Installing the Advanced Single Server Edition using iPlanet Web Server in a Custom installation on Windows

The steps that follow describe how to install a configuration of WebSphere Application Server, Advanced Single Server Edition, that uses--

- Windows NT 4.0 or Windows 2000
- IBM Developer Kit, Java™ 2 Technology Edition, 1.3.0
- iPlanet Web Server, Enterprise Edition 4.1
- A single node

See "Software Prerequisites" to learn what products and fixpacks are supported for your level of WebSphere Application Server.

Steps for installation

Installing iPlanet Web Server 4.1
Installing WebSphere Application Server
Testing the installation
Testing with an Enterprise Bean (optional)
Setting up TCP/IP for standalone operations (optional)

Installing and testing iPlanet Web Server, Enterprise Edition 4.1

To install iPlanet Web Server, Enterprise Edition 4.1, follow the steps given below. For the most recent installation documentation, see the iPlanet Web site. To learn whether a service pack for iPlanet Web Server 4.1 is needed for your level of WebSphere Application Server, see "Software Prerequisites."

1. Run the e41diu.exe file to start the installation program. The file is available on CD or can be downloaded from an iPlanet Web site.
2. On the opening panel, click **Next**.
3. Read the license and click **Yes** to accept its terms.
4. Select the **Typical** installation and click **Next**.
5. Select the installation directory and click **Next**.
6. On the Components to Install panel, ensure that **iPlanet Web Server, Enterprise Edition** is selected and click **Next**.
7. Enter your administration server user ID, password and confirming password. Then click **Next**.
8. If necessary, change the default **iWS Administration Port**. Do not use 9000 for the port as 9000 is the default WebSphere Application Port. Then, write down the given URL for accessing the server and click **Next**.
9. On the Default Web Server panel, specify an HTTP port and a path for the iPlanet Web Server documentation.
10. If you are using LDAP, select the **Use LDAP for user and group administration** check box and fill in the configuration fields. Then click **Next**.
11. On the JDK Configuration panel, click **Next**. Optionally, select the **Use Custom Java Development Kit** check box and enter the path for a JDK on your system, then click **Next**.
12. Click **Install**, opt to restart your computer, and click **Finish**.

Testing the Web server installation

After restarting your computer, examine the Services dialog to ensure that the iPlanet Web Server is running (if not, use the **Start** button to start the server). Then, point your Web browser at your Web server's URL and, when prompted, enter your user ID and password. You should see the main page of your Web server.

Installing WebSphere Application Server -- Custom Installation option

To install WebSphere Application Server along with the IBM Developer Kit, do the following:

1. Ensure that you will be installing WebSphere Application Server under a local Windows user ID that is in the Administrative group and has the advanced user rights "Act as part of the operating system" and "Log on as a service."
2. If a Web server on your system is running, stop the Web server.
3. If you obtained Version 4.0 from the product Web site, run or unpack the downloaded executable.
4. If you plan to use a Web server or database at a level that exceeds the current version required by WebSphere Application Server, you must do one of the following:

    - Download the most current prereq.properties file from the Web site http://www.ibm.com/software/webservers/appserv/tools.html to a directory such as c:\tmp on the machine onto which you will install WebSphere Application Server.
    - Disable the WebSphere Prerequisite Checker before installing WebSphere Application Server.
        a. Copy the prereq.properties file from the \nt directory to the c:\tmp directory on the machine on which you will install WebSphere Application Server.
        b. Edit this file by finding the line `prereq_checker=1` and changing it to `prereq_checker=0`.

5. If you have *not* downloaded a new prereq.properties file or disabled the Prerequisite Checker (Step 3), run `setup.exe` or, if you have the product CD, run `\nt\setup.exe`.

    If you *have* downloaded a new prereq.properties file or disabled the Prerequisite Checker, enter the following command:

    ```
    setup.exe -prereqfile c:\tmp\prereq.properties
    ```

    You will need 135 MB free in your temp directory (usually on the C drive), even if you are installing on another drive, because the installation shield package unpacks to the temp directory. This will kick off an installation shield package.

6. If the Choose Setup Language dialog is displayed, select a language and click **OK**.
7. Click **Next** to pass the introductory page.
8. If WebSphere Application Server is already installed on your system, a dialog giving you the option to backup and uninstall WebSphere Application Server displays. You now have three options:
    - To backup your files and uninstall WebSphere Application Server, click **Backup and Uninstall** and then **Next** to continue with the installation.
    - To install to a different directory, simply click **Next** and continue with the installation.
    - To migrate your files from a previous release, click **Perform Migration**. Complete the migration, then run the WebSphere installation program again.

    If WebSphere Application Server is not already installed on your system, proceed to step 9.

9. In the Installation Options dialog, select **Custom Installation**; then click **Next**.
10. In the Choose Application Server Components dialog, select those components you want and deselect those components you do not want.

    If you want to install **Application Server** or **Application and Development Tools**, you must also install the IBM JDK or specify a valid JDK in the Select Java Development Kit dialog.

    Clicking **Other JDK** displays the Select Java Development Kit dialog. If you have a non-IBM Java development kit installed, we recommend that you specify that you want the Java Development Kit (IBM Developer Kit 1.3.0.). Also specify the destination directory for the IBM Developer Kit. Further, to use the IBM Developer Kit, you must remove your other JDKs from the jre\lib\ext directory. If you use a JDK other than IBM Developer Kit to run WebSphere Application Server, it must be at the XML4j/Xerces 3.1.1 level. Click **Next** to confirm your selections. Otherwise, click **Back** to exit the dialog.
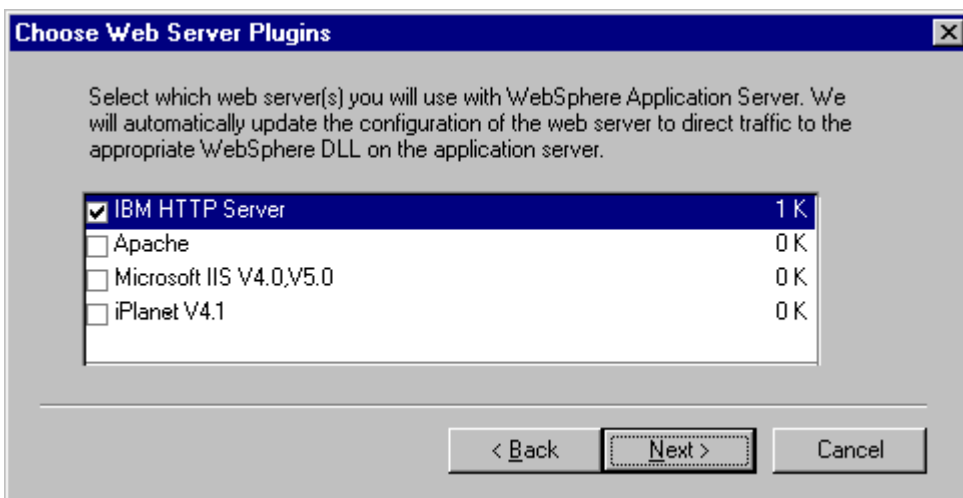
    If you want to install **Samples**, you must also install **Application Server** or have the Application Server product already installed on your system.

    As to **Web Server Plugins**, no plugins are required to bring up the Application Server or the administrative console. However, for production applications, you generally will not be able to serve servlets without a Web server plugin and a valid Web server. For non-production applications, you can use the internal HTTP transport system to serve servlets without an HTTP plugin by simply using the internal HTTP transport port (9080). For example, to serve the sample snoop servlet without an HTTP Web server, you use the URL http://*your_server_name*:9080/servlet/snoop, with 9080 being the internal transport port number and *your_server_name* being `localhost` if the Application Server is on the local machine. The internal transport mechanism lacks the performance for production applications available with a plugin.

    As to **IBM HTTP Server**, you install this Web server if you intend to select the IBM HTTP Server plugin and do not have IBM HTTP Server installed.

    These installation instructions assume that you will install all of the components except IBM HTTP Server, which you should deselect.

11. Click **Next**. If necessary, shut down all Web servers you plan to run with WebSphere Application Server and proceed.
12. On the Choose Web Server Plugins page, select **iPlanet V4.1**. Note that you must separately purchase and install the iPlanet product. Only IBM HTTP Server 1.3.19 is provided with WebSphere Application Server.

13. Specify the destination directory and click **Next**.
14. Click **Next** on the next two dialogs and begin the installation.
15. Near the end of the installation, you are asked to select the iPlanet Web server to configure. Select your Web server.
16. Click **Next**, and it will finish updating the files and installing.
17. After the installation completes, check the box to view the README file.

    For the most recent version of the README or release notes, go to **Library** section of the product Web site at http://www.ibm.com/software/webservers/appserv/.

18. Click **Finish** and, to complete the installation, restart your computer.

Testing the installation

You can use the First Steps dialog to test the WebSphere installation. Your Web server must be running to use the First Steps dialog. Access the dialog by selecting **Start -> Programs -> IBM Websphere -> Application Server V4.0 -> First Steps**.

Alternatively, you can do the following to test the installation:

1. Start the server by entering the following in a command window:

   ```
   startServer
   ```

   To stop the server at a later time, run the stopServer.bat file.

   Alternatively, you can start the server by selecting **Start -> Programs -> IBM Websphere -> Application Server V4.0 -> Start Application Server**.

2. After the message "Open for e-business" is shown, open a Web browser and go to the following URL to start the administrative console:

   ```
   http://your_server_name:9090/admin
   ```

   where *your_server_name* is `localhost` if the Application Server is on the local machine.

   If the server is on a remote machine, enter the short or fully qualified host name for the machine
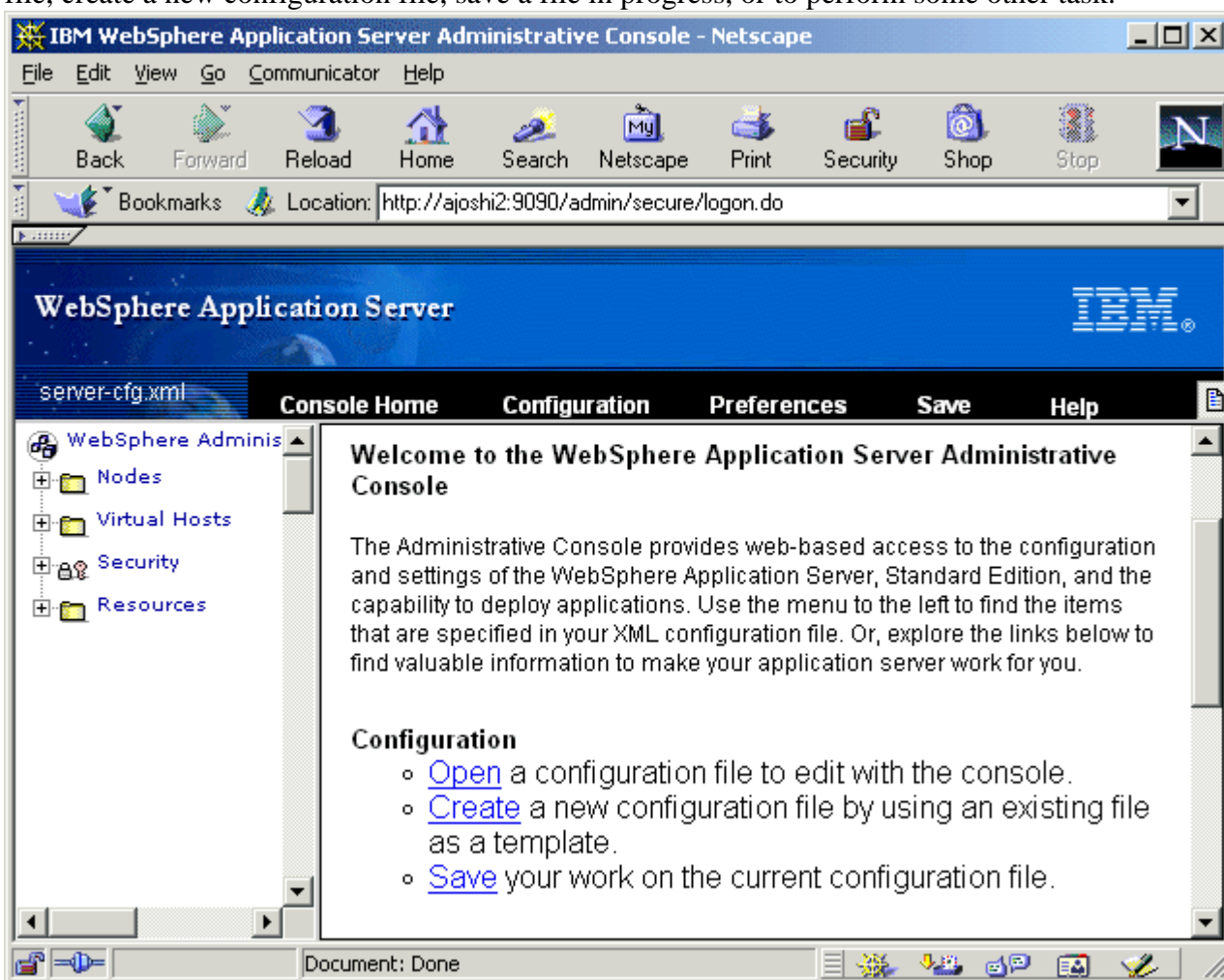
containing the administrative server.

Alternatively, you can go to the console by selecting **Start -> Programs -> IBM Websphere -> Application Server V4.0 -> Administrator's Console**.

3. On the Login panel, enter a user ID to which your configuration changes made while working with Application Server will be saved and click **Submit**. Or, if you do not care to save your work, simply click **Submit**; the changes will be saved to the default username *User*, unless User is already in use.
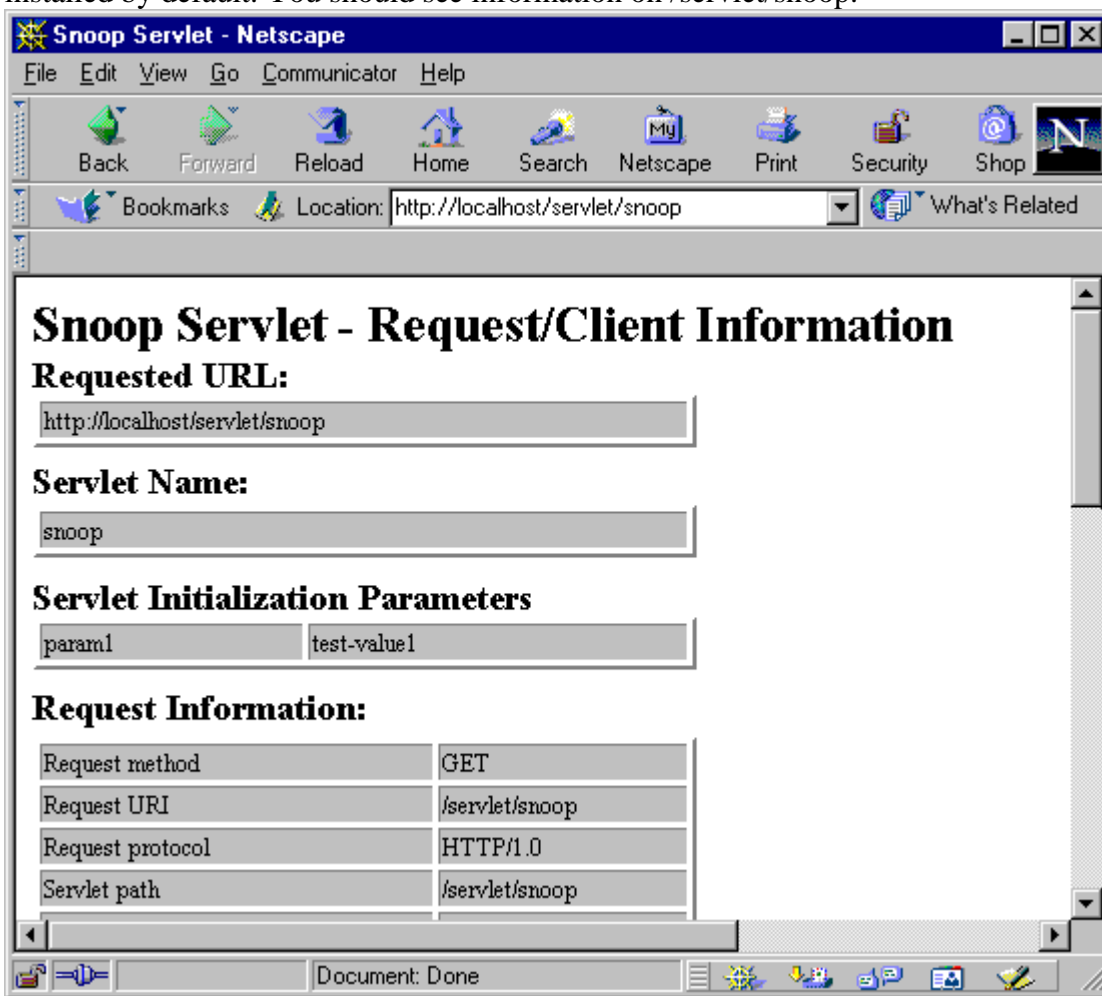
   If the user ID is already in use (and in session), you are prompted to do one of the following:

   - Force the existing user ID out of session. The configuration file that was being used by the existing user ID will be saved in the temp area and you will be prompted next to load that if desired. Choosing not to load it will delete it from the temp area.
   - Wait for the existing user ID to log out or time out of the session.
   - Select another user ID.

4. From the console Welcome page displayed, click on an HTML link to open an existing configuration file, create a new configuration file, save a file in progress, or to perform some other task.

To later stop the console, close the browser. Ensure that you save any changes that you want to keep. Unless you save the changes, they will be lost when you close the browser.

5. Test the server. Ensure that the iPlanet Web Server is running. (A Services dialog, which is accessible from a Control Panel, should show *Started*.) If the server is not running, use the **Start** option in a Services dialog to start the server, or select options available from the **Start** menu. Then, open a browser and go to http://*your_server_name*/servlet/snoop, which is a standard sample servlet installed by default. You should see information on /servlet/snoop.

Testing with an Enterprise Bean

After you install WebSphere Application Server, you can test an enterprise bean using the Inc sample:

1. Start the application server. (At a command line, enter `startServer`.)
2. Start your Web browser and specify for the URL address:

   `http://`*`your_server_name`*`/webapp/examples/HitCount`

   where *your_server_name* is `localhost` if the Application Server is on the local machine. If the server is on a remote machine, enter the short or fully qualified host name for the machine containing the administrative server.

   You should see a Web page with selection options.

3. From the list **Generate hit count using**, select **Enterprise JavaBean**. From the list **Transaction**

Type, select **None**.
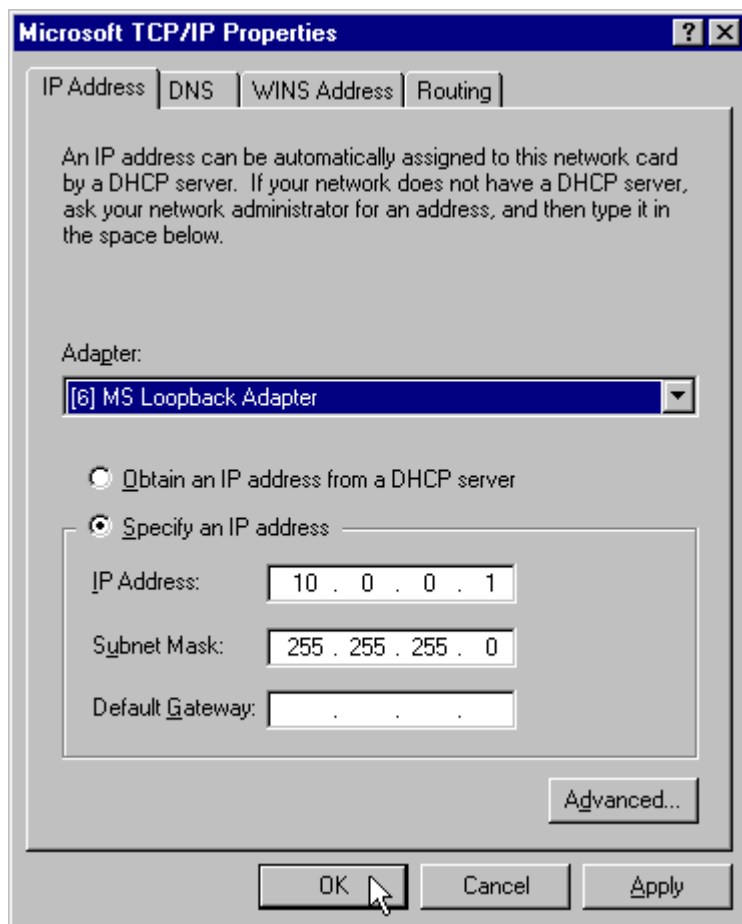4. Click on **Increment**.

The number of hits should display.

Setting up TCP/IP for standalone operations

If your system is not connected to a network, you must set up WebSphere Application Server for standalone operations.

To set up your system for standalone operations, you must have TCP/IP networking installed. If you will run WebSphere Application Server as a standalone (not connected to a network), your host name must remain fixed. WebSphere Application Server is a "networked" system that can be clustered into a single domain, with the administration and other aspects rely upon the IP networking. When the product starts for the first time, it records the host name. When it restarts, it needs to be able to contact that IP address again. If you wish to use WebSphere Application Server "disconnected", you must still always be able to "ping" your host name successfully.
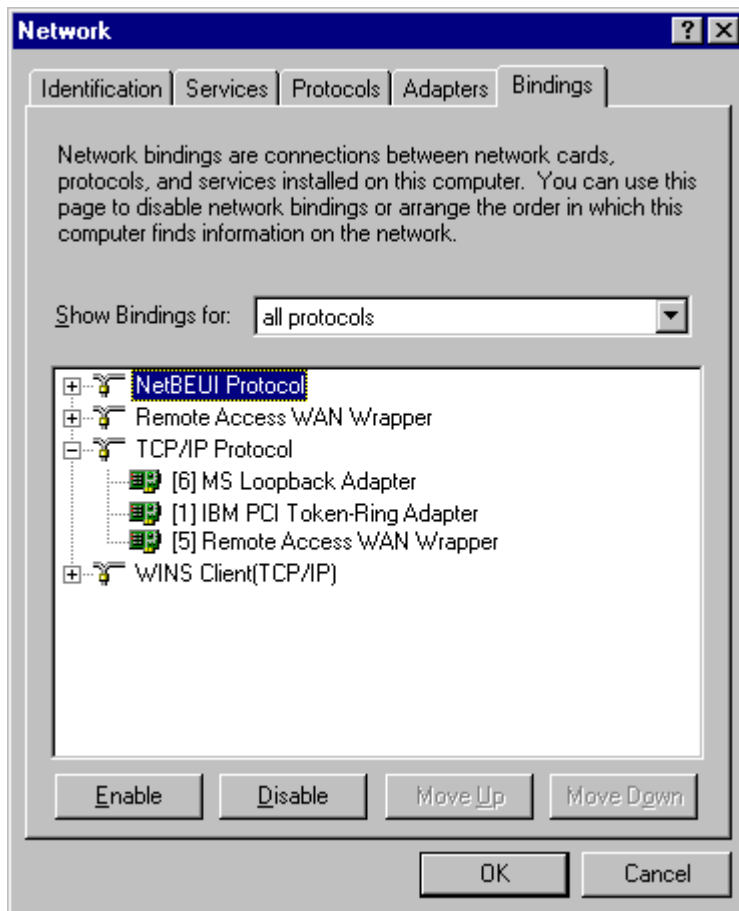
If you need to set up a fixed IP address, for Windows NT, go to the **Network** section of the Control Panel, in the **Adapters** tab, and install the **MS Loopback Adapter**.

Then, go to the **Protocols** tab, open TCP/IP properties, and specify a fixed TCP/IP address of 10.0.0.1 (which is an address reserved for private use and thus appropriate for standalone operations), and a subnet mask of 255.255.255.0.

No default gateway for this adapter is specified. Go to the **Bindings** tab, select **all protocols**, expand **TCP/IP Protocol**, and then move the MS Loopback Adapter to the top of the **TCP/IP Protocol** list.

Save the changes and reboot. After rebooting, you should be able to ping your host name whether or not you are connected to a network. To test your new TCP/IP setup, ping your host name while running standalone and, optionally, while connected to a network.

Uninstalling WebSphere Application Server

To uninstall WebSphere Application Server:

1. Run the uninstwas40.exe file in the main WebSphere Application Server directory. For example, enter the command `uninstwas40` at a prompt in the main product directory.
2. Select **Yes** when asked if you want to uninstall the product.
3. Select whether you want to back up your product files.
4. After the uninstallation program runs, reboot your system.

Note that, instead of running the uninstwas40.exe file, you can uninstall WebSphere Application Server using the Add/Remove Programs option of the Windows Control Panel.

IBM HTTP Server is not uninstalled by the WebSphere Application Server uninstall program. If you installed IBM HTTP Server as part of the WebSphere Application Server installation, you must run the IBM HTTP Server uninstall program.