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## Linux Command Line Cheat Sheet by [DaveChild](#)

A cheat sheet of the commands I use most for Linux, with popup links to man pages.

### Bash Commands

<a href="#">uname -a</a>	Show system and kernel
<a href="#">head -n1 /etc/issue</a>	Show distribution
<a href="#">mount</a>	Show mounted filesystems
<a href="#">date</a>	Show system date
<a href="#">uptime</a>	Show uptime
<a href="#">whoami</a>	Show your username
<a href="#">man command</a>	Show manual for <i>command</i>

### Directory Operations

<a href="#">pwd</a>	Show current directory
<a href="#">mkdir dir</a>	Make directory <i>dir</i>
<a href="#">cd dir</a>	Change directory to <i>dir</i>
<a href="#">cd ..</a>	Go up a directory
<a href="#">ls</a>	List files

### Is Options

<a href="#">-a</a>	Show all (including hidden)
<a href="#">-R</a>	Recursive list
<a href="#">-r</a>	Reverse order
<a href="#">-t</a>	Sort by last modified
<a href="#">-S</a>	Sort by file size
<a href="#">-l</a>	Long listing format
<a href="#">-1</a>	One file per line
<a href="#">-m</a>	Comma-separated output
<a href="#">-Q</a>	Quoted output

### Nano Shortcuts

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## Bash Shortcuts

CTRL-c	Stop current command
CTRL-z	Sleep program
CTRL-a	Go to start of line
CTRL-e	Go to end of line
CTRL-u	Cut from start of line
CTRL-k	Cut to end of line
CTRL-r	Search history
!!	Repeat last command
! <i>abc</i>	Run last command starting with <i>abc</i>
! <i>abc</i> .p	Print last command starting with <i>abc</i>
!\$	Last argument of previous command
ALT-.	Last argument of previous command
!*	All arguments of previous command
^ <i>abc</i> ^ <i>123</i>	Run previous command, replacing <i>abc</i> with <i>123</i>

## Search Files

<u>grep <i>pattern files</i></u>	Search for <i>pattern</i> in <i>files</i>
grep -i	Case insensitive search
grep -r	Recursive search
grep -v	Inverted search
grep -o	Show matched part of file only
<u>find /<i>dir</i>/ -name <i>name</i>*</u>	Find files starting with <i>name</i> in <i>dir</i>
find / <i>dir</i> / -user <i>name</i>	Find files owned by <i>name</i> in <i>dir</i>
find / <i>dir</i> / -mmin <i>num</i>	Find files modified less than <i>num</i> minutes ago in <i>dir</i>
<u>whereis <i>command</i></u>	Find binary / source / manual for <i>command</i>
<u>locate <i>file</i></u>	Find <i>file</i> (quick search of system index)

## Files

Ctrl-R	Read file
Ctrl-O	Save file
Ctrl-X	Close file
Cut and Paste	
ALT-A	Start marking text
CTRL-K	Cut marked text or line
CTRL-U	Paste text
Navigate File	
ALT-/	End of file
CTRL-A	Beginning of line
CTRL-E	End of line
CTRL-C	Show line number
CTRL-_	Go to line number
Search File	
CTRL-W	Find
ALT-W	Find next
CTRL-\	Search and replace

More nano info at:

<http://www.nano-editor.org/docs.php>

## Bash Variables

<code>env</code>	Show environment variables
<code>echo \$NAME</code>	Output value of <code>\$NAME</code> variable
<code>export NAME=value</code>	Set <code>\$NAME</code> to <code>value</code>
<code>\$PATH</code>	Executable search path
<code>\$HOME</code>	Home directory
<code>\$SHELL</code>	Current shell

## File Operations

<code>touch file1</code>	Create <code>file1</code>
<code>cat file1 file2</code>	Concatenate files and output
<code>less file1</code>	View and paginate <code>file1</code>
<code>file file1</code>	Get type of <code>file1</code>
<code>cp file1 file2</code>	Copy <code>file1</code> to <code>file2</code>
<code>mv file1 file2</code>	Move <code>file1</code> to <code>file2</code>
<code>rm file1</code>	Delete <code>file1</code>
<code>head file1</code>	Show first 10 lines of <code>file1</code>
<code>tail file1</code>	Show last 10 lines of <code>file1</code>
<code>tail -F file1</code>	Output last lines of <code>file1</code> as it changes

## Watch a Command

<code>watch -n 5 'ntpq -p'</code>	Issue the 'ntpq -p' command every 5 seconds and display output
-----------------------------------	--

## Screen Shortcuts

<code>screen</code>	Start a screen session.
<code>screen -r</code>	Resume a screen session.
<code>screen -list</code>	Show your current screen sessions.
<code>CTRL-A</code>	Activate commands for screen.
<code>CTRL-A c</code>	Create a new instance of terminal.
<code>CTRL-A n</code>	Go to the next instance of terminal.
<code>CTRL-A p</code>	Go to the previous instance of terminal.
<code>CTRL-A "</code>	Show current instances of terminals.
<code>CTRL-A A</code>	Rename the current instance.
More screen info at: <a href="http://www.gnu.org/software/screen/">http://www.gnu.org/software/screen/</a>	

## IO Redirection

`cmd < file`

Input of `cmd` from `file`

`cmd1 <(cmd2)`

Output of `cmd2` as file input to `cmd1`

`cmd > file`

Standard output (stdout) of `cmd` to `file`

`cmd > /dev/null`

Discard stdout of `cmd`

`cmd >> file`

Append stdout to `file`

`cmd 2> file`

Error output (stderr) of `cmd` to `file`

`cmd 1>&2`

stdout to same place as stderr

`cmd 2>&1`

stderr to same place as stdout

`cmd &> file`

Every output of `cmd` to `file`

`cmd` refers to a command.

## Pipes

`cmd1 | cmd2`

stdout of `cmd1` to `cmd2`

`cmd1 |& cmd2`

stderr of `cmd1` to `cmd2`

## Process Management

`ps`

Show snapshot of processes

`top`

Show real time processes

`kill pid`

Kill process with id `pid`

`pkill name`

Kill process with name `name`

`killall name`

Kill all processes with names beginning `name`

## File Permissions

`chmod 775 file`

Change mode of `file` to 775

`chmod -R 600 folder`

Recursively chmod `folder` to 600

`chown user.group file`

Change `file` owner to `user` and group to `group`

## File Permission Numbers

First digit is owner permission, second is group and third is everyone.

Calculate permission digits by adding numbers below.

4	read (r)
2	write (w)
1	execute (x)

## Command Lists

`cmd1 ; cmd2`

Run `cmd1` then `cmd2`

`cmd1 && cmd2`

Run `cmd2` if `cmd1` is successful


`cmd1 || cmd2`

Run `cmd2` if `cmd1` is not successful

`cmd &`


Run `cmd` in a subshell


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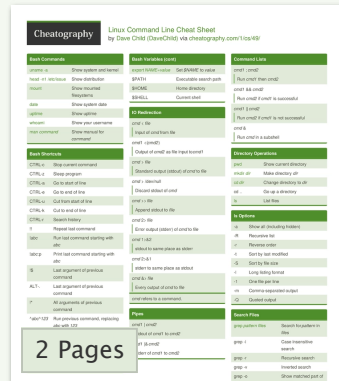
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## Comments

[\[deleted\]](#), 10:02 28 Nov 11

Thanks for creating this cheat-sheet Dave. The one thing I missed was "grep -o"; Show only the part of a matching line that matches PATTERN

[DaveChild](#), 10:02 28 Nov 11

I've added "grep -o" to the cheat sheet :)

[a\\_statham](#), 10:02 28 Nov 11

The I/O redirection section could use "2>" and "&>" examples, I always forget how to redirect stderr

## Created By

[DaveChild](#)  
[www.getpostcookie.com](http://www.getpostcookie.com)

## Metadata

Languages: [English](#)

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Rated: 5 stars based on 265 ratings

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Good idea – I'll add that (once I remember how they work myself ... :)

[DaveChild, 10:02 28 Nov 11](#)

I've updated that section to include stderr redirection. :)

[wattslevi, 19:51 29 Nov 11](#)

How are the indented lines added several of the cells like Screen Shortcuts? RE:

[http://getsatisfaction.com/cheatography/topics/adding\\_a\\_two\\_line\\_entry\\_in\\_a\\_list](http://getsatisfaction.com/cheatography/topics/adding_a_two_line_entry_in_a_list)

[DaveChild, 08:35 30 Nov 11](#)

Those indented bits are a "question and answer" format box.

[wattslevi, 10:30 30 Nov 11](#)

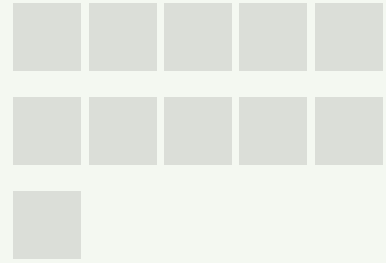
Ah, Q&A means I would be able to cheat with it and use it for two column with an extra line. Thanks for the info.

(Replying to my original post seems unintuitive for trying to reply under your post, but not to the overall thread... assuming this post as I'm thinking it might.)

[jim 23:12 30 Nov 11](#)

On the redirects, the one I most commonly use is ignoring errors (2>/dev/null, or more succinctly 2>&- ).

## Favourited By



and [339 more ...](#)

```
find / -name "*.html" 2>&-
```

Tanner [10:30 7 Mar 12](#)

ls -h is handy – changes sizes to human readable formats. Goes along good with -S. If I'm using it it is generally a ls -alhS

Wane [07:28 21 Mar 12](#)

I think the "Bash Shortcuts" part is a little misleading. The "ctrl-a", "ctrl-e", "ctrl-k" is in emacs mode. But there should be many people preferring vim-mode or some thing like that.

Davis Peng [13:57 22 Mar 12](#)

Thanks a lot for your sheet, I just need such a linux command summary such as this sheet.

[gamiclea](#), [00:05 2 Jun 12](#)

Awesome job! This will definitely come in handy

wolvverine [11:29 6 Jun 12](#)

download PDF is broken

Arpit [10:51 29 Jun 12](#)

Good work. Thanks, its helpful.

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Hi,

Fantastic good job..

Thanks

Donald J. Tambeau [15:23 6 Aug 12](#)

Love your work....it is so ....so helpful! I would like to format a MicroDisk using Linux Centos. When I look at the Partition on the MicroDisk, I see the following comment....(non-Linux). This makes sense, since I formatted with a computer running Win 7! I want to use it on my Linux system but do not know how to do it. I tried format /dev/scd1 but no joy!

Thank you

Don

Eric [08:59 7 Aug 12](#)

I'd just like to point out a trick I use with the head and tail commands:

First, you can designate the number of lines to return, like so: head -100 filename

I often use both head and tail together to get a section of a file by piping the output of one into the other. The following command gets 100 lines, starting 1000 lines before the end of the file:

tail -1000 filename | head -100

You could, of course, reverse the commands to get a section near the top of the file. To get lines 91-100:

head -100 filename | tail -10

Mark [08:53 29 Aug 12](#)

I just wanted to take a moment to thank you for putting this together. This is a big help to me I am new to OpenFiler witch I believe uses bash at the core so I am of course new to Linux. I didn't really think it would be quite so difficult to find resources that one can use to navigate the command line but I guess most folks use the GUI. But,

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Shrinath [13:08 4 Oct 12](#)

Excellent Stuff man.. I think these are the most commonly used commands.. Good Effort.

Jimmy [21:43 11 Oct 12](#)

you need to figure out how to split your command sheet as a pdf

Niloufar [21:43 11 Oct 12](#)

hi!.these are useful cheat sheet .

russ [16:18 22 Oct 12](#)

CTRL-Z sleeps (stops) the running process. fg [#] brings it back to foreground.

top

CTRL-Z

ps aux | grep top

fg

chiahsun [11:14 2 Jan 13](#)

Show human readable format (kb, mb...)

ls -lh

PierreBdR, [11:35 9 Feb 13](#)

This cheat sheet is very good! Thanks for that

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think anybody should use the numeric version of chmod anymore. Your example "chmod -R 600 folder", is the best way to lock yourself out of your own folder and loose any executable bits on the scripts. I would rather use the symbolic version:

```
chmod -R u+rw folder # Add read-write for user on all files in folder
chmod -R og-rwx # Remove read write and execute bits for "other"
and "group" on all files in folder
```

And my all-time favorite:

```
chmod -R og=u-w folder # Give other and group the same rights as
user, but removing writing rights.
```

Of course, this also handles t and s bits:

```
chmod u+s file
chmod o+t folder
```

Stylius 09:17 15 Feb 13

I would also add the tar command. No sysadmin would survive without it.

To extract tar.gz archive  
`tar xvzf archive.tar.gz`

To extract tar.bz2 archive  
`tar xvjf archive.tar.bz2`

To extract tar archive  
`tar xvf archive.tar`

To create archive  
`tar cvzf archive.tar.gz /file_or_folder/to/archive`

Sandeep 08:43 16 Feb 13

Nice one...really helpful

Please login or register so you can rate this cheat sheet!

Great resource – thanks for taking the time and trouble to put this out there.

My favorite ls options are '-ltr' . The t sorts files by time, and r reverses that, so newest files show up right above the prompt, no matter how long the listing is.

daveydave400 [08:43 16 Feb 13](#)

What about CTRL+y to paste the stuff you cut back in? How can you leave that out? CTRL+a/e and CTRL+u/y are the pairs I remember.

gymka [08:44 16 Feb 13](#)

Missing: sed  
find -exec

Jared [10:33 26 Feb 13](#)

Nice work, but it would be best as a single page PDF.

Darr247 [16:31 5 Apr 13](#)

Or if the PDF at least split into 2 pages (so it could be a laminated 2-sided sheet) without cutting commands in half.

[PastExpiryDotCom](#), [18:08 11 Jul 13](#)

This is bash-tastic!

[kimcy929](#), [11:09 9 Aug 13](#)

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Pradeep [15:12 13 Feb 14](#)

There is no commands for shutdown or reboot..

RobertAttfieldDotCom [11:37 14 Feb 14](#)

Good job on the cheatsheet – this will definitely come in handy for my Linux exam next week. Some commands on umask would be a good addition to this cheatsheet :).

Bill [17:30 17 Feb 14](#)

Hi, handy sheet. Just one thing. Find will do a recursive search by default. In the find `/dir -name name*` should be in double quotes if you want it to recursively find all files starting with name:

```
find /dir/ -name "name*"
```

That's because, without the quotes, the shell will expand the wildcard before handing the parameters to find. To unexpected things might happen if you don't have the quotes. Please see the examples below:

```
$ find .
.
./name1
./name2
./dir1
./dir1/name3
./dir1/name1
./dir1/test3
./test1
$ find . -name name*
find: paths must precede expression: name2
Usage: find [-H] [-L] [-P] [-Olevel] [-D]
help|tree|search|stat|rates|opt|exec [path...] [expression]
$ find . -name "name*"
./name1
./name2
./dir1/name3
./dir1/name1
```

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```
./name1
./name2
./dir1
./dir1/name3
./dir1/name1
./dir1/test3
./dir1/fred1
./test1
$ find . -name name*
find: paths must precede expression: name2
Usage: find [-H] [-L] [-P] [-Olevel] [-D
help|tree|search|stat|rates|opt|exec] [path...] [expression]
$ find . -name "name*"
./name1
./name2
./dir1/name3
./dir1/name1
$ find . -name fred*
./dir1/fred1
$ find . -name "fred*"
./dir1/fred1
$
```

Edser [17:35 17 Feb 14](#)

grep -B#

This shows what you are searching plus additional lines where number is added. Great for DHCP lease searching.

No4711 [09:56 19 Feb 14](#)

I would suggest to put in screen <tty.device> <baudrate> â€" just in case anybody needs to connect to some serial consoleâ€"

Henning [09:57 19 Feb 14](#)

Great reference!

The section on Screen is missing "Ctrl-A d" for detaching.

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Mads 08:55 26 Feb 14

Great resource – thanks a lot Dave!

Kabir 22:03 10 Mar 14

add task manage comman:  
gnome-system-monitor

Isabel Ambriz 13:08 30 Apr 14

Command that might be used to test connectivity of Linux box to the Internet, get logged on user info, and get TCP/IP configuration info.  
Can anyone help me?

Aaron Tani 08:27 1 May 14

theres also a good one here:  
<http://www.techietek.com/2014/04/29/linux-cli-cheat-sheet-wallpaper/>

Damien 10:43 23 Jul 14

I've always found ``mkdir -p path/to/directory`` to be useful.

snakeroot 10:46 14 Jan 15

`head -n1 /etc/issue` as a means to access distribution name isn't reliable, since the post-login screen could have been customized.

A more reliable version would be `sed -nr 's/^PRETTY_NAME=(.*)\1/p' /etc/os-release`. This should be true even for distros using `logos-init` (e.g. current Debian, CentOS and even Slackware).

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jt [12:38 22 Jul 15](#)

Is -h? human readable?

DF [08:31 25 Aug 15](#)

would be good to add Ctrl-left/right for jumping arguments, Ctrl-home/end for jumping whole line.

Alex [15:34 28 Sep 15](#)

'echo \$SHELL' actually prints the default shell, 'ps -p \$\$' will print the current shell

John Kershaw [16:04 28 Mar 16](#)

Love the colour, but could it be a slightly darker/stronger green? It comes out almost impossible to read on my colour printer. I tried outputting in greyscale, but the green-on green sections are still unreadable. Needs more contrast.

Alternatively, change all the green texts to black and keep the backgrounds green?

[DaveChild](#), [16:05 28 Mar 16](#)

I agree, it's not a great colour. I've changed it.

Felipe [19:22 3 Apr 16](#)

Could you add "passwd" to the file? :)



thank you for this really useful sheet !

The download button seems to be broken though :(

NatalieMoore, 05:13 10 Apr 16

Hey GloObi, thanks for the heads up about the broken download button on this cheatsheet. We'll get it fixed and I'll let you know when its been done. Have a great day.

NatalieMoore, 06:49 13 Apr 16

Hi GloObi,

This is now fixed. Please let me know if you have any more problems.

Nat

d.falkovsky, 19:54 7 Apr 16

Can't download. Sad.

NatalieMoore, 05:07 10 Apr 16

Thanks d.falkovsky, I will let Dave know the download button on this cheat sheet needs to be fixed. I will let you know once he has fixed it :). Sorry for the inconvenience.

NatalieMoore, 06:48 13 Apr 16

Hi d.falkovsky,

Please login or register so you can rate this cheat sheet!

Nat

d.falkovsky, 13:15 16 Apr 16

Thank you, Natalie!

ramiissat, 13:01 22 Mar 17

Good job Dave, Thank you :)

tejasshetty.1808, 18:51 8 Jul 17

I think the colour pdf link directs back to the original page

wkthxtn, 21:34 7 Nov 18

Good for quick reference Thank you

hwac121, 06:53 13 Dec 18

All links for download are dead, pleas fix this issue ASAP. Would be greatly appreciated, thanks.

Chinaguravaiah M, 05:32 13 Sep 19

thank you very much Dave

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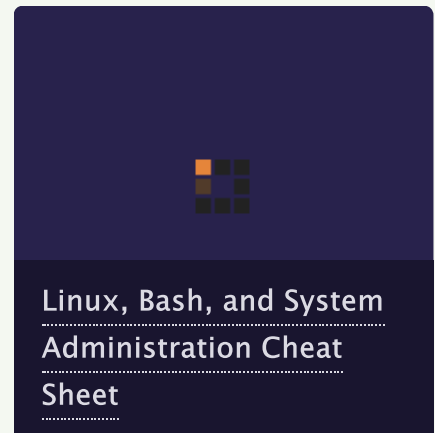
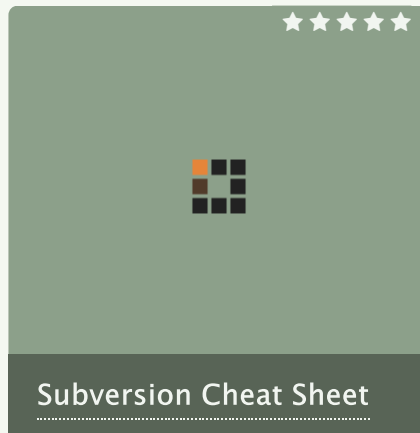
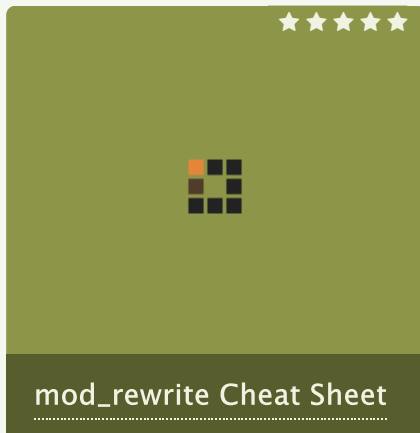
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
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