

FFMEPG .MOV to .MP4

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This command only changes the container, it does not transcode the video/audio. This is useful when you want to convert MKV files (which are mp4 anyway) to MP4 without transcoding and wasting loads of time. You may have to transcode the audio to make them compliant.

```
ffmpeg -i in.mov -vcodec copy -acodec copy out.mp4
```

To specify bit rates:

```
ffmpeg -i input.mov -b:v 1M -b:a 192k output.mp4
```

This example converts a .MOV input file, to a h264 output file at 300Mbs.

```
ffmpeg.exe -i sourcefile.mov -vcodec h264 -b:v 300M -b:a 240K outputfile.mp4
```

It's important to get the files correct, initially I specified .mpg on the output and had pages and pages of errors, when I changed the output to .mp4 it worked perfectly with 0 errors.

If you are getting juddery video you can try adding the -vsync 0 switch.

```
ffmpeg.exe -i sourcefile.mov -vcodec h264 -b:v 300M -b:a 240K outputfile.mp4 -vsync 0
```

The output from this was:

```
ffmpeg version N-82597-gd316b21 Copyright (c) 2000-2016 the FFmpeg developers
  built with gcc 5.4.0 (GCC)
  configuration: --enable-gpl --enable-version3 --disable-w32threads --enable-dxva2 --enable-libmfx --
enable-nvenc --ena
ble-avisynth --enable-bzlib --enable-fontconfig --enable-frei0r --enable-gnutls --enable-iconv --enable-
libass --enable-
libbluray --enable-libbs2b --enable-libcaca --enable-libfreetype --enable-libgme --enable-libgsm --
enable-libilbc --enab
le-libmodplug --enable-libmp3lame --enable-libopencore-amrnb --enable-libopencore-amrwb --enable-
libopenh264 --enable-li
bopenjpeg --enable-libopus --enable-librtmp --enable-libschrödinger --enable-libsnappy --enable-libsoxr
--enable-lspspe
ex --enable-libtheora --enable-libtwolame --enable-libvidstab --enable-libvo-amrwbenc --enable-libvorbis
--enable-libvpx
--enable-libwavpack --enable-libwebp --enable-libx264 --enable-libx265 --enable-libxavs --enable-
libxvid --enable-libzi
mg --enable-lzma --enable-decklink --enable-zlib
  libavutil      55. 40.100 / 55. 40.100
  libavcodec     57. 66.106 / 57. 66.106
  libavformat    57. 58.100 / 57. 58.100
  libavdevice    57.  2.100 / 57.  2.100
  libavfilter     6. 67.100 /  6. 67.100
  libswscale     4.  3.101 /  4.  3.101
  libswresample  2.  4.100 /  2.  4.100
  libpostproc   54.  2.100 / 54.  2.100
Input #0, mov,mp4,m4a,3gp,3g2,mj2, from 'falun_1080_50.mov':
Metadata:
```

```
creation_time : 2015-02-24T13:36:55.000000Z
Duration: 00:04:31.40, start: 0.000000, bitrate: 364409 kb/s
Stream #0:0(eng): Video: prores (apch / 0x68637061), yuv422p10le(bt709, progressive), 1920x1080,
364404 kb/s, SAR 1:
1 DAR 16:9, 50 fps, 50 tbr, 50 tbn, 50 tbc (default)
Metadata:
creation_time : 2015-02-24T13:36:55.000000Z
handler_name : Apple Alias Data Handler
encoder : Apple ProRes 422 HQ
timecode : 01:00:00:00
Stream #0:1(eng): Data: none (tmcd / 0x64636D74) (default)
Metadata:
creation_time : 2015-02-24T13:47:36.000000Z
handler_name : Apple Alias Data Handler
timecode : 01:00:00:00
No pixel format specified, yuv422p for H.264 encoding chosen.
Use -pix_fmt yuv420p for compatibility with outdated media players.
[libx264 @ 000000000065bb60] using SAR=1/1
[libx264 @ 000000000065bb60] using cpu capabilities: MMX2 SSE2Fast SSSE3 SSE4.2 AVX
[libx264 @ 000000000065bb60] profile High 4:2:2, level 5.1, 4:2:2 8-bit
[libx264 @ 000000000065bb60] 264 - core 148 r2721 72d53ab - H.264/MPEG-4 AVC codec - Copyleft 2003-2016
- http://www.vid
eolan.org/x264.html - options: cabac=1 ref=3 deblock=1:0:0 analyse=0x3:0x113 me=hex subme=7 psy=1
psy_rd=1.00:0.00 mixed
_ref=1 me_range=16 chroma_me=1 trellis=1 8x8dct=1 cqm=0 deadzone=21,11 fast_pskip=1 chroma_qp_offset=-2
threads=6 lookahead
ead_threads=1 sliced_threads=0 nr=0 decimate=1 interlaced=0 bluray_compat=0 constrained_intra=0
bframes=3 b_pyramid=2 b_
adapt=1 b_bias=0 direct=1 weightb=1 open_gop=0 weightp=2 keyint=250 keyint_min=25 scenecut=40
intra_refresh=0 rc_lookahe
ad=40 rc=abr mbtree=1 bitrate=300000 ratetol=1.0 qcomp=0.60 qpmin=0 qpmay=69 qpstep=4 ip_ratio=1.40
aq=1:1.00
Output #0, mp4, to 'falun2.mp4':
Metadata:
encoder : Lavf57.58.100
Stream #0:0(eng): Video: h264 (libx264) ([33][0][0][0] / 0x0021), yuv422p, 1920x1080 [SAR 1:1 DAR
16:9], q=-1--1, 30
0000 kb/s, 50 fps, 12800 tbn, 50 tbc (default)
Metadata:
creation_time : 2015-02-24T13:36:55.000000Z
handler_name : Apple Alias Data Handler
timecode : 01:00:00:00
encoder : Lavc57.66.106 libx264
Side data:
cpb: bitrate max/min/avg: 0/0/300000000 buffer size: 0 vbv_delay: -1
Stream mapping:
Stream #0:0 -> #0:0 (prores (native) -> h264 (libx264))
Press [q] to stop, [?] for help
frame=13570 fps=3.3 q=-1.0 Lsize=10188596kB time=00:04:31.34 bitrate=307602.8kb/s speed=0.066x
video:10188308kB audio:0kB subtitle:0kB other streams:0kB global headers:0kB muxing overhead: 0.002818%
[libx264 @ 000000000065bb60] frame I:69 Avg QP: 0.45 size:1563111
[libx264 @ 000000000065bb60] frame P:3420 Avg QP: 1.23 size:1243319
[libx264 @ 000000000065bb60] frame B:10081 Avg QP: 3.03 size:602403
[libx264 @ 000000000065bb60] consecutive B-frames: 0.8% 0.2% 0.5% 98.5%
[libx264 @ 000000000065bb60] mb I I16..4: 16.3% 25.5% 58.3%
[libx264 @ 000000000065bb60] mb P I16..4: 4.5% 11.8% 14.7% P16..4: 23.5% 24.6% 20.1% 0.0% 0.0%
skip: 0.7%
[libx264 @ 000000000065bb60] mb B I16..4: 1.0% 4.0% 3.0% B16..8: 24.3% 7.7% 6.8% direct:19.2%
skip:34.0% L0:31
.9% L1:21.0% BI:47.0%
[libx264 @ 000000000065bb60] final ratefactor: -2.95
[libx264 @ 000000000065bb60] 8x8 transform intra:42.6% inter:39.7%
[libx264 @ 000000000065bb60] coded y,uvDC,uvAC intra: 98.9% 99.5% 99.3% inter: 68.0% 64.4% 64.2%
[libx264 @ 000000000065bb60] i16 v,h,dc,p: 8% 10% 58% 23%
[libx264 @ 000000000065bb60] i8 v,h,dc,ddl,ddr,vr,hd,vl,hu: 16% 18% 38% 4% 4% 4% 5% 4% 7%
[libx264 @ 000000000065bb60] i4 v,h,dc,ddl,ddr,vr,hd,vl,hu: 17% 16% 19% 8% 9% 8% 9% 7% 9%
[libx264 @ 000000000065bb60] i8c dc,h,v,p: 60% 11% 22% 7%
[libx264 @ 000000000065bb60] Weighted P-Frames: Y:0.2% UV:0.0%
[libx264 @ 000000000065bb60] ref P L0: 47.1% 13.3% 22.3% 17.2% 0.0%
[libx264 @ 000000000065bb60] ref B L0: 79.7% 14.0% 6.3%
```

```
[libx264 @ 000000000065bb60] ref B L1: 94.7% 5.3%  
[libx264 @ 000000000065bb60] kb/s:307526.22
```

—

```
ffmpeg -i /media/echrdux/Lexar/1_UHD_4HD.ts -c copy -map i:0x3ea 1_UHD_4HD_uhdstream.mp4
```

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