

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

Document: JVET-R0459-v1

MPEG: m53857

18th Meeting: Teleconference, April 2020

Title: Crosscheck of JVET-R0318 (Alternative methods of LFNST index signalling)

Status: Input document to JVET

Purpose: Proposal

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Source: KDDI

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Abstract

This contribution is a cross-check report of JVET-R0318 Method 2 and Method 3. Method 2 proposes to enable LFNST to be applied into single tree chroma coding blocks which LFNST is prohibited in WD8 and VTM-8.0. Method 3 proposes to move the LFNST index parsing position from CU-based to TU-based signalling processes, and to remove the redundant checking of the significant coefficient position and transform skip flag for single tree chroma coding blocks regarding LFNST index signalling.

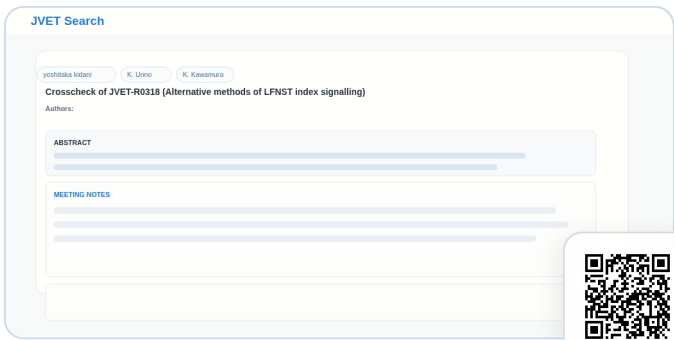
Introduction

In WD8 and VTM-8.0, the signalling of LFNST index is conditioned by significant coefficient positions of both luma and chroma coding blocks in single tree even though there is no need to check those of chroma coding blocks since LFSNT is prohibited in chroma coding blocks. JVET-R0318 [1] proposes three alternative methods of LFNST index signalling. In this contribution, Method 2 and Method 3 are evaluated. Method 2 proposes to enable LFNST to be applied into single tree chroma coding blocks which LFNST is prohibited in WD8 and VTM-8.0. In detail, LFNST is applied only into the TU which is equal to or larger than 4x4 pixels. Method 3 proposes to move the LFNST index parsing position from CU-based to TU-based signalling processes, and to remove the redundant checking of the significant coefficient position and transform skip flag for single tree chroma coding blocks regarding LFNST index signalling. Furthermore, along with the signalling modification, redundant checking in RDO, unnecessary prohibition of transform skip and zeroing for single tree chroma coding blocks when LFNST index is signaled, are fixed.

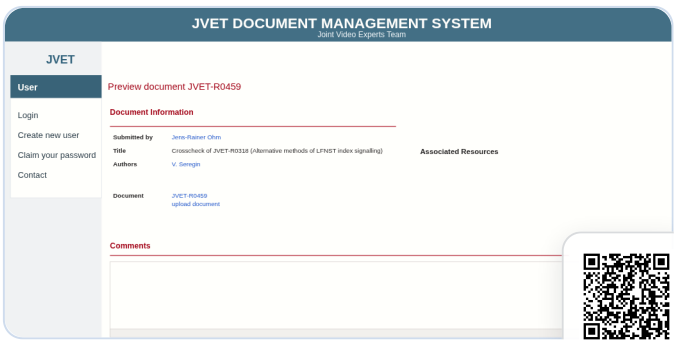
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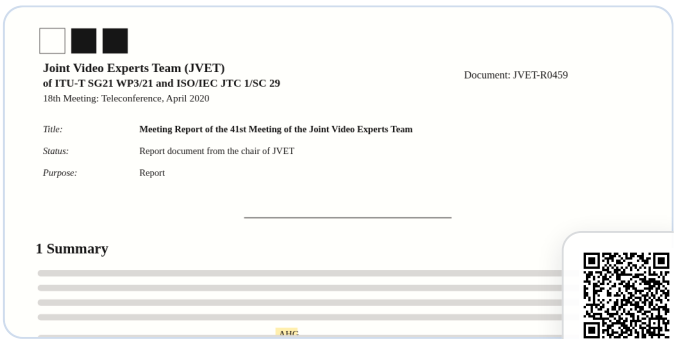
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MEETING NOTES

JVET-R0459 Crosscheck of JVET-R0318 (Alternative methods of LFNST index signalling) [Y. Kidani, K. Unno, K. Kawamura (KDDI)] [late]

CITATION

Y. Kidani, K. Unno, K. Kawamura, "Crosscheck of JVET-R0318 (Alternative methods of LFNST index signalling)", JVET-R0459, 18th Meeting: Teleconference, April 2020.

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1. [F. Bossen, J. Boyce, X. Li, V. Seregin, K. Sühling, "JVET common test conditions and software reference configurations for SDR video", JVET-N1010, 14th Meeting: Geneva, March 2019.](#)
2. [K. Zhang, L. Zhang, Y.-K. Wang, H. Liu, J. Xu, Z. Deng, "AHG9: Constraints on RPR", JVET-Q0318, 17th Meeting: Brussels, January 2020.](#)
3. [M. Koo, M. Salehifar, J. Lim, S. Kim, "Alternative methods of LFNST index signalling", JVET-R0318, 18th Meeting: Teleconference, April 2020.](#)