CLAIMS

1. A method of encoding or decoding video data, comprising:

storing a plurality of reconstructed samples of video data in memory;

determining that a height of a current block and a width of the current block are not equal;

based on the determination that the height and the width of the current block are not equal, shifting, by an offset, a value indicative of an angular intra prediction mode to obtain a shifted value, the angular intra prediction mode being within a set of angular intra prediction modes;

generating a prediction block by intra predicting based on a shifted angular intra prediction mode associated with the shifted value and at least one reconstructed sample among the plurality of reconstructed samples; and

encoding or decoding the current block based on the prediction block.

2. The method of claim 1 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is different from angular prediction directions associated with the set of angular intra prediction modes.

3. The method of claim 1 further comprising:

based on a determination that the height of the current block is greater than the width of the current block, shifting the value indicative of the angular intra prediction mode based on a first offset, or

based on a determination that the width of the current block is greater than the height of the current block, shifting the value indicative of the angular intra prediction mode based on a second offset,

where the first offset and the second offset have different values.

4. The method of claim 1 further comprising determining whether the shifted angular intra prediction mode is available for intra prediction of the current block based on an availability of a reconstructed sample neighboring the current block.

5. The method of claim 1 further comprising intra predicting at least one of a luma component or a chroma component of the current block based on the shifted angular intra

prediction mode.

6. The method of claim 1 further comprising:

generating a second prediction block for intra prediction of the current block based on another angular intra prediction mode within the set of angular intra prediction modes;

determining a weighted sum of the prediction block and the second prediction block;

generating a final prediction block based on the weighted sum; and

encoding or decoding the current block based on the final prediction block.

7. The method of claim 1 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is available only when the height and the width of the current block are not equal.

8. The method of claim 7 wherein the shifted angular intra prediction mode is associated with one of a first set of extended angular prediction directions that is available only when the block width is smaller than the block height.

9. The method of claim 8 wherein the shifted angular intra prediction mode is associated with one of a second set of extended angular prediction directions that is available only when the block width is larger than the block height.

10. An apparatus configured to encode or decode video data, the apparatus comprising:

memory configured to store a plurality of reconstructed samples of video data; and

at least one processor in communication with the memory, the at least one processor being configured to:

determine that a height of a current block and a width of the current block are not equal;

based on the determination that the height and the width of the current block are not equal, shift, by an offset, a value indicative of an angular intra prediction mode to obtain a shifted value, the angular intra prediction mode being

within a set of angular intra prediction modes;

generate a prediction block by intra prediction based on a shifted angular intra prediction mode associated with the shifted value and at least one reconstructed sample; and

encode or decode the current block based on the prediction block.

11. The apparatus of claim 10 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is different from angular prediction directions associated with the set of angular intra prediction modes.

12. The apparatus of claim 10 wherein the at least one processor is further configured to:

based on a determination that the height of the current block is greater than the width of the current block, shift the value indicative of the angular intra prediction mode based on a first offset, or

based on a determination that the width of the current block is greater than the height of the current block, shift the value indicative of the angular intra prediction mode based on a second offset,

where the first offset and the second offset have different values.

13. The apparatus of claim 10 wherein the at least one processor is further configured to determine whether the shifted extended angular intra prediction mode is available for intra prediction of the current block based on an availability of a reconstructed sample neighboring the current block.

14. The apparatus of claim 10 wherein the at least one processor is further configured to intra predict at least one of a luma component or a chroma component of the current block based on the shifted angular intra prediction mode.

15. The apparatus of claim 10 wherein the at least one processor is further configured to:

generate a second prediction block for intra prediction of the current block based on another angular intra prediction mode within the set of angular intra prediction modes;

determine a weighted sum of the prediction block and the second prediction block;

generate a final prediction block based on the weighted sum; and

encode or decode the current block based on the final prediction block.

16. The apparatus of claim 10 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is available only when the height and the width of the current block are not equal.

17. The apparatus of claim 16 wherein the shifted angular intra prediction mode is associated with one of a first set of extended angular prediction directions that is available only when the block width is smaller than the block height.

18. The apparatus of claim 17 wherein the shifted angular intra prediction mode is associated with one of a second set of extended angular prediction directions that is available only when the block width is larger than the block height.

19. An apparatus configured to encode or decode video data, the apparatus comprising:

means for storing a plurality of reconstructed samples of video data;

means for determining that a height of a current block and a width of the current block are not equal;

based on the determination that the height and the width of the current block are not equal, means for shifting, by an offset, a value indicative of an angular intra prediction mode to obtain a shifted value, the angular intra prediction mode being within a set of angular intra prediction modes;

means for generating a prediction block by intra predicting based on a shifted angular intra prediction mode associated with the shifted value and at least one reconstructed sample among the plurality of reconstructed samples; and

means for encoding or decoding the current block based on the prediction block.

20. The apparatus of claim 19 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is different from angular prediction directions associated with the set of angular intra prediction modes.

21. The apparatus of claim 19 further comprising:

based on a determination that the height of the current block is greater than the width

of the current block, means for shifting the value indicative of the angular intra prediction mode based on a first offset, or

based on a determination that the width of the current block is greater than the height of the current block, means for shifting the value indicative of the angular intra prediction mode based on a second offset,

where the first offset and the second offset have different values.

22. The apparatus of claim 19 further comprising means for determining whether the shifted angular intra prediction mode is available for intra prediction of the current block based on an availability of a reconstructed sample neighboring the current block.

23. The apparatus of claim 19 further comprising means for intra predicting at least one of a luma component or a chroma component of the current block based on the shifted angular intra prediction mode.

24. The apparatus of claim 19 further comprising:

means for generating a second prediction block for intra prediction of the current block based on another angular intra prediction mode within the set of angular intra prediction modes;

means for determining a weighted sum of the prediction block and the second prediction block;

means for generating a final prediction block based on the weighted sum; and

means for encoding or decoding the current block based on the final prediction block.

25. The apparatus of claim 19 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is available only when the height and the width of the current block are not equal.

26. The apparatus of claim 25 wherein the shifted angular intra prediction mode is associated with one of a first set of extended angular prediction directions that is available only when the block width is smaller than the block height.

27. The apparatus of claim 26 wherein the shifted angular intra prediction mode is associated with one of a second set of extended angular prediction directions that is available only when the block width is larger than the block height.

28. A computer-readable storage medium storing instructions that, when executed, causes one or more processors configured to encode or decode video data to:

determine that a height of a current block and a width of the current block are not equal;

based on the determination that the height and the width of the current block are not equal, shift, by an offset, a value indicative of an angular intra prediction mode to obtain a shifted value, the angular intra prediction mode being within a set of angular intra prediction modes;

generate a prediction block by intra prediction based on a shifted angular intra prediction mode associated with the shifted value and at least one reconstructed sample among the plurality of reconstructed samples; and

encode or decode the current block based on the prediction block.

29. The computer-readable storage medium of claim 28, further storing instructions that, when executed, cause the one or more processors configured to encode or decode the video data to:

based on a determination that the height of the current block is greater than the width of the current block, shift the value indicative of the angular intra prediction mode based on a first offset, or

based on a determination that the width of the current block is greater than the height of the current block, shift the value indicative of the angular intra prediction mode based on a second offset,

where the first offset and the second offset have different values.

30. The computer-readable storage medium of claim 28, further storing instructions that, when executed, cause the one or more processors configured to encode or decode video data to determine whether the shifted angular intra prediction mode is available for intra prediction of the current block based on an availability of a reconstructed sample neighboring the current block.

31. The computer-readable storage medium of claim 28, further storing instructions that, when executed, cause the one or more processors configured to encode or decode video data to intra predict at least one of a luma component or a chroma component of the current block based on the shifted angular intra prediction mode.

32. The computer-readable storage medium of claim 28, further storing instructions that, when executed, cause the one or more processors configured to encode or decode video data to:

generate a second prediction block for intra prediction of the current block based on another angular intra prediction mode within the set of angular intra prediction modes;

determine a weighted sum of the prediction block and the second prediction block;

generate a final prediction block based on the weighted sum; and

encode or decode the current block based on the final prediction block.

33. The computer-readable storage medium of claim 28 wherein the shifted angular intra prediction mode is associated with an angular prediction direction that is available only when the height and the width of the current block are not equal.

34. The computer-readable storage medium of claim 33 wherein the shifted angular intra prediction mode is associated with one of a first set of extended angular prediction directions that is available only when the block width is smaller than the block height.

35. The computer-readable storage medium of claim 34 wherein the shifted angular intra prediction mode is associated with one of a second set of extended angular prediction directions that is available only when the block width is larger than the block height.