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AHG10: Performance of the GOP-based temporal filter in VTM-6.1

Status: Input document to JVET

Purpose: Proposal

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Abstract

The encoder-only GOP-based temporal filter proposed in JVET-O0549 was adopted in the previous meeting in Gothenburg. This contribution provides performance numbers by enabling the filter on top of VTM-6.1. The average Y/U/V BD-rates for the common test conditions (CTC) for the filter on top of VTM-6.1 are reported to be −3.91%/−6.63%/−6.56% (RA), −0.96%/−1.30%/−2.18% (LDB) and −1.48%/−1.61%/−2.23% (LDP). This can be compared to the numbers compared in JVET-O0549-v2: −3.49%/−6.96%/−6.53% (RA), −1.00%/−1.24%/−2.24% (LDB) and −1.47%/−1.95%/−2.78% (LDP).

The proponents are willing to arrange a subjective viewing at the meeting.

Background

The encoder-only GOP-based temporal filter proposed in JVET-O0549 was adopted in the previous meeting in Gothenburg. Filtering is applied to every 8th picture for random access coding and every 4th picture for low delay coding. The filter is not applied to all intra coding and therefore that test case is omitted from the results.

The overall filter strength, s0, is set according to the equation below for RA:

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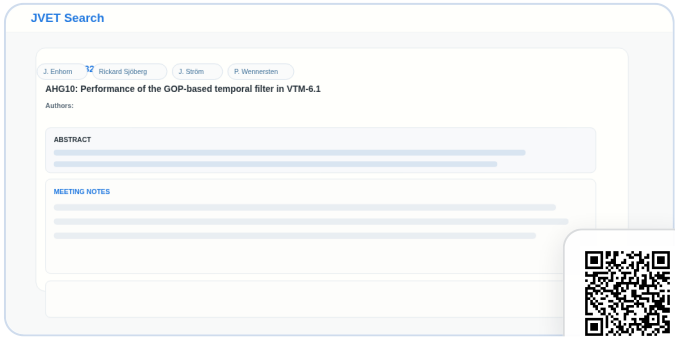
LINKS

CARD

JVET-P0328

http://vexpertise.stbit.ru/documents/JVET-P0328



SOURCE

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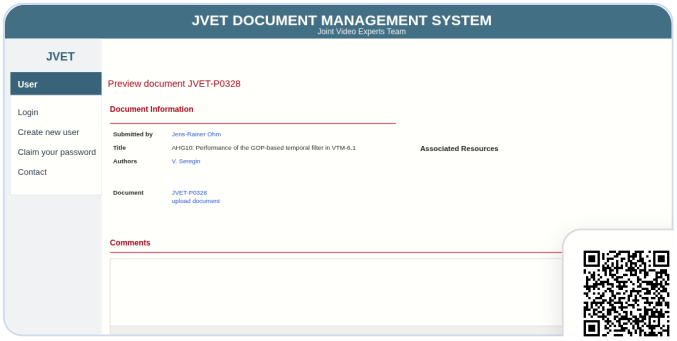


ARCHIVE

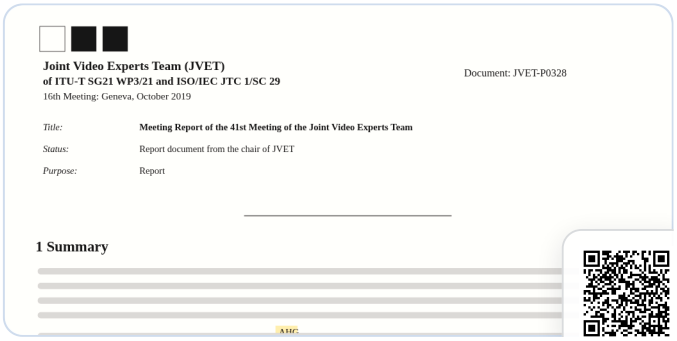
archive v2

https://jvet-experts.org/doc_end_user/documents/16_Geneva/wg11/JVET-P0328-v2.zip

MEETING NOTES

external meeting notes

https://www.itu.int/wftp3/av-arch/jvet-site/2019_10_P_Geneva/JVET-P_Notes_dG.docx



MEETING NOTES

JVET-P0328 AHG10: Performance of the GOP-based temporal filter in VTM-6.1 [J. Enhorn, R. Sjöberg, J. Ström, P. Wennersten (Ericsson)]

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REFERENCES

1. P. Wennersten, R. Sjöberg, J. Enhorn, "AHG10: Encoder-only GOP-based temporal filter", JVET-O0549, 15th Meeting: Gothenburg, SE, July 2019.