CLAIMS

1. A method for decoding video data, the method comprising:

receiving, by a video decoder, a bitstream that comprises a series of Network Abstraction Layer (NAL) units, the series of NAL units including a non-Video Coding Layer (VCL) NAL unit;

based on the non-VCL NAL unit having a nal_unit_type equal to EOS_NUT, EOB_NUT, in the range of RSV_NVCL44 to RSV_NVCL47 or in the range of UNSPEC48 to UNSPEC63, associating, by the video decoder, the non-VCL NAL unit with a most recent VCL NAL unit preceding the non-VCL NAL unit in decoding order,

wherein a decoding unit (DU) consists of one or more VCL NAL units and non-VCL NAL units associated with the one or more VCL NAL units, the one or more VCL NAL units and the non-VCL NAL units associated with the one or more VCL NAL units being in the series of NAL units; and

at a determined Coded Picture Buffer (CPB) removal time of the DU, removing, by the video decoder, video data associated with the DU from the CPB and decoding the video data associated with the DU.

2. The method of claim 1, wherein all non-VCL NAL units associated with a VCL NAL unit are included in the same DU as the VCL NAL unit.

3. The method of claim 1, wherein a Hypothetical Reference Decoder (HRD) includes the CPB, and the HRD is assumed to decode the video data associated with the DU instantaneously.

4. A video decoding device comprising:

a coded picture buffer (CPB); and

a video decoder configured to:

receive a bitstream that comprises a series of Network Abstraction Layer (NAL) units, the series of NAL units including a non-Video Coding Layer (VCL) NAL unit;

based on the non-VCL NAL unit having a nal_unit_type equal to EOS_NUT, EOB_NUT, in the range of RSV_NVCL44 to RSV_NVCL47 or in the range of

UNSPEC48 to UNSPEC63, associate the non-VCL NAL unit with a most recent VCL NAL unit preceding the non-VCL NAL unit in decoding order,

wherein a decoding unit (DU) consists of one or more VCL NAL units and non-VCL NAL units associated with the one or more VCL NAL units, the one or more VCL NAL units and the non-VCL NAL units associated with the one or more VCL NAL units being in the series of NAL units; and

at a determined CPB removal time of the DU, remove video data associated with the DU from the CPB and decode the video data associated with the DU.

5. The video decoding device of claim 4, wherein all non-VCL NAL units associated with a VCL NAL unit are included in the same DU as the VCL NAL unit.

6. The video decoding device of claim 4, wherein a Hypothetical Reference Decoder (HRD) includes the CPB, and the HRD is assumed to decode the video data associated with the DU instantaneously.

7. A non-transitory computer-readable storage medium having stored thereon instructions that, when executed, cause a processor of a device for decoding video data to:

receive a bitstream that comprises a series of Network Abstraction Layer (NAL) units, the series of NAL units including a non-Video Coding Layer (VCL) NAL unit;

based on the non-VCL NAL unit having a nal_unit_type equal to EOS_NUT, EOB_NUT, in the range of RSV_NVCL44 to RSV_NVCL47 or in the range of UNSPEC48 to UNSPEC63, associate the non-VCL NAL unit with a most recent VCL NAL unit preceding the non-VCL NAL unit in decoding order,

wherein a decoding unit (DU) consists of one or more VCL NAL units and non-VCL NAL units associated with the one or more VCL NAL units, the one or more VCL NAL units and the non-VCL NAL units associated with the one or more VCL NAL units being in the series of NAL units; and

at the determined Coded Picture Buffer (CPB) removal time of the DU, remove video data associated with the DU from the CPB and decode the video data associated with the DU.

8. The non-transitory computer-readable storage medium of claim 7, wherein all non-VCL NAL units associated with a VCL NAL unit are included in the same DU as the VCL NAL unit.

9. The non-transitory computer-readable storage medium of claim 7, wherein a Hypothetical Reference Decoder (HRD) includes the CPB, and the HRD is assumed to decode the video data associated with the DU instantaneously.

10. A video decoding device comprising:

means for receiving a bitstream that comprises a series of Network Abstraction Layer (NAL) units, the series of NAL units including a non-Video Coding Layer (VCL) NAL unit;

means for associating, based on the non-VCL NAL unit having a nal_unit_type equal to EOS_NUT, EOB_NUT, in the range of RSV_NVCL44 to RSV_NVCL47 or in the range of UNSPEC48 to UNSPEC63, the non-VCL NAL unit with a most recent VCL NAL unit preceding the non-VCL NAL unit in decoding order,

wherein a decoding unit (DU) consists of one or more VCL NAL units and non-VCL NAL units associated with the one or more VCL NAL units, the one or more VCL NAL units and the non-VCL NAL units associated with the one or more VCL NAL units being in the series of NAL units; and

means for removing, at a determined Coded Picture Buffer (CPB) removal time of the DU, video data associated with the DU from the CPB and decoding, at the determined CPB removal time of the DU, the video data associated with the DU.

11. The video decoding device of claim 10, wherein all non-VCL NAL units associated with a VCL NAL unit are included in the same DU as the VCL NAL unit.

12. The video decoding device of claim 10, wherein a Hypothetical Reference Decoder (HRD) includes the CPB, and the HRD is assumed to decode the video data associated with the DU instantaneously.