

Linux Cheat Sheet:

Notation notes

[] marks optional input
<> marks required, customized input

example:

head [options] <file>
could go to:
head my_file.txt
or:
head -n 5 my_file.txt

To get help, try

man <command>
<command> -h
<command> --help
<command> -help
<command>

Semi-standardized command line schema

command [options] [files]
options are typically marked with a '-' and are often followed by values, e.g.:
-i file.txt
multi-letter parameters are typically marked with a '--' and any values follow after an '=', e.g.:
--input=file.txt

General Files and Directories

ls	lists contents of current directory
ls -al	lists all contents of current directory in long format
cd	change to home directory
cd <directory>	change to <directory>
cp <file1> <file2>	copy <file1> to <file2>
mv <file1> <file2>	move <file1> to <file2>
touch <file>	create or update <file>
mkdir <new_directory>	make directory <new_directory>
rm <file>	remove (delete) <file>
rmdir <directory>	remove empty <directory>
rm -r <directory>	remove <directory> and all its contents
rsync -rau <dir1> <dir2>	sync the contents of <dir1> into <dir2>

Viewing (parts of) Files

less <file>	view <file> interactively
more <file>	view <file>
cat <file1> [file2]	concatenate files
head [-n N] <file>	view first [N] lines of <file>
tail [-n N] <file>	view first [N] lines of <file>
grep <pattern> <files>	search for <pattern> in <files>
<command> grep <pattern>	search for <pattern> in output of <command>
cut -fN [-d] <file>	view column N of <file>, use -d for non-tab delimiter
sed s/<find>/<replace>/g <file>	runs find and replace on <file>

Network

ping <host>	test connection to <host>
ssh <user>@<host>	connect to <host> as <user>
wget <file>	download <file>
wget -r <url>	recursively download <url>

System Information and Management

top	shows current processes sorted by cpu usage
kill <pid>	stops process with process id <pid>
killall <proc>	stops all processes named <proc>
df -h	shows usage of all storage devices (e.g. hard drives)
du --max_depth=1 -h	shows total size of the contents of immediate subdirectories

Permissions

who: u=user, g=group, o=others
what: r=read=4, w=write=2, x=execute=1
examples:

chmod u+x <file>	gives permission to execute <file> to owner (user)
chmod 744 <file>	gives all permissions to owner (user), and read permissions to all
chmod 777 <file>	gives all permissions to everyone

other:

chown <user> <file>	changes the owner of <file> to <user>
sudo <command>	run <command> with super-user permissions (admin account only)

Compression

gzip <file>	compresses <file> to <file>.gz
gunzip <file.gz>	decompresses <file.gz>
tar -zcf <file.tgz> <file>	compresses <file> to <file.tgz>
tar -zxf <file.tgz>	decompresses <file.tgz>

Installation

using package manager:
for Fedora and company:
yum install <package>
for Ubuntu and company:
apt-get install <package>
from source:
./configure
make
make install

The little things

ctrl + c	halts current command
ctrl + z	stops current command
>	writes standard out to file
>>	appends standard out to file
	sends standard out to next command as standard in
*	matches all characters