**VP9 Decoder Input Data Format**

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VP9 decoder requires IVF as the input data format, which is a simple file format to transport raw data. When playback any VP9 stream from USB or OTT, TDP/TMP need add below header for each frame before appending data to decoder.

1. **File Header**

An IVF file begins with a 32-byte header. This header is needed only when starting new file playback:

bytes 0-3 signature: 'DKIF' (mandatory)

bytes 4-5 version (should be 0) (mandatory)

bytes 6-7 length of header in bytes (mandatory)

bytes 8-11 codec FourCC (e.g., 'VP80') (Should be VP90)

bytes 12-13 width in pixels (not mandatory)

bytes 14-15 height in pixels (not mandatory)

bytes 16-19 frame rate (mandatory)

bytes 20-23 time scale (mandatory)

bytes 24-27 number of frames in file (not mandatory)

bytes 28-31 unused

1. **Frame Header**

The file header is followed by a series of frames. Each frame consists of a 12-byte header followed by data:

bytes 0-3 size of frame in bytes (not including the 12-byte header)

bytes 4-11 64-bit presentation timestamp (33-bits PTS required)

bytes 12.. frame data