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| *Title:* | **JCT-VC AHG report: SCC coding performance analysis (AHG6)** | | |
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# Abstract

This report summarizes the activities of the JCT-VC ad hoc group on SCC coding performance analysis (AHG6) between the JCT-VC 21st meeting in Warsaw, Poland, and the 22nd meeting in Geneva, Switzerland.

# Mandates

# • Study test conditions and coding performance analysis methods for SCC coding performance

# • Analyze coding performance of draft and proposed SCC coding features

# Activities

## Email reflector activity

The kick-off message for AHG 6 was sent out on June 29.

## Common test conditions in JCTVC-U1015

Per the decisions captured in the meeting notes JCTVC-U\_Notes\_dC, both 4:4:4 and 4:2:0 versions of ChineseEditing\_1920x1080\_60\_8bit have been added to the test material.

A software bug was identified in SCM-5.0 and 5.1 that made the coding results different between Windows OS and Linux. Consequently, SCM-5.2 was released with the bug-fix and the anchor data was revised in U1015-r2. More details on this matter are discussed in the AHG8 report.

## Related contributions

**JCTVC-V0033**: Comparison of Compression Performance of HEVC Screen Content Coding Extensions Test Model 5 with AVC High 4:4:4 Predictive profile [B. Li, J. Xu, G. J. Sullivan (Microsoft)]

This contribution is a study of the relative objective (i.e. PSNR-based) compression performance of HEVC Screen Content Coding (SCC) Test Model 5 (SCM 5) and AVC High 4:4:4 Predictive Profile. It builds upon the prior work reported in JCTVC-G399, JCTVC-H0360, JCTVC-I0409, JCTVC-J0236, JCTVC-K0279, JCTVC-L0322, JCTVC-M0329, JCTVC-O0184, JCTVC-P0213, JCTVC-R0101, JCTVC-S0084, JCTVC-T0042, and JCTVC-U0051 – updating the results by using the latest available reference software (JM-18.6, HM-16.6+SCM-5.2), profile and test model designs, and SCC common test conditions (CTC) test sequences. The overall results indicate that for screen content CTC sequences, the HEVC SCC Test Model 5 improves quite substantially over JM-18.6. For example, for RGB text and graphics with motion (TGM) 1080p&720 sequences (without the ChineseEditing sequence), HEVC SCC Test Model 5 saves 86%, 81%, and 78% bits for AI, RA and LB lossy coding over JM-18.6, respectively (the corresponding numbers are 86%, 80% and 78% in JCTVC-U0051, which compares HM-16.4+SCM-4.0 with JM-18.6).

# Recommendations

It is recommended to

* Continue to evaluate the coding performance of the newly adopted tools and their interaction with the existing HEVC tools in the Main profile and range extensions.