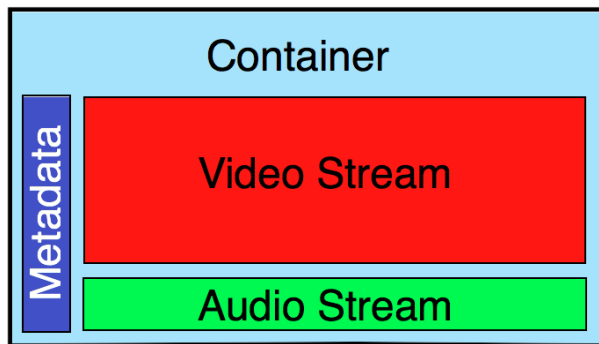


IC Local Meeting: Weekly Update

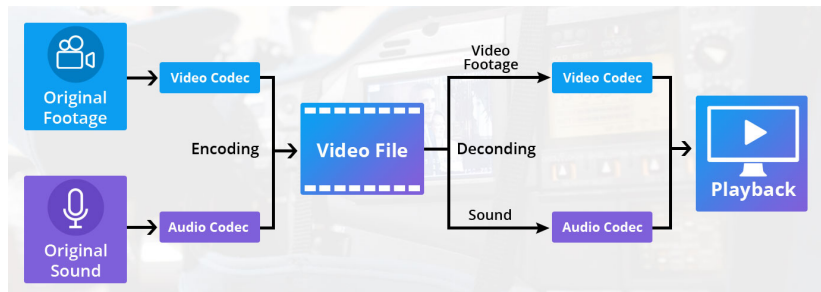
Hin Tung Lau

April 17, 2020

Container is a format describing how elements of data and metadata coexist.
(i.e. avi, mp4, mkv etc.)



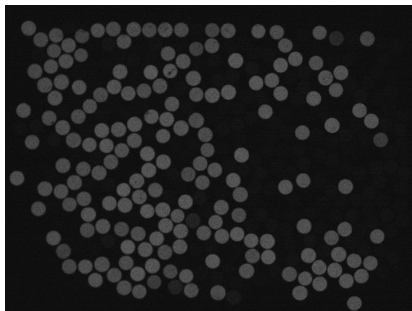
Codec converts raw digital audio/video into a compressed format or vice versa. Containers hold codecs.



Decoding a Video (in FFmpeg)

- 1 Load video file into *AVFormatContext* which reads header.
- 2 Gives access to audio and video streams (*AVStream*)
- 3 Video stream is encoded with a particular codec from which we extract parts of data called packets (*AVPackets*)
- 4 Decode data in packets with a specific codec (*AVCodec*)
- 5 *AVCodec* decodes into an uncompressed *AVFrames*!
- 6 Frame is stored in YCbCr colour space
 - Y = Luma
 - Cb = Blue-difference chroma
 - Cr = Red-difference chroma

A single arbitrary frame from video looks like:

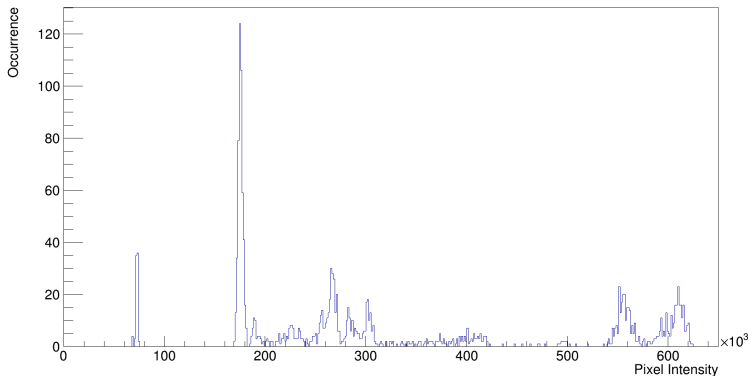


I sum up the pixel intensity for each 'scintillating' spot for each frame.

Clatterbridge Video 1

For the video 1, it started with a high dose rate (5 Gy/min) then decreased sequentially to (1 Gy/min) over about a minute.

Spot0 -- Frames:[0,1809]



Judging by eye of what I think is a steady dose rate

Spot0 -- Frames:[90,300]

