

# How To Read And Work On Gzip Compressed Log Files In Linux

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Last updated April 5, 2016 By [Abhishek Prakash \(https://itsfoss.com/author/abhishek/\)](https://itsfoss.com/author/abhishek/)



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```
Nov 17 08:33:30 ws pppd[2160]: Timeout waiting for PAD0 packets
Nov 17 08:34:35 ws pppd[2160]: Timeout waiting for PAD0 packets
Nov 17 08:34:35 ws pppd[2160]: Exit.
Nov 17 09:17:02 ws recheck_for_updates: Running /usr/local/bin/check_for_updates
Nov 17 09:17:02 ws check_for_updates: Starting
Nov 17 09:17:02 ws check_for_updates: Updating holdlist
Nov 17 09:17:11 ws check_for_updates: Running 'apt-get update'
Nov 17 09:17:11 ws check_for_updates: Error exit called
Nov 17 09:24:18 ws nagios3: Auto-save of retention data completed successfully.
Nov 17 10:05:58 ws kernel: [ 6185.581784] br0: port 1(eth0) entering forwarding state
Nov 17 10:05:58 ws kernel: [ 6185.637674] device eth0 left promiscuous mode
Nov 17 10:05:58 ws kernel: [ 6185.637681] br0: port 1(eth0) entering disabled state
Nov 17 10:05:58 ws kernel: [ 6185.639415] ADDRCONF(NETDEV_UP): eth0: link is not ready
Nov 17 10:06:02 ws kernel: [ 6188.955834] device eth0 entered promiscuous mode
Nov 17 10:06:02 ws kernel: [ 6189.097303] r8169 0000:03:00.0: eth0: link down
Nov 17 10:06:02 ws kernel: [ 6189.097309] r8169 0000:03:00.0: eth0: link down
Nov 17 10:06:02 ws kernel: [ 6189.098125] ADDRCONF(NETDEV_UP): eth0: link is not ready
Nov 17 10:06:02 ws kernel: [ 6189.105573] ADDRCONF(NETDEV_UP): br0: link is not ready
Nov 17 10:06:03 ws kernel: [ 6190.709642] r8169 0000:03:00.0: eth0: link up
```

(<https://itsfoss.com/wp-content/uploads/2016/04/log-Linux.jpeg>)

**Brief: This short tutorial shows you how to read those gzipped compressed log files on a Linux box.**

On It's FOSS I mostly discuss about desktop Linux. It's because I use desktop Linux at home and mostly tinker with it. While at work, I (have to) use Windows 7 and connect to Linux machines via Putty. If you work in an enterprise sector as software engineer, you might be familiar with this kind



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(<https://itsfoss.com/tag/command-line/>) extensively. Over the years, I have learned a few tips, tricks and best practices on Linux command line, on my own and from my colleagues alike.

And I have decided to share the same Linux command line tips with you on It's FOSS. After all, It's FOSS came into existence for the sole purpose of sharing Linux experience.

In this article, we shall see how can you read and work on gzipped files.

## How to read Gzip compressed files in Linux command line






If you work on backend logs, you might have noticed that they are mostly compressed with .gz extension. This is not unusual because compressing the log files saves a lot of storage and thus saves the storage cost.

But unlike the regular text files where you can use cat to see all the content of the file or grep on it or use less to read the content without flooding your screen, compressed files cannot be used with the same regular Linux commands.

Don't worry, because when you have gzipped files, you also have the powerful Z commands to work on them.

These Z commands provide a 'Z' equivalent of the regular file manipulation commands.

So, you get

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- `zdiff` for `diff` to see the difference between two compressed files
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**read**

(<https://itsfoss.com/skydrive-ubuntu-1304/>)

Best thing about using these Z commands is that you don't have to extract the compressed files. It works directly on the compressed files.

## Viewing compressed files with `zcat`

If you use `cat`, you can replace it with `zcat`. `zcat` is used in exactly the same manner as you use `cat`. For example:

```
zcat logfile.gz
```

This will display all the contents of `logfile.gz` without even extracting it. Actually, it does kind of extract it temporarily in `/tmp` but that's not the same as an actual extraction, is it?

You can use regular `less` and `more` commands with `zcat` to see the output in pages:

```
zcat logfile.gz | less
```

```
zcat logfile.gz | more
```



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```
zcat -f logfile.gz
```

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### Reading compressed files with zless and zmore

Same as less and more, you can use zless and zmore to read the content of the compressed files without decompressing the files. All the keyboard shortcuts of less and more works the same.

```
zless logfile.gz
```

```
zmore logfile.gz
```

### Searching inside compressed files with zgrep

Grep is hell of a powerful command and I think one of the most used Linux commands. zgrep is the Z counterpart of grep that allows you to search inside gzipped compressed files without extracting it.

You can use it with all the regular gerp options. For example:

```
zgrep -i keyword_search logfile.gz
```

### Comparing compressed files with zdiff

While this might not be that useful on huge log files, you can use zdiff to see the difference between compressed files, in the same way as you use



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## More tricks?

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These are some of the commands that I use to work on compressed log files in Linux command line. What about you? You got some tricks up your sleeves regarding compressed files that you may want to share with us?



About Abhishek Prakash

I am a professional software developer, and founder of It's FOSS. I am an avid Linux lover and Open Source enthusiast. I use Ubuntu and believe in sharing knowledge. Apart from Linux, I love classic detective mysteries. I'm also a huge fan of Agatha Christie's work.

Grammatical errors, technical errors or outdated information? If this article needs any kind of updates, [please let us know \(https://itsfoss.com/feedback/\)](https://itsfoss.com/feedback/), thanks.



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(<http://www.avantlink.com/click.php?tt=ml&ti=603583&pw=221357>)

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Keep up your great work my friend!

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🕒 12:24 pm May 16, 2016 (<https://itsfoss.com/read-compressed-log-files-linux/#comment-274264>)

**PeteP**

Thank you. Very useful, especially for reading gz log files.



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