CLAIMS

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

coding a first set of motion information for a current block of video data, the current block being partitioned into a first partition and a second partition according to a non-rectangular partition mode, the first set of motion information referring to a reference picture list and being associated with the first partition;

after coding the first set of motion information, coding a second set of motion information for the current block, the second set of motion information referring to the reference picture list and being associated with the second partition, the second set of motion information being different than the first set of motion information;

generating a prediction block for the current block of video data using the first set of motion information and the second set of motion information;

coding the current block of video data using the prediction block;

in response to the first set of motion information and the second set of motion information both referring to the reference picture list, storing the second set of motion information for the current block, without storing the first set of motion information for the current block for subsequent use in predicting motion information; and

predicting subsequent motion information of a subsequent block of the video data that neighbors the current block using the stored second set of motion information.

2. The method of claim 1, wherein storing the second motion vector comprises storing the second motion vector for all sub-blocks of the current block.

3. The method of claim 1, further comprising determining that a size of the current block satisfies a threshold, wherein storing the second motion vector comprises storing the second motion vector in response to determining that the size of the current block satisfies the threshold.

4. The method of claim 3, wherein the threshold comprises 4xN or Nx4, N being a positive integer value.

5. The method of claim 1, wherein predicting the subsequent motion information of the subsequent block comprises:

forming a motion prediction candidate list for the subsequent block, comprising adding the second motion vector to the motion prediction candidate list;

selecting the second motion vector from the motion prediction candidate list; and

predicting the subsequent motion information of the subsequent block using the second motion vector.

6. The method of claim 1, wherein the current block forms part of a uni-directional inter-prediction slice (P-slice), the method further comprising disabling a blending operation for the current block.

7. The method of claim 1, wherein the first partition comprises a first triangle partition, the second partition comprises a second triangle partition, and the non-rectangular partition mode comprises triangle partition mode (TPM).

8. The method of claim 1, wherein generating the prediction block for the current block using the first set of motion information and the second set of motion information comprises generating the prediction block for the current block using the first set of motion information and the second set of motion information without performing a blending operation between the first partition and the second partition.

9. The method of claim 1, wherein generating the prediction block comprises:

resetting blending weights larger than 4/8 equal to 8x8;

resetting blending weights smaller than 4/8 equal to 0x8; and

combining the first partition and the second partition using the reset blending weights.

10. The method of claim 9, further comprising resetting blending weights that are equal to 4/8 to instead be equal to 8/8.

11. The method of claim 9, further comprising resetting blending weights that are equal to 4/8 to instead be equal to 0/8.

12. The method of claim 9, further comprising resetting blending weights that are equal to 4/8 to instead be equal to 0/8 or 8/8 according to a split direction for the current block.

13. The method of claim 8, wherein generating the prediction block comprises generating the prediction block using regular inter-prediction, the method further comprising skipping context-adaptive binary arithmetic coding (CABAC) of bits representing fractional-precision motion vector difference (MVD) values for adaptive motion vector resolution (AMVR) syntax elements.

14. The method of claim 8, wherein generating the prediction block comprises generating the prediction block using affine prediction mode, the method further comprising skipping context-adaptive binary arithmetic coding (CABAC) of bits representing fractional-precision motion vector difference (MVD) values for adaptive motion vector resolution (AMVR) syntax elements.

15. The method of claim 1, wherein coding the current block of video data using the prediction block comprises decoding the current block of video data using the prediction block, including:

inverse quantizing and inverse transforming a quantized transform block to generate a residual block for the current block; and

combining samples of the residual block with samples of the prediction block to decode the current block.

16. The method of claim 1, wherein coding the current block of video data using the prediction block comprises encoding the current block of video data using the prediction block, including:

subtracting samples of the prediction block from samples of the current block to generate a residual block for the current block; and

transforming and quantizing the residual block to encode the current block.

17. A device for coding video data, the device comprising:

a memory configured to store video data; and

one or more processors implemented in circuitry and configured to:

code a first set of motion information for a current block of the video data, the current block being partitioned into a first partition and a second partition according to a non-rectangular partition mode, the first set of motion information referring to a reference picture list and being associated with the first partition;

after coding the first set of motion information, code a second set of motion information for the current block, the second set of motion information referring to the reference picture list and being associated with the second partition, the second set of motion information being different than the first set of motion information;

generate a prediction block for the current block of video data using the first set of motion information and the second set of motion information;

code the current block of video data using the prediction block;

in response to the first set of motion information and the second set of motion information both referring to the reference picture list, store the second set of motion information for the current block in the memory, without storing the first set of motion information for the current block for subsequent use in predicting motion information; and

predict subsequent motion information of a subsequent block of the video data that neighbors the current block using the stored second set of motion information.

18. The device of claim 17, wherein the one or more processors are configured to store the second motion vector for all sub-blocks of the current block.

19. The device of claim 17, wherein the one or more processors are configured to determine that a size of the current block satisfies a threshold, and to store the second motion vector in response to determining that the size of the current block satisfies the threshold.

20. The device of claim 17, wherein to predict the subsequent motion information of the subsequent block, the one or more processors are configured to:

form a motion prediction candidate list for the subsequent block and add the second motion vector to the motion prediction candidate list;

select the second motion vector from the motion prediction candidate list; and

predict the subsequent motion information of the subsequent block using the second motion vector.

21. The device of claim 17, wherein the one or more processors are further configured to generate a prediction block for the current block using the first set of motion information and the second set of motion information and without performing a blending operation between the first partition and the second partition.

22. The device of claim 17, wherein to code the current block of video data, the one or more processors are configured to decode the current block of video data, and wherein to decode the current block of video data, the one or more processors are configured to:

inverse quantize and inverse transform a quantized transform block to generate a residual block for the current block; and

combine samples of the residual block with samples of the prediction block to decode the current block.

23. The device of claim 17, wherein to code the current block of video data, the one or more processors are configured to encode the current block of video data, and wherein to encode the current block of video data, the one or more processors are configured to:

subtract samples of the prediction block from samples of the current block to generate a residual block for the current block; and

transform and quantize the residual block to encode the current block.

24. The device of claim 17, further comprising a display configured to display decoded video data.

25. The device of claim 17, wherein the device comprises one or more of a camera, a computer, a mobile device, a broadcast receiver device, or a set-top box.

26. The device of claim 17, wherein the device comprises at least one of:

an integrated circuit;

a microprocessor; or

a wireless communication device.

27. A non-transitory computer-readable storage medium having stored thereon instructions that, when executed, cause a processor to:

code a first set of motion information for a current block of video data, the current block being partitioned into a first partition and a second partition according to a non-rectangular partition mode, the first set of motion information referring to a reference picture list and being associated with the first partition;

after coding the first set of motion information, code a second set of motion information for the current block, the second set of motion information referring to the reference picture list and being associated with the second partition, the second set of motion information being different than the first set of motion information;

generate a prediction block for the current block of video data using the first set of motion information and the second set of motion information;

code the current block of video data using the prediction block;

in response to the first set of motion information and the second set of motion information both referring to the reference picture list, store the second set of motion information for the current block, without storing the first set of motion information for the current block for subsequent use in predicting motion information; and

predict subsequent motion information of a subsequent block of the video data that neighbors the current block using the stored second set of motion information.

28. The non-transitory computer-readable storage medium of claim 27, wherein the instructions that cause the processor to store the second motion vector comprise instructions that cause the processor to store the second motion vector for all sub-blocks of the current block.

29. The non-transitory computer-readable storage medium of claim 27, further comprising instructions that cause the processor to determine that a size of the current block satisfies a threshold, wherein the instructions that cause the processor to store the second motion vector comprise instructions that cause the processor to store the second motion vector in response to determining that the size of the current block satisfies the threshold.

30. The non-transitory computer-readable storage medium of claim 27, wherein the instructions that cause the processor to predict the subsequent motion information of the subsequent block comprise instructions that cause the processor to:

form a motion prediction candidate list for the subsequent block and add the second motion vector to the motion prediction candidate list;

select the second motion vector from the motion prediction candidate list; and

predict the subsequent motion information of the subsequent block using the second motion vector.

31. The non-transitory computer-readable storage medium of claim 27, further comprising instructions that cause the processor to generate a prediction block for the current block using the first set of motion information and the second set of motion information and without performing a blending operation between the first partition and the second partition.

32. The non-transitory computer-readable storage medium of claim 27, wherein the instructions that cause the processor to code the current block of video data comprise instructions that cause the processor to decode the current block of video data, including instructions that cause the processor to:

inverse quantize and inverse transform a quantized transform block to generate a residual block for the current block; and

combine samples of the residual block with samples of the prediction block to decode the current block.

33. The non-transitory computer-readable storage medium of claim 27, wherein the instructions that cause the processor to code the current block of video data comprise instructions that cause the processor to encode the current block of video data, including instructions that cause the processor to:

subtract samples of the prediction block from samples of the current block to generate a residual block for the current block; and

transform and quantize the residual block to encode the current block.

34. A device for coding video data, the device comprising:

means for coding a first set of motion information for a current block of video data, the current block being partitioned into a first partition and a second partition according to a non-rectangular partition mode, the first set of motion information referring to a reference picture list and being associated with the first partition;

means for coding a second set of motion information for the current block after coding the first set of motion information, the second set of motion information referring to the reference picture list and being associated with the second partition, the second set of motion information being different than the first set of motion information;

means for generating a prediction block for the current block of video data using the first set of motion information and the second set of motion information;

means for coding the current block of video data using the prediction block;

means for storing the second set of motion information for the current block in response to the first set of motion information and the second set of motion information both referring to the reference picture list, without storing the first set of motion information for the current block for subsequent use in predicting motion information; and

means for predicting subsequent motion information of a subsequent block of the video data that neighbors the current block using the stored second set of motion information.

35. The device of claim 34, wherein the means for predicting the subsequent motion information of the subsequent block comprises:

means for forming a motion prediction candidate list for the subsequent block, comprising means for adding the second motion vector to the motion prediction candidate list;

means for selecting the second motion vector from the motion prediction candidate list; and

means for predicting the subsequent motion information of the subsequent block using the second motion vector.

36. The device of claim 34, wherein the means for coding the current block of video data comprise means for decoding the current block of video data, including:

means for inverse quantizing and inverse transforming a quantized transform block to generate a residual block for the current block; and

means for combining samples of the residual block with samples of the prediction block to decode the current block.

37. The device of claim 34, wherein the means for coding the current block of video data comprise means for decoding the current block of video data, including:

means for subtracting samples of the prediction block from samples of the current block to generate a residual block for the current block; and

means for transforming and quantizing the residual block to encode the current block.