Amended Set of Claims

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

determining values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block;

determining a context for decoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags; and

entropy decoding the transform coefficient using the determined context.

2. The method of claim 1, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

3. The method of claim 2, wherein determining the context comprises calculating the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and using the calculated sum to determine the context.

4. The method of claim 1, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

5. The method of claim 1, wherein each of the sub-blocks corresponds to a respective 4x4 block of transform coefficients, and wherein the coded sub-block flags indicate whether at least one of the transform coefficients in the respective 4x4 block has a non-zero value.

6. The method of claim 1, wherein the current sub-block has a size of 4x4, and wherein the current sub-block is within a current transform unit having a size greater than 4x4.

7. The method of claim 1, wherein determining the context further comprises determining the context for decoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

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8. The method of claim 1, wherein entropy decoding the transform coefficient comprises entropy decoding the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

9. A device for decoding video data, the device comprising a video decoder configured to determine values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block, determine a context for decoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags, and entropy decode the transform coefficient using the determined context.

10. The device of claim 9, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

11. The device of claim 10, wherein to determine the context, the video decoder is configured to calculate the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and use the calculated sum to determine the context.

12. The device of claim 9, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

13. The device of claim 9, wherein the video decoder is further configured to determine the context for decoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

14. The device of claim 9, wherein the video decoder is configured to entropy decode the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

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

means for determining values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block;

means for determining a context for decoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags; and

means for entropy decoding the transform coefficient using the determined context.

16. The device of claim 15, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

17. The device of claim 16, wherein the means for determining the context comprises means for calculating the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and means for using the calculated sum to determine the context.

18. The device of claim 15, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

19. The device of claim 15, wherein the means for determining the context further comprises means for determining the context for decoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

20. The device of claim 15, wherein the means for entropy decoding the transform coefficient comprises means for entropy decoding the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

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

determine values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block;

determine a context for decoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags; and

entropy decode the transform coefficient using the determined context.

22. The computer-readable storage medium of claim 21, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

23. The computer-readable storage medium of claim 22, wherein the instructions that cause the processor to determine the context comprise instructions that cause the processor to calculate the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and use the calculated sum to determine the context.

24. The computer-readable storage medium of claim 21, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

25. The computer-readable storage medium of claim 21, wherein the instructions that cause the processor to determine the context further comprise instructions that cause the processor to determine the context for decoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

26. The computer-readable storage medium of claim 21, wherein the instructions that cause the processor to entropy decode the transform coefficient comprise instructions that cause the processor to entropy decoding the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

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

determining values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block;

determining a context for encoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags; and

entropy encoding the transform coefficient using the determined context.

28. The method of claim 27, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

29. The method of claim 28, wherein determining the context comprises calculating the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and using the calculated sum to determine the context.

30. The method of claim 27, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

31. The method of claim 27, wherein each of the sub-blocks corresponds to a respective 4x4 block of transform coefficients, and wherein the coded sub-block flags indicate whether at least one of the transform coefficients in the respective 4x4 block has a non-zero value.

32. The method of claim 27, wherein the current sub-block has a size of 4x4, and wherein the current sub-block is within a current transform unit having a size greater than 4x4.

33. The method of claim 27, wherein determining the context further comprises determining the context for encoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

34. The method of claim 27, wherein entropy encoding the transform coefficient comprises entropy encoding the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

35. A device for encoding video data, the device comprising a video encoder configured to determine values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block, determine a context for encoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags, and entropy encode the transform coefficient using the determined context.

36. The device of claim 35, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

37. The device of claim 36, wherein to determine the context, the video encoder is configured to calculate the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and use the calculated sum to determine the context.

38. The device of claim 35, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

39. The device of claim 35, the video encoder is further configured to determine the context for decoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

40. The device of claim 35, wherein the video encoder is configured to entropy encode the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

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

means for determining values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block;

means for determining a context for encoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags; and

means for entropy encoding the transform coefficient using the determined context.

42. The device of claim 41, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

43. The device of claim 42, wherein the means for determining the context comprises means for calculating the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and means for using the calculated sum to determine the context.

44. The device of claim 41, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

45. The device of claim 41, wherein the means for determining the context further comprises means for determining the context for encoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

46. The device of claim 41, wherein the means for entropy encoding the transform coefficient comprises means for entropy encoding the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

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

determine values for coded sub-block flags of one or more neighboring sub-blocks to a current sub-block;

determine a context for encoding a transform coefficient of the current sub-block based on the values for the coded sub-block flags; and

entropy encode the transform coefficient using the determined context.

48. The computer-readable storage medium of claim 47, wherein the one or more neighboring sub-blocks comprise a right-neighboring sub-block and a bottom-neighboring sub-block.

49. The computer-readable storage medium of claim 48, wherein the instructions that cause the processor to determine the context comprise instructions that cause the processor to calculate the sum of a value for a coded sub-block flag of the right-neighboring sub-block and a value for a coded sub-block flag of the bottom-neighboring sub-block and use the calculated sum to determine the context.

50. The computer-readable storage medium of claim 47, wherein the coded sub-block flags represent whether respective ones of the neighboring sub-blocks include at least one non-zero transform coefficient.

51. The computer-readable storage medium of claim 47, wherein the instructions that cause the processor to determine the context further comprise instructions that cause the processor to determine the context for encoding the transform coefficient based on a position of the transform coefficient in the current sub-block.

52. The computer-readable storage medium of claim 47, wherein the instructions that cause the processor to entropy encode the transform coefficient comprise instructions that cause the processor to entropy encoding the transform coefficient according to context adaptive binary arithmetic coding (CABAC).

CLAIMS

1. An invention not claimed in any divisional application.