

Fundamentals of UNIX
Lab 7.1.4– Renaming and Moving Files and Directories
(Estimated time: 45 min.)

Objectives:

- Become familiar with the mv (move) command to rename and move files and directories.
- Rename a file in the current directory
- Rename a file in a non-current directory
- Move a file to another directory in the directory structure
- Rename a directory within the current directory
- Move a directory and its contents to another location in the directory structure

Background:

In this lab, you will work with the versatile **mv** (move) command to **rename** and **move** files as well as directories. Files and directories can be renamed and moved to other locations in the directory structure using the same multipurpose command. There is no rename command in UNIX. The **mv** command changes the name of the original file, whereas the **cp** command copies a file and gives it a new name leaving the original file intact.

Tools / Preparation:

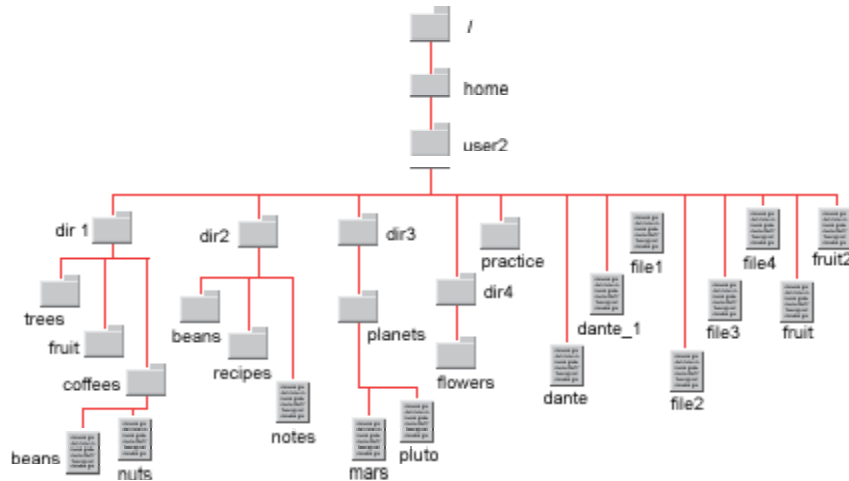
- a) Before starting this lab, review Chapter 7, Section 1 – Advanced Directory and File Management Using the Command Line.
- b) You will need the following:
 1. A login user ID (e.g. user2) and password assigned by your instructor.
 2. A computer running the UNIX operating system with CDE
 3. Networked computers in classroom

Notes:

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Worksheet

Use the diagram of the sample Class File System directory tree to assist with this lab.

Class File Tree Structure



Step 1. Log in to CDE

Login with the user name and password assigned to you by your instructor in the CDE entry box.

Step 2. Access the Command Line

Right click on the **workspace** backdrop and click on **Tools**. Select **Terminal** from the menu to open a terminal window.

Renaming and Moving Files - Overview

Files can be renamed or moved in several ways:

- 1) A file name can be changed (renamed) to a different name in the same directory.
- 2) Files can be moved to a different location in the directory hierarchy with the same or different name.
- 3) They can also be moved to a different disk such as a floppy or to a centralized server under the same or different name.

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Step 3. Rename a File in the Current Directory

The command format below shows the syntax to **RENAME** a file in the same directory. This format changes the name of the source (old File Name) to a target file name (new File Name) in the same directory. Note that the **-i** (interactive) option is available with the **mv** command. The **mv -i** option prompts for confirmation whenever the move would overwrite an existing target file.

Command Format: *mv [i] source_file target-name*



- a. Check to see if you are in your home directory. What command did you use? **pwd** What command would you use to change to your home directory if you were not there already? **cd or cd ~**
- b. Copy the all files starting with the letters “fi” from your **home** directory to the **practice** directory using a **relative** pathname. What command did you use? _____ Verify that the files were copied using the **ls** command. How many files were copied? _____
- c. Change the name of **file1** to **newname**. What command did you use? _____
- d. Create a new file using the **touch** command called **proj-may-2001**. However, after creating the file, you now realize that the project begins in June, not May. Change the name to **proj-june-2001**. What command did you use? _____

Step 4. Rename a File in a Non-Current Directory

You can rename files in other directories without leaving your current directory by specifying the path to those files.

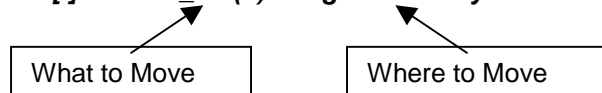
- a. From your home directory, rename **file2** in the **practice** directory to **newname2**. What command did you use? _____ Use the **ls** command to verify that the file was renamed.
- b. From your **home** directory, rename the **beans** file in the **coffees** subdirectory to the name **java** using absolute pathnames. What command did you use? _____ Verify that the file was renamed.
- c. From your **home** directory, change the **java** file name back to its original name **beans** using relative pathnames. What command did you use? _____

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Step 5. Move a File to Another Directory

If you wish to **MOVE** a file to a different directory, use the format shown below. This format moves the source file(s) to a new target directory. You can add a slash and a file name after the destination directory to give the file a different name if desired. This version moves the source (what to move) to a target directory name (where to move).

Command Format: *mv [i] source_file(s) target-directory*



- a. Create a new subdirectory under the **practice** directory called **projects**. What command did you use? _____
- b. Change to the **projects** subdirectory and list the contents. Are there any files or directories in it?

- c. Create four new files in the **projects** subdirectory called **June-1, June-2, July-1 and July-2** using the **touch** command. Create them all at once with one command. What command did you use?

- d. You decide you want to have a separate directory just for the July project files. Create another new directory called **proj-july**. What command did you use? _____
- e. Move the two project files for July (july-1 and july-2) over to the new directory you just created using a wildcard and a relative pathname. What command did you use?

- f. Would the command **mv ju* proj-july** have moved **only** the July project files to the proj-july subdirectory? _____ Why not? _____

Step 6. Rename a Directory within the Current Directory

The **mv** command can also be used to **rename** a directory or **move** it to a different location. As with files, the **mv** command has two basic formats when used to rename and move directories. The first format **renames** a directory within the current directory. This is the **Move Old Name to New Name** format.

Command Format: *mv [i] source_directory target_name*



- a. Change to your **home** directory and list the contents. Are the **projects** and **proj-july** directories both listed? _____ List the contents of each subdirectory to verify that there are two files in each. _____
- b. You decide from now on you will create a new folder for your projects for each month. Since you moved the July project files from the **projects** directory to the **proj-july** directory there are now only June projects in the **projects** directory. Rename the existing **projects** directory to **proj-june** to accurately reflect its contents. What command did you use? _____
- c. List the contents of your **home** folder. Are the two projects folders named by month now?

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d. Since you will be creating a new directory each month for projects you realize that when the year changes, the project directories will start to have the same name. Rename the existing **proj-june** to **proj-01-june** and rename the **proj-july** to **proj-01-july** so that the year is part of the directory name and you will be able to distinguish this year's from the next. What commands did you use?

Step 7. Move a Directory and its Contents

This is the **Move What to Where** format of the **mv** command for use in moving a directory from one location in the directory tree to another location. When moving a directory this way, if the target directory location exists, the source directory will be copied into the target location. If the location does not exist, the source directory will be renamed.

Command Format: `mv [i] source_directory target_directory`



a. Change to your home subdirectory and list the contents. Are the **proj-01-june** and **proj-01-july** directories both listed? **Yes** List the contents of each subdirectory.

b. You decide you would like to keep all of these monthly project subdirectories under a common directory called **projects**. Create the projects directory in you home directory. What command did you use? _____

c. Move the **proj-01-june** directory to the new **projects** directory using **relative** pathnames. What command did you use? _____

d. Move the **proj-01-july** directory to the new **projects** directory using **absolute** pathnames. What command did you use? _____

Step 8 – Remove Files and Directories Created in this Lab

Refer to the Class file system tree structure and **remove all files** and **directories** created in you home directory during this lab (including those creating under the practice directory). You will use the **rm** and **rm -r** commands to accomplish this. Care should be taken during this process so use the **-i** option when removing the files and directories to ensure that these are the ones you want to remove.

Step 9. Close the Terminal Window and Logout

Double click on the dash button in the upper left corner of the screen, then click the **EXIT** icon on the front panel.