

What is the difference between tar and zip? [closed]

Asked 12 years, 7 months ago Modified 4 years, 5 months ago

Viewed 159k times



285



Closed. This question is [off-topic](#). It is not currently accepting answers.



Want to improve this question? [Update the question](#) so it's [on-topic](#) for Stack Overflow.

Closed 12 years ago.

[Improve this question](#)

What is the difference between tar and zip? What are the use cases for each?

unix

compression

zip

tar

Share

Improve this question

Follow

edited Jan 22, 2017 at 4:06



Richie Thomas

3,255 ● 7 ● 33 ● 65

asked May 10, 2012 at 19:32



mtk

13.6k ● 16 ● 74 ● 116

-
- 2 See these two answers from [SuperUser](#): - [Which is more efficient - tar or zip compression? What is the difference between tar and zip?](#) - [On Linux/Unix, does .tar.gz versus .zip matter?](#) (By the way, StackOverflow is for programming problems. You'd probably do better asking questions like this at SuperUser in the future) – [SomeKittens](#) May 10, 2012 at 19:35
-

1 Answer

Sorted by:

Highest score (default)



`tar` in itself just bundles files together (the result is called a *tarball*), while `zip` applies compression as well.

498



Usually you use `gzip` along with `tar` to compress the resulting *tarball*, thus achieving similar results as with `zip`.



For reasonably large archives there are important differences though. A `zip` archive is a *collection of compressed files*. A gzipped tar is a *compressed collection* (of uncompressed files). Thus a zip archive is a randomly accessible list of concatenated compressed

items, and a `.tar.gz` is an archive that must be fully expanded before the catalog is accessible.

- The *caveat* of a `zip` is that you don't get compression across files (because each file is compressed independent of the others in the archive, the compression cannot take advantage of similarities among the contents of different files); the *advantage* is that you can access any of the files contained within by looking at only a specific (target file dependent) section of the archive (as the "catalog" of the collection is separate from the collection itself).
- The *caveat* of a `.tar.gz` is that you must decompress the whole archive to access files contained therein (as the files are within the tarball); the *advantage* is that the compression can take advantage of similarities among the files (as it compresses the whole tarball).

Share Improve this answer

edited Jun 28, 2020 at 22:06

Follow

answered May 10, 2012 at 19:33




Attila

28.7k ● 3 ● 49 ● 58

What do you mean with `tar.gz` you need to decompress the whole file to access files? I easily do `tar -f myfile.tr.gz -xzv file-that-i-want-to-`

extract.pdf and it works. – [mariano-daniel](#) Nov 16, 2022 at 2:49

- 3 @mariano-daniel A `.tar.gz` file is a gzip-ed tar file, which means tar will have to unzip the `.tar.gz` file (possibly in memory) to get to the contained (uncompressed) `.tar` file, which contains the file you want to ultimately extract. To see, try: `gunzip myfile.tar.gz`; you will get the contained (uncompressed) `myfile.tar` file (NOTE: gunzip will delete the original `myfile.tar.gz` file, so you might want to make a backup copy first) – [Attila](#) Nov 21, 2022 at 17:54 
-

@Attila thanks for clarifying! So `tar` will have to unzip the file, not you ;-) But seriously, now I understand what you meant, I took it too literally and thought you meant I needed to unzip it, then extract from the tar. Have a nice day!
– [mariano-daniel](#) Nov 23, 2022 at 3:01
