CLAIMS

1. A method of video processing, comprising:

performing a conversion between a current block of a video and a bitstream of the video,

wherein the bitstream conforms to a first rule that specifies that a context increment is used for including a first sign flag of a first coefficient in the bitstream,

wherein the first rule specifies that a value of the context increment is based on whether a first coding mode is applied on the current block,

wherein the bitstream conforms to a second rule that specifies use of multiple adaptation parameter set network abstraction layer units for the video,

wherein each adaptation parameter set network abstraction layer unit has a corresponding adaptation parameter set type value,

wherein each adaptation parameter set network abstraction layer unit is associated with a corresponding video layer identifier,

wherein each adaptation parameter set network abstraction layer unit is a prefix unit or a suffix unit, and

wherein the second rule specifies that, responsive to the multiple adaptation parameter set network abstraction layer units having a particular adaptation parameter set type value, independent of multiple video layer identifiers of the multiple adaptation parameter set network abstraction layer units, and whether the multiple adaptation parameter set network abstraction layer units are the prefix unit or the suffix unit, adaptation parameter set identifier values of the multiple adaptation parameter set network abstraction layer units belong to a same adaptation parameter set identifier value space, which means that the adaptation parameter set identifier values of each of the multiple adaptation parameter set network abstraction layer units with the particular adaptation parameter set type value are different from each other within the shared value space.

2. The method of claim 1,

wherein the first rule specifies that the value of the context increment is within a first range from N0 to N1, inclusive, in case that the first coding mode is not applied, and

wherein the first rule specifies that the value of the context increment is within a second range from N2 to N3, inclusive, in case that the first coding mode is applied.

3. The method of claim 2, wherein, in the first coding mode, a difference between a quantized residual and a prediction of the quantized residual is represented in the bitstream using a pulse coding modulation representation.

4. The method of claim 2 or 3, wherein the first coding mode is a block-based delta pulse code modulation coding mode.

5. The method of any of claims 2-4, wherein N0, N1, N2 and N3 are 0, 2, 3 and 5, respectively.

6. The method of any of claims 1-5,

wherein the value of the context increment is equal to 0 or 3 in response to a first neighboring sign value and a second neighboring sign value meeting a first condition, and the first condition is:

(1) the first neighboring sign value is equal to 0 and the second neighboring sign value is equal to 0, or

(2) the first neighboring sign value is equal to a negative of the second neighboring sign value.

7. The method of claim 6, wherein the first neighboring sign value is equal to 0 in response to a horizontal coordinate of a current coefficient scan location being 0 and is equal to a sign value of a left neighboring coefficient in response to the horizontal coordinate of the current coefficient scan location not being zero, and

wherein the second neighboring sign value is equal to 0 in response to a vertical coordinate of the current coefficient scan location being 0 and is equal to a sign value of an above neighboring coefficient in response to the vertical coordinate of the current coefficient scan location not being 0.

8. The method of claim 6, wherein the value of the context increment is equal to 0 in response to the first coding mode not being applied on the current block, and the value of the context increment is equal to 3 in response to the first coding mode being applied on the current block.

9. The method of claim 6, wherein the value of the context increment is equal to 1 or 4 in response to the first neighboring sign value and the second neighboring sign value not meeting the first condition and in response to the first neighboring sign value and the second neighboring sign value meeting a second condition, and the second condition is:

(1) the first neighboring sign value is greater than or equal to 0 and the second neighboring sign value is greater than or equal to 0.

10. The method of claim 9, wherein the value of the context increment is equal to 1 in response to the first coding mode not being applied on the current block, and the value of the context increment is equal to 4 in response to the first coding mode being applied on the current block.

11. The method of claim 9, wherein the value of the context increment is equal to 2 or 5 in response to the first neighboring sign value and the second neighboring sign value not meeting the first condition and the second condition.

12. The method of claim 11, wherein the value of the context increment is equal to 2 in response to the first coding mode not being applied on the current block, and the value of the context increment is equal to 5 in response to the first coding mode being applied on the current block.

13. The method of any of claims 1-12,

wherein a transform skip operation is applied to the current block.

14. The method of any of claims 1-13, wherein the performing the conversion comprises encoding the video into the bitstream.

15. The method of any of claims 1-13, wherein the performing the conversion comprises decoding the video from the bitstream.

16. An apparatus for processing video data comprising a processor and a non-transitory memory with instructions thereon, wherein the instructions upon execution by the processor, cause the processor to:

perform a conversion between a current block of a video and a bitstream of the video,

wherein the bitstream conforms to a first rule that specifies that a context increment is used for including a first sign flag of a first coefficient in the bitstream,

wherein the first rule specifies that a value of the context increment is based on whether a first coding mode is applied on the current block,

wherein the bitstream conforms to a second rule that specifies use of multiple adaptation parameter set network abstraction layer units for the video,

wherein each adaptation parameter set network abstraction layer unit has a corresponding adaptation parameter set type value,

wherein each adaptation parameter set network abstraction layer unit is associated with a corresponding video layer identifier,

wherein each adaptation parameter set network abstraction layer unit is a prefix unit or a suffix unit, and

wherein the second rule specifies that, responsive to the multiple adaptation parameter set network abstraction layer units having a particular adaptation parameter set type value, independent of multiple video layer identifiers of the multiple adaptation parameter set network abstraction layer units, and whether the multiple adaptation parameter set network abstraction layer units are the prefix unit or the suffix unit, adaptation parameter set identifier values of the multiple adaptation parameter set network abstraction layer units belong to a same adaptation parameter set identifier value space, which means that the adaptation parameter set identifier values of each of the multiple adaptation parameter set network abstraction layer units with the

particular adaptation parameter set type value are different from each other within the shared value space.

17. A non-transitory computer-readable storage medium storing instructions that cause a processor to:

perform a conversion between a current block of a video and a bitstream of the video,

wherein the bitstream conforms to a first rule that specifies that a context increment is used for including a first sign flag of a first coefficient in the bitstream,

wherein the first rule specifies that a value of the context increment is based on whether a first coding mode is applied on the current block,

wherein the bitstream conforms to a second rule that specifies use of multiple adaptation parameter set network abstraction layer units for the video,

wherein each adaptation parameter set network abstraction layer unit has a corresponding adaptation parameter set type value,

wherein each adaptation parameter set network abstraction layer unit is associated with a corresponding video layer identifier,

wherein each adaptation parameter set network abstraction layer unit is a prefix unit or a suffix unit, and

wherein the second rule specifies that, responsive to the multiple adaptation parameter set network abstraction layer units having a particular adaptation parameter set type value, independent of multiple video layer identifiers of the multiple adaptation parameter set network abstraction layer units, and whether the multiple adaptation parameter set network abstraction layer units are the prefix unit or the suffix unit, adaptation parameter set identifier values of the multiple adaptation parameter set network abstraction layer units belong to a same adaptation parameter set identifier value space, which means that the adaptation parameter set identifier values of each of the multiple adaptation parameter set network abstraction layer units with the particular adaptation parameter set type value are different from each other within the shared value space.

18. A non-transitory computer-readable recording medium storing a bitstream of a video which is generated by a method performed by a video processing apparatus, wherein the method comprises:

generating the bitstream of the video,

wherein the bitstream conforms to a first rule that specifies that a context increment is used for including a first sign flag of a first coefficient in the bitstream,

wherein the first rule specifies that a value of the context increment is based on whether a first coding mode is applied on the current block,

wherein the bitstream conforms to a second rule that specifies use of multiple adaptation parameter set network abstraction layer units for the video,

wherein each adaptation parameter set network abstraction layer unit has a corresponding adaptation parameter set type value,

wherein each adaptation parameter set network abstraction layer unit is associated with a corresponding video layer identifier,

wherein each adaptation parameter set network abstraction layer unit is a prefix unit or a suffix unit, and

wherein the second rule specifies that, responsive to the multiple adaptation parameter set network abstraction layer units having a particular adaptation parameter set type value, independent of multiple video layer identifiers of the multiple adaptation parameter set network abstraction layer units, and whether the multiple adaptation parameter set network abstraction layer units are the prefix unit or the suffix unit, adaptation parameter set identifier values of the multiple adaptation parameter set network abstraction layer units belong to a same adaptation parameter set identifier value space, which means that the adaptation parameter set identifier values of each of the multiple adaptation parameter set network abstraction layer units with the particular adaptation parameter set type value are different from each other within the shared value space.