Cheatography

Sys Admin Cheat Sheet

by kosackm via cheatography.com/89661/cs/20408/

Bash

#!/bin/env bash	the shebang
./ file-name.sh	how to run a bash script
X="hello"	set variables
$X	use the variable
exit code	1 for false, 0 for true
[ ]	shorthand for test
[[ ]]	better shorthand for test, handles spaces better
if [[ ]]; then; fi	basic if-then-exit statement
if [[ ]]; then; else; fi	basic if-then-else
if [[ ]]; then; elif [[ ]]; then; else; fi	basic if-elif
$?	exit code of last run command
$1, $2 … $9	argument 1, arg 2, ...
env	see all variables already set
__ -eq __	check if things are equal
bash -x ____	debugger
for __ in __ ; do; commands; done	basic for loop, ; indicates new line
while true; do; commands; done	while loop
until true; do; commands; done	until loop
break	exit a loop

Ownership

chown/chgrp [owner] [file]	change owner/-group
chmod [u,g,o]+[permission] [file]	add permissions

Ownership (cont)

chmod [u,g,o]-[-permission] [file]	remove permission
[u, g, o]	user, group, other
[permission]	read (r), write (w), execute (x)
7	read, write and execute permissions
6	read and write permissions
5	read and execute permissions
4	read permissions
3	write and execute permissions
2	write permissions
1	execute permissions
0	no permissions

How We Set Up Samba

sudo dnf install samba	
sudo nano /etc/samba/s-mb.conf	add gloabals
map archive = no	
map hidden = no	
map read only = no	
map system = no	
store dos attributes = yes	
sudo firewall-cmd --add-ser-vice=samba	open the firewall
sudo systemctl start smb.service	
sudo systemctl start nmb.service	
sudo systemctl enable smb.service	
sudo systemctl enable nmb.service	
sudo smbpasswd -a [user]	add the user and give password for samba
sudo setsebool -P samba_exp-ort_all_rw 1	need this to let samba run because of a se fedora setting

Networking

TCP/IP	Transmission Control Protocol/Internet Protocol
ping [web address]	send packets to web address to test connection and speed
ping -s [number] [address]	change packet size sent
traceroute [web address]	shows route packets take when being sent
firewall-cmd --remove-port= [port #]/[port type]	take down firewall for specified port
firewall-cmd --add-port=[port #]/[port type]	put up firewall for specified port
firewall-cmd --add-service=[-service]	some services are recognized by firewall command, use this to let them work

Secure Shell

ssh [name]@[system name]	using the secure shell
scp [dir]/[file] [name]-@[system name]:	copy from local to other system
scp [name]@[system name]:[dir]/[file] .	copy from other system to local

Common Commands

sudo !!	run previous command as sudo
man [command]	for manpages (give info about command)
mkdir	make directory
rmdir	remove directory
cp -r [source] [destination]	copy file recursively
which [filename]	gives location of file

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Common Commands (cont)

less	read files and able to scroll through, better than 'more'
grep	search text
cat [filename]	shows content of file
head	shows beginning of file
tail	shows end of file
find . -name *.[pP][dD][fF]	find file, use -iname for case-insensitive
history	give a list of previously entered commands
![line #]	(use this with history) run the command from the history on given line
history | grep [word]	search history for commands including the word
script	record output from entire session
yes "string"	repeat string until manually stopped
cal	ascii calendar
date	gives current date
^this^that	run previous command replacing "this" with "that"
uptime	show system uptime
whoami	display current user name

DNF

**dnf ____ [package name]	____ can be filled with the words below
update (or upgrade)	update a package
install	install a package
remove	remove a package

Systemctl

systemctl daemon-reload	Reload systemd manager configuration
journalctl [service name]	check the logs of a servide
systemctl ____ [service name]	____ can be filled with the words below
start	start a system service
stop	stop a system service
status	check the status of a service
enable	let service start on boot
disable	make it so service does not start on boot

Other Info

*	any character any number of times
?	any character one time
[cC]	one of these characters
/etc/skel	Sample startup files you can place in home directories for new users
[command] | [command]	piping
$	regular user
#	root user
~	home directory
nano and vi	text editors
&	run in background
ctrl+z	suspend process running
ctrl+c	kill process running
ctrl+s	stop output to terminal
ctrl+q	return from ctrl+s state
ctrl+a	go to start of a line
ctrl+e	go to end of a line
ctrl+k	cut from cursor to end of line

Git

git clone /path/to/repository	create copy of git repository
git add filename	add file to git repository
git commit -am "-message"	send the changes to git repository
git push	makes the changes to git repository

Download/Extract

wget [url for file]	download file
tar -xzf [file]	extract tar file

Directories of Note

/	root directory
/bin	contains Unix commands
/boot	contains files needed to boot the system
/dev	device files
/etc	contains most configuration files
/etc/passwd	contains user information (name, password, id, ...)
/etc/skel	sample files for making a new home directory
/home	home folder for user
/lib	contains files for /bin and /sbin
/tmp	location of temporary files for the system

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