CLAIMS

What is claimed is:

1. A method implemented by a decoder, the method comprising:

receiving a bitstream comprising encoded data of a plurality of pictures;

setting a value of a no output of prior pictures flag (NoOutputOfPriorPicsFlag) when a value of maximum picture width in luma samples (PicWidthMaxInSamplesY) for a current access unit (AU) is different from a value of PicWidthMaxInSamplesY for a preceding AU in decoding order;

emptying a decoded picture buffer (DPB) without output of contained pictures based on the value of the NoOutputOfPriorPicsFlag; and

decoding a current picture.

2. The method of claim 1, further comprising setting the value of the NoOutputOfPriorPicsFlag when a value of maximum picture height in luma samples (PicHeightMaxInSamplesY) for the current AU is different from a value of PicHeightMaxInSamplesY for the preceding AU in decoding order.

3. The method of any of claims 1-2, wherein the DPB is emptied before decoding the current picture.

4. The method of any of claims 1-3, wherein the DPB is emptied after parsing a slice header of a first slice of the current picture.

5. The method of any of claims 1-4, further comprising decrementing a DPB fullness variable for each picture removed when emptying the DPB.

6. The method of any of claims 1-5, further comprising constructing a reference picture list and performing reference picture list marking for the current AU prior to setting the NoOutputOfPriorPicsFlag.

7. The method of any of claims 1-6, wherein the DPB is emptied when a preceding picture is marked as unused for reference.

8. A method implemented by an encoder, the method comprising:

encoding a plurality of pictures into a bitstream;

checking, by a hypothetical reference decoder (HRD), the bitstream for conformance by:

setting a value of a no output of prior pictures flag (NoOutputOfPriorPicsFlag) when a value of maximum picture width in luma samples (PicWidthMaxInSamplesY) for a current access unit (AU) is different from a value of PicWidthMaxInSamplesY for a preceding AU in decoding order; and

emptying a decoded picture buffer (DPB) without selecting contained pictures for output based on the value of the NoOutputOfPriorPicsFlag.

9. The method of claim 8, further comprising setting, by the HRD, the value of the NoOutputOfPriorPicsFlag when a value of maximum picture height in luma samples (PicHeightMaxInSamplesY) for the current AU is different from a value of PicHeightMaxInSamplesY for the preceding AU in decoding order.

10. The method of any of claims 8-9, wherein the DPB is emptied before decoding the current picture.

11. The method of any of claims 8-10, wherein the DPB is emptied after parsing a slice header of a first slice of the current picture.

12. The method of any of claims 8-11, further comprising decrementing, by the HRD, a DPB fullness variable for each picture removed when emptying the DPB.

13. The method of any of claims 8-12, further comprising constructing, by the HRD, a reference picture list and performing reference picture list marking.

14. The method of any of claims 8-13, wherein the DPB is emptied when a preceding picture is marked as unused for reference.

15. A non-transitory computer-readable medium storing computer instructions that when executed by at least one hardware processors, cause the at least one hardware processors to perform the method of any one of claims 1 to 7, or any one of claims 8 to 14.

16. A decoding device, comprising:

a receiver configured to receive a bitstream comprising encoded data of a plurality of pictures;

a memory coupled to the receiver, the memory storing instructions; and

a processor coupled to the memory, the processor configured to execute the instructions to cause the decoding device to: perform the method according to any one of claims 1 to 7.

17. A decoder comprising:

a receiving means for receiving a bitstream comprising encoded data of a plurality of pictures;

a setting means for setting a value of a no output of prior pictures flag (NoOutputOfPriorPicsFlag) when a value of maximum picture width in luma samples (PicWidthMaxInSamplesY) for a current access unit (AU) is different from a value of PicWidthMaxInSamplesY for a preceding AU in decoding order;

an emptying means for emptying a decoded picture buffer (DPB) without output of contained pictures based on the value of the NoOutputOfPriorPicsFlag; and

a decoding means for decoding a current picture.

18. The decoder of claim 17, wherein the decoder is further configured to perform the method of any of claims 1-7.

19. An encoder comprising:

an encoding means for encoding a plurality of pictures into a bitstream;

a hypothetical reference decoder (HRD) means for checking the bitstream for conformance by:

setting a value of a no output of prior pictures flag (NoOutputOfPriorPicsFlag) when a value of maximum picture width in luma samples (PicWidthMaxInSamplesY) for a current access unit (AU) is different from a value of PicWidthMaxInSamplesY for a preceding AU in decoding order; and

emptying a decoded picture buffer (DPB) without selecting contained pictures for output based on the value of the NoOutputOfPriorPicsFlag.

20. The encoder of claim 19, wherein the encoder is further configured to perform the method of any of claims 8-14.

21. A bitstream, comprising:

encoded data of a plurality of pictures;

wherein a value of a no output of prior pictures flag (NoOutputOfPriorPicsFlag) is set when a value of maximum picture width in luma samples (PicWidthMaxInSamplesY) for a current access unit (AU) is different from a value of PicWidthMaxInSamplesY for a preceding AU in decoding order; and

wherein a decoded picture buffer (DPB) is emptied without output of contained pictures based on the value of the NoOutputOfPriorPicsFlag.

22. The bitstream of claim 21, wherein the value of the NoOutputOfPriorPicsFlag is set when a value of maximum picture height in luma samples (PicHeightMaxInSamplesY) for the current AU is different from a value of PicHeightMaxInSamplesY for the preceding AU in decoding order.