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Title: AHG2/AHG9: Editorial improvements of annotated regions SEI message

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Purpose: Proposal

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Abstract

The annotated regions SEI message carries parameters that identify annotated regions using bounding boxes representing the size and location of identified objects and has been introduced in VSEI, HEVC and AVC. After reviewing the current their texts, several editorial issues have been found. They should be improved when revising VSEI, HEVC and AVC. This contribution proposes revised texts for each VSEI, HEVC and AVC.

Problem statement

The following problems exist in the texts of the annotated regions SEI message.

The “ar_” prefix of several syntax elements is lacking.

The offset variables for the conformance window are used in the semantics, but they are not needed because the input picture of the SEI message has been cropped.

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MEETING NOTES

[JVET-AE0054](#) AHG2/AHG9: Editorial improvements of annotated regions SEI message [T. Chujoh, T. Aono, T. Ikai (Sharp)]

This was addressed by the BoG on SEI messages for VSEI v3 and VVC v3 as reported in JVET-AE0272.

This contribution was discussed in the BoG at 16:30 on Wednesday 12 July.

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The following problems exist in the texts of the annotated regions SEI message.

- The “ar_” prefix of several syntax elements is lacking. BoG recommendation (Ed.): Agreed.
- The offset variables for the conformance window are used in the semantics, but they are not needed because the input picture of the SEI message has been cropped.

The BoG disagreed with the interpretation and instead suggested only to clarify the existing specification as follows.

BoG recommendation (Ed.): Add a NOTE saying (approximately) “NOTE – Although some variables used in this subclause are related to picture cropping, the coordinates used in these semantics are relative to the entire decoded picture prior to cropping.”

- The name of the chroma format indicator differs between VSEI and HEVC/AVC.

ChromaArrayType does not exist in VVC. In HEVC and AVC, ChromaArrayType is assigned as follows:

- If `separate_colour_plane_flag` is equal to 0, `ChromaArrayType` is set equal to `chroma_format_idc`.
- Otherwise (`separate_colour_plane_flag` is equal to 1), `ChromaArrayType` is set equal to 0.

BoG recommendation (Ed. BF): Change draft VSEI to use `ChromaFormatIdc` instead of `ChromaArrayType`. If HEVC and/or AVC are changed to refer to VSEI instead of having an in-line definition of the annotated regions SEI message, we need to define that variable in the interface text when using the SEI message.

- In the case of VVC, the offset variables of the conformance window are defined on PPS, but in the case of HEVC/AVC, they are defined on SPS.

In VVC, no action is needed since the interface description does not refer to where the cropping window is specified.

BoG recommendation (Ed. BF): In VSEI, remove the phrase “specified by the active SPS” (since that is not correct for VVC).

- It is reported that many unknown characters are inserted in the test of Word versions of HEVC and AVC. It was pointed out that these are no-width optional line breaks that are being used intentionally, so no action was considered needed on this by the BoG.

CITATION

T. Chujoh, T. Aono, T. Ikai, "AHG2/AHG9: Editorial improvements of annotated regions SEI message", JVET-AE0054, 31st Meeting: Geneva, CH, July 2023.