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CSC 251
1/31/21

Lab 2 Cheat Sheet

Change to another directory? Cd To move to previous directory Cd ..
Move files and directories? mv
Rename files and directories? Mv (move)
List the contents of a directory? Ls (lists)
Print your current working directory? Pwd (print working directory)
Make a new directory? Mkdir (make directory)
Display the contents of a file?
More
Renaming and moving around we can do: cd .. cd cats mv tigers siberians cd .. cd dogs (continue working in "dogs")

Copies file to another directory then deletes the old file

cp reptiles/cobras snakes
//copies cobras to snakes directory
rm reptiles/cobras
//removes the file from reptiles directory

Deleting the Directory

rmdir fish
//deletes the directory

Renaming Directory

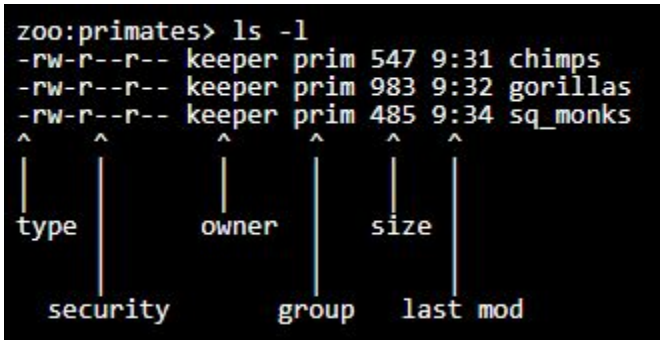
mv reptiles snakes
//renames the reptiles directory to snakes

Moving file to another directory

mv elephants pachyderms
//moves elephants to directory pachyderms

Options

ls-l
//shows options



The 'r' means you can "read" the file's contents.
The 'w' means you can "write", or modify, the file's contents.
The 'x' means you can "execute" the file. This permission is given only if the file is a program.
If any of the "rwx" characters is replaced by a '-', then that permission has been revoked.

Change Security Permissions

Chmod

//means change mode

Now it will become clear why we named the three "rwx" sets "user", "group", and "other". The first argument you give to the "chmod" command is 'u', 'g', 'o', or a combination of them which specifies which of the three "rwx" sets you want to modify. For example, if you want to give "execute" permission to the world ("other") for file "gorillas", you would start by typing

chmod o

Now you would type a '+' to say that you are "adding" a permission.

chmod o+

Then you would type an 'x' to say that you are adding "execute" permission.

chmod o+x

Finally, specify which file you are changing.

chmod o+x gorillas

You can also change multiple permissions at once. For example, if you want to take all permissions away from everyone, you would type

chmod ugo-rwx gorillas

Giving write permissions to a group

chmod g+w chimps

Then we check the permissions

Ls-l

Wildcard Permissions

We could get you to type two more "chmod" commands to modify the permissions of "gorillas" and "sq_monks", but there's an easier way using "wildcards".

In case you're wondering what the "tron>" prompt is all about, we're just using another imaginary machine called "tron", which could be a machine similar to "zoo".

A wildcard allows you to specify more than one file at the same time. The '*' matches any number of characters. For example, if you want to execute a command on all files in the current directory, you would specify '*' as the filename. If you want to be more selective and match only files which end in "ing", you would use "*ing". Note that the '*' can even match zero characters, so "*ing" would match "ing" as well as "sing".

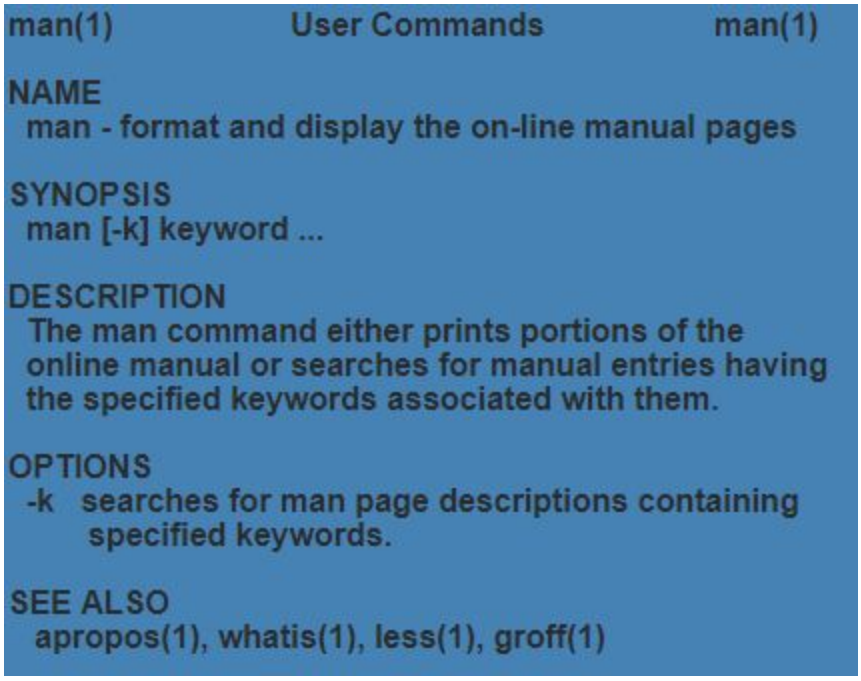
The other wildcard, '?', is not used very often, but it can be useful. It matches exactly one character. For example, if you want to match "sport", but not "spat", you would use "sp??t". The first '?' matches the 'a' in "spat", but the second '?' can't match anything, so "spat" fails.

Checking groups

groups

Copy files? cp
Remove files? rm
List the groups you are in? groups
Remove empty directories? rmdir
Change file permissions? chmod
Which wildcard represents all files? *
Which letter represents all other users? o
Which letter represents execute permission?
x

//Man shows the manual of the commands like ls and man

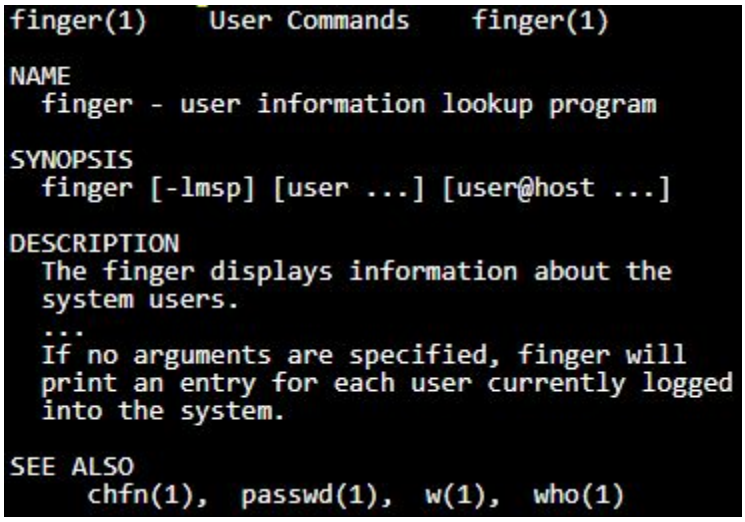


Spell checking

Man -k spell

//searches for page description containing specific keyword

Man finger



To show information about a user

Finger greg

Finding Files

Find ~ -name "poem*"
//searches for file name w poem w number after
Find . -name "joke*"
//finds all jokes

Concatenation

cat <file1> <file2>
//combines files

Cat joke-1 joke-2 > ~/corny
//moves files to another directory

Basic Commands

Here are the basic Linux print commands:

lpr	send to printer
lpq	display print queue
lprm	remove from print queue

For example, to send a file named "thoughts" to the default printer, you would type

lpr thoughts

To send your file to a printer called "hp14" rather than the default one, you would type

lpr -P hp14 thoughts

For example, to check on your print job in the "hp14" queue, you would type

lpq -P hp14

To cancel a print

lprm -P hp14 148

Concatenate files? cat
View manual pages? Man
Show print queue status? lpq
Locate files? find
Remove print jobs? lprm
Show user information? finger
Which symbol means home directory? ~
Which symbol sends output to a new file? >
Which symbol means current directory?
.

Copy Directory

The regular "cp" command will not let you copy directories, but if you use the "-r" option, it will. For example, if you wanted to copy a directory called "jokes" from Jester's home directory to your own, you would type

```
cp -r ~jester/jokes ~
```

This would copy the entire "jokes" directory tree.

Basic Commands

df

//shows the amount of disk space left on system

df~ / df.

//get statistics for the disk where home directory resides

To get a detailed list of all processes, type

ps aux

Remember the ">"? It was used to send the output of a command to a file rather than to the screen. Well, the "|" (it's above the "\" on your keyboard) is very similar. The only difference is that it sends the output of a command as the input to another command. In other words, it "pipes" data from one command to another. For example, when we wanted to print out Jester's two joke files, we could have saved ourselves a few steps by typing this

cat joke-1 joke-2 | lpr -P zephyr

grep

//helps find patterns in data

To use "grep" with a pipe, you simply leave out the file argument (just like we did with the "lpr -P zephyr" command on the previous page). For example, to list only those lines containing the word rabbit in Jester's joke files, you would type

cat joke-1 joke-2 | grep rabbit

See the example at right.

Actually, an easier way to accomplish this would be to type

grep rabbit joke*

Killing a process

To kill a process, simply type

kill PID

where PID is the ID of the process you want to kill.

Kill -9 PID

//to immediately kill a process

command shows free disk space? df
command shows process status? ps
option to the above command shows all system processes? aux
command tells a process to die gracefully? kill
option to the above command tells a process to die immediately? -9
command finds words in text? grep
symbol sends output to another program? |
'cp' and 'rm' option acts on trees?
-r