HandBrake CLI Video transcoder

START HERE

HandBrakeCLI -i *<in>* -o *<out.mp4>*
Encode with defaults

HandBrakeCLI -i *<in>* -o *<out.mp4>* -Z "Fast 1080p30"
Use a preset

HandBrakeCLI -z
List presets

HandBrakeCLI -i *<in>* -t 0
Scan titles and tracks

HandBrakeCLI -i *<in>* -o *<out.mkv>* -e x265 -q 22
Pick encoder and quality

HandBrakeCLI -i *<in>* -o *<out.mp4>* -a 1,2 -E av_aac
Choose audio tracks

HandBrakeCLI -i *<in>* -o *<out.mp4>* -s 1 --subtitle-burned
Burn in subtitles

HandBrakeCLI -i *<disc>* --main-feature -o *<out.mkv>*
Rip the main title

Source -i file or disc → **-t / -c** → **Title** chapters, tracks → **filters, size** → **Picture** crop, scale, deinterlace → **-e / -q** → **Encode** video, audio, subs → **-f** → **Output** mp4 / mkv / webm

CONCEPTS

Pick a preset first, then override single options after it; the preset only sets defaults.

Constant quality (-q) beats a fixed bitrate for most files; lower numbers mean better quality and bigger files.

Progress goes to stderr, so redirect it (2>/dev/null) in scripts and use --json for machine-readable output.

BASICS

HandBrakeCLI -i *<in>* -o *<out>*
Encode a file
The container follows the output extension unless -f is given.

-Z *<preset>*
Use a preset by name
Names are case-sensitive; quote names with spaces.

-z
List all presets

--preset-import-file *<file.json>*
Import a preset file

-f *<format>*
Set container (av_mp4, av_mkv, av_webm)

-O
Optimize MP4 for web streaming

--json
Print machine-readable progress

-v *<level>*
Set log verbosity

SOURCE AND TITLES

-t 0
Scan all titles, then exit

--scan
Scan only the chosen title

-t *<n>*
Encode title number n

--main-feature
Auto-select the main title

-c *<a-b>*
Encode only chapters a to b

SOURCE AND TITLES (cont.)

--min-duration *<s>*
Ignore titles shorter than s seconds

--previews *<n:save>*
Set preview count and saving

--start-at *<unit:n>* --stop-at *<unit:n>*
Encode a time range
Units are duration, frames or pts, e.g. --stop-at duration:60.

VIDEO

-e *<encoder>*
Choose video encoder
Common: x264, x265, svt_av1, VP9; hardware ones need matching GPU support.

-q *<rf>*
Constant quality value

-b *<kbps>*
Average video bitrate

--multi-pass
Use two-pass encoding with -b

--encoder-preset *<name>*
Set speed/efficiency preset

--encoder-tune *<name>*
Tune for content type

--encoder-profile *<name>*
Force encoder profile

--encoder-level *<lvl>*
Force encoder level

--encoder-preset-list *<encoder>*
List presets of an encoder

-r *<fps>* --cfr
Constant frame rate

--vfr
Variable frame rate

--pfr -r *<fps>*
Cap frame rate (peak)

-x *<opt=val:opt=val>*
Pass raw encoder options

--enable-hw-decoding *<type>*
Use hardware decode (nvdec, qsv)

PICTURE

-w *<px>* -l *<px>*
Set width and height

-X *<px>* -Y *<px>*
Limit maximum width and height

PICTURE (cont.)

--crop-mode *<mode>*
Crop: auto, conservative, none, custom

--crop *<t:b:l:r>*
Crop by pixel amounts

--rotate *<angle>*
Rotate 90, 180 or 270 degrees
Use --rotate=angle=90:hflip=1 to also flip.

--keep-display-aspect
Preserve display aspect ratio

--non-anamorphic
Use square pixels

FILTERS

--deinterlace
Deinterlace with yadif

--decomb
Deinterlace only combed frames

--comb-detect
Detect combing before filtering

--detelecine
Undo 3:2 pulldown

--hqdn3d *<preset>*
Denoise (ultralight to strong)

--nlmeans *<preset>*
High-quality slow denoise

--lapsharp
Sharpen with Laplacian filter

--deblock *<preset>*
Remove blocking artifacts

--deband
Reduce color banding

AUDIO

-a *<list>*
Select audio tracks (1,2 or none)

-E *<encoder>*
Audio encoder (av_aac, opus, ac3, copy)
Use copy:ac3 or similar to pass a track through untouched.

-B *<kbps>*
Audio bitrate per track

-6 *<mixdown>*
Mixdown: mono, stereo, 5point1

--all-audio
Take all tracks in the language list

--audio-lang-list *<codes>*
Filter audio by language code

AUDIO (cont.)

--first-audio
First track per listed language

-D *<value>*
Dynamic range compression

SUBTITLES AND CHAPTERS

-s *<list>*
Select subtitle tracks (1,2 or none)

--subtitle-burned[=n]
Burn a subtitle track into the video

--subtitle-default[=n]
Mark a track as default

-F[=n]
Show forced subtitles only

--subtitle-lang-list *<codes>*
Filter subtitles by language

--all-subtitles
Take all subtitles in language list

--srt-file *<file>*
Add an external SRT file

--srt-lang *<code>*
Language of the SRT file

-m
Add chapter markers

RECIPES

Small MKV, HEVC

```
HandBrakeCLI -i movie.mkv -o
small.mkv \
 -e x265 -q 24 --encoder-preset
slow \
 -a 1 -E opus -B 128
```

Batch a folder

```
for f in *.mkv; do
HandBrakeCLI -i "$f" -o
"${f%.mkv}.mp4" \
  -Z "Fast 1080p30" </dev/null
done
```

DVD to MKV with subtitles

```
HandBrakeCLI -i /dev/sr0 --main-
feature \
  -o movie.mkv -e x264 -q 20 \
  --audio-lang-list eng --all-
audio \
  --subtitle-lang-list eng --
all-subtitles
```

Upload-ready 720p MP4

```
HandBrakeCLI -i in.mov -o
out.mp4 -e x264 -q 23 \
  -X 1280 -Y 720 -O -a 1 -E
av_aac -B 160
```