## NAME

lfst − a tool for working with LittleFS images

## SYNOPSIS

**lfst** *COMMAND* -f *IMAGEFILE* [*OPTIONS*] [*FILE* | *PATTERN* ...]

## DESCRIPTION

**lfst** is a tool for creating and manipulating LittleFS images. **lfst** operates similarly to **tar** command, except that it operates on LittleFS filesystem images instead.

This tool supports creating new LittleFS images, adding files to existing images, listing image contents, and removing files from images.

LittleFS is a little fail-safe filesystem designed for microcontrollers and embedded systems.

## COMMANDS

**−c**, **−−create**
: Create (format) a new LittleFS image and add specified files to it. Requires **−s** option to specify the image size.

**−r**, **−−append**
: Append (add) files to an existing LittleFS image.

**−d**, **−−delete**
: Remove files from an existing LittleFS image.

**−t**, **−−list**
: List contents of an existing LittleFS image.

**−x**, **−−extract**
: Extract files from an existing LittleFS image.

## OPTIONS

One or more options can be specified. Options that take size (in bytes) support using suffixes (K, M, G) to specity 1024 based units, while suffixes (k, m, g) are SI units. To specify size in hexadecimal use "0x" prefix.

**−f** *IMAGEFILE*, **−−file=***IMAGEFILE*
: Specify the LittleFS image file location. This option is always required.

**−b** *BLOCKSIZE*, **−−block-size=***BLOCKSIZE*
: Set the LittleFS filesystem blocksize (default: 4096 or 4K). Typical blocksizes are between 128 and 32768 bytes. This option is required when creating a new filesystem image. It is normally not required when working on existing image (as blocksize is automatically detected if its not the default one).

**−s** *IMAGESIZE*, **−−size=***IMAGESIZE*
: Set the LittleFS filesystem size. This option is required when creating a new image with **−c**. When working on existing image, filesystem (image) size is detected from filesystem superblock.

**−o** *IMAGEOFFSET*, **−−offset=***IMAGEOFFSET*
: Set the LittleFS filesystem start offset in the image file (default: 0). This can be useful if working on firmware image that contains a LittleFS image inside the firmware image.

**−C** *DIRECTORY*, **−−directory=***DIRECTORY*
: Change to the specified directory before processing files. Image file is opened before this takes effect, so any files/patterns specified are processed relative to the new directory.

**−h**, **−−help**
: Display help information and exit.

**−v**, **−−verbose**
Enable verbose mode. Shows detailed information about operations. Can be specified multiple times to increase verbosity.

**−V**, **−−version**
Display version information and exit.

**−O**, **−−overwrite**
Overwrite the image file if it already exists (when used with **−c**).

**−−direct**
Write to image file directly instead of using memory buffering. Uses less memory but may be slower.

**−−shrink**
Shrink (truncate) image file so that it ends where LittleFS filesystem ends. This option is only applicable when updating existing image file and re-creating smaller filesystem inside the file, etc. Without this option existing image file is never shrunk, even if there is space after end of the filesystem image.

**−−stdout**
When extracting file(s) from filesystem image (-x option), send extracted file to stdout. If multiple files are specified, then these files are concatenated to stdout.

**−−stdin**
When when adding file to filesystem image (-c or -r option), read file content from stdin. Filename must still be given on command line (to specify file to create on the filesystem). Only one file can be added at a time.

## EXAMPLES

Create a 1MB LittleFS image and add files to it:
**lfst -c -v -f filesystem.bin -s 1M file1.txt file2.txt**

Create a new image and add all files from another to it:
**lfst -c -v -f filesystem.bin -s 512K -C /tmp/image .**

Create image with custom block size:
**lfst -c -f filesystem.bin -s 2048K -b 1K config.txt data/**

List all files in an existing image:
**lfst -t -v -f filesystem.bin**

List specific files in an image:
**lfst -tvf filesystem.bin config.txt data/**

Add files to an existing image:
**lfst -r -v -f filesystem.bin newfile.txt docs/**

Remove files from an image:
**lfst -d -v -f filesystem.bin oldfile.txt temp/**

Add files from a different directory:
**lfst -r -v -f filesystem.bin -C /home/user/data .**

Add files to existing image that is stored inside and firmware image file (at given offset):
**lfst -r -v -f firmware.bin -o 0x1c0000 newfile.txt**

## EXIT STATUS

**lfst** exits with status 0 on success, and >0 if an error occurs.

## SEE ALSO

**tar**(1), **picotool**(1)

LittleFS specification and documentation: *https://github.com/littlefs-project/littlefs*

## AUTHOR

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## COPYRIGHT



## BUGS

Report bugs to: <https://github.com/tjko/littlefs-toy/issues>