

What is a .gz file?

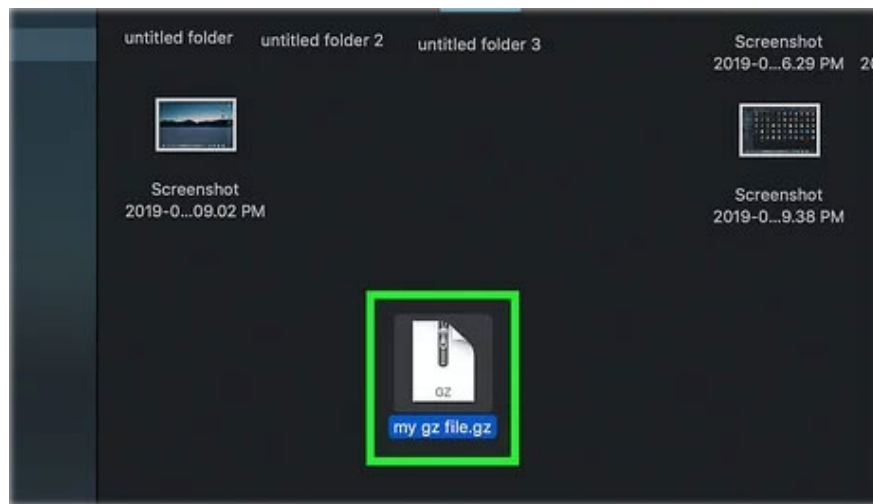
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Gzip files contain useful information such as the original file name and timestamp, which is useful when the compressed file name has been truncated or the timestamp has been lost when the file was transferred. GZ compression is often used to compress certain elements of a web page to speed up page loading.

Files with the .gz file extension can only be launched by certain applications.

What is a .gz file?



Files with the .gz extension are called GNU compressed archives. .gz files are implemented using the encoding and compression standards developed by the GNU Project for the GZ compressed file format.

These compression specifications are based on the GNU ZIP compression algorithm, also known as GZIP compression technology. Users can select a single file or folder or even a group of files and folders and compress them into a GZ file.

Multiple GZ files can even be compressed into a single GZ file, or these GZ files can be placed in a directory that can then be compressed into a GZ file. The GZIP compression technology and the GZ compression format were developed for Linux systems, although there are some Microsoft Windows decompression applications implemented with support for decompressing and opening these GZ files.

Mac platform users can also install and use a number of Mac compatible decompression tools to open and view the archive contents of GZ files.

How to open .gz file?

How to open GZ files on Windows

There are a number of different ways to open and create archives on Windows, and the same goes for .GZ files. If you prefer commands, you can use the Command Prompt method. If you prefer a graphical user interface, you can use a free third-party application to access your GZ archives.

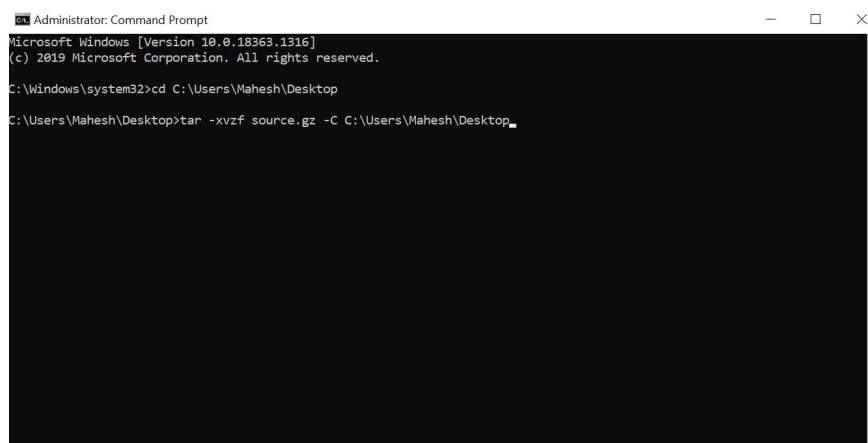
Extract GZ files on Windows using Terminal or Command Prompt

There is a command called tar that you can use in the Windows Terminal or Command Prompt to extract the contents of your GZ archive. This command is built into your operating system, so you don't need to install anything to use it.

Once you have the GZ file with you, use the following steps to extract its contents:

1. Open the Start menu, search for **Command Prompt** (or **Terminal**) and click **Run as administrator** .
2. Click **Yes** in the prompt.
3. Type the following command replacing **SOURCE** with the source GZ file and **DESTINATION** with the destination directory and press **Enter**.

```
tar -xvzf PATHTOSOURCE -C PATHTODESTINATION
```



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.18363.1316]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Windows\system32>cd C:\Users\Mahesh\Desktop
C:\Users\Mahesh\Desktop>tar -xvzf source.gz -C C:\Users\Mahesh\Desktop
```

4. If all goes well, your extracted files should be available in the destination folder.

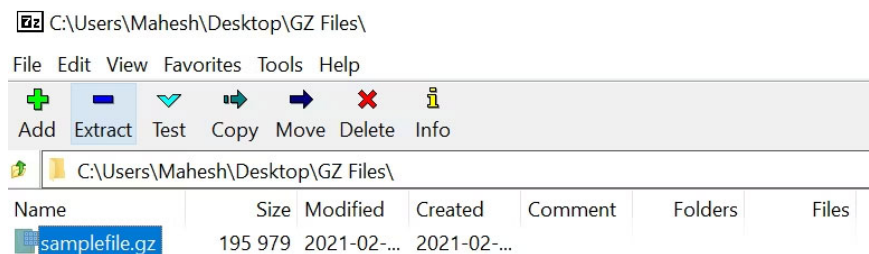
If your destination folder looks empty even after running the command successfully, it might be because you ran it without admin rights. Just open CMD with admin rights and it should be fine.

How to open GZ files using applications on Windows

If you want to unzip GZ files on Windows using an application, there are plenty of free alternatives. 7-Zip is a pretty good choice for this task, as it's easy, free, and open source.

Here's how you use this application to extract GZ archives on your PC:

1. Download and install the free 7-Zip tool on your PC.
2. Open the tool and navigate to your GZ file using the built-in file manager.



3. Select your GZ file in the list and click **Extract** in the top toolbar.
4. Select the destination folder in the **Extract to** section .
5. Adjust other options if desired and click **OK**.
6. Open the destination folder and you will have all the contents of the GZ file there.

Alternatively, you can use 7zip's context menu tools on Windows to extract .GZ files. Make sure to select this option during installation, then you can simply right-click to open GZ files with 7zip.

Unzip GZ files on macOS

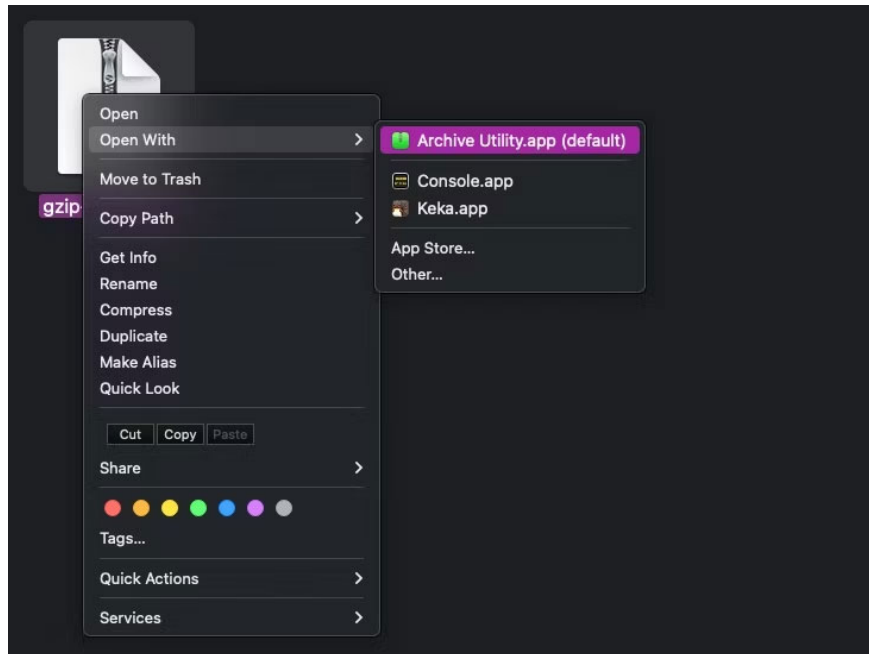
Compressed file types like RAR require an unzipping app on macOS, but you don't need to do that for GZ.

You can open GZ files on your Mac without using any third-party tools. Again, you can use Terminal to extract files from GZ archives or the built-in macOS tool to unzip your files.

How to unzip GZ files on macOS using built-in tools

Just like a ZIP file, you can simply double-click your GZ archive and it will begin extracting the contents. You can do this from any Finder window on your Mac, and your extracted files will be available in a new folder in the same directory as the original GZ archive.

If that doesn't work for you, make sure you're opening your GZ file using the built-in unzip tool — the same tool used to compress files on macOS. If you're not sure what the default archive handler on your Mac is, just right-click your GZ archive and select **Open With > Archive Utility** to open the archive using the built-in tool.



Another way to open GZ archives in macOS is to use free apps. There are popular options, like The Unarchiver or Keka (paid on the macOS App Store but free on the developer's website). Both apps also support a number of other formats, including ZIP and RAR.

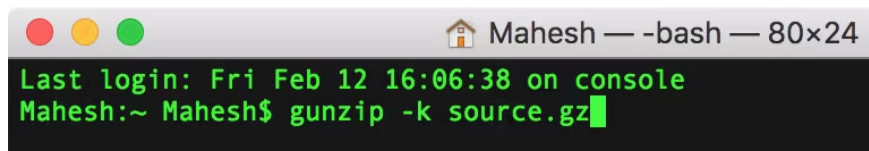
Using Terminal to Unzip GZ Files on macOS

Using Terminal, you can extract all the files inside your GZ archive with a single command. Your files will be placed in a new folder in the same directory as the original GZ file.

Here is how you use this method:

1. Click **Launchpad** in the Dock, search for **Terminal**, and click the utility.
2. Type the following command, replacing **source.gz** with the path to your GZ file and press **Enter**.

```
gunzip -k source.gz
```



3. Terminal will begin extracting files from your specified GZ archive.

How to unzip GZ files on Linux

If you are a Linux user looking to open GZ files, you can use a command in Terminal to extract all the files from your GZ archive. Some distributions also have built-in context menu options to extract .GZ files.

Open .GZ file in command line on Linux

Gzip is a command that allows you to uncompress the contents of a GZ archive on your Linux machine.

Here's how you use this command and start extracting your archives:

1. Open the Terminal application - any distribution has a **Ctrl + Alt + T** shortcut for this.
2. Type the following command, replacing **SOURCE.GZ** with the path to your actual GZ file and press **Enter**.

```
gzip -dk SOURCE.GZ
```

3. Your GZ archive will now be unpacked.

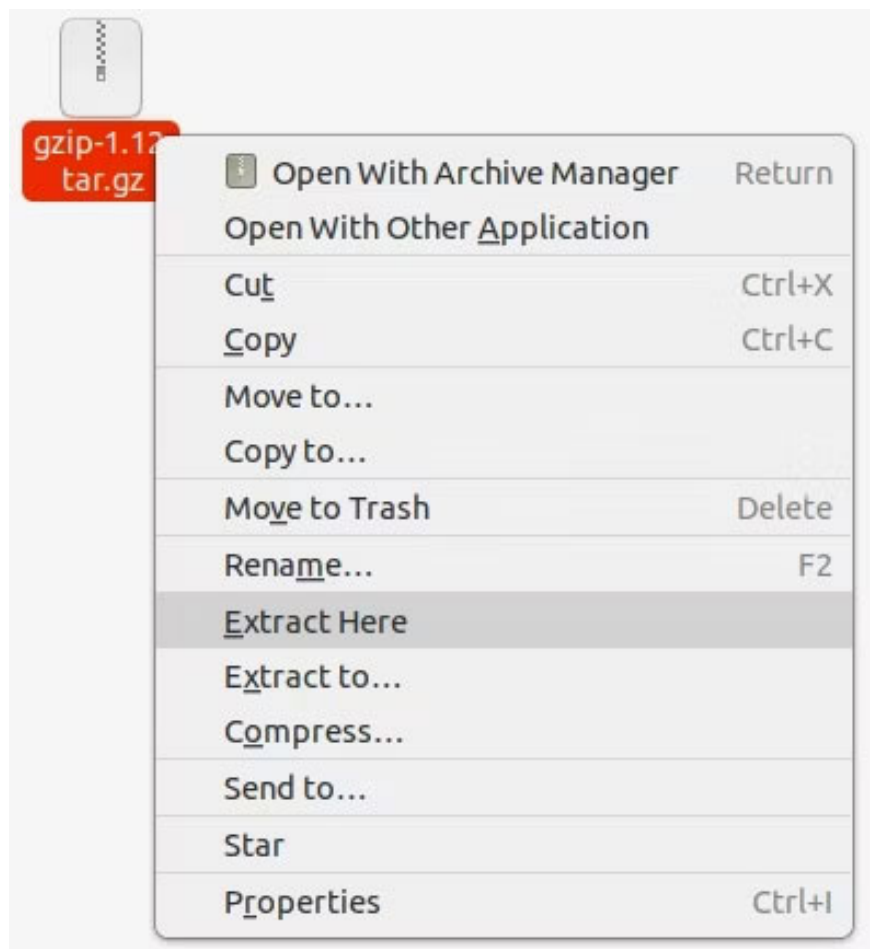
4. If your file is a .TAR.GZ file, you will need to use a different command to unpack your archive. Run the following command in Terminal to unpack the TAR.GZ file.

```
tar -xf SOURCE.tar.gz
```

How to open GZ files on Linux using built-in tools

There are multiple ways to unzip compressed files on Linux using the built-in graphical tool. Just like the macOS and Windows versions, it only takes a right-click. Here's how to unzip GZ files on Linux using the graphical interface:

1. Using your favorite file manager, navigate to the folder containing the .GZ file
2. Select the .GZ file and right click on it
3. Select **Extract here** .
4. The file(s) or folder(s) inside the GZ file will be extracted to the same folder you are in.



How to read Gzip compressed files in Linux command line



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

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

Don't worry, because you also have the powerful Z commands to handle them. These Z commands provide a 'Z' equivalent to the regular file manipulation commands.

So you get:

1. **zcat** instead of **cat** to view compressed files
2. **zgrep** instead of **grep** to search inside compressed files
3. **zless** instead of **less**, **zmore** instead of **more** , to view files in pages
4. **zdiff** instead of **diff** to see the difference between two compressed files

The best thing about using these Z commands is that you don't have to unzip the file. It works directly on the compressed files.

View compressed files with zcat

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

```
zcat logfile.gz
```

This command will display all the contents of **logfile.gz** without extracting it. Actually it temporarily extracts the file in **/tmp** but that's not the same as actual extraction, right?

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

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

If you don't know if the file is compressed or not (i.e. the file doesn't have a `.gz` extension), you can use **zcat** with the `-f` option . This will display the contents of the file regardless of whether it is decompressed or not.

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

Read compressed files with zless and zmore

Similar to **less** and **more** , you can use **zless** and **zmore** to read the contents of a compressed file without extracting it. All the keyboard shortcuts for **less** and **more** work the same.

```
zless logfile.gz zmore logfile.gz
```

Search inside compressed files with zgrep

Grep is a powerful command. Zgrep is the Z version of grep, which allows you to search inside compressed files without extracting them.

You can use `zgrep` with all the usual grep options. For example:

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

Compare compressed files with zdiff

While this may not be useful for large log files, you can use **zdiff** to see the differences between compressed files, just like you would use the **diff** command.

```
zdiff logfile1.gz logfile2.gz
```

See also:

1. What is a DLL file? Why does my computer sometimes say a DLL file is missing?

You finished reading the article "**What is a .gz file?**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.