

WebRTC Video Processing and Codec Requirements

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Thursday, July 24, 2014

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What is this?

Dec 2014 - Video Processing and Video Codecs ([draft-ietf-rtcweb-video](#)) to IESG for publication as Proposed Standard

And where did all these words come from?

- This is very much a strawman, based on admittedly limited input.
- The intent, of course, is to change anything necessary to reflect WG consensus.



Open Issue: Color Space?

- Right now, we don't propose anything.
- Probably not useful to try to have this discussion at the mic today; if you have opinions, please bring them to the list.

Camera-Captured Video

- Must auto-focus, if possible
- Must auto-white-balance
- Must auto-light-level
- OPEN ISSUE: Is there anything else we should say here?

Screen-Captured Video

- Open Issue: Any additional *video-related* things that we need to talk about for screen source?

General Codec Requirements

- Strawman Proposal:
 - MUST support ≥ 10 fps
 - SHOULD support ≥ 30 fps
 - MUST support $\geq 320 \times 240$
- Is this about right?
- Is there anything else we need to say?

Take a deep breath

- I'm about to mention some codecs by name.
- This is not the MTI conversation, and we're not going to get into the merits of specific codecs.
- What we're talking about in the following slides is: *if you're going to use codec X, then this is how you need to do it.*

VP8 Codec Requirements

- Payload as described in draft-ietf-payload-vp8
- Require use of “bilinear” and “none” reconstruction filters
- Anything else?

H.264 Codec Requirements

- Payload as described in RFC6184
- **MUST** support Constrained Baseline Profile Level 1.2
- **SHOULD** support Constrained High Profile Level 1.3
- Open Issue: What packetization modes?
- Anything else?

VP9 Codec Requirements

- Right now, doesn't (really) say anything, but there's a placeholder section.
- Is this needed/helpful?

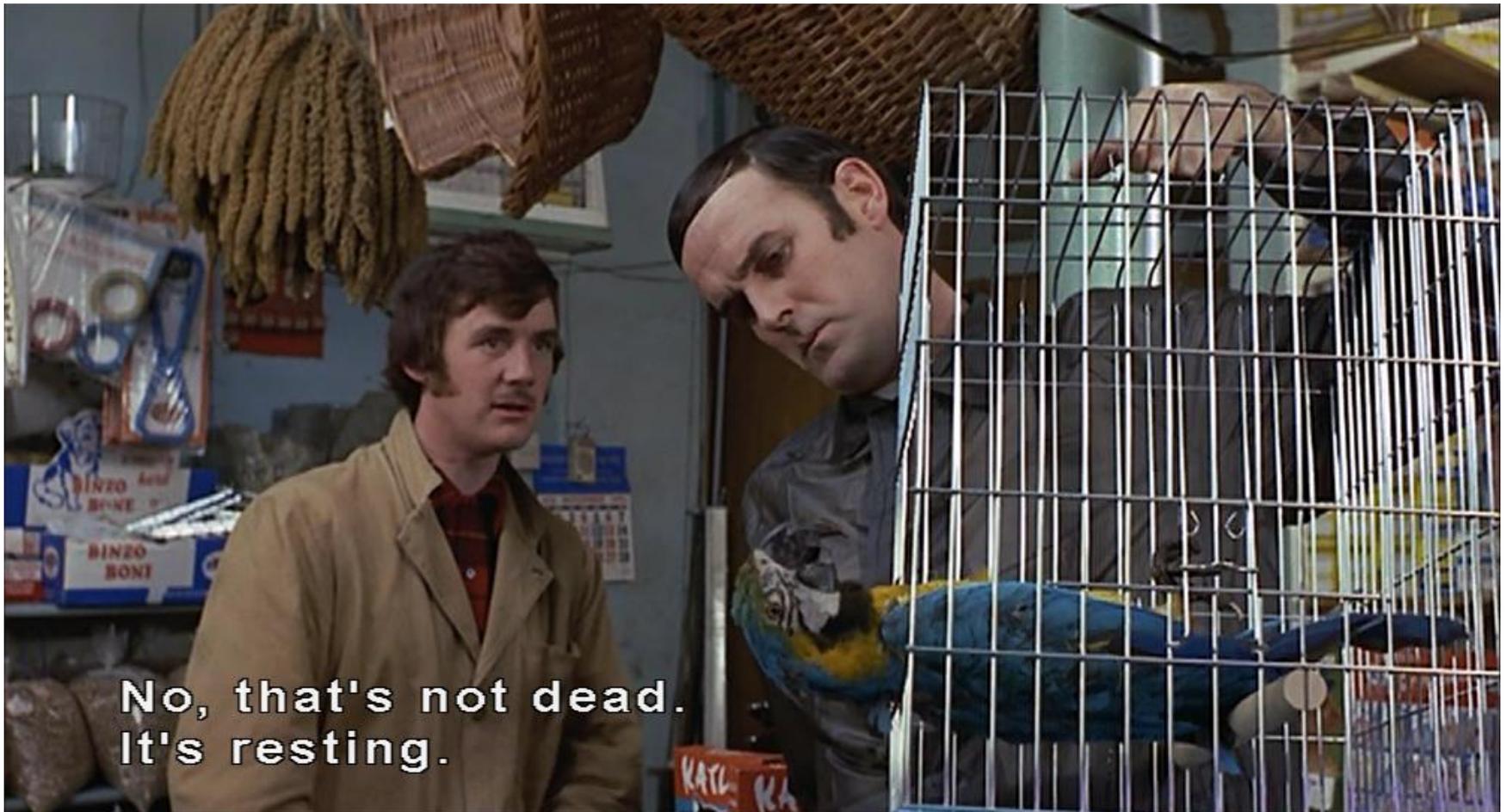
H.265 Codec Requirements

- Payload as defined in draft-ietf-payload-rtp-h265
- Again, is this needed/helpful?

Dealing with Packet Loss

- What do we specify in terms of FEC/RTX/interleaving/etc?

MTI Codec Discussion



Are we missing anything?

- What else do we need to say about video?
 - Anything about video orientation / rotation? (See message “Camera rotation on mobile phones,” 13-Sep-2013 on mailing list)
 - Other information carried in SEI? (e.g., picture snapshot, user data registered, scene information, progressive refinement)
 - Metadata intended for application consumption, like scene changes?
- Conversely, are we overspecifying behavior anywhere?