

LINUX AND ROS CHEAT SHEET

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System Info

env	print environment variables
date	print system date and time
cal	print current month calendar
uptime	print system uptime
w	print online users
whoami	print current user
finger \$USER	print information about \$USER
uname -a	print kernel information
cat /proc/cpuinfo	print cpu information
cat /proc/meminfo	print memory information
man \$COMMAND	print user manual of \$COMMAND
df	print disk usage
du	print directory space usage
free	print memory and swap usage
whereis \$APP	print locations of \$APP
which \$APP	print print executable file of \$APP

Compression

tar cf \$FILE.tar \$FILES	convert \$FILES into \$FILE.tar
tar xf \$FILE.tar	extract files from \$FILE.tar
tar czf \$FILE.tar.gz \$FILES	compress \$FILES into \$FILE.tar.gz using Gzip
tar xzf \$FILE.tar.gz	extract files from \$FILE.tar.gz using Gzip
gzip \$FILE	compress \$FILE and rename it as \$FILE.gz
gzip -d \$FILE.gz	decompress \$FILE.gz back to \$FILE

Network

ip address	print all internet protocol addresses
ping \$HOST	ping \$HOST and print results
whois \$DOMAIN	print information about \$DOMAIN
dig \$DOMAIN	print DNS of \$DOMAIN
dig -x \$HOST	reverse lookup \$HOST
wget \$FILE	download \$FILE

Terminator

Ctrl+Alt+T	launch a new terminal
Ctrl+C	kill the current process
Ctrl+Z	suspend the current process
fg	resume the suspended process in foreground
bg	resume the suspended process in background
Ctrl+D	log out of the current session
Ctrl+W	erase one word in the current line
Ctrl+U	erase the whole current line
Ctrl+R	reverse search in the previous commands
!!	execute the last command
exit	log out of the current session
Ctrl+Shift+E	split the window vertically vertically
Ctrl+Shift+O	split the window horizontally

Package

apt-get update	synchronize package index files from sources
apt-get upgrade	install latest versions of installed packages
apt-get install \$PACKAGE	install \$PACKAGE
dpkg -i \$PACKAGE.deb	install a Debian package \$PACKAGE.deb
./configure	configure building settings
make	build the program from source code
make install	install the program

Secure Shell (SSH)

ssh \$USER @ \$HOST	connect to \$HOST as \$USER
ssh \$IP_ADDRESS	connect to \$IP_ADDRESS
ssh -p \$PORT \$USER @ \$HOST	connect to \$HOST on \$PORT as \$USER
ssh-copy-id \$USER @ \$HOST	add the key to \$HOST as \$USER

Searching

grep \$PATTERN \$FILE	search for \$PATTERN in \$FILE
grep -r \$PATTERN \$DIR	recursively search for \$PATTERN in \$DIR
\$COMMAND grep \$PATTERN	search for \$PATTERN in \$COMMAND 's output
locate \$FILE_NAME	find all files whose name contain \$FILE_NAME

TODO

ubuntu mono font for commands
tab auto-completion
tar explanation

Variable Declaration \$VARIABLE stands for a variable whose name is VARIABLE. For example, \$FILE means a file named FILE.

sudo sudo means super user do, elevated right granted

File Commands

ls	list contents of files and directories
ls -a	list hidden files and directories
cd \$DIR	change working directory to \$DIR
cd	change working directory to home
mkdir \$DIR	create a directory named \$DIR
pwd	print working directory
rm \$FILE	remove \$FILE
rm -r \$DIR	remove \$DIR
rm -f \$FILE	force remove \$FILE
rm -rf \$DIR	force remove \$DIR
cp \$FILE1 \$FILE2	copy \$FILE1 to \$FILE2
cp -r \$DIR1 \$DIR2	copy \$DIR1 to \$DIR2
mv \$FILE1 \$FILE2	move \$FILE1 to \$FILE2
ln -s \$FILE \$LINK	create symbolic link \$LINK to \$FILE
touch \$FILE	create \$FILE
cat \$FILE	view content of \$FILE
cat > \$FILE	write input into \$FILE
more \$FILE	print contents of \$FILE
head \$FILE	print the first 10 lines of \$FILE
tail \$FILE	print the last 10 lines of \$FILE