

Description

Shotcut 21.03.21

I have a source video that is 720x406 resolution. It has a perfect 16:9 proportions using non-square pixels (PAR 406:405).

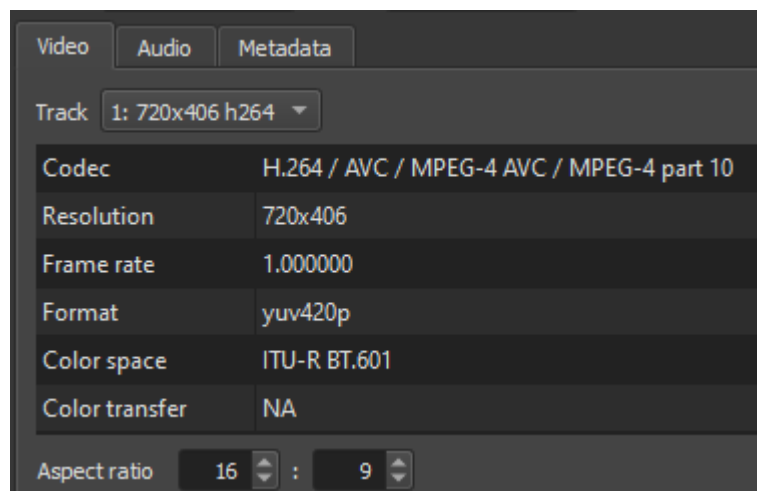
I want to clean it up with filters and export as h.264 lossless at the original resolution and scaling. Meaning no spatial interpolation (i.e. to preserve detail).

Shotcut exports it with the wrong proportions. It also adds 2px padding to the right side.

I made a dummy mp4 source that is able to reproduce the problem. Used Avidemux to convert a 720x406 BMP to h.264. Used MyMP4Box to force PAR 406:405.

Video Mode is automatic

SC Source properties

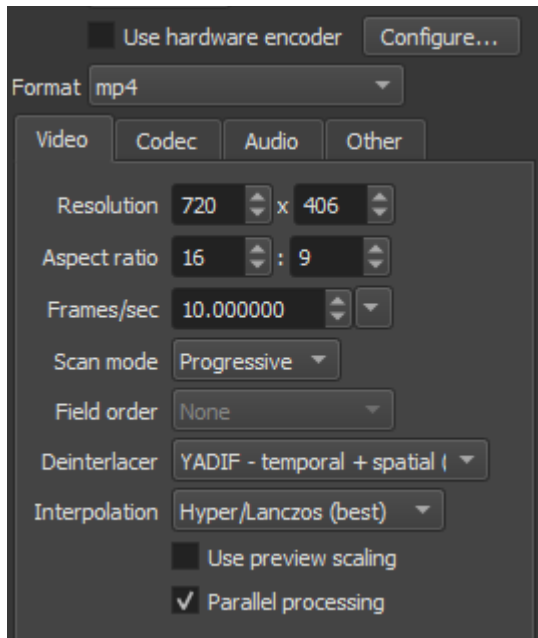


The screenshot shows the 'SC Source properties' dialog box in Shotcut, with the 'Video' tab selected. The 'Track' dropdown is set to '1: 720x406 h264'. Below this is a table of video properties:

Codec	H.264 / AVC / MPEG-4 AVC / MPEG-4 part 10
Resolution	720x406
Frame rate	1.000000
Format	yuv420p
Color space	ITU-R BT.601
Color transfer	NA

At the bottom, the 'Aspect ratio' is set to '16 : 9' using spinners.

SC Export Properties



SC encode Log

plugin_mgr_get_object_file_plugins: error opening shared object file 'C:\Utils\shotcut-win64-210321\lib\ladspa\AUTHORS': "C:\Utils\shotcut-win64-210321\lib\ladspa\AUTHORS": The specified module could not be found.

plugin_mgr_get_object_file_plugins: error opening shared object file 'C:\Utils\shotcut-win64-210321\lib\ladspa\COPYING': "C:\Utils\shotcut-win64-210321\lib\ladspa\COPYING": The specified module could not be found.

plugin_mgr_get_object_file_plugins: error opening shared object file 'C:\Utils\shotcut-win64-210321\lib\ladspa\readme.txt': "C:\Utils\shotcut-win64-210321\lib\ladspa\readme.txt":

[libx264 @ 000001a9961ad900] using SAR=255/254

[h264 @ 000001a995c3de80] Reinit context to 720x416, pix_fmt: yuv420p

[libx264 @ 000001a9961ad900] using cpu capabilities: MMX2 SSE2Fast SSSE3 SSE4.2 AVX FMA3 BMI2 AVX2

[h264 @ 000001a9963573c0] Reinit context to 720x416, pix_fmt: yuv420p

[libx264 @ 000001a9961ad900] profile High 4:4:4 Predictive, level 2.2, 4:2:0, 8-bit

[libx264 @ 000001a9961ad900] 264 - core 159 r2991M 1771b55 - H.264/MPEG-4 AVC codec -

Copyright 2003-2019 - <http://www.videolan.org/x264.html> - options: cabac=1 ref=3

deblock=1:0:0 analyse=0x3:0x113 me=hex subme=7 psy=0 mixed_ref=1 me_range=16 chroma_me=1

trellis=0 8x8dct=1 cqm=0 deadzone=21,11 fast_pskip=0 chroma_qp_offset=0 threads=13

lookahead_threads=2 sliced_threads=0 nr=0 decimate=1 interlaced=0 bluray_compat=0

constrained_intra=0 bframes=0 weightp=2 keyint=25 keyint_min=2 scenecut=40 intra_refresh=0

rc=cqp mbtree=0 qp=0

[AVIOContext @ 000001a995c3c180] Statistics: 1819 bytes read, 0 seeks

[producer avformat-novalidate] D:/720x406.mp4-muxed.mp4

missing hwaccel parameters. skipping hardware initialization

[producer avformat-novalidate] D:/720x406.mp4-muxed.mp4

checking VFR: pkt.duration 1000

```
[h264 @ 000001a996358f40] Reinit context to 720x416, pix_fmt: yuv420p
[swscaler @ 000001a99e213cc0] Warning: data is not aligned! This can lead to a speed loss
[mp4 @ 000001a995c3adc0] Using AVStream.codec to pass codec parameters to muxers is deprecated, use AVStream.codecpar instead.
```

```
[libx264 @ 000001a9961ad900] frame I:1 Avg QP: 0.00 size: 414
[libx264 @ 000001a9961ad900] mb I I16..4: 99.8% 0.0% 0.2%
[libx264 @ 000001a9961ad900] 8x8 transform intra:0.0%
[libx264 @ 000001a9961ad900] coded y,uvDC,uvAC intra: 0.0% 0.2% 0.2%
[libx264 @ 000001a9961ad900] i16 v,h,dc,p: 96% 0% 4% 0%
[libx264 @ 000001a9961ad900] i4 v,h,dc,ddl,ddr,vr,hd,vl,hu: 9% 3% 88% 0% 0% 0% 0% 0% 0%
[libx264 @ 000001a9961ad900] i8c dc,h,v,p: 98% 0% 2% 0%
[libx264 @ 000001a9961ad900] kb/s:33.12
[AVIOContext @ 000001a995c3b440] Statistics: 2 seeks, 4 writeouts
Completed successfully in 00:00:00
```

ffprobe dummy sample source

```
Input #0, mov,mp4,m4a,3gp,3g2,mj2, from 'd:\720x406.mp4-muxed.mp4':
Metadata:
  major_brand      : isom
  minor_version    : 1
  compatible_brands: isom
  creation_time    : 2021-04-20 03:37:43
  encoder          : My MP4Box GUI 0.6.0.6 <http://my-mp4box-gui.zymichost.com>
Duration: 00:00:00.04, start: 0.000000, bitrate: 363 kb/s
Stream #0:0(und): Video: h264 (High 4:4:4 Predictive) (avc1 / 0x31637661), yuv420p,
720x406 [SAR 406:405 DAR 16:9], 7 kb/s, 1 fps, 1 tbr, 25k tbn, 50 tbc (default)
Metadata:
  handler_name     : 720x406.mp4
```

ffprobe original source

```
Input #0, asf, from 'd:\original.wmv':
Metadata:
  IsVBR           : 0
  WM/ToolName      : Flip4Mac WMV Export Component for QuickTime (Mac)
  WM/ToolVersion   : 2211
Duration: 00:30:51.88, start: 0.000000, bitrate: 1554 kb/s
Stream #0:0: Audio: wma2 (a[1][0][0] / 0x0161), 44100 Hz, 2 channels, fltp, 48 kb/s
Stream #0:1: Video: wmv3 (Main) (WMV3 / 0x33564D57), yuv420p, 720x406, 1497 kb/s, SAR
406:405 DAR 16:9, 30 fps, 30 tbr, 1k tbn, 1k tbc
```

ffprobe SC export dummy sample

```
Input #0, mov,mp4,m4a,3gp,3g2,mj2, from 'd:\720x406 sc output.mp4':
Metadata:
  major_brand      : isom
  minor_version    : 512
  compatible_brands: isomiso2avc1mp41
  encoder          : Lavf58.29.100
Duration: 00:00:00.10, start: 0.000000, bitrate: 141 kb/s
```

Stream #0:0(und): Video: h264 (High 4:4:4 Predictive) (avc1 / 0x31637661), yuv420p(tv, smpte170m), 720x406 [SAR 255:254 DAR 45900:25781], 75 kb/s, 10 fps, 10 tbr, 10000k tbn, 20 tbc (default)
Metadata:
handler_name : VideoHandler

SC output interpreted by Handbrake

The screenshot shows the 'Dimensions' tab in Handbrake. The 'Size' section has 'Source: 720x406, PAR: 255/254' circled in red. A yellow callout box labeled 'wrong PAR' points to this. Below are 'Width: 718' and 'Height: 406'. 'Anamorphic' is set to 'Loose' and 'Modulus' to '2'. The 'Output' section shows 'Display Size: 721x406, PAR 255x254'. The 'Cropping' section has 'Automatic' selected. A yellow callout box labeled 'padding' points to the 'Right' crop value of '2', which is also circled in red. The 'Left' and 'Bottom' crop values are '0'.

Tab	Summary	Dimensions	Filters	Video	Audio	Subtitles	Chapters
Size							
Source:	720x406, PAR: 255/254						
Width:	718		Height: 406				
Anamorphic:	Loose						
Modulus:	2						
Output	Display Size: 721x406, PAR 255x254						
Cropping	<input checked="" type="radio"/> Automatic <input type="radio"/> Custom						
Left	0		Right: 2				
Bottom	0						