Linux Ubuntu 22.4.5 Manual Pages on command 'unlz4.1'

$ man unlz4.1

LZ4(1)   User Commands   LZ4(1)

NAME

   lz4 - lz4, unlz4, lz4cat - Compress or decompress .lz4 files

SYNOPSIS

   lz4 [OPTIONS] [-|INPUT-FILE] OUTPUT-FILE

   unlz4 is equivalent to lz4 -d

   lz4cat is equivalent to lz4 -dcfm

   When writing scripts that need to decompress files, it is recommended to always use

   the name lz4 with appropriate arguments (lz4 -d or lz4 -dc) instead of the names

   unlz4 and lz4cat.

DESCRIPTION

   lz4 is an extremely fast lossless compression algorithm, based on byte-aligned LZ77

   family of compression scheme. lz4 offers compression speeds of 400 MB/s per core,

   linearly scalable with multi-core CPUs. It features an extremely fast decoder, with

   speed in multiple GB/s per core, typically reaching RAM speed limit on multi-core

   systems. The native file format is the .lz4 format.

 Difference between lz4 and gzip

   lz4 supports a command line syntax similar but not identical to gzip(1). Differ?

   ences are :

   ? lz4 compresses a single file by default (see -m for multiple files)

   ? lz4 file1 file2 means : compress file1 into file2

   ? lz4 file.lz4 will default to decompression (use -z to force compression)

- ? lz4 preserves original files

- ? lz4 shows real-time notification statistics during compression or decompression of a single file (use -q to silence them)

- ? When no destination is specified, result is sent on implicit output, which de? pends on stdout status. When stdout is Not the console, it becomes the implicit output. Otherwise, if stdout is the console, the implicit output is file? name.lz4.

- ? It is considered bad practice to rely on implicit output in scripts. because the script?s environment may change. Always use explicit output in scripts. -c ensures that output will be stdout. Conversely, providing a destination name, or using -m ensures that the output will be either the specified name, or file? name.lz4 respectively.

Default behaviors can be modified by opt-in commands, detailed below.

- ? lz4 -m makes it possible to provide multiple input filenames, which will be compressed into files using suffix .lz4. Progress notifications become disabled by default (use -v to enable them). This mode has a behavior which more closely mimics gzip command line, with the main remaining difference being that source files are preserved by default.

- ? Similarly, lz4 -m -d can decompress multiple *.lz4 files.

- ? It?s possible to opt-in to erase source files on successful compression or de? compression, using --rm command.

- ? Consequently, lz4 -m --rm behaves the same as gzip.

Concatenation of .lz4 files

It is possible to concatenate .lz4 files as is. lz4 will decompress such files as if they were a single .lz4 file. For example:

lz4 file1 > foo.lz4

lz4 file2 >> foo.lz4

Then lz4cat foo.lz4 is equivalent to cat file1 file2.

OPTIONS

Short commands concatenation

In some cases, some options can be expressed using short command -x or long command --long-word. Short commands can be concatenated together. For example, -d -c is equivalent to -dc. Long commands cannot be concatenated. They must be clearly sepa?

rated by a space.

Multiple commands

When multiple contradictory commands are issued on a same command line, only the
latest one will be applied.

Operation mode

-z --compress

Compress. This is the default operation mode when no operation mode option
is specified, no other operation mode is implied from the command name (for
example, unlz4 implies --decompress), nor from the input file name (for ex?
ample, a file extension .lz4 implies --decompress by default). -z can also
be used to force compression of an already compressed .lz4 file.

-d --decompress --uncompress

Decompress. --decompress is also the default operation when the input file?
name has an .lz4 extension.

-t --test

Test the integrity of compressed .lz4 files. The decompressed data is dis?
carded. No files are created nor removed.

-b#   Benchmark mode, using # compression level.

--list List information about .lz4 files. note : current implementation is limited
to single-frame .lz4 files.

Operation modifiers

-#   Compression level, with # being any value from 1 to 12. Higher values trade
compression speed for compression ratio. Values above 12 are considered the
same as 12. Recommended values are 1 for fast compression (default), and 9
for high compression. Speed/compression trade-off will vary depending on
data to compress. Decompression speed remains fast at all settings.

--fast[=#]

Switch to ultra-fast compression levels. The higher the value, the faster
the compression speed, at the cost of some compression ratio. If =# is not
present, it defaults to 1. This setting overrides compression level if one
was set previously. Similarly, if a compression level is set after --fast,
it overrides it.

--best Set highest compression level. Same as -12.

--favor-decSpeed

> Generate compressed data optimized for decompression speed. Compressed data
> will be larger as a consequence (typically by ~0.5%), while decompression
> speed will be improved by 5-20%, depending on use cases. This option only
> works in combination with very high compression levels (>=10).

-D dictionaryName

> Compress, decompress or benchmark using dictionary dictionaryName. Compres?
> sion and decompression must use the same dictionary to be compatible. Using
> a different dictionary during decompression will either abort due to decom?
> pression error, or generate a checksum error.

-f --[no-]force

> This option has several effects:
> If the target file already exists, overwrite it without prompting.
> When used with --decompress and lz4 cannot recognize the type of the source
> file, copy the source file as is to standard output. This allows lz4cat
> --force to be used like cat (1) for files that have not been compressed with
> lz4.

-c --stdout --to-stdout

> Force write to standard output, even if it is the console.

-m --multiple

> Multiple input files. Compressed file names will be appended a .lz4 suffix.
> This mode also reduces notification level. Can also be used to list multiple
> files. lz4 -m has a behavior equivalent to gzip -k (it preserves source
> files by default).

-r   operate recursively on directories. This mode also sets -m (multiple input

> files).

-B#   Block size [4-7](default : 7)

> -B4= 64KB ; -B5= 256KB ; -B6= 1MB ; -B7= 4MB

-BI   Produce independent blocks (default)

-BD   Blocks depend on predecessors (improves compression ratio, more noticeable

> on small blocks)

--[no-]frame-crc

> Select frame checksum (default:enabled)

--[no-]content-size

Header includes original size (default:not present)

Note : this option can only be activated when the original size can be de?

termined, hence for a file. It won?t work with unknown source size, such as

stdin or pipe.

--[no-]sparse

Sparse mode support (default:enabled on file, disabled on stdout)

-l   Use Legacy format (typically for Linux Kernel compression)

Note : -l is not compatible with -m (--multiple) nor -r

Other options

-v --verbose

Verbose mode

-q --quiet

Suppress warnings and real-time statistics; specify twice to suppress errors

too

-h -H --help

Display help/long help and exit

-V --version

Display Version number and exit

-k --keep

Preserve source files (default behavior)

--rm   Delete source files on successful compression or decompression

--   Treat all subsequent arguments as files

Benchmark mode

-b#   Benchmark file(s), using # compression level

-e#   Benchmark multiple compression levels, from b# to e# (included)

-i#   Minimum evaluation time in seconds [1-9] (default : 3)

BUGS

Report bugs at: https://github.com/lz4/lz4/issues

AUTHOR

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lz4 1.9.2   July 2019   LZ4(1)