CLAIMS

What is claimed is:

1. A visual media processing method, comprising:

maintaining, for a conversion between a current video block of a current picture of a visual media data and a bitstream representation of the visual media data, a buffer comprising reference samples from the current picture for a derivation of a prediction block of the current video block,

wherein one or more reference samples in the buffer that are marked unavailable for the derivation have values outside of a pixel value range.

2. The method of claim 1, wherein the pixel value range is expressed as [0, 1<<(bit_depth) − 1], where bit_depth is a positive integer.

3. The method of claim 2, wherein bit_depth is a precision used for processing the sample.

4. The method of claim 1, wherein the method further comprises:

initializing a set of samples in the buffer to a predetermined value indicative of unavailability of the set of samples.

5. The method of claim 4, wherein the predetermined value is -1.

6. The method of any one or more of claims 4-5, wherein locations of the set of samples and/or whether to initialize the set of the samples to the predetermined value is/are based on one or more of: a position of the current video block, a size of the current video block, a size of a VPDU including the current video block, and/or a size of a coding tree unit including the current video block.

7. The method of claim 6, wherein, if (xCb%vSize) is equal to 0 and (yCb%vSize) is equal to 0, the set of samples are marked as unavailable, where xCb, yCb denote a position of the current video block relative to the sample and vSize= min(ctbSize, 64), where ctbSize denotes a width or a height of the coding tree unit.

8. The method of claim 1, wherein, if a size of the current video block is less than min(ctbSize, 64), the set of samples in the buffer are marked unavailable, where ctbSize denotes a width or a height of the coding tree unit.

9. The method of claim 8, wherein locations of the plurality of samples are related to a size of a VPDU.

10. The method of claim 8, wherein locations of the set of samples are related to a size of the coding tree unit including the current video block.

11. The method of claim 4, wherein the set of samples in the buffer have with positions expressed as (x%wIbcBuf, y%hIbcBuf), where x = xV, …,xV+ctbSize-1 and y=yV,…,yV+ctbSize-1, and xV, yV denote the upper-left position of a VPDU relative to an upper-left position of a picture, where ctbSize denotes a size of the coding tree unit including the current video block, and wIbcBuf and hIbcBuf denote a buffer width and a buffer height.

12. The method of claim 11, wherein the set of samples in the buffer are initialized to -1.

13. The method of claim 4, wherein the set of samples are initialized at a beginning of decoding a video unit.

14. The method of any one or more of claims 1-13, wherein the conversion is performed in an intra block copy mode.

15. The method of any of claims 1-14, wherein the conversion includes generating the bitstream representation from the current video block.

16. The method of any of claims 1-14, wherein the conversion includes generating pixel values of the current video block from the bitstream representation.

17. A video encoder apparatus comprising a processor configured to implement a method recited in any one or more of claims 1-14.

18. A video decoder apparatus comprising a processor configured to implement a method recited in any one or more of claims 1-14.

19. A computer readable medium having code stored thereon, the code embodying processor-executable instructions for implementing a method recited in any one or more of claims 1-14.