

Oracle® Enterprise Repository

IBM® Rational® ClearCase® and IBM Rational ClearQuest®
Integration Guide

10g Release 3 (10.3)

July 2009

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Oracle Enterprise Repository

Connector for IBM® Rational ClearCase® and IBM® Rational ClearQuest®

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ClearCase Integration: ClearCase Web Interface

Overview

This document explains the proper procedure to follow in order to setup a ClearCase repository, which will allow ClearCase files to be linked to assets for future use/download.

Important Note

Webshpere 5.x Apache Plug-In

When using an HTTP server (such as Apache, IIS, IBM HTTP Server, etc.) to connect to a Websphere 5.x server using the **mod_was_ap20_http.so** or **mod_was_ap20_http.dll** plug-in, a configuration change must be applied to the **plugin-cfg.xml** document used with this connector:

- Each time the *crtplugininst* application is run to regenerate the **plugin-cfg.xml** document for use on the HTTP server(s) the **Config** element will contain a value of **AcceptAllContent="false"** by default. This parameter will need to be changed to true to allow *deltaV* requests to be passed between the HTTP Server and the Websphere application server hosting the Oracle Enterprise Repository. This restriction only applies to an HTTP server using the Websphere plug-in to connect the two servers.

WebLogic 8.1 Tuxedo Plug-In

When using the Weblogic Tuxedo Plugin, there is a requirement of 8.1 SP3 being applied to both the application server as well as the Tuxedo Plug-In on the Apache server. This required feature was applied with change request #CR084303.

Prerequisites/Requirements

- The application server must support the UTF-8 character set to allow ClearCase and Oracle Enterprise Repository to function properly together.
- Make sure the application server has access to the ClearCase server.
- CCWeb and/or ClearTool must be installed and enabled on the application server machine (see your ClearCase documentation for details).

Enabling UTF-8 Support

Enabling the UTF-8 character set is accomplished in the following manners based on the server employed.

- **Weblogic 7.x/8.x**
 - You may specify the character set for all deployed Weblogic Web applications deployed on a Weblogic Server instance by setting the system properties *client.encoding.override* and *file.encoding* equal to the

name of the character set. Set this system property in the environment variable called JAVA_OPTIONS. For example: **JAVA_OPTIONS=-Dclient.encoding.override=UTF-8 -Dfile.encoding=UTF-8** These values can also be supplied as part of the startup options for the domain.

- **Websphere 5.x**

- Change the Generic JVM Arguments for the server to include the following parameter: **-Dclient.encoding.override=UTF-8**

- **Tomcat 5.0.25**

- Change the URLEncoder value in the Connector element within the *server.xml* file in the CATALINA_HOME/conf directory:

```
<Connector port="8080" URLEncoder="UTF-8" ...
```

Note: *The ability to browse into the ClearCase server and view files/directory structure/etc. from within the Oracle Enterprise Repository application is provided via [Files Stores](#) integration.*

Important Notes

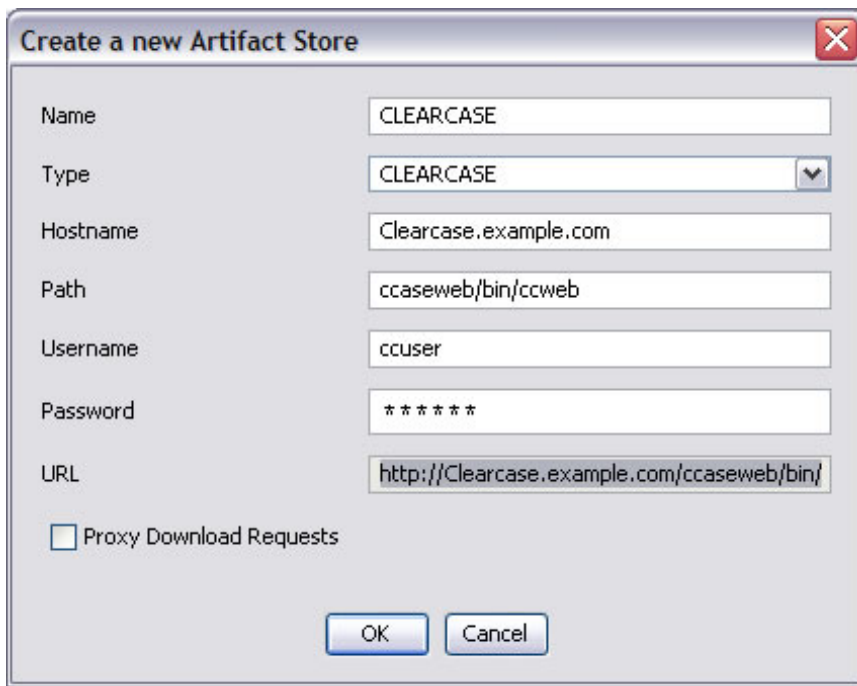
1. Construct a view in CCWeb.
2. Create the link based on that view constructed in CCWeb.
3. Add the link within the **File Information** section of the asset within the **Asset Editor**.
4. Select the **Test** button to verify that the link is valid.
5. It should also be possible to access the link by pasting the URL into a browser address window. If this is not possible the link itself may be in error, or there may be a problem with the network connection to the ClearCase server.

Creating and Configuring Repository and Assets

Configure an Artifact Store

This procedure is performed in the Oracle Enterprise Repository **Asset Editor** screen.

1. Open the **Actions** menu.
2. Click **Configure Artifact Store**
3. Click **Add**
4. Fill in the appropriate information.



Create a new Artifact Store

Name: CLEARCASE

Type: CLEARCASE

Hostname: Clearcase.example.com

Path: ccaseweb/bin/ccweb

Username: ccuser

Password: *****

URL: http://Clearcase.example.com/ccaseweb/bin/

☐ Proxy Download Requests


OK Cancel

5. Click **OK**

Set the artifact store from which to extract files

This procedure is performed on the Oracle Enterprise Repository **Admin** screen.

1. Click **System Settings**.
2. Enter `cmee.server.paths.upload-repository` in the **Search** box.



Search

Clear

The **Upload Area** group within the **Server Settings** section will open.



Upload Area

Submission Upload Directory
cmee.server.paths.upload
The directory used to store files uploaded during asset submission. If left blank, users will not be able to upload files (This will not affect their ability to link to files).

Registrar Submission Upload Path
cmee.server.paths.upload-registrar
The path for Asset Editor browsing. Usually a UNC path which allows direct access to the submission upload directory.

Submission Upload Artifact Store
cmee.server.paths.upload-repository
None
Artifact store which allows direct public access to the submitted files. Used for one-step acceptance of submitted files in the Asset Editor.

3. Use the **Submission Upload Artifact Store** drop-down menu to select the **ClearCase** repository.
4. Click **Save** when finished.

Create an asset for the ClearCase file(s)

1. Click **Submit an Asset** on the Oracle Enterprise Repository **Assets** screen.

- New assets may also be created via the **File** menu in the **Asset Editor**.
2. Select an **Asset Type** from the drop-down menu.
 3. Enter a name for the new asset in the **Name** text box.
 4. Enter a brief description in the **Description** field.

Note: The asset detail will not appear on Oracle Enterprise Repository **Assets** screen until the registration process is completed.

Link the ClearCase file to the asset

1. Open the asset in the **Asset Editor**.
2. Locate the **File Information** section (typically on the **General** tab).
3. Click **Add**.
4. Create a name and/or description.
5. Click **Edit**.
6. Select the **Repository File** radio button.

Edit URL

☒ Artifact Store File

Store: CLEARCASE

Path: http://Clearcase.example.com/ccaseweb/bin/

File Name: /usr/vobs/general/test.txt [Browse] [View]

☐ External File

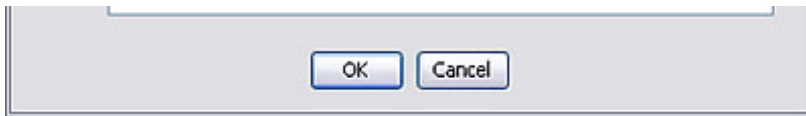
URL: [] [Test]

Note: Use an absolute URL including the protocol, for example "http://"

☐ Text File

Type: Select a type...

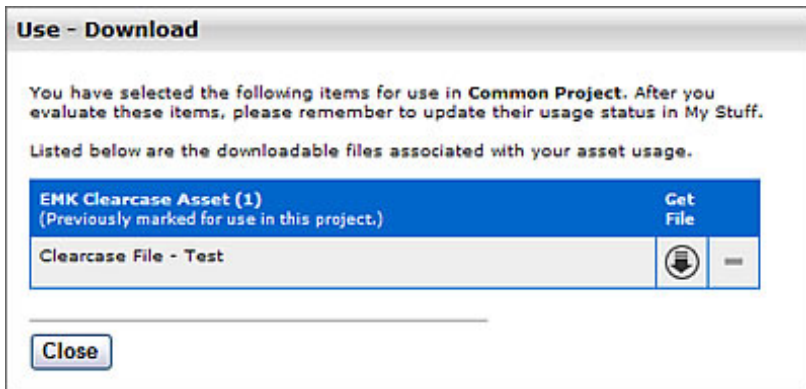
File: []



7. Select **ClearCase** in the **Host** drop-down.
 - The path should populate with information configured in artifact store section:
 - `http://clearcase.example.com/ccaseweb/bin/ccweb/test.txt?dir=//usr/vobs/geneva&elem=test.txt&cmd=view&user=ccuser&password=ccuser`
8. Populate the file name field with the path of the view from CCWeb and the file name.
9. Click **View** to test the file.

Extract the asset and the ClearCase file(s)

1. On the Oracle Enterprise Repository **Assets** screen, use **Search** to locate the newly created asset.
2. Click the asset to open its Asset Detail Display.
3. Click **Use/Download**.



(ClearCase files should be available for download along with the asset.)

ClearCase Integration: File Stores

File Stores allow Oracle Enterprise Repository to integrate with underlying proprietary repositories. File Stores allow integration with Rational ClearCase.

The File Store integration with Rational ClearCase allows an asset registrar to browse the ClearCase Repository. The registrar can select a specific branch and version of a file to be used when the asset is extracted. In addition, the config spec for a file can be made available for use with WSAD or XDE.

The Rational ClearCase client must be installed and configured on the application server in order to use File Stores with Rational ClearCase. All connections to ClearCase use the ClearTool application in the ClearCase client and share a common set of ClearCase authentication credentials.

Adding the File Stores Feature to Oracle Enterprise Repository

1. Download the Oracle Enterprise Repository installation package from the Oracle download website.
2. Unzip the downloaded file to a temporary directory.
3. Using a SQL tool appropriate for your database, run the SQL script located in the temporary directory to add the **File Store Artifact Store** to your Oracle Enterprise Repository database.
4. Click the **Admin** link on the Oracle Enterprise Repository menu bar.
5. On the **Admin** screen, click **System Settings**.
6. Enable the property *registry.advanced.filestores.enabled*. A new section called **File Store** will appear, to which the application will automatically navigate.

7. Set *Advanced Access File Stores* = *true*.
8. Click **Save**.
9. Refresh the **Admin** screen to make the File Store section appear in the list on the left, before **Basic Access Settings**.

Creating a File Store

1. Download the Clearcase Zip file for Oracle Enterprise Repository from the Oracle Downloads page at <http://www.oracle.com/bea/index.html>.
2. Install the Rational ClearCase client on the application server hosting Oracle Enterprise Repository.
3. Locate the **cleartool.exe** file on the application server. The entire file path to `cleartool.exe` will be necessary. It will be used with a File Store parameter called **cleartool.path**.
4. In the ClearCase client on the application server, create a view to be used by Oracle Enterprise Repository. A recommended practice is to include the word *Flashline* in the name of the view. The access path for the view will be used with a File Store parameter called **view.dir**.
5. Mount all desired ClearCase VOBs to the created view. Each VOB will require the creation of a different File Store. The name of the VOB will be the beginning of a File Store parameter called **vob.path**.
6. Locate a temporary directory on the application server. The full path to the temporary directory will be used with a File Store parameter called **tmp.dir**.
7. Click the **Admin** link in the Oracle Enterprise Repository menu bar.
8. On the **Admin** screen, locate the **File Stores** section.
9. Click **Create New** to create a new **File Store**.

The **Create New File Store** dialog box opens.

Create New File Store

Overview

Name:

Store Path:

Store Type:

Parameters:

tmp.dir:	<input type="text" value="C:\Program Files\Rational\ClearCase\bin\cleartool.exe"/>
cleartool.path:	<input type="text" value="VOBNAME"/>
view.dir:	<input type="text" value="W:\"/>
vob.path:	<input type="text" value="c:\temp"/>

10. Populate the fields with the following parameters:

- **Name** -- specify a representative name for the ClearCase VOB referenced by the File Store. The CC prefix is recommended to indicate that the File Store is of type ClearCase. Recommended protocol for the File Store name is **CC_VOBNAME**.
- **Store Path** enter */cc/store01* for the first ClearCase File Store, */cc/store02* for the second ClearCase File Store, and so on. The **Store Path** field is a symbolic path in Oracle Enterprise Repository. All File Stores use a common URL for file extraction. The Store Path appears in the URL, indicating which File Store hosts the integration to the actual content. The Store Path must be unique across all File Stores. The construction */cc/store01* is recommended.
- **Store Type** -- select ClearCase from the list.
- *cleartool.path* -- enter the entire file path to the **cleartool.exe** file on the application server.
- *vob.path* -- enter the name of the ClearCase VOB mounted in the view on the application server.
- *view.dir* -- enter the access path for the ClearCase view on the application server.

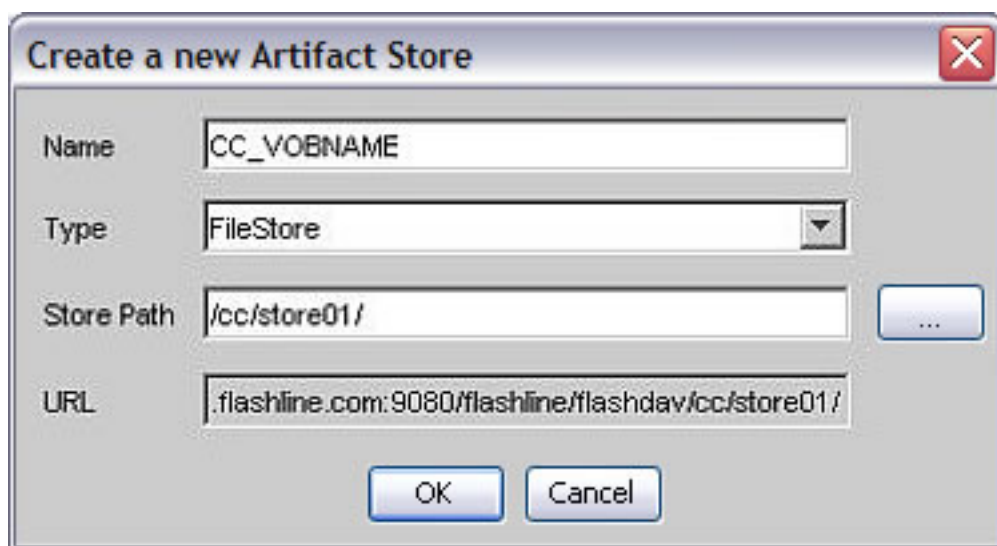
- *tmp.dir* -- enter the temporary directory on the application server.
11. Click the **Test Connection** button to test the connection to the ClearCase client. If the connection is properly configured, then the message *Test Succeeded* will appear.
 12. Click the **Save** button to save the File Store for use with Artifact Stores.

Configuring an Artifact Store For a File Store

This procedure is performed in the **Asset Editor** screen.

1. Select **Configure Artifact Stores** on the **Actions** menu.
2. In the **Configure Artifact Stores** dialog box, click **Add**.

The **Create a new Artifact Store** pop-up opens.



3. Enter a name for the artifact store. **CC_VOBNAME** is the recommended protocol.
4. In the **Type** list, select **FileStore** as the Artifact Store type.
 - FileStore accesses the list of File Stores created on the Oracle Enterprise Repository **Admin** screen.
5. Enter a **Store Path** by clicking on the **Elipses** button (next to the **Store Path** field) and selecting the name of the File Store to be used by this Artifact Store.

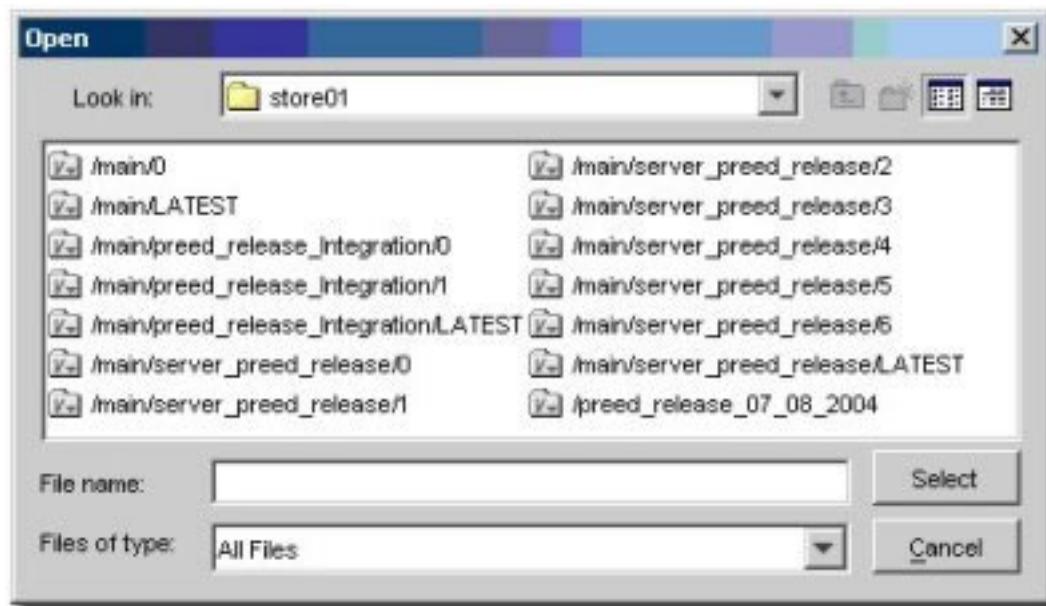
6. When finished, click **OK**.

A separate Artifact Store must be created for each File Store.

Adding a File to an Asset Using the File Store's Artifact Store

This procedure is performed in the **Asset Editor**.

1. Select the asset to which the file is to be added.
2. Click the **Add** button in the **File Information** section on the **Overview** tab.
3. In the dialog box enter a name (and description, if necessary).
4. Click **Edit**.
5. In the **Edit URL** dialog box, click the **Artifact Store File** option button.
6. From the **Store** list, select the repository for the File Store (CC_VOBNAME).
7. Next to the **File Name** box, browse the ClearCase repository.
8. When browsing, the top level will be the branches in the VOB. Select a branch. The branchname format is **Branchname/Version**. The version LATEST refers to the information that is currently checked in. Generally the highest number before LATEST is the desired version. In the image below, */main/server_preed_release/6* is version six of the branch */main/server_preed_release*. The name in the folder area (**store01**) refers to the Store Path for the designated File Store.



9. The second level displays the folders within the selected **Branchname/Version** pair.
10. The third level displays the versions of the selected folder.
11. Subsequently, every selected folder will be followed by a desired version. The last two browsed levels will be:
 1. The selected filename
 2. The version of that file
12. The **Select** button will populate the **File Name** field on the Edit URL window.
13. Click **View** to test the URL.

Using File Stores

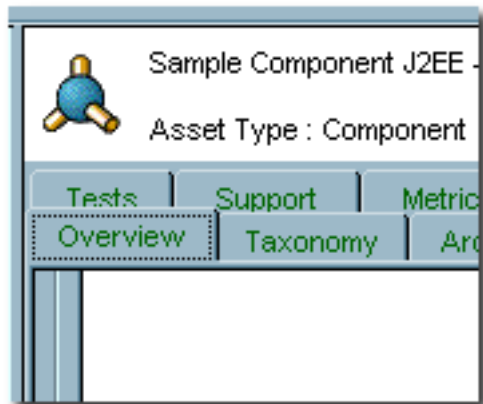
Overview

A **File Store** allows the user to see all versions of all files contained in the store. At this time **File Stores** work only with ClearCase.

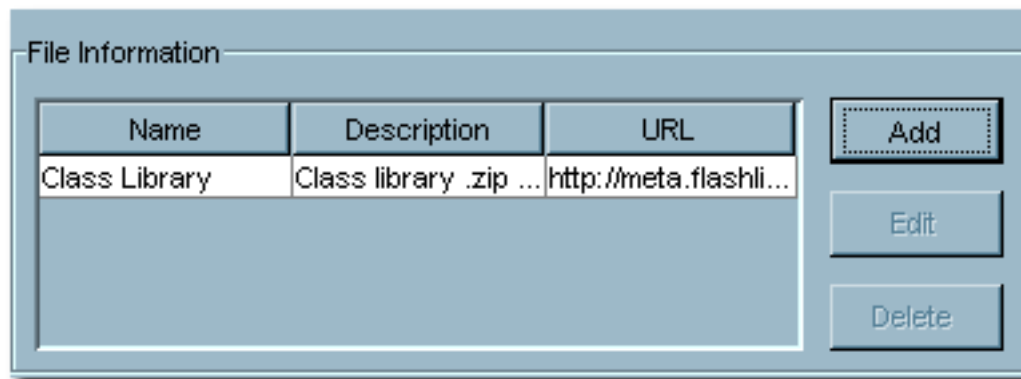
Viewing a File in a Store

This procedure is performed in the **Asset Editor** screen.

1. Select an asset.
2. Click the **Overview** tab.



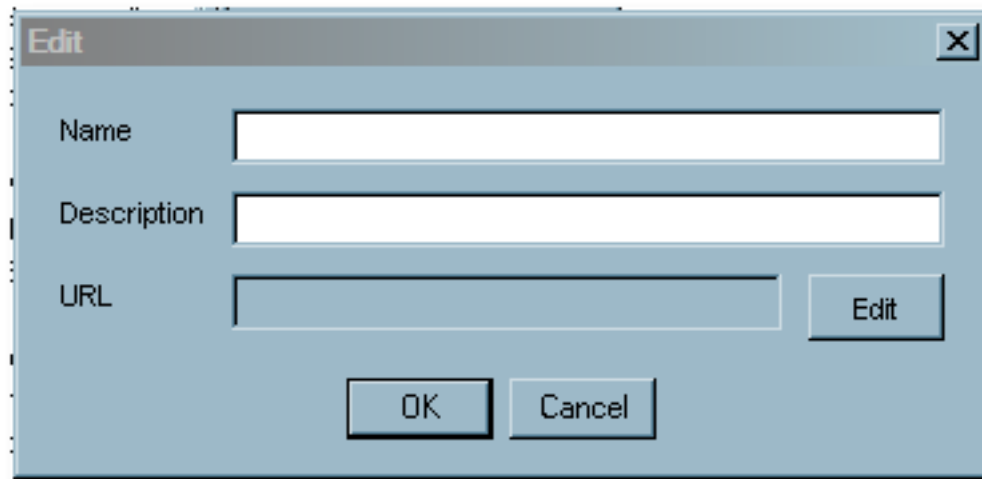
3. Click **Add** in the **File Information** section.



The 'File Information' dialog box contains a table with three columns: Name, Description, and URL. The first row of the table has the following data: 'Class Library' in the Name column, 'Class library .zip ...' in the Description column, and 'http://meta.flashli...' in the URL column. To the right of the table are three buttons: 'Add' (with a dashed border), 'Edit', and 'Delete'.

Name	Description	URL
Class Library	Class library .zip ...	http://meta.flashli...

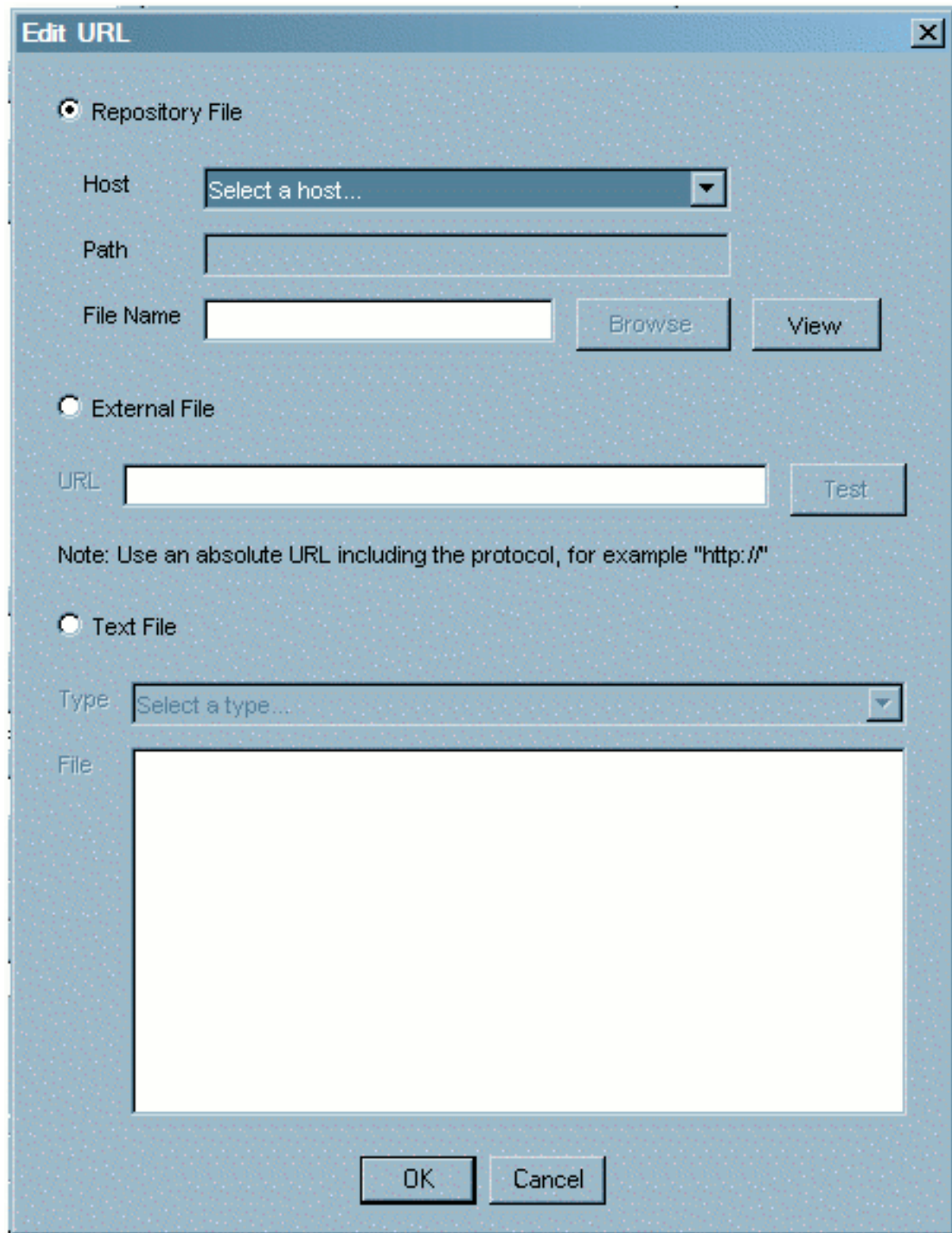
The **Edit** pop-up opens.



The 'Edit' dialog box features three input fields labeled 'Name', 'Description', and 'URL'. The 'Name' and 'Description' fields are text boxes, while the 'URL' field is a text box with a small 'Edit' button to its right. At the bottom of the dialog are 'OK' and 'Cancel' buttons. A close button (X) is located in the top right corner.

4. Click the **Edit** button in the **Edit** pop-up.

The **Edit URL** pop-up opens.



The image shows a dialog box titled "Edit URL" with a close button (X) in the top right corner. It contains three radio buttons for selection: "Repository File" (which is selected), "External File", and "Text File".

Under "Repository File", there are three input fields: "Host" (a drop-down menu showing "Select a host..."), "Path" (a text box), and "File Name" (a text box). To the right of the "File Name" field are two buttons: "Browse" and "View".

Under "External File", there is a "URL" text box and a "Test" button.

Below the "External File" section is a note: "Note: Use an absolute URL including the protocol, for example 'http://'".

Under "Text File", there is a "Type" drop-down menu showing "Select a type..." and a large "File" text area.

At the bottom of the dialog box are "OK" and "Cancel" buttons.

5. In the **Edit URL** dialog box, select **Repository File**.
6. Select a file store from the **Host** drop-down list.
7. Click **Browse** to locate a file, or enter the filename in the **File Name** text box.
8. Click **View** to view the file.

9. Click **OK** when finished.

ClearQuest Integration

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ClearQuest Integration

Integrating **ClearCase/ClearQuest** with your system enables you to use a **ClearCase/ClearQuest** store in Oracle Enterprise Repository. Typically, an URL used to reach a file in ClearCase resembles the following:

- `http://server.host.com:port/clearcasePath/fileName?dir=vobStructure&elem=fileName&cmd=view&user=username&password=password`

Adding ClearQuest

To add ClearCase/ClearQuest to your instance of Oracle Enterprise Repository:

1. Download the Oracle Enterprise Repository installation package (`clearquest.zip`) from the Oracle download site.
2. Unzip the download file to a temporary directory.
3. Using a SQL tool appropriate for your database, run the SQL script located in the temporary directory to add **ClearQuest** to your Oracle Enterprise Repository database.
4. Restart the application server.

Configuring a ClearQuest Artifact Store

1. Click the **Assets** link in the Oracle Enterprise Repository menu bar.

2. On the **Assets** screen, click **Edit/Manage Assets** to launch the **Asset Editor**.
3. Open the **Actions** menu.
4. Click **Configure Artifact Stores**.
5. In the **Configure Artifact Stores** dialog box, click **Add**.
6. On the **Create a new Artifact Store** screen, enter a name for the artifact store file.
 - (Recommended: **ClearQuest**.)
7. In the Type list, select **ClearQuest**.
 - Accesses the ClearQuest web interface.
8. Enter a hostname for the server.
9. For the Path, enter: `logon/url/default.asp`.
10. (Optional) Enter a username.
11. (Optional) Enter a password.
12. When finished, click **OK**.

Adding a File to an Asset Using the ClearQuest Artifact Store

To add a file to an asset using a **ClearCase/ClearQuest** artifact store:

1. Launch the **Asset Editor**
2. Select the appropriate asset.
3. Navigate to the **File Information** section on the asset's **Overview** tab.
4. Click **Add**.
5. In the dialog box, enter a name and description, if necessary.
6. Click **Edit**
7. In the **Edit URL** dialog box, select the **Artifact Store File** option button.
8. From the **Store** drop-down list, select **ClearQuest Repository**.

9. Click the **Browse** button (next to the **File Name** box) to edit a ClearQuest shortcut.
10. Click the button to **Launch ClearQuest Web** interface and create a shortcut to a ClearQuest resource.
11. In the ClearQuest Web interface use the **Operation -> Create a Shortcut** link to run the wizard to generate a shortcut in ClearQuest.
12. Copy and paste everything following the question mark (?) in the resulting shortcut to the **Launch ClearQuest Web shortcut** screen.
13. Click **OK** to populate the **File Name** with the shortcut portion.
14. Click **View** to test the URL.
 - This should open the ClearQuest interface to the resource to which the shortcut was assigned.