

gzip Cheatsheet

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Quick reference for compressing, listing, testing, and decompressing files with gzip and gunzip in Linux

The `gzip` command compresses files using the DEFLATE algorithm, while `gunzip` restores them. This cheatsheet covers common compression and decompression commands, useful flags, streaming patterns, and quick troubleshooting checks.

Basic Syntax

Core command forms for `gzip` and `gunzip`.

<code>gzip FILE</code>	Compress a file and replace it with <code>FILE.gz</code>
<code>gzip -k FILE</code>	Compress and keep original file
<code>gzip -d FILE.gz</code>	Decompress a <code>.gz</code> file
<code>gunzip FILE.gz</code>	Decompress a <code>.gz</code> file
<code>zcat FILE.gz</code>	Print decompressed content to stdout

Compression Levels

Control speed versus compression ratio.

<code>gzip -1 FILE</code>	Fastest compression, larger output
<code>gzip -6 FILE</code>	Default compression level
<code>gzip -9 FILE</code>	Maximum compression, slower
<code>gzip -k -9 FILE</code>	Max compression while keeping original

Compress Multiple Files

Apply gzip to groups of files.

<code>gzip *.log</code>	Compress all matching log files
<code>gzip -r logs/</code>	Recursively compress files in a directory
<code>`find . -name '*.txt' -print0`</code>	<code>xargs -0 gzip`</code>
<code>for f in *.csv; do gzip -k "\$f"; done</code>	Compress files and keep originals
<code>gzip -- *.txt</code>	Compress files, safe for dash-prefixed names

Decompress and Inspect

Restore and verify compressed files.

<code>gunzip archive.gz</code>	Decompress and remove .gz file
<code>gzip -dk archive.gz</code>	Decompress and keep .gz file
<code>gzip -l archive.gz</code>	Show compressed/uncompressed sizes
<code>gzip -v FILE</code>	Show compression ratio and details
<code>gzip -t archive.gz</code>	Test integrity without extracting
<code>`zcat archive.gz`</code>	<code>less`</code>

Streams and Pipelines

Use `gzip` without intermediate files.

<code>mysqldump mydb gzip > mydb.sql.gz</code>	Compress command output directly
<code>gzip -c file.txt > file.txt.gz</code>	Write compressed output to stdout
<code>gunzip -c backup.sql.gz > backup.sql</code>	Decompress to a chosen file
<code>`tar -cf - project/`</code>	<code>gzip > project.tar.gz`</code>
<code>`gzip -dc access.log.gz`</code>	<code>grep ERROR`</code>

Troubleshooting

Quick checks for common gzip issues.

gzip: command not found	Install <code>gzip</code> package and verify with <code>gzip --version</code>
Original file disappeared after compression	Use <code>-k</code> to keep source files
not in gzip format	Confirm file type with <code>file filename</code> before decompression
Corrupt archive errors	Run <code>gzip -t file.gz</code> to validate integrity
Unexpected overwrite behavior	Use <code>-k</code> or output redirection with <code>-C</code> to control file writes

Related Guides

Use these guides for full workflows and archive handling.

gzip Command in Linux	Full <code>gzip</code> tutorial with examples
gunzip Command in Linux	Decompress <code>.gz</code> files in detail
How to Create Tar Gz File	Build compressed tar archives
Tar Command in Linux	Create and extract tar archives
Find Large Files in Linux	Locate files before compression cleanup