|  |  |
| --- | --- |
| **Joint Collaborative Team on 3D Video Coding Extensions**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  4th Meeting: Incheon, KR, 20–26 Apr. 2013 | Document: JCT3V-D0192 |

|  |  |  |  |
| --- | --- | --- | --- |
| *Title:* | **Proposed text for JCT3V-D0192 based on 3D-AVC Draft Text 5** | | |
| *Status:* | Input Document to JCT-3V | | |
| *Purpose:* | Proposal | | |
| *Author(s) or Contact(s):* | Vijayaraghavan Thirumalai Li Zhang Ying Chen Marta Karczewicz  5775 Morehouse Drive San Diego, CA 92121 USA | Tel: Email: | 1 858 845 5663 [vthiruma@qti.qualcomm.com](mailto:vthiruma@qti.qualcomm.com)  1-858-651-6660 [lizhang@qti.qualcomm.com](mailto:lizhang@qti.qualcomm.com)  1-858-845-6589 [cheny@qti.qualcomm.com](mailto:cheny@qti.qualcomm.com) |
| *Source:* | Qualcomm Incorporated | | |

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

# Abstract

This document provides the draft text changes of contribution JCT3V-D0192. The deleted part is highlighted in ~~red strikethrough~~, the newly added text is in green.

J.8.3.1.1 Depth-based derivation process for luma motion vectors for skipped macroblocks in P and SP slices

This process is invoked when mb\_type is equal to P\_Skip, nal\_unit\_type is equal to 21, DepthFlag is equal to 0, dmvp\_flag is equal to 1 and MbVSSkipFlag is equal to 0.

Outputs of this process are:

– the motion vector mvL0,

– the reference index refIdxL0.

For the derivation of the motion vector mvL0 and refIdxL0 of a P\_Skip macroblock type, the following ordered steps are specified:

1. The process specified in subclause J.8.3.1.4 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, currSubMbType set equal to "na", and listSuffixFlag equal to 0 as input and the output is assigned to the motion vector mvL0 and the reference index refIdxL0.
2. When refIdxL0 is equal to -1, the following applies:

~~– The reference index refIdxL0 is set to 0.~~

~~– The derivation process for luma motion vector prediction in subclause J.8.3.1.7 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, refIdxL0, and currSubMbType = “na” as the inputs and the output being mvL0.~~

– The derivation process for the neighbouring blocks for motion data in subclause 8.4.1.3.2 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, currSubMbType set equal to “na”, and listSuffixFlag equal to 0 as the input and with mbAddrN\mbPartIdxN\subMbPartIdxN, reference indices refIdxL0Cand[ i ] and the motion vectors mvL0Cand[ i ] as the outputs with i equal to 0, 1, and 2 corresponding to the neighbouring partitions A, B, or C.

– If refIdxL0Cand[ i ] is equal to -1 for all values of i from 0 to 2, inclusive, refIdxL0 and mvL0 are set to 0. Otherwise, refIdxL0 and mvL0 is set to refIdxL0Cand[ i ] and mvL0Cand[ i ], respectively for the first occurrence of refIdxL0Cand[ i ] being greater than or equal to 0, with i ascending from 0 to 2, inclusive.

J.8.3.1.3 Derivation process for luma motion vectors for B\_Skip, B\_Direct\_16x16 and B\_Direct 8x8

Inputs to this process are current macroblock partition index mbPartIdx and subMbPartIdx.

Outputs of this process are the reference indices refIdxL0, refIdxL1, the motion vectors mvL0 and mvL1, the motion vector count variable subMvCnt, and the prediction list utilization flags, predFlagL0 and predFlagL1.

For the derivation of output, the following ordered steps are specified:

1. Let the variable currSubMbType be set equal to sub\_mb\_type[ mbPartIdx ].
2. The process specified in subclause J.8.3.1.4 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, currSubMbType and listSuffixFlag set equal to 0 as input and the output is assigned to the motion vector mvL0 and the reference index refIdxL0.
3. The process specified in subclause J.8.3.1.4 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, currSubMbType and listSuffixFlag set equal to 1 as input and the output is assigned to the motion vector mvL1 and the reference index refIdxL1.
4. When both reference indices refIdxL0 and refIdxL1 are equal to -1, the following applies:

~~– The reference index refIdxL0 is set equal to 0.~~

~~– The derivation process for luma motion vector prediction in subclause J.8.3.1.7 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, refIdxLX (with X being 0 or 1), and currSubMbType as the inputs and the output being mvLX.~~

* + The derivation process for the neighbouring blocks for motion data in subclause 8.4.1.3.2 is invoked with mbPartIdx set equal to 0, subMbPartIdx set equal to 0, currSubMbType set equal to “na”, and listSuffixFlag equal to X (with X being 0 and 1, inclusive) as the input and with mbAddrN\mbPartIdxN\subMbPartIdxN, reference indices refIdxLXCand[i] and the motion vectors mvLXCand[i] as the outputs with i equal to 0, 1, and 2 corresponding to the neighbouring partitions A, B, or C.
  + If both refIdxL0Cand[ i ] and refIdxL1Cand[ i ] are equal to -1 for all values of i from 0 to 2, inclusive, refIdxLX, and mvLX are set to 0, with X being 0 and 1. Otherwise, for X being 0 and 1 inclusive, refIdxLX and mvLX is set to refIdxLXCand[ i ] and mvLXCand[ i ], respectively for the first occurrence of refIdxLXCand[ i ] (where X equal to 0 or 1) being greater than or equal to 0, with i ascending from 0 to 2, inclusive.