

**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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29th Meeting, by teleconference, 11-20 January 2023

Title: EE1-1.8: QP-based loss function design for NN-based in-loop filter

Status: Input document to JVET

Purpose: Proposal

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Source: vivo

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Abstract

This contribution presents the EE test results of JVET-AB0141. In this test, a new loss function is defined where quantization parameter is used as a factor for the loss calculation in the training stage. The proposed CNN model is implemented on top of NNVC common software (NCS1.0) using SADL int16 precision.

In EE1-1.8.2, the epochs of training luma and chroma model are 350 and 50. BD-rate changes of {Y, Cb, Cr} are summarized as follows:

EE1-1.8.2:

Compared with NNVC-3.0,

AI: {-7.49%, -20.60%, -21.28%}, EncT 153%, DecT 31176%

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LINKS

CARD

JVET-AC0118

<http://vexpertise.stbit.ru/documents/JVET-AC0118>

JVET Search

Chuan Zhou, Z. Lv, Jiaqi Zhang

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Authors:

ABSTRACT

MEETING NOTES

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Document Information

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Authors: V. Samarin

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Comments

Associated Resources

ARCHIVE

archive

https://jvet-experts.org/doc_end_user/documents/29_Teleconference/wg11/JVET-AC0118-v3.zip

DOC JVET-AC0118.docx

XLS JVET-AC0118_1.8.1 vs NNVC3.0.xlsm

XLS JVET-AC0118_1.8.1 vs NNVC3.0_filter_set1.xlsm

XLS JVET-AC0118_1.8.1_float vs NNVC3.0.xlsm

XLS JVET-AC0118_1.8.2 vs NNVC3.0.xlsm

XLS JVET-AC0118_1.8.2 vs NNVC3.0_filter_set1.xlsm

MEETING NOTES

external meeting notes

http://vexpertise.stbit.ru/meeting-notes/source/meeting_29_ac

Joint Video Experts Team (JVET) of ITU-T SG21 WP3/21 and ISO/IEC JTC 1/SC 29

29th Meeting: by teleconference, DE, January 202

Document: JVET-AC0118

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-AC0118](#) EE1-1.8: QP-based loss function design for NN-based in-loop filter [C. Zhou, Z. Lv, J. Zhang (vivo)]

This was already discussed in the context of the EE report.

CITATION

C. Zhou, Z. Lv, J. Zhang, "EE1-1.8: QP-based loss function design for NN-based in-loop filter", JVET-AC0118, 29th Meeting: by teleconference, DE, January 2023.