

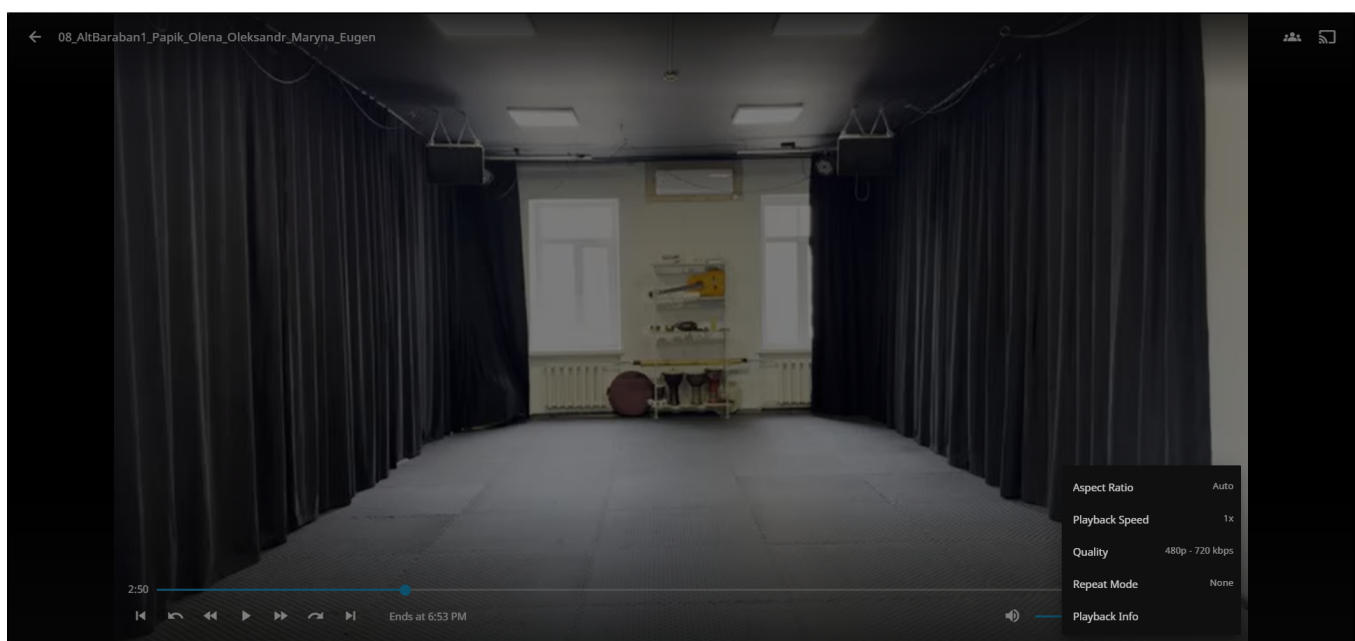
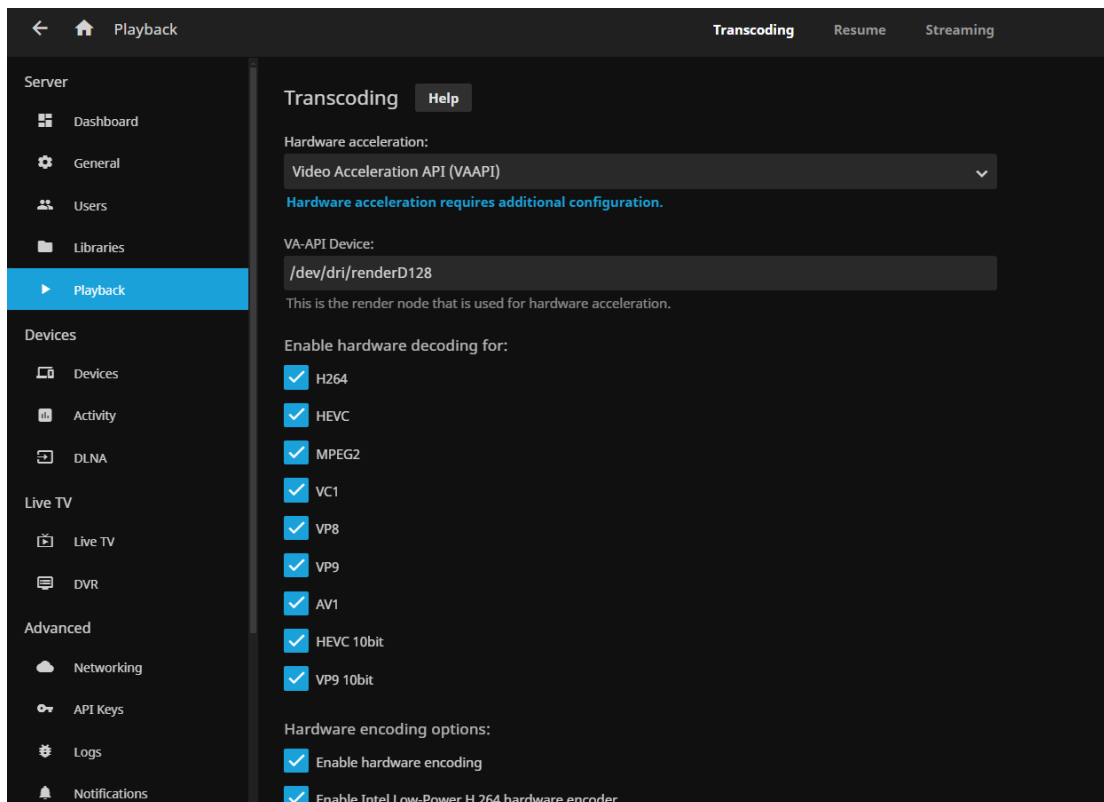
jellyfin

1. Install Ubuntu 22.04 server
2. execute install-debuntu.sh

That is kind of it.

```
curl -s https://repo.jellyfin.org/install-debuntu.sh | sudo bash
```

just go to server IP:8096 and add media folder + enable HW acceleration for transcoding for my Intel N200 VA-API works and QSV is not.



some additional

```
apt install intel-gpu-tools
```

is not necessary. but just to verify that hardware acceleration is in use

transcoding uses jellyfin-ffmpeg with vaapi on Alder Lake (N200) CPU/GPU

```
/usr/lib/jellyfin-ffmpeg/ffmpeg -analyzeduration 200M -init_hw_device vaapi=va:/dev/dri/renderD128 -
filter_hw_device va -hwaccel vaapi -hwaccel_output_format vaapi -autorotate 0 -i file:/MEDIA
/08_AltBaraban1_Papik_Olena_Oleksandr_Maryna_Eugen.MOV -autoscale 0 -map_metadata -1 -map_chapters -1 -threads
0 -map 0:0 -map 0:1 -map -0:s -codec:v:0 h264_vaapi -rc_mode VBR -b:v 14271295 -maxrate 14271295 -bufsize
28542590 -force_key_frames:0 expr:gte(t,0+n_forced*3) -vf setparams=color_primaries=bt709:color_trc=bt709:
colorspace=bt709,scale_vaapi=format=nv12:extra_hw_frames=24 -codec:a:0 copy -copyts -avoid_negative_ts disabled
-max_muxing_queue_size 2048 -f hls -max_delay 5000000 -hls_time 3 -hls_segment_type mpegts -start_number 0 -
hls_segment_filename /var/lib/jellyfin/transcodes/6f162565acdd866e6c6f77c907b52c8e%d.ts -hls_playlist_type vod -
hls_list_size 0 -y /var/lib/jellyfin/transcodes/6f162565acdd866e6c6f77c907b52c8e.m3u8
```

```
intel-gpu-top: 8086:46d0 @ /dev/dri/card0 - 749/ 749 MHz; 0% RC6; 0.95/ 4.28 W; 785 irqs/s

          ENGINES
BUSY
MI_SEMA MI_WAIT
          Render/3D 61.39% |
          Blitter 0.00%
|
| 0% 0%
          Video 74.57% |
          VideoEnhance 38.07%
|
0% 0%
```

similar command on Core i7-10710U (Ubuntu 22.0, ffmpeg version 4.4.2-0)

```
ffmpeg -init_hw_device vaapi=va:/dev/dri/renderD128 -filter_hw_device va -hwaccel vaapi -hwaccel_output_format
vaapi -i /mnt/11_Baraban_ArtGallery_Zhenia_Olena_Sasha_Katia.MOV -map_metadata -1 -map_chapters -1 -threads 0 -
map 0:0 -map 0:1 -map -0:s -codec:v:0 h264_vaapi -rc_mode VBR -b:v 4000000 -maxrate 8000000 -bufsize 28542590 -
vf "setparams=color_primaries=bt709:color_trc=bt709:colorspace=bt709,scale_vaapi=format=nv12:
extra_hw_frames=24" -codec:a:0 copy /mnt/11_Baraban_ArtGallery_Zhenia_Olena_Sasha_Katia_jf_vaapi_vbr4_8_nuc.mp4
```

```
frame=36683 fps=219 q=-0.0 Lsize= 617697kB time=00:20:22.76 bitrate=4138.3kbits/s dup=3 drop=0 speed= 7.3x
video:589765kB audio:26726kB subtitle:0kB other streams:0kB global headers:0kB muxing overhead: 0.195641%
```

```
intel-gpu-top: Intel Cometlake (Gen9) @ /dev/dri/card0 - 1147/1148 MHz; 3% RC6; 6.15/11.22 W; 2646 irqs/s

IMC reads: 7083 MiB/s
IMC writes: 3146 MiB/s

ENGINES BUSY MI_SEMA
MI_WAIT
Render/3D 46.01% | 3% 0%
Blitter 0.00% | 0%
0%
Video 79.59% | 20% 0%
VideoEnhance 23.04% | 0% 0%
```

to check some VA-API info

```
apt install vainfo
```

it looks like

```

root@n200:~# vainfo

libva info: VA-API version 1.14.0
libva info: Trying to open /usr/lib/x86_64-linux-gnu/dri/iHD_drv_video.so
libva info: Found init function __vaDriverInit_1_14
libva info: va_openDriver() returns 0
vainfo: VA-API version: 1.14 (libva 2.12.0)
vainfo: Driver version: Intel iHD driver for Intel(R) Gen Graphics - 22.3.1 ( )
vainfo: Supported profile and entrypoints
    VAProfileNone                : VAEntrypointVideoProc
    VAProfileNone                : VAEntrypointStats
    VAProfileMPEG2Simple          : VAEntrypointVLD
    VAProfileMPEG2Main           : VAEntrypointVLD
    VAProfileH264Main            : VAEntrypointVLD
    VAProfileH264Main            : VAEntrypointEncSliceLP
    VAProfileH264High            : VAEntrypointVLD
    VAProfileH264High            : VAEntrypointEncSliceLP
    VAProfileJPEGBaseline         : VAEntrypointVLD
    VAProfileJPEGBaseline         : VAEntrypointEncPicture
    VAProfileH264ConstrainedBaseline: VAEntrypointVLD
    VAProfileH264ConstrainedBaseline: VAEntrypointEncSliceLP
    VAProfileVP8Version0_3        : VAEntrypointVLD
    VAProfileHEVCMain            : VAEntrypointVLD
    VAProfileHEVCMain            : VAEntrypointEncSliceLP
    VAProfileHEVCMain10          : VAEntrypointVLD
    VAProfileHEVCMain10          : VAEntrypointEncSliceLP
    VAProfileVP9Profile0          : VAEntrypointVLD
    VAProfileVP9Profile0          : VAEntrypointEncSliceLP
    VAProfileVP9Profile1         : VAEntrypointVLD
    VAProfileVP9Profile1         : VAEntrypointEncSliceLP
    VAProfileVP9Profile2         : VAEntrypointVLD
    VAProfileVP9Profile2         : VAEntrypointEncSliceLP
    VAProfileVP9Profile3         : VAEntrypointVLD
    VAProfileVP9Profile3         : VAEntrypointEncSliceLP
    VAProfileHEVCMain12          : VAEntrypointVLD
    VAProfileHEVCMain422_10       : VAEntrypointVLD
    VAProfileHEVCMain422_12       : VAEntrypointVLD
    VAProfileHEVCMain444         : VAEntrypointVLD
    VAProfileHEVCMain444         : VAEntrypointEncSliceLP
    VAProfileHEVCMain444_10       : VAEntrypointVLD
    VAProfileHEVCMain444_10       : VAEntrypointEncSliceLP
    VAProfileHEVCMain444_12       : VAEntrypointVLD
    VAProfileHEVCSccMain         : VAEntrypointVLD
    VAProfileHEVCSccMain         : VAEntrypointEncSliceLP
    VAProfileHEVCSccMain10        : VAEntrypointVLD
    VAProfileHEVCSccMain10        : VAEntrypointEncSliceLP
    VAProfileHEVCSccMain444       : VAEntrypointVLD
    VAProfileHEVCSccMain444       : VAEntrypointEncSliceLP
    VAProfileAV1Profile0          : VAEntrypointVLD
    VAProfileHEVCSccMain444_10     : VAEntrypointVLD
    VAProfileHEVCSccMain444_10     : VAEntrypointEncSliceLP

```