CLAIMS

What is claimed is:

1. A method of decoding implemented by a video decoder, comprising:

receiving, by the video decoder, a bitstream including a coded video sequence start (CVSS) access unit (AU), wherein the CVSS AU contains a picture unit (PU) for each layer, and wherein a coded picture in each PU is a coded layer video sequence start (CLVSS) picture;

identifying, by the video decoder, the coded picture from one of the layers based on a picture order count (POC) value; and

decoding, by the video decoder, the coded picture to obtain a decoded picture;

wherein the CLVSS picture is associated with a no output before recovery flag disposed in a picture parameter set (PPS) of the PU, and wherein the no output before recovery flag is equal to 1.

2. The method of claim 1, wherein the CLVSS picture is an intra random access point (IRAP) picture.

3. The method of claim 1, wherein the CLVSS picture is gradual decoding refresh (GDR) picture.

4. The method of any of claims 1 to 3, wherein each layer of the CVSS AU is specified by a video parameter set (VPS).

5. The method of any of claims 1 to 4, wherein the CVSS AU is an initial AU of a coded video sequence (CVS).

6. The method of any of claims 1 to 5, wherein the PU is referred to as a layer access unit.

7. The method of any of claims 1 to 6, wherein the CVSS AU is a complete AU because each layer of the CVSS AU contains one of the PUs, and the complete AU contains a picture in every layer.

8. The method of any of claims 1 to 7, further comprising displaying the coded picture as decoded on a display of an electronic device.

9. The method of any of claims 1 to 8, further comprising:

receiving, by the video decoder, a second video bitstream including a second CVSS AU, wherein the second CVSS AU contains a picture unit (PU) for each layer, and wherein a coded picture in each PU is not a CLVSS picture; and

in response to the receiving, taking some other corrective measures to ensure that a conforming bitstream corresponding to the second video bitstream is received prior to decoding the coded picture.

10. A decoding device, comprising:

a receiver configured to receive a bitstream including a coded video sequence start (CVSS) access unit (AU), wherein the CVSS AU contains a picture unit (PU) for each layer, and wherein a coded picture in each PU is a coded layer video sequence start (CLVSS) picture;

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 9.

11. A system, comprising:

an encoder; and

a decoder in communication with the encoder, wherein the decoder includes the decoding device of claim 10.

12. A non-transitory computer-readable medium storing computer instructions for audio coding, 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 9.