CLAIMS

1. A method of decoding video data, the method comprising: determining a size of a current block of video data; determining, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; determining a prediction block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; determining one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; modifying, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; and reconstructing a block based on the modified prediction sample and a residual value.

2. The method of claim 1, wherein determining the size of the current block includes determining a width of the current block and a height of the current block are different sizes.

3. The method of claim 1, wherein the angle of the wide angle intra-prediction mode is less than −135 degrees or greater than to 45 degrees relative to the intra-predicted prediction sample.

4. The method of claim 1, further comprising: determining one or more weights based on x- and y-coordinates of the intra-predicted prediction sample, wherein modifying the intra-predicted prediction sample comprises modifying the intra-predicted prediction sample to generate the modified prediction sample based on the one or more PDPC reference samples, the one or more weights, and the intra-predicted prediction sample.

5. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block comprises determining the one or more PDPC reference samples having both an x-coordinate and a y-coordinate that are different than both a respective x-

coordinate and y-coordinate of the intra-predicted prediction sample in the prediction block.

6. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is equal to an x-coordinate of the intra-predicted prediction sample plus a y-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

7. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is equal to a y-coordinate of the intra-predicted prediction sample plus an x-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

8. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is based on an angle of the wide angle intra-prediction mode relative to the intra-predicted prediction sample; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

9. The method of claim 8, wherein determining the x-coordinate in the determined row comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the x-coordinate in the determined row based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

10. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block;

determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is based on an angle of the wide angle intra-prediction mode; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

11. The method of claim 10, wherein determining the y-coordinate in the determined column comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the y-coordinate in the determined column based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

12. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining a set of one or more samples based on the wide angle intra-prediction mode; and at least one of interpolating, rounding with offset, or rounding without offset the set of one or more samples to generate the one or more PDPC reference samples.

13. The method of claim 1, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining that one or more samples external to the current block identified based on the wide angle intra-prediction mode are not stored in a reference line buffer; and determining the one or more PDPC reference samples based on a last PDPC reference sample stored in the reference line buffer.

14. The method of claim 1, wherein modifying the intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block comprises modifying a first intra-predicted prediction sample of the prediction block, and wherein the one or more PDPC reference samples comprise a first set of one or more PDPC reference samples, the method further comprising: determining, for a second intra-predicted prediction sample of the prediction block, that at least one PDPC reference sample of a second set of one or more PDPC reference samples for the second intra-predicted prediction sample are not stored in a reference line buffer; and one of not applying PDPC to the second intra-predicted prediction sample or applying PDPC

using only PDPC reference samples available in reference line buffer.

15. The method of claim 1, wherein the wide angle intra-prediction mode is not a DC, planar, horizontal, or vertical intra-prediction mode.

16. A method of encoding video data, the method comprising: determining a size of a current block of video data; determining, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; determining a prediction block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; determining one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; modifying, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; determining a residual value for a residual block based on the modified prediction sample and a sample value in the current block; and signaling information indicative of the residual value.

17. The method of claim 16, wherein determining the size of the current block includes determining a width of the current block and a height of the current block are different sizes.

18. The method of claim 16, wherein the angle of the wide angle intra-prediction mode is less than −135 degrees or greater than to 45 degrees relative to the intra-predicted prediction sample.

19. The method of claim 16, further comprising: determining one or more weights based on x- and y-coordinates of the intra-predicted prediction sample, wherein modifying the intra-predicted prediction sample comprises modifying the intra-predicted prediction sample to generate the modified prediction sample based on the one or more PDPC reference samples, the one or more weights, and the intra-predicted prediction sample.

20. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block comprises determining the one or more PDPC reference samples having both an x-coordinate and a y-coordinate that are different than both a respective x-coordinate and y-coordinate of the intra-predicted prediction sample in the prediction block.

21. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is equal to an x-coordinate of the intra-predicted prediction sample plus a y-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

22. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is equal to a y-coordinate of the intra-predicted prediction sample plus an x-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

23. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is based on an angle of the wide angle intra-prediction mode relative to the intra-predicted prediction sample; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

24. The method of claim 23, wherein determining the x-coordinate in the determined row comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the x-coordinate in the determined row based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the

intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

25. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is based on an angle of the wide angle intra-prediction mode; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

26. The method of claim 25, wherein determining the y-coordinate in the determined column comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the y-coordinate in the determined column based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

27. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining a set of one or more samples based on the wide angle intra-prediction mode; and at least one of interpolating, rounding with offset, or rounding without offset the set of one or more samples to generate the one or more PDPC reference samples.

28. The method of claim 16, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining that one or more samples external to the current block identified based on the wide angle intra-prediction mode are not stored in a reference line buffer; and determining the one or more PDPC reference samples based on a last PDPC reference sample stored in the reference line buffer.

29. The method of claim 16, wherein modifying the intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block comprises modifying a first intra-predicted prediction sample of the prediction block, and wherein the one or more PDPC reference samples comprise a first set of one or more PDPC reference samples, the method

further comprising: determining, for a second intra-predicted prediction sample of the prediction block, that at least one PDPC reference sample of a second set of one or more PDPC reference samples for the second intra-predicted prediction sample are not stored in a reference line buffer; and one of not applying PDPC to the second intra-predicted prediction sample or applying PDPC using only PDPC reference samples available in reference line buffer.

30. The method of claim 16, wherein the wide angle intra-prediction mode is not a DC, planar, horizontal, or vertical intra-prediction mode.

31. A device for decoding video data, the device comprising: a memory configured to store one or more prediction blocks; and a video decoder comprising at least one of fixed-function or programmable circuitry, wherein the video decoder is configured to: determine a size of a current block of video data; determine, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; determine a prediction block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; determine one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; modify, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; and reconstruct a block based on the modified prediction sample and a residual value.

32. The device of claim 31, wherein determining the size of the current block includes determining a width of the current block and a height of the current block are different sizes.

33. The device of claim 31, wherein the angle of the wide angle intra-prediction mode is less than −135 degrees or greater than to 45 degrees relative to the intra-predicted prediction sample.

34. The device of claim 31, wherein the video decoder is configured to: determine one or more weights based on x- and y-coordinates of the intra-predicted prediction sample, wherein modifying the intra-predicted prediction sample comprises modifying the intra-predicted prediction sample to generate the modified prediction sample based on the one or more PDPC reference samples, the one or more weights, and the intra-predicted prediction sample.

35. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block comprises determining the one or more PDPC reference samples having both an x-coordinate and a y-coordinate that are different than both a respective x-coordinate and y-coordinate of the intra-predicted prediction sample in the prediction block.

36. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is equal to an x-coordinate of the intra-predicted prediction sample plus a y-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

37. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is equal to a y-coordinate of the intra-predicted prediction sample plus an x-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

38. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is based on an angle of the wide angle intra-prediction mode relative to the intra-predicted prediction sample; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

39. The device of claim 38, wherein determining the x-coordinate in the determined row comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the x-coordinate in the determined row based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

40. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is based on an angle of the wide angle intra-prediction mode; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

41. The device of claim 40, wherein determining the y-coordinate in the determined column comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the y-coordinate in the determined column based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

42. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining a set of one or more samples based on the wide angle intra-prediction mode; and at least one of interpolating, rounding with offset, or rounding without offset the set of one or more samples to generate the one or more PDPC reference samples.

43. The device of claim 31, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining that one or more samples external to the current block identified based on the wide angle intra-prediction mode are not stored in a reference line buffer; and determining the one or more PDPC reference samples based on a last PDPC reference sample stored in the reference line buffer.

44. The device of claim 31, wherein modifying the intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block comprises modifying a first intra-predicted prediction sample of the prediction block, wherein the one or more PDPC reference samples comprise a first set of one or more PDPC reference samples, and wherein the video decoder is configured to: determine, for a second intra-predicted prediction sample of the prediction block, that at least one PDPC reference sample of a second set of one or more PDPC reference samples for the second intra-predicted prediction sample are not stored in a reference line buffer; and one of not apply PDPC to the second intra-predicted prediction sample or apply PDPC using only PDPC reference samples available in reference line buffer.

45. The device of claim 31, wherein the wide angle intra-prediction mode is not a DC, planar, horizontal, or vertical intra-prediction mode.

46. The device of claim 31, further comprising a display configured to display the current block.

47. The device of claim 31, wherein the device comprises one or more of a camera, a computer, a mobile device, a broadcast receiver device, or a set-top box.

48. A device of encoding video data, the device comprising: a memory configured to store one or more prediction blocks; and a video encoder comprising at least one of fixed-function or programmable circuitry, wherein the video encoder is configured to: determine a size of a current block of video data; determine, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; determine a prediction block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; determine one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; modify, using the one or more PDPC reference samples, an intra-predicted

prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; determine a residual value for a residual block based on the modified prediction sample and a sample value in the current block; and signal information indicative of the residual value.

49. The device of claim 48, wherein determining the size of the current block includes determining a width of the current block and a height of the current block are different sizes.

50. The device of claim 48, wherein the angle of the wide angle intra-prediction mode is less than −135 degrees or greater than to 45 degrees relative to the intra-predicted prediction sample.

51. The device of claim 48, wherein the video encoder is configured to: determine one or more weights based on x- and y-coordinates of the intra-predicted prediction sample, wherein modifying the intra-predicted prediction sample comprises modifying the intra-predicted prediction sample to generate the modified prediction sample based on the one or more PDPC reference samples, the one or more weights, and the intra-predicted prediction sample.

52. The device of claim 48, wherein determining the one or more PDPC reference samples that are external to the current block comprises determining the one or more PDPC reference samples having both an x-coordinate and a y-coordinate that are different than both a respective x-coordinate and y-coordinate of the intra-predicted prediction sample in the prediction block.

53. The device of claim 48, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is equal to an x-coordinate of the intra-predicted prediction sample plus a y-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

54. The device of claim 48, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the

determined column is equal to a y-coordinate of the intra-predicted prediction sample plus an x-coordinate of the intra-predicted prediction sample plus 1; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

55. The device of claim 48, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a row that is above the current block; determining an x-coordinate in the determined row, wherein the x-coordinate in the determined row is based on an angle of the wide angle intra-prediction mode relative to the intra-predicted prediction sample; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined row and the determined x-coordinate.

56. The device of claim 55, wherein determining the x-coordinate in the determined row comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the x-coordinate in the determined row based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

57. The device of claim 48, wherein determining the one or more PDPC reference samples that are external to the current block comprises: determining a column that is left of the current block; determining a y-coordinate in the determined column, wherein the y-coordinate in the determined column is based on an angle of the wide angle intra-prediction mode; and determining a PDPC reference sample of the one or more PDPC reference samples based on the determined column and the determined y-coordinate.

58. The device of claim 57, wherein determining the y-coordinate in the determined column comprises: determining one of a cotangent or tangent of the angle of the wide angle intra-prediction mode; and determining the y-coordinate in the determined column based on one of the cotangent or tangent of the angle of the wide angle intra-prediction mode, an x-coordinate of the intra-predicted prediction sample, and a y-coordinate of the intra-predicted prediction sample.

59. The device of claim 48, wherein determining the one or more PDPC reference samples that

are external to the current block based on the wide angle intra-prediction mode comprises: determining a set of one or more samples based on the wide angle intra-prediction mode; and at least one of interpolating, rounding with offset, or rounding without offset the set of one or more samples to generate the one or more PDPC reference samples.

60. The device of claim 48, wherein determining the one or more PDPC reference samples that are external to the current block based on the wide angle intra-prediction mode comprises: determining that one or more samples external to the current block identified based on the wide angle intra-prediction mode are not stored in a reference line buffer; and determining the one or more PDPC reference samples based on a last PDPC reference sample stored in the reference line buffer.

61. The device of claim 48, wherein modifying the intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block comprises modifying a first intra-predicted prediction sample of the prediction block, wherein the one or more PDPC reference samples comprise a first set of one or more PDPC reference samples, and wherein the video encoder is configured to: determine, for a second intra-predicted prediction sample of the prediction block, that at least one PDPC reference sample of a second set of one or more PDPC reference samples for the second intra-predicted prediction sample are not stored in a reference line buffer; and one of not apply PDPC to the second intra-predicted prediction sample or apply PDPC using only PDPC reference samples available in reference line buffer.

62. The device of claim 48, wherein the wide angle intra-prediction mode is not a DC, planar, horizontal, or vertical intra-prediction mode.

63. The device of claim 48, wherein the device comprises one or more of a camera, a computer, a mobile device, a broadcast receiver device, or a set-top box.

64. A computer-readable storage medium storing instructions that when executed cause one or more processors of a device for decoding video data to: determine a size of a current block of video data; determine, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; determine a prediction block for the current block using the wide

angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; determine one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; modify, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; and reconstruct a current block based on the modified prediction sample and a residual value.

65. A computer-readable storage medium storing instructions that when executed cause one or more processors of a device for encoding video data to: determine a size of a current block of video data; determine, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; determine a prediction block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; determine one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; modify, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; determine a residual value for a residual block based on the modified prediction sample and a sample value in the current block; and signal information indicative of the residual value.

66. A device for decoding video data, the device comprising: means for determining a size of a current block of video data; means for determining, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; means for determining a prediction

block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; means for determining one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; means for modifying, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; and means for reconstructing a block based on the modified prediction sample and a residual value.

67. A device for encoding video data, the device comprising: means for determining a size of a current block of video data; means for determining, based on the size of the current block, a wide angle intra-prediction mode to use for the current block; means for determining a prediction block for the current block using the wide angle intra-prediction mode, the prediction block including a plurality of intra-predicted prediction samples determined using an angle of the wide angle intra-prediction mode; means for determining one or more Position Dependent Intra Prediction Combination (PDPC) reference samples that are external to the current block for modifying the plurality of intra-predicted prediction samples of the prediction block, wherein each PDPC reference sample of the one or more PDPC reference samples are determined using the angle of the wide angle intra-prediction mode relative to a respective intra-predicted prediction sample of the plurality of intra-predicted prediction samples; means for modifying, using the one or more PDPC reference samples, an intra-predicted prediction sample of the plurality of intra-predicted prediction samples of the prediction block to generate a modified prediction sample; means for determining a residual value for a residual block based on the modified prediction sample and a sample value in the current block; and means for signaling information indicative of the residual value.