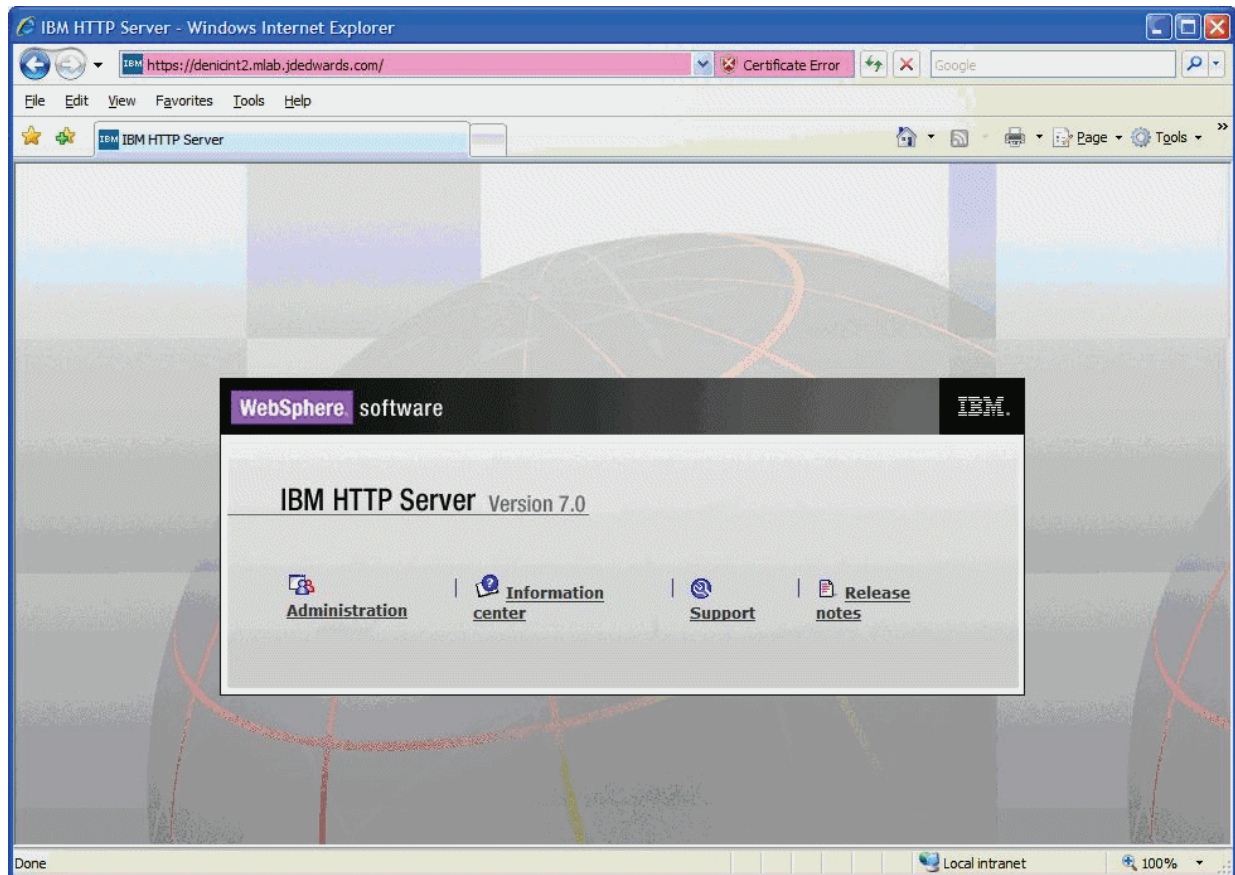
B.2 Configuring SSL on IBM WebSphere

1. Log on to your WebSphere Admin Console.

2. Navigate to **EnvironmentVirtual Hosts**.

3. Select your virtual host.

    For example, if you initially installed your application on port 91, then the virtual host should be VH_EA_JS_91.

4. Under the virtual host, select **Additional PropertiesHostAliases**.

5. Under Host Aliases, click **New**.

    A sample screen shot is provided below:
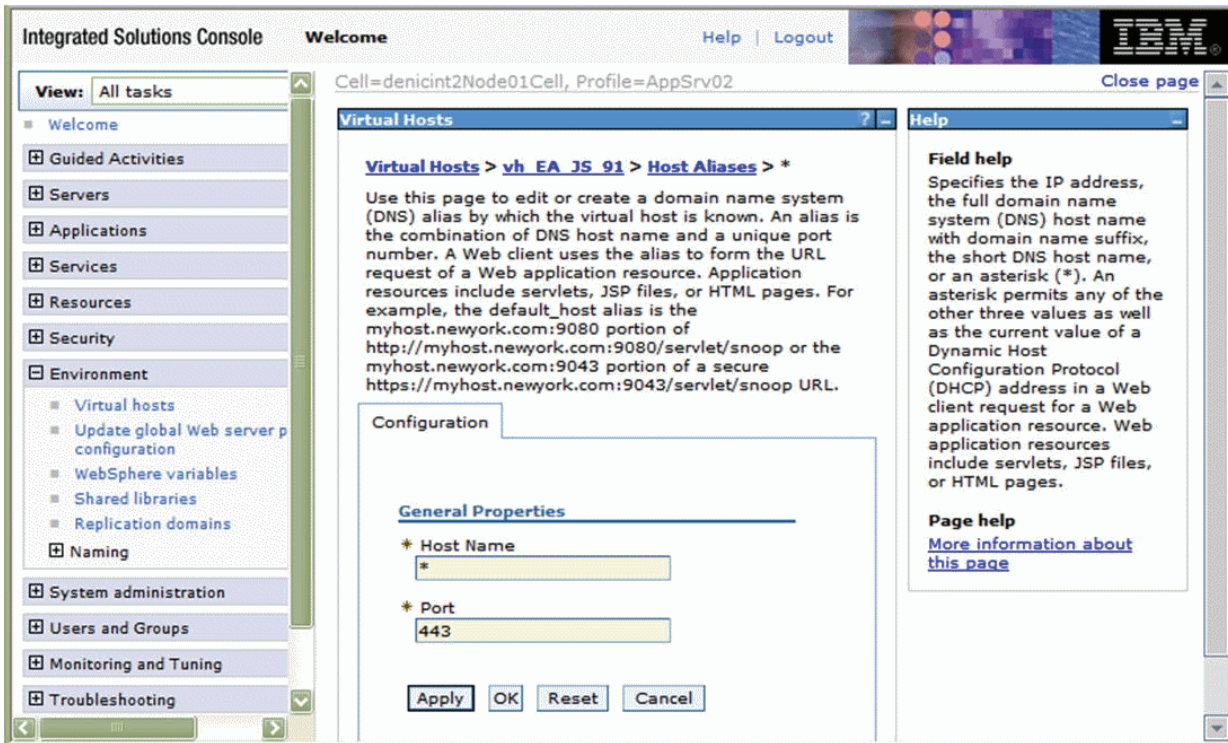
6. Create a new host alias using the fully qualified name of the server and a port number of `443`.

   ■ Host: *

   ■ port: 443 (Default SSL Port)

7. Regenerate and propogate the HTTP Server plug-in file and restart your HTTP Server.

8. Restart the Application Server.

   You should be able to login to the following URL:

   https://*fully_qualified_server_name*/jde/E1Menu.maf

   Note: If SSL is activated, the system uses https instead of the http protocol.

C

Uninstalling WebSphere Fix Packs

These appendix describes these tasks:

- Section C.1, "Uninstalling a WebSphere 8.5 Fix Pack"
- Section C.2, "Uninstalling a WebSphere 7.0 Fix Pack"

C.1 Uninstalling a WebSphere 8.5 Fix Pack

To uninstall a WebSphere 7.0 fix pack:

1. Launch the Update Installer wizard.

2. Select the Uninstall option.
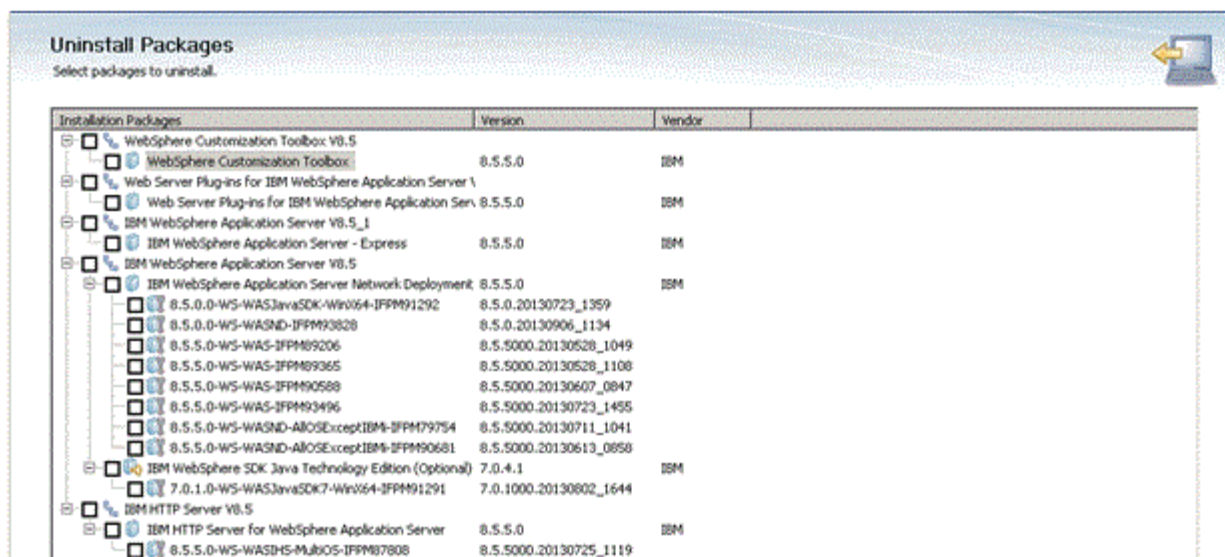
3. On Uninstall Packages, use the checkboxes to select the Installation Package that you want to uninstall

4. Click the Uninstall button.

C.2 Uninstalling a WebSphere 7.0 Fix Pack

To uninstall a WebSphere 7.0 fix pack:

1. Launch the Update Installer wizard.
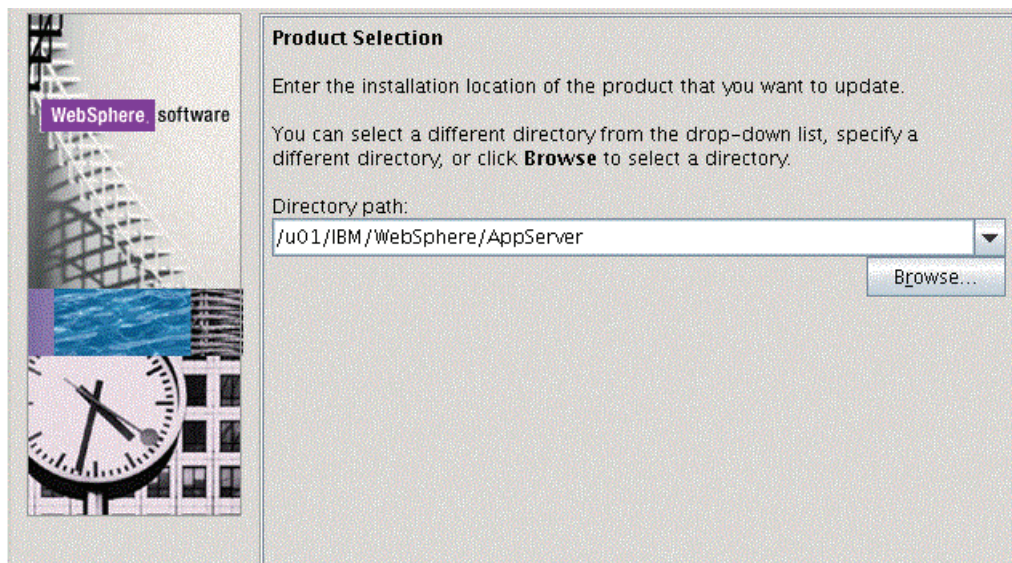
2. On Product Selection, use the pulldown to select the directory path for the component that you wish to uninstall.
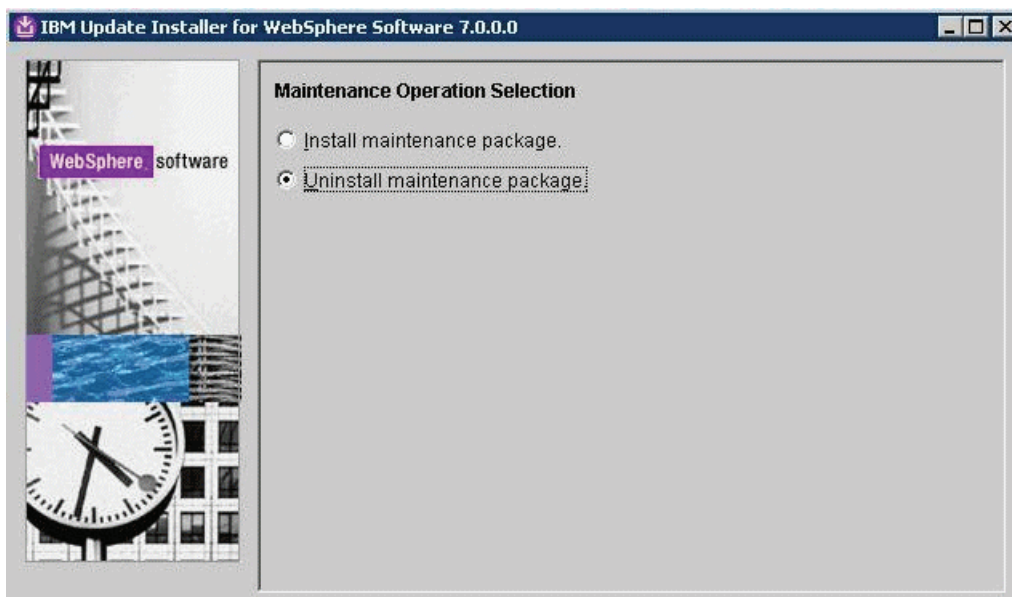
3. On Maintenance Operation Selection, choose the radio button for **Uninstall maintenance package**.

Select the maintenance package to uninstall.

○ 7.0.0-WS-WASSDK-LinuxX64-FP0000029.pak
○ 7.0.0-WS-WAS-LinuxX64-FP0000029.pak
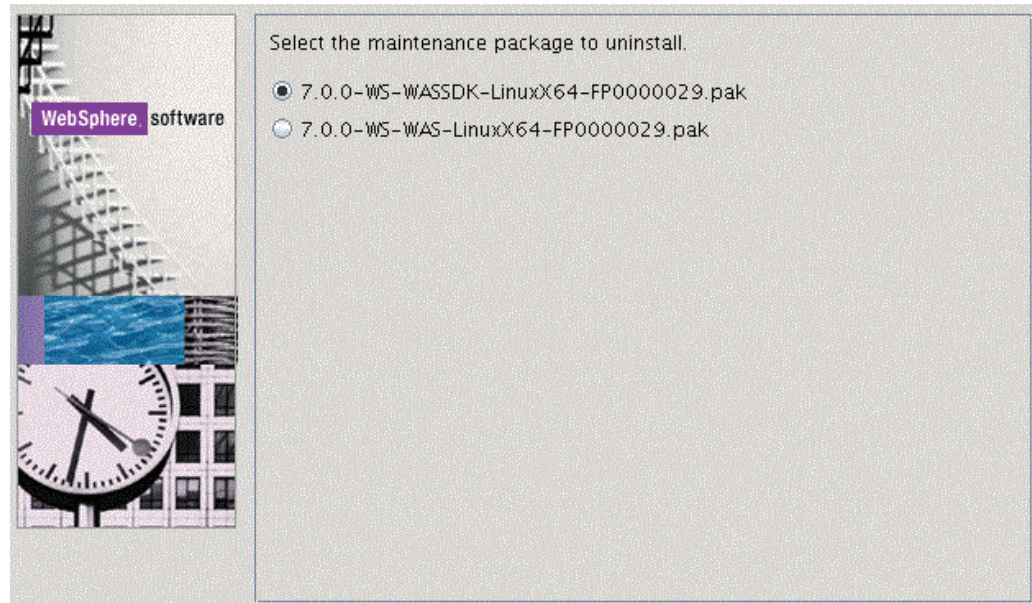
4. On the maintenance package to uninstall screen, select the radio button associated with an available package to uninstall and click Next.

Repeat the same process for other packages as necessary.

D

Enabling Compression on IBM HTTP Server

You can set the `mod_deflate` directive within the `httpd.conf` file to enable the IBM HTTP Server to compress output files and log the compression ratios. `mod_deflate` is an Apache module in the `httpd.conf` file that compresses content sent from the web server to the client browser.

This appendix contains the following topics:

- Section D.1, "Understanding Compression"
- Section D.2, "Configuring the mod_deflate directive"

D.1 Understanding Compression

Regular text and most non-image content are well suited for compression. Text files can typically be compressed by 70% or more. Compression can save significant bandwidth and enable faster browser response times. The effect is negligible in most high speed LAN environments, but is quite noticeable for users on slow WAN connections.

Compression is not recommended for files that are already compressed. A partial list includes these types of files:

- zip
- PDF
- exe
- image files

Compressing these file types using mod_deflate can actually increase their size or corrupt the files.

There are 9 levels of compression available when using mod_deflate. The difference between the default level (6) and the maximum compression level (9) is minimal, and the cost in extra CPU time necessary to process the higher compression level is significant and ultimately not beneficial. For this reason, you should use the default compression level.

D.2 Configuring the mod_deflate directive

For specific instructions to configure the mod_deflate directive, access the Apache documentation on this web page, http://httpd.apache.org/docs/2.0/, and click on the link for http://httpd.apache.org/docs/2.0/mod/directives.html. Refer to this web page for instructions to configure each of the parameters discussed below. Also refer to the sample `mod_deflate` module at the end of this appendix.

To enable compression, open the `httpd.conf` file, and verify that the LoadModule deflate_module is uncommented (see the example below). You can configure mod_deflate to compress documents in one of two ways (both of which are specified in the `httpd.conf` file):

- Explicit exclusion of files by extension

  This method lists the file types that should NOT be compressed by the http server.

- Explicit inclusion of files by MIME type.

  This method lists file types that should always be compressed by the http server.

D.2.1 Logging Compression Results

The following three directives can be added to the `httpd.conf` file to enable the writing of compression statistics to a log file. These directives will record the bytes before compression (Input), the bytes after compression (Output), and calculate the compression ratio:

```
DeflateFilterNote Input instream
DeflateFilterNote Output outstream
DeflateFilterNote Ratio ratio
```

The following line defines a new logging format to be used for the compression log. The format is named "deflate." The second line below specifies the path and file name of the log file (deflate.log) where the output is written.

```
LogFormat '"%r" %{outstream}n/%{instream}n (%{ratio}n%%)' deflate
CustomLog /u01/IBM/HTTPServer/logs/deflate.log deflate
```

D.2.2 Example: Configuring mod_deflate for EnterpriseOne

The following load module line enables compression for EnterpriseOne. Verify that the line is uncommented in the `httpd.conf` file.

```
LoadModule deflate_module modules/mod_deflate.so
```

In the `httpd.conf` file, add the following lines under the existing *<IfModule mod_deflate.c>* section. Note that the compression method used in this example is explicit exclusion.

For specific instructions to configure the mod_deflate directive, access the Apache documentation on this web page, http://httpd.apache.org/docs/2.0/, and click on the link for http://httpd.apache.org/docs/2.0/mod/directives.html.

```
<IfModule mod_deflate.c>
DeflateFilterNote Input instream
DeflateFilterNote Output outstream
DeflateFilterNote Ratio ratio
LogFormat '"%r" %{outstream}n/%{instream}n (%{ratio}n%%)' deflate
CustomLog /u01/IBM/HTTPServer/logs/deflate.logdeflate
<Location / >
# Insert filter
SetOutputFilter DEFLATE
# Don't compress images or binaries
SetEnvIfNoCase Request_URI \
\.(?:gif|[jm]pe?g|png|t?gz|bz2*|zip|exe|iso|avi)$ no-gzip dont-vary
</Location>
</IfModule>
```

E

Understanding Media Objects on the Web Server

This section provides an overview of jas.ini settings required to access Media Objects on the HTML Server, and the process by which the web server accesses these objects from the network. The last section describes how to secure Media Objects on web-based client machines.

This appendix contains the following topics:

- Section E.1, "Required jas.ini Settings"
- Section E.2, "How Media Objects are Displayed by the HTML Server"

E.1 Required jas.ini Settings

Ensure that these parameters are set in the [OWWEB] section of the `jas.ini` file.

[OWWEB]

Parameter	Recommended Setting	Description
MO QUEUE=	Site-dependent path	Identifies the media object directory location on your HTML Server. This path must translate into virtual path `/jde/moqueue/` for the web browser.
FtpPort=	21	Specifies the default port to be used for FTP.
FtpUsr=	anonymous	Specifies the user id to be used for FTP access to the media Object File Server.
FtpPwd=	anonymous	Specifies the password to be used for FTP access to the media Object File Server.
UseMOWinNTShare=	FALSE	Specifies that the web server does not use Microsoft Windows file sharing mechanism and uses FTP access instead.

E.2 How Media Objects are Displayed by the HTML Server

This section explains how Media Objects are sent to the HTML client by the HTML Server.

1. A user selects attachments on an application which has support for media objects.

2. The Media Object window displays the image, file, or OLE objects, and the user selects one of these objects.
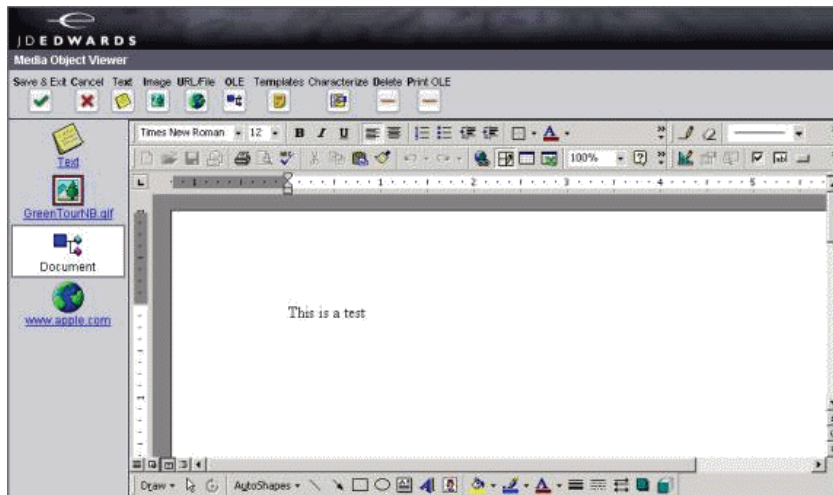
3. The request goes to the web server.

4. The web server reads the location of the object from the Media Object queue table (F98MOQUE), finds the file, and caches it in the location specified by the MO QUEUE path.

   Files are transferred using FTP protocol.

This diagram illustrates the process:

Find media object
file location

F98MOQUE

File transfer using FTP

Media Object File Server
(NT/UNIX) with FTP service

Local
Cache

Requested
web page
containing
media object

WAN

Use media object
from the web

Web browser
(HTML Client)