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| *Title:* | **Crosscheck of JCTVC-T0110 on memory reduction for storing palette predictor when WPP is enabled** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Cross-verification report | | |
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# Abstract

This contribution presents the results of a cross-verification on investigation of maximum palette predictor size (JCTVC-T0110). The BD-rate performance results match those provided by the proponent. The implemented algorithm agrees with the proposal. It is asserted that for the palette predictor size of 64 used in SCM3.0, for WPP, memory savings of up to (32×3) bytes are achieved for 8 bit, 3 component input sequences.

# Technical description

In JCTVC-T0110, it is proposed to store only a maximum of the first 32 entries for the palette predictor to initialize the palette predictor for the next WPP row. It is asserted that this would result in memory savings of up to (32×3) bytes for each WPP row.

However, due to the possibility of reuse of the memory for storing the palette predictor for the next WPP row, the actual memory savings are only up to (32×3) bytes

# Simulation results

The proposed method was tested for lossy and lossless configuration. WPP was enabled for the anchor as well as the tested configuration (--WaveFrontSynchro=1). The simulation platform was a homogenous LINUX cluster consisting of Intel(R) XEON CPUs.The performance is compared in terms of BD-rates.

Table 1 shows the BD-rate performance for All-Intra lossy configuration. Table 2 provides the corresponding BD-rate results for the All-Intra lossless configuration. For results of other configurations, please refer to the attached spreadsheets.



Table 1: BD-rate results for the proposed method with WPP enabled for all-intra lossy configuration (anchor is SCM3.0 with WPP enabled)



Table 2: BD-rate results for the proposed method with WPP enabled for all-intra lossy configuration (anchor is SCM3.0 with WPP enabled)

# Conclusion

The results of JCTVC-T0110 on memory reduction for storing palette predictor when WPP is enabled have been verified. The implemented algorithm agrees with the description in JCTVC-T0110. The BD-rates match exactly with those provided by the proponents.

It is asserted that for the palette predictor size of 64 used in SCM3.0, for WPP, memory savings of up to (32×3) bytes are achieved for 8 bit, 3 component input sequences.