

IBM Content Analytics with Enterprise Search
Version 3.0

Integration with WebSphere Portal



Note

Before using this information and the product it supports, read the information in "Notices" on page 23.

This edition applies to version 3, release 0, modification 0 of IBM Content Analytics with Enterprise Search (product number 5724-Z21) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Integration with WebSphere Portal

You can expand the search capabilities of IBM® WebSphere® Portal by integrating IBM Content Analytics with Enterprise Search technology with WebSphere Portal and by configuring WebSphere Portal to use this technology as the default search engine.

OmniFind Enterprise Edition Version 9.1: The information in this document also applies to setting up a portlet for searching search collections in OmniFind Enterprise Edition Version 9.1:

- OmniFind Enterprise Edition Version 9.1 Fix Pack 1 extends support to WebSphere Portal 7.0 and Lotus®Quickr® Services for WebSphere Portal 8.5.
- OmniFind Enterprise Edition Version 9.1 Fix Pack 4 extends support to WebSphere Portal 8.0 with some limitations: You can crawl content on WebSphere Portal 8.0 servers and deploy the search portlet on a WebSphere Portal 8.0 server. However, the stand-alone search application cannot be deployed on WebSphere Application Server 8.0, which is the underlying application server for WebSphere Portal 8.0. To deploy the stand-alone search application, you must use the application server that is embedded in OmniFind Enterprise Edition or WebSphere Application Server 7.0.

Integration points

The IBM Content Analytics with Enterprise Search installation program provides setup scripts for integrating with WebSphere Portal. The script that you run, and the ways that you can integrate, depend on the version of WebSphere Portal that you use.

After you run the setup scripts, IBM Content Analytics with Enterprise Search can integrate with WebSphere Portal in several ways:

Search portlet

WebSphere Portal provides users with a single access point for interacting with applications, content, processes, and people. The WebSphere Portal framework enables new applications, called *portlets*, to be integrated and deployed without affecting other applications in the portal.

IBM Content Analytics with Enterprise Search provides a sample portlet and its source code that you can use to search enterprise search collections. You cannot deploy the content analytics miner as a portlet.

After you deploy the search portlet in WebSphere Portal, you can use the WebSphere Portal interface to query collections and view the results. Through WebSphere Portal configuration settings, you can configure the appearance and operation of the IBM Content Analytics with Enterprise Search portlet in the same way that you configure other portlets.

WebSphere Portal Search Center

The WebSphere Portal Search Center provides a central starting point for searching all sources that are made available for searching through WebSphere Portal. The Search Center and the Universal search portlet enable you to search WebSphere Portal content and other collections that are registered with the Search Center.

When you run the setup scripts to integrate IBM Content Analytics with Enterprise Search with WebSphere Portal, search functions are integrated as a federated service that you can use to query enterprise search collections that are available in the Search Center.

WebSphere Portal Search bar

The upper right corner of all WebSphere Portal interface themes includes a Search bar. The default behavior of this bar is to direct all search requests to the default Search Center search engine. To use the more powerful IBM Content Analytics with Enterprise Search search functions for query processing, you can change this default behavior so that all search requests are redirected to the IBM Content Analytics with Enterprise Search search portlet.

Seed list crawlers

Configure a Seed list crawler to collect documents from WebSphere Portal servers, such as WebSphere Portal sites, IBM Web Content Manager sites, and Quickr for WebSphere Portal documents. After you create a collection in the administration console, you can use the Search portlet or an enterprise search application to search the indexed content. To support document-level security, you must use the Search portlet in WebSphere Portal, not a stand-alone enterprise search application.

The Web Content Management crawler and WebSphere Portal crawler are provided to support migrations from previous versions of IBM Content Analytics with Enterprise Search. When you add a crawler, create a Seed list crawler.

Benefits of integrating

IBM Content Analytics with Enterprise Search enhances the WebSphere Portal search environment by providing support for searching a wider range of data source types. With the provided portlet, you can search websites plus all of the other data source types that are supported by your IBM Content Analytics with Enterprise Search system.

IBM Content Analytics with Enterprise Search also offers benefits in scalability. The Portal Search Engine is useful for small-sized or medium-sized businesses where a single server is sufficient to support the search and retrieval workload. To support enterprise-level capacities, IBM Content Analytics with Enterprise Search can distribute the query processing workload over multiple servers.

Related concepts:

“Preparing to integrate with WebSphere Portal”

“Preparing to integrate with a WebSphere Portal clustered system” on page 15

Related tasks:

“Running the WebSphere Portal integration scripts” on page 3

“Building a custom search portlet for WebSphere Portal” on page 20

Related reference:

 [WebSphere Portal Product Documentation](#)

Preparing to integrate with WebSphere Portal

To integrate IBM Content Analytics with Enterprise Search with IBM WebSphere Portal, you can run setup scripts that are provided with the IBM Content Analytics with Enterprise Search installation program.

You must copy the JAR file that contains the setup scripts for your version of WebSphere Portal from the IBM Content Analytics with Enterprise Search server to the server where WebSphere Portal is installed. The setup scripts:

- Deploy EAR files that enable you to use IBM Content Analytics with Enterprise Search search capabilities within WebSphere Portal and create crawlers for adding content from WebSphere Portal servers to collections.
- Deploy WAR files that are required by the IBM Content Analytics with Enterprise Search portlet.
- Create pages in WebSphere Portal and assign the IBM Content Analytics with Enterprise Search portlet files to those pages.

After you run the scripts, you must use the WebSphere Portal administration interface to update the portlet properties and specify information about the IBM Content Analytics with Enterprise Search search server.

Usage guidelines

Review the following guidelines before you run the setup script:

- The scripts set up all integration points between IBM Content Analytics with Enterprise Search and WebSphere Portal. For example, you cannot selectively install the portlet and not install EAR files.
- The scripts stop and restart WebSphere Portal. You might want to run the scripts after normal working hours to ensure that your user community is not affected by unavailability of portal services.
- If errors occur while the setup script is running, run the setup script again. Tasks that completed successfully during the first attempt might report errors, but the setup process continues and completes the remaining tasks.
- The first time that you access the new IBM Content Analytics with Enterprise Search portlet page after you run the setup script, the page might render slowly because the system must compile Java™ Server Pages (JSP files) for the portlet.

Building a custom portlet

The procedures for integrating IBM Content Analytics with Enterprise Search and WebSphere Portal focus on steps required to use the provided sample enterprise search application as a portlet. You can customize the search functions that you make available to users by editing the configuration file for the application.

If you want even greater control over the look and operation of the portlet, you can build a custom portlet by customizing the sample application code.

Related concepts:

“Integration with WebSphere Portal” on page 1

Related reference:

 [WebSphere Portal Product Documentation](#)

Running the WebSphere Portal integration scripts

IBM Content Analytics with Enterprise Search provides different scripts to integrate with different versions of WebSphere Portal and Lotus Quickr for WebSphere Portal.

The following table lists the files that are required to integrate IBM Content Analytics with Enterprise Search search technology with different versions of WebSphere Portal.

Restriction: Integration with WebSphere Portal 8.0 requires IBM Content Analytics with Enterprise Search Version 3.0 Fix Pack 1 or a later fix pack.

Table 1. WebSphere Portal support matrix

Version	Required JAR file	Setup script	Supported functions
WebSphere Portal 6.1.5	es.wp61.install.jar	wp61_install.bat or wp61_install.sh	Sets up a portlet for searching enterprise search collections. Also supports Search bar and Search Center integrations.
WebSphere Portal 7.0	es.wp70.install.jar	wp70_install.bat or wp70_install.sh	Sets up a portlet for searching enterprise search collections. Also supports Search bar and Search Center integrations.
WebSphere Portal 8.0	es.wp80.install.jar	wp80_install.bat or wp80_install.sh	Sets up a portlet for searching enterprise search collections. Also supports Search bar and Search Center integrations.
Lotus Quickr Services for WebSphere Portal 8.5	es.wp61.install.jar	wp61_install.bat -InstallType quickr or wp61_install.sh -InstallType quickr	Sets up a portlet for searching Lotus Quickr sources.

After you unpack the JAR file for your environment, the following files are extracted:

- ESSearchPortlet.war
- ESPACServer.ear
- esapi.jar
- es.search.provider.jar
- es.security.jar
- Search application source type icons that are used in the search provider results page
- Script, batch, XML, and JACL files that are needed by the installation

To integrate IBM Content Analytics with Enterprise Search with a WebSphere Portal system:

1. Copy the appropriate JAR file from the IBM Content Analytics with Enterprise Search server to the WebSphere Portal server, and then use the Java **JAR** command (or the **unzip** command) to unpack the file.
2. On the WebSphere Portal server, run the script that is appropriate for your environment.

The following example shows options on separate lines for readability; you must specify the options with the command:


```

wp61_install.bat
-WSPProfileDir "C:\\IBM\\WebSphere\\wp_profile"
-WASDir "C:\\IBM\\WebSphere\\AppServer"
-WASUser wpsbind -WASPassword wpsbind
-WPSDir "C:\\IBM\\WebSphere\\PortalServer"
-WPSUser wpsadmin -WSPassword wpsadmin
-WPSHost "portalserver.ibm.com:10040"

```

WSPProfileDir

The fully qualified path for the WebSphere Portal profile directory. The default path is /usr/IBM/WebSphere/wp_profile on AIX® systems, /opt/IBM/WebSphere/wp_profile on Linux systems, and C:\\IBM\\WebSphere\\wp_profile on Windows systems.

WASDir

The fully qualified path for the WebSphere Application Server root directory; required on AIX and Linux systems only. The default root directory path is /usr/IBM/WebSphere/AppServer on AIX systems and /opt/IBM/WebSphere/AppServer on Linux systems.

WASUser

The user name for the WebSphere Application Server administrative user for this installation of WebSphere Portal; required only if global security is enabled in WebSphere Application Server.

WASPassword

The password for the specified WebSphere Application Server administrative user.

WPSDir

The fully qualified path for the WebSphere Portal installation directory.

WPSUser

The user name for the WebSphere Portal administrative user.

WSPPassword

The password for the WebSphere Portal administrative user.

WPSHost

The WebSphere Portal server host name and port number, separated by a colon.

3. After the script completes, configure the following settings to set up the new portlet:
 - a. Log in to WebSphere Portal with the WebSphere Portal administrative user ID and password.
 - b. Click **Administration** in the lower left corner.
 - c. Click **Portlet Management** in the navigation area to the left, and then click **Portlets**.
 - d. Change the **Search by** option to **Title contains**.
 - e. Enter the portlet title in the **Search** field and then click the **Search** button: Search portlet for enterprise search collections.
 - f. After new icons are displayed to the right, click the wrench icon to configure the portlet.
 - g. In the list of portlet parameters, modify the following parameters and save your changes:

hostname

Specify the fully qualified host name of the IBM Content Analytics with Enterprise Search search server.

port Specify the port number used by the IBM Content Analytics with Enterprise Search search server. The default value is 8394.

username
Specify the default IBM Content Analytics with Enterprise Search administrative user ID.

password
Specify the password for the specified administrative user.

protocol
Specify HTTP as the protocol used for communication between WebSphere Portal and the search server.

ssoCookieName
Specify the name of the cookie that contains the single sign-on (SSO) token string. The default value is LtpaToken.

proxyHost
If a proxy server is required to access the search server, specify the fully qualified host name of a proxy server.

proxyPort
If you specified a proxy server, specify the port number for the proxy server.

proxyUser
If the proxy server requires basic authentication, specify a user name to use to log in to the proxy server.

proxyPassword
If you specified a user name for the proxy server, specify the corresponding password.

Related concepts:

“Integration with WebSphere Portal” on page 1

Related tasks:

“Configuring the WebSphere Portal Search Center”

“Configuring the WebSphere Portal Search bar” on page 8

“Setting up the Search portlet for Lotus Quickr” on page 10

“Removing portlets from WebSphere Portal” on page 13

“Building a custom search portlet for WebSphere Portal” on page 20

Related reference:

 [WebSphere Portal Product Documentation](#)

Configuring the WebSphere Portal Search Center

You can configure WebSphere Portal to search enterprise search collections when users submit queries in the WebSphere Portal Search Center.

The Search Center in WebSphere Portal supports federated search capabilities across multiple collections. The collections can contain various types of content, such as pages and portlets. After you run the setup scripts to integrate with WebSphere Portal, you can configure the Search Center to also search IBM Content Analytics with Enterprise Search collections.

Restriction: The ability to search secure collections by using the WebSphere Portal Search Center is not supported. To support document-level security, you must use the Search portlet for enterprise search collections that is deployed when you run the integration script.

To configure the Search Center to support enterprise search collections:

1. Log in to WebSphere Portal with the WebSphere Portal administrative ID and password.
2. Click **Administration** in the lower left corner.
3. Click **Search Administration** in the navigation area to the left, and then click **Manage Search**.
4. Click **Search Services**, and then click **New Search Service**.
5. In the **Search service implementation** field, select the Enterprise Search service, and then type the name that you want to use for the service in the **Service name** text box.
6. In the list of parameters, modify the following parameters and save your changes:

hostname

Specify the fully qualified host name of the IBM Content Analytics with Enterprise Search search server.

port Specify the port number used by the IBM Content Analytics with Enterprise Search search server. The default value is 8394.

appPort

Specify the port number of the application server that IBM Content Analytics with Enterprise Search is configured to use. If you use the embedded web application server, the default port is 8393. If you use WebSphere Application Server, the default port is 9081 or 80.

username

Specify the default IBM Content Analytics with Enterprise Search administrative user ID.

password

Specify the password for the specified administrative user.

protocol

Specify HTTP as the protocol used for communication between WebSphere Portal and the search server.

ssoCookieName

Specify the name of the cookie that contains the single sign-on (SSO) token string. The default value is LtpaToken.

proxyHost

If a proxy server is required to access the search server, specify the fully qualified host name of a proxy server.

proxyPort

If you specified a proxy server, specify the port number for the proxy server.

proxyUser

If the proxy server requires basic authentication, specify a user name to use to log in to the proxy server.

proxyPassword

If you specified a user name for the proxy server, specify the corresponding password.

Related tasks:

“Running the WebSphere Portal integration scripts” on page 3

Related reference:

 [WebSphere Portal Product Documentation](#)

Configuring the WebSphere Portal Search bar

You can configure WebSphere Portal to use IBM Content Analytics with Enterprise Search when users submit queries in the Search bar instead of the default WebSphere Portal search engine.

Before you can redirect search requests to IBM Content Analytics with Enterprise Search, you must run the provided setup script to integrate with WebSphere Portal. You must also update the portlet parameters to identify the host name, port, and other information about the IBM Content Analytics with Enterprise Search search server.

The top-right corner of all WebSphere Portal interface themes includes a Search bar. The default behavior of this bar is to direct all search requests to the Search Center portlet. To use the more powerful IBM Content Analytics with Enterprise Search functions for query processing, you can change this default behavior so that all search requests are redirected to the Search portlet for enterprise search.

When you redirect the Search bar, the change affects pages that use the same WebSphere Portal theme as is used by the search portlet that you deploy. Pages that use a different theme continue to use the default Search Center portlet.

To use the search portlet for enterprise search when users submit queries in the WebSphere Portal Search bar:

1. Back up the file that corresponds to your version of WebSphere Portal and the theme that you want to use for the search portlet. The following table shows the theme names, default paths, and file names for different versions of WebSphere Portal.

Restriction: Integration with WebSphere Portal 8.0 requires IBM Content Analytics with Enterprise Search Version 3.0 Fix Pack 1 or a later fix pack.

Table 2. Default WebSphere Portal themes

Version	Themes	Default Theme Directories	File to be Modified
6.1.5	Tab Menu - Page Builder (default), Portal, and PortalWeb2	Tab Menu: WPS_PROFILE_ROOT/ installedApps/cell_name/ Enhanced_Theme.ear/ wp.theme.enhancedtheme.war/ themes/html/Enhanced Portal and PortalWeb2: WPS_PROFILE_ROOT/ installedApps/cell_name/ wps.ear/wps.war/themes/ html/current_theme_name	Tab Menu: Default.jsp Portal and PortalWeb2: banner_searchControl.jspf

Table 2. Default WebSphere Portal themes (continued)

Version	Themes	Default Theme Directories	File to be Modified
7.0	Page Builder (default) and Portal	Page Builder: WPS_INSTALL_ROOT/theme/ wp.mashup.cc.theme/ installedApps/ wp.mashup.cc.theme.ear/ PageBuilder2.war/themes/ html/PageBuilder2 Portal: WPS_INSTALL_ROOT/ installer/wp.ear/ installableApps/ wps_theme.ear/ wps_theme.war/themes/html/ Portal	Page Builder: search.jsp Portal: banner_searchControl.jspf
8.0	Portal 8.0 (default)	Portal 8.0: WPS_INSTALL_ROOT/theme/ wp.theme.modules/webapp/ installedApps/ ThemeModules.ear/ ThemeModules.war/themes/ html	Portal 8.0: dynamicSpots/modules/search/ search.jsp

2. Edit the file that you just made a backup copy of.
3. Replace all occurrences of `<%wpsURL.write(out);%>` with `/wps/omnifind/portalSearchBar.jsp`.
4. Save your changes and log out of WebSphere Portal.
5. Do the following steps only if you edited the `banner_searchControl.jspf` file:
 - a. Stop WebSphere Portal.
 - b. Force a recompile of the JSP file by deleting the following directory according to your version of WebSphere Portal:
 - 6.1.5: `WPS_PROFILE_ROOT/temp/cell_name/WebSphere_Portal/wps`
 - 7.0: `wps_theme`
 - c. Restart WebSphere Portal.

Example: This example shows a sample modification of the default Page Builder theme in WebSphere Portal Version 7.0. Some lines have been split for readability.

Before:

```
<!-- Renders the search widget in the banner --%>
<div class="lotusSearchContainer">
  <!-- Begin search widget, urlGeneration tag ensures proper access rights as well as generating the URL --%>
  <div id="themeSearchBoxContainer" class="wptheme-searchBoxContainer">
    <portal-navigation:urlGeneration allowRelativeURL="true" contentNode="ibm.portal.Search Center"
      layoutNode="ibm.portal.Search Center Portlet Window" portletParameterType="action">
    <portal-navigation:urlParam name="javax.portlet.action" value="newQuery" type="action"/>
    <div id="themeSearchBox" dojoType="ibm.portal.search.Enhanced.widgets.ScopeSearchWidget"
      displayScopes="false"
      submitUrl="<%wpsURL.write(out);%>"
      resourceBundle="<portal-fmt:out>
      <searchmenu:resourceBundle bundleName="com.ibm.lotus.search.taglib.ScopeSearchWidget"/></portal-fmt:out>"
      sourceContentNode="<searchmenu:currentContentNode/>"
      searchFeedUrl="<searchmenu:generateSearchFeedUrl/>"
      timeStamp="<searchmenu:scopesLastUpdateTime/>">
```

```

    </div>
  </portal-navigation:urlGeneration>
</div>
</div>

```

After:

```

<%-- Renders the search widget in the banner --%>
<div class="lotusSearchContainer">
  <%-- Begin search widget, urlGeneration tag ensures proper access rights as well as generating the URL --%>
  <div id="themeSearchBoxContainer" class="wptheme-searchBoxContainer">
    <portal-navigation:urlGeneration allowRelativeURL="true" contentNode="ibm.portal.Search Center"
      layoutNode="ibm.portal.Search Center Portlet Window" portletParameterType="action">
    <portal-navigation:urlParam name="javax.portlet.action" value="newQuery" type="action"/>
    <div id="themeSearchBox" dojoType="ibm.portal.search.Enhanced.widgets.ScopeSearchWidget"
      displayScopes="false"
      submitUrl="/wps/omnifind/portalsSearchBar.jsp"
      resourceBundle="<portal-fmt:out>
        <searchmenu:resourceBundle bundleName="com.ibm.lotus.search.taglib.ScopeSearchWidget"/></portal-fmt:out>"
      sourceContentNode="<searchmenu:currentContentNode/>"
      searchFeedUrl="<searchmenu:generateSearchFeedUrl/>"
      timeStamp="<searchmenu:scopesLastUpdateTime/>"
    </div>
    </portal-navigation:urlGeneration>
  </div>
</div>
</div>

```

Related tasks:

“Running the WebSphere Portal integration scripts” on page 3

Related reference:

 [WebSphere Portal Product Documentation](#)

Setting up the Search portlet for Lotus Quickr

You can set up the IBM Content Analytics with Enterprise Search search portlet in WebSphere Portal to search Lotus Quickr sources.

Before you can do this procedure, you follow the procedures to set up the search portlet provided by IBM Content Analytics with Enterprise Search in WebSphere Portal. In summary, you must extract files from the `es.wp61.install.jar` file and run the appropriate setup script: **`wp61_install.bat -InstallType quickr`** or **`wp61_install.sh -InstallType quickr`**.

To set up the search portlet to search Lotus Quickr sources:

1. Update the portlet parameters in the WebSphere Portal configuration:
 - a. Log in to WebSphere Portal with the Lotus Quickr administrator ID and password.
 - b. Click **Site Administration** and then click **Advanced Administration**.
 - c. Click **Portlet Management** in the navigation area to the left, and then click **Portlets**.
 - d. Change the **Search by** option to **Title contains**.
 - e. In the **Search** field, type enterprise search and then click the **Search** button.
 - f. After new icons are displayed to the right, click the wrench icon to configure the search portlet for enterprise search.
 - g. In the list of portlet parameters, modify the following parameters and save your changes:

hostname

Specify the fully qualified host name of the IBM Content Analytics with Enterprise Search search server.

port

Specify the port number used by the IBM Content Analytics with Enterprise Search search server. The default value is 8394.

applicationName

Specify Search to connect to an enterprise search collection.

username

Specify the default IBM Content Analytics with Enterprise Search administrative user ID.

password

Specify the password for the specified administrative user.

protocol

Specify HTTP as the protocol used for communication between WebSphere Portal and the search server.

ssoCookieName

Specify the name of the cookie that contains the single sign-on (SSO) token string. The default value is LtpaToken.

proxyHost

If a proxy server is required to access the search server, specify the fully qualified host name of a proxy server.

proxyPort

If you specified a proxy server, specify the port number for the proxy server.

proxyUser

If the proxy server requires basic authentication, specify a user name to use to log in to the proxy server.

proxyPassword

If you specified a user name for the proxy server, specify the corresponding password.

2. To access portlet after you set it up:
 - a. Log in to the Lotus Quickr server.
 - b. In the browser window, change the URL to the following URL:
`http://host_name:port/lotus/myquickr/ESSearchPortlet`

Related tasks:

“Running the WebSphere Portal integration scripts” on page 3

Related reference:

 [WebSphere Portal Product Documentation](#)

Configuring the Lotus Quickr Search bar

You can configure Lotus Quickr servers to use IBM Content Analytics with Enterprise Search when users submit queries in the Search bar instead of the default WebSphere Portal search engine.

Before you can redirect search requests to IBM Content Analytics with Enterprise Search, you must run the provided `qkr85_install` script to integrate with

WebSphere Portal. You must also update the portlet parameters to identify the host name, port, and other information about the IBM Content Analytics with Enterprise Search search server.

The upper right corner of all WebSphere Portal interface themes includes a Search bar. The default behavior of this bar is to direct all search requests to the Search Center portlet. To use the more powerful IBM Content Analytics with Enterprise Search functions for query processing, you can change this default behavior so that all search requests are redirected to the Search portlet for enterprise search.

When you redirect the Search bar, the change affects pages that use the same WebSphere Portal theme as the Search portlet for enterprise search. Pages that use a different theme continue to use the default Search Center portlet.

To use the provided search portlet when users submit queries in the Lotus Quickr Search bar:

- 1.
2. Stop the WebSphere Portal application server instance.
3. On the Lotus Quickr server, change to the `WPS_PROFILE_ROOT/installedApps/cell_name/wps.ear/wps.war/themes/html/current_theme_name` directory, where `cell_name` is the cell name for your WebSphere Portal server and `current_theme_name` is the currently applied theme. The default theme name for a Lotus Quickr server is QPG.
4. Create a backup of the `banner_searchControl.jspf` file by copying this file and renaming it (for example, `banner_searchControl.jspf.BACKUP`).
5. Edit the `banner_searchControl.jspf` file and replace the contents as shown in the following example, where `portal_server_name` and `portal_port` are the host name and port for your WebSphere Portal server.

Before:

```
<form name="searchFromThemeForm"
  style="margin: 0px;"
  method="get"
  onsubmit="return searchSubmitThemeForm(&quot;<portal-fmt:text
  key="search.theme.search.noSearchText" bundle="nls.engine"/&quot;);"
  action="<% wpsURL.write(escapeXmlWriter); %>"
  <table border="0" cellpadding="0" cellspacing="0">
    <tr>
      <td style="padding: 0px; margin:0px;"<!-- nowrap is deprecated,
      use css --%> valign="middle">
        <input type="hidden" name="OCN" value="<%= wpsContentNodeID %>" />
        <input type="hidden" name="clearifblank" value="1" />
        <input type="hidden" name="srchproc" value="" />
        <searchmenu:menu
          scopeFieldName="scope"
          searchFieldName="query"
          output="all"
          uniqueId="searchTheme"
          tabIndex="3"
        />
      </td>
    </tr>
  </table>
</form>
```

After:

```
<form name="searchFromThemeForm"
  style="margin: 0px;"
  method="get"
```



```

onsubmit="return searchSubmitThemeForm(&quot;<portal-fmt:text
key="search.theme.search.noSearchText"
bundle="nls.engine"/>&quot;);"
    action="http://portal_server_name:portal_port
    /lotus/omnifind/portalSearchBar.jsp">
<table border="0" cellpadding="0" cellspacing="0">
<tr>
    ...
<td style="padding: 0px; margin:0px;"<%-- nowrap is deprecated,
use css --%> valign="middle">
    <input type="text" name="q"></input>
</td>
</tr>
</table>
</form>

```

Tip: For the action attribute, you can use "/lotus/omnifind/portalSearchBar.jsp" instead of "http://portal_server_name:portal_port/lotus/omnifind/portalSearchBar.jsp".

6. Open the banner.jspf file and save the file. This step updates the modified date of the file to ensure that the file is recompiled.
7. Open the Default.jsp file and save the file.
8. Change to the WPS_PROFILE_ROOT/installedApps/cell_name/wps.ear/wps.war/omnifind directory, where cell_name is the cell name for your WebSphere Portal server.
9. Create a backup of the portalSearchBar.jsp file by copying the file and renaming it (for example, portalSearchBar.jsp.BACKUP).
10. Edit the portalSearchBar.jsp file and replace the contents as shown in the following example.

Before:

```
String url = ESURLGenerator.generateUrlString("ibm.portal.OmniFindSearch",
"ibm.portal.OmniFindSearch.called", "/myportal", request, response);
```

After:

```
String url = ESURLGenerator.generateUrlString("ibm.portal.OmniFindSearch",
"ibm.portal.OmniFindSearch.called", "/myquickr", request, response);
```

11. Restart the WebSphere Portal application server instance.

Related reference:

[🔗 WebSphere Portal Product Documentation](#)

Removing portlets from WebSphere Portal

When you remove IBM Content Analytics with Enterprise Search from WebSphere Portal, the parameters that you specified for the portlets when you deployed them must be specified again.

To remove IBM Content Analytics with Enterprise Search from WebSphere Portal, run the script that is appropriate for your environment.

Table 3. Scripts for removing portlets from WebSphere Portal

Version	Script
WebSphere Portal 6.1.5	wp61_uninstall.bat or wp61_uninstall.sh
WebSphere Portal 7.0	wp70_uninstall.bat or wp70_uninstall.sh
WebSphere Portal 8.0	wp80_uninstall.bat or wp80_uninstall.sh

Table 3. Scripts for removing portlets from WebSphere Portal (continued)

Version	Script
Lotus Quickr Services for WebSphere Portal 8.5	wp61_uninstall.bat -InstallType quickr or wp61_uninstall.sh -InstallType quickr

When you start the script, the script stops the WebSphere Portal server. After the IBM Content Analytics with Enterprise Search software is removed, the script restarts the WebSphere Portal server.

To remove IBM Content Analytics with Enterprise Search from a WebSphere Portal system:

On the WebSphere Portal server, run the script for your operating system and your version of WebSphere Portal. The following example shows parameters on separate lines for readability; you must specify the parameters with the command:

```
wp61_uninstall.bat
-WSPProfileDir "C:\\IBM\\WebSphere\\wp_profile"
-WASDir "C:\\IBM\\WebSphere\\AppServer"
-WASUser wpsbind -WASPassword wpsbind
-WPSDir "C:\\IBM\\WebSphere\\PortalServer"
-WPSUser wpsadmin -WSPassword wpsadmin
-WPSHost "portalserver.ibm.com:10040"
```

WSPProfileDir

The fully qualified path for the WebSphere Portal profile directory. The default path is /usr/IBM/WebSphere/wp_profile on AIX systems, /opt/IBM/WebSphere/wp_profile on Linux, and C:\IBM\WebSphere\wp_profile on Windows systems.

WASDir

The fully qualified path for the WebSphere Application Server root directory; required on AIX and Linux systems only. The default root directory path is /usr/IBM/WebSphere/AppServer on AIX systems and /opt/IBM/WebSphere/AppServer on Linux systems.

WASUser

The user name for the WebSphere Application Server administrative user for this installation of WebSphere Portal; required only if global security is enabled in WebSphere Application Server.

WASPassword

The password for the specified WebSphere Application Server administrative user.

WPSDir

The fully qualified path for the WebSphere Portal installation directory.

WPSUser

The user name for the WebSphere Portal administrative user.

WSPassword

The password for the specified WebSphere Portal administrative user.

WPSHost

The WebSphere Portal server host name and port number, separated by a colon.

Related tasks:

“Running the WebSphere Portal integration scripts” on page 3

Related reference:

Preparing to integrate with a WebSphere Portal clustered system

To integrate IBM Content Analytics with Enterprise Search with IBM WebSphere Portal clustered systems, you can run setup scripts that are provided with the IBM Content Analytics with Enterprise Search installation program.

You must copy the JAR file that contains the setup scripts for your version of WebSphere Portal from the IBM Content Analytics with Enterprise Search server to the server where WebSphere Portal is installed.

After you run the scripts, you must use the WebSphere Portal administration interface to update the portlet properties and specify information about the IBM Content Analytics with Enterprise Search search server.

Usage guidelines

Review the following guidelines before you run the setup script:

- Ensure that the WebSphere Application Server Network Deployment Manager is running and that all of the nodes in the cluster are running.
- The scripts set up all integration points between IBM Content Analytics with Enterprise Search and WebSphere Portal. For example, you cannot selectively install the portlet and not install EAR files.
- The scripts stop and restart all instances of the WebSphere Portal server in the cluster. You might want to run the scripts after normal working hours to ensure that your user community is not affected by the unavailability of portal services.
- If errors occur while the setup script is running, run the setup script again. Tasks that completed successfully during the first attempt might report errors, but the setup process continues and completes the remaining tasks.
- The first time that you access the IBM Content Analytics with Enterprise Search portlet page after you run the setup script, the page might render slowly because the system must compile Java Server Pages (JSP files) for the portlet.

Related concepts:

“Integration with WebSphere Portal” on page 1

Related tasks:

“Running the WebSphere Portal clustered system integration scripts”

“Removing portlets from a WebSphere Portal clustered system” on page 19

Related reference:

 WebSphere Portal Product Documentation

Running the WebSphere Portal clustered system integration scripts

IBM Content Analytics with Enterprise Search provides different scripts to integrate with different versions of WebSphere Portal clustered systems.

The following table lists the files that are required to integrate IBM Content Analytics with Enterprise Search search technology with WebSphere Portal.

Restriction: Integration with WebSphere Portal 8.0 requires IBM Content Analytics with Enterprise Search Version 3.0 Fix Pack 1 or a later fix pack.

Table 4. WebSphere Portal clustered system support matrix

Supported version	Required JAR file	Setup script	Supported functions
WebSphere Portal 6.1.5	es.wp61.install.jar	wp61_cluster_install.bat or wp61_cluster_install.sh	Sets up a portlet for searching enterprise search collections. Also supports Search bar and Search Center integrations.
WebSphere Portal 7.0	es.wp70.install.jar	wp70_cluster_install.bat or wp70_cluster_install.sh	Sets up a portlet for searching enterprise search collections. Also supports Search bar and Search Center integrations.
WebSphere Portal 8.0	es.wp80.install.jar	wp80_cluster_install.bat or wp80_cluster_install.sh	Sets up a portlet for searching enterprise search collections. Also supports Search bar and Search Center integrations.
Lotus Quickr Services for WebSphere Portal 8.5	es.wp61.install.jar	wp61_cluster_install.bat -InstallType quickr or wp61_cluster_install.sh -InstallType quickr	Sets up a portlet for searching Lotus Quickr sources.

After you unpack the JAR file for your environment, the following files are extracted:

- ESSearchPortlet.war
- ESPACServer.ear
- esapi.jar
- es.search.provider.jar
- es.security.jar
- Search application source type icons that are used in the search provider results page
- Script, batch, XML, and JACL files that are needed by the installation

To integrate IBM Content Analytics with Enterprise Search with a WebSphere Portal clustered system:

1. Copy the appropriate JAR file from the IBM Content Analytics with Enterprise Search server to the WebSphere Portal server, and then use the Java **JAR** command (or the **unzip** command) to unpack the file.
2. On each WebSphere Portal node in the cluster, run the script to copy files that is appropriate for your environment.

The following examples show the options on separate lines for readability; you must specify the options with the command:

```
wp61_cluster_copyFiles.bat
-WPSDir "C:\Program Files\IBM\WebSphere\PortalServer"
-WSPProfileDir "C:\Program Files\IBM\WebSphere\AppServer\profiles\wp_profile"

wp61_cluster_copyFiles.sh
-WASDir /opt/IBM/WebSphere/AppServer
-WPSDir /opt/IBM/WebSphere/PortalServer
-WSPProfileDir /opt/IBM/WebSphere/AppServer/profiles/wp_profile
```

3. On the primary WebSphere Portal node in the cluster, run the script that is appropriate for your environment.

The following example shows options on separate lines for readability; you must specify the options with the command:

```
wp61_cluster_install.bat
-WPSClusterName MyCluster
-WSPProfileDir "C:\\Program Files\\IBM\\WebSphere\\profiles\\wp_profile"
-WASDir "C:\\Program Files\\IBM\\WebSphere\\AppServer"
-WASUser wpsbind
-WASPassword wpsbind
-WPSDir "C:\\Program Files\\IBM\\WebSphere\\PortalServer"
-WPSUser wpsadmin
-WSPassword wpsadmin
-WPSHost "portalserver.ibm.com:10040"
-webServerName webserver1
-webServerNodeName node1
```

WPSClusterName

The name of the cluster in which WebSphere Portal is installed.

WSPProfileDir

The fully qualified path for the WebSphere Portal profile directory. The default path is /usr/IBM/WebSphere/wp_profile on AIX systems, /opt/IBM/WebSphere/wp_profile on Linux systems, and C:\\IBM\\WebSphere\\wp_profile on Windows systems.

WASDir

The fully qualified path for the WebSphere Application Server root directory; required on AIX and Linux systems only. The default root directory path is /usr/IBM/WebSphere/AppServer on AIX systems and /opt/IBM/WebSphere/AppServer on Linux systems.

WASUser

The user name for the WebSphere Application Server administrative user for this installation of WebSphere Portal; required only if global security is enabled in WebSphere Application Server.

WASPassword

The password for the specified WebSphere Application Server administrative user.

WPSDir

The fully qualified path for the WebSphere Portal installation directory.

WPSUser

The user name for the WebSphere Portal administrative user.

WSPPassword

The password for the WebSphere Portal administrative user.

WPSHost

The WebSphere Portal server host name and port number, separated by a colon.

webServerName

The name of the web server definition to which WebSphere Portal belongs.

webServerNodeName

The name of the WebSphere Application Server node to which the Web server definition belongs.

4. After the script completes, open a web browser and log in to the WebSphere Application Server administration console on your Network Deployment server. The address is typically `http://hostname:9060/ibm/console`.
5. Expand the **Servers** section and select **Web servers**.
6. Select the **Select** box next to your web server and then click the **Generate Plug-in** button.

7. Select the **Select** box next to your web server and then click the **Propagate Plug-in** button.
8. Log out of the administration console.
9. Configure the following settings to set up the new portlet or portlets:
 - a. Log in to WebSphere Portal with the WebSphere Portal administrative user ID and password.
 - b. Click **Administration** in the lower left corner.
 - c. Click **Portlet Management** in the navigation area to the left, and then click **Portlets**.
 - d. Change the **Search by** option to **Title contains**.
 - e. Enter the portlet title in the **Search** field and then click the **Search** button: Search portlet for enterprise search collections.
 - f. After new icons are displayed to the right, click the wrench icon to configure the portlet.
 - g. In the list of portlet parameters, modify the following parameters and save your changes:

hostname

Specify the fully qualified host name of the IBM Content Analytics with Enterprise Search search server.

port

Specify the port number used by the IBM Content Analytics with Enterprise Search search server. The default value is 8394.

username

Specify the user name for the default IBM Content Analytics with Enterprise Search administrative user.

password

The password for the specified administrative user.

protocol

Specify HTTP as the protocol used for communication between WebSphere Portal and the search server.

ssoCookieName

Specify the name of the cookie that contains the single sign-on (SSO) token string. The default value is LtpaToken.

proxyHost

If a proxy server is required to access the search server, specify the fully qualified host name of a proxy server.

proxyPort

If you specified a proxy server, specify the port number for the proxy server.

proxyUser

If the proxy server requires basic authentication, specify a user name to use to log in to the proxy server.

proxyPassword

If you specified a user name for the proxy server, specify the corresponding password.

Related concepts:

“Preparing to integrate with a WebSphere Portal clustered system” on page 15

Related tasks:

“Building a custom search portlet for WebSphere Portal” on page 20

Related reference:

 [WebSphere Portal Product Documentation](#)

Removing portlets from a WebSphere Portal clustered system

When you remove IBM Content Analytics with Enterprise Search from a WebSphere Portal clustered system, the parameters that you specified for the portlets when you deployed them must be specified again.

To remove IBM Content Analytics with Enterprise Search from a WebSphere Portal clustered system, run the script that is appropriate for your environment.

Table 5. Scripts for removing portlets from a WebSphere Portal clustered system

Version	Script
WebSphere Portal 6.1.5	wp61_cluster_uninstall.bat or wp61_cluster_uninstall.sh
WebSphere Portal 7.0	wp70_cluster_uninstall.bat or wp70_cluster_uninstall.sh
WebSphere Portal 8.0	wp80_cluster_uninstall.bat or wp80_cluster_uninstall.sh
Lotus Quickr Services for WebSphere Portal 8.5	wp61_cluster_uninstall.bat -InstallType quickr or wp61_cluster_uninstall.sh -InstallType quickr

When you start the script, the script stops the WebSphere Portal server. After the IBM Content Analytics with Enterprise Search software is removed, the script restarts the WebSphere Portal server.

To remove IBM Content Analytics with Enterprise Search from a WebSphere Portal clustered system:

1. On the primary WebSphere Portal node in the cluster, run the script that is appropriate for your environment.

The following example shows parameters on separate lines for readability; you must specify the parameters with the command:

```
wp61_cluster_uninstall.bat
-WPSClusterName MyCluster
-WSPProfileDir "C:\Program Files\IBM\WebSphere\profiles\wp_profile"
-WASDir "C:\Program Files\IBM\WebSphere\AppServer"
-WASUser wpsbind
-WASPassword wpsbind
-WPSDir "C:\Program Files\IBM\WebSphere\PortalServer"
-WPSUser wpsadmin
-WSPassword wpsadmin
-WPSHost "portalserver.ibm.com:10040"
-webServerName webserver1
-webServerNodeName node1
```

WPSClusterName

The name of the cluster in which WebSphere Portal is installed.

WSPProfileDir

The fully qualified path for the WebSphere Portal profile directory. The default path is /usr/IBM/WebSphere/wp_profile on AIX systems, /opt/IBM/WebSphere/wp_profile on Linux systems, and C:\IBM\WebSphere\wp_profile on Windows systems.

WASDir

The fully qualified path for the WebSphere Application Server root directory; required on AIX and Linux systems only. The default root directory path is /usr/IBM/WebSphere/AppServer on AIX systems and /opt/IBM/WebSphere/AppServer on Linux systems.

WASUser

The user name for the WebSphere Application Server administrative user for this installation of WebSphere Portal; required only if global security is enabled in WebSphere Application Server.

WASPassword

The password for the specified WebSphere Application Server administrative user.

WPSDir

The fully qualified path for the WebSphere Portal installation directory.

WPSUser

The user name for the WebSphere Portal administrative user.

WPSPassword

The password for the specified WebSphere Portal administrative user.

WPSHost

The WebSphere Portal server host name and port number, separated by a colon.

webServerName

The name of the web server definition to which WebSphere Portal belongs.

webServerNodeName

The name of the WebSphere Application Server node to which the Web server definition belongs.

2. After the script completes, open a web browser and log in to the WebSphere Application Server administration console on your Network Deployment server. The address is typically `http://hostname:9060/ibm/console`.
3. Expand the **Servers** section and select **Web servers**.
4. Select the **Select** box next to your web server and then click the **Generate Plug-in** button.
5. Select the **Select** box next to your Web server and then click the **Propagate Plug-in** button.
6. Log out of the administration console.

Related concepts:

“Preparing to integrate with a WebSphere Portal clustered system” on page 15

Related reference:

 [WebSphere Portal Product Documentation](#)

Building a custom search portlet for WebSphere Portal

If you run the sample enterprise search application as a portlet, you can customize the functions that you expose to your users by editing the configuration file for the application. In some cases, however, you might want even greater control over the look and operation of the portlet. If so, you can build a custom portlet by customizing the sample application code.

Requirements: Ensure that the following prerequisite packages are properly installed:

- Java 6 Software Development Kit (IBMJDK6).
- Apache Ant (version 1.8.2 or later).
- Dojo ShrinkSafe 1.3.x. This package is optional, but required if you want to compress JavaScript files for better performance. To install this package:

1. Download `dojo-release-1.3.3-shrinksafe.zip` from the Dojo downloads site.
2. Copy this file to the `ES_INSTALL_ROOT/samples/search/resource/` directory and rename the file to `Shrinksafe.zip`. The file name is case-sensitive.
3. Open the `samples/search/build.xml` file with a text editor and insert the following lines at line number 316 (below the `</unzip>` end tag) and save the file.

```
<copy todir="${dojo.dir}/util/shrinksafe" flatten="true">
  <fileset dir="${dojo.dir}">
    <include name="**/shrinksafe.jar" />
    <include name="**/js.jar" />
  </fileset>
</copy>
```

To build a custom search portlet:

1. Customize sample sources in the `ES_INSTALL_ROOT/samples/search` directory.
2. Go to the `ES_INSTALL_ROOT/samples/search` directory. For example, on Windows, open a command window and enter the command `cd %ES_INSTALL_ROOT%/samples/search`.
3. Run the `ant` command. Enter `ant` or, if you want to compress JavaScript files for improved performance, enter `ant all_with_dojo_compress`. After the command completes, the following compiled artifacts are created in the `samples/search/bin` directory:
 - `search` directory, which contains deployable sources for the embedded application server
 - `search.ear` file, which is for WebSphere Application Server
 - `searchportlet.war`, which is for WebSphere Portal
4. Do the following steps if you did not previously install the search portlet into WebSphere Portal. For information about the JAR file to use for your environment and your version of WebSphere Portal, and for instructions on running the appropriate script, see the procedures about running the WebSphere Portal integration scripts.
 - a. Extract the contents of the `es.wp61.install.jar` file or `es.wp70.install.jar` file.
 - b. Replace the extracted `searchportlet.war` file with the new file that you created.
 - c. Run the integration script for your version of WebSphere Portal.
5. Do the following steps if you previously installed the search portlet into WebSphere Portal:
 - a. Log in to WebSphere Portal with the WebSphere Portal administrative user ID and password.
 - b. Click **Administration** in the lower left corner.
 - c. Click **Portlet Management** in the navigation area to the left, and then click **Web Modules**.
 - d. Enter `search` in the **Search** box and click **Search**.
 - e. After the list of web modules is narrowed, locate the `searchportlet.war` entry and click the associated **Update Web Module** button.
 - f. Specify your new `searchportlet.war` file to replace the installed one, click **Next**, and then click **Finish**.

Related concepts:

“Integration with WebSphere Portal” on page 1

Related tasks:

“Running the WebSphere Portal integration scripts” on page 3

“Running the WebSphere Portal clustered system integration scripts” on page 15

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