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# Lab 13A: Configuring Disk Compression

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## Objectives

After completing this lab, you will be able to:

- Configure an NTFS volume for compression.
- Move files with the compression attribute set.
- Copy files with the compression attribute set.

## Prerequisites

Before working on this lab, you must have:

- Knowledge of the NTFS file system.
- Knowledge of file compression.

**Estimated time to complete this lab: 15 minutes**



## Exercise 1


### Configuring Disk Compression

In this exercise, you will enable disk compression and view the effects of compression on the Documents and Settings folder and subfolders.

#### Scenario

To provide the maximum storage capacity for your client computers, the IT manager has decided that NTFS disk compression will be enabled for folders on client computers that are low on disk space. You have been tasked with enabling disk compression for specified folders on your client computers.

| Tasks  | Detailed steps   |
|--|--|
| 1. Log on as Administrator with the password of <b>password</b> and configure Microsoft® Windows® Explorer to display compressed files and folders in another color.   | <ol style="list-style-type: none"> <li>Log on as Administrator with the password of <b>password</b>.</li> <li>Open Explorer, and then on the <b>Tools</b> menu click <b>Folder Options</b>.</li> <li>In the <b>Folder Options</b> dialog box, on the <b>View</b> tab, select the <b>Show encrypted or compressed NTFS files in color</b> check box, and then click <b>OK</b>.</li> </ol>   |
| 2. Compress the Documents and Settings folder hierarchy.   | <ol style="list-style-type: none"> <li>In the left pane, expand <b>Local Disk (C:)</b>, right-click <b>Documents and Settings</b>, and then click <b>Properties</b>.</li> </ol>  |
| <p> What are the <b>Size</b> and <b>Size on disk</b> values for the Documents and Settings folder?</p> <p><b>Answers will vary.</b></p> <hr/> <hr/> <hr/> <hr/> |  |
| 2. (continued)   | <ol style="list-style-type: none"> <li>In the <b>Documents and Settings Properties</b> dialog box click <b>Advanced</b>.</li> <li>In the <b>Advanced Attributes</b> dialog box, under <b>Compress or Encrypt attributes</b>, select the <b>Compress contents to save disk space</b> check box, and then click <b>OK</b>.</li> <li>Click <b>OK</b> to close the <b>Documents and Settings Properties</b> dialog box.</li> <li>In the <b>Confirm Attribute Changes</b> dialog box, verify <b>Apply changes to this folder, subfolders and files</b> is selected, and then click <b>OK</b>.</li> </ol> <p> <i>In the console tree, the Documents and Settings folder appears in a different color.</i></p> <ol style="list-style-type: none"> <li>Right-click <b>Documents and Settings</b> and then click <b>Properties</b>.</li> </ol> |

| Tasks   | Detailed steps   |
|---|--|
| <p> What are the <b>Size</b> and <b>Size of disk</b> values for the Documents and Settings? How much disk space does using disk compression save? (Hint: compare the values recorded before disk compression was enabled with the values after disk compression was enabled.)</p> <p><b>Answers will vary.</b></p> <hr/> <hr/> <hr/> <hr/> |  |
| <p><b>2.</b> (continued)</p>  | <p><b>g.</b> Click <b>OK</b> to close the <b>Documents and Settings Properties</b> dialog box.</p> |



## Exercise 2



### Moving a Compressed File

In this exercise, you will create a text document in the Documents and Settings folder on Local Disk (C): You will then move this text document to the C:\ root folder.

### Scenario

You are responsible for supporting a number of desktops in Windows XP Professional. You are concerned about the total amount of available disk space on the local drives of these desktops. You have files that are in a compressed folder on the local disks of the client computers. You need to move these files to a different folder on the same drive, and you need to know what the compression attribute will be after the files are moved.

| Tasks  | Detailed steps  |
|--|---|
| 1. Create a file named Compress1.txt in the C:\Documents and Settings folder. Then move this file to the C:\ root folder.  | a. In the console tree, expand <b>Local Disk (C:)</b> , click <b>Documents and Settings</b> , click <b>File</b> , click <b>New</b> , and then click <b>Text Document</b> .<br>b. Type <b>Compress1.txt</b> for the file name, and then press ENTER. |
|  Is the compression attribute set for the Compress1.txt document that you just created? If so why?<br><br><b>Yes, when a new file is created in a folder where the compression attribute is set, the file is compressed by default.</b><br><br><hr/><br><hr/>  |   |
| 1. (continued)   | c. Select the <b>Compress1.txt</b> file, click <b>Edit</b> , and then click <b>Cut</b> .<br>d. Select the C:\ root folder, click <b>Edit</b> , and then click <b>Paste</b> .  |
|  Is the compression attribute still set for the Compress1.txt file? If so why?<br><br><b>Yes, when moving files with the compression attribute set to a folder on the same drive, the compression attribute stays the same. Using Cut and Paste is the same as dragging the file and selecting the Move option.</b><br><br><hr/><br><hr/> |   |

| Tasks   | Detailed steps  |
|---|---|
| 2. Remove the compression attribute from the C:\Compress1.txt document.   | <p>a. In the console tree, select <b>Local Disk (C:)</b>, right-click <b>Compress1.txt</b>, and then click <b>Properties</b>.</p> <p>b. In the <b>Compress1.txt Properties</b> dialog box, click <b>Advanced</b>.</p> <p>c. In the <b>Advanced Attributes</b> dialog box, under <b>Compress or Encrypt attributes</b>, clear the <b>Compress contents to save disk space</b> check box, and then click <b>OK</b>.</p> <p>d. Click <b>OK</b> to close the <b>Compress1.txt Properties</b> dialog box.</p> <p> Notice that the color of the <b>Compress1.txt</b> file changes back to the default color.</p> |
| 3. Move the <b>Compress1.txt</b> file back to the C:\Documents and Settings folder.   | <p>a. Select the <b>Compress1.txt</b> file, click <b>Edit</b>, and then click <b>Cut</b>.</p> <p>b. Select the <b>Documents and Settings</b> folder on Local Disk (C), click <b>Edit</b>, and then click <b>Paste</b>.</p>  |
| <p> Is the compression attribute set for the Compress1.txt file?</p> <p><b>No. Because the file was moved, it retained the attributes that it had before the move, which did not include compression. This process is different than creating a new file in the compressed folder.</b></p> <hr/> <hr/> |   |
| 4. Delete the Compress1.txt file.   | <p>a. Right-click the <b>Compress1.txt</b> file, and then click <b>Delete</b>.</p> <p>b. In the <b>Confirm File Delete</b> dialog box, click <b>Yes</b>.</p> <p>c. Leave Windows Explorer open.</p>   |



## Exercise 3

### Copying a Compressed File

In this exercise, you will copy a compressed file from the Documents and Settings folder to the C:\ root folder.

### Scenario

Same scenario as in Exercise 2.

| Tasks  | Detailed steps   |
|--|--|
| 1. Create a file named <b>Compress2.txt</b> in the C:\Documents and Settings folder.   | <ol style="list-style-type: none"> <li>In the console tree, expand <b>Local Disk (C:)</b>, click <b>Documents and Settings</b>, click <b>File</b>, click <b>New</b>, and then click <b>Text Document</b>.</li> <li>Type <b>Compress2.txt</b> for the file name, and then press ENTER.</li> <li>Select the <b>Compress2.txt</b> file, click <b>Edit</b>, and then click <b>Copy</b>.</li> <li>Select the <b>C:\ root folder</b>, click <b>Edit</b>, and then click <b>Paste</b>.</li> </ol>   |
| <p> Is the compression attribute still set for the Compress1.txt file? If so why?</p> <p><b>No. When copying files with the compression attribute set to a folder on the same drive, the compression attribute is set based on the attributes of the folder in which the file is being copied into. Using Copy and Paste is the same as dragging and dropping the file within the same partition.</b></p> <hr/> <hr/> |  |
| 2. Remove the compression attribute for the C:\Documents and Settings folder hierarchy.  | <ol style="list-style-type: none"> <li>In the console tree, expand <b>Local Disk (C:)</b>, right-click <b>Documents and Settings</b>, and then click <b>Properties</b>.</li> <li>In the <b>Documents and Settings Properties</b> dialog box, click <b>Advanced</b>.</li> <li>In the <b>Advanced Attributes</b> dialog box, under <b>Compress or Encrypt attributes</b>, clear the <b>Compress contents to save disk space</b> check box, and then click <b>OK</b>.</li> <li>Click <b>OK</b> to close the <b>Documents and Settings Properties</b> dialog box.</li> <li>In the <b>Confirm Attribute Changes</b> dialog box, verify <b>Apply changes to this folder, subfolders and files</b> is selected, and then click <b>OK</b>.</li> </ol> <p> <i>In the console tree, the Documents and Settings folder displays in the default color.</i></p> <ol style="list-style-type: none"> <li>Close all open windows and then log off.</li> </ol> |