



**INSTALLATION AND UPGRADE GUIDE
FOR
PLUMTREE FOUNDATION (WINDOWS)**

Plumtree Foundation 6.0

April 2006 Update

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Welcome to Plumtree Foundation

This book describes how to install the components of Plumtree Foundation. Portal administrators should read this book and create a solid portal strategy before performing the tasks described within. This allows you to use Plumtree Foundation's most powerful features to create a stable, useful portal that can grow with your company without having to be reorganized or recreated every time the company changes.

Who Should Read This Book

This book is written for portal administrators who are responsible for installing and maintaining the portal system, getting information into the portal, creating places for users to collaborate on projects, managing Plumtree Foundation users and groups, and other tasks that improve the usefulness of the portal.

Typographical Conventions

This book uses the following typographical conventions.

Convention	Typeface	Example
<ul style="list-style-type: none">• File names• Folder names• Screen elements	bold	<ul style="list-style-type: none">• Upload Procedures.doc to the portal.• Open the General folder.• To save your changes, click Apply Changes.
<ul style="list-style-type: none">• Text you enter	com- puter	<ul style="list-style-type: none">• Type Marketing as the name of your community.
Variables you enter	<i>italic</i> com- puter	Enter the base URL for the Portlet Server. For example, <code>http://mycomputer/</code> .
<ul style="list-style-type: none">• New terms• Emphasis• Plumtree object example names	<i>italic</i>	<ul style="list-style-type: none">• <i>Portlets</i> are Web tools, embedded in your portal.• The URI <i>must</i> be a unique number.• The example Knowledge Directory displayed in Figure 5 shows the <i>Human Resources</i> folder.

Icons Used in This Book

This book uses the following margin icons:




Note: The Note icon is used to denote tips, best practices, or additional information related to the content in a paragraph.



Important: The Important icon is used to denote important information (including warnings) related to the content in a paragraph.

Plumtree Documentation and Resources

This section describes the documentation and resources provided by Plumtree.

Resource	Description
Administrator Guide	This book describes how to perform portal management, maintenance, and troubleshooting for your Plumtree Foundation. It is available in electronic form (PDF) in the Plumtree Product Center.
Upgrade Guide	This book is written for portal administrators. It describes how to upgrade your Plumtree Foundation. It is available in electronic form (PDF) in the Plumtree Product Center.
Release Notes	These files are written for portal administrators. They include information about new features and known issues in the release. They are available in electronic form (HTML) in the Plumtree Product Center.
Developer Guides, Quickstarts, API Documentation, and Sample Code	These documents are written for developers. They describe how to customize the Plumtree Application Suite user interface and features. They are available with the product installation packages in the Plumtree Support Center and/or Developer Center.
Deployment Guide	This document is written for business analysts and system administrators. It describes how to plan your Plumtree Application Suite deployment. It is available in electronic form (PDF) in the Plumtree Deployment Center.
Online Help	The online help is written for all levels of portal users. It describes the user interface for the portal and gives detailed instructions for completing tasks in the portal. To access online help, click  Help in the upper-right corner of the portal banner or portlet.

Resource	Description										
Plumtree Support Center	<p>The Plumtree Support Center is a comprehensive repository for technical information on Plumtree products. From the Support Center, you can access products and documentation, search knowledge base articles, read the latest news and information, participate in a support community, get training, and find tools to meet most of your Plumtree-related needs. The Support Center encompasses the following communities:</p> <p>Technical Support Center</p> <p>Submit and track support incidents and feature requests, search the knowledge base, access documentation, and download service packs and hotfixes.</p> <p>Deployment Center</p> <p>Find the tools you need to roll out, drive, and maintain a successful Plumtree Application Suite deployment. Collaborate with peers on strategic business and technical objectives, learn application best practices, download portal launch examples, and calculate your return on investment (ROI).</p> <p>Product Center</p> <p>Download products, read Release Notes, access recent product documentation, and view interoperability information.</p> <p>Developer Center</p> <p>Download developer tools and documentation, get help with your development project, and interact with other developers via discussion forums.</p> <p>Education Center</p> <p>Find information about available training courses, purchase training credits, and register for upcoming classes.</p> <p>If you do not see the Support Center when you log in to http://portal.plumtree.com, contact support@plumtree.com for the appropriate access privileges.</p>										
Technical Support	<p>If you cannot resolve an issue using the above resources, Plumtree Technical Support is happy to assist. Our staff is available 24 hours a day, 7 days a week to handle all your technical support needs.</p> <p>E-mail: support@plumtree.com</p> <p>Phone Numbers:</p> <table> <tr> <td>U.S. and Canada</td><td>+1 415.263.1696 or +1 866.262.PLUM (7586)</td></tr> <tr> <td>Asia Pacific</td><td>+61 2.9931.7822</td></tr> <tr> <td>Europe and U.K.</td><td>+44 (0)1628 589124</td></tr> <tr> <td>France</td><td>+33 1.46.91.86.79</td></tr> <tr> <td>Singapore</td><td>+65 6832.7747</td></tr> </table>	U.S. and Canada	+1 415.263.1696 or +1 866.262.PLUM (7586)	Asia Pacific	+61 2.9931.7822	Europe and U.K.	+44 (0)1628 589124	France	+33 1.46.91.86.79	Singapore	+65 6832.7747
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2

Summary of Portal Components

The sections in this chapter summarize the components of Plumtree Foundation and provides references to the corresponding installation documentation for these components. This chapter includes the following sections:

- [“Foundation Core Components” on page 2-1](#)
- [“Authentication Components” on page 2-2](#)
- [“Plumtree Server Components” on page 2-3](#)
- [“Plumtree Integration Product Components” on page 2-3](#)

For an overview of the portal solution and elaboration of portal deployment options, see the *Deployment Guide for the Plumtree Enterprise Web Suite*.



Note: If you are using the Section 508 or Low Bandwidth version of the portal, Administrative functions are not supported. My Pages, Communities, and the Knowledge Directory are supported by the Section 508 and Low Bandwidth version of the portal.

Foundation Core Components

This guide, the *Installation and Upgrade Guide for Plumtree Foundation*, describes how to install the following core components of Plumtree Foundation.

Component	Description
Portal Server	Serves end user portal pages and content. The Portal Server allows end users to access content via MyPages, Community Pages, the Knowledge Directory, and Plumtree Search. Plumtree Portal also enables administrative actions, such as setting preferences on portlets or managing communities.
Plumtree Administrative Portal	Handles portal setup, configuration, and content. The Plumtree Administrative Portal enables administrative functions, such as creating and managing portlets and other web services.
Plumtree Image Service	Serves static content used or created by portal components. The Plumtree Image Service serves images and other static content for use by the Plumtree system.
Plumtree Search	Returns indexed content stored in the portal. Plumtree Search returns content that is indexed in the Plumtree system from the portal, Plumtree Collaboration, and Plumtree Publisher. Content that is indexed in the Plumtree system includes documents, portlets, communities, and users as well as many other Plumtree objects.

Plumtree Automation Service	<p>Runs jobs and other automated portal tasks.</p> <p>The Plumtree Automation Service runs jobs that perform tasks such as crawling documents into the Knowledge Directory, synchronizing groups and users with external authentication sources, and maintaining the search collection.</p>
Plumtree Document Repository Service	<p>Stores documents uploaded by portal components.</p> <p>The Plumtree Document Repository Service stores content uploaded into the portal, such as images or documents uploaded into Plumtree Collaboration or Plumtree Publisher.</p>
Plumtree API Service	<p>Provides access to the Plumtree SOAP API.</p> <p>Having a separate server for the API allows for greater flexibility in portal deployments, especially for extranets.</p>
Plumtree Content Upload Service	<p>Uploads files to the Plumtree Document Repository Service so that the files are available through the Knowledge Directory.</p> <p>This allows portal users who do not have access to the internal file network (for example, extranet users) to submit files to the portal Knowledge Directory.</p>

Authentication Components

The following components provide authentication resources for the portal.

Component	Description
Plumtree Identity Service Active Directory	The Plumtree Identity ServiceActive Directory allows you to import Active Directory users and groups into the portal and authenticate against repositories inside or outside your network. Portal administrators can then create Remote Authentication Sources that access the Active Directory.
Plumtree Identity Service LDAP	The Plumtree Identity Service - LDAP is intended to import users and their information into the portal from an external source.This information can then be mapped to Plumtree properties and stored in the Plumtree database.

Plumtree Server Components

The following table summarizes the documentation you use to install the Plumtree server components that enable collaboration features, content management, and Web application creation.

Component	Documentation
Plumtree Collaboration	<i>Installation Guide for Plumtree Collaboration</i>
Plumtree Publisher	<i>Installation and Upgrade Guide for Plumtree Publisher</i>
Plumtree Studio	<i>Installation and Upgrade Guide for Plumtree Studio</i>

Plumtree Integration Product Components

For information about installing additional portlets and Content Web Services to support document types used in the portal, see the Plumtree Product Center Web site: <http://portal.plumtree.com>.

If you do not yet have a support center account, send mail to: suport@plumtree.com.

3

Pre-Installation Steps

Before you can install the components of Plumtree Foundation that make up the portal, you must know which components to deploy on which computers, and you must have information on the way individual components are to be configured.

To assist you in making decisions about your portal installation, it is recommended that you familiarize yourself with the content in the *Administrator Guide for Plumtree Foundation* and the *Deployment Guide for Plumtree Application Suite G6*.

In addition, the worksheets provided in [“Deployment Component Configuration Worksheets” on page A-1](#) help to organize the information that you must enter during installation of individual portal components. Consider printing these out to record values required for portal installation.

For installation in a production environment, determining the number of computers to use and how to deploy individual components across computers can be complicated. Decisions must be based on factors such as the number of users that are accessing the portal, the number of files to be made available through the portal, and the number of external applications and portlets that the portal needs to support. Final decisions should be made in consultation with Plumtree Consulting Services (PCS) or your Plumtree integration partner.

For more information on portal deployment options, refer to the *Deployment Guide for Plumtree Application Suite G6*.

The sections in this chapter describe the following basic steps you take to prepare your network and host computers for deployment of Plumtree Foundation components:

1. Read the product release notes for information on compatibility issues, known problems, and workarounds that might affect how you proceed with your deployment. Release notes are located at the top-level directory of the product package.
2. Familiarize yourself with the portal's components. Read the *Deployment Guide for Plumtree Application Suite G6* and [Chapter 2, “Summary of Portal Components.”](#)
3. Provision host computers for your deployment. For details, see [“Hardware Requirements.”](#)

For a production system, Plumtree recommends you provision a host computer with a newly installed operating system.

4. Install software dependencies and configure them for your portal deployment. For details see [“Software Requirements” on page 3-2.](#)
5. Complete the deployment component configuration worksheets provided in [Appendix A, “Deployment Component Configuration Worksheets.”](#)
6. On the host computer for the Plumtree Automation Service component, configure rights for the Plumtree Automation Service User. For details, see [“Administrative User Requirements” on page 3-3.](#)

Hardware Requirements

Provision the number and capacity of host computers for your portal according to the *Deployment Guide for the Plumtree Application Suite G6*.

The following table summarizes recommended and minimum hardware requirements for computers that host portal components.

Recommended Hardware	Minimum Hardware
2 Ghz or faster processor	600 MHz Pentium III processor
2 GB RAM	512 MB RAM
10 GB storage	4 GB storage

Software Requirements

The following table summarizes operating system requirements and software compatibility for Plumtree components at the time of this release. For the most current platform support information, refer to the Interoperability Matrix which can be found by logging in to: <http://portal.plumtree.com>. Then navigate to the Product Center and click **Interoperability**.

Operating System	Database Server	Web Application Server
Windows 2003 SP1	<ul style="list-style-type: none"> • Microsoft SQL Server 2000 SP3a • Oracle 9i (9.2.0.4) • Oracle 10g (10.1.0.3) 	<ul style="list-style-type: none"> • Apache Tomcat 5.0.28 (JDK 1.4.2) • BEA WebLogic 8.1 SP4 (JDK 1.4.2) • IBM WebSphere 6.0.1 (JDK 1.4.2) • Microsoft IIS 6.0 • .NET 1.1 SP1

Browser Requirements

Administrative Users: Internet Explorer 5.5, 6.0

Browsing Users: Netscape 7.2; Internet Explorer 5.5 or 6.0; Firefox 1.0; Safari 1.2 (Mac only)

Plumtree provides redistributable versions of software and software patches required to support the Plumtree installation, including MDAC and the Tomcat Web application server. These resources are available through the Plumtree Product Center.



Important: Before you run the Plumtree installer, configure your operating system memory as described in [Appendix C, "Configuring Memory for Windows Hosts."](#)



Important: Before you run the Plumtree installer, configure your Web application server as described in [Appendix D, “Configuring Your Web Application Server.”](#)

Administrative User Requirements

The installation and operation of portal components require the following administrative user permissions.

User	Permissions
Local Host Administrator Account	To install portal components, you must log in to the host computer as the local Administrator.
Dedicated Windows User	<p>Before you install the Plumtree Automation Service, you must create a Windows user account to own Plumtree Automation Service files and run Plumtree Automation Service processes.</p> <p>Plumtree recommends that you give the Plumtree Automation Service User administrative privileges, which provide the rights the Plumtree Automation Service requires.</p>

4

Installing Portal Components

This chapter describes the steps you take to install portal components:

1. Ensure you have completed pre-installation steps. For details, see [Chapter 3, “Pre-Installation Steps.”](#)
2. Verify that your Web application server is configured for portal deployment. For details, see [Appendix D, “Configuring Your Web Application Server.”](#)
3. Install the Plumtree Administrative Portal. For details, see [“Installing the Plumtree Administrative Portal” on page 4-7.](#)
4. Configure the Plumtree database. For details, see [“Configuring the Plumtree Database” on page 4-8.](#)
5. Install the Plumtree Image Service and deploy it to a Web server. For details, see [“Installing and Deploying the Plumtree Image Service” on page 4-19](#)
6. Install and start Plumtree Search. For details, see [“Installing and Starting Plumtree Search” on page 4-20.](#)
7. Install and start the Plumtree Automation Service. For details, see [“Installing and Starting Plumtree Automation Service” on page 4-21.](#)
8. Install and start the Plumtree Document Repository Service. For details, see [“Installing and Starting the Plumtree Document Repository Service” on page 4-21.](#)
9. Install the Plumtree API Service. For details, see [“Installing the Plumtree API Service” on page 4-22.](#)
10. Install Plumtree Portal. For details, see [“Installing Plumtree Portal” on page 4-24.](#)
11. Start all portal services. For details, see [“Starting Portal Services” on page 4-24.](#)
12. Verify your installation. For details, see [“Verifying the Installation” on page 4-25.](#)

Installing Plumtree Components

This section describes how to install portal components.

To install Plumtree components:

1. Log in to the host computer as the local Administrator.
2. To enable the installer to deploy the portal component to a WebLogic or WebSphere application server, start the Web application server.

If you are deploying to IIS or Tomcat application servers, you do not need to start them.

3. Copy the installer (**PlumtreeFoundation_v6-0.exe**) from the Plumtree release media to the disk location from which you plan to launch it (for example, **C:\Temp**).
4. Close all unnecessary applications and windows.
5. To launch the installation wizard, double-click the **PlumtreeFoundation_v6-0.exe** file.
6. Complete the installation wizard pages as described in the following table and according to the settings you planned when you completed the configuration worksheets provided in [Appendix A, “Deployment Component Configuration Worksheets.”](#)



Note: If the installer setting does not apply to your Web application server or to the Plumtree components you are installing, the installer does not display the wizard page.

Wizard Page	Description
License Agreement	Read and accept the license agreement.
Installation Folder	Accept the default: C:\Program Files\plumtree.
Upgrade Information	Indicates previous installed versions of portal products.
Upgrade Option	<p><i>All upgrade paths except 4.5 WS SP2 to 6.0:</i></p> <p>Select either Upgrade or New Install. If you select Upgrade, the installer will automatically upgrade all of the components it detects needing an upgrade. The installer will skip most subsequent panels and request only the settings that cannot be extracted from the previous installation (for example, the type of install (.NET or Java) and the Plumtree API Service information). The XML configuration file structure is also changed. Refer to Appendix B, "XML Configuration Files Upgrade." for more information.</p> <p>Note: If you want to install a newer version of specific components on a computer with multiple portal components, you should perform a New Install. If you select New Install, you will proceed with the full set of appropriate installer panels.</p> <p><i>4.5 WS SP2 to 6.0 Upgrade Path:</i></p> <p>Select either Upgrade or New Install. If you select Upgrade, the installer skips subsequent configuration panels and instead uses values from a previous installation to fill in the information. The XML configuration file structure is also changed. Refer to Appendix B, "XML Configuration Files Upgrade." for more information.</p> <p>Note: If you choose to upgrade the portal, the installer upgrades all of the components it detects needing an upgrade. If you want to install a specific component on a computer with multiple portal components, you should perform a New Install.</p>
Choose Install Set	Select either Complete or Custom . If you select Complete , a full set of Foundation components are installed. If you select Custom , you can choose individual portal components to install according to your deployment plan.
Web Application Environment	Specify .NET or Java. If you select Java, the Java Web server (WebSphere, WebLogic, Tomcat) values that the installer requires are listed later in this table.
Auto-Deployment to a Java Web Application Server	Specify the Java Web application server to which you wish to deploy the Administrative Portal or portal.

Wizard Page	Description
Image Service: Auto-Deployment to Apache	The Image Service is automatically deployed to Apache. Specify Manual if you use a Web server other than Apache.
Apache Deployment Information	Specify the Apache configuration directory. This is the full path to Apache's httpd.conf file. Specify the Apache Windows service name. This is the name of the Windows service that runs Apache. The default name is Apache2.
Select IIS Web Site	IIS Web Site: Default or Other Choose Use Default Web Site if you want the component or components being installed deployed to port 80, the default HTTP port. Choose Use another Web site if using port 80 would mean sharing the port with other applications and you do not want to do this.
Image Service Compression on IIS	The Enable Image Service HTTP Compression checkbox is selected by default. Deselect the checkbox if you do not wish to use HTTP compression.
Specify IIS Web Site Information	IIS Web Site Name If you choose the non-default IIS Web site, specify the name of the IIS Web site you want to use for accessing a portal component on the local computer. If the name you enter is not the name of an existing IIS Web site, a new Web site is created.
	IIS Web Site Port (Non-Secure Port) If you choose the non-default IIS Web site, specify the HTTP port number for the Web site specified through the IIS Web Site Name. The wizard displays 8081 as an alternative. You may change this setting. If this is a pre-existing IIS Web site that uses a different port number, the number you enter here replaces the previous port number.
	IIS Web Site Secure Port If you choose the non-default IIS Web site, specify the HTTPS port number for the Web site specified through IIS Web Site Name. The wizard displays 9091 as an alternative. You may change this setting. If this is a pre-existing IIS Web site that uses a different port number, the number you enter here replaces the previous port number.

Wizard Page	Description
Fully Qualified Domain Name and Ports	The fully qualified domain name and port numbers for the Plumtree Portal. Do not include the “http://” prefix. Example domain name: portal.mycompany.com Example non-secure port (http): 80 Example secure port (https): 443
Content Upload Service - Application Port	Indicate either http or https. Enter the port that the Plumtree Content Upload Service should use to handle requests.
API Service - Application Port	Indicate either http or https. Enter the port that the Plumtree API Service should use to handle requests.
External Portal URL	Enter the URL to the Plumtree Portal that browsers outside of the local network would use. Example: http://portal.mydomain.com:80/portal
API Service URL	Enter the URL to the Plumtree API Service including the port number. Example: http://wsserver.mydomain.com:11905
Image Service URL	Enter the URL for the Plumtree Image Service, including the port number if it is not 80 or 443: Example: http://web-apps.portal.com:8082/imageserver
Search Host Name and Port	Enter the host name and port for the host computer for Plumtree Search. Example host name: back-end-services.portal.com Example port: 15244
Search Collection Treatment	Check the Overwrite box if you want to start with an entirely new search collection.
Default Automation Service Computer	Enter the host name for the host computer for the default Plumtree Automation Service. Example: myautoserver
Automation Service Port	Enter the Plumtree Automation Service IP port Example: 7777
Portal Database	Select SQL Server or Oracle.
Portal Database Connection Information	Specify connection information, such as host name, port, database name or service name, and administrative user information.

Wizard Page	Description
Document Repository Service - Application Port	Indicate either http or https. Specify the port that the Document Repository's Web components should use to handle requests. Example: 8020
Document Repository Service Host and Port	Enter the host name and port for the host computer for the Plumtree Document Repository Service. Example host name: back-end-services.portal.com Example port: 8020

Wizard Page	Description
WebLogic	<p>WebLogic Home Specify the WebLogic installation directory. Example: C:\bea\weblogic81\</p>
	<p>WebLogic Domain Home Specify the full path to the domain folder on which the WebLogic server that runs Web applications resides. Example: C:\bea\user_projects\domains\mydomain\</p>
	<p>WebLogic Host Name Specify the host where the WebLogic application server is installed. Example: myhost</p>
	<p>WebLogic Port Specify the port on which WebLogic uses to communicate to a browser.</p>
	<p>WebLogic Domain Specify the domain that contains the WebLogic server on which the component runs. Example: mydomain Note: WebLogic domain and server names are case-sensitive. If the letter casing you enter does not match the running WebLogic domain and server, auto-deployment fails.</p>
	<p>WebLogic Server Specify the WebLogic server on which the component runs. Example: myserver Note: WebLogic domain and server names are case-sensitive. If the letter casing you enter does not match the running WebLogic domain and server, auto-deployment fails.</p>
	<p>WebLogic Admin User Specify the WebLogic administrator user name. Example: system</p>
	<p>Admin User Password</p>

Wizard Page	Description
WebSphere	WebSphere Home Specify the WebSphere installation directory. Example: C:\IBM\WebSphere\AppServer
	WebSphere Host Name Specify the WebSphere host to which you want the portal component deployed. The default is default_host. You can change this value, but you should do so only if you have already created the host that you want to use instead. Example: default-host
	WebSphere SOAP Port Specify the SOAP port that WebSphere uses to communicate with the component. Default is 8080
	WebSphere Application Server Name Specify the application server to which you want the component deployed. The default is Default Server. You can change this value, but you should do so only if you have already created the application server instance within the corresponding node. Example: server1
Tomcat Deployment Information	Web Application Deployment directory Specify the path to the directory in which Web application configuration files reside. Example: C:\jakarta-tomcat-5.0.28\conf\Catalina\localhost

The installer generates an installation process log file and a silent properties file in the directory in which you install the portal. You can examine the log file to verify successful installation. For more details on verifying successful installation, see [“Verifying the Installation” on page 4-25](#).

Installing the Plumtree Administrative Portal

You must install the Plumtree Administrative Portal component before you install other Plumtree components. When you install the Administrative Server, you can also install the other components you plan to install on the same host computer.

To install the Plumtree Administrative Portal, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

Configuring the Plumtree Database

This section describes how to set up the portal database. It contains the following topics:

- [“Creating and Setting Up a SQL Server Database” on page 4-8](#)
- [“Creating and Setting Up an Oracle Database on Windows” on page 4-10](#)

Creating and Setting Up a SQL Server Database

To set up the Plumtree database on Microsoft SQL Server:

1. Create the Plumtree database user:
 - a. To open the Enterprise Manager: click **Start | Programs | Microsoft SQL Server | Enterprise Manager**.
 - b. In the navigation pane, expand the objects to display subfolders of the **Security** folder.
 - c. Right-click the **Logins** icon; then click **New Login**.
 - d. In the **SQL Server Login Properties** dialog box, enter the user name you specified when you ran the Plumtree installer.
 - e. In the Authentication area, choose **SQL Server Authentication** and enter the password you specified when you ran the Plumtree installer.
 - f. Confirm the password to complete the process.
2. Create the Plumtree database with the following properties:
 - Configure the database server so that it is case-insensitive.
 - Create a database with the name you specified for the portal database when you installed the Plumtree Administrative Portal.
 - Configure the initial size of the database. For a relatively small installation, configure a database that is at least 100 MB. For a large enterprise with as many as 20,000 users, configure a database that is as large as 1 GB.
3. Assign Plumtree database rights for the Plumtree database user:
 - a. To open the Enterprise Manager: click **Start | Programs | Microsoft SQL Server | Enterprise Manager**.
 - b. In the navigation pane, expand the objects to select the **Security** folder.
 - c. In the objects pane, double-click on the **Logins** icon to list all users.
 - d. In the **Logins** pane, right-click the Plumtree user and select **Properties**.
 - e. On the **General** tab, in the **Defaults** section, select the Plumtree database from the Database dropdown list.
 - f. Click the **Database Access** tab.
 - g. In the **Specify which databases can be accessed by this login** box, check the Plumtree database.
 - h. In the **Database roles for database_name** box, check **public** and **db_owner**.
 - i. Click **OK**.
 - j. In the navigation pane, expand the objects to display the Plumtree database; right-click the Plumtree database and select **Properties**.
 - k. Click the **Permissions** tab and grant all permissions to the Plumtree database user.

4. Start the SQL Server Query Analyzer and use **SQL Server Authentication** to connect to the Plumtree database as the user name `sa`. Switch from the 'master' database (default for the `sa` user) to the Plumtree database created above.

When database objects are created by the `sa` user, objects are owned by `dbo`. Refer to Plumtree Knowledge Base article DA_319052 for a discussion of the benefits of `dbo` object ownership.

5. To delete previous tables (if they exist) and create the tables required for the new portal components, run the `<InstallDir>\ptportal\6.0\sql\mssql\create_tables_mssql.sql` script.

To run a script:

- a. Display the Open Query File dialog box, by choosing **File | Open**.
 - b. Browse and select the database script file.
 - c. Click **Query | Execute**.
6. To create the Plumtree objects required by the portal, run the `<InstallDir>\ptportal\6.0\sql\mssql\load_seed_info_mssql.sql` script.
 7. To create the stored procedures required by the portal, run the `<InstallDir>\ptportal\6.0\sql\mssql\stored_procs_mssql.sql` script.
 8. To set configuration information required by the portal, run the `<InstallDir>\ptportal\6.0\sql\mssql\postinst_mssql.sql` script.



Note: No errors should be observed when running the scripts in steps 5 through 8.

9. Close SQL Server Query Analyzer.

Creating and Setting Up an Oracle Database on Windows

This section describes how to install a Windows Oracle database tailored for use in the Plumtree environment. This section assumes that the Oracle product has been installed, but that a database has not been created. If a database already exists and you want to add a Plumtree schema to the database, refer to [Appendix E, “Creating a Tablespace and Schema in an Oracle Database.”](#)

To create and set up the Plumtree database on Oracle on Windows, first set Oracle environment variables referenced in the Plumtree scripts, for example as follows:

For Oracle 9i:

```
set ORACLE_BASE = c:\oracle
set ORACLE_HOME = c:\oracle\ora92
set ORACLE_SID = PLUM
```

For Oracle 10g:

```
set ORACLE_BASE = c:\oracle
set ORACLE_HOME = c:\oracle\ora10
set ORACLE_SID = PLUM10
```

1. For Oracle 9i:
 - a. Copy the scripts from **<InstallDir>\ptportal\6.0\sql\oracle_nt9.2** to the database host computer to **%ORACLE_BASE%\admin\PLUM\plumtreescripts** (create the directory if necessary).
2. For Oracle 10g:
 - a. Copy the scripts from **<InstallDir>\ptportal\6.0\sql\ oracle_nt10** to the database host computer to **%ORACLE_BASE%\admin\PLUM10\plumtreescripts** (create the directory if necessary).
3. Customize the scripts for your deployment requirements. For details, see [“Customizing Database Scripts”](#).
4. Run the scripts, as described in [“Running the Oracle Scripts on Windows” on page 4-17](#).
5. Configure the Oracle Listener for the database.

Customizing Database Scripts

Customize database scripts for your deployment as described in the following table.

File	Description
crdb1_oracle_nt.sql	<p>Creates the portal database.</p> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> • The upper portion of the script is for a multi-disk installation and is initially commented out. The lower portion of the script is for a single-disk installation, which is not recommended for a production system. For a multi-disk installation, uncomment the upper portion of the script and comment out the lower portion. • If the user running the portal scripts is not in the Windows Oracle group, change the <code>Oracleconnect</code> request that reads as follows: <code>connect / as sysdba</code> To specify a user with 'sysdba' rights, for example: <code>connect sys/welcome as sysdba</code> • Change the many occurrences of PLUM as the default database name/Oracle SID to the name you want to use. • In this case, do not forget to change the file name init-PLUM.ora (or initPLUM10.ora) in the following line: <code>startup nomount pfile=...initPLUM.ora (9i)</code> <code>startup nomount pfile=...initPLUM10.ora (10g)</code> • If called for, adjust the size of the data files created by the script. • If your Oracle environment is multi-homed (that is, you are running multiple versions of Oracle), replace occurrences of ORACLE_HOME with a specific path.
crdb2_oracle_nt.sql	<p>Runs the following scripts for setting up the database:</p> <ul style="list-style-type: none"> • <code>create_plumtree_tablespace_oracle_nt.sql</code> • <code>create_plumtree_user_oracle.sql</code> • <code>run_script_proc_oracle.sql</code> <p>If the user running the portal scripts is not in the windows Oracle group, change the Oracle connect request that reads as follows: <code>connect / as sysdba</code> To specify a user with 'sysdba' rights, for example: <code>connect sys/welcome as sysdba</code></p>

File	Description
CreateService.bat	<p>On Windows, sets the portal database to run as a service.</p> <p>To run the script, you must specify the database SID as an argument, for example:</p> <pre>createservice PLUM (9i) createservice PLUM10 (10g)</pre> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> • Change the Oracle system password (default is welcome) in the line: <pre>ORADIM -NEW -SID %1 -INTPWD welcome -START-MODE ...</pre> • Change the path to the file initPLUM.ora (initPLUM10.ora for 10g) if it is incorrect. By default, CreateService.bat shows the path as: <pre>%ORACLE_BASE%\admin\%1\pfile\init%1.ora</pre> where %1 represents the SID of the portal database. You may want to modify this path to point to a valid absolute path if you are running in a multi-homed environment.
create_plumtree_tablespace_oracle_nt.sql	<p>Creates tablespaces for the portal database on a single disk. For most production systems, the script should be modified and tablespaces distributed across multiple disks or on data-base-aware RAID devices.</p> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> • Change occurrences of PLUM (or PLUM10) as the default database name/Oracle SID to the name you want to use. • If called for, adjust the size and location of the data files sysplum.dbf, undo1A.dbf, and temp1A.dbf. • If your Oracle environment is multi-homed (that is, you are running multiple versions of Oracle), replace occurrences of ORACLE_HOME with a specific path. • Use UNIFORM allocation rather than AUTOALLOCATE.

File	Description
create_plumtree_user_oracle.sql	<p>Creates the portal database user based on define statements for user name and password. The user name and password must be the same as the Portal Database Name and Portal Database Password specified during installation.</p> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> If you renamed any tablespaces in create_plumtree_tablespace_*.sql, change the names assigned in the following lines of the script: <pre>default tablespace PLUMTABLE temporary tablespace PLUMTEMP quota unlimited on PLUMTABLE;</pre>
create_spfile_oracle_nt.sql	<p>If desired, this script can be used to create an Oracle SPFILE. See the Oracle documentation for the benefits of using an SPFILE.</p> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> Change the default password, <code>welcome</code>. Change <code>ORACLE_HOME</code> to a valid path (if multi-homed). If you have renamed initPLUM.ora, (or initPLUM10.ora) you must rename references to it here, as well as renaming the SPFILE to be created.
create_tables_oracle.sql	<p>Builds tables needed for the portal database. Running the script deletes any data previously stored in these tables.</p> <p>You do not need to run this script directly; it will be run for you by init_plumtree_db_oracle.sql.</p> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> If you renamed the index tablespace (<code>PLUMINDEX</code>) in create_plumtree_tablespace_oracle_nt.sql, make a global change to the tablespace name in this script:

File	Description
initPLUM.ora initPLUM10.ora	<p>A Plumtree-modified version of the INIT.ORA file that Oracle provides to help users customize their RDBMS installations. The Plumtree version, initPLUM.ora, contains suggested settings for use with small, medium, and large installations. Initially, the settings for medium and large installations are commented out. Review the settings and make sure they are appropriate for your installation.</p> <p>You might want to customize the following properties:</p> <ul style="list-style-type: none"> • Change the name of the database (the default is PLUM, or PLUM10 for 10g) in the line: <pre>db_name = PLUM</pre> • If you change the name of the database in initPLUM.ora, (or initPLUM10.ora) you must also change the file name to match the database name. For example, if you change the name of the database to OURDB, you must change the file name to initOURDB.ora. • Adjust the settings according to the requirements of your installation.
init_plumtree_db_oracle.sql	<p>Runs the following scripts:</p> <pre>create_tables_oracle.sql load_seed_info_oracle.sql stored_procs_oracle.sql postinst_oracle.sql</pre> <p>You do not need to customize this script.</p>
load_seed_info_oracle.sql	<p>Creates administrative items that come with the Plumtree system, including Properties, the Plumtree Authentication Source, and default values for the Global Document Type Map and the Global Property Map.</p> <p>You do not need to run this script directly; it will be run for you by init_plumtree_db_oracle.sql.</p> <p>You do not need to edit this script.</p>
postinst_oracle.sql	<p>The postinst_oracle.sql script contains update operations for setting installation-specific configuration parameters in the database. It is generated by the portal installer based on information entered during the installation procedure.</p> <p>You do not need to run this script directly; it will be run for you by init_plumtree_db_oracle.sql.</p> <p>You do not need to customize this script, but before it is run, make sure that the values it contains are the same as those specified during portal installation.</p>

File	Description
RegisterSIDPLUM.reg RegisterSIDPLUM10.reg	On Windows, enters the portal database SID in the registry. You might want to customize the following properties: <ul style="list-style-type: none"> • Change the default SID, <code>PLUM</code>, (or <code>PLUM10</code> for <code>10g</code>) if you are assigning a different name to the portal database. • If you change the default SID in the script, you might also want to change the name of the file to match the SID.
run_script_proc_oracle.sql	Runs Oracle-defined administrative scripts. You might want to customize the following properties: <ul style="list-style-type: none"> • Change the Oracle system password (default is <code>manager</code>) in the line: <code>connect system/manager</code>
stored_procs_oracle.sql	Creates stored procedures and triggers in the portal database. You do not need to customize this script.

If you change the default password or SID in one script, you must change it in others. The following table lists the scripts in which you must make changes.

Changed Default Value	Scripts Affected
Default SID: <code>PLUM</code>	crdb1_oracle_nt.sql create_plumtree_tablespace_oracle_nt.sql initPLUM.ora initPLUM10.ora RegisterSIDPLUM.reg RegisterSIDPLUM10.reg create_spfile_oracle_nt.sql <p><i>NOTE: If you change <code>PLUM</code> (or <code>PLUM10</code>) in the scripts, you must also change the file name <code>init-PLUM.ora</code> (or <code>initPLUM10.ora</code>) to contain the SID you replace <code>PLUM</code> with. You may also want to change the names of other scripts that contain <code>PLUM</code>.</i></p>
Default sys password: <code>welcome</code>	crdb1_oracle_nt.sql crdb2_oracle_nt.sql CreateService.bat create_spfile_oracle_nt.sql
Default system password: <code>manager</code>	run_script_proc_oracle.sql crdb2_oracle_nt.sql

Changed Default Value	Scripts Affected
Default tablespace names	create_plumtree_tablespace_oracle_nt.sql create_plumtree_user_oracle.sql create_tables_oracle.sql
ORACLE_HOME (multi-homed environment)	crdbl_oracle_nt.sql create_plumtree_tablespace_oracle_nt.sql create_spfile_oracle_nt.sql CreateService.bat

Running the Oracle Scripts on Windows

For illustration purposes, examples in the following procedure assume:

- The **ORACLE_SID** of an Oracle 9i Plumtree database is set to **PLUM** and the **ORACLE_SID** of an Oracle 10g Plumtree database is set to **PLUM10**.
- You have taken the recommended step of copying the scripts to the following directory:
`%ORACLE_BASE%\admin\PLUM\plumtreescripts` (for Oracle 9i)
`%ORACLE_BASE%\admin\PLUM10\plumtreescripts` (for Oracle 10g)

The [“Running the Oracle Scripts on Windows”](#) procedure populates directories as follows:

- For Oracle 9i:
 - `%ORACLE_BASE%\admin\PLUM\plumtreescripts` - contains plumtree scripts and a sample version of **initPLUM.ora**.
 - `%ORACLE_BASE%\oradata\PLUM` - contains the Oracle database files associated with the **PLUM** database.
 - `%ORACLE_HOME%\database` - contains a copy of **initPLUM.ora**.
- For Oracle 10g:
 - `%ORACLE_BASE%\admin\PLUM10\plumtreescripts` - contains plumtree scripts and a sample version of **initPLUM10.ora**.
 - `%ORACLE_BASE%\oradata\PLUM10` - contains the Oracle database files associated with the **PLUM10** database.
 - `%ORACLE_HOME%\database` - contains a copy of **initPLUM10.ora**.

To create and set up your portal database:

1. Log on to the host computer for the portal database as owner of the Oracle system files.
2. Change to the directory containing the Oracle scripts and run the **RegisterSIDdb_name.reg** script. For example, from the command line, type:

```
regedit RegisterSIDPLUM.reg
```

This registers the SID name in the script as the default Oracle database. Initially, the installer downloads the script as **RegisterSIDPLUM.reg**, and the default database name is **PLUM**.

Substitute **PLUM10** for **PLUM** in the Oracle 10g database.

3. Copy the file **initPLUM.ora** (or **initPLUM10.ora**) to the Oracle database directory `%ORACLE_BASE%\database`.

Initially, the portal installer downloads the file as **initPLUM.ora** (or **initPLUM10.ora**), but if the default name of the database is changed, the file name must be changed to match the database name.

4. Run the **CreateService.bat** batch file by typing:

```
CreateService PLUM (for 9i)
CreateService PLUM10 (for 10g)
```

This creates a Windows service for the database and sets the **ORACLE_SID** environment variable to the name of the database specified after **CreateService**.

5. Create the database data directory by typing:

For Oracle 9i:

```
mkdir %ORACLE_BASE%\database\PLUM
```

For Oracle 10g:

```
mkdir %ORACLE_BASE%\database\PLUM10
```

6. If this is a recreation of a database or a retry of a prior failed attempt, delete the files in %ORACLE_BASE%\database\PLUM as follows.

For Oracle 9i:

```
del %ORACLE_BASE%\database\PLUM\*.*
```

For Oracle 10g:

```
del %ORACLE_BASE%\database\PLUM10\*.*
```

7. The following steps describe how to create a dedicated database for the portal. If you want to create a tablespace in an existing database, see [Appendix E, "Creating a Tablespace and Schema in an Oracle Database."](#)

To create a dedicated Plumtree database:

- a. From the folder that contains your Oracle scripts, start SQLplus and run the script **crdb1_oracle_nt.sql**, as in the following example (change PLUM to PLUM10 for an Oracle 10g database):

```
> cd %ORACLE_BASE%\admin\PLUM\plumtreescripts
> %ORACLE_HOME%\bin\sqlplus /nolog
[the prompt changes to SQL>]
SQL> @crdb1_oracle_nt.sql
```

If the script runs successfully, it displays a series of messages, ending with:

```
Statement processed with no errors
```

When the script completes, make sure that it created the following data files:

- systPLUM.dbf
- undo1A.dbf
- temp1A.dbf [single-disk installation only]

Output from the script is saved in the file **crdb1.LST**.

The database should now be running.

- b. With the database running, from SQLplus, run **crdb2_oracle_nt.sql**.

This creates a tablespace and a database user for the portal's use and also runs the internal Oracle scripts required to complete the database installation. The script might take as long as an hour to complete depending on the speed of your host computer system.

The screen displays a series of messages. Some error messages, such as the following, are acceptable:

```
ORA-00942 table or view does not exist
```

```
ORA-1432/ORA-1434 public synonym to be dropped does not exist.
```

When the script completes, make sure that it created the following files:

- plumdata1.dbf
- plumidx1.dbf
- plumtmp1.dbf

Output from the script is saved in the file **crdb2.LST**.

8. Finally, to create portal tables, procedures, and initial data, connect to the database as the Plumtree user and run the script **init_plumtree_db_oracle.sql** as the portal DB user.

Do not run **init_plumtree_db_oracle.sql** as the sys or system user. It must only be run by the portal DB user, for example as follows:

```
sqlplus PortalDB_user/password
[the prompt changes to SQL>]
SQL> @init_plumtree_db_oracle.sql
```

This creates required tables, procedures, and initial data by launching the following scripts:

- create_tables_oracle.sql
- stored_procs_oracle.sql
- load_seed_info_oracle.sql
- postinst_oracle.sql

The output for these scripts can be found in the script directory in the following files:

- create_tables.LST
- stored_procs_oracle.LST
- load_seed_info.LST
- postinst.LST

9. Exit **sqlplus**.

10. Start the Oracle Listener for the database.

Installing and Deploying the Plumtree Image Service

If you did not install the Plumtree Image Service component on the same host computer as the Plumtree Administrative Portal, install the Plumtree Image Service component on the next host computer. When you perform this procedure, you can install the other components you plan to install on the same host computer.

To install the Plumtree Image Service, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

To deploy the Plumtree Image Service to a Web Server:

Application Server	Plumtree Image Service Deployment
Tomcat, WebLogic, WebSphere	If you are deploying a Java portal, the installer auto-deploys the Plumtree Image Service to Apache with the values you specified in the Apache deployment installer panels.
IIS	If you are deploying a .NET portal, the installer deploys the Plumtree Image Service to the IIS Web server you specified during installation.

To configure the Apache Windows service for automatic startup:

1. Click **Start | Programs | Administrative Tools | Services**.
2. Locate the **Apache** service and right-click this service.
3. Choose **Properties**.
4. Change Startup Type to **Automatic**.
5. Click **Apply**, then click **OK**.
6. Right-click **Apache** service and choose **Start**.

To *manually* deploy the Plumtree Image Service to an Apache Web server:

1. Create the directory: **C:/Program Files/plumtree/plumtreeconf/**.
2. In this directory, create a file named **imageserver.conf** with the following contents:

```
Alias /imageserver/ "C:/Program Files/plumtree/ptimages/imageserver/"
<Directory "C:/Program Files/plumtree/ptimages/imageserver">
    AllowOverride None
    Options Indexes FollowSymlinks MultiViews
    order allow,deny
    allow from all
</Directory>
```

3. Add the following line to the <ApacheServerInstall>\conf\httpd.conf file:

```
Include "C:/Program Files/plumtree/plumtreeconf/"
```

4. Restart the Web server.

Installing and Starting Plumtree Search

If you did not install Plumtree Search component on the same host computer as the Plumtree Administrative Portal or the Plumtree Image Service components, install Plumtree Search component on the next host computer. When you perform this procedure, you can install the other components you plan to install on the same host computer.

Installing Plumtree Search on Windows

To install Plumtree Search on Windows, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

Starting Plumtree Search Windows Service

The installer registers Plumtree Search as a Windows service configured for manual startup.

To configure Plumtree Search for automatic startup:

1. Click **Start | Programs | Administrative Tools | Services**.
2. Locate the **Plumtree Search** service and right-click this service.
3. Choose **Properties**.

4. Change Startup Type to **Automatic**.
5. Click **Apply**, then click **OK**.
6. Right-click **Plumtree Search** service and choose **Start**.

Installing and Starting Plumtree Automation Service

If you did not install Plumtree Automation Service component on the same host computer as the Plumtree Administrative Portal, Plumtree Image Service, or Plumtree Search components, install it on the next host computer. When you perform this procedure, you can install the other components you plan to install on the same host computer.

To install the Plumtree Automation Service, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

The installer registers the Plumtree Automation Service as a Windows service configured for manual startup.

To configure the Plumtree Automation Service for automatic startup:

1. Click **Start | Programs | Administrative Tools | Services**.
2. Locate the **Plumtree Automation Service** and right-click this service.
3. Choose **Properties**.
4. Change Startup Type to **Automatic**.
5. Click **Apply**, then click **OK**.
6. Right-click **Plumtree Automation** service and choose **Start**.

Installing and Starting the Plumtree Document Repository Service

If you did not install the Plumtree Document Repository Service component on the same host computer as the Plumtree Administrative Portal, the Plumtree Image Service, Plumtree Search, or the Plumtree Automation Service components, install it on the next host computer. When you perform this procedure, you can install the other components you plan to install on the same host computer.

To install the Plumtree Document Repository Service, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

The installer registers the Plumtree Document Repository Service as a Windows service configured for manual startup.

To configure the Plumtree Document Repository Service for automatic startup:

1. Click **Start | Programs | Administrative Tools | Services**.
2. Locate the **Plumtree Document Repository** service and right-click this service.
3. Choose **Properties**.
4. Change Startup Type to **Automatic**.
5. Click **Apply**, then click **OK**.

6. Right-click **Plumtree Document Repository** service and choose **Start**.

Document Repository Service Troubleshooting

Port Conflict, Port in Use, or BindException error

If you have installed the Document Repository Service you may receive a Port Conflict, Port in Use, or BindException error. To resolve this error, configure the port numbers for HTTP and HTTPS in <PT_HOME>settings/config/application.xml. Edit the HTTP and HTTPS settings in the **application.xml** file to set the value to an available port.

The Document Repository Service must be restarted to pick up changes made in the configuration file. Note that changes to a service port number require corresponding changes to any Web service or remote server settings which may reference that port number.

Memory Consumption or Out of Memory error

If you have installed the Document Repository Service you may receive a Memory Consumption or Out of Memory error. To resolve this error, configure the maximum amount of memory, in megabytes, that the service JVM will be allowed to use. This is controlled by the **wrapper.java.maxmemory** property, configured in <PT_HOME>settings/config/wrapper.conf. For example, the following line from the wrapper.conf file shows a maximum memory setting of 1 GB:

```
wrapper.java.maxmemory=1024
```

The setting corresponds directly to the -Xmx parameter used by the java executable. The default value of this setting in the configuration file will be adequate for most configurations. For large production configurations, especially those in which the service is installed on a dedicated host machine, this value should be set as high as possible (e.g. 1024 or 1536) but should always remain below the amount of physical RAM on the host machine.

Installing the Plumtree API Service

If you did not install the Plumtree API Service component on the same host computer as the previous components, install it on the next host computer. When you perform this procedure, you can install the other components you plan to install on the same host computer.

To install the Plumtree API Service, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

The installer registers the Plumtree API Service as a Windows service configured for manual startup.

To configure the Plumtree API Service for automatic startup:

1. Click **Start | Programs | Administrative Tools | Services**.
2. Locate the **Plumtree API** service and right-click this service.
3. Choose **Properties**.
4. Change Startup Type to **Automatic**.
5. Click **Apply**, then click **OK**.

6. Right-click **Plumtree API** service and choose **Start**.

Installing Plumtree Content Upload Service

Plumtree Content Upload Service uploads files to the Plumtree Document Repository Service so that they are available through the Knowledge Directory. This allows portal users who do not have access to the internal file network (for example, extranet users) to submit files to the portal Knowledge Directory.

The installer registers the Plumtree Content Upload Service as a Windows service configured for manual startup.

To configure the Plumtree Content Upload Service for automatic startup:

1. Click **Start | Programs | Administrative Tools | Services**.
2. Locate the **Plumtree Content Upload** service and right-click this service.
3. Choose **Properties**.
4. Change Startup Type to **Automatic**.
5. Click **Apply**, then click **OK**.
6. Right-click **Plumtree Content Upload** service and choose **Start**.

After you install Plumtree Content Upload Service, you must import it into the portal. Refer to the *Administrator Guide for Plumtree Foundation* for information on how to import the Plumtree Content Upload Service migration package into the portal.

Content Upload Service Troubleshooting

Port Conflict, Port in Use, or BindException error

If you have installed the Content Upload Service you may receive a Port Conflict, Port in Use, or BindException error. To resolve this error, configure the port numbers for HTTP and HTTPS in `<PT_HOME>settings/config/application.xml`. Edit the HTTP and HTTPS settings in the **application.xml** file to set the value to an available port.

The Content Upload Service must be restarted to pick up changes made in the configuration file. Note that changes to a service port number require corresponding changes to any Web service or remote server settings which may reference that port number.

Memory Consumption or Out of Memory error

If you have installed the Content Upload Service you may receive a Memory Consumption or Out of Memory error. To resolve this error, configure the maximum amount of memory, in megabytes, that the service JVM will be allowed to use. This is controlled by the **wrapper.java.maxmemory** property, configured in `<PT_HOME>settings/config/wrapper.conf`. For example, the following line from the wrapper.conf file shows a maximum memory setting of 1 GB:

```
wrapper.java.maxmemory=1024
```

The setting corresponds directly to the `-Xmx` parameter used by the java executable. The default value of this setting in the configuration file will be adequate for most configurations. For large production configu-

rations, especially those in which the service is installed on a dedicated host machine, this value should be set as high as possible (e.g. 1024 or 1536) but should always remain below the amount of physical RAM on the host machine.

Installing Plumtree Portal

If you did not instal the Plumtree Portal component on the same host computer as the previous components, install it on the next host computer. When you perform this procedure, you can install the other components you plan to install on the same host computer.

To install the Plumtree Portal, follow the instructions in [“Installing Plumtree Components” on page 4-1](#).

Diagnostic Tool

The Diagnostic Tool is a command line application that you run before starting your portal. It tests basic portal startup functionality and generates a list of warnings and the recommendations on how to correct those errors. The Diagnostic Tool (**diagnostic.exe**) is installed in the following directory:

```
<PT_HOME>\ptportal\6.0\bin\diagnostic.exe
```

Run the Diagnostic Tool from the command line, read the warnings, and then follow the recommendations to correct any errors before you start the portal.

Starting Portal Services

To start the portal after you have installed all components:

- Set up and start the portal database.
- Make sure that application servers are started and configured for use with the portal ([“Configuring Your Web Application Server” on page D-1](#)).
- Make sure that the Plumtree Image Service is up and available to Plumtree Portal before you start the portal.
- Start the Plumtree Automation Service, Plumtree Document Repository Service, and Plumtree Search.

The portal installer registers all three services as manual Windows services that you can start through the Windows Control Panel.

Verifying the Installation

This section describes how to verify successful installation of your portal components. It includes the following topics:

- [“Testing Connectivity”](#)
- [“Reviewing Logs” on page 4-27](#)

Testing Connectivity

You can test the connectivity for components after you have installed and started the dependent components. The following table summarizes steps you can take to verify successful installation.

Table 4-1:

Component Test	Steps
Plumtree Image Service, Plumtree Administrative Portal, Plumtree Portal, and Portal Database	<p>Test the installed components by making sure that the portal user interface displays correctly:</p> <ul style="list-style-type: none"> • Open a browser to: <code>http://admin_portal_server_host:port/portal/server.pt</code> • Log in with user name <code>Administrator</code> and no password. (When you first install the portal, this is the default login.) <p>If the login page displays with icons and you are able to log in and see a default My Page, you have verified that the Plumtree Administrative Portal is running on its Web application server and is able to communicate with the database and that your browser is able to receive images from the Plumtree Image Service.</p>
Plumtree Search	<p>Go to the Services Control panel on the Plumtree Search host computer and make sure you can successfully start the Plumtree Search as a service.</p> <p>Alternatively, you can login to the portal as <code>Administrator</code>, click the Administration tab, and select the Search Server Manager utility from the Select Utility drop-down list. You should then be able to click the Show Status button and get a status message indicating success.</p>
Plumtree Automation Service	<p>Go to the Services Control panel on the Plumtree Automation Service host computer and make sure you can successfully start the Plumtree Automation Service.</p> <p>Alternatively, you can login to the portal as <code>Administrator</code>, click the Administration tab, and select the Automation Service utility from the Select Utility drop-down list. You should see the Plumtree Automation Service you specified during installation. Its status should be listed as Online.</p>

Table 4-1:

Component Test	Steps
Plumtree Document Repository Service	Test the Plumtree Document Repository Service by installing Content Server (which is required for Community Branding) and then run its diagnostic Tests.jsp .
Plumtree API Service	<p>To test the Plumtree API Service, perform a Federated Search:</p> <ul style="list-style-type: none"> • Log in to the portal as Administrator. The default password is blank. • On the displayed My Page, click the Administration tab to go to the Administrative Object Directory and open any folder. • In the Create Object drop-down list within the folder you opened, select Web Service - Search. This displays the Create Web Service page. • Under Search Web Service Settings, set Search URL to: http://wsserver.mydomain.com:11905/ptapi/services/PTSearchServiceSoap • Under Edit Object Settings, click Advanced Settings. This displays the Create Web Service Advanced Settings page. • Under SOAP Encoding Style, select Document/Literal and click Finish. This displays the Save Object page. • Enter a name and description for the search you have created and choose the folder you want the search saved in, then click Save. The Object Saved page displays. • Click Create new Outgoing Federated Search. This displays the Create Outgoing Federated Search page. • Under Edit Object Settings, click Portal to Portal Settings. This displays the Create Outgoing Federated Search Portal to Portal Settings page. • Under Portal Authentication Settings, select Yes, enter guest as your portal identification name, do not enter a portal identification password, and click Finish. This displays the Save Object page. • Enter a name and description for the Federated Search you created and choose the folder you want the Federated Search saved in, then click Save. • Click the Federated Search (<i>not</i> Advanced Search) icon in the upper-right corner of the page. This displays the Search Settings page. • Select the check box next to the Federated Search you created, enter text to search for in the Search for text box, and click Search. <p>If the Plumtree API Service is successfully installed, you see the results of your search, without error messages.</p>

Reviewing Logs

After you install components, you can check log files for errors and warnings. The following table describes the logs created when you install the portal.



Note: Any errors found in any of the other logs listed below are also reported in Plumtree_Foundation_InstallLog.log.

Log File	Comments
Logs directly under the portal installation directory	
Plumtree_Foundation_InstallLog.log	Logs success or failure of individual installation operations when installing the Portal Server or Plumtree Administrative Portal.
ptdr_deployment.log	Logs success or failure of individual installation operations during Plumtree Document Repository Service installation
ptimages_deployment.log	Logs success or failure of individual installation operations during Plumtree Image Service installation.
ptportal_deployment.log	Logs success or failure of individual installation operations during Portal Server, Administrative Portal, or Automation Service installation.
ptsearchserver_deployment.log	Logs success or failure of individual installation operations during Plumtree Search installation.
ptlogger_deployment.log	Logs success or failure of individual installation operations during Plumtree Logging Utilities installation.
ptws_deployment.log	Logs success or failure of individual installation operations during Plumtree API Service installation.
portalappserver_deployment.log	Logs success or failure of individual installation operations during Windows auto-deployment of the Image Service, Administrative Portal, and Portal Server.
ptupload_deployment.log	Logs success or failure of individual installation operations during Plumtree Content Upload Service installation.

Setting Up Logging Utilities for Portal Logging

To set up portal logging, you use the OpenLog section of the **serverconfig.xml** file. The **serverconfig.xml** file is located in `/plumtree/settings/common`.

The following is an example of this section and a description of each of the nodes in the section:

```
<setting name="logging:server-name">
<value xsi:type="xsd:string">portal.Foo-win2k.BarryF</value>
</setting>
<setting name="logging:local-only">
<value xsi:type="xsd:boolean">>false</value>
</setting>
```

`<setting name="logging:server-name">` Node

This node:

- Defines the portal logging name, which distinguishes it from all other Plumtree applications that use the logging framework.

During installation, the portal installer sets the portal logging name to:

```
portal.[machine-name].[user-name]
```

In this default, *machine-name* is the name of the machine on which the portal is installed. *user-name* is the name of the user who runs the installer.

You can override the default portal logging name by typing your own string into the `<setting name="logging:server-name">` node. The string that you enter must meet this criteria:

- The logging name can contain only visible ASCII characters and the space character. It cannot contain other characters such as tabs, carriage returns, and so on. It also cannot contain the forward slash character (`/`).
- The logging name cannot exceed 128 characters in length.

`<setting name="logging:local-only">` Node

The `<setting name="logging:local-only">` XML node enables or disables remote spying of portal log messages. When the value is *false*, instances of Plumtree Logging Spy that run on other machines on the network can receive log messages from the portal. When the value is *true*, only instances of Plumtree Logging Spy that run on the machine on which the portal is installed can receive log messages from the portal. The default value is *true*.

For successful remote spying of portal log messages, you must configure the network to allow UDP multi-cast messages between the machine on which the portal is installed and the machine on which Plumtree Logging Spy is installed. For help with this, see your network administrator.

Plumtree Logging Spy

Plumtree Logging Spy (formerly PTSpy) is the primary log message receiver in the Plumtree Logging Utilities. Plumtree Logging Spy provides a graphical user interface for displaying log messages as they stream in from the portal and other log message senders (such as Plumtree Collaboration or Plumtree Publisher).

Launch Plumtree Logging Spy by navigating to **Start | All Programs | Plumtree | PT Logging Utilities | Logging Spy**. For more information on using Plumtree Logging Spy, see the Online Help provided with Plumtree Logging Spy or refer to the *Administrator Guide for Plumtree Foundation 6.0*.

5

Upgrading to Foundation 6.0

The following table summarizes the supported database upgrade path for Plumtree Foundation.

Upgrade Path	Upgrade References
6.0 to 6.0 SPI (Windows)	Follow the procedures in this chapter.
5.0.2, 5.0.3, 5.0.4 (Windows) to 6.0 (Windows)	Follow the procedures in this chapter.

This chapter discusses:

- [“Upgrading to Foundation 6.0”](#)
- [“Upgrading from Foundation 6.0 to Foundation 6.0 SPI”](#)

Upgrading to Foundation 6.0

This section discusses how to upgrade from Foundation 5.0.2, 5.0.3 or Foundation 5.0.4 to Foundation 6.0.

Prerequisite Steps

To accomplish a database upgrade, the following general steps are completed:

1. Read the product release notes for a brief summary of features introduced or changed in releases 6.0, 5.0.4, 5.0.3, and 5.0.2.
2. Ensure you have completed pre-installation steps. For details, see [Chapter 3, “Pre-Installation Steps.”](#)
3. Verify that your Web application server is configured for portal deployment. For details, see [Appendix D, “Configuring Your Web Application Server.”](#)
4. Run the 6.0 portal installer. For details, see [“Installing Portal Components” on page 4-1.](#)

Plumtree Database Upgrade Tool

The Plumtree Database Upgrade Tool upgrades a 5.0.2, 5.0.3 or 5.0.4 database to version 6.0 specifications.

Pre-Upgrade Requirements

Before you run the Plumtree Database Upgrade Tool:

- If your portal database is implemented in an Oracle database server, migrate your Oracle database to the supported versions of Oracle as specified in [“Software Requirements”](#) table. This step may be complex and time-consuming. Your enterprise DBA should perform this step several days or weeks before you begin the next upgrade steps.



Note: When you upgrade to Oracle 9i or 10g, ensure that the new database character set is UTF8 and the new database national character set is ALI6UTF16. Plumtree 6.0 requires that Oracle databases be created with a UTF8 character set and a ALI6UTF16 national character set.

- If your portal database is implemented in a SQL Server database server, migrate your database to Microsoft SQL Server 2000 SP3. This step may be complex and time-consuming. Your enterprise DBA should perform this step several days or weeks before you begin the next upgrade steps.
- Install the Plumtree Administrative Portal for portal version 6.0.

Duplicate Document Names Scripts

In Plumtree Foundation 6.0, Oracle databases are now case-insensitive in regard to Plumtree object names. Object names that differ only in case are no longer allowed in the database. The Plumtree Database Upgrade Tool detects all duplicate object names. If the Plumtree Database Upgrade Tool detects that your database contains duplicate documents (or other duplicate object names), you must rename or remove these duplicates before proceeding with the database upgrade.

Plumtree provides two scripts that you can run before you run the Database Upgrade Tool. It is important to note that running these scripts is optional, that they support Oracle databases only, and that the scripts only resolve duplicate names for Knowledge Directory documents and not other Plumtree objects. The scripts are located in C:\Program Files\plumtree\ptportal\6.0\sql.

- **find_dup_doc_names_oracle.sql** – This script finds duplicate document names in the database and creates new names for the duplicates by appending the string “(dup x)”, where “x” is the number of the duplicate. The new document names are stored in a new table (PTCARDS_NEWNAMES), so the original PTCARDS table is left untouched. The script only handles up to 5 duplicate document names.
- **fix_dup_doc_names_oracle.sql** – This script updates the duplicate document names in the PTCARDS table with the new card names stored in PTCARDS_NEWNAMES. It then drops the PTCARDS_NEWNAMES table. It is required that **find_dup_doc_names_oracle.sql** be run first before running this script.

Running the .NET Plumtree Database Upgrade Tool

1. On the machine where you installed the Plumtree Administrative Portal for 6.0, open the Plumtree Database Upgrade Tool (dbupgradetool.bat). It may be in the following default location or the location you specified during portal installation:

C:\Program Files\plumtree\ptportal\6.0\bin\

- If you are running the .NET version of the portal, then the dbupgradetool.bat launches a GUI version of the Database Upgrade Tool. Continue with Step 2 below.
 - If you are running the Java version of the portal, then the dbupgradetool.bat launches a command line version of the Database Upgrade Tool. Refer to [“Running the Java Plumtree Database Upgrade Tool” on page 5-4](#) for instructions on using the Java version of the Plumtree Database Upgrade Tool.
2. In the **Admin User Name** box, type the name of the 5.0.x Administrator user (not another user in the Administrators group). The default name is “Administrator,” but you may have changed the name for security purposes after installation.
 3. In the **Password** box, type the password for the Administrator user.

4. In the **Error Log File** box, type the location and name of the file you want to create to record errors encountered by the Plumtree Upgrade Utility, or browse to an existing file by clicking
5. If you want the Plumtree Upgrade Utility to write the SQL statements used to upgrade the database to a file, check the **Create SQL Script** box. You can use this file to upgrade an identical database without running the Plumtree Database Upgrade Tool. The SQL is data-specific, so you must not run it against any database except for an exact duplicate of the database from which the SQL was generated.



Note: The Plumtree Database Upgrade Tool modifies data regardless of whether it is also generating SQL Script.

If you choose to create a SQL script, you must also specify a file into which the SQL is written; type the location and file name of the file you want to create, or browse to an existing file by clicking

6. Click **Connect**. The Plumtree Database Upgrade Tool connects to the portal database and, based on the types of objects in your portal, determines what additional parameters it requires for the upgrade.
7. Provide values for the additional parameters. If you previously saved parameter values through the Plumtree Database Upgrade Tool, click **Load Settings**. You are prompted for a file location and name, and the parameters are populated with your saved values.

When asked **Do you want to clear the status of any currently indexed items:** If you answer yes (Y), Plumtree Search discards its indexed data and re-indexes everything when you run the Search Update agent after upgrade. In test upgrades, you can set this option to “N,” but in final production upgrades, you should set it to “Y.”

8. If you want to save the parameters you entered in Step 7 to a file for reuse, click **Store Settings**. You are prompted for a file location and name.
9. Click **Upgrade** to begin upgrading the database. The upgrade can run for a few seconds or a few hours, depending on the size of your database. If the Plumtree Database Upgrade Tool encounters errors or data inconsistencies, it does not stop. Instead it logs the errors to the file specified in Step 4.



Note: The UI will not be responsive. To ensure the upgrade is still working, you may watch the Plumtree Logging Spy log, but also note that long periods of time can elapse without any activity in the Plumtree Logging Spy log, as complex queries are issued against the database.

10. When the database upgrade completes, you are notified of the status.
11. If there were errors, you should examine the log file, identify solutions, restore the database to its previous state, fix the problems, and re-run the Plumtree Database Upgrade Tool.



Note: You must restore the database to its original 5.0.x state before you re-run the Plumtree Database Upgrade Tool. The Plumtree Database Upgrade Tool modifies the database to determine all possible errors. Therefore, even if the upgrade did not complete successfully, the database is at least partially upgraded to 6.0.

11. Continue with the instructions for [“Exporting and Re-importing the Data” on page 5-5](#), [“Loading the Stored Procedures” on page 5-6](#), and [“Updating System-Specific Parameters” on page 5-6](#).

Running the Java Plumtree Database Upgrade Tool

The command line Plumtree Database Upgrade Tool is used to upgrade a Java portal database to 6.0 specifications.

To successfully perform an upgrade, you must supply data needed by the upgrade process (such as the location of various files). You supply this data through a text file. This text file is the **upgradedata.properties** file and is created in:

```
$PT_HOME/settings/portal/upgradedata.properties
```

The first time you run the Plumtree Database Upgrade Tool, it creates the upgradedata.properties text file that contains descriptions of the required data. You edit the upgradedata.properties file in a text editor. After entering all necessary parameters, you run the Plumtree Database Upgrade Tool a second time. The Plumtree Database Upgrade Tool reads the parameters from the upgradedata.properties file, and performs the upgrade.



Note: Your system must be properly configured to run Plumtree in order to use this application, as it relies on your Plumtree configuration to know how to connect to the database and so forth.

1. Run the Plumtree Database Upgrade Tool:

```
$PT_HOME/plumtree/ptportal/6.0/bin/dbupgradetool.bat
```

2. This script takes two parameters of Admin User Name and Password:

- Admin User Name - type the name of the 5.x Administrator user created upon installation (not another user in the Administrators group). The default name is "Administrator," but you may have changed the name for security purposes after installation.



Note: The Admin User Name is case sensitive.

- Password - type the password for the Administrator user. If this user has an empty password, do not type anything.

3. Provide values for the parameters in the upgradedata.properties file. You may not see all of these parameters because you see only the parameters associated with the types of objects in your portal.



Note: File paths are in the format `/directory/subdir/filename.xxx` and cannot have a space at the end of the path nor quotes around the path name. A correct example would be:

```
File_Path = /opt/plumtree/ptedir/yourfilename.pte
```

- LOG_FILE_PATH - Enter the path to the log file to be created by the upgrade. The upgrade writes status information to this file.
- SQL_FILE_PATH - Enter the path to the SQL file to be created by the upgrade. The upgrade creates a SQL script in this file that corresponds to the work done by the upgrade. This parameter is optional. Leave it blank to indicate that no SQL file should be generated.



Note: The Plumtree Database Upgrade Tool modifies data regardless of whether it is also generating SQL script.

4. Run the Plumtree Database Upgrade Tool again to begin upgrading the database. The upgrade can run for a few seconds or a few hours, depending on the size of your database. If the Plumtree Database

Upgrade Tool encounters errors or data inconsistencies, it does not stop. Instead it logs the errors to the file specified in Step 3.

5. When the database upgrade completes, you are notified of the status. If the upgrade completed successfully (without errors), skip to Step 7.
6. If there were errors, you should examine the log file, identify solutions, restore the database to its previous state, fix the problems, and re-run the Plumtree Database Upgrade Tool.



Note: You must restore the database to its original 5.0.x state before you re-run the Plumtree Database Upgrade Tool. The Plumtree Database Upgrade Tool modifies the database to determine all possible errors. Therefore, even if the upgrade did not complete successfully, the database is at least partially upgraded to 6.0.

7. If you changed the database credentials, change them back to use the Plumtree database user.
8. Continue with the instructions for [“Exporting and Re-importing the Data” on page 5-5](#), [“Loading the Stored Procedures” on page 5-6](#), and [“Updating System-Specific Parameters” on page 5-6](#), that follow below.

Exporting and Re-importing the Data

You must export and re-import the database data into newly created tables after the database has been upgraded. To do this, export all the data from the database, run the Plumtree database creation scripts, and re-import the data into the new tables.

In Oracle

1. Export the data using the Oracle export utility. If your Plumtree schema owner is “plumbuser”, type:
`exp plumbuser/pass FILE=plumb.dmp OWNER=plumbuser GRANTS=y ROWS=y COMPRESS=y`



Note: Ensure that the National Character Set of the database is ALI6UTF16. If it is not, alter or recreate the database so that it is.

2. Run the Plumtree database table creation SQL script **create_tables_oracle.sql**. This script is generated by the Portal Server installer and is located in the server’s `PT_HOME\ptportal\6.0\sql\Oracle` subdirectory.



Note: This must be run by the portal database user.

3. Import the data using the Oracle import utility. If your Plumtree schema owner is “plumbuser”, type:
`imp plumbuser/pass FILE=plumb.dmp FROMUSER=plumbuser TOUSER=plumbuser IGNORE=y`

You may receive errors that look like the following:

```
IMP-00019: row rejected due to ORACLE error 1401
IMP-00003: ORACLE error 1401 encountered
ORA-01401: inserted value too large for column
```

If so, refer to the troubleshooting section in the *Upgrade Guide for Plumtree Foundation 4.5WS to 6.0* for ORACLE error 1401. This error must be corrected manually.

During import, you may encounter a few errors that look like the following:

ORA-28667: USING INDEX option not allowed for the primary key of an IOT
These errors are harmless and may be ignored.

In SQL Server

The easiest way to export and import Plumtree table data from one Microsoft SQL Server database to another is to use Microsoft DTS. Microsoft DTS is provided with SQL Server and can be accessed via the SQL Enterprise Manager.

To export upgraded Plumtree data into a fresh schema:

1. Create a new target database. This database may become your portal database; or it can be a temporary database used only during this data export/import process.
2. Create a fresh Plumtree database schema in the database by running the **create_tables_mssql.sql** script. Do not run other scripts, as the tables should be empty.
3. Start the DTS Wizard from the SQL Enterprise Manager by right-clicking the source database and selecting **All Task->Export Data....**
4. Provide appropriate connection information by using the portal database user for the source and target databases. Use the default **Microsoft OLE DB Provider for SQL Server** provider to make the connections.
5. Select **Copy table(s) and view(s) from the source database** and then click **Next**.
6. Select all the Plumtree data Tables. (Or, select all objects with **Select All**, and deselect all the Views.)
7. Verify that each source table maps to the appropriate (same-named) existing table in the target. This is the default if the target table exists.
8. Verify (by clicking the button on the **Transform** column) for each table that: the columns are mapped to the same named column in the destination; and that rows will be imported to the same table owner as the one who created the new schema. These are the default settings.
9. Run the DTS and check the dialog for errors. None should occur.

If the target database is to replace your source, then you must modify all the connection information on all portal, WS, Collaboration, Workflow, Content, Notification, and other servers that use the Plumtree database.

If the target database is temporary, then you should run the **create_tables_sql.sql** to drop the tables and recreate a fresh schema in your permanent database, then repeat the export/import as above.

Loading the Stored Procedures

Add the new Plumtree stored procedures to the database by running the Plumtree stored procedure creation SQL script. This script is generated by the Portal Server installer and is located in the server's PT_HOME\ptportal\6.0\sql\ subdirectory:

- If running Oracle, run **stored_procs_oracle.sql**
- If running MS SQL Server, run **stored_procs_mssql.sql**

If necessary, grant execute rights to the stored procedure script to the Plumtree database user.

Updating System-Specific Parameters

Run the system-specific post-installation SQL:

- If running Oracle, run **postinst_oracle.sql**
- If running MS SQL Server, run **postinst_mssql.sql**

This script is generated the Portal Server installer and is located in the server's `PT_HOME\ptportal\6.0\sql\` subdirectory. The values in this script depend on the parameters you entered during the installation of the 6.0 Portal Server, and therefore you must use a version that was generated for the installation of the specific system being upgraded, not one copied from another system.

This step is especially important if the database that you upgraded was copied from a different system, as the script corrects system-specific database entries to be appropriate to the upgraded system. For example, a copied database refers to the Plumtree Search of the database's source system; running the upgraded portal with that reference in its database may cause the portal to corrupt the data in the Plumtree Search source.

Post Database Upgrade Steps

1. Start all portal services. For details, see [“Starting Portal Services” on page 4-24.](#)
2. Verify your installation. For details, see [“Verifying the Installation” on page 4-25.](#)
3. Run a Search Repair operation. BEA highly recommends this whether or not you chose to clear the status of currently indexed items when you ran the Database Upgrade Tool (by default, the status of currently indexed items is cleared). To run a Search Repair operation:
 - a. Set the Next Repair Date in the Search Service Manager utility. You can find this utility in the portal administrative hierarchy. To schedule an immediate repair, set the date for today and the time to be in the past.
 - b. Click **Apply** then **Finish**.
 - c. Start any of the Search Update jobs.
4. Review post-installation steps to determine your next steps. For details, see [Chapter 6, “Post-Installation Steps.”](#)

Upgrading from Foundation 6.0 to Foundation 6.0 SPI

This section describes how to upgrade from Foundation 6.0 to Foundation 6.0 SPI.

When planning your upgrade process, you should take into account testing, uptime requirements and synchronization with staging and development systems.

Upgrading from Foundation 6.0 to Foundation 6.0 SPI requires that you run the `upgrade6.0to6.0.SPI_your_database_type.sql` database script on the portal database in addition to upgrading the portal software itself. The database script is installed with the Administrative Portal server. The basic upgrade steps can be summarized as follows:

1. Upgrade software on one Administrative Portal server to version 6.0 SPI.
2. Run the `upgrade6.0to6.0.SPI_your_database_type.sql` database upgrade script on the portal database.
3. Upgrade all other components such as automation servers, image servers, and other administrative portal servers.

Steps 2 and 3 can be reversed if desired. Whatever order you choose, you must install at least one version of 6.0 SPI administrative portal server before running the database scripts so as to get a copy of the database upgrade script. Also, although each administrative portal server will have a copy of the upgrade script, you only need to run the script once.

Please note that each of the basic steps listed above have other sub-steps that are described in the procedure below.

1. Upgrade software on one Administrative Portal server to version 6.0 SPI.
 - a. Verify that the machine infrastructure is up to version 6.0 SPI specifications. For details, see [Chapter 3, “Pre-Installation Steps.”](#)
 - b. Install the Administrative Portal server component. For details, see [“Installing the Plumtree Administrative Portal” on page 4-7](#)
2. Run the database upgrade script on the portal database.
 - a. Back up the portal database.
 - b. Locate the `upgrade6.0to6.0.SPI_your_database_type.sql` script in the installation folder of the version 6.0 SPI Administrative Portal server.
 - c. Run the database upgrade script.
3. Upgrade all other components such as automation servers, image servers, and other administrative portal servers.
 - a. Verify that the machine infrastructure for the other Foundation system machines is up to version 6.0 SPI specifications. For details, see [Chapter 3, “Pre-Installation Steps.”](#)
 - b. Install the Image Service component(s) and deploy them to a Web server. For details, see [“Installing and Deploying the Plumtree Image Service” on page 4-19](#)
 - c. Install the Plumtree Search component. For details, see [“Installing and Starting Plumtree Search” on page 4-20](#)
 - d. Install the other Portal and Administrative Portal server component(s), such as Collaboration and Analytics.
 - e. Install the Automation Service component(s). For details, see [“Installing and Starting Plumtree Automation Service” on page 4-21](#)
 - f. Install the WS Server component.
 - g. Install other Foundation components as needed.
4. Test the basic Foundation system to verify the installation of the software. For details, see [“Verifying the Installation” on page 4-25](#)
5. Check installation log files for errors and warnings. For details, see [“Reviewing Logs” on page 4-27](#).
6. Apply customizations as needed.
7. Test customizations to verify the application of the customizations.

6

Post-Installation Steps

This chapter provides a summary of references for post-installation tasks you can perform to complete your deployment.

Task	Reference
1. Verify or troubleshoot installation.	“Verifying the Installation” on page 4-25
2. Verify that your Web application servers have been configured correctly for your portal deployment.	Appendix D. “Configuring Your Web Application Server”
3. Install and test other Plumtree products if they are part of your deployment.	<i>Installation and Upgrade Guide for Plumtree Collaboration</i> <i>Installation and Upgrade Guide for Plumtree Publisher</i> <i>Installation and Upgrade Guide for Plumtree Studio</i>
4. If you upgraded from a previous version, become familiar with new and changed features.	<i>Release notes</i>
5. Localize your portal.	<i>Deployment Guide for Plumtree Application Suite</i> <i>Administrator’s Guide for Plumtree Foundation</i>
6. Implement security for your portal.	<i>Deployment Guide for Plumtree Application Suite</i> <i>Administrator’s Guide for Plumtree Foundation</i>
7. Create the portal objects that enable you to manage users, groups, and documents.	<i>Administrator’s Guide for Plumtree Foundation</i>
8. Install additional portlets and Crawler Web Services to support document types used in your portal.	Plumtree Product Center http://portal.plumtree.com If you do not already have an account, send mail to support@plumtree.com .
9. If you want to publish to your browsing users a simpler portal URL create an HTTP redirection page.	Appendix F. “Redirecting a URL”
10. Become familiar with the resources available in the Plumtree Support Center. You might find the Knowledge Base helpful. For example, if your deployment supports Lotus Notes users, you might want to search for “Lotus Notes” to display KB articles relevant to Lotus Notes support.	Plumtree Support Center http://portal.plumtree.com If you do not already have an account, send mail to support@plumtree.com .

7

Uninstalling Portal Components

To uninstall the portal software:

1. If your portal uses a WebLogic or WebSphere application server, make sure it is running.
If your portal uses the Tomcat application server, make sure the Plumtree application is stopped.
IIS can be running or stopped.
2. Use the Windows Control Panel Add/Remove Program utility to launch the Plumtree Portal uninstall wizard.

A Deployment Component Configuration Worksheets

This appendix contains worksheets for entering the installation information required by portal components. Print these worksheets and use them to gather the host computer and component configuration information you need to install portal components.

This appendix includes the following worksheets:

- [“Plumtree Component - Host Computer Assignment Worksheet”](#)
- [“Installation Worksheet” on page A-4](#)
- [“Plumtree Administrative Portal Worksheet” on page A-5](#)
- [“Plumtree Automation Service Worksheet” on page A-6](#)
- [“Plumtree Document Repository Service Worksheet” on page A-7](#)
- [“Plumtree Image Service Worksheet for .NET” on page A-8](#)
- [“Portal Server Worksheet for .NET” on page A-9](#)
- [“Plumtree Search Worksheet” on page A-10](#)

Plumtree Component - Host Computer Assignment Worksheet

[Figure A-1](#) provides an example of a component and host computer assignment worksheet. [Figure A-2](#) is a blank worksheet you can use to record the deployment decisions you make, following the guidelines in the *Deployment Guide for the Plumtree Enterprise Web*.

Figure A-1: Example Plumtree Component - Host Computer Assignment Worksheet

<div>Admin Portal Server Portal Server</div>	<div>Plumtree Search Plumtree Automation Service Plumtree Document Repository Plumtree Database</div>	<div>Plumtree API Service</div>	<div>Plumtree Image Service</div>
<div>enterprise.portal.com</div>	<div>back-end-services.portal.com</div>	<div>web-apps.portal.com</div>	<div>image-host</div>
<div></div>	<div></div>	<div></div>	<div></div>

Figure A-2: Plumtree Component - Host Computer Assignment Worksheet

Installation Worksheet

The following worksheet lists the values you enter the first time you use the Plumtree Foundation installer.

Property		Example Value	Your Value
External Portal URL		http://enterprise.portal.com/portal	
Default Plumtree Automation Service computer		back-end-services.portal.com	
Plumtree Automation Service Port		7777	
Plumtree Image Service URL		http://image-host.portal.com/imageserver	
Plumtree API Service URL		http://web-apps.portal.com	
Plumtree Search host name		back-end-services.portal.com	
Plumtree Search port		15244	
Plumtree Document Repository Service host name		back-end-services.portal.com	
Plumtree Document Repository Service port		8020	
Plumtree Content Upload Service port		11910	
Portal database SQL Server	Host name	back-end-services.portal.com	
	Port	1433	
	Database name	plumdb	
	Login name	plumdbuser	
	Password		
Portal database Oracle	Host name	back-end-services.portal.com	
	Port	1521	
	Service name	PLUM	
	Schema user	plumtree	
	Schema password		

Plumtree Administrative Portal Worksheet

Setting		Example Value	Your Value
Host Computer		enterprise	
Installation Folder		C:\Program Files\plumtree	
Plumtree Automation Service User Name		DOMAIN\automation_user	
Plumtree Automation Service Password			
IIS Web Site: Default or Other		Default	
If you choose Other	IIS Web Site Name	Plumtree Web Site	
	Non-Secure Port	8081	
	Secure Port	9091	
Portal Server	Domain Name	enterprise.portal.com	
	Non-Secure Port	8081	
	Secure Port	9091	

Plumtree Automation Service Worksheet

Setting	Example Value	Your Value
Host Computer	back-end-services	
Installation Folder	C:\Program Files\plumtree	
Plumtree Automation Service User Name	DOMAIN\automation_user	
Plumtree Automation Service Password		

Plumtree Document Repository Service Worksheet

Setting	Example Value	Your Value
Host Computer	back-end-services	
Installation Folder	C:\Program Files\plumtree	
Plumtree Document Repository Service Location	C:\Program Files\plumtree\ptdr\documents	

Plumtree Image Service Worksheet for .NET

Setting		Example Value	Your Value
Host Computer		web-apps	
Installation Folder		C:\Program Files\plumtree	
IIS Web Site: Default or Other		Default	
If you choose Other	IIS Web Site Name	Plumtree Web Site	
	Non-Secure Port	8081	
	Secure Port	9091	

Portal Server Worksheet for .NET

Setting		Example Value	Your Value
Host Computer		enterprise	
Installation Folder		C:\Program Files\plumtree	
Plumtree Automation Service User Name		DOMAIN\automation_user	
Plumtree Automation Service Password			
Plumtree Administrative Portal URL		http://enterprise.portal.com	
IIS Web Site: Default or Other		Default	
If you choose Other	IIS Web Site Name	Plumtree Web Site	
	Non-Secure Port	8081	
	Secure Port	9091	
Portal Server	Domain Name	enterprise.portal.com	
	Non-Secure Port	8081	
	Secure Port	9091	

Plumtree Search Worksheet

Setting	Example Value	Your Value
Host Computer	back-end-services	
Installation Folder	C:\Program Files\plumtree	

B XML Configuration Files Upgrade

The XML Configuration file upgrade migrates configuration and localization XML files on any pre-6.0 portal installation from 5.x and later to a new 6.0 configuration file hierarchy.

The Portal configuration files are no longer under `[PT_HOME]/ptportal/5.0/settings/config/`. Instead, they are moved under top-level `PT_HOME`. This is to facilitate sharing of common settings between products. For example, settings that are common are placed under `[PT_HOME]/settings/common`. Portal related settings are placed under `[PT_HOME]/settings/portal/`.

Merged Files

The files listed in the following table are merged between your previous portal's version and the new 6.0 version. In some cases, the new 6.0 file has a file name that is different from the previous file name. For example, a number of version 5.x XML files are converted into one XML file called **portalconfig.xml** in 6.0.

In merging the files, some of the settings' values are taken from the previous portal's version, while some are taken from the 6.0 version. For example, most of the values of the following files are taken from your previous portal's version:

- `j_config/n_config.xml`
- `PTconfig.xml`
- `serverconfig.xml`
- `AutomationServer.xml`
- `NavigationSettings.xml`
- `sso.xml`

The following files use the new 6.0 values:

- `timezones.xml`
- `JSComponentRegistry.xml`
- `AppWarmUpHelper.xml`
- `SearchLocales.xml`

The following files are merged between the 6.0 version and your previous portal's version:

- SecureActivitySpaces.xml
- DisplayPlumtreeUtilities.xml



Note: Note that **serverconfig.xml** and **AutomationServer.xml** only exist in 5.0. Any previous version of the portal (5.0.x) uses the Windows Registry to store these settings.

5.x File and Location	6.x File and Location
j_config.xml and n_config.xml (ptportal\5.0\settings\config)	portalconfig.xml(settings\portal)
PTconfig.xml (ptportal\5.0\settings\config)	
device.xml (ptportal\5.0\settings\config)	
timezones.xml (ptportal\5.0\settings\config)	
sso.xml (ptportal\5.0\settings\config)	
SecureActivitySpaces.xml (ptportal\5.0\settings\config)	
JSComponentRegistry.xml (ptportal\5.0\settings\config)	
NavigationSettings.xml (ptportal\5.0\settings\config)	
SearchLocales.xml	
AppWarmUpHelper (ptportal\5.0\settings\config)	
serverconfig.xml (ptportal\5.0\settings\con- fig)	serverconfig.xml (settings\common)
AutomationServer.xml (ptportal\5.0\settings\config)	
DisplayPlumtreeUtilities.xml (ptportal\5.0\settings\config\dynamicloads)	DisplayPlumtreeUtilities.xml (settings\portal\dynamicloads\Utilities)
PageActions.xml (ptportal\5.0\settings\config\dynamicloads)	PageActions.xml (settings\portal\dynamicloads\PEIs)

Replaced Files

The following files are updated with the new 6.0 files because they have been updated since the previous release of the portal. No customization should have been done to these files so the files from the previous installation can be safely discarded.

5.x File and Location	6.x File and Location
ActivitySpaces.xml (ptportal\5.0\set- tings\config)	ActivitySpaces.xml (settings\portal)
VarPacks.xml (ptportal\5.0\settings\config)	VarPacks.xml (settings\portal)
version.xml (ptportal\5.0\settings\config)	version.xml (settings\portal)

5.x File and Location	6.x File and Location
ClassTypeDesc.xml (ptportal\5.0\settings\config\dynamicloads)	ClassTypeDesc.xml (settings\portal\dynamicloads\ObjectDescriptions)
ProvInfo.xml (ptportal\5.0\settings\config\dynamicloads)	ProvInfo.xml (settings\portal\dynamicloads\ObjectDescriptions)
DisplayPortalSettings.xml (ptportal\5.0\settings\config\dynamicloads)	DisplayPortalSettings.xml (settings\portal\dynamicloads\Utilities)
DisplayServerSettings.xml (ptportal\5.0\settings\config\dynamicloads)	DisplayServerSettings.xml (settings\portal\dynamicloads\Utilities)

New Files

These files are added in version 6.0 to their respective locations in the file hierarchy.

5.x File and Location	6.x File and Location
None	ConditionTypes.xml InterpreterFilters.xml OpenerPlugins.xml (settings\portal\dynamicloads\Plugins)
None	DisplayDiagnosticPages.xml (settings\portal\dynamicloads\Utilities)
None	OpenerActions.xml (settings\portal\dynamicloads\PEIs)
None	Tags.xml (settings\portal)
None	CustomTags.xml (settings\portal)

Reused Files

The following files contain customization settings that are specific to your portal installation. Therefore, the following files are copied from your portal's previous version.

5.x File and Location	6.x File and Location
CustomActivitySpaces.xml (ptportal\5.0\settings\config)	CustomActivitySpaces.xml (settings\portal)
CustomVarPacks.xml (ptportal\5.0\settings\config)	CustomVarPacks.xml (settings\portal)
All *Actions.xml files (ptportal\5.0\settings\config\dynamicloads) except PageActions.xml and OpenerAc- tions.xml	Same names (settings\portal\dynamicloads\PEIs)

C

Configuring Memory for Windows Hosts

Plumtree recommends you enable the 4GT feature in Windows 2003. The 4GT feature increases process address space to 3GB from the default 2GB.

To enable the 4GT feature:

1. Open the **boot.ini** file for the operating system.

This file is hidden by default. To make it visible, at a command prompt, change directory to root of C: and enter the following command:

```
attrib -s -r -h boot.ini
```

2. In the [Operating Systems] section of the file, locate the Windows 2003 operating system configuration line, add /3gb at the end of it, and save the file.

To reset the flags, enter the following command:

```
attrib +s +r +h boot.ini
```

3. Reboot.

For .NET portals, you are done.

4. For Java portals, use the **editbin** tool to add the **/LARGEADDRESSAWARE** flag to the **java.exe** used by the application server. At a command prompt, change the directory to the location of the **java.exe** and enter the following command:

```
editbin /LARGEADDRESSAWARE java.exe
```



Note: The **editbin** command should be in the Windows default path. Any other applications using this java.exe executable will run with 3GB of user space. Setting this flag on the executable will not have any effect when not running Windows in 4GT mode. Make a backup of java.exe before patching it if you ever want to undo this change. The jvm parameters should also be tuned appropriately for the additional memory space.

D Configuring Your Web Application Server

This appendix provides information on setting up Web application servers for the portal. It includes the following topics:

- [“Configuring IIS” on page D-1](#)
- [“Configuring WebLogic” on page D-3](#)
- [“Configuring WebSphere” on page D-5](#)
- [“Configuring Tomcat” on page D-7](#)

The following components run on a Web application server:

- Plumtree Administrative Portal
- Portal Server
- Plumtree Image Service
- Plumtree API Service

Configuring IIS

This section describes how to configure IIS to support the Plumtree portal. It includes the following topics:

- [“Configuring IIS”](#)
- [“Configuring Memory Usage” on page D-2](#)

Configuring IIS

This section describes how to configure IIS to support the Plumtree portal. It includes the following topics:

- [“Configuring IIS Before You Run the Plumtree Installer”](#)
- [“Configuring IIS After You Run the Plumtree Installer” on page D-2](#)

Configuring IIS Before You Run the Plumtree Installer

Before you install Plumtree software, configure IIS as described in the following table.

OS	Configuration Steps
Windows 2003	<p>I. Ensure that you have installed IIS and required .NET hotfixes. For information on compatible versions, see “Software Requirements” on page 3-2.</p> <p>For Windows 2003 host computers, if IIS is not installed, use the Manage Your Server utility to add Application Server as a role. This process installs and configures IIS, as well as enables ASP .NET.</p>

OS	Configuration Steps
Windows 2003	<ol style="list-style-type: none"> 2. Ensure the WWW Service is configured to start automatically. To configure Services: <ol style="list-style-type: none"> a. Click Start Administrative Tools Services. b. Right-click World Wide Web Publishing Service and then click Properties. c. Configure the service to start automatically.
Windows 2003	<ol style="list-style-type: none"> 3. There are new Application Pool configuration options introduced in IIS 6.0 which are enabled by default but should be disabled for Plumtree components running on IIS. <ol style="list-style-type: none"> a. Open IIS Manager. b. Expand the Local Computer and Application Pools. c. Right-click the DefaultAppPool and select Properties. d. On the Recycling Tab make sure that Recycle Worker Process options are disabled. e. On the Performance Tab make sure the Idle Timeout option is disabled. f. Click OK to save the changes.

Configuring IIS After You Run the Plumtree Installer

After you install Plumtree software, verify IIS has been properly configured, as described in the following table.

OS	Configuration Steps
Windows 2003	<ol style="list-style-type: none"> 1. Verify that the .pt extension mapping has been added to the portal web site and is properly configured. To display extension mappings: <ol style="list-style-type: none"> a. In IIS Manager, expand the Web Sites folders to display the portal virtual directory; right-click the portal virtual directory and then click Properties. b. Click the Home Directory tab. c. Click the Configuration button. d. Click the Mappings tab. e. In the application extensions box, verify that the .pt extension has been installed; click Edit and verify that the .pt extension references the .NET 1.1 aspnet_isapi.dll and that the Verb list includes GET, HEAD, POST, OPTIONS, PROPFIND, PROPPATCH, MKCOL, LOCK, UNLOCK, PUT, DELETE, COPY, and MOVE.

Configuring Memory Usage

Plumtree recommends you optimize the IIS **MemoryLimit** setting if IIS is running on a computer with no more than 512 MB or 1 GB of memory.

The **MemoryLimit** setting defines how much memory a portal process can consume before .NET restarts the process. It is a percentage of total system memory. The process restarts when the portal reaches a memory consumption of **(memoryLimit / 100) * SystemMemory**.

The portal works optimally with 800 MB to 1.3 GB, but it can operate with less than 400MB. For computers with less than 1 GB of memory, set this to between 80 and 90. For machines over 1 GB, set it such that

(memoryLimit / 100) * SystemMemory is between 800 MB and 1.3 GB. For instance, for a server with 2 GB of RAM, a setting of 50 is appropriate.

To set **memoryLimit**, you must edit the **machine.config** file, located in the directory C:\WINDOWS\Microsoft.NET\Framework\version_number\CONFIG.

In the file, the first time the **memoryLimit** attribute occurs, it is within a large section that is commented out. The second time it occurs, it is uncommented and you can set it to the value you want.

Configuring WebLogic

This section describes pre- and post-installation steps to verify that WebLogic is configured to support the Plumtree portal. It includes the following topics:

- [“Configuring WebLogic Before You Run the Plumtree Installer”](#)
- [“Deploying a Plumtree Component to WebLogic” on page D-5](#)

Configuring WebLogic Before You Run the Plumtree Installer

This section describes how to configure a WebLogic application server in preparation for deploying a Plumtree application.

If you follow these steps carefully, the Plumtree installer can deploy the Plumtree application to the WebLogic application server. If this auto-deployment fails, follow the procedures in [“Deploying a Plumtree Component to WebLogic” on page D-5](#) to deploy the Plumtree application to the application server.

Before you install Plumtree software, install WebLogic and configure the following elements:

1. Ensure your application server is compatible with this Plumtree release. For compatibility information, see [“Software Requirements” on page 2-2](#).
2. Configure a new WebLogic server instance to run in production mode and to run as a Windows Service:
 - When you install a WebLogic server instance, you can specify that the server run in production mode and to run as a Windows Service.
 - Otherwise, follow WebLogic documentation to configure the server instance in production mode and to run as a Windows Service.
3. Tune JVM Parameters. For example, you tune Java heap size by modifying values in the **startWebLogic.cmd** and **setEnv.cmd** files. The following shows values Plumtree suggests as a starting point for your performance tuning:
 - WL_HOME=<absolute path to the weblogic81 directory>
For example "/opt/bea/weblogic81"
 - JAVA_VENDOR="sun"
 - PRODUCTION_MODE="true"
 - JAVA_HOME=<absolute path to the Sun jvm>
For example: "/opt/bea/jdk142_05"
 - SERVER_NAME=<name of the weblogic server you selected during installation> For example: "myserver"

- `JAVA_VM= "-server"`
- `MEM_ARGS= -Xms:<minimum heap space> -Xmx:<maximum heap space> -XX:NewSize=<new generation size> -XX:MaxNewSize=<maximum new generation size> <SurvivorRatio, PermSize and ParallelGC options>`
For example: `-Xms256m -Xmx256m -XX:NewSize=64M -XX:MaxNewSize=64M -XX:SurvivorRatio=8 -XX:MaxPermSize=64m -XX:+UseParallelGC`

For complete details on tuning JVM parameters, refer to WebLogic documentation.

Configuring WebLogic After You Run the Plumtree Installer

You must take an additional step to configure WebLogic **after** you have run the Plumtree Installer. The following files are found in the `<PORTAL_HOME>\lib\java` directory:

- `xalan.jar`
- `xml-apis.jar`
- `xerces144.jar`

Create a directory named `<jre_home>\lib\endorsed` and copy the above three files into this directory to override the version of xalan-j that is shipped with JDK 1.4.2 (xalan-j v.2.4.1) and used in WebLogic 8.1. Plumtree portal requires Xalan-J v2.5.0.

You can then verify the proper version of xalan-j is installed by running the following command:

```
c:\bea\jdk142_05\bin\java org.apache.xalan.xslt.EnvironmentCheck
```

You should see xalan-j 2.5.0 listed in the environment summary.

Deploying a Plumtree Component to WebLogic

If the installer does not deploy the Plumtree component to your application server, follow these steps to deploy the component:

1. Ensure that the WebLogic application server is running.
2. Log into the Web Logic Server console. The console is typically available in the following location:
`http://<host-fqdn>:port/console`
3. Under the domain target for the Plumtree application, click **Deployments | Web Application Modules**.
4. On the **Select the archive for this Web application module** page, browse to select the `.war` file for the portal. For example, select `C:\Program Files\plumtree\ptportal\6.0\webapp\portal.war`; then click **Target Module**.
5. Review the configuration details and click **Deploy**.
6. Stop and then restart the application server instance.

Configuring WebSphere

This section describes how to configure a WebSphere application server in preparation for deploying a Plumtree application, as well as instructions for deploying a Plumtree application to the WebSphere application server if the installer does not deploy the application automatically. It includes the following topics:

- [“Configuring WebSphere Before You Run the Plumtree Installer”](#)
- [“Deploying a Plumtree Component to WebSphere”](#)

Configuring WebSphere Before You Run the Plumtree Installer

If you follow these steps carefully, the Plumtree installer can deploy the Plumtree application to the WebSphere application server. If this auto-deployment fails, follow the procedures in [“Deploying a Plumtree Component to WebSphere” on page D-6](#) to deploy the Plumtree application to the application server.

Before you install Plumtree software, install WebSphere and configure the following elements:

1. Ensure your application server is compatible with this Plumtree release. For compatibility information, see [“Software Requirements” on page 2-2](#).
2. Configure a new WebSphere server instance that runs as a Windows Service.
 - When you install a WebSphere server instance, you can specify the server run as a Windows Service.
 - Otherwise, follow WebSphere documentation to configure the server instance as a Windows Service.
3. Configure WebSphere JVM settings to optimize Plumtree application performance and custom settings to support accented characters. Take the following steps:
 - a. Open the WebSphere Administrative Console.
 - b. To display the configuration page for Advanced JVM settings, click **Servers | Application Servers | <server_name> | Process Definition | Java Virtual Machine**.

<server name> is the name of the Application Server instance for your deployment.

Set Initial java heap size to 700 MB (suggested—tune as needed)

Set Maximum java heap size to 1500 MB (suggested—tune as needed)
 - c. Click **Apply** and then **OK**.

For complete details on turning JVM parameters, refer to WebSphere documentation.

Deploying a Plumtree Component to WebSphere

If the installer does not deploy the Plumtree component to your application server, follow these steps to deploy the component.

To deploy to WebSphere:

1. To turn off the application server so you can configure it, click **Start | Programs | IBM Web Sphere | Application Server 5.1 | Stop the Server**.
2. To display the WebSphere Application Server Administrative Console, click **Start | Programs | IBM WebSphere | Application Server 5.1 | Administrative Console**.
3. In the navigation tree, expand the Applications node, and click **Install New Application**.
4. On the first page of the wizard, click **Browse** to navigate to and select the Plumtree .ear package, which is installed in <PTHOME>\plumtree\ptportal\6.0\webappl.
5. Click **Next**.
6. On each of the subsequent wizard pages, accept the defaults and click **Next**.
7. On the final wizard page, click **Finish**.
8. Restart the Web application server.

Configuring Tomcat

This section describes how to configure a Tomcat application server in preparation for deploying a Plumtree application, as well as instructions for deploying a Plumtree application to the Tomcat application server if the installer does not deploy the application automatically. It includes the following topics:

- [“Configuring Tomcat Before Your Run the Plumtree Installer”](#)
- [“Deploying a Plumtree Component to Tomcat”](#)

Configuring Tomcat Before Your Run the Plumtree Installer

This section describes how to configure a Tomcat application server in preparation for deploying a Plumtree application.

Before you install Plumtree software, install Tomcat and configure the following elements:

1. Ensure your application server is compatible with this Plumtree release. For compatibility information, see [“Software Requirements” on page 2-2](#).
2. Tune JVM settings. For example, you might want to tune Java heap size. For Tomcat, the size of the Java heap is set through the system environment variable `JAVA_OPTS`. To create a system environment variable:
 - a. **Start | Settings | Control Panel | System.**
 - b. Click the **Advanced** tab.
 - c. In the **Systems Properties** dialog, click **Environment Variables.**
 - d. In the **System Variables** area, click **New.**
 - e. Type in the new variable's name and value.
 - f. Click **OK.**

For the Portal Server, set `JAVA_OPTS` as follows:

```
JAVA_OPTS=-Xms256m -Xmx256m -XX:NewSize=64M -XX:
MaxNewSize=64M -XX:SurvivorRatio=8
```

You can also set `JAVA_OPTS` in the Tomcat **startup.bat** file (for the Tomcat console) or in the Tomcat **installsvc.bat** file (for the Tomcat service).

For very large configurations, consider increasing **Xmx** slightly; for very small installations, such as developer labs, specify a smaller **Xms** and **XX:NewSize** setting.

Plumtree recommends you do not set **-Xmx** to greater than 400.

For deployments with a large number of users, Plumtree recommends using a supported application server other than Tomcat. Tomcat does not scale as well per concurrent user as does WebLogic or WebSphere and it is not as efficient when the CPU is heavily loaded.

Deploying a Plumtree Component to Tomcat

If the installer does not deploy the Plumtree component to your application server, follow these steps to deploy the component:

1. Navigate to the following Tomcat folder:
`Tomcat_installation_directory\conf\Catalina\localhost`

2. In this folder, create an XML file called **portal.xml** with the following contents:

```
<Context path="/portal"
docBase="portal_install_folder\ptportal\6.0\webapp\portal.war"
unpackWAR="false"> </Context>
```

3. Save the XML file you created.
4. Restart the Tomcat application server.

E

Creating a Tablespace and Schema in an Oracle Database

Plumtree recommends that you create a dedicated database for the Plumtree portal so that system performance and maintenance can be more tightly monitored and controlled. If you strongly prefer to incorporate the Plumtree objects into an existing database, you can create a tablespace and schema for the Plumtree objects. To do so, follow the steps in this appendix to create a tablespace and schema instead of creating the database with the **crdb1_oracle_nt.sql** and **crdb2_oracle_nt.sql** scripts used in [“Creating and Setting Up an Oracle Database on Windows” on page 4-10](#).

To create a tablespace and schema for the Plumtree portal in an existing Oracle database on Windows:

1. Set the `ORACLE_BASE` environment variable, for example as:

```
set ORACLE_BASE = c:\oracle
```
2. From the folder that contains the scripts, start `sqlplus` as the user with `sysdba` rights, and run the script **create_plumtree_tablespace_oracle_nt.sql**:

```
sqlplus sys/password  
[the prompt changes to SQL>]  
SQL> @create_plumtree_tablespace_oracle_nt.sql
```
3. Create the schema that the portal will use. The script will prompt you for the username and password:

```
SQL> @create_plumtree_user_oracle.sql  
SQL> exit
```


F

Redirecting a URL

If you want to create a simpler URL for browser access to your portal, place an HTML re-direct page at the URL you prefer to publish. Create a file named **index.html** (Java) or **default.htm** (.NET) in the root folder of the application server virtual directory. An HTML re-direct page has content similar to the following example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
<html>
<head>
<meta HTTP-EQUIV="Refresh" CONTENT="0; url=/portal/server.pt?">
</head>
</html>
```

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