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Title: [MIV] Crosscheck of m61631
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Abstract

This document is a cross-check report on KETI's proposal m61631, patch-wise depth linear scaling. It was verified that the crosscheck results completely match those reports in m61631.

1 Introduction

KETI's contribution, m61631[1], suggests a patch-wise min-max depth linear scaling which reported 7.8% of high Y-PSNR BD-rate in mandatory sequences. The proposal addresses that depth information loss may occur because of downscaling and lossy coding. Therefore, the proposal presented a patch-wise min-max depth linear scaling for more accurate representation of depth value for each patch. The proposal showed significant improvement of BD-rate on CG sequences by extending the depth dynamic range, while it showed negligible BD-rate gain on NC sequences.

2 Experimental Results

The implementation of the proposal was based on TMIV v14.0[2]. The crosscheck experiments were conducted under the common test conditions (CTC) of the MIV[3], for mandatory sequences on 17 frames: A, B, O, J, N, R, D, E, and P. Experimental results of KETI and SKKU were exactly same, as shown in the attached excel template.

3 Conclusion

It was verified that the results matched exactly those reported by the proponent and the description in the proposed method in m61631 matches the implementation in the software.

4 References

- [1] "Patch-wise Depth Linear Scaling", S. -G. Lim, H. -H. Kim, Y. -H. Kim, ISO/IEC JTC1/SC29/WG4 input document m61631, January 2023, online meeting.
- [2] "Test Model 14 for MPEG Immersive Video", B. Salahieh, J. Jung, A. Dziembowski, ISO/IEC JTC1/SC29/WG4 output document n00242, July 2022, online meeting.
- [3] "Common Test Conditions for MPEG Immersive Video", J. Jung, B. Kroon, ISO/IEC JTC1/SC29/WG4 output document n00203, April 2022, online meeting.