

Current status 3D drafts

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Overview

- Two 3D drafts:
 - draft-greevenbosch-mmusic-parallax-attribute-v01
 - draft-greevenbosch-mmusic-signal-3d-format-v01
- Both drafts extend SDP to signal stereoscopic 3D streaming.
- The first one is for static positioning of 2D objects, such as text.
- The second is for signaling the format of the stereoscopic 3D video stream.

Changes in draft-greevenbosch-mmusic-parallax-attribute-v01

- The unit of the ParallaxInfo attribute value has been normalised to "pixels on a screen with a width of 11520 pixels".
- This allows adjusting the parallax for various screen sizes, often by dividing through an integer number.

Changes in draft-greevenbosch-mmusic-signal-3d-format-v01

- Added two sections for the SDP offer/answer model.
- Section 7 considers behaviour for the compliant device.
- Section 8 considers backward compatibility with a legacy device.
 - Generally, the system will fall back to 2D streaming.
 - This sometimes requires re-negotiation.

Compliant answerer

- MUST NOT omit "3dFormat" attribute for accepted streams.
 - This caters for identification of legacy answerers.
- MUST NOT change value of "3dFormat" attribute.
 - Ensures only offered formats can be accepted.
- MAY elect to receive 2D only, by selecting one of L/R views or only the 2D stream (rejecting auxiliary stream).
- SHOULD select only one 3D format, but if it selects multiple MUST be capable to receive all.

Non-compliant answerer

- It is anticipated that a non-compliant answerer will omit the "3dFormat" attribute.
- This is used by the offerer to deduct that the answerer is a legacy answer.
- The offerer is given much freedom for its response, hence the optional nature of section 8.
- In general, when the answer "makes sense", the streaming MAY proceed as agreed.
- Otherwise, an updated the offer MAY be required.

Response to legacy answerer in case of frame packing

- If the frame packing stream is selected by a legacy answerer, the offerer MAY update the offer offering only a 2D stream.
- Alternatively, it MAY stream the frame packed video as it is, anticipating that the legacy answerer has other means to process the frame packed 3D video.
 - Might be user input.

Response to legacy answerer in case of 2D + aux, single stream

- If the offerer MAY update the offer by offering only a 2D stream.

Response to legacy answerer in case of 2D + aux, separate streams

- If the answerer selected only the 2D stream, streaming can proceed as agreed.
- If the answerer selected only the auxiliary stream, the offerer SHOULD update its offer.
- If the answerer selected both streams, the server MAY update its offer.

Response to legacy answerer in case of simulcast of L- and R-view

- If the answerer selected only one of the streams, the offerer MAY initiate streaming as agreed.
- If the answerer selected both streams, the offerer MAY update its offer, offering only one stream.

Links

- <https://datatracker.ietf.org/doc/draft-greevenbosch-mmusic-parallax-attribute/>
- <https://datatracker.ietf.org/doc/draft-greevenbosch-mmusic-signal-3d-format/>

Next step

- Move both drafts to WG draft status?

Thank
you!
Questions?

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