THE 2019 INTERNATIONAL WORKSHOP ON STATISTICAL METHODOLOGY FOR HUMAN GENOMIC STUDIES

UNIX cheat sheet – Sarah Medland

Help on any Unix command man {command} Type man ls to read the manual for the ls command. which {command} Find out where a program is installed whatis {command} Give short description of command.

List a directory

ls {path}	
ls -lh {path}	Long listing, with date, size and permisions.
ls -R {path}	Recursive listing, with all subdirs.

Change to directory cd {dirname} There must be a space between.

cd Go back to home directory, useful if you're lost.

cd .. Go back one directory.

Make a new directory mkdir {dirname}

Remove a directory/file rmdir {dirname} Only works if {dirname} is empty.

rm {filespec}? and * wildcards work like DOS should.

"?" is any character; "*" is any string of characters.

Print working directory

pwd	Show where you are as full path.

Copy a file or directory cp {file1} {file2} cp -r {dir1} {dir2} Recursive, copy directory and all subdirs.

cat {newfile} >> {oldfile} Append newfile to end of oldfile.

Move (or rename) a file mv {oldfile} {newfile} Moving a file and renaming it are the same thing.

View a text file

more {filename}	View file one screen at a time.
less {filename}	Like more, with extra features.
cat {filename}	View file, but it scrolls.
page {filename}	Very handy with ncftp.
nano {filename}	Use text editor.
head {filename}	show first 10 lines
tail {filename}	show last 10 lines

Compare two files

diff {file1} {file2} Show the differences.

sdiff {file1} {file2} Show files side by side.

Other text commands

grep '{pattern}' {file} Find regular expression in file.

sort {file1} > {file2} Sort file1 and save as file2.

wc {file} Count words in file.

Find files on system find {filespec} Works with wildcards

Wildcards and Shortcuts

* Match any string of characters, eg page* gets page1, page10, and page.txt.

? Match any single character, eg page? gets page1 and page2, but not page10.

[...] Match any characters in a range, eg page[1-3] gets page1, page2, and page3.

~ Short for your home directory, eg cd ~ will take you home, and rm -r ~ will destroy it.

. The current directory.

.. One directory up the tree, eg ls ...

Pipes and Redirection(You pipe a command to another command, and redirect it to a file.)

{command} > {file}Redirect output to a file, eg ls > list.txt writes directory to file.

{command} >> {file}Append output to an existing file, eg cat update >> archive adds update to end of archive.

{command} < {file}Get input from a file, eg sort < file.txt

{command} < {file1} > {file2}Get input from file1, and write to file2, eg sort < old.txt > new.txt sorts old.txt and saves as new.txt. {command} | {command}Pipe one command to another, eg ls | more gets directory and sends it to more to show it one page at a time.

Permissions, important and tricky!

Unix permissions concern who can read a file or directory, write to it, and execute it. There are 3 permissions corresponding to the owner (you); the group (?); and the world (everyone else).

You can change file permissions with letters: u = user (yourself) g = group a = everyone

r = read w = write x = execute

chmod u+rw {filespec} Give yourself read and write permission

chmod u+x {filespec} Give yourself execute permission.

chmod a+rw {filespec} Give read and write permission to everyone.