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Title: Comments on Common Test Conditions of 3D Video Coding
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1. Introduction

This document contains our comments on the common test conditions for HEVC- and AVC-based 3DV [1]. We address several aspects of the conditions described in the document. The main objective is to aid the overall clarification.

2. Remarks

2.1 Non-existing intermediate views

Three intermediate views between two cameras are to be used. However, these will not exist for some sequences. For Poznan_Hall2 and Poznan_Street, the viewpoints are 7-6-5 and 5-4-3, respectively. Intermediate views do not exist in such cases. Also for Dancer and GT_Fly, intermediate views do not exist at one side, nothing between 5 and 9. Hence, handling of such non-existing intermediate views should be noted.

2.1 QP relation table

The QP relation table for HEVC-based encoder configuration represents the relation of video QP and depth QP. While the video QP ranges from 25 to 51, we figured for high quality coding, QP of 25 would not be suitable enough. Thus, in order to fulfill the objective of high quality video coding using HEVC, including QP values less than 25 would be beneficial, i.e., the QP relation table could be expanded.

2.3 Clarification of ‘each view’

For multiview coding without depth, PSNR and rate for each view should be provided. In order to avoid confusion, we contemplate ‘each view’ should be rather listed as ‘coded view’ and ‘intermediate view’ separately, as described in the multiview coding with depth.

2.4 Clarification of PSNR type

PSNR values should be provided as rate-distortion data. We believe the intended meaning here was PSNR of texture. For clarification, we think the type of PSNR should be stated, whether texture, depth, or synthesized.

3. Conclusion

Regarding the common test conditions for HEVC- and AVC-based 3DV, we have pointed out four things that could be revisited: non-existing intermediate views, QP relation table, and clarifying two notations: ‘each view’ and PSNR type.

4. Acknowledgment

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5. References

- [1] ISO/IEC JTC1/SC29/WG11 “Common Test Conditions for HEVC- and AVC-based 3DV,” N12352, December 2011.