

JD Edwards EnterpriseOne

HTML Server on WebSphere Reference Guide for IBM i

9.2

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Preface

Welcome to the JD Edwards EnterpriseOne documentation.

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 that have purchased support 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 Information

For additional information about JD Edwards EnterpriseOne applications, features, content, and training, visit the JD Edwards EnterpriseOne pages on the JD Edwards Resource Library located at:

<http://learnjde.com>

Conventions

The following text conventions are used in this document:

| Convention | Meaning |
|-------------------------------|--|
| Bold | Boldface type indicates graphical user interface elements associated with an action or terms defined in text or the glossary. |
| <i>Italics</i> | Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values. |
| Monospace | Monospace type indicates commands within a paragraph, URLs, code examples, text that appears on a screen, or text that you enter. |
| > Oracle by Example | Indicates a link to an Oracle by Example (OBE). OBEs provide hands-on, step-by-step instructions, including screen captures that guide you through a process using your own environment. Access to OBEs requires a valid Oracle account. |

1 Accessing Certifications

Accessing Certifications

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 Installing and Configuring WebSphere 8.5.x/9.0 (Release 9.2.1)

Installing and Configuring WebSphere 8.5.x/9.0 (Release 9.2.1)

There are several different methods that you can install WebSphere Application Server 8.5.x/9.0 on *IBM i* operating system:

- Response files
- Command line
- iRemotelInstall Command

This document focuses on both the Command Line and iRemotelInstall Command methods.

Before You Begin

This section discusses these topics:

- *Preparing the System for WebSphere Application Server 8.5.5*
- *Installing the IBM Installation Manager using the Command Line*

Preparing the System for WebSphere Application Server 8.5.5

Before you begin the installation of WebSphere 8.5.5 on *IBM i* systems, you should perform the steps in this section.

- All editions of WebSphere Application Server V8.5.5 use the Installation Manager 1.5.3 or higher to install and maintain the product.
- Review the installation checklist at the below link and apply any requested PTFs:

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

- Download all the required software from the IBM site.

- Install the required IBM WebSphere SDK Java Technology Edition 7.0. This JDK is available in these versions depending on the bitness of your system:
 - IBM WebSphere SDK 7.0 32 bit (5761-JV1 option 14), PTF SI46212
 - IBM WebSphere SDK 7.0 64 bit (5761-JV1 option 15), PTF SI46211

| Licensed Program | Product Option | Description |
|------------------|----------------|------------------|
| 5761JV1 | 13 | J2SE 1.4 64 bit |
| 5761JV1 | 14 | Java SE 7 32 bit |
| 5761JV1 | 15 | Java SE 7 64 bit |

- The following table lists the *IBM i* Group PTFs that are included in the WebSphere Application Server Group PTF, along with the versions, that were tested with WebSphere Application Server V8.5.5 for *IBM i*.

| Area | Group PTF Number | Group PTF Level Tested |
|-----------------|------------------|------------------------|
| Database | SF99701 | #24 |
| Java | SF99572 | #14 |
| IBM HTTP Server | SF99368 | #21 |

Note: Beginning with JD Edwards EnterpriseOne Tools Release 9.2.0.5 the HTML Server is also supported on WAS 8.5.5.9.

Preparing System for WebSphere Application Server 9.0

Before you begin the installation of WebSphere 9.0 on *IBM i* systems, you should perform the steps in this section.

- All editions of WebSphere Application Server V9.0 use the Installation Manager 1.8.5 or higher to install and maintain the product.
- Review the installation checklist at the below link and apply any requested PTFs:

http://www.ibm.com/support/knowledgecenter/en/SSAW57_9.0.0/com.ibm.websphere.installation.nd.doc/ae/tins_is_check.html

- Download all the required software from the IBM site.
- Install the required IBM WebSphere SDK Java Technology Edition 8.0. This JDK is available in these versions depending on the bitness of your system.
- The following table lists the *IBM i* Group PTFs that are included in the WebSphere Application Server Group PTF, along with the versions, that were tested with WebSphere Application Server V9 for *IBM i*.

| Operating System | Area | Group PTF Number | Group PTF Level Tested |
|------------------|-----------------|------------------|------------------------|
| IBM I 7.1 | Database | SF99701 | #40 |
| | Java | SF99572 | #25 |
| | IBM HTTP Server | SF99368 | #42 |
| IBM I 7.2 | Database | SF99702 | #12 |
| | Java | SF99716 | #10 |
| | IBM HTTP Server | SF99713 | #16 |

Note: Beginning with JD Edwards EnterpriseOne Tools Release 9.2.1.0 the HTML Server is also supported on WAS 9.0.

Installing WebSphere Products using Command Line

This section discusses these topics:

- *Installing the IBM Installation Manager using the Command Line*
- *Installing WebSphere Express or Network Deployment using the Command Line*

Installing the IBM Installation Manager using the Command Line

Use this procedure to install the IBM Installation Manager using the command line.

1. Download and expand the Installation Manager assembly (zip file) to your *IBM i* system. For example:

```
/home/was855/im
```

2. Run these commands from Qshell:

```
$ cd /home/was855/im
$ umask 022
$ installc -acceptLicense -log ../im.install_log.txt
```

The IBM Installation Manager is installed to this directory on your *IBM i* system:

```
/QIBM/ProdData/InstallataioManager
```

Installing WebSphere Express or Network Deployment using the Command Line

CAUTION: Before you perform this procedure, you must have previously installed the IBM Installation Manager as described in the previous section of this guide entitled: *Installing the IBM Installation Manager using the Command Line*.

WebSphere Application Server 8.5.5 can be installed as a new installation or an update from base release of 8.5.0.

Use this procedure to install WebSphere Express or Network Deployment using the command line.

1. Expand the WebSphere Application Server zip file into a common directory. After all files are unzipped to a single directory, the directory should look similar to the following:

| Name ^ | Date modified | Type | Size |
|------------------------------------|-------------------|------------------------|------|
| disk1 | 9/25/2012 3:32 PM | File folder | |
| disk2 | 9/25/2012 3:42 PM | File folder | |
| disk3 | 9/25/2012 3:49 PM | File folder | |
| lafiles | 9/25/2012 3:32 PM | File folder | |
| readme | 9/25/2012 3:32 PM | File folder | |
| Remote_Installation_Tool_for_IBM_i | 9/25/2012 3:27 PM | File folder | |
| responsefiles | 9/25/2012 3:27 PM | File folder | |
| WLP | 9/25/2012 3:27 PM | File folder | |
| Copyright.txt | 5/2/2012 10:52 AM | Text Document | 1 KB |
| repository.config | 5/2/2012 12:35 PM | XML Configuration File | 1 KB |

2. Start Qshell:

```
$ STRQSH
```

3. Change directory to the location to the tools folder of the Installation Manager. For example:

```
$ cd /QIBM/ProdData/InstallManager/eclipse/tools
```

4. Enter the following command based on the product you want to install (where the bolded section is the variable that specifies the product):

ND Installations

For WebSphere 8.5.5

```
$ imcl install com.ibm.websphere.ND.v85 -repositories /home/was85
-installationDirectory /QIBM/ProdData/WebSphere/AppServer/V85/ND -
sharedResourcesDirectory /QIBM/UserData/InstallationManager/IMShared -acceptLicense
-showProgress
```

For WebSphere 9.0

```
$ imcl install com.ibm.websphere.ND.v90 -repositories /home/was90
-installationDirectory /QIBM/ProdData/WebSphere/AppServer/V90/ND -
```

```
sharedResourcesDirectory /QIBM/UserData/InstallationManager/IMShared -acceptLicense  
-showProgress
```

Note: For more installation details of Websphere 9.0 visit <http://www-01.ibm.com/support/docview.wss?uid=nas8N1021316>.

BASE Installations

```
$ imcl install com.ibm.websphere.BASE.v85 -repositories /home/was85  
-installationDirectory /QIBM/ProdData/WebSphere/AppServer/V85/BASE -  
sharedResourcesDirectory /QIBM/UserData/InstallationManager/IMShared -acceptLicense  
-showProgress
```

EXPRESS Installations

```
$ imcl install com.ibm.websphere.EXPRESS.v85 -repositories /home/was85 -  
installationDirectory /QIBM/ProdData/WebSphere/AppServer/V85/EXPRESS -  
sharedResourcesDirectory /QIBM/UserData/InstallationManager/IMShared -acceptLicense  
-showProgress
```

Upon completion, the *IBM i* system indicates the product is installed, as shown in the following example for a ND installation:

```
> imcl install com.ibm.websphere.ND.v85 -repositories /home/ND -installationDir  
ectory /QIBM/Proddata/WebSphere/AppServer/V85/ND -properties was.install.os40  
0.profile.location=/QIBM/userdata/WebSphere/AppServer/V85/ND -sharedResources  
Directory /QIBM/userdata/installationmanager/IMShared -acceptLicense -showPro  
gress  
                25%                50%                75%                100  
%  
-----|-----|-----|-----|  
.....  
Installed com.ibm.websphere.ND.v85_8.5.0.20120501_1108 to the /QIBM/Proddata/  
WebSphere/AppServer/V85/ND directory.  
$
```

5. Enter the following command to review the installed products:

```
imcl listInstalledPackages -long
```

The below example shows returned results for an *IBM i* system with WebSphere Express and ND installed.

```
> imcl listInstalledPackages -long
/QIBM/ProdData/InstallationManager/eclipse : com.ibm.cic.agent_1.5.3000.20120
531_1954 : IBM® Installation Manager : 1.5.3
/QIBM/ProdData/WebSphere/AppServer/V85/ND : com.ibm.websphere.ND.v85_8.5.5000
.20130514_1044 : IBM WebSphere Application Server Network Deployment : 8.5.5.
0
/QIBM/ProdData/WebSphere/AppServer/V85/Express : com.ibm.websphere.EXPRESS.v8
5_8.5.5000.20130514_1044 : IBM WebSphere Application Server - Express : 8.5.5
.0
$
```

Installing WebSphere Products using iRemotelInstall Command

This section discusses these topics:

- [Understanding the iRemotelInstall Command](#)
- [Installing the IBM Installation Manager using the iRemotelInstall Command](#)
- [Installing WebSphere Express or Network Deployment using the iRemotelInstall Command](#)
- [Verify the Installation](#)

Understanding the iRemotelInstall Command

The `iRemotelInstall.bat` program is located in this folder in either the ND or Supplement images:

```
/Remote_Installation_Tool_for_IBM_I
```

The syntax of the `iRemotelInstall` command is shown below:

```
iRemoteInstall.bat
-hostname i5_hostname
-username user_login_name
-password user_login_password
-iminstit kit im_install_kit_file_path_and_name | -wasoid was_offering_id
-wasrepoloc was_install_file_location
-appdataloc im_agent_data_location
-wasinstloc was_install_location
-wassharedloc was_shared_location
-features feature_ID_1,feature_ID_2, . . .
-waslangs lang_ID_1,lang_ID_2, . . .
-properties key=value,key=value, . . .
-log log_file_path_and_name
-trace
-version
-help
```

Installing the IBM Installation Manager using the iRemoteInstall Command

Use this procedure to install the IBM Installation Manager using the **iRemoteInstall** command.

Note: This procedure must be performed from a Microsoft Windows machine.

1. From the IBM site, download the IBM WebSphere Installation Manager version 8.5.5.
2. From the IBM site, download the WebSphere Application Server for Network Deployment (ND) version 8.5.5.
3. Unzip the downloaded files to a single directory.
4. Locate the `iRemoteInstall.bat` file from the WebSphere product directory. For example:

```
Z:\software\ND\Remote_Installation_Tool_for IBM_i
```

5. Open a Microsoft Windows command line window **As Administrator**.

6. Enter this command to install the IBM Installation Manager:

```
iRemoteInstall.bat -hostname <your_host> -username <userid> -password <password> -iminstkit <location of  
the Installation Manager zip file>
```

The following example shows an example of the command and the results of its execution.


```
Z:\Software\WAS85\ND\Remote_Installation_Tool_for_IBM_i>iRemoteInstall.bat -hostname denicas2 -username qsecofr -password ██████████ -iminstkit Z:\Software\WAS85\IBMi\InstMgr_IBM_I_WAS_8.5.zip
21/11/2012 12:26:24.473 - ##### iRIS (IBM i Remote Install Script) v8.5.0.0 #####
#####
    IBM Corporation 1.6.0
    http://www.ibm.com/
    Java(TM) SE Runtime Environment
    jvmwi3260sr9-20110203_74623

21/11/2012 12:26:24.473 - WNGI0021I: Remote Installation of IBM Installation Manager or WebSphere Application Server to the IBM i machine starts ...

21/11/2012 12:26:24.473 - WNGI0033I: User input commands:

21/11/2012 12:26:24.473 -      hostname: denicas2
21/11/2012 12:26:24.473 -      username: qsecofr
21/11/2012 12:26:24.488 -      password: *****
21/11/2012 12:26:24.488 -      iminstkit: Z:\Software\WAS85\IBMi\InstMgr_IBM_I_WAS_8.5.zip
21/11/2012 12:26:24.832 - WNGI0024I: Connected to denicas2 by com.ibm.tivoli.remoteaccess.AS400Protocol

21/11/2012 12:27:33.483 - WNGI0025I: Transferring files to denicas2, please wait...

21/11/2012 01:00:40.486 - WNGI0044I: Directory listing of /QIBM/imtemp/:      Offerings      confi
uration      documentation      features      license native      plugins tools      consoleinst      insta
ll.xml      installc      installc.ini      readme_1.5.2.html      repository.config      repository.xml
l      userinstc      userinstc.ini

21/11/2012 01:00:40.486 - WNGI0030I: Installing IBM Installation Manager, please wait ...

21/11/2012 01:00:40.486 - Install command: /QIBM/imtemp/installc -acceptLicense -accessRights admin
21/11/2012 01:01:30.769 - Installed com.ibm.cic.agent_1.5.2000.20120223_0907 to the /QIBM/ProdData/InstallationManager/eclipse directory.
21/11/2012 01:01:30.988 - WNGI0044I: Directory listing of /QIBM/ProdData/InstallationManager:  eclipse
se      license properties
21/11/2012 01:01:31.206 - WNGI0044I: Directory listing of /QIBM/InstallationManager:      .ibm
21/11/2012 01:01:31.456 - WNGI0044I: Directory listing of /QIBM/UserData/InstallationManager:  .sett
ings      pluginState      logs      p2      installRegistry bundles histories      adapters      temp
uninstall      installRegistry.xml      installed.xsl      installed.xsd      installed.xml
21/11/2012 01:02:07.458 - WNGI0022I: Remote Installation of IBM Installation Manager or WebSphere Application Server to the IBM i machine ends.
```

Installing WebSphere Express or Network Deployment using the iRemoteInstall Command

Use this procedure to install WebSphere Express or Network Deployment using the **iRemoteInstall** command.

1. From the IBM site, download IBM WebSphere version 8.5.5.
2. Unzip the above downloaded files to a single directory.
3. Locate the `iRemoteInstall.bat` file from the WebSphere product directory. For example:

```
Z:\software\ND\Remote_Installation_Tool_for_IBM_i
```

4. Open a Microsoft Windows command line window **As Administrator**.

5. Enter this command to install the WebSphere Application Server:

```
iRemoteInstall.bat -hostname <your_host> -username <userid> -password <password> -wasoid ND -wasrepoloc  
Z:\Software\was85\ND -wasinstloc /QIBM/ProdData/WebSphere/AppServer/V85/ND
```

The following example shows an example of the command and the results of its execution.

```
Z:\Software\WAS85\ND\Remote_Installation_Tool_for_IBM_i>iRemoteInstall.bat -hostname denicas1 -username qsecofr -password ██████████ -wasoid ND -wasrepoloc Z:\Software\was85\ND -wasinstloc /QIBM/ProdData/WebSphere/AppServer/U85/ND
26/11/2012 09:39:30.389 - ##### iRIS <IBM i Remote Install Script> v8.5.0.0 #####
#####
IBM Corporation 1.6.0
http://www.ibm.com/
Java(TM) SE Runtime Environment
jvmwi3260sr9-20110203_74623

26/11/2012 09:39:30.405 - WNGI0021I: Remote Installation of IBM Installation Manager or WebSphere Application Server to the IBM i machine starts ...

26/11/2012 09:39:30.405 - WNGI0033I: User input commands:

26/11/2012 09:39:30.405 -      hostname: denicas1
26/11/2012 09:39:30.405 -      username: qsecofr
26/11/2012 09:39:30.405 -      password: *****
26/11/2012 09:39:30.405 -      wasoid: ND
26/11/2012 09:39:30.405 -      wasrepoloc: Z:\Software\was85\ND
26/11/2012 09:39:30.405 -      wasinstloc: /QIBM/ProdData/WebSphere/AppServer/U85/ND
26/11/2012 09:39:30.827 - WNGI0024I: Connected to denicas1 by com.ibm.tivoli.remoteaccess.AS400Protocol

26/11/2012 09:39:31.280 - WNGI0025I: Transferring files to denicas1, please wait...

26/11/2012 09:57:37.525 - WNGI0044I: Directory listing of /QIBM/intemp/:      ND
26/11/2012 09:57:38.134 - wasoid = ND
26/11/2012 09:57:38.150 - wasoid2 = com.ibm.websphere.ND.v85
26/11/2012 09:57:38.150 - WNGI0031I: Installing WebSphere Application Server, please wait ...

26/11/2012 09:57:38.150 - Install command: /QIBM/ProdData/InstallationManager/eclipse/tools/imcl -acceptLicense -repositories /QIBM/intemp/ND -installationDirectory /QIBM/ProdData/WebSphere/AppServer/U85/ND -sharedResourcesDirectory /QIBM/ProdData/WebSphere/AppServer/U85/ND_Shared install com.ibm.websphere.ND.v85 -properties cic.selector.nl=en
```

Verify the Installation

You can view the installed products using this command:

```
./imcl listInstalledPackages -long
```

You can also verify the installation thru Work with License Program. For example, that program returns results similar to those shown in this example:

| Licensed Program | Product Option | Description |
|------------------|----------------|---|
| 5733W85 | *BASE | WebSphere Application Server V85 for IBM i |
| 5733W85 | 1 | WebSphere Application Server V85 Express |
| 5733W85 | 3 | WebSphere Application Server V85 Network Depl |

Installing and Configuring the IBM HTTP server

The IBM HTTP Server is installed under the license program 5770DG1. You should apply the required group PTF as listed in the following table:

| Area | Group PTF Number | Group PTF Level Tested |
|-----------------|------------------|------------------------|
| IBM HTTP Server | SF99368 | #11 |

Applying Updates to the WebSphere Application Server 8.5.x/9.0

This section discusses these topics:

- [Applying Updates from the Command Line](#)
- [Applying Updates using the iGSC WebSphere8xScripts Utility](#)

Applying Updates from the Command Line

After you have installed WebSphere Application Server, you should verify if any updates or iFixes are required.

Product fix packs contain bundled service to bring WebSphere Application Server up to a new product level. Interim fixes provide corrective service for specific known problems. You can use the IBM Installation Manager command-line function to update the product with the fixes that are available for your service level of WebSphere Application Server version 8.5.x/9.0.

Note: You cannot use the **iRemotelyInstall** command to install a fix pack.

Use this procedure to apply updates to the WebSphere Application Server:

1. Download a file that contains the fix pack from Fix Central, and use local updating.
2. Transfer the compressed fix file in binary format to the *IBM i* systems on which it will be installed.
3. Extract the compressed repository file to a directory on your system.
4. Sign on to the *IBM i* system with a user profile that has *ALLOBJ and *SECADM special authorities.

5. Stop all servers and applications on the WebSphere Application Server installation that is being updated.
6. On a CL command line, run the STRQSH commands to start the Qshell command shell.
7. Make sure that the umask is set to 022.
8. Change to this directory:

```
<Installation_manager>/eclipse/tools
```

9. Install the fix pack using this command:

```
./imcl install <offering_ID_offering_version -repositories <location_of_expanded_files> -  
installationDirectory <product_installation_location> -acceptLicense
```

10. Verify by installation by using this command to list all installed packages:

```
./imcl listInstalledPackages -log
```

Applying Updates using the iGSC WebSphere8xScripts Utility

Use this procedure to apply updates to WebSphere Application Server using the iGSC WebSphere8xScripts Utility.

Note: This utility can also update the IBM Installation Manager

CAUTION: In order to install the fix pack updates, you must have the fix pack group PTF loaded on the system.

1. Download the iGSC WebSphere8xScripts utility as described below:
 - a. Create this directory on your system:
`/WebSphere8xScripts`
 - b. Navigate to this IBM download location:
<http://public.dhe.ibm.com/services/us/igsc/cta/websphere/>
 - c. Save the `WebSphere8xScripts.zip` file into the directory `/WebSphere8xScripts` you created in the first step of this procedure.
 - d. Within the directory that you placed the downloaded `.zip` file for the scripts, unzip the files using this command:

```
jar -xvf WebSphere8xScripts.zip
```

- e. Execute this shell script:

```
WasInstallMenu.sh
```

```
> wasinstallmenu.sh
```

```
Version 1.2      Build Date 04/04/2013
```

```
*****
```

```
WebSphere Application Server Install/Uninstall/Fix Pack Menu
```

1. WebSphere Application Server v8.x Install
2. WebSphere Application Server v8.x Uninstall
3. WebSphere Application Server v8.x Fix Pack Install
4. Exit Menu

```
*****
```

```
Please enter the # of the task to perform.
```

2. On WebSphere Application Server Install/Uninstall/Fix Pack Menu, enter the number of the task to perform.

Verifying SDK 7.0 on WebSphere Application Server 8.5.5

JD Edwards EnterpriseOne supports WebSphere Application Server 8.5.5 running with SDK 7.0 only. You must switch the java level after the installation is completed.

Starting with WebSphere Application Server 8.5.5, SDK 7.0 is supported as an optional feature. The java 1.6 is still the default installation.

Note: Use SDK 1.8_64 for WAS 8.5.5.9.

Use this procedure to verify the java level:

1. Locate the **managesdk** command which is located in the bin directory of your profile. For example:

```
/QIBM/ProdData/WebSphere/AppServer/V85/ND
```

2. Use this command to view the available Java products:

```
managesdk -listAvailable
```

Below is an example of the returned results from this command:

```
> cd /QIBM/Proddata/WebSphere/AppServer/V85/ND/bin
$
> ./managesdk -listAvailable
CWSDK1003I: Available SDKs :
CWSDK1005I: SDK name: 1.6_64
CWSDK1005I: SDK name: 1.6_32
CWSDK1005I: SDK name: 1.7_64
CWSDK1005I: SDK name: 1.7_32
CWSDK1001I: Successfully performed the requested managesdk task.
$
```

Note: SDK 1.6 is always installed.

3. Use this command to view the available Java products with details information:

```
managesdk -listAvailable -verbose
```

Below is an example of the returned results from this command:

```
> ./managesdk -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=/QOpenSys/QIBM/ProdData/JavaVM/jdk62
6/64bit
- com.ibm.websphere.sdk.platform.1.6_64=os400
- com.ibm.websphere.sdk.architecture.1.6_64=ppc64
- com.ibm.websphere.sdk.systemlaunchproperties.1.6_64=${WAS_INSTALL_ROOT}/pr

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=/QOpenSys/QIBM/ProdData/JavaVM/jdk70
/64bit
- com.ibm.websphere.sdk.platform.1.7_64=os400
- com.ibm.websphere.sdk.architecture.1.7_64=ppc64
- com.ibm.websphere.sdk.systemlaunchproperties.1.7_64=${WAS_INSTALL_ROOT}/pr
operties/systemlaunch/base/os400/generic/1.7_64.systemlaunch.properties
- com.ibm.websphere.sdk.nativeLibPath.1.7_64=${WAS_INSTALL_ROOT}/lib/native/
os400/ppc_64
```

Note: SDK 1.6 is always installed.

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

```
managesdk -listAvailable [-verbose]
```

```
managesdk -listEnabledProfile -profileName AppSrv01 [-verbose]
```

```
managesdk -listEnabledProfileAll [-verbose]
```

```
managesdk -enableProfile -profileName AppSrv01 -sdkname 1.7_64 -enableServers
```

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

```
managesdk -getNewProfileDefault [-verbose]
managesdk -setNewProfileDefault -sdkname 1.7_64
managesdk -getCommandDefault [-verbose]
managesdk -setCommandDefault -sdkname 1.7_64
```

Switching to SDK 7.0 on WebSphere Application Server 8.5.5

The section provides examples that demonstrate the sequence of commands to use to:

- *List Available SDKs*
- *Change the Default SDK to Version 7.0 SDK*
- *Set New Profile Default to Version 7.0 SDK*
- *Set Existing Profile Default to Version 7.0 SDK*
- *Modify the JD Edwards EnterpriseOne Server Manager Agent with JRE 1.7.0*

List Available SDKs

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

```
./managesdk -listAvailable
```

The following is an example of the returned results from this command:

```
> cd /QIBM/Proddata/WebSphere/AppServer/V85/ND/bin
$
> ./managesdk -listAvailable
CWSDK1003I: Available SDKs :
CWSDK1005I: SDK name: 1.6_64
CWSDK1005I: SDK name: 1.6_32
CWSDK1005I: SDK name: 1.7_64
CWSDK1005I: SDK name: 1.7_32
CWSDK1001I: Successfully performed the requested managesdk task.
$
```

Note: Use SDK 1.8_64 for WAS 8.5.5.9.

Change the Default SDK to Version 7.0 SDK

Issue this command to change the default SDK to Version 7.0 SDK:

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

The following is an example of the returned results from this command:

```
> ./managesdk -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 New Profile Default to Version 7.0 SDK

Issue this command to change the set the default for new profiles to Version 7.0 SDK:

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

The following is an example of the returned results from this command:

```
> ./managesdk -setNewProfileDefault -sdkname 1.7_64
CWSDK1022I: New profile creation will now use SDK name 1.7_64.
CWSDK1001I: Successfully performed the requested managesdk task.
$
```

Set Existing Profile Default to Version 7.0 SDK

Issue this command to change the set the default for existing profiles to Version 7.0 SDK:

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

The following is an example of the returned results from this command:

```
> ./managesdk -enableProfileAll -sdkname 1.7_64 -enableServers
CWSDK1017I: Profile default now enabled to use SDK 1.7_64.
CWSDK1017I: Profile AppSvr01 now enabled to use SDK 1.7_64.
CWSDK1001I: Successfully performed the requested managesdk task.
$
```

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. Edit the `runAgent` file to include the location of the `jdk70` as specified by the `JAVA_HOME` setting. For example:

```
JAVA_HOME=/QOpenSys/QIBM/ProdData/JavaVM/jdk70/64bit
```

3. Save the `runAgent` file.
4. Start the JD Edwards EnterpriseOne Server Manager Agent.

Creating a New Profile for the WebSphere Application Server

Use this procedure to create a new profile for the WebSphere Application Server:

1. On a CL command line, run the STRQSH commands to start the Qshell command shell.
2. Change to this directory:

```
/QIBM/ProdData/WebSphere/AppServer/V85/ND/bin
```

3. Use the following command to create a profile:

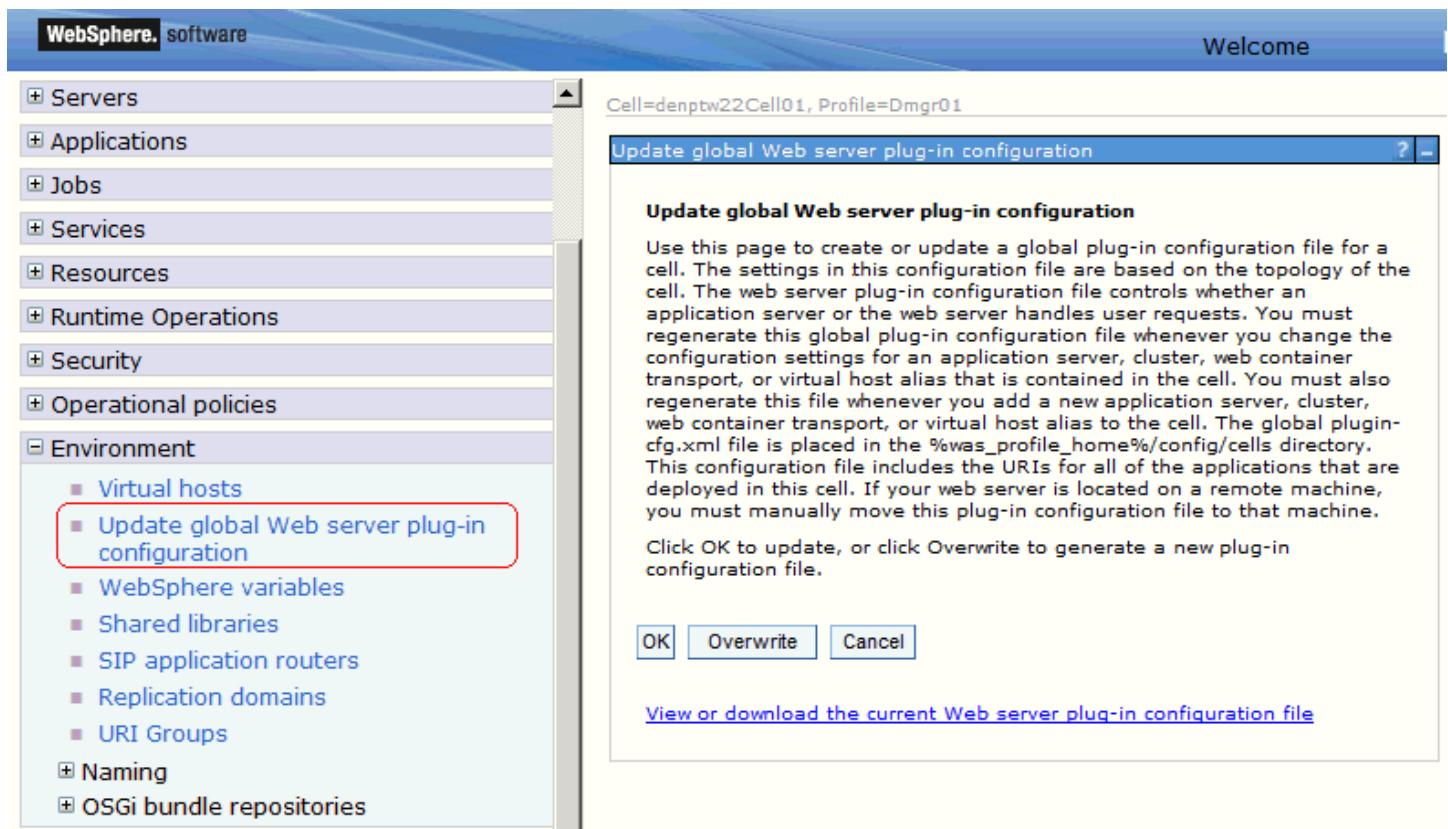
```
./manageprofiles -create -templatePath /QIBM/ProdData/WebSphere/AppServer/V85/ND/profileTemplates/  
default
```

Manually Generating a Plug-in

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 Installing and Configuring WebSphere 7.0

Installing and Configuring WebSphere 7.0

Note: This guide refers to the current *IBM i* hardware and software systems, where the *IBM i* hardware is Power Systems and the operating system is *IBM i*. Except where specifically noted, in this guide the term "*IBM i*" refers to both the current and legacy *IBM i* hardware and software products identified in the JD Edwards EnterpriseOne Certifications, including iSeries, AS/400, and OS/400.

Complete these tasks to install and configure WebSphere:

- [Determining the Installation Scenario](#)
- [Installing WebSphere 7.0](#)
- [Running WebSphere](#)
- [Generating the Web Server Plug-in](#)

Determining the Installation Scenario

Below are two scenarios for installing WebSphere 7.0 on the *HTML Server* :

- [Single Machine Scenario](#)
- [Multimachine Scenario](#)

Complete the installation tasks for the scenario that matches your configuration.

Single Machine Scenario

Complete the tasks in this scenario if you have only one machine running the Application Server. The *JD Edwards EnterpriseOne* Web Server can be on the same machine as the Application Server or on a separate machine.

| Task | Reference Section |
|---|--|
| Installing WebSphere 7.0 Application Server | Installing WebSphere 7.0 |

Multimachine Scenario

Complete the tasks in this scenario if you have multiple machines running the Application Server and one machine running the Deployment Manager.

| Task | Reference Section |
|--|--|
| Follow the task list in the Single Machine Scenario to install the Application Server on other machines. | Installing WebSphere 7.0 |

| Task | Reference Section |
|------------------|--------------------------------------|
| | |
| Create a Profile | <i>Creating a Profile (Optional)</i> |

Note: To make the Deployment Manager aware of the Application Servers, you must add nodes to the Deployment Manager. See the *Network Deployment Guide for JD Edwards EnterpriseOne* for specific information about this task.

Installing WebSphere 7.0

Complete the relevant tasks in this section to install WebSphere 7.0. Do not complete *all* of these tasks. Instead, determine which of the above scenarios you want to implement, and complete only the tasks listed for that scenario.

- *Installing WebSphere 7.0*
- *Installing the WebSphere Update Installer*
- *Installing the Fix Pack*
- *Enabling IBM Technology for 32-bit Java Virtual Machines*
- *Creating a Profile (Optional)*

Installing WebSphere 7.0

Complete the tasks below to install the WebSphere 7.0 Application Server. You must complete all of these tasks for the WebSphere Application Server to run correctly.

Select one of the following two methods to install WebSphere 7.0 on an *IBM i* machine:

- *Installing WebSphere 7.0 from a workstation (recommended)*
- *Installing the WebSphere 7.0 directly from an Machine (Not Recommended)*

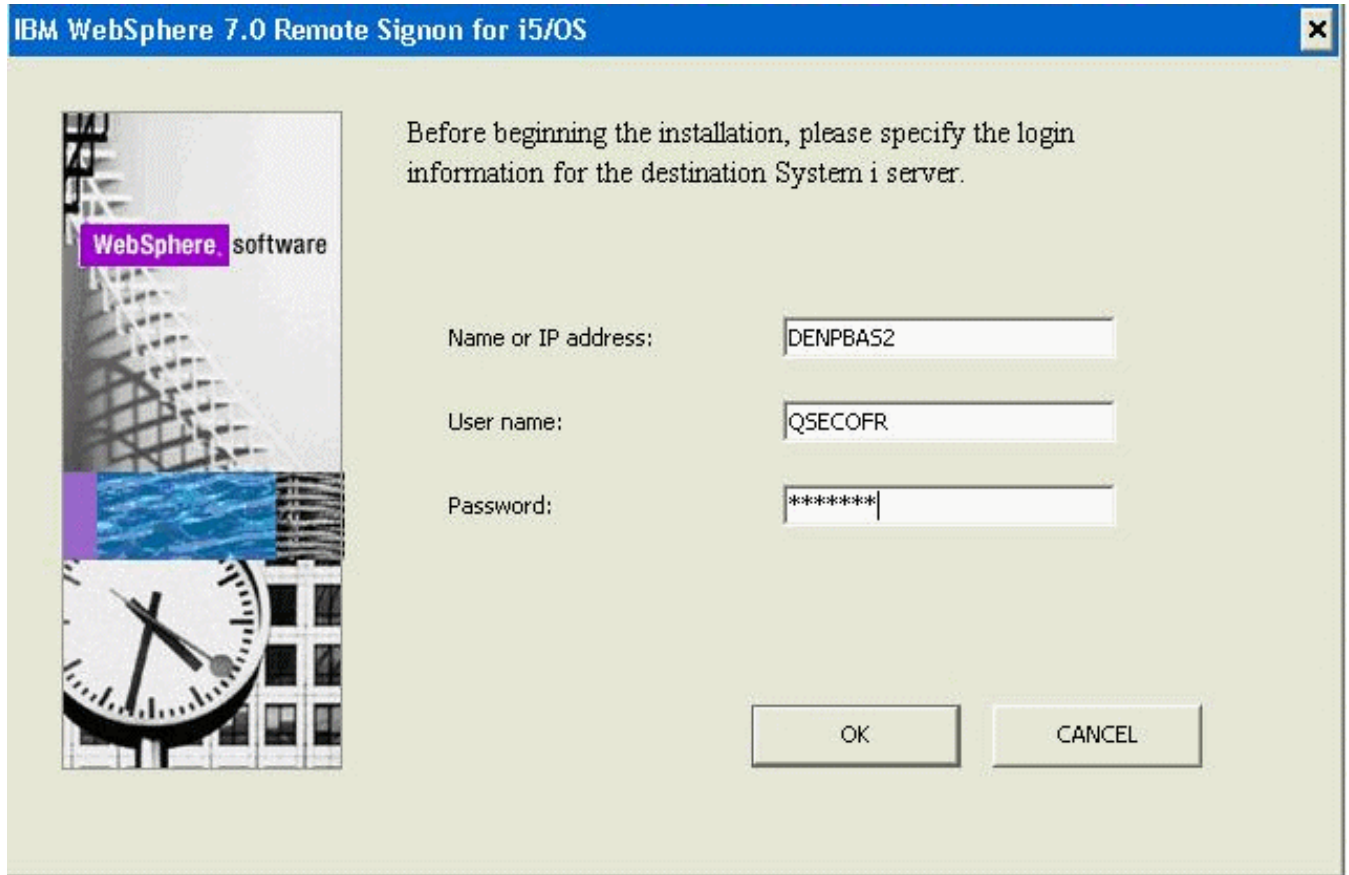
Installing WebSphere 7.0 from a workstation (recommended)

Note: The procedures shown are using the Network Deployment version of WebSphere. Although functionally equivalent for purposes of installation, if you are using the Base version, your procedure will vary accordingly. It is okay to use WebSphere 7.0 Network Deployment CD to install WebSphere Application Server for a base/standalone configuration.

Note: If you have another version of WebSphere, for example 8.5.x installed on the same system and it is not running during 7.0 installation, 7.0 installation may assign the same ports used by 8.5.x profiles. Either change the ports assign to the 7.0 profile or start up the other profiles during the 7.0 installation to avoid the port conflict.

To install WebSphere 7.0 from a workstation:

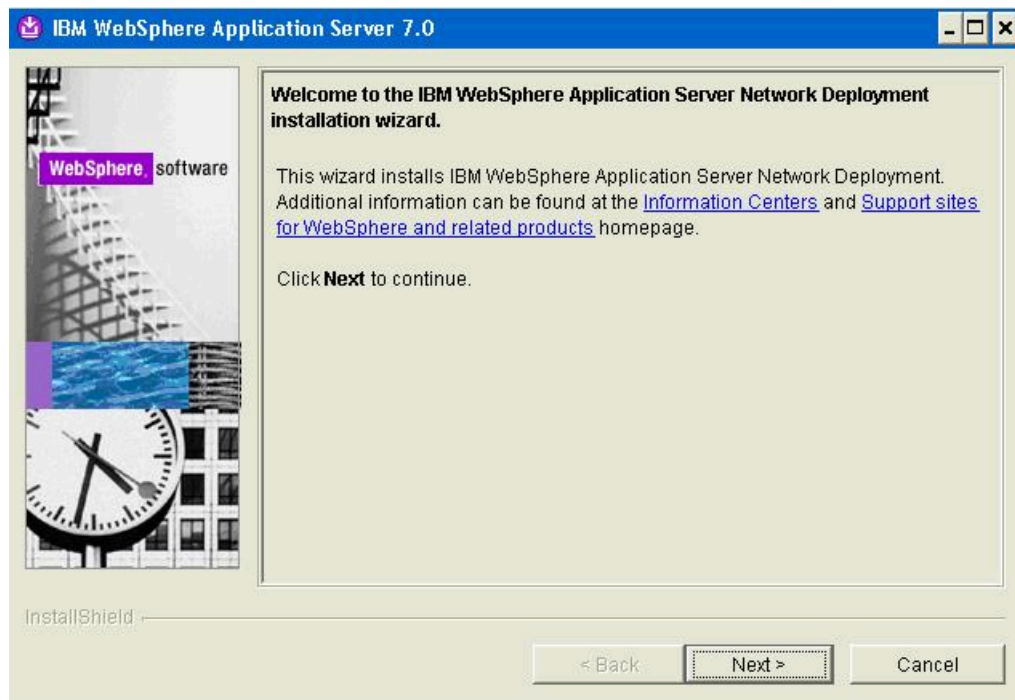
1. Insert the CD for WebSphere Application Server Network Deployment v7.0 for i5/OS into the CD ROM drive of any PC with a Windows operating system.
2. The launchpad will start if autorun function is turned on. If not, navigate to the `x:\was` directory (where x is the letter of the CD ROM drive), and start the launchpad by executing the `install.exe` file.
3. Click the link entitled: Launch the installation wizard for WebSphere Application Server Network Deployment.



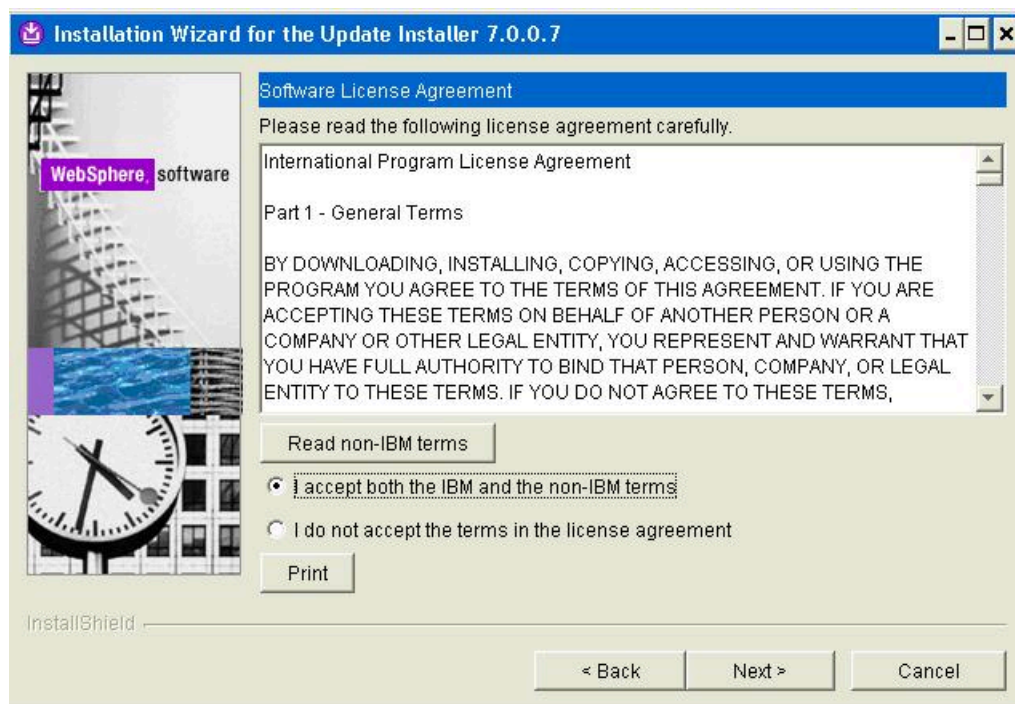
4. When prompted by the wizard, enter the name of the machine, username, and password. For example:

| Field | Value |
|----------|------------------------------|
| Name | DENPBAS2 |
| Username | QSECOFR |
| Password | <i>YOUR_QSECOFR_PASSWORD</i> |

5. On the login screen, after you have entered the login credentials, click the **OK** button to login.

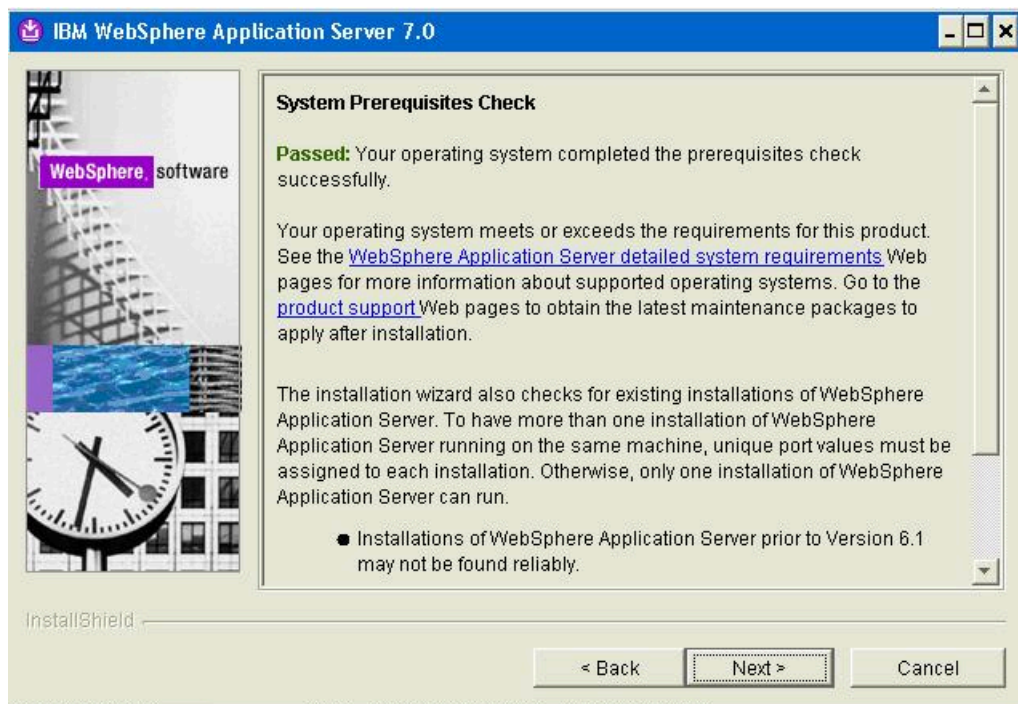


6. On the Welcome screen, click the **Next** button.

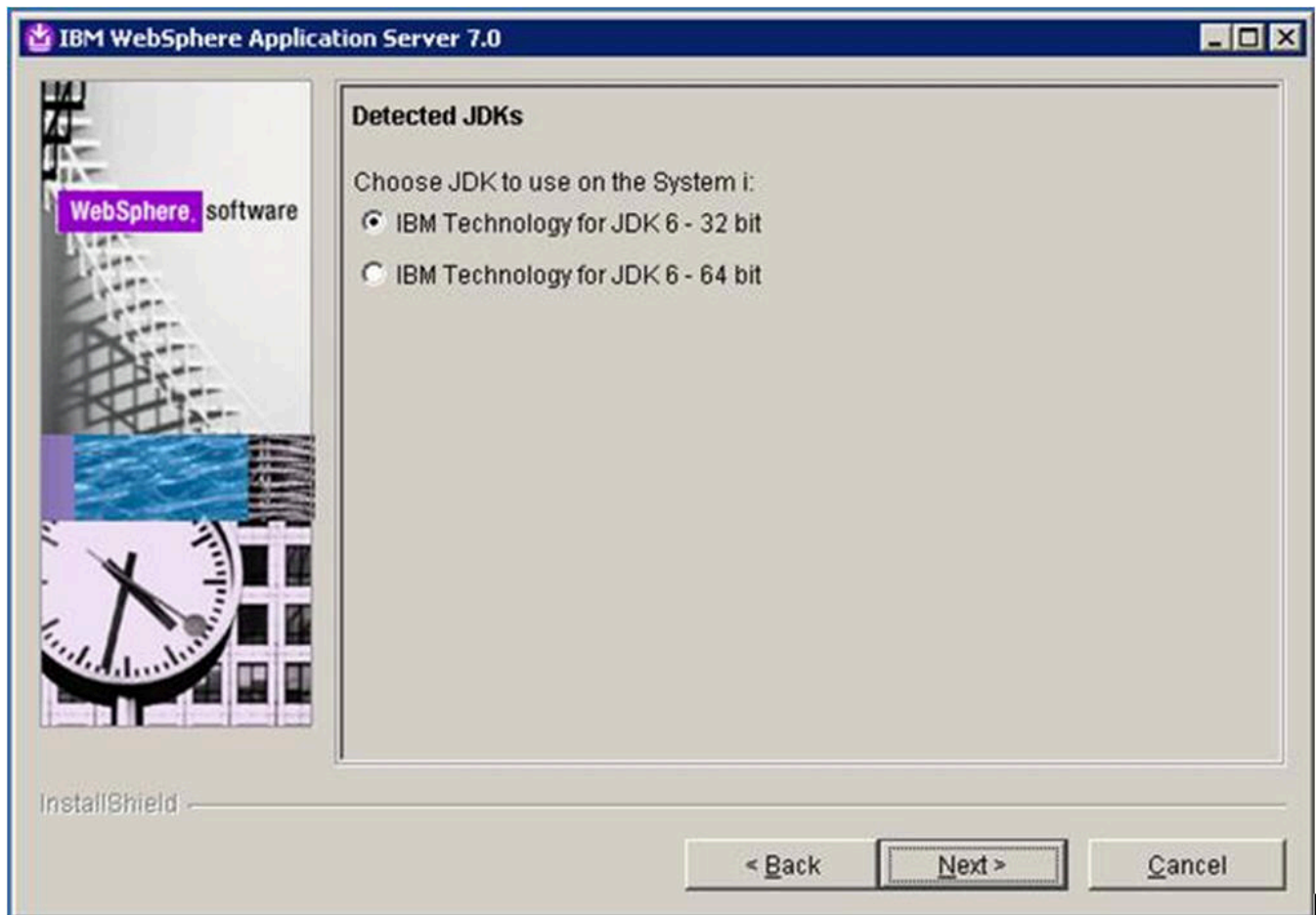


7. On Software License Agreement, accept the License Agreement and click the **Next** button.

The installer performs a System Prerequisite Check.



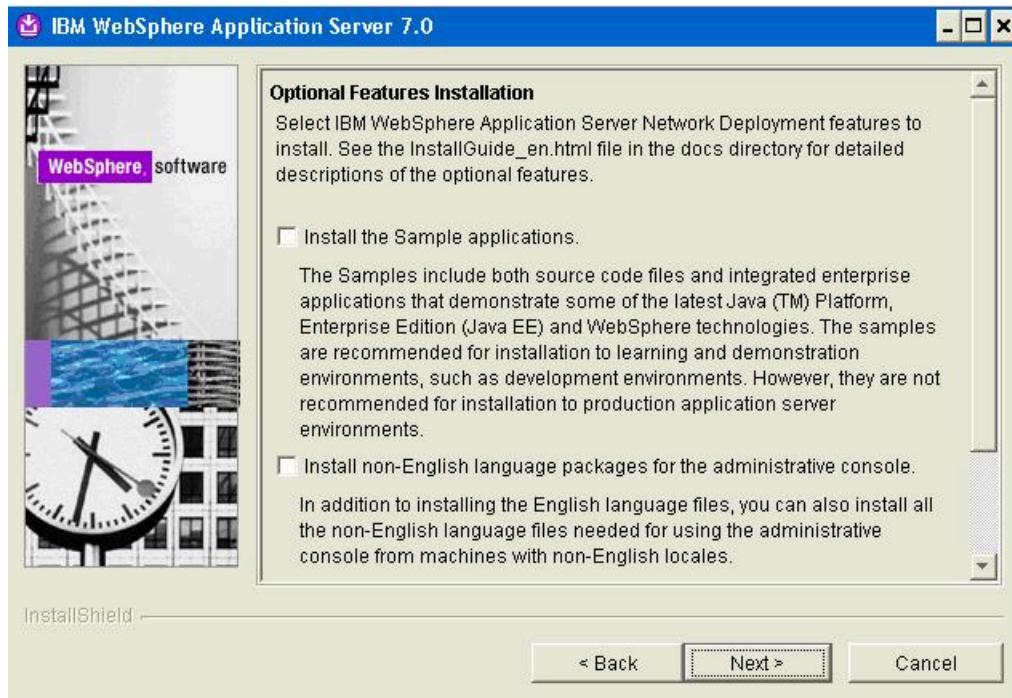
8. On System Prerequisites Check, if the system indicates the check passed click the **Next** button.



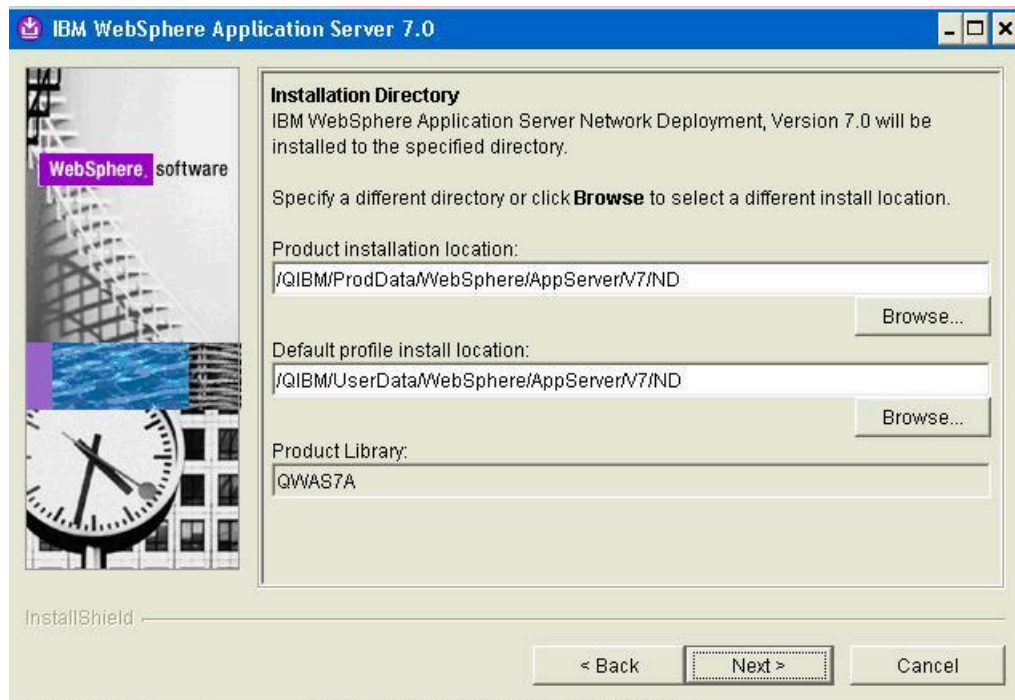
9. On Detected JDKs, select the radio button for **IBM Technology for JDK6 - 32bit**.

Note: The IBM WebSphere 7 installer detects and displays the available JDKs on the *IBM i* machine. For this installation intended for use with JD Edwards EnterpriseOne you must choose **IBM Technology for JDK 6 - 32 bit**. After installation, you should only run WebSphere 7 in the 32-bit mode only. For more information, refer to the section of this guide entitled: *Enabling IBM Technology for 32-bit Java Virtual Machines*.

10. Click the **Next** button.

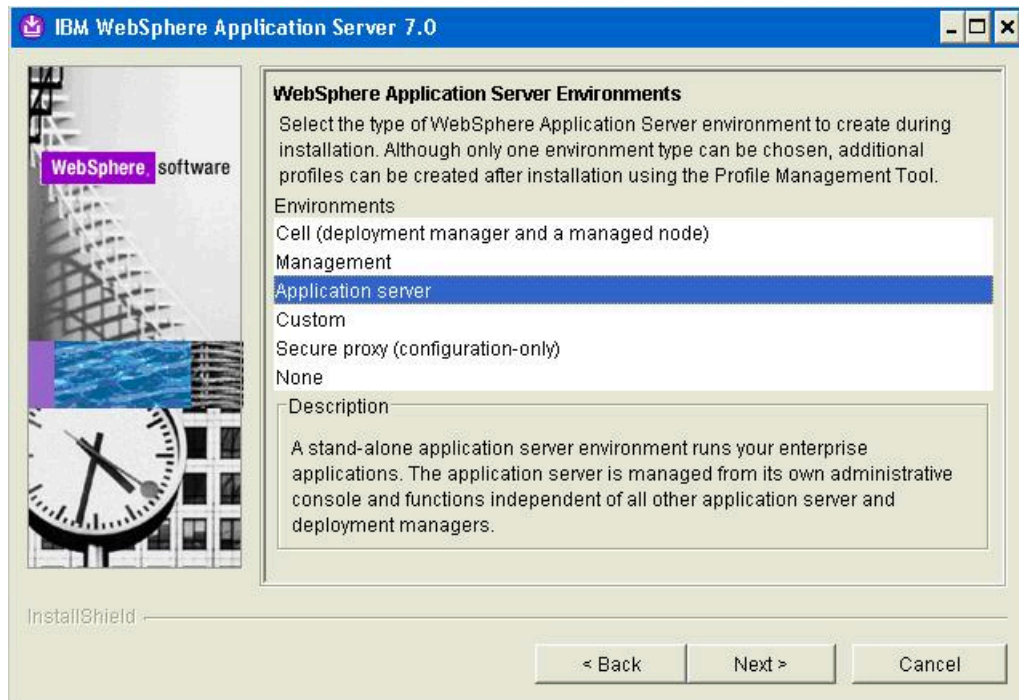


11. On Optional Features Installation, ensure that the **Install the Sample applications** checkbox is cleared. Install non-English language support as necessary.
12. Click the **Next** button.



13. On Installation Directory, accept the default installation location, or enter a different path and click the **Next** button.

Tip: It is recommended that you select the default installation location unless otherwise required.

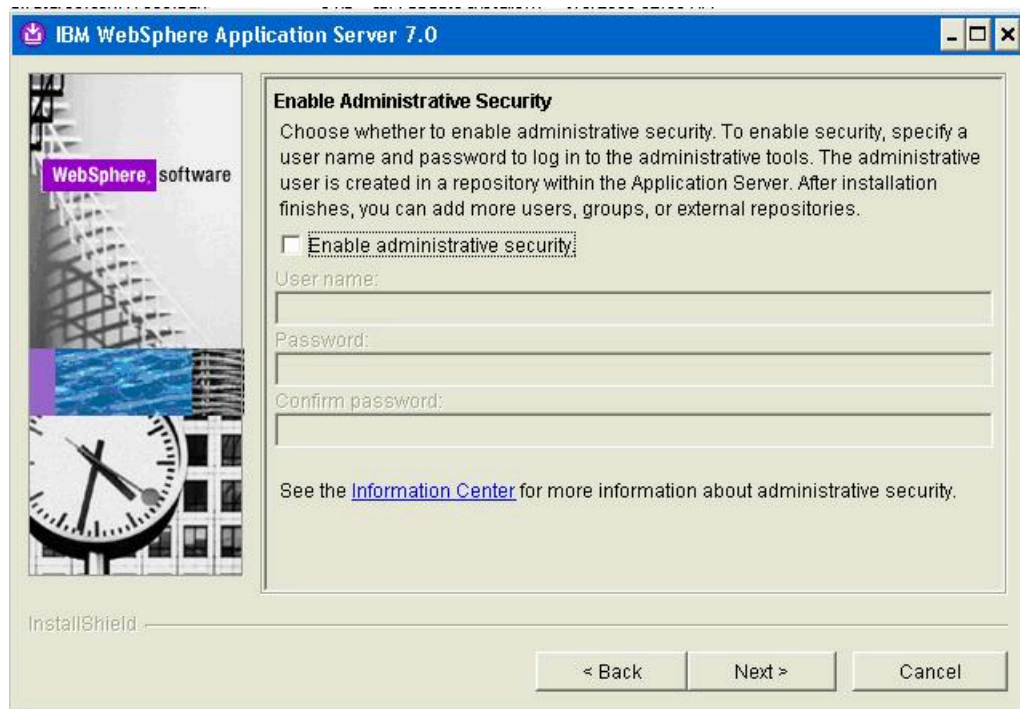


14. On the WebSphere Application Server Environments, select **Application Server** to create an Application Server profile. This will create a standalone application server profile called **default**.

Note: If you are setting up in a federated nodes (that is, cell) configuration, you can create one of two basic types of environments:

- Cell (deployment manager and a managed node)
- Management > Deployment Manager

15. Click the **Next** button.

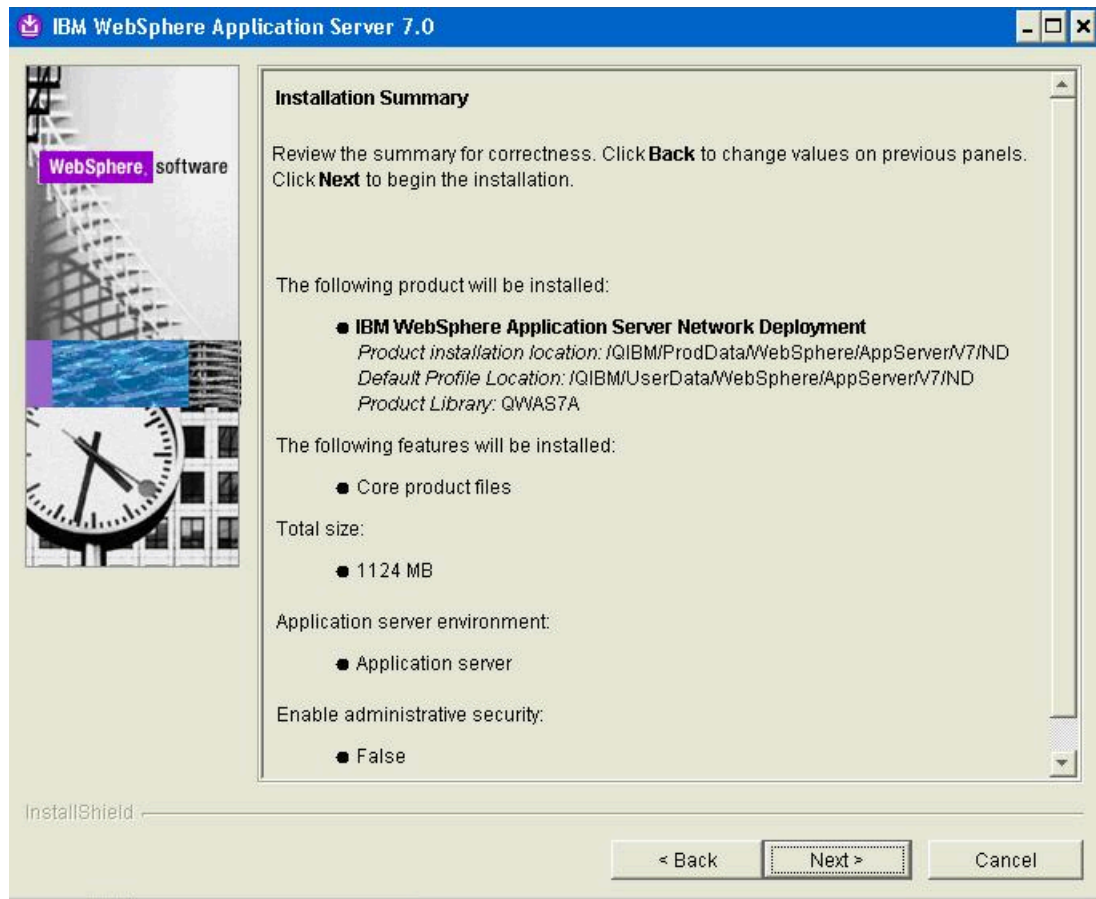


16. On Enable Administrative Security, the checkbox for the application server profile is checked by default. You can choose either to:
 - o Clear the checkbox for **Enable administrative security** to disable server administrative security, or
 - o If the checkbox is enabled for **Enable administrative security**, server administration security will be enabled and you must enter the User ID and Password

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

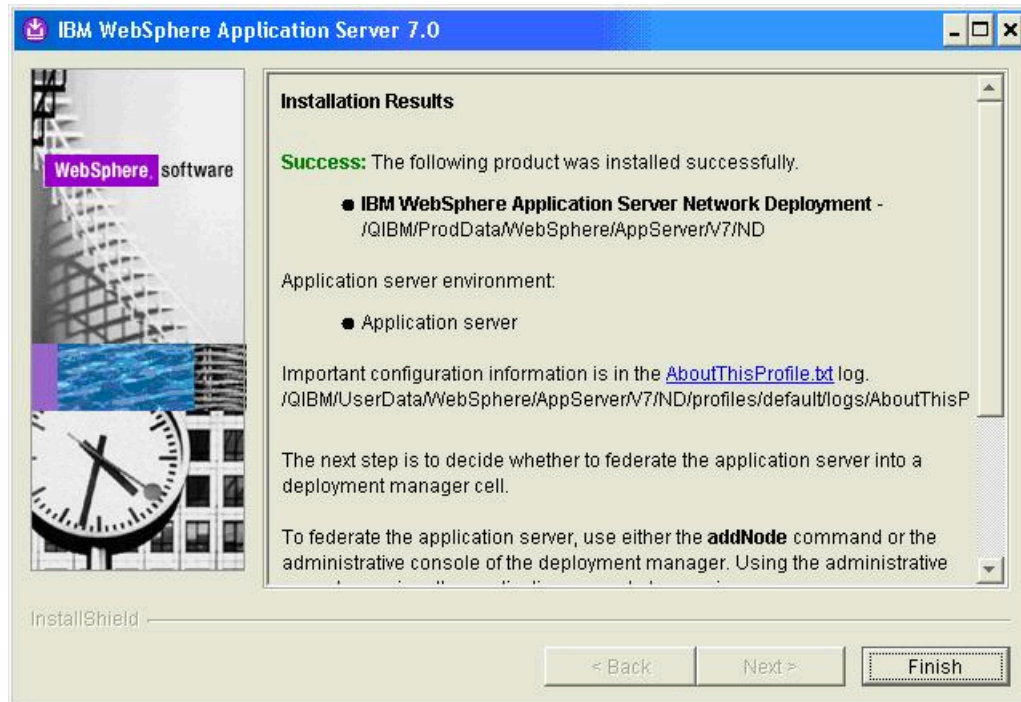
Tip: JD Edwards EnterpriseOne Business Services Server. If you are using these instructions to install a JD Edwards EnterpriseOne Business Services Server into this WebSphere instance, you must enable administrative security.

17. Click the **Next** button.



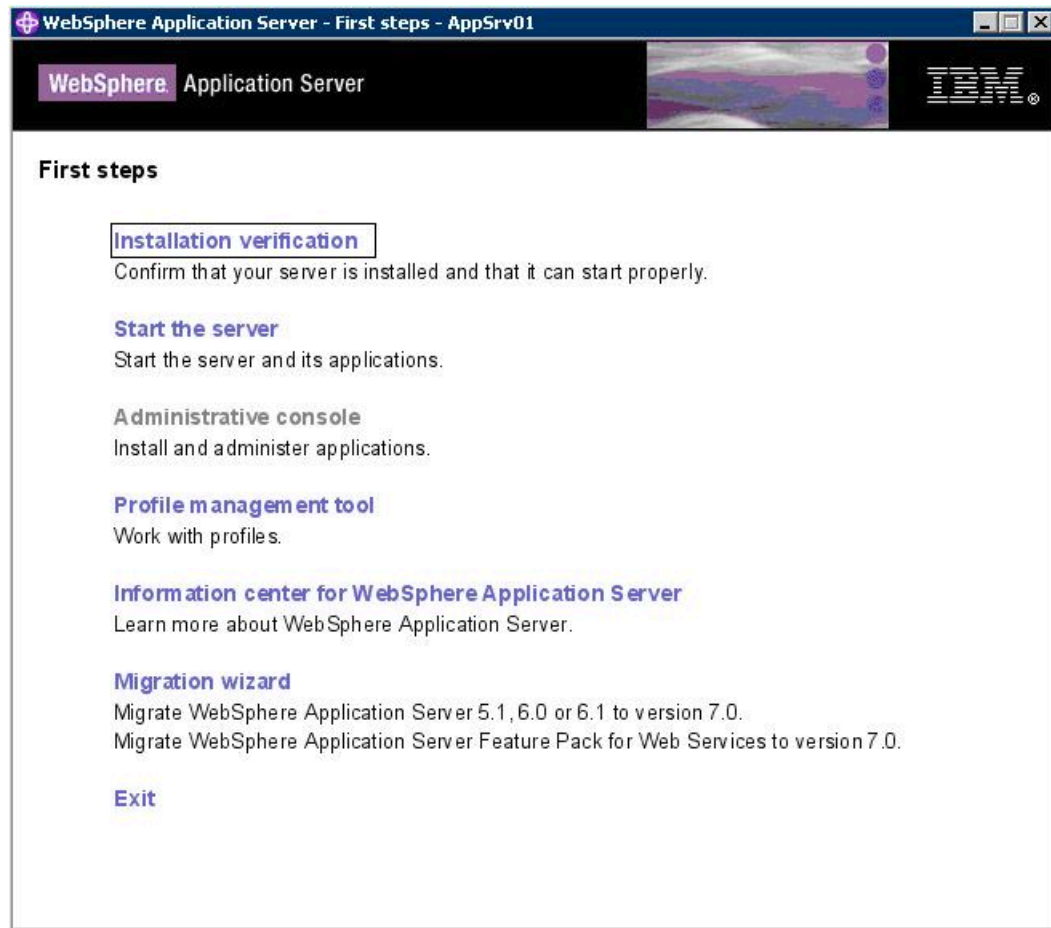
18. On Installation Summary, review the information summary and click the **Next** button to start the installation process.

Tip: The installation process can take a while to complete and the time taken is dependent on the sizing of your *IBM i* hardware.



19. 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.



The First steps menu is launched.

20. 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:

21. Ensure that the Installation Verification utility completes with a success message.
22. Close the First steps output and click **Exit** on the First steps screen.

This completes the profile creation activity.

Installing the WebSphere 7.0 directly from an Machine (Not Recommended)

To install the WebSphere 7.0 directly from an *IBM i* machine:

1. Insert the WebSphere Application Server in the CD-ROM drive on the *IBM i* machine.

2. Start the QSHLL environment using these commands on the *IBM i* console:

```
strqsh  
  
cd /QOPT/WebSphere/WAS
```

Note: Navigation through the directories is not case-sensitive.

3. Start the installation by entering the following command:

```
Setup -console
```

4. Replace the installation path or accept this default path:

```
/QIBM/ProdData/WebSphere/AppServer/V7/ND
```

5. Select the components to install.
6. Review the summary page and enter [1] to start the install.

Do not exit the Qshell session or signoff until the installation process is complete.

When the message **INSTCONFSUCCESS** is displayed, the install process is complete.

Tip: The installation process can take a while to complete and the time taken is dependent on the sizing of your *IBM i* hardware.

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. Update Installer V7.0.0.7 is backwards compatible. You can use a single instance of the V7.0.0.7 Update Installer to apply maintenance and updates to IBM WebSphere Application Server V7.0.0.x. 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.

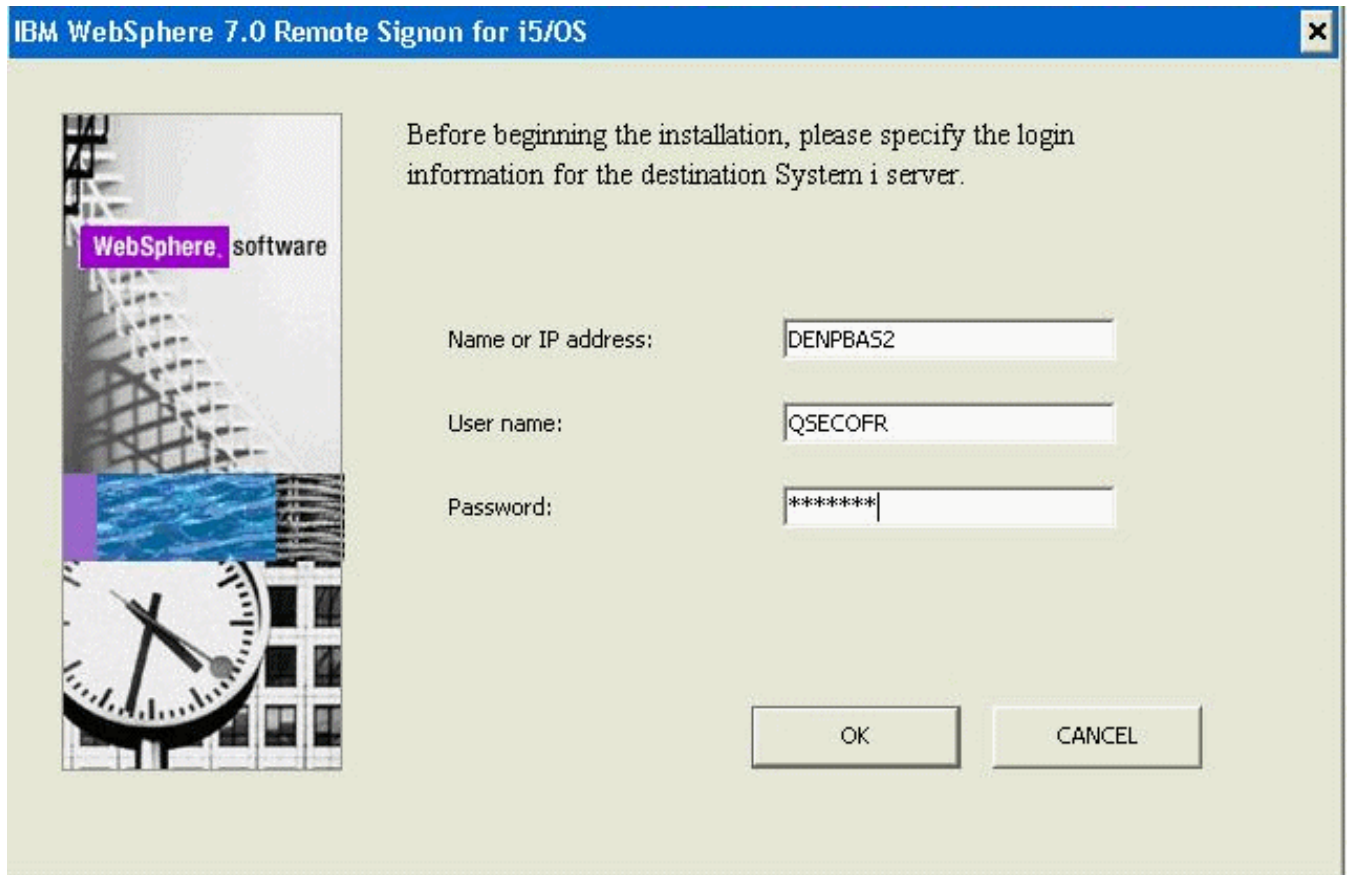
Note: Before installing the WebSphere Update Installer from CD, check IBM WebSphere Application Server v7.0 Fix Pack web site to see if a newer version of the Update Installer is required to install the fix pack. Download and install the newer version of WebSphere Update Installer, if needed.

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

To install the WebSphere update installer:

1. If you are running WebSphere, stop all the WebSphere processes and then stop the WebSphere subsystem (such as QWAS7).
2. Download the latest Update Installer from IBM web site that match with the update you wish to install to a workstation.

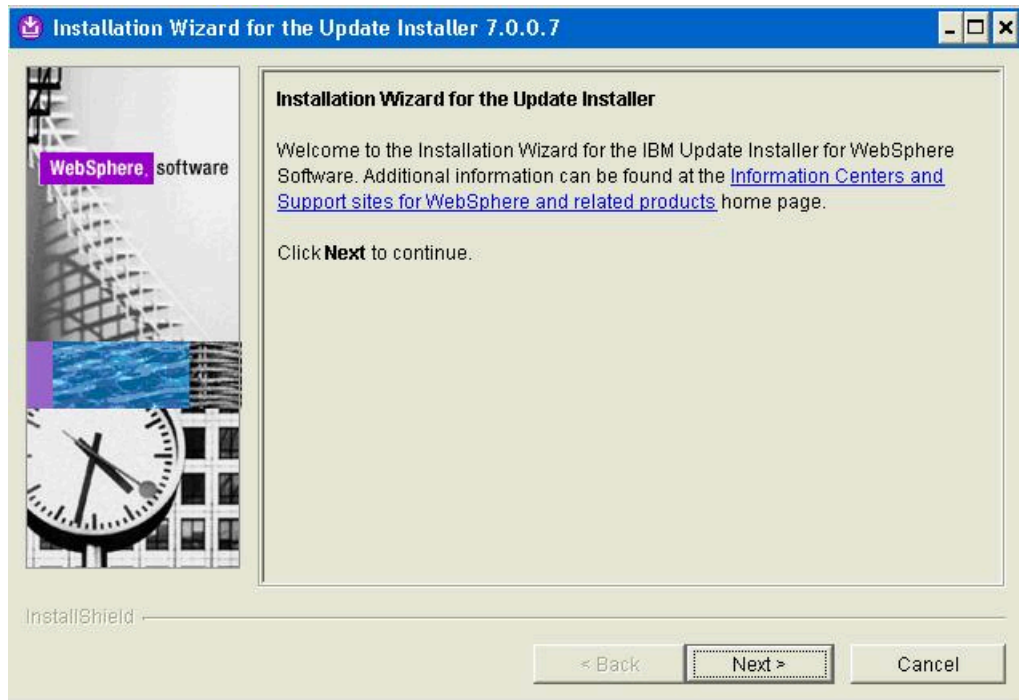
3. Extract the downloaded image to a temporary location and start the launchpad by executing the `install.exe` file.



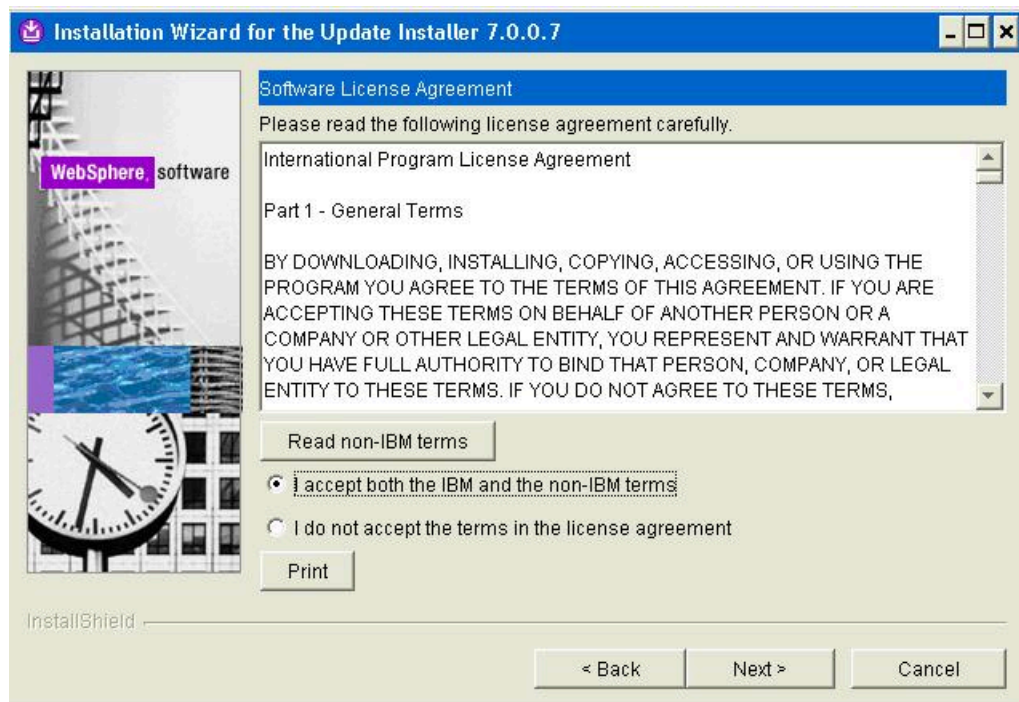
4. When prompted by the wizard, enter the name of the machine, username, and password. For example:

| Field | Value |
|----------|-----------------------|
| Name | DENPBAS2 |
| Username | QSECOFR |
| Password | YOUR_QSECOFR_PASSWORD |

5. On the login screen, after you have entered the login credentials, click the **OK** button to login.

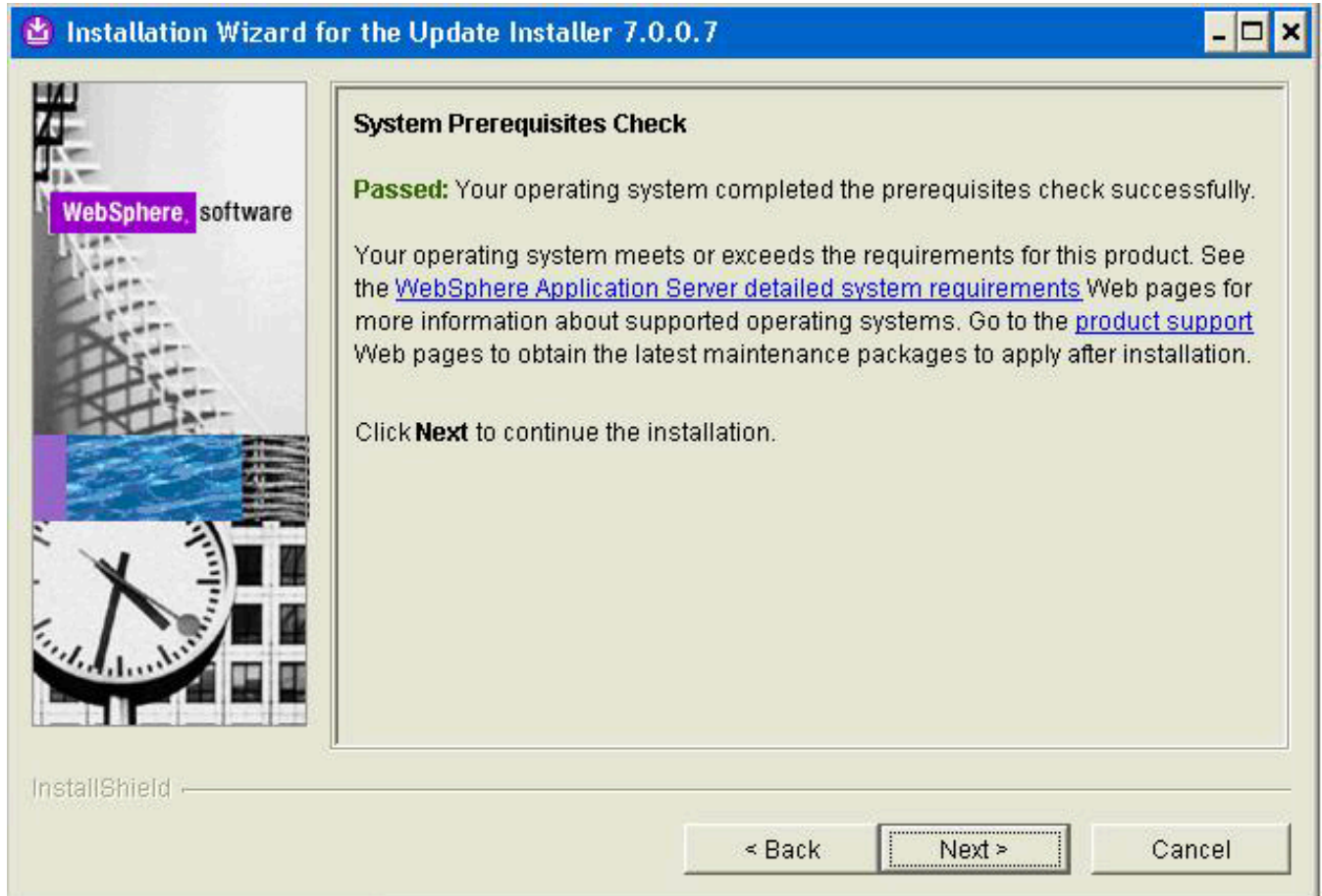


6. On the welcome screen, click the **Next** button.



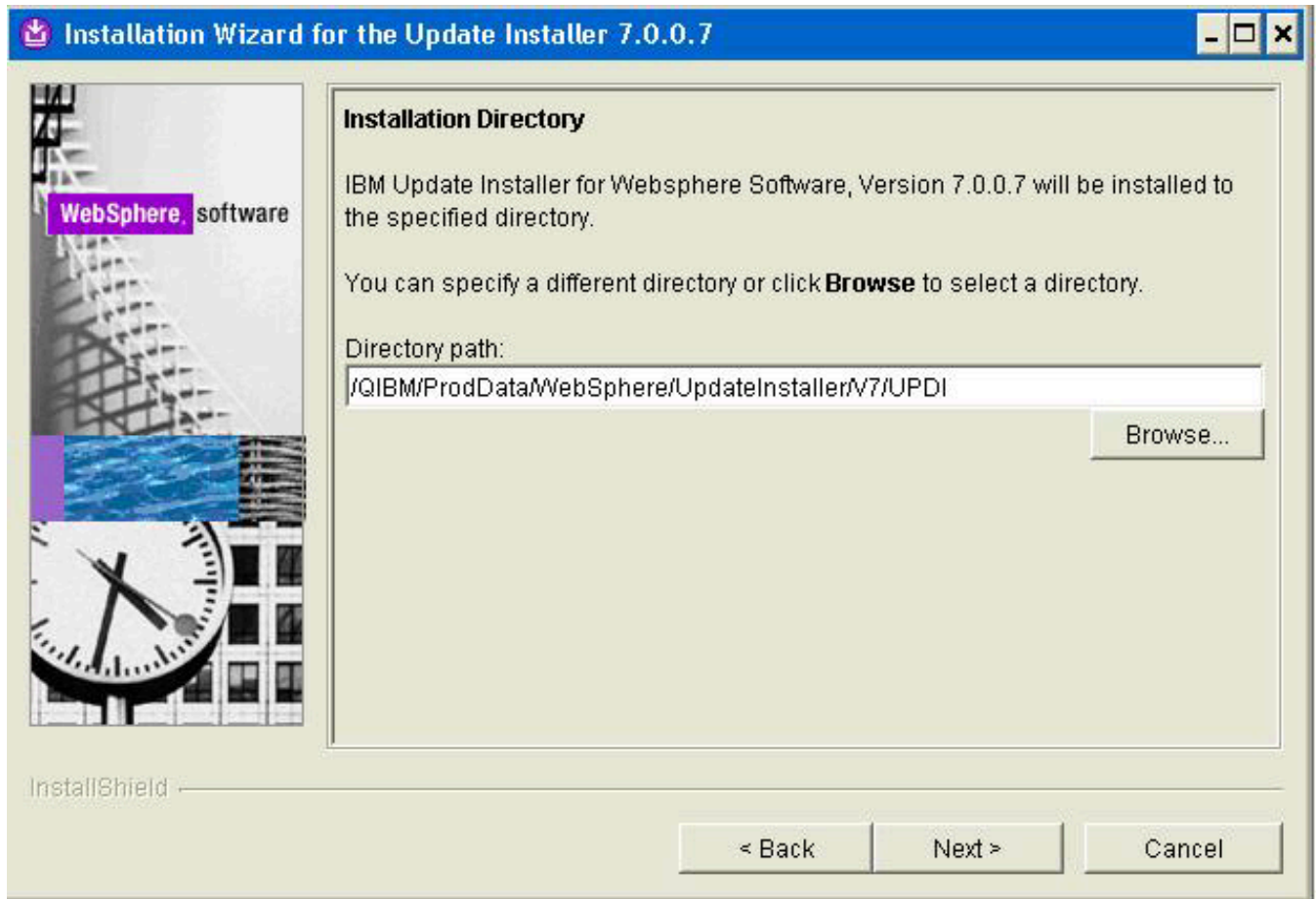
7. On Software License Agreement, review the License Agreement and select a radio button to accept or decline. If you chose to accept, click the Next button to continue.

CAUTION: If you do not accept the terms of the license agreement, you cannot continue with the installation.



8. On System Prerequisites Check, the Installer performs a verification of system requirements.

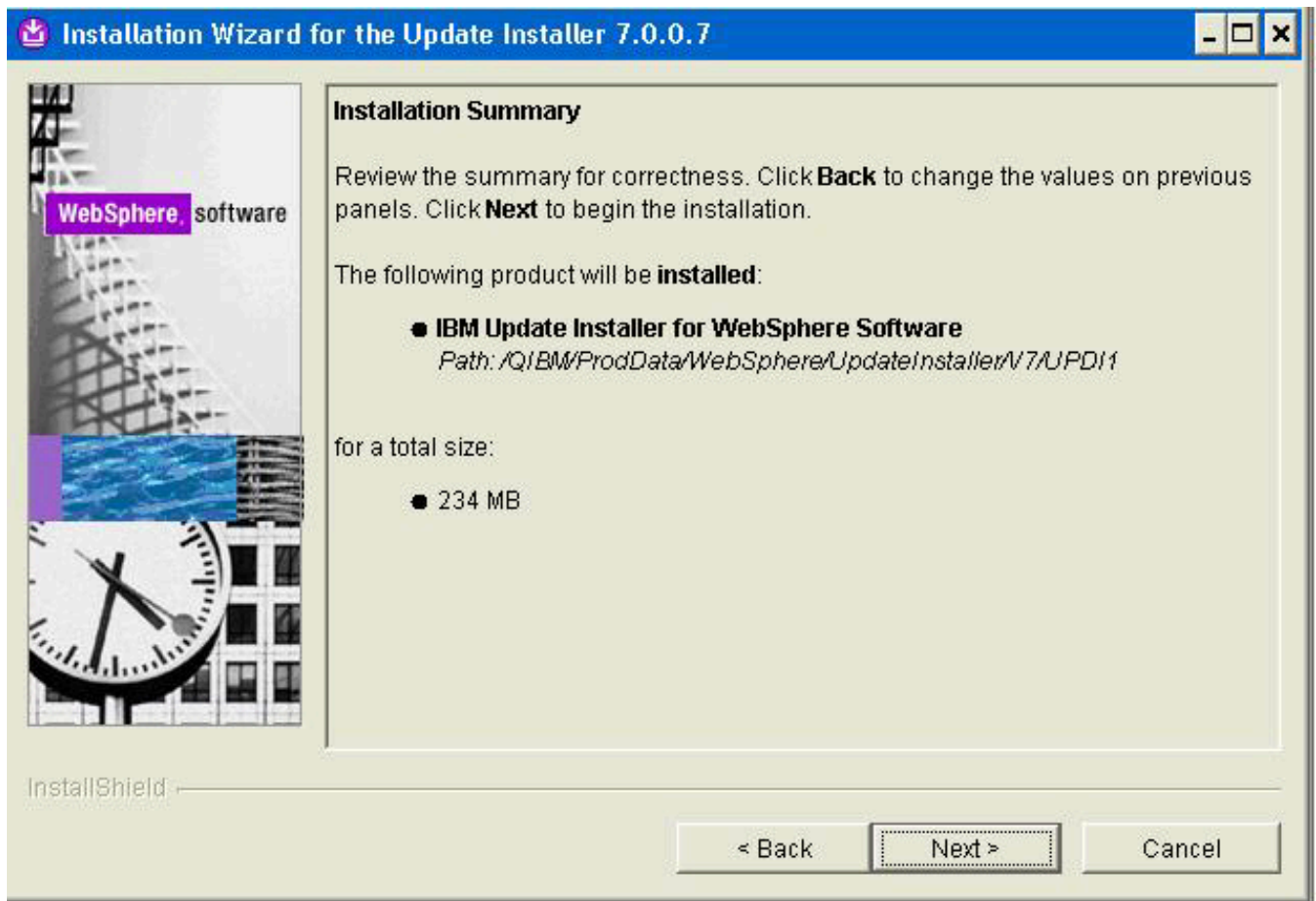
9. After the Installer indicates the check was successful, click the **Next** button to continue.



10. On Installation Directory, enter or browse to a valid location where you want to install WebSphere Application Server Network Deployment. For example:

`/QIBM/ProdData/WebSphere/UpdateInstaller/V7/UPDI`

11. Click the **Next** button.



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

Installing the Fix Pack

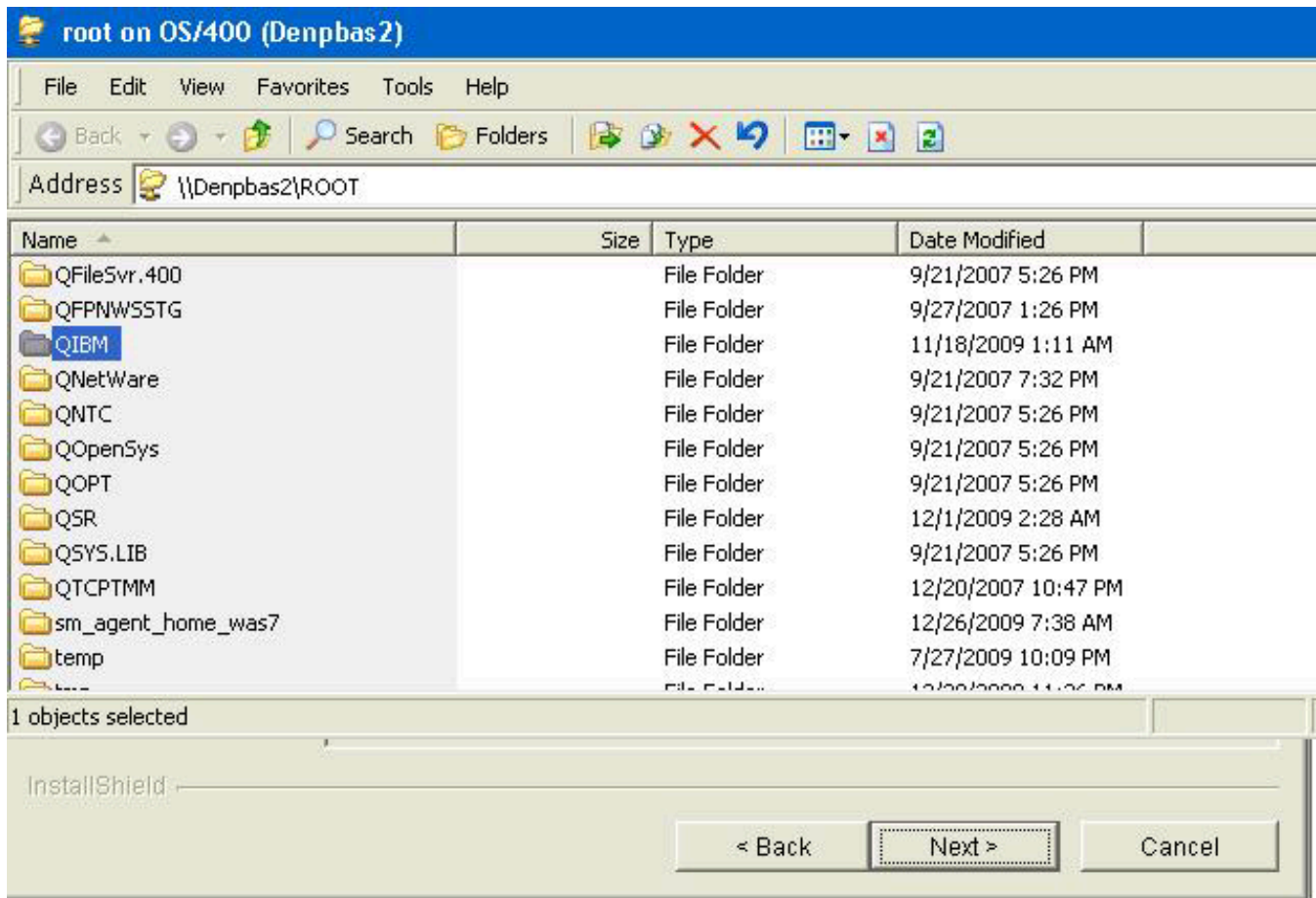
Note: You will have to install the Group PTF based on the WebSphere MTR for the Group PTF. The Group PTF could contain a newer WebSphere Application Server FixPack than the JD Edwards EnterpriseOne Certification for WAS FixPack. Do not use the update installer to apply the WAS FixPack that comes with the group PTF. The WebSphere FixPack should be applied by downloading the required FixPack separately and applied using the steps described in this section.

The installation process for Refresh Packs and Fixpacks is same. Refresh Packs update the base software release level and Fix Packs create minor updates to the Refresh Packs. This task describes the process of installing a Fixpacks, but the same process applies for Refresh Packs as well.

Refer to the Certifications to determine the requirements for your configuration. Apply all the required Refresh Packs and Fixpacks using the following process as an example.

To install the fix pack:

1. If you are running WebSphere, stop the WebSphere processes and the `QWAS7` subsystem.
2. Refer to the JD Edwards EnterpriseOne Certifications to determine the supported Fix Packs, and download these supported Fix Packs for WebSphere Application Server 7.0 from the IBM web site.
3. Unzip the downloaded file for the WebSphere Application Server onto a Windows computer.



4. Map the drive to the *IBM i* machine. For example:

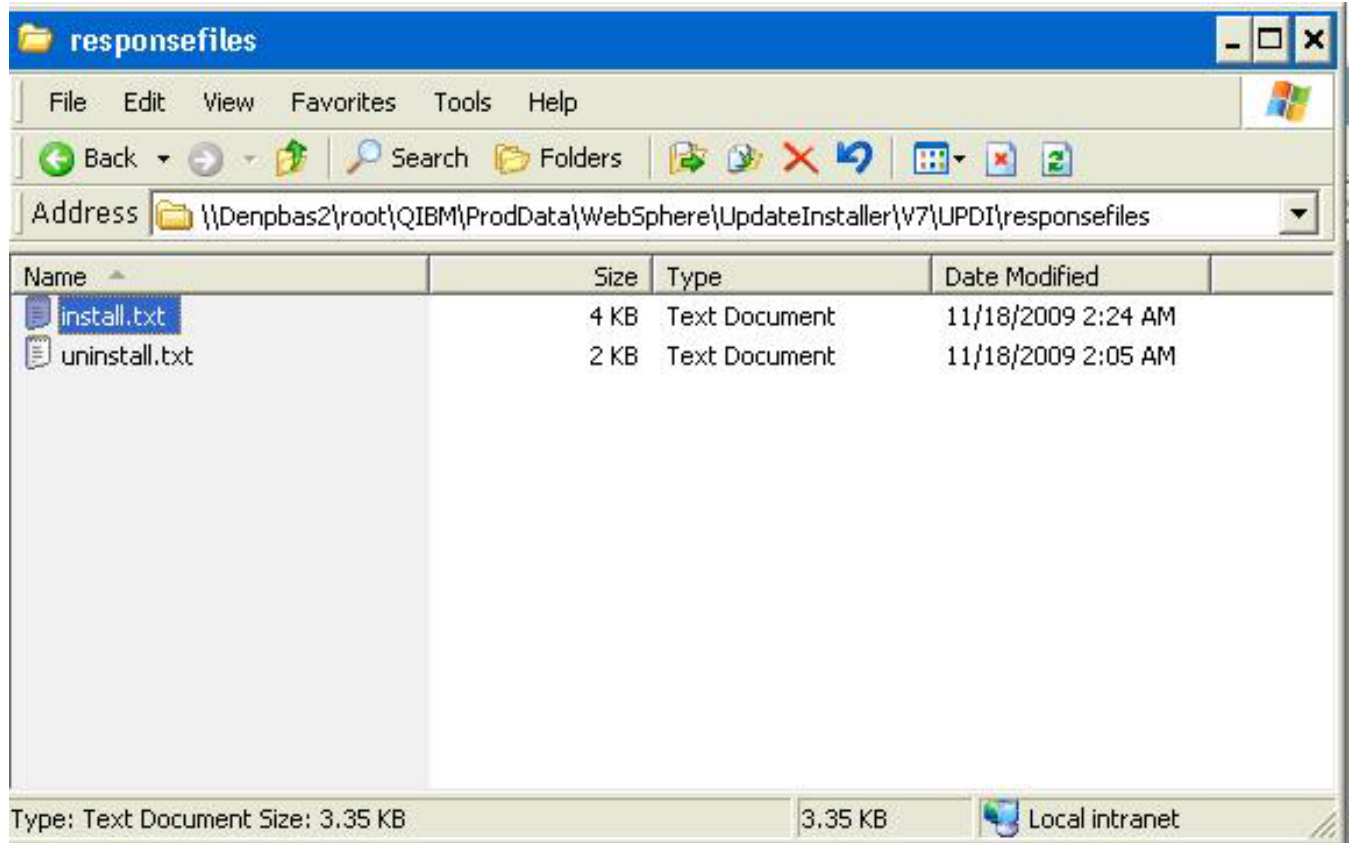
```
\\IBMi_machine_name\ROOT
```

The system requests the user name and password.

5. Copy the Fix Pack to this directory:

`/QIBM/ProdData/WebSphere/UpdateInstaller/V7/UPDI/maintenance`

A sample screen shot is shown below.



6. Modify `install.txt` file, which is located in this directory:

`/QIBM/ProdData/WebSphere/UpdateInstaller/V7/UPDI/responsefiles`

- Specify the Fix Pack to install (that is, the one that you copied in previous step). For example:
`-W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V7/UPDI/`

- Specify WebSphere 7 product directory. For example:
 - W product.location="/QIBM/ProdData/WebSphere/AppServer/V7/ND"

A sample screenshot of the `install.txt` showing the relevant sections is shown below:

```
install.txt
#
#-w maintenance.package=
-w maintenance.package="/QIBM/ProdData/websphere/UpdateInstaller/V7/UPDI/maintenance"
#####
#
# Prerequisite Checking
#
# The update installer checks the system for prerequisites by default.
#
# Uncomment the following option to notify the installer to continue with
# the update and log the warnings even though prerequisite checking
# failed.
#
#-OPT disableNonBlockingPrereqChecking="true"
-OPT disableNonBlockingPrereqChecking="true"
#####
#
# Used to input the product install location that will be updated.
#
# ie. -w product.location="/QIBM/ProdData/websphere/AppServer/V7/Express"
#
# Note: The product install location should always be specified, and it should
# always be the full path.
#
#-w product.location=""
-w product.location="/QIBM/ProdData/websphere/AppServer/V7/ND"
```

7. On the *IBM i* command line, enter this Start Qshell command:

```
STRQSH
```

8. Navigate to this directory:

```
/QIBM/ProdData/WebSphere/UpdateInstaller/V7/UPDI
```

9. Enter this command:

```
./update -options responsefiles/install.txt
```

The update program runs for several minutes and installs the WebSphere Fix Pack.

Enabling IBM Technology for 32-bit Java Virtual Machines

Note: WebSphere Application Server Network Deployment 7.0 is supported with V6R1 and V5R4 only. EnterpriseOne supports IBM Technology for Java (32-bit JVM) with WebSphere Application Server 7.0. and Classic JVM (64-bit JVM) is also supported with EnterpriseOne and WebSphere Application Server 7.0.

Classic JVM (64-bit JVM) is the default configuration for WebSphere v7.0 on V6R1 and V5R4 i5/OS. Use the steps below to switch to IBM Technology for Java (32-bit JVM)

To enable IBM technology for java (J9 JVM – 32 bit JVM on i5/OS) support:

1. Stop all the WebSphere server processes.
2. Stop this WebSphere 7 subsystem:

```
QWAS7
```

3. Open QShell using this command:

```
STRQSH
```

4. Change the directory using this command:

```
cd /QIBM/PRODDATA/WebSphere/AppServer/v7/ND/bin
```

5. Enter this command:

```
./enableJVM -jvm std32
```

Once the command completes successfully the following message is displayed, which indicates that the 32-bit J9 JVM is enabled for all the profiles within WebSphere:

```
> ./enableJVM -jvm std32
ADEJ0013I: Enabling the product to use the specified JVM.
ADEJ0014I: Enabling profile default to use the specified JVM.
Dec 23, 2009 11:54:38 PM com.ibm.ws.config.ModelMgr
INFO: WSVR0801I
ADEJ0014I: Enabling profile wp_profile to use the specified JVM.
ADEJ0001I: Success: The product will now use the specified JVM.
$
```

6. Start the application server processes.

Creating a Profile (Optional)

Complete this task to create a profile on the *IBM i* machine. The installation process of WebSphere 7 may have created profile(s) depending on the environment you selected using this navigation:

Cell > Application Server > Management > Deployment Manager

You can skip this step if you do not need additional profile.

Note: The `<WAS_PROD_HOME>` directory which is also referenced throughout this guide is typically located in this directory structure: `/QIBM/ProdData/WebSphere/AppServer/V7/ND`

Note: The user-specific WebSphere data is maintained in a separate directory, which is also referenced throughout this guide. For example: `<WAS_USER_HOME>`. The `<WAS_USER_HOME>` directory is typically located in this directory structure: `/QIBM/UserData/WebSphere/AppServer/V7/ND/profiles/<profileName>`. For example: `/QIBM/UserData/WebSphere/AppServer/V7/ND/profiles/AppSrv01`

To create a profile:

1. On the *IBM i* command line, enter this Start Qshell command:

```
STRQSH
```

2. On the Qshell command line, enter this command to change to the directory that contains the script:

```
cd <WAS_PROD_Home>/bin
```

3. Enter this command to run the manageprofiles script:

```
./manageprofiles -create -profileName <profile_name> -templatePath <template_path>
```

where:

`<profile_name>` is the name of the profile that is created.

`<template_path>` is the path to the profile template from which to create the profile.

The following is an example of a command for creating an application server profile that does not have the sample applications installed:

```
./manageprofiles -create -profileName AppSrv01 -templatePath /QIBM/ProdData/WebSphere/AppServer/V7/ND/profileTemplates/default
```

For more information on the `manageprofiles` script, enter the following command or see IBM Infocenter for *IBM i*:

```
./manageprofiles -create -help
```

http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/topic/com.ibm.websphere.nd.iseries.doc/info/iseriend/ae/tpro_profiles.html

4. After you create a profile, check for the **INSTCONFSUCCESS** message indicating that the profile creation was successful. Verify the `AboutThisProfile.txt` file to obtain the list of port numbers.

Running WebSphere

These tasks describe how to start and stop WebSphere and configure the Administrative Console.

Tip: These tasks are optional before you install the Oracle JD Edwards EnterpriseOne HTML WebServer.

- *Starting the IBM HTTP Server*
- *Stopping the IBM HTTP Server*
- *Starting WebSphere*
- *Stopping WebSphere*
- *Using the WebSphere Web Administrative Console*
- *Testing the WebSphere Application Server*

Starting the IBM HTTP Server

Refer to *Starting the IBM HTTP Server for the Instance*.

Stopping the IBM HTTP Server

Refer to *Stopping the IBM HTTP Server for the Instance*.

Starting WebSphere

To start WebSphere:

1. On the *IBM i* command line, enter this command to start the subsystem:

```
STRSBS QWAS7/QWAS7
```
2. On the *IBM i* command line, enter the Start Qshell command:

```
STRQSH
```
3. On the Qshell command line, enter this command to change to the directory that contains the script:

```
cd <WAS_USER_HOME>/bin
```
4. Enter the command:

```
./startServer server1
```

Stopping WebSphere

To stop WebSphere:

1. On the *IBM i* command line, enter the Start Qshell command:

```
STRQSH
```
2. On the Qshell command line, enter this command to change to the directory that contains the script:

```
cd <WAS_USER_HOME>/bin
```
3. Enter this command to stop the server:

```
./stopServer server1
```

Tip: To determine if the server is already running, open a command prompt, navigate to the `<WAS_USER_HOME>/bin` directory, and enter this command: `./serverstatus all`

Tip: If the profile is a secure profile to determine if the server is already running, open a command prompt, navigate to the `<WAS_USER_HOME>/bin` directory, and enter this command: `./serverstatus all -user <WAS_Admin_UserId> -password <WAS_Admin_Password>`

Using the WebSphere Web Administrative Console

Note: WebSphere administration is completely browser-based.

The WebSphere Web Administrative Console is accessible from any supported Web browser. The default URL is

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

where `<machinename>` is the name of the server where you installed the WebSphere Application Server, and `<profile_port>` is the admin port that you used during the profile creation wizard (for, example, 9060).

To check the port number, open this file:

```
<WAS_USER_HOME>/logs/AboutThisProfile.txt
```

Search for the value of key `Administrative console port`.

Testing the WebSphere Application Server

To test the WebSphere Application Server:

1. Ensure that the WebSphere Application Server (default name is `server1`) is started as explained in *Starting WebSphere*.
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 the name of the server where you installed IBM HTTP Server, and

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

For example:

```
http://localhost:80/snoop
```

Tip: If your Web Server is not on the same machine as WebSphere, you might need to copy the plug-in configuration file from the WebSphere machine to the Web Server machine.



Snoop Servlet - Request/Client Information

Requested URL:

http://denicint2.mlabs.jdedwards.com/snoop

Servlet Name:

Snoop Servlet

Request Information:

| | |
|--------------------|----------|
| Request method | GET |
| Request URI | /snoop |
| Request protocol | HTTP/1.1 |
| Servlet path | /snoop |
| Path info | <none> |
| Path translated | <none> |
| Character encoding | <none> |

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.

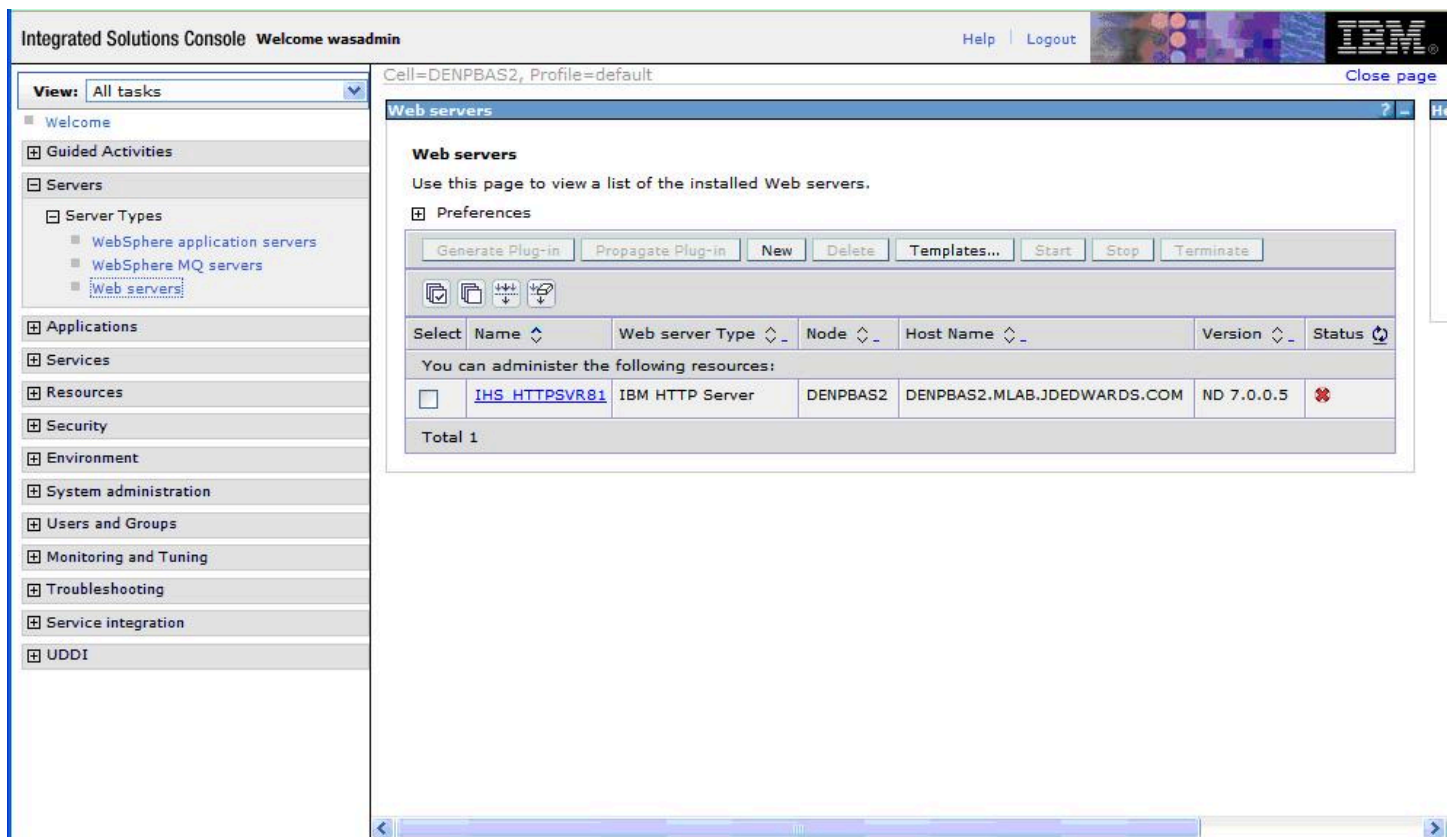
Generating the Web Server Plug-in

Note: If an HTTP server instance has not been created and linked to a WebSphere Application Server profile as shown in the next chapter, no web server will exist.

Whenever you install new enterprise applications, or create new virtual hosts, you must regenerate the Web Server plug-in.

To generate the WebSphere plug-in for a single machine:

1. Log on to the WebSphere Administrative console.

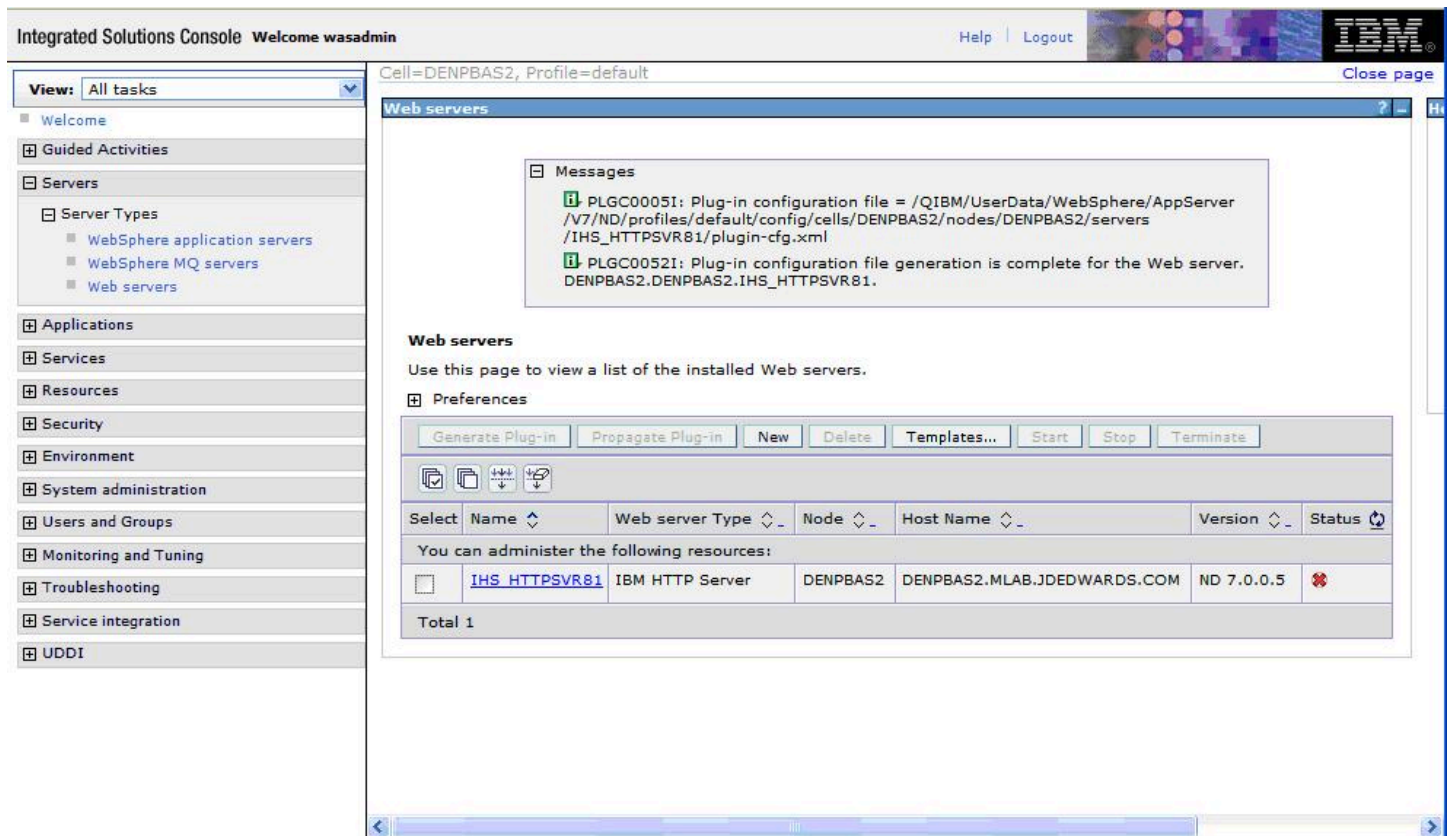


The screenshot shows the WebSphere Administrative console interface. The left sidebar contains a navigation menu with categories like 'View: All tasks', 'Welcome', 'Guided Activities', 'Servers', 'Applications', 'Services', 'Resources', 'Security', 'Environment', 'System administration', 'Users and Groups', 'Monitoring and Tuning', 'Troubleshooting', 'Service integration', and 'UDDI'. The main content area is titled 'Web servers' and includes a toolbar with buttons for 'Generate Plug-in', 'Propagate Plug-in', 'New', 'Delete', 'Templates...', 'Start', 'Stop', and 'Terminate'. Below the toolbar is a table of installed web servers.

| Select | Name | Web server Type | Node | Host Name | Version | Status |
|--------------------------|-------------------------------|-----------------|----------|-----------------------------|------------|--------|
| <input type="checkbox"/> | IHS_HTTPSVR81 | IBM HTTP Server | DENPBAS2 | DENPBAS2.MLAB.JDEDWARDS.COM | ND 7.0.0.5 | |

Total 1

- On the left navigation pane, select Servers > Web servers.

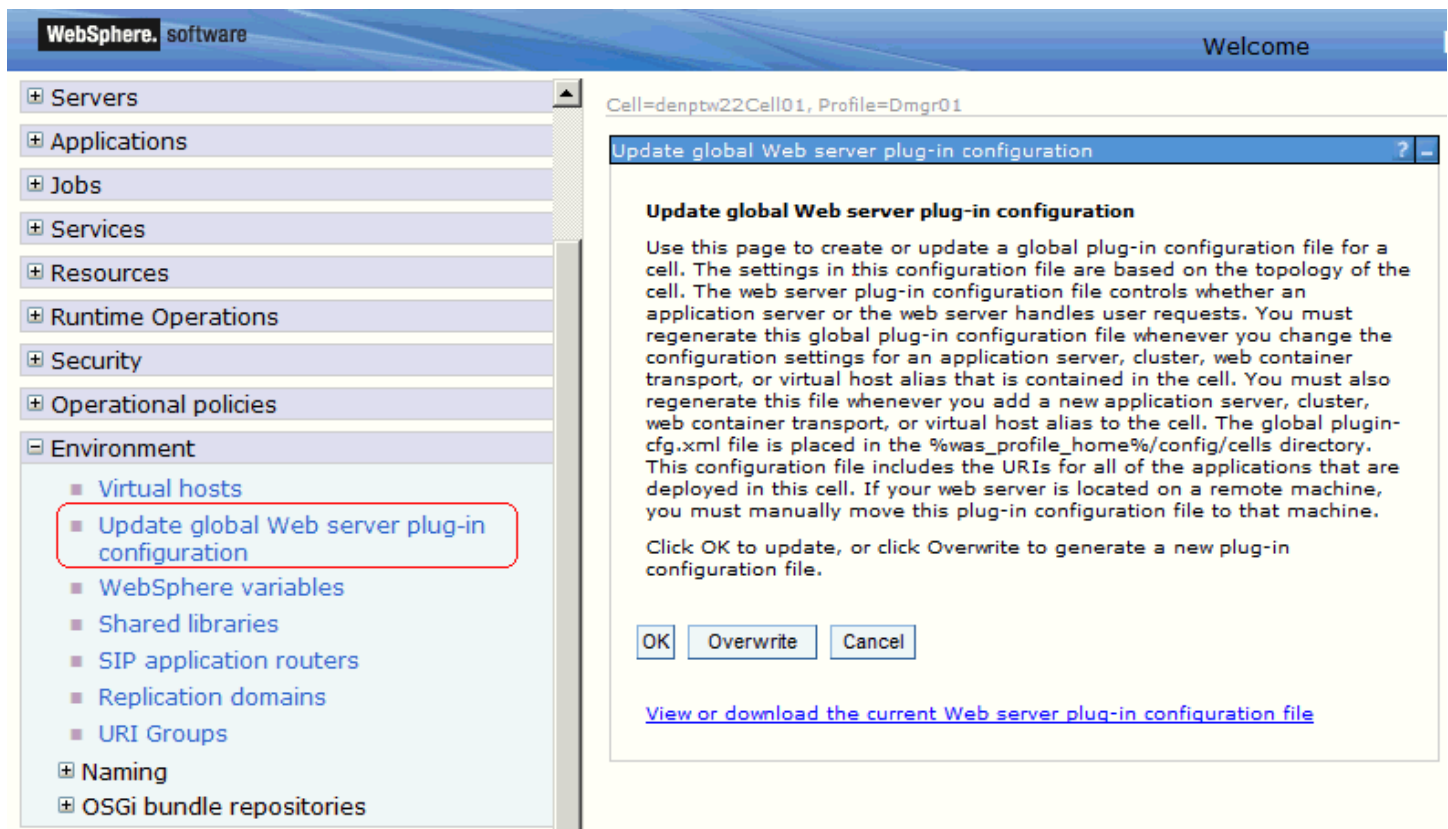


- Select the web server for which you want to generate plug-in (for example, IHS_HTTPSVR81), and click the **Generate Plug-in** button.

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 plug-in 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) plug-ins, 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 Configuring IBM HTTP Server for IBMi to Support the HTML Server

Configuring IBM HTTP Server for IBM i to Support the HTML Server

Note: The instructions provided here are general instructions for configuring ports on an IBM HTTP Server for WebSphere running on an *IBM i* machine.

This section describes these tasks:

- *Starting the ADMIN Instance of the IBM HTTP Server*
- *Creating a New HTTP Server Configuration*
- *Creating a New HTTP Server Instance*

Note: The screen shots in this chapter were captured using a particular HTTP Server PTF and operating system cumulative PTF level, and may not match the screens displayed in your system. Although the placement of links and buttons can vary, the instructions are still applicable. For more information, refer to this link on IBM's website: <http://www-03.ibm.com/systems/i/software/http/>

Starting the ADMIN Instance of the IBM HTTP Server

You must start an ADMIN instance of IBM HTTP Server for *IBM i* to create, change, or display an IBM HTTP server instance configuration by using the IBM HTTP Server for *IBM i* Configuration and Administration forms. This section describes these two ways in which you can start the ADMIN Instance of the IBM HTTP Server:

- *Starting the ADMIN Instance of the HTTP Server from the Command Line*
- *Starting the ADMIN Instance of the HTTP Server from the Operations Navigator*

Starting the ADMIN Instance of the HTTP Server from the Command Line

To start the ADMIN instance of the HTTP Server from the *IBM i* command line:

1. From the command line, enter this command:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
```
2. Press Enter.

Starting the ADMIN Instance of the HTTP Server from the Operations Navigator

The Operations Navigator is the graphical point-and-click interface to the *IBM i* system. Operations Navigator is part of the *IBM i* Access product.

To start the ADMIN instance of the HTTP Server from the Operations Navigator:

1. Start Operations Navigator.

2. Double-click your *IBM i* server in the main tree view of Operations Navigator.
3. Double-click Network.
4. Double-click Servers.
5. Double-click TCP/IP.
6. Right-click **HTTP Administration** in the right pane.
7. Select **Start** from the pop-up menu.

Creating a New HTTP Server Configuration

WebSphere Application Server plugs into IBM HTTP Server for *IBM i*. The IBM HTTP Server routes certain client requests (such as for a servlet or JSP file) to WebSphere for processing. You must create a new HTTP server configuration that contains the information that IBM HTTP Server needs to route requests to the appropriate WebSphere Application Server methods.

You can create a new IBM HTTP Server configuration by opening the Configuration and Administration forms.

To create a new HTTP Server configuration:

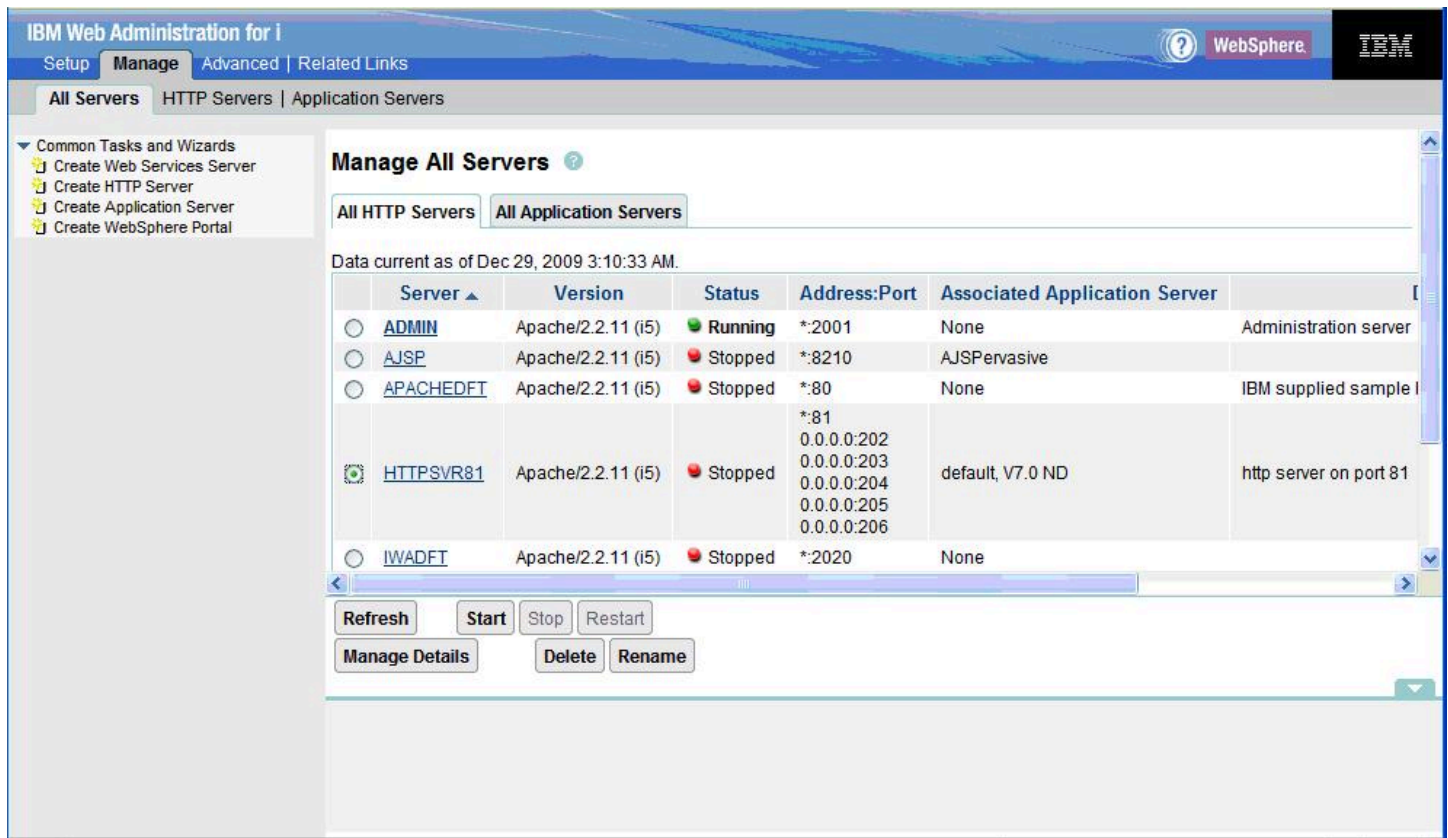
1. Start your JavaScript-enabled browser.
2. In the URL location or address window, enter this url:

```
http://<server_name>:2001/HTTPAdmin
```

where *<server_name>* is the host name of your *IBM i* web server machine.

3. Press Enter.

4. You are prompted for an *IBM i* user ID and password.
You should enter an *IBM i* user ID that has *ALLOBJ and *IOSYSCFG authority.
The *IBM i* Web administration page appears as shown in the sample screen below.



5. To create an HTTP Server, click on Create HTTP Server in the left-hand pane.

Creating a New HTTP Server Instance

You must create a new HTTP Server instance in which an instance of your JD Edwards EnterpriseOne configuration will run.

This section describes these tasks.

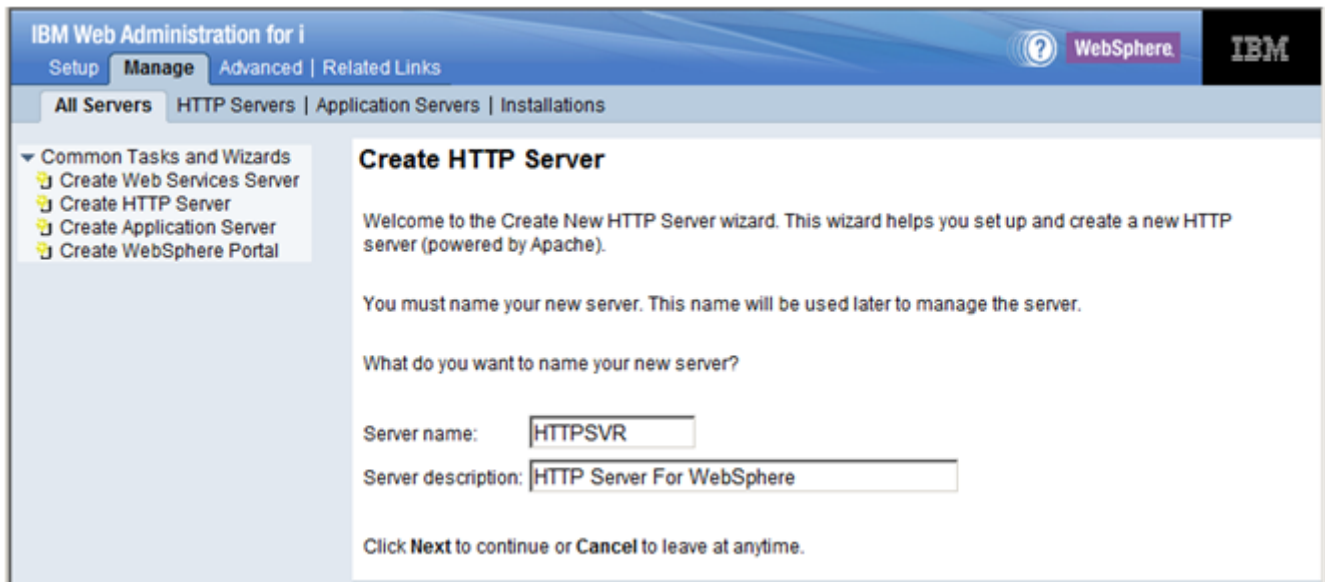
- *Creating a New HTTP Server Instance*
- *Configuring the WebSphere Plug-in for a Standalone Profile*

Creating a New HTTP Server Instance

To create a new HTTP Server instance:

1. Click on the **Setup** tab.
2. In the left pane, click on **Create HTTP Server**.

The Create HTTP server page displays in the right frame, as shown in the screen sample below.



3. On Create HTTP Server, Welcome, complete these fields:

- o *Server name*

Enter a server name. For example:

`HTTPSVR`

- o *Server description*

Enter a description. For example:

`HTTP Server for WebSphere`

4. Click the **Next** button.

IBM Web Administration for i

Setup **Manage** Advanced | Related Links

All Servers HTTP Servers | Application Servers

Common Tasks and Wizards

- Create Web Services Server
- Create HTTP Server
- Create Application Server
- Create WebSphere Portal

Create HTTP Server

The server root is the base directory for your server. Within this directory, the wizard will create subdirectories for your logs and configuration information. Supported file systems for the server root are root and QOpenSys.

Which directory would you like to use as the server root for your new server?

Server root:

Note: If the server root directory does not exist, the wizard will create it for you.

5. On Create HTTP Server, Server root directory, you can accept the default value.

6. Click the **Next** button.

IBM Web Administration for i

Setup **Manage** Advanced | Related Links

All Servers HTTP Servers | Application Servers

Common Tasks and Wizards

- Create Web Services Server
- Create HTTP Server
- Create Application Server
- Create WebSphere Portal

Create HTTP Server

Your server may listen for requests on specific IP addresses or on all IP addresses of the system.

On which IP address and TCP port would you like your new server to listen?

IP address: All IP addresses

Port: 81

Note: Most browsers make requests to port 80 by default.

Back Next Cancel

7. On Create HTTP Server, IP address and TCP port, complete these fields:

- o *IP address*

You can accept the default value: **All IP addresses**.

- o *Port*

Enter a port number for the HTTP Server. For example, 81.

Note: Since Port 80 is the default port and is already set up with a different web server, you must choose a different port number.

CAUTION: The port you entered in this field will not be available for use by the JD Edwards EnterpriseOne HTML Web Server. For example, if you plan to use port 84 for your JD Edwards EnterpriseOne HTML Web Server, for this HTTP server definition you must enter a port number other than 84.

8. Click the **Next** button.

Related Links

WebSphere

IBM

Application Servers

Create HTTP Server

Your server can record activity on your web site using an access log. The access log contains information about requests made to the server. This information is useful for analyzing who is using your web site and how many requests have been made during a specific period of time.

Do you want your new server to use an access log?:

Yes

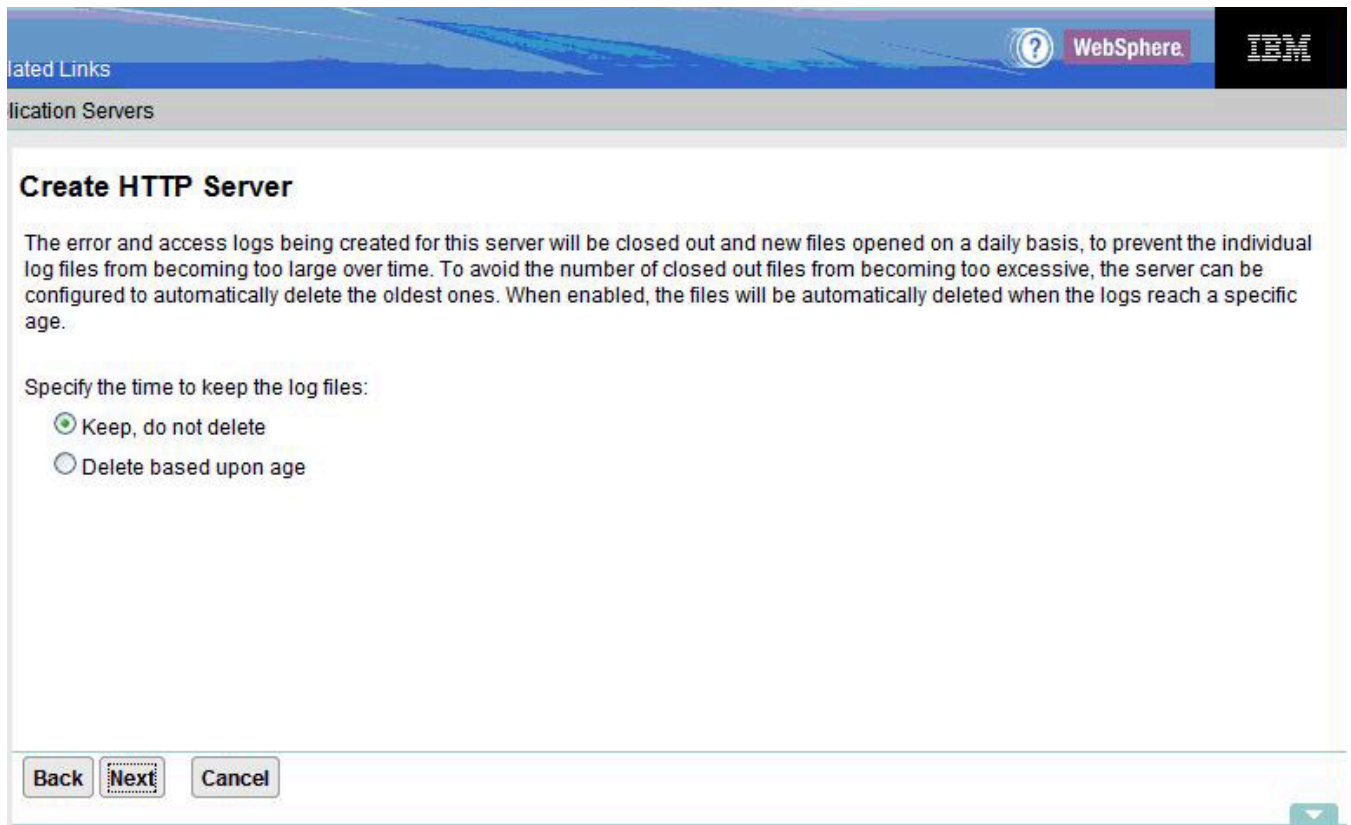
No

Note: An error log is separate from an access log and will be used by your new server regardless of your decision to use an access log.

Back Next Cancel

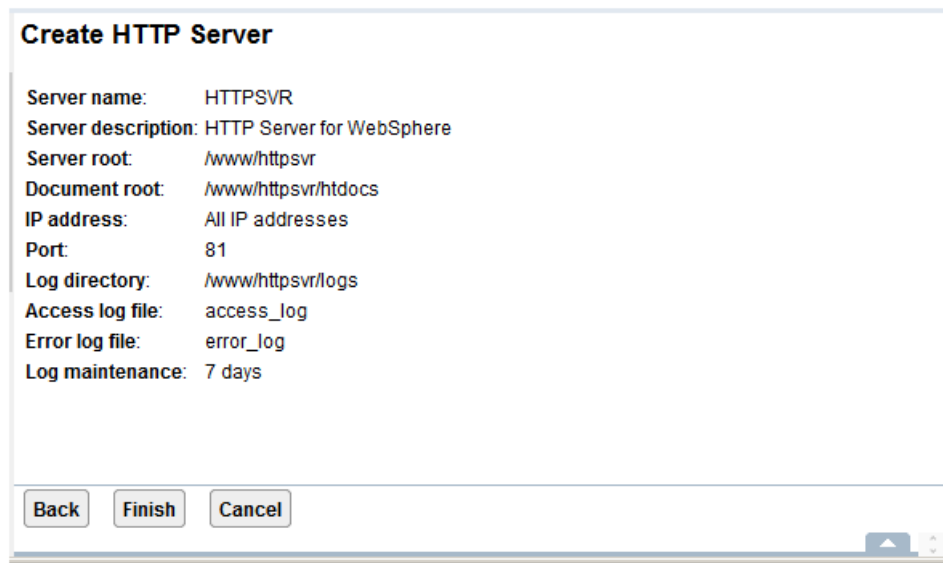
9. On Create HTTP Server, access log, you can accept the default radio button setting of **Yes** to specify you want your new server to use an access log.

10. Click the **Next** button.



11. On Create HTTP Server, keep logs, you can accept the default value `keep, do not delete` to specify you want to keep the log files.

12. Click the **Next** button.



13. On Create HTTP Server, summary, review your selections and if acceptable click the **Finish** button to complete the creation of the HTTP Server.

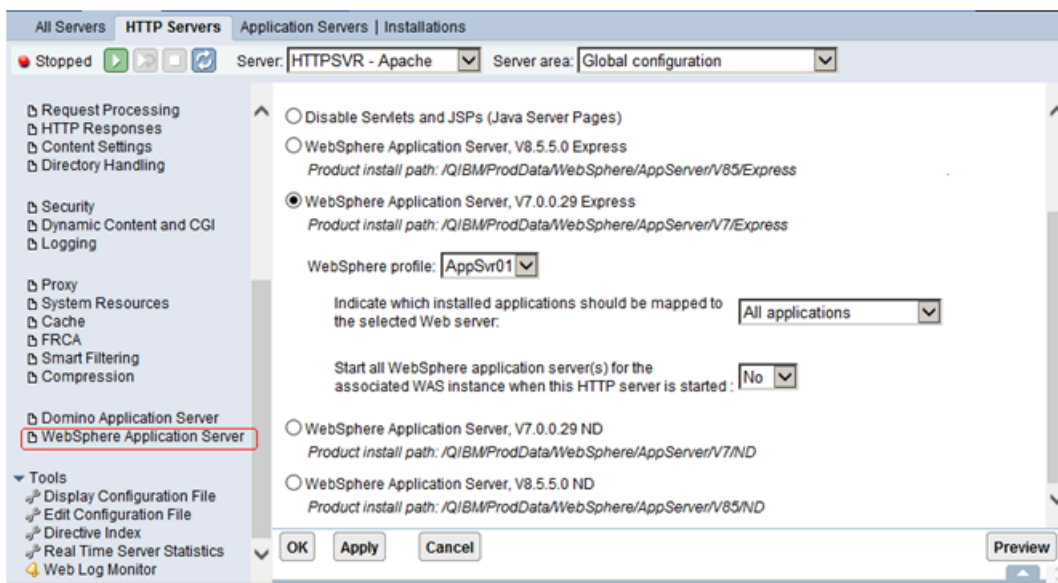
Configuring the WebSphere Plug-in for a Standalone Profile

Note: This process will not work if the WebSphere profile selected in Step 3 below is a managed node.

To configure the WebSphere plug-in for a standalone profile:

1. Click on the **Manage** tab.
2. In the left pane, click the WebSphere Application Server link.

Note: If the link is not visible, use the slider bar to scroll down.



3. On WebSphere Application Server, on the General tab, select the WebSphere Application Server to which you want to associate.
4. Select the profile from the profile drop down box.
5. In the field **Indicate which installed applications should be mapped to the selected Web server**;, use the pulldown to select **All Applications**.
6. In the field **Start All WebSphere application server(s) for the associated WAS instance when this HTTP server is started**;, you can accept the default value of No in the drop down box.
7. Click the **Apply** button.

The program configures the plug-in for WebSphere, and returns to the first default screen.

8. Click the **OK** button.

The configuration can take several minutes to complete.

The above steps enable the HTTP server to pass requests to WebSphere.

9. Access the WebSphere Administration Console. For example: (for example at), and click on the servers -> webservers.

`http://<server_name>:9060/admin`

10. On the WebSphere Administration Console, click on Servers > Webservers.

The program should display the new webserver you created. By default, the server is named:

`IHS_<HTTP_SERVER_NAME>`

If you following the recommendation in this procedure, the webserver is named:

`IHS_HTTPSVR`

5 Configuring the IBM HTTP Server

Configuring the IBM HTTP Server

This section includes general instructions for configuring ports on an IBM HTTP Server for WebSphere 7.0 and 8.5.x, as well as setting up the correct virtual host. Complete these steps only once, then all subsequent installations of JD Edwards HTML Web Server will use the same webserver name that you created using the procedures in this section.

This section describes these tasks:

- Configuring the IBM HTTP Server
- Starting the IBM HTTP Server for the Instance
- Testing the WebSphere Application Server
- Stopping the IBM HTTP Server for the Instance

Configuring the IBM HTTP Server

To configure the new HTTP Server instance:

1. Open a browser and enter this URL to start the IBM HTTP Server Web Administration console:

`http://server_name:2001/HTTPAdmin`
2. Click the **Manage** tab.
3. Select the HTTP Server you created in *Creating a New HTTP Server Instance*, for example HTTPSVR.
4. In the left pane, scroll down and select Tools > Edit Configuration File.

The configuration file includes a port listen command for the port number you specified when you created the HTTP Server port in *Creating a New HTTP Server Instance*. This port number might not be the same as the port you specified when you installed the *HTML Server*. For example, if you selected port 81 as the HTTP Server port, the command in the configuration file should be:

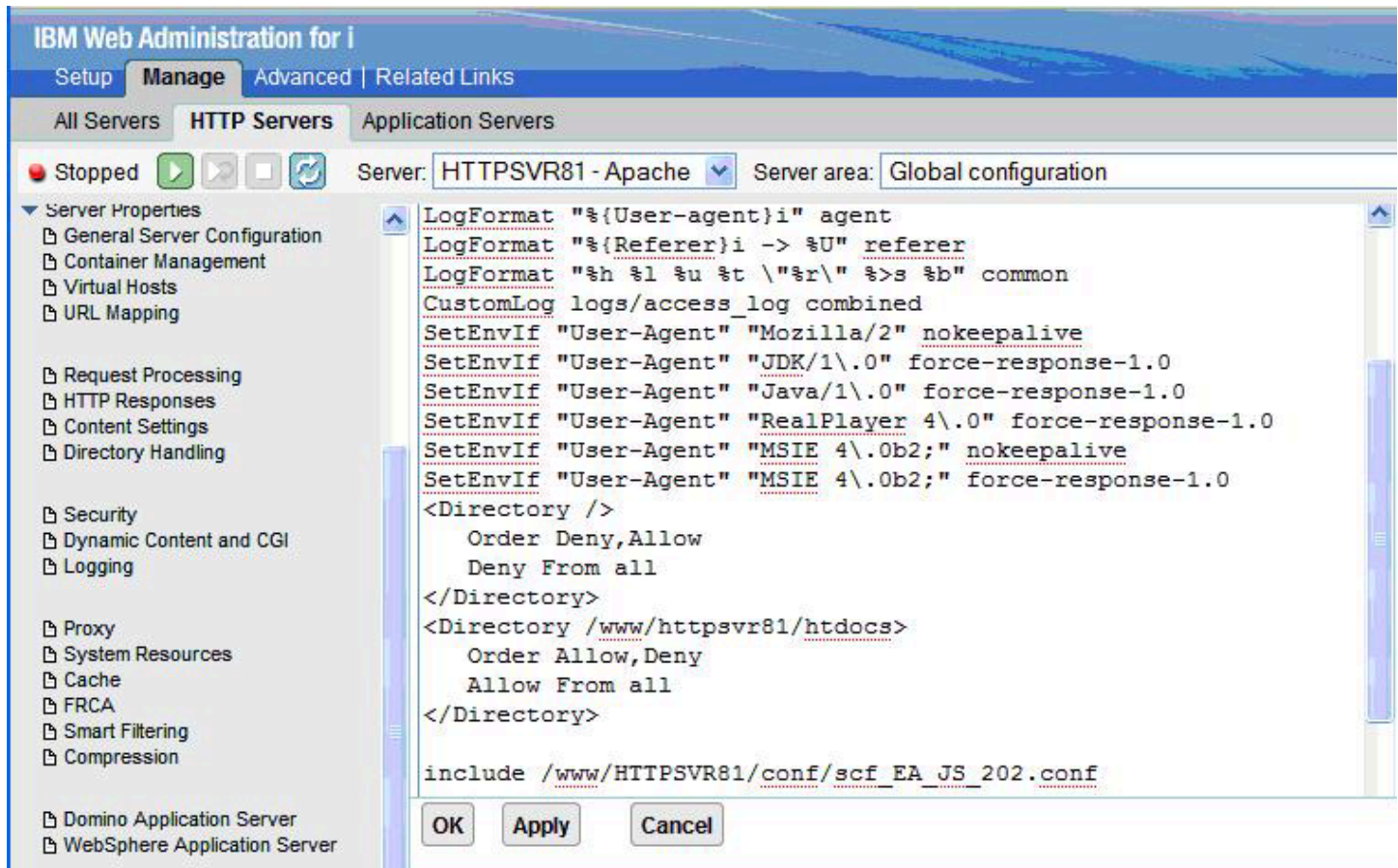
```
Listen *:81
```

- When an instance is installed with JD Edwards EnterpriseOne Server Manager an entry is added into the `httpd.conf` file to include the contents of the `scf_<INSTANCE_NAME>.conf` file. You can verify this by checking for the following line in the `httpd.conf` file (usually at the end of the file):

```
Include /www/HTTPSVR81/conf/scf_<INSTANCE_NAME>.conf
```

Where `<INSTANCE_NAME>` is the name of the created JD Edwards HTML Web Server (HTML Server) instance (for example, `EA_JS_101` and so on).

Refer to the sample screenshot below showing the include directive in the `httpd.conf` file.



- Click the **Apply** button.
- Click the **OK** button.
- In the Configuration file, add this directive to the end of the file:


```
<Directory "/QIBM/UserData/WebSphere/AppServer/<version>/ND/profiles/default/  
installedApps/DENPBAS2/EA_JS_202.ear/webclient.war/WEB_INF">
```

This directive allows access to the `webclient.war` directory.

9. To secure your configuration file, deny access to the `WEB-INF` directory by adding following to the configuration file, after the above directive.

For Apache 2.2 Based IBM HTTP Server:

```
<Directory "/QIBM/UserData/WebSphere/AppServer/<version>/ND/profiles/default/  
installedApps/DENPBAS2/EA_JS_202.ear/webclient.war/WEB_INF">  
Order Deny,Allow  
Deny from All  
</Directory>
```

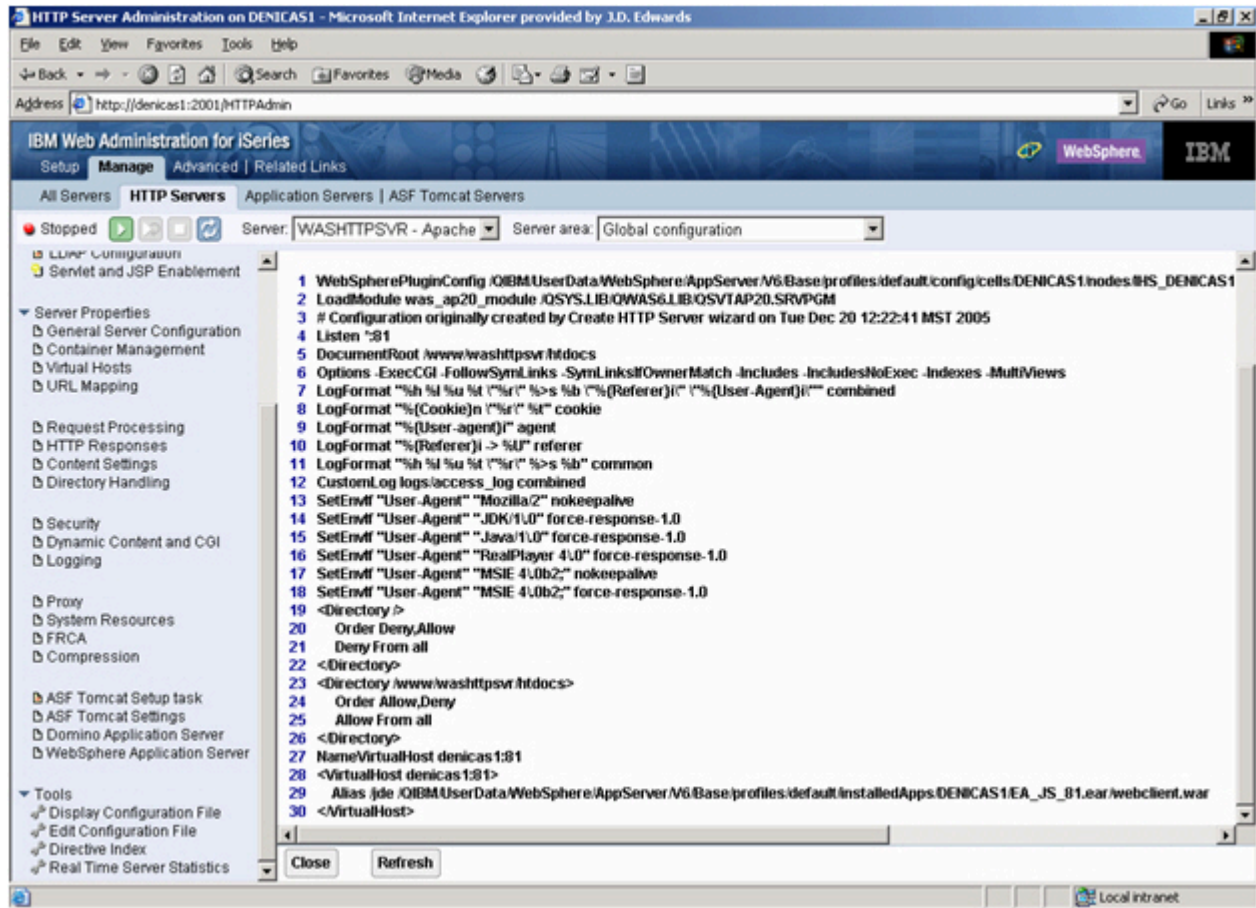
For Apache 2.4 Based IBM HTTP Server:

```
<Directory "/QIBM/UserData/WebSphere/AppServer/<version>/ND/profiles/default/  
installedApps/DENPBAS2/EA_JS_202.ear/webclient.war/WEB_INF">  
Require all denied  
</Directory>
```

10. Click the **Apply** button.

11. Click the **OK** button.

Tip: You can click on **Display configuration file** to look and review the contents of the configuration file. An example screen shot is shown below. Click the **Close** button.



12. Click the **Close** button.

Starting the IBM HTTP Server for the Instance

The IBM HTTP Server for *IBM i* runs in the QHTTPSVR subsystem, and each HTTP server instance starts multiple jobs. The WebSphere Application Server code that plugs into IBM HTTP Server for *IBM i* runs in the HTTP server job that communicates with the administrative server and one or more application servers.

There are two ways to start the IBM HTTP Server for *IBM i* instance:

- *Starting the IBM HTTP Server for Instance from the Command Line*
- *Starting the IBM HTTP Server for Instance from the Configuration and Administration Forms*

Starting the IBM HTTP Server for Instance from the Command Line

To start the IBM HTTP Server for *IBM i* Instance from the command line:

1. On the *IBM i* command line, enter this command:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(MYINSTANCE)
```

where *MYINSTANCE* is the name of your HTTP server instance. The syntax of this name should correspond with the recommended naming conventions specified in this guide. For example:

```
HTTPSVR
```

2. If you change your HTTP server instance configuration, stop and then start your HTTP server instance.

Starting the IBM HTTP Server for Instance from the Configuration and Administration Forms

The Configuration and Administration forms also allow you the option of restarting your HTTP server instance. When restarting, the HTTP server will recognize all configuration changes except for changes to the *Basic* and *Security* configuration forms.

1. Start your JavaScript-enabled browser.
2. Enter this URL in the URL location or address window:

```
http://<server_name>:2001/HTTPAdmin
```

where *<server_name>* is the host name of your *IBM i* system.

3. Press *Enter* to navigate to the URL.

The *IBM i* Tasks page appears.

4. Click the link for *IBM HTTP Server for IBM i* .

The IBM HTTP Server for *IBM i* page appears.

5. Click the *Manage* tab.

The Manage page appears.

6. In the right pane, click *Manage All Servers*.
7. Click the radio button to the left of the server you created.

8. Click the *Start* button.

This message appears in the Message box at the bottom of the screen:

HTTP server starting.

A sample screen shot is provided below.

WebSphere. IBM

Application Servers

Manage All Servers ?

All HTTP Servers All Application Servers

Data current as of Dec 29, 2009 3:36:30 AM.

| Server | Version | Status | Address:Port | Associated Application Server | |
|--|--------------------|--|---|-------------------------------|------------------------|
| <input type="radio"/> ADMIN | Apache/2.2.11 (i5) | ● Running | *:2001 | None | Administration server |
| <input type="radio"/> AJSP | Apache/2.2.11 (i5) | ● Stopped | *:8210 | AJSPervasive | |
| <input type="radio"/> APACHEDFT | Apache/2.2.11 (i5) | ● Stopped | *:80 | None | IBM supplied sample I |
| <input checked="" type="radio"/> HTTPSVR | Apache/2.2.11 (i5) | ● Running | *:81 | None | HTTP Server for WebS |
| <input type="radio"/> HTTPSVR81 | Apache/2.2.11 (i5) | ● Stopped | *:81 0.0.0.0:202 0.0.0.0:203 0.0.0.0:204 0.0.0.0:205 0.0.0.0:206 | default, V7.0 ND | http server on port 81 |

Refresh Start Stop Restart

Manage Details Delete Rename

CL command: STRTCPSVR SERVER(*HTTP) HTTPSVR(HTTPSVR)
HTTP server starting.

Testing the WebSphere Application Server

You can test WebSphere by accessing a default application, but a default application requires that Port 80 be configured with WebSphere. You can configure Port 80 with WebSphere using the previous tasks in this chapter.

To test the WebSphere Application Server:

1. Ensure that the IBM HTTP Server is started (as explained in the above section: *Starting the IBM HTTP Server for the Instance*).
2. If it is not already started, start WebSphere default server (server1) using the instructions in the chapter: *Starting WebSphere*.
3. Access the default snoop servlet using this URL:

`http://MachineName/snoop`

where *MachineName* is the name of the server where you installed the HTTP Server.

Tip: If your Web Server is not on the same machine as WebSphere, you might need to copy the plug-in configuration file from the WebSphere machine to the Web Server machine.

Stopping the IBM HTTP Server for the IBMi Instance

If you change your HTTP server instance configuration, stop and then start your HTTP server instance.

There are two ways to stop the IBM HTTP Server for the *IBM i* instance:

- *Stopping the IBM HTTP Server for Instance from the Command Line*
- *Stopping the IBM HTTP Server for Instance from the Configuration and Administration Forms*

Stopping the IBM HTTP Server for IBMi Instance from the Command Line

To stop the IBM HTTP Server for *IBM i* instance from the command line:

1. Enter this command on the *IBM i* command line:

```
ENDTCPSVR SERVER(*HTTP) HTTPSVR(MYINSTANCE)
```

where *MYINSTANCE* is the of name your HTTP server instance.

Stopping the IBM HTTP Server for IBMi Instance from the IBMi Configuration and Administration Forms

To stop the IBM HTTP Server for *IBM i* instance from the *IBM i* configuration and administration forms:

1. Start your JavaScript-enabled browser.
2. Enter this command in the URL location or address window:

`http://<server_name>:2001/HTTPAdmin`

where *<server_name>* is the host name of your *IBM i* system.

3. Press the *Enter* button.

You are prompted for an *IBM i* user ID and password; your *IBM i* user ID must have *ALLOBJ authority.

The *IBM i* Tasks page appears.

4. Click *IBM HTTP Server for IBM i*.

The IBM HTTP Server for *IBM i* page appears.

5. In the top pane, click *Administration*.

The Administration page appears.

6. Click **Manage HTTP Servers** in the left-hand frame.
7. Click the radio button to the left of the server you created.

8. Click the *Stop* button.

This message appears in the Message box at the bottom of the screen:

HTTP server ended.

A sample screen shot is shown below.

The screenshot shows the 'Manage All Servers' interface in the IBM WebSphere Administration Console. The page title is 'Manage All Servers' and it includes tabs for 'All HTTP Servers' and 'All Application Servers'. The data is current as of Dec 29, 2009 3:38:09 AM. The table below lists the servers:

| Server | Version | Status | Address:Port | Associated Application Server | |
|---------------------------|--------------------|---------|---|-------------------------------|------------------------|
| ADMIN | Apache/2.2.11 (i5) | Running | *:2001 | None | Administration server |
| AJSP | Apache/2.2.11 (i5) | Stopped | *:8210 | AJSPervasive | |
| APACHEDFT | Apache/2.2.11 (i5) | Stopped | *:80 | None | IBM supplied sample I |
| HTTPSVR | Apache/2.2.11 (i5) | Stopped | *:81 | None | HTTP Server for WebS |
| HTTPSVR81 | Apache/2.2.11 (i5) | Stopped | *:81 0.0.0.0:202 0.0.0.0:203 0.0.0.0:204 0.0.0.0:205 0.0.0.0:206 | default, V7.0 ND | http server on port 81 |

At the bottom of the console, there are buttons for 'Refresh', 'Start', 'Stop', 'Restart', 'Manage Details', 'Delete', and 'Rename'. A message box at the bottom left contains the following text:

```
CL command: ENDTCPSVR SERVER(*HTTP) HTTPSVR(HTTPSVR)
HTTP server ended.
```


6 Running the HTML Server

Running the HTML Server

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

Note: For this release, 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.

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>/sql1lib/lib32` must be in the path. If the path to lib32 is missing, add the path as shown in these examples:

- o For AIX:

```
LIBPATH="$WAS_LIBPATH":<DB2_Instance_Home>/sql1lib/lib32:$LIBPATH
```

- o For Solaris:

```
LD_LIBRARY_PATH="$WAS_LIBPATH":<DB2_Instance_Home>/sql1lib/lib32:
```

```
$LD_LIBRARY_PATH
```

- o For HP-UX:

```
SHLIB_PATH="$WAS_LIBPATH":<DB2_Instance_Home>/sql1lib/lib32:$SHLIB_PATH
```

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. 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.

Accessing the HTML Server

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

Tip:

- Make sure the `installedApps` directory and all subdirectories have **public* authority, so that users can access applications stored in this directory:

```
/QIBM/UserData/WebSphere/AppServer/<version>/ND/profiles/<profile_name>/bin
```

Complete these steps:

- a. Start your QSHHELL environment using this command:

```
strqsh
```

- b. Change the directory to:

```
/QIBM/UserData/WebSphere/AppServer/<version>/ND/profiles/default
```

- c. Enter this command to assign permission recursively to the `installedApps` directory and all its subdirectories:

```
chmod -R 755 installedApps
```

Do *not* assign the same permission to the `Default` directory.

- To access a *HTML Server* using non-default host, you must specify a port number, although you do not have to specify `index.html`.

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/E1Menu.maf
```

For example:

```
http://jdedwebs1.jdedwards.com:81/jde/E1Menu.maf
```

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.

Configuring the 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
```

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.

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 |
|--------------|---|---|
| launchAction | yes | Specifies the action that occurs when users click on the quick-link. Valid values are: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> APP UBE |
| formID | Required for launchForm and promptForValue actions. Also required with the appType attribute. | Number of the specific form within the application. |

| Attribute | Required? | Description |
|-------------|-----------|---|
| 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-links>
```

```
<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>
```

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](#)

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.

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.

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.

7 Understanding EnterpriseOne HTML Server Package Discovery

Understanding EnterpriseOne HTML Server Package Discovery

This chapter contains the following topics:

- *Overview of EnterpriseOne Package Discovery*
- *Impacts to End Users*
- *Understanding the Manifest*

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 Server*s 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.

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 be 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.

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.

8 Appendix A - Understanding Media Objects on the Web Server

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.

Required `jas.ini` Settings

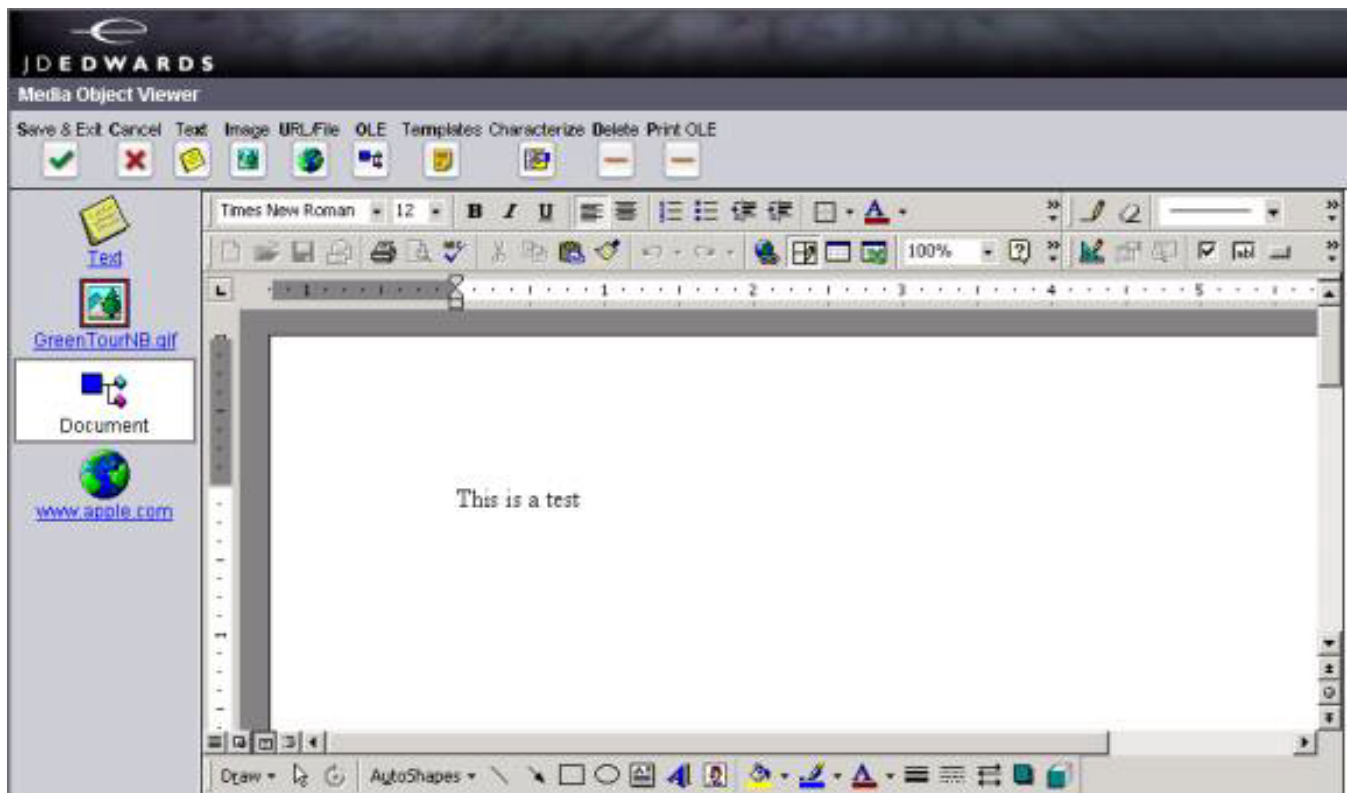
Ensure that these parameters are set in the `[OWWEB]` section of the `jas.ini` file.

| Parameter | Recommended Setting | Description |
|-------------------------------|---------------------|---|
| <code>MO_QUEUE=</code> | Site-dependent path | Identifies the media object directory location on your <i>HTML Server</i> . This path must translate into virtual path <code>/jde/moqueue/</code> for the web browser. |
| <code>FtpPort=</code> | 21 | Specifies the default port to be used for FTP. |
| <code>FtpUsr=</code> | anonymous | Specifies the user id to be used for FTP access to the media Object File Server. |
| <code>FtpPwd=</code> | anonymous | Specifies the password to be used for FTP access to the media Object File Server. |
| <code>UseMOWinNTShare=</code> | TRUE FALSE | <p>Specifies that the web server use the Microsoft Windows file sharing mechanism for fetching Media Object files from their location into the cached location of the web server.</p> <p>Specifies that the web server does not use Microsoft Windows file sharing mechanism and uses FTP access instead.</p> <p>Note: If this setting is TRUE, media object queue paths set in <code>P98MOQUE</code> must be accessible by the owner of the application server from the application server machine (the application server is the server program hosting web servlets). To test the accessibility of a media object queue path, log in as the owner of the application server, open Windows Explorer, and paste the path to the media object queue into the address field. The path should be accessible without entering a user ID and password.</p> <p>If this path is not accessible, you can change the media object queue setting to a path accessible by the owner of the application server. For example, you can specify a path on the application server machine as the media object queues directory.</p> |

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*.

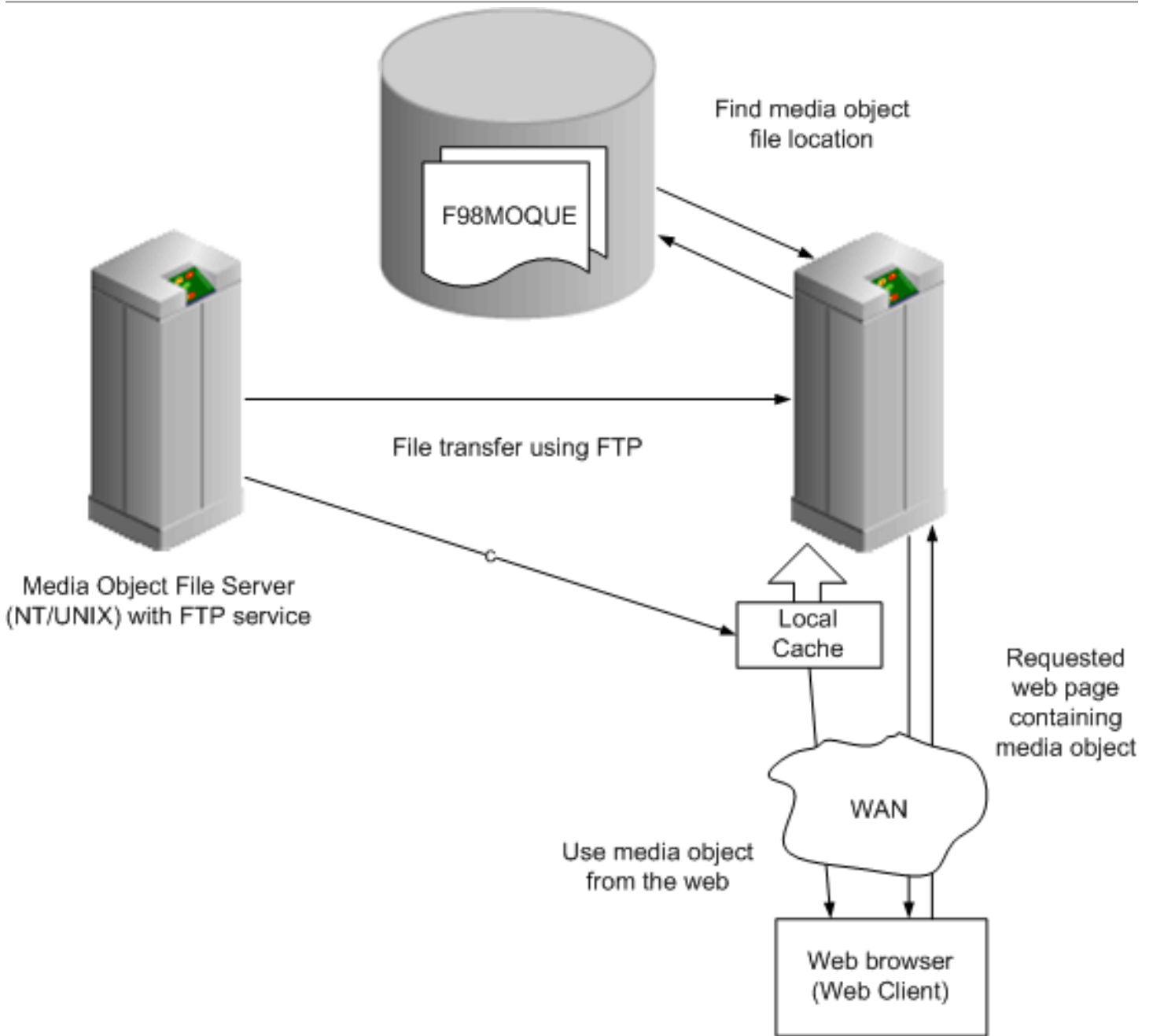
1. A user selects attachments on an application which has support for media objects.
2. The Media Object window displays the image, file, or OLE objects, and the user selects one of these objects.



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.

If UseMOWinNTShare is TRUE, files are transferred using Microsoft Windows file sharing mechanism, otherwise files are transferred using FTP protocol.

This diagram illustrates the process:



9 Appendix B - Generating JD Edwards EnterpriseOne Serialized Objects

Generating JD Edwards EnterpriseOne Serialized Objects

Note: Important: Beginning with JD Edwards EnterpriseOne Tools Release 9.2.6, the previously imbedded tool called eGenerator is no longer available. This functionality to generate serialized objects for JD Edwards EnterpriseOne is replaced by an automated and configurable process of Server Manager. For additional details on usage and configuration of the auto-gen process for serialized objects, refer to the *JD Edwards EnterpriseOne Server Manager Guide* in the chapter entitled: ***Automatic Pre-Generation of Serialized Objects (Release 9.2.6)***.

