

What is claimed is:

1. A video decoding method comprising the steps of:

deriving a merge candidate for a current block from a neighboring block of the current block;

adding the derived merge candidate to a merge candidate list;

5 adding at least one prediction region merge candidate included in a prediction region motion information list to the merge candidate list when a number of merge candidates added to the merge candidate list is smaller than a first threshold value;

when a size of the neighboring block is greater than a preset size, adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list;

10 deriving motion information for the current block based on the merge candidate list; and

performing motion compensation for the current block based on the derived motion information, wherein

whether to add the prediction region merge candidate to the merge candidate list is determined based on a result of comparison between motion information of the prediction region merge candidate and motion information of a merge candidate included in the merge candidate list.

2. The method according to claim 1, wherein the comparison is performed on at least one merge candidate in the merge candidate list, of which an index is smaller than or equal to a second threshold value.

3. The method according to claim 1, wherein the comparison is performed on a merge candidate derived from a block at a specific position.

25 4. The method according to claim 1, wherein the comparison is performed on at least one among a merge candidate derived from a left neighboring block positioned on a left side of the current block and a merge candidate derived from a top neighboring block positioned on a top of the current block.

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5. The method according to claim 1, wherein when it is determined that there is a merge candidate in the merge candidate list having motion information the same as that of a first prediction region merge candidate, the first prediction region merge candidate is not added to the merge candidate list.

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6. The method according to claim 5, wherein determination on whether a second prediction region merge candidate has motion information the same as that of a merge candidate having motion information the same as that of the first prediction region merge candidate is omitted.

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7. The method according to claim 1, wherein a difference between a number of prediction region merge candidates included in a prediction region merge candidate list and an index of the prediction region merge candidate is smaller than or equal to a second threshold value.

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8. The method according to claim 1, further comprising the step of adding a current inter-region merge candidate derived based on motion information of the current block to an inter-region motion information list, wherein

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when there is a prediction region merge candidate the same as a current prediction region merge candidate, the prediction region merge candidate the same as the current prediction region merge candidate is deleted, and a largest index is assigned to the current prediction region merge candidate.

9. The method according to claim 1, wherein the comparison is performed on the prediction region merge candidate having an index larger than a second threshold value.

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10. The method according to claim 1, further comprising:

when it is determined that the neighboring block is not included in a predetermined region, adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list; or

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when it is determined that the neighboring block is included in the predetermined region, not adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list,

wherein the predetermined region is a merge processing area.

11. The method according to claim 10, further comprising:

5 adding the prediction region merge candidate derived based on motion information of the neighboring block included in the prediction region motion information list to the merge candidate list when the number of merge candidates added to the merge candidate list is smaller than the first threshold value.

12. The method according to claim 1, further comprising:

10 adding the prediction region merge candidate derived based on motion information of the neighboring block included in the prediction region motion information list to the merge candidate list when the number of merge candidates added to the merge candidate list is smaller than the first threshold value.

13. The method according to claim 1, further comprising:

15 whether to add to a second prediction region merge candidate to the merge candidate list is determined based on a result of comparison between motion information of the second prediction region merge candidate included in the prediction region motion information list and motion information of the merge candidate included in the merge candidate list.

14. A video encoding method comprising the steps of:

20 deriving a merge candidate for a current block from a neighboring block of the current block;
adding the derived merge candidate to a merge candidate list;

adding at least one prediction region merge candidate included in a prediction region motion
25 information list to the merge candidate list when a number of merge candidates added to the merge candidate list is smaller than a first threshold value;

when a size of the neighboring block is greater than a preset size, adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list;

30 deriving motion information for the current block based on the merge candidate list; and

performing motion compensation for the current block based on the derived motion information, wherein

whether to add the prediction region merge candidate to the merge candidate list is determined based on a result of comparison between motion information of the prediction region merge candidate and motion information of a merge candidate included in the merge candidate list.

15. The method according to claim 14, wherein the comparison is performed on at least one merge candidate in the merge candidate list, of which an index is smaller than or equal to a second threshold value.

16. The method according to claim 14, wherein the comparison is performed on a merge candidate derived from a block at a specific position.

17. The method according to claim 14, wherein the comparison is performed on at least one among a merge candidate derived from a left neighboring block positioned on a left side of the current block and a merge candidate derived from a top neighboring block positioned on a top of the current block.

18. The method according to claim 14, wherein when it is determined that there is a merge candidate in the merge candidate list having motion information the same as that of a first prediction region merge candidate, the first prediction region merge candidate is not added to the merge candidate list.

19. The method according to claim 18, wherein determination on whether a second prediction region merge candidate has motion information the same as that of a merge candidate having motion information the same as that of the first prediction region merge candidate is omitted.

20. The method according to claim 14, wherein a difference between a number of prediction region merge candidates included in the prediction region merge candidate list and an index of a prediction region merge candidate is smaller than or equal to a second threshold value.

5 21. The method according to claim 14, further comprising the step of adding a current inter-region merge candidate derived based on motion information of the current block to an inter-region motion information list, wherein

10 when there is a prediction region merge candidate the same as a current prediction region merge candidate, the prediction region merge candidate the same as the current prediction region merge candidate is deleted, and a largest index is assigned to the current prediction region merge candidate.

22. The method according to claim 14, wherein the comparison is performed on the prediction region merge candidate having an index larger than a second threshold value.

15 23. The method according to claim 14, further comprising:
when it is determined that the neighboring block is not included in a predetermined region, adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list; or

20 when it is determined that the neighboring block is included in the predetermined region, not adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list,
wherein the predetermined region is a merge processing area.

25 24. The method according to claim 23, further comprising:
adding the prediction region merge candidate derived based on motion information of the neighboring block included in the prediction region motion information list to the merge candidate list when the number of merge candidates added to the merge candidate list is smaller than the first threshold value.

30 25. The method according to claim 14, further comprising:

adding the prediction region merge candidate derived based on motion information of the neighboring block included in the prediction region motion information list to the merge candidate list when the number of merge candidates added to the merge candidate list is smaller than the first threshold value.

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26. The method according to claim 14, further comprising:

whether to add to a second prediction region merge candidate to the merge candidate list is determined based on a result of comparison between motion information of the second prediction region merge candidate included in the prediction region motion information list and motion information of the merge candidate included in the merge candidate list.

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27. A video decoding apparatus comprising an inter prediction part for deriving a merge candidate for a current block from a neighboring block of the current block, adding the derived merge candidate to a merge candidate list, adding at least one prediction region merge candidate included in a prediction region motion information list to the merge candidate list when a number of merge candidates added to the merge candidate list is smaller than a first threshold value, when a size of the neighboring block is greater than a preset size, adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list, deriving motion information for the current block based on the merge candidate list, and performing motion compensation for the current block based on the derived motion information, wherein

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whether to add the prediction region merge candidate to the merge candidate list is determined based on a result of comparison between motion information of the prediction region merge candidate and motion information of a merge candidate included in the merge candidate list.

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28. A video encoding apparatus comprising an inter prediction part for deriving a merge candidate for a current block from a neighboring block of the current block, adding the derived merge candidate to a merge candidate list, adding at least one prediction region merge candidate included in a prediction region motion information list to the merge candidate list when a number of merge candidates added to the merge candidate list is smaller than a first threshold

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value, when a size of the neighboring block is greater than a preset size, adding the prediction region merge candidate derived based on motion information of the neighboring block to the prediction region motion information list, deriving motion information for the current block based on the merge candidate list, and performing motion compensation for the current block based on the derived motion information, wherein

whether to add the prediction region merge candidate to the merge candidate list is determined based on a result of comparison between motion information of the prediction region merge candidate and motion information of a merge candidate included in the merge candidate list.

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