CLAIMS

What is claimed is:

1. A method for video decoding, comprising:

determining, by a decoder, a value of a coding bit depth;

determining, by the decoder, a value of a first Sequence Parameter Set (SPS) flag, wherein the first SPS flag is a transform skip enabled flag; and

determining, by the decoder, a second SPS flag based on the value of the first SPS flag, wherein the second SPS flag is constrained based on the coding bit depth.

2. The method for video decoding of claim 1, wherein:

a presence of the second SPS flag is determined based on the value of the first SPS flag and is constrained based on the coding bit depth.

3. The method for video decoding of claim 1, wherein:

a value of the second SPS flag is determined based on the value of the first SPS flag and is constrained based on the coding bit depth.

4. The method for video decoding of claim 3, wherein:

the value of the second SPS flag is determined to be equal to 0 on the condition that the value of the first SPS flag equals to 0 and the value of the coding bit depth is greater than 10.

5. The method for video decoding of claim 1, further comprising:

in response to determining that a value of the second SPS flag equals to 1, determining that information of a slice header (SH) transform skip residual coding rice index is possible to be present in SH syntax structures referring to the SPS.

6. The method for video decoding of claim 2, wherein:

the second SPS flag is determined to be present on the condition that the value of the first SPS flag equals to 1 and the value of the coding bit depth is greater than 10.

7. The method for video decoding of claim 1, wherein the value of the coding bit depth is any of the followings: 11, 12, 13, 14, 15 or 16.

8. A method for video encoding, comprising:

obtaining a value of a coding bit depth;

obtaining a first Sequence Parameter Set (SPS) flag, wherein the first SPS flag is a transform skip enabled flag; and

obtaining a second SPS flag based on a value of the first SPS flag, wherein the second SPS flag is constrained based on the coding bit depth.

9. The method for video encoding of claim 8, wherein

the value of the second SPS flag is set to be equal to 0 on the condition that the value of the first SPS flag equals to 0 and the value of the coding bit depth is greater than 10.

10. The method for video encoding of claim 8, further comprising:

setting a value of the second SPS flag to be equal to 1 to indicate that information of a slice header (SH) transform skip residual coding rice index is possible to be present in SH syntax structures referring to the SPS.

11. The method for video encoding of claim 8, wherein:

the second SPS flag is obtained on the condition that the value of the first SPS flag equals to 1 and the value of the coding bit depth is greater than 10.

12. The method for video encoding of claim 8, wherein the value of the coding bit depth is any of the followings: 11, 12, 13, 14, 15 or 16.

13. An apparatus, comprising:

one or more processors; and

a memory configured to store instructions executable by the one or more processors; wherein the one or more processors, upon execution of the instructions, are configured to perform the method in any of claims 1 to 12.

14. A non-transitory computer-readable storage medium storing computer-executable instructions that, when executed by one or more computer processors, cause the one or more computer processors to perform the method in any of claims 1 to 12.

15. A computer program product comprising a plurality of programs for execution by a computing device having one or more processors, wherein the plurality of programs, when executed by the one or more processors, cause the computing device to perform the method in any of claims 1 to 12.

16. A computer readable storage medium storing a bitstream generated by the method in any of

claims 8 to 11.

17. The computer readable storage medium of claim 16, wherein a value of a coding bit depth of the bitstream is any of the followings: 11, 12, 13, 14, 15 or 16.

18. A method for storing a bitstream, comprising:

performing the method for video encoding according to any of claims 8-11 to generate the bitstream; and

storing the bitstream.

19. The method of claim 18, wherein a value of a coding bit depth of the bitstream is any of the followings: 11, 12, 13, 14, 15 or 16.