

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

5th Meeting: Geneva, January 2017

Document: JVET-E0004-v2

MPEG: m39813

Title: JVET AHG report: Test material (AHG4)

Status: Input document to JVET

Purpose: Proposal

**Author(s) or
Contact(s):** [Teruhiko Suzuki](#) | teruhiko.s@sony.com
[V. Baroncini](#) | baroncini@gmx.com
[Jie Chen](#) | jiechen.cj@alibaba-inc.com
[Jill Boyce](#) | jill.boyce@nokia.com
[Andrey Norkin](#) | anorkin@netflix.com

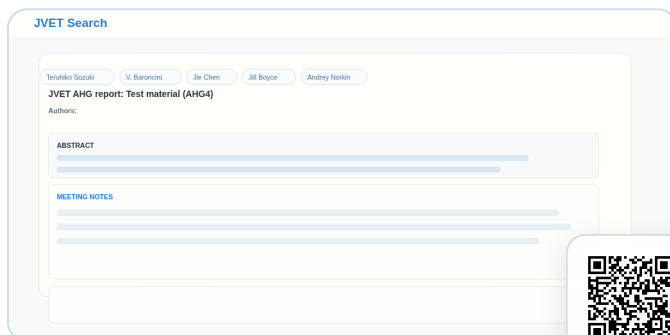
Source: T. Suzuki, V. Baroncini, J. Chen, J. Boyce, A. Norkin

LINKS

CARD

JVET-E0004

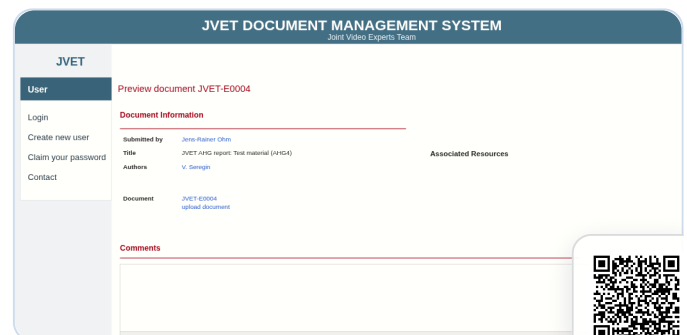
<http://vexpertise.stbit.ru/documents/JVET-E0004>



SOURCE

external source

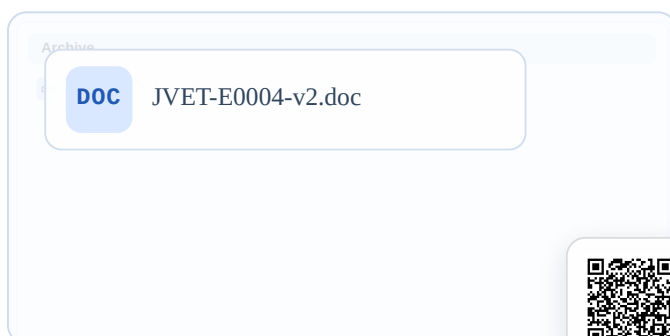
https://jvet-experts.org/doc_end_user/current_document.php?id=2997



ARCHIVE

archive v2

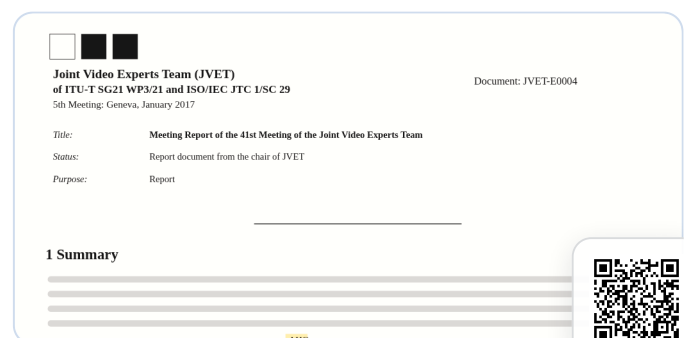
https://jvet-experts.org/doc_end_user/documents/5_Geneva/wg11/JVET-E0004-v2.zip



MEETING NOTES

external meeting notes

http://vexpertise.stbit.ru/meeting-notes/source/meeting_5_e



MEETING NOTES

[JVET-E0004](#) JVET AHG report: Test material (AHG4) [T. Suzuki, V. Baroncini, J. Chen, J. Boyce, A. Norkin]

Discussed Thursday 12 January 1500 (GJS & JRO)

The test sequences to test as defined in JVET-D1002 were uploaded at the ftp site.

The workplan to explore characteristics of test sequences was defined as JVET-D1002. Reports of the evaluation were submitted at this meeting. Those contributions should be reviewed. Bitstreams for visual assessment were available at the ftp site prior to the meeting:

<ftp.ient.rwth-aachen.de> (directory /bitstreams/5_Geneva)

Volunteers were encouraged to preview those bitstreams before the meeting. It was not feasible to subjectively evaluate all bitstreams. The AHG suggested discussing how to perform visual assessment in the meeting.

The following issues were identified during the preparation of bitstreams.

Some of test sequences at the ftp site are less than 10 s in length, but it was agreed to test 10 s at the Chengdu meeting. The following sequences had less than 10 s available.

- 4K: Tango, Crosswalk, FoodMarket2 and Timelapse
- HD: HD_FoodMarket2

Longer versions of some sequences were uploaded to the ftp site. Available lengths were as follows:

- Crosswalk (470 frames @ 60 fps = 7.83 s) 1 scene
- Time Lapse (600 frames @ 60 fps = 10 s) 1 scene
- Food Market 2 (782 frames @ 60 fps = 13.03 s) 3 scenes
- Tango (739 frames @ 60 fps = 12.32 s) 3 scenes

The AHG suggested that it should be discussed which part of the sequences, we should evaluate.

Bugs related to “floating point QP” with parallel encoding were reported. JVET-E0059 proposed an approach. The AHG suggested that this should be discussed in the meeting.

There was one input contribution JVET-E0086 on a new test sequence in HLG HDR format. The AHG suggested that this should be discussed in the meeting.

- JVET-E0086 "New HDR 4K test sequences with Hybrid Log-Gamma transfer characteristics", S. Iwamura, A. Ichigaya (NHK).

A bug fix of the reference software was reported:

- JVET-E0059 "Floating point QP support for parallel encoding in RA configuration", X. Ma, H. Chen, H. Yang, M. Sychev (Huawei).

Coding performance of video test sequences (as defined in JVET-D1002) was analyzed in the following

- JVET-E0022 "Evaluation report of 1080P Test Sequences from Sharp", T. Hashimoto, Y. Yasugi (Sharp).
- JVET-E0040 "AHG4: Evaluation report of new 4K test sequences", K. Choi, E. Alshina (Samsung).
- JVET-E0041 "AHG4: Evaluation report of new HDR test sequences", K. Choi, E. Alshina (Samsung).
- JVET-E0042 "AHG4: Cross-check of 4K test sequences", K. Choi, E. Alshina (Samsung).
- JVET-E0053 "Evaluation report of SDR test sequences (4K5-9 and 1080p1-5)", S. Cho, S.-C. Lim, J. Kang (ETRI).
- JVET-E0082 "AHG4: Evaluation report of partial 4K sequences from DJI", X. Zheng (DJI).
- JVET-E0087 "AHG4: Evaluation report of 4K test sequences (ClassA1/A2)", H.-C. Chuang, J. Chen, M. Karczewicz (Qualcomm).
- JVET-E0095 "Evaluation report of 1080p test sequences", O. Nakagami, T. Suzuki (Sony).
- JVET-E0110 "AHG4: Evaluation report of SDR test sequences (4K8-9 and 1080p1-5)", Y.-H. Ju, C.-C. Lin, C.-L. Lin, Y.-J. Chang, P.-H. Lin (ITRI).
- JVET-E0112 "AHG4: Evaluation report of aerial photography sequences", Y.-H. Ju, C.-C. Lin, C.-L. Lin, Y.-J. Chang, P.-H. Lin (ITRI).
- JVET-E0121 "AHG4: Evaluation report of Netflix HDR test sequences", [T. Lu](#), F. Pu, [P. Yin](#), T. Chen, W. Husak (Dolby)

The AHG suggested that visual assessment should be conducted during the meeting as defined in JVET-D1002. Six target bit rates were identified therein for Class A, and five for Class B. At the highest bit rates, approximately transparent quality was suggested to be achieved, so a down-selection is needed. It was suggested to select bit rates by HM encoding first. However, review of the contributions was needed.

The AHG recommended to:

- Review all related contributions.
- Perform subjective viewing test as defined in JVET-D1002.
- Perform viewing of new test sequences
- Discuss further actions to select new test materials for JVET activity.

A BoG (coordinated by T. Suzuki) was asked to review the related contributions, and to perform pre-selection and viewing.

CITATION

T. Suzuki, V. Baroncini, J. Chen, J. Boyce, A. Norkin, "JVET AHG report: Test material (AHG4)", JVET-E0004, 5th Meeting: Geneva, January 2017.