

RTP Payload Format for Uncompressed Video

draft-ietf-avt-uncomp-video-02

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Changes since -01:

Modified:

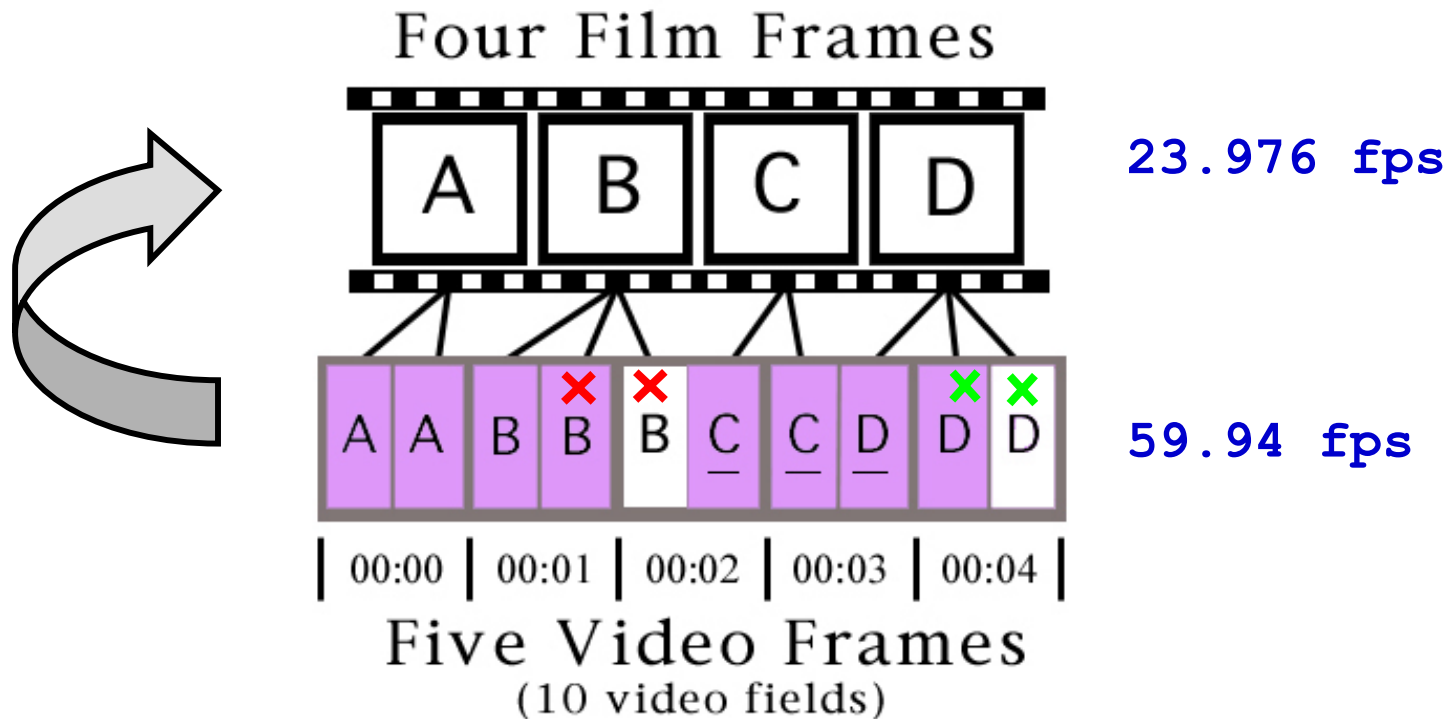
- The payload header: extended the sequence number to 32 bits to accommodate high data rates.
 - At 1 Gbps 16 bit sequence wraps around in 0.5 second, 32 bits will wrap around ~9 hours

Added:

- 4:1:1 color coding
- 4:2:0 interlaced and progressive packetization
- Separate timestamps for interlaced fields
 - to accommodate reversing 3:2 pulldown
- Defined required and optional SDP parameters
- Discussed congestion control in Security Considerations

Distinct time stamps for interlaced fields

- Timestamps are derivable from bit field and frame rate, however with distinct timestamps reversing 3:2 pulldowns can be accommodated



SDP Parameters:

Required:

rate,
pgroup,
color-mode,
sub-sampling,
width, height, depth,
colorimetry

Optional:

interlaced

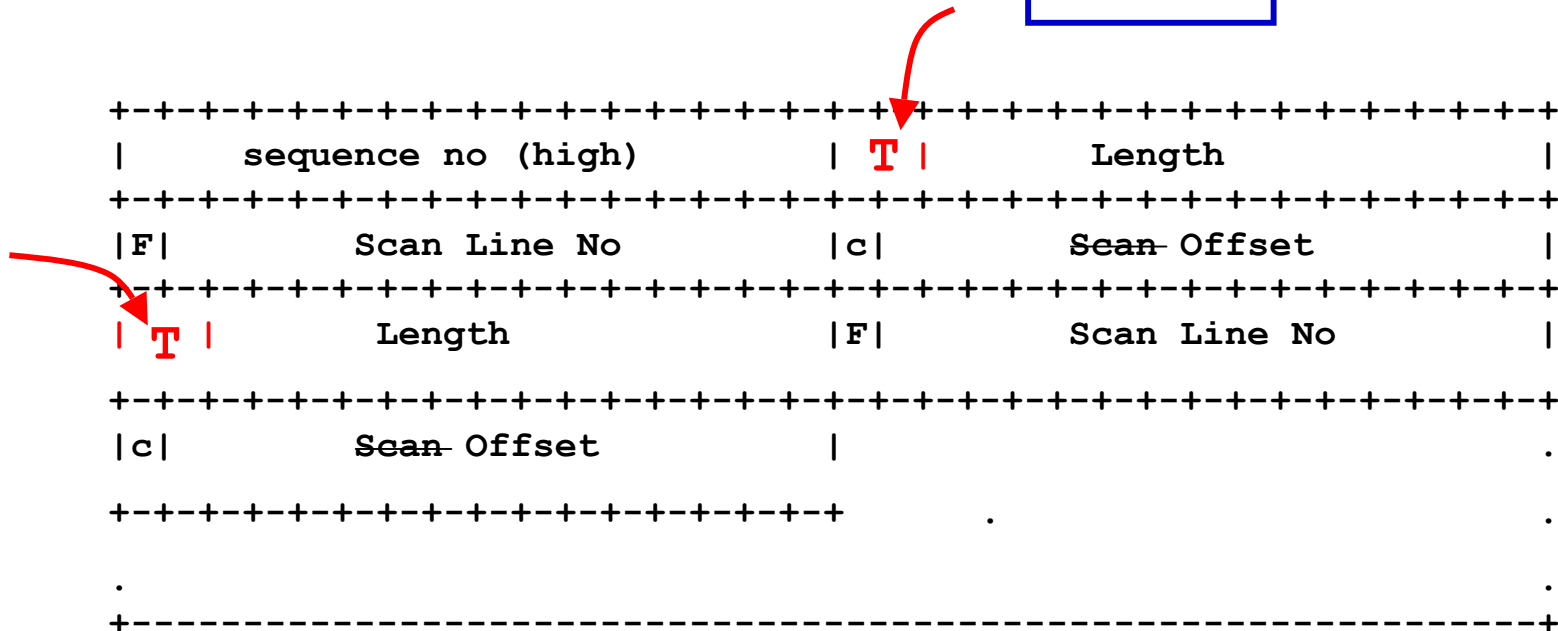
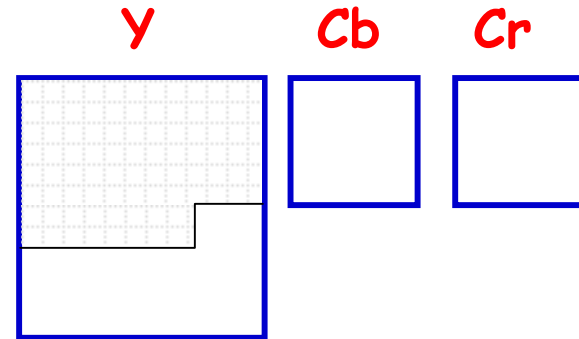
m=video 30000 RTP/AVP 112

a=rtpmap:112 raw/90000

**a=fmtp:112 pgroup=4; color-mode=YUV; sub-sampling=4:2:0;
width=1280; height=720; depth=10; colorimetry=BT.709-2**

Open Issues

- should planar video be added to this draft?
 - must add 2bits to header to indicate planes
 - pgroups are meaningless.



Open Issues (cont.)

2. Is explicitly listing pgroups for all color sub-samplings really necessary?
3. Are there any other color-subsampling we should add?
 - Recent suggestion: 4:2:2:0
4. Are the values for the SDP colorimetry parameter sufficient?
 - BT601-5
 - BT709-2
 - SMPTE240M
 - NTSC
 - PAL
5. Should timecodes have independent representation? Or are RTP timestamps and RTCP SR timestamps sufficient?