

# CheatSheet: Linux Disk

## LINUX

- PDF Link: [cheatsheet-disk-A4.pdf](#), Category: linux
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-disk-A4>
- Related posts: CheatSheet: Linux Process, CheatSheet: Linux Networking, #denny-cheatsheets

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## 1.1 Summary

Name	Comment
df	Show information about the file system.
du	Summarize disk usage of each FILE, recursively for directories.
dd	Copy a file, converting and formatting according to the operands.
mount	Mount file systems.
lsblk	List information about all available or the specified block devices.
Reference	CheatSheet: Linux Process, CheatSheet: Linux Networking, CheatSheet: Linux Disk

## 1.2 du

Name	Comment
Show the disk usage of current folder	<code>du -sh</code>
Show disk usage for a given folder	<code>du -h -d 2 /data/elasticsearch/</code>
Sort directories/files by size	GitHub: <a href="#">sort-disk-size.sh</a>

## 1.3 df

Name	Comment
List all disks with humanreadable format	<code>df -h</code>

## 1.4 dd

Name	Comment
Create a file with fixed size and random context	<code>dd if=/dev/urandom of=/tmp/random.txt count=3 bs=256</code>
Create a file with fixed size and empty context	<code>dd if=/dev/zero of=/tmp/random.txt count=3 bs=256</code>

## 1.5 mount

Name	Comment
Mount an ISO to a folder	<code>mount -o loop my-disk.iso /mnt/disk</code>
Mount NFS	<code>mount -t nfs 192.168.1.1:/usr/share /mnt/share</code>
Remount rootfs as read-write in repair mode	<code>mount -o remount,rw /</code>

## 1.6 lsblk

Name	Comment
List all available block devices	<code>lsblk</code>
List all scsi devices	<code>lsblk --scsi</code>
Show a specific device	<code>lsblk /dev/sda</code>
List block devices with filesystem info	<code>lsblk --fs</code>

## 1.7 Online Help Usage

```
> du --help
Usage: du [OPTION]... [FILE]...
  or:  du [OPTION]... --files0-from=F
Summarize disk usage of each FILE, recursively for directories.
```

Mandatory arguments to long options are mandatory for short options too.

```
-0, --null          end each output line with 0 byte rather than newline
```

```

-a, --all                write counts for all files, not just directories
--apparent-size          print apparent sizes, rather than disk usage; although
                        the apparent size is usually smaller, it may be
                        larger due to holes in ('sparse') files, internal
                        fragmentation, indirect blocks, and the like
-B, --block-size=SIZE    scale sizes by SIZE before printing them; e.g.,
                        '-BM' prints sizes in units of 1,048,576 bytes;
                        see SIZE format below
-b, --bytes              equivalent to '--apparent-size --block-size=1'
-c, --total              produce a grand total
-D, --dereference-args   dereference only symlinks that are listed on the
                        command line
-d, --max-depth=N        print the total for a directory (or file, with --all)
                        only if it is N or fewer levels below the command
                        line argument; --max-depth=0 is the same as
                        --summarize
--files0-from=F          summarize disk usage of the
                        NUL-terminated file names specified in file F;
                        if F is -, then read names from standard input
-H                      equivalent to --dereference-args (-D)
-h, --human-readable     print sizes in human readable format (e.g., 1K 234M 2G)
--inodes                list inode usage information instead of block usage
-k                      like --block-size=1K
-L, --dereference        dereference all symbolic links
-l, --count-links        count sizes many times if hard linked
-m                      like --block-size=1M
-P, --no-dereference     don't follow any symbolic links (this is the default)
-S, --separate-dirs      for directories do not include size of subdirectories
--si                    like -h, but use powers of 1000 not 1024
-s, --summarize          display only a total for each argument
-t, --threshold=SIZE    exclude entries smaller than SIZE if positive,
                        or entries greater than SIZE if negative
--time                  show time of the last modification of any file in the
                        directory, or any of its subdirectories
--time=WORD             show time as WORD instead of modification time:
                        atime, access, use, ctime or status
--time-style=STYLE      show times using STYLE, which can be:
                        full-iso, long-iso, iso, or +FORMAT;
                        FORMAT is interpreted like in 'date'
-X, --exclude-from=FILE  exclude files that match any pattern in FILE
--exclude=PATTERN        exclude files that match PATTERN
-x, --one-file-system     skip directories on different file systems
--help                  display this help and exit
--version                output version information and exit

```

Display values are in units of the first available SIZE from --block-size, and the DU\_BLOCK\_SIZE, BLOCK\_SIZE and BLOCKSIZE environment variables. Otherwise, units default to 1024 bytes (or 512 if POSIXLY\_CORRECT is set).

SIZE is an integer and optional unit (example: 10M is 10\*1024\*1024). Units are K, M, G, T, P, E, Z, Y (powers of 1024) or KB, MB, ... (powers of 1000).

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>  
 For complete documentation, run: `info coreutils 'du invocation'`

## 1.8 More Resources

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