

# Perched Systems: \*NIX Usage

## Quick Reference Guide



Getting Help	
Command	Description
man <command>	read the manual
apropos	search "whatis" database
<command> -h	help for specific command
<command> --help	help for specific command
find	find files
locate	find files
whereis	searches man pages and source files for a program
which	Search the user's \$PATH for a program file

Networking	
ip a	display routing, devices and tunnels
ss	socket statistics (show open / listening ports)
ping	icmp to test connectivity
tracert	trace route to host
dig	DNS lookup
ssh	Secure Shell client (remote login program)
scp	secure copy (remote file copy)
tcpdump	dump traffic on a network
nmtui	textual interface to configure networking
Common Switch's used:	
<b>ss -lnt</b>	
<b>ip a</b> (provides address)	
<b>ip route</b> (provides routes)	

Navigation	
Command	Description
pwd	displays current working dir
ls	list contents
tree	displays dir contents in visual tree
cd	change directory

Directory Aliases	
Alias	Description
.	"here" or current working directory
..	up one level from current directory
~	current user's home directory
-	last working directory

System Info	
Command	Description
whoami	print the current user id and name
hostname	print or set system name
date	display or change the date & time
uptime	show time since last reboot / start
w	list users currently logged in
finger	display info about user
who	print all usernames currently logged in
uname	print system information
df	show disk usage
du	show directory space usage
free	show memory and swap usage

Bash Shortcuts	
Shortcut	Description
Up/Down Arrow	access previous command history
ctrl + A	move cursor to start of line
ctrl + E	move cursor to end of line
ctrl + U	delete left of cursor
ctrl + K	delete right of cursor
ctrl + W	delete word on left
ctrl + <	jump to left by argument
ctrl + >	jump to right by argument
<TAB>	completes filename or command
ctrl + R	reverse search history
!!	repeat last command
history	display contents on .bash-history
!###	rerun specific history entry

Users & Permissions	
Command	Description
id	print user and group id's
useradd	create new user account
passwd	modify a user password
usermod	modify user account
userdel	delete a user account
groups	print group names a user is in
groupadd	add a user security group
groupmod	modify a group
groupdel	delete a group
chown	change file owner and group
chmod	change access permissions

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Sorting & Filtering	
Command	Description
(pipe)	passes output from one command to another
grep	search file(s) for lines that match a given pattern
egrep	search file(s) for lines that match an extended exp
zgrep	search compressed file(s) for lines that match pattern
sort	sort text files
wc	print byte, word, and line counts
cut	divide a file into several parts
uniq	uniquify files
sed	Stream manipulation tool
awk	Programming Language and Text processor

Reading & Manipulating Files	
Command	Description
cat	concatenate and print (display) the content of files
less	display output one screen at a time
tail	output the last part of file (-f to follow)
touch	create a new (empty) file or change file timestamps
nano	create or edit file in nano editor
vim	create / edit file in vim editor
rm	remove file
mkdir	create dir
rmdir	remove dir
ln	create a hard link to file
ln -s	create a symbolic link to a file

Process Monitoring	
Command	Description
w	who is logged on
ps	process status
lsof	list open files
kill	kill process
iostat	report CPU and i/o statistics
top	list processes running on the system
htop	interactive process viewer
sudo halt	shutdown system
sudo reboot	reboot system
systemctl	Tool used to interact with Systemd
Common Switch's used:	
<b>ps -aux</b>	