

### **Tar Command Cheatsheet**

A comprehensive cheat sheet for the tar (tape archive) command, covering common operations like creating, extracting, compressing, and listing archives, along with practical examples.

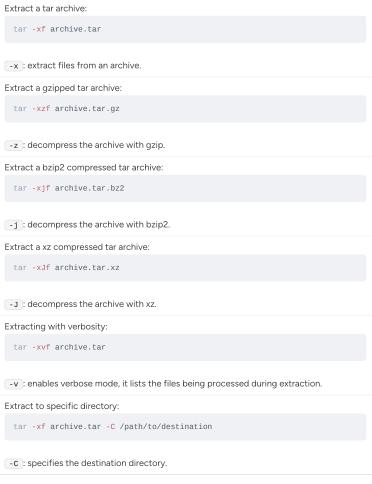


## **Basic Operations**

### Creating Archives

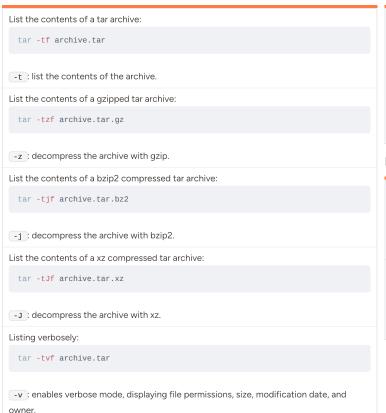


## **Extracting Archives**



# **Advanced Usage**

# Listing Archive Contents



# Appending Files

Append files to an existing tar archive:

tar -uf archive.tar /path/to/new\_file

-u: append files to the archive if they are newer than the existing copies or do not exist in the archive.

Note: Appending to compressed archives is not directly supported. You'll need to extract, append, and then re-compress.

## **Excluding Files**

Exclude specific files or directories when creating an archive:

tar -czf archive.tar.gz /path/to/files --exclude='/path/to/exclude'

--exclude : exclude specified pattern.

Using a file containing a list of patterns to exclude:

tar -czf archive.tar.gz /path/to/files --exclude-from=exclude\_file.txt

--exclude-from : read exclude patterns from file.

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# **Compression Options**

ΧZ Gzip Bzip2

Using gzip for compression: tar -czf archive.tar.gz /path/to/files

Suitable for general-purpose compression.

Adjusting gzip compression level (1-9, default is 6):

gzip -9 file.txt

-9: best compression (slowest).

-1: fastest compression (least compression).

Using bzip2 for compression:

tar -cjf archive.tar.bz2 /path/to/files

Generally provides better compression than gzip but is

Adjusting bzip2 compression level (1-9):

bzip2 -9 file.txt

-9: best compression (slowest).

-1 : fastest compression (least compression).

Using xz for compression:

tar -cJf archive.tar.xz /path/to/files

Offers the best compression ratio but is the slowest. Good for archiving data for long-term storage where space is a premium.

Adjusting xz compression level (0-9):

xz -9 file.txt

-9: best compression (slowest).

-0: fastest compression (least compression).

# **Troubleshooting**

### Common Issues

## 'Cannot open: No such file or directory'

Verify the path to the archive or files exists and is accessible.

#### 'Not in azip format' or similar errors during extraction

Ensure you are using the correct extraction flag ( -z , j, -J) for the archive's compression type.

#### Permission denied errors

Use sudo if you lack permissions to create or extract archives in the specified location. Also, review the permissions of the files being archived.

## Truncated or Corrupted Archive

This may happen if the archive creation was interrupted or the download was incomplete. Try recreating the archive or re-downloading it.

## Large Files and Archives

For very large archives, consider using pigz (parallel gzip) or 1bzip2 (parallel bzip2) for faster compression and decompression. Install them separately if they're not already available:

sudo apt-get install pigz lbzip2

Then, use them with tar:

tar --use-compress-program=pigz -czf archive.tar.gz /path/to/files

# Filename Length Limitations

Older versions of tar may have limitations on filename lengths. Using GNU tar (common on Linux systems) generally avoids these issues. For compatibility, consider the --format=gnu option:

tar --format=gnu -czf archive.tar.gz /path/to/files