Linux Cheat Sheet

Navigation

pwd	Print working directory - where am I?
cd	change directory
cd ..	change to parent directory; up one
cd -	go back to previous directory
cd ~bob	go to bob's home directory
pushd */folder*	change directory to folder & remember
popd	go back to previous directory remembered
ls	list files in current directory
ls /folder	list files in /folder directory
ls -l	long listing shows some metadata
ls -a	shows all files including hidden
ls -F	shows basic file types in listing
ls -R	lists files & folders recursively
ls -lh	lists file sizes human readable

Local Info

date	current time & date
uptime	shows uptime since last boot
hostname	current hostname
echo $USER	current username
id	current user permissions
uname -a	shows system & kernel
cat /etc/*{release, issue, edition, version}*	shows information to identify the Linux distribution
lsb_release -a	possibly shows Linux distribution
w	show all logged in sessions

File Permissions

stat *file*	view file metadata
chown *bob:bob file*	change owner & group of file to bob
chmod +x *file*	change mode permission of file to add executable to all
chmod 600 file	change file permissions to read-write of user, none for rest

Help

command -- **help**	--help after a command typically shows basic usage
apropos *keyword*	shows commands relating to given keyword
whatis *command*	shows one-liner description from command manual
man *command*	shows command manual if it exists
info *command*	shows command info manual if it exists

Search Files

locate *filename*	locate file named filename
find / -name *filename*	find files with the name filename throughout the entire filesystem
find /etc -iname "*word*****"**	find files with the case-insensitive name word in the /etc directory and recurse
find / -type d -name foo	find directories named foo
grep *word file*	search for word in file
grep -ri *word /folder*	search for case-insensitive word recursively in all files in /folder
which *command*	show default path for command
whereis *command*	show all found paths for command

File Manipulation

touch *file*	create new file called file
mkdir *folder*	create new folder called folder
cp *from to*	copy file from to file to
mv *from to*	move / rename file from, to to
ln -s *from to*	create link / shortcut from to
ln *from to*	create hard link from to
rm *file*	remove / delete file
rm -rf *folder*	remove folder recursively

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File Permissions

rwx **rwx** rwx	[r] read, [w] write, [x] execute
U G O	User, Group, Other
Calculate numerical view by adding numbers	
4	read
2	write
1	execute
Special permissions prepended follow similar pattern	
4	SUID
2	GUID
1	Sticky
Extended permissions	
lsattr *file*	list extended attributes of file
chattr +i *file*	set immutable bit on file
getfacle *file*	view file access list of file
setfacl -m **u:bob:r** *file*	modify file access list giving bob read access to file

Process Commands

ps -ef	view all running processes
top	dynamic view of processes
echo $$	view current PID
kill *PID*	kill a process by Process ID
killall *process*	kill all processes by name
CTRL c	stop current process
CTRL z	pause processes & push to background
jobs	view current background jobs
bg *JOB*	restart background process
fg *JOB*	bring job back to foreground

Network Commands

ifconfig -a	show all interface configurations
ip add	shows all interface information
ping -c3 *host*	sends 3 ping packets to host
netstat -auntp	shows current socket info
ss -auntp | column -t	shows current socket info

Hardware

df -h	show disk usage
du -sh	shows directory space usage
mount | column -t	shows currently mounted folders to the file systems
free	shows memory & swap usage
lsbpci	shows all PCI devices
lsbusb -v	shows all USB devices verbosely
dmidecode	show BIOS info

View Files

cat *file*	view contents of file
cat *file file2 > file3*	concatenate file & file2 into new file3
less *file*	view file in pager buffer called less
more *file*	view file in pager buffer more
tail *file*	view last ten lines of file
tail -25 *file*	view last twenty-five lines of file
head *file*	view first ten lines of file
wc -l *file*	view number of lines of file