

du Cheatsheet

By Dejan Panovski • Updated on Apr 13, 2026 • [Download PDF](#)

Quick reference for the du command: check directory sizes, human-readable output, depth limits, sorting by size, exclusions, and apparent size.

du reports the disk space used by files and directories. This cheatsheet covers the most common options, depth and exclusion filters, sorting recipes, and the difference between allocated and apparent size.

Basic Usage

Common ways to check directory and file sizes.

<code>du</code>	Show disk usage of the current directory and its subdirectories
<code>du file</code>	Show disk usage of a single file
<code>du dir1 dir2</code>	Show disk usage for multiple paths
<code>du -h dir</code>	Human-readable sizes (K, M, G)
<code>du -sh dir</code>	Show only the total size of a directory
<code>du -sh *</code>	Show the size of every item in the current directory
<code>sudo du -sh /var</code>	Run with sudo to read root-owned paths

Size Formats

Control how sizes are printed.

<code>-h</code>	Human-readable, powers of 1024 (K, M, G)
<code>-H</code>	Human-readable, powers of 1000 (SI units)
<code>-k</code>	Display sizes in 1K blocks (default on most systems)
<code>-m</code>	Display sizes in 1M blocks
<code>-BG</code>	Display sizes in 1G blocks
<code>-B SIZE</code>	Use SIZE-byte blocks, for example <code>-BM</code> or <code>-B512</code>
<code>-b</code>	Equivalent to <code>--apparent-size --block-size=1</code>

Summary and Totals

Reduce noise or add a grand total row.

<code>du -s dir</code>	Show only the total for the given directory
<code>du -sh dir</code>	Total in human-readable format
<code>du -c dir1 dir2</code>	Add a total line at the bottom
<code>du -csh /var/log /var/lib</code>	Human-readable totals plus a combined grand total
<code>du -a dir</code>	Include every file in the listing, not just directories

Depth Control

Limit how deep `du` descends into the directory tree.

<code>du -h --max-depth=1 dir</code>	Show only the first level of subdirectories
<code>du -h --max-depth=2 dir</code>	Show two levels deep
<code>du -h -d 1 dir</code>	Short form of <code>--max-depth=1</code>
<code>du -h --max-depth=0 dir</code>	Show only the directory total (same as <code>-S</code>)

Excluding Files

Skip paths or patterns from the report.

<code>--exclude=PATTERN</code>	Skip files and directories matching the shell pattern
<code>--exclude-from=FILE</code>	Read exclude patterns from a file
<code>-x</code>	Stay on the same filesystem (skip mounted ones)

Examples:

<code>du -sh --exclude="*.log" /var</code>	Exclude <code>.log</code> files from the total
<code>du -sh --exclude=node_modules ~/projects</code>	Skip <code>node_modules</code> directories
<code>du -xsh /</code>	Total of the root filesystem only, ignoring mounts

Sorting and Top N

Combine `du` with `sort` and `head` to find the largest items.

<code>du -h dir sort -rh</code>	Sort entries by size, largest first
<code>du -h dir sort -rh head -10</code>	List the 10 largest items
<code>du -h --max-depth=1 / sort -rh head -20</code>	Largest top-level directories under /
<code>du -ah dir sort -rh head -10</code>	Largest individual files and directories
<code>du -sh */ sort -rh</code>	Sort current directory's children by size

Apparent vs Disk Usage

`du` reports allocated blocks by default. Use these flags to see actual byte counts.

<code>--apparent-size</code>	Show how many bytes the file contains, not how much it occupies on disk
<code>-b</code>	Apparent size in bytes (shorthand for <code>--apparent-size --block-size=1</code>)

Examples:

<code>du -sh --apparent-size /var/log</code>	Apparent size of <code>/var/log</code>
<code>du -sb file</code>	Exact byte count of a file

Counting and Time

Less common but useful options.

<code>-L</code>	Follow all symbolic links
<code>-P</code>	Never follow symbolic links (default)
<code>-l</code>	Count sizes many times if hard linked
<code>--time</code>	Show last modification time of the file or directory
<code>--time=atime</code>	Show the access time instead of modification time
<code>-0</code>	Use a NUL character as the line separator (for piping into <code>xargs -0</code>)

Related Guides

Use these references for deeper disk usage workflows.

du Command in Linux	Full <code>du</code> guide with practical examples
How to Get the Size of a File or Directory	Focused walkthrough for sizing files and directories
How to Check Disk Space in Linux Using df	Filesystem-level disk space reporting
Find Large Files in Linux	Locate the biggest files across a tree