P2 Video Encoding Systems.

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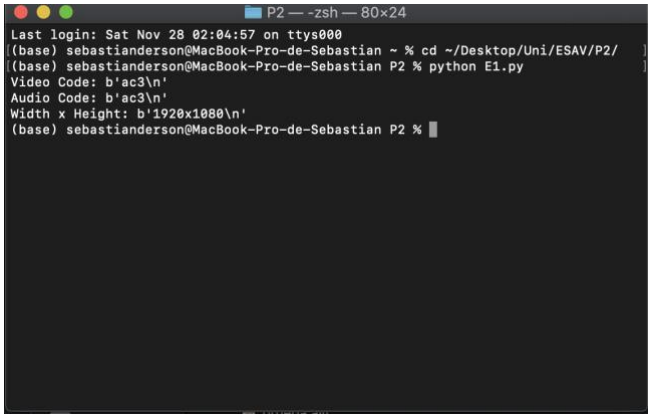
In this Lab we will work with python and video files.

1) **Create a python script able to parse the 'ffmpeg – i BBB.mp4' file, which can mark at least 3 relevant data from the container**

   I interpreted this exercise in a way that we have to parse the BBB.mp4 file and then save in python at least 3 relevant data like the resolution, codecs, etc…

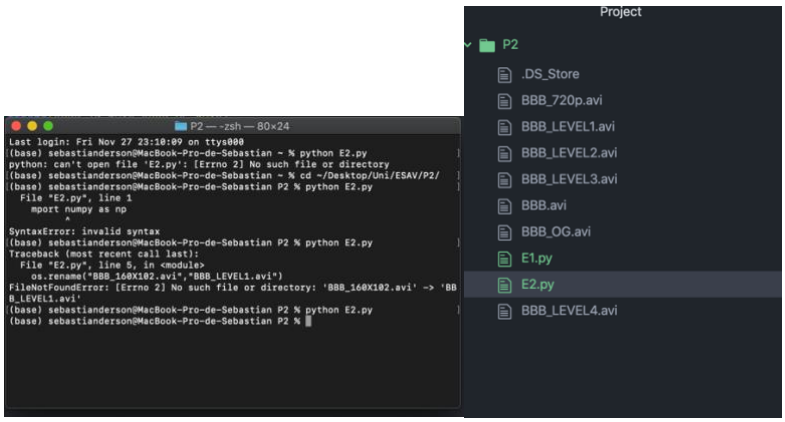
   This exercise is done in the E1.py. I mainly used the ffprobe commands to extract this and the subprocess library to read it from the terminal. The result was:



   If you tried to run the file it may not work because you need the BBB.avi file in the same folder.

2) **Create a python script able to rename the 5 quality outputs of the BBB that you did in last seminar**

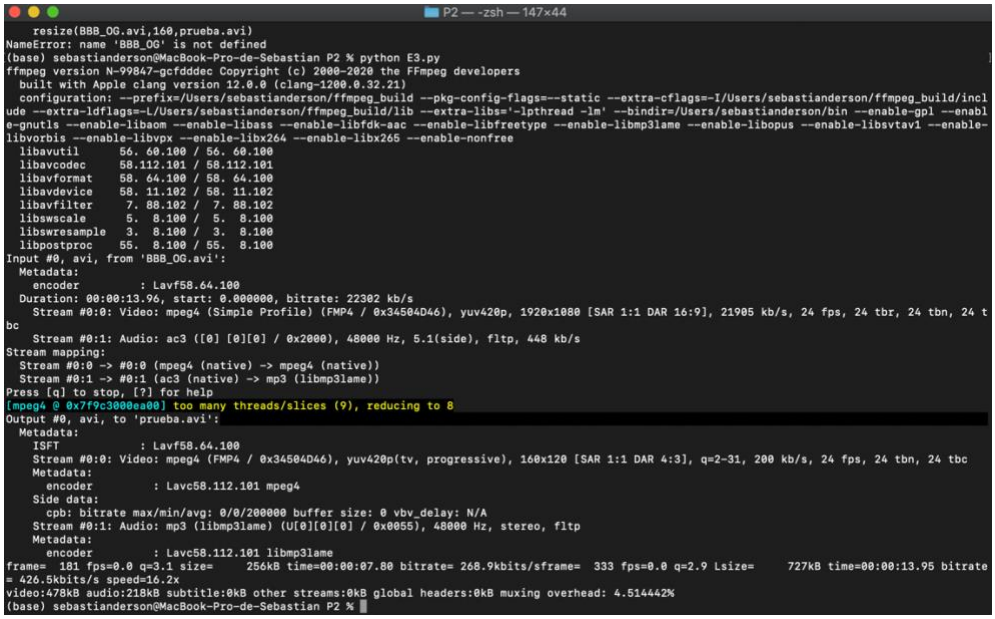
   This is done in E2.py file. With the os.rename() command. As we see the file have changed name.



If you tried to run the file it may not work because you need all the BBB files in the same folder.

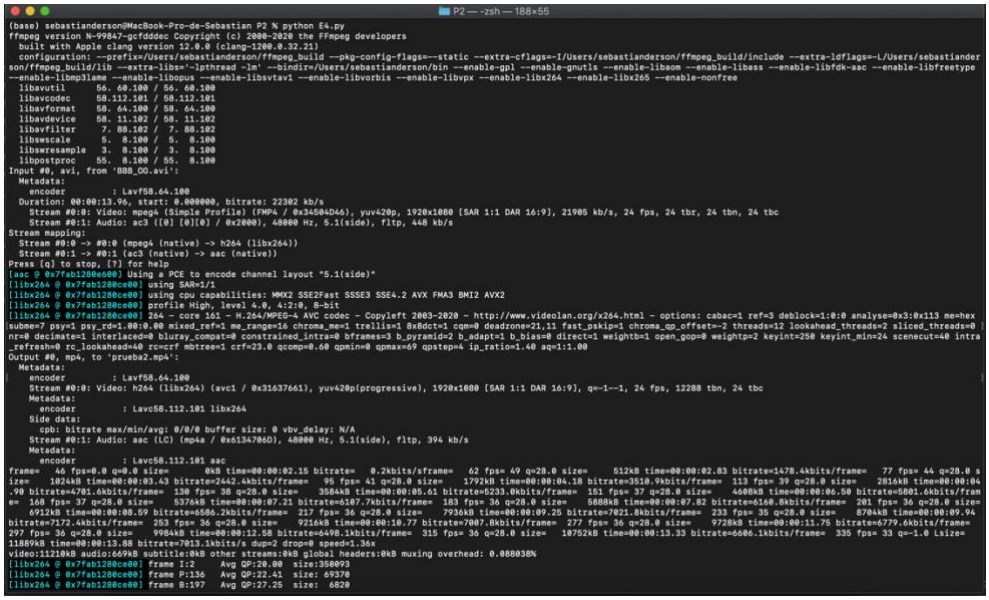
3) Create a python script able to resize (resolution change) of any input given

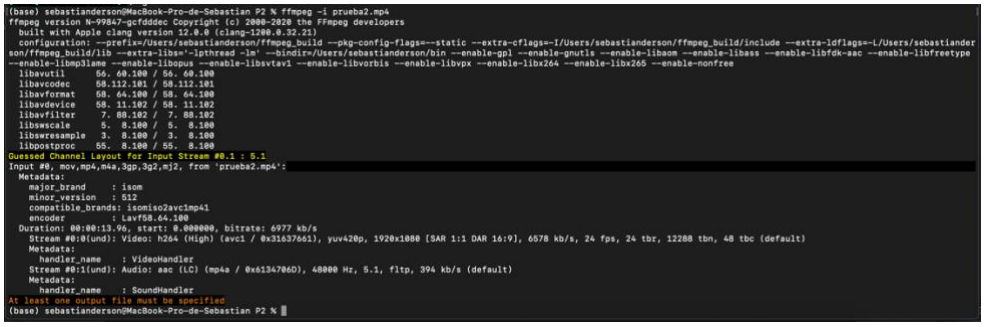
I created a function able to resize any file in E3.py. The function takes as argument the filename, the size in which you want to resize it and the output filename. As we see this is done when we tried the function.



4) Create a python script able to transcode the input into an output with another codec that we've seen in the Theory class.

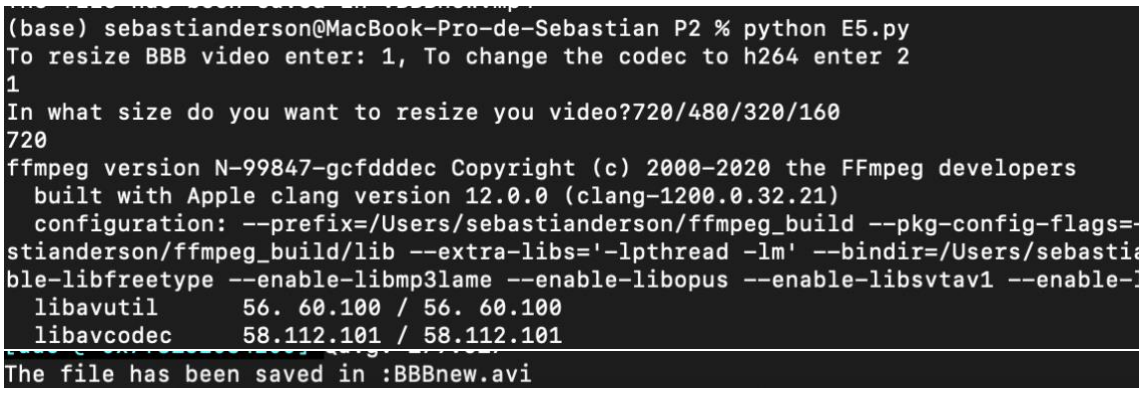
I created a function in E4.py called transcodeh264().This function allows you to change the codec to h264. As input, you need to add the filename and the output filename. As we can see in the 2 images the first is when we encode in h264 and the second show us that the output is indeed now in h264.





5) Integrate some or all the previous exercises into one script, which allows you to choose which variables of the input video you'd like to change.

   For this I created an interactive file where you can ask to the terminal to do something either change the size or the codec. And then you can also choose the new resolution of the video.



All the exercises are also on my repository on Github
https://github.com/sebastianderson/P2.git