



**PLUMTREE JSR-168 CONSUMER**

**INSTALLATION GUIDE**

**VERSION 1.0.X WINDOWS**

December 2005 Update

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# I. Overview / Requirements

This implementation of the JSR 168 standard is based on Plumtree's Web Services Architecture, which allows portlets to run remotely from the application server hosting the portal. This architecture helps ensure that the portal remains open to resources hosted on a wide range of application servers, and unaffected by faults in any one portlet. The Web Services Architecture also supports a wide range of other integration components that run as Web services, for indexing content, importing security information, federating searches and profiling users.

## Requirements

The following table summarizes requirements for the components deployed with this product.

Component	Specification
<b>Remote Server</b> (host computer)	Disk: 128 MB available Memory: 512 MB RAM Operating System: Windows 2003 Server Application Server: JSR-168 requires an application server that follows the 2.3 Servlet specifications. The following application servers are supported: <ul style="list-style-type: none"><li>• BEA Weblogic 8.1</li><li>• Tomcat 5.0.28</li><li>• WebSphere 6.0.1</li></ul>
<b>Plumtree Portal</b>	Plumtree Corporate Portal 6.0.x, 5.0.x or 4.5WS SPI <b>Note:</b> Administrative access to the portal is required.

The portal can be deployed on the Remote Server machine or on a separate Portal Server.

## Additional Resources

The following table describes the documentation and resources provided by Plumtree.

Resource	Description
Release Notes	Release notes include information about new features and known issues.
Plumtree Support Center	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: <b>Technical Support Center</b> Submit and track support incidents and feature requests, search the knowledge base, and download service packs and hotfixes. <b>Developer Center</b> Download developer tools and documentation, get help with your development project, and interact with other developers via discussion forums.

**Product Center**

Download products, read Release Notes, and access recent product documentation.

**Deployment Center**

Find the tools you need to roll-out, drive, and maintain a successful Enterprise Web 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).

**Education Center**

Find information about available training courses, purchase training credits, and register for upcoming classes.

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If you do not see the Support Center when you log in to <http://portal.plumtree.com>, contact [support@plumtree.com](mailto:support@plumtree.com) for the appropriate access privileges.

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## 2. Installation and Configuration

This section explains how to install and configure the JSR-168 Consumer for use with the Plumtree Corporate Portal. It includes the following sections:

- Install Files on Remote Server
- Configure Remote Server
- Import Resource Package (Web Services and Portlets)

### Install Files on Remote Server

Follow the steps below to install the JSR-168 Consumer on your remote server (host computer).

1. Check to see if the PT\_HOME variable has been set.
  - a. Right click on **My Computer** on the desktop and choose **Properties**.
  - b. Go to the **Advanced** tab and click **Environment Variables**.
  - c. Look under **System Variables** for the **PT\_HOME** variable. If the portal is installed on the server, this variable will already exist and will point to the portal installation folder. If the PT\_HOME variable does not exist, click **New** to create a variable with the following properties:  
**Variable Name:** PT\_HOME    **Variable Value:** C:\Program Files\plumtree  
(The variable value can be any location if the portal is not installed on the same server. Make a note of the location you enter; it is required in multiple steps below.)
2. Unzip the **jsr-168\_java.zip** file to the PT\_HOME location.
3. Deploy the **PtPortletContainer.war** file in the <PT\_HOME>/ptjsr168/1.0/webapp folder using the method appropriate for your application server.

After deploying the package, you must configure the remote server, explained next.

### Configure Remote Server

The configuration steps for the JSR-168 Consumer are different depending on the results of step 1 above.

**If the PT\_HOME variable was previously set:**

1. Navigate to the directory referenced by PT\_HOME and open **pthome.xml** in a text editor.
2. Add the following product section within the pthome element (between <pthome> and </pthome>). **Note:** Replace <PT\_HOME> with the location referenced by the PT\_HOME variable (i.e., the portal installation directory).

```
<product name="ptjsr168">
  <install version="1.0">
    <path><PT_HOME>/ptjsr168/1.0</path>
    <configpath><PT_HOME>/ptjsr168/1.0/settings/config</configpath>
  </install>
</product>
```

**If you created the PT\_HOME variable:** Copy the **pthome.xml** file from <PT\_HOME>/ptjsr168/1.0/settings/config to the root <PT\_HOME> directory (i.e., ProgramFiles\plumtree).

## Import Resource Package (Web Services and Portlets)

Follow the steps below to import the JSR-168 Web Services and Portlets into the portal:

1. Launch the Migration Wizard (**Start** | **Programs** | **Plumtree** | **Migration Wizard**).
2. Login as Administrator and click **Next**.
3. Choose **Import** and click **Next**.
4. Confirm that the **Import object ACLs** is the only option selected. Click the file choose button and browse to **<PT\_HOME>/ptjsr168/1.0/serverpackages/jsr-168.pte**. Click **Next**.
5. The contents of the migration package will be listed. Click **Next**, then click **Migrate** to import the package.
6. When the migration successful popup appears, click **OK** to close the Migration Wizard.

After importing the Resource Package, a JSR-168 folder will appear in Administration that includes the JSR-168 Remote Server, three Web Services (GooglePortletWebService, RSSPortletWebService and JspPortletWebService), and three portlets (GooglePortlet, RSSPortlet and JspPortlet). These portlets do not require any configuration. However, the RSSPortlet can be edited to add additional RSS files and set proxy settings. The proxy host and port are set in the administrative settings (RssPortlet- Configure this portlet) and the proxy username, password, and domain (if required) are set in portlet preferences. Note that the proxy password is only obfuscated with Base64 Encoding. As we did not want to increase the complexity of the samples, it is left to the developer to provide encryption.

Before placing the portlets on a page, change the url of the Remote Server to the actual url of the Remote Server.

### 3. Additional Configuration Steps

The following steps are provided for your information; they are not required.

- [Modify Existing Portlet Applications](#)
- [Create New Portlet Applications](#)
- [Add Support for Shared Sessions](#)
- [Add Tag Library Support](#)
- [Build Stylesheet Templates](#)
- [Use SSL](#)
- [Access User Information](#)
- [Use Application Server Values for `getRemoteUser\(\)`, `getUserPrincipal\(\)`, and `isUserInRole\(\)`.](#)
- [Support Editing Pages \(Edit Mode\)](#)

#### Modify Existing Portlet Applications

The portlets provided with the JSR-168 Consumer can be customized. To customize the existing portlets, follow the steps below:

1. Create a new Web application for your portlets.
2. Extract the portlet application WAR file, if necessary.
3. Place Plumtree's JSR-168 Consumer jar files into the WEB-INF/lib directory of your new portlet application. These include the following files:
  - commons-beanutils.jar
  - commons-collections.jar
  - commons-digester-1.5.jar
  - commons-logging.jar
  - devkit.jar
  - edk.jar
  - jsr168tags.jar
  - log4j.jar
  - openfoundation.jar
  - oreilly.jar
  - pthome.jar
  - ptportletcontainer.jar
  - xerces144.jar
4. The web.xml file must include servlets, servlet-mappings, context listener, and tag libraries. Use the web.xml in ptjsr168/1.0/devkit/WEB-INF/web.xml as a template. Elements must be added in the proper order, or the application will not start. See your application server documentation for the required ordering of elements in the web.xml document.
5. Restart the application server as needed.

#### Create New Portlet Applications

The default installation includes a WEB-INF directory for creating new applications in ptjsr168/1.0/devkit/. To create a portlet application from this directory, follow the instructions below:

1. Create a directory for your new Web application.
2. Add the /WEB-INF folder from ptjsr168/1.0/devkit/ to the new application. If you want to add any new portlet classes (subclassing GenericPortlet), add them to the WEB-INF/classes directory in your new application and add a portlet.xml file to the /WEB-INF directory. Add additional jsp pages and servlets if they are required for your application.



3. Deploy using the instructions for your application server.

## Add Support for Shared Sessions

The sample portlets in the JSR-168 Consumer package do not require shared sessions, but it is a best practice to configure shared sessions since the JSR-168 spec requires that sessions are shared per context.

**Note:** Shared sessions are new in Plumtree Foundation 6.0. The JSR-168 Consumer portlets cannot be configured to share sessions in versions of the portal prior to 6.0.

To configure support for shared sessions, complete the steps below.

1. In the **Remote Server** editor, add the context to the remote server **Base URL**, e.g. `http://myserver:7001/PtPortletContainer`. (You must create a Remote Server object for each context.)
2. In the **Web Service – Remote Portlet** editor, go the **Advanced Settings** page and select “Share sessions with other Portlets on the same Remote Server.”

## Add Tag Library Support

To add Tag Library support, add the following line to the web.xml file after servlet-mappings and session-config:

```
<taglib>
  <taglib-uri>http://java.sun.com/portlet</taglib-uri>
  <taglib-location>/WEB-INF/lib/jsr168tags.jar</taglib-location>
</taglib>
```

**Note:** Make sure the `jsr168tags.jar` in the `ptjsr168/1.0/devkit/WEB-INF/lib` directory is added to the `WEB-INF/lib` directory.

## Build Stylesheet Templates

Follow the steps below to build any modified stylesheets.

1. Unzip the **ptjsr168\_image.zip** file to the **/ptimages** directory on the machine that hosts the Plumtree Image Service (previously called the Image Server).
2. Go to `/ptimages/tools/cssmill` and execute the following batch file: **make\_all.bat**. (You must have the appropriate permissions to execute the file.)

## Use SSL

SSL is used in the PortletURL call **setSecure()**, and in the transport-guarantee element of the security-constraint element of portlet.xml.

To use SSL, open the file **jsr168.properties** (`<PT_HOME>/ptjsr168/1.0/settings/config`) and set the appropriate values for **httpport** and **httpsport**. (SSL must be enabled on the application server and a valid certificate must be installed.) If you use a transport-guarantee in portlet.xml, the portlet will redirect to the configured SSL port in `jsr168.properties`.

For both `setSecure` in PortletURL and `transport-guarantee`, make sure to include the full SSL address up to the war file name in the gateway space (e.g., `https://my_server:7002/my_war`).

## Use Application Server Values for getRemoteUser(), getUserPrincipal(), and isUserInRole().

By default, the Consumer does not use the values from the application server for the security-related calls `getRemoteUser()`, `getUserPrincipal()`, and `isUserInRole()`. Instead, it uses the logged-in portal user for

getRemoteUser() and getUserPrincipal(), and activity rights for isUserRole(). Only the activity rights configured on the Advanced Settings page of the Web Service object are examined for isUserRole.

To use the application server values for these methods, open the file **jsr168.properties** (<PT\_HOME>/ptjsr168/1.0/settings/config) and change the key **portalRemoteUser** to **false**. Changes will take effect when you restart your application server. Note: The application server will always return null for getRemoteUser() and getUserPrincipal unless the user has logged into the application server.

## Access User Information

To access User Information settings from the portal, follow the steps below. This feature is available in portal versions 5.0 and above.

1. Define the user attributes in the WEB-INF/**portlet.xml** file in the <user-attribute> element. For example:

```
<user-attribute>
    <description>User Phone</description>
    <name>user.business-
        info.telecom.telephone.number</name>
</user-attribute>
```

If a user attribute is not defined in the portlet.xml file, it will not be read.

2. Map the attribute to User Information from the portal in the file <PT\_HOME>/ptjsr168/1.0/settings/config/**userattributes.properties**. For example:  
user.business-info.telecom.telephone.number=phone  
The first value is the name used by the JSR168 Consumer; the second value is the name of the User Information property in the portal.
3. Restart the application server to implement your changes to userattributes.properties.
4. Add the property to the User Information Property Map. In this example, the property is "phone" (case-sensitive). To add a property, go to the User Profile Manager and click User Information – Property Map. (For details, see the portal online help or *Portal Administrator's Guide*.)
5. Configure the Web Service to send the User Information to the remote server. Go to portal Administration and edit the associated Web Service object. On the User Information page of the Web Service Editor, add User Information settings that match the values mapped in the userattributes.properties file. To complete the example above, you would enter "phone" on the User Information page.

To complete the example and view the User Information in a portlet, follow the steps below:

1. Navigate to the Web application that hosts the JSP portlet. Open the includePortlet.jsp file and add the following to the user properties String values:

```
String phone = (String) map.get("user.business-
    info.telecom.telephone.number");
```

Add the following to display in the jsp page:

```
phone is <%=phone%>
```

2. Log in to the portal and click My Account. Enter a phone number and click Finish.
3. Add the JSP portlet to a portal page and confirm that the phone number you entered appears.

## Support Editing Pages (Edit Mode)

To display the page in edit mode, add edit to the action of the form as shown below. (For a complete example, see IncludePortletEdit.jsp, shipped with PtPortletContainer.)

```
<form name="form1" method="post" action=<portlet:actionURL
    portletMode="edit"/>>
```

To close the window, set the mode back to view in **processAction** in the portlet, as shown below.

```
public final void processAction(ActionRequest req, ActionResponse
res) throws PortletException, IOException
{
    //do whatever processing is needed for multiple pages
    //when processing is done, set the mode back to view
    res.setPortletMode(PortletMode.VIEW);
}
```