

CLAIMS

1. A method for video processing, comprising:
determining, for a block of a video, a quantization parameter associated with the block;
coding the block of the video into a bitstream representation of the video as a palette coded block in part based on a modified value of the quantization parameter; and
signaling coded information related to the quantization parameter in the bitstream representation.
2. A method for video processing, comprising:
deriving a quantization parameter based on a bitstream representation of a video; and
decoding a palette coded block in part based on a modified quantization parameter determined by modifying the quantization parameter.
3. The method of claim 1 or 2, wherein the quantization parameter is modified based on setting a highest limit for the quantization parameter.
4. The method of claim 1 or 2, wherein the quantization parameter is modified based on setting a lowest limit for the quantization parameter.
5. The method of claim 1 or 2, wherein the quantization parameter is modified in a same manner as a second quantization parameter associated with a block coded in a transform skip mode.
6. The method of claim 1 or 2, wherein the quantization parameter is modified in a same manner as a third quantization parameter associated with a block coded in a block-based delta pulse code modulation (BDPCM) mode.
7. The method of claim 1 or 2, wherein the quantization parameter is denoted as Q_p , and wherein modifying the quantization parameter comprises revising a value of Q_p to be $\max(Q_p, 4+T)$, T being a non-negative integer value.

8. The method of claim 7, wherein T is based on a predefined threshold.
9. The method of claim 7, wherein T is $4 + T_s$, and wherein T_s is signaled in the bitstream representation.
10. The method of claim 9, wherein T_s is signaled in a syntax element `min_qp_prime_ts_minus4` in the bitstream representation.
11. A method for video processing, comprising:
 - determining, for a block of a video that is coded in a bitstream representation of the video as a palette coded block, a representation of an escape sample of the block in the bitstream representation regardless of whether a bypass mode is enabled for the block; and
 - performing a conversion between the block and the bitstream representation based on the determining.
12. The method of claim 11, wherein the escape sample is represented in the bitstream representation using a fixed length.
13. The method of claim 12, wherein the fixed length comprises N bits, N being a positive integer.
14. The method of claim 13, wherein N is 8 or 10.
15. The method of claim 11, wherein the escape sample is represented in the bitstream representation using a length determined based on an internal bit depth of the block.
16. The method of claim 11, wherein the escape sample is represented in the bitstream representation using a length determined based on an input bit depth of the block.
17. The method of claim 11, wherein the escape sample is represented in the bitstream representation using a length determined based on a quantization parameter of the block.

18. The method of claim 17, wherein the length is defined as a function of the quantization parameter denoted as $f(Qp)$.
19. The method of claim 18, wherein an internal bit depth of the block is d , and wherein $f(Qp) = (d - (Qp-4)/6)$.
20. A method for video processing, comprising:
determining, for a block of a video that is coded in a bitstream representation of the video as a palette coded block, a first quantization process, wherein the first quantization process is different from a second quantization process applicable to a non-palette mode coded block; and
performing a conversion between the block and the bitstream representation based on the determining.
21. The method of claim 20, wherein the first quantization process comprises right bit-shifting an escape sample of the block for quantizing the escape sample.
22. The method of claim 20, wherein the first quantization process comprises left bit-shifting an escape sample of the block for inverse quantizing the escape sample.
23. The method of claim 20, wherein a sample is denoted as p and a quantization sample is denoted as Qp , and wherein a value of the escape sample is coded as a function of p and Qp denoted as $f(p, Qp)$.
24. The method of claim 23, wherein $f(p, Qp) = p \gg ((Qp-4)/6)$.
25. The method of claim 20, wherein a sample is denoted as p and a value of the escape sample is coded as $p \gg N$, N being an integer.
26. The method of claim 25, wherein N is 2.

27. The method of claim 13 or 25, wherein N is determined based on a characteristic associated with the block.
28. The method of claim 27, wherein the characteristic comprises a value signaled in a Sequence Parameter Set, a Video Parameter Set, a Picture Parameter Set, a picture header, a slice header, a tile group header, a row of Largest Coding Unit (LCU), or a group of LCUs.
29. The method of claim 27, wherein the characteristic comprises an internal bit depth of the block.
30. The method of claim 27, wherein the characteristic comprises an input bit depth of the block.
31. The method of claim 27, wherein the characteristic comprises a dimension of the block.
32. The method of claim 27, wherein the characteristic comprises a quantization parameter of the block.
33. The method of claim 27, wherein the characteristic comprises an indication of a color format of the block.
34. The method of claim 27, wherein the characteristic comprises a coding tree structure of the block.
35. The method of claim 27, wherein the characteristic comprises a slice type, a tile group type, or a picture type associated with the block.
36. The method of claim 20, wherein a sample is denoted as p, a bit depth associated with the block is denoted as bd, and a quantization sample is denoted as Qp, and wherein a value of the escape sample is signaled as a function of bd, p and, Qp denoted as $f(bd, p, Qp)$.

37. The method of claim 36, wherein $f(bd, p, Qp) = \text{clip}(0, (1 \ll (bd - (Qp - 4)/6)) - 1, (p + (1 \ll (bd - 1))) \gg ((Qp - 4)/6))$.
38. The method of claim 36, wherein $f(bd, p, Qp) = \text{clip}(0, (1 \ll bd) - 1, p \ll ((Qp - 4)/6))$.
39. The method of claim 37 or 38, wherein clip is defined as $\text{clip}(a, i, b) = (i < a ? a : (i > b ? b : i))$.
40. The method of claim 37 or 38, wherein clip is defined as $\text{clip}(a, i, b) = (i \leq a ? a : (i \geq b ? b : i))$.
41. The method of any one or more of claims 36 to 40, wherein the bit depth comprises an internal bit depth or an input bit depth.
42. The method of any one or more of claims 11 to 41, wherein the conversion generates the current block from the bitstream representation.
43. The method of any one or more of claims 11 to 41, wherein the conversion generates the bitstream representation from the current block.
44. A video processing apparatus comprising a processor configured to implement a method recited in any one or more of claims 1 to 43.
45. A computer-readable medium having code stored thereon, the code, when executed, causing a processor to implement a method recited in any one or more of claims 1 to 43.