

Author

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Overview

The MP3Encoder pipe encodes a sound stream into MPEG1-layer III using lame. I only integrated it into MediaPipe. Shepmaster did a nice GUI.

The default parameters are --r3mix. If you need to use another configuration, you can use the command line version of MediaPipe, and specify the arguments sent to lame by lame="--abr 128"(for example). Don't specify the output file, nor any input file.

Usage

Just put [options] in MediaPipe.

LAME version 3.92 (<http://www.mp3dev.org/>)

usage: ./lame [options] <infile> [outfile]

<infile> and/or <outfile> can be "-", which means stdin/stdout.

RECOMMENDED:

```
lame -h input.wav output.mp3
```

OPTIONS:

Input options:

```
-r          input is raw pcm
-x          force byte-swapping of input
-s sfreq   sampling frequency of input file (kHz) - default 44.1 kHz
--bitwidth w  input bit width is w (default 16)
--mp1input   input file is a MPEG Layer I  file
--mp2input   input file is a MPEG Layer II  file
--mp3input   input file is a MPEG Layer III file
--nogap <file1> <file2> <...>
           gapless encoding for a set of contiguous files
--nogapout <dir>
           output dir for gapless encoding (must precede --nogap)
```

Operational options:

```
-m <mode>   (s)tereo, (j)oint, (f)orce, (m)ono or (a)uto
           default is (s) or (j) depending on bitrate
           force = force ms_stereo on all frames.
           auto = jstereo, with varialbe mid/side threshold
```

-a downmix from stereo to mono file for mono encoding
 -d allow channels to have different blocktypes
 --freeformat produce a free format bitstream
 --decode input=mp3 file, output=wav
 -t disable writing wav header when using --decode
 --comp <arg> choose bitrate to achieve a compression ratio of <arg>
 --scale <arg> scale input (multiply PCM data) by <arg>
 --scale-l <arg> scale channel 0 (left) input (multiply PCM data) by <arg>
 --scale-r <arg> scale channel 1 (right) input (multiply PCM data) by
 <arg>
 --preset type type must be phone, voice, fm, tape, hifi, cd or studio
 "--preset help" gives some more infos on these
 --alt-preset type type must be "standard", "extreme", "insane",
 or a value for an average desired bitrate and depending
 on the value specified, appropriate quality settings will be
 used.
 --r3mix use high-quality VBR preset

Verbosity:

--disptime <arg> print progress report every arg seconds
 -S don't print progress report, VBR histograms
 --nohist disable VBR histogram display
 --silent don't print anything on screen
 --quiet don't print anything on screen
 --verbose print a lot of useful information

Noise shaping & psycho acoustic algorithms:

-q <arg> <arg> = 0...9. Default -q 5
 -q 0: Highest quality, very slow
 -q 9: Poor quality, but fast
 -h Same as -q 2. Recommended.
 -f Same as -q 7. Fast, ok quality

CBR (constant bitrate, the default) options:

-b <bitrate> set the bitrate in kbps, default 128 kbps
 --cbr enforce use of constant bitrate

ABR options:

--abr <bitrate> specify average bitrate desired (instead of quality)

VBR options:

-v use variable bitrate (VBR) (--vbr-old)
 --vbr-old use old variable bitrate (VBR) routine
 --vbr-new use new variable bitrate (VBR) routine

-V n quality setting for VBR. default n=4
 0=high quality,bigger files. 9=smaller files
-b <bitrate> specify minimum allowed bitrate, default 32 kbps
-B <bitrate> specify maximum allowed bitrate, default 320 kbps
-F strictly enforce the -b option, for use with players that
 do not support low bitrate mp3
-t disable writing LAME Tag

ATH related:

--noath turns ATH down to a flat noise floor
--athshort ignore GPSYCHO for short blocks, use ATH only
--athonly ignore GPSYCHO completely, use ATH only
--athtype n selects between different ATH types [0-5]
--athlower x lowers ATH by x dB
--athaa-type n ATH auto adjust types 1-3, else no adjustment
--athaa-loudapprox n n=1 total energy or n=2 equal loudness curve
--athaa-sensitivity x activation offset in +/- dB for ATH auto-adjustment

PSY related:

--short use short blocks when appropriate
--noshort do not use short blocks
--allshort use only short blocks
--cwl limit <freq> compute tonality up to freq (in kHz) default 8.8717
--notemp disable temporal masking effect
--npsytune experimental PSY tunings by Naoki Shibata
--nssafejoint M/S switching criterion
--nsmfix <arg> M/S switching tuning [effective 0-3.5]
--interch x adjust inter-channel masking ratio
--ns-bass x adjust masking for sfbs 0 - 6 (long) 0 - 5 (short)
--ns-alto x adjust masking for sfbs 7 - 13 (long) 6 - 10 (short)
--ns-treble x adjust masking for sfbs 14 - 21 (long) 11 - 12 (short)
--ns-sfb21 x change ns-treble by x dB for sfb21

experimental switches:

-X n selects between different noise measurements
-Y lets LAME ignore noise in sfb21, like in CBR
-Z toggles the scalefac feature on

MP3 header/stream options:

-e <emp> de-emphasis n/5/c (obsolete)
-c mark as copyright
-o mark as non-original
-p error protection. adds 16 bit checksum to every frame

(the checksum is computed correctly)
--nores disable the bit reservoir
--strictly-enforce-ISO comply as much as possible to ISO MPEG spec

Filter options:

-k keep ALL frequencies (disables all filters),
 Can cause ringing and twinkling
--lowpass <freq> frequency(kHz), lowpass filter cutoff above freq
--lowpass-width <freq> frequency(kHz) - default 15% of lowpass freq
--highpass <freq> frequency(kHz), highpass filter cutoff below freq
--highpass-width <freq> frequency(kHz) - default 15% of highpass freq
--resample <sfreq> sampling frequency of output file(kHz)-
default=automatic

ID3 tag options:

--tt <title> audio/song title (max 30 chars for version 1 tag)
--ta <artist> audio/song artist (max 30 chars for version 1 tag)
--tl <album> audio/song album (max 30 chars for version 1 tag)
--ty <year> audio/song year of issue (1 to 9999)
--tc <comment> user-defined text (max 30 chars for v1 tag, 28 for
v1.1)
--tn <track> audio/song track number (1 to 255, creates v1.1 tag)
--tg <genre> audio/song genre (name or number in list)
--add-id3v2 force addition of version 2 tag
--id3v1-only add only a version 1 tag
--id3v2-only add only a version 2 tag
--space-id3v1 pad version 1 tag with spaces instead of nulls
--pad-id3v2 pad version 2 tag with extra 128 bytes
--genre-list print alphabetically sorted ID3 genre list and exit

Note: A version 2 tag will NOT be added unless one of the input fields won't fit in a version 1 tag (e.g. the title string is longer than 30 characters), or the '--add-id3v2' or '--id3v2-only' options are used, or output is redirected to stdout.

MPEG-1 layer III sample frequencies (kHz): 32 48 44.1
bitrates (kbps): 32 40 48 56 64 80 96 112 128 160 192 224 256 320

MPEG-2 layer III sample frequencies (kHz): 16 24 22.05
bitrates (kbps): 8 16 24 32 40 48 56 64 80 96 112 128 144 160

MPEG-2.5 layer III sample frequencies (kHz): 8 12 11.025
bitrates (kbps): 8 16 24 32 40 48 56 64 80 96 112 128 144 160

Related Links

<http://www.mp3dev.org>

Version changes

v0.2 - 1/08/02

- Bug fixes
- nice GUI by shepmaster
- other things...

v0.1 - 05/02/02

- First version

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