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Title: Non-CE8: Exclusive Regular Merge And IBC Merge in One Shared Merge List Area

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Purpose: Proposal

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Abstract

In VVC Specification Draft (Draft 4), shared merge list is applied both on regular merge and IBC merge mode blocks with a fixed threshold of 32 luma samples. However the worst case of merge list construction still not changed. The proposed method is addressing this problem, by disallowing simultaneous selection of IBC merge and regular merge modes inside a same shared merge region. The proposed method has 0.00%/xx% in RA/LDB overall luma BD-rate increase for CTC sequences, 0.03%/0.01% RA/LDB luma BD-rate increase for ClassF sequences and 0.20%/0.27% RA/LDB luma BD-rate increase for TGM sequences.

Introduction

Shared merge list is applied for both IBC merge and regular merge candidate list construction. The threshold of shared merge list region is fixed as 32 luma samples. If a parent block split into multiple childblocks, and any of the childblock is smaller than 32 luma samples, then the parent block area is defined as shared merge list region, and all child blocks construct one shared merge list based on this area.

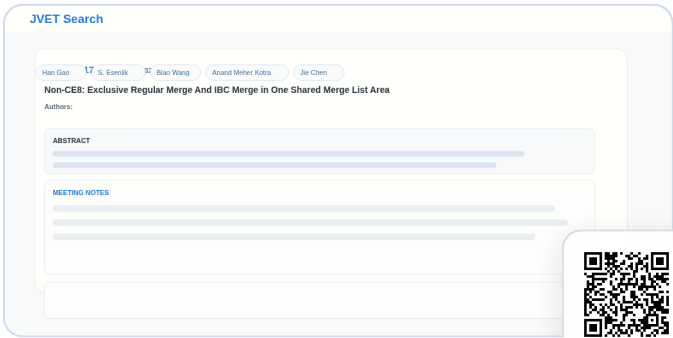
Since the threshold is fixed as 32 luma samples, the following three cases result in application of shared merge list area.

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CARD

JVET-N0174

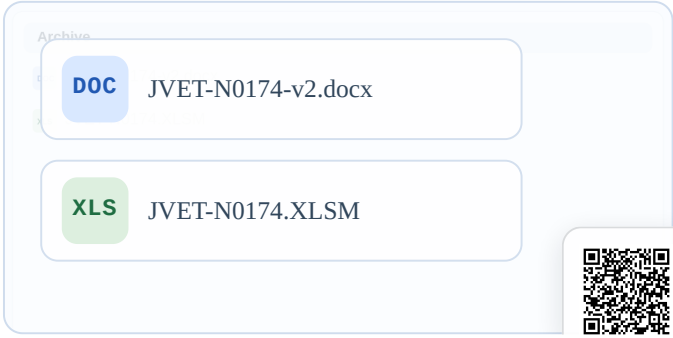
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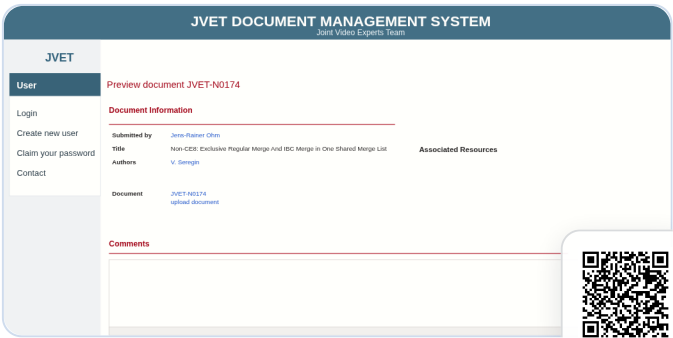
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SOURCE

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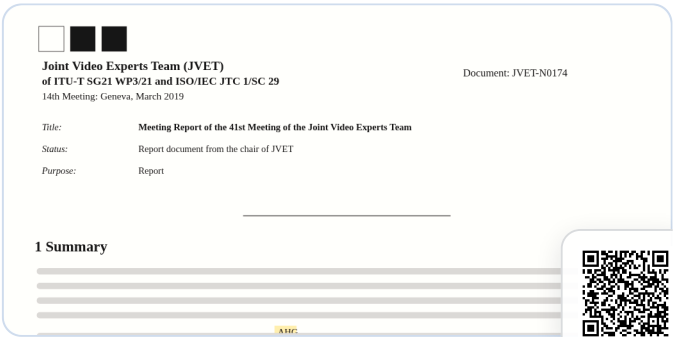
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MEETING NOTES

external meeting notes

https://www.itu.int/wftp3/av-arch/jvet-site/2019_03_N_Geneva/JVET-N_Notes_dF.docx



MEETING NOTES

JVET-N0174 Non-CE8: Exclusive Regular Merge and IBC Merge in One Shared Merge List Area [H. Gao, S. Esenlik, B. Wang, A. M. Kotra, J. Chen (Huawei)]

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REFERENCES

1. [C.-C. Chen, Y.-C. Lin, M.-S. Chiang, C.-W. Hsu, T.-D. Chuang, C.-Y. Chen, Y.-W. Huang, S.-M. Lei, "CE4.3.1: Shared merging candidate list", JVET-M0170, 13th Meeting: Marrakech, January 2019.](#)
2. [B. Bross, J. Chen, S. Liu, "Versatile Video Coding \(Draft 4\)", JVET-M1001, 13th Meeting: Marrakech, January 2019.](#)
3. [F. Bossen, J. Boyce, X. Li, V. Seregin, K. Sühring, "JVET common test conditions and software reference configurations for SDR video", JVET-M1010, 13th Meeting: Marrakech, January 2019.](#)
4. [X. Xu, Y.-H. Chao, Y.-C. Sun, J. Xu, "Description of Core Experiment 8 \(CE8\): Screen Content Coding Tools", JVET-M1028, 13th Meeting: Marrakech, January 2019.](#)