

Video conversion

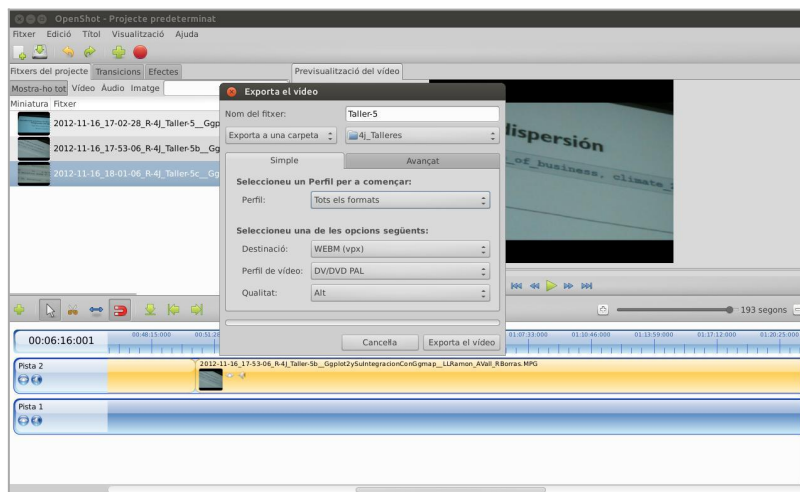
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1.1. Converting a video file to webm

VP8 is a free/open source codec, which allows to keep small files (like 10%) for the equivalent videos in other formats.

We usually convert them using OpenShot Video Editor (<http://www.openshotvideo.com/>^[1]), and the corresponding libraries in GNU/Linux installed from repositories.

The parameters we use from the program are like the ones shown in the following screenshots:



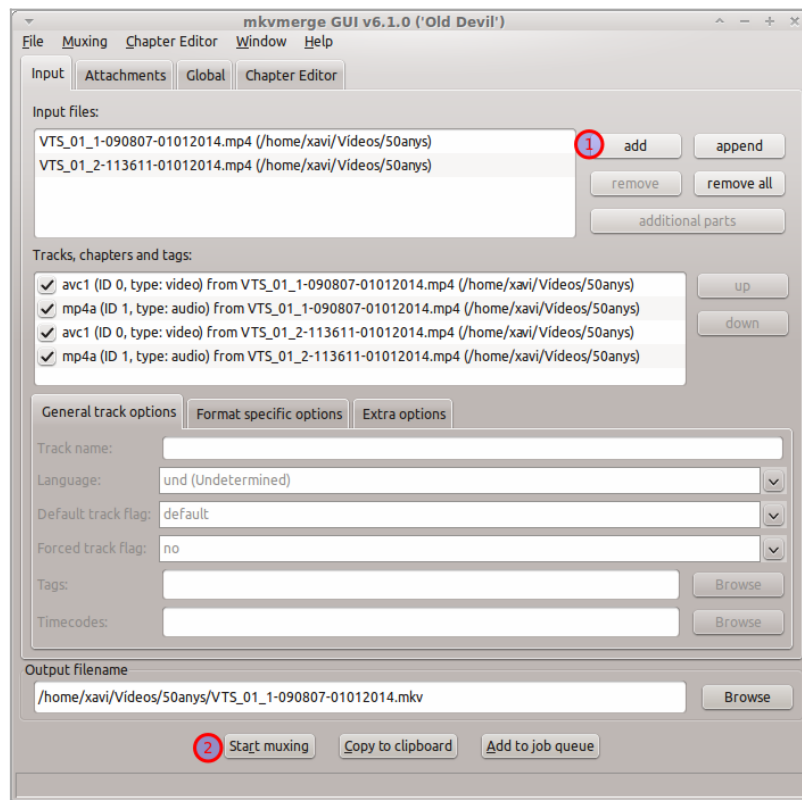
Click to expand



Click to expand

1.2. Merging video files using GUI into a .mkv

You can use the GUI **mkvtoolnix-gui** ("mkvmerge gui", once installed; available in Ubuntu default repositories) to easily merge mp4 files (or others) into single .mkv output file, with no transcoding, just muxing those files together.



Click to expand

1.3. Merging mp4 files together through command line

You can merge mp4 files into a new mp4 file in the command line with MP4Box

To install MP4Box in Ubuntu:



```
sudo apt-get install gpac
```

Navigate with the terminal to the folder containing the clips (such as Videos)

Command on a console



```
MP4Box -cat 1.mp4 -cat 2.mp4 newcombinedfile.mp4
```

1.mp4 & 2.mp4 are the full names of the video clips from the mentioned folder.
newcombinedfile.mp4 will be the resulting merged file.

1.4. Compression

Copied from: <https://vimeo.com/help/compression>^[2]



The only FLOSS program recommended in Vimeo website is Handbrake.

See: <https://vimeo.com/24008730>

Video compression

Codec: H.264

A codec is the format in which your video will be encoded. Vimeo accepts most major video codecs, but for best results we recommend using H.264. If you're uploading High Definition (HD) video, choose the High Profile H.264 setting instead of Main Profile. Advanced H.264 settings: To make your uploads extra smooth, choose the following advanced settings whenever possible.

- Closed GOP
- CABAC (to reduce your file size)

Here are some codecs that will not work on Vimeo: G2M2, G2M3, Canopus HQ.

Frame rate: 24, 25, or 30 FPS (Constant)

Vimeo accepts videos with frame rates of 24 (or 23.976), 25, and 30 (or 29.97). If you know the frame rate of your footage, it's best to encode your final video at the same frame rate. However, if your footage exceeds 30 FPS (frames per second), you should encode your video at half that frame rate. For example, if you shot at 60 FPS, you should encode your final video at 30 FPS. If you're uncertain what frame rate you shot at, set your frame rate to either "Current" or 30 FPS. If there is an option for keyframes, choose the same value you used for frame rate. Important: Always choose "constant" frame rate instead of "variable" frame rate.

Bit rate: 2,000 – 5,000 kbit/s (SD)...

(Bit rate: 2,000 – 5,000 kbit/s (SD) / 5,000 – 10,000 kbit/s (720p HD) / 10,000 – 20,000 kbit/s (1080p HD))

Bit rate (aka data rate) controls both the visual quality of the video and its file size. In most video editors, this is measured in kilobits per second (kbit/s). When you have the option, choose a "variable" bit rate and set the target to at least 2,000 kbit/s for standard definition (SD) video or 5,000 kbit/s for HD. Plus and PRO members have the option of uploading 1080p HD footage, which we recommend encoding at a bit rate of at least 10,000 kbit/s.

Resolution: 640 pixels wide (SD) or 1280 pixels wide (HD)

Common resolutions for SD video include 640 x 480 px (4:3 aspect ratio) and 640 x 360 px (16:9 aspect ratio). The most common setting for HD video is 1280 x 720 px (16:9 aspect ratio). Plus and PRO members have the option to present their videos at 1080p. 1920 x 1080 px is the most common resolution for 1080p video.

Format	Resolution	Bit rate
Standard Definition (SD)		
4:3 aspect ratio	640 x 480 px	2,000 – 5,000 kbit/s
Standard Definition (SD)		
16:9 aspect ratio	640 x 360 px	2,000 – 5,000 kbit/s
720p HD Video		
16:9 aspect ratio	1280 x 720 px	5,000 – 10,000 kbit/s
1080p HD Video (Plus/PRO)		
16:9 aspect ratio	1920 x 1080 px	10,000 – 20,000 kbit/s

Audio

Codec: AAC-LC (Advanced Audio Codec)

For best results, we recommend using AAC-LC (low complexity) for the audio codec.

Data rate: 320 kbit/s

For best results, encode your audio at constant rate of 320 kbit/s.

Sample rate: 48 kHz

For best results, set your audio sample rate to 48 kHz. If your working setting is already less than or equal to 48 kHz, leave it as is.

1.5. Other infos

1.5.1. Details from TikiFestBootstrap Video

<http://dev.tiki.org/item4997>^[3]

coprinus: /home/xavi/Videos/Tiki/socialnetworking.mov 177Mb

Converted to Webm and Chopped in 3 pieces, with Openshot on GNU/Linux:

- http://tv.tiki.org/tiki-kaltura_video.php?mediaId=0_elyomdxp
- http://tv.tiki.org/tiki-kaltura_video.php?mediaId=0_tz7pzqka
- http://tv.tiki.org/tiki-kaltura_video.php?mediaId=0_sxdo9c79

- Size: 720x450
- Codec: H.264/AVC
- 30 frames/s
- Speed: 264Kps

Audio

- Codec: MPEG-4 AAC audio
- Channels: Estèreo
- Sampling Freq. 44100 Hz
- Speed: 96 Kbps

Alias names for this page

video

^[1] <http://www.openshotvideo.com/>

^[2] <https://vimeo.com/help/compression>

^[3] <http://dev.tiki.org/item4997>