

# A Linux Cheat Sheet

## Terminal

A terminal is a “device” that is used for entering data into, and displaying data from, a computer.

A terminal emulator is a “window” that presents the user a command line interface (CLI). Once you open a terminal emulator the user communicate through the CLI with a program called the shell.

In order to get access to a terminal emulator on your Ubuntu-Linux “box”:

- using the GUI (Graphical User Interface):  
Applications → Accessories → Terminal
- using a terminal emulator:  
`xterm -bg SlateBlue -fg NavajoWhite -sb &`

If you are curious about the colors available you can use the command:  
`showrgb | less`

## Shell

Software that provides an interface for users to “pass” commands to the Operating System.

Some shell commonly available on Linux/Unix are:

Bourne Shell:	<code>sh</code>
C Shell:	<code>csh</code>
Bourne Again Shell:	<code>bash</code>
Korn Shell:	<code>ksh</code>
Enhanced (TENEX) C Shell:	<code>tcsh</code>

## Running Programs

The fastest way to run a program is to type a command at the shell.

## Getting Help

`<command> --help`

`man <command>`

`info <command>`

`man -k <keyword>` *{search all man pages}*

`man -f <keyword>` *{search only the titles of the man pages}*

`man man`

`man intro`

## Log in to a remote computer

`ssh -Y <username>@<ip-address>`

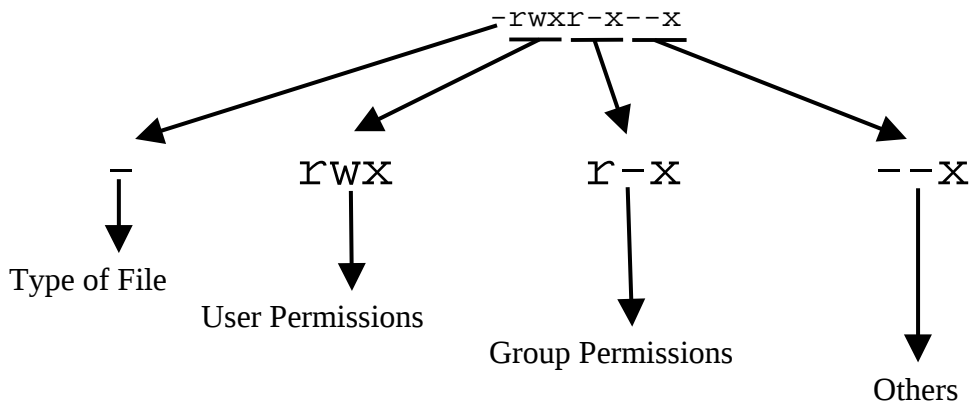
## Common Linux Shell Commands

Functionality	Shell Command	Basic Usage
Copy Files	cp	cp <filename> <newLocation>
Move Files	mv	mv <filename> <newLocation>
Rename Files	mv	mv <oldFilename> <newFilename>
Delete Files	rm	rm <filename>
Create Directories	mkdir	mkdir <directoryname>
Delete Directories	rm	rm -rf <directoryname>
Change directory	cd	cd <directoryname>
Edit text files	vi	vi <filename>
View text files	less	less <filename>
Compare files	diff	diff <file_a> <file_b>
Find files	find	find -name <filename>
View network settings	ifconfig	ifconfig
Check a network connection	ping	ping <address>
Clear screen	clear	clear
Listing files	ls	ls
Display date and time	date	date

Display kernel message log	dmesg	dmesg
Display name of computer	hostname	hostname
Display jobs running in background	jobs	jobs
Kill specified process	kill	kill <processID>
Display running processes	ps	ps aux
Kill job running in background	kill	kill %<jobID>
Change user's password	passwd	passwd
Print Current Directory	pwd	pwd
Display file system disk space usage	df	df -h
Display size of files and directories	du	du -h <somepath>
Display final lines of specified file	tail	tail <filename>
Display topmost lines of specified file	head	head <filename>
Search file for specified text string	grep	grep "Phrase I want" <filename>
Display all environment variables	printenv	printenv
Dynamic display of running tasks	top	top
Display info about the system	uname	uname -a
Count the words in a file	wc	wc <filename>
Summary of specified command	whatis	whatis <command>
Display where a binary command is located	whereis	whereis <command>
Locate a command	which	which <command>
Create or display command aliases	alias	alias
Remove specified alias	unalias	unalias <aliasname>
Searches for a keyword	apropos	apropos <keyword>
Display the content of one or more files	cat	cat <file1> [<file2> ...]
Display a line of text	echo	echo 'some text I like'
Display the amount of free and used memory	free	free -m

Print version information for the Linux release you are running	lsb_release	lsb_release -a
Print effective user id	whoami	whoami
Shows who is logged on	who	who
Change the permissions on the files/directory listed	chmod	example: chmod ug+x file*
Change owner and group on the files/directory listed	chown	chown <ownername>[:groupname] <file...>
Change group ownership on the files/directories listed	chgrp	example: chgrp -hR groupname /dirname

## File Permissions



## Useful Tricks

Autocompletion:	TAB key
Command history:	up arrow key and down arrow key
List the past commands:	history
Repeat a past command:	! <i>&lt;number&gt;</i>
Repeat the last command you entered:	!!
Piping the output of commands:	example: ls -l   less
	example: ls -l   grep -i 'docum'
Current Directory:	.
Parent Directory:	..