UNIX Commands

Montgomery Lab Protocols

Command General Commands	Function	Common Options	
General Commande	Talletion	Teominen options	Example/Notes
ctrl+a	go to beginning of line		
ctrl+e	go to end of line		
ctrl+u	delete text before cursor		
ctrl+k	delete text following cursor		
trl+w	delete to beginning of word		
ilt+f	go to next word		On a Mac go to Terminal > Preferences > Keyboard and select use Option as Meta key
alt+b ctrl+c	go to previous word stop current command		On a Mac go to Terminal > Preferences > Keyboard and select use Option as Meta key
trl+d	log out of current session, similar to exit		
lear	clear shell		
whatis	short description of a command		whatis bc
man	display manual for command		man bc (type q at the : prompt to exit)
date	display date and time		date
cal	display calander	month year	cal 01 2021
pwd	display current working directory		pwd
ls	change directory	(up one level), otherwise home directory	cd
nkdir	list files in current directory make new directory	-l (list file permissions) directoryname	Is (for working directory) OR Is directory (for any directory on the computer) mkdir directory
nistory	display command history		history
bc	basic calculator		bc (to end, type ctrl-D)
cat	display file contents		cat > file (place input into file, can be used to combine files, eg cat *.fasta >newfile)
more (or less)	display file screenful at time	/pattern (search), q (quit)	more file (use zmore for compressed files)
nead	output the first 10 lines of a file	-n (custom number of lines to display)	head file
rail wc	output the last 10 lines of a file word, line, character count	-n (custom number of lines to display), -f (monitor file in real time) -l (linecount only), -c (character count only)	tail file wc file (line count in column1, word count in column 2, character count in column 3)
diff	compare file contents	-i (intecount only), -c (character count only)	dif file1 file2
uniq	return or omit unique lines	-d (see list of duplicate lines)	uniq file
ouch	touch a file; create it if it doesn't exist	,	touch file
open	open a file	-a program	open -a "Microsoft Word" file
р	copy file	-R (recursive), -X (ignore attributes)	cp -RX dir1 dir2
mv	move or rename file		mv file1 file2
rm	remove (delete) file	-r (remove directory), -f (force remove file)	rm file
oaste echo	paste lines of separate files on the same line of one file	-n (don't add new line after input)	paste file1 file2 file3 echo Hello, world!
ecno	write arguments to standard output pipe - output from one command to another	-n (don't add new line after input)	for example, see ifconfig command below
tee	capture output at an intermediate step while piping		Is tee list.txt tail
df	disc usage	-g use 1 gbyte blocks insteak of 512 kbyte	df -g
top	display all running processes		top
ifconfig	configure a network interface		ifconfig grep "inet " (use to get IP address)
find	search a directory tree for files that match a name		find /path -name filename
vi	visual editor, shell-based text editor		vi file (to edit, type I for insert to exit insert mode hit esc; to save type :w, to quit, type :q)
		ctrl+a+d (detach window)	
screen	CNU C fi ibbi	screen -DR (show detached windows) screen -r (resume a detached window)	screen
/	GNU Screen for running jobs on remote machines Execute program	screen - (resume a detactied willdow)	./program.pl
./	Execute program		.) program.pr
Text Searching and Manip	ulation		
grep	search for pattern in file	-r (grep directory), -c (return only count) -o (output matches)	grep pattern files OR grep -r directory (use zgrep for compressed files)
sort	display sorted content	-r sort in reverse order	sort inputfile >output file
sed	stream editor for transforming text, line-based	-i (make changes to input file), -e (for multiple commands in one line)	sed 's/[[:<:]]old_pattern[[:>:]]/new_pattern/g;' inputfile >outputfile
awk	pattern scanning and processing language	-F (field seperator)	awk 'pattern { action }' inputfile1 inputfile2 (optional) >outputfile
tr	translate, replace simple text like single characters	-d (delete), -cd (delete everything but)	tr a-z A-Z <inputfile>outputfile (replace all lowercase letters with uppercase)</inputfile>
rev	reverse characters in every line		rev
tac join	reverse order lines join lines of two files based on a common field	-t (field separator) -1 (field 1, etc)	join -t "\t" -1 N -2 N file1 file2
split	split up a file	-I (linecount), -b (size in bytes)	split - I linecount inputfile outputfile
csplit	split up a file by text match	-f (prefix for each new file)	csplit -f prefix file "/pattern1/" "/pattern2/" "/patternN/"
			apin project p
File Compression			
unzip	uncompress a .zip file		unzip file.zip
tar cf	create a single tar file containing multiple files		tar cf newname.tar file1 file2 fileN
tar xf	extract files from a tar		tar xf file.tar
tar cvzf	create a single tar file and compress it		tar cvzf newname.tar file1 file2 fileN
tar cvzf tar xvzf	create a single tar file and compress it extract and uncompress files from a tar	d (decompress a grip)	tar xvzf file.tar.gz
tar cvzf tar xvzf	create a single tar file and compress it	-d (decompress a gzip)	
tar cvzf tar xvzf gzip	create a single tar file and compress it extract and uncompress files from a tar gzip compress a file	-d (decompress a gzip)	tar xvzf file.tar.gz
tar cvzf tar xvzf gzip Server Access and File Tra	create a single tar file and compress it extract and uncompress files from a tar gzip compress a file nsfer	-d (decompress a gzip)	tar xvzf file.tor.gz gzip file OR gzip -d file.gz
tar cvzf tar xvzf gzip Server Access and File Tra	create a single tar file and compress it extract and uncompress files from a tar gzip compress a file	-d (decompress a gzip)	tar xvzf file.tar.gz
tar cvzf tar xvzf gzip Server Access and File Tra ftp	create a single tar file and compress it extract and uncompress files from a tar gzip compress a file notes from a tar file from the file transfer file transfer protocol (non-secure)	-d (decompress a gzip)	tar xvzf file.tor.gz gzip file OR gzip -d file.gz ftp username@server.com (mget file will transfer file to current directory) stsp username@server.com ssh username@server.com
tar cvzf tar xvzf gzip Server Access and File Tra ftp sftp	create a single tar file and compress it extract and uncompress files from a tar gzip compress a file nsfer file transfer protocol (non-secure) secure file transfer protocol (encrypted)	-d (decompress a gzip)	tar xxt file tar.gz gzip file OR gzip-d file.gz ftp username@server.com (mget file will transfer file to current directory) sftp username@server.com ssh username@server.com Copy something from this machine to some other machine:
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