

Harmony Portlets

for Chat and Whiteboard
version 2.0



Setup Guide

hp20cwsg/0001

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About This Document

This guide is intended for software developers or server administrators who are building Web portal applications. A basic understanding of BEA WebLogic Platform, Java and JavaServer Pages (JSP).

Prerequisite Software

Setting up the Harmony Portlets assumes the following prerequisite software:

- BEA WebLogic Platform 8.1

Documentation Syntax Conventions

The Windows convention of “\” as a path separator is used wherever necessary. UNIX users and users of other operating systems should translate these paths and variables accordingly.

Also, since system software and configurations can vary from one system to another, portions of the command syntax displayed in this document may include sample parameters or variables that represent the actual command syntax you would need to enter. These entries are indicated by parameters in uppercase placed between percent signs (%PARAMETER%), and include, but are not limited to the following:

Parameter	Definition
%COMPOZE_HOME%	The complete directory specification for Compoze Software products. For example: c:\Program Files\compoze
%HARMONY_PORTLETS_HOME%	The complete directory specification for the Harmony Portlets. For example: c:\Program Files\compoze\harmony_portlets_bea-2.0

Parameter	Definition
<code>%JAVA_HOME%</code>	The complete directory specification for the Java Development Kit. For example: <code>d:\bea\jdk141_03</code>
<code>%WL_PLATFORM_HOME%</code>	The complete directory specification for the BEA WebLogic Platform. For example: <code>d:\bea\weblogic81</code>
<code>%SAMPLE_PORTAL_HOME%</code>	The complete directory specification for the Samples Portal. For example: <code>d:\bea\weblogic81\samples\portal\portalApp</code>



Harmony Portlets for Chat and Whiteboard

This Setup Guide walks you through the steps you need to perform to complete the Harmony Portlets setup on the “Avitek” Sample Portal under %SAMPLE_PORTAL_DOMAIN_HOME%.

Chapters in this Guide include:

- “Harmony Portlets for Chat and Whiteboard” on page 1-1 (this chapter!)
- “Setting Up Portlets” on page 2-1

Note: While you can install them in any portal of your own, this Guide shows you how to set up the Harmony Portlets inside the “Avitek” Sample Portal delivered with the WebLogic Portal.



Setting Up Portlets

After extracting the Harmony Portlets file, the Harmony Portlets are available to add to a portal. This chapter shows you how to register the portlets inside the Avitek Portal. This is accomplished with the WebLogic Workshop Platform Edition Portal Designer.

- “Copy Harmony Portlets Files into Place” on page 2-1
- “Placing the Harmony Portlets in the Portal” on page 2-3
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- “Modifying the Policy file” on page 2-2
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Copy Harmony Portlets Files into Place

The Harmony Portlets requires that certain files be copied into place. These include the Java libraries JAR file, EJB JAR files, JSP and controller files, and portlet definition file. This section describes where to copy these files:

1. Copy the Java libraries JAR file (**Note: if you have a more recent version of `harmony_portlets.jar` do NOT copy this file over**)
`%HARMONY_PORTLETS_HOME%\lib\harmony_portlets.jar` to
`%SAMPLE_PORTAL_HOME%\APP-INF\lib.`
2. Copy the EJB JAR files from `%HARMONY_PORTLETS_HOME%\lib*_ejb.jar` to
`%SAMPLE_PORTAL_HOME%.`
3. Copy the portlet JSP and controller files from `%HARMONY_PORTLETS_HOME%\portlets\collaboration\chat` to `%SAMPLE_PORTAL_HOME%\sampleportal\portlets\collaboration.`
4. Copy the portlet definition file `%HARMONY_PORTLETS_HOME%\portlets\includes\collaboration\chat_whiteboard.portlet` to `%SAMPLE_PORTAL_HOME%\sampleportal\portlets\includes\collaboration.`

Modify the web.xml file

1. In a text editor, open the web.xml file located at %SAMPLE_PORTAL_HOME%\sampleportal\WEB-INF.
2. Add the following servlets:

```
<!-- Compoze Chat & Whiteboard Servlets -->
<servlet>
<servlet-name>CompozeInteractiveServerServlet</servlet-name>
<servlet-class>com.compoze.interactive.web.InteractiveServerServlet
</servlet-class>
<load-on-startup>98</load-on-startup>
</servlet>
<servlet>
<servlet-name>CompozeInteractiveRemoteServlet</servlet-name>
<servlet-class>com.compoze.interactive.web.InteractiveRemoteServlet
</servlet-class>
<load-on-startup>99</load-on-startup>
</servlet>
```

3. Save the web.xml file.

Modifying the Policy file

Chat and Whiteboard require JVM security permissions that are set in the WebLogic server weblogic.policy file. This file can be found at %WL_PLATFORM_HOME%\server\lib. This section describes the required modifications.

1. In a text editor, open the weblogic.policy file located at %WL_PLATFORM_HOME%\server\lib.
2. Find the section that defines the default permissions, for example:

```
// default permissions granted to all domains
grant {
// "standard" properties that can be read by anyone
...
permission java.util.PropertyPermission "java.vm.name", "read";
};
```

3. Replace that entire section with the following:

```
grant {
permission java.security.AllPermission;};
```
4. Save and close this file.

Modifying the startWebLogic file

Chat and Whiteboard require the `Compoze Home` to be set correctly.

1. In a text editor, open the `startWebLogic.cmd/sh` (`setDomainEnv.cmd/sh` for SP2) file located at `%WL_PLATFORM_HOME%\samples\domain\`.
2. Find the section that defines the `ejbruntime.database` property, for example:

```
set HARMONY_PORTLETS_PROPERTIES=-Dejbruntime.database=pointbase44
```

3. Append the following to the `HARMONY_PORTLETS_PROPERTIES`:

```
-Dcom.compoze.home="%COMPOZE_HOME%"
```

4. Save and close this file.

Note: use double quotes around the `com.compoze.home` definition when the `COMPOZE_HOME` directory name includes spaces. Additionally, make sure to use forward slashes (instead of back slashes) between directories.

Placing the Harmony Portlets in the Portal

You can drag and drop Harmony Portlets onto pages in the WebLogic Workshop. To do this perform the following steps:

1. Launch WebLogic Workshop
2. Open the portal file (`sample.portal`) and navigate to the page on which you want to place the portal on.
3. In the Data Palette window, drag the portlet you want (i.e., Harmony Chat & Whiteboard) into the placeholder on the page.
4. Select the portlet and use the `Property Editor` window to edit the portlet properties if desired.
5. Save the portal file.
6. Start server from Workshop by navigating to `Tools > Weblogic Server > Start Weblogic Server`
7. Close WebLogic Workshop and log into the portal. The portlet will now be available to the portal users.

Troubleshooting

Issue:

"java.net.BindException: Address already in use: JVM_Bind..."
during startup of portal.

Cause:

The Chat & Whiteboard server requires port 1099 to function. If this port has been previously bound by another process, the above error message will be displayed in the console during WLS startup.

Possible Solutions:

1. Change the startup port for the server in the properties file. To change the port number that the Chat/Whiteboard portlet requests do the following:
 - Shut down WLS
 - Open `harmony_portlets.jar` in `<%YOUR_PORTAL_APP%/APP-INF/lib`
 - Open `server.properties` and modify the following line:
`interactive.server.rmi.port=1099`
and set the port number to another number (i.e.: 1101)
 - Save and close file
 - Open `remote.properties` and modify the following line:
`interactive.remote.server.providerurl=rmi://localhost:1099/`
and set the port number to the same number as the `server.properties` above (i.e.:1101).
 - Save and close file.
 - make sure `harmony_portlets.jar` contains these changes and restart WLS
2. A second method is to simply shut down WLS and Restart the machine. This will automatically release all ports.

Issue:

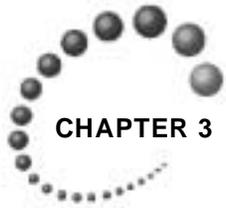
The chat portlet allows one to indicate that a chat room should be "permanent" by checking a box when creating it, but if you restart the WebLogic Portal, the chat room disappears.

Cause:

The room definitions are not persisted, but it is possible to have rooms created when the portal starts up (by adding them to `server.properties`). Rooms marked as permanent will not expire. Non-permanent rooms will be deleted after the default time (configurable) of ten minutes with no conversation.

Possible Solution:

1. Add the room name to `server.properties`. The room will always appear even if you restart the WebLogic Portal.



Server Administration

Using HTTPS

The "wire" protocol between client applets and the remote instances is TCP/IP based. As such, a communication end point is created on the server side to accept client connections. To allow clients to connect to the server, the interface `IServerSocket` is used. There are two concrete implementations:

- `InteractiveServerSocket` - creates a "plain" server socket.
- `InteractiveSSLServerSocket` - creates an SSL based server socket.

To use HTTPS between your Portal and Browser, the following two things must be done:

1. In `startup.properties`, change the `com.compoze.interactive.remote.IServerSocket` setting to `com.compoze.interactive.remote.InteractiveSSLServerSocket`
2. In `client.properties`, change the `com.compoze.interactive.socket.ISocket` setting to `com.compoze.interactive.socket.InteractiveSSLSocket`.

Note: For this to work w/o further configuration, the JRE on both the client (Browser) and the Portal Server must be the same. For more information in using SSL in Java, refer to <http://java.sun.com/products/jsse>.