

## MPEG Layer 3 (.mp3) file format support

### MPEG Layer 3 (.MP3)

The MPEG Layer 3 filter enables *Cool Edit* to directly encode (save) and decode (open) MP3 files. When a file is saved as MP3, it is encoded and compressed as specified by the MP3 settings. When an MP3 file is opened, it is decompressed into *Cool Edit*'s internal format, which is uncompressed. This allows you to save the MP3 file back to disk as any file format.

You may notice that when *Cool Edit* compresses a file to MP3, it can take longer than some other compressors. This is because *Cool Edit* uses the Fraunhofer-Thomson compression scheme, which is the original and highest quality MP3 compressor available. You can reduce the amount of time the compression takes by reducing the quality level.

### Options

Your choices when creating MP3 files are displayed under Options when saving.

#### Available Formats

##### Convert to Mono

Do not show Intensity Stereo Formats

Show Only Preferred Formats

Target Bitrate

Quality Slider

#### Write CRC Checksums

Set 'Private' bit

Set 'Copyrighted' bit

Set 'Original Material' bit

Padding

De-emphasis for decoder

Explanation

The demonstration version of the MPEG Layer 3 encoder and decoder is limited to 30 days of use, and can only encode files up to 30 seconds in length. The full version does not have these limitations.

If you don't know what options to use, go with one of the preferred formats, and leave the other settings in their defaults.

Note that opening and re-saving an MP3 file will cause it to be compressed again, causing the artifacts that are part of the compressing process to become more pronounced. Avoid compressing the same audio to MP3 more than once.

This function supports [Presets](#).

## Available Formats

Choose one of the encoding formats from the list.

**Bitrate:** the total number of bits per second that will be contained in the encoded file. In general, the higher the bitrate, the higher the quality of the sound in the final file, but the larger the file will be.

**S/R:** the sample rate of the encoded file.

**Stereo:** the manner in which stereo audio will be represented in the encoded file. Stereo is normal stereo, where each channel is encoded independently. MS Stereo encodes as Mid/Side (center/surround), which means that instead of coding the left and right channels independently, the sum and difference of the channels is encoded which saves space and still preserves surround information. Intensity Stereo takes advantage of the fact that at lower frequencies, human hearing relies on both timing, amplitude, and phase to determine the position of the audio, while at higher frequencies, only timing and amplitude are as important. When encoding in IS stereo, only the directional and amplitude information are coded for high frequency sounds. Do not use IS on audio that has been surround-sound encoded.

**HQ:** determines whether the High Quality flag is checked during encoding. High Quality encoding takes more time, but the encoded file sounds better.

**Ratio:** the predicted ratio of original file size to compressed file size.

**Pref:** formats marked with an asterisk (\*) are generally going to be higher quality for a given bitrate.

**Convet to Mono Formats**

When encoding a stereo file, checking this box will cause the Available Formats list to only display mono options.

**Do not show Intensity Stereo Formats**

At higher frequencies, only stereo direction and magnitude information is stored when using Intensity Stereo mode. Because of this, do not use Intensity Stereo for source that has been surround sound encoded.

**Show Only Preferred Formats**

When this options is checked, only those formats that are marked as Preferred (\*) will appear in the list.

Preferred formats will sound better than non-preferred ones. This determination is often based on the source material's sample rate, so changing the source material's sampling rate to a multiple of the target format's rate could change the preferred status of that format.

**Target Bitrate**

Higher bitrates make larger but higher quality files. For example, use 24 Kbps or so for speech, or 128 Kbps or more for stereo music. 128 Kbps is the most common encoding rate for MP3 files because of the relative balance of encoding (about 10:1) and quality loss.

**The Quality Slider**

Changing the position of the quality slider alters the list of formats that you can select in the Available Formats list. Higher quality encoding modes will take longer to encode, but will sound better when played back. Formats with HQ=Yes will encode much more slowly than those where HQ=No.

**Write CRC Checksums**

CRC Checksums can be added to the audio stream so that the content can be verified for any errors in the stream when decoded.

**Set 'Private' Bit**

Each MPEG frame will have its private bit set if this is checked. The program that plays or decodes the MPEG file can decide how to handle this information.

**Set 'Copyrighted' Bit**

Sets the Copyrighted bit. The program that decodes or plays the MPEG file can decide how to handle this information.

**Set 'Original Material' bit**

Sets the Original Copy bit in the MP3 file. Use this if the material is original. The program that plays or decodes the MP3 file can decide how to handle this information.

**Padding**

Choose ISO Padding by default. If for some reason the decoder being used needs no padding, or always needs padding, then change this option. Most decoders will work properly with the default setting.

**De-emphasis for decoder**

If the audio being encoded has a particular emphasis equalization curve to it, choose which type in order that the decoder can perform the proper de-emphasis. If you don't know what this means, you can leave it on No Emphasis.

**Explanation**

The explanation box gives quick tips and explanations about whatever was clicked on last in the MP3 Save As options.

