

**Joint Video Experts Team (JVET)
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Title: Non-EE2: Joint reordering of GPM with intra prediction

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Purpose: Proposal

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Abstract

This contribution proposes modifications to the joint reordering of GPM split modes and partition indices, where intra-prediction mode candidates are introduced to the reordering GPM. With the proposed method JRGPM-Intra, the GPM modes consisting of intra-prediction, regular GPM and TM-GPM will be reordered jointly. Simulation results of the proposed method on top of ECM-17.0 are reported below:

RA: -0.08%, -0.06 %, -0.11 %, EncT 101.5%, DecT 100.7%

LB: -0.09%, -0.01 %, 0.06 %, EncT 101.8%, DecT 100.8%

Introduction

Joint reordering of GPM split modes and partition indices (Reordering-GPM) is an adopted coding tool in the current ECM-17.0[1]. Reordering-GPM proposed to jointly reorder the split modes and partition indices for the GPM modes, including the regular GPM and TM-GPM . When the method is applied, for each CU that is coded with any of the above GPM modes, a candidate list is constructed with each entry containing one split mode and the MVs of the two GPM partitions. The candidate list is reordered using a template-based scheme, and the selected split/motion pair is signaled to decoder.

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MEETING NOTES

[JVET-AM0065](#) Non-EE2: Joint reordering of GPM with intra prediction [Z. Sun, Y. Yu, L. Zhang, H. Yu, D. Wang (OPPO)]

This contribution proposes modifications to the joint reordering of GPM split modes and partition indices, where intra-prediction mode candidates are introduced to the reordering GPM. With the proposed method JRGPM-Intra, the GPM modes consisting of intra-prediction, regular GPM and TM-GPM will be reordered jointly. Simulation results of the proposed method on top of ECM-17.0 are reported below:

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Results confirmed by crosscheckers. Relevant coding gain, consistent over classes.

Interest was expressed by other experts to investigate this in an EE. Better tradeoff with encoding time should be achieved.

CITATION

Z. Sun, Y. Yu, L. Zhang, H. Yu, D. Wang, "Non-EE2: Joint reordering of GPM with intra prediction", JVET-AM0065, 39th Meeting: Daejeon, KR, June 2025.