NAME

mkfs.f2fs − create an F2FS file system

SYNOPSIS

mkfs.f2fs [**−a** *heap-based-allocation*] [**−c** *device-list*] [**−d** *debug-level*] [**−e** *extension-list*] [**−E** *extension-list*] [**−f**] [**−g**] [**−i**] [**−l** *volume-label*] [**−m**] [**−o** *overprovision-ratio-percentage*] [**−O** *feature-list*] [**−C** *encoding:flags*] [**−q**] [**−r**] [**−R** *root_owner*] [**−s** *#-of-segments-per-section*] [**−S**] [**−t** *nodiscard/discard*] [**−T** *timestamp*] [**−w** *wanted-sector-size*] [**−z** *#-of-sections-per-zone*] [**−V**] *device [sectors]*

DESCRIPTION

mkfs.f2fs is used to create a f2fs file system (usually in a disk partition). *device* is the special file corresponding to the device (e.g. */dev/sdXX*). *sectors* is optionally given for specifing the filesystem size.

The exit code returned by **mkfs.f2fs** is 0 on success and 1 on failure.

OPTIONS

−a *heap-based-allocation*

Specify 1 or 0 to enable/disable heap based block allocation policy. If the value is equal to 1, each of active log areas are initially assigned separately according to the whole volume size. The default value is 1.

−c *device-list*

Build f2fs with these additional comma separated devices, so that the user can see all the devices as one big volume. Supports up to 7 devices except meta device.

−d *debug-level*

Specify the level of debugging options. The default number is 0, which shows basic debugging messages.

−e *extension-list*

Specify a list of file extensions that f2fs will treat as cold files. The data of files with those extensions will be stored in the cold log. The default list includes most of the multimedia file extensions such as jpg, gif, mpeg, mkv, and so on.

−E *extension-list*

Specify a list of file extensions that f2fs will treat as hot files. The data of files with those extensions will be stored in the hot log. The default list includes database file extensions, such as db.

−f Force overwrite when an existing filesystem is detected on the device. By default, mkfs.f2fs will not write to the device if it suspects that there is a filesystem or partition table on the device already.

−g Add default Android options.

−i Enable extended node bitmap. **−l** *volume-label* Specify the v olume label to the partition mounted as F2FS.

−m Specify f2fs filesystem to supports the block zoned feature. Without it, the filesystem doesn't support the feature.

−o *overprovision-ratio-percentage*

Specify the percentage of the volume that will be used as overprovision area. This area is hidden to users, and utilized by F2FS cleaner. If not specified, the best number will be assigned automatically according to the partition size.

−O *feature-list*

Set additional features for the filesystem. Features are comma separated, and the flag can be repeated. The following features are supported:

encrypt	Enable support for filesystem level encryption.
extra_attr	Enable extra attr feature, required for some of the other features.

project_quota Enable project ID tracking. This is used for projet quota accounting. Requires extra attr.

inode_checksum Enable inode checksum. Requires extra attr.

flexible_inline_xattr
Enable flexible inline xattr. Requires extra attr.

quota Enable quotas.

inode_crtime Enable inode creation time feature. Requires extra attr.

lost_found Enable lost+found feature.

verity Reserved feature.

sb_checksum Enable superblock checksum.

casefold Enable casefolding support in the filesystem. Optional flags can be passed with **−C**

compression Enable support for filesystem level compression. Requires extra attr.

−C *encoding:flags*
Support casefolding with a specific encoding, with optional comma separated flags.

encoding:

utf8 Use UTF-8 for casefolding.

flags:

strict This flag specifies that invalid strings should be rejected by the filesystem. Default is disabled.

−q Quiet mode. With it, mkfs.f2fs does not show any messages, including the basic messages.

−r Sets the checkpointing srand seed to 0.

−R Give root_owner option for initial uid/gid assignment. Default is set by getuid()/getgid(), and assigned by "-R $uid:$gid".

−s *#-of-segments-per-section*
Specify the number of segments per section. A section consists of multiple consecutive segments, and is the unit of garbage collection. The default number is 1, which means one segment is assigned to a section.

−S Enable sparse mode.

−t *1/0* Specify 1 or 0 to enable or disable discard policy, respectively. The default value is 1.

−T *timestamp*
Set inodes times to a given timestamp. By default, the current time will be used. This behaviour corresponds to the value -1.

−w *wanted-sector-size*
Specify the sector size in bytes. Without it, the sectors will be calculated by device sector size.

−z *#-of-sections-per-zone*
Specify the number of sections per zone. A zone consists of multiple sections. F2FS allocates segments for active logs with separated zones as much as possible. The default number is 1, which means a zone consists of one section.

sectors Number of sectors. Default is determined by device size.

−V Print the version number and exit.

AUTHOR

This version of **mkfs.f2fs** has been written by Jaegeuk Kim <jaegeuk.kim@samsung.com>.

AVAILABILITY

mkfs.f2fs is available from git://git.kernel.org/pub/scm/linux/kernel/git/jaegeuk/f2fs-tools.git.

SEE ALSO

mkfs(8), **fsck.f2fs(8), dump.f2fs(8), defrag.f2fs(8), resize.f2fs(8), sload.f2fs(8).**