CLAIMS

1. A method for performing video coding, comprising:

at an enhancement layer (EL) video decoder:

determining a predicted intra mode for a current block of an EL frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame.

2. The method of claim 1, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

3. The method of claim 2, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

4. The method of claim 1, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block in response, at least in part, to the one or more first intra mode candidates, and to one or more second intra mode candidates obtained from at least one block spatially adjacent to the current block in the EL frame.

5. The method of claim 1, further comprising accessing one or more indicators in a bitstream, wherein determining the predicted intra mode comprises determining the predicted intra mode based on the one or more indicators.

6. The method of claim 5, wherein the one or more indicators comprises an indicator corresponding to a candidate intra mode index, wherein the candidate intra mode index specifies

one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

7. The method of claim 5, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

8. The method of claim 1, further comprising generating a list of intra mode candidates including the first intra mode candidates.

9. The method of claim 8, wherein the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL, and wherein an intra mode of an above adjacent blockin the EL has a higher priority than intra modes of other neighboring blocks in the EL.

10. At least one machine-readable medium comprising a plurality of instructions that in response to being executed on a computing device, cause the computing device to determine a predicted intra mode for a current block of an enhancement layer (EL) frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame.

11. The at least one machine-readable medium of claim 10, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

12. The at least one machine-readable medium of claim 11, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

13. The at least one machine-readable medium of claim 10, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block in response, at least in part, to the one or more first intra mode candidates, and to one or more second intra mode candidates obtained from at least one block spatially adjacent to the current block in the EL frame.

14. The at least one machine-readable medium of claim 10, further comprising one or more instructions that in response to being executed on the computing device, cause the computing device to access one or more indicators in a bitstream, wherein determining the predicted intra mode comprises determining the predicted intra mode based on the one or more indicators.

15. The at least one machine-readable medium of claim 14, wherein the one or more indicators comprises an indicator corresponding to a candidate intra mode index, wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

16. The at least one machine-readable medium of claim 14, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

17. The at least one machine-readable medium of claim 10, further comprising one or more instructions that in response to being executed on the computing device, cause the computing device to generate a list of intra mode candidates including the first intra mode candidates.

18. The at least one machine-readable medium of claim 17, wherein the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL, and wherein an intra mode of an above adjacent blockin the EL has a higher priority than intra modes of other neighboring blocks in the EL.

19. An apparatus, comprising:

memory to store one or more first intra mode candidates; and

circuitry to access the memory, and to determine a predicted intra mode for a current block of an enhancement layer (EL) frame based, at least in part, on the one or more first intra mode candidates, wherein the one or more first intra mode candidates comprise intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame.

20. The apparatus of claim 19, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

21. The apparatus of claim 20, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

22. The apparatus of claim 19, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block based, at least in part, on the one or

more first intra mode candidates, and to one or more second intra mode candidates obtained from at least one block spatially adjacent to the current block in the EL frame.

23. The apparatus of claim 19, further comprising circuitry to access one or more indicators in a bitstream, wherein determining the predicted intra mode comprises determining the predicted intra mode based on the one or more indicators.

24. The apparatus of claim 23, wherein the one or more indicators comprises an indicator corresponding to a candidate intra mode index, wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

25. The apparatus of claim 23, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

26. The apparatus of claim 19, further comprising circuitry to generate a list of intra mode candidates including the first intra mode candidates.

27. The apparatus of claim 26, wherein the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL, and wherein an intra mode of an above adjacent blockin the EL has a higher priority than intra modes of other neighboring blocks in the EL.

28. A method for performing video coding, comprising:

at an enhancement layer (EL) video encoder:

determining a predicted intra mode for a current block of an EL frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame.

29. The method of claim 28, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

30. The method of claim 29, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

31. The method of claim 28, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block based, at least in part, on the one or more first intra mode candidates, and on one or more second intra mode candidates obtained from at least one block located spatially adjacent to the current block in the EL frame.

32. The method of claim 28, further comprising generating one or more indicators of a bitstream, the one or more indicators specifying the predicted intra mode for the current block.

33. The method of claim 32, wherein the one or more indicators comprises an indicator specifying a candidate intra mode index, and wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

34. The method of claim 32, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

35. The method of claim 28, further comprising generating a list of intra mode candidates including the first intra mode candidates, wherein the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL, and wherein an intra mode of an above adjacent blockin the EL has a higher priority than intra modes of other neighboring blocks in the EL.

36. At least one machine-readable medium comprising a plurality of instructions that in response to being executed on a computing device, cause the computing device to determine a predicted intra mode for a current block of an enhancement layer (EL) frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame.

37. The at least one machine-readable medium of claim 36, wherein the one or more first intra mode candidates comprise at least one of intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame, or intra modes of one or more blocks spatially adjacent to the co-located blocks.

38. The at least one machine-readable medium of claim 36, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block based, at least in part, on the one or more first intra mode candidates, and on one or more second intra

mode candidates obtained from at least one block located spatially adjacent to the current block in the EL frame.

39. The at least one machine-readable medium of claim 36, further comprising one or more instructions that in response to being executed on the computing device, cause the computing device to generate one or more indicators of a bitstream, the one or more indicators specifying the predicted intra mode for the current block.

40. The at least one machine-readable medium of claim 39, wherein the one or more indicators comprises an indicator specifying a candidate intra mode index, and wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

41. The at least one machine-readable medium of claim 39, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

42. The at least one machine-readable medium of claim 36, further comprising one or more instructions that in response to being executed on the computing device, cause the computing device to generate a list of intra mode candidates including the first intra mode candidates, wherein the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL, and wherein an intra mode of an above adjacent blockin the EL has a higher priority than intra modes of other neighboring blocks in the EL.

CLAIMS

1. A method for performing video coding, comprising:

at an enhancement layer (EL) video decoder:

determining a predicted intra mode for a current block of an EL frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame,

wherein a list of intra mode candidates including the first intra mode candidates is generated and the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates.

2. The method of claim 1, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

3. The method of claim 2, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

4. The method of claim 1, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block in response, at least in part, to the one or more first intra mode candidates, and to one or more second intra mode candidates obtained from at least one block spatially adjacent to the current block in the EL frame.

5. The method of claim 1, further comprising accessing one or more indicators in a bitstream, wherein determining the predicted intra mode comprises determining the predicted intra mode based on the one or more indicators.

6. The method of claim 5, wherein the one or more indicators comprises an indicator corresponding to a candidate intra mode index, wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

7. The method of claim 5, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

8. The method of claim 1, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL.

9. At least one machine-readable medium comprising a plurality of instructions that in response to being executed on a computing device, cause the computing device to determine a predicted intra mode for a current block of an enhancement layer (EL) frame in response, at least in part, to one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame,

wherein a list of intra mode candidates including the first intra mode candidates includes an indication of a priority of each of the intra mode candidates.

10. The at least one machine-readable medium of claim 9, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

11. The at least one machine-readable medium of claim 10, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

12. The at least one machine-readable medium of claim 9, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block in response, at least in part, to the one or more first intra mode candidates, and to one or more second intra mode candidates obtained from at least one block spatially adjacent to the current block in the EL frame.

13. The at least one machine-readable medium of claim 9, further comprising one or more instructions that in response to being executed on the computing device, cause the computing device to access one or more indicators in a bitstream.

14. The at least one machine-readable medium of claim 13, wherein the one or more indicators comprises an indicator corresponding to a candidate intra mode index, wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

15. The at least one machine-readable medium of claim 13, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

16. The at least one machine-readable medium of claim 9, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL.

17. An apparatus, comprising:

memory to store one or more first intra mode candidates; and

circuitry to access the memory, and to determine a predicted intra mode for a current block of an enhancement layer (EL) frame based, at least in part, on the one or more first intra mode candidates, wherein the one or more first intra mode candidates comprise intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame,

wherein a list of intra mode candidates including the first intra mode candidates is generated and the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates.

18. The apparatus of claim 17, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

19. The apparatus of claim 18, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

20. The apparatus of claim 17, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block based, at least in part, on the one or more first intra mode candidates, and to one or more second intra mode candidates obtained from at least one block spatially adjacent to the current block in the EL frame.

21. The apparatus of claim 17, further comprising circuitry to access one or more indicators in a bitstream, wherein determining the predicted intra mode comprises determining the predicted intra mode based on the one or more indicators.

22. The apparatus of claim 21, wherein the one or more indicators comprises an indicator corresponding to a candidate intra mode index, wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

23. The apparatus of claim 21, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

24. The apparatus of claim 17, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL.

25. A method for performing video coding, comprising:

at an enhancement layer (EL) video encoder:

determining a predicted intra mode for a current block of an EL frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame,

wherein a list of intra mode candidates including the first intra mode candidates is generated and the list of intra mode candidates includes an indication of a priority of each of the intra mode candidates.

26. The method of claim 25, wherein the one or more first intra mode candidates comprise intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame.

27. The method of claim 26, wherein the one or more first intra mode candidates further comprise intra modes of one or more blocks spatially adjacent to the co-located blocks.

28. The method of claim 25, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current block based, at least in part, on the one or more first intra mode candidates, and on one or more second intra mode candidates obtained from at least one block located spatially adjacent to the current block in the EL frame.

29. The method of claim 25, further comprising generating one or more indicators of a bitstream, the one or more indicators specifying the predicted intra mode for the current block.

30. The method of claim 29, wherein the one or more indicators comprises an indicator specifying a candidate intra mode index, and wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

31. The method of claim 29, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

32. The method of claim 25, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL.

33. At least one machine-readable medium comprising a plurality of instructions that in response to being executed on a computing device, cause the computing device to determine a predicted intra mode for a current block of an enhancement layer (EL) frame based, at least in part, on one or more first intra mode candidates obtained from at least one of a lower level EL frame, or a base layer (BL) frame,

wherein a list of intra mode candidates including the first intra mode candidates includes an indication of a priority of each of the intra mode candidates.

34. The at least one machine-readable medium of claim 33, wherein the one or more first intra mode candidates comprise at least one of intra modes of one or more co-located blocks of the lower level EL frame and/or the BL frame, or intra modes of one or more blocks spatially adjacent to the co-located blocks.

35. The at least one machine-readable medium of claim 33, wherein determining the predicted intra mode comprises determining the predicted intra mode for the current
block based, at least in part, on the one or more first intra mode candidates, and on one or more second intra mode candidates obtained from at least one block located spatially adjacent to the current block in the EL frame.

36. The at least one machine-readable medium of claim 33, further comprising one or more instructions that in response to being executed on the computing device, cause the computing device to generate one or more indicators of a bitstream, the one or more indicators specifying the predicted intra mode for the current block.

37. The at least one machine-readable medium of claim 36, wherein the one or more indicators comprises an indicator specifying a candidate intra mode index, and wherein the candidate intra mode index specifies one of the first intra mode candidates corresponding to the predicted intra mode for the current block.

38. The at least one machine-readable medium of claim 36, wherein the one or more indicators further comprises another indicator specifying a difference between one of the first intra mode candidates and the predicted intra mode for the current block.

39. The at least one machine-readable medium of claim 36, wherein an intra mode candidate of a layer closer to the EL has a higher priority than that of an intra mode candidate of a layer further from the EL.