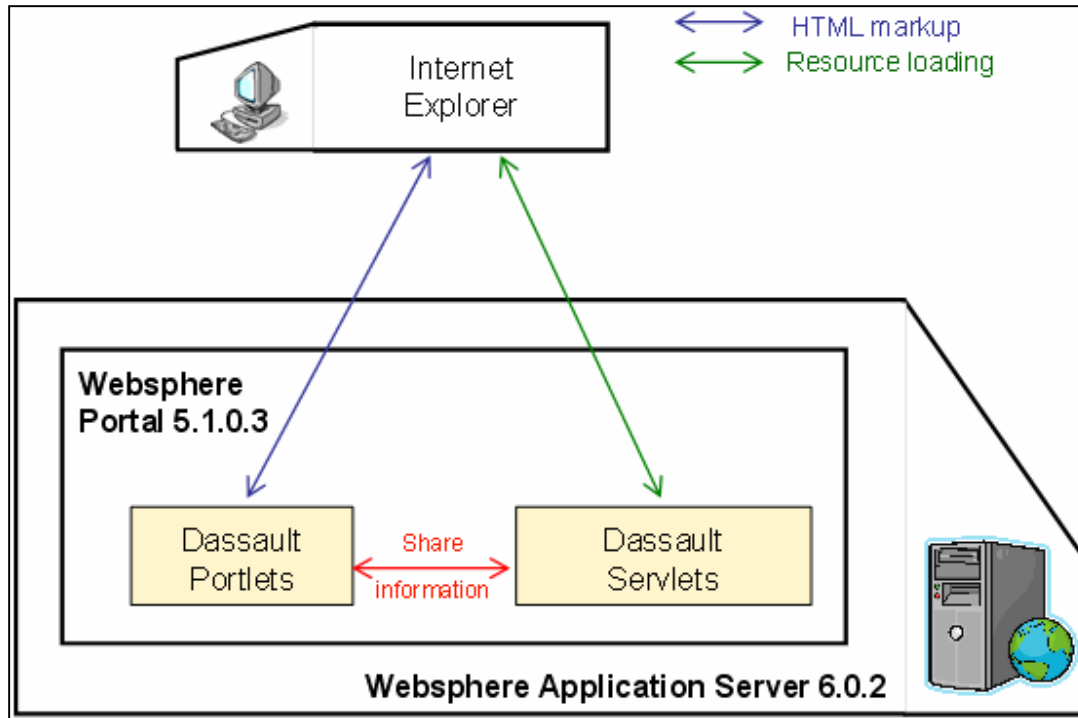


# Deploying a Web Application in a Portal

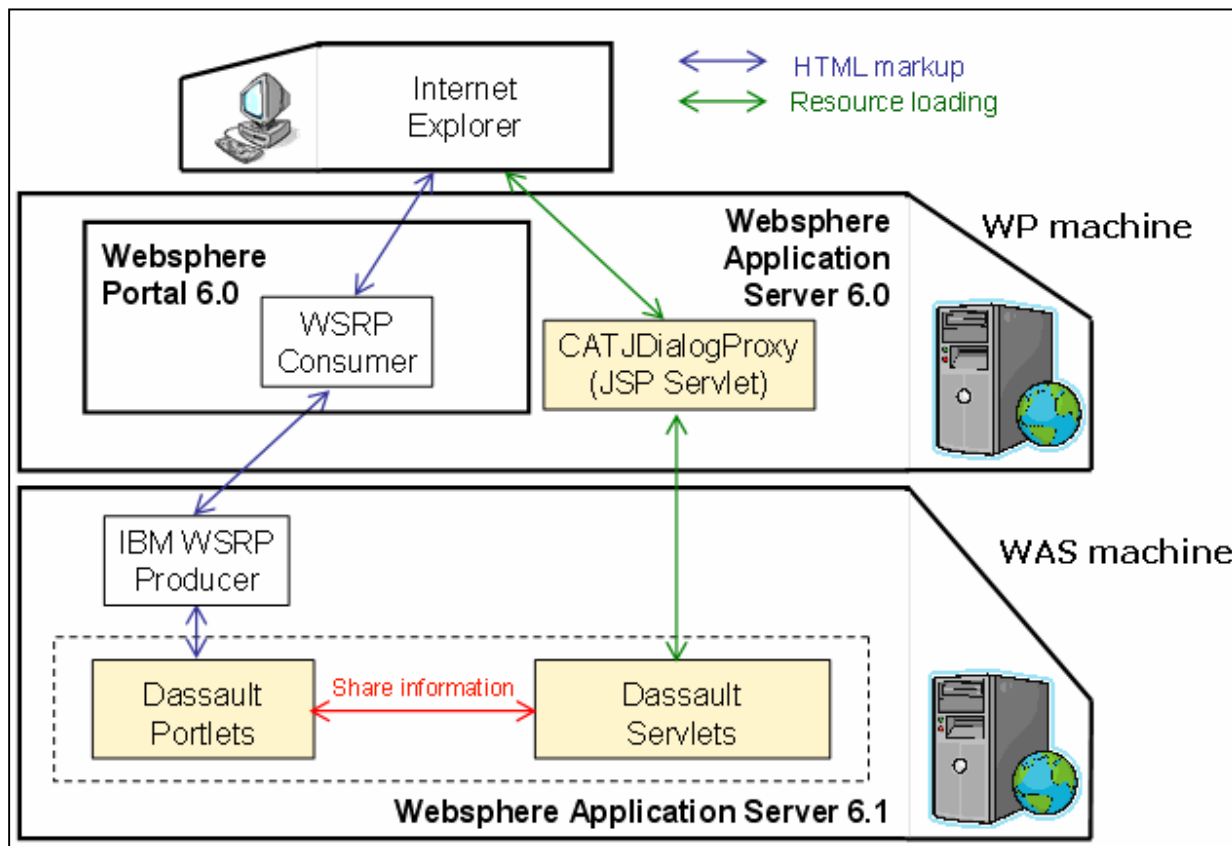
## Configuration

⦿ In V5 R18 DS supports Websphere Application Server (WAS) 6.1. To leverage this new WAS level with WebSphere Portal 6.0, a new configuration, as shown below, is supported.

This is the R17 configuration:



This is the new configuration:



In this new configuration, portlets are deployed in the WAS portlet container. The IBM WSRP producer transforms them in web services, which are consumed by the WebSphere Portal WSRP consumer. The portlets are accessible in WP, as they were in the previous configuration.

The rest of this topic describes the steps you must take to deploy your web application to a portal, using the new configuration. These steps include:

#### [Prerequisites](#)

#### [Deploying Dassault Portlets](#)

#### [Deploying CATJDialogProxy](#)

#### [Theme and Skin](#)

#### [Adding WAS 6.1 as a WSRP Producer for WP](#)

#### [Adding a Portlet to the Portal](#)

#### [Changing the Theme](#)

#### [Changing the Skin](#)

#### [Troubleshooting](#)

# Prerequisites



The configuration requires two machines:

- On the first machine, **the WP machine**, install the following:
  - WAS 6.0 (minimum version 6.0.2.9)
  - WP 6.0
  - DB2
  - LDAP (For installation instructions, refer to the [IBM Documentation](#).)
- On the second machine, **the WAS machine**:
  - Install WAS 6.1 (minimum version 6.1.0.7)
  - Deploy the WSRP producer (For instructions, refer to the IBM WSRP Version 1.0 Producer for IBM Websphere Application Server documentation.)
- On the WP Machine start these services:
  - DB2-DB2ADMIN
  - IBM Tivoli Directory Server

These services must always be started for the configuration to work.

Do the following before deploying the Web application:

- Activate security on the Websphere Portal and the Websphere Application Server 6.1 and configure each for single sign-on. To activate LDAP security on WP, refer to the [IBM documentation](#). To activate LDAP security on WAS 6.1, refer to the [IBM documentation](#). To activate SSO, share the same LTPA key between both servers. To do this you must [export the LTPA key in WP](#), and [import the LTPA key to WAS](#). This configuration is mandatory to get WSRP working.
- Start WP on the WP Machine and WAS on the WAS Machine.

## Deploying Dassault Portlets



Deploying the Dassault Portlets is done on the WAS 6.1. There are three steps involved in this process:

- [Create the Enterprise Archive file \(EAR\)](#)
- [Prepare the WAS Environment](#)
- [Deploy the EAR file on the WAS 6.1](#)



## Creating the Enterprise Archive (EAR) File

The EAR file that contains the portlets is created using a special tool named WASSetupUI.

### 1. Type the following:

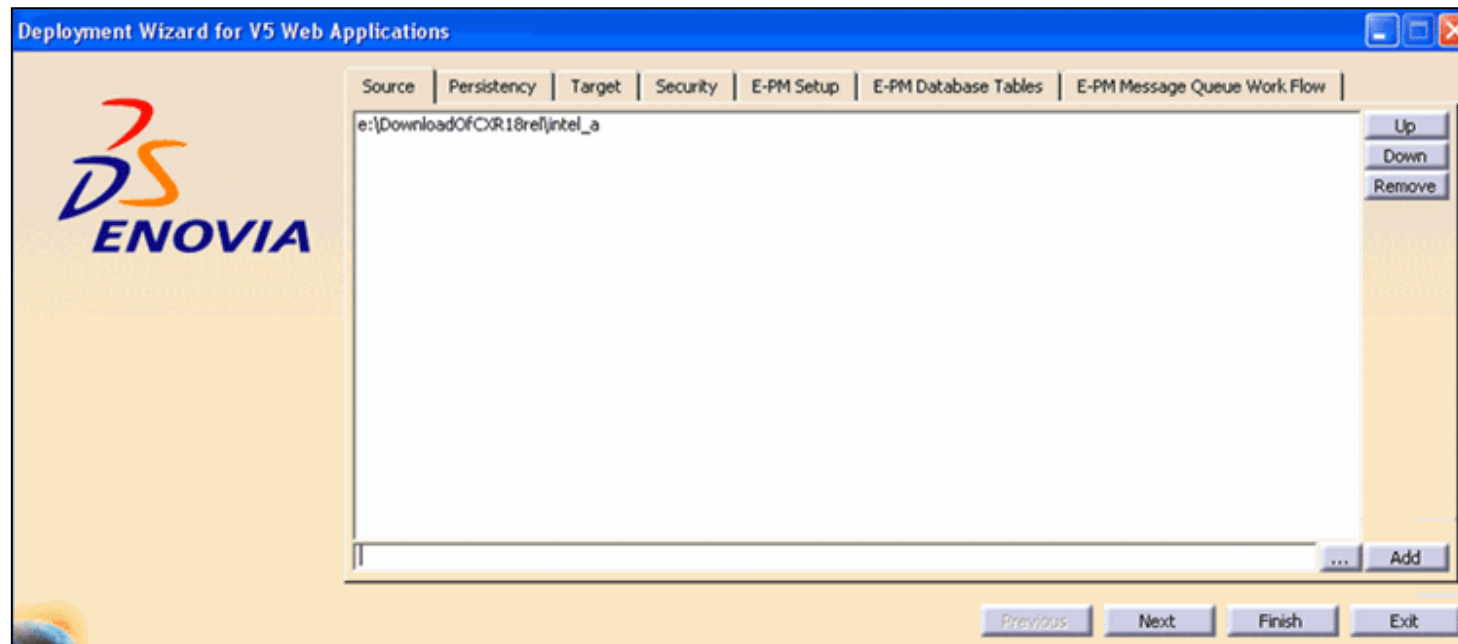
```
set UNLOCK_WASSetupUI=1
```

Execute the following command in the code\command directory of the ENOVIA Server:

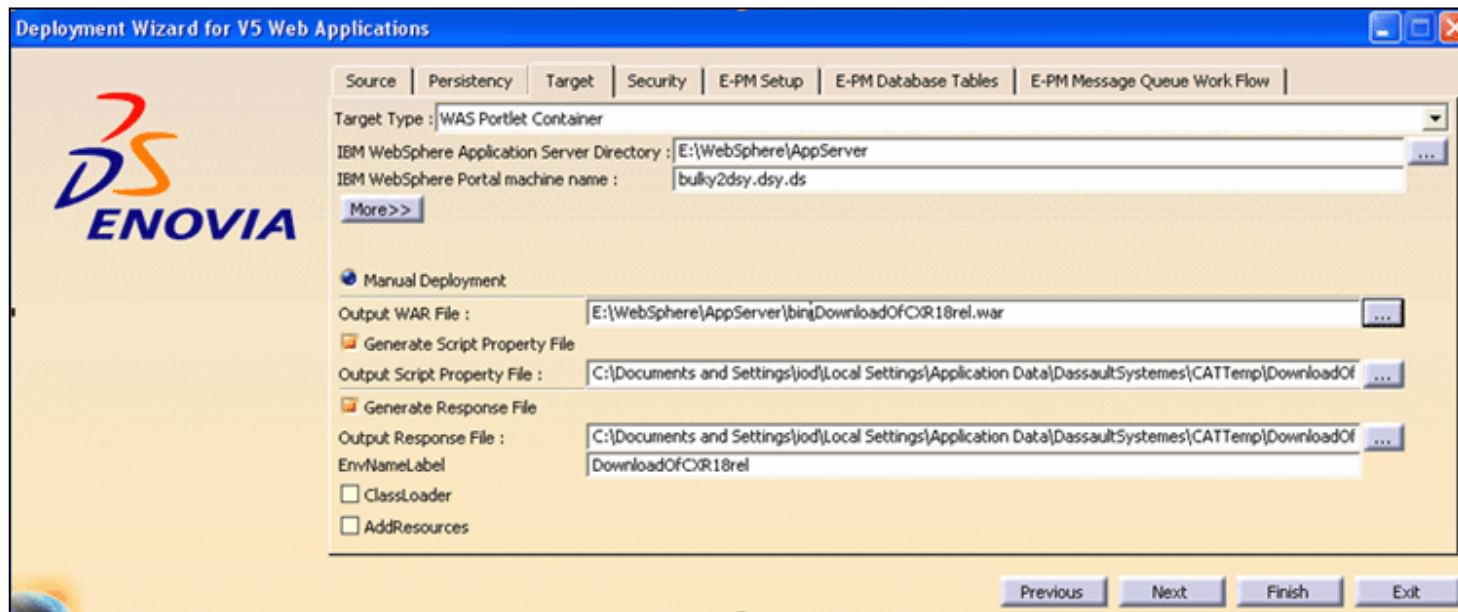
```
./catstart -run WASSetupUI -direnv path
```

where path is the path of the directory immediately above intel\_a. For example, if the path of the executable WASSetupUI is E:\DownloadOfCXR18rel\intel\_a\code\bin, path is E:\DownloadOfCXR18rel.

*The WASSetupUI appears:*



4. The Source tab should be correct. The path is the one you indicated above.
5. In the Persistency tab, choose your database (DB2 or Oracle) as the Driver Type and fill in the appropriate fields for your JDBC data source. This data source must be configured to have Favorites available.
6. In the Target tab, choose WAS Portlet Container as the Target Type. Fill the WAS directory (you should find the AppServer directory in the Websphere install directory), and give the name of the WP machine. Choose a path where the EAR file will be deployed, and name this file (for example, put the EAR file in the bin directory under AppServer, and name it DownloadOfCXR18rel.war).



7. The other tabs are correct by default; customize them if needed.
8. Press Finish. In the new Output tab that appears, verify that the deployment was done correctly. The final result should be RC=0. If not, then try to correct the problem (check if the tabs are correctly filled, if WAS 6.1 is well installed, if the paths are correct, ...)
9. Make sure the EAR archive appears in the path you selected.

## Preparing the Websphere Application Server Environment

1. Start WAS 6.1 and open the Administrative Console. You can do this by:
  - running the firststeps.bat file in WASInstallPath/AppServer/profiles/usedProfile/firststeps/ where usedProfile is the profile used for the single sign-on configuration.
  - execute the Start the Server command

When the server is started, the Administrative Console is available.

2. Enter your login and password and click **Log In**.
3. Select **Servers > Application Servers > server1 > Server Infrastructure > Java and Process Management > Process Definition > Environment Entries**. Create a new entry: name = PATH, value = codePath\code\bin, where codePath is the Dassault code path (e.g. E:\DownloadOfCXR18rel\intel\_a).
4. Select **Servers > Applications Servers > server1 > Server Infrastructure > Java and Process Management > Process Definition > Java Virtual Machine > Custom Properties**. Create a new property: name = ws.ext.dirs, value = codePath\docs\javaserver\CATJSystem.jar;codePath\docs\javaserver\CATJsyTransaction.jar;codePath\docs\javaserver\CATJDialog.jar;codePath\docs\javaserver\CATJdgHTML.jar

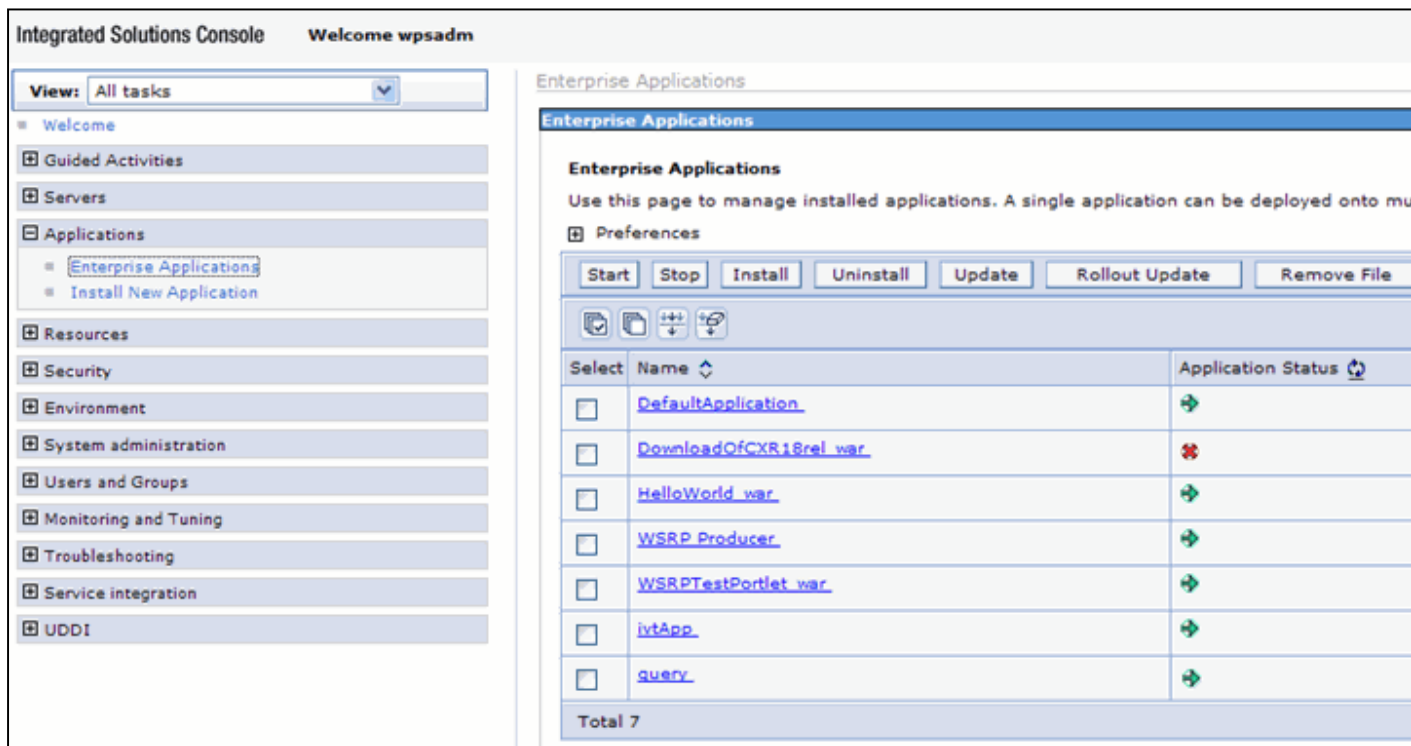
5. Save the new configuration and restart WAS.

## Deploying the EAR File

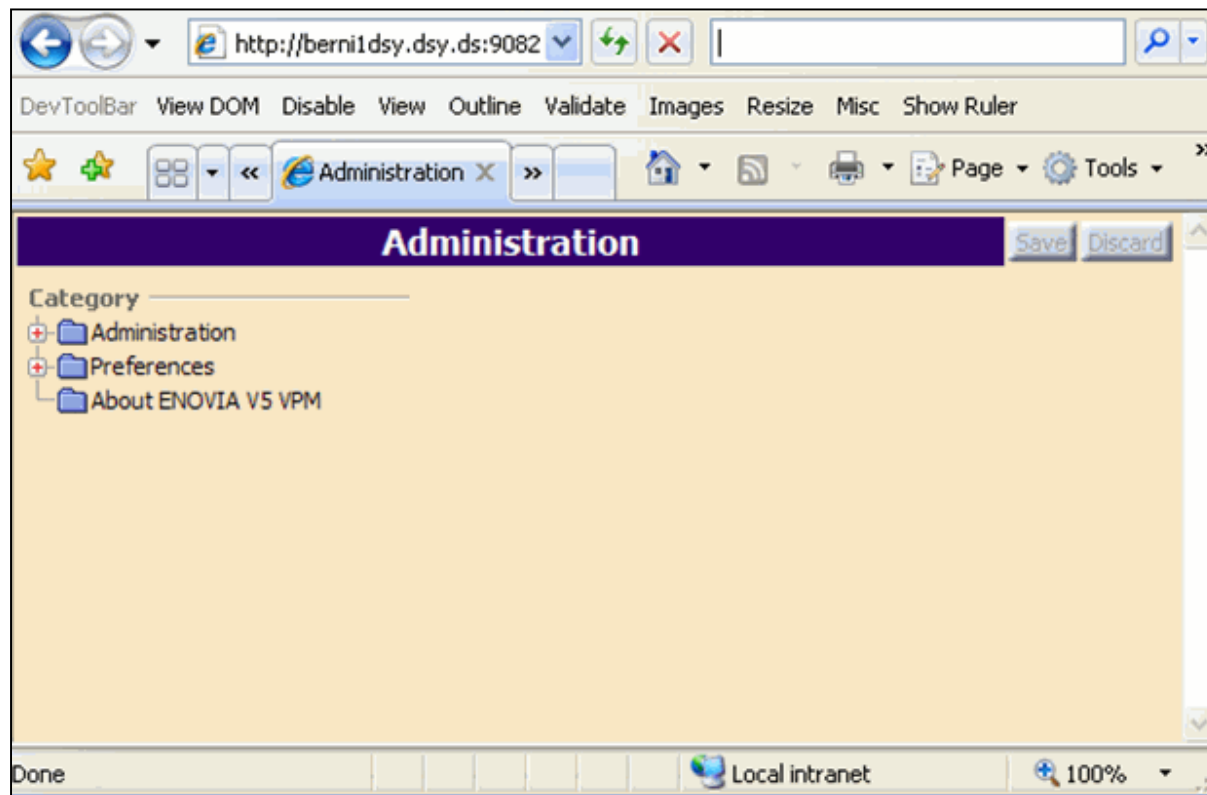
1. Open the Administrative Console and log in. From the left pane, select **Applications > Install New Application**.

The screenshot shows the 'Integrated Solutions Console' with a 'Welcome wpsadm' header. On the left, a navigation pane lists various system components, with 'Applications' expanded and 'Install New Application' selected. The main area displays the 'Enterprise Applications' section, specifically the 'Preparing for the application installation' dialog. This dialog prompts the user to 'Specify the EAR, WAR, JAR, or SAR module to upload and install.' It offers two options for the application path: 'Local file system' (selected) and 'Remote file system'. Each option has a 'Full path' text field and a 'Browse...' button. Below these, there is a 'Context root' text field with a note: 'Used only for standalone Web modules (.war files) and SIP modules (.sar files)'. At the bottom, a section titled 'How do you want to install the application?' provides two radio button options: 'Prompt me only when additional information is required.' (selected) and 'Show me all installation options and parameters.'. 'Next' and 'Cancel' buttons are located at the bottom of the dialog.



2. Use the Browse button to fill the archive **Full Path**. Enter the **Context root** to use, for example, /PortletsDassault. Be sure to include the / at the beginning of the context root. Click **Next**.
3. Keep clicking **Next**, until the **Finish** button appears and click **Finish**. The archive is now deployed. Make sure there is no error message.
4. Start the application and in the left pane select Enterprise Applications. A list of deployed applications appears:



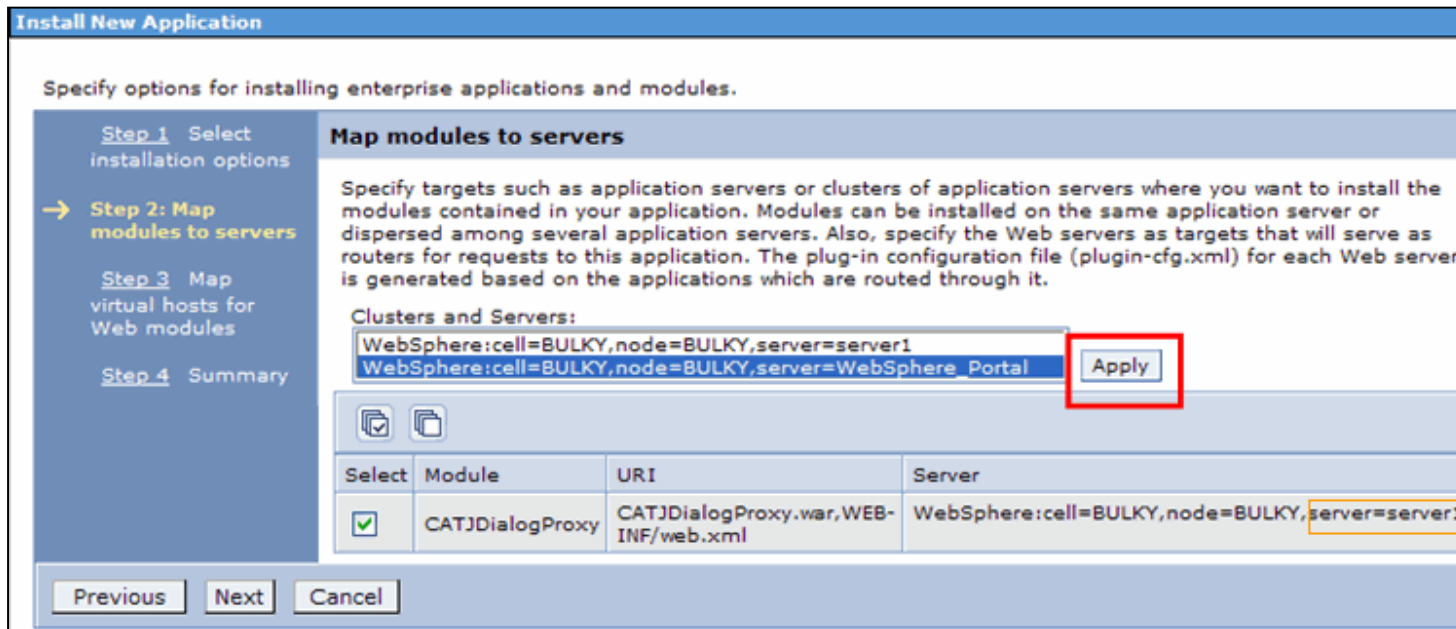
5. Select the portlets application you just deployed and click Start.
6. Make sure everything works. The portlets are immediately visible in full page in the WAS portlet container. The URL is: `http://host:port/contextRoot/html/portlet` where:
  - o host is the host machine, for example, `berni1dsy.dsy.ds`.
  - o port is the WAS client port. It can be found in the Administrative Console. In the left pane select **Servers > Application servers**. Select **server1** and in the Communications section select the plus next to **Port**. The port of interest is `WC_defaulthost`.
  - o contextRoot is the one chosen during the installation (i.e `PortletsDassault`).
  - o Portlet is the portlet you want to check (for example `CATJadOptions`, `PPRAccess`, ...).



## Deploying CATJDialogProxy

-  This section explains how to deploy the CATJDialogProxy.ear file, found in CATJDialogWPS\CNext\resources\WSRP. It must be deployed on the WAS 6.0 instance with Websphere\_Portal profile.
-  The EAR file that contains the portlets is created using a special tool named WASSetupUI.
  1. Start the Websphere Portal on the WP machine. To do this:
    - Open a command line.
    - Go to WPInstallPath\PortalServer\bin
    - Type startServer Websphere\_Portal
  2. When the portal starts, open the administrative console. The URL is `http://host:10027/ibm/console`, where host is the WP machine.
  3. Log in and select **Applications > Install New Application**.
  4. Use the **Browse** button to fill the CATJDialogProxy.ear file full path

- Click **Next** three times. On the next screen, select the appropriate line in the table and select the Websphere\_Portal profile above the table and click **Apply**.



Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options

→ Step 2: Map modules to servers

Step 3 Map virtual hosts for Web modules

Step 4 Summary

Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that will serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated based on the applications which are routed through it.

Clusters and Servers:

WebSphere:cell=BULKY,node=BULKY,server=server1

WebSphere:cell=BULKY,node=BULKY,server=WebSphere\_Portal

Apply

Select	Module	URI	Server
<input checked="" type="checkbox"/>	CATJDialogProxy	CATJDialogProxy.war,WEB-INF/web.xml	WebSphere:cell=BULKY,node=BULKY,server=server1

Previous Next Cancel

- Click **Next** twice and then click **Finish**. The CATJDialogProxy is now deployed. Make sure there is no error message.
- Start the application and in the left pane select **Enterprise Applications**. Then select the CATJDialogProxy application you just deployed and click **Start**.

Please note that you must deploy the CATJDialogProxy on the Websphere\_Portal instance of WAS 6.0. If you deploy it on the server1 instance, the proxy's port will not be the same as the WSRP consumer's. This will generate security problems, especially on Mozilla Firefox because of the Same Origin Policy. For more information on the Same Origin Policy, see the Mozilla documentation.

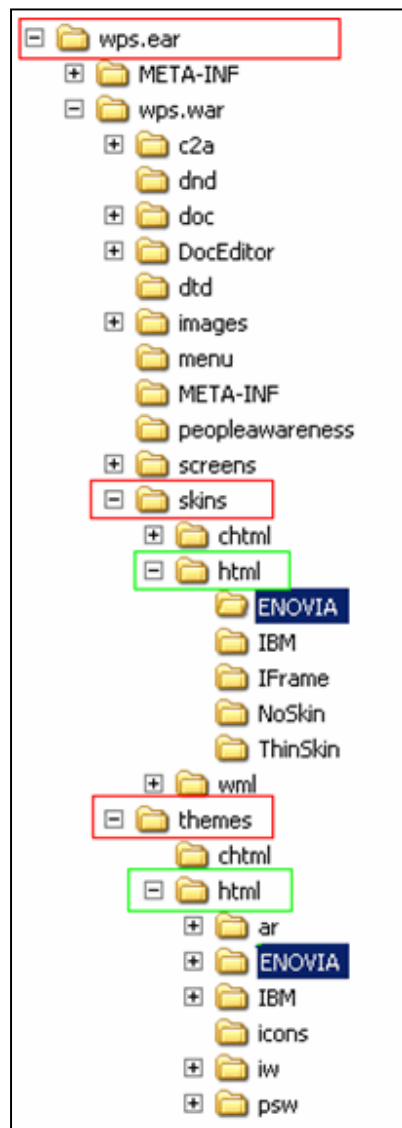
## Theme and Skin



The ENOVIA theme and skin are in two archives, ENOVIA\_theme\_6.zip and ENOVIA\_skin\_6.zip. They can be found in CATJDialogWPS\CNext\resources\WP\HTML. They must be added to specific sub-directories of wps.ear, on the WP machine.

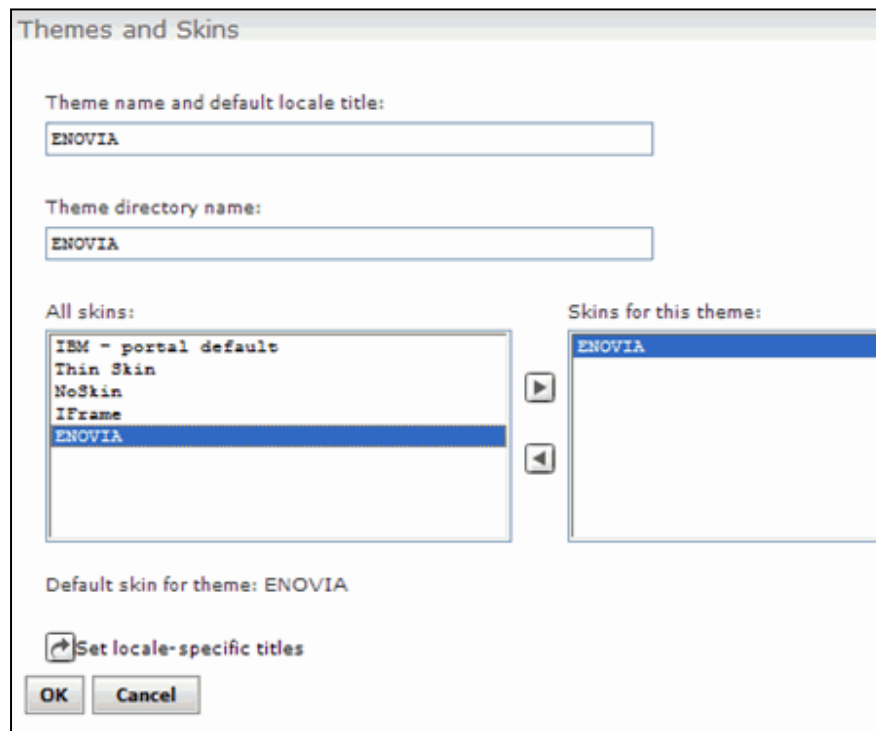


- 1.** On the WP machine, find the Portal profile directory, for example, C:\ibm\Websphere\profiles\wp\_profile.
- 2.** Find the InstalledApps directory.
- 3.** Below the InstalledApps directory, find a directory with a name similar to the node. Open this directory. Its path will be called path1. Under this directory you should find a wps.ear directory. If you do not find a wps.ear directory, deploy wps.ear:
  - Locate the archive in the WP install path (... \IBM\Websphere\PortalServer\installableApps). This path will be path2.
  - Open a command line and go to the bin directory of the WAS 6.0 install path (... \IBM\Websphere\AppServer\bin).
  - Enter the command `EARExpander - ear path2\wps.ear -operationDir path1\wps.ear -operationexpand - expansionFlags all`
  - Check that the wps.ear directory is now in path1.
- 4.** Add the ENOVIA theme and skin to wps.ear:
  - Unzip the ENOVIA\_theme file in wps.ear/wps.war/themes/html and call the directory ENOVIA.
  - Unzip the ENOVIA\_skin file in wps.ear/wps.war/skins/html and call the directory ENOVIA.
  - The new directory structure should look like:



**5. Attach the ENOVIA skin to the ENOVIA theme:**

- Open the Websphere Portal in a browser. The URL is <http://host:port/wps/portal>, where host is the WP machine name and port can be found in <portal install path>/log/wp\_PortMatrix.txt. The port of interest is WC\_defaulthost.
- Log in and go to the Administration page. Select Portal User Interface > Themes and Skins.
- Click Add new skin. Enter the skin name ENOVIA and the directory name ENOVIA, and click OK. The ENOVIA skin is added to the list of skins.
- Click Add new theme. Enter the theme name ENOVIA and the directory name ENOVIA, and add the ENOVIA skin for this theme. Click OK. The ENOVIA theme is added to the list of themes.



6. Click OK. The ENOVIA theme is added to the list of themes.

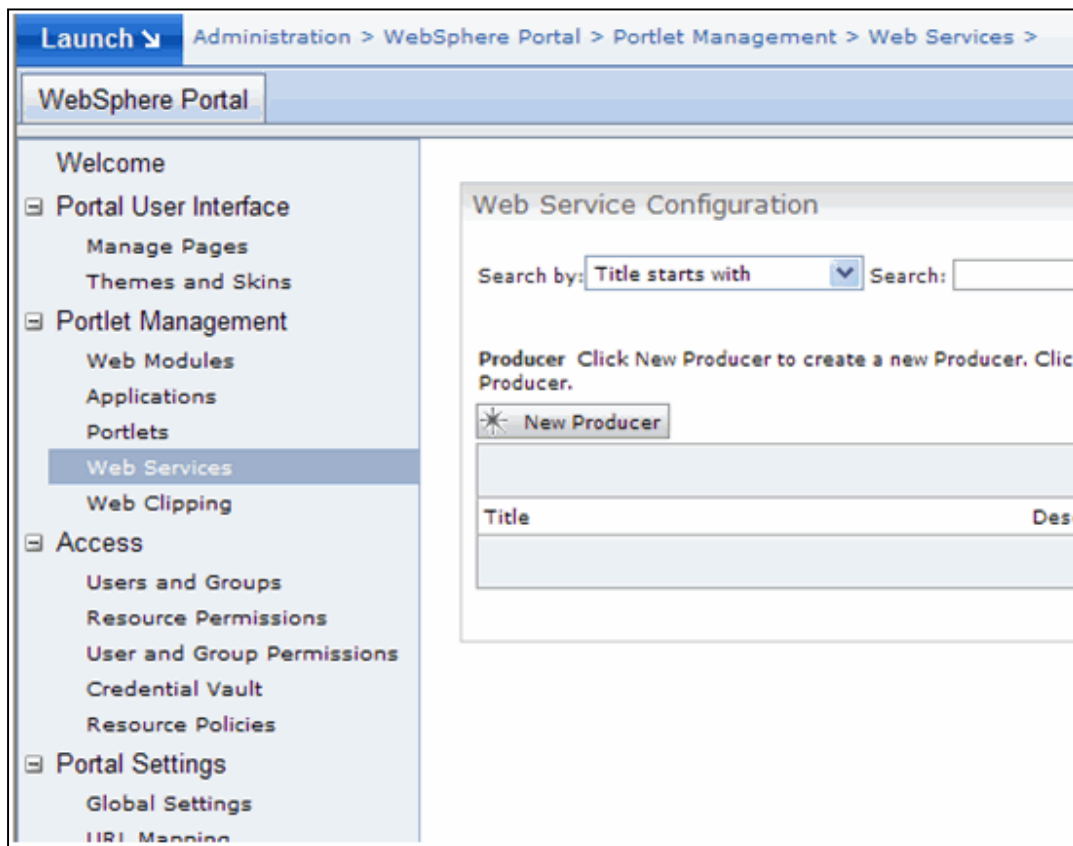
## Adding WAS 6.1 as a WSRP Producer for WP



For the portlets to be available in WP, you must add the WAS machine as a WSRP producer in WP.



1. Open the Portal in a browser. In the left pane of the Administration page, choose Portlet Management > Web Services.



2. Click New Producer. Choose a name for the producer and give the URL to WSDL service registration. The other fields are not mandatory. The URL is `http://host:port/producer/wsdl/wsrp_service.wsdl`, where host is the WAS machine name, and port is the WAS client port.
3. Click OK. The new producer should appear in the list of producers. See the IBM documentation of the WSRP producer installation for more details.

## Adding a Portlet to the Portal



In the current configuration, the portlets are sent as web services by the WAS 6.1 WSRP producer. The WAS 6.1 is seen as a producer in the WP, but the portlets proposed by the WAS are not yet added to the list of portlets proposed by the WP.



1. Select Portlet Management > Web Modules. Click Consume. Select the WAS producer. The portlets available for this producer appear:

Manage Web Modules

Consume Web Service, Step 2: Choose Web service.

Choose a Web service from this Producer to consume. Or, search for a service within this producer and choose.

Search by:  Search:

[Web Service Producers](#) > **Berni1WAS**

<input type="checkbox"/>	Title	Group (Portlet Application)
<input type="checkbox"/>	ENOVLiveNameBanner	Berni1WAS
<input type="checkbox"/>	Properties	Berni1WAS
<input type="checkbox"/>	Explore	Berni1WAS
<input type="checkbox"/>	Relationship Navigator	Berni1WAS
<input type="checkbox"/>	WpViewers	Berni1WAS
<input type="checkbox"/>	Favorites	Berni1WAS
<input type="checkbox"/>	Community	Berni1WAS
<input type="checkbox"/>	User Preferences	Berni1WAS
<input type="checkbox"/>	Advanced Access	Berni1WAS
<input type="checkbox"/>	User Home Page	Berni1WAS

2. Select the ones you want to test and click **OK**.
3. Got to **Portlet Management > Portlets**. The portlets you just selected to be consumed are shown in the last page of the list of available portlets. They are seen as remote portlets.
4. You can add a portlet to any page of the portal by either of the following two methods:
  - Under Administration, select **Portal User Interface > Manage Pages**. Select the page to modify. You can add portlets using the **Edit page layout** button.
  - On the portal page, click **NewPage > Edit page properties** and choose ENOVIA as the new theme.

## Changing the Theme



If you did not select the ENOVIA theme during the page creation, you can do it afterwards by either of the following methods:

- Under Administration, select **Portal User Interface > Manage Pages**. Find your page in the list of pages and click **Edit page properties**. Choose **ENOVIA** in the Theme combo.
- Go to the page you want to change. Click **NewPage > Edit page properties**. Select **ENOVIA** as the new theme.

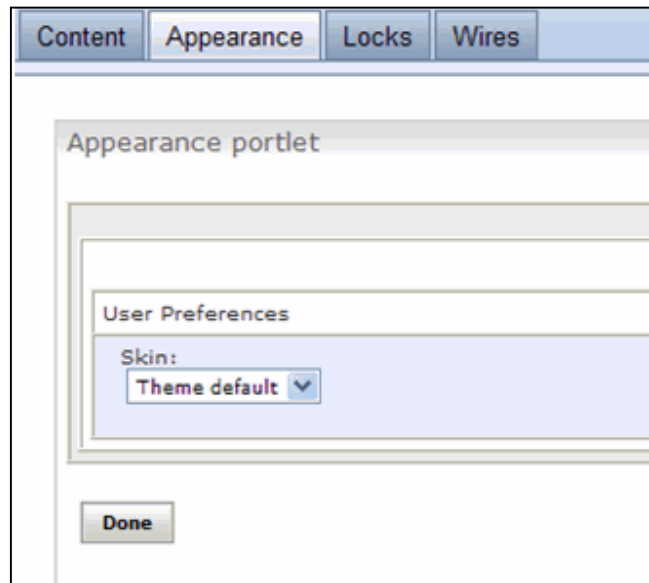
## Changing the Skin



When adding a new portlet to a page, you can choose the skin of this portlet in the Appearance tab.



1. Go to the **Appearance** tab.



2. Choose **ENOVIA** in the list of skins.
3. The skin can be changed later using the **Edit page layout**.

## Troubleshooting



If the portal is not accessible:

- Make sure the WP and the two services (DB2-DB2ADMIN and IBM Tivoli Directory Server) are started on the WP machine.
- Make sure the Websphere Portal instance is on the port 10038.

If the portal is accessible but cannot see the WAS as a WSRP producer:

- Make sure the configuration is correct. See the general checklist below.

If the portlets are not working:

- Make sure the portlets are accessible in the WAS portlet container. For information about viewing these portlets in the portlet container, refer to Deploying the EAR File.
  - If they are not accessible, make sure PATH and the ws.ext.dirs were entered correctly and restart WAS 6.1.
  - If they are accessible, check the configuration and the logs. See [General Checklist](#).

If the WAS 6.1 cannot be stopped with the first steps screen:

- Open a command line.
- Go to WASInstallPath/AppServer/bin and enter `stopServer server1 -user user -password password`.
- If this does not work, kill the java process.

## General Checklist

- DB2-DB2ADMIN and IBM Tivoli Directory Server services must be started on the WP machine.
- The WP must be started.
- The WAS 6.1 must be started.
- The portlet application must be started on the WAS 6.1
- The CATJDialogProxy must be started on the WAS 6.0 coming with the WP.
- The portlets should be displayed with a valid theme and skin for all the elements to work correctly.
- Check the WAS and WP logs. The WAS logs are on the WAS machine in WASInstallPath/AppServer/profiles/chosenProfile/logs/server1. The WP logs are on the WP machine in WPInstallPath/PortalServer/log.
- If an error linked to the LDAP is shown in the WP logs, restart the DB2-DB2ADMIN and IBM Tivoli Directory Server services.

