

**NAME**

**df** — display free disk space

**SYNOPSIS**

```
df [ --libxo] [ -b | -g | -H | -h | -k | -m | -P] [ -acilnT] [ -, ] [ -t type ]
[ file | filesystem ... ]
```

**DESCRIPTION**

The **df** utility displays statistics about the amount of free disk space on the specified *file system* or on the file system of which *file* is a part. By default block counts are displayed with an assumed block size of 512 bytes. If neither a file or a file system operand is specified, statistics for all mounted file systems are displayed (subject to the **-t** option below).

The following options are available:

**--libxo**

Generate output via `libxo(3)` in a selection of different human and machine readable formats. See `xo_parse_args(3)` for details on command line arguments.

**-a** Show all mount points, including those that were mounted with the `MNT_IGNORE` flag. This is implied for file systems specified on the command line.

**-b** Explicitly use 512 byte blocks, overriding any `BLOCKSIZE` specification from the environment. This is the same as the **-P** option. The **-k** option overrides this option.

**-c** Display a grand total.

**-g** Use 1073741824 byte (1 Gibibyte) blocks rather than the default. This overrides any `BLOCKSIZE` specification from the environment.

**-h** “Human-readable” output. Use unit suffixes: Byte, Kibibyte, Mebibyte, Gibibyte, Tebibyte and Pebibyte (based on powers of 1024) in order to reduce the number of digits to four or fewer.

**-H, --si**

“Human-readable” output. Use unit suffixes: Byte, Kilobyte, Megabyte, Gigabyte, Terabyte and Petabyte (based on powers of 1000) in order to reduce the number of digits to four or fewer.

**-i** Include statistics on the number of free and used inodes. In conjunction with the **-h** or **-H** options, the number of inodes is scaled by powers of 1000.

**-k** Use 1024 byte (1 Kibibyte) blocks rather than the default. This overrides the **-P** option and any `BLOCKSIZE` specification from the environment.

**-l** Only display information about locally-mounted file systems.

**-m** Use 1048576 byte (1 Mebibyte) blocks rather than the default. This overrides any `BLOCKSIZE` specification from the environment.

**-n** Print out the previously obtained statistics from the file systems. This option should be used if it is possible that one or more file systems are in a state such that they will not be able to provide statistics without a long delay. When this option is specified, **df** will not request new statistics from the file systems, but will respond with the possibly stale statistics that were previously obtained.

**-P** Explicitly use 512 byte blocks, overriding any `BLOCKSIZE` specification from the environment. This is the same as the **-b** option. The **-k** option overrides this option.

**-t** Only print out statistics for file systems of the specified types. More than one type may be specified in a comma separated list. The list of file system types can be prefixed with “no” to specify the file system types for which action should *not* be taken. For example, the **df** command:

```
df -t nonfs,nullfs
```

lists all file systems except those of type NFS and NULLFS. The `lsvfs(1)` command can be used to find out the types of file systems that are available on the system.

- T** Include file system type.
- ,** (Comma) Print sizes grouped and separated by thousands using the non-monetary separator returned by `localeconv(3)`, typically a comma or period. If no locale is set, or the locale does not have a non-monetary separator, this option has no effect.

## ENVIRONMENT

**BLOCKSIZE** Specifies the units in which to report block counts. This uses `getbsize(3)`, which allows units of bytes or numbers scaled with the letters *k* (for multiples of 1024 bytes), *m* (for multiples of 1048576 bytes) or *g* (for gibibytes). The allowed range is 512 bytes to 1 GB. If the value is outside, it will be set to the appropriate limit.

## SEE ALSO

`lsvfs(1)`, `quota(1)`, `fstatfs(2)`, `getfsstat(2)`, `statfs(2)`, `getbsize(3)`, `getmntinfo(3)`, `libxo(3)`, `localeconv(3)`, `xo_parse_args(3)`, `fstab(5)`, `mount(8)`, `pstat(8)`, `quot(8)`, `swapinfo(8)`

## STANDARDS

With the exception of most options, the **df** utility conforms to IEEE Std 1003.1-2004 (“POSIX.1”), which defines only the **-k**, **-P** and **-t** options.

## HISTORY

A **df** command appeared in Version 1 AT&T UNIX.

## BUGS

The **-n** flag is ignored if a file or file system is specified. Also, if a mount point is not accessible by the user, it is possible that the file system information could be stale.

The **-b** and **-P** options are identical. The former comes from the BSD tradition, and the latter is required for IEEE Std 1003.1-2004 (“POSIX.1”) conformity.