

CLAIMS

1. A method of palette index map decoding for blocks in a picture, wherein an index map of a current block is coded with a current palette using palette coding modes comprising a copy-index mode and a copy-above mode, and wherein each copy-index mode represents first consecutive indices all having one first index value, and each copy-above mode represents second consecutive indices all having same second index values as corresponding above pixels, comprising:

receiving input bitstream associated with a current block in the picture;

parsing a coded syntax element corresponding to (a first variable minus 1), (the first variable minus 2) or (the first variable minus 2 plus a second variable) from the input bitstream, wherein the first variable corresponds to a total number of palette indices associated with one or more copy-index modes in the current block and the second variable corresponds to a total number of escape pixels in the current block;

decoding the coded syntax element into a syntax element; and

applying palette decoding to the current block according to the syntax element.

2. The method of Claim 1, wherein the coded syntax element corresponds to (a first variable minus 1) and said decoding the coded syntax element comprises decoding the coded syntax element using N-th order exponential Golomb (EG) code and N is a non-negative integer.

3. The method of Claim 2, wherein N belongs to a first range from 0 to 6 or a second range from 0 to 10 depending on a size of the current block.

4. The method of Claim 2, wherein N is equal to 0 and binarized strings are “1”, “01x”, “001xx” and “0001xx” for syntax element values {0}, {1 to 2}, {3 to 6} and {7 to 14} respectively, and wherein “x” corresponds to “0” or “1”.

5. The method of Claim 1, wherein the coded syntax element corresponds to (a first variable minus 1) and said decoding the coded syntax element further comprising applying entropy decoding using one or more contexts to one or more bins of each binarized string of the coded syntax element.

6. The method of Claim 5, wherein 3 contexts are used for said entropy decoding the

coded syntax element, and wherein first bin for value {0}, first 2 bins for values {1 to 2}, and first 3 bins for values {3 to 6} are entropy coded according to said one or more contexts.

7. The method of Claim 1, wherein the coded syntax element corresponds to (a first variable minus 1) and said decoding the coded syntax element comprises decoding the coded syntax element using truncated Rice code with a Rice parameter to generate a prefix part, and wherein the Rice parameter is equal to $(2 + \text{indexMax}/6)$ and indexMax corresponds to a total number of entries in a palette of the current block.

8. A method of palette index map coding for blocks in a picture, comprising:

receiving input data associated with a current block in the picture;

applying palette coding with a current palette to the current block to generate one or more coded symbols for the current block using palette coding modes comprising a copy-index mode and a copy-above mode, wherein the copy-index mode represents first consecutive indices all having one first index value, and the copy-above mode represents second consecutive indices all having same second index values as corresponding above pixels;

encoding a syntax element corresponding to (a first variable minus 1), (the first variable minus 2) or (the first variable minus 2 plus a second variable) into coded syntax element, wherein the first variable corresponds to a total number of palette indices associated with one or more copy-index modes in the current block and the second variable corresponds to a total number of escape pixels in the current block; and

signalling the coded syntax element in a bitstream for the current block.

9. The method of Claim 9, wherein the syntax element corresponds to (a first variable minus 1) and said encoding the syntax element comprises binarizing the syntax element using N-th order exponential Golomb (EG) code and N is a non-negative integer.

10. The method of Claim 9, wherein N belongs to a first range from 0 to 6 or a second range from 0 to 10 depending on a size of the current block.

11. The method of Claim 9, wherein N is equal to 0 and binarized strings are “1”, “01x”, “001xx” and “0001xx” for syntax element values {0}, {1 to 2}, {3 to 6} and {7 to 14} respectively, and wherein “x” corresponds to “0” or “1”.

12. The method of Claim 11, wherein said encoding the syntax element further comprising applying entropy coding using one or more contexts to one or more bins of each binarized string.
13. The method of Claim 12, wherein 3 contexts are used for entropy coding of the syntax element, and wherein first bin for syntax element value {0}, first 2 bins for syntax element values {1 to 2}, and first 3 bins for syntax element values {3 to 6} are entropy coded according to said one or more contexts.
14. The method of Claim 8, wherein the syntax element corresponds to (a first variable minus 1) and said encoding the syntax element comprises binarizing the syntax element using truncated Rice code with a Rice parameter to generate a prefix part, and wherein the Rice parameter is equal to $(2 + \text{indexMax}/6)$ and indexMax corresponds to a total number of entries in a palette of the current block.
15. The method of Claim 8, wherein the syntax element corresponds to (a first variable minus 1), the method further comprising determining whether the syntax element is negative or greater than (size of the current block – 1), and modifying the syntax element to a range from 0 to (the size of the current block – 1) if the syntax element is negative or greater than (size of the current block – 1).
16. A method of palette index map coding for blocks in a picture, comprising:
 - receiving input data associated with a current block in the picture;
 - applying palette coding with a current palette to the current block to generate one or more coded symbols for the current block using palette coding modes comprising a copy-index mode and a copy-above mode, wherein the copy-index mode represents first consecutive indices all having one first index value, and the copy-above mode represents second consecutive indices all having same second index values as corresponding above pixels;
 - determining a syntax element corresponding to (a first variable – 1), wherein the first variable corresponds to a total number of palette indices associated with one or more copy-index modes in the current block;
 - if the syntax element is negative or greater than (size of the current block – 1),

modifying the syntax element to a range from 0 to (the size of the current block – 1); and
 signalling the syntax element in a bitstream for the current block.

17. A method of coding a palette table using a palette predictor list, comprising:
 - receiving input data associated with a current block in a picture;
 - receiving a current palette for a current block in the picture;
 - receiving the palette predictor list for the current palette;
 - for a current position of the palette predictor list, determining a current palette predictor run, wherein (the current palette predictor run + 1) consecutive palette entries of the palette predictor list from the current position of the palette predictor list are used to predict (the current palette predictor run + 1) palette entries of the current palette;
 - constraining a syntax element representing the current palette predictor run to a range of values to cause (the current palette predictor run + 1) consecutive palette entries of the palette predictor list to be within the palette predictor list; and
 - signalling the syntax element in a bitstream for the current block.
18. The method of Claim 17, wherein said constraining the syntax element to the range of values corresponds to restricting (the current position of the palette predictor list + the syntax element – 1) to be smaller than size of the palette predictor list.
19. The method of Claim 17, wherein said constraining the syntax element to the range of values corresponds to restricting (the syntax element – 1) to be smaller than (size of the palette predictor list – the current position of the palette predictor list).
20. The method of Claim 17, wherein said constraining the syntax element to the range of values corresponds to restricting the syntax element to be smaller than (size of the palette predictor list – the current position of the palette predictor list – 1).