**INTERNATIONAL ORGANIZATION FOR STANDARDIZATION**

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**ISO/IEC JTC1/SC29/WG11**

**CODING OF MOVING PICTURES AND AUDIO**

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| *Title:* | **Clarification guidance for responses to the JVET-H1002 CfP on Video Compression with Capability beyond HEVC** | | |
| *Status:* | Output document approved by JVET | | |
| *Purpose:* | Guidance for proposal submissions | | |
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This document provides clarification guidance for responses to the [JVET-H1002](http://phenix.int-evry.fr/jvet/doc_end_user/current_document.php?id=3361) CfP on Video Compression with Capability beyond HEVC, as agreed at the 9th meeting of JVET (January 2018).

* The number of frames listed for each sequence in the test set is the number of frames to be encoded and is the number of frames that will be used in the subjective testing. Disregard the statement in CfP section C.1 that says that all sequences are 10 seconds long; it is not strictly true in all cases.
* In case of any confusion, the Showgirl sequence is 25 Hz. The frame rate in the CfP document was correct.
* For sequences with a copyright frame at the end, that frame is not to be encoded (and is not included in the counted number of frames).
* In the HDR category, for the deltaE100 and PSNR-L100 metrics, the peak luminance should be set to 1 000 cd/m2 for HDR-A (HLG) and 10 000 cd/m2 for HDR-B (PQ). The CfP document says to use 10 000 cd/m2 but also says that configuration files would be provided, and the provided configuration files for the conversion process used 1 000 cd/m2 for the HLG content. (This is not a major concern, since if a proponent uses 10 000 cd/m2 instead of 1 000 cd/m2, the difference should be apparent and can be corrected by subtracting 10 dB from the provided measurements.)
* PSNR calculations should be performed as in the HM and JM by default, i.e., for 10 bit video the numerator should be (255\*4)2, not 10232. (This makes a difference of only 0.0255 dB, but is computed that way so that any difference in computed PSNR when coding up-shifted 8-bit video as 10-bit video would be due to MSE improvement, not a difference in the numerator constant value.)
* For computing wPSNR values, the CfP says that the implementation in the JEM software is to be used. Proponents may use either the v0.17 HDRtools implementation or the JEM implementation as they so choose, since the difference is negligible. For some test sequences, the provided anchor wPSNR measurements were computed using implementations of the metric other than the JEM encoder, but the difference in all cases seems to be in the fourth digit past the decimal point, so it was concluded that there is no need to change them.
* To minimize the burden on proponents, proponents do not need to measure JEM runtimes for comparison to their proposal. Instead they are to measure HM encoder and decoder runtimes, and JEM runtimes will be estimated from HM runtimes by the relative runtimes measured for anchor generation.