

### Network Commands

Command	Description	Parameter/Usage
wget	Downloads something from a web address	
ssh	Remote login or command run	"ssh username@server"
scp, sftp	Remote file copy	
openssl	For generating stuff for encryption	
ssh-keygen	For generating public/private key pairs	
dnf	Package manager for Fedora. Use it to download, update, and install all sorts of software	
ifconfig	Use without parameters to get general info on network connections. Also used for assigning IP addresses and setting up networking config stuff for interface devices	
netmask	Used for setting network submask	
route	For adding entries to a routing table	
netstat	For displaying network info	
ip	For Internet Protocol activities	
traceroute	Given an address, will identify all of the places your packets travel to to get to that address	
ping	Sends packets to an IP, seeing how long it takes to get a response	
dig	Queries DNS servers to get info on a domain	

### System & Disk Commands

Command	Description	Parameters
du	Disk usage; shows disk usage of files in directory	h: human readable. a: all files, not just directories
free	Shows amount of free & used memory in system	
df	Report on file system & disk space usage	
lsblk	Report info about block devices	
fdisk	Manipulate disk partitioning	l: list disks
uname	Print system information	
export	For setting an environment variable	
umount	Unmounts the specified disk	
eject	Ejects the specified disk	

### Common Commands

Name	Description	Parameters/Notes
ls	list everything in given directory (default is present dir)	l: long, more detailed view. a: show all, even hidden files/directories
cd	navigate to another directory	
pwd	Present Working Directory; shows current directory	
cp	Copy a file from one place to another	
rm	Remove a file or directory	f: force remove, ignoring warnings/-anything. r: recursive; use this to delete directories

### Common Commands (cont)

mv	Moves a file	Can be used to rename files, by 'moving' a file to the same directory, with a different name
rmdir	Removes a directory	
mkdir	Creates a directory	-p to make parents; can build a chain of non-existent directories all at once
touch	Updates a file's last-edited date.	Can be used to create files- it will create a file if the given file does not exist
history	lists history of previous commands	
man	Lists manual page for a given command, that'll tell you alllll about what a command can do and how to use it	
reboot	Reboots the machine	

### Directories

Directory	Description
/etc	All sorts of system-wide configuration stuff
/proc/cpuinfo	CPU info
/etc/passwd	User account info
/etc/group	Group info
/etc/shadow	Where passwords are actually kept
/etc/skel	Skeleton, template home directory for copying to make new home directories

### Directories (cont)

/etc/systemd/system	Daemon config file / setup stuff
/etc/syslog.conf	Configuration for syslog logging daemon
/var/log	Where logs are kept
/etc/hosts	Configuration for network hosts
/etc/networks	Configuration for networks

### Process Commands

Command	Description	Parameters/Usage
top	Displays and updates lots of info on running processes	
ps	Displays current running processes as a tree	
fg	Foreground; resume a suspended process or bring one back from the foreground	fg %[job number] or fg [process ID]
bg	Background; puts a process into the background	

Note: if you want to put a currently running command in the background, use CTRL+Z, and then fg & bg

kill	Kills a command in the background
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### Automation and Daemons

Command	Description	Parameters
systemctl	Managing systems/services, in particular daemons	
journalctl	part of systemd, can be used to see logging/errors for daemons	
crontab	Used for setting up automated running of commands / scripts at certain dates or intervals via cron	

### Automation and Daemons (cont)

at	For scheduling a command to run just once
atq	Lists commands in the queue that have been scheduled to run
atrm	Remove a command from the queue
test	For checking files and values; any yes/no question about our system

### Input / Reading Commands

Command	Description	Parameters
locate	For searching for files	
find	For searching for files	
less	Text viewer for viewing large files	
nano	Good, simple text editor	
vim	Complex, powerful text editor	
vimtutor	Used for learning vim	
cat	Concatenate files and print them to stdout	
echo	Echoes whatever it is given; useful for sending text somewhere	
head	Read first few lines of a file and print them to stdout	n: number of lines to read
tail	Read last few lines of a file and print them to stdout	n: number of lines to read
awk	Used for viewing files in complex ways, like looping through a file and only looking at certain patterns and columns/rows in a file	

### Input / Reading Commands (cont)

dd	Reads bytes from a location
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### Groups, Users, and Permissions oh my

Command	Description	Parameters
passwd	For changing and setting passwords	
useradd	For adding a new user	
su	Switch user	
usermod	Modify a user account	
chown	For changing ownership of a file / directory	
chmod	For changing permissions of a file / directory	
groupadd	Add a group	

### Syntax & Jargon

Symbol / Term	Description
stdin	Standard input; the input a command is looking for what it should work with. Generally comes from keyboard; could be a file or something else, if we redirect stuff
stdout	Standard output; typically is the console. Can be changed to a file or something if we redirect it.
stderr	Standard error; where errors are printed to.
	Pipe. Used to send output of one command directly to another like, "history   less"
>	Send output of command somewhere.
>>	Append output somewhere.
>& or &>	Send stdout and stderr somewhere
2>	Send just stderr somewhere

### Syntax & Jargon (cont)

l>	Send just stdout somewhere
&	Put at the end of a command to run it in the background, immediately returning console to you.
\$	When on prompt, means that you're a regular user
#	When on prompt, means that you're the root user
?	Wildcard character - when a command receives '?' in its input, it will take that mean to any single character
*	Wildcard for any number of characters. I.e. "*.txt" would refer to any thing/file ending in ".txt"
[abc]	Wildcard for given characters (here, a, b, or c). Can also define a range, i.e. [1-3]
CTRL+U	Delete current line
CTRL+C	Abort whatever's currently running
CTRL+Z	Suspend whatever's currently running

### Miscellaneous Commands

Command	Description	Parameters
yes	Spams a string until forcibly stopped	
sudo	Runs the given command as root	
shutdown	Shuts down system	"shutdown now" to do it now
halt	Shuts down system	p: needed on most systems to power down hardware
reboot	Same as halt but reboots	
which	Finds if a command exists and where it is	

### Miscellaneous Commands (cont)

whereis	Like which but searches a broader area than just your shell's search path
sort	Sorts text r: reverses sort order. h: for sorting human-readable byte counts
ln	Used for creating links between files; shortcuts basically
chsh	Change shell
stty	Setting key commands (like backspace to delete)
(Use "stty sane" to unork a borked shell)	
clear	Clears terminal of text
script	Saves everything that comes up in your console, until exit is called