

Enable jQuery Mobile on WebSphere Portal

Introduction

jQuery is a cross-browser JavaScript library that facilitates Data Object Model (DOM) traversal, event handling, animation, and Ajax interactions. You can now create portlets for IBM WebSphere Portal that uses jQuery library. Enabling jQuery on WebSphere Portal is a multi-step procedure, this document outlines the procedural steps for you to leverage the power of jQuery on WebSphere Portal. We will be using IBM Rational Application Developer for carrying out the changes.

Theme modules and profiles

WebSphere Portal theme optimization feature provides a flexible framework for enabling specific capabilities that the user needs. The Theme optimization feature uses modules and profiles to achieve this flexibility with better performance. The Modules, which are the components of the new theme, defines the capabilities, such as Dojo and jQuery. And the Profiles defines the sets of modules which can be assigned per page. A default profile is used if no page-specific profile is defined.

By applying these concepts, it is possible to turn on and off an arbitrary number of features of certain pages, develop modules independent of each other for greater development speed and flexibility, you can easily add new capabilities later on into an existing theme and build an altogether new theme with the existing one.

For details see the topic Module framework (:[http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?](http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&es_title=The_module_framework_wp8&content=pdcontent)

[lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&es_title=The_module_framework_wp8&content=pdcontent](http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&es_title=The_module_framework_wp8&content=pdcontent))

Define jQuery Mobile theme module

To define jQuery mobile theme module:

1. Download the jquery.min.js file from <http://jquery.com/download/>. This document uses jQuery 1.9.0. However, you can download any other version .
2. Download the jquery.mobile-1.2.0.zip file from <http://jquerymobile.com/download/>. Extract the zip file on your local machine.
3. Create a file called "plugin.xml" as shown. A new module is created for jQuery and jQuery Mobile in the plugin.xml

```
<?xml version="1.0" encoding="UTF-8"?>
  <?eclipse version="3.0"?>
  <plugin
    id="com.ibm.portal.jQuery.samples"
    name="jQuery module contributions"
    version="1.0.0"
    provider-name="IBM">

    <!-- jQuery js -->
```

```

    <extension point="com.ibm.portal.resourceaggregator.module"
id="jQuery_main_head">
    <module id="jQuery">
        <prereq id="wp_portal"/>
        <contribution type="head">
    <sub-contribution type="js">
        <uri value="res:{rep=WP GlobalThemeConfig;
key=resources.modules.ibm.contextRoot}/jQuery/1.9.0/jquery.min.js" />
        </sub-contribution>
    </contribution>
    </module>
</extension>
<extension point="com.ibm.portal.resourceaggregator.module" id="jQuery_mobile_head">
    <module id="jQueryMobile">
        <prereq id="jQuery"/>
        <contribution type="head">
            <sub-contribution type="css">
                <uri value="res:{rep=WP GlobalThemeConfig;
key=resources.modules.ibm.contextRoot}/jQuery/css/jquery.mobile-
1.2.0.min.css" />
            </sub-contribution>
            <sub-contribution type="js">
                <uri value="res:{rep=WP GlobalThemeConfig;
key=resources.modules.ibm.contextRoot}/jQuery/js/jquery.mobile-1.2.0.min.js" />
            </sub-contribution>
        </contribution>
    </module>
</extension>
</plugin>

```

4. Modify the line:

```

<uri value="res:{rep=WP GlobalThemeConfig;
key=resources.modules.ibm.contextRoot}/jQuery/1.9.0/jquery.min.js" />

```

based on the name of the jQuery js file downloaded.

5. Create a folder called “jQuery” under the directory:

```

<PortalServer_root>/theme/wp.theme.modules/webapp/installedApps/ThemeModules.ear
/ThemeModules.war/.

```

6. Now create the following folders under the “jQuery” folder.

- a. “1.9.0”
- b. “js”
- c. “css”

and a folder “images” under “css” folder.

7. Copy the jquery.min.js file to directory:

```

<PortalServer_root>/theme/wp.theme.modules/webapp/installedApps/ThemeModules.ear
/ThemeModules.war/jQuery/1.9.0/

```

8. Copy the jquery.mobile-1.2.0.min.js file present in the folder extracted from the

jquery.mobile-1.2.0.zip file to the directory:

<PortalServer_root>/theme/wp.theme.modules/webapp/installedApps/ThemeModules.ear/ThemeModules.war/jquery/js folder.

9. Copy the jquery.mobile-1.2.0.min.css file present in the folder extracted from the jquery.mobile-1.2.0.zip file to the directory:
<PortalServer_root>/theme/wp.theme.modules/webapp/installedApps/ThemeModules.ear/ThemeModules.war/jquery/css folder.
10. Copy the images folder downloaded from the jQuery mobile zip file to the directory:
<PortalServer_root>/theme/wp.theme.modules/webapp/installedApps/ThemeModules.ear/ThemeModules.war/jquery/css/images folder.
11. Import the plugin.xml file, which defines the jQuery mobile theme module into a project like, a Java Project project in Rational Application Developer/Eclipse, using File->Import.
12. Export the plugin.xml file as JAR file with name, jquery.jar, using File->Export->Java->JAR.
13. Copy the jquery.jar file to the directory:
"PortalServer_root/theme/wp.theme.modules/webapp/installedApps/ThemeModules.ear/ThemeModules.war/WEB-INF/lib/"

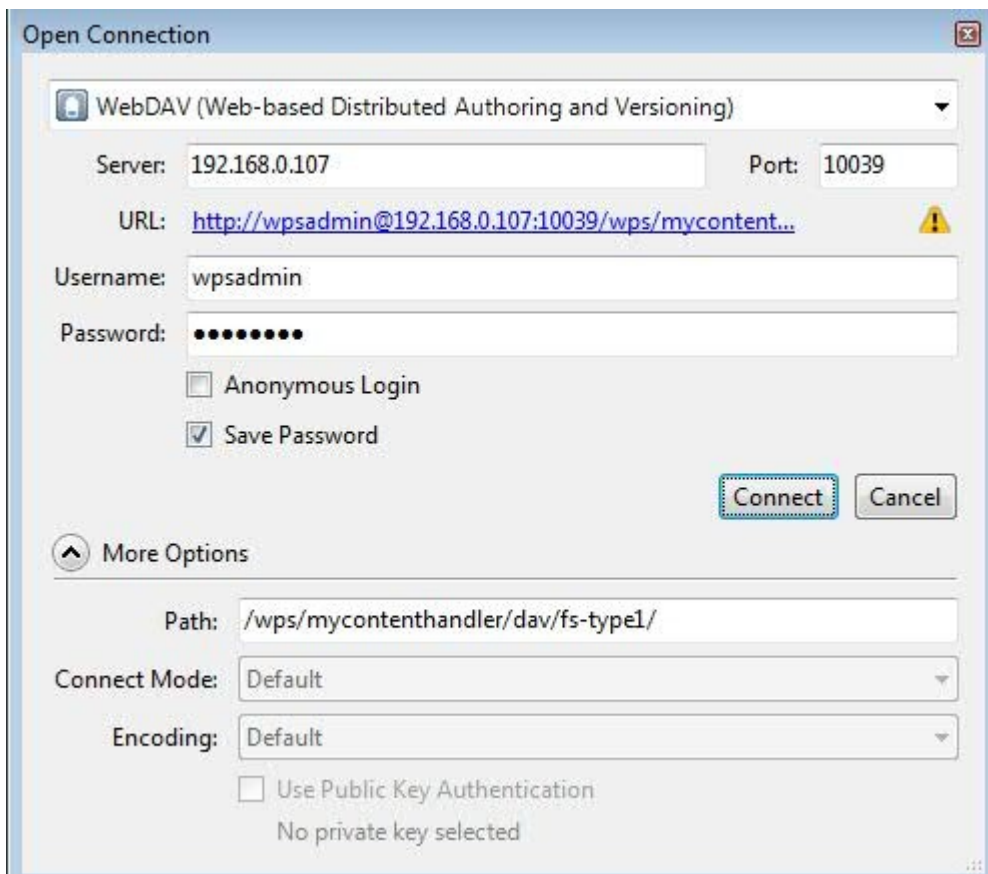
Create jQuery mobile profile

To create jQuery mobile profile:

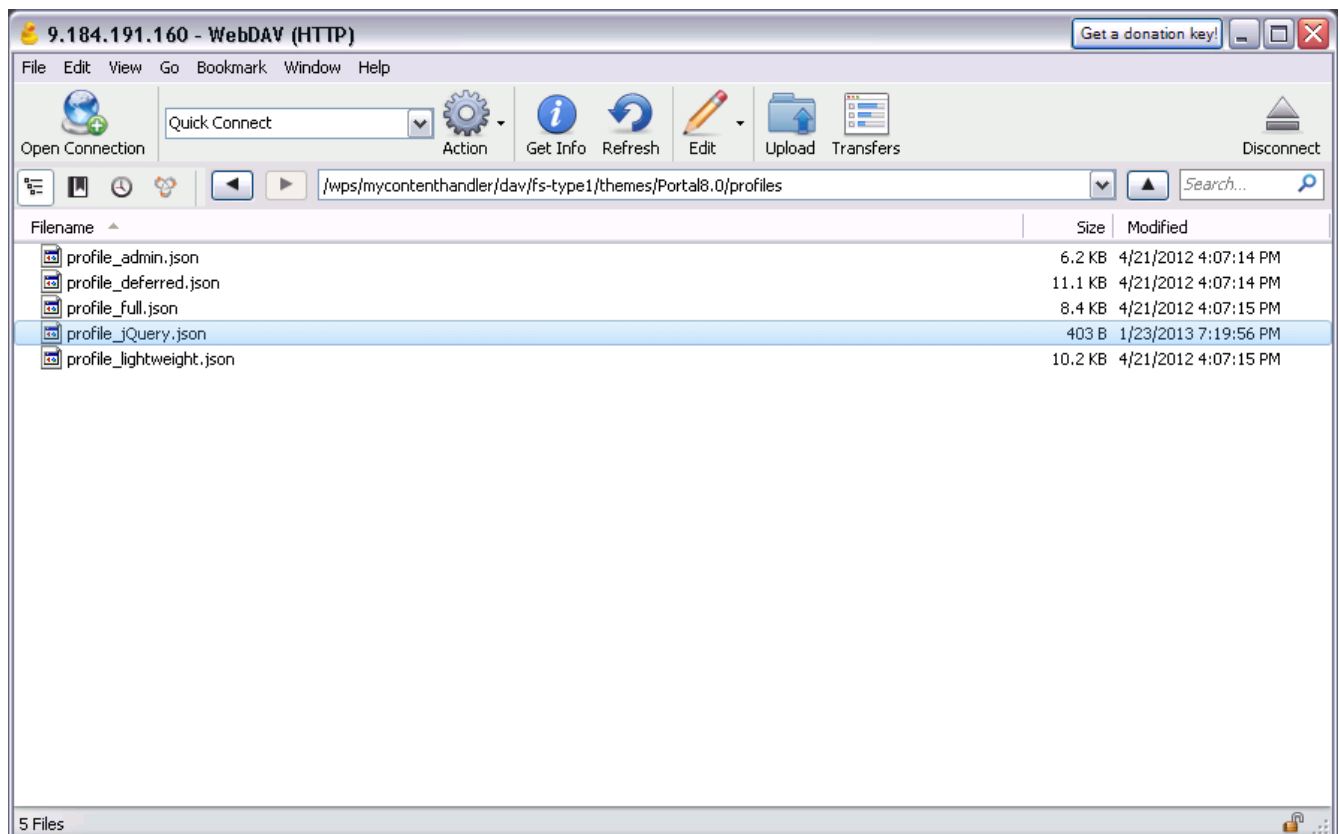
1. Create a file profile_jQuery.json, as follows. Note that "jQuery" and "jQueryMobile" module ids have been added to the list of module ids

```
{  
  "moduleIDs" : [  
    "wp_theme_portal_80",  
    "wp_portlet_css",  
    "wp_one_ui",  
    "wp_one_ui_dijit",  
    "wp_legacy_layouts",  
    "wp_client_ext",  
    "wp_status_bar",  
    "wp_theme_menus",  
    "wp_theme_skin_region",  
    "wp_theme_high_contrast",  
    "wp_layout_windowstates",  
    "jQuery",  
    "jQueryMobile" ]  
}
```

2. Launch the WebDav client, and create a new connection with the entry point to fs-type1 of WebSphere Portal v8.0. This document uses "Cyberduck", the users can use any WebDAV client. The "Server" should point to the IP of the WebSphere Portal Server, and "Port" to the port on which WebSphere Portal Server is installed.
3. Provide the WebSphere Portal admin credentials in "UserName" and "Password" fields as shown in the Cyberduck client. The users would need to provide the details of the WP server as required by the WebDAV client.



4. Save the “profile_jQuery.json” file attached with the document on your local machine. Navigate to the profiles folder under directory fs-type1/themes/Portal80/profiles, and click “Upload” to copy the attached file to WebDAV location. .

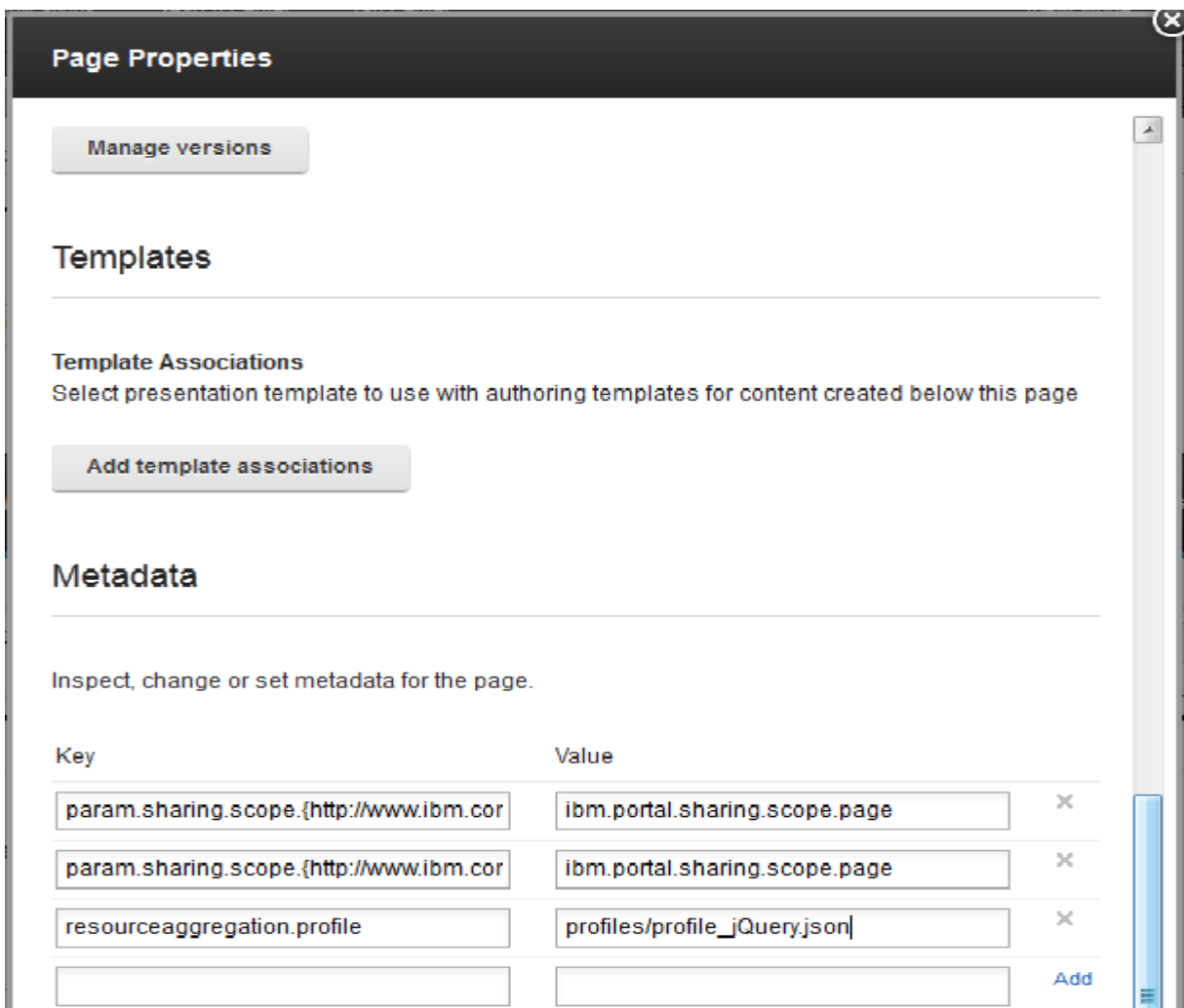


5. Restart the WebSphere Portal Server to apply all these changes.

Apply jQuery profile to a portal page

To apply jQuery profile to a portal page:

1. Go to “Edit mode” on the page on which jQuery profile needs to be applied.
2. Click, Edit->Page Properties->Advanced Options and assign resourceaggregation.profile, value to “profiles/profile_jQuery.json” as shown.



The screenshot shows the 'Page Properties' dialog box in WebSphere Portal. The 'Metadata' section is active, displaying a table of key-value pairs. The table has two columns: 'Key' and 'Value'. There are three rows of data, each with a delete button (X) to its right. The third row shows the key 'resourceaggregation.profile' and the value 'profiles/profile_jQuery.json'. An 'Add' button is located at the bottom right of the table.

Key	Value	
param.sharing.scope.{http://www.ibm.com}	ibm.portal.sharing.scope.page	X
param.sharing.scope.{http://www.ibm.com}	ibm.portal.sharing.scope.page	X
resourceaggregation.profile	profiles/profile_jQuery.json	X
		Add

Conclusion:

After following this document, you can create jQuery mobile theme module and profile with the WebSphere Portal Server, version 8.0 by using the theme optimization framework. You can use jQuery in portlets by placing them on pages on which jQuery mobile theme profile is applied.