

Upload of Stereo mp3 files to Publizon

Version 1.0

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It is now possible to upload stereo mp3 files to Publizon for distribution as Audiobooks. The mp3 files must be saved in Joint Stereo, Variable Bit Rate, at a quality similar to 192 kbps.

When to upload an audiobook in stereo instead of mono?

The majority of audiobooks are recorded using one mono microphone, with one speaker (reader), and the recording files saved as a mono audio file. These files should remain as mono when encoding to mp3, and uploaded as a mono audiobook to Publizon, using our 96 kbps CBR mono settings.

There is no advantage to converting these mono files to stereo and uploading them as stereo files, as our mono uploads allow a 96kbps CBR mono file audiobook upload. This is the equivalent to a stereo file in 192 kbps stereo CBR, which contains 96 kbps in each channel, left and right.

A mono 96 kbps file automatically sends the 96 kbps to each channel under playback, resulting in the same audio playback quality as the 192 kbps stereo file. So always upload mono files in mono, and stereo files only when the audiobook contains stereo information.

Stereo files usually have more than one input, for example when using more than one microphone in a situation where there are at least 2 speakers /readers, and it is necessary to pan these speakers left and right. Sometimes even then, mixing both voices to the center, and exporting as mono can give a better listener experience.

Some Audiobooks may contain music, either intro music or background music. If this music is in stereo - and needs to remain in stereo - then this is where a stereo upload of the Audiobook would make sense.

Mono audiobooks that have previously been issued as Audio CD's, will have had their mono recordings split into 2 channel stereo tracks on the cd. This happens automatically, as all Audio CDs contain Stereo Tracks only.

If an Audio CD, with Stereo tracks is being used as the source material for converting to mp3 files, then these files should only be converted to a stereo audiobook if they actually contain stereo information. If the original recordings were mono, before burning to Audio CD, then the Audiobook should be encoded as Mono, and not Stereo.

Why Joint Stereo?

Joint stereo is a method used to save file space while still maintaining a stereo signal. Stereo files can be unnecessarily large, especially if the audio input into the Left and Right channel are pretty much the same, especially in Audio Books, where most of the content is from mono recordings

Because the audio is so similar in left and right channels, when you export your audio as a joint stereo file, the media encoder is able to find the average of the Left and Right channel data and merge this into a smaller file, while saving the stereo information in a separate channel.

Why Variable Bit Rate (VBR)?

VBR allows the bitrate of an audio file to dynamically increase or decrease within a target range.

The biggest advantage of VBR when compared to CBR is the sound quality to file size ratio.

You can usually achieve a smaller file size by encoding audio with VBR rather than CBR because of the way the bitrate is altered depending on the nature of the sound.

The bitrate reduces for silence or quieter parts of a sound file. For more complex areas of a sound file that contain a mix of frequencies, the bitrate increases to ensure sound quality is maintained.

This variation in bitrate reduces the storage space needed compared to CBR. More efficient use of storage space means also smaller files to download and stream for customers.

Audiobooks in stereo format will normally have some intro music, maybe some background music in places, but most of the content will be spoken word. These files will contain moments of silence between speak, and less complicated variations in speak and sound, compared to a music file. It makes more sense then to use Variable Bit Rate, instead of Constant Bit Rate (CBR).

VBR is best used to target a specific quality level, instead of a specific bitrate, so our requirements for VBR settings state that we require a quality similar to 192 kbps. The average VBR rate can be much less that, or even slightly more, depending on the contents of each mp3 file, and which mp3 encoder used. Mp3 files that have been encoded with VBR 192 kbps, where the bitrate average result is slightly larger than the 192 kbps, will not be rejected by Publizon's upload validation.

Why 192 kbp?

192 kbps VBR settings deliver high quality audio and good file compression. Increased audio quality above 192 kbps is minimal, especially with Audiobook content.

Sample Rate

44100 Hz er sample rate brugt på cd-audio, og det er den sample rate vi skal have i de MP3'ere vi modtager. Mindre end 44100 Hz forringer lyden.

Recommended encoder settings for VBR /192 kbps

Recommended settings to be used with LAME for highest quality MP3 encoding. These settings require LAME 3.98 or later (the latest stable version is recommended).

For VBR 192 kbps:
-V 2 (~190 kbps)

Exporting / encoding files to Joint stereo, VBR, 192 kbps

Export settings are not identical from program to program. These exports can vary slightly in size and bitrate, depending on which program is used til export the mp3 files, and which settings are available. It is not always possible to just choose Joint Stereo VBR 192 kbps in every program. Sometimes only a maximum and minimum bitrate can be chosen, or a bitrate similar in quality to a 192 kbps CBR export.

Here are some examples of the more common audio programmer and our suggested export settings:

Audacity export options

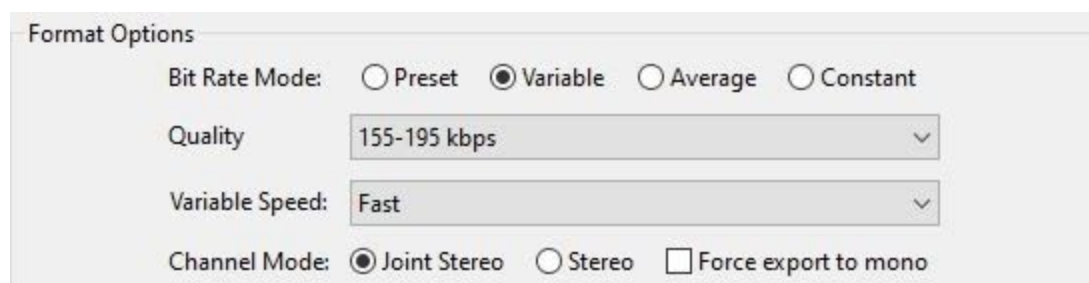


Fig. 1 - We recommend the 155-195 Quality settings, VBR, Joint stereo settings

Lame encoder options

The screenshot displays the Lame encoder options interface. It is divided into two main sections: "LAME presets" and "Custom settings".

- LAME presets:** The "Preset" dropdown is set to "Standard (~192 kbps)". The "Free bitstream" section has a "Bitrate" spinner set to 96.
- Custom settings:** The "VBR - variable bitrate" radio button is selected. The "VBR quality" dropdown is set to "2 - recomm". The "Min. bitrate" is 96 and the "Max. bitrate" is 192. The "Enforce minimum bitrate" checkbox is unchecked. The "ABR - average bitrate" section has a "Bitrate" spinner set to 192. The "CBR - constant bitrate" section has a "Bitrate" spinner set to 96.
- Channel mode:** The "Joint stereo" radio button is selected.
- Encoding algorithm quality:** The dropdown is set to "2 - recommended".
- VBR additional parameters:** The "VBR Info Tag" dropdown is set to "Default" and the "VBR algorithm" dropdown is set to "Auto".

Fig.2 - Using the lame standard preset, and Joint stereo settings

The screenshot displays the Lame encoder options interface, similar to Fig.2 but with "Custom settings" selected.

- LAME presets:** The "Preset" dropdown is set to "Standard (~192 kbps)". The "Free bitstream" section has a "Bitrate" spinner set to 96.
- Custom settings:** The "VBR - variable bitrate" radio button is selected. The "VBR quality" dropdown is set to "2 - recomm". The "Min. bitrate" is 96 and the "Max. bitrate" is 192. The "Enforce minimum bitrate" checkbox is unchecked. The "ABR - average bitrate" section has a "Bitrate" spinner set to 192. The "CBR - constant bitrate" section has a "Bitrate" spinner set to 96.
- Channel mode:** The "Joint stereo" radio button is selected.
- Encoding algorithm quality:** The dropdown is set to "2 - recommended".
- VBR additional parameters:** The "VBR Info Tag" dropdown is set to "Default" and the "VBR algorithm" dropdown is set to "Auto".

Fig.3 - Using the lame Custom settings for VBR with 2-recommended VBR Quality and Joint stereo settings

iTunes export

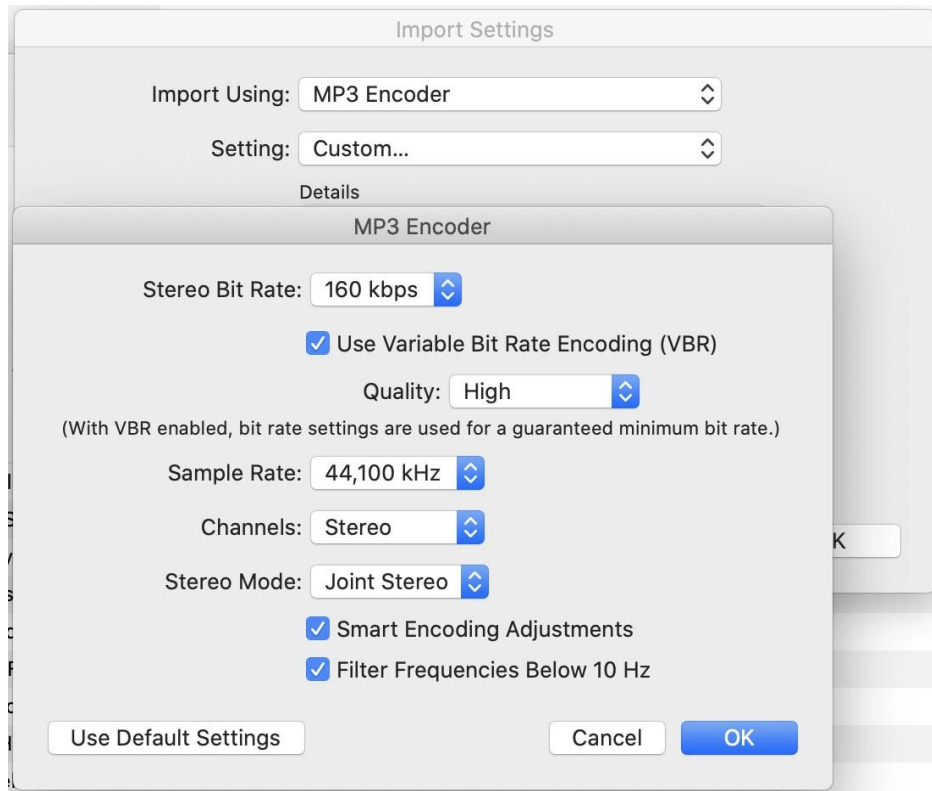


Fig. 4 Suggested iTunes Mp3 encoder settings*

***A special note on encoding with iTunes**

The 192 kbps iTunes settings, under custom settings, will normally encode an mp3 file that is much larger than 192 kbps VBR, as this setting seem to work as a minimum bitrate of 192 kbps, and not a maximum or average.

We recommend therefor using a Custom setting of 160 kbps, VBR, Joint Stereo, with Quality setting of 'High'. This will result in mp3 files with a VBR bitrate of approx 180-190 kbps. Using the 190 kbps setting here would result in VBR bitrates of 200 kbps and over, with a risk of these files being rejected under upload / validation til Publizons Server.

Logic encoder export / bounce

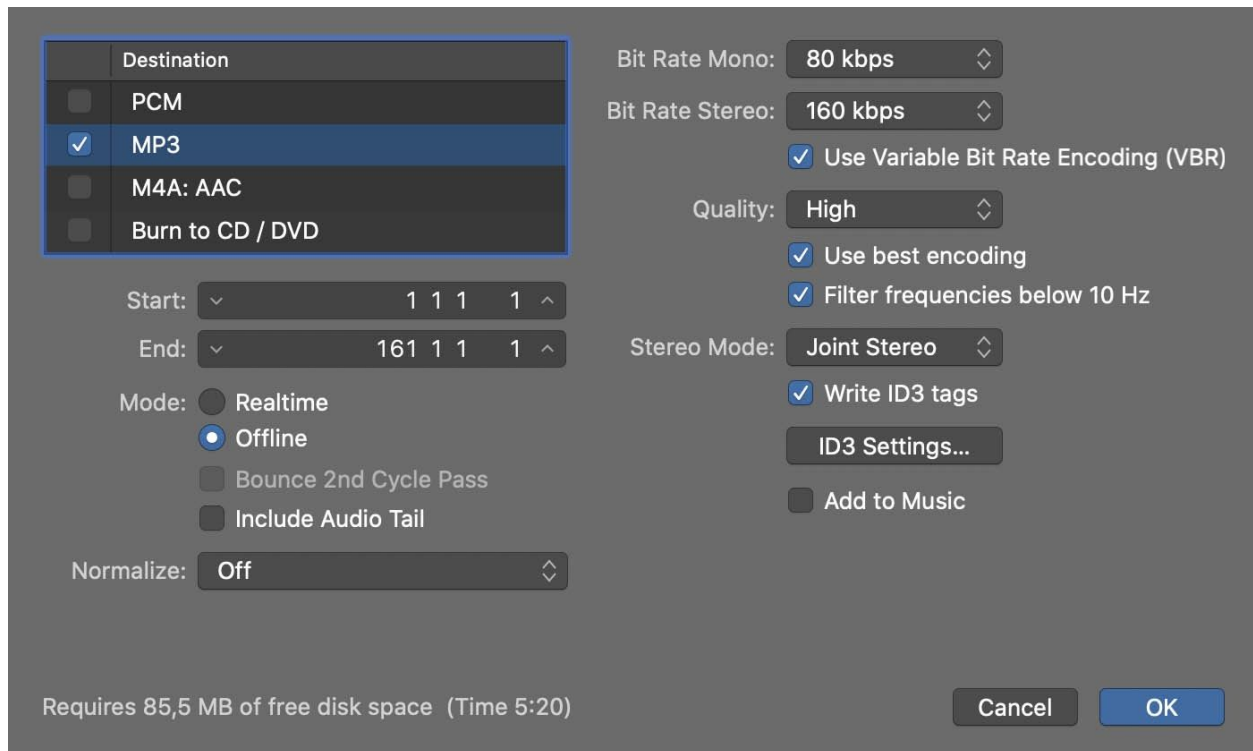


Fig.5 - Suggested Logic encoder settings*

- Encoding 192 kbps with Logic

The Logic encoder seems also to encode the mp3 files to a minimum bitrate of 192 kbps, instead of an average or maksimum value, when using the 192 kbps Bit Rate Stereo settings. We recommend using the 160 kbps Bit Rate settings, which should result in a bitrate of around 160kbps - 190 kbps.

Adobe audition exports

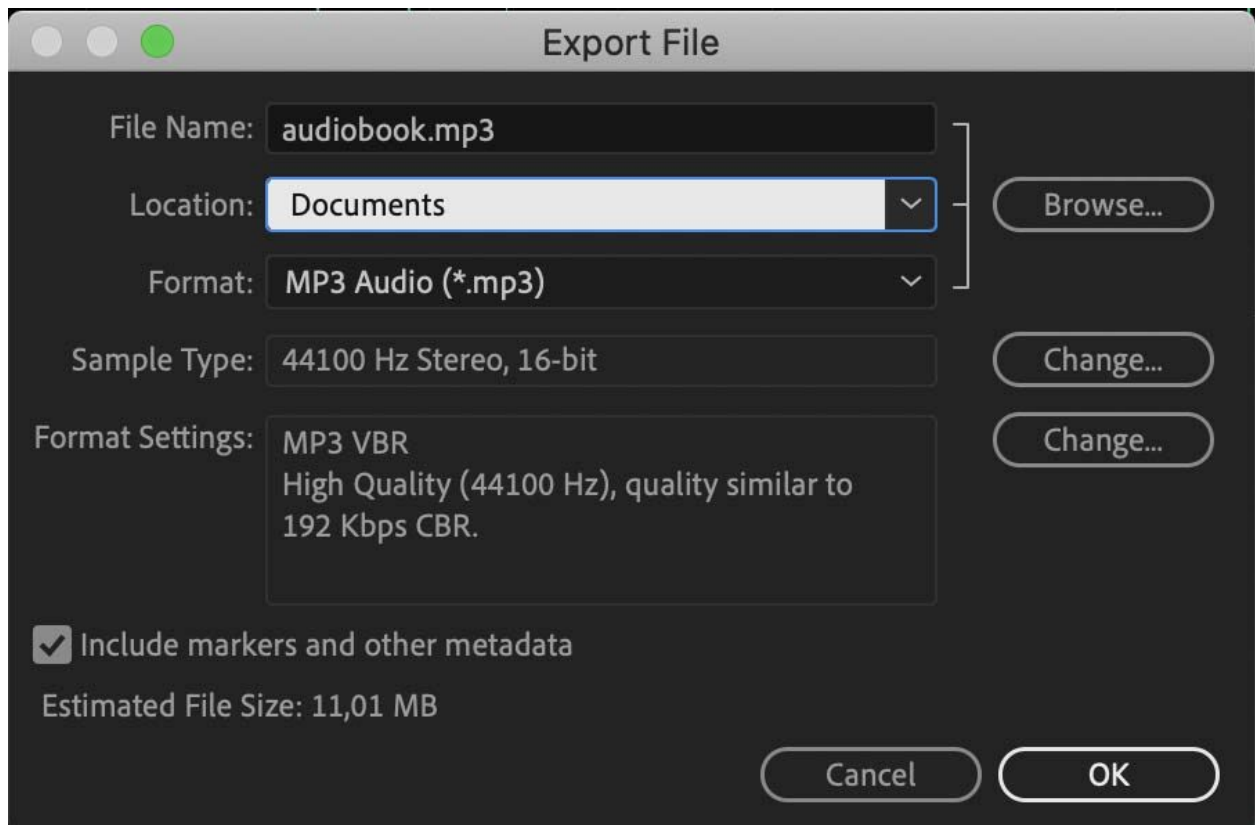


Fig. 6 - Suggest setting for export of 192 kbps VBR in Adobe Digital Editions. Joint Stereo is the default Stereo setting

File name

The MP3 files must be named using the format 'del000', so that the first part of the filename is always 'del', followed by the track number, which starts with '001'.

The first MP3 file will be named del001.mp3, the second file is 'del002.mp3' and so on.

Software such as BatchFileRenamer.exe (PC) can be used to batch rename all mp3 files at once

http://www.sherrhodcomputers.com/products_filerenamer_download.cfm

Meta Data

All of the mp3 files must contain Meta Data (id3v2).

The mp3 files must contain the following Meta Data, otherwise the audiobook will not pass validation when uploading to Pubhub.

Artist: Author

Album: Audiobooks title

Title: Each file must have the title of the audiobook plus the number of the track, starting at 001, for example 'Døden har en årsag - 001' Track: Track 1 has number 1, and so on. These may also be written as 01 or 001, or also as the track number out of the total number of tracks, such as 001/200, which would be track 1 of 200

Genre: Audiobook Comments: (Contains reader's name) e.g 'Read by: Torben Sekov'

Year: Year of issue of audiobook

Front Cover: Front cover graphic in JPEG format. Size should be approx. 500 pixels wide x 800 pixels in height, approx. 50-80 kb i 72 eller 96 DPI

Alle Meta Data can be added to the files in the Mp3Tag programme (PC) from [http://www.mp3tag.de/en/ Meta data \(id3v2\)](http://www.mp3tag.de/en/ Meta data (id3v2))

The mp3 files must have title information under the tag Title, which includes both the title and track number, for example 'Døden har en årsag - 001' would be the Meta Data Title in the file del001.mp3. Individual titles can be added to the mp3 files using Mp3Tag. When there are many files then it is easier to setup an action in the program, so all files can be given the correct title in the Title column.

Manual upload of audio files to Publizon

All mp3 files in the audiobook must be packed as a Zip file. The zip file must not contain any folders or other files. The file name of this zip file should be the ISBN number of the audiobook. The filename must contain no hyphen or blank spaces, and contain the 13 digit isbn number only.

The zip file should be uploaded to Publizon's FTP drive, using the same login info as when creating the audiobook for distribution in Pubhub. Pubhub will then automatically find this zip file when the audiobook information is saved in Pubhub.