CLAIMS

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

deriving, for a current block of video data and using decoder side intra mode derivation (DIMD), a list of intra modes using reconstructed samples of neighboring blocks;

constructing, for the current block, a most probable mode (MPM) list, wherein constructing the MPM list comprises inserting, into the MPM list, at least one intra mode from the derived list of intra modes, and wherein inserting the at least one intra mode from the derived list of intra modes into the MPM list comprises:

inserting, into the MPM list, a first candidate from the list of intra modes derived using DIMD; and

selectively inserting, in to the MPM list, a second candidate from the list of intra modes derived using DIMD; and

predicting, using a candidate selected from the constructed MPM list, the current block.

2. The method of claim 1, further comprising:

decoding, for the current block, a DIMD flag having a value that indicates whether DIMD is enabled for the current block of video data, wherein deriving the list of intra modes using DIMD comprises deriving the list of intra modes using DIMD regardless of a value of the DIMD flag.

3. The method of claim 1, wherein selectively inserting the second candidate comprises selectively inserting, based on a sum of intensity of the second candidate from the list of intra modes derived using DIMD, the second candidate into the MPM list.

4. The method of claim 1, wherein constructing the MPM list further comprises:

inserting, into the MPM list and after the at least one intra mode from the derived list of intra modes, additional intra mode candidates.

5. The method of claim 4, wherein inserting the additional intra mode candidates comprises:

inserting, into the MPM list and after the at least one intra mode from the derived list of intra modes, one or more default candidates.

6. The method of claim 4, wherein constructing the MPM list further comprises:

inserting, into the MPM list and before the at least one intra mode from the derived list of intra modes, one or more intra mode candidates that are prediction modes from neighboring blocks of the current block.

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

deriving, for a current block of video data and using decoder side intra mode derivation (DIMD), a list of intra modes using reconstructed samples of neighboring blocks;

constructing, for the current block, a most probable mode (MPM) list, wherein constructing the MPM list comprises inserting, into the MPM list, at least one intra mode from the derived list of intra modes, and wherein inserting the at least one intra mode from the derived list of intra modes into the MPM list comprises:

inserting, into the MPM list, a first candidate from the list of intra modes derived using DIMD; and

selectively inserting, in to the MPM list, a second candidate from the list of intra modes derived using DIMD;

selecting, for the current block and from the MPM list, a candidate intra mode; and

encoding, for the current block, one or more syntax element that specify the candidate intra mode.

8. The method of claim 7, further comprising:

encoding, for the current block, a DIMD flag having a value that indicates whether DIMD is enabled for the current block of video data, wherein deriving the list of intra modes using DIMD comprises deriving the list of intra modes using DIMD regardless of a value of the DIMD flag.

9. The method of claim 7, wherein selectively inserting the second candidate comprises selectively inserting, based on a sum of intensity of the second candidate from the list of intra modes derived using DIMD, the second candidate into the MPM list.

10. The method of claim 7, wherein constructing the MPM list further comprises:

inserting, into the MPM list and after the at least one intra mode from the derived list of intra modes, additional intra mode candidates.

11. The method of claim 10, wherein inserting the additional intra mode candidates comprises:

inserting, into the MPM list and after the at least one intra mode from the derived list of intra modes, one or more default candidates.

12. The method of claim 10, wherein constructing the MPM list further comprises:

inserting, into the MPM list and before the at least one intra mode from the derived list of intra modes, one or more intra mode candidates that are prediction modes from neighboring blocks of the current block.

13. A device for decoding video data, the device comprising:

a memory configured to store video data; and

one or more processors implemented in circuitry and configured to:

derive, for a current block of video data and using decoder side intra mode derivation (DIMD), a list of intra modes using reconstructed samples of neighboring blocks;

construct, for the current block, a most probable mode (MPM) list, wherein constructing the MPM list comprises inserting, into the MPM list, at least one intra mode from the derived list of intra modes, and wherein, to insert the at least one intra mode from the derived list of intra modes into the MPM list, the one or more processors are configured to:

insert, into the MPM list, a first candidate from the list of intra modes derived using DIMD; and

selectively insert, in to the MPM list, a second candidate from the list of intra modes derived using DIMD; and

predict, using a candidate selected from the constructed MPM list, the current block.

14. The device of claim 13, wherein the one or more processors are further configured to:

decode, for the current block, a DIMD flag having a value that indicates whether DIMD is enabled for the current block of video data, wherein, to derive the list of intra modes using DIMD, the one or more processors are configured to derive the list of intra modes using DIMD regardless of a value of the DIMD flag.

15. The device of claim 13, wherein, to selectively insert the second candidate, the one or more processors are configured to selectively insert, based on a sum of intensity of the second candidate from the list of intra modes derived using DIMD, the second candidate into the MPM list.

16. The device of claim 13, wherein, to construct the MPM list, the one or more processors are configured to:

insert, into the MPM list and after the at least one intra mode from the derived list of intra modes, additional intra mode candidates.

17. The device of claim 16, wherein, to insert the additional intra mode candidates, the one or more processors are configured to:

insert, into the MPM list and after the at least one intra mode from the derived list of intra modes, one or more default candidates.

18. The device of claim 16, wherein, to construct the MPM list, the one or more processors are configured to:

insert, into the MPM list and before the at least one intra mode from the derived list of intra modes, one or more intra mode candidates that are prediction modes from neighboring blocks of the current block.

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

a memory configured to store video data; and

one or more processors implemented in circuitry and configured to:

derive, for a current block of video data and using decoder side intra mode derivation (DIMD), a list of intra modes using reconstructed samples of neighboring blocks;

construct, for the current block, a most probable mode (MPM) list, wherein constructing the MPM list comprises inserting, into the MPM list, at least one intra mode from the derived list of intra modes, and wherein, to insert the at least one intra mode from the derived list of intra modes into the MPM list, the one or more processors are configured to:

insert, into the MPM list, a first candidate from the list of intra modes derived using DIMD; and

selectively insert, in to the MPM list, a second candidate from the list of intra modes derived using DIMD;

select, for the current block and from the MPM list, a candidate intra mode; and

encode, for the current block, one or more syntax element that specify the candidate intra mode.

20. The device of claim 19, wherein the one or more processors are further configured to:

encode, for the current block, a DIMD flag having a value that indicates whether DIMD is enabled for the current block of video data, wherein, to derive the list of intra modes using DIMD, the one or more processors are configured to derive the list of intra modes using DIMD regardless of a value of the DIMD flag.

21. The device of claim 19, wherein, to selectively insert the second candidate, the one or more processors are configured to selectively insert, based on a sum of intensity of the second candidate from the list of intra modes derived using DIMD, the second candidate into the MPM list.

22. The device of claim 19, wherein, to construct the MPM list, the one or more processors are configured to:

insert, into the MPM list and after the at least one intra mode from the derived list of intra modes, additional intra mode candidates.

23. The device of claim 22, wherein, to insert the additional intra mode candidates, the one or more processors are configured to:

insert, into the MPM list and after the at least one intra mode from the derived list of intra modes, one or more default candidates.

24. The device of claim 22, wherein, to construct the MPM list, the one or more processors are configured to:

insert, into the MPM list and before the at least one intra mode from the derived list of intra modes, one or more intra mode candidates that are prediction modes from neighboring blocks of the current block.