Amended Set of Claims

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

decoding data of a second picture that refers to a picture order count (POC) value for a first picture of video data;

decoding data of the second picture that refers to a second-dimension picture identifier for the first picture;

decoding, in accordance with a base video coding specification, the second picture based at least in part on the POC value and the second-dimension picture identifier of the first picture; and

disabling motion vector prediction between a first motion vector of a first block of the second picture and a second motion vector of a second block of the second picture, wherein the first motion vector refers to a short-term reference picture, and wherein the second motion vector refers to a long-term reference picture.

2. (Canceled)

3. The method of claim 1, wherein coding the second picture comprises:

identifying the first picture using the POC value and the second-dimension picture identifier; and

decoding at least a portion of the second picture relative to the first picture.

4. The method of claim 3, wherein identifying the first picture comprises identifying the first picture during decoding of a motion vector for a block of the second picture, wherein coding of the motion vector comprises coding the motion vector according to at least one of advanced motion vector prediction (AMVP), temporal motion vector prediction (TMVP), and merge mode.

5. The method of claim 1, further comprising:

enabling prediction between a first short-term motion vector of the second picture and a second short-term motion vector of the second picture; and

scaling at least one of the first short-term motion vector and the second short-term motion vector based on a POC value for a first short-term reference picture referred to by the first short-term motion vector and a POC value for a second short-term reference picture referred to by the second short-term motion vector.

6. The method of claim 1, further comprising decoding a value indicating whether a third picture of the video data comprises a long-term reference picture, wherein the value indicating whether the third picture comprises the long-term reference picture further indicates whether the third picture is used for inter-view prediction.

7. The method of claim 1 further comprising decoding, in accordance with an extension to the base video coding specification, a third picture based at least in part on the POC value and the second-dimension picture identifier of the first picture.

8. The method of claim 7, further comprising, prior to decoding the third picture, marking all inter-view reference pictures, including the first picture, as long-term reference pictures.

9. The method of claim 8, further comprising:

storing a status for each of the inter-view reference pictures for the third picture, wherein the status comprises one of long-term reference picture, short-term reference picture, and unused for reference, prior to marking the inter-view reference pictures as long-term reference pictures, wherein the inter-view reference pictures include the first picture; and

after decoding the second picture, setting new statuses for each of the inter-view reference pictures based on the stored statuses.

10. The method of claim 7, wherein the base video coding specification comprises High Efficiency Video Coding (HEVC) base specification, and wherein the extension to the base video coding specification comprises one of a Scalable Video Coding (SVC) extension to the HEVC base specification and a Multiview Video Coding (MVC) extension to the HEVC base specification.

11. The method of claim 7, wherein the second-dimension picture identifier comprises at least one of a view identifier for a view including the first picture, a view order index for the view including the first picture, a combination of the view order index and a depth flag, a layer identifier for a scalable video coding (SVC) layer including the first picture, and a generic layer identifier.

12. The method of claim 7, further comprising, after decoding the third picture, marking each inter-view reference picture as one of a long-term reference picture, a short-term reference picture, and unused for reference.

13. The method of claim 12, further comprising:

after marking an inter-view reference picture as a long-term reference picture, assigning the inter-view reference picture a new POC value that is currently unused; and

after decoding the second picture, restoring an original POC value for the inter-view reference picture.

14. The method of claim 13, wherein the original POC value comprises the POC value of the first picture.

15. A method of encoding video data, the method comprising:

encoding data of a second picture that refers to a picture order count (POC) value for a first picture of video data;

encoding data of the second picture that refers to a second-dimension picture identifier for the first picture;

encoding, in accordance with a base video coding specification, the second picture based at least in part on the POC value and the second-dimension picture identifier of the first picture; and

disabling motion vector prediction between a first motion vector of a first block of the second picture, wherein the first motion vector refers to a short-term reference picture, and a second motion vector of a second block of the second picture, wherein the second motion vector refers to a long-term reference picture.

16. (Canceled)

17. The method of claim 15, further comprising:

identifying the first picture using the POC value and the second-dimension picture identifier; and

coding at least a portion of the second picture relative to the first picture.

18. The method of claim 17, wherein identifying the first picture comprises identifying the first picture during coding of the motion vector for a block of the second picture, wherein coding of the motion vector comprises coding the motion vector

according to at least one of advanced motion vector prediction (AMVP), temporal motion vector prediction (TMVP), and merge mode.

19. The method of claim 15, further comprising:

enabling prediction between a first short-term motion vector of the second picture and a second short-term motion vector of the second picture; and

scaling at least one of the first short-term motion vector and the second short-term motion vector based on a POC value for a first short-term reference picture referred to by the first short-term motion vector and a POC value for a second short-term reference picture referred to by the second short-term motion vector.

20. The method of claim 15, wherein the second-dimension picture identifier comprises at least one of a view identifier for a view including the first picture, a view order index for the view including the first picture, a combination of the view order index and a depth flag, a layer identifier for a scalable video coding (SVC) layer including the first picture, and a generic layer identifier.

21. The method of claim 15, further comprising encoding a value indicating whether a third picture of the video data comprises a long-term reference picture, wherein the value indicating whether the third picture comprises the long-term reference picture further indicates whether the third picture is used for inter-view prediction.

22. The method of claim 15, further comprising encoding, in accordance with an extension to the base video coding specification, a third picture based at least in part on the POC value and the second-dimension picture identifier of the first picture.

23. The method of claim 22, further comprising, prior to encoding the third picture, marking all inter-view reference pictures as long-term reference pictures.

24. The method of claim 23, further comprising:

storing a status for each of the inter-view reference pictures, wherein the status comprises one of long-term reference picture, short-term reference picture, and unused for reference, prior to marking the inter-view reference pictures as long-term reference pictures; and

after coding the second picture, setting new statuses for each of the inter-view reference pictures based on the stored statuses.

25. The method of claim 22, wherein the base video coding specification comprises High Efficiency Video Coding (HEVC) base specification, and wherein the extension to the base video coding specification comprises one of a Scalable Video Coding (SVC) extension to the HEVC base specification and a Multiview Video Coding (MVC) extension to the HEVC base specification.

26. The method of claim 15, further comprising, after coding the third picture, marking each inter-view reference picture as one of a long-term reference picture, a short-term reference picture, and unused for reference.

27. The method of claim 26, further comprising:

after marking an inter-view reference picture as a long-term reference picture, assigning the inter-view reference picture a new POC value that is currently unused; and

after coding the second picture, restoring an original POC value for the inter-view reference picture.

28. The method of claim 27, wherein the original POC value comprises the POC value of the second picture.

29. A device for decoding video data, the device comprising a video decoder configured to decode data of a second picture that refers to a picture order count (POC) value for a first picture of video data, decode data of the second picture that refers to a second-dimension picture identifier for the first picture, decode, in accordance with a base video coding specification, the second picture based at least in part on the POC value and the second-dimension picture identifier of the first picture, and disable motion vector prediction between a first motion vector of a first block of the second picture, wherein the first motion vector refers to a short-term reference picture, and a second motion vector of a second block of the second picture, wherein the second motion vector refers to a long-term reference picture.

30. (Canceled)

31. The device of claim 29, wherein the video decoder is configured to identify the first picture using the POC value and the second-dimension picture identifier, and decode at least a portion of the second picture relative to the first picture.

32. The device of claim 31, wherein the video decoder is configured to identify the first picture during coding of a motion vector for a block of the second picture, and wherein the video decoder is configured to decode the motion vector according to at least one of advanced motion vector prediction (AMVP), temporal motion vector prediction (TMVP), and merge mode.

33. The device of claim 29, wherein the video decoder is configured to enable prediction between a first short-term motion vector of the second picture and a second short-term motion vector of the second picture, and scale at least one of the first short-term motion vector and the second short-term motion vector based on a POC value for a first short-term reference picture referred to by the first short-term motion vector and a POC value for a second short-term reference picture referred to by the second short-term motion vector.

34. The device of claim 29, wherein the second-dimension picture identifier comprises at least one of a view identifier for a view including the first picture, a view order index for the view including the first picture, a combination of the view order index and a depth flag, a layer identifier for a scalable video coding (SVC) layer including the first picture, and a generic layer identifier.

35. The device of claim 29, wherein the video decoder is configured to decode a value indicating whether a third picture of the video data comprises a long-term reference picture, wherein the value indicating whether the third picture comprises the long-term reference picture further indicates whether the third picture is used for inter-view prediction.

36. The device of claim 29, wherein the video decoder is further configured to decode, in accordance with an extension to the base video coding specification, a third picture based at least in part on the POC value and the second-dimension picture identifier of the first picture.

37. The device of claim 36, wherein the video decoder is configured to mark all inter-view reference pictures for the third picture, including the first picture, as long-term reference pictures prior to decoding the third picture, store a status for each of the inter-view reference pictures, wherein the status comprises one of long-term reference picture, short-term reference picture, and unused for reference prior to marking the inter-view reference pictures as long-term reference pictures, and, after decoding the third picture, set new statuses for each of the inter-view reference pictures based on the stored statuses.

38. The device of claim 36, wherein the video decoder is further configured to mark each inter-view reference picture for the third picture, including the first picture, as one of a long-term reference picture, a short-term reference picture, and unused for reference after decoding the third picture, assign each of the inter-view reference pictures a new POC value that is currently unused after marking an inter-view reference picture as a long-term reference picture, and restore an original POC value for the inter-view reference picture after coding the second picture.

39. The device of claim 29, wherein the device comprises at least one of:
an integrated circuit;
a microprocessor; and
a wireless communication device that includes the video decoder.

40. A device for encoding video data, the device comprising a video encoder configured to encode data of a second picture that refers to a picture order count (POC) value for a first picture of video data, encode data of the second picture that refers to a second-dimension picture identifier for the first picture, encode, in accordance with a base video coding specification, the second picture based at least in part on the POC value and the second-dimension picture identifier of the first picture, and disable motion vector prediction between a first motion vector of a first block of the second picture, wherein the first motion vector refers to a short-term reference picture, and a second motion vector of a second block of the second picture, wherein the second motion vector refers to a long-term reference picture.

41. (Canceled)

42. The device of claim 40, wherein the video encoder is configured to identify the first picture using the POC value and the second-dimension picture identifier, and encode at least a portion of the second picture relative to the first picture.

43. The device of claim 42, wherein the video encoder is configured to identify the first picture during coding of a motion vector for a block of the second picture, and wherein the video encoder is configured to encode the motion vector according to at least one of advanced motion vector prediction (AMVP), temporal motion vector prediction (TMVP), and merge mode.

44. The device of claim 40, wherein the video encoder is configured to enable prediction between a first short-term motion vector of the second picture and a second short-term motion vector of the second picture, and scale at least one of the first short-term motion vector and the second short-term motion vector based on a POC value for a first short-term reference picture referred to by the first short-term motion vector and a POC value for a second short-term reference picture referred to by the second short-term motion vector.

45. The device of claim 40, wherein the second-dimension picture identifier comprises at least one of a view identifier for a view including the first picture, a view order index for the view including the first picture, a combination of the view order index and a depth flag, a layer identifier for a scalable video coding (SVC) layer including the first picture, and a generic layer identifier.

46. The device of claim 40, wherein the video encoder is configured to encode a value indicating whether a third picture of the video data comprises a long-term reference picture, wherein the value indicating whether the third picture comprises the long-term reference picture further indicates whether the third picture is used for inter-view prediction.

47. The device of claim 40, wherein the video encoder is further configured to encode, in accordance with an extension to the base video coding specification, a third picture based at least in part on the POC value and the second-dimension picture identifier of the first picture.

48. The device of claim 47, wherein the video encoder is configured to mark all inter-view reference pictures for the third picture, including the first picture, as long-term reference pictures prior to encoding the third picture, store a status for each of the inter-view reference pictures, wherein the status comprises one of long-term reference picture, short-term reference picture, and unused for reference prior to marking the inter-view reference pictures as long-term reference pictures, and, after encoding the third picture, set new statuses for each of the inter-view reference pictures based on the stored statuses.

49. The device of claim 47, wherein the video encoder is further configured to mark each inter-view reference picture for the third picture, including the first picture, as one of a long-term reference picture, a short-term reference picture, and unused for reference after encoding the third picture, assign each of the inter-view reference pictures a new POC value that is currently unused after marking an inter-view reference picture as a long-term reference picture, and restore an original POC value for the inter-view reference picture after coding the second picture.

50. A device for encoding video data, the device comprising:

means for encoding data of a second picture that refers to a picture order count (POC) value for a first picture of video data;

means for encoding data of the second picture that refers to a second-dimension picture identifier for the first picture;

means for encoding, in accordance with a base video coding specification, the second picture based at least in part on the POC value and the second-dimension picture identifier of the first picture; and

means for disabling motion vector prediction between a first motion vector of a first block of the second picture, wherein the first motion vector refers to a short-term reference picture, and a second motion vector of a second block of the second picture, wherein the second motion vector refers to a long-term reference picture.

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

decode data of a second picture that refers to a picture order count (POC) value for a first picture of video data;

decode data of the second picture that refers to a second-dimension picture identifier for the first picture;

decode, in accordance with a base video coding specification, the second picture based at least in part on the POC value and the second-dimension picture identifier of the first picture; and

disable motion vector prediction between a first motion vector of a first block of the second picture, wherein the first motion vector refers to a short-term reference picture, and a second motion vector of a second block of the second picture, wherein the second motion vector refers to a long-term reference picture.

CLAIMS

1. An invention not claimed in any divisional application.