

## S3 - STREAMING & FINAL EXERCISES

- 1) - Convert them into VP8, VP9, h265 & AV1. You can use the script that allows you to transform, or create a new script.

```
MacBook-MacBook-Pro-de-Xavier:~ xaviercelades$ cd Desktop/Uni/SCAV/Seminar3
MacBook-MacBook-Pro-de-Xavier:Seminar3 xaviercelades$ python S3_ex1.py
```

```
Input #0, mov,mp4,m4a,3gp,3g2,mj2, from '480p_res.mp4':
```

```
Output #0, mp4, to '480p_h265.mp4':
```

```
Metadata:
  major_brand      : isom
  minor_version    : 512
  compatible_brands: isomiso2avc1mp41
  title           : Big Buck Bunny, Sunflower version
  artist          : Blender Foundation 2008, Janus Bager Kristensen 2013
  composer        : Sacha Goedegebure
  genre           : Animation
  comment         : Creative Commons Attribution 3.0 - http://bbb3d.renderfarm
ing.net
  encoder         : Lavf58.64.100
  Stream #0:0(und): Video: hevc (libx265) (hev1 / 0x31766568), yuv420p(progres
sive), 1280x720 [SAR 1:1 DAR 16:9], q=-1--1, 60 fps, 15360 tbn, 60 tbc (default)
```

```
Output #0, webm, to '480p_VP8.webm':
```

```
Metadata:
  major_brand      : isom
  minor_version    : 512
  compatible_brands: isomiso2avc1mp41
  title           : Big Buck Bunny, Sunflower version
  artist          : Blender Foundation 2008, Janus Bager Kristensen 2013
  composer        : Sacha Goedegebure
  genre           : Animation
  comment         : Creative Commons Attribution 3.0 - http://bbb3d.renderfarm
```

```
Output #0, webm, to '480p_VP9.webm':
```

```
Metadata:
  major_brand      : isom
  minor_version    : 512
  compatible_brands: isomiso2avc1mp41
  title           : Big Buck Bunny, Sunflower version
  artist          : Blender Foundation 2008, Janus Bager Kristensen 2013
  composer        : Sacha Goedegebure
  genre           : Animation
  comment         : Creative Commons Attribution 3.0 - http://bbb3d.renderfarm
```

480p_h265.mp4	ahir, 18:38
480p_res.mp4	17 nov 2020, 19:23
480p_VP8.webm	ahir, 18:38
480p_VP9.webm	ahir, 18:50

 480p_AV1.mkv	avui, 15:01	1,7 MB
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2) - Once you have the 'mandanga', try to create a new video as the one of the 4 videos at the same time we saw in class, and please analyze by yourself and comment how these codecs work at each bitrate



<https://github.com/celades5/SCAV-Seminar-3>

3) - Try to achieve with FFserver or FFMPEG to create a live streaming of the BBB Video. You should broadcast it into an IP address (locally of course) and open this IP or URL inside VLC Media Player

```
Input #0, mov,mp4,m4a,3gp,3g2,mj2, from 'messi1.mp4':
  Metadata:
    major_brand      : isom
    minor_version    : 512
    compatible_brands: isomiso2avc1mp41
    title            : Real Madrid vs Barcelona 2-3 All Goals and Full Highlight
s English Commentary 23-04-2017 HD
    artist           : Henias
    date             : 20170427
    encoder          : Lavf58.64.100
    comment          : Real Madrid vs Barcelona All Goals and Full Highlights | 2
3-04-2017 HD
```

```
Press [q] to stop, [?] for help
frame= 1 fps=0.0 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=1.0 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.7 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.5 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.4 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.3 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.3 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.2 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 1 fps=0.2 q=-1.0 size= 83kB time=00:00:04.77 bitrate= 142.9kbits/
frame= 10 fps=2.0 q=-1.0 size= 202kB time=00:00:05.07 bitrate= 325.6kbits/
frame= 25 fps=4.5 q=-1.0 size= 375kB time=00:00:05.57 bitrate= 551.4kbits/
frame= 40 fps=6.6 q=-1.0 size= 550kB time=00:00:06.07 bitrate= 741.1kbits/
frame= 55 fps=8.4 q=-1.0 size= 740kB time=00:00:06.57 bitrate= 921.1kbits/
frame= 70 fps=9.9 q=-1.0 size= 936kB time=00:00:07.07 bitrate=1082.9kbits/
frame= 85 fps= 11 q=-1.0 size= 1114kB time=00:00:07.57 bitrate=1204.1kbits/
frame= 101 fps= 12 q=-1.0 size= 1342kB time=00:00:08.11 bitrate=1355.5kbits/
frame= 116 fps= 14 q=-1.0 size= 1519kB time=00:00:08.61 bitrate=1444.8kbits/
frame= 131 fps= 14 q=-1.0 size= 1726kB time=00:00:09.11 bitrate=1551.3kbits/
frame= 146 fps= 15 q=-1.0 size= 1900kB time=00:00:09.61 bitrate=1619.2kbits/
frame= 161 fps= 16 q=-1.0 size= 2134kB time=00:00:10.11 bitrate=1728.2kbits/
frame= 177 fps= 17 q=-1.0 size= 2391kB time=00:00:10.64 bitrate=1839.7kbits/
frame= 192 fps= 17 q=-1.0 size= 2669kB time=00:00:11.14 bitrate=1961.2kbits/
frame= 207 fps= 18 q=-1.0 size= 2920kB time=00:00:11.65 bitrate=2053.0kbits/
```

