CLAIMS

1. A method of decoding implemented by a decoding device, comprising:

determining a partitioning type of a subject coding unit, CU, wherein

the partitioning type is either

single partitioning type, in which a subject coding unit is partitioned into a single CU including one luma coding block, CB, and two chroma CBs, or

separate partitioning type, in which a subject coding unit is partitioned into a separate luma CU including a luma CB only and a chroma CU including two chroma CBs only; and

decoding, based on the partitioning type of the subject CU, the subject CU and an associated palette coding information from a bitstream.

2. The method according to claim 1, wherein

the associated palette coding information comprises palette coding info syntax elements, and

the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the subject CU.

3. The method according to claim 2, wherein,

when the partitioning type of the subject CU is the single partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU once for Y, Cb, Cr components together.

4. The method according to claim 2, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU twice: once for Y component and once for Cb-Cr components together.

5. The method according to claim 2 or claim 3, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the luma CU once for Y component.

6. The method according to any of claims 2 to 4, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream once for Cb-Cr components together in the chroma CU.

7. The method according to any of claims 2 to 6, wherein

the palette coding info syntax elements include any of or any combination of: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s), indexes map(s).

8. The method according to any of claims 2 to 7, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements signaling for the chroma CU depends on a palette coding control flag of the luma CU of the subject CU.

9. The method according to claim 8, wherein

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements signaling for the chroma CU depends on the palette coding control flag of the luma CU of the subject CU according to following rule:

if all luma CBs of the subject CU have palette coding control flag equal to 1, then signal, in the bitstream, a palette coding control flag for the chroma CBs;

otherwise, do not use palette coding for the chroma CBs.

10. The method according to claim 8, wherein

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements signaling for the chroma CU depends on the palette coding control flag of the luma CU of the subject CU according to following rule:

if all luma CBs of the subject CU have palette coding control flag equal to 1, then infer a palette coding control flag for the chroma CBs to be equal 1, and signal, in the bitstream, the palette coding info syntax elements for the chroma CBs;

otherwise signal, in the bitstream, the palette coding control flag for the chroma CBs.

11. A method of coding implemented by an encoding device, comprising:

determining a partitioning type of a subject coding unit, CU; and

partitioning the subject CU into either

a single CU including one luma coding block, CB, and two chroma CBs in a single partitioning type, or

a separate luma CU including the luma CB only and a chroma CU including the two chroma CBs only in a separate partitioning type; and

encoding the subject CU and the associated palette coding information into a bitstream depending on the partition type of the subject CU.

12. A program stored on a non-transitory medium including code with instructions which, when executed by one or more processors, cause the one or more processors to perform the method according to any of claims 1 to 11.

13. A decoding device, including a processing circuitry configured to:

determine a partitioning type of a subject coding unit, CU, wherein

the partitioning type is either

single partitioning type, in which a subject coding unit is partitioned into a single CU including one luma coding block, CB, and two chroma CBs, or

separate partitioning type, in which a subject coding unit is partitioned into a separate luma CU including a luma CB only and a chroma CU including two chroma CBs only; and

decode, based on the partitioning type of the subject CU, the subject CU and an associated palette coding information from a bitstream.

14. The decoding device according to claim 13, wherein

the associated palette coding information comprises palette coding info syntax elements, and

the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the subject CU.

15. The decoding device according to claim 14, wherein, when the partitioning type of the subject CU is the single partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU once for Y, Cb, Cr components together.

16. The decoding device according to claim 14, wherein, when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU twice: once for Y component and once for Cb-Cr components together.

17. An encoding device, including a processing circuitry configured to

determine a partitioning type of a subject coding unit, CU,

partition the subject CU into either

a single CU including one luma coding block, CB, and two chroma CBs, in a single partition type, or

a separate luma CU including the luma CB only and a chroma CU including the two chroma CBs only in a separate partition type; and to

encode the subject CU and an associated palette coding information into a bitstream depending on the partition type of the subject CU.

CLAIMS

1. A method of decoding implemented by a decoding device, comprising:

determining a partitioning type of a subject coding unit, CU, wherein

the partitioning type is either

single partitioning type, in which a subject coding unit is partitioned into a single CU including one luma coding block, CB, and two chroma CBs, or

separate partitioning type, in which a subject coding unit is partitioned into a separate luma CU including a luma CB only and a chroma CU including two chroma CBs only; and

decoding, based on the partitioning type of the subject CU, the subject CU and an associated palette coding information from a bitstream;

wherein the associated palette coding information comprises palette coding info syntax elements, the palette coding info syntax elements include: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s) and indexes map(s), and the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the subject CU.

2. The method according to claim 1, wherein,

when the partitioning type of the subject CU is the single partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU once for Y, Cb, Cr components together.

3. The method according to claim 1, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU twice: once for Y component and once for Cb-Cr components together.

4. The method according to claim 1 or claim 2, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the luma CU once for Y component.

5. The method according to any one of claims 1 to 3, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream once for Cb-Cr components together in the chroma CU.

6. The method according to any one of claims 1 to 5, wherein,

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements signaling for the chroma CU depends on a palette coding control flag of the luma CU of the subject CU.

7. The method according to claim 6, wherein

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements signaling for the chroma CU depends on the palette coding control flag of the luma CU of the subject CU according to following rule:

if all luma CBs of the subject CU have palette coding control flag equal to 1, then signal, in the bitstream, a palette coding control flag for the chroma CBs;

otherwise, do not use palette coding for the chroma CBs.

8. The method according to claim 6, wherein

when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements signaling for the chroma CU depends on the palette coding control flag of the luma CU of the subject CU according to following rule:

if all luma CBs of the subject CU have palette coding control flag equal to 1, then infer a palette coding control flag for the chroma CBs to be equal 1, and signal, in the bitstream, the palette coding info syntax elements for the chroma CBs;

otherwise signal, in the bitstream, the palette coding control flag for the chroma CBs.

9. A method of coding implemented by an encoding device, comprising:

determining a partitioning type of a subject coding unit, CU; and

partitioning the subject CU into either

a single CU including one luma coding block, CB, and two chroma CBs in a single partitioning type, or

a separate luma CU including the luma CB only and a chroma CU including the two chroma CBs only in a separate partitioning type; and

encoding the subject CU and the associated palette coding information into a bitstream depending on the partition type of the subject CU;

wherein the associated palette coding information comprises palette coding info syntax elements, the palette coding info syntax elements include: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s) and indexes map(s), and the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the current CU.

10. A program stored on a non-transitory medium including code with instructions which, when executed by one or more processors, cause the one or more processors to perform the method according to any one of claims 1 to 9.

11. A decoding device, including a processing circuitry configured to:

determine a partitioning type of a subject coding unit, CU, wherein

the partitioning type is either

single partitioning type, in which a subject coding unit is partitioned into a single CU including one luma coding block, CB, and two chroma CBs, or

separate partitioning type, in which a subject coding unit is partitioned into a separate luma CU including a luma CB only and a chroma CU including two chroma CBs only; and

decode, based on the partitioning type of the subject CU, the subject CU and an associated palette coding information from a bitstream;

wherein the associated palette coding information comprises palette coding info syntax elements, the palette coding info syntax elements include: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s) and indexes map(s), and the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the subject CU.

12. The decoding device according to claim 11, wherein, when the partitioning type of the subject CU is the single partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU once for Y, Cb, Cr components together.

13. The decoding device according to claim 11, wherein, when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU twice: once for Y component and once for Cb-Cr components together.

14. An encoding device, including a processing circuitry configured to

determine a partitioning type of a subject coding unit, CU,

partition the subject CU into either

a single CU including one luma coding block, CB, and two chroma CBs, in a single partition type, or

a separate luma CU including the luma CB only and a chroma CU including the two chroma CBs only in a separate partition type; and to

encode the subject CU and an associated palette coding information into a bitstream depending on the partition type of the subject CU;

wherein the associated palette coding information comprises palette coding info syntax elements, the palette coding info syntax elements include: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s) and indexes map(s), and the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the current CU.

15. The encoding device according to claim 14, wherein when the partitioning type of the subject CU is the single partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU once for Y, Cb, Cr components together.

16. The encoding device according to claim 14, wherein when the partitioning type of the subject CU is the separate partitioning type, the palette coding info syntax elements are signaled in the bitstream for the subject CU twice: once for Y component and once for Cb-Cr components together.

17. A non-transitory storage medium, comprising a bitstream decoded by any one of the method of claims 1 to 8.

18. A non-transitory storage medium, comprising a bitstream encoded by the method of claim 9.

19. A video data decoding device, comprising:

a non-transitory memory storage, configured to store video data in a form of a bitstream; and

a video decoder, configured to perform any of the methods according to any one of the claims 1 to 8.

20. A video data encoding device, comprising:

a non-transitory memory storage, configured to store video data in a form of a bitstream; and

a video encoder, configured to perform the method according to claim 9.

21. An encoded bitstream for the video signal by including a plurality of syntax elements, characterized in, wherein the plurality of syntax elements comprise: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s) and indexes map(s), and the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the subject CU.

22. A non-transitory storage medium which includes an encoded bitstream decoded by an image decoding device, wherein, the bit stream being generated by dividing a frame of a video signal or an image signal into a plurality blocks, and including a plurality of syntax elements, wherein the plurality of syntax elements comprise: palette(s) predictor vector, palette(s)' sizes, palette(s), escape flag(s) and indexes map(s), and the palette coding info syntax elements are signaled in the bitstream based on the partitioning type of the subject CU.