

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

Document: JVET-Q0128-v3

MPEG: m51717

17th Meeting: Brussels, January 2020

Title: On clarification of applicable conditions of DMVR and BDOF

Status: Input document to JVET

Purpose: Proposal

**Author(s) or
Contact(s):** [Takeshi Chujo](#) | xtk-chuujou@kddi.com | submitter (Sharp)
[Tomonori Hashimoto](#) | tomonori.hashimoto@sharp.co.jp (Sharp)
[E. Sasaki](#) | eiichi.sasaki@sharp.co.jp (Sharp)
[Tomohiro Ikai](#) | ikai.tomohiro@mail.sharp (Sharp)

Source: Sharp

HEADER EXCERPT FROM SOURCE DOCUMENT

Abstract

One of applicable conditions of DMVR and BDOF is that luminance coefficients and offsets for weighted prediction not exist for both L0 and L1 reference indexes. However, when any luminance coefficient not exist and some chroma coefficients exist, the applicable conditions of DMVR and BDOF are not clear. In this contribution, add a condition that chroma coefficients and offsets for weighted prediction not exist for both L0 and L1 reference indexes. The changes are to add only one line to the applicable condition of both DMVR and BDOF. There is no change of experimental result on CTC. There were negligible differences for fade sequences when WeightedPredB on VTM-7.0 is set to 1.

Problem Statement

One of applicable conditions of DMVR and BDOF is that luminance coefficients and offsets for weighted prediction are not exist for both L0 and L1 reference indexes. However, when any luminance coefficient is not existed and some chroma coefficients are existed, the applicable conditions of DMVR and BDOF are not clear. Currently, there are several confusions of both WD7 and VTM-7.0. In WD7, the variable weightedPredFlag is set equal to (pps_weighted_bipred_flag && !dmvrFlag), however this condition is not considered chroma weighted prediction. In VTM-7.0, DMVR and BDOF support chroma weighted prediction. However, CIIP encoder does not consider chroma weighted prediction for DMVR. Therefore, the results between encoder and decoder are not identical when CIIP is on and chroma coefficients and offsets for weighted prediction are existed.

Built from JVET-Q0128-v3.docx

LINKS

CARD

JVET-Q0128

<http://vexpertise.stbit.ru/documents/JVET-Q0128>

JVET Search

Takeshi ChujohTomonori HashimotoE. SasakiTomohiro Ikai

On clarification of applicable conditions of DMVR and BDOF

Authors:

ABSTRACT

MEETING NOTES



SOURCE

external source

https://jvet-experts.org/doc_end_user/current_document.php?id=8953

JVET DOCUMENT MANAGEMENT SYSTEM

Joint Video Experts Team

JVET

User

Login

Create new user

Claim your password

Contact

Preview document JVET-Q0128

Document Information

Submitted by: Jorma-Pekker Ojan

Title: On clarification of applicable conditions of DMVR and BDOF

Authors: V. Sengul

Document: JVET-Q0128 updated document

Associated Resources

Comments



ARCHIVE

archive v3

https://jvet-experts.org/doc_end_user/documents/17_Brussels/wg11/JVET-Q0128-v3.zip

DOC

JVET-Q0128-bugfix-v2.docx

DOC

JVET-Q0128-spec.docx

DOC

JVET-Q0128-v3.docx

PDF

JVET-Q0128-v3.pdf

XLS

JVET-Q0128_black-fade_ctc vs. wpm0.xlsm

XLS

JVET-Q0128_black-fade_ctc vs. wpm4.xlsm

XLS

JVET-Q0128_black-fade_wpm0 vs. proposal.xlsm

XLS

JVET-Q0128_black-fade_wpm4 vs. proposal.xlsm



MEETING NOTES

external meeting notes

https://www.itu.int/wftp3/av-arch/jvet-site/2020_01_Q_Brussels/JVET-Q_Notes_dI.docx

Joint Video Experts Team (JVET) of ITU-T SG21 WP3/21 and ISO/IEC JTC 1/SC 29 17th Meeting: Brussels, January 2020

Document: JVET-Q0128

Title: Meeting Report of the 41st Meeting of the Joint Video Experts Team

Status: Report document from the chair of JVET

Purpose: Report

1 Summary



MEETING NOTES

[JVET-Q0128](#) On clarification of applicable conditions of DMVR and BDOF [T. Chujoh, T. Hashimoto, E. Sasaki, T. Ikai (Sharp)]

CITATION

T. Chujoh, T. Hashimoto, E. Sasaki, T. Ikai, "On clarification of applicable conditions of DMVR and BDOF", JVET-Q0128, 17th Meeting: Brussels, January 2020.

REFERENCES

1. [P.Bordes, E.François, "AHG13 - Weighted Prediction vs Generalized Bi-prediction with Fade sequences", JVET-L0201, 12th Meeting: Macao, October 2018.](#)
2. [JVET-O2010](#)
3. [B. Bross, J. Chen, S. Liu, Y.-K. Wang, "Versatile Video Coding \(Draft 7\)", JVET-P2001, 16th Meeting: Geneva, October 2019.](#)