STATEMENTS OF INVENTION

1. An image encoding method of dividing an input image signal into pixel blocks, and performing inter-prediction on the divided pixel blocks, comprising:

selecting predicted motion information from a motion information buffer storing motion information in an encoded region, and predicting motion information of an encoding target block by using the predicted motion information; and

acquiring representative motion information from a plurality of items of motion information in an encoded region in accordance with first information indicating a method of selecting the predicted motion information, thereby obtaining only the representative motion information.

2. The method according to claim 1, wherein the first information contains second information which specifies a position in the encoding target block, the second information being used to select the motion information.

3. The method according to claim 2, wherein the representative motion information includes the motion information in the motion information buffer, which is positioned in a center of a plurality of items of second information of the encoding target block and an adjacent pixel block.

4. The method according to claim 2, further comprising, if the encoding target block is selected from a plurality of block sizes, generating third information which specifies a position in the encoding target block, the encoding target block corresponding to the block sizes, from a plurality of items of the second information corresponding to the block sizes,

wherein the first information contains the third information.

5. The method according to claim 4, wherein one of

(A) first position information specified by one of the items of second information, and

(B) second position information corresponding to a center of the items of second information

is set in the third information.

6. The method according to claim 5, further comprising, if a plurality of different items of the third information are generated in a predetermined region, replacing fourth information indicating the third information with the third information having a highest frequency.

7. The method according to claim 3 or 6, further comprising:

performing a scaling process in accordance with information of a reference frame contained in the representative motion information, and storing a result

in the motion information buffer; and

performing scaling in accordance with information of the reference frame contained in the predicted motion information.

8. The method according to claim 3 or 6, wherein the representative motion information contains information of a reference frame.

9. An image decoding method of dividing an input image signal into pixel blocks, and performing inter-prediction on the divided pixel blocks, comprising:

selecting predicted motion information from a motion information buffer storing motion information in a decoded region, and predicting motion information of a decoding target block by using the predicted motion information; and

acquiring representative motion information from a plurality of items of motion information in a decoded region in accordance with eighth information indicating a method of selecting the predicted motion information, thereby obtaining only the representative motion information.

10. The method according to claim 9, wherein the eighth information contains ninth information which specifies a position in the decoding target block, the ninth information being used to select the motion information.

11. The method according to claim 10, wherein the representative motion information includes the motion information in the motion information buffer, which is positioned in a center of a plurality of items of ninth information of the decoding target block and an adjacent pixel block.

12. The method according to claim 10, further comprising, if the decoding target block is selected from a plurality of block sizes, generating tenth information which specifies a position in the decoding target block, the decoding target block corresponding to the block sizes, from a plurality of items of the ninth information corresponding to the block sizes,

wherein the eighth information contains the tenth information.

13. The method according to claim 12, wherein one of

(A) third position information specified by one of the items of ninth information, and

(B) fourth position information corresponding to a center of the items of ninth information

is set in the tenth information.

14. The method according to claim 13, further comprising, if a plurality of different items of tenth information are generated in a predetermined region, replacing eleventh information indicating the tenth information with the tenth information having a highest

frequency.

15. The method according to claim 11 or 14, further comprising:

performing a scaling process in accordance with information of a reference frame contained in the representative motion information, and storing a result in the motion information buffer; and

performing scaling in accordance with information of the reference frame contained in the predicted motion information.

16. The method according to claim 11 or 14, wherein the representative motion information contains information of a reference frame.