

CLAIMS

What is claimed is:

1. A method of video processing, comprising:
determining, for a conversion between a video and a bitstream representation of the video, a manner of signaling usage of a Joint Cb-Cr Residue coding tool based on a color format of the video;
and
performing the conversion based on the determining.
2. The method of claim 1, wherein the manner specifies that, in case a syntax element indicating the color format has a non-zero value, signaling of the usage of the Joint Cb-Cr Residue coding tool is included in the bitstream representation.
3. The method of claim 2, wherein, in case the syntax element indicating the color format has a non-zero value, coordinates of a chroma sample used for the Joint Cb-Cr Residue coding tool is determined based on scaling coordinates of a corresponding luma sample.
4. The method of claim 3, wherein samples of two chroma arrays have coordinates $(x/\text{SubWidthC}, y/\text{SubHeightC})$, wherein (x, y) are coordinates of the corresponding luma sample, and wherein SubWidthC and SubHeightC are scaling factors.
5. The method of claim 1, wherein the manner specifies that, in case the color format of the video is 4:0:0, signaling of usage of the Joint Cb-Cr Residue coding tool is omitted in the bitstream representation.
6. A method of video processing, comprising:
performing a conversion between a video and a bitstream representation of the video,

wherein the bitstream representation conforms to a format rule that specifies, in case a first syntax element is included in a first video unit in the bitstream representation, whether a corresponding second syntax element in a second video unit is included in the bitstream representation.

7. The method of claim 6, wherein the first video unit comprises a picture header or a picture parameter set.

8. The method of claim 7, wherein the second video unit comprises a slice header or a slice parameter set.

9. The method of claim 6, wherein the first video unit comprises a video parameter set, a slice parameter set, or a picture parameter set.

10. The method of claim 9, wherein the second video unit comprises a picture header.

11. The method of any of claims 6 to 10, wherein the format rule specifies that, in case the first syntax element is included in the first video unit in the bitstream representation, the second syntax element in the second video unit is omitted in the bitstream representation.

12. The method of any of claims 6 to 10, wherein the format rule specifies that, in case the first syntax element is included in the first video unit in the bitstream representation, the second syntax element in the second video unit is included in the bitstream representation.

13. The method of claim 12, wherein an indicator is included in the second video unit to indicate whether the second syntax element is signaled thereafter.

14. The method of claim 13, wherein, in case the second syntax element is included in the bitstream representation, a slice associated with the second video unit is processed according to the indicator of the second syntax element without considering the first syntax element.

15. The method of claim 12, wherein an indicator is included in the first video unit to indicate whether the second syntax element is included in the second video unit associated with the first video unit.
16. The method of any of claims 6 to 15, wherein the first video unit is a picture header, wherein the second video unit is a slice header, and wherein the first syntax element in the picture header is functionally equivalent to the second syntax element in the slice header.
17. The method of any of claims 6 to 15, wherein the first video unit is a slice parameter set, wherein the second video unit is a picture header, and wherein the first syntax element in the slice parameter set is functionally equivalent to the second syntax element in the picture header.
18. The method of any of claims 6 to 15, wherein the first video unit is a picture parameter set, wherein the second video unit is a picture header, and wherein the first syntax element in the picture parameter set is functionally equivalent to the second syntax element in the picture header.
19. A method of video processing, comprising:
performing a conversion between a region of a video and a bitstream representation of the video,
wherein, during the conversion, a first syntax element is included in the bitstream representation to indicate whether a Multiple Transform Selection (MTS) coding tool is disabled for all blocks of the region.
20. The method of claim 19, wherein the region comprises a slice, a picture, or an entirety of a sequence.
21. The method of claim 19 or 20, wherein, during the conversion, a second syntax element is conditionally included in the bitstream representation, based on the first syntax element, to indicate a manner of applying the MTS coding tool on intra-coded blocks.

22. The method of claim 21, wherein the second syntax element is included in the bitstream representation in case the first syntax element indicates that the MTS coding tool is not disabled for all blocks in the region.
23. The method of any of claims 19 to 22, wherein, during the conversion, a third syntax element is conditionally included in the bitstream representation, based on the first syntax element, to indicate a manner of applying the MTS coding tool on inter-coded blocks.
24. The method of claim 23, wherein the third syntax element is included in the bitstream representation in case the first syntax element indicates that the MTS coding tool is not disabled for all blocks in the region.
25. The method of claim 23, wherein the third syntax element is conditionally included in the bitstream representation further based on applicability of a Sub-Block Transform coding tool.
26. The method of any of claims 19 to 25, wherein the second syntax element comprises `sps_intra_mts_selection`, and wherein the third syntax element comprises `sps_inter_mts_selection`.
27. The method of any of claims 19 to 26, wherein the MTS coding tool is based on a selection of transforms among multiple transforms.
28. A method of video processing, comprising:
determining, for a conversion between a video and a bitstream representation of the video, a rule of signaling a first maximum block size of a block that is coded in a transform-skip mode based on a second maximum block size of a transform coded block; and
performing the conversion based on the determining.
29. The method of claim 28, wherein the rule specifies that the first maximum block size is equal to or smaller than the second maximum block size.

30. The method of any of claims 1 to 29, wherein the conversion includes encoding the video into the bitstream representation.
31. The method of any of claims 1 to 29, wherein the conversion includes decoding the bitstream representation into the video.
32. A video processing apparatus comprising a processor configured to implement a method recited in any of claims 1 to 31.
33. A computer-readable medium having code stored thereon, the code, upon execution by a processor, causing the processor to implement a method recited in any of claims 1 to 31.
34. A computer readable medium that stores a bitstream representation generated according to any of claims 1 to 31.