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Research Computing Services

RESEARCH GRID

UNIX Commands and General UNIX Information

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Case Sensitivity: The UNIX operating system is case sensitive. It **does** make a difference if you type in upper case or in lower case. This true for your username and password as well as for filenames and commands. UNIX commands are almost always in lower case; typing *ls* at a command prompt will cause a directory listing to be displayed on your screen but typing *LS* will just display an error message. Case sensitivity applies to filenames as well. A file named *my.fil* is **not** the same file as one named *MY.FIL*.

Getting Help with Commands/Displaying 'man' pages

If you know the command name	man *commandname*
If you don't know the command name (search on keyword)	man -k *keyword*
Search the Online Manual Pages (type in a command name and hit 'enter')	Search man pages

File Management

List files in current directory	ls
Show more detail (incl. filesize) in listing	ls -l
Show all files (even hidden ones)	ls -a
Show only 1st page of list, waits for spacebar to scroll	ls | more
Commands can be combined, for example	ls -la | more
(There are more options, see man pages for help.)	
Create an empty file (or update time stamp if filename exists)	touch *filename*
Edit a file	vi *filename* emacs *filename*
Count lines, words and characters in a file	wc *filename*
Copy a file	cp *origfilename copyfilename*
To copy many files into another directory	cp *filename1 filename2 ... directoryname*

Delete a file	rm *filename*
To force confirmation that you would like to delete	rm -i *filename*
Rename a file	mv *oldfilename newfilename*
Move a file to a different directory	mv *filename newdirname*
To move a file and rename it	mv *filename newdirname / newfilename*
To move many files into another directory	mv *filename1 filename2 ... directoryname*
Using Wildcards in filenames (commonly used with ls, cp, rm and mv commands)	
To stand for one character in a filename	?
To stand for any number of (incl. zero) characters in a filename	*
Warning: before using a wildcard in a delete command (rm) you should do a *ls* with the same wildcard to ensure you are deleting only the intended files.	

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Directory Management

Make a new directory	mkdir *directoryname*
Delete (remove) an empty directory	rmdir *directoryname*
Rename a directory	mv *olddirname newdirname*
Move a whole directory and its contents	mv *sourcedirectory targetdirectory*
To see the size of a directory and it's subdirectories (Where you have read permission)	du -s -k *dirname*
To see used and available space on a disk	df -k

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Directory Navigation

To find out where you are in the directory structure	pwd (stands for "print working directory")
To go to your home directory	cd (followed by nothing) / or cd ~
To change directory (relative to where you are currently)	cd (followed by destination directory)
To change directory (relative to your home directory)	cd ~/(followed by destination directory)
To change directory (relative to the root directory)	cd /(followed by destination directory)
To change to the parent directory of your working directory	cd .. (don't forget the space between the d and the ..)

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Displaying Files

To display an entire file on screen (1 page at a time)	more *filename* ...hit spacebar to scroll to following page ...hit 'b' to move to previous page ...hit 'q' to exit and return to shell prompt
To display an entire file on screen (will scroll all the way through)	cat *filename*

To display the first 10 lines of a file	head *filename*
To display the last 10 lines of a file	tail *filename*

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Finding files

Starts search (by name) in working directory	find **.** -name *filename* -print

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Printing

To see a list of available printers	lpstat -a all
Print a file (not specifying a printer)	lpr *filename*
Print a file (specifying a printer)	lpr -P *printername filename*
To cancel a print job	lprm *jobnumber*
To see a list of all active jobs	lpstat

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Redirecting Output from one program (usually to a file)

To create a new file	*programname > newfilename*
To append if that file already exists	*programname >> existingfilename*
For Example:	
To send output of ls to a file	ls > *filename*
-and append if that file already exists	ls >> *filename*

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Sorting

To sort a file by line (alphabetically)	sort *filename*
To sort a file by line (numerically)	sort -n *filename*

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Using pipes

The output of one program can be the input of another through the use of a pipe (|)	
To print a directory listing	ls | lp

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Viewing System/General Information

To see information about the host you're logged into	hostname uname -a
To see who is currently logged into the same host	who
To see the name under which you're currently logged in	whoami id
To make a command continue to run after you log out	nohup *command*
To create multiple sessions	screen
To display a calendar of the current	cal

month ...of any month	cal *month year* (e.g. cal 11 1997)

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Exit/Interrupt

To exit (log out)	exit
To terminate a process	[Ctrl] + c

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 Questions or comments, please contact Research Computing Services.