Unix Commands

This how-to describes various UNIX/LINUX commands. I have found these commands useful over the years.

Misc Commands

Command	Description
ps -ef	List all running processes
ps -efww	List all running processes and wrap to screen
<cmd> &>/dev/null <cmd> >/dev/null 2>&1	Redirect all output to /dev/null
<cmd> >/dev/null	Redirect stdout to /dev/null
<cmd> 2>/dev/null	Redirect stderr to /dev/null
cat <file> | grep -v '<string1>/|<string2>'	Exclude lines with 2 strings from output
find . -name <*filename*>	Searches the file system for specified file.
find . |grep <search>	Search for a file
<*cmd*> | grep -v <string>	Output lines not containing string
<*cmd*> | grep -v '<string1>/|<string2>'	Output lines not containing any of the strings
history	show command history
!<##>	execute command # from history
!<start of command>	execute command from history starting with.
CTRL-R	Search command history
lsof -P |grep LISTEN	Display ports that your machine is listening on. Uses lsof (list open files)mockser
dd if=<file> of=<file> [bs=#] [count=#]	dd copies what is specified in the input file (if) to the output file (of). bs= is the block size (bytes) and count= is the number of blocks to copy. See man dd for more informations.
tar x|c|t [z | Z | j] [f <file>] <tar_file>	tar is an archiver. You can use it to expand (x), create (c) or test (see the content, t) of tar archives. If f option is specified, it will tell which file is the input (for x and t) or the output (for c). There are ways to also use compression with options: • z : gzip • Z : compress • j : bzip2 See man tar for more information. There are a lot of more options and very useful functions like destination directory when unarchiving or directory to include when creating (C), other ways of compression and the interactive mode (that allows to choose what should be unarchived).
sudo parted <img> unit B print	Print out the partition information of the image ie. > sudo parted new.img unit B print Model: (file) Disk /home/test/projects/sabrelite_demo/new.img: 1795162112B Sector size (logical/physical): 512B/512B Partition Table: msdos Number Start End Size Type File system Flags 1 4194304B 25165823B 20971520B primary fat16 boot, lba 2 25165824B 1266679807B 1241513984B primary ext3 3 1266679808B 1790967807B 524288000B primary ext3

sudo mount -o loop, offset=<offset_in_bytes> <img> <folder> Specify the filesystem type: -t <fsType> • auto - this is a special one. It will try to guess the fs type when you use this. • ext4 - this is probably the most common Linux fs type of the last few years • ext3 - this is the most common Linux fs type from a couple years back • ntfs - this is the most common Windows fs type or larger external hard drives • vfat - this is the most common fs type used for smaller external hard drives • exfat - is also a file system option commonly found on USB flash drives and other external drives	Mount a partition to a directory ie. sudo mount -o loop,offset=4194304 new.img p1 ie. sudo mount -t ext4 -o loop,offset=63963136 my_image.img p2
dd if=/dev/zero of=<image> bs=1M count=100	Create a blank image file
mkfs.ext3	Make file system ext3
lsusb	list usb devices
rsync -avP <source> <dest> using ssh with non-standard port: rsync -arP -e 'ssh -p <port>' <source> <dest> To resume a failed transfer: rsync --append	Archive all files from one folder to another. Over SSH Example: $ rsync -av pi@192.168.1.201:~/RetroPie/roms . $ rsync -arP -e 'ssh -p 7777' admin@192.168.1.60:/share/folder .

Command	Description	Example
bless <file>	hex editor	> bless ~/file.bin
mount	List mounts	> sudo mount
mount -a	Re-mount	
umount <mount_point>	Unmount	> sudo umount /home/test/projects/yas-arm/run/partition_1
diskutil -l	List partitions	> sudo diskutil -l

lsblk	List disks and partitions	> sudo lsblk sudo lsblk NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT sda 8:0 0 80G 0 disk sda1 8:1 0 77G 0 part / sda2 8:2 0 1K 0 part sda5 8:5 0 3G 0 part [SWAP] sdb 8:16 1 3.5G 0 disk sdb1 8:17 1 8M 0 part sdb2 8:18 1 1.2G 0 part sdb3 8:19 1 500M 0 part sr0 11:0 1 1024M 0 rom
kill -STOP <processId>	Pause a process	> sudo kill -STOP 208
kill -CONT <processId>	Resume a process	> sudo kill -CONT 208
nm <exe>	View executable symbols. Needed for debugging.	> nm rdTest
minicom -s	setup minicom	
arp -a	List Mac/ip addresses on network	arp -a OUTPUT: appletv-livingroom.jmehan.com (192.168.1.33) at c8:d0:83:e5:98:3 on en0 ifscope [ethernet] pihole.jmehan.com (192.168.1.51) at d0:ca:ab:cd:ef:1 on en0 ifscope [ethernet] ...
`type CMD`	display cached location of command	`> type cfssl` `cfssl is hashed (/usr/local/bin/cfssl)`
`hash -r`	clear cache of all commands	> hash -r
`hash -d CMD`	remove command location from cache	> hash `-d cfssl`

Apt-get Commands

Command	Description
apt-get update	update apt-get info
`apt-cache search <keyword>`	search the list of available packages
apt-get install <*application*>	install application
apt-get remove -V <*application*>	remove application
apt-cache policy <application>	show versions
`apt-get install -y -q` `docker-engine=1.11.1-0~trusty`	Install a particular version of docker