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| *Title:* | **SCE1: Crosschecking of SCE1 3.2 on  Inter layer intra mode prediction** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Proposal | | |
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# Abstract

This contribution reports crosschecking results of SCE1 3.2 on Inter-layer intra mode prediction [1] in SHVC. The simulation results reportedly matched those provided by the proponents.

# Introduction

In this test (JCTVC-L0260 [2]), an inter-layer intra mode prediction method was proposed.

If the intra prediction mode of the corresponding block in base layer is available, three most probable modes (MPMs) for the enhancement layer are assigned to {modeBL, modeBL-1, modeBL+1}. Otherwise MPMs are derived just as in the base layer (HEVC version 1). The test also includes modification to avoid parsing error caused by incorrect mode derivation.

In addition, the test also studies the effect of

1) Disabling MDCS for enhancement layer

2) Using BL mode information from center and left-top positions of the corresponding BL block

3) Using BL mode vs. DC mode.

# Experimental results

We received the source code from the proponents, implemented in SHM-1.0, and did a quick code study to verify that the proposed method was implemented as described. We used the common conditions [3] in our experiments and ran simulations for the AI cases.

The results match what was provided by the proponents and are summarized as follows:

In source code, for the below configuration the results match with the results provided by the proponents

#define SCE1\_C3\_2 1 //4.3.2 on L0260

#define SCE1\_PARSING\_FREE 1 //0:as HEVC 1:up-right always

#define SCE1\_COBL\_IS\_LT 0 //0:center 1:left-top

#define SCE1\_INTRABLNEI\_IS\_DC 0 //0:modeBL 1:DC

The Test results for the above configuration are as follows:

# 

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# Conclusion

In this contribution, we have presented the results of our cross-check of Test SCE1 3.2 on Inter-layer intra mode prediction (JCTVC-L0260). The implemented algorithm is in line with the proponent’s description, and the simulation results also match that provided by the proponents.

# References

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2. [M. Guo](mailto:mei.guo@mediatek.com), [S. Liu](mailto:shan.liu@mediatek.com), [S. Lei (MediaTek)](mailto:shawmin.lei@mediatek.com), [J. Park](mailto:jy.park@lge.com), [J. Kim](mailto:jungsun.kim@lge.com), B. Jeon: Non-TE5.1: Inter-layer Intra mode prediction, JCTVC-L0260, Geneva, Switzerland, 14–23 Jan. 2013.

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