


IBM® WEBSHERE® APPLICATION SERVER V6.0– LAB EXERCISE

WebSphere Application Server Network Deployment V6 Installation Guide

What this exercise is about	2
Lab Requirements.....	2
Space Requirements:	2
Unzipping the Installation images:	2
What you should be able to do	3
Introduction	4
Part 1: Installing WebSphere and Creating Deployment Manager Profile.....	5
Part 2: Working with Profiles	11
Profile Creation Tool (PCT)	11
Creating Application Server profile using PCT 	11
Working with profiles using wasprofile:	14
Part 3: Managing Servers	15
Starting and Stopping Deployment Manager	15
Starting and Stopping Application Server	16
Administrative Console	17
Directory Structure:	19
Part 4: Federating a Node.....	21
Part 5: Optional	24
Working with profiles using wasprofile:	24
Part 6: Optional	26
Uninstalling the WebSphere Application Server V6	26
Part 7: Troubleshooting the Installation	27
What you did in this exercise	28

NOTE: Education materials and other documentation as applicable including programming manuals, operating guides, physical planning manuals and installation manuals related to the IBM Products may be subject to change.

What this exercise is about

The objective of this lab is to show you how to install WebSphere Application Server V6 ND edition. This lab will show a basic install, and creation of a Application Server profile and Deployment Manager. Federate the Application Server profile into Deployment manager's cell. This will also show a number of the options when creating a new profile and then demonstrate a number of command line tools for working with profiles.

Lab Requirements

These references should be replaced with the actual directory location in any commands typed.

Instructions and subsequent documentation use symbolic references to directories, which are listed as follows:

Location Reference	Windows example	Linux/Unix example
<WAS_HOME>	C:\WebSphere\AppServer	/opt/WebSphere/AppServer /usr/WebSphere/AppServer
<TEMP>	C:\temp	/tmp

You will need the appropriate operating system WAS60 CD or the install images to complete this lab.

Space Requirements:

If you are going to download the CD images from the website, make sure that you have enough space on your file system.

Temporary Disk Space for install Image : approximately 550MB and additional 650 Meg for unzip

Disk space for product and profile creation: approximately 1GByte

Unzipping the Installation images:

- Create a directory under <TEMP>

Windows Example: C:\temp\was60

- Download the appropriate install images from the website to <TEMP>/was60 .

For Example:

was.cd.6000.nd.aix.ppc32.tar.gz for AIX

was.cd.6000.nd.solaris.sparc.tar.gz for Solaris

was.cd.6000.nd.hpux.parisc.tar.gz for HP

was.cd.6000.nd.windows.ia32.zip for windows

was.cd.6000.nd.linux.ia32.tar.gz for Linux

- Create new directory unpack under <TEMP>/was60 and navigate to <TEMP>/was60/unpack
- Unpack image to <TEMP>/was60/unpack directory.
 - Use the unzip utility to unzip the product image.

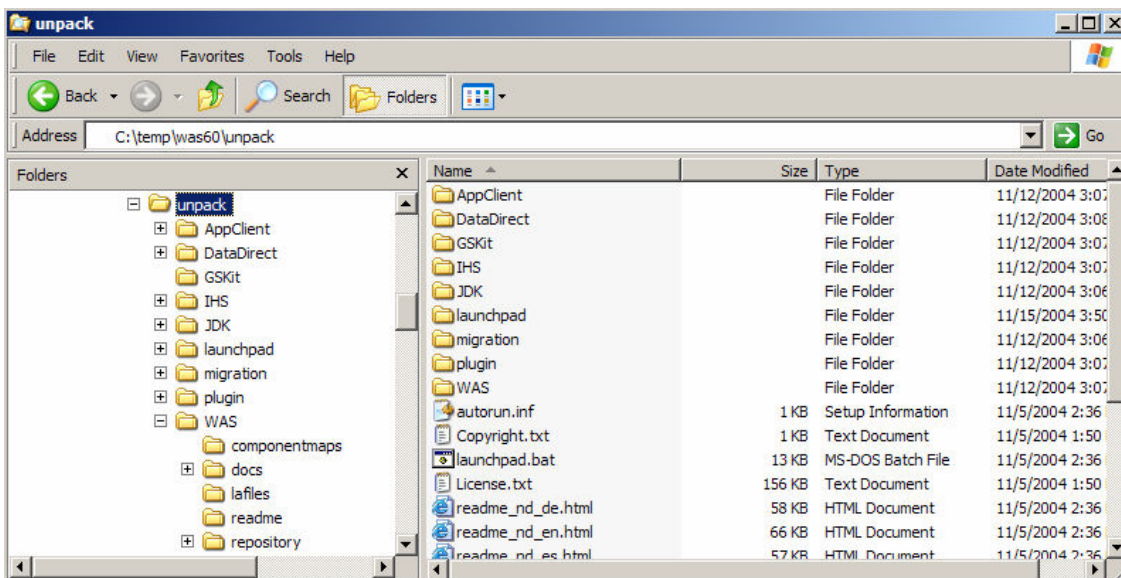
Windows Example: `unzip ../ was.cd.6000.nd.windows.ia32.zip`

- Use the gzip to unpack the install image.

Linux **UNIX** Example: `gzip -cd ../ was.cd.6000.nd.linux.ia32.tar.gz | tar -xvf -`

Note: Latest unzip utility can be found at <http://www.info-zip.org/pub/infozip/UnZip.html> . Latest gzip can be obtained from <http://www.gzip.org/#exe>

- The following screen shot shows the directory structure of the unpacked CD image.



What you should be able to do

At the end of this lab you should be able to:

- Install WebSphere Application Server V6 Network Deployment
- Create and configure a Application server profile and Deployment Manager and federate Application Server profile into Deployment Manager cell.

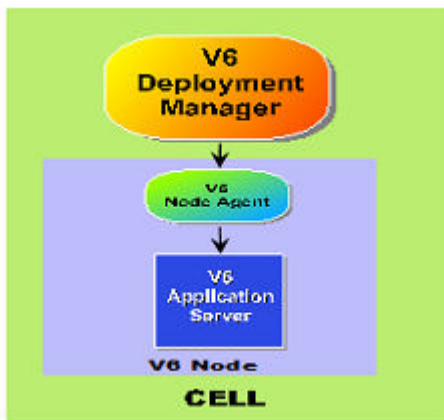
Introduction

Installation of WebSphere has undergone some significant changes in version 6 with the addition of server profiles. Application Server installation is simplified and faster with the introduction of profiles. Profiles allow administrators to manage the server configurations independently from the product binary files.

The biggest improvement to installation is that now you can install one copy of the core files (binary system files and such) on a machine, then use *profiles* to define multiple application server runtime environments -- each with its own administrative interfaces -- that share the core files. This has many positive ramifications for preparing, installing, maintaining, and removing installations, including a decreased footprint.



The Network Deployment product lets you create unlimited numbers of the same stand-alone application. However, the real strength of the Network Deployment product is to create and manage a multimachine environment, where you have installed managed application server nodes on different machines. You can manage all of the application servers as a group, or *cell* by using the administrative console of the deployment manager. Use the Profile creation wizard to create deployment manager profiles, application server profiles, and custom profiles. A deployment manager manages the configuration for all of the managed nodes in its cell and deploys applications to any managed node in the cell. All of the profiles share command files and other product binaries that are created during the installation.

You can propagate the configuration from one profile to another by exporting a profile to a configuration archive and importing it to another profile. This mechanism works between profiles of the same installation or different installations. A restriction is that this mechanism only works for an unfederated profile.

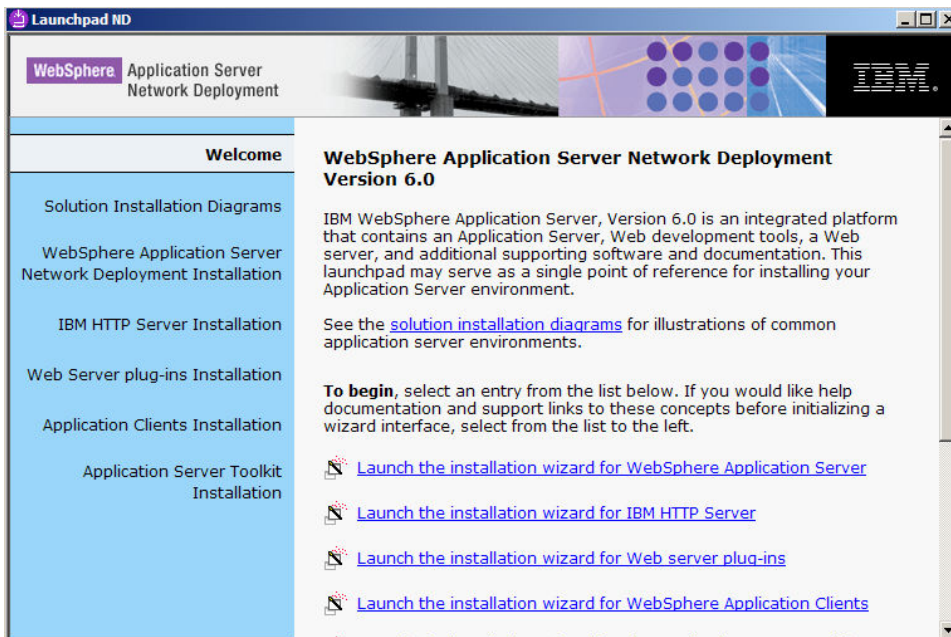


Part 1: Installing WebSphere and Creating Deployment Manager Profile

____ 1. Open the command prompt, browse to the directory where the installation images are present and issue the command

 **launchpad.bat**
 **./launchpad.sh** for.

____ 2. The following screen appears. We are going to install the application server so select **Launch the installation wizard for WebSphere Application Server**

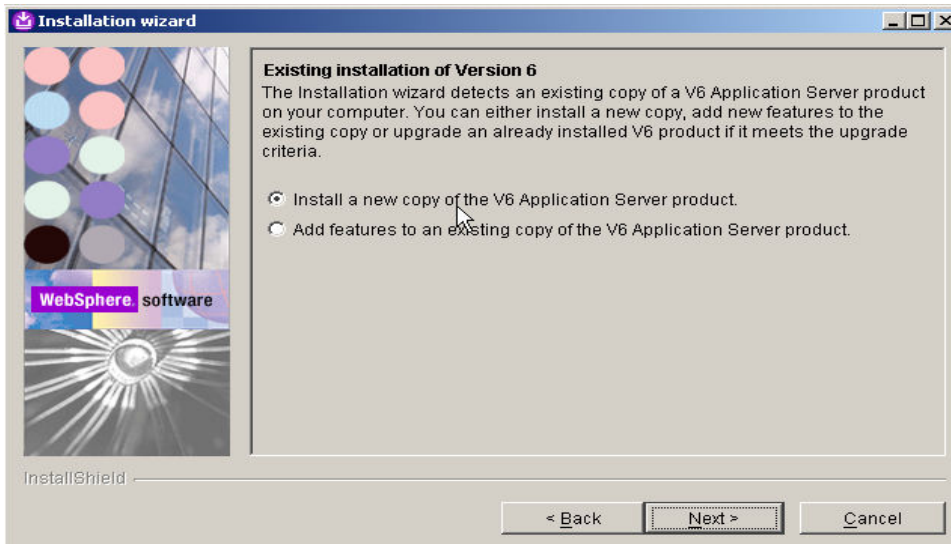


____ 3. Review the information on the Welcome screen and click **Next**.

____ 4. Accept the license agreement and click **Next**.

____ 5. Verify that your system passes the prerequisite check and click **Next**.

____ 6. If another copy of Application server installation is present on the system, the following screen is displayed. Select Install new copy and Click next to continue.



___ 7. On the next screen you can select the installation directory.

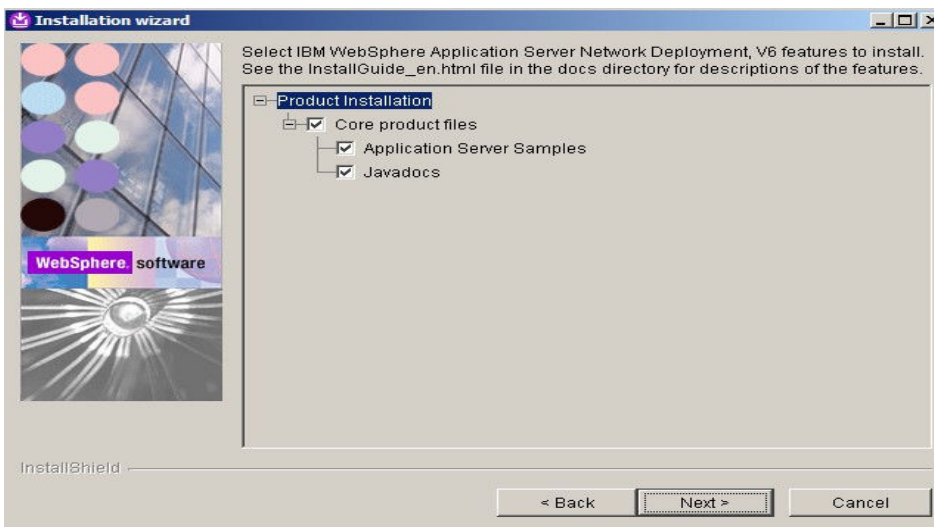
Windows Type **C:\WebSphere\AppServer** as installation path

Type **/opt/WebSphere/AppServer** for Linux and HP

Type **/usr/WebSphere/AppServer** for AIX

Click **Next** to continue.

___ 8. On this screen you can select the components to be installed. Accept the defaults for this lab and click **Next**.

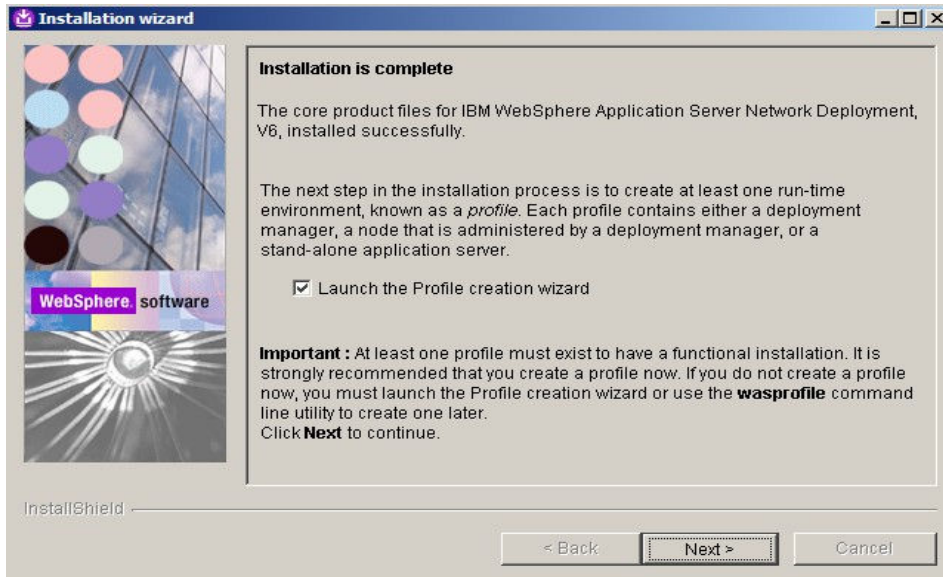


___ 9. The next screen lists all the features that will be installed: Confirm by clicking **Next**.

___ 10. The installation of IBM WebSphere Application Server Network Deployment V6 will now begin. Installation time may vary depending on the features you have selected and the resources available on your computer.

11. The Next screen confirms the installation of core product files of **WebSphere Application Server Network Deployment V6**.

At this point, only the core files of the WebSphere Application Server Network Deployment V6 are installed. We need to create profiles. Each profile is a run-time environment that includes configuration files, the default location for deployed applications, logs, and other data. In order to create a profile, select the check box Launch Profile Creation Wizard in the following screen and click **Next** to continue. More details of working with profiles is provided later in the document in the section [Working with Profiles](#)



12. **Profile creation wizard** should open with a welcome screen. Click **Next** to continue.

13. The following Profile Type Selection screen appears where you can select the type of profile you want to create.

The types of profile that you can choose are

a) Deployment Manager:

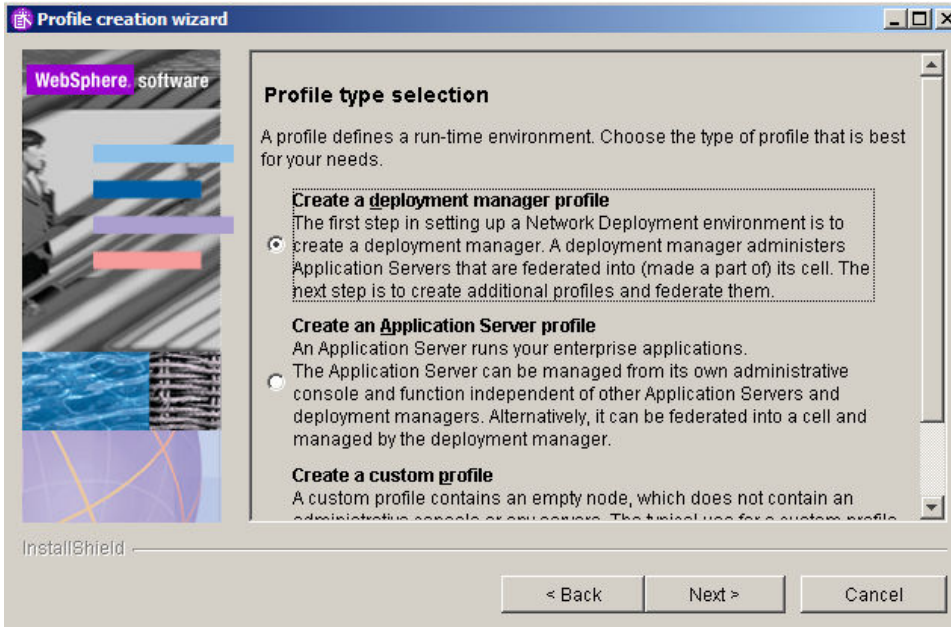
A Deployment manager administers Application Servers that are federated into its cell.

b) Application Server or Standalone profile:

The Application Server or the Standalone profile can be used to host your enterprise applications. The Server can be managed from its own Administrative Console independent of other such profiles and deployment managers or it can be federated into deployment manager cell and managed by the deployment manager

c) Custom profile:

A custom profile is profile that has no server. It is an empty node. It is typically federated to the deployment manager and the deployment manager can be used to create server or cluster of servers within its node.



We want to create the Deployment Manager profile. So select the **Create a deployment manager profile** radio button and click **Next**.

____ 14. In the next screen you are prompted to enter a name for the profile you are about to create. Type in **dmgr** and click **Next** to continue.

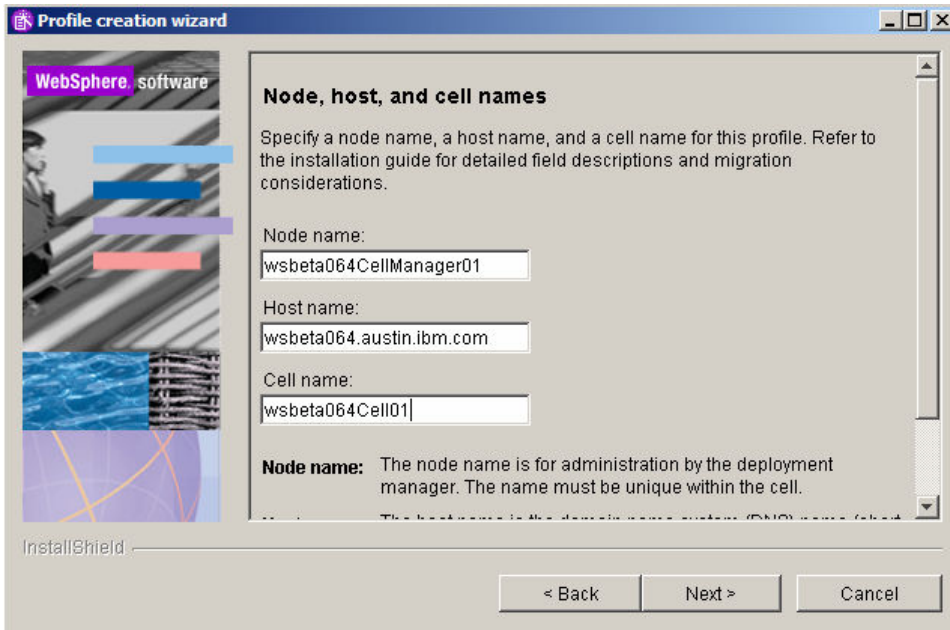
____ 15. In this screen you are prompted to choose the directory to place files that define the runtime environment such as commands, configuration files and log files. Use the default path that is specified and click **Next** to continue.

____ 16. On this screen you enter the Host,node name and cell name for the profile you are about to create, making sure to match the criteria for uniqueness. The profile creator should generate unique names for you.

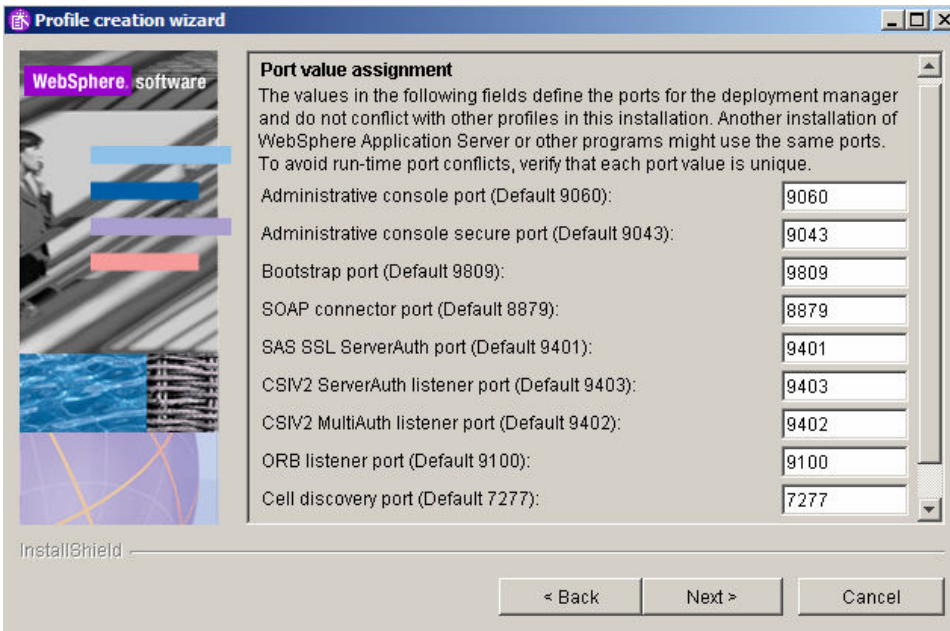
The node name generated by the profile creator for deployment manager profiles uses your **hostname+”CellManager”+ numericalvalue**. The numerical value is incremented each time a new profile is being created.

The cell name generated by the profile creator for deployment manager profiles uses your **hostname+”Cell”+ numericalvalue**. The numerical value is incremented each time a new profile is being created.

In this example keep the default values and click **Next**.



17. The next screen presents a summary of the ports that will be used by the profile. If the installer detects multiple Profiles, ports will automatically be incremented to resolve port conflicts. But make sure that the other installations of WebSphere do not have any conflicts with the ports that are being assigned. Click **Next** to continue.



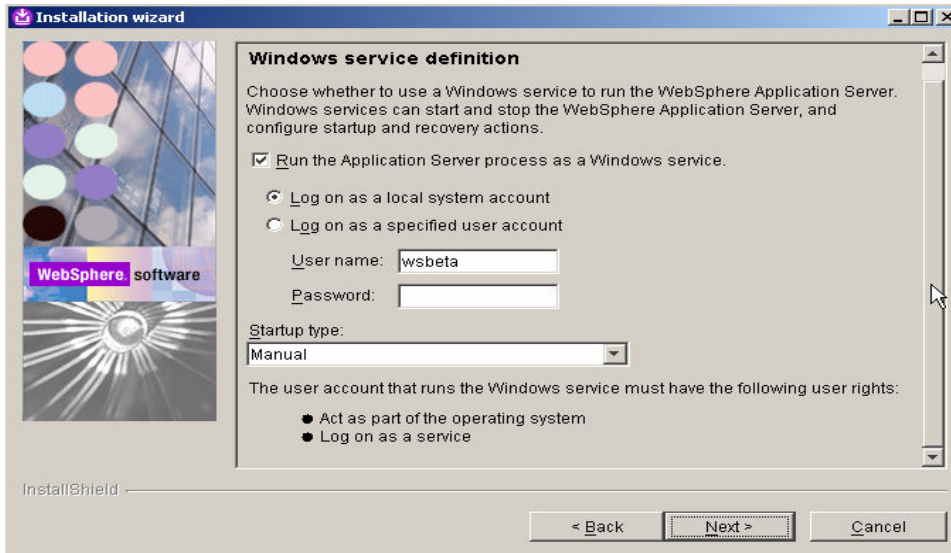
18. **Select the checkbox next to Run the Application Server process as a Windows service** and click **Next**. If you want to select the option Log on as specified user account, make sure that the user account information you provide must have the following rights

Act as part of operating System

Log on as service



Note: This screen does not appear.



___ 19. The next screen will provide a summary of the profile you are about to create. Review the information and click **Next** to begin the profile creation.

___ 20. After the profile has been created you will be presented with the option to launch the First steps console. Leave the check box selected and click **Finish**.

At this particular point, a profile has been created for you. The profile name is **dmgr** and it should appear under <WAS_HOME>/profiles.

In order to create additional profiles, refer to the section [Working with Profiles](#)

___ 21. Now verify that the installation was successful. You can do this from the First Steps window. In the **First Steps** window, select **Installation Verification**.

___ 22. Verify that your install passes verification and close the window.

___ 23. Close the Launch pad window by clicking the **X** in the upper right corner.

___ 24. Click **Exit** to close the FirstSteps window.

Part 2: Working with Profiles

Version 6 simplifies the object model for WebSphere Application Server. The V6 tool creates a run-time environment in a separate set of files called a *profile*. The profile is the file set that defines the Application Server environment and the file set that the process can change. The *profile creation tool* and its graphical user interface (*Profile creation wizard*) and *wasprofile* are the only ways to create Application Server environments in V6.

The **wasprofile** command line tool defines each Application Server instance of a Version 6 product. You must run the wizard or the command line tool each time that you want to create a stand-alone Application Server. A need for more than one stand-alone Application Server on a machine is common. Administration is greatly enhanced when using V6 profiles instead of multiple product installs. Not only is disk space saved, but updating the product is simplified when you only maintain a single set of product core files. Also, creating new profiles is faster and less prone to error than full product installs, allowing a developer to create new disposable profiles of the product for development and testing.

Profile templates are part of the shared product files. A template exists for each type of profile. A copy of the template is used to create that particular type of profile.

Profile Creation Tool (PCT)

You can create additional profiles using the Profile Creation Tool (PCT).

To launch profile creation tool (PCT)

You can start the profile creation tool (PCT) using one of the following two options:

___ 1. Using the Command Prompt:

- Open a Command window and navigate to the following directory:


 <WAS_HOME>\bin\ProfileCreator

 >  <WAS_HOME>/bin/ProfileCreator

- Use the appropriate command to launch the profile creation tool (PCT) :

For Example:

 **pctWindows.exe**

 **pctLinux.bin**

___ 2. Using the Start Menu (for only):

- Select **Start** → **All Programs** → **IBM WebSphere** → **Application Server Network DeploymentV6.0** → **PCT**

Creating Application Server profile using PCT

___ 1. **Profile creation wizard** should open with a welcome screen. Click **Next** to continue.

___ 2. The following Profile Type Selection screen appears where you can select the type of profile you want to create.

The types of profile that you can choose are

a) Deployment Manager:

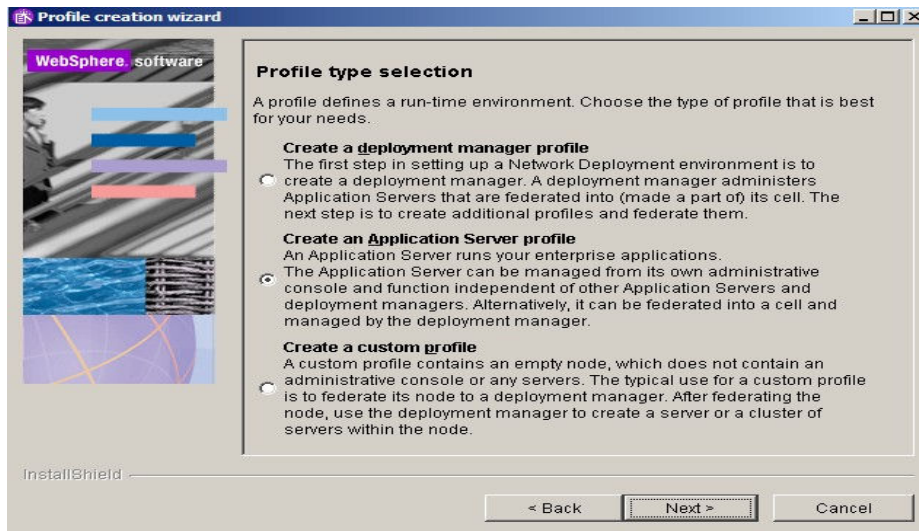
A Deployment manager administers Application Servers that are federated into its cell.

b) Application Server or Standalone profile:

The Application Server or the Standalone profile can be used to host your enterprise applications. The Server can be managed from its own Administrative Console independent of other such profiles and deployment managers or it can be federated into deployment manager cell and managed by the deployment manager

c) Custom profile:

A custom profile is profile that has no server. It is an empty node. It is typically federated to the deployment manager and the deployment manager can be used to create server or cluster of servers within its node.



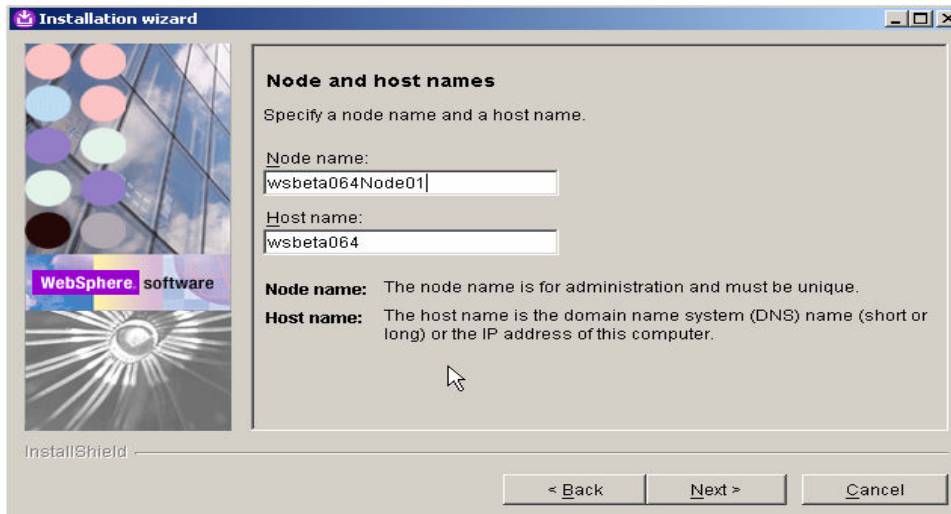
We want to create the Application Server profile. So select the Create an Application Server profile radio button and click **Next**.

___ 3. In the next screen you are prompted to enter a name for the profile you are about to create. Type in **inst1** and click **Next** to continue.

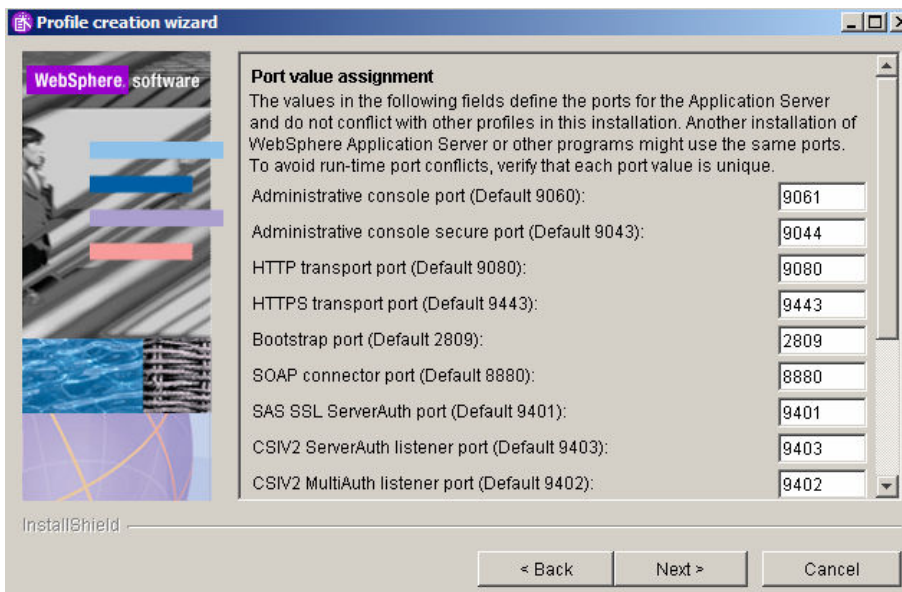
___ 4. In this screen you are prompted to choose the directory to place files that define the runtime environment such as commands, configuration files and log files. Use the default path that is specified and click **Next** to continue.

___ 5. On this screen you enter in the Host and node name for the profile you are creating making sure to match the criteria for uniqueness. The profile creator should generate unique names for you.

The node name generated by the profile creator uses your **hostname+ "Node" + numericalvalue** as a template. The numerical value is incremented each time a new profile is being created. In this example keep the default values and click **Next**.



6. The next screen presents a summary of the ports that will be used by the profile. If the installer detects multiple Profiles, ports will automatically be incremented to resolve port conflicts. But make sure that the other installations of WebSphere do not have any conflicts with the ports that are being assigned. Notice in the following screen that some of the ports have been incremented automatically. Click **Next** to continue.

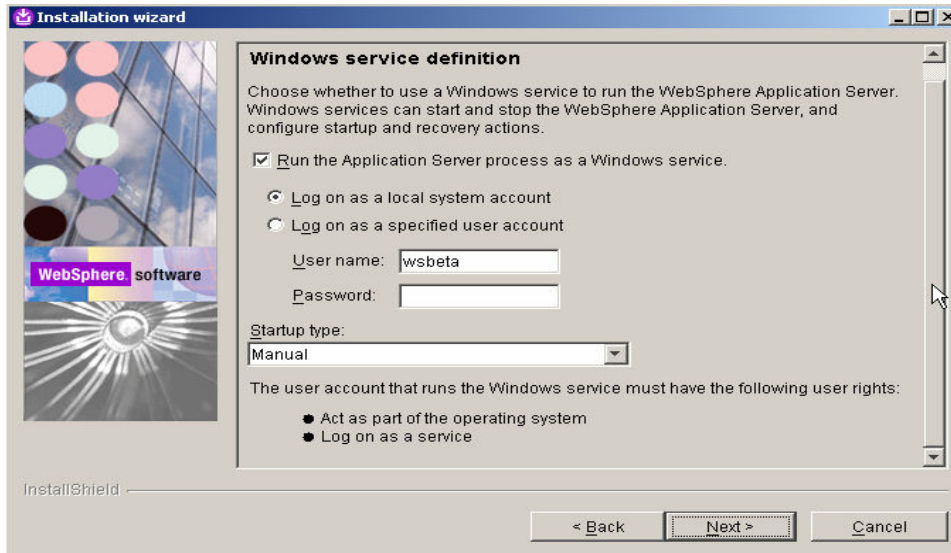


7. **Select** the checkbox next to **Run the Application Server process as a Windows service** and click **Next**. If you want to select the option Log on as specified user account, make sure that the user account information you provide must have the following rights

Act as part of operating System

Log on as service

Windows Note: This screen will only appear for windows.



____ 8. The next screen will provide a summary of the profile you are about to create. Review the information and click **Next** to begin the profile creation.

____ 9. After the profile has been created you will be presented with the option to launch the First steps console. Leave the check box selected and click **Finish**.

At this particular point, a profile has been created for you. The profile name is **inst1** and it should appear under <WAS_HOME>/profiles

Working with profiles using wasprofile:

This section is optional. If you are interested in learning more about using wasprofile tool, refer to [Working with profiles using wasprofile](#) section later in the document

Part 3: Managing Servers

Starting and Stopping Deployment Manager

The following instructions show how to start and stop the deployment manager. Follow these directions accordingly whenever you need to start or stop deployment manager

1. To start the manager

You can start the Server using the following steps:

a) Using Command Line

- Open a Command window and navigate to the following directory:

<WAS_HOME>\profiles\dmgr\bin

- Use the following command below to start the server:

 **startManager.bat**

  **./startManager.sh**

When the server has started successfully, the final two lines displayed will read:

Server launched. Waiting for initialization status.

Server dmgr open for e-business; process id is 1932

Note: The process id may vary. This can also be verified in the log file **startServer.log** in the **<WAS_HOME>\profiles\dmgr\logs\dmgr** directory.

Progress can be monitored by viewing the **SystemOut.log** file in the **<WAS_HOME>\profiles\dmgr\logs\dmgr** directory.

b) Alternative way to start the server if it is registered as service (for only):

Go to Start Menu->settings->Control Panel.

Double click Administrative tools.

Double click services

This should open a new window with list of applications registered as services. Right click on the service that says IBM WebSphere Application Server V6 - <hostname>CellManager01 and select start.

2. To stop the manager

a) Using CommandLine:

You can stop the Server using one of the following steps:

- Open a Command window and navigate to the following directory:

<WAS_HOME>\profiles\dmgr\bin

For example:

 **C:\WebSphere60\AppServer\profiles\dmgr\bin**

- Use the command below to stop the server.

 **stopManager.bat**

  **./stopManager.sh**

When the server has been successfully stopped, the final two lines displayed will read:

Server stop request issued. Waiting for stop status.

Server dmgr stop completed.

This can also be verified in the log file **stopServer.log** in the **WAS_HOME>\profiles\dmgr\logs\dmgr** directory

b) Alternative way to stop the server if registered as service (for Windows only):

Go to Start Menu->settings->Control Panel.

Double click Administrative tools.

Double click services

This should open a new window with list of applications registered as services. Right click on the service that says IBM WebSphere Application Server V6 - <hostname>CellManager01 and select stop.

Starting and Stopping Application Server

The following instructions show how to start and stop the standalone application server. Follow these directions accordingly whenever you need to start or stop Application server

___ 1. To start the Server

___ a. Using Command Line

You can start the Server using the following steps:

- Open a Command window and navigate to the following directory:

<WAS_HOME>\profiles\inst1\bin

- Use the following command below to start the server:

 **startServer.bat server1**

  **./startServer.sh server1**

When the server has started successfully, the final two lines displayed will read:

Server launched. Waiting for initialization status.

Server server1 open for e-business; process id is 1932

Note: The process id may vary. This can also be verified in the log file **startServer.log** in the **<WAS_HOME>\profiles\inst1\logs\server1** directory.

Progress can be monitored by viewing the **SystemOut.log** file in the **<WAS_HOME>\profiles\inst1\logs\server1** directory.

__ b. Alternative way to start the server if it is registered as service (for Windows only):

Go to Start Menu->settings->Control Panel.

Double click Administrative tools.

Double click services

This should open a new window with list of applications registered as services. Right click on the service that says IBM WebSphere Application Server-<hostname>Node01 and select start.

___ 2. To Stop The Server

You can stop the Server using one of the following steps:

__ a. Using Command Line


- Open a Command window and navigate to the following directory:

<WAS_HOME>\profiles\inst1\bin

For example:

 **C:\WebSphere\AppServer\profiles\inst1\bin**

- Use the command below to stop the server.

 **stopServer.bat server1**

 **./stopServer.sh server1**

When the server has been successfully stopped, the final two lines displayed will read:

Server stop request issued. Waiting for stop status.

Server server1 stop completed.

This can also be verified in the log file **stopServer.log** in the **WAS_HOME>\profiles\inst1\logs\server1** directory

__ b. Alternative way to stop the server if registered as service (for Windows only):

Go to Start Menu->settings->Control Panel.

Double click Administrative tools.

Double click services

This should open a new window with list of applications registered as services. Right click on the service that says IBM WebSphere Application Server-<hostname>Node01 and select stop.

Administrative Console

The Deployment Manager and Application server profiles can be managed using the Administrative Console.

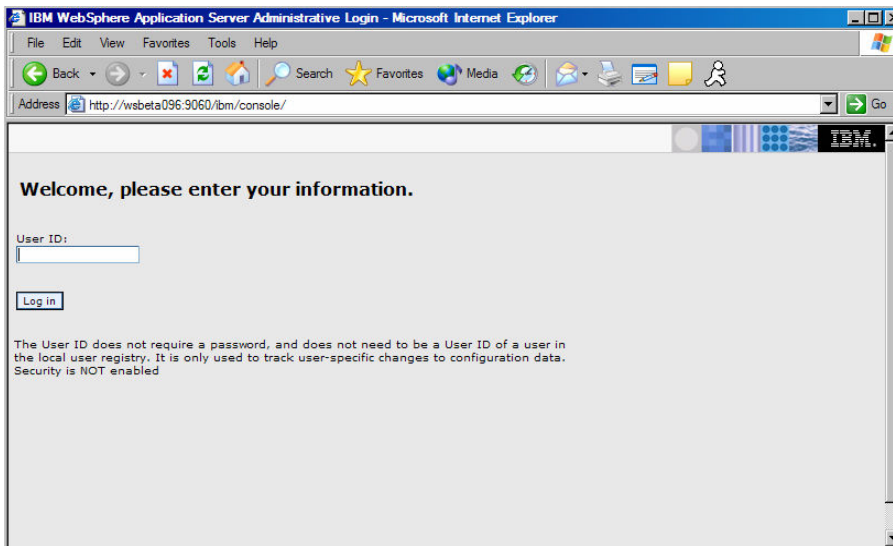
The administrative console port is made use of to access the administrative console of a corresponding profile.

Before federation of a profile into the Deployment Manager cell, the Application Server profile (Standalone) has its own Administrative Console, but once you federate this profile into the Deployment Manager cell, the Deployment Manager Administrative Console is made use to manage the federated Application Server profile. The federated profile can no longer be managed from its own Administrative console. We will talk more about federation later in the document in the [Federation](#) section

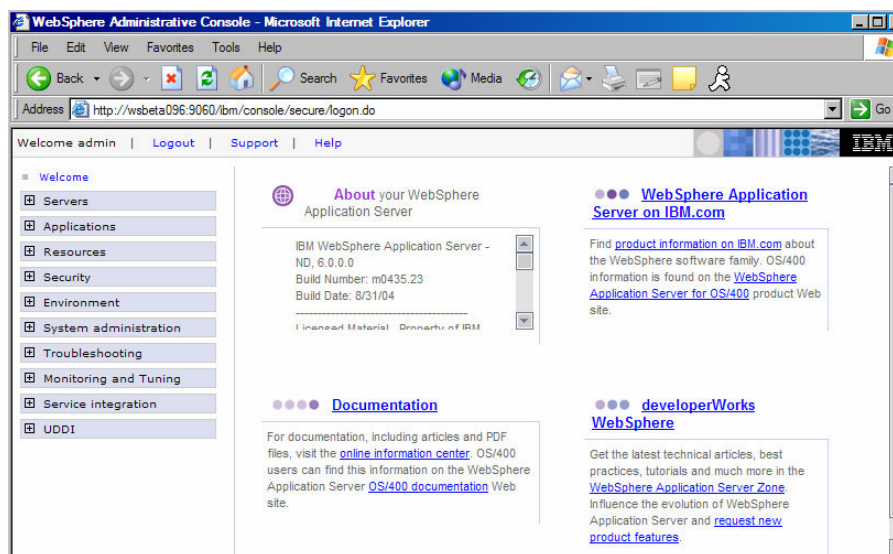
1. Open an administrative console by using the URL <http://<hostname>:9060/ibm/console>

Make sure that the server is running in order for the administrative console to work

2. **NOTE:** Remember to change the text, <host_name>, within the given URL to the actual host name of the server started, as shown in the screenshot below. You can retrieve the host name of your server by using the “hostname” command from the command line.



3. Type admin as username and click login button



- ____ 4. Logout of the Administrative Console by clicking Logout on the top of the screen in Administrative Console.

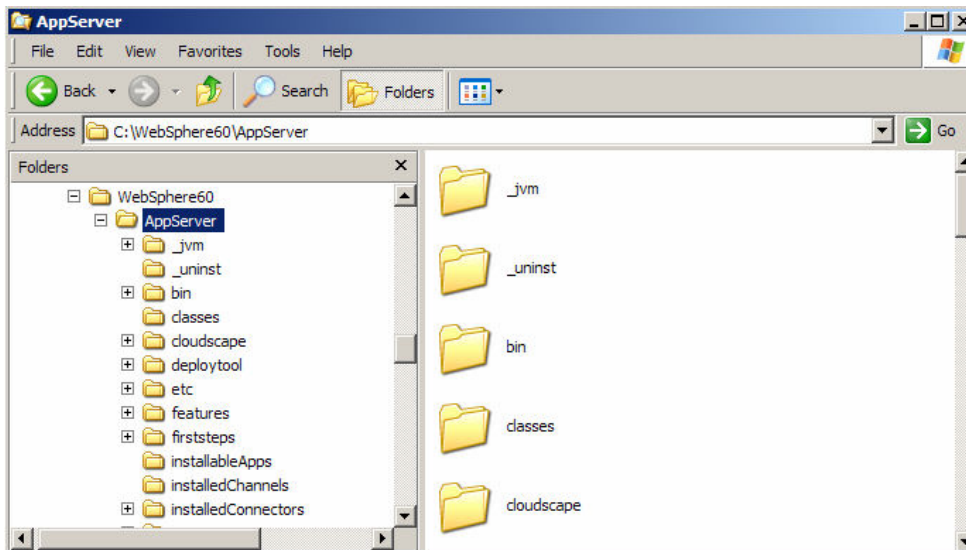
Directory Structure:

Installation Directory:

The Application server binary is installed in <WAS_HOME>

For example:

Windows C:\WebSphere60\AppServer



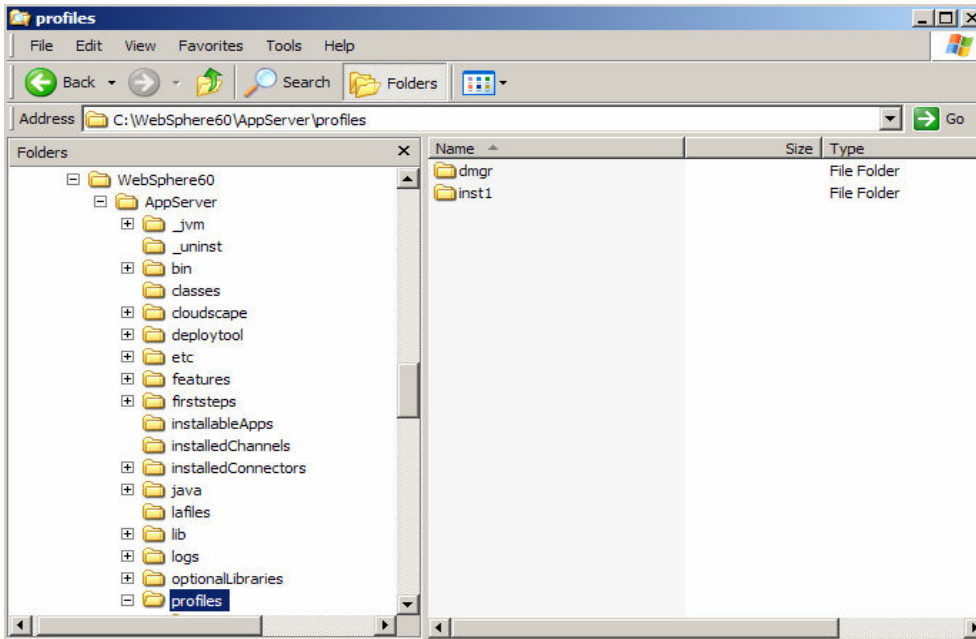
The profiles are created under <WAS_HOME>/profiles directory. The profiles that are created using the same binary are placed under <WAS_HOME>/profiles distinguished by the profile name.

For Example:



The path to the profile inst1 that you created during the installation is:

C:\WebSphere60\AppServer/profiles/inst1

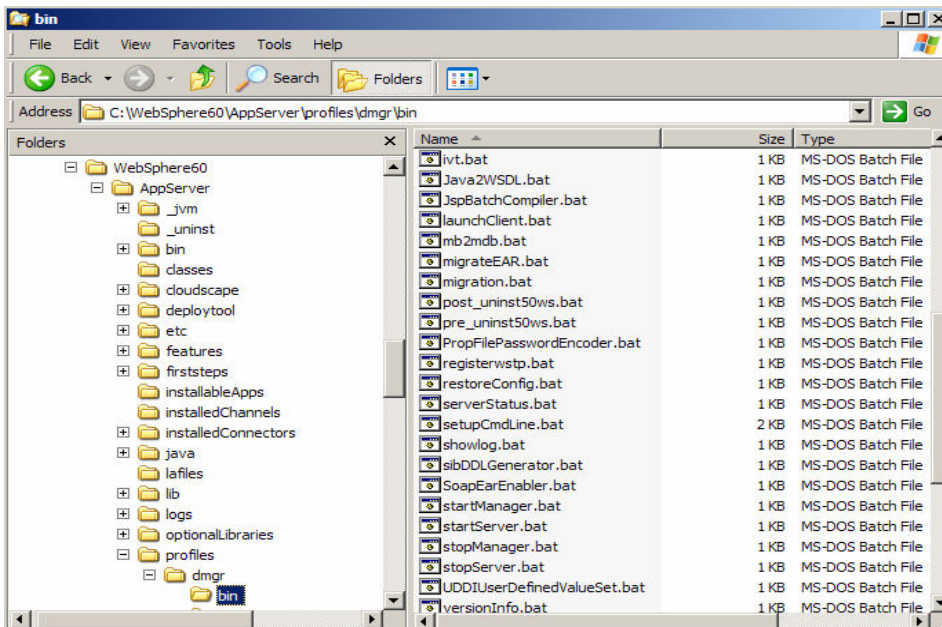
If you create a new profile called inst2, then there would be another additional folder called inst2 under this directory



The bin directory under <WAS_HOME>/profiles/inst1 contains scripts like **startServer.bat**, **stopServer.bat**, **serverStatus.bat** and many other scripts.

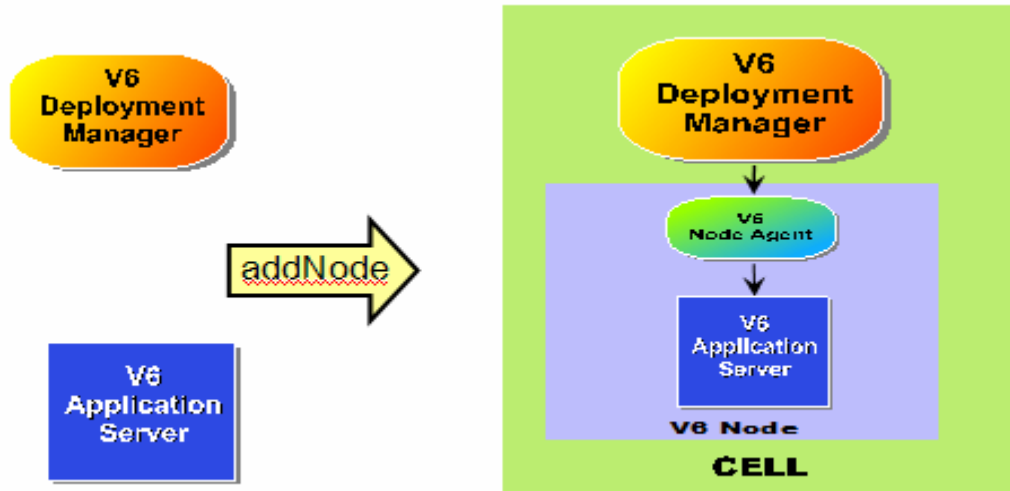
For   environment the file extension is **.sh** instead of **.bat**

Note: It is recommended that you use the scripts under <WAS_HOME>/profiles/<profilename>/bin when working with a particular profile instead of using scripts under the <WAS_HOME>/bin directory.



Part 4: Federating a Node

The **addNode** operation federates a WebSphere Application Server into a cell. The operation must be executed from the `<WAS_HOME>\profiles\<profilename>\bin` directory of a WebSphere Application Server base installation.



AddNode operation does the following:

- Copies the base WebSphere Application Server configuration to a new cell structure. This new cell structure matches the structure of Deployment Manager.
- Creates a new node agent definition for the node being incorporated into the cell.
- Send commands to the Deployment Manager to add the configuration files from the incorporated node to the cell repository.
- Launches the node agent process for the incorporated node.
- Performs the initial configuration synchronization for the new node, and verifies that this node is synchronized with the cell.
- Updates the **setupCmdLine.bat** or **setupCmdline.sh** and the **wsadmin.properties** files to point to the new cell structure.

addNode command:

- ___ a. Stop the Application server that is being federated into a Network Deployment cell. Refer to the section [Starting and Stopping Application Server](#)
- ___ b. Make sure the Deployment Manager is up and running using the steps in section [Starting and Stopping Deployment Manager](#).
- ___ c. To federate a node, navigate to the bin directory of the stand alone application server instance

`<WAS_HOME>\profiles\inst1\bin`. Run the command:



addNode.bat <deployment manager hostname> <SOAP port>

 **./addNode.sh <deployment manager hostname> <SOAP port>**

For Example:

So, if the base and the Deployment Manager are on the same machine and SOAP port of Deployment Manager profile is 8879, you will use the following command

 **addNode.bat localhost 8879 -includeapps**

 **./addNode.sh localhost 8879 -includeapps**

Note:

SOAP Port: You can get the SOAP port of the deployment manager by opening the Administrative Console of the deployment manager.

Go to System Administration → Deployment Manager → Ports
You should see it under SOAP_CONNECTOR_ADDRESS

includeapps : By default, applications that are installed on the node will not be copied to the cell. To force the **addNode** operation to do so, you will need to specify the **-includeapps** option. If there are existing applications with the same name in the cell, these will not be copied.

Federating a node to a cell using the **addNode** command does not merge any cell-level configuration files. Any changes made to the standalone cell-level files prior to the **addNode** operation must be repeated on the new cell. For example, virtual host information.

When the node has been successfully federated, the final line displayed will read:

Node <nodeName> has been successfully federated.

This can also be verified in the log file **addNode.log** in the **<WAS_HOME>\profiles\inst1\logs** directory.

Node Agent:

Node agents are administrative agents that route administrative requests to servers. A Node agent is created during the federation process. The deployment Manager communicates with the federated node (Application Server profile) with the help of Nodeagent.

A node agent is a server that runs on every host computer system that participates in the WebSphere Application Server Network Deployment product. It is purely an administrative agent and is not involved in application serving functions. A node agent also hosts other important administrative functions such as file transfer services, configuration synchronization, and performance monitoring.

1. Starting the node agent

During federation, node agent is started automatically. In case you want to start node agent manually at later time when it is in stop state, you can start the node agent using the following command:

a. Open a Command window and navigate to the following directory:

 **<WAS_HOME>\profiles\inst1\bin**

 **<WAS_HOME>/profiles/inst1/bin**

___ b. Use the following command below to start the nodeagent :

 **startNode.bat**
  **./startNode.sh** for

___ c. When the node agent has started successfully, the final two lines displayed will read:

Server launched. Waiting for initialization status.




Server nodeagent open for e-business; process id is 21288

Note: The process id may vary. The above pid is just an example .

___ 2. Stopping the node agent

The **stopNode** command reads the configuration file for the Network Deployment node agent process and sends a Java Management Extensions (JMX) command telling the node agent to shut down. By default, the **stopNode** command waits for the node agent to complete shutdown before it returns control to the command line.

___ a. Open a Command window and navigate to the following directory:

 **<WAS_HOME>\profiles\inst1\bin**
  **<WAS_HOME>/profiles/inst1/bin**

___ b. Use the following command below to stop the nodeagent :

 **stopNode.bat**
  **./stopNode.sh**

___ c. When the node agent has stopped successfully, the final two lines displayed will read:

Server stop request issued. Waiting for stop status.

Server nodeagent stop completed

Part 5: Optional

Working with profiles using wasprofile:

Some of the tasks that can be done using **wasprofile** are

Open a command prompt. Navigate to the **C:\WebSphere\AppServer\bin** directory.

___ 1. List Profiles:

The listProfiles command allows you to see all of the profiles currently on this machine. On the command prompt issue the **wasprofile -listProfiles** command. You should see the profile **inst1** that you created during installation.

___ 2. Get Path of Profile:

You can learn the path associated with a profile as well. Issue the command **wasprofile -getPath -profileName inst1** and this will display the path for **inst1**.

___ 3. Creating and Deleting profiles:

You also have the option of creating a new profile from the command line.

 	wasprofile.sh
	wasprofile.bat

wasprofile.sh -create

```
-profileName profile_name
-profilePath profile_path
-templatePath template_path
-nodeName node_name
-cellName cell_name
-hostName host_name
[-startingPort starting_port | -portsFile port_file]
[-registry registry_name]
[-debug]
```

The templates to be used with the **-templatePath** variable are located in;
was_home/profileTemplates/default for a stand-alone application server.

The **-startingPort** variable is important so that this new profile doesn't conflict with the ports already used by the existing profile, profile1. You can either provide a starting port number to be used or create a ports file listing the various ports for the profile. You can find the ports used by an existing profile by looking at the file located in:

```
<WAS_HOME>\profiles\<profile_name>\config\cells\<cell_name>\nodes\<node_name>\serverind
ex.xml
```

___ a. Creating Profile:

Create a new profile using the command line interface. Issue the following command(Note this is all one line), this command will take a few minutes to complete:

Example:

```
wasprofile -create -profileName inst2 -profilePath C:\WebSphere\AppServer\profiles\inst2 -  
templatePath C:\WebSphere\AppServer\profileTemplates\default -nodeName testNode -  
cellName testCell -hostName localhost
```

Note:

Include the path to profile and template in quotes if the path has spaces.

You can get your hostname by using the hostname command in the command prompt. In the above example, localhost is used to create profile on the same host you are running the command.

__ b. Listing all Profiles:

While still in **C:\WebSphere\AppServer\bin** in the command prompt.

Issue the **wasprofile -listProfiles** command. You should see dmgr, inst1 and inst2.

__ c. Delete Profile:

Now delete inst2 using the wasprofile command. Issue the command
wasprofile -delete -profileName inst2.

Part 6: Optional

Uninstalling the WebSphere Application Server V6

Before uninstalling IBM WebSphere Application Server v6, make sure you **stop** all the application servers. Navigate to the following directory:

`<WAS_HOME>_uninst`

Run `uninstaller.exe` for  or `./uninstaller.bin` for  

The wizard will guide you through the uninstall process.

After the uninstall process is complete, you will notice that some of the directories still exist within the directory. Manually delete the `<WAS_HOME>` directory and then reboot your computer if you have a Windows operating System. You have now successfully uninstalled the IBM WebSphere Application Server Network Deployment V6.

Part 7: Troubleshooting the Installation

The successful installation of the Network Deployment product is a two-part process:

The first step is using the installation wizard to install a shared set of core product files.

The second step is using the *Profile creation wizard* to create a *deployment manager profile*, an *Application Server profile*, or a *custom profile*.

The <WAS_HOME>/logs/log.txt file, the <WAS_HOME>/logs/wasprofile/wasprofile_create_profile_name.log file, and the profiles_root/profile_name/logs/pctLog.txt file record installation status.

The installer program records the following indicators of success in the logs:

INSTCONFSUCCESS

INSTCONFPARTIALSUCCESS

INSTCONFFAILED

If the error happens early in the installation, look for the log.txt file in the system temporary area. The installation program copies the log from the temporary area to the logs directory at the end of the installation.

Perform the following procedure to troubleshoot an installation.

Steps for this task

Check the installation log files for errors after installing:

During installation, a single entry in the <WAS_HOME>/logs/log.txt file points to the temporary log file, either %TEMP%\log.txt on Windows platforms, or /tmp/log.txt on Linux and UNIX platforms. The installation program copies the file from the temporary directory to the <WAS_HOME>/logs/log.txt location at the end of the installation.

If the installation fails and the <WAS_HOME>/logs/log.txt has only this one pointer to the temporary directory, open the log.txt file in the temporary directory. The log might have clues to the installation failure. Uninstalling creates the <WAS_HOME>/logs/uninstlog.txt file.

Using a machine with a DHCP IP address can cause problems if the IP address changes subsequently. It is recommended to use a fixed IP address.

A minimum of 80Mb free disk space in the temporary directory is necessary in order for the Administrative Console application to be installed successfully.

IBM WebSphere Application Server can write system messages to several general-purpose logs. These include the JVM logs, the process logs and the IBM service log.

Table 1. Installation logs for WebSphere Application Server products

Log	Content	Indicators
<WAS_HOME>/logs/log.txt	Logs all installation events	<p>INSTCONFFAIL Total installation failure.</p> <p>INSTCONFSUCCESS Successful installation.</p> <p>INSTCONFPARTIALSUCCESS Installation errors occurred but the installation is still usable. Additional information identifies the errors</p>
<WAS_HOME>/logs/wasprofile/wasprofile_create_profile_name.log	<p>Traces all events that occur during the creation of the named profile</p> <p>Created when using the Profile creation wizard or the wasprofile command</p>	<p>INSTCONFFAIL Total profile creation failure.</p> <p>INSTCONFSUCCESS Successful profile creation.</p> <p>INSTCONFPARTIALSUCCESS Profile creation errors occurred but the profile is still functional. Additional information identifies the errors.</p>
<WAS_HOME>/logs/wasprofile/wasprofile_delete_profile_name.log	<p>Traces all events that occur during the deletion of the named profile</p> <p>Created when using the Profile creation wizard or the wasprofile command</p>	<p>INSTCONFFAIL Total profile deletion failure.</p> <p>INSTCONFSUCCESS Successful profile deletion.</p> <p>INSTCONFPARTIALSUCCESS Profile deletion errors occurred but the profile is still deleted. Additional information identifies the errors.</p>
<WAS_HOME>/profiles/profile_name/logs/pctLog.txt	Logs all profile creation events that occur when using the Profile creation wizard	<p>INSTCONFFAIL Total profile creation failure.</p> <p>INSTCONFSUCCESS Successful profile creation.</p> <p>INSTCONFPARTIALSUCCESS Profile creation errors occurred but the profile is still functional. Additional information identifies the errors.</p>

What you did in this exercise

In this lab you installed WebSphere Application Server v6, and created deployment manager and Application server profiles. You have federated the Application Server profile into the Deployment Manager cell. You worked with the new command line tools provided for creating and managing profiles.