

**Joint Video Experts Team (JVET)
of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC
29/WG 11**

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Title: CE6-related: Implicit transform selection for Multi-hypothesis inter-intra mode

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Abstract

This contribution proposes to apply implicit transform selection for multi-hypothesis inter-intra (MHIntra) prediction. Currently, multiple transform selection (MTS) is applied to a luma block, where DCT-II, DST-VII, and DCT-VIII are selectively applied for horizontal and vertical direction independently by signalling `tu_mts_flag` and `mts_idx`. The proposed method implicitly selects transform core without signalling `mts_idx` for blocks to which MHIntra is applied if the `tu_mts_flag` is true. Experimental results against VTM-3.0 with inter MTS enabled show negligible impact on BD-rate performance with reducing 4% of encoding time.

Introduction

In VTM-3.0, multiple transform selection (MTS) is introduced where DCT-II, DST-VII, and DCT-VIII are selectively applied for horizontal and vertical direction independently by signalling `tu_mts_flag` and `mts_idx`. Generally, the energy distribution of the residual signals of inter predicted block has no tendency, so that multiple core selection by signalling is efficient by selecting the best transform core among the possible combinations of transform cores.

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LINKS

CARD

JVET-M0482

<http://vexpertise.stbit.ru/documents/JVET-M0482>

JVET Search

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ABSTRACT

MEETING NOTES



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Comments

Associated Resources



ARCHIVE

archive v3

https://jvet-experts.org/doc_end_user/documents/13_Marrakech/wg11/JVET-M0482-v3.zip

DOC

JVET-M0482-ImplicitTransformSelectionForMHintra-r2.docx

XLS

JVET-M0482-ImplicitTransformSelectionForMHintra_vsVTM-3.0withEMT=1.XLSM

XLS

JVET-M0482-ImplicitTransformSelectionForMHintra_vsVTM-3.0withEMT=3.XLSM



MEETING NOTES

external meeting notes

https://www.itu.int/wftp3/av-arch/jvet-site/2019_01_M_Marrakech/JVET-M_Notes_dH.docx

Joint Video Experts Team (JVET) of ITU-T SG21 WP3/21 and ISO/IEC JTC 1/SC 29 13th Meeting: Marrakech, January 2019

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Purpose: Report

1 Summary



MEETING NOTES

[JVET-M0482](#) CE6-related: Implicit transform selection for Multi-hypothesis inter-intra mode [S. Iwamura, S. Nemoto, A. Ichigaya (NHK)]

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