|  |  |
| --- | --- |
| **Joint Collaborative Team on 3D Video Coding Extensions**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  9th Meeting: Sapporo, JP, 3 – 9 July 2014 | Document: JCT3V-J0045 |

|  |  |  |  |
| --- | --- | --- | --- |
| *Title:* | **Alignment of motion derivation from other components** | | |
| *Status:* | Input Document | | |
| *Purpose:* | Proposal | | |
| *Author(s) or Contact(s):* | Junghak Nam  Sehoon Yea  19, Yangjae-daero 11gil, Seocho-gu Seoul 137-130, Korea | Tel: Email: | +82-2-6912-6477 [junghak.nam@lge.com](mailto:junghak.nam@lge.com) |
| *Source:* | LG Electronics | | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Abstract**

In current 3D-HEVC, several tools refer motion information from other components; 1) motion info. for IvMC and ARP is derived from corresponding block in an inter-view reference, 2) motion info. for MPI and DDD is derived from corresponding texture block with same view index. There is a mismatch between specification and HTM in respect of block position to derive motion information. In addition, motion compression scheme for ARP is missing in specification. In this contribution, Alignment of motion derivation from other components is proposed. The proposed method aligns block position to derive motion information between specification and HTM. Furthermore, motion compression scheme for ARP is proposed.

1. **Introduction**

Motion information for IvMC is derived from a corresponding block which is identified by a disparity vector, which is DoNBDV. Motion vector and its reference index of center position in the corresponding block is utilized for IvMC candidate. The motion vector is compressed because the corresponding block is in other view component having same time instance. Similarly, motion information of other component for inter-view ARP is required. A corresponding block for inter-view ARP is also derived by a disparity vector, which is NBDV. Motion vector and its reference index of center position in the corresponding block is utilized for inter-view ARP same as IvMC candidate. Note that motion compression process for ARP is missing in specification.

Motion information for MPI and DDD is derived from correspond texture block with same view index. Motion vector and its reference index of center position in the corresponding block is utilized for MPI and DDD. However, block position for motion derivation in HTM is a slightly different to specification.

1. **Proposed method**

This contribution proposes alignment of motion derivation from other components. The proposed method aligns block position to derive motion information between specification and HTM. Furthermore, motion compression scheme for ARP is proposed.

1. **Conclusion**

Alignment of motion derivation from other component is proposed in this contribution. The proposed method aligns position of motion derivation for all motion derivation process. Moreover, motion compression is applied to whole motion derivation process. There is no impact of coding efficiency.

# Patent rights declaration(s)

**LG Electronics may have current or pending patent rights relating to the technology described in this contribution and, conditioned on reciprocity, is prepared to grant licenses under reasonable and non-discriminatory terms as necessary for implementation of the resulting ITU-T Recommendation | ISO/IEC International Standard (per box 2 of the ITU-T/ITU-R/ISO/IEC patent statement and licensing declaration form).**