

CLAIMS

1. A method of video processing, comprising:
determining, for a conversion between a current block of a video coded using an sub-block based temporal motion vector prediction (sbTMVP) tool and a bitstream representation of the video, a modified motion vector used to locate a corresponding block in a different picture from the current picture of the current block, wherein the modified motion vector is generated by right-shifting a motion vector, used for prediction in the sbTMVP tool, to an integer precision;
and
performing, based on the determining, the conversion.
2. The method of claim 1, wherein the right-shifting uses a rounding operation that is identical to that used in a motion vector scaling process.
3. The method of claim 1, wherein the right-shifting uses a rounding operation that is identical to that used in a motion vector averaging process.
4. The method of claim 1, wherein the right-shifting uses a rounding operation that is identical to that used in an adaptive motion vector resolution (AMVR) process.
5. The method of claim 1, wherein the right-shifting uses a rounding toward zero operation, wherein the motion vector is denoted $MV = (MV_x, MV_y)$, and wherein a right-shifted motion vector is denoted $MV' = (MV'_x, MV'_y)$.
6. The method of claim 5, wherein the right-shifted motion vector is computed as:

$$MV'_x = (MV_x + ((1 \ll N) \gg 1) - (MV_x \geq 0 ? 1 : 0)) \gg N$$
, and

$$MV'_y = (MV_y + ((1 \ll N) \gg 1) - (MV_y \geq 0 ? 1 : 0)) \gg N$$
,
 wherein N is an integer representing a motion vector resolution.
7. The method of claim 6, wherein $N = 4$.
8. The method of claim 5, wherein the right-shifted motion vector is computed as:

$MV_x' = (MV_x + (MV_x \geq 0 ? 7 : 8)) \gg 4$, and

$MV_y' = (MV_y + (MV_y \geq 0 ? 7 : 8)) \gg 4$.

9. The method of any of claims 1 to 8, wherein the modified motion vector is further used to locate another corresponding block to derive default motion information used in the sbTMVP tool.
10. The method of claim 9, wherein deriving the default motion information is further based on a center position of the current block and the modified motion vector.
11. The method of claim 9, wherein deriving the default motion information for a sub-block of the current block is further based on a center position of the sub-block and the modified motion vector.
12. The method of any of claims 1 to 11, wherein the conversion uses another coding tool, different from the sbTMVP tool, that uses the modified motion vector to locate a reference block in the different picture or the current picture.
13. The method of any of claims 1 to 12, the conversion generates the current block from the bitstream representation.
14. The method of any of claims 1 to 12, wherein the conversion generates the bitstream representation from the current block.
15. The method of any of claims 1 to 12, wherein performing the conversion comprises parsing the bitstream representation based on one or more decoding rules.
16. An apparatus in a video system comprising a processor and a non-transitory memory with instructions thereon, wherein the instructions upon execution by the processor, cause the processor to implement the method in any one of claims 1 to 15.
17. A computer program product stored on a non-transitory computer readable media, the computer program product including program code for carrying out the method in any one of claims 1 to 15.