

**NAME**

mksquashfs – tool to create and append to squashfs filesystems

**SYNOPSIS**

**mksquashfs** *SOURCE* [*SOURCE2 ...*] *DESTINATION* [*OPTIONS*]

**DESCRIPTION**

Squashfs is a highly compressed read-only filesystem for Linux. It uses zlib compression to compress both files, inodes and directories. Inodes in the system are very small and all blocks are packed to minimize data overhead. Block sizes greater than 4K are supported up to a maximum of 64K.

Squashfs is intended for general read-only filesystem use, for archival use (i.e. in cases where a .tar.gz file may be used), and in constrained block device/memory systems (e.g. embedded systems) where low overhead is needed.

**OPTIONS****Filesystem build options**

- comp *COMPRESSION*  
select *COMPRESSION* compression. Compressors available: gzip (default), lzo, xz.
- b *BLOCK\_SIZE*  
set data block to *BLOCK\_SIZE*. Default 131072 bytes.
- no-exports  
don't make the filesystem exportable via NFS.
- no-sparse  
don't detect sparse files.
- no-xattrs  
don't store extended attributes.
- xattrs  
store extended attributes (default).
- noI  
do not compress inode table.
- noD  
do not compress data blocks.
- noF  
do not compress fragment blocks.
- noX  
do not compress extended attributes.
- no-fragments  
do not use fragments.
- always-use-fragments  
use fragment blocks for files larger than block size.
- no-duplicates  
do not perform duplicate checking.
- all-root  
make all files owned by root.
- force-uid *uid*  
set all file uids to *uid*.

- `-force-gid gid`  
set all file gids to gid.
- `-nopad`  
do not pad filesystem to a multiple of 4K.
- `-keep-as-directory`  
if one source directory is specified, create a root directory containing that directory, rather than the contents of the directory.

### Filesystem filter options

- `-p PSEUDO_DEFINITION`  
Add pseudo file definition.
- `-pf PSEUDO_FILE`  
Add list of pseudo file definitions.
- `-sort SORT_FILE`  
sort files according to priorities in *SORT\_FILE*. One file or dir with priority per line. Priority `-32768` to `32767`, default priority 0.
- `-ef EXCLUDE_FILE`  
list of exclude dirs/files. One per line.
- `-wildcards`  
Allow extended shell wildcards (globbing) to be used in exclude dirs/files
- `-regex`  
Allow POSIX regular expressions to be used in exclude dirs/files.

### Filesystem append options

- `-noappend`  
do not append to existing filesystem.
- `-root-becomes NAME`  
when appending source files/directories, make the original root become a subdirectory in the new root called *NAME*, rather than adding the new source items to the original root.

### Mksquashfs runtime options:

- `-version`  
print version, licence and copyright message.
- `-recover NAME`  
recover filesystem data using recovery file *NAME*.
- `-no-recovery`  
don't generate a recovery file.
- `-info`  
print files written to filesystem.
- `-no-progress`  
don't display the progress bar.
- `-processors NUMBER`  
Use *NUMBER* processors. By default will use number of processors available.
- `-read-queue SIZE`  
Set input queue to *SIZE* Mbytes. Default 64 Mbytes.

- `-write-queue SIZE`  
Set output queue to *SIZE* Mbytes. Default 512 Mbytes.
- `-fragment-queue SIZE`  
Set fragment queue to *SIZE* Mbytes. Default 64 Mbytes.

### Miscellaneous options

- `-root-owned`  
alternative name for `-all-root`.
- `-noInodeCompression`  
alternative name for `-noI`.
- `-noDataCompression`  
alternative name for `-noD`.
- `-noFragmentCompression`  
alternative name for `-noF`.
- `-noXattrCompression`  
alternative name for `-noX`.

### Compressors available and compressor specific options

`gzip` (no options) (default)

`lzo` (no options)

`xz`

`-Xbcj filter1,filter2,...,filterN`

Compress using filter1,filter2,...,filterN in turn (in addition to no filter), and choose the best compression. Available filters: x86, arm, armthumb, powerpc, sparc, ia64.

`-Xdict-size DICT_SIZE`

Use *DICT\_SIZE* as the XZ dictionary size. The dictionary size can be specified as a percentage of the block size, or as an absolute value. The dictionary size must be less than or equal to the block size and 8192 bytes or larger. It must also be storable in the xz header as either  $2^n$  or as  $2^{n+2}^{(n+1)}$ . Example dict-sizes are 75%, 50%, 37.5%, 25%, or 32K, 16K, 8K etc.

### SEE ALSO

`unsquashfs(1)`

### HOME PAGE

More information about mksquashfs and the squashfs filesystem can be found at <http://squashfs.sourceforge.net/>.

### AUTHOR

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