

UNIX Command Cheat Sheets

<u>Command</u>	<u>Description (short)</u>	<u>Example</u>	<u>Explanation</u>
date	Writes the current date to the screen	date	Mon Nov 20 18:25:37 EST 2000
sort infile	Sorts the contents of the input file in alphabetical order	sort names	Sorts the contents of names in alphabetical order
who	Tells you who is logged onto your server	who	None
who am I	Tells you your user information	who am i whoami	None
clear	Clears the window and the line buffer	clear	None
echo whatever I type	Writes whatever I type to the screen.	echo hey you!	Writes hey you! to the screen
banner big words	Does the same thing as echo only in BIG words	banner hey!	Writes hey! in large letters on the screen
cat file1 file2 file3	Shows the three files in consecutive order as one document (can be used to combine files)	cat cheese milk	This prints the cheese file to the screen first and immediately follows it with the milk file.
df system	Reports the number of free disk blocks	df ~ df \$HOME	Both commands will print the total kb space, kb used, kb available, and %used on the home system (your system).
head file	Prints the first 10 lines of the file to the screen	head addresses	Prints the first 10 lines of addresses to the screen
	Number of lines can be modified	head -25 addresses	Prints the first 25 lines of addresses to the screen
tail file	Prints the last 10 lines of the file to the screen	tail test.txt	Prints the last 10 lines of test.txt to the screen
	Number of lines can be modified here, too	tail -32 test.txt	Prints the last 32 lines of test.txt to the screen
more input	This prints to screen whatever is input—useful because it only shows one screen at a time. <i>scroll bar</i> continues to the next screen <i>return</i> moves one line forward Q quits G goes to the end 1G goes to the beginning Ctrl u moves up ½ screen Ctrl d moves down ½ screen	more groceries	This will list the groceries file to the screen.

Command	Description (short)	Example	Explanation
ls (-option-optional)	Lists all the nonhidden files and directories	ls ls bin	Lists all nonhidden files and directories in the current directory Lists all nonhidden files and directories in the bin directory
ls -l or ll	Lists all nonhidden files and directories in long format	ls -l ll ls -l work ll work	Lists all nonhidden files and directories in the current directory in long format Lists all nonhidden files and directories in the work directory in long format
ls -a	Lists all files and directories including hidden ones	ls -a ls -a temp	Lists all files and directories, including hidden, in the current directory Lists all files and directories in the temp directory.
ls -r	Lists all files and directories in reverse alphabetical order	ls -r ls -r abc	Lists all nonhidden files and directories in the current directory in reverse alphabetical order Lists all nonhidden files and directories in the abc directory in reverse alphabetical order
ls -t	Lists all nonhidden files in the order they were last modified	ls -t ls -t work	Lists all the nonhidden files in the current directory in the order they were last modified from most recent to last Lists all the nonhidden files in the work directory in the order they were last modified from most recent to last
NOTE: Options can be combined using ls		ls -al	Lists all files (including hidden (-a)) in long format (-l)
Important Characters			
	"pipe" directs the output of the first command to the input of another.	ls -l more	Lists your files in long format one screen at a time
>	Sends the output of a command to a designated file	ls -l > myfiles	Prints your listing to a file named myfiles
>>	Appends the output of a command to a designated file	ls -l >> allfiles	Appends your filenames to the end of the allfiles file
&	Runs command in the background; you can still work in the window	xclock &	Runs xclock (a clock) allowing you to keep working
~	Designates the home directory (\$HOME)	echo ~	Writes your home directory to the screen
<	Designates input from somewhere other than terminal	progA < input1	progA program gets its input from a file named input1
Wildcards			
	UNIX has a set of wildcards that it accepts.		
*	Any string of characters	ls *. c	Lists any file or directory (nonhidden) ending with c
?	Any one character	ls file ?	Lists any file/directory with file and 1 character at the end
[]	Match any character in the brackets (a hyphen is used for ranges of characters)	ls v[6-9] file	Lists v6file , v7file , v8file , and v9file

Command	Description (short)	Example	Explanation
cd directory	Changes your current directory to the directory specified	cd bin	Changes directory to the bin directory
		cd .. cd ../../	Moves you to the directory that contains the directory you are currently in Ex. Current directory=/home/users/bob/bin execute cd .. New directory= /home/users/bob or executing cd ../../ New directory= /home/users.
		cd -	Moves you to the directory you just came from
		cd ~ cd	Both move you to your home directory (the directory you start from initially)
mkdir dirname	Creates a directory You can also designate where the directory is to reside.	mkdir junk	Makes a directory named junk in your current directory
		mkdir ~/left	Makes a directory in your home directory named left
rm file1 file2 file3	Removes (deletes) file(s)	rm xyz	Deletes a file named xyz
		rm xyz abc	Deletes the files named xyz and abc
		rm *	Deletes everything nonhidden
rm -i file1 file2	Prompts before deletion of files *****USE -i AT FIRST*****	rm -i *	Prompts at each nonhidden file and lets you decide whether or not to delete it
rm -f file1 file2	Forces deletion without prompt regardless of permissions	rm -f program	Removes the file program without regard to permissions, status, etc.
rm -r directory rm -R directory	Remove a directory along with anything inside of it	rm -r bin rm -R bin	Each of these will remove the bin directory and everything inside of it.
rmdir directory	Removes a directory like rm -r does if the directory is empty	rmdir bin	Removes the bin directory if it is empty
**** dangerous **** rm -fR name rm -Rf name	This combination will force the removal of any file and any directory including anything inside of it	rm -Rf c_ya	Forces removal without prompts of the c_ya directory and anything inside of it
rm -Ri directory	Deletes the contents of a directory and the directory if it is empty by prompting the user before each deletion	rm -Ri rusure	Deletes anything in the directory called rusure that you verify at the prompt, and if you remove everything in the directory, you will be prompted whether you want to remove the directory itself or not
NOTE: Options can be combined using rm			
rmdir -p directory	Removes a directory and any empty parent directories above it (-pi does the same thing but it prompts before each removal)	rmdir -p /home/bin/dir1	Deletes the dir1 directory; if bin directory is empty, it is deleted, and if home directory is empty it is also deleted

Command	Description (short)	Example	Explanation
cp file1 newname	Copies a file (file1) and names the copy the new name (newname)	cp old new	Makes a copy of the file/directory named old and names the copy new , all within the current directory NOTE: If you copy a file to a <i>newfile</i> name and <i>newfile</i> already exists, the <i>newfile</i> contents will be overwritten.
		cp file dir2/	Places a copy of file in dir2/ and it retains its original name
		cp ../dir1/* .	Copies everything from the dir1 directory located just below where you currently are and places the copy "here" (.) in your current directory
cp -p name target	Preserves all permissions in the original to the target	cp -p execut1 execut2	Copies execut1 executable file and calls the copy execut2 , which also has executable permissions
cp -R directory target	Copies a directory and names the copy the new name (target)	cp -R old/ junk/	Makes a copy of the directory named old and names the directory copy junk
cp -f name target	Forces existing pathnames to be destroyed before copying the file	none	No example or description needed
mv initial final	Renames files and directories Also moves files to other directories You can do multiple moves.	mv temp script_1	Renames the file (or directory) temp to the name script_1 in the current directory
		mv script.exe ~/bin	Moves the script.exe file to the bin directory that is in the home (~) parent directory <i>and</i> it keeps its initial name
		mv script_1 script.exe ~/bin	Moves both script_1 and script.exe to the bin directory
pwd	Prints the current directory to the screen	pwd	May print something like "/home/bob"
pr (<i>option</i>) filename	Prints the specified file to the default printer (<i>options are not required but can be combined in any order</i>)	pr userlist	Prints the contents of userlist to the default printer
pr +k filename	Starts printing with page k	pr +5 userlist	Prints the contents of userlist starting with page 5
pr -k filename	Prints in k columns	pr -2 userlist	Prints the contents of userlist in 2 columns
pr -a filename	Prints in multicolumns across the page (use with -k)	pr -3a userlist1	Prints userlist in three columns across the page
pr -d filename	Prints in double space format	pr -d userlist	Prints userlist with double space format
pr -h "header" filename	Prints the file with a specified header rather than the filename	pr -h "users" userlist	Prints userlist with <i>users</i> as the header

NOTE: Options can be combined using pr

Command	Description (short)	Example	Explanation
lpconfig printer_id queue	Configures remote printers to a local print queue	lpconfig prntr1 bobprt	Configures a printer named prntr1 to accept print requests from a local queue named bobprt
lpconfig -r queue	Removes the said queue from the local system	lpconfig -r bobprt	Removes bobprt queue from the local system <i>if</i> the person removing the queue is the owner or "root"
lpconfig -d queue	Makes the said queue the default queue	lpconfig -d vpprnt	Makes vpprnt the default print queue
lpstat (-options)	Prints printer status information to screen (options not required)	lpstat	Prints status of all requests made to the default printer by the current server
lpstat -u"user1, user2"	Prints the status of requests made by the specified users	lpstat -u"bob"	Prints status of all requests made by the user with the id bob
lpstat s	Prints the queues and the printers they print to	none	None
lpstat -t	Shows all print status information	none	None
lpstat -d	Shows the default printer for the lp command	none	None
lpstat -r	Lets you know if the line printer scheduler is running	none	None
lp (-option) file(s)	Like pr, this prints designated files on the connected printer(s) (options not required and options may be combined).	lp junkfile	Prints the file junkfile to the default printer in default one-sided, single-sided, single-spaced format
lp -ddest file(s)	Prints the file(s) to a specific destination	lp -dbobsq zoom	Sends the file zoom to the <i>bobsq</i> print queue to print
lp -nnumber file(s)	Allows user to designate the number of copies to be printed	lp -n5 crash	Prints five copies of crash in default settings
lp -ttitle file(s)	Places <i>title</i> on the banner page	lp -tBobs cash	Prints <i>Bobs</i> on the banner page of the file printout named cash
lp -ooption file(s)	Allows printer-specific options to be used (i.e., double-sided or two pages per side, etc.)	lp -od output	Prints the output file double-sided on the printout
		lp -obold output	Prints output in bold print
		lp -ohalf output	Divides the paper into two halves for printing output
		lp -oquarter output	Prints four pages of output per side of paper
		lp -olandscape output	Prints output in landscape orientation
		lp -oportrait output	Prints output in portrait orientation
NOTE: Options can be combined using lp			
cancel request_id	Stops print jobs or removes them from the queue (request_ids are obtained using lpstat)	cancel 5438	Stops the print job with the id 5438 whether it is printing or if it is sitting in the queue
cancel -a printer	Removes all print requests from the current user on the specified printer	cancel -a bobsprt	Removes all the requests from the current user to the printer named bobsprt
cancel -u login_id	Removes any print requests queued belonging to the user	cancel -u bob	Cancels all queued print requests for user bob

Command	Description (short)	Example	Explanation
ps	Shows certain information about active processes associated with the current terminal	ps	Shows a listing of process IDs, terminal identifier, cumulative execution time, and command name
ps -e	Shows information about <i>all</i> processes	ps -e	Shows a listing of process IDs, terminal identifiers, cumulative execution time, and command names for all processes
ps -f	Shows a <i>full</i> listing of information about the processes listed	ps -f	Shows UID (user or owner of the process), PID (process ID--use this number to kill it), PPID (process ID of the parent source), C (processor utilization for scheduling), STIME (start time of the process), TTY (controlling terminal for the process), TIME (cumulative time the process has run), and COMMAND (the command that started the process)
ps -u user_id	Shows all processes that are owned by the person with the pertinent user_id	ps -u bob	Shows all the processes that belong to the person with the userid bob
ps -ef	Shows all processes in a full listing	ps -ef	Shows all current processes in full listing
kill process_id	Stops the process with the said id	kill 6969	Kills the process with PID 6969
kill -9 process_id	Destroys the process with the said id	kill -9 6969	PID # 6969 doesn't have a chance here.
grep string file	Searches input file(s) for specified string and prints the line with matches	grep mike letter	Searches for the string mike in the file named letter and prints any line with mike in it to the screen
grep -c string file	Searches and prints only the number of matches to the screen	grep -c hayes bankletter	Searches the file bankletter for the string hayes and prints the number of matches to the screen
grep -i string file	Searches without regard to letter case	grep -i hi file1	Searches file1 for hi, Hi, hI, and HI and prints all matches to the screen
grep -n string file	Prints to the screen preceded by the line number	grep -n abc alpha	Searches alpha for abc and prints the matches' lines and line numbers to the screen
grep -v string file	All lines that do not match are printed	grep -v lead pencils	Prints all lines in pencils that <i>do not</i> contain the string lead
grep -x string file	Only exact matches are printed	grep -x time meetings	Prints only lines in meetings that match time exactly
	grep is useful when you use it in a "pipe"	ps -ef grep bob	Finds all processes in full listing and then prints only the ones that match the string bob to the screen
	You can also redirect its output to a file.	grep -i jan b_days>mymonth	Searches the file b_days for case-insensitive matches to jan and places the matching lines into a file called mymonth

Command	Description (short)	Example	Explanation
vuepad filename	Opens filename for editing/viewing in the vuepad editor	none	None
vi filename	Text editor that exists on every UNIX system in the world	none	None
emacs filename	Another text editor	none	None
compress filename uncompress filename	Compresses the file to save disk space. Expands a compressed file	none none	None None
awk	UNIX programming language	none	None
eval `resize`	Tells the target computer that you've resized the window during telnet	none	None
chexp # filename	Keeps the file(s) from expiring (being erased) on the target computer for # days	chexp 365 nr *	Keeps the target computer from deleting all files starting with nr for 1 year (365 days)
		chexp 4095 nr *	Makes all files whose name starts with nr <u>never</u> expire or be deleted (infinite)
qstat	Displays the status of a process that has been submitted the Network Queuing System (basically a batch job)	qstat	Shows the status of the requests submitted by the invoker of the command—this will print <u>request-name</u> , <u>request-id</u> , the owner, relative request priority, and request state (is it running yet?)
		qstat -a	Shows all requests
		qstat -l	Shows requests in long format
		qstat -m	Shows requests in medium-length format
		qstat -u bob	Shows only requests belonging to the user bob
		qstat -x	Queue header is shown in an extended format
xterm xterm -option xterm +option	Opens a new window (x-terminal) for you to work -option sets the option +option resets the option to default	xterm	This opens another window like the one you are currently working in. USING XTERM WILL ELIMINATE A LOT OF DESKTOP CLUTTER. I STRONGLY SUGGEST YOU LEARN TO USE IT IN YOUR SCRIPTS.
xterm -help	Displays the xterm options	xterm -help	Shows the options available

Command	Description (short)	Example	(Explanation)
xterm -e program	Executes the listed program in the new xterm window—when the program is finished, the new xterm window goes away	xterm -e myprog.exe	This opens an xterm window and executes the program myprog.exe from that window so that you may still work in your present window.
xterm -sb	Opens an xterm that saves a set number of lines when they go off the top of the page and makes them accessible with a scroll bar	xterm -sb	Puts a scroll bar on the right side of the page for reviewing past lines in the window NOTE: When clicking in the scroll bar, the left button scrolls down, the right scrolls up, and the middle snaps the scroll bar to the mouse position for dragging up and down.
xterm -sl number	Specifies the number of lines to be saved once they go off the top of the screen (default is 64)	xterm -sl 1000	The xterm will save 1,000 lines of work once it has moved off the immediate viewing area; it can be accessed using the scroll bar.
xterm -geom xxy+px+py	This option allows you to specify the size x pixels by y pixels and placement position x by position y of the new window when it opens. Position +0+0 is the top left-hand corner of the screen, and the bottom right is approx. +1200+1000 depending on your resolution. Note: The size of the window takes precedence over position, so if you position it too close to the side of the screen, it will position at the edge with the correct size.	xterm -geom 80x80+0+50	The first command will open a window 80 pixels wide by 80 pixels tall and position its top left-hand corner at 0 pixels to the right of the left edge and 50 pixels down from the top of the screen.
		xterm -geom 10x35+300+500	The second command will open a window 10 pixs wide by 35 pixs tall and position its top left-hand corner 300 pixs from the left edge and 500 pixs down from the top.
		xterm -geom 5x5+0+0	The third command will make a 5 by 5 window and position its top left-hand corner at the top left-hand corner of the screen. xterm will not compromise size when positioning.
xterm -title label	Allows you to label your window's top title bar	xterm -title SCRIPTS	Opens an xterm window with the title SCRIPTS (default is whatever follows the -e option)
xterm -(areas) color	Allows you to modify different colors in your xterm window	xterm -bg white xterm -bd huntergreen xterm -fg red	The first command sets the background color to white . The second command sets the window border color to huntergreen . The third command window sets the text color to red .

xterm -fn font	Sets the font in the new xterm window	xterm -fn courr18	Sets the font to courr18 (default is <i>fixed</i>)
xterm -iconic	Starts the new xterm as an icon (double-click to maximize)	xterm -iconic -title xyz	Opens an xterm in iconic form with the title xyz

NOTE: Options can be combined using xterm
