2) Then choose 2 codecs of the 4 mentioned before, create the output and comment the differences you find there:

Since it is very difficult to visualize the differences between two videos with different codecs, we create a visual comparison using the blending filter to see the differences between them. For VP8 and VP9, we see that the differences are almost on the edges of the objects, where the contrast of illumination is.

Figure 1. Original video (left). Comparison of VP8 and VP9 codecs with blend mode (right)

Searching on the internet we found out that the main difference between them is:

1. VP9 has a better quality of the compressed video in comparison with the VP8
2. However, VP8 takes fewer resources to compress video than VP9

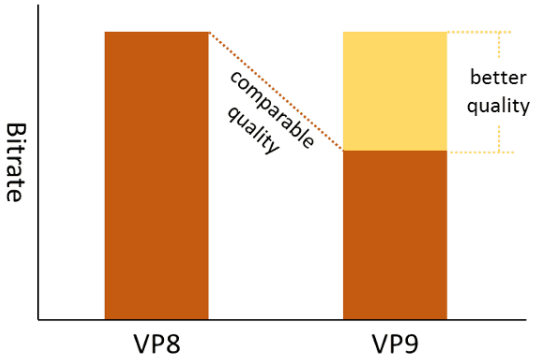


Figure 2. Comparison of bitrate between VP8 and VP9

Resource link.

3) Create a live streaming of the BBB Video

In this case, we can use either TCP or UDP to transmit the streaming, but for each case the result is quite different.

1. TCP protocol is mainly used to transport reliable data, namely, no loss of data.
2. UDP protocol can have a small loss of data, it does not guarantee the delivery of data to the destination, but is faster and simplest than the TCP.


Figure 3. Network of TCP and UDP protocols.

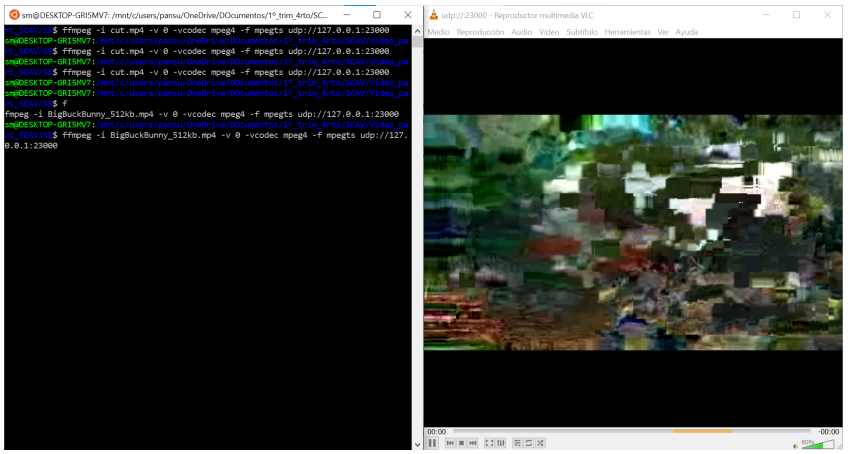

Figure 4. Using UDP protocol. We clearly see the loss of packets.

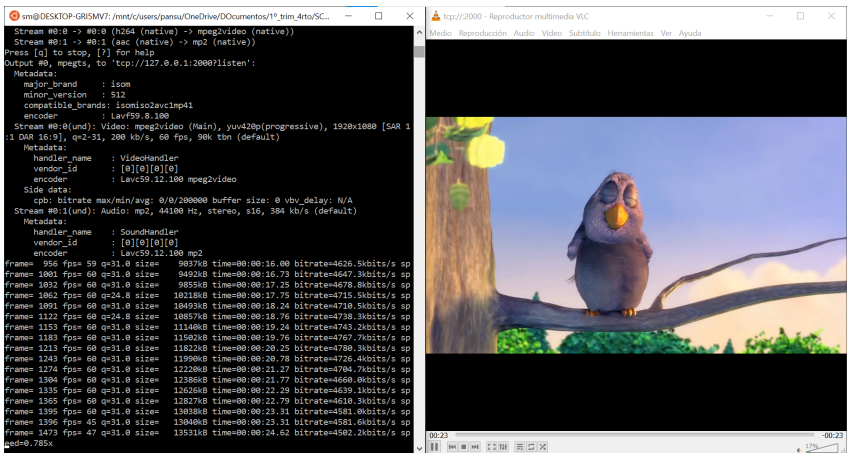

Figure 5. Using TCP protocol. We see TCP guarantees the delivery of data, but it has slower speed of transmission due to reordering and retransmission.