CLAIMS

What is claimed is:

Claim 1. A method for video decoding, comprising:

receiving, by a decoder, an extended precision processing flag that indicates whether an extended dynamic range is used for transform coefficients in transform processes based on a value of the extended precision processing flag; and

obtaining decoded video data based on the extended precision processing flag;

wherein the method further comprises:

receiving, by the decoder, an extended precision processing constraint flag in general constraint information syntax to provide general constraint controls for the extended precision processing flag; and

in response to determining that the value of the extended precision processing constraint flag equals to 1, determining that the value of the extended precision processing flag shall be equal to 0.

Claim 2. The method for video decoding of claim 1, further comprising:

in response to determining that the value of the extended precision processing flag equals to 1, determining that the extended dynamic range is used for the transform coefficients in the transform processes; and

in response to determining that the value of the extended precision processing flag equals to 0, determining that the extended dynamic range is not used for the transform coefficients in the transform processes.

Claim 3. The method for video decoding of claim 1, wherein a bitdepth is equal to 11, 12, 13, 14, 15, or 16.

Claim 4. A method for video encoding, comprising:

determining, by an encoder, an extended precision processing flag that indicates whether an extended dynamic range is used for transform coefficients in transform processes based on a value of the extended precision processing flag; and

determining, by the encoder, an extended precision processing constraint flag in general constraint information syntax to provide general constraint controls for the extended precision processing flag, wherein a value of the extended precision processing constraint flag equaling to 1 indicates that the value of the extended precision processing flag shall be equal to 0;

signaling, in a bitstream, by the encoder, the extended precision processing flag and the extended precision processing constraint flag.

Claim 5. The method for video encoding of claim 4, wherein:

the value of the extended precision processing flag equaling to 1 indicates that the extended dynamic range is used for the transform coefficients in the transform processes; and

the value of the extended precision processing flag equaling to 0 indicates that the extended dynamic range is not used for the transform coefficients in the transform processes.

Claim 6. The method for video encoding of claim 4, wherein a bitdepth is equal to 11, 12, 13, 14, 15, or 16.

Claim 7. An apparatus for video coding, 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 1-6.

Claim 8. A non-transitory computer-readable storage medium for video coding 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 1-6 to process a video bitstream and to store the processed video bitstream in the non-transitory computer-readable storage medium.

Claim 9. A method for storing a bitstream, comprising:

performing the method for video encoding according to any of claims 4-6 to generate a bitstream; and

storing the bitstream.

Claim 10. A method for transmitting a bitstream, comprising:

performing the method for video encoding according to any of claims 4-6 to generate a bitstream; and

transmitting the bitstream.