

Oracle WebCenter Portal: Moving Custom Portal Content Between Content Servers

Oracle WebCenter Portal applications are tightly integrated with Oracle WebCenter Content, where the application's documents, images, and other files are stored. This content is displayed on the application's pages using content integration task flows.

In this tutorial we discuss how to export the application's content from one WebCenter Content Server and import it into another server, preserving information that is needed by the application.

Here we do not intend to fully document the archiving process; we will show only a simple, but typical example. For details on archiving, read [Chapter 8 Managing System Migration and Archiving](#) of the document [Oracle® WebCenter Content System Administrator's Guide for Content Server 11g Release 1](#).

This document outlines the recommended procedure for custom Oracle Webcenter Portal applications. For Oracle WebCenter Portal: Spaces we recommend a different procedure, which is documented in [Chapter 39.1.3.9 Exporting Oracle Content Server Data](#) of the document [Oracle® Fusion Middleware Administrator's Guide for Oracle WebCenter Portal 11g Release 1](#).

Prerequisites

In this tutorial we assume that you have installed two Oracle WebCenter Content Servers on two different hosts. The two servers should be configured identically. For the details of installing and configuring the content servers, see our training module: *Installing and Configuring Enterprise Content Management for Oracle WebCenter Portal: Spaces*. It is important that you have installed and enabled the FolderStructureArchive component.

If you created user attributes, content types, and/or security groups in the source server, you have to create the same artifacts in the target server or use the Configuration Migration utility.

We assume that both servers are connected to the same user repository, typically an external LDAP server; otherwise you have to create the same set of users in both servers.

Overview

Typically Oracle WebCenter Content Server stores all the content used by a WebCenter Portal application. Content Server stores these documents and their attributes. Attributes can be system-generated or custom. Each document also has a unique identifier.

In traditional applications, where the content is stored in the server's file system, we usually arrange the content into hierarchical folders. When using WebCenter Content Server these folders are not strictly necessary since one can look up or access the documents using the unique document identifier or using queries based on the attribute values. Still it is customary with WebCenter Portal application developers to arrange documents into a folder hierarchy.

When a content item needs to be accessed or rendered on a WebCenter Portal application page, the developer has several choices of using ADF Faces tags or prebuilt task flows. Some of these methods rely on the document's location in the folder hierarchy, others use the unique ID, and some require writing a dynamic query.

For example, if you want to display an image stored in WebCenter Content, you have the following options:

- You can display an image stored in WebCenter Content as an ADF Image. You will get the following code fragment. Note the bold text - the `source` attribute refers to the path for the file.

```
<af:inlineFrame id="inlineFrame1"
source="/content/conn/UCM/path/Contribution%20Folders/ElPiju/Materials/
Adobe/pictures/adobe.jpg"/>
```

In WebCenter Portal 11.1.1.6.0 release this code will work, but JDeveloper will create another `source` attribute, that uses the document's unique name assigned by the Content Server.

```
<af:image id="image1"
source="#{documentsService.latestReleasedVersionURL['UUCM#dDocName:DADV
MC0302USOR002205']}"/>
```

- You can display the image in an instance of a Content Presenter task flow. You will get the following source code fragment.

```
<af:region value="#{bindings.doclibcontentpresenter1.regionModel}"
id="r2"/>
```

Here is the page definition file fragment. Note that the `datasource` attribute refers to the internal, unique document name.

```
<taskFlow id="doclibcontentpresenter1"
taskFlowId="/oracle/webcenter/doclib/view/jsf/taskflows/presenter/cont
entPresenter.xml#doclib-content-presenter"
activation="deferred"
xmlns="http://xmlns.oracle.com/adf/controller/binding">
<parameters>
<parameter id="taskFlowInstId"
value="#{'c05de200-e660-43dc-911f-b4c613d6b3ba'}"/>
<parameter id="datasourceType" value="#{'dsTypeSingleNode'}"/>
<parameter id="datasource"
value="#{'UCM#dDocName:DADVMC0302USOR002205'}"/>
<parameter id="templateCategory" value="#{''}"/>
<parameter id="templateView" value="#{''}"/>
<parameter id="maxResults" value="#{''}"/>
</parameters>
</taskFlow>
```

- Other task flows, like the Document Manager task flow use the path.

```
<af:region value="#{bindings.doclibdocumentlibrary1.regionModel}"
id="r3"/>
```

And the page definition file:

```
<taskFlow id="doclibdocumentlibrary1"
taskFlowId="/oracle/webcenter/doclib/view/jsf/taskflows/mainView.xml#do
clib-document-library"
activation="deferred"
xmlns="http://xmlns.oracle.com/adf/controller/binding">
<parameters>
<parameter id="connectionName" value="#{'UCM'}"/>
<parameter id="startFolderPath"
value="#{'/Contribution Folders/ElPiju/Materials/Adobe'}"/>
```

```

    <parameter id="resourceId" value="\${''}"/>
    <parameter id="readOnly" value="\${false}"/>
    <parameter id="featuresOff" value="\${''}"/>
    <parameter id="layout" value="\${'explorer'}/>
  </parameters>
</taskFlow>

```

- Finally you can use the Content Presenter task flow with a query. For example:

```

<af:region value="\#{bindings.doclibdocumentlibrary1.regionModel}"
  id="r3"/>

```

```

<taskFlow id="doclibcontentpresenter1"
taskFlowId="/oracle/webcenter/doclib/view/jsf/taskflows/presenter/cont
entPresenter.xml#doclib-content-presenter"
  activation="deferred"
  xmlns="http://xmlns.oracle.com/adf/controller/binding">
  <parameters>
    <parameter id="taskFlowInstId"
      value="\${'c05de200-e660-43dc-911f-b4c613d6b3ba'}/>
    <parameter id="datasourceType" value="\${'dsTypeQueryExpression'}/>
    <parameter id="datasource"
      value="\${'select * from cmis:document where cmis:name
like \'adobe%.jpg\''}/>
    <parameter id="templateCategory" value="\${''}"/>
    <parameter id="templateView" value="\${''}"/>
    <parameter id="maxResults" value="\${''}"/>
  </parameters>
</taskFlow>

```

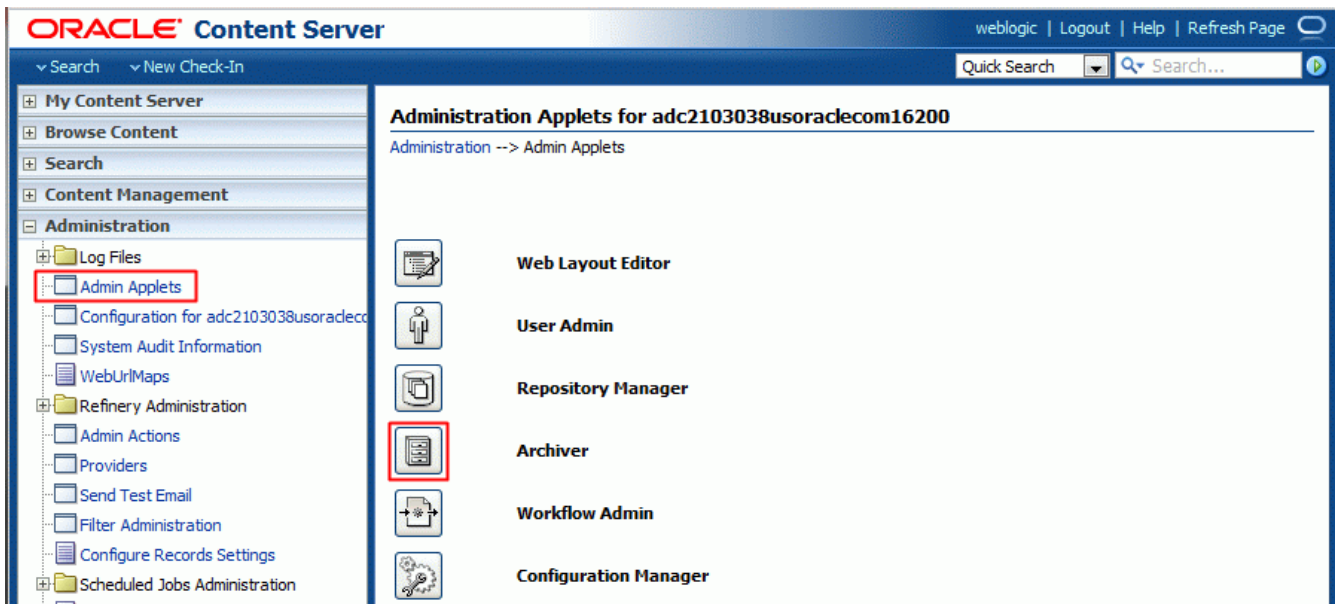
Therefore in any exporting and importing process it is essential that it preserves not only the folder hierarchy but all the document's and folder's attributes, including their unique document ID or document name.

Exporting the Content

You will use the Archiver and Folder Structure Archiver components combined to archive the required content and folders.

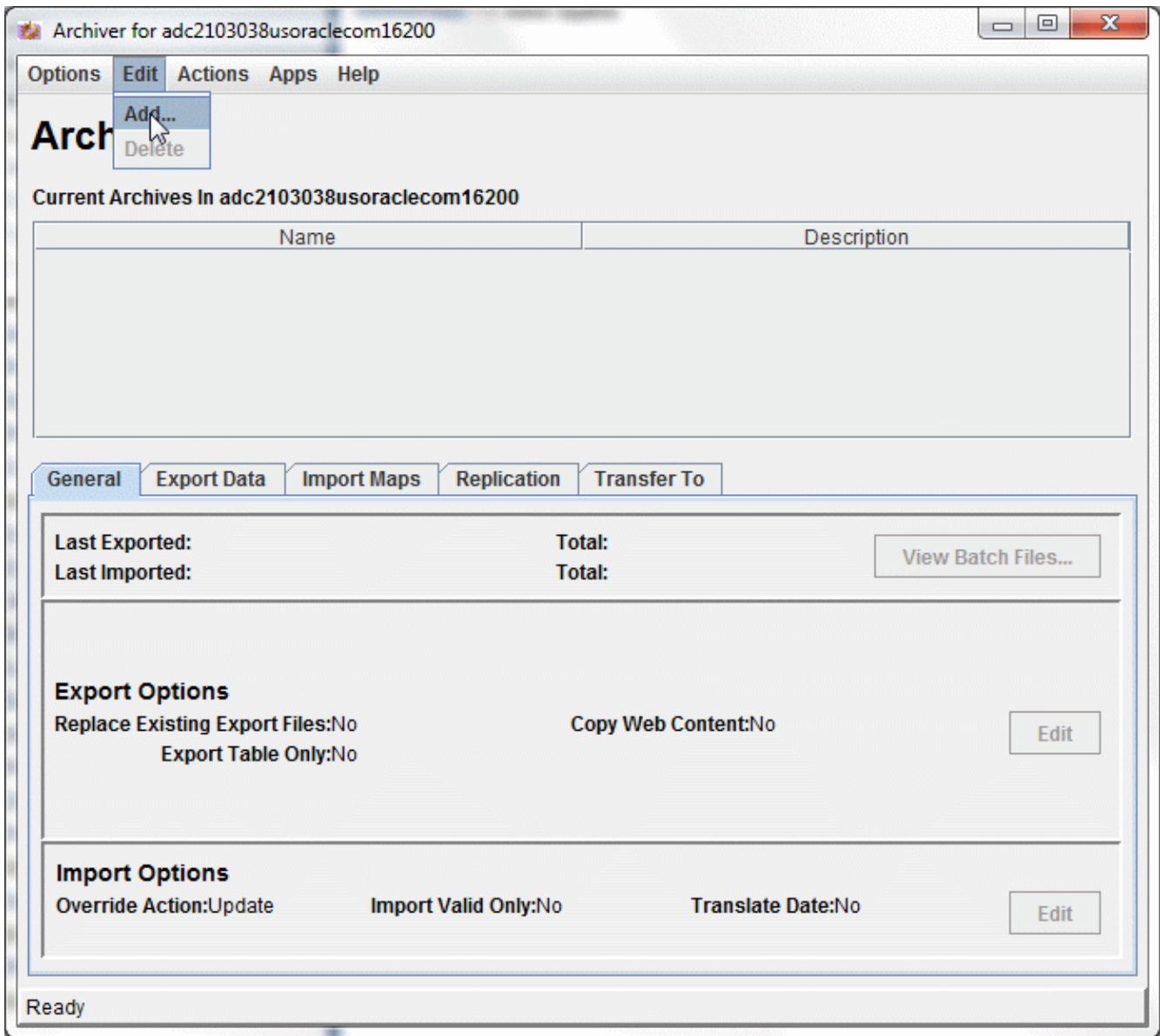
1. Create a new archive.
 - a. Use a Web browser and access the WebCenter Content Server Web User Interface. The URL depends on your configuration, the default URL is:

http://<server>:16200/cs
 - b. Log in to WebCenter Content Server with administrative privileges. For example use **weblogic** as the user.
 - c. Expand the **Administration** node and open the **Admin Applets** page. Select **Archiver** from the applets.



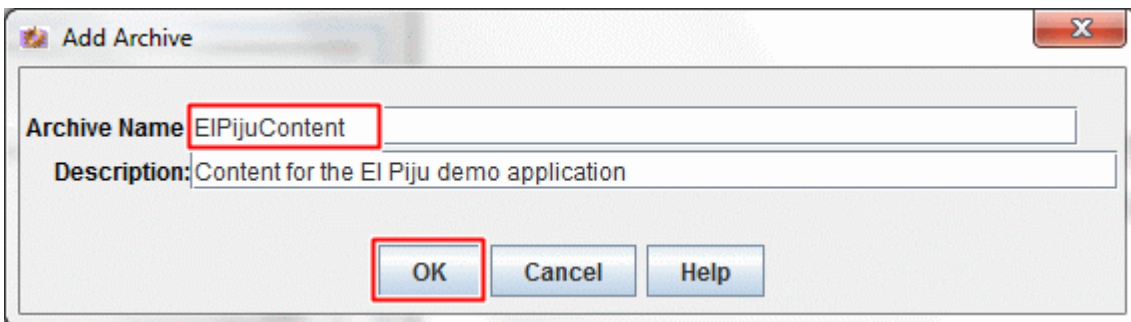
ar_01.gif

d. In the Archiver applet window, choose **Add** from the Edit menu.



ar_02.gif

- e. Define the new archive's name. Do not use spaces or special characters in the name. You can use mixed case characters, but the resulting archive directory's name will be all lower case. You may add a description to the archive. Click **OK**.



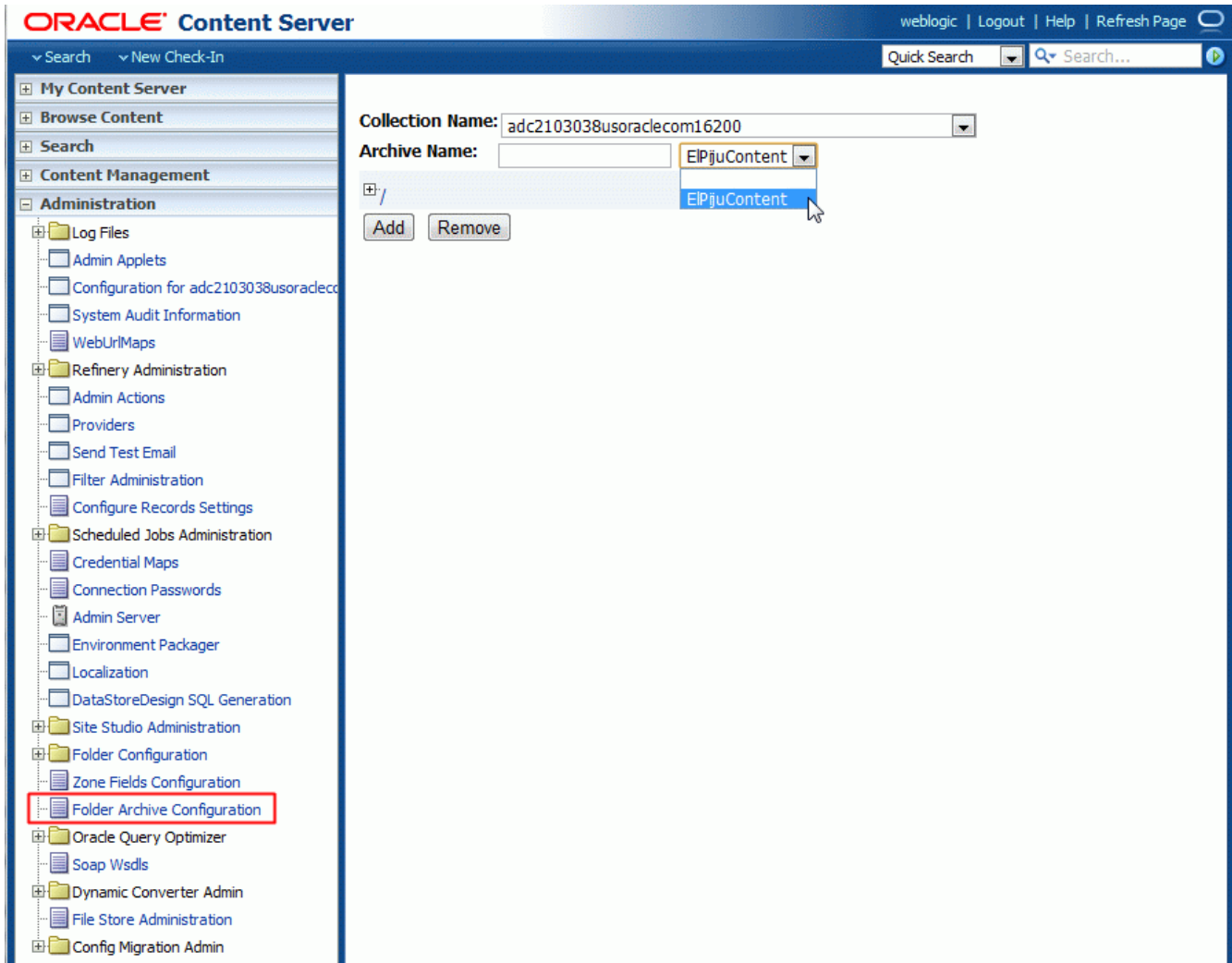
ar_03.gif

2. Define the folders.

You have to add the folders from where you want to export the documents to the archive definition.

- a. Open the Archive Folder Configuration page in the Administration Console. Select the newly created archive's name.

Note: If you have not closed the Archiver Applet window, selecting the Archive Folder Configuration page will close it automatically.



ar_07.gif

- b. Select the folders to be exported.

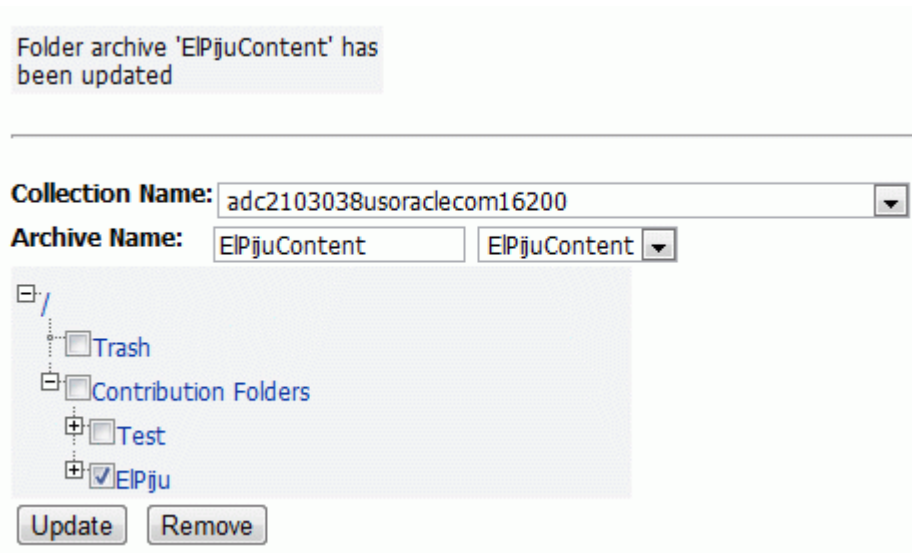
You can expand the root and other nodes in the folder structure. Select the folder or folders you want to include in the export archive. When you select a folder, by default all of the subfolders will be selected, but you can expand the folder node and deselect any subfolders not needed in the export. Click **Update** to record the selection in the archive.

Note: It is a common practice to store all of an application's content under a single root folder in Contribution Folders. For example the El Piju demo application has its own root folder: /Contribution Folders/ElPiju. We will export all the content under this root folder.



ar_08.gif

- c. You can see a confirmation message that the archive has been updated. Expanding the nodes you can verify or modify the selected folders.



ar_09.gif

3. Remove contents not in a folder from the archive.

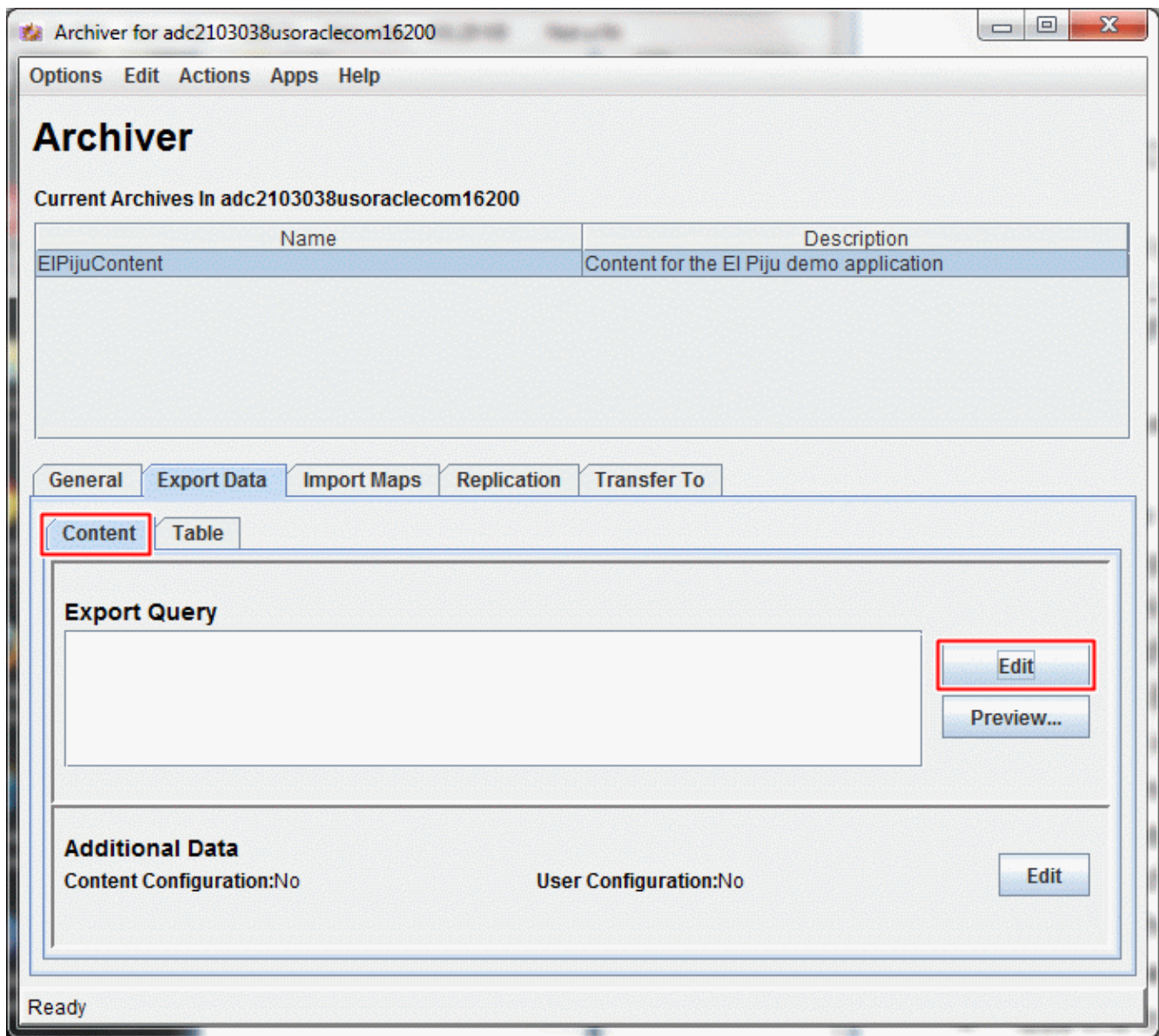
The Folder Structure Archiver by default will include:

- the folder structure selected,
- all the content items in the selected folder structure,
- content items that do not belong to any folder.

Note: The default behavior can be controlled configuring the `ArchiveFolderStructureOnly` and `AllowArchiveNoneFolderItem` configuration variables.

WebCenter Portal applications typically store their content in folders. Since we decided to keep the default settings, we have to filter out the content not stored in any folder from the archive.

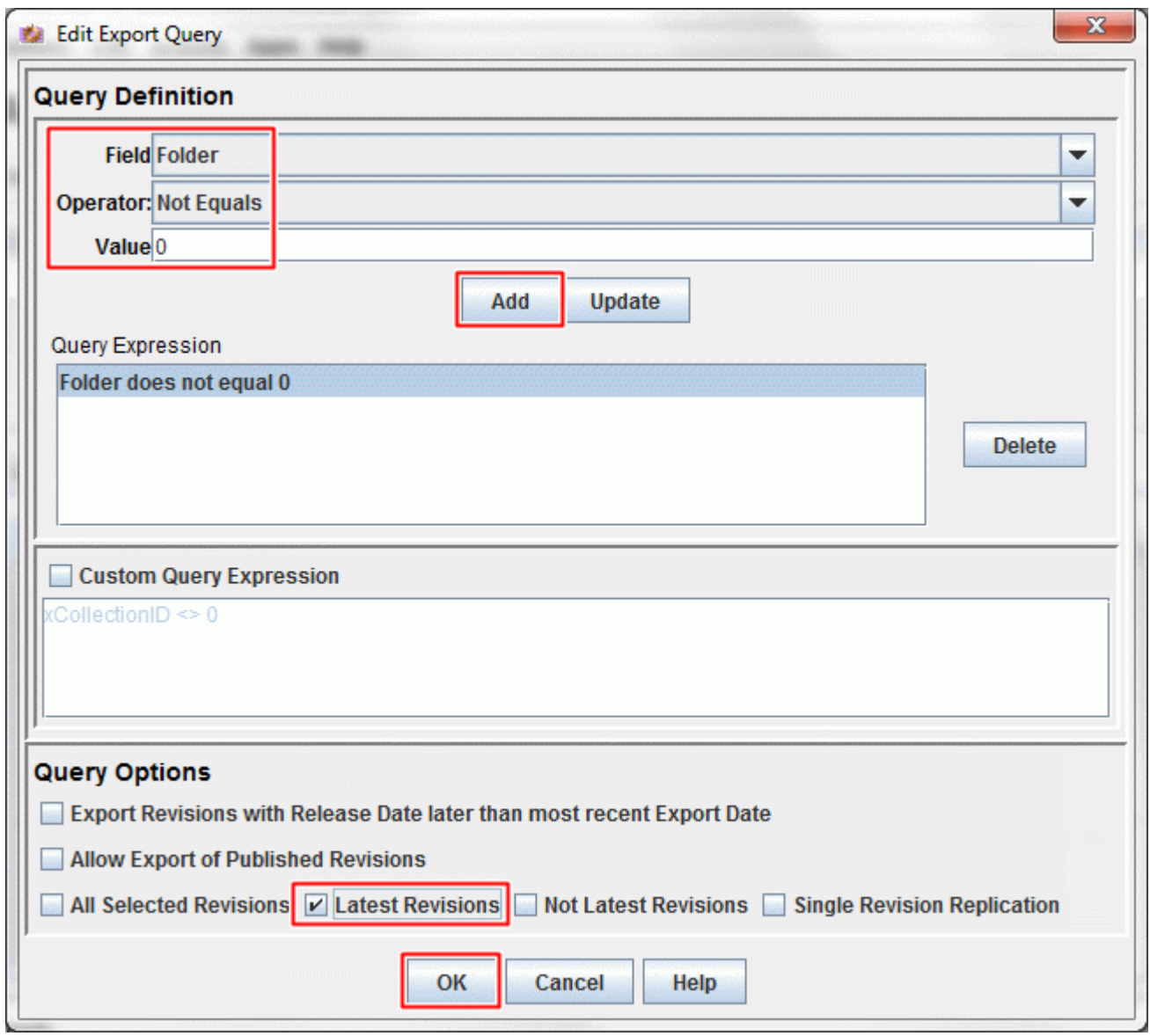
- Open the Archiver applet, as you did in step 1/c.
- Select the archive. In the **Export Data** tab select the **Content** tab and click **Edit** to define the Export Query.



ar_04.gif

- c. In the Query Definition window select **Folder** for Field, **Not Equals** for Operator and set Value to **0**, then click **Add**. Note: If a document does not belong to a folder, the Folder attribute's value will be zero.

The new query will be displayed as words (Folder does not equal 0) in the Query Expression field and as an expression (`xCollectionID <> 0`) in the Custom Query Expression field.



ar_05.gif

At the bottom of the window, you can choose which revisions of the documents will be exported. Here we selected **Latest Revisions**.

Note that this expression will select all the documents that are stored in a folder. At this point you can not specify the actual folders, from where you will export the content; this will be added later to the archive definition.

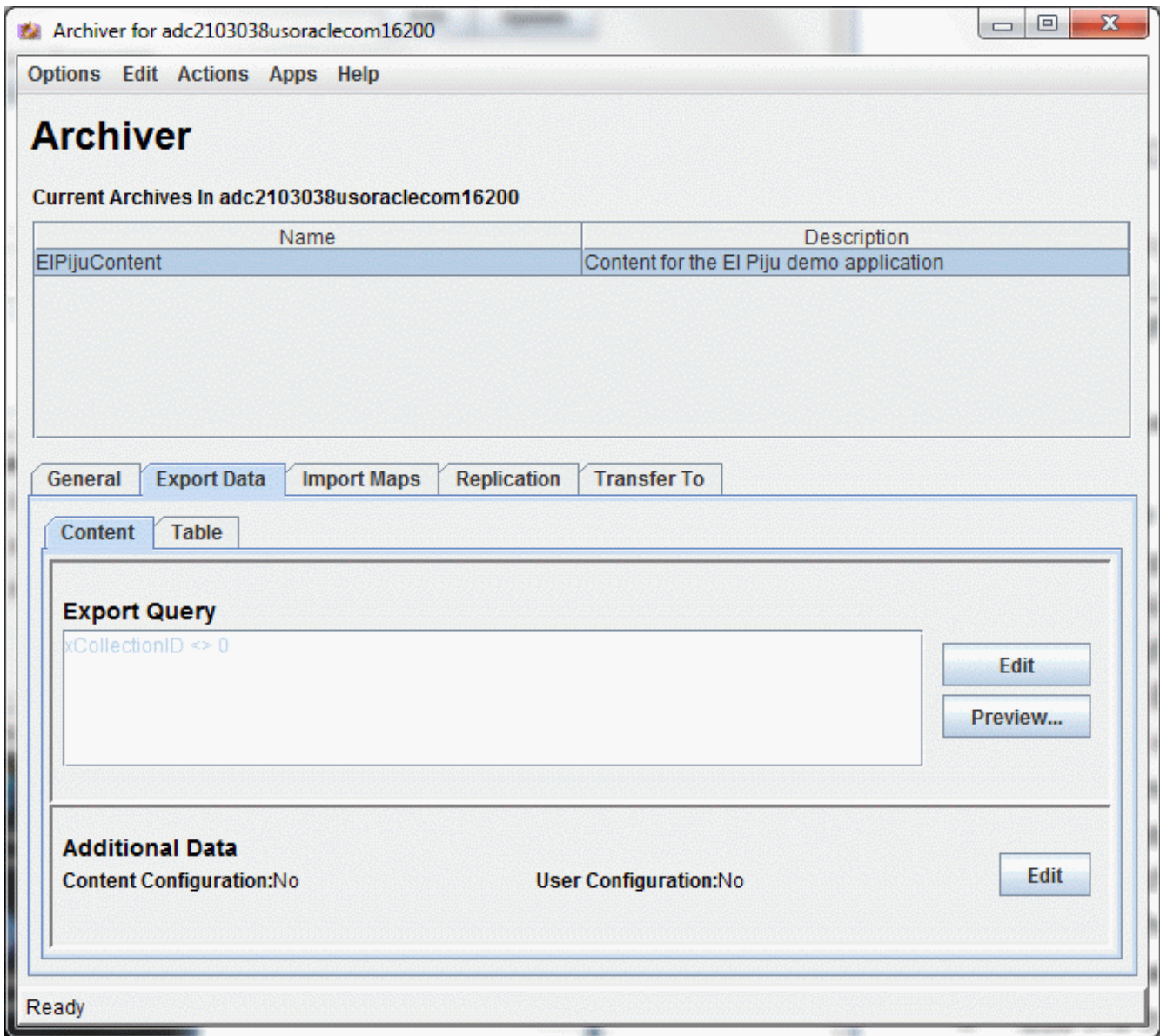
If your application also uses content not stored in folders, we recommend creating a separate archive to export them.

You might add other expressions to the query if you want to further filter the documents.

Click **OK**, when you finished the query.

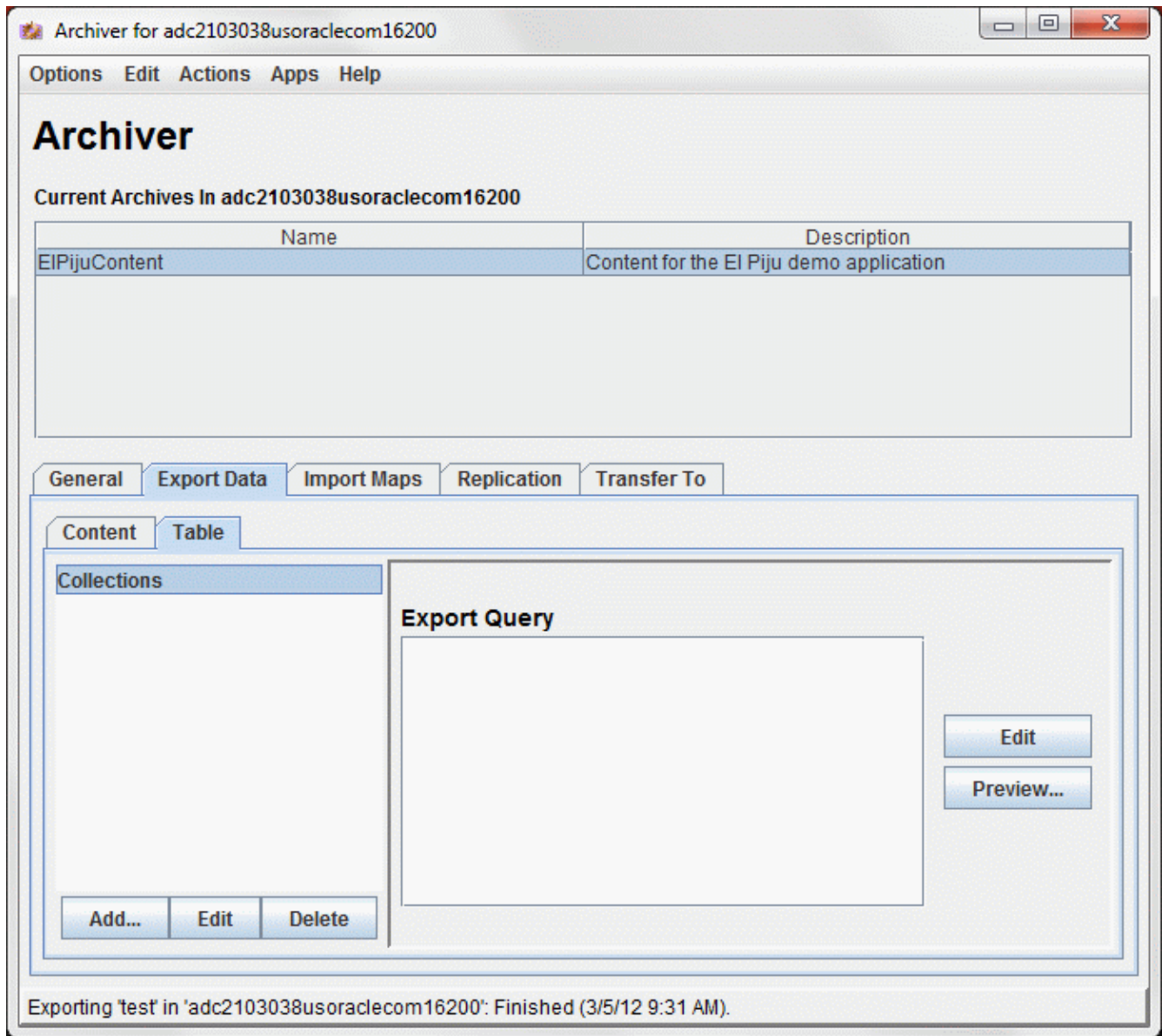
- d. Review the newly created archive definition.

You can see the Export Query definition. Although you can use the Preview button to see the documents selected by the expression, at this point it is not useful, since it will list all the documents stored in a folder, not only those stored in the folders used by your application.



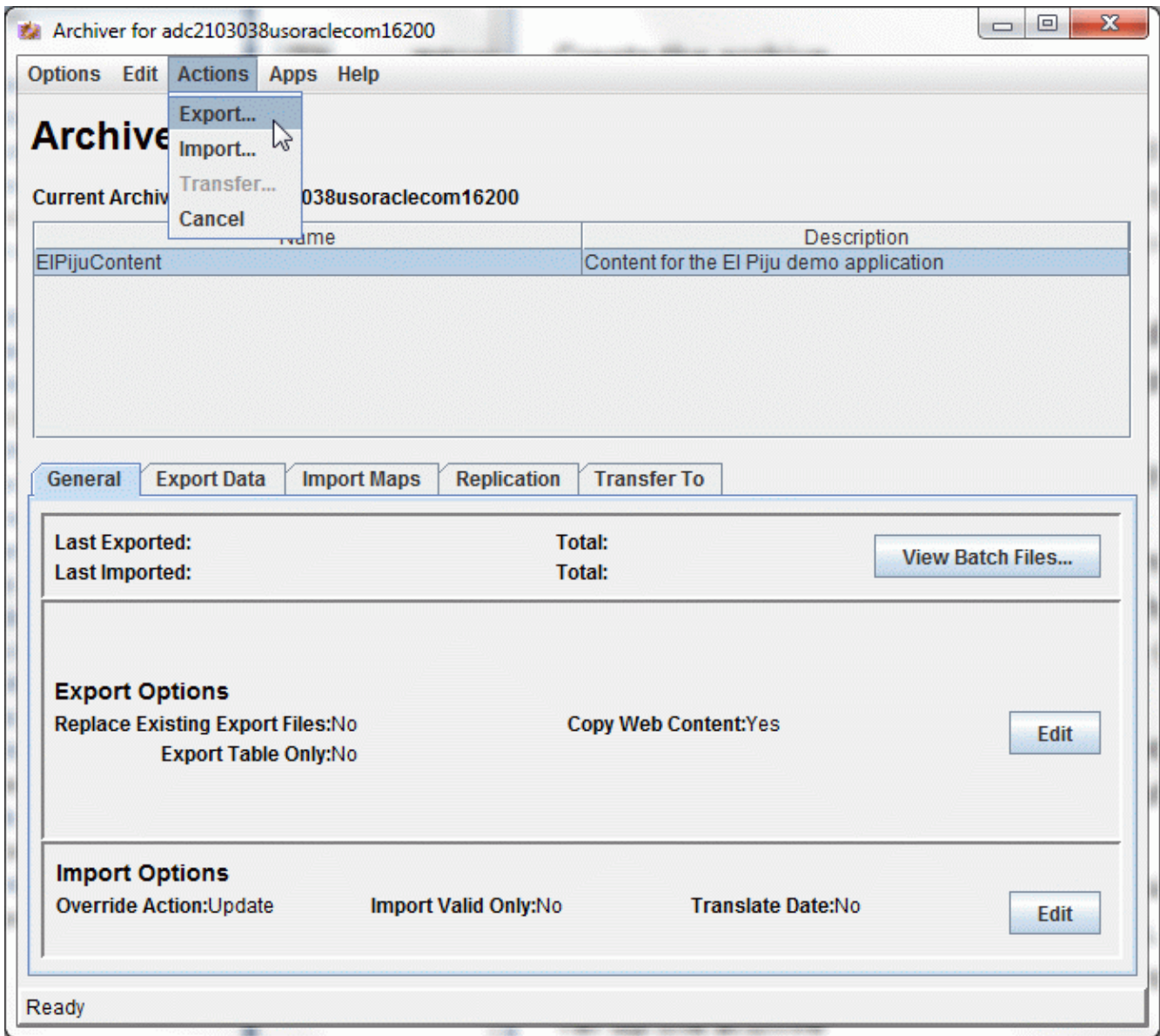
ar_06.gif

You may also check the Table tab. The Collections table was added by the Folder Structure Archiver.



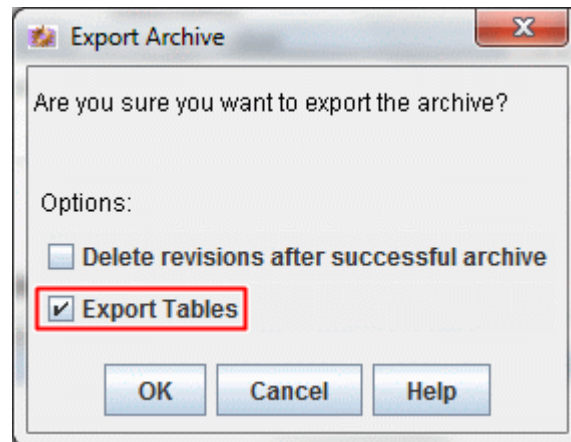
ar_20.gif

4. Export the archive.
 - a. Make sure the newly created archive is selected and choose **Export** from the Actions menu.



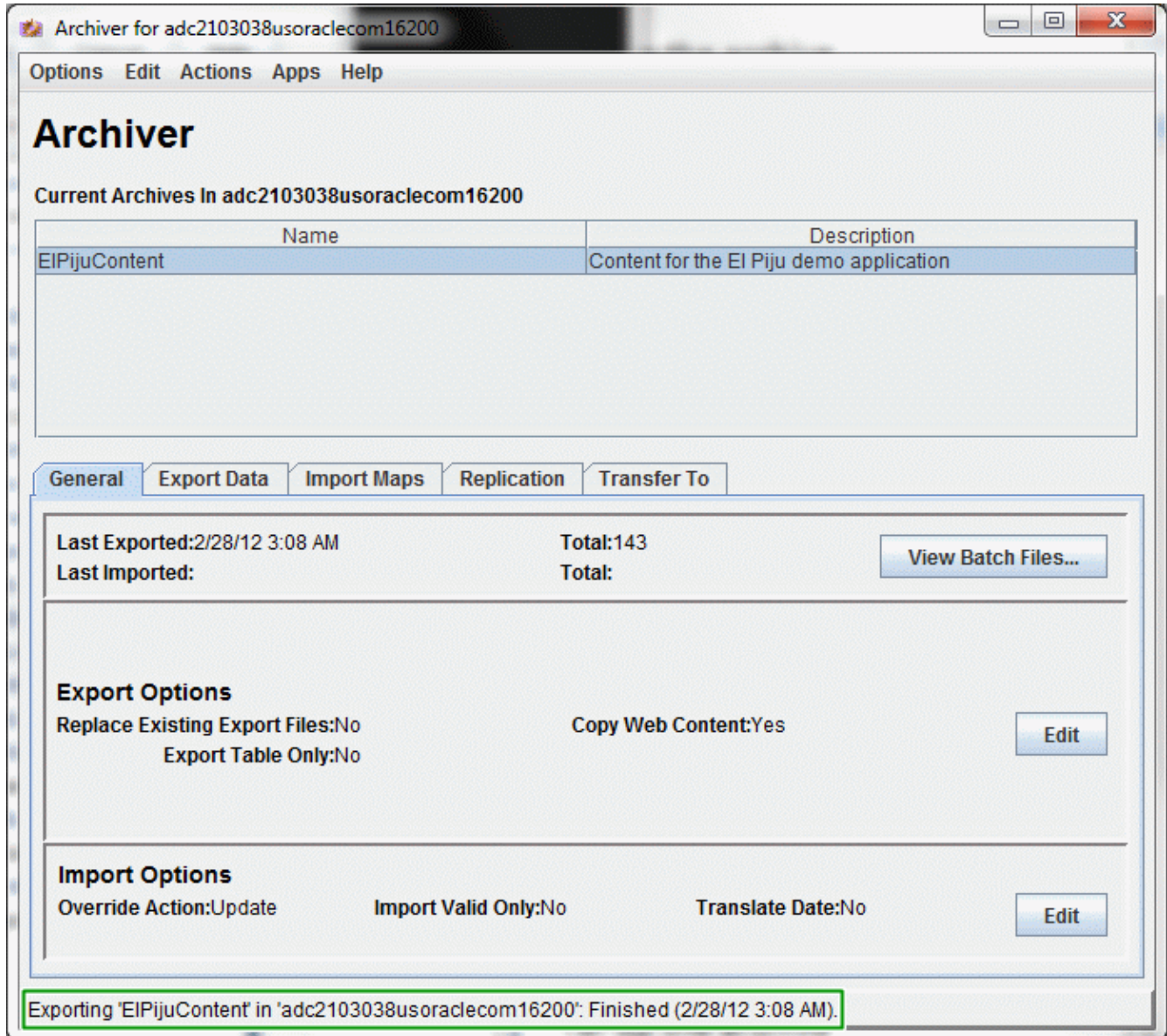
ar_10.gif

b. In the pop-up options window make sure that the Export Tables check box is selected.



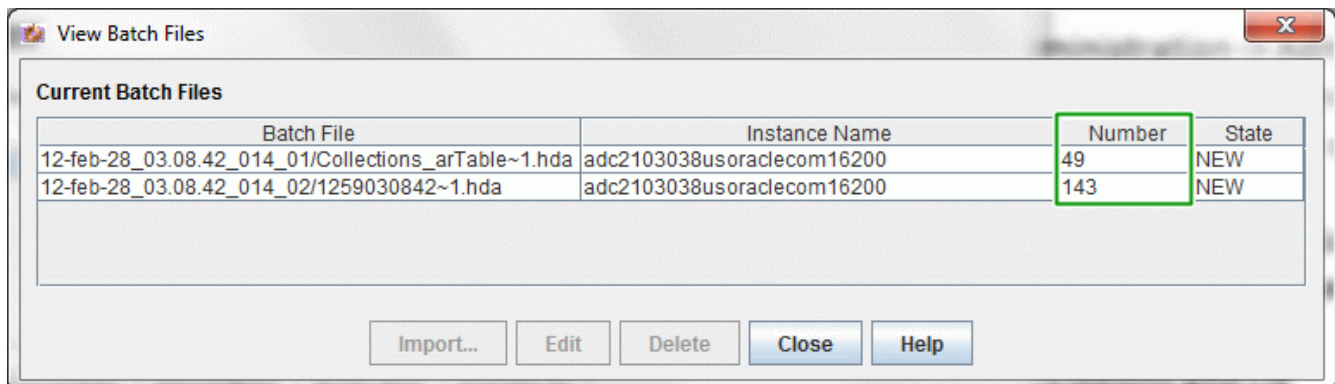
ar_11.gif

c. You can follow the progress of the export in the status line of the window. Wait till it finishes.



ar_12.gif

d. Verify the export. Click the **View Batch Files** button. You should see two batch files created during the export. The first one exported the folders, 49 in our case; the second one was used for exporting the documents, 143 in our example.



ar_13.gif

- e. You can see the details of which folders and documents were exported. Select one of the batch files and click Edit. The pop-up window will show all the items that were exported.

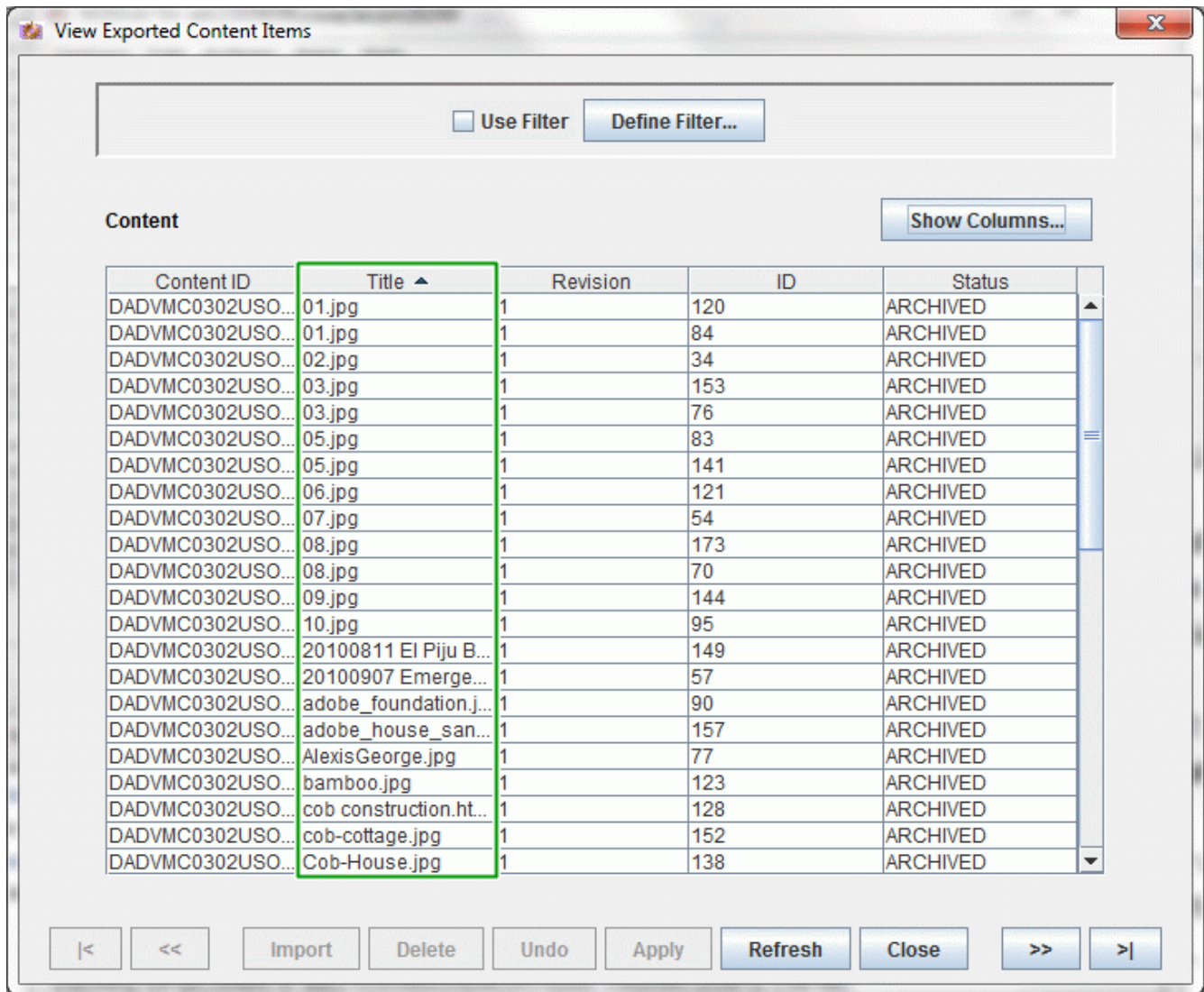
The first window shows the folders. If you don't see the folder name (dCollectionName) in the table, you can click the **Show Columns** button and add this, or any other attribute to the table.

The screenshot shows a window titled "View Exported Content Items" with a close button (X) in the top right corner. Below the title bar, there is a search area with a "Use Filter" checkbox and a "Define Filter..." button. The main area is labeled "Table Content" and contains a table with four columns: dCollectionID, dCollectionGUID, dParentCollectionID, and dCollectionName. A "Show Columns..." button is located to the right of the table. The table contains 20 rows of data. At the bottom of the window, there is a toolbar with buttons for navigation (left and right arrows), "Import", "Delete", "Undo", "Apply", "Refresh", "Close", and more navigation arrows.

dCollectionID	dCollectionGUID	dParentCollectionID	dCollectionName
703354910487002401	8D461DC8-D163-BFAA-...	337453490840000002	EIPiju
703354910487003001	28AC445C-E012-8160-...	703354910487002401	Materials
703354910487002402	E86536A0-1B5E-A27D-...	703354910487002401	Site
703354910487003006	C808240E-06D8-188C-...	703354910487003001	Cob
703354910487002409	10E02EE2-37DB-500A-...	703354910487002402	right-side-pics
703354910487002406	5C54E249-A7B1-A8F3-...	703354910487002402	News
703354910487003010	C184A301-5166-B1D4-...	703354910487003001	Cordwood
703354910487002404	F4BC10A0-3B5D-A16F-...	703354910487002402	Leadership
703354910487002608	24D5FDDB-9C73-FD9D-...	703354910487002402	References
703354910487003022	A3BCB09C-AF58-F959-...	703354910487003001	Straw Bale
703354910487003014	3AA34215-C17F-7764-5-...	703354910487003001	Earth Bag
703354910487003002	FD63351C-618F-8AB7-...	703354910487003001	Adobe
703354910487002403	681DDA26-2E7A-A5FF-...	703354910487002402	banner-pics
703354910487003018	95E12C82-33F8-0012-4-...	703354910487003001	Rammed Earth
703354910487002405	E2D8319B-BA32-5C4E-...	703354910487002402	main-pg-pics
703354910487003015	C871B7D5-61DE-4DED-...	703354910487003014	articles
703354910487003016	70443EA5-0203-182B-F-...	703354910487003014	pictures
703354910487003003	BB0EC663-4528-0352-...	703354910487003002	articles
703354910487003012	EF2D3709-8A34-412C-...	703354910487003010	pictures
703354910487002408	5E8D70A4-FB22-FEF2-...	703354910487002406	PressReleases
703354910487003004	AA6CE5FF-C7BA-8B4D-...	703354910487003002	pictures
703354910487003008	31D1DD61-97B7-BF4F-...	703354910487003006	pictures

ar_14.gif

The second window shows the exported files. Add any column you need to the table. Note that you can also order the list clicking on any of the column headers.



ar_15.gif

Note: If necessary you may edit these batch files, for example delete elements from the archive. If the list is large, you can define filters to show only part of the list.

5. Pack and save the archive.

The Archiver created a set of directories and files that contains the archived content and attributes. In this step you will pack them into a single file.

a. Find the instance directory.

Open the **Configuration for <instance name>** page in the Administration Console. Note the Instance Directory.

ORACLE Content Server | weblogic | Logout | Help | Refresh Page

Quick Search | Search...

Configuration Information for adc2103038usoraclecom16200
Administration --> Configuration Info

System Configuration

Server Name: adc2103038usoraclecom16200 [Server Configurations](#)
Version: 11gR1-11.1.1.5.0-idxprod1-110413T184243 (Build:7.3.2.182)

Class Loader: IdcClassLoader [Classpath Details](#)

Instance Directory: /apps/ECM/user_projects/domains/ecm/ucm/cs/ [Directory Details](#)

Database Type: Oracle [Database Connection Details](#)
Database Version: 11.2.0.1.0 ---Oracle Database 11g Enterprise Edition Release --- - 64bit Production With the Partitioning, OLAP, Data Mining and Real Application Testing options

HTTP Server Address: adc2103038.us.oracle.com:16200 [Internet Configurations](#)
Mail Server: mail

Search Engine: ORACLETEXTSEARCH
Index Engine Name: ORACLETEXTSEARCH
Active Index: ots1

Features And Components

Number of Installed Features: 55 [Feature Details](#)

Number of Enabled Components: 46 [Enabled Component Details](#)

Number of Disabled Components: 46 [Disabled Component Details](#)

Options And Others

Auto Number Prefix: adc2103038usor [Server Options](#)
Use Accounts: True
Ntlm Security Enabled: False

Allow get copy for user with read privilege: True [Content Security Details](#)
Allow only original contributor to check out: False

Java Version: 1.7.0_02 [Java Properties](#)

ar_16.gif

b. Log in to the server and go to the archiver's root directory, which is

```
cd <INSTANCE DIRECTORY>/archives
```

You can find here the root folder for the new export, with the all-lowercase name you gave for the archive.

```
ls -l
total 16
-rw-r----- 1 somebody somegrp 337 Mar 1 11:09 collection.hda
-rw-r----- 1 somebody somegrp 1 Mar 1 11:09 collection.mrk
drwxr----- 4 somebody somegrp 4096 Feb 28 03:08 elpijucontent
-rw-r----- 1 somebody somegrp 16 Feb 13 11:59 lockwait.dat
```

You can list the archive directory.

```
ls -l elpijucontent
total 20
```



```
drwxr----- 2 somebody somegrp 4096 Feb 28 03:08 12-feb-
28_03.08.42_014_01
drwxr----- 3 somebody somegrp 4096 Feb 28 03:08 12-feb-
28_03.08.42_014_02
-rw-r----- 1 somebody somegrp  913 Feb 28 03:08 archive.hda
-rw-r----- 1 somebody somegrp  438 Feb 28 03:08 exports.hda
-rw-r----- 1 somebody somegrp   16 Feb 28 02:49 lockwait.dat
```

- c. You should pack this directory, `elpijucontent`, into a single file. You could use either a compressed tar, or a zip file. For example:

```
tar -cvzf ec.taz elpijucontent
```

or

```
zip -r ec.zip elpijucontent
```

- d. Save this file, `ec.taz` or `ec.zip`. In the next step you will copy or FTP it to the target system.

Importing the Content

We assume that you want to import the archive into another WebCenter Content Server instance, running on a different machine.

6. Create a new archive with identical name.

- a. Log in to the target WebCenter Content Server Web user interface, invoke the Archiver applet, and create a new archive with identical name as the exported archive. See step 1.

This will register the new archive for the Content Server's administration purposes. You will not define folders or an export query for this archive. In the next step you will simply override the archive's content with the previously saved archive.

- b. In the Web Administration console write down the instance directory, as you did step 5/a.
c. Log in to the server and go to the Archiver's root directory, as in step 5/b.
d. Remove the directory that was created for the archive.

```
rm -rf elpijucontent
```

- e. Copy or FTP the saved archive to this directory and unpack it. For example:

```
tar -cvzf ec.taz elpijucontent
```

or

```
unzip -x ec.zip
```

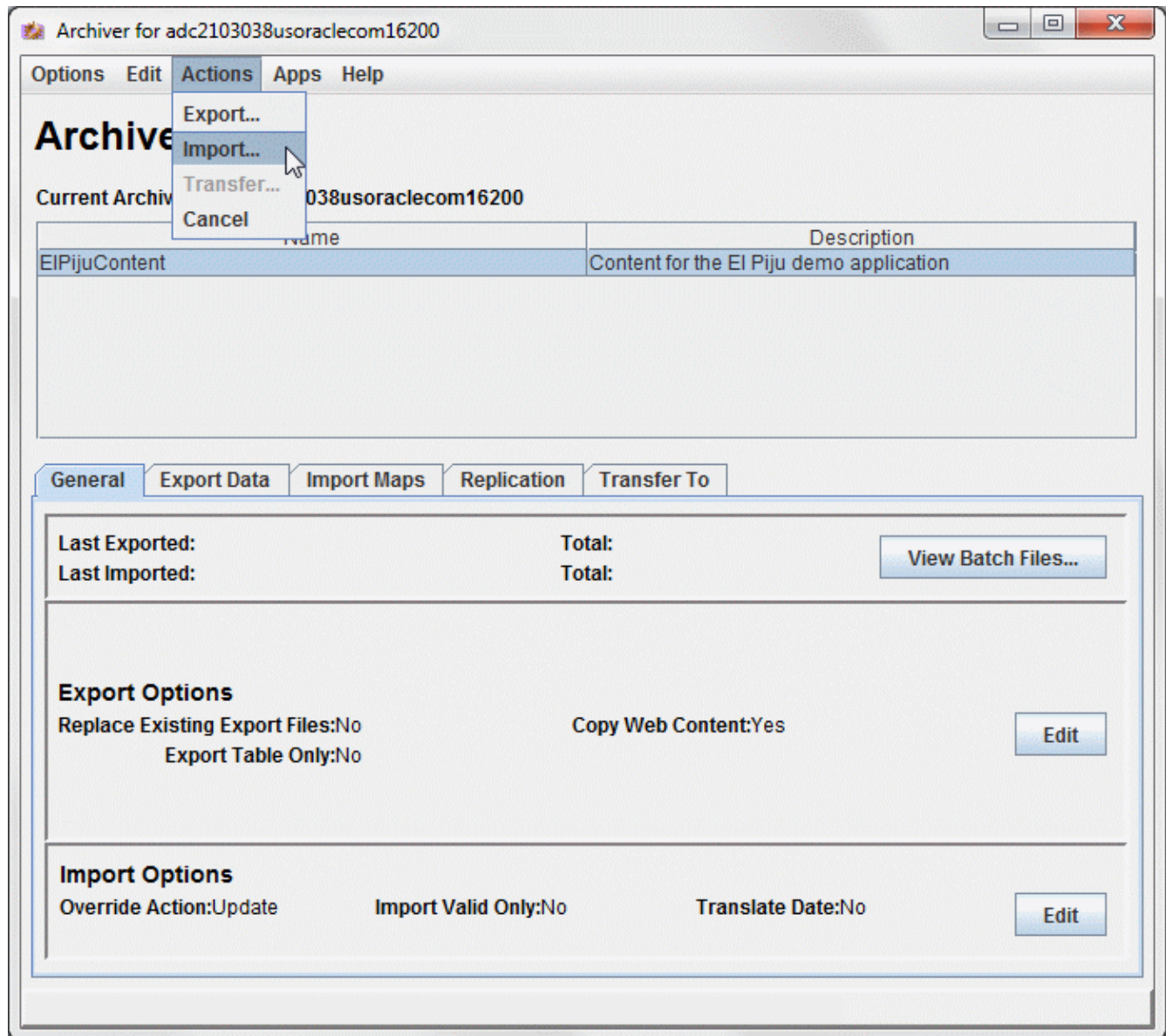
This will recreate the `elpijucontent` directory and its original content.

7. Import the archive.

- a. Open the Archiver applet, select **Import** from the Actions menu.

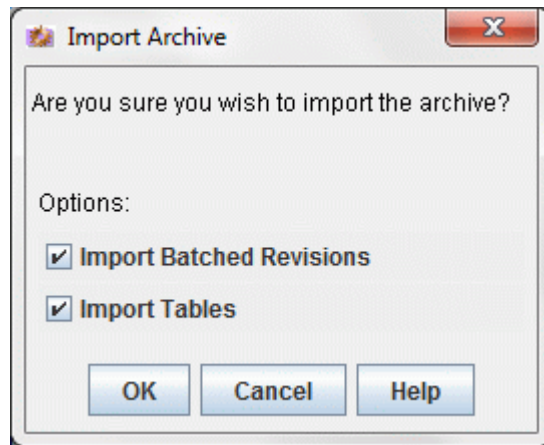
Note: Before importing, you might apply several changes. For example in the Import Options you can define how overrides will be handled, or if the dates are converted to the target system's time zone. In the Import Maps tab you can create complex mappings of content

attributes or even change value of these attributes. In this tutorial we assume that you do not need to configure any such import processing.



ar_17.gif

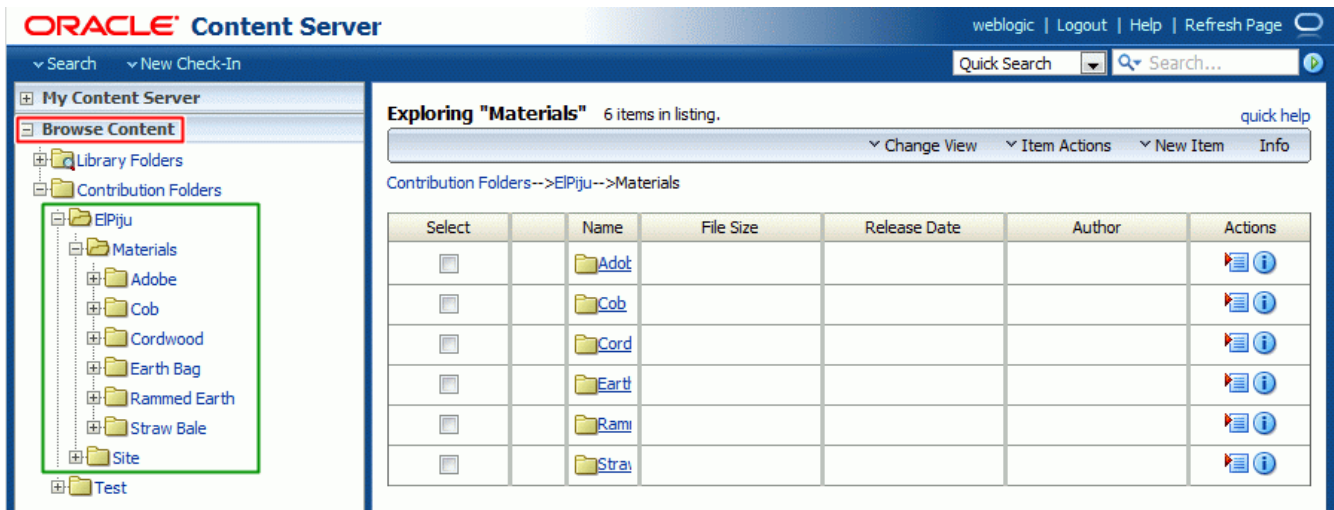
In the pop-up window make sure that the Import Tables check box is selected. Click OK, then wait for the finished message in the applet's status line.



ar_18.gif

8. Check the imported content.

- Use the Web Interface, expand the Browse Content node and drill down to the application's folders.



ar_19.gif