

CLAIMS

1. A method of deriving MVP (motion vector predictor) in three-dimensional video coding, the method comprising:

determining an MVP candidate set for a selected block in a picture, wherein the MVP candidate set comprises at least one spatial MVP candidate derived from a plurality of neighboring blocks and one inter-view candidate for the selected block; and

selecting one MVP from an MVP list for motion vector coding of the block, wherein the MVP list is selected from the MVP candidate set, wherein said one inter-view candidate is derived based on a derived disparity value associated with the selected block, wherein the derived disparity value maps the selected block to a pointed block, and motion vector associated with the pointed block is used as said one inter-view candidate.

2. The method of Claim 1, wherein the MVP list consists of only one MVP candidate.

3. The method of Claim 2, wherein no MVP index associated with said only one MVP candidate is included in a video bitstream corresponding to the three-dimensional video coding.

4. The method of Claim 2, wherein said only one MVP candidate is a first available MVP candidate from the MVP candidate set according to a predefined order.

5. The method of Claim 1, wherein the MVP list consists of two or more MVP candidates.

6. The method of Claim 5, wherein an MVP index associated with said selecting one MVP from the MVP list is included in a video bitstream corresponding to the three-dimensional video coding.

7. The method of Claim 1, wherein the plurality of neighboring blocks comprises a left neighboring block, an above neighboring block and an upper-right neighboring block.

8. The method of Claim 7, wherein the plurality of neighboring blocks further comprises an upper-left neighboring block if the upper-right neighboring block has no motion vector available.

~~9. The method of Claim 1, wherein said one inter-view candidate is derived based on a derived disparity value associated with the selected block, wherein the derived disparity value maps the selected block to a pointed block, and motion vector associated with the pointed block is used as said one inter-view candidate.~~

~~10.9._____~~ The method of Claim ~~9~~ 1, wherein the derived disparity value is derived

based on disparity vectors associated with the plurality of neighboring blocks, depth data of the selected block, or both the disparity vectors associated with the plurality of neighboring blocks and the depth data of the selected block.

5 ~~11.10.~~ The method of Claim ~~109~~, wherein the depth data of the selected block is real depth data of the selected block or virtual depth data warped from other views.

~~12.11.~~ The method of Claim ~~91~~, wherein the derived disparity value is derived based on the depth data at a central point, point (0, 0), point (7, 7), or an average depth value of the selected block.

10 ~~13.12.~~ The method of Claim ~~91~~, wherein the depth data of the selected block is used to derive the derived disparity value if none of the disparity vectors associated with the plurality of neighboring blocks is available.

~~14.13.~~ The method of Claim ~~91~~, wherein the pointed block is associated with a base-view picture.

15 ~~15.14.~~ An apparatus for deriving MVP (motion vector predictor) in three-dimensional video coding, the apparatus comprising:

 means for determining an MVP candidate set for a selected block in a picture, wherein the MVP candidate set comprises at least one spatial MVP candidate derived from a plurality of neighboring blocks and one inter-view candidate for the selected block; and

20 means for selecting one MVP from an MVP list for motion vector coding of the block, wherein the MVP list is selected from the MVP candidate set.

~~16.15.~~ A method of deriving an inter-view candidate for motion vector coding in three-dimensional video coding, the method comprising:

 deriving a disparity value based on a disparity vector associated with at least a neighboring block of a selected block in a picture;

25 if the disparity vector is unavailable, deriving the disparity value based on depth data of the selected block; and

 determining the inter-view candidate based on the derived disparity value;

 wherein the derived disparity value maps the selected block to a pointed block and motion vector associated with the pointed block is used as said inter-view candidate.

30 ~~17.16.~~ The method of Claim ~~16.15~~, wherein the depth data of the selected block is real depth data of the selected block or virtual depth data warped from other views.

~~18.17.~~ The method of Claim ~~16.15~~, wherein the derived disparity value is derived based on the depth data at a central point, point (0, 0), point (7, 7), or an average depth

value of the selected block.

18. The method of claim 1, wherein a size of the MVP candidate set is fixed.

19. The method of claim 18, wherein the fixed size of the MVP candidate set is predefined or explicitly transmitted.

5 20. The method of claim 19, wherein one or more default candidate is added to the MVP candidate set if the number of available is smaller than the fixed size.