# 1 CheatSheet: Linux Files

LINUX

Updated: January 20, 2020

- PDF Link: cheatsheet-file-A4.pdf, Category: linux
- $\bullet \ \ Blog \ URL: \ \texttt{https://cheatsheet.dennyzhang.com/cheatsheet-file-A4}$
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#### 1.1 Check file

Name	Comment
Show file content	cat /etc/hosts
Show file content with line numbers	cat -n /etc/hosts
Show with line numbers, excluding blank lines	cat -b /etc/hosts
Show the first 3 lines	head -n3 /etc/hosts
Show the first 20 bytes	head -c20 /etc/hosts
Show the last 3 lines	tail -n3 /etc/hosts
Show the last 20 bytes	tail -c20 /etc/hosts
Keep tailing log file	tail -f /var/log/system.log, taif /var/log/system.log
Show file starting from 4th line	more +4 /etc/hosts
Show the 4th line	sed -n '4p' /etc/hosts
Show 4th, 5th, 7th and 8th lines	sed -n '4,5p;7,8p' /etc/hosts
Show matched string with 3 lines before and after	grep -C 3 "127.0.0.1" /etc/hosts
For table-like file, show 2nd column	<pre>awk -F'\t' '{print \$2}' /etc/hosts</pre>
For table-like file, swap 1st and 2nd columns	<pre>awk -F'\t' '{print \$2,\$1}' /etc/hosts</pre>
Find file encoding	file -i /var/log/corecaptured.log

#### 1.2 Find file

Name	Summary
Basic find	$\label{eq:find_sol} find_{\rm home/mac/< myfolder> -name_{\rm "my*.log"}}$
Find files with two patterns	findiname " $my*.log$ " -o -iname " $my*.txt$ "
Find folder old than 3 days	findmaxdepth 1 -type d -ctime +3
Find files changed within 60 minutes	find /var/log -mmin 60 -type f
Find with ls details	find . \( -iname README.md \) -ls
Find files filtered by size	find /var/log -type f -size +50k -size -100k
Find files older than another file	<pre>findnewer /tmp/file</pre>
Find files while excluding patterns	findname "*.log" -prune -o -name ".git" -prune -o -type f -print0

#### 1.3 Find and delete

Name	Summary
Find and delete with given names	findname Thumbs.db -delete
Recursively delete empty folders	findtype d -empty -delete
Delete files haven't been updated in 5 days	<pre>findmtime +5 -exec rm {} \;</pre>
Delete folders created older than 5 days	findname "npm-*" -type d -ctime +2 -exec rm -rf {} +

### 1.4 Watch file

Name	Comment
Show file changes	watch -d -n 1 stat /var/log/message
Keep tailing log files	tail -f /var/log/system.log, taif /var/log/system.log

# 1.5 Copy file

Name	Comment
Copy one file	cp /etc/hosts /tmp/hosts
Copy one folder	cp -r /usr/local/bin/ /tmp/bin/
Copy for backup	<pre>cp /tmp/hosts{,.bak}, ls -lth /tmp/hosts*</pre>
Create a copy but ask confirmation for overwrite	cp -i ~/foo.txt /tmp/foo.txt
Create a copy for backup with timstamp as suffix	<pre>cp myfile.txt{,."\$(date +%Y%m%d-%H%M%S)"}</pre>
Copy files by checking timestamp	rsync -av \$src_dir \$dest_dir
Copy files by comparing checksum	rsync -avc \$src_dir \$dest_dir

### 1.6 Watch file

Name	Command
Remove a file or folder	rm -rf <path></path>
Remove a file or an empty folder	rm -f <path></path>
Remove a file by inode	<pre>find <path> -inum 5555 -exec rm -i '{}' \;</path></pre>

### 1.7 Diff File

Name	Command
Diff two files	diff <file1> <file2></file2></file1>
Ignore uppercase and lowercase	diff -i <file1> <file2></file2></file1>
Diff output of two commands	<pre>diff &lt;(date) &lt;(somecommand)</pre>
Generate patch from two files	<pre>diff -Naur <file1> <file2> &gt; diff.patch</file2></file1></pre>
Diff two directories	diff -r <dir1> <dir2></dir2></dir1>
Show only brief summary	diff -rbrief <dir1> <dir2></dir2></dir1>

# 1.8 Make directory

Name	Comment
Make directory. Report error, if existing	mkdir foo
Make directory. Avoid reporting error, if existing	mkdir -p foo
Make directory and its parents	mkdir -p foo/bar/dir1
Make directories with the hierarchy	<pre>mkdir -p foo/{bar,bad/{dir1,dir2}}, tree foo</pre>

## 1.9 More Resources

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