Amended Set of Claims 1 to 44

1. A method of encoding video data comprising:

determining a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

determining a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size; and

signaling the smallest coding unit size in sequence level syntax information and signaling the picture size as a multiple of smallest coding unit size in sequence level syntax information.

2. The method of claim 1, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

3. The method of claim 1, wherein determining a smallest coding unit size for the video sequence includes determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

4. The method of claim 1, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

5. The method of claim 1, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

6. (Cancelled).

uration: 28.08.2013 21:20:23 - 28.08.2013 21:24:48. This page 17 of 2013 21:23:39
Received at the EPO on Aug 28, 2013 21:24:48. Page 17 of 23

7. A device configured to encode video data comprising:

means for determining a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

means for determining a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size; and

means for signaling the smallest coding unit size in sequence level syntax information and mean for signaling the picture size as a multiple of smallest coding unit size in sequence level syntax information.

8. The device of claim 7, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

9. The device of claim 7, wherein the means for determining a smallest coding unit size for the video sequence includes means for determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

10. The device of claim 1, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

11. The device of claim 7, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

12. (Cancelled).

13. A device comprising a video encoder configured to:

determine a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

determine a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size; and

signal the smallest coding unit size in sequence level syntax information and signal the picture size as a multiple of smallest coding unit size in sequence level syntax information.

14. The device of claim 13, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

15. The device of claim 13, wherein determining a smallest coding unit size for the video sequence includes determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

16. The device of claim 13, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

17. The device of claim 13, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

18. (Cancelled).

19. A computer readable medium comprising instructions stored thereon that when executed cause a processor to:

determine a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

determine a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size; and

signal the smallest coding unit size in sequence level syntax information and signal the picture size as a multiple of smallest coding unit size in sequence level syntax information.

20. The computer readable medium of claim 19, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

21. The computer readable medium of claim 19, wherein determining a smallest coding unit size for the video sequence includes determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

22. The computer readable medium of claim 19, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

23. The computer readable medium of claim 19, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

24. (Cancelled).

25. A method of decoding video data comprising:

obtaining a coded video sequence including a plurality of coded pictures;

obtaining sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

obtaining sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size;

decoding the pictures; and

storing the decoded pictures in a decoded picture buffer.

26. The method of claim 25, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

27. The method of claim 25, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

28. The method of claim 25, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

29. (Cancelled).

30. A device configured to decode video data comprising:

means for obtaining a coded video sequence including a plurality of coded pictures;

means for obtaining sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

means for obtaining sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size;

means for decoding the pictures; and

means for storing the decoded pictures in a decoded picture buffer.

31. The device of claim 30, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

32. The device of claim 30, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

33. The device of claim 30, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

34. (Cancelled).

35. A device comprising a video decoder configured to:

obtain a coded video sequence including a plurality of coded pictures;

obtain sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

obtain sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size;

decode the pictures; and

store the decoded pictures in a decoded picture buffer.

36. The device of claim 35, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

37. The device of claim 35, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

38. The device of claim 35, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

39. (Cancelled).

40. A computer readable medium comprising instructions stored thereon that when executed cause a processor to:

obtain a coded video sequence including a plurality of coded pictures;

obtain sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

obtain sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size;

decode the pictures; and

store the decoded pictures in a decoded picture buffer.

41. The computer readable medium of claim 40, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

42. The computer readable medium of claim 40, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

43. The computer readable medium of claim 40, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

44. (Cancelled).

CLAIMS

1. A method of encoding video data comprising:

determining a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

determining a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size;

signaling the smallest coding unit size in sequence level syntax information and signaling the picture size as a multiple of smallest coding unit size in sequence level syntax information; and

encoding the video sequence using the smallest coding unit size and the picture size.

2. The method of claim 1, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

3. The method of claim 1, wherein determining a smallest coding unit size for the video sequence includes determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

4. The method of claim 1, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

5. The method of claim 1, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

6. A device configured to encode video data comprising:

means for determining a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

means for determining a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size;

means for signaling the smallest coding unit size in sequence level syntax information and mean for signaling the picture size as a multiple of smallest coding unit size in sequence level syntax information; and

means for encoding the video sequence using the smallest coding unit size and the picture size.

7. The device of claim 6, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

8. The device of claim 6, wherein the means for determining a smallest coding unit size for the video sequence includes means for determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

9. The device of claim 1, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

10. The device of claim 6, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

11. A device comprising a video encoder configured to:

determine a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

determine a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size;

signal the smallest coding unit size in sequence level syntax information and signal the picture size as a multiple of smallest coding unit size in sequence level syntax information; and

encode the video sequence using the smallest coding unit size and the picture size.

12. The device of claim 11, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

13. The device of claim 11, wherein determining a smallest coding unit size for the video sequence includes determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

14. The device of claim 11, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

15. The device of claim 11, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

16. A computer readable storage medium for encoding video data comprising instructions stored thereon that when executed cause a processor to:

determine a smallest coding unit size for a video sequence, wherein the video sequence comprises a plurality of pictures and wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes;

determine a picture size associated with the video sequence, wherein the picture size associated with the video sequence is determined as a multiple of the smallest coding unit size;

signal the smallest coding unit size in sequence level syntax information and signal the picture size as a multiple of smallest coding unit size in sequence level syntax information; and

encode the video sequence using the smallest coding unit size and the picture size.

17. The computer readable storage medium of claim 16, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

18. The computer readable storage medium of claim 16, wherein determining a smallest coding unit size for the video sequence includes determining a first smallest coding unit size for a first picture and determining a second smallest coding unit size for a second picture, wherein the first smallest coding unit size is less than the second smallest coding unit size, and wherein the smallest coding unit size for the video sequence is the first smallest coding unit size.

19. The computer readable storage medium of claim 16, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

20. The computer readable storage medium of claim 16, wherein the picture size specifies a picture size of a decoded picture stored in a decoded picture buffer.

21. A method of decoding video data comprising:

obtaining a coded video sequence including a plurality of coded pictures;

obtaining sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes in an encoding process of the video sequence;

obtaining sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size in the encoding process;

decoding the pictures using the smallest coding unit size and the picture size; and

storing the decoded pictures in a decoded picture buffer.

22. The method of claim 21, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

23. The method of claim 21, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

24. The method of claim 21, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

25. A device configured to decode video data comprising:

means for obtaining a coded video sequence including a plurality of coded pictures;

means for obtaining sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes in an encoding process of the video sequence;

means for obtaining sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple

of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size in the encoding process;

means for decoding the pictures using the smallest coding unit size and the picture size; and

means for storing the decoded pictures in a decoded picture buffer.

26. The device of claim 25, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

27. The device of claim 25, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

28. The device of claim 25, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

29. A device comprising a video decoder configured to:

obtain a coded video sequence including a plurality of coded pictures;

obtain sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes in an encoding process of the video sequence;

obtain sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size in the encoding process;

decode the pictures using the smallest coding unit size and the picture size; and

store the decoded pictures in a decoded picture buffer.

30. The device of claim 29, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

31. The device of claim 29, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

32. The device of claim 29, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.

33. A computer readable storage medium comprising instructions stored thereon that when executed cause a processor to:

obtain a coded video sequence including a plurality of coded pictures;

obtain sequence level syntax information indicating a smallest coding unit size of the video sequence, wherein the smallest coding unit size is selected from a plurality of possible coding unit sizes in an encoding process of the video sequence;

obtain sequence level information indicating a picture size associated with the video sequence, the picture size having been signaled as a multiple of smallest coding unit size, and wherein the picture size is determined as a multiple of the smallest coding unit size in the encoding process;

decode the pictures using the smallest coding unit size and the picture size; and

store the decoded pictures in a decoded picture buffer.

34. The computer readable storage medium of claim 33, wherein a first picture of the video sequence has a first smallest coding unit size and a second picture of the video sequence has a second smallest coding unit size, the first smallest coding unit size is less than the second smallest coding unit size, the smallest coding unit size is the first smallest coding unit size, and the picture size is a multiple of the first smallest coding unit size.

35. The computer readable storage medium of claim 33, wherein the picture size includes a picture width determined as a multiple of the smallest coding unit size and a picture height determined as a multiple of the smallest coding unit size.

36. The computer readable storage medium of claim 33, wherein the plurality of possible coding unit sizes includes a maximum coding unit size of 64x64 pixels.