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: **AHG4: New HLG sequences for high bit-depth video coding**

Status: Input document to JVET

Purpose: Proposal

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Source: Sony

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Abstract

This contribution proposes new HLG (Hybrid Log-Gamma) test sequences for high bit-depth video coding. This provides information on the test sequences, which are resolution, frame rate, chroma format, bit-depth, frame count and the coding results of VTM-10.0 compared to HM-16.22-REext.

Introduction

We, Sony, proposed five HLG sequences, YUV4:2:0/10-bit, for HDR CTC in the VVC Ver.1 [1][2], and two of them were adopted at that time. The VVC Ver.1 was finalized in the last meeting, and a new AHG is established where high bit-depth, high bit rate, and high frame rate coding are studied. One of the requirements for the AHG is to define test sequences. So, we would like to propose the same content as previously proposed, but at 12-bit. These sequences are captured by the 4K camera below in Table 1.

Table 1: Specifications of 4K camera

Test sequence

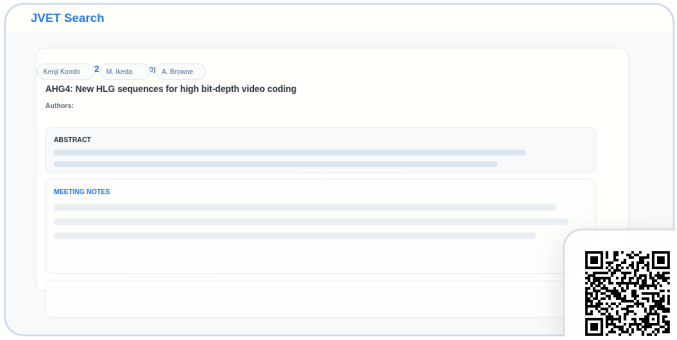
Built from JVET-T0082-v3.docx

LINKS

CARD

JVET-T0082

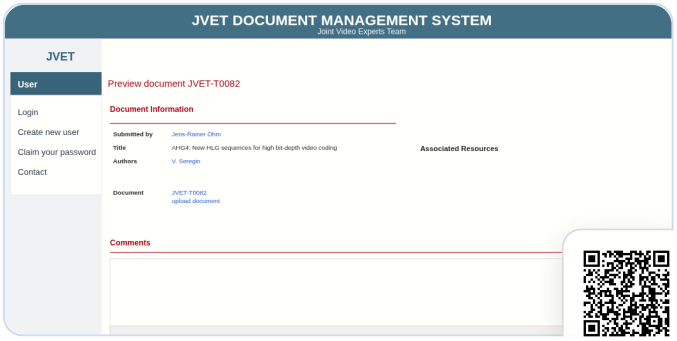
http://vexpertise.stbit.ru/documents/JVET-T0082



SOURCE

external source

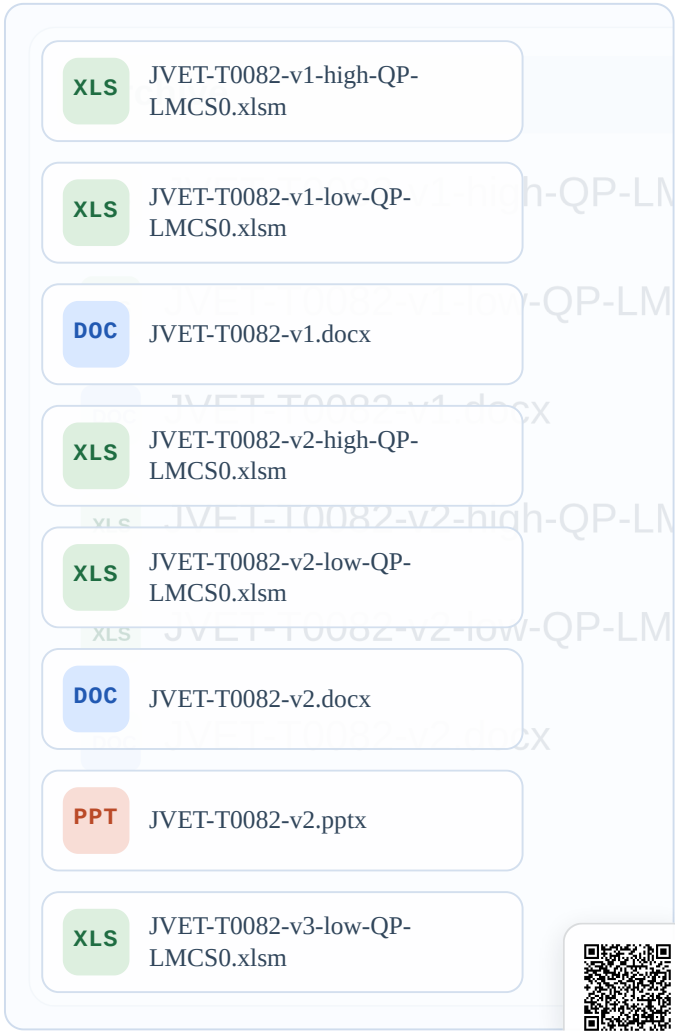
https://jvet-experts.org/doc_end_user/current_document.php?id=10461



ARCHIVE

archive v3

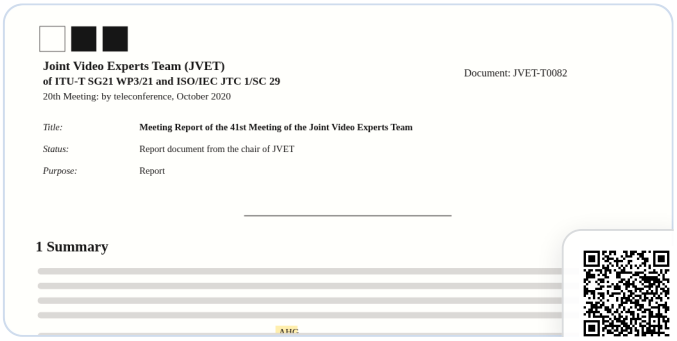
https://jvet-experts.org/doc_end_user/documents/20_Teleconference/wg11/JVET-T0082-v3.zip



MEETING NOTES

external meeting notes

https://www.itu.int/wftp3/av-arch/jvet-site/2020_10_T_Virtual/JVET-T_Notes_dH.docx



MEETING NOTES

JVET-T0082 New HLG sequences for high bit-depth video coding [K. Kondo, M. Ikeda, A. Browne (Sony)]

This contribution was discussed briefly in session 20 at 2010 on Thursday 15 October.

This contribution proposes new HLG (Hybrid Log-Gamma) test sequences for high bit-depth video coding. This provides information on the test sequences, which are resolution, frame rate, chroma format, bit-depth, frame count and the coding results of VTM-10.0 compared to HM-16.22-REext.

This contribution was discussed in the HBD BoG (see section 5.1.1, esp. JVET-T0124).

Conformance test development (1)

CITATION

K. Kondo, M. Ikeda, A. Browne, "AHG4: New HLG sequences for high bit-depth video coding", JVET-T0082, 20th Meeting: by teleconference, October 2020.

REFERENCES

1. T. Tsukuba, M. Ikeda, T. Suzuki, "New Test Sequence of 4K Hybrid Log-Gamma", JVET-G0063, 7th Meeting: Torino, July 2017.
2. T. Tsukuba, M. Ikeda, T. Suzuki, "AHG7: Test Sequences of 4K Hybrid Log-Gamma", JVET-H0038, 8th Meeting: Macau, October 2017.
3. T. Ikai, A. Browne, X. Xiu, "AHG12: Preliminary common test conditions for high bitdepth video coding", JVET-T0047, 20th Meeting: by teleconference, October 2020.