Sequential interpolation approach

In the experimental part of the paper, we compared our interpolation method to a *sequential approach*, for which we provide the details here. First optical flow is separately compressed and decompressed, then the accordingly warped reference frames are provided to an interpolation network. Figure 1 illustrates this sequential strategy. We use PWC-NET [3] to compute optical flow. The autoencoder used to compress motion fields has the same architecture as the compression autoencoders used in the paper. After decoding, the warped reference frames are provided as input to an interpolation network that is based on the GridNet [1].

Compression commands used for comparisons

For our comparisons with H.265 [2] and H.264 [4] we used *ffmpeg* to compress the frame sequences as follows:

$ ffmpeg -i %06d.png -c:v libx265 -pix_fmt yuv420p -x265-params crf=xx:keyint=12 seq.mp4

$ ffmpeg -i %06d.png -c:v libx264 -pix_fmt yuv420p -crf xx -g 12 -bf 2 -b_strategy 0 -sc_threshold 0 seq.mp4

To obtain the *fast* and *medium* modes, we used the following options:

... -preset veryfast -tune zerolatency ...
... -preset medium ...
References


