CLAIMS

What is claimed is:

1. A method of inter prediction in video coding, the method comprising:

parsing a bitstream to obtain motion information of a to-be-processed picture block;

performing motion compensation on the to-be-processed picture block based on the obtained motion information, to obtain a prediction block of the to-be-processed picture block, wherein the prediction block of the to-be-processed picture block comprises a prediction value of a target sample; and

performing weighting calculation on one or more reconstructed values of one or more reference samples and the prediction value of the target sample, to update the prediction value of the target sample, wherein the one or more reference samples have a preset spatial position relationship with the target sample.

2. The method according to claim 1,

further comprising: before performing the motion compensation on the to-be-processed picture block, initially updating the obtained motion information by using a first preset algorithm; and

wherein performing the motion compensation on the to-be-processed picture block comprises: performing motion compensation on the to-be-processed picture block based on the initially updated motion information.

3. The method according to claim 1,

further comprising: after the prediction block of the to-be-processed picture block is obtained, pre-updating the prediction block by using a second preset algorithm to obtain a pre-updated prediction value of the target sample; and

wherein performing the weighting calculation on the one or more reconstructed values of the one or more reference samples and the prediction value of the target sample comprises: performing weighting calculation on the one or more reconstructed values of the one or more reference samples and the pre-updated prediction value of the target sample.

4. The method according to claim 1, further comprising: after performing the weighting calculation on the one or more reconstructed values of the one or more reference samples and the

prediction value of the target sample, updating the prediction value of the target sample by using a second preset algorithm.

5. The method according to claim 1, further comprising: before performing the weighting calculation on the one or more reconstructed values of the one or more reference samples and the prediction value of the target sample,

parsing the bitstream to obtain update determining indication information of the to-be-processed picture block; and

determining that the update determining indication information indicating to update the prediction block of the to-be-processed picture block.

6. An apparatus for inter prediction in video coding, the apparatus comprising:

one or more processors; and

a memory coupled to the one or more processors to store instructions, which when executed by the one or more processors, cause the one or more processors to:

parse a bitstream to obtain motion information of a to-be-processed picture block;

perform motion compensation on the to-be-processed picture block based on the obtained motion information, to obtain a prediction block of the to-be-processed picture block, wherein the prediction block of the to-be-processed picture block comprises a prediction value of a target sample; and

perform weighting calculation on one or more reconstructed values of one or more reference samples and the prediction value of the target sample, to update the prediction value of the target sample, wherein the one or more reference samples have a preset spatial position relationship with the target sample.

7. The apparatus according to claim 6, wherein the one or more reference samples comprise:

a reconstructed sample that has a same horizontal coordinate as the target sample and has a preset vertical coordinate different from the target sample, or

a reconstructed sample that has a same vertical coordinate as the target sample and has a preset horizontal coordinate different from the target sample, or

a reconstructed sample that has a same horizontal coordinate as the target sample and that is adjacent to a top side of the to-be-processed picture block, or

a reconstructed sample that has a same vertical coordinate as the target sample and that is

adjacent to a left side of the to-be-processed picture block, or

a top-right reconstructed sample of the to-be-processed picture block, a bottom-left reconstructed sample of the to-be-processed picture block, or a top-left reconstructed sample of the to-be-processed picture block.

8. The apparatus according to claim 6, wherein the one or more processors is further configured to:

parse the bitstream to obtain update determining indication information of the to-be-processed picture block; and

determine that the update determining indication information indicating to update the prediction block of the to-be-processed picture block.

9. The apparatus according to claim 6, wherein a weighted coefficient of the one or more reconstructed values of the one or more reference samples is different from a weighted coefficient of the prediction value of the target sample.

10. The apparatus according to claim 6, wherein the one or more reconstructed values of the one or more reference samples are obtained based on a spatial neighboring sample by using a planar intra prediction mode.

11. The apparatus according to claim 9, wherein the updated prediction value is obtained based on w1 * predP(xP, yP) and w2 * predP1(xP, yP), wherein

(xP, yP) represents coordinates of the target sample, predP(xP, yP) represents the prediction value of the target sample, predP1(xP, yP) represents the one or more reconstructed values of the one or more reference samples, w1 represents the weighted coefficient of the one or more reconstructed values of the one or more reference samples, w2 represents the weighted coefficient of the prediction value of the target sample, w1 and w2 are preset constants, and w1 is unequal to w2.

12. The apparatus according to claim 11, wherein a weighted coefficient set (w1, w2) is (6, 2) or (5, 3).

13. The apparatus according to claim 11, wherein a sum of w1 and w2 is 2 raised to the power of n, and n is 2 or 3.

14. A non-transitory computer-readable storage medium having instructions stored therein, which when executed by one or more processors, cause the one or more processors to perform

operations, the operations comprising:

parsing a bitstream to obtain motion information of a to-be-processed picture block;

performing motion compensation on the to-be-processed picture block based on the obtained motion information, to obtain a prediction block of the to-be-processed picture block, wherein the prediction block of the to-be-processed picture block comprises a prediction value of a target sample; and

performing weighting calculation on one or more reconstructed values of one or more reference samples and the prediction value of the target sample, to update the prediction value of the target sample, wherein the one or more reference samples have a preset spatial position relationship with the target sample.