## Amended Set of Claims 1 to 54

1. A method for coding video data, the method comprising:

determining whether a prediction unit (PU) in a B slice is restricted to uni-directional inter prediction;

generating a merge candidate list for the PU;

when the PU is restricted to uni-directional inter prediction, converting a bi-directional merge candidate in the merge candidate list into a uni-directional merge candidate after generating the merge candidate list; and

adopting motion information specified by a selected candidate in the merge candidate list as motion information of the PU.

2. The method of claim 1, wherein determining whether the PU is restricted to uni-directional prediction comprises:

determining that the PU is restricted to uni-directional inter prediction if a size characteristic of the PU is below a threshold; and

determining that the PU is not restricted to uni-directional inter prediction if the size characteristic of the PU is not below the threshold.

3. The method of claim 2, wherein determining that the PU is restricted to uni-directional inter prediction if the size characteristic of the PU is below the threshold comprises determining that the PU is restricted to uni-directional inter prediction if a height or a width of a video block associated with the PU is below the threshold.

4. The method of claim 2, wherein determining that the PU is restricted to uni-directional inter prediction if the size characteristic of the PU is below the threshold comprises determining that the PU is restricted to uni-directional inter prediction if a first dimension of a video block associated with the PU is less than the threshold and a second dimension of the video block associated with the PU is less than or equal to the threshold.

5. The method of claim 2, wherein determining that the PU is restricted to uni-directional inter prediction if the size characteristic of the PU is below the threshold comprises determining that the PU is restricted to uni-directional inter prediction if a first dimension of a video block associated with the PU is less than a first threshold and a second dimension of the video block associated with the PU is less than a second threshold.

6. The method of claim 5, wherein the first threshold is the same as the second threshold.

7. The method of claim 2, wherein determining whether the PU is restricted to uni-directional prediction comprises:

determining that the PU is restricted to uni-directional inter prediction if a size characteristic of a coding unit (CU) associated with the PU is less than or equal to a particular size and the size characteristic of the PU is below the threshold, wherein the size characteristic of the CU is a height or a width of a video block associated with the CU; and

determining that the PU is not restricted to uni-directional inter prediction if the size characteristic of the CU is not equal to the particular size and the size characteristic of the PU is not below the threshold.

8. The method of claim 7, wherein the particular size is equal to eight and the threshold is equal to eight.

9. The method of claim 1, further comprising:

including the uni-directional merge candidate in the merge candidate list in place of the bi-directional merge candidate.

10. The method of claim 1, wherein converting the bi-directional merge candidate into the uni-directional merge candidate comprises converting the bi-directional merge candidate into the uni-directional merge candidate such that the uni-directional merge candidate is associated with a reference picture in a particular reference picture list, wherein whenever bi-directional merge candidates are converted to uni-directional merge candidates, the uni-directional merge candidates are associated with reference pictures in the particular reference picture list.

11-18. (Canceled)

19. The method of claim 1, wherein the method further comprises:

determining the selected candidate in the merge candidate list, wherein the selected candidate is the bi-directional merge candidate.

20. The method of claim 1, wherein:

the method further comprises determining the selected candidate in the merge candidate list; and

determining the selected candidate comprises:

parsing from a bitstream a syntax element that indicates a position in the merge candidate list of the selected candidate; and

determining the selected candidate at the position in the merge candidate list of the selected candidate.

21. The method of claim 1, wherein the method comprises:

determining the selected candidate in the merge candidate list; and

generating a bitstream that includes an encoded syntax element that indicates a position in the merge candidate list of the selected candidate.

22. The method of claim 1, wherein the method is performed on a mobile computing device.

23. A video coding device that comprises one or more processors configured to:

determine whether a prediction unit (PU) in a B slice is restricted to uni-directional inter prediction;

generate a merge candidate list for the PU;

when the PU is restricted to uni-directional inter prediction, convert a bi-directional merge candidate in the merge candidate list into a uni-directional merge candidate after generating the merge candidate list; and

adopt motion information specified by a selected candidate in the merge candidate list as motion information of the PU.

24. The video coding device of claim 23, wherein the one or more processors are configured to:

determine that the PU is restricted to uni-directional inter prediction if a size characteristic of the PU is below a threshold; and

determine that the PU is not restricted to uni-directional inter prediction if the size characteristic of the PU is not below the threshold.

25. The video coding device of claim 24, wherein the one or more processors are configured to determine that the PU is restricted to uni-directional inter prediction if a height or a width of a video block associated with the PU is below the threshold.

26. The video coding device of claim 24, wherein the one or more processors are configured to determine that the PU is restricted to uni-directional inter prediction if a first dimension of a video block associated with the PU is less than the threshold and a second dimension of the video block associated with the PU is less than or equal to the threshold.

27. The video coding device of claim 24, wherein the one or more processors are configured to determine that the PU is restricted to uni-directional inter prediction if a first dimension of a video block associated with the PU is less than a first threshold and a second dimension of the video block associated with the PU is less than a second threshold.

28. The video coding device of claim 27, wherein the first threshold is the same as the second threshold.

29. The video coding device of claim 24, wherein the one or more processors are configured to:

determine that the PU is restricted to uni-directional inter prediction if a size characteristic of a coding unit (CU) associated with the PU is less than or equal to a particular size and the size characteristic of the PU is below the threshold; and

determine that the PU is not restricted to uni-directional inter prediction if the size characteristic of the CU is not equal to the particular size and the size characteristic of the PU is not below the threshold.

30. The video coding device of claim 29, wherein the particular size is equal to eight and the threshold is equal to eight.

31. The video coding device of claim 23, wherein the one or more processors are further configured to:

include the uni-directional merge candidate in the merge candidate list in place of the bi-directional merge candidate.

32. The video coding device of claim 23, wherein the one or more processors are configured to convert the bi-directional merge candidate into the uni-directional merge candidate such that the uni-directional merge candidate is associated with a reference picture in a particular reference picture list, wherein whenever the one or more processors convert bi-directional merge candidates to uni-directional merge candidates, the uni-directional merge candidates are associated with reference pictures in the particular reference picture list.

33-40. (Canceled)

41. The video coding device of claim 23, wherein the one or more processors are further configured to:

determine the selected candidate in the merge candidate list, wherein the selected candidate is the bi-directional merge candidate.

42. The video coding device of claim 23, wherein the video coding device decodes video data and the one or more processors are configured to determine the selected candidate in the merge candidate list based on a syntax element that indicates a position in the merge candidate list of the selected candidate.

43. The video coding device of claim 23, wherein the video coding device encodes video data and the one or more processors are configured to output a syntax element that indicates a position in the merge candidate list of the selected candidate in the merge candidate list.

44. The video coding device of claim 23, wherein the video coding device is a mobile computing device.

45. A video coding device comprising:

means for determining whether a prediction unit (PU) in a B slice is restricted to uni-directional inter prediction;

means for generating a merge candidate list for the PU;

means for converting, when the PU is restricted to uni-directional inter prediction, a bi-directional merge candidate in the merge candidate list into a uni-directional merge candidate after generating the merge candidate list; and

means for adopting motion information specified by a selected candidate in the merge candidate list as motion information of the PU.

46. The video coding device of claim 45, wherein the means for determining whether the PU is restricted to uni-directional prediction comprises:

means for determining that the PU is restricted to uni-directional inter prediction if a size characteristic of the PU is below a threshold; and

means for determining that the PU is not restricted to uni-directional inter prediction if the size characteristic of the PU is not below the threshold.

47. The video coding device of claim 45, further comprising:

means for determining the selected candidate in the merge candidate list, wherein the selected candidate is the bi-directional merge candidate.

48. A computer program product that comprises one or more computer readable storage media that store instructions that, when executed, configure one or more processors to:

determine whether a prediction unit (PU) in a B slice is restricted to uni-directional inter prediction;

generate a merge candidate list for the PU;

when the PU is restricted to uni-directional inter prediction, convert a bi-directional merge candidate in the merge candidate list into a uni-directional merge candidate after generating the merge candidate list; and

adopt motion information specified by a selected candidate in the merge candidate list as motion information of the PU.

49. The computer program product of claim 48, wherein the instructions configure the one or more processors to:

determine that the PU is restricted to uni-directional inter prediction if a size characteristic of the PU is below a threshold; and

determine that the PU is not restricted to uni-directional inter prediction if the size characteristic of the PU is not below the threshold.

50. The computer program product of claim 48, wherein the instructions configure the one or more processors to:

determine the selected candidate in the merge candidate list, wherein the selected candidate is the bi-directional merge candidate.

51. The method of claim 1, wherein converting the bi-directional merge candidate comprises converting the bi-directional merge candidate into a single uni-directional merge candidate associated with a reference picture in list 0.

52. The video coding device of claim 23, wherein the one or more processors are configured to convert the bi-directional merge candidate into a single uni-directional merge candidate associated with a reference picture in list 0.

53. The video coding device of claim 45, wherein the video coding device comprises means for converting the bi-directional merge candidate into a single uni-directional merge candidate associated with a reference picture in list 0.

54. The computer program product of claim 48, wherein the instructions configure the one or more processors to convert the bi-directional merge candidate into a single uni-directional merge candidate associated with a reference picture in list 0.

## CLAIMS

Claim 1: A method for coding video data, the method comprising:

determining, based on a size characteristic of a prediction unit (PU) in a B slice of the video data being below a threshold, that the PU is restricted to uni-directional inter prediction;

generating a merge candidate list for the PU;

determining a selected merge candidate in the merge candidate list, wherein the selected merge candidate is a bi-directional merge candidate, wherein two different reference blocks are associated with motion information specified by the selected merge candidate; and

based on the PU being restricted to uni-directional inter prediction, converting the selected merge candidate from being a bi-directional merge candidate to being a uni-directional merge candidate by keeping a list 0 motion vector of the selected merge candidate and ignoring a list 1 motion vector of the selected merge candidate such that a predictive video block for the PU is generated based on no more than one of the two different reference blocks associated with the motion information specified by the selected merge candidate.

Claim 2: The method of claim 1, wherein determining that the PU is restricted to uni-directional inter prediction comprises determining, based on a height or a width of a video block associated with the PU being below the threshold, that the PU is restricted to uni-directional inter prediction.

Claim 3: The method of claim 1, wherein determining that the PU is restricted to uni-directional inter prediction comprises determining, based on a first dimension of a video block associated with the PU being less than a threshold and a second dimension of the video block associated with the PU being less than or equal to the threshold, that the PU is restricted to uni-directional inter prediction.

Claim 4: The method of claim 1, wherein determining that the PU is restricted to uni-directional inter prediction comprises determining, based on a first dimension of a video block associated with the PU being less than a first threshold and a second dimension of the video block associated with the PU being less than a second threshold, that the PU is restricted to uni-directional inter prediction.

Claim 5: The method of claim 4, wherein the first threshold is the same as the second threshold.

Claim 6: The method of claim 1, wherein determining that the PU is restricted to uni-directional prediction comprises:

determining, based on a size characteristic of a coding unit (CU) associated with the PU being less than or equal to a particular size and the size characteristic of the PU being below the threshold, that the PU is restricted to uni-directional inter prediction, wherein the size characteristic of the CU is a height or a width of a video block associated with the CU.

Claim 7: The method of claim 6, wherein the particular size is equal to eight and the threshold is equal to eight.

Claim 8: The method of claim 1, wherein determining the selected merge candidate comprises:

determining, based on a candidate index value for the PU, the selected merge candidate in the merge candidate list;

determining motion information of the PU based on the selected merge candidate;

generating a predictive block for the current PU based on a reference block associated with the list 0 motion vector of the selected merge candidate; and

using the predictive block for the current PU and residual video blocks associated with transform units of a coding unit (CU) to reconstruct a video block of the CU.

Claim 9: The method of claim 1, further comprising generating a bitstream that includes an encoded syntax element that indicates a position in the merge candidate list of the selected merge candidate.

Claim 10: The method of claim 1, wherein the method is performed on a mobile computing device.

Claim 11: A video coding device that comprises:

a data storage medium configured to store video data; and

one or more processors configured to:

determine, based on a size characteristic of a prediction unit (PU) in a B slice

of the video data being below a threshold, that the PU is restricted to uni-directional inter prediction;

determine that the PU is not restricted to uni-directional inter prediction if the size characteristic of the PU is not below the threshold;

generate a merge candidate list for the PU;

determine a selected merge candidate in the merge candidate list, wherein the selected merge candidate is a bi-directional merge candidate and two different reference blocks are associated with motion information specified by the selected merge candidate; and

based on the PU being restricted to uni-directional inter prediction, convert the selected merge candidate from being a bi-directional merge candidate to being a uni-directional merge candidate by keeping a list 0 motion vector of the selected merge candidate and ignoring a list 1 motion vector of the selected merge candidate such that a predictive video block for the PU is generated based on no more than one of the two different reference blocks associated with the motion information specified by the selected merge candidate.

Claim 12: The video coding device of claim 11, wherein the one or more processors are configured to determine, based on a height or a width of a video block associated with the PU being below the threshold, that the PU is restricted to uni-directional inter prediction.

Claim 13: The video coding device of claim 11, wherein the one or more processors are configured to determine, based on a first dimension of a video block associated with the PU being less than a threshold and a second dimension of the video block associated with the PU being less than or equal to the threshold, that the PU is restricted to uni-directional inter prediction.

Claim 14: The video coding device of claim 11, wherein the one or more processors are configured to determine, based on a first dimension of a video block associated with the PU being less than a first threshold and a second dimension of the video block associated with the PU being less than a second threshold, that the PU is restricted to uni-directional inter prediction.

Claim 15: The video coding device of claim 14, wherein the first threshold is the same as the second threshold.

Claim 16: The video coding device of claim 11, wherein the one or more processors are configured to:
determine, based on a size characteristic of a coding unit (CU) associated with the PU being less than or equal to a particular size and the size characteristic of the PU being below the threshold, that the PU is restricted to uni-directional inter prediction.

Claim 17: The video coding device of claim 16, wherein the particular size is equal to eight and the threshold is equal to eight.

Claim 18: The video coding device of claim 11, wherein the video coding device decodes video data and the one or more processors are configured to determine the selected merge candidate based on a syntax element that indicates a position in the merge candidate list of the selected merge candidate.

Claim 19: The video coding device of claim 11, wherein the video coding device encodes video data and the one or more processors are configured to output a syntax element that indicates a position in the merge candidate list of the selected merge candidate.

Claim 20: The video coding device of claim 11, wherein the video coding device is a mobile computing device comprising at least one of a display configured to display picture data associated with the PU or a camera configured to generate the picture data associated with the PU.

Claim 21: A video coding device comprising:

means for determining, based on a size characteristic of a prediction unit (PU) in a B slice of the video data being below a threshold, that the PU is restricted to uni-directional inter prediction;

means for generating a merge candidate list for the PU;

means for determining a selected merge candidate in the merge candidate list, wherein the selected merge candidate is a bi-directional merge candidate, wherein two different reference blocks are associated with motion information specified by the selected merge candidate; and

means for converting, based on the PU being restricted to uni-directional inter

prediction, the selected merge candidate to being a uni-directional merge candidate by keeping a list 0 motion vector of the selected merge candidate and ignoring a list 1 motion vector of the selected merge candidate such that a predictive video block for the PU is generated based on no more than one of the two different reference blocks associated with the motion information specified by the selected merge candidate.

Claim 22: A non-transitory computer readable storage medium that stores instructions that, when executed, configure one or more processors to:

determine, based on a size characteristic of a prediction unit (PU) in a B slice of the video data being below a threshold, that the PU is restricted to uni-directional inter prediction;

generate a merge candidate list for the PU;

determine a selected merge candidate in the merge candidate list, wherein the selected merge candidate is a bi-directional merge candidate, wherein two different reference blocks are associated with motion information specified by the selected merge candidate; and

based on the PU being restricted to uni-directional inter prediction, convert the selected merge candidate from being a bi-directional merge candidate to being a uni-directional merge candidate by keeping a list 0 motion vector of the selected merge candidate and ignoring a list 1 motion vector of the selected merge candidate such that a predictive video block for the PU is generated based on no more than one of the two different reference blocks associated with the motion information specified by the selected merge candidate.

Claim 23: The video coding device of claim 11, further comprising a display configured to display the decoded video data.

Claim 24: The video coding device of claim 11, further comprising a camera configured to capture the video data.