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Integrating Elixir Repertoire Server with IBM WebSphere Portal 5.1.0

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Introduction

This document serves as a guide to illustrate how to integrate Elixir Repertoire Server with IBM WebSphere Portal.

The platforms used in this document are as follows:

- 1. Elixir Repertoire Server 7.1.1
- 2. WebSphere Portal 5.1.0
- 3. Rational Application Development Platform 6

The steps and procedures mentioned in this document serves as a guide and may not be the ultimate solution.

It is also assumed that:

- 1. Elixir Repertoire Server has been installed and running
- 2. A WebSphere Portal has already been created and deployed

Code Samples

During the course of this exercise, the following code samples and references were used:

- 1. Repertoire SSO Servlet: http://www.elixirtech.com/wiki/bin/view/Main/RepertoireSSO
- 2. IBM iFrame Portlet: http://www.ibm.com/developerworks/websphere/library/techarticles/0301_kon duru/konduru_0301.html

Integrating Repertoire Server with Websphere Portal

Single Sign On

WebSphere Portal provides a centralised online platform that enables organisations to create a gateway for their staff or customers to access their various web sites via a single URL. This is enabled through the use of portlets whereby each portlet serves as a container to display the desired web content.

The use of portlets enables sections of the Repertoire Server to be displayed. However, solely providing the URL to the Repertoire Server would only redirect users to the login page on the Repertoire Server. To implement Single Sign On (SSO) for WebSphere Portals, IBM offers Tivoli Access Manager as an add-on component to complement SSO.



In this example, an external servlet was created to demonstrate the SSO process.

1. Portlet calls the servlet with the URL to be directed to

2. Servlet is invoked, retrieves username and password from the credential store and POSTs to login.html of the Repertoire Server

3. Repertoire Server Authenticates username and password

4. Repertoire Server sends HTTP response

5. If HTTP response is OK, servlet will clone the Repertoire Server Session ID and compare it against the servlet's for a match

6. If the session IDs match, the servlet will then send the redirected URL to the portlet

7. The nortlet will display the content from the URL

To simplify this example, the login credentials were stored in an XML file for retrieval but ideally, the servlet should be calling a data broker to retrieve the credentials from a database.

Using iFrame Portlet

In order to integrate Repertoire Server with WebSphere Portal seamlessly, an iFrame portlet developed by IBM was used.

The iFrame Portlet can be downloaded from IBM at: http://www.ibm.com/developerworks/websphere/library/techarticles/0301_konduru/konduru/konduru_0301.html

Compared to the web clipping portlet template that is included with the Websphere Portal, the iFrame Portlet is preferred as it is able to constrain the dashboard (pml) and report to html render (rml) layouts within the portlet's placeholder.

Integration

To begin the integration process, download the RepertoireSSO servlet or create an equivalent of it. Next, deploy it as a WAR file to run on a selected server, noting the name of the host, its port number and the name of the servlet. At the same time, download the iFrame portlet provided by IBM from their website.

In the Websphere Portal environment, login as the user with administration rights and click on the 'Administration' tab in the top right hand corner:





Select **Portlet Management > Web Modules** from the left hand side:

Click the 'Install' button:

	Manage Web Modules	
r Interface	Search by: File name starts with 💌 Search: Search	
inagement	Web modules Click Install to install a Web module. Select a Web module to view its portlet applications and porture or and existing Access to allow others to work with the Web module. Install Consume	ortlets. Click Delete to remove the Web module fr
ions		Page 1 of 10 🕨 🕨 Jump to page: 1 🛛 🙋
	Name Status	
rvices	SametimeWhoIsHere.war	B 🗘 🛍
pping	eseow.war	e (* 16)
	iwwcm sample workflow list.war	D (2) (1)
	ImportXML.war	D () ()
tings	LoanProcess.war	
	lwppeoplefinder.war	B (¢) (1)
alysis	appearance.war	
	ClientsManager.war	
itent	portletCon.war	
	AccountSearch S2 with src.war	
rtais		Page 1 of 10 🕨 🕨 Jump to page: 1 🛛 🖉

Locate the iFrame Portlet WAR file to install. Click next and follow the installation instructions accordingly:

The second	Topp
🦻 🛞 🙆	http://localhost:9081/wps/myportal/!ut/p/kcxml/04_5j95Pykssy0xPLMnMz0vM0Y_QjzKLN4g39gTJgFiGPqb6kWCGvzdMzBhTyB
📄 Free Hotmail 📄	Windows Media 📋 Windows
• Interface	Manage Web Modules Installing a Web module, Step 1: Select WAR file.
nagement	${f Q}$ Click the Browse button to specify the location of the WAR file to install. Click the Next button to continu page.
lules ons	Directory:)ocs\sample_portlet_code\iframeportletsample.war Browse
vices ping	Next Cancel
ings	

After installation, return to the portlets section to locate the iFrame Portlet and click on the 'Key' symbol to grant access rights:

Portlets Click Copy to create a duplicate of the portlet. Click Configure to set titles, descrip	riptions and para	ameters. Click Delete to n	emove the portlet from your portal.
Click Assign Access to allow others to work with the portlet.			Page 1 of 1
Title Provided Rer	lemote portlet	Status	
Display Any Website Using IFRAME			× D Z 🗿 Z
Domino IFrame Viewer			× D Z 🖻 Z
			Page 1 of 1

Locate 'User' and click on the 'Pencil' symbol to edit the role:

WebSphere Portal		
Resource Permissions Display Any Website Using TERAME		
Roles	Allow Inheritance	Edit Role
Administrator	✓	
Security Administrator	✓	
Delegator	v	
Manager		
Editor	V	
Privileged User		
User	V	
Display/Modify Owner Apply Done		

Click on the 'Add' button to assign permissions:



Check 'All Authenticated Portal Users' and click 'OK':

1	
	Resource Permissions
	Search for Users or User Groups, User Groups 💌
	Search by: All available 💌 Search
	Display Any Website Using IFRAME > User > Add Role Members
	Select Users and User Groups
	All Authenticated Portal Users
	All Portal User Groups
	Anonymous Portal User

When done, click on the URL of the iFrame Portlet and click 'Apply':

Aummstrator	×	
Security Administrator	The page at http://localbost:9081 says:	
Delegator		
Manager	Are you sure you want to modify the inheritance and propagation on the resource?	
Editor	OK Cancel	
Privileged User		1
User	<u>v</u>	I

A confirmation message would appear. Click 'OK' and 'Done'.

At the portlet page, select 'Copy Portlet' (duplicate icon) and make copies of the portlet based on the number of sections of Repertoire Server that is to appear in the Websphere Portal:

Manage Portlets Search by: Title contains v Search: i	Frame Search]		<i>₹</i> / ? - D
Portlets Click Copy to create a duplicate of the Click Assign Access to allow others to work with t	portlet. Click Configure to set t he portlet.	itles, descriptions and paramete	rs. Click Delete to n	emove the portlet from your portal. Page 1 of 1
Title	Provided	Remote portlet	Status	
Display Any Website Using IFRAME				• D Z D 2
Domino IFrame Viewer				* 10 2 10 2
				Page 1 of 1

Name the portlets accordingly:

Manage Portlets
Copy portlet A new portlet application will be created when you make a copy of a portlet. The copied portle Please provide a name for the new portlet application and a name for the portlet that is being co
Please provide the new name for the portlet application IFramePortletSample Concrete App: Elixir Repertoire Server Dashboard Concrete App
Please provide the new name for portlet Display Any Website Using IFRAME: Elixir Repertoire Server Dashboard
OK Cancel

To edit the details in each portlet, select 'configure portlet' (spanner icon):

Manage Portlets Search by: Title contains 💽 Search	: iFrame Search]		+
Portlets Click Copy to create a duplicate of Click Assign Access to allow others to work wi	the portlet. Click Configure to set t th the portlet.	itles, descriptions and paramet	ers. Click Delete to rei	move the portlet from your portal. Page 1 of 1
Title	Provided	Remote portlet	Status	\bigcirc
Display Any Website Using IFRAME				× () Z 1
Domino IFrame Viewer				* D / D /
				Page 1 of 1
1				

To configure each field, click on 'Edit Parameter' (pencil icon). Modify the details accordingly and click 'OK' when done:

Parameters and Values Enter a new p and value. Click OK to keep your chan	parameter and value pair in the blank ges or Cancel to quit.	fields to create a new parameter for this portlet, or click Delete to remove a parame	eter
New parameter:	New value:		
		Page 1 of 1	
Parameter		Value	
width		100%	
height		600	1
url		http://localhost:8088/RepertoireSSO-7.1.1/ParamBasedRedirect?rtu=index.html 🖉	1
name		Elixir Report Viewer	/ 1
		Page 1 of 1	
I want to set titles and descriptions.			

Note: If using the SSO Example mentioned earlier, the URL input should contain the server address, port number, servlet name and its class plus the redirect (rtu) link if the authentication is successful.

This example shows how the abovementioned elements are used: http://localhost:8080/RepertoireSSO/ParamBasedRedirect?rtu=index.html

Adding Pages

For the Websphere Portal Interface, the page layout is divided into two categories; the 'labels' which is the sections and the 'pages' that fall under them.

To create a new label, click on 'Administration' tab in the top right hand corner and select Portal User Interface>Manage Pages.

The first layer of labels in this section would represent the tabs situated at the top right hand corner of the portal, together with the name of your portal.

To create a new section, first select the portal label and then select 'New Label':

	Customize Links Free Hotmail Windows Media Windows						
	WebSphere Portal			My Portal Admin	sistration Edit my prof		
	Poetal liser Interface	Manage Pages			1		
\langle	Manage Pages Themes and Skins	ages, re-order, edit properties and layout, move pages, a ages, re-order, edit properties and layout, move pages, a earch by: Title starts with Search:	or search for pages to work with. Click New to create ne ssign permissions and delete. For more information, d	w pages, labels a lick Help.	nd urls. Activate and		
	Portlet Management	Content Root My pages Add, Edit, Delete, and Reorder pages					
	Access	They page They label		Page 1 of 2	🕨 📕 Jump to pag		
	Portal Settings	Title	Unique name	Status			
	Portal Analysis	My Portal Administration	wps.My Portal wps.Administration	Active Active			
	Portal Content	Com.ibm.wps.hiddenpage.DocumentPicker	com.ibm.wps.hiddenpage.DocumentPicker	Active			
	A CONTRACTOR	Sector Customizer	wps.Page Customizer	Active			
	Virtual Portals	Page Properties	wps.Page Properties wps.Organize Favorites	Active			

Key in the name of the new page and select 'OK':

Page Properties				
New label: Content Root				
Title:				
Theme:				
Portal Default Theme 💌 🐱				
 I want to make this page my private page Advanced options 				

The new page will now appear under the selected label. Return to the main portal by clicking on the portal tab at the top right hand corner.

Manage Pages			
Q Use the controls below to work with your pages. Browse or sear pages, re-order, edit properties and layout, move pages, assign p	ch for pages to work with. Click New to create new pagermissions and delete. For more information, click He	ies, labels and ≥lp.	d urls. Activate and
Search by: Title starts with 💽 Search:	Search		
Content Root > My Portal > PortletPreview			
Pages in PortletPreview Add, Edit, Delete, and Reorder pages			
米 New page 🔺 New label 米 New url			
			Pa
Title	Unique name	Status	
Elixir Repertoire Server Dashboard	wps.PortletPreviewwpsadminBook2Details	<u>Active</u>	V 🖻 🖉
Elixir Repertoire Server Details	wps.PortletPreviewwpsadminBookCatalog	<u>Active</u>	a v B /
Elixir Repertoire Report Viewer	wps.PortletPreviewwpsadminBookDetail	<u>Active</u>	a V 🗈 🖉
	6_0_1RE	Inactive	A 🗎 🖉
			Pa

Deploying the Portlet

At the portal page, select the page to deploy the portlet by clicking on 'Edit Page':



Click on 'Add Portlets':

WebSphere Portal	? Log
Content Appearance Locks Wires	
idit Layout	71?-
Q Edit Layout and Content allows you to add and arrange portlets, columns and rows. You can also remove portlets, columns and rows. Modifications occur as you make them,	
Page title: Elixir Repertoire Server Dashboard	
	Show layout tool
	6
Display Any Website Using IFKAME	
+ Add portiets	
Fdit propertie	Delete this page

Locate and check the portlet to deploy and click 'OK':

E	dit Layout				
\$	Search	by: Title starts with	• Search: elixir	Search	
				Page 1 of 1	
	Select	Portlet Title	Description	Unique name	
		Elixir Repertoire System	n Panel Elixir Repertoire System Panel	l Details	
		Elixir Report	Uses IFRAME HTML tag to con	nect to any website	
		Elixir Report Viewer	Uses IFRAME HTML tag to con	nect to any website	
		Elixir Repository	Elixir Repertoire Server Repos	itory	
		Elixir Server	Elixir Repertoire Server Panel		
				Page 1 of 1	
	ОК	Cancel			

The portlet name will appear in the place holder. Click 'Done'.

WebSphere Portal	? Log
Content Appearance Locks Wires	
:dit Layout	+1?-
Q Edit Layout and Content allows you to add and arrange portlets, columns and rows. You can also remove portlets, columns and rows. Modifications occur as you make them.	
Page title: Elixir Repertoire Server Dashboard	
	Show layout tools
Display Any Website Using IFRAME	1
+ Add portlets	
Done Edit propertie	pelete this page

If deployed correctly, the portlet would appear on the page:

PortletPreview My Workplace Web Content Ma				
PortletPreview My Workplace Web Content Ma	pagement			New Pa
	magement	Personalization	Bank Teller App	My Finances
Elixir Repertoire Server Dashboard Elixir Repertoire Server	Details Eli>	xir Repertoire Repo	nt Viewer	(c
Elixir Repertoire System Panel 🛛 🖌 🗕 🗖 E	Elixir Server			
System Server 7.1.1 [20070927: build 505](en_US) FileSystems	Server Shutdown Configura] ation		
Id Display Name Actions 1 ElixirSamples Refresh 2 Scheduler Refresh 3 JobOutput Refresh 4 TestBoard2 Refresh Bashboard Session Reset	Application Server 7.1.1 [20070927: build 505] Java Version Sun Microsystems Inc. 1.6.0_03 Elixir Home C:\RepertoireServer Elixir Config C:\RepertoireServer\config Elixir Ext C:\RepertoireServer\ext Elixir DB C:\RepertoireServer\db Max. Render Count 4 Max. Queue Count 100 Processors 1 Max. Memory 532,742KB Total Memory 6,780KB			505] 3