

10 Quick Linux Tail Command with Examples - WIRED GORILLA

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5-7 minutes

In our previous tutorial, we looked at the [Linux](#) head command and its example usages. The tail command is the complementary of the head command. It reads and prints out the last N lines in a file. Without any command options, it prints out the last 10 lines in a text file. In this guide, we will focus on the tail command and explore the various options that come with the command.

The tail command takes the following Syntax:

```
$ tail [options] files(s)
```

1) Display the last 10 lines of a file

As pointed out earlier, the tail command, without any arguments, will display the last 10 lines of a file. We have a sample file called `asian_countries.txt` – It contains a list of countries in the Asian continent.

To list the last 10 countries in the file, run the command:

```
$ tail asian_countries.txt
```

```
linuxtechi@ubuntu: ~  
File Edit View Search Terminal Help  
linuxtechi@ubuntu:~$  
linuxtechi@ubuntu:~$ tail asian_countries.txt  
Armenia  
Saudia Arabia  
Syria  
Iraq  
Iran  
Macao  
Qatar  
UAE  
Kuwait  
Jordan  
linuxtechi@ubuntu:~$
```

2) Display the last N lines in a file

Suppose you want to display a specific number of lines and not the default 10 lines. To achieve this, use the `-n` flag followed by the number of lines.

For example, to display the last 5 lines. To do so, invoke the command:

```
$ tail -n 5 asian_countries.txt
```

```
linuxtechi@ubuntu: ~  
File Edit View Search Terminal Help  
linuxtechi@ubuntu:~$  
linuxtechi@ubuntu:~$ tail -n 5 asian_countries.txt  
Macao  
Qatar  
UAE  
Kuwait  
Jordan  
linuxtechi@ubuntu:~$
```

3) Print filename header

To add a header tag that corresponds to the file name, use the `-v` option as follows:

```
$ tail -v asian_countries
```

In the example below, the tag `asian_countries` is printed first followed by the last ten lines of the file,

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ tail -v asian_countries.txt
=> asian_countries.txt <==
Armenia
Saudia Arabia
Syria
Iraq
Iran
Macao
Qatar
UAE
Kuwait
Jordan
linuxtechi@ubuntu:~$
```

4) Display the last n lines from multiple files

Moreover, you can list the last N lines from multiple files using the syntax below:

```
$ tail -n 5 file_1 file_2
```

We have another file called `europa_countries.txt` that contains a list of European countries. To print the last 5 lines in both `asian_countries.txt` and `europa_countries.txt` text files, run the command:

```
$ tail -n 5 asian_countries.txt europa_countries.txt
```

This time around, notice the demarcation of the contents of the two files using the filename header that we mentioned in the previous step. When viewing contents from multiple files, the tag names are automatically added for better presentation.

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ tail -n 5 asian_countries.txt europa_countries.txt
==> asian_countries.txt <==
Macao
Qatar
UAE
Kuwait
Jordan

==> europa_countries.txt <==
Turkey
Netherlands
Ukraine
Greece
Iceland
linuxtechi@ubuntu:~$
```

If you wish to suppress, file name headers in tail command's output

then use '-q' option, example is shown below:

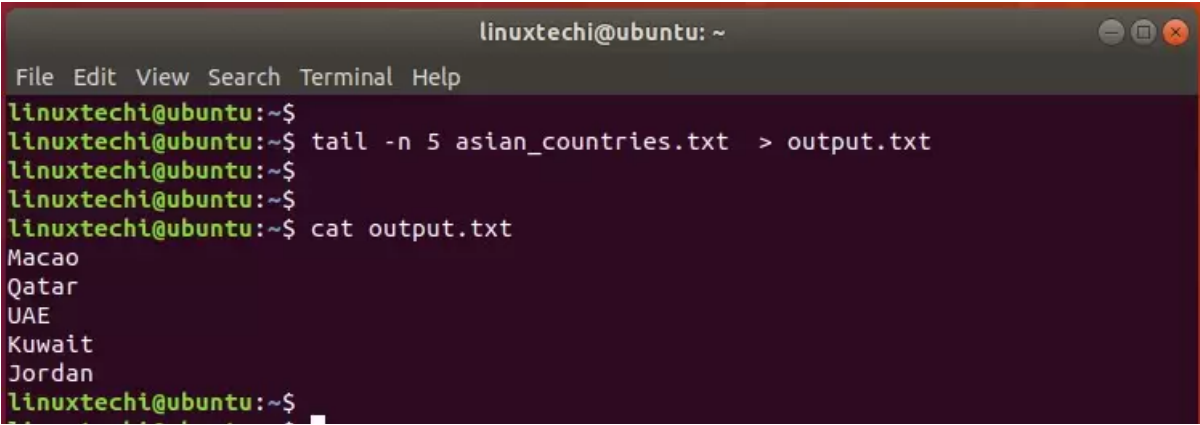
```
$ tail -q -n 5 asian_countries.txt europe_countries.txt
```

5) Save the output of tail command to a text file

If you don't have much time to view the output and would prefer, instead, to view it later on, you can save it on a text file using the greater-than (>) redirection operator.

For example, to save the output of the last 5 lines contained in the asian_countries.txt file to the text file output.txt invoke the command.

```
$ tail -n 5 asian_countries.txt > output.txt
```



```
linuxtechi@ubuntu: ~  
File Edit View Search Terminal Help  
linuxtechi@ubuntu:~$  
linuxtechi@ubuntu:~$ tail -n 5 asian_countries.txt > output.txt  
linuxtechi@ubuntu:~$  
linuxtechi@ubuntu:~$  
linuxtechi@ubuntu:~$ cat output.txt  
Macao  
Qatar  
UAE  
Kuwait  
Jordan  
linuxtechi@ubuntu:~$
```

NOTE: The greater-than sign (>) overwrites the file when used for a subsequent time using the same file. The original content gets overwritten and new content is written.

To append or add output, use the double greater than sign (>>). This adds the output to the file instead of overwriting it.

For example, to append the last 5 lines of the europe_countries.txt file to the output.txt file, run the command:

```
$ tail -n 5 europe_countries.txt >> output.txt
```

Using the cat command, you can see that the output file now contains data from both files.

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ tail -n 5 europe_countries.txt >> output.txt
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ cat output.txt
Macao
Qatar
UAE
Kuwait
Jordan
Turkey
Netherlands
Ukraine
Greece
Iceland
linuxtechi@ubuntu:~$
```

6) Use the -f option to monitor real-time log files

When used with the -f option, the tail command is mostly used by sysadmins to monitor log files in real-time. For example, to monitor the Syslog log file in real-time, run the command below. You will notice some log output at the bottom of the terminal every few seconds.

```
$ sudo tail -f /var/log/syslog
```

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ sudo tail -f /var/log/syslog
Mar 21 00:15:22 ubuntu dbus-daemon[3630]: [session uid=1000 pid=3630] Successfully activated service 'org.gnome.Nautilus'
Mar 21 00:15:26 ubuntu org.gnome.Nautilus[3630]: sys:1: PyGIWarning: Nautilus was imported without specifying a version first. Use gi.require_version('Nautilus', '3.0') before import to ensure that the right version gets loaded.
Mar 21 00:15:29 ubuntu dbus-daemon[1111]: [system] Activating via systemd: service name='org.freedesktop.hostname1' unit='dbus-org.freedesktop.hostname1.service' requested by ':1.264' (uid=1000 pid=1704 comm="/usr/bin/nautilus --application-service" label="unconfined")
Mar 21 00:15:30 ubuntu systemd[1]: Starting Hostname Service...
Mar 21 00:15:31 ubuntu org.gnome.Nautilus[3630]: RuntimeError: object at 0x7f4fb4d530f0 of type FolderColorMenu is not initialized
Mar 21 00:15:31 ubuntu org.gnome.Nautilus[3630]: RuntimeError: object at 0x7f4fb4d530f0 of type FolderColorMenu is not initialized
Mar 21 00:15:31 ubuntu dbus-daemon[1111]: [system] Successfully activated service 'org.freedesktop.hostname1'
```

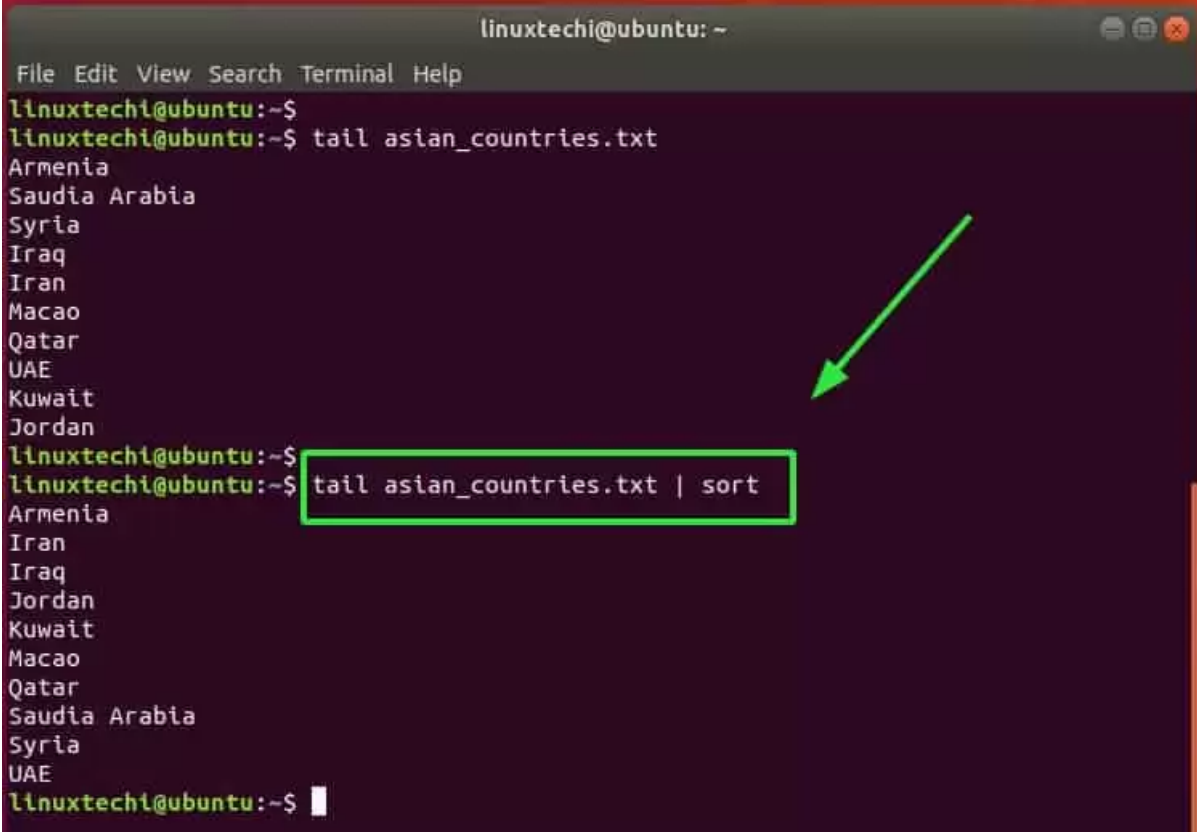
Use '-F' option in tail command when you want to keep monitoring the log file even at its rotation. When file gets rotated then tail command will automatically start printing lines from new file if we are using '-F' option.

```
$ sudo tailf -F /var/log/syslog
```

7) Using tail command with pipes

In Linux, pipes provide a cool way of processing text. With tail command, you can pipe the output and further modify what will be displayed. For instance, you can sort the output alphabetically as follows:

```
$ tail asian_countries.txt | sort
```



The image shows a terminal window titled 'linuxtechi@ubuntu: ~'. The terminal displays the output of the 'tail' command on the file 'asian_countries.txt'. The output lists countries: Armenia, Saudia Arabia, Syria, Iraq, Iran, Macao, Qatar, UAE, Kuwait, and Jordan. A green arrow points to the second command, 'tail asian_countries.txt | sort', which is highlighted with a green box. The output of this command shows the same list of countries sorted alphabetically: Armenia, Iran, Iraq, Jordan, Kuwait, Macao, Qatar, Saudia Arabia, Syria, and UAE.

You can also use multiple pipe statements for example:

```
$ cat asian_countries.txt | tail -n 5 | sort
```

So, what does the above command do? First, the cat command prints out the contents of the asian_countries.txt text file. The information is piped to the tail command that prints out the last five lines. Then finally, the information is sorted in alphabetical order by the sort command.

8) Print N number of bytes data from a file

Using '-c' option in tail command, we can print n number of bytes data from a file.

```
$ tail -c 400 /var/log/kern.log
```


Above tail command will display 400 bytes of data from the bottom of the file.

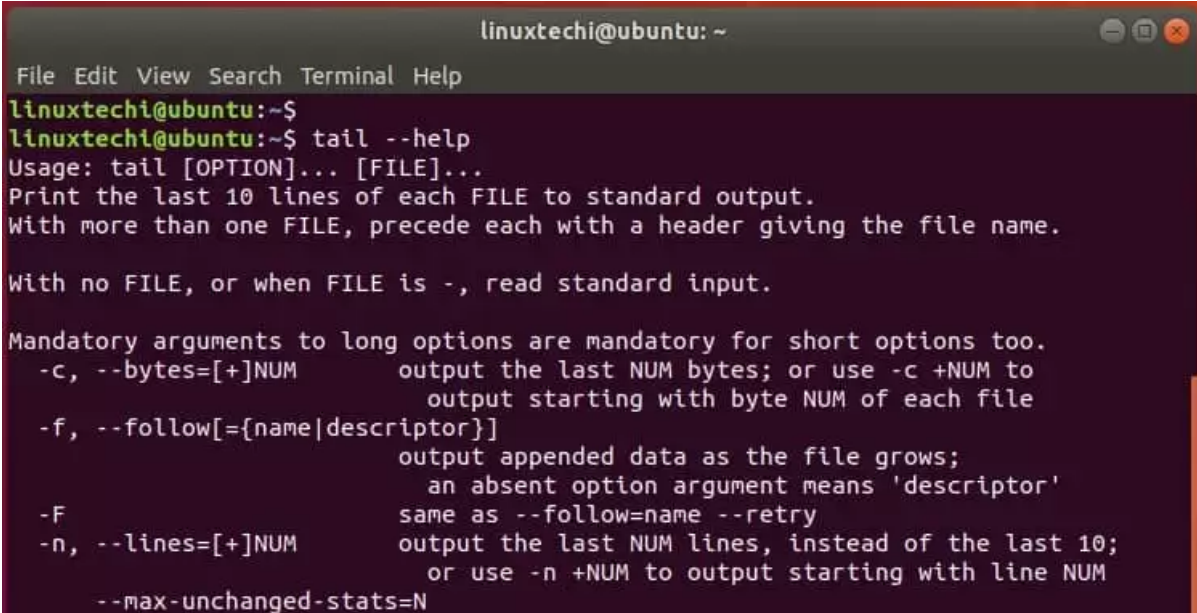
We can also print the data in KB and MB using 'K' and 'M' parameters, example is shown below

```
$ tail -c 4k /var/log/kern.log $ tail -c 4M /var/log/kern.log
```

9) Get help with tail command options

To get help with more tail command options run the command:

```
$ tail --help
```

A terminal window titled 'linuxtechi@ubuntu: ~' showing the output of the 'tail --help' command. The terminal has a dark background with light-colored text. The output includes the usage instructions for the tail command, such as 'Print the last 10 lines of each FILE to standard output.' and a list of options with their descriptions, including '-c, --bytes=[+]NUM', '-f, --follow[={name|descriptor}]', '-F', '-n, --lines=[+]NUM', and '--max-unchanged-stats=N'.

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ tail --help
Usage: tail [OPTION]... [FILE]...
Print the last 10 lines of each FILE to standard output.
With more than one FILE, precede each with a header giving the file name.

With no FILE, or when FILE is -, read standard input.

Mandatory arguments to long options are mandatory for short options too.
-c, --bytes=[+]NUM          output the last NUM bytes; or use -c +NUM to
                           output starting with byte NUM of each file
-f, --follow[={name|descriptor}]
                           output appended data as the file grows;
                           an absent option argument means 'descriptor'
-F                           same as --follow=name --retry
-n, --lines=[+]NUM          output the last NUM lines, instead of the last 10;
                           or use -n +NUM to output starting with line NUM
--max-unchanged-stats=N
```

Alternatively, you can visit the man pages as shown:

```
$ man tail
```

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
TAIL(1) User Commands TAIL(1)

NAME
    tail - output the last part of files

SYNOPSIS
    tail [OPTION]... [FILE]...

DESCRIPTION
    Print the last 10 lines of each FILE to standard output.  With more
    than one FILE, precede each with a header giving the file name.

    With no FILE, or when FILE is -, read standard input.

    Mandatory arguments to long options are mandatory for short options
    too.

    -c, --bytes=[+]NUM
        output the last NUM bytes; or use -c +NUM to output starting
        with byte NUM of each file

    -f, --follow[={name|descriptor}]
        output appended data as the file grows;

        an absent option argument means 'descriptor'

Manual page tail(1) line 1 (press h for help or q to quit)
```

10) Check the tail command version

Lastly, to check the version of the tail command, execute:

```
$ tail --version
```

```
linuxtechi@ubuntu: ~
File Edit View Search Terminal Help
linuxtechi@ubuntu:~$
linuxtechi@ubuntu:~$ tail --version
tail (GNU coreutils) 8.28
Copyright (C) 2017 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.

Written by Paul Rubin, David MacKenzie, Ian Lance Taylor,
and Jim Meyering.
linuxtechi@ubuntu:~$
```

That's all from this guide. I hope you find it informative. Please do share your feedback and comments.

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The post 10 Quick Linux Tail Command with Examples first appeared on LinuxTechi.

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