

## Chapter 2

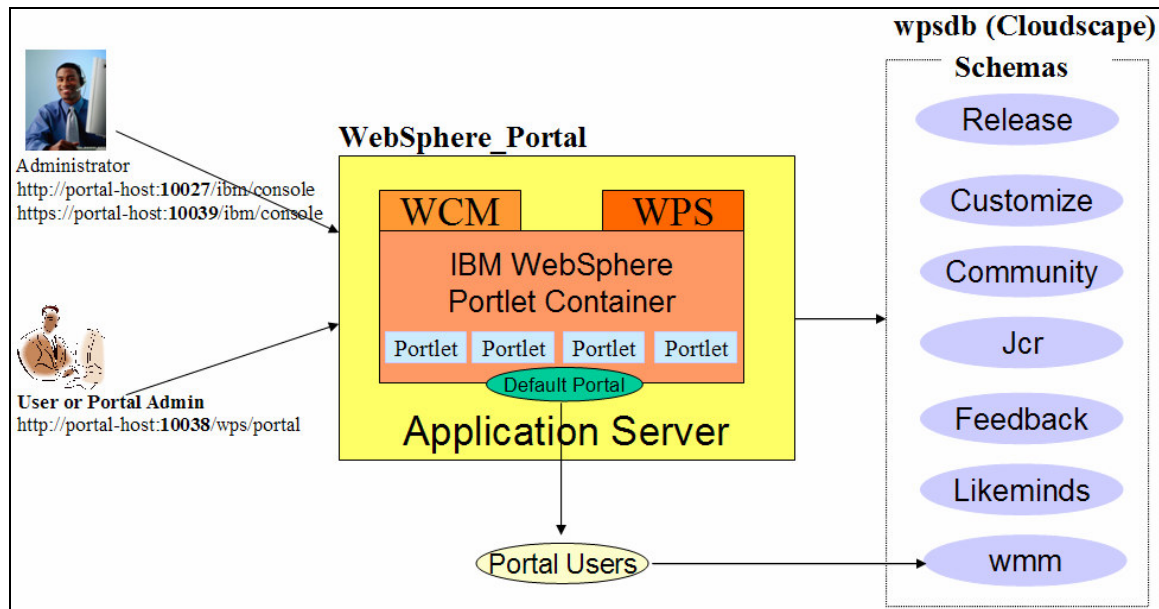
# WebSphere Portal Server V6: Architecture, Installation, Configuration, Verification and Management on a Stand-alone Node

## Introduction

As explained in chapter 1 of this series, WebSphere Portal Server is a J2EE application that runs on top of WebSphere Application Server. WebSphere Portal Server will provide a runtime environment for IBM specific portlets. Portlets run inside a portlet container just like servlets runs inside an application server. A portal is a Web site that provides users with a single point of access to Web-based applications. Using the WebSphere Portal Server you can assemble the portlets and manage secure B2B (business to business), B2C (business to consumer) and B2E (business to employees) portals. Entry to each application on a portal page will be through a portlet. You individually develop portlets and assemble them together to create a customized web pages (or portal pages). WebSphere Portal can deliver Web content to various browsers, mobile devices and desktops.

The latest release of the WebSphere Portal Server at the time of writing this document is V6. WebSphere Portal Server V6 (WP V6) runs on top of WebSphere Application Server ND V6.0.2.9 (WAS V6) software. So, you can imagine that WebSphere Portal has set of programs that run in the WebSphere Application Server JVM just like any other J2EE application (but the way you deploy and manage IBM portlet applications are different from J2EE applications). If you are a WebSphere Portal architect or an administrator, having a good knowledge of WAS V6 will help you quickly understand many configuration scenarios and help you solve the problems quickly. In this document, you will see how to install WP V6 on a stand-alone node (un-managed node) and understand the WP V6 default architecture and the configuration.

You can optionally choose to install business process functionality during the WP V6 installation if you want. Also all the code required to enable WebSphere Content Management (WCM) features will be installed during the WP V6 installation by default. However, you need to enable WCM feature by running a configuration task if you want to use that feature.



As shown in the illustration above WP V6 will store portal configuration data in the Cloudscape database (wpsdb) by default under various schemas during the installation. You will know more about what is stored in each schema in a later part of this chapter. In later chapters we will see why and how to migrate portal configuration data to DB2 and Tivoli Directory Servers from a Cloudscape database.

You can access the default portal page at port 10038 (<http://portal-host:10038/wps/portal>) and the admin console at port 10027 (<http://portal-host:10027/ibm/console>) and 10039 (<https://portal-host:10039/ibm/console>) immediately after the installation.

Let us install WP V6 and understand various artifacts that are created during the installation. A good understanding of this basic configuration will help you understand the steps while performing the tasks to migrate configuration from a Cloudscape to DB2 and Tivoli Directory Server.

**<Begin note>** Please refer to [http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp?topic=/com.ibm.wp.ent.d oc/wpf/inst\\_req.html](http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp?topic=/com.ibm.wp.ent.d oc/wpf/inst_req.html) and make sure that your system meets recommended requirements. Even though we will start with installing WebSphere Portal Server V6 initially, we will extend this configuration to use DB2, Tivoli Directory Server (LDAP), HTTP Server, WebSphere Plug-in and Tivoli Access Manager (TAM) in later chapters. We recommend you to have at least a Pentium 4 at 1.4 GHZ, 4GB of RAM and 30GB of disk space or higher. If you want to configure vertical clustering on this machine then you will need a bigger configuration than the recommended configuration. We assume you have loaded all the products in the local machine and are performing all of the steps locally (as these documents are targeted for novice to intermediate audience. In the final part, we will talk about variations and clustering. **<End note>**

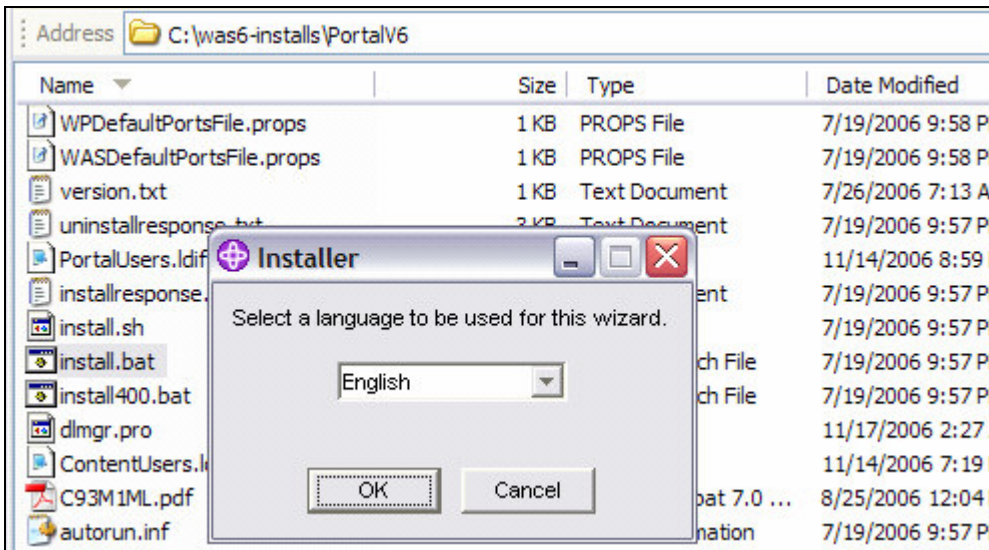
## Install WebSphere Portal Server V6

**Step 1:** If you have not already done so, please go through chapters -1, 3, 4 and 7 from the printed version of the book to get a good understanding on the WAS V6 architecture, installation, configuration, verification, management and administration tasks.

- Temporarily turn off any firewall program that may conflict with the installation process. Make sure that computer settings do not lock the hard disk after a certain period of inactivity on Windows systems, as the Portal installation will take a few hours depending on the size of the system and components you are installing (installing business process functionality for example will take much more time).

**Step 2:** Download WP V6 images from the IBM Passport Advantage site (or Extreme Leverage site if you work for IBM). Expand the zip files in a temporary directory <IMAGES-ROOT> (c:\wasv6-installs\portalv6 in our example) and invoke the installation program (install.bat on the Windows operating system) by double clicking on the installation program (name varies depending on the operating system). Click on **OK** after selecting the language of your choice.

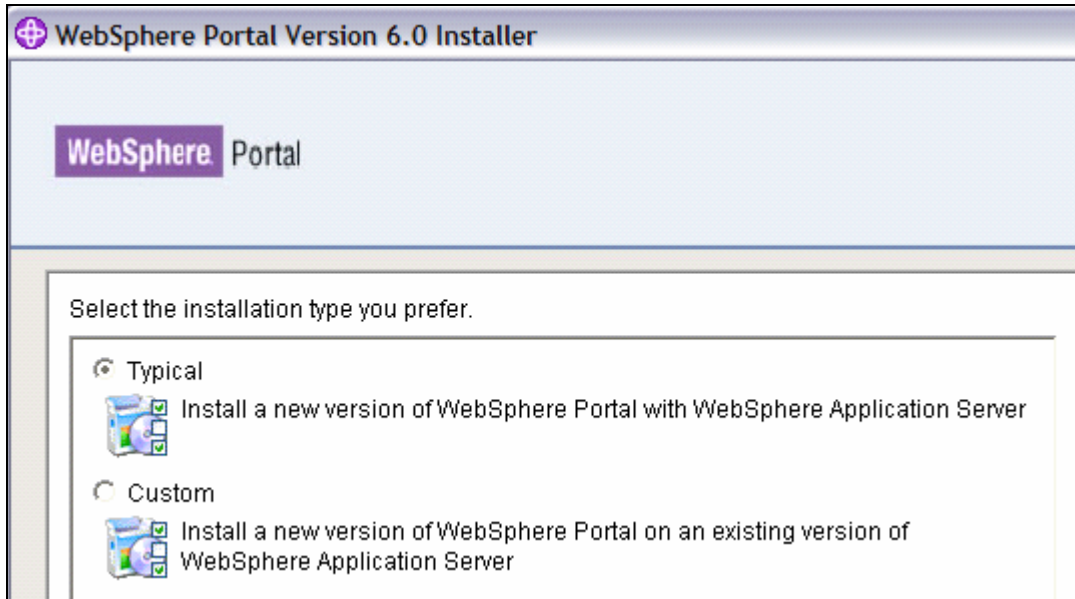
If you have the product images on a CD or DVD, mount the media and navigate to the installation program (install.bat) and double click on it.



**Step 3:** On the Welcome screen click **Next**.

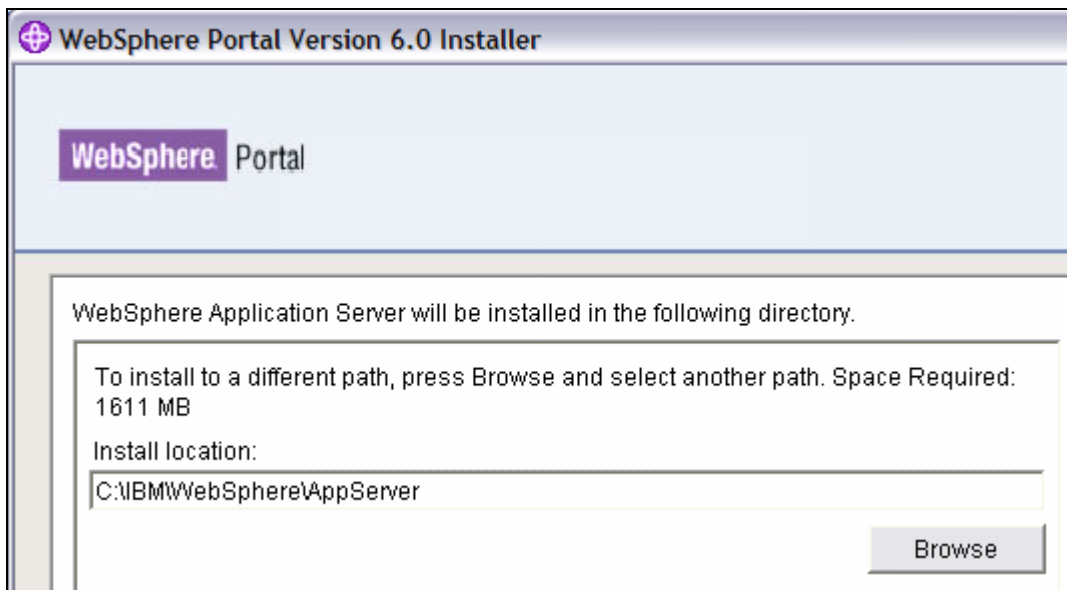
**Step 4:** Select the radio button to accept the license agreement and click **Next**.

**Step 5:** Select **Typical** as the installation type. You will select the Custom installation type when you install Portal Server on top of an existing WebSphere Application Server V6 product.



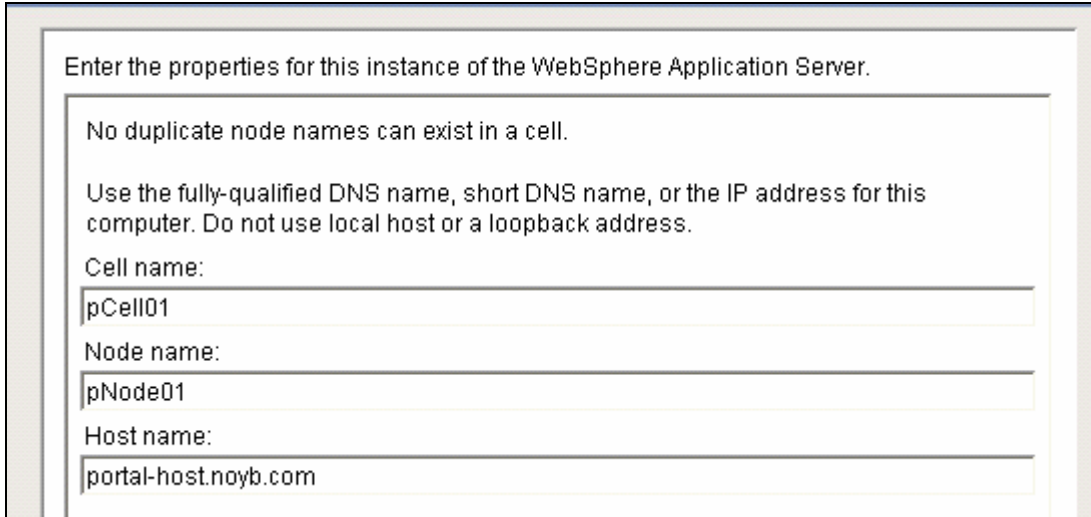
**Step 6:** Specify the installation directory (<WASV6-ROOT>) for WAS (c:\IBM\WebSphere\AppServer in this example). Click **Next**.

- In the **Typical** portal installation, WebSphere Application Server V6.0.2.9 with the required eFixes will be installed first using the customized installation package (under <IMAGES-ROOT>\windows\ia32\ifpackage\WAS) before installing the WebSphere Portal product.



**Step 7:** Select Specify **Cell, Node and Host** names for the instance of WAS on which you are going to install WebSphere Portal Server. Click **Next**.

- Make sure you provide short names for Cell and Node names on Windows machines because of its 256 character limitation.
- Refer to chapter 3 in the printed version of the book for a complete discussion about this page.



Enter the properties for this instance of the WebSphere Application Server.

No duplicate node names can exist in a cell.

Use the fully-qualified DNS name, short DNS name, or the IP address for this computer. Do not use local host or a loopback address.

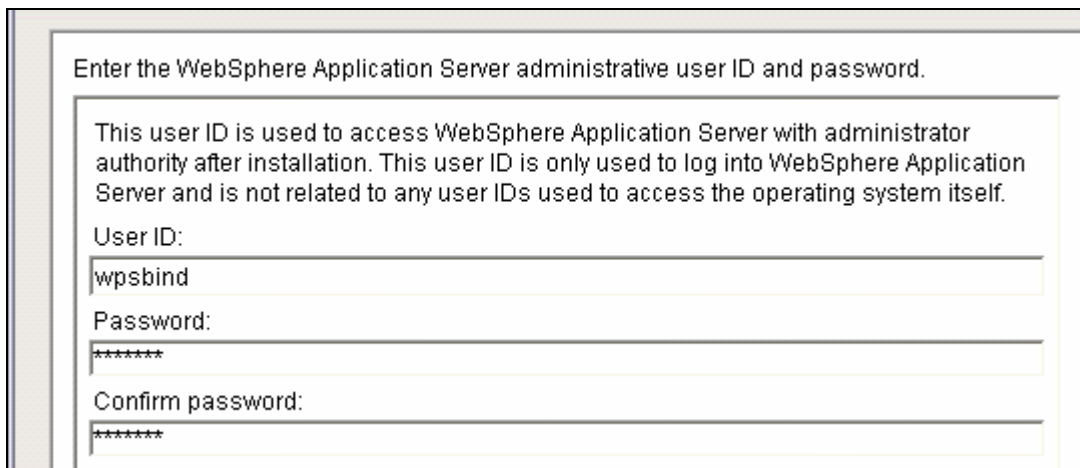
Cell name:  
pCell01

Node name:  
pNode01

Host name:  
portal-host.noyb.com

**Step 8:** Provide administrative user-id and password for WAS. We used wpsbind/wpsbind as our user name and password in our example. Click **Next**.

- You can use any id you feel like, but the only reason we used wpsbind/wpsbind in our sample configuration is because the PortalUsers.ldif file that comes with the product uses wpsbind by default. You will use PortalUsers.ldif when you configure WMM (WebSphere Member Manager) with an LDAP server for authentication in later chapters.
- In this default portal configuration, the user information is stored in Cloudscape database and used to authenticate WAS administrative user, until you complete the migration task to use LDAP server.



Enter the WebSphere Application Server administrative user ID and password.

This user ID is used to access WebSphere Application Server with administrator authority after installation. This user ID is only used to log into WebSphere Application Server and is not related to any user IDs used to access the operating system itself.

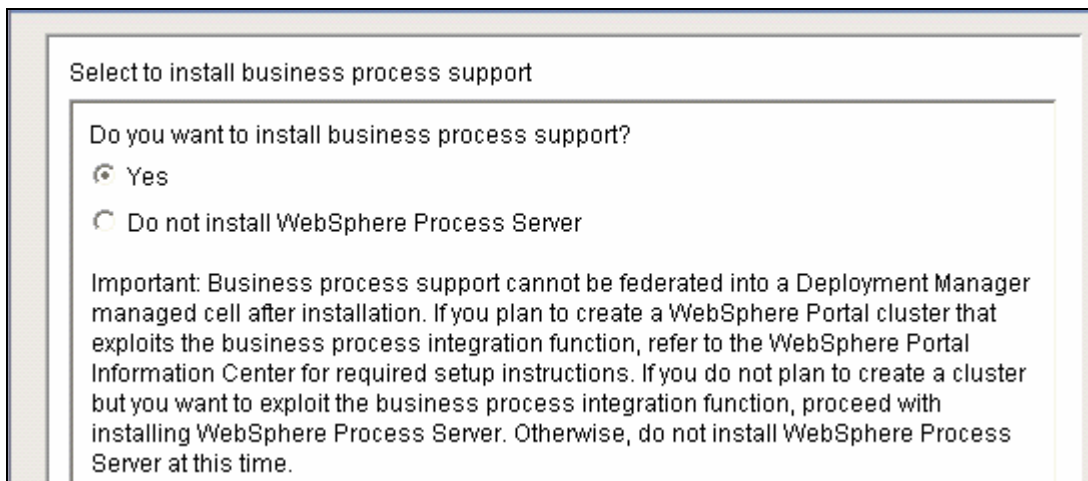
User ID:  
wpsbind

Password:  
\*\*\*\*\*

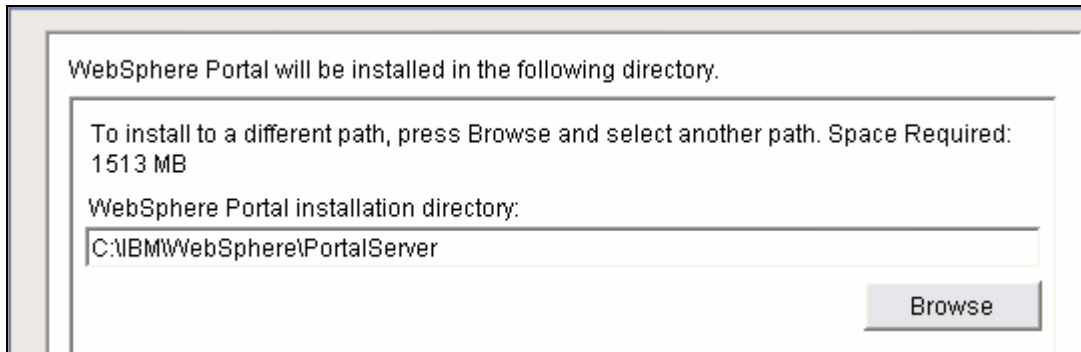
Confirm password:  
\*\*\*\*\*

**Step 9:** Select **Yes** if you want to install the **business process** component installed on WP server. Otherwise, select **No**. Click **Next**.

- Remember though that you cannot federate this node to the Deployment Manager cell to make it a managed node or part of a cluster if you choose to install the business process component now. If you are installing for educational or demo purposes and do not intend to do the clustering lab, feel free to install it.
- In case you want to install the business process support for production environments and want to convert it as cluster environment then the high level steps to use are as follows (we will have a detailed discussion on this topic when we talk about clustering in later chapters):
  1. Install WAS V6.0.2.9.x and WPS V6.0.1.x product binaries on Deployment Manager and portal nodes (do not install portal server at this stage)
  2. Create a process server augmented Deployment Manager profile on dmgr-host.
  3. Create a process server augmented custom profile on portal-host1 (primary node) and federate that node to the Deployment Manager cell on dmgr-host.
    - Install the WebSphere Portal server on this managed node by selecting the Custom type (instead of Typical in step 5) and identify this node as primary node during the installation.
  4. Create a WebSphere Portal cluster using the portal server on the primary node as the first cluster member.



**Step 10:** Specify the installation directory or accept the default (<WPV6-ROOT>) for WebSphere Portal (c:\IBM\WebSphere\Portal in this example). Click **Next**.



WebSphere Portal will be installed in the following directory.

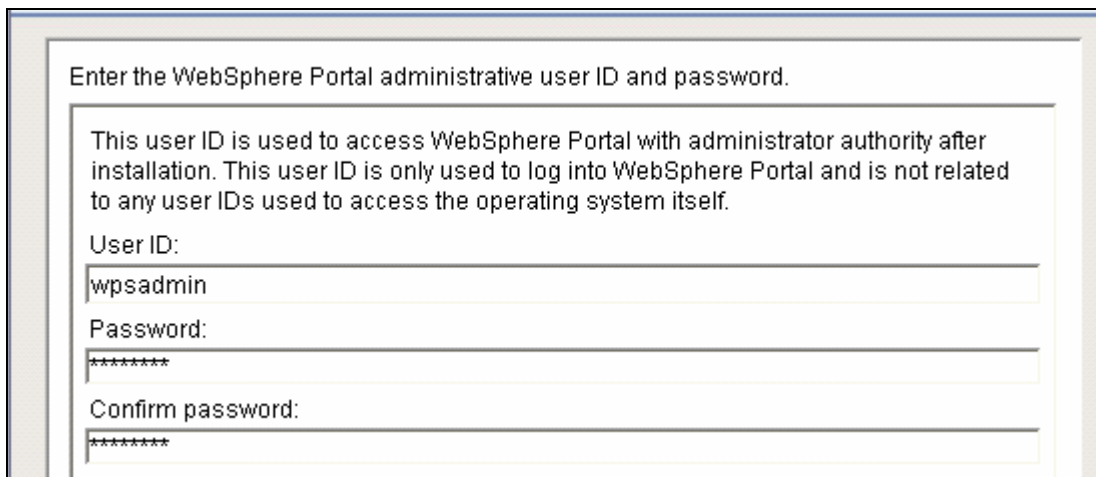
To install to a different path, press Browse and select another path. Space Required:  
1513 MB

WebSphere Portal installation directory:  
C:\IBM\WebSphere\PortalServer

Browse

**Step 11:** Provide an administrative user-id and password for WebSphere Portal. We used wpsadmin/wpsadmin as the user name and password in our example. Click **Next**.

- You can use any id you feel like, but the only reason we used wpsadmin/wpsadmin in our sample configuration is that the PortalUsers.Idif file that comes with the product uses wpsbind by default. You will use PortalUsers.Idif when you configure WMM (WebSphere Member Manager) with an LDAP server for authentication purposes in a later chapter.
- In this default portal configuration this user information (wpsadmin) is stored in the Cloudscape database and used to authenticate Portal administrative user, until you complete the migration task to use LDAP server.



Enter the WebSphere Portal administrative user ID and password.

This user ID is used to access WebSphere Portal with administrator authority after installation. This user ID is only used to log into WebSphere Portal and is not related to any user IDs used to access the operating system itself.

User ID:  
wpsadmin

Password:  
\*\*\*\*\*

Confirm password:  
\*\*\*\*\*

**Step 12:** Select the check boxes if you want to run server1 and WebSphere\_Portal servers as windows services. We unchecked the boxes in our sample configuration. Click **Next**.

- Refer to chapter 3 in the printed version of the book for complete discussion about this page.
- Refer to Chapter 21 in the printed version of the book if you want more information to register or un-register these servers in future from the Windows services panel.

Select the products to run as a service.

You can use Microsoft® Windows® Services to run the following features: start and stop server, configure startup and recovery actions.

WebSphere Application Server

WebSphere Portal

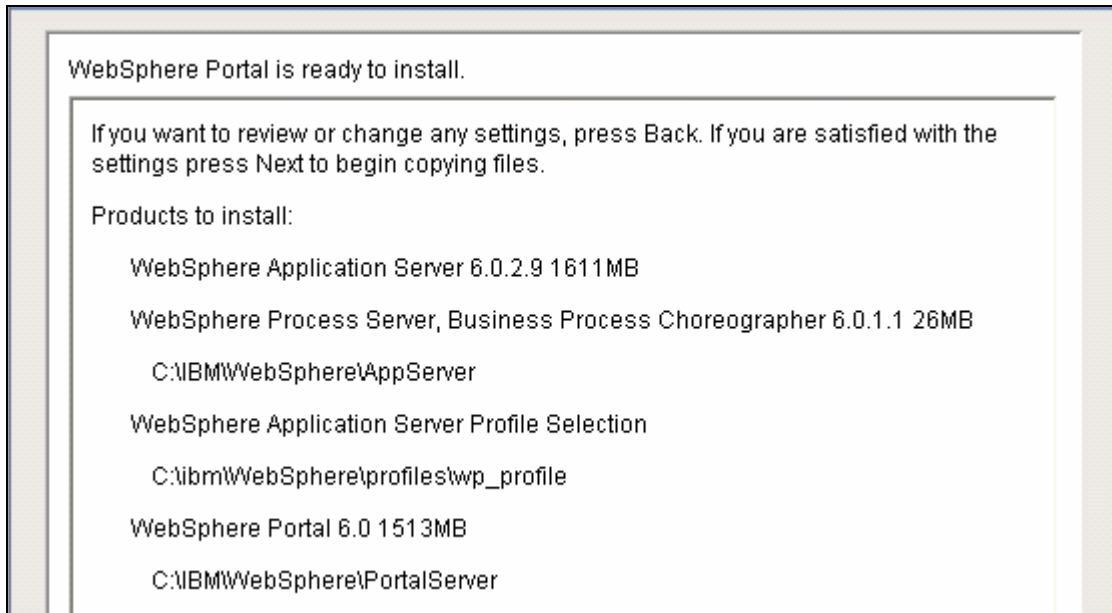
Windows Administrator User ID:

operator

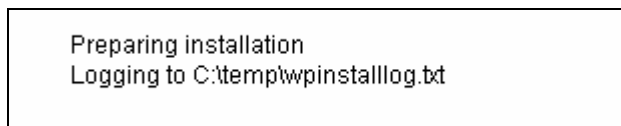
Password:

**Step 13:** Verify the summary screen and click **Next** to start installing the product.

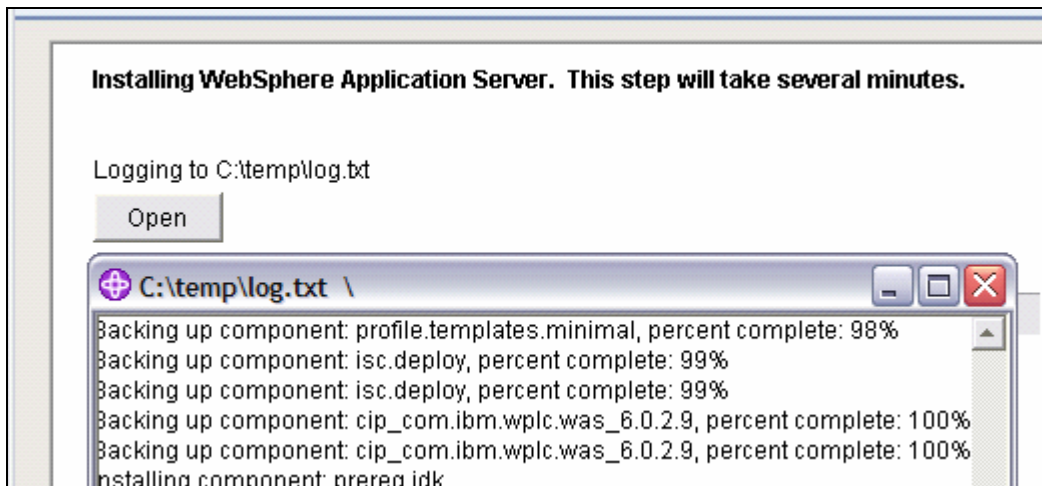
- The installation program now installs the following
  - WAS V6.0.2.9.x under <WASV6-ROOT> (c:\IBM\WebSphere\AppServer in our case).
  - WebSphere Portal V6 under <WPV6-ROOT> (c:\IBM\WebSphere\Portal in our case) and
  - Profile (wp\_profile) under <WP-PROFILE-ROOT> (c:\IBM\WebSphere\profiles\wp\_profile)
    - After the installation, you can see the creation of two application servers: (1) default server (server1) and (2) WebSphere Portal Server (WebSphere\_Portal) under this wp\_profile.
    - In WP V6, you no longer have to use server1 for administrative purposes as WebSphere Portal is also installed with system applications (adminconsole and FileTransfer EARs). As discussed in the Introduction section, the admin console application is available at ports 10027 (http) and 10039 (https) by default on WebSphere\_Portal.
      - Occasionally, you may have to get connected to server1. Some of the reasons are: (1) when you cannot start WebSphere\_Portal server and it needs configuration changes through the admin console on server1 or (2) to run wsadmin scripts.
    - If you have worked with WAS V6 ND before, you will quickly realize that WP V6 does not use the default profile location of WAS V6 ND that was in the <WASV6-ROOT>\profiles directory for creating wp\_profile. Instead, it creates this profile outside of the product binaries directory (or installation directory).



- The installation program will now log the entries in the wpinstalllog.txt for a brief period under the TMP directory during the initial phase of installation.



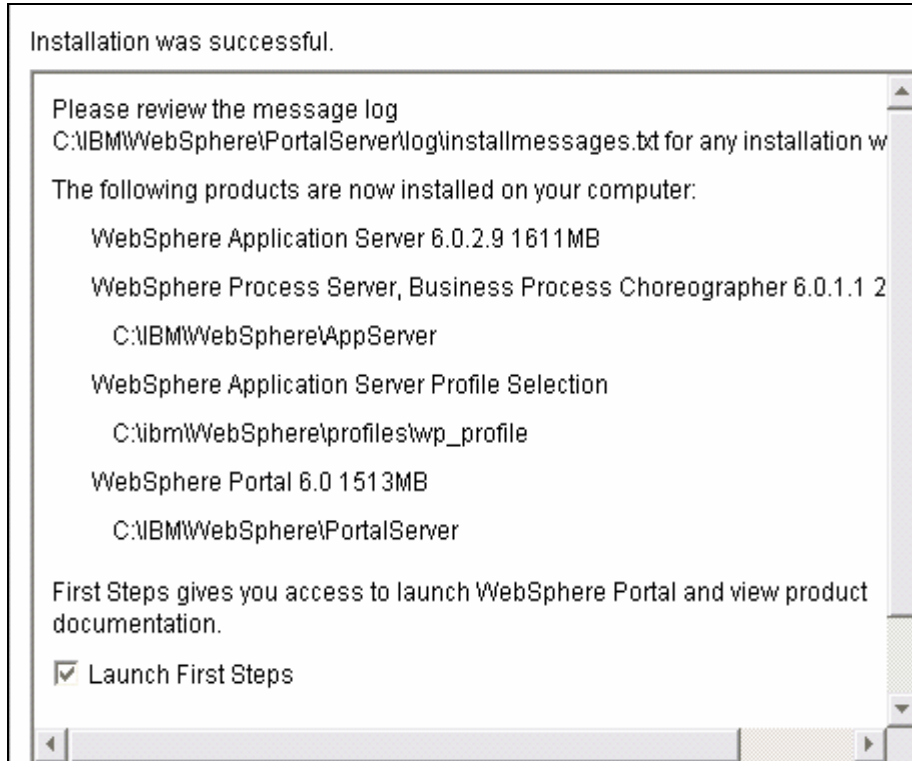
- Then the installation program will log the progress in the log.txt under the TMP directory during the next phase. At this time, you can click on **Open** button to view the log entries.



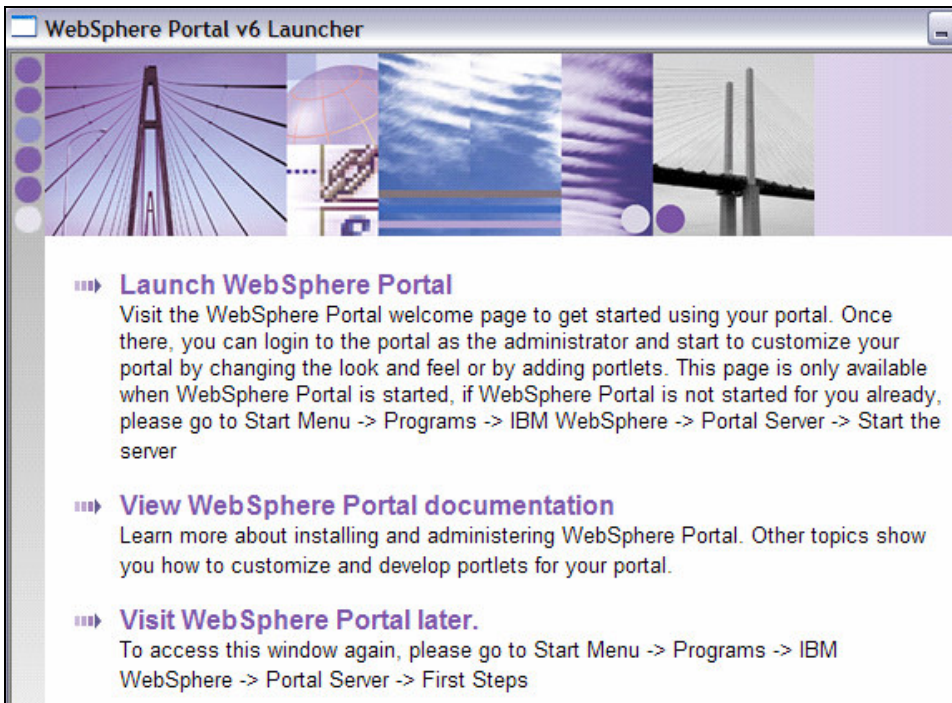
- Be patient, the Portal installation will take a few hours depending on the size of the system and components you are installing.

**Step 14:** On the successful installation screen, select the check box for **Launch First Steps** and click on **Finish**.

- You can launch the first steps anytime by double clicking **index.hta** under <WPV6-ROOT>\firststeps directory.



**Step 15:** Click on **Launch WebSphere Portal** on the resulting screen to log into the Portal welcome page. This is one of the verification steps that proves that the WebSphere Portal Server has been installed successfully.



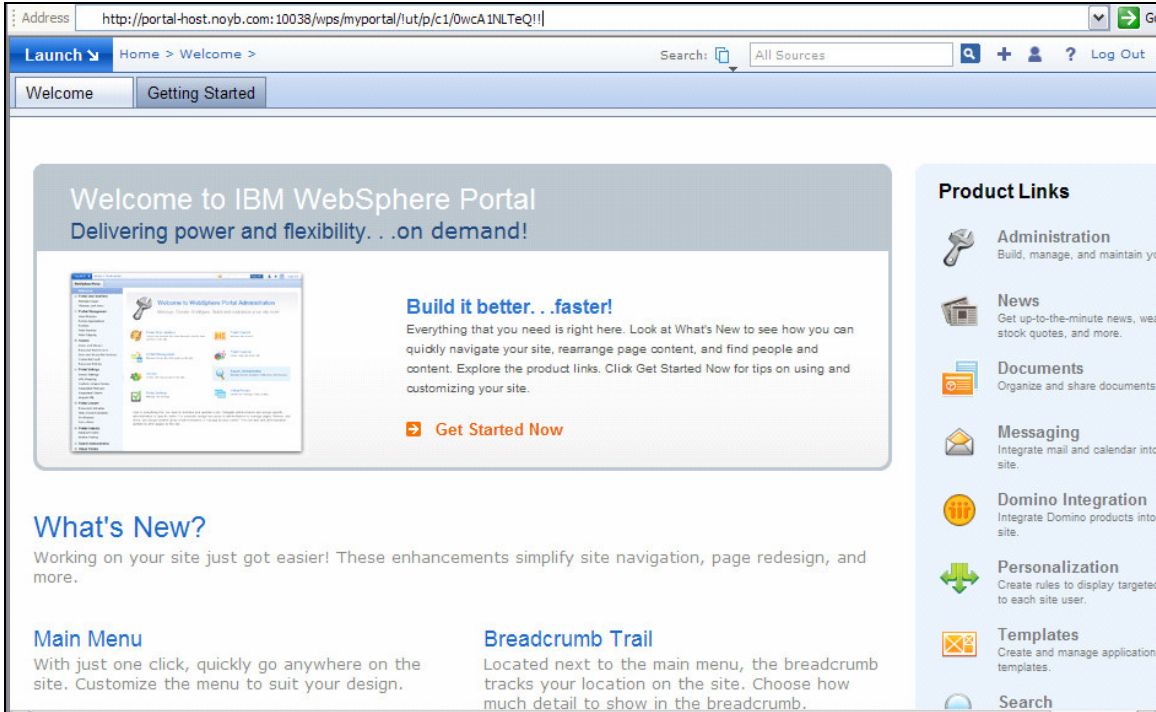
**Step 16:** Enter **wpsadmin** as the userid and password and click on **Login** to log into the WebSphere Portal welcome page. Remember that the userid and password were the portal administrator userid and password you provided during the installation.

- You can invoke the portal home page any time from a browser using the URL <http://portal-host:10038/wps/portal>

The screenshot shows a web browser window displaying the WebSphere Portal login page. The address bar contains the URL <http://portal-host.noyb.com:10038/wps/portal>. The page has a blue header with a 'Launch' menu and a breadcrumb trail 'Home > Welcome >'. Below the header is a 'Welcome' section. The main content area contains a login form with the following elements:

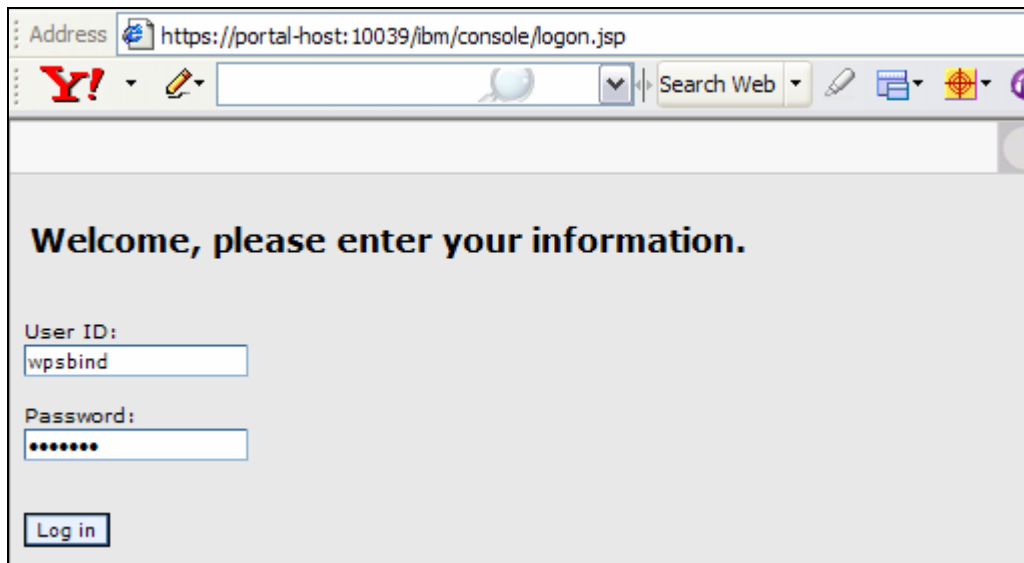
- 'User ID:' label and an input field containing 'wpsadmin'
- 'Password:' label and an input field containing masked characters (dots)
- 'Not registered?' text with a blue link 'Sign up'
- 'Log in' and 'Cancel' buttons

**Step 17:** Navigate around the page if you like and click on **Logout** (at top right corner of the page) to verify other parts of the artifacts. We will be working more on this page in the coming chapters.

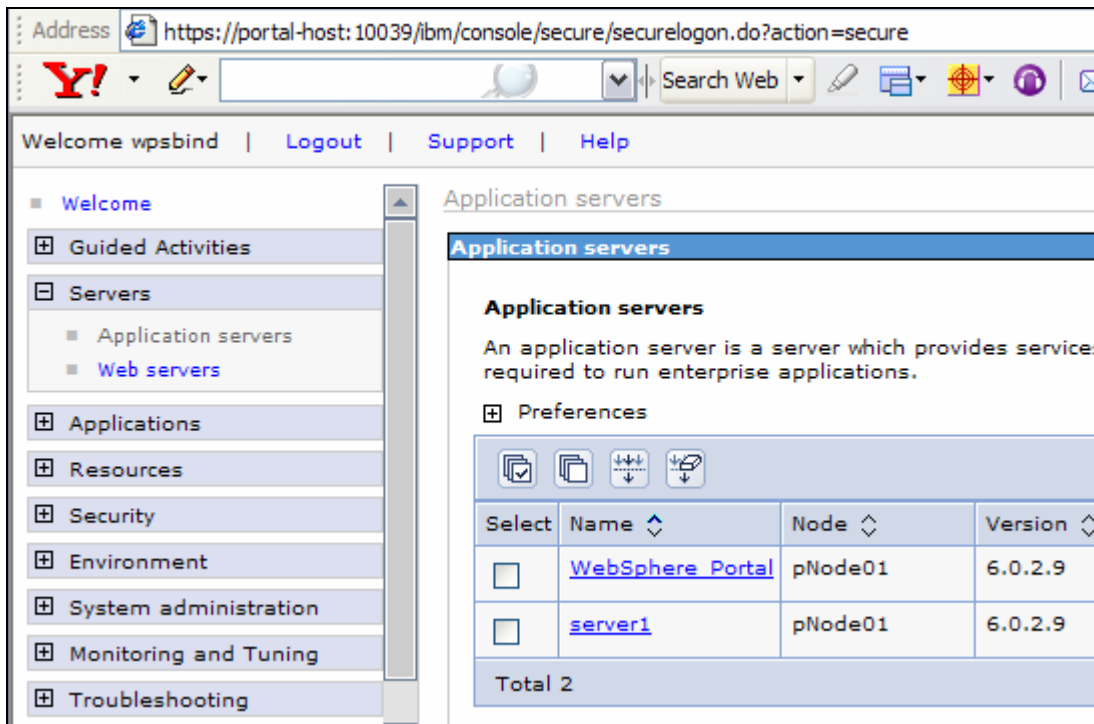


**Step 18:** Connect to the admin console running on the Portal server from a browser using the URL <http://portal-host:10027/ibm/console> (because if administrative security is enabled during the installation, the URL will automatically be switched to https at port# 10039)

- Enter **wpsbind** as userid and password and click on **Login** to log into the admin console. Remember that userid and password were the WAS administrator userid and password you provided during the installation.

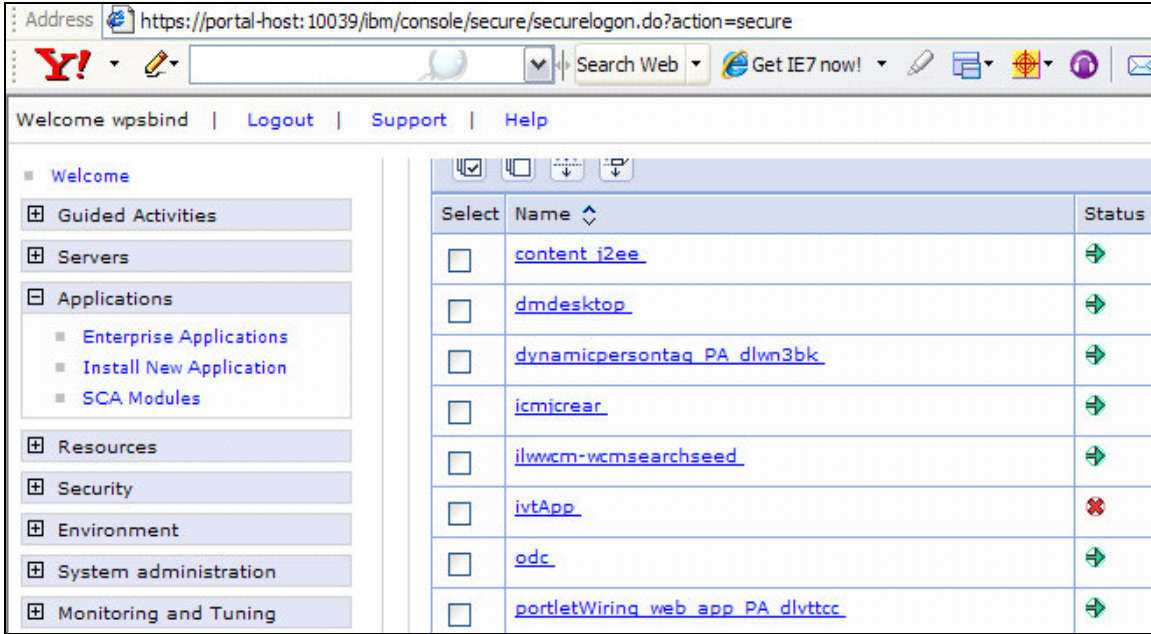


**Step 19:** On the admin console navigate to **Servers|Application servers** to see that Portal installation program has created two servers as we discussed before, (1) server1 and (2) WebSphere\_Portal.



**Step 20:** On the admin console, again navigate to **Applications|Enterprise applications** to see various sample and demo portlet applications that have been deployed during the installation.

- You can see that the WAS-ND default applications (defaultapplication, ivt, query) that are deployed on server1 even though you connected to the admin console on the WebSphere\_Portal server. You need to connect to server1's admin console if you want to stop and start these default applications. For your information, if you want to connect to the admin console on server1 for any reason then:
  - Start the server server1 using "startServer.bat server1" from <WP-PROFILE-ROOT>\bin directory from the command line.
  - Use `http://portal-host:10001/ibm/console` to connect to the admin console (`https://portal-host:10003/ibm/console` for secured port) from a browser.
  - Use `http://portal-host:10000/snoop` to invoke snoop servlet (`https://portal-host:10002/snoop` for secured port) from a browser.
- Navigate around the page if you like and click on **Logout** (at top left of the page) to verify other parts of the artifacts. We will be working more on this page in the coming chapters.



**Step 21:** In the admin console, navigate to **Resources|JDBC Providers** to see the wpsdbJDBC Cloudscape JDBC provider under the cell scope (remove entries at Node and Server scope and click on Apply to see resources at the Cell scope).

- Click on **wpsdbJDBC cloudscapeData sources** to see the details about various datasources pointing to different schemas (release, customization, etc.) under wpsdb database in Cloudscape. These are the database schemas under which portal server will store the configurations and accesses during the startup and runtime.

**JDBC providers**  
JDBC providers are used by the installed applications to access data from databases.

Scope: Cell=pCell01

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, [see the scope settings help](#)

→ Cell  
pCell01

Node

Server

Preferences

Select	Name	Description
<input type="checkbox"/>	<a href="#">Cloudscape JDBC Provider (XA)</a>	Built-in Cloudscape JDBC Provider (XA)
<input type="checkbox"/>	<a href="#">wpdbJDBC cloudscape</a>	DO NOT CHANGE DESCRIPTION WITHIN THE TRIPLE AMPERSANDS &&&cloudscape&&& (description is used for Portal internal db type encoding)

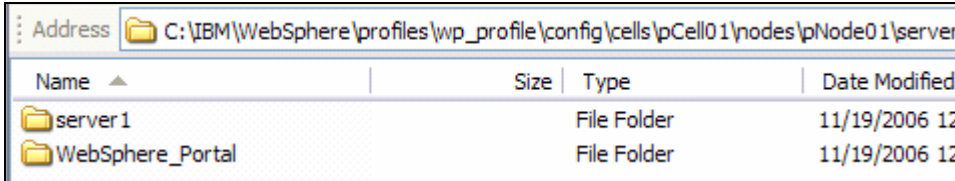
**Step 22:** On the operating system, navigate to the directory where you installed WAS, Portal software and the profile (c:\IBM\WebSphere in this case). You will find

- WebSphere Application Server related artifacts under c:\IBM\WebSphere\AppServer (<WASV6-ROOT>).
- programs related to WebSphere Portal under c:\IBM\WebSphere\PortalServer (<WPV6-ROOT>).
- artifacts related to the profile (wp\_profile) under c:\IBM\WebSphere\profiles\wp\_profile (<WP-PROFILE-ROOT>).

Name	Size	Type	Date Modified
AppServer		File Folder	11/18/2006 11:48
PortalServer		File Folder	11/18/2006 11:52
profiles		File Folder	11/18/2006 10:22

**Step 23:** Navigate to the <WP\_PROFILE-ROOT>\config\cells\cellName\nodes\nodeName\servers to find that the portal

installation program has created two servers: (1) server1 and (2) WebSphere\_Portal under the profile wp\_profile. You will be working with the WebSphere\_Portal server and deploying portlets to where your Portal Server is running. Server server1 is like a WebSphere ND server running the sample and default J2EE applications with no portlets running.



Name	Size	Type	Date Modified
server1		File Folder	11/19/2006 12:00 PM
WebSphere_Portal		File Folder	11/19/2006 12:00 PM

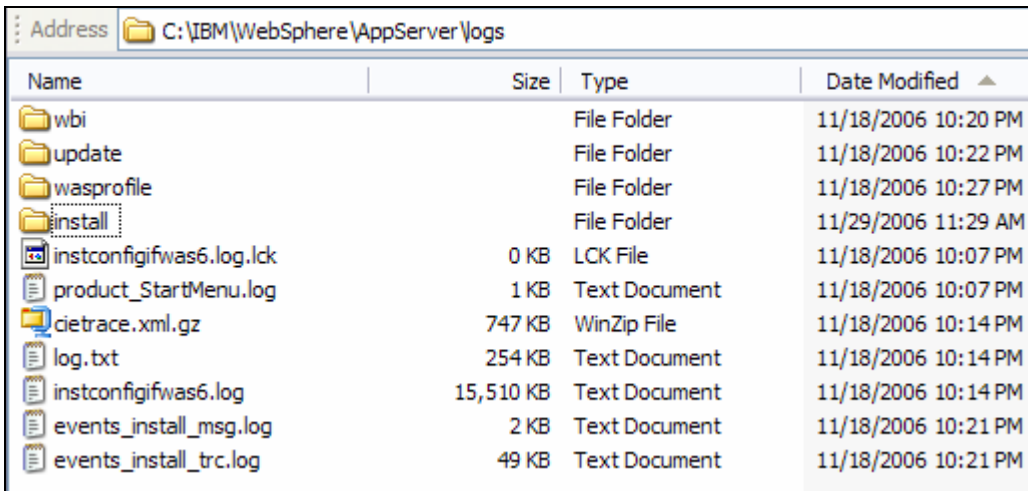
## Logging

The logging architecture of WP V6 is quite similar to WAS ND V6 with some variations. If you are familiar with WAS ND V6 logging, you will not have any problem finding the portal related log files.

### Logging during the installation

The log files during the portal installation are distributed across three different places (apart from the TMP directory we discussed during the installation steps).

**Step 1:** Navigate to <WASV6-ROOT>\logs directory to find the log files that were generated during the WAS ND V6.0.2.9 (and WPS) product binaries installation and profile creation. Refer to chapter 3 in the printed version of the book for more information. Log file log.txt is one of the important log files you need to verify under this directory.



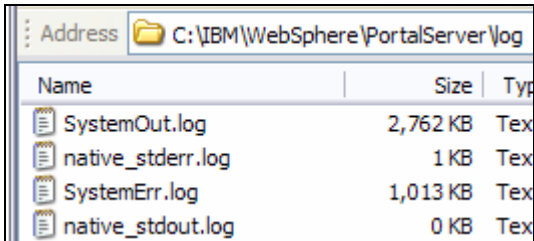
Name	Size	Type	Date Modified
wbi		File Folder	11/18/2006 10:20 PM
update		File Folder	11/18/2006 10:22 PM
wasprofile		File Folder	11/18/2006 10:27 PM
install		File Folder	11/29/2006 11:29 AM
instconfigifwas6.log.lck	0 KB	LCK File	11/18/2006 10:07 PM
product_StartMenu.log	1 KB	Text Document	11/18/2006 10:07 PM
cietrace.xml.gz	747 KB	WinZip File	11/18/2006 10:14 PM
log.txt	254 KB	Text Document	11/18/2006 10:14 PM
instconfigifwas6.log	15,510 KB	Text Document	11/18/2006 10:14 PM
events_install_msg.log	2 KB	Text Document	11/18/2006 10:21 PM
events_install_trc.log	49 KB	Text Document	11/18/2006 10:21 PM

**Step 2:** Navigate to <WPV6-ROOT>\log directory to find the log files that were generated during the Web Sphere Portal server configuration (this includes the logging during the Cloudscape database configuration). Log file wpinstalllog.txt is one of the important log files you need to verify under this directory after the installation. You can also see the log files that are generated during the WebSphere\_Portal server runtime as you will see later.

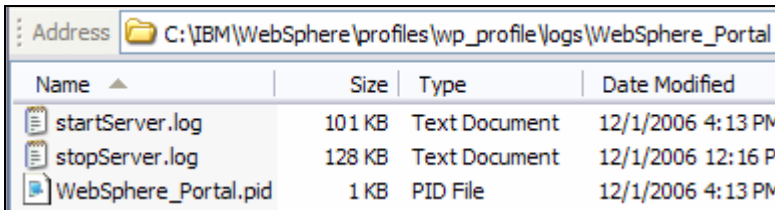
**Step 3:** Navigate to **<WP-PROFILE-ROOT>\logs** directory to find the log files that were generated during the deployment of sample applications that were deployed on server1 during the installation. You can also see the log files that are generated during the application servers (server1 and WebSphere\_Portal) runtime as you will learn later.

### Logging during the server runtime

**Step 1:** The log files during the Portal Server runtime (SystemOut, SystemErr, native\_stdout and native\_stderr.log) will be written under **<WPV6-ROOT>\log** directory. Navigate to the directory to find these log files.



- The log files during the start and stop of WebSphere\_Portal (startServer, stopServer and pid) will be written under **<WP-PROFILE-ROOT>\logs\WebSphere\_Portal** directory. Navigate to the directory to find these log files.



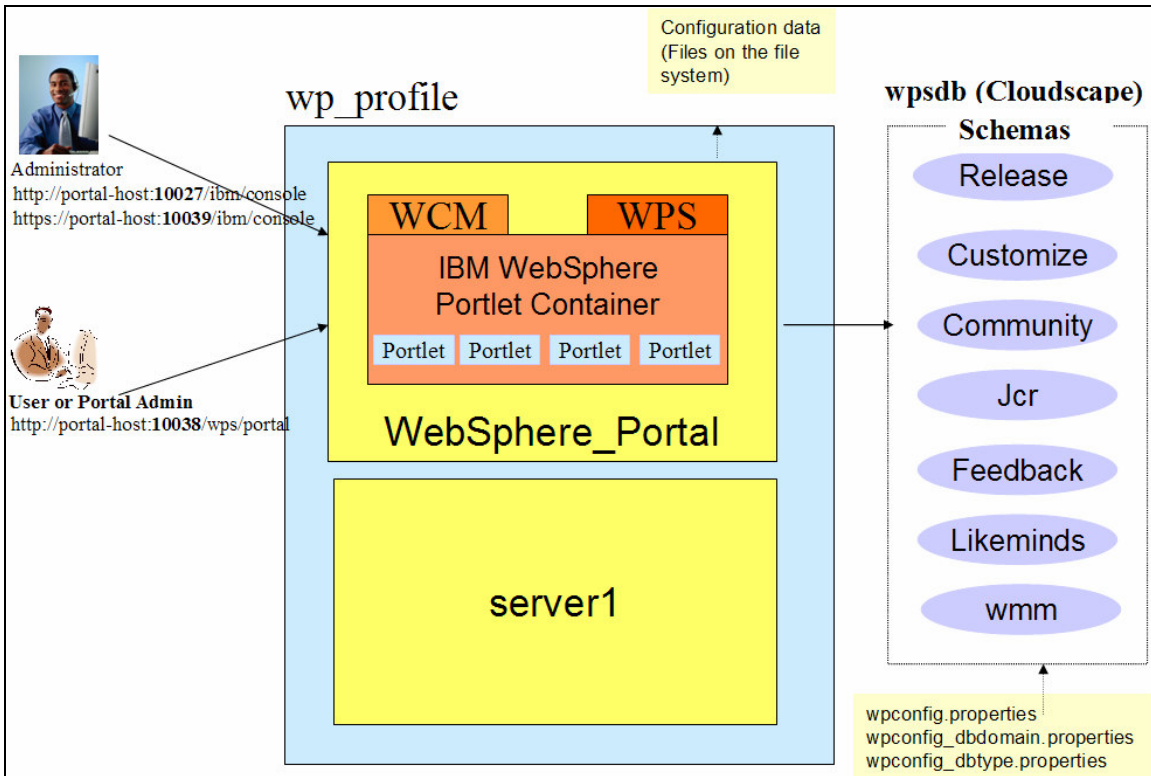
- By using the above steps to verify the presence of the Portal server log files, you should have realized that these log files have been distributed across two directories unlike a regular WAS ND application server (server1 for example).

**Step 2:** If you ever work with server1 and want to view its log files then you can find all the logs during startup, stop and runtime under **<WP-PROFILE-ROOT>\logs\server1** directory similar to server1 in a WAS V6 ND environment. Refer to Chapter-3 in the printed version of the book for more information about logging.

Name	Size	Type	Date Mod
SystemOut.log	489 KB	Text Document	11/29/200
SystemErr.log	0 KB	Text Document	11/18/200
stopServer.log	21 KB	Text Document	11/29/200
startServer.log	32 KB	Text Document	11/29/200
native_stdout.log	0 KB	Text Document	11/18/200
native_stderr.log	0 KB	Text Document	11/18/200

## Understanding the Portal Server Configuration

So far, you have seen and hopefully understood how to install and verify the WebSphere Portal server. Now you will see how the Portal server's configuration data is stored in the default Cloudscape database and in files in the file system. If you want to configure and maintain your portal server in a production environment then you need to have a complete understanding of this configuration so pay close attention to this information.



As shown in the illustration above, the WebSphere Portal server will store most of the configuration data in the **Cloudscape** database. The name of the database is **wpsdb** by default. Different parts of the configuration are stored in different **schemas** in the **wpsdb** database. The remaining part of the configuration (DB connections and Deployment Descriptors for example) will be stored as property files in the file system.

What follows is a brief description of the important schema names and the type of information that is stored in the wpsdb database schemas:

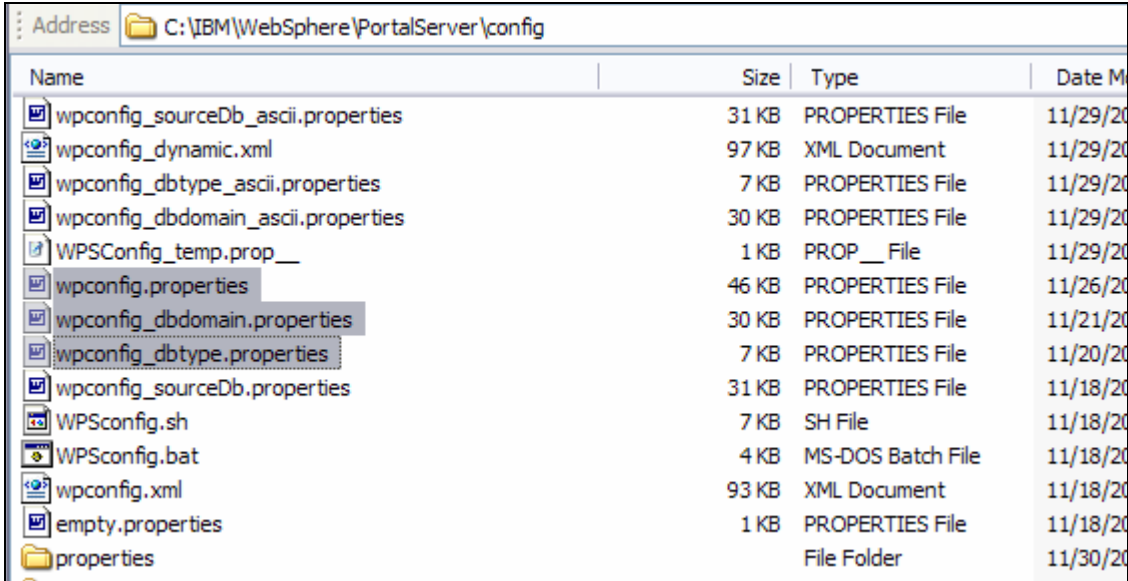
- **Release, Likeminds, Feedback:** These schemas store data of Pages, Portlets, Portlet instances, Themes, Templates, Personalization rules and Policies. This data is not modified during the portal runtime.
- **Customization:** This schema stores information specific to users (for example PortletData).
- **Community, Jcr:** These schemas store data of shared documents and resources. This data will be modified during runtime.
- **wmm:** This schema stores user registry data used to authenticate users.

Having the portal configuration in the Cloudscape database is fine for education and demonstration purposes. However, this configuration data does not scale as user volume increases and does not support portal cluster configuration data or multiple realms. You need to move this configuration to a robust RDBMS (like DB2, Oracle, Sybase, MS SQL Server or Informix for example) in production environments. You also need to move user registry data from the Cloudscape database (stored in the wmm schema) to an LDAP server (like IBM Tivoli Directory Server for example) in production environments.

Before re-configuring the portal configuration data, you need to understand a few important property files that play a big role while running the configuration tasks later. Immediately after the portal installation, these property files refer to the Cloudscape database by default. To learn more about these property files and values stored inside them, perform the following steps.

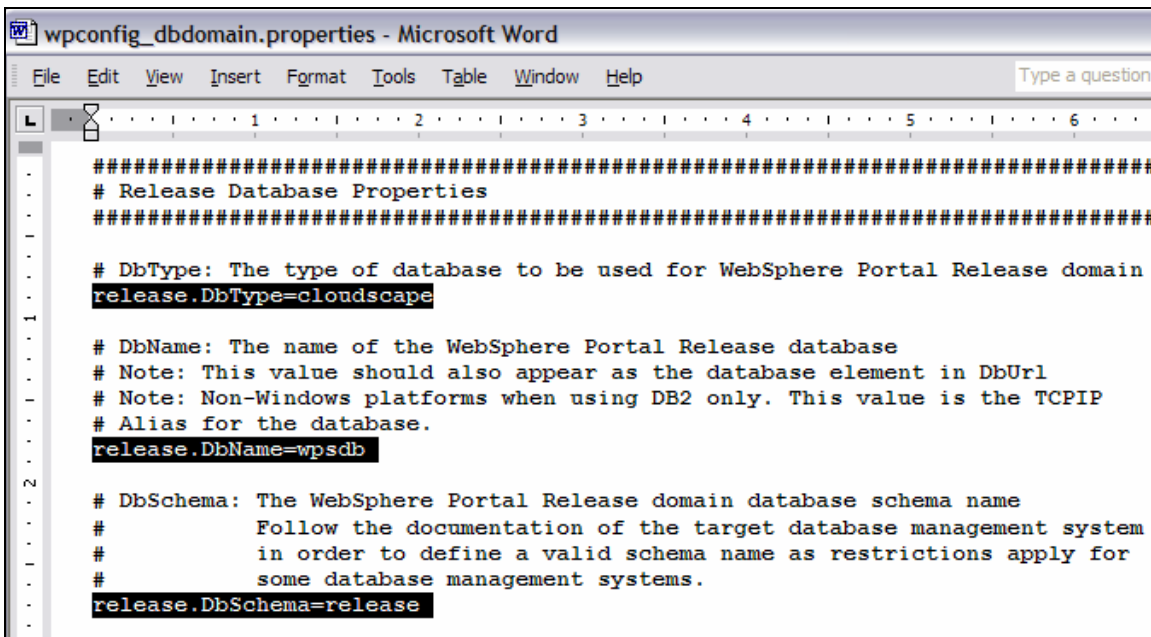
**Step 1:** Locate the wpconfig, wpconfig\_dbdomain and wpconfig\_dbtype property files under <WPV6-ROOT>\config directory. These files point to portal configuration data stored in the **wpsdb** database in **Cloudscape** plus other configuration data. You need to work with these files a lot when you want to transfer data to a production quality database and LDAP server. If you can make printouts of these files, start reviewing the comments explaining each parameter.

- Make sure that you take a backup copy of these files before opening and viewing them.
- Also, pay attention to two more important files under this directory (WPSConfig.bat and wpconfig.xml). You will use WPSConfig.bat file to run portal configuration tasks. You will work with this program when you do database and LDAP migration tasks.



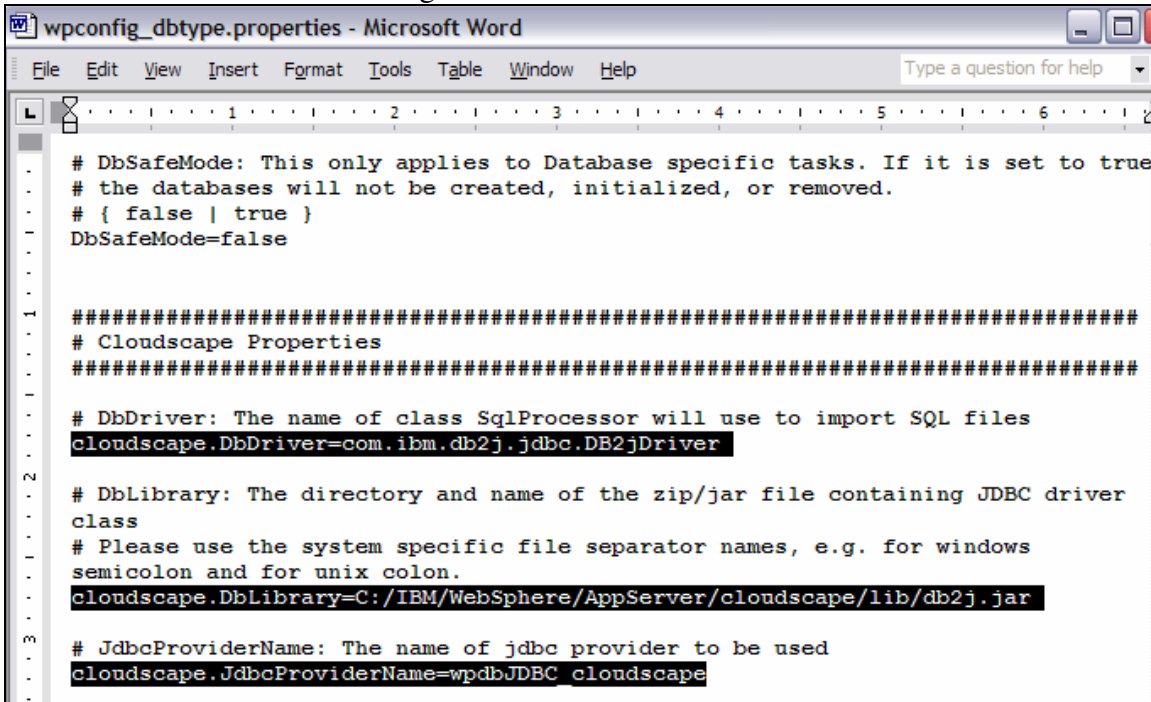
**Step 2:** Open **wpconfig\_dbdomain.properties** file to find out the database type, name and other information about various database schemas where portal configuration is stored. You will find one section for each schema. The screenshot below shows the **Release Database Properties** section that shows that release data is stored in Cloudscape (release.DbType), the name of the database is wpsdb (release.DbName), the name of the schema is release (release.DbSchema) and various other properties related to release data.

- In the same manner, you can find database properties sections related to the Customize, Jcr, Feedback, Community and Wmm data in the same file that points to different schemas within the wpsdb Cloudscape database in the default portal configuration.



**Step 3:** Open the **wpconfig\_dbtype.properties** file to find out the database driver information for various databases. You will find one section for each database type. The screenshot below shows the **Cloudscape Properties** section that shows the Dbdriver and DbLibrary JdbcProviderName.

- In the same manner, you can find properties sections related to various other supported database drivers. But, the portal configuration needs information about DbType that has been defined in the wpconfig\_dbdomain.properties file which is Cloudscape right now. It will ignore information on other databases drivers unless the DbType matches to that database.
- You will learn about **DbSafeMode** parameter when you do the portal horizontal clustering later.



```
# DbSafeMode: This only applies to Database specific tasks. If it is set to true
# the databases will not be created, initialized, or removed.
# { false | true }
DbSafeMode=false

#####
# Cloudscape Properties
#####

# DbDriver: The name of class SqlProcessor will use to import SQL files
cloudscape.DbDriver=com.ibm.db2j.jdbc.DB2jDriver

# DbLibrary: The directory and name of the zip/jar file containing JDBC driver
class
# Please use the system specific file separator names, e.g. for windows
semicolon and for unix colon.
cloudscape.DbLibrary=C:/IBM/WebSphere/AppServer/cloudscape/lib/db2j.jar

# JdbcProviderName: The name of jdbc provider to be used
cloudscape.JdbcProviderName=wpdbJDBC_cloudscape
```

**Step 4:** Now open **wpconfig.properties** file to find configuration parameters about everything (except the database information) like information on WAS, Portal, LDAP, Java, security (WAS and Portal administrative user-ids and passwords) and various other things. You will find different sections for each component.

- You will also find information about Lotus Quickplace, Sametime, Tivoli Access Manager (TAM) and various other things. You need to run the portal configuration script (WPSConfig) to configure those components. Simply having that information in these property files does not mean these components are configured.

After going through the above steps you should have gotten an idea about what to do to modify the portal configuration. For example to migrate configuration data from Cloudscape to DB2 database, you need to modify parameters in the wpconfig\_dbdomain and wpconfig\_dbtype property files pointing to DB2 database and schemas and then run a portal configuration command with the task name (“WPSConfig.bat database-transfer” command from <WPV6-ROOT>\config directory). You will perform these tasks step by step in the next chapter. Before that if you want to see how you can create new users and create a customized portal page by placing the sample portlets and performing some frequently used administrative tasks then refer to Chapter 8 (WP V6: Work with the Portal server) when it is made available online. Instructions in Chapters 8 and 9 can be performed after completing the basic portal server installation (at the end of this chapter) or at heend of any other chapter. But if you create new pages and other resources before data migration to DB2 and LDAP server then the migration task will run for longer time. So it is advisable to perform steps on chapter 8 and 9 till you complete chapter 5.

## Apply Fix Pack

Applying fixpacks and ifixes for portal server may be a two step process. You may have to apply fixes at both WAS and WP products as WP V6 runs on top of WAS V6.0.2.x. You need to provide the location of WP V6 installation directory <WPV6-ROOT> and the portal fixpack file (PAK file) at the time of applying portal server fixes through the portal update wizard (portalupdatewizard.bat) and, location of the WAS V6.0.2.x installation directory <WASV6-ROOT> and WAS fixpack file (PAK file) at the time of applying application server fixes through WAS update wizard (updatewizard.bat). Otherwise applying fixpack for portal server is similar to applying fix pack for WAS. Refer to chapter 19 (Installing Product Updates) in the printed version of the book (and documentation provided in the portal fixpack zip file) to get more information on applying fixpacks in WAS V6 (and WP V6) environments. IBM released fix pack 1 for WP V6 at the time of reviewing this chapter. You can download the fixpack at [https://www14.software.ibm.com/webapp/iwm/web/reg/download.do?source=swgwp-fixpacks&S\\_PKG=6001](https://www14.software.ibm.com/webapp/iwm/web/reg/download.do?source=swgwp-fixpacks&S_PKG=6001).

## Silent Installation Overview

So far you have seen how to install WP V6 using the Graphical User Interface (GUI) screen. You can also install the portal server from a command line just like you do for WAS-ND V6. You can automate the installation process by providing the options in responsefile.txt during the silent install. The silent installation procedure for portal server (WP V6) is similar to WAS-ND V6 procedure as WP V6 is based on WAS V6. The only difference is that in WP V6 you need to provide extra information (portal installation directory etc.) that are specific to the portal server apart from WAS ND V6 information. Refer to chapter 3 and 7 of printed version of the book to get complete understanding of the silent installation.

A sample response file is given in the root directory of the WP V6 images or CDs just like in WAS ND V6. You can customize the response file to your environment using the sample responsefile as a template. Run the following command from the command line providing the responsefile as an input to silently install the portal server.

```
>install.bat -options "path-to-the-responsefile"
```