



Explorer Guide

Active Circle Storage System

Version 4.5

Active Circle

Explorer Guide: Active Circle Storage System

Version 4.5

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Revision 2.1

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Introduction

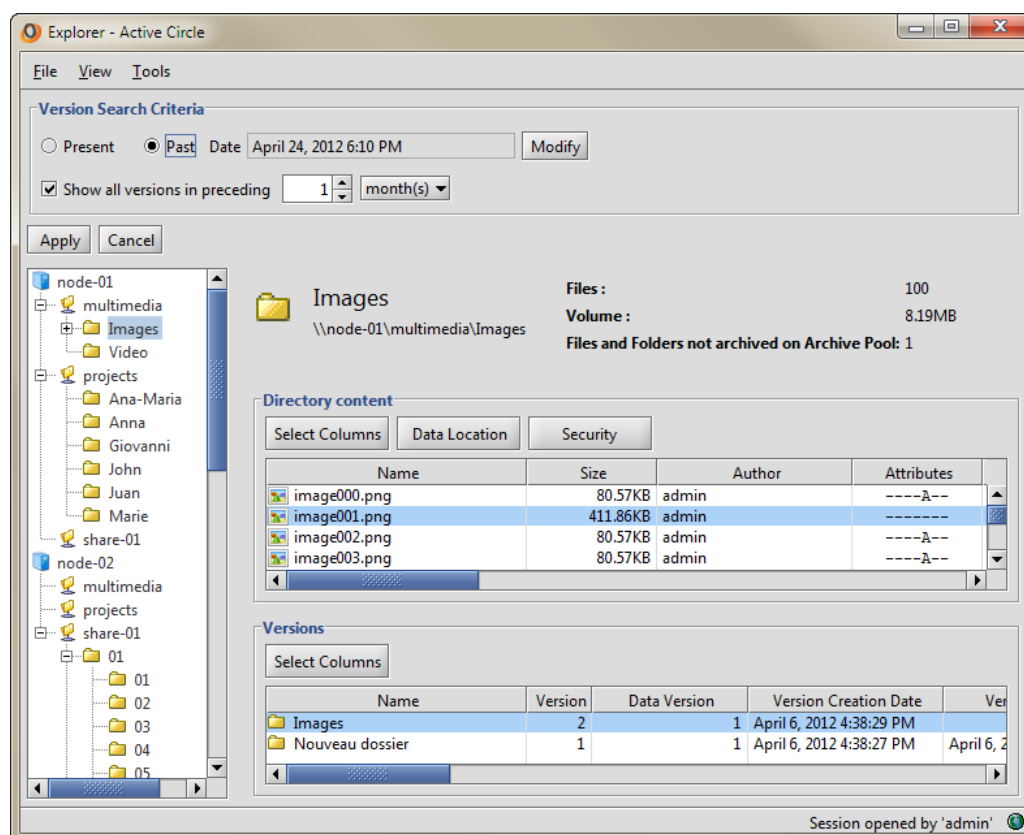
The Active Circle File Explorer offers features to manage the files stored in Active Circle. The File Explorer allows you to browse the hierarchical organization of files and folders, in a way similar to regular file explorers. You can extract files and folders to your local system, view the version history of files stored in the system, restore earlier versions of files, and manage security settings on files and folders. In addition, you can initiate archiving processes from within the File Explorer.

This manual is divided into the following chapters:

Getting Started	Describes connecting to the Active Circle File Explorer and the main features of the interface.
File Information	Describes the information about files and directories available in the Active Circle File Explorer.
Managing Files	Describes the actions you can perform on objects in the File Explorer, such as copying files out of the Active Circle storage system.
Managing File Versions	Describes the version management functionality of the File Explorer, such as how to restore an earlier version of a file and how to purge file versions that are no longer required.
File Security	Describes how to view and manage file permissions (ACLs) using the File Explorer.
Archiving Files	Describes the archiving functionality available in the File Explorer.

Chapter 1. Getting Started

Figure 1.1. The Active Circle File Explorer



Starting the File Explorer

The File Explorer can be started either directly on a Node or from any machine with a web browser that supports Java Web Start. Because of this, Active Circle system administrators can assign users the rights perform certain file management tasks, such as archiving files or restoring earlier versions of files stored in the system.

Starting the File Explorer on a Node

You can start the File Explorer from one of the Nodes in your Circle by executing the following script:

```
/activecircle/admin/bin/explorer &
```

Starting the File Explorer From a Web Browser

In order to run the Active Circle File Explorer using a web browser, enter either the name or IP address of one of the Nodes in the address bar:

- **http://server-name**
- **http://IP-address**

The following web page will appear:

Figure 1.2. Active Circle Web Page

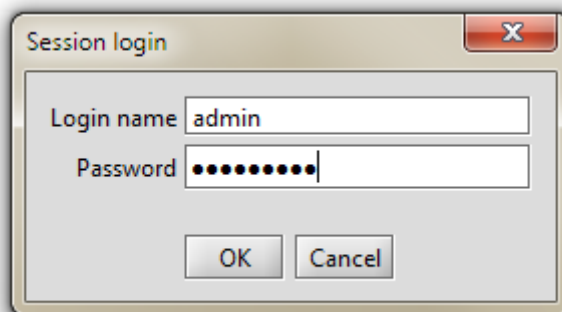


Click on the link labelled **File Explorer** to launch the application download. The File Explorer can be run on any machine running Java Web Start.

Logging In

The File Explorer interface is the same regardless of where you start it from. By default, it displays the names of the nodes in the circle in the area to the left in the application. To access a Share, click on one of the nodes. The login dialog box will be displayed. Enter your user name and password in the fields and click OK.

Figure 1.3. File Explorer Login



Note

The connection information provided during login will be used for connecting to the other nodes.

Once you have logged in, the tree structure under the selected node appears and becomes navigable. Only the shares (and the associated nodes) that the user has access to will be displayed. For an administrator, all the shares in the Circle would normally be displayed.

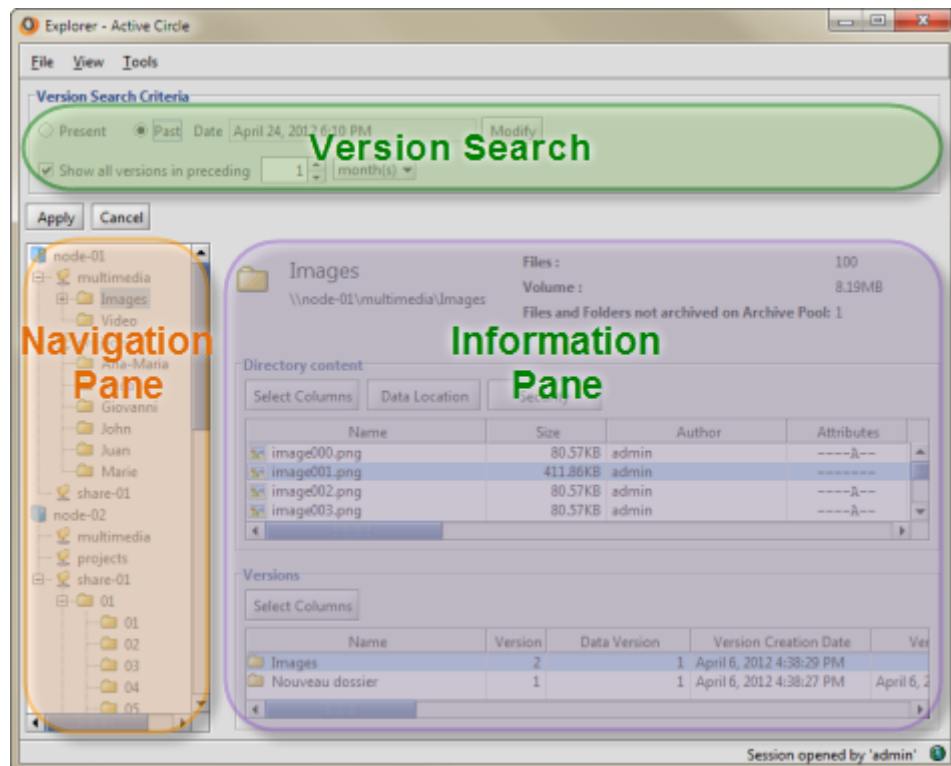


Important

While any Active Circle user with a regular `User` profile can log in to the File Explorer, the actions the user is allowed to perform depend on the access rights and user privileges that have been assigned to the user account. For regular users lacking specific share access rights, some of the menu items are unavailable (greyed out) on the context menu which is displayed when right-clicking on a file or folder object in the explorer tree view.

General Layout

Figure 1.4. File Explorer Interface Layout



The Active Circle File Explorer interface is divided into four main areas:

Menu Bar

Located at the top of the File Explorer application window. It contains the **File**, **View** and **Tools** menus:

– File Menu

With the **File** menu you can:

- **Log in**
- **Log out**
- **Exit** the application

– Edit Menu

With the **Edit** menu you can perform several tasks which are also available by right-clicking on a selection or an object in the Explorer views:

- **Copy Selection...**
- **Show tape list**
- **Archive...**
- **Export...**
- **Security**
- **Compute MD5 signature**
- **Data Management:** Remove disk copies or copy files to the cache

– View Menu

With the **View** menu you can:

- Choose to display the **Status Bar**
- Browse **Folders Only** if you want the tree structure to load faster when the directories contain a huge number of files
- Toggle the display of the **Version Search** tools
- **Refresh** the data displayed in the application

– Tools Menu

With the Tools menu you can:

- **Select a Share** to log in to

Version Search Criteria

Located under the menu bar of the File Explorer application window. The tools in this area allow you to filter the views in the panes below according to when the file versions were created. You can toggle the display of this box on and off using the **View** menu. For more information, see [Chapter 4, Managing File Versions](#).

Navigation Pane

Located on the left-hand side of the application window, the **Navigation Pane** displays the nodes, shares, folders, and files as a navigable tree structure like in a conventional file explorer.

Information Pane

Located on the right-hand side of the application window, the **Information Pane** displays the available information for the object currently selected in the **Navigation Pane**. For more information, see [Chapter 2, File Information](#)

The Information Pane can contain these buttons:

Select Columns

This button opens the **Select Columns** dialog box allowing you to determine which columns will be visible in the interface by selecting the corresponding check boxes. For more information, see [“Select Columns”](#)

Data Location

Opens the **Data Location** dialog. For more information, see [“Data Location”](#)

Security

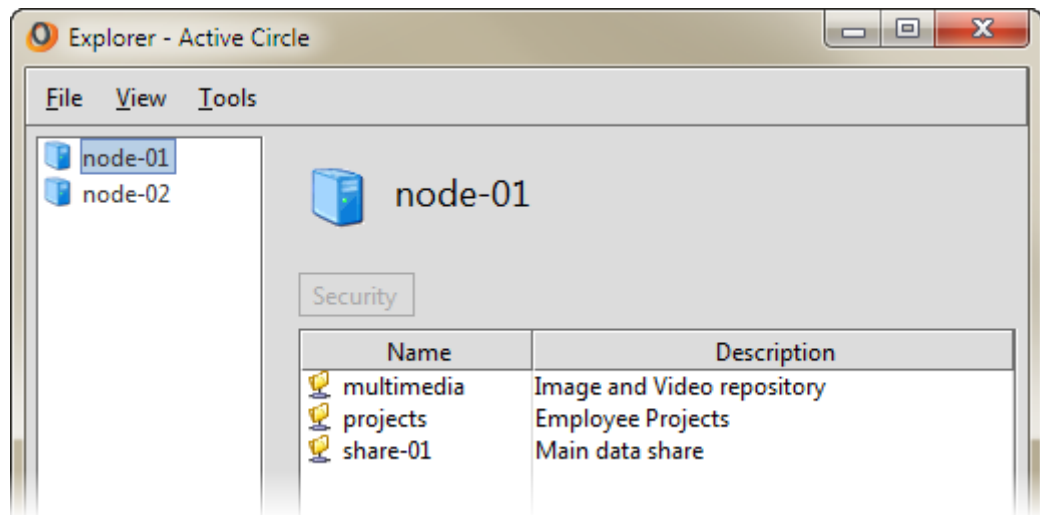
Opens the **Security** dialog. For more information, see [“Security Settings”](#)

Chapter 2. File Information

This chapter describes the types of information that the Active Circle File Explorer displays about shares, directories and files.

When the File Explorer is started, it displays the list of nodes configured in the circle. Clicking on a node in the navigation pane will display a list of the shares that are activated on the node.

Figure 2.1. List of Shares on a Selected Node

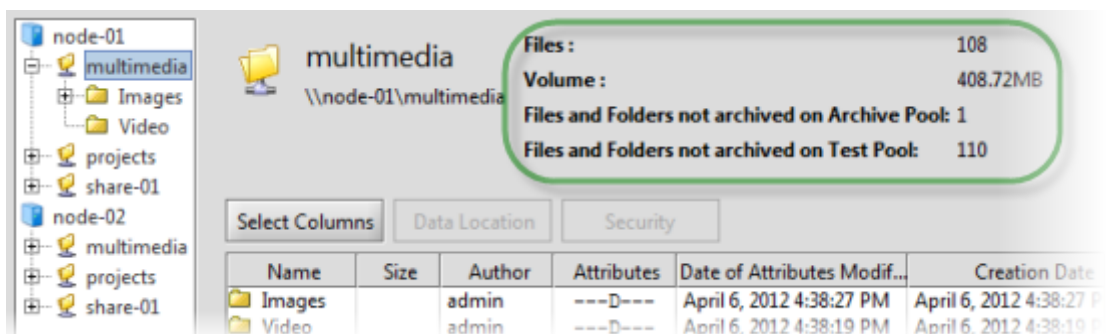


If you double-click on a node, the list of shares will also be displayed below the node in the navigation pane. You can then click on the shares and the plus signs next to them to expand the view into a tree structure of directories and files. The display in the information pane on the right will show the available information for the element selected in the navigation pane to the left.

Share and Directory Information

When you click on a share or a folder in the tree view, the right pane will show summary file and archiving information for the share or folder, above the list of directories or files. The total number of files and the total volume of the files are displayed, as well as the number of files and folders that have *not* been archived on each pool the share is associated with. If more than one location (pool) has been defined in the archiving policy for the share, one line will be shown for each location (up to four).

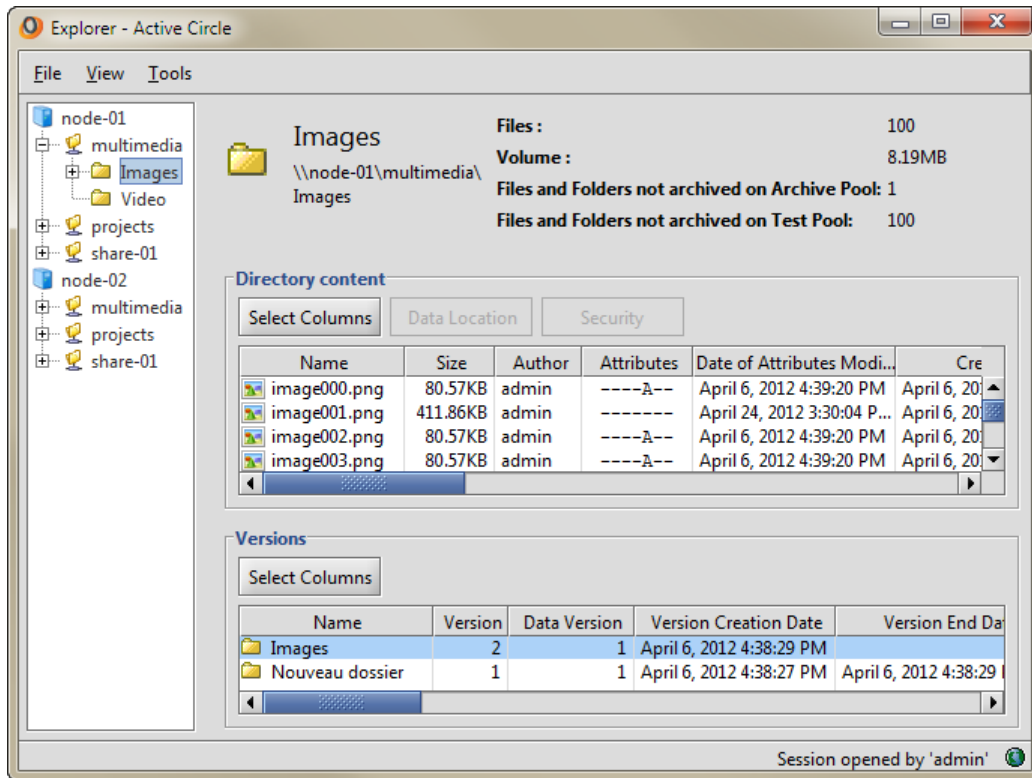
Figure 2.2. Share or Directory Summary



When you select a folder in the navigation pane, the information pane will display two types of information about the folder:

- The list of files contained in the folder
- The list of versions for the folder itself

Figure 2.3. Directory Information

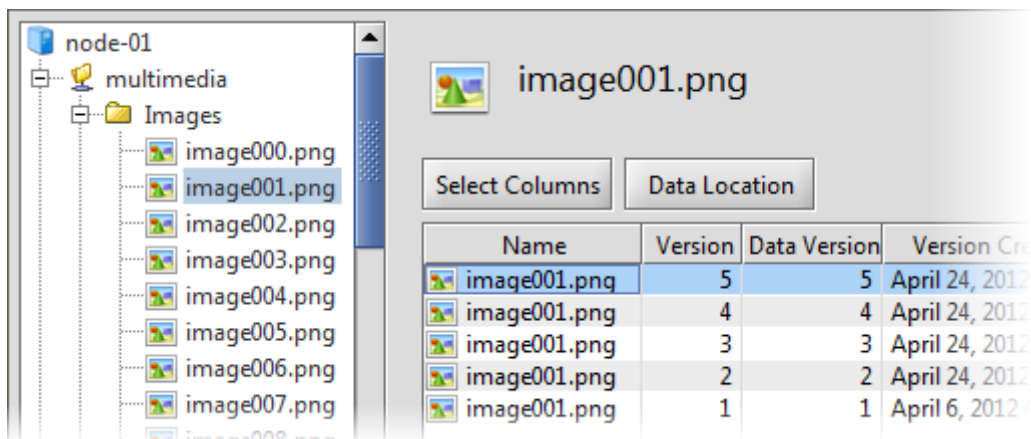


In both views you can click the **Select Columns** button to choose which data columns should be displayed for each object.

File Information

When you select a file in the tree view in the navigation pane, all the versions of the file will be displayed in the information pane to the right.

Figure 2.4. File Versions





Chapter 2. File Information

For each file version, several types of information is displayed:

- Version information
- Information about size, author and attributes
- Creation, access and modification dates
- Archiving status
- Storage policy status
- Unix file mode
- User and group ID for NFS
- Link information
- MD5 checksum information
- Integrity check information

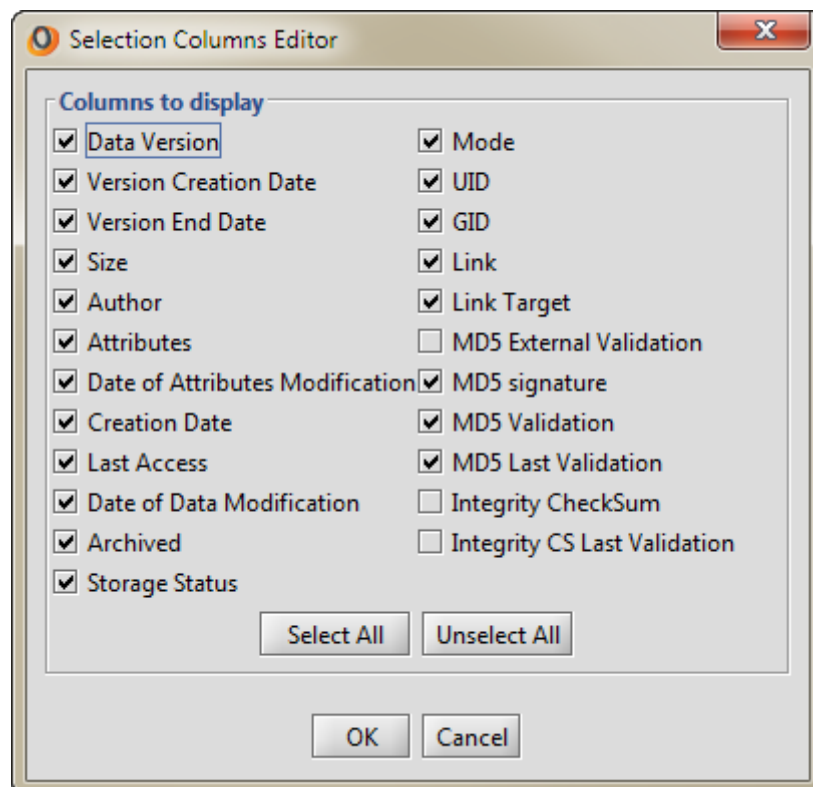
Figure 2.5. Example of file information

Name	Version ▾	Size	Author	Attributes	Date of ...	Archived	Mode
 image001.png	1	80.57KB	admin	----A--	June 8, ...	<input checked="" type="checkbox"/>	-rwxrwxrwx
 image001.png	2	316.05KB	admin	-----	April 24,...	<input type="checkbox"/>	-rwxrwxrwx

Select Columns

You control which data columns will be displayed by clicking on the **Select Columns** button.

Figure 2.6. Data Columns Selection



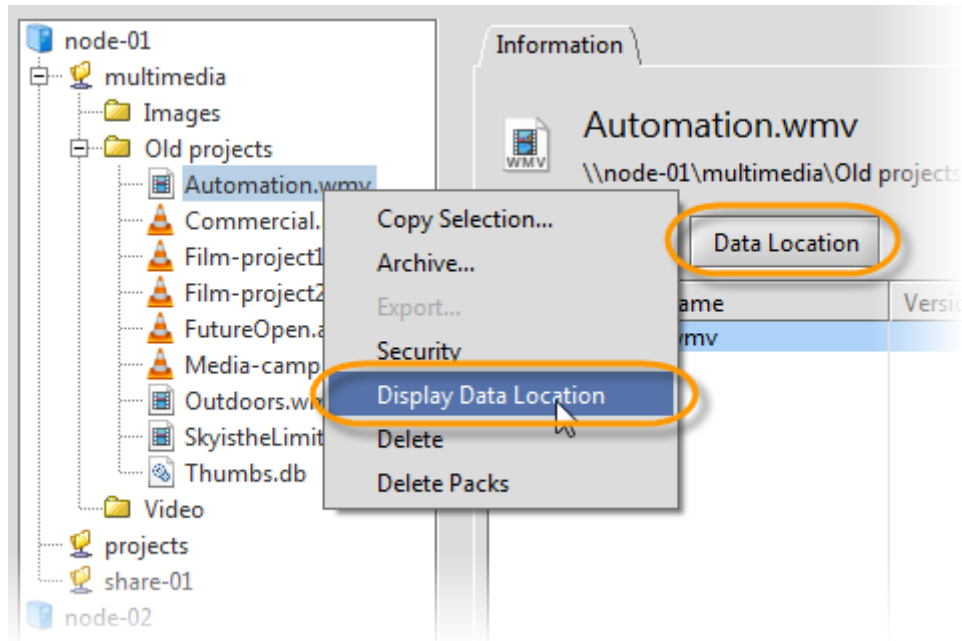
Data Location

Using the **Data Location** feature, you can identify where in the Active Circle system the data corresponding to any particular file is stored. This functionality is also useful for verifying if a particular file has been archived.

Chapter 2. File Information

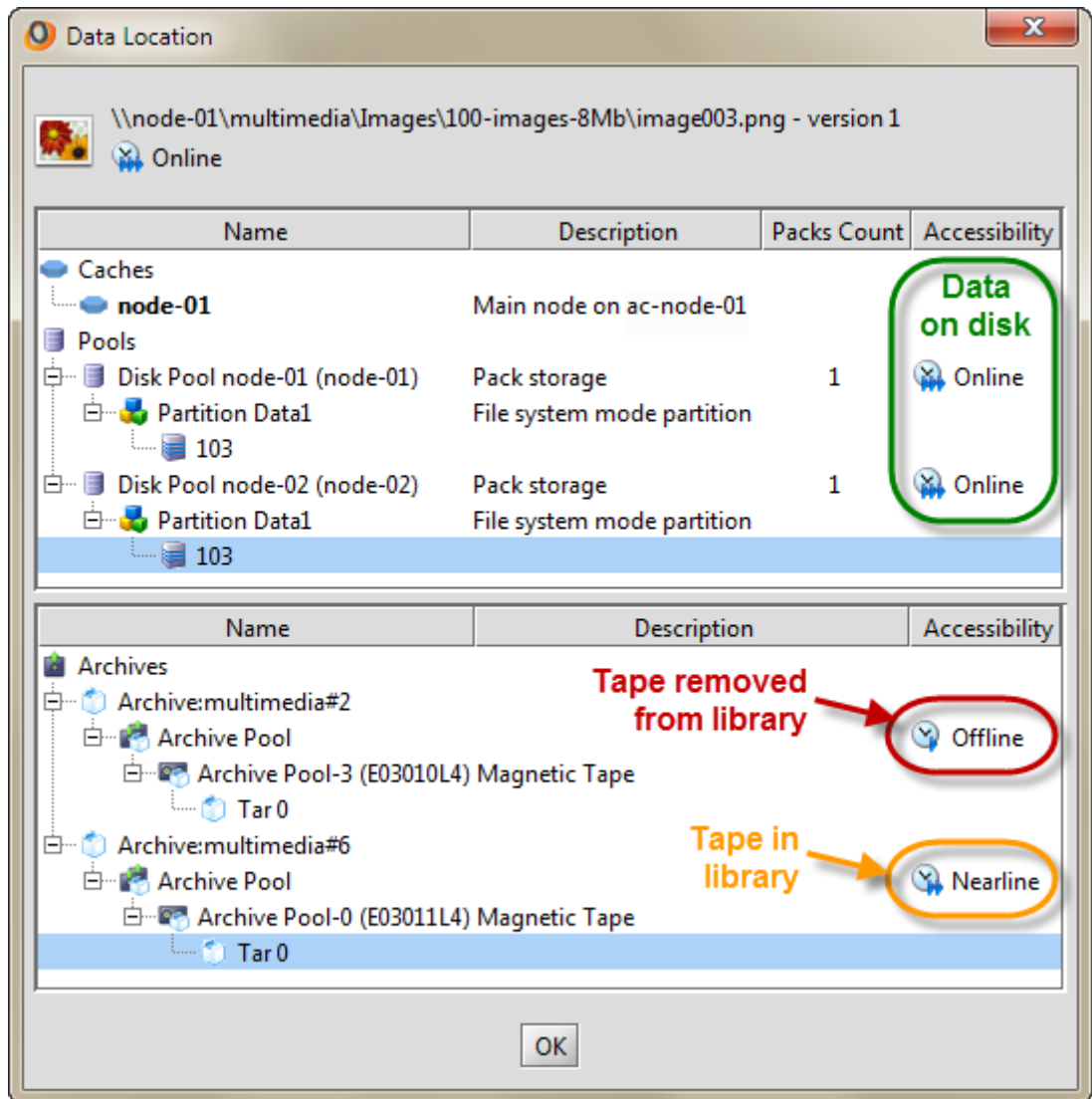
The **Data Location** window can be accessed by right-clicking on a file in either the left-hand or the right-hand pane and selecting **Display Data Location** from the context menu, or by clicking on the **Data Location** button in the **Information** pane.

Figure 2.7. Viewing the data location



The **Data Location** dialog box displays where the file data is stored: the cache, pool and node, the partition on the node, down to the level of the box pack file (the mechanism used by the Active Circle system for storing data). If a copy of the file has been archived, information relating to its location on tape will be displayed.

Figure 2.8. Data Location dialog



The above example shows a file that has a copy in all possible location types at the same time (cache, disk, tape). If the file only existed on tape, the top part of the dialog would be empty (and vice versa if the file only existed on disk). The **Accessibility** status of the file is indicated. The following table shows what the status means for the availability of the files.

Table 2.1. Accessibility and File availability

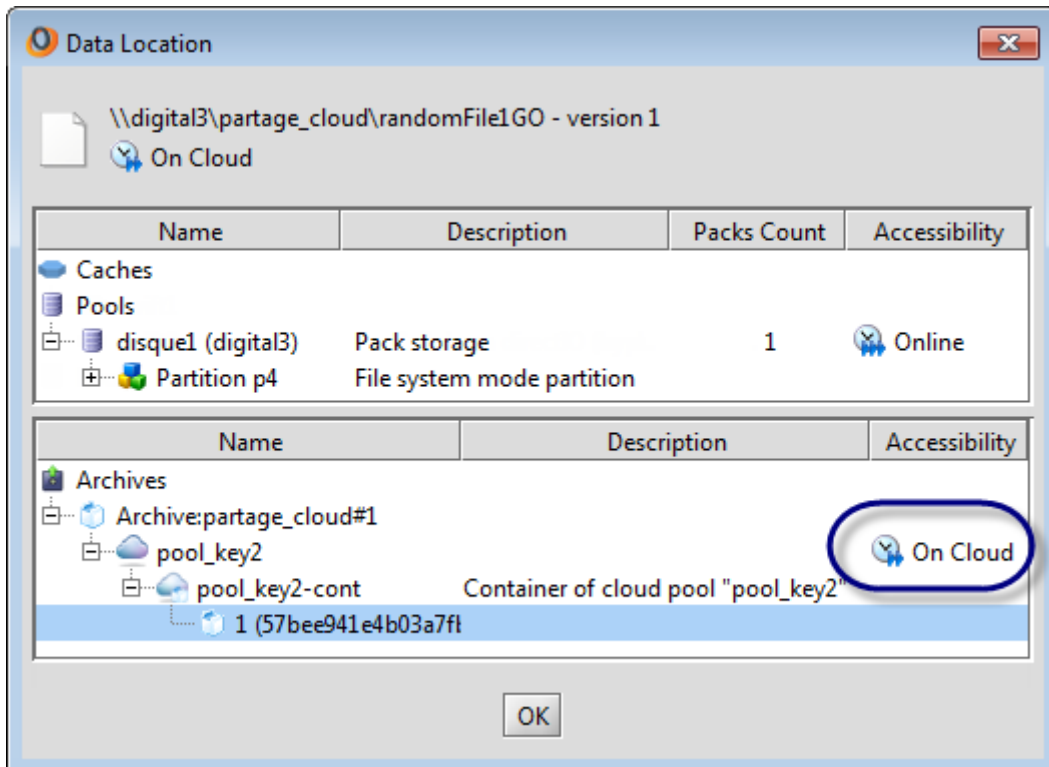
Accessibility	Location type	File Availability
Online	Cache/Disk	Automatic
Nearline	Tape archive	Automatic
Offline	Tape archive	Operator intervention required
On Cloud	Cloud archive	Automatic

Cloud Archive Locations

The Data Location feature can also display information about data stored in the cloud. The cloud location information is displayed in the lower part of the Data Location dialog, as cloud

data are by definition archived. Since a file in the cloud may also exist in a local disk pool (if a storage policy has been defined for the share), location information for the same file can also be displayed in the upper (local) part of the location dialog. However, only the lower part refers to the actual cloud storage. If you have selected a file which belongs to a cloud pool, and no cloud information is shown in the archive area of the Data Location dialog, it means that the data in the pool have not been archived yet or that an archiving operation has failed. You could also check if the Active Circle share you are archiving from has an archiving policy associated with the cloud pool, using the Active Circle Administration Tool.

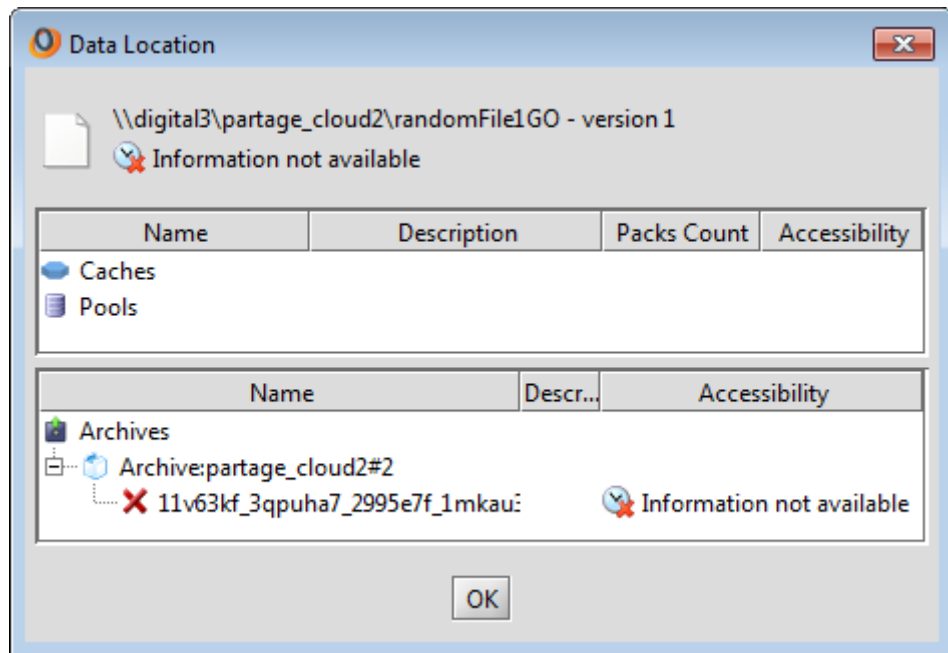
Figure 2.9. Data Location for Cloud archives



The location information for the cloud data refers to the share name and archive sequence number, the cloud pool and the archive identifier. Since the cloud data storage is defined as a single unlimited partition, there is no tape or other physical location information available. The **On Cloud** accessibility status indicates that the cloud is connected and the data available.

In the event a problem occurs in the cloud or with the connection to the cloud, the Data Location dialog will indicate that the "information is not available" instead of showing the accessibility. The share, archive number and pool name will still be indicated, as shown below. In this case you should check the network or contact your administrator or cloud provider.

Figure 2.10. Data Location for Cloud archives without connection

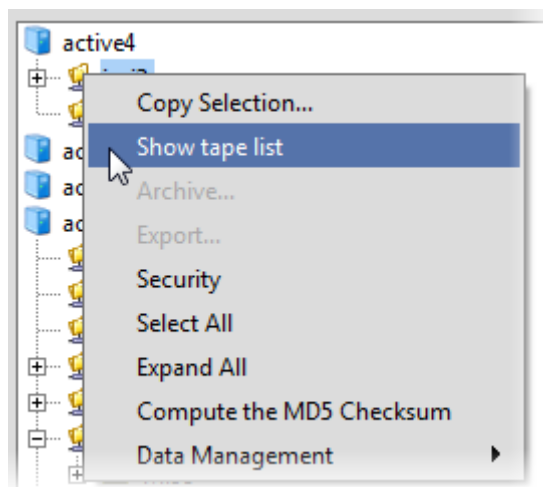


Tape Locations

You can use the Active Circle File Explorer to find out on which tape(s) a selection of files have been archived on. This information could be useful in preparation for certain tasks, for example to verify the set of tapes necessary so that the administrator can check if those tapes are located in the tape library. You can request the list of tapes for a selection of files, folders or an entire share.

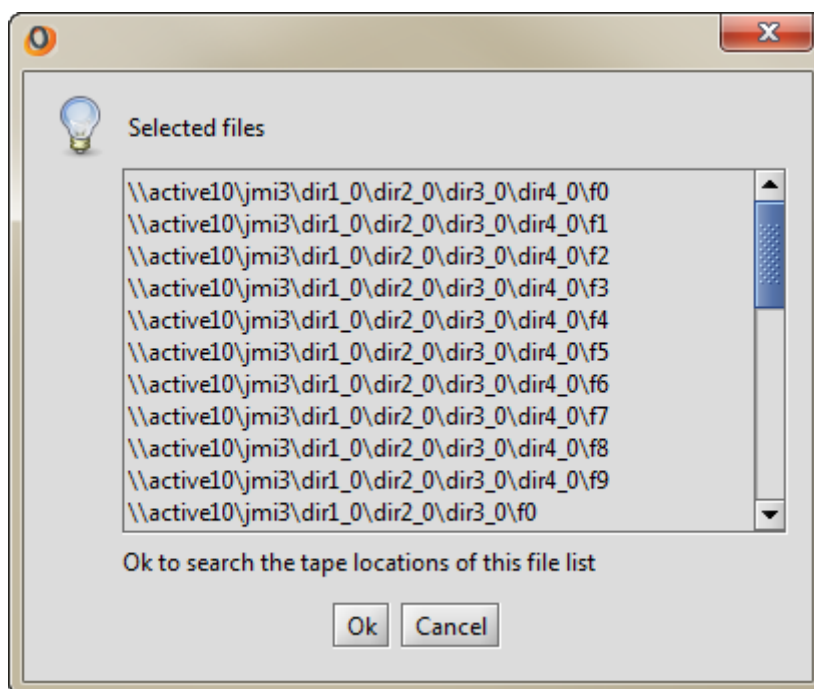
The **Tape Locations** window can be accessed by right-clicking on a file, a file selection, a folder or a share in the tree view and selecting **Show tape list** from the context menu.

Figure 2.11. Show tape list menu item



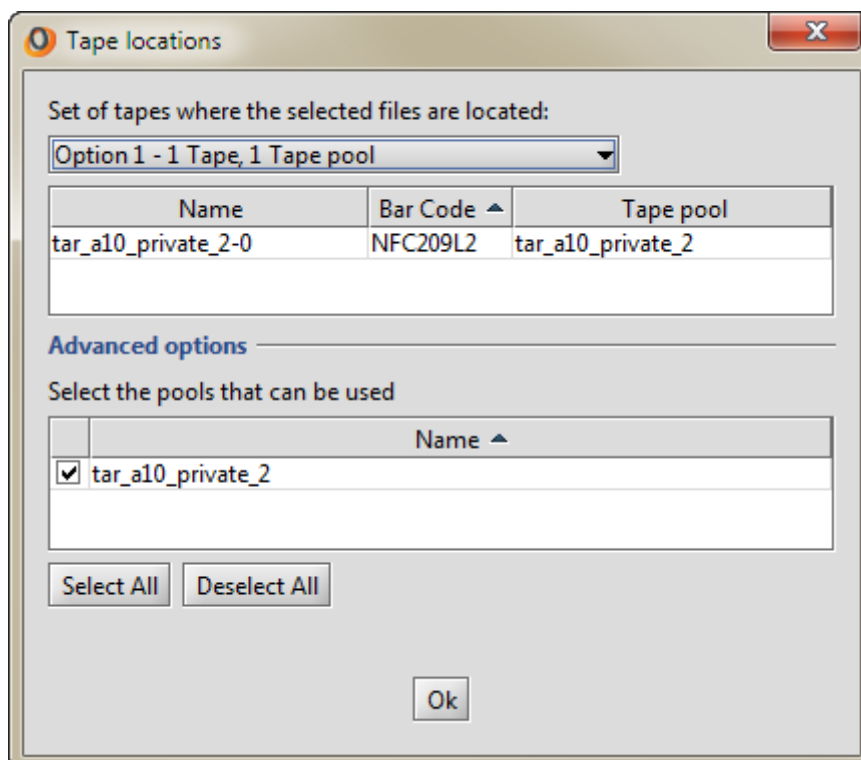
If you select only one file, the **Tape Locations** dialog will be displayed right away, if that file has been archived to tape. If more than one file or a directory was selected, the list of files to find tape locations for is displayed:

Figure 2.12. Selected files



Click on **OK** to obtain the tape information. The **Tape locations** dialog will be displayed. It shows the list of all the tapes where the selected files have been archived. If multiple copies of the files exist on tape, you can choose the tape pool to use for displaying the list of tapes.

Figure 2.13. Tape Locations



Chapter 3. Managing Files

This chapter describes the file management tasks you can perform in the Active Circle File Explorer:

- [Make a local copy of files stored in the Active Circle system](#)
- [Purge files from the system using the **Delete** feature](#)
- [Remove copies of files on disk](#)
- [Create copies of files on disk](#)
- [Copy files to the cache \(destaging\)](#)

Your ability to perform these tasks depends on your access rights as defined in your *user profile*. Please contact your system administrator if you have problems accessing this functionality.

Making a Local Copy

Using the Active Circle File Explorer, it is possible to extract a file, the contents of a directory, or an entire directory structure from an Active Circle share, and copy it to your local system.



Note

You need to have the profile **Restore operator** associated with your user account or be a **Data administrator** to perform this operation.

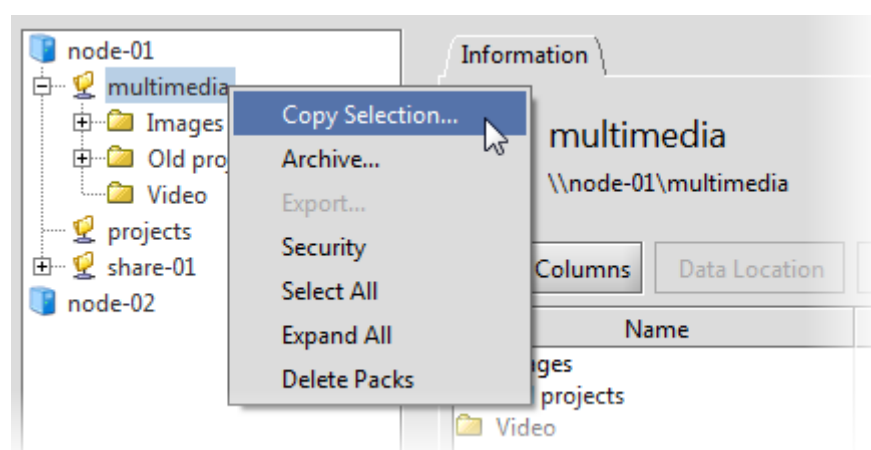


Important

If the system discovers that one or more of the objects you want to extract are located on an *offline tape*, you will be notified about this, and given options to proceed. Be aware that extracting offline files will require the intervention of an operator on a tape library, which involves additional processing time. This case is described in the section about [offline file retrieval](#) below.

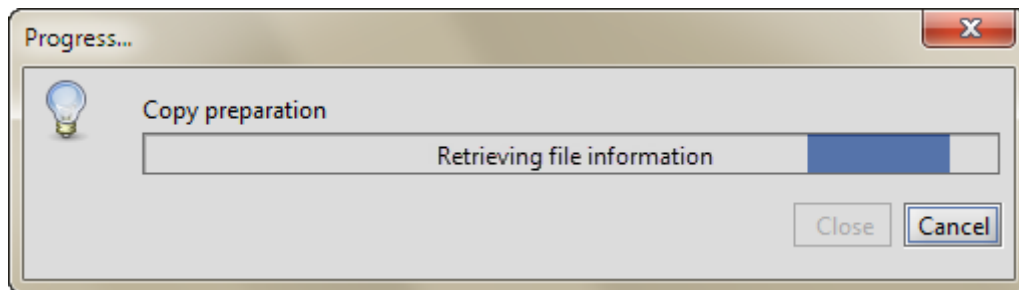
Right-click on the object you want to extract and select **Copy Selection**.

Figure 3.1. Menu Choice for Extracting Local Copies



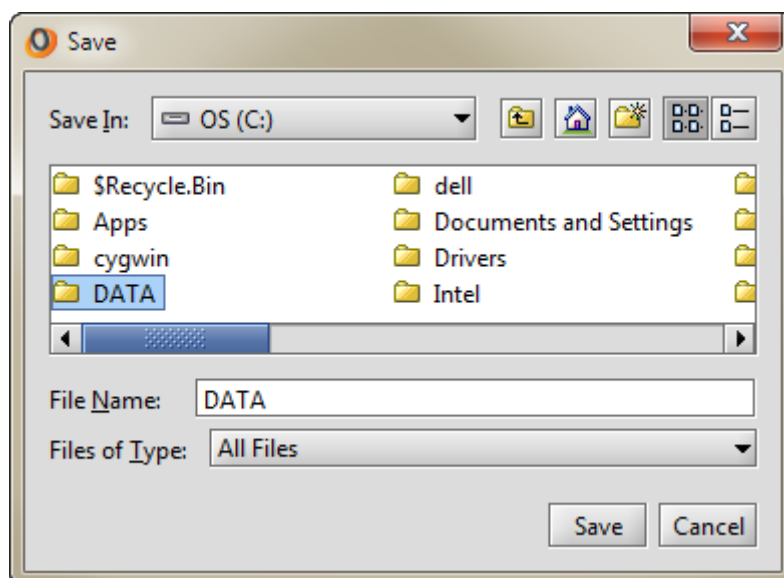
The system will begin collecting information about the selected data, and a window is displayed to inform you of the progress. If you selected a large number of files and directories, this process can take some time. If few files were selected, the progress window may be displayed for less than a second.

Figure 3.2. File Information Retrieval Progress



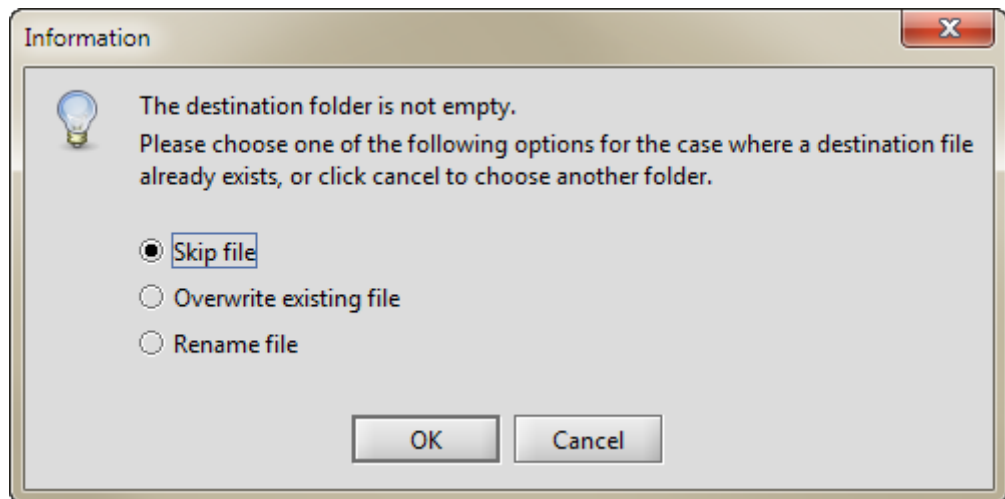
A dialog box will open to allow you to browse to the location where you want to copy the selected item.

Figure 3.3. Browse to Select the Destination Directory



If the destination folder is not empty, you will be shown a window where you have to choose between three options:

Figure 3.4. Select Option for Existing Files



Skip file

Only files that *do not* already exist will be copied.

Overwrite existing file

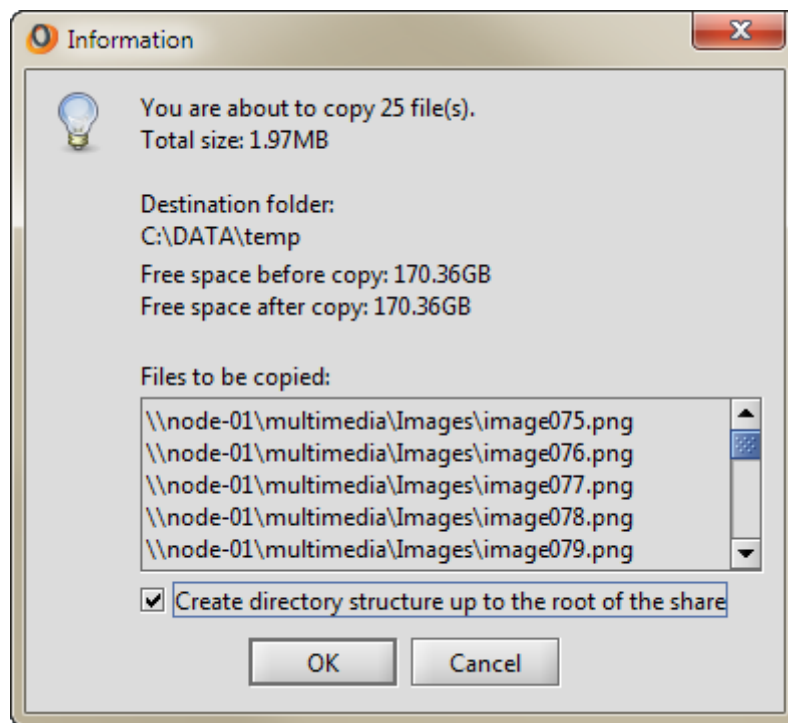
Copies all the files, replacing the files that already exist.

Rename file

Copies all the files, but renames any files which already exist (a number is added to the file name of the newly copied file).

Click **OK** to proceed. An information message will be displayed before the copy operation starts, showing the list of files to be copied and giving you an option to use the full path of the files:

Figure 3.5. Information for Copying One or More Files



Click on **Create directory structure up to the root of the share** if you want the full path of the file to be re-created on the destination. Click **OK** to copy the files to the selected destination. You can also click **Cancel** to end the operation.

**Note**

When copying the files, the Active Circle File Explorer recreates the entire directory structure for the copied files up to but not including the root of the Share, regardless of what level in the folder structure you copy.

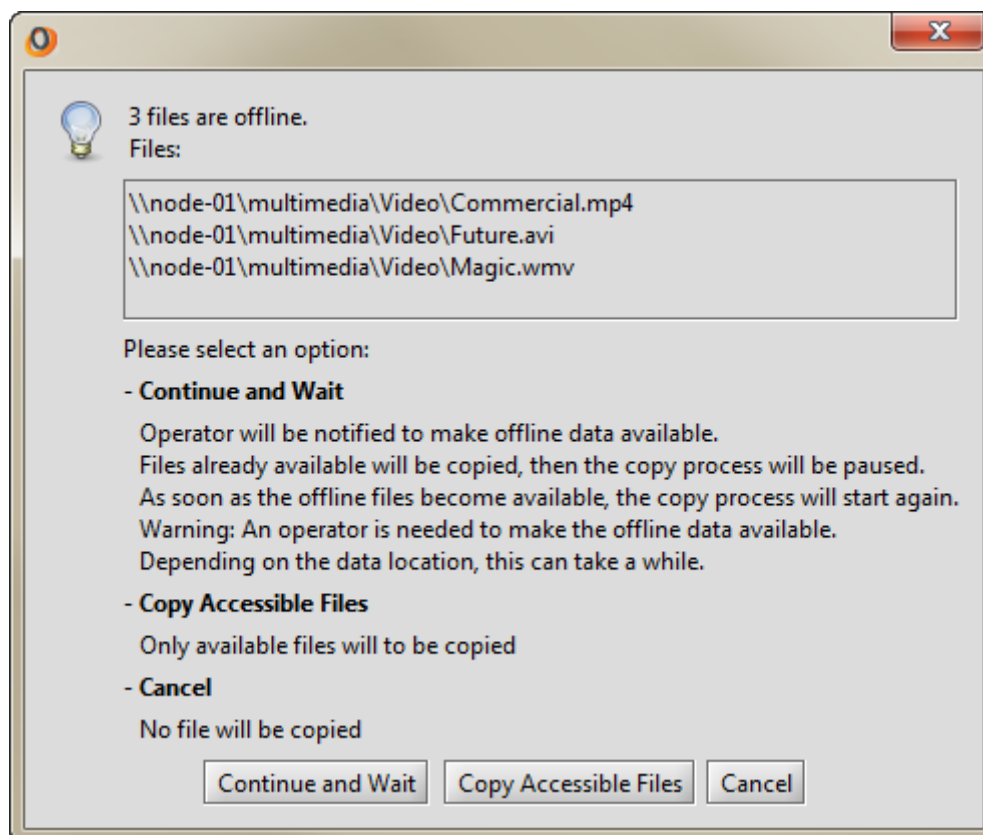
If you decide to proceed with the copy operation, the system will now perform an analysis of the files you selected for extract. If all the files you selected for copying are available (meaning the **Accessibility** status is either **Online** or **Nearline** as indicated by the [Data Location](#) feature), the copying process starts immediately. In this case, you may skip the next section and proceed to the [copy progress and completion](#) section.

If the file analysis finds that one or more of the files you selected are *not available* for automatic retrieval because their accessibility status is **Offline**, you need to perform additional steps before the copying process can start. These options are described in the next section.

Copying Files from Offline Media

When the status of a file is **Offline**, it means that it is located in an archive on a tape which has been removed from the tape library. Consequently, any data retrieval from the tape would require the action by an operator to load the tape into the library. If you have selected to copy *offline* files, a dialog will be displayed informing you of your options.

Figure 3.6. Offline File Information and Options



The information window displays a list of the offline files. Below that, the options are described:

Continue and Wait

If there are any **Online** or **Nearline** files in your selection, the copying of these will begin immediately. A [supervision note](#) will be sent to the tape operator. Then the copy process will pause, pending tape library intervention from the operator. The copy operation will resume as soon as the requested tape has been loaded in the library, and the library has been *synchronized*.

Copy Accessible Files

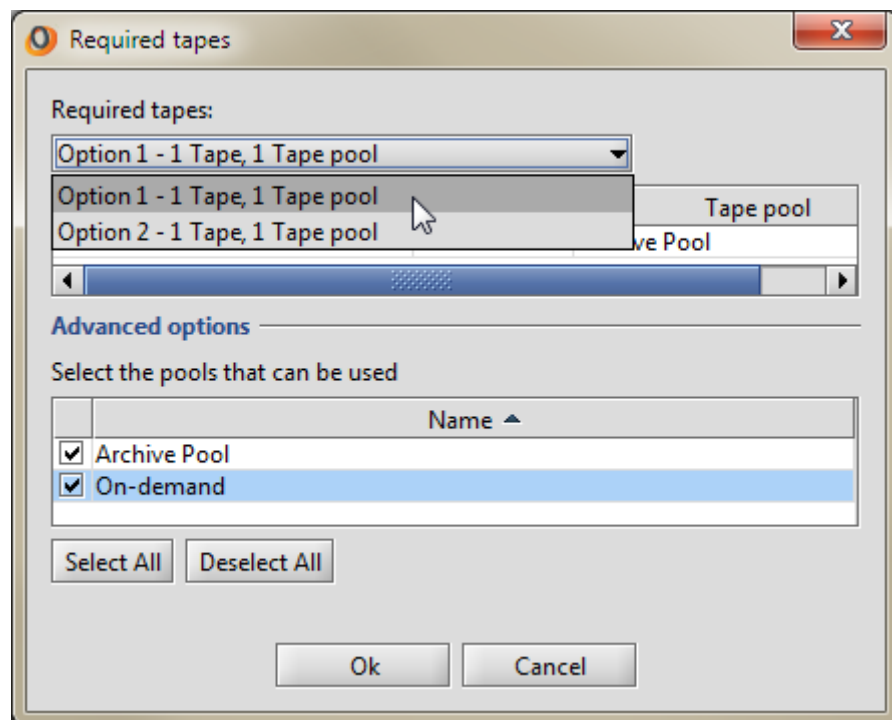
This will start the copy operation for any available files (**Online** or **Nearline**) in your selection. The copy process will continue until all available files have been copied, and it will then terminate. The offline files will be ignored, and no notification will be sent to the tape operator.

Cancel

Aborts the copy operation. No files will be copied, even if some of the selected files may have been available.

Select one of the options by clicking on the corresponding button. If you select **Continue and Wait**, the **Required tapes** dialog will be displayed, giving options for which tape(s) to be loaded and which tape pools to be used.

Figure 3.7. Offline files – Required tapes dialog



If the selected offline files only exist on one tape, this dialog will only be for information since there will be no choice from where to copy the data. If the files are located on more than one tape and in more than one tape pool, you can choose which tape and pool to use. This is for example useful if there are two copies of a tape, but only one of them is on site. Then you would want to choose the tape which is stored locally and available to an operator.

By default, all the tape pools the files belong to are selected under **Advanced options**. If there is more than one, you will be able to choose between tapes from these pools in the

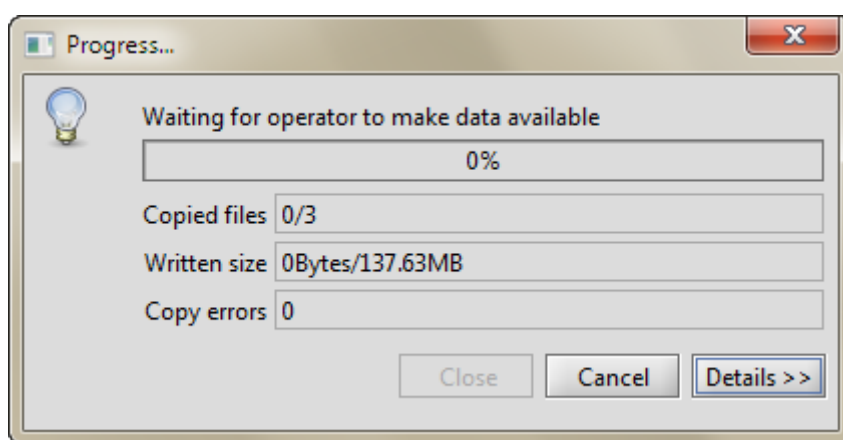
drop-down list under **Required tapes**. Once you have chosen a tape option, the name(s) of the tape(s) that need to be loaded are displayed in the list:

Figure 3.8. Offline files – List of required tapes

Name	Bar Code ▲	Tape pool
Archive Pool-0	E08003L4	Archive Pool

Click on **OK** to proceed with the operation. The copy progress dialog is displayed, stating that the system is waiting for the operator to load the required tape.

Figure 3.9. Waiting for Offline Files



Supervision Note to tape operator

When you choose to copy offline files, a supervision note will be displayed in the Active Circle Administration Tool as well as be sent to the person(s) subscribing to tape notes. The note will inform the operator to load a tape:

Request for data retrieval from offline tapes

A retrieval request from user <username> requires that the following tapes be put in online state

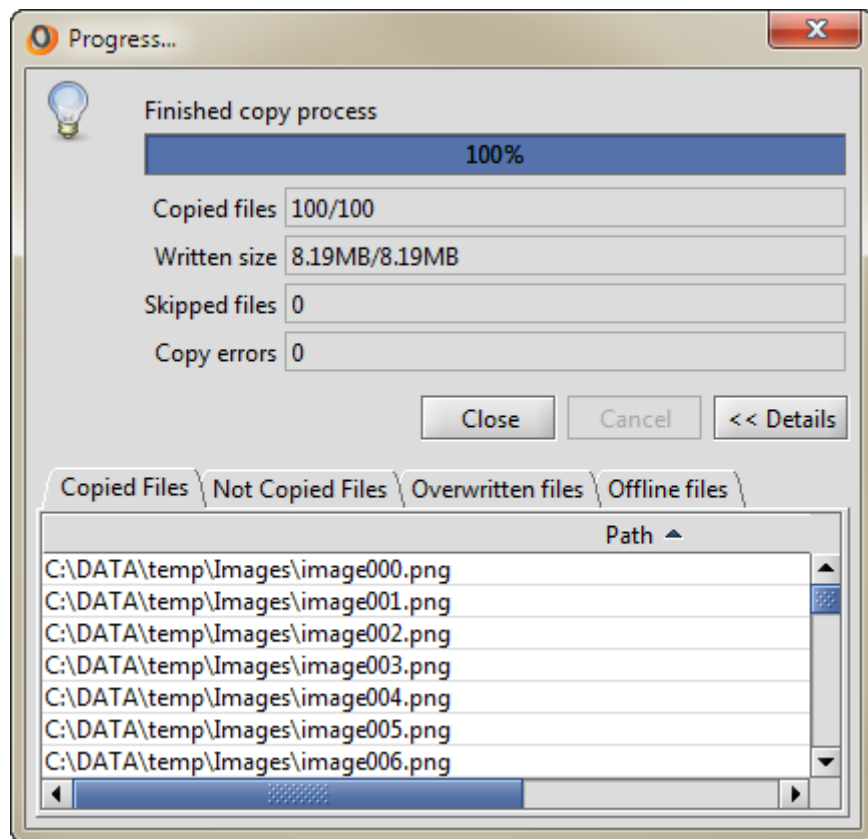
This is followed by information about the tape's bar code, the tape pool it belongs to, and other necessary data.

The copy progress status and completion information for offline files is identical to that of other files, and is described in the next section.

Copy Progress and Completion

A dialog opens to show the progress of the file copy process. When the transfer is completed, the progress dialog will display the number of files successfully transferred, the amount of data copied, and the number of errors encountered. If not all files were copied, an additional information message will be displayed to remind you to check the list of **Not Copied Files** (this list will contain all the skipped files if you selected **Skip files** above). If multiple files were processed, you can click on the **Details** button to view which files were successfully copied, which files were not copied, which files were overwritten and any off-line files (for example, archived but not currently available).

Figure 3.10. Copy Progress/Completion



When you have finished, click the Close button to close the status window.

Deleting Files

It is possible to delete files on Active Circle shares through the File Explorer. Deleting a file through the File Explorer removes all its versions and purges the file from the system. This delete function will not affect any local data copies you might have.

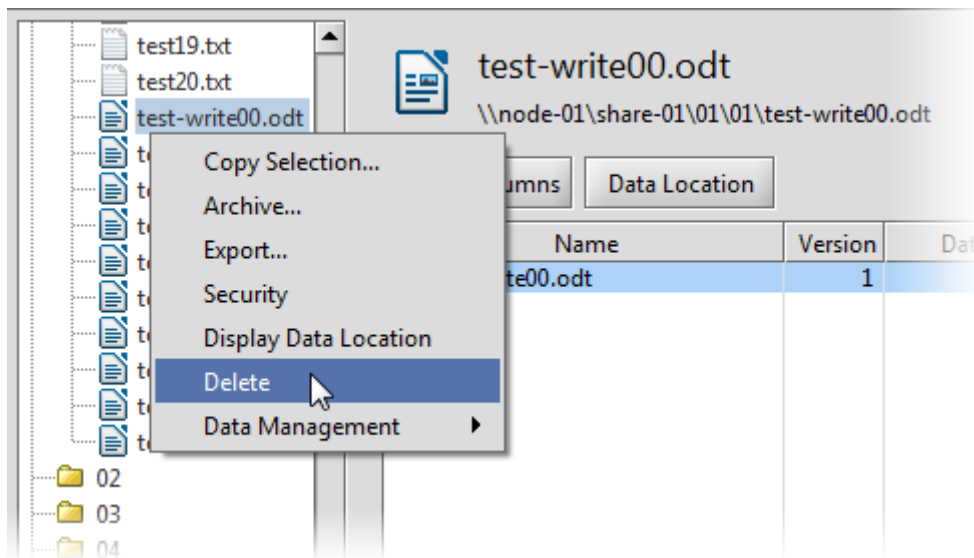


Warning

When you delete a file through the Active Circle File Explorer it is *definitive*. You will not be able to restore it later.

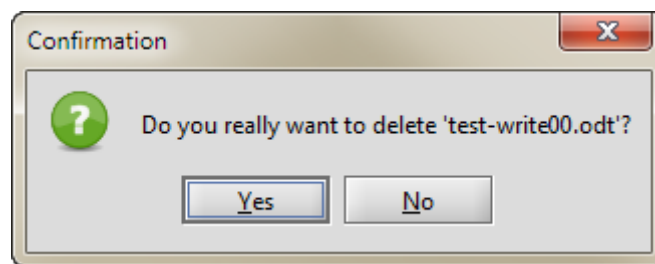
To delete a file, right-click on it and select **Delete**.

Figure 3.11. Delete a file



A dialog box asks you to confirm the action:

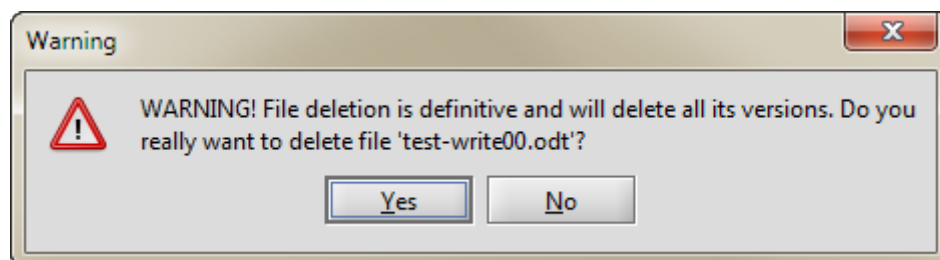
Figure 3.12. Confirmation



Click **Yes** to confirm and continue, or click **No** to cancel the deletion.

When you click **Yes** a final warning message appears:

Figure 3.13. Warning



Clicking **Yes** here will permanently delete the file. Click **No** to cancel the deletion.



Tip

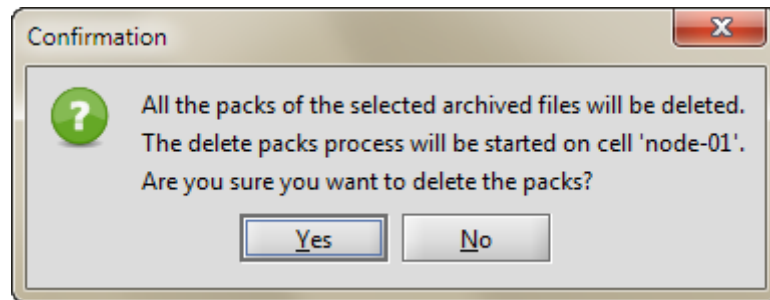
You can also delete a file permanently through the same process as above by selecting it and then pressing the **Delete** key on your computer's keyboard.

Deleting Disk Copies

You can delete the disk storage *packs* that contain the data for a file. If the file data have been archived to a TAR file on a tape, you may decide that you no longer want a copy of the file(s) on disk. This is a useful feature for freeing up space in the disk pools. To verify if there is an archive copy of the pack(s) for a particular file, use the procedure described in [checking the data location](#).

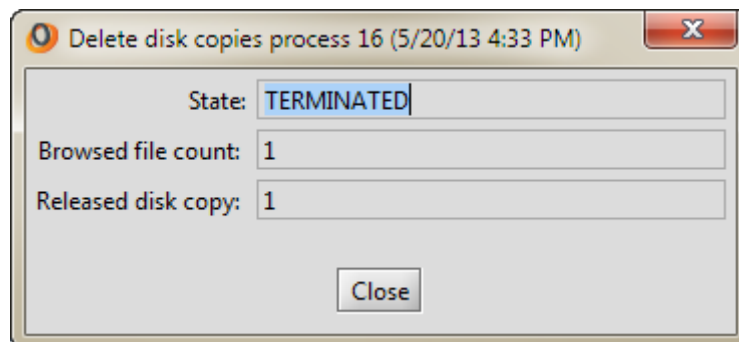
To delete the packs, right-click on the file, select **Data Management** and select **Remove Disk Copies** from the submenu. A confirmation message will be displayed:

Figure 3.14. Delete Confirmation



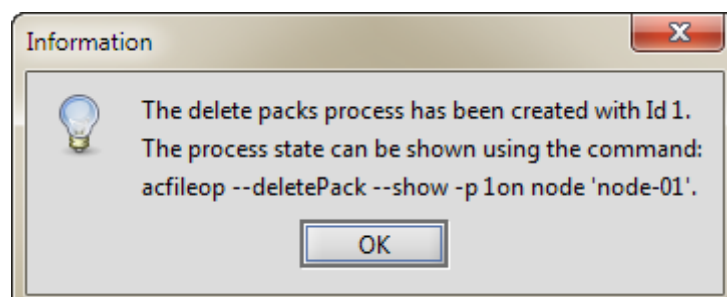
Click **Yes** if you want to continue with the operation. After the delete process has started, an information message is displayed to inform you of the progress:

Figure 3.15. Delete Process Information



If you click on **Close** before the delete process has completed, an information message is displayed to inform you of the ID number of the process, and how you can check the status of it:

Figure 3.16. Delete Process Information



To check the status, type this command on the command line of the Active Circle node indicated in the message:

```
acfileop --deletePack --show -p x -C nodename
```

where *x* is the process number displayed by the information message.

Creating Disk Copies

You can create new disk *packs* for files residing in the Active Circle system. This functionality is provided to enable copying files from tapes to disk. To verify if there is an archive or disk copy of a particular file, use the procedure described in [checking the data location](#).

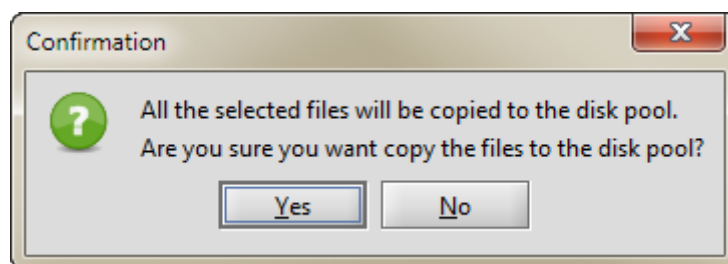


Note

The system can only create a file copy on disk if a storage policy is currently associated with the share. The file copy will be created in the disk pool specified by the storage policy.

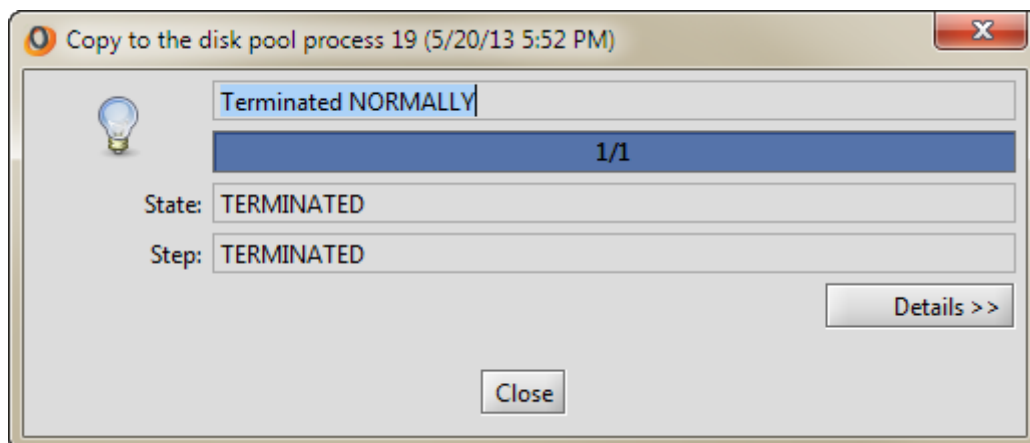
To create the copy, right-click on the file, select **Data Management** and select **Create Disk Copies** from the submenu. A confirmation message will be displayed:

Figure 3.17. Copy Confirmation



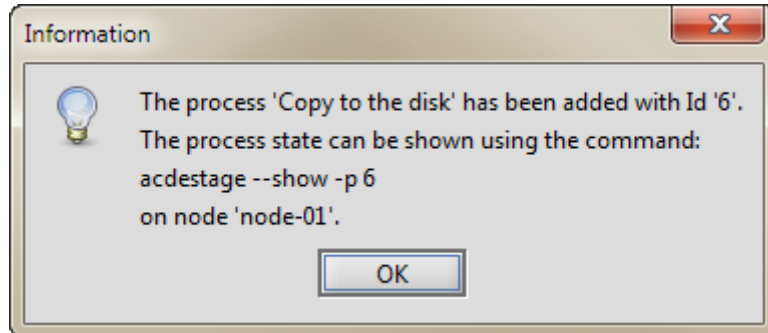
Click **Yes** if you want to continue with the operation. After the pack creation process has started, an information message is displayed to inform you of the progress and if the operation was successfully completed. Click on **Details** to expand the window to see more information:

Figure 3.18. Create Process Information



If you click on **Close** before the process has completed, an information message is displayed to inform you of the ID number of the process, and how you can check the status of it:

Figure 3.19. Create Process Information



Copy to the Cache

You can copy a selection of files stored on slow media like tapes to the cache area of an Active Circle node. This functionality is also called *destaging*. The copying will be performed in an optimized way according to the location of the files on the tape(s). When the user has a need for bringing files located on a tape on-line, launching this operation in anticipation of this can save a considerable amount of time. Once the files are in the cache, access to them will be the at the quickest level possible.



Note

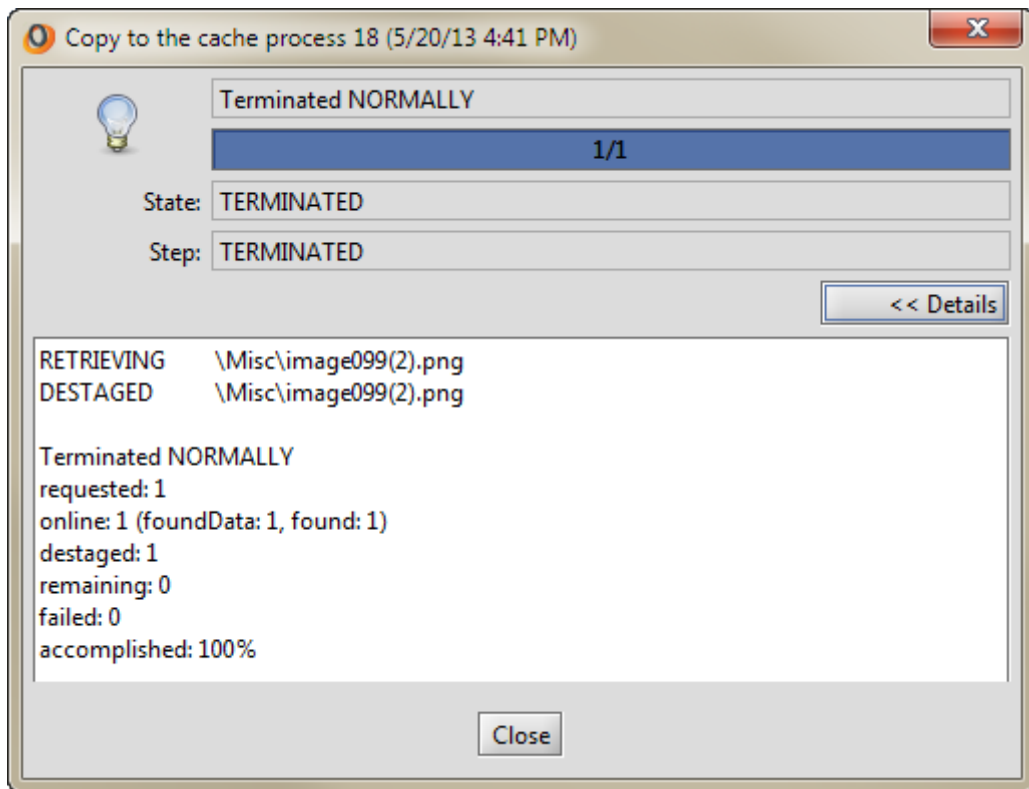
You must have administrator rights to access this functionality.

To copy the selected files to the cache, right-click on the file or directory object(s), select **Data Management** and select **Copy to the Cache** from the submenu.

A confirmation message will be displayed. Click on "Yes" if you want to proceed with the operation.

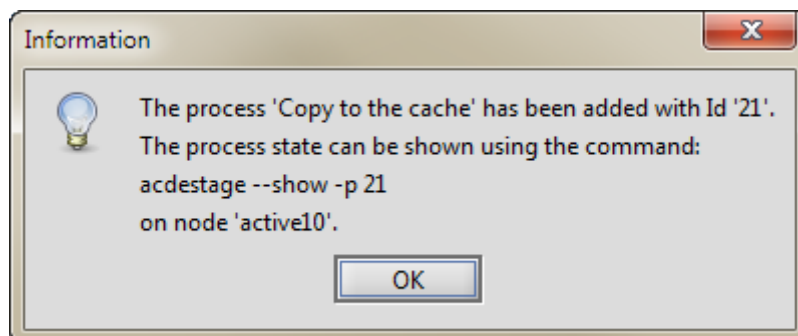
Click **Yes** if you want to continue with the operation. After the destaging process has started, an information message is displayed to inform you of the progress and if the operation was successfully completed. Click on **Details** to expand the window to see more information:

Figure 3.20. Destaging Process Information



If you click on **Close** before the copying process has completed, an information message is displayed to inform you of the ID number of the process, and how you can check the status of it using the Active Circle command line interface:

Figure 3.21. Copy Process Information



This is an example of the command line status information for a destaging process that was successfully completed on the share "test":

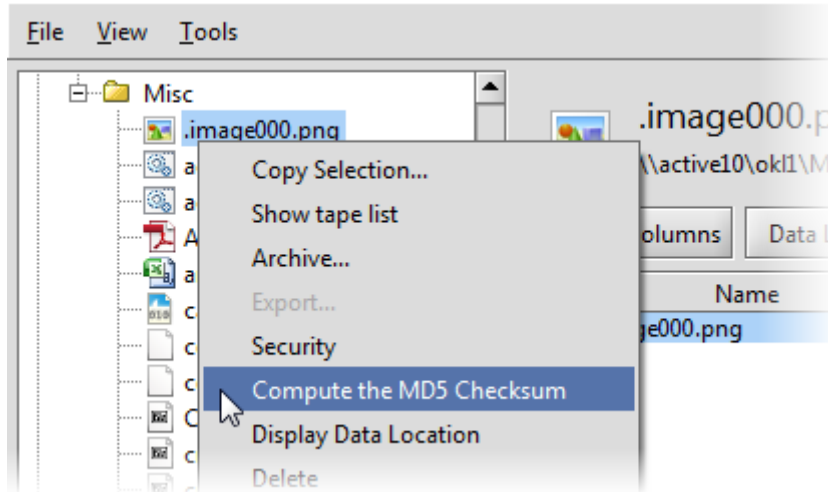
```
# acdestage --show -p 2
Please enter the value of 'nodeName': node-01
2      Copy to the cache from Explorer test      TERMINATED      NORMALLY
```

The Active Circle **acdestage** command offers more options for monitoring and managing the operations (like stopping the process and filtering by file state) for this feature. Please see the *Active Circle Command Line Guide* for more information.

Compute MD5 Checksum

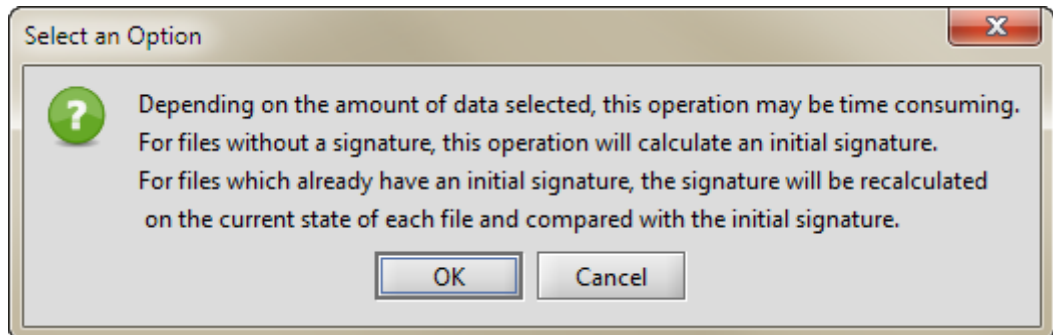
You can compute checksums for one or more files. This involves creating a signature for each file using the MD5 algorithm. Files without a signature will have an initial signature created for them. Existing signatures will be recalculated and compared to the initial signature. To compute checksums, select one or more files, right click on the selection and click on **Compute MD5 Checksum**:

Figure 3.22. Compute MD5 Checksum menuitem



An information message will be displayed:

Figure 3.23. Compute MD5 Checksum Information



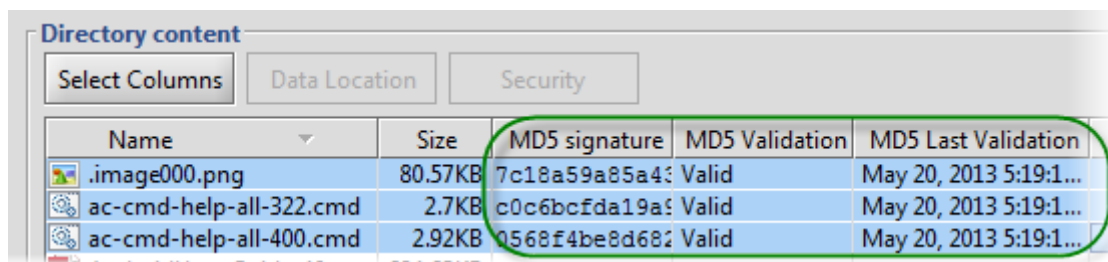
Click on **OK** to perform the checksum calculations.

If you want to see checksum information for a file, select the file or the directory the file is in, and the detailed file information will be displayed in the information pane to the right. Scroll to the right in the file information table if you don't see the checksum columns, which are:




- *MD5 Signature*
- *MD5 Validation*
- *MD5 Last Validation*
- *MD5 External Validation* (not shown by default)

If no information is displayed in the MD5 columns for the files you computed checksums on, press the **F5** key to refresh the display.

Figure 3.24. File Checksum Information



The screenshot shows a 'Directory content' window with three tabs: 'Select Columns', 'Data Location', and 'Security'. The 'Select Columns' tab is active, displaying a table with the following columns: Name, Size, MD5 signature, MD5 Validation, and MD5 Last Validation. Three files are listed in the table, and the MD5-related columns are circled in green.

Name	Size	MD5 signature	MD5 Validation	MD5 Last Validation
 .image000.png	80.57KB	7c18a59a85a43	Valid	May 20, 2013 5:19:1...
 ac-cmd-help-all-322.cmd	2.7KB	c0c6bcfda19a9	Valid	May 20, 2013 5:19:1...
 ac-cmd-help-all-400.cmd	2.92KB	0568f4be8d682	Valid	May 20, 2013 5:19:1...

If the MD5 data columns are not displayed in the file information table, select the file or folder in the navigation pane and click on the **Select Columns** button under **Directory Contents** and select the MD5 check boxes. See [“Select Columns”](#) for more information about selecting columns to display.

Chapter 4. Managing File Versions

If version management has been activated for a given Active Circle Share, then whenever a user makes a change to a file on that Share — whether it be to the file contents or to one of its attributes — and then saves those changes, a new version of the file is created in the system.

Any user who has access to the File Explorer and who has the Active Circle access right *History* for a given file can restore an earlier version of a file or recover it if it has been deleted.



Note

Unlike CIFS, NFS is state-less, therefore the concept of "saving" does not apply. The creation of a new version occurs automatically after a period of inactivity on the file.

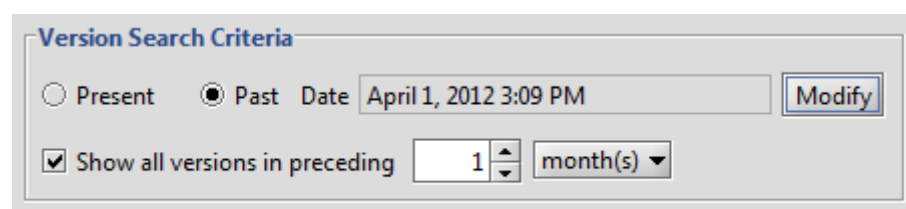
Version Search



Tip

If the **Version Search Criteria** box is not shown at the top of the File Explorer interface, you can display it by selecting **Version Search** on the **View** menu.

Figure 4.1. Version Search Criteria



Using the Active Circle File Explorer you can browse through the history of a Share in order to locate a previous version of a file or a deleted file. There are several ways of doing this:

- The default view. This view shows you the most recent recent versions of each file in the system.
- [Showing all versions](#)
- [Viewing the past](#)

Showing all versions

When used in combination with the **Present** radio button, the filter option **Show all versions in preceding** *n* hour(s) / day(s) / week(s) / month(s) / year(s) allows you to view all the file versions for which there has been activity within the selected time period.

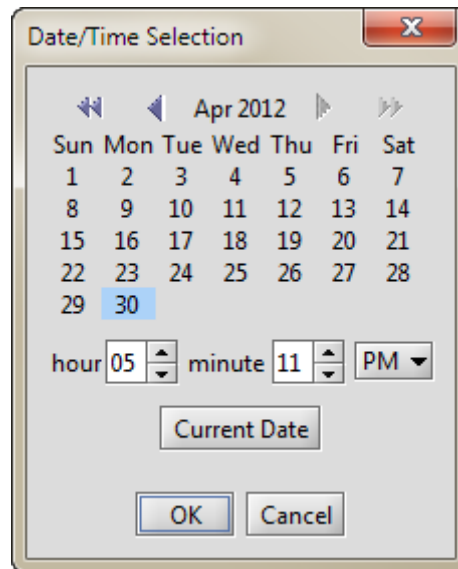
To search through a time period, in the **Version Search Criteria** area, check the box for **Show all versions in preceding**, select the time unit (e.g., 1 day), and then click **Apply**.

Viewing the Past

This option allows you to view all the file versions that had been created up to and including the selected date and time.

Click on the **Past** radio button and then click the Modify button. The following dialog box appears:

Figure 4.2. Searching for past versions

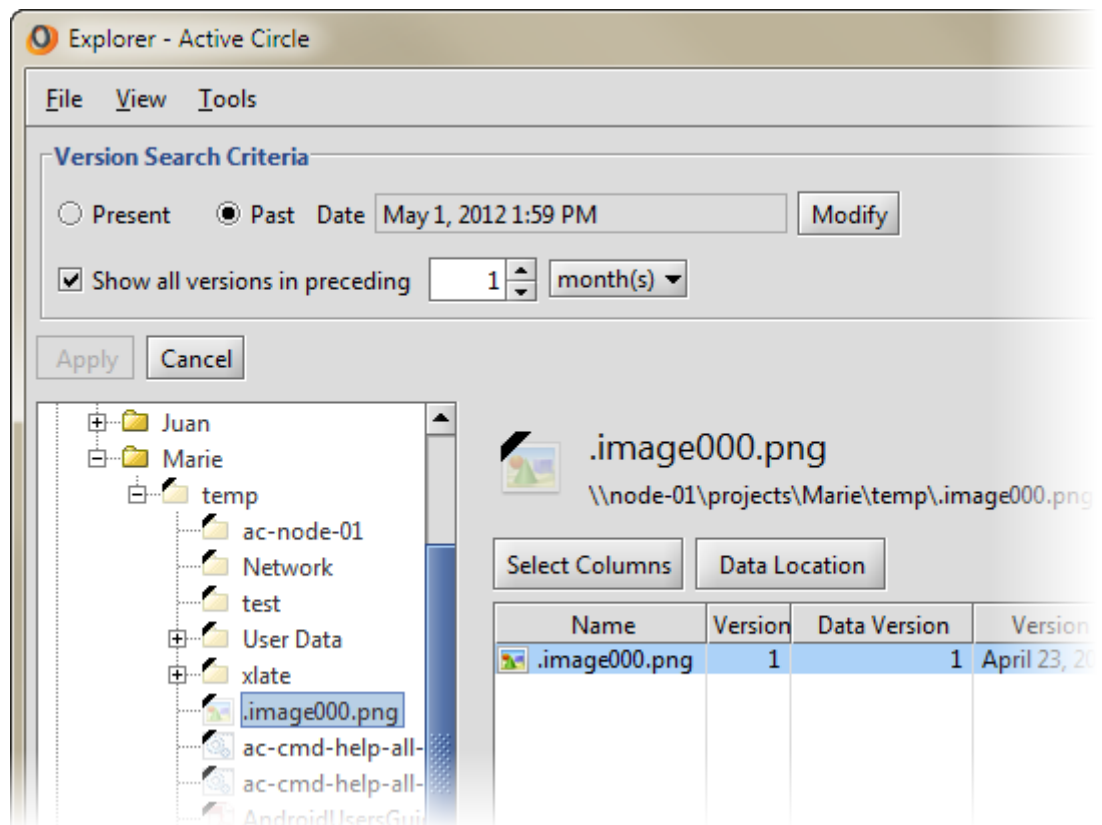


Select the date and time for your filter. The file versions that existed in the system at that date and time appear in the File Explorer window.

You can also combine the two methods described above.

Regardless of how you filter the view, files that were present during the selected time periods but which have since been deleted are shown with a transparent icon with a diagonal bar.

Figure 4.3. Searching for past and current versions



Restoring Files and Folders

The Active Circle File Explorer restore feature allows you to restore earlier versions of files, including files that have been deleted by users, whether accidentally or on purpose. When you [restore a deleted file](#), Active Circle copies the version of the deleted file that you specify (or the most recent if you just select the file) and creates a new version of the file from it. This file version will then become visible to the users through the standard file system access.



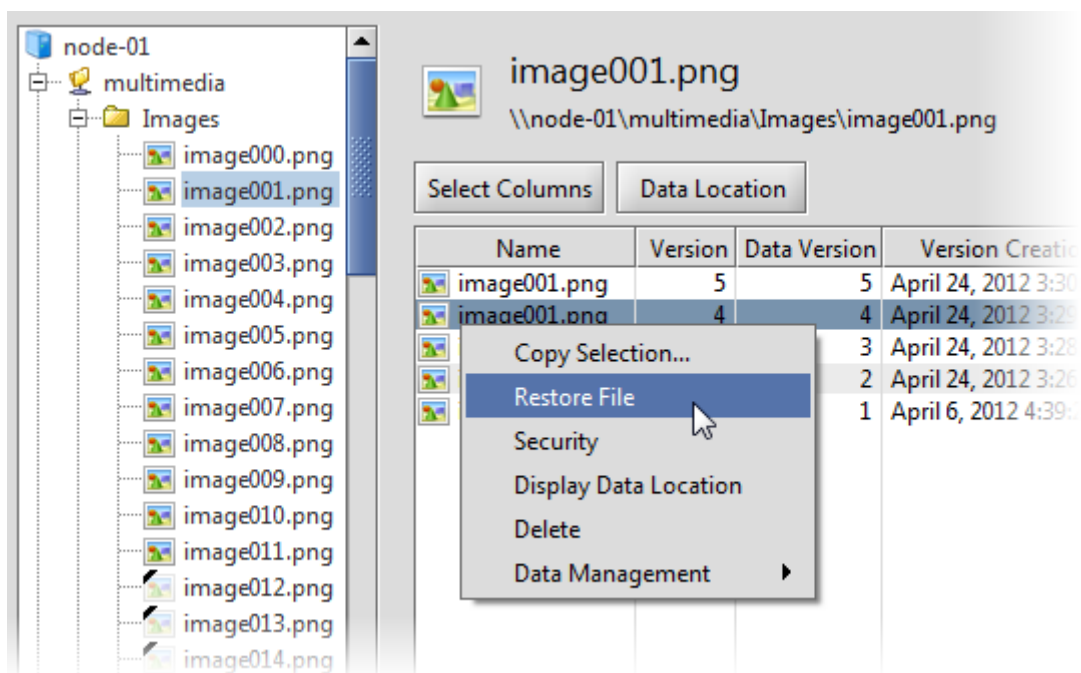
Tip

Deleted files are only visible when you choose to display them using the **Show all versions in preceding...** option (see [“Showing all versions”](#) for more information).

Restore a File Version

To restore an older version of a file on a Share, browse to and select the file in the navigation pane of the Active Circle File Explorer. The list of all the current versions will then appear in the right-hand pane. This is also valid for a deleted file that has older versions.

Figure 4.4. Select the version to restore



Right-click on the version of the file you wish to restore and select **Restore File**. A new version of the file is created with the contents of the selected file version.

Restore a Folder Version

You can also restore earlier versions of folders. To restore an older version of a folder, browse to and select the folder in the navigation pane of the Active Circle File Explorer. The list of all the current versions will then appear in the lower part of the information pane. This is also valid for a deleted folder that has older versions. Right-click on the folder to restore and select one of the two restore options:

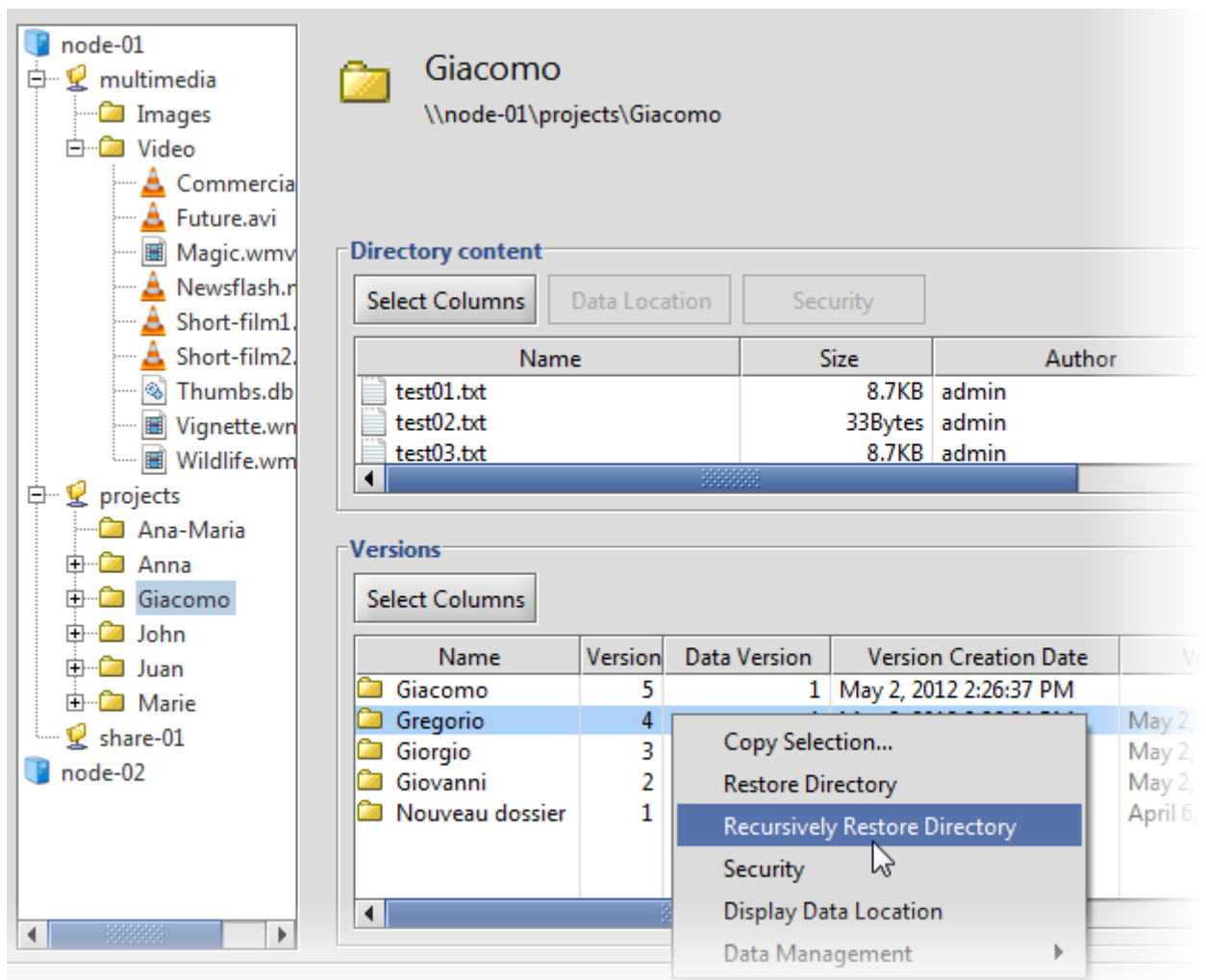
Restore Directory

Restore only the selected directory, *not its content*. Using this option will not restore any files or sub-folders that were in the directory when it was deleted.

Recursively Restore Directory

Restore the directory *and all of its contents*.

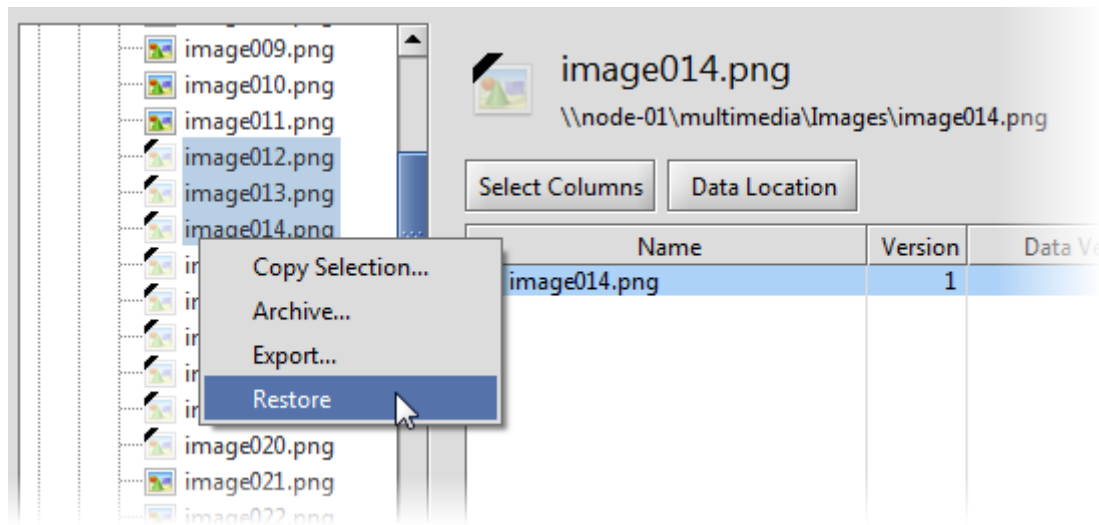
Figure 4.5. Select the folder version to restore



Restore Deleted Files

To restore a deleted file, select the file (or files) you want to restore in the left pane of the application (identified with a transparent icon with a diagonal black bar). Right-click on the file (or selection of files), and select **Restore (File)**. This will restore the most recent version of the file(s). If you want to restore a previous version of the deleted file, follow the procedure [above](#).

Figure 4.6. Restore a deleted file



Restore Deleted Folders

You can also restore earlier versions of folders that have been deleted. Browse to the folder in the navigation pane and right-click on the folder to select one of the two restore options:

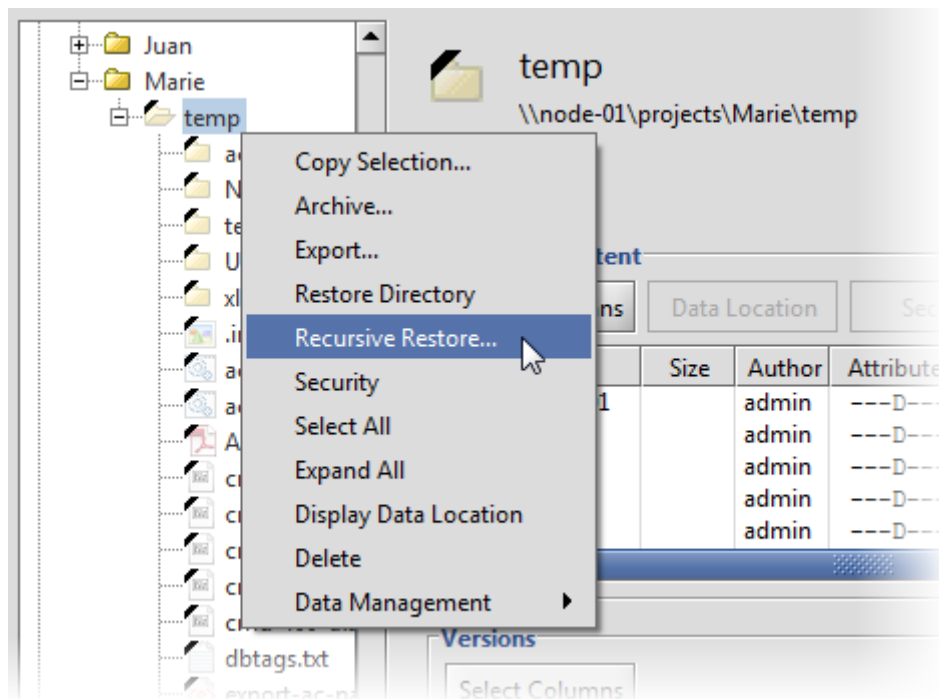
Restore Directory

Restore only the selected directory, *not its content*. Using this option will not restore any files or sub-folders that were in the directory when it was deleted.

Recursive Restore...

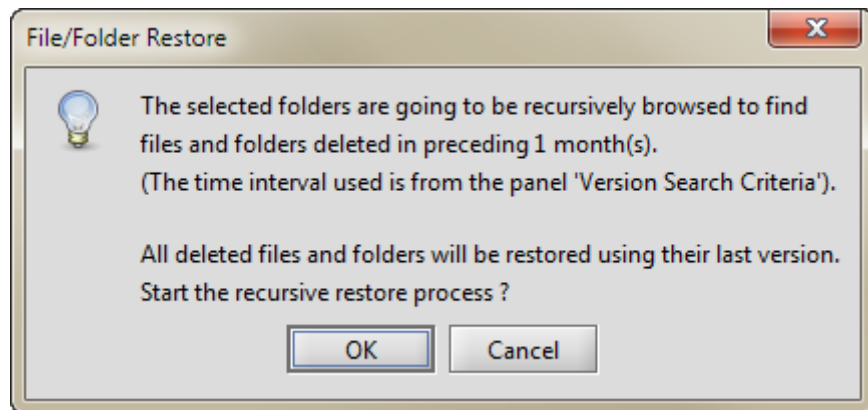
Restore the directory *and all of its contents*.

Figure 4.7. Select the folder version to restore



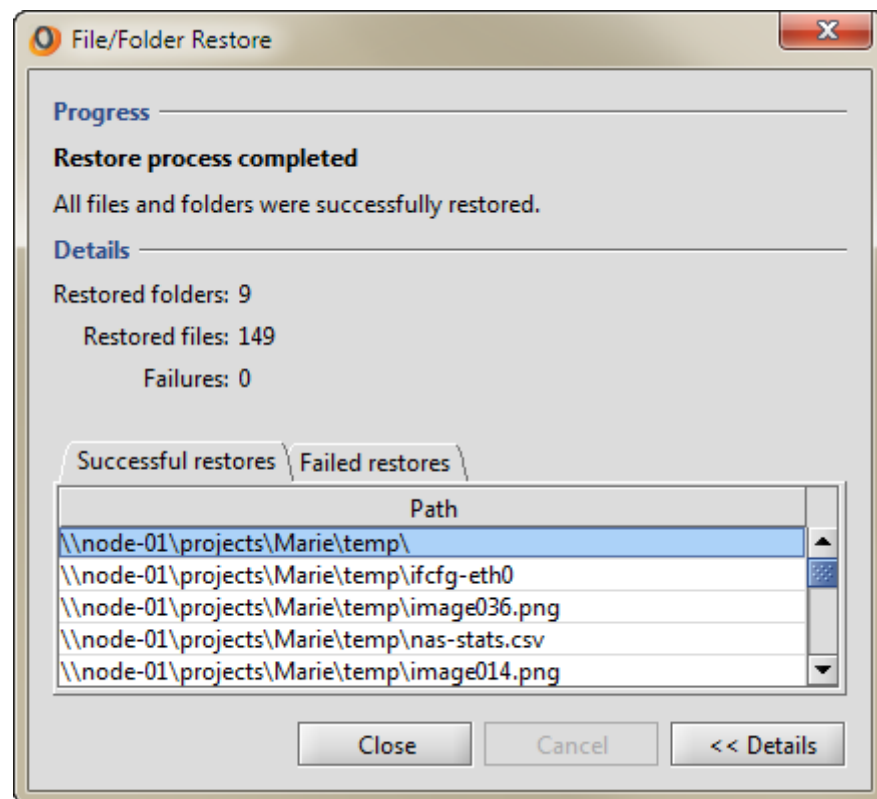
If you select **Recursive Restore...**, a message will be displayed confirming the time period to restore from. The time interval that will be searched is the one that has been defined in the **Version Search Criteria** box at the top of the application window.

Figure 4.8. Select the folder version to restore



Click **OK** if you wish to proceed with the restore operation. At the end of the restore process, a dialog box appears with a summary of the results.

Figure 4.9. Restore process completed



In the restore results dialog, you can click on the **Details >>** button to see a list of all the restored files and any files that were not successfully restored.



Note

In this context, a *deleted* file or folder is a file or folder that has been deleted from an Active Circle Share using regular user access through for example a conventional file explorer. A file that has been purged from the system using the **Delete** function in the Active Circle File Explorer cannot be restored in this way. For more information, see ["Deleting Files"](#).

Chapter 5. File Security

With the File Explorer you can manage user access permissions to the files and folders stored in Active Circle shares. You can view and modify both the file permissions that are specific to Active Circle as well as Windows permissions (also called ACLs).



Note

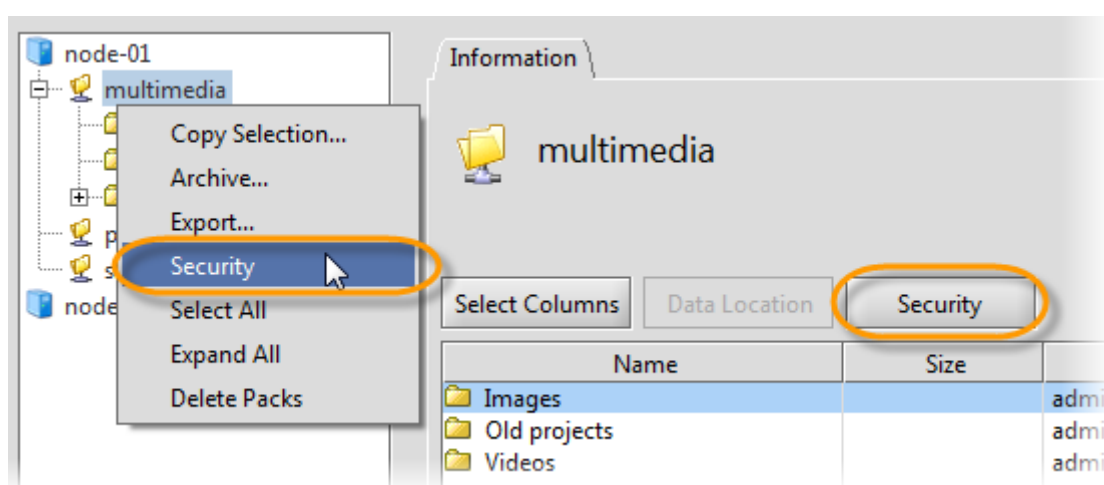
The processes for applying security to files and folders are very similar. This chapter describes how to apply security to folders, but the same principles apply to files.

Security Settings

You can access the security options for a folder or file object in either of two ways:

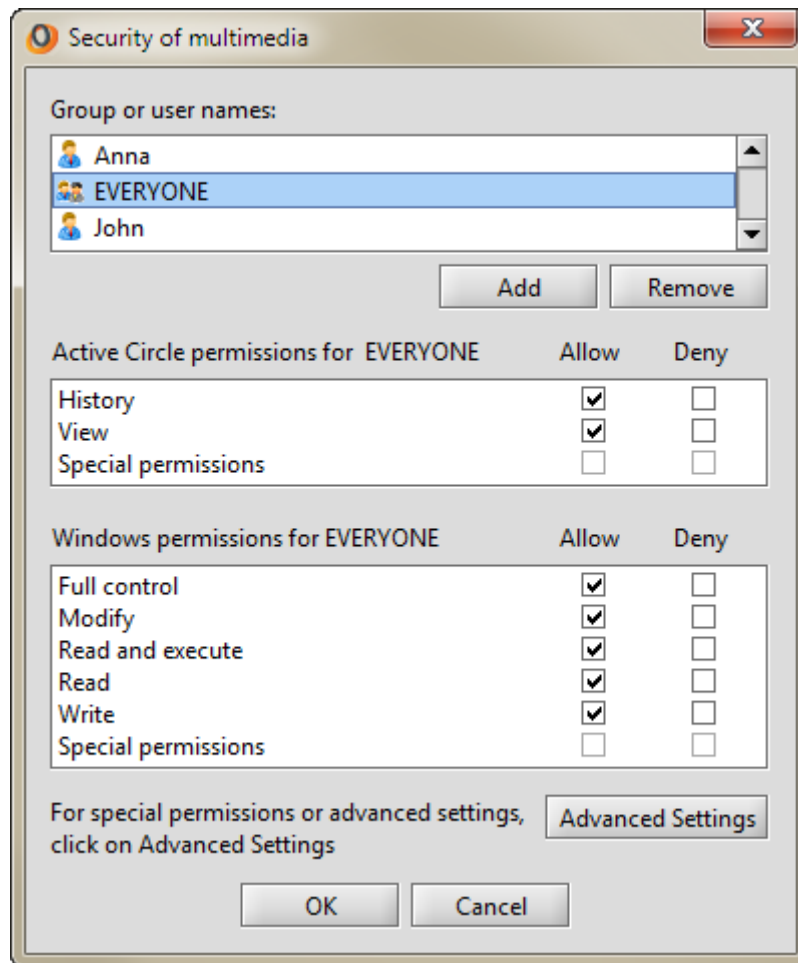
- By right-clicking on the object you want to manage and selecting **Security** from the context menu.
- By selecting the object in the right-hand pane of the File Explorer and clicking the **Security** button (see below).

Figure 5.1. Folder Security option



The following dialog appears:

Figure 5.2. Folder security dialog box



From here, you can add or remove users and/or groups to the folder, configure their basic Active Circle permissions, as well as their *Windows*-like access permissions (these permissions also apply if your users are accessing the files from Mac or Linux clients, for example).



Note

When permissions are being inherited from a parent folder, the checkboxes for **Allow** and **Deny** are greyed out. If you want to modify those permissions, you must first [disable inheritance](#) for the folder.

Active Circle Permissions

There are two permissions that are specific to Active Circle; **History** and **View**. These provide an additional level of rights definitions compared to the Windows permissions.

View

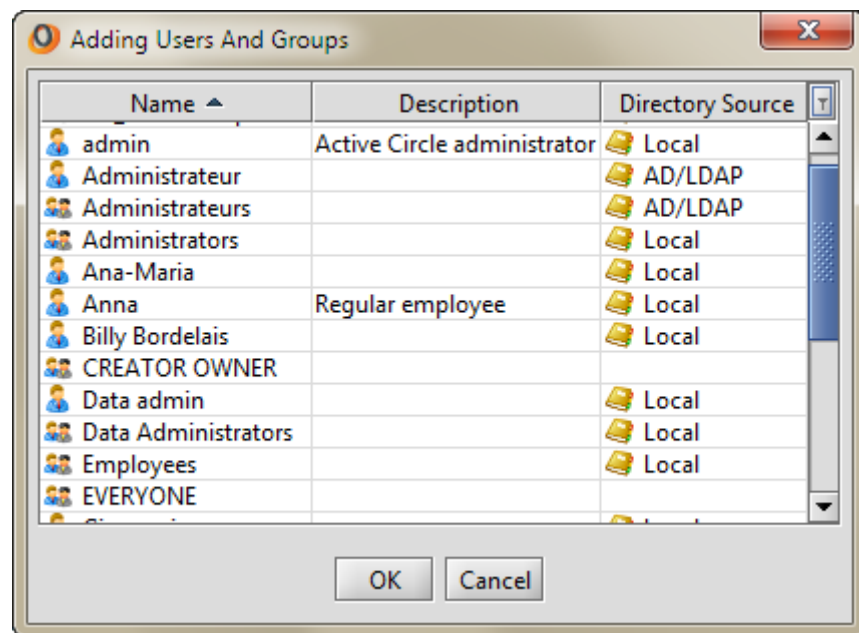
This permission can be used to hide files or folders from users. If the View permission is removed from a file or folder, the user will not be able to see the object in a directory listing on the share. This will override any Windows permissions, meaning that the a file will be invisible to the user even if all rights are granted through the Windows permissions.

History This permission can be used to prevent restoration of a previous version of a file or folder. If the History permission is removed, the **Restore** action will not work (user will receive an "access denied" message), preventing a previous version from replacing the current version of the object.

Adding a User or Group

To add a user or group to the current folder, click the **Add** button. The following dialog box appears:

Figure 5.3. Adding Users or Groups dialog box



Select the user or group you wish to add and click **OK**. The new user or group will appear in the **Security** dialog box.



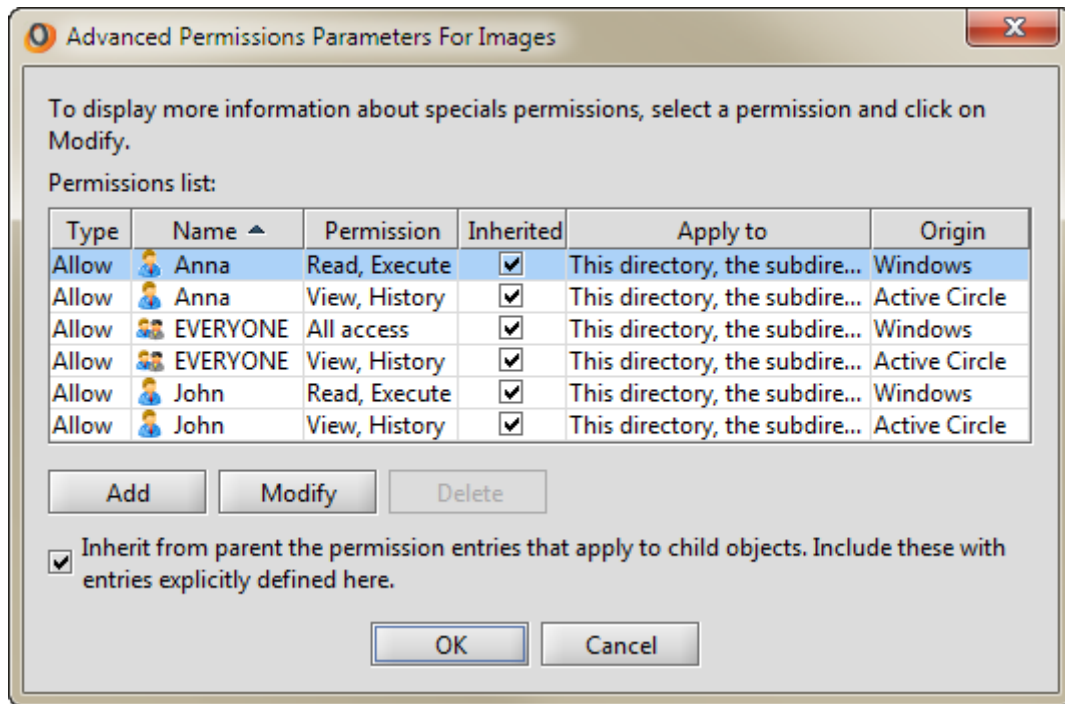
Note

It is also possible to add users or groups through the **Advanced Settings** dialog box. See [“Add User or Group”](#) below.

Advanced Permissions Settings

You can click the **Advanced Settings** button (see [Figure 5.2, “Folder security dialog box”](#)) to access a more granular level of control over user permissions.

Figure 5.4. Advanced Settings dialog box



The permissions are grouped by **Origin**, indicating whether the permission set originates in Active Circle or Windows.

By default, permissions are inherited in Active Circle. This is indicated by the check marks in the column labeled **Inherited** in the settings dialog. If you want to modify permissions, you must first disable inheritance.

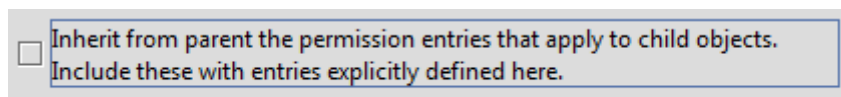
The **Apply To** column indicates how permissions are to be propagated. The default setting is "This directory, the subdirectories and files", meaning all contents of the object and all its children.

Disable Inheritance

You can deactivate inheritance for a folder or file in Active Circle using the **Advanced Permissions Parameters** dialog. This is necessary if you wish to modify permissions for any folder level below the share itself, and you want to protect the modified permissions from being changed when permissions on the parent folder are modified.

To do this, select the folder you want to protect or modify permissions for, select **Security** from the right-click menu, and then click on the **Advanced Settings** button in the general settings dialog. The **Advanced Permissions Parameters dialog box** will be displayed. By default, the check box next to the option **Inherit from parent the permission entries...** will be checked, indicating that inheritance is enabled. Uncheck this box:

Figure 5.5. Disabling inheritance



An information message will be displayed, asking you to confirm that you no longer want permission entries from the parent object to be inherited by this object. Select the appropriate response:

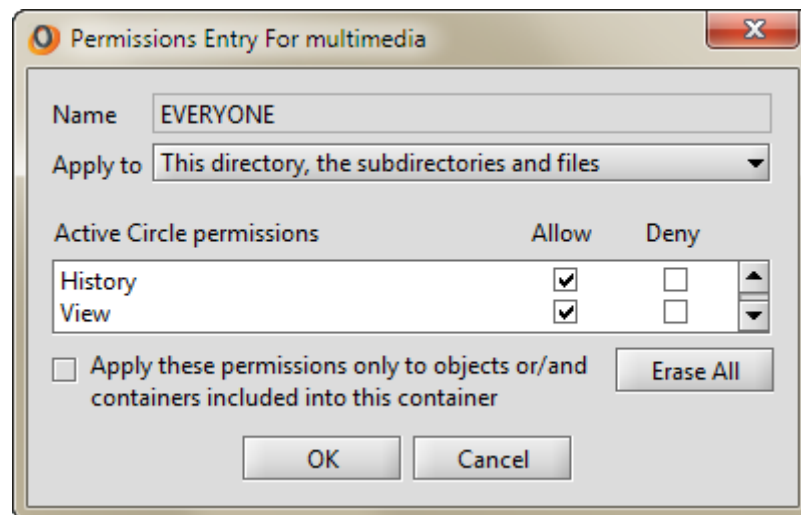
- **OK** – Copy the permissions from the parent object and apply them specifically to this object. Future changes to the permissions at the parent level will not be applied to this object.
- **Cancel** – Cancel the action without disabling inheritance.

Modify Advanced Permissions

You can make changes to the permissions by selecting the line that corresponds to the user or group and the origin of the permissions and then clicking the **Modify** button. Depending on the origin of the permissions, the **Permissions Entry** dialog box for either the [Active Circle permissions](#) or the [Windows permissions](#) will be displayed. Note that all the settings in the advanced permissions dialogs will be greyed out unless you have disabled inheritance for the selected folder or file (see above).

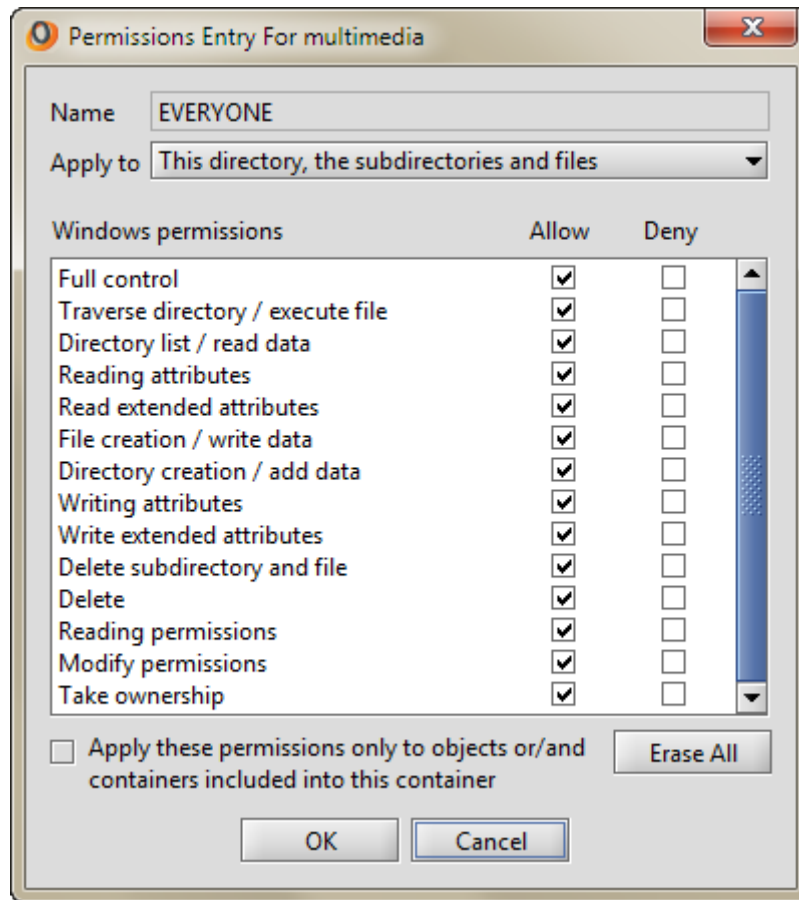
The Active Circle permissions are **History** and **View**.

Figure 5.6. Modify advanced Active Circle permissions



The Windows permissions are the same as those one would find when configuring user access for a share on a Windows server.

Figure 5.7. Modify advanced Windows permissions



You modify the permissions by clicking to add or remove check marks in the boxes in the **Allow** and **Deny** columns.

To remove all permissions for the selected user, click on the Erase All button. The user will no longer have these rights on the object.

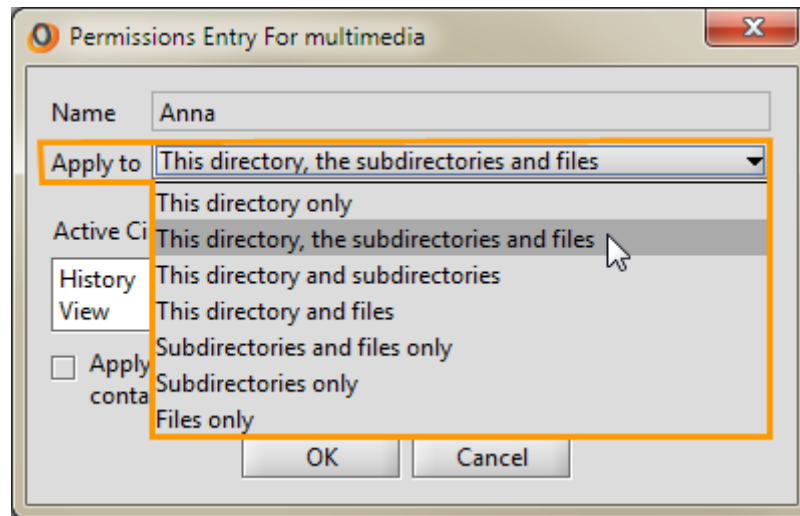
Apply Permissions

You can use the **Permissions Entry** dialog to specify where to apply the permissions. The settings decide which child objects will inherit the permissions and whether they should apply to only existing or all future objects.

The default setting for inheritance is to apply the permissions to all files and folders in this directory and any subdirectories. Using the **Apply to** pull-down menu, you can change which objects are to inherit the permissions. The choices are:

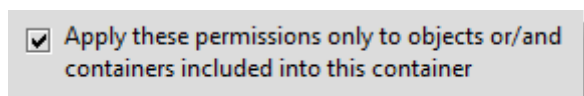
- This directory only
- This directory, the subdirectories and files (default)
- This directory and subdirectories
- This directory and files
- Subdirectories and files only
- Subdirectories only
- Files only

Figure 5.8. Where to apply permissions



By default, the inheritance settings are applied to all future objects of the type selected above. If you want to only apply the permissions to files or folders that already exist in the specified locations, check the box at the bottom of the dialog labeled **Apply these permissions only to objects or/and containers included into this container**:

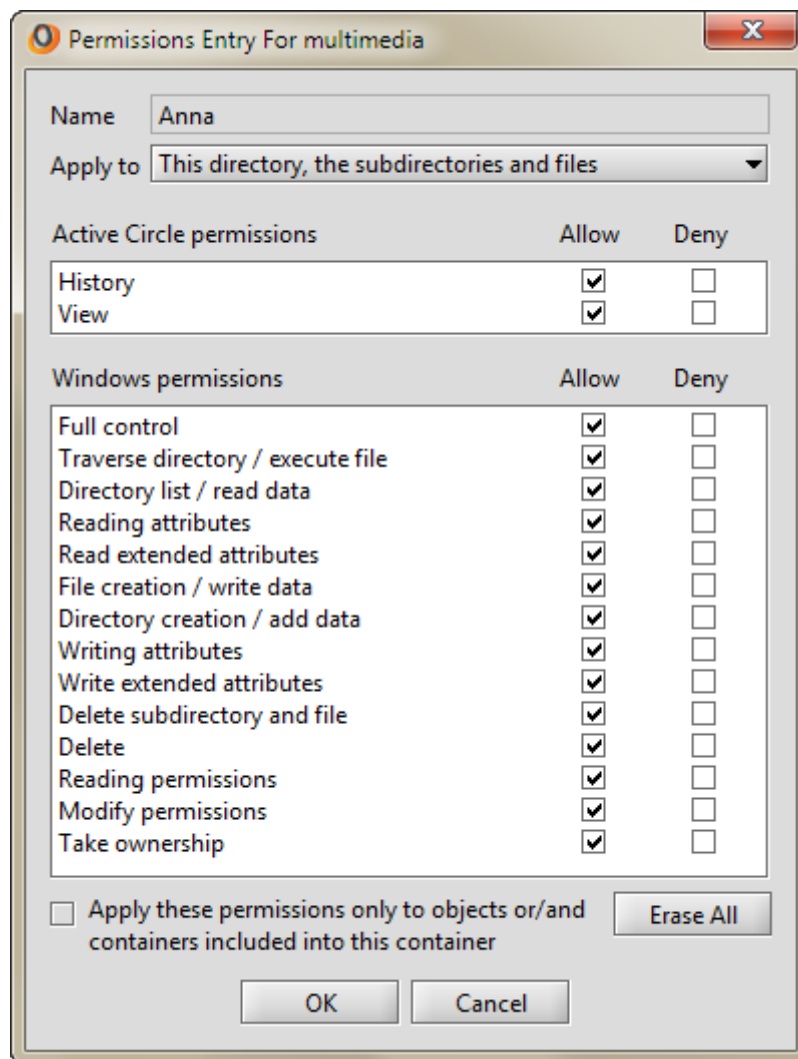
Figure 5.9. How the permissions are to be applied



Add User or Group

It is also possible to add users or groups to a folder using the Add button of the **Advanced Settings** dialog. To do so, click the Add button, select the user or group to add and click OK. The following dialog box appears allowing you to configure advanced permissions for the newly added user.

Figure 5.10. Permissions entry for users



Chapter 6. Archiving Files

There are two archiving features available in the Active Circle File Explorer:

- [On-demand Archiving](#)
- [Archiving for Export](#)



Note

For all archiving types, only the most recent version of each file or folder will be included in the archive. Temporary files will be ignored.

On-Demand Archiving

Using the Active Circle File Explorer, it is possible to manually archive one or more files, the contents of a directory or an entire directory structure. The main differences between this type of archiving and *automatic* archiving is that it is available not only to administrators and that when archiving on-demand, you can choose which files or directories to archive.

The archiving method used is *incremental*, which means that only the files (or the versions of files) that have not yet been archived will be included. The system will process the list of files and directories you select to identify which files have changed since the last archive operation (automatically scheduled or manual). If some of the files you select have already been archived with their latest version, they will not be included in the archive.

Prerequisites for access to the functionality

The option for creating an archive through the Active Circle File Explorer will not be visible if this type of archiving has been disabled by the administrator using the *circle property* `archive.enableOnDemand` in the Administration Tool interface.

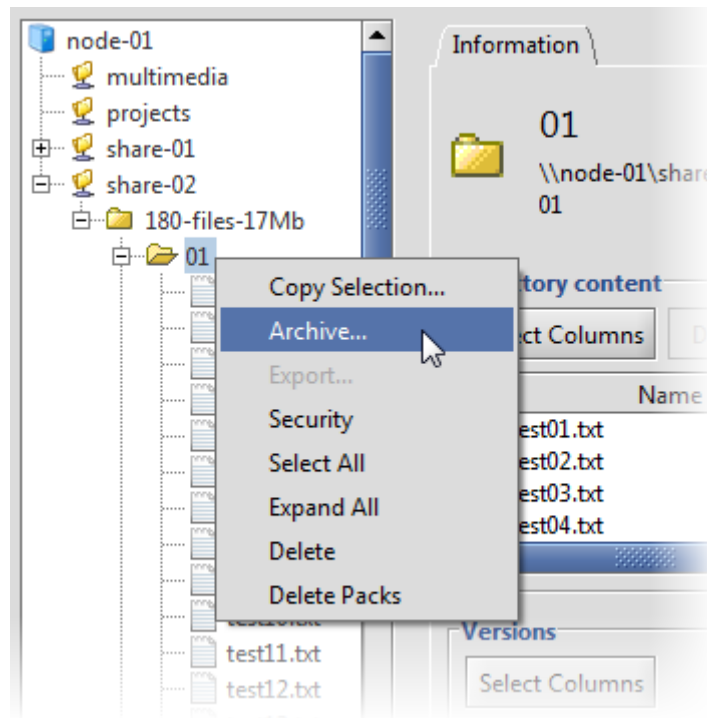
The share you want to archive from, must be associated with an *Archiving Policy* that contains at least one *standard archiving constraint*. If you want to archive to the cloud, the archiving policy of the share must be associated with a *Cloud Pool*. For more information, see the *Active Circle Administration Guide* or contact your Active Circle administrator.

The **Archive...** menu item will be greyed out if your user profile has not been granted the right to create an archive on the selected share.

Creating an On-Demand Archive

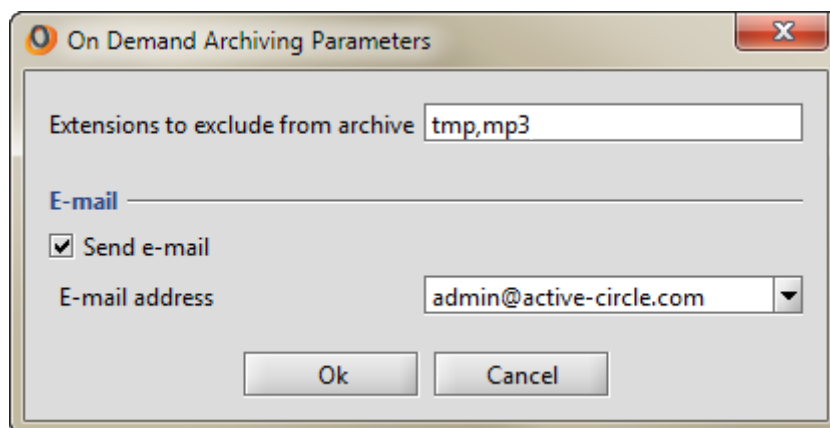
To begin an on-demand archive operation, select the files and/or folders you want to archive, right-click on the selection, and select **Archive**.

Figure 6.1. Select files to archive



A dialog box is displayed where you can enter a list of file extensions to exclude from the archive (for example temporary files), as well as an email address for sending the report of the outcome of the archiving process with the following information: Status, Name, Creation Date, Duration, Archived Files Count, and Data Length (the amount of archived data).

Figure 6.2. Enter extensions to exclude (optional)



Note

The list of extensions to exclude must be entered as a comma-separated list without the dot and with no spaces:

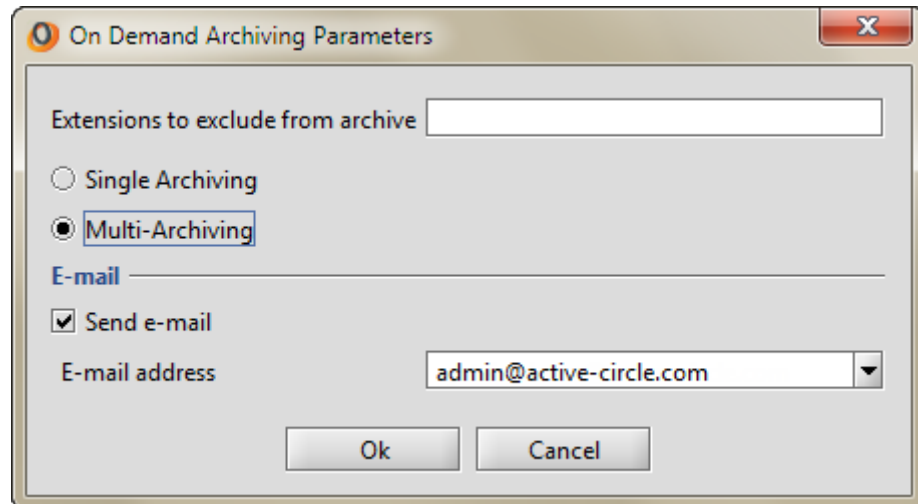
CORRECT: `tmp,mp3`

INCORRECT: `.tmp, .mp3`

Multiple archiving destinations

It is possible to archive to more than one destination tape pool at the same time. The option for **Multi-Archiving** will be available if the administrator has defined more than one *data location* in the standard constraints of the archiving policy for the share. In this case the **On-demand Archiving Parameters** dialog box will contain radio buttons which let you select either single or multiple archiving. If you select **Single Archiving** when multiple destinations are available, the archive will only be written to the first destination that has been defined in the archiving policy.

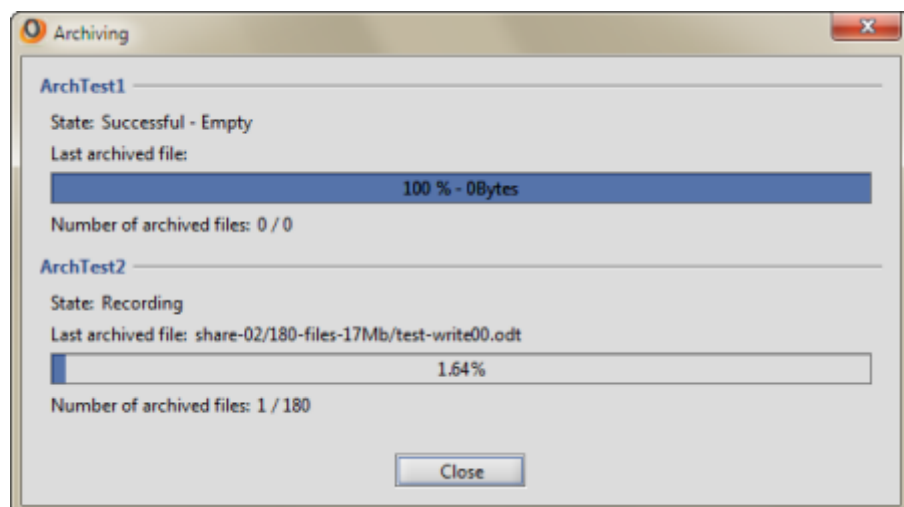
Figure 6.3. Select single or multiple archiving



Archiving Progress

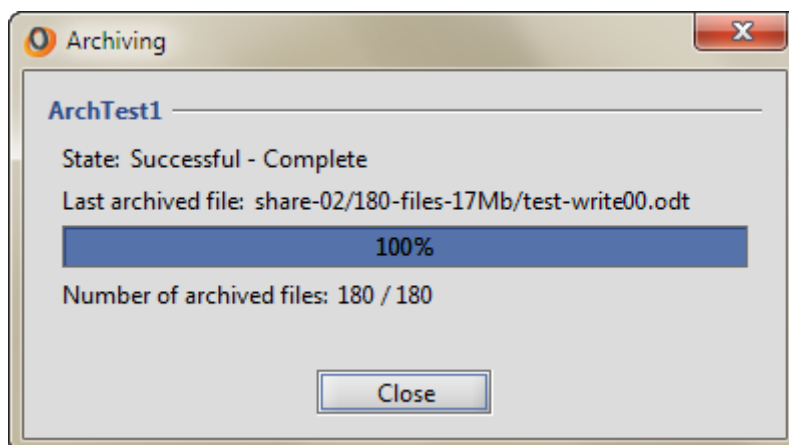
The progress dialog allows you to monitor your archive operation. Clicking **Close** during the archiving process will only close the dialog box. The archiving will continue to run in the background until it is finished. In the case of single destination incremental archiving or full archiving, the progress dialog box will only contain one progress indicator.

Figure 6.4. Archiving progress – Multiple destinations



At the end of the process, the progress dialog indicates the number of files archived out of the total available. Click **Close** to finish the operation. If you entered an email address when launching the archive operation, you can check it for the results.

Figure 6.5. Archiving progress – Complete



Note

If you are archiving to a cloud destination using an Active Circle Cloud Pool, the minimum size requirement for the data selected for archiving is 5 GB by default. If you attempt to archive less data, you will receive an error message stating that there is not enough data to perform archiving. If you need to change the minimum size allowed, please contact product support (requires adding and modifying an Active Circle system property and restarting the node used for archiving).

Archiving for Export

The archiving for export feature has been designed to allow users to archive selected files to a dedicated Active Circle **Export Pool** for the purpose of removing these tapes from the library. This can for example be useful if you need to provide those files to a partner or customer, or if you need to move tapes between two separate Circles.

When archiving for export, the files are written in TAR format to the destination tape or tapes. When the archiving is finished, the tapes should be *closed* (set in a read-only state) and then moved out of the library.



Important

The Active Circle system does not consider these archives as part of its collection of archives and does not track their location.

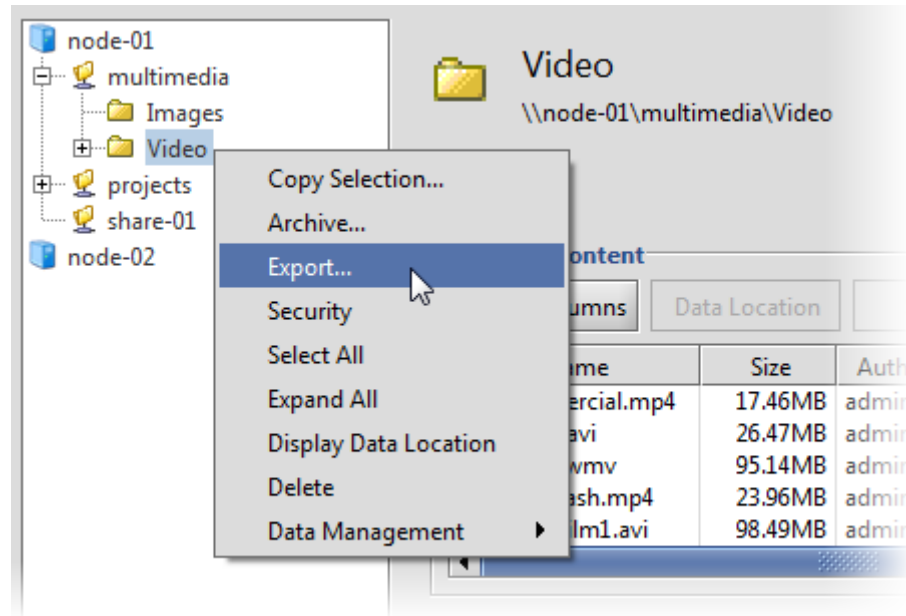
Prerequisites

The option for creating an archive for export through the Active Circle File Explorer is only visible if this type of archiving has been enabled through the proper *Circle Property* in the Administration Tool interface. The menu item will appear greyed out if your user profile has not been granted the right to create an archive on the selected share, or if no *Export Pool* has been created. In addition, the export pool must be activated in an *Archiving Policy* that is associated with the share you want to export from. For more information, see the *Active Circle Administration Guide* or contact your Active Circle administrator.

Creating an Archive for Export

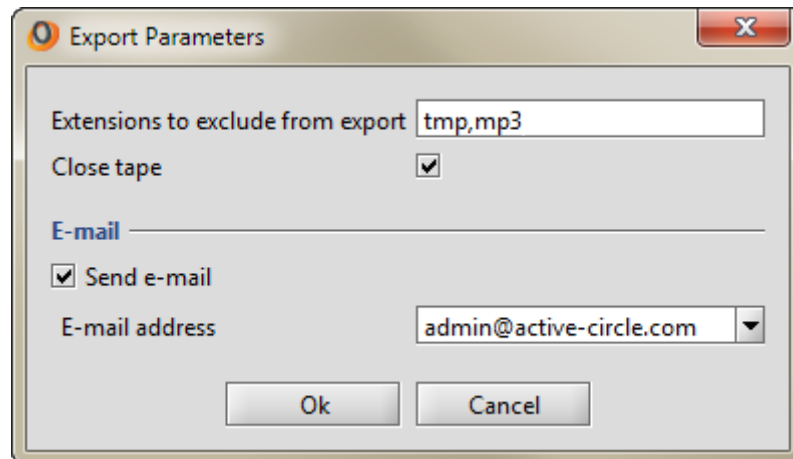
To create an archive for export, select the file(s) or folder(s) to export, right-click and select **Export**.

Figure 6.6. Select the files to export



A dialog box is displayed where you can enter parameters for the export.

Figure 6.7. Export parameters



Extensions to exclude from export

You can choose to exclude certain types of files from the archive based on their extensions. The list of extensions to exclude must be entered as a comma-separated list without the dot and with no spaces:

CORRECT: tmp,mp3

INCORRECT: .tmp, .mp3

Close tape

You can choose to close the tape when the archiving has been completed. Choosing this option will cause

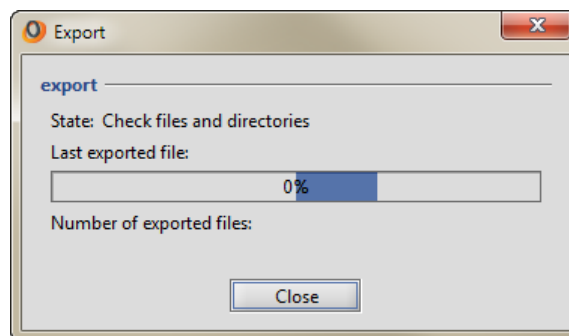
Active Circle to close the tape (set it to read only) for the purpose of removing the tape from the library.

E-mail

You can choose to send an e-mail notification of the end of the archiving process that contains the following information: Status, Name, Creation Date, Duration, Archived Files Count, and Data Length (the amount of archived data). To send an e-mail notification, check the **Send e-mail** box and then select an address from the list.

Click **OK** to begin the export archiving.

Figure 6.8. Progress dialog box



The progress dialog allows you to monitor your archive operation. Clicking **Close** during the archiving process will only close the dialog box. The archive process will continue to run in the background until it is finished.

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