CLAIMS

1. A method of video decoding performed in a video decoder, the method comprising:

receiving a coded video bitstream including a current picture;

performing an inverse quantization on a current block included in the current picture;

performing, after performing the inverse quantization, an inverse transform on the current block;

determining whether a predetermined condition is satisfied; and

in response to determining that the predetermined condition is met, performing an inverse color transform on the current block.

2. The method according to claim 1, wherein the inverse color transform is an inverse adaptive color transform (ACT), and performing the inverse color transform converts the reconstructed current block from a color-space transform to a RGB format.

3. The method according to claim 1, wherein performing the inverse color transform includes subtracting a constant to one or more color components of the inverse color transform.

4. The method according to claim 3, wherein the constant is derived from performing a left shift operation on a bit-depth of an input sample minus 1.

5. The method of claim 1, wherein the predetermined condition is satisfied in response to a determination that a color transform is signaled for the current block.

6. The method of claim 5, wherein the color transform is signaled for each coding-tree unit (CTU) hat has a largest coding unit (CU).

7. The method of claim 1, wherein the predetermined condition is satisfied in response to a determination that different color components of the inverse color transform are coded using a same transform unit partitioning tree.

8. The method of claim 7, wherein in response to a determination that DualTree is applied to intra slice, the inverse color transform is applied only to the inter slice.

9. The method of claim 1, wherein the inverse color transform is applied only for intra coded blocks when different color components share the same coding unit partitioning tree.

10. The method of claim 1, further comprising:

in response to the determination that the predetermined condition is satisfied, a cross-component linear mode (CCLM) is not applied to chroma units of the current block.

11. The method of claim 1, further comprising:

performing a prediction process on the current block, wherein the prediction process is performed after performing the inverse color transform.

12. The method of claim 1, further comprising:

performing a prediction process on the current block, wherein the prediction process is performed before performing the inverse color transform.

13. The method of video decoding according to claim 11 or 12, wherein the prediction process is one of inter prediction or intra prediction.

14. A video decoder for video decoding, comprising:

processing circuitry configured to perform the method according to any one of claims 1 to 13.

15. A non-transitory computer readable medium having instructions stored therein, which when executed by a processor in a video decoder causes the video decoder to execute the method according to any one of claims 1 to 13.