Transcoding Help

Hardware acceleration

Intel QuickSync (QSV)

Hardware acceleration requires additional configuration.

Enable hardware decoding for

- [x] H264
- [x] HEVC
- [x] MPEG2
- [ ] VC1
- [ ] VP8
- [x] VP9
- [x] AV1
- [x] HEVC 10bit
- [x] VP9 10bit

- [ ] Prefer OS native DXVA or VA-API hardware decoders

Hardware encoding options

- [x] Enable hardware encoding
- [ ] Enable Intel Low-Power H.264 hardware encoder
- [ ] Enable Intel Low-Power HEVC hardware encoder

Low-Power Encoding can keep unnecessary CPU-GPU sync. On Linux they must be disabled if the i915 HuC firmware is not configured.

Encoding format options

Select the video encoding that Jellyfin should transcode to. Jellyfin will use software encoding when hardware acceleration for the selected format is not available. H264 encoding will always be enabled.

Allow encoding in HEVC format

Allow encoding in AV1 format

Enable VPP Tone mapping

Full Intel driver based tone-mapping. Currently works only on certain hardware with HDR10 videos. This has a higher priority compared to another OpenCL implementation.

VPP Tone mapping brightness gain

16

Apply brightness gain in VPP tone mapping. The recommended and default values are 16 and 0.

VPP Tone mapping contrast gain

1

Apply contrast gain in VPP tone mapping. Both recommended and default values are 1.

Enable Tone mapping

Tone-mapping can transform the dynamic range of a video from HDR to SDR while maintaining image details and colours, which are very important information for representing the original scene. Currently works only with 10bit HDR10, HLG and DoVi videos. This requires the corresponding GPGPU runtime.

Select the Tone mapping algorithm to use

BT.2390

Tone mapping can be fine-tuned. If you are not familiar with these options, just keep the default. The recommended value is 'BT.2390'.

Tone mapping mode

Auto

Select the tone mapping mode. If you experience blown out highlights try switching to the RGB mode.

Tone mapping range

Auto

Select the output colour range. Auto is the same as the input range.

Select the output colour range. Auto is the same as the input range.

Tone mapping desat

0

Apply desaturation for highlights that exceed this level of brightness. The higher the parameter, the more colour information will be preserved. This setting helps prevent unnaturally blown-out colours for super-highlights, by (smoothly) turning into white instead. This makes images feel more natural, at the cost of reducing information about out-of-range colours. The recommended and default values are 0 and 0.5.

Tone mapping peak

100

Override signal/nominal/reference peak with this value. Useful when the embedded peak information in display metadata is not reliable or when tone mapping from a lower range to a higher range. The recommended and default values are 100 and 0.

Tone mapping param

Tune the tone mapping algorithm. The recommended and default values are NaN. Generally leave it blank.

Transcoding thread count

Auto

Select the maximum number of threads to use when transcoding. Reducing the thread count will lower CPU usage but may not convert fast enough for a smooth playback experience.

FFmpeg path

/usr/lib/jellyfin-ffmpeg/ffmpeg

The path to the FFmpeg application file or folder containing FFmpeg.

Transcode path

/var/lib/jellyfin/transcodes

Specify a custom path for the transcode files served to clients. Leave blank to use the server default.

Fallback font folder path

These fonts are used by some clients to render subtitles. Please refer to the documentation for more information.

Enable fallback fonts

Enable custom alternative fonts. This can avoid the problem of incorrect subtitle rendering.

Enable VBR audio encoding

Variable bitrate offers better quality to average bitrate ratio, but in some rare cases may cause buffering and compatibility issues.

Audio boost when downmixing

2

Boost audio when downmixing. A value of one will preserve the original volume.

Stereo Downmix Algorithm

None

Algorithm used to downmix multi-channel audio to stereo.

Max muxing queue size

2048

Maximum number of packets that can be buffered while waiting for all streams to initialize. Try to increase it if you still encounter "Too many packets buffered for output stream" error in FFmpeg logs. The recommended value is 2048.

Encoding preset

Auto

Choose a faster value to improve performance, or a slower value to improve quality.

H.265 encoding CRF

28

H.264 encoding CRF

23

The 'Constant Rate Factor' (CRF) is the default quality setting for the x264 and x265 software encoders. You can set the values between 0 and 51, where lower values would result in better quality (at the expense of higher file sizes). Sane values are between 18 and 28. The default for x264 is 23, and for x265 is 28, so you can use this as a starting point. Hardware encoders do not use these settings.

Deinterlacing method

YADIF

Select the deinterlacing method to use when software transcoding interlaced content. When hardware acceleration supporting hardware deinterlacing is enabled the hardware deinterlacer will be used instead of this setting.

Double the frame rate when deinterlacing

This setting uses the field rate when deinterlacing, often referred to as bob deinterlacing, which doubles the frame rate of the video to provide full motion like what you would see when viewing interlaced video on a TV.

Allow subtitle extraction on the fly

Embedded subtitles can be extracted from videos and delivered to clients in plain text, in order to help prevent video transcoding. On some systems this can take a long time and cause video playback to stall during the extraction process. Disable this to have embedded subtitles burned in with video transcoding when they are not natively supported by the client device.

Throttle Transcodes

When a transcode or remux gets far enough ahead from the current playback position, pause the process so it will consume fewer resources. This is most useful when watching without seeking often. Turn this off if you experience playback issues.

Delete segments

Delete old segments after they have been downloaded by the client. This prevents having to store the entire transcoded file on disk. Turn this off if you experience playback issues.

Throttle after

180

Time in seconds after which the transcoder will be throttled. Must be large enough for the client to maintain a healthy buffer. Only works if throttling is enabled.

Time to keep segments

720

Time in seconds for which segments should be kept after they are downloaded by the client. Only works if segment deletion is enabled.

Save