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| *Title:* | **Cross-check report on HDR/WCG CE1 new anchor generation** | | |
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| *Purpose:* | Report | | |
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# Abstract

This document is a cross-check report on the anchor generation of HDR/WCG coding. The verification task was done and both objective metrics and md5sums exactly matched with those of anchor v3.2 provided by HDR/WCG CE1 coordinators.

# Verification

As HDR/WCG CE1 has developed the anchor since the previous meeting, several ways to improve CfE anchor [1] have been investigated and incorporated into the anchor generation process. At the interim meeting in Vancouver, anchor v3.2 was selected as the new anchor to be used for HDR/WCG. The verification task was done using the software (anchor v3.2) provided by CE1 coordinators.

To verify the software package and measure the objective metrics, a computer platform based on Intel® Xeon CPU E5-2690@3GHz was applied. Software package obtained from CE1 coordinators was successfully compiled and tested under the test conditions including new sequences, split sequences, and new rate points as described in [2]. For the evaluation of objective metrics, we converted some original sequences with TIF format into EXR format and calculated objective metrics after conversion from reconstructed YUV to EXR in all classes.

# Results of Cross-check

The objective metrics are shown in the following table. As shown in Table 1, the results of cross-check perfectly matched with those delivered by CE1 coordinators in all classes. Detailed results on HM encoding, md5sums, and objective metrics can be found in the attached ZIP files. In addition to the cross-check of anchor v3.2, we conducted viewing test on SIM2 display to identify the improvement of subjective quality and confirmed that anchor v3.2 produces less colour artefacts compared to CfE anchor, especially for the sequences having noticeable colour artefacts such as *Market*, *ShowGirl*, *EBU\_Hurdles*, *EBU\_Start*, and *BikeSparklers*.

Table . Results of cross-check compared to new anchor (v3.2)



# References

1. A. Luthra, E. Francois, W. Husak, “Call for Evidence (CfE) for HDR and WCG Video Coding,” N15083, Geneva, CH, Feb. 2015.
2. J. Strom, J. Sole, Y. He, “Report of HDR CE1,” Document of Joint Collaborative Team on Video Coding, JCTVC-W0021, San Diego, USA, Feb. 2016.