CLAIMS

What is claimed is:

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

receiving, by a receiver of the decoder, a bitstream comprising one or more output layer sets (OLSs) and a video parameter set (VPS) specifying the OLSs, wherein the bitstream has been checked by a set of bitstream conformance tests that test conformance of each operation point (OP) of each OLS specified by the VPS; and

decoding, by a processor of the decoder, a picture from the OLSs.

2. The method of claim 1, wherein the set of bitstream conformance tests are performed by a hypothetical reference decoder (HRD) operating on an encoder.

3. The method of any of claims 1-2, wherein the VPS includes a total number of output layer sets minus one (num_output_layer_sets_minus1) plus one that specifies a total number of OLSs specified by the VPS.

4. The method of any of claims 1-3, wherein each OP is selected as an OP under test (targetOp) based on a target OLS with an OP OLS index (opOlsIdx) and a highest OP temporal identifier value (opTid).

5. The method of any of claims 1-4, wherein each OLS is a set of layers for which one or more of the layers are specified as output layers.

6. The method of any of claims 1-5, wherein the VPS includes a general HRD parameters (general_hrd_parameters) syntax structure that provides HRD parameters that apply to all OLSs specified by the VPS.

7. The method of any of claims 1-6, wherein a presence of the HRD parameters in the bitstream indicates the decoder is capable of decoding the bitstream according to a delivery schedule.

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

encoding, by a processor of the encoder, a bitstream comprising one or more output layer sets (OLSs);

encoding into the bitstream, by the processor, a video parameter set (VPS) specifying the OLSs; and

performing, by the processor, a set of bitstream conformance tests at each operation point (OP) of each OLS, as specified by the VPS, to test each OP for conformance.

9. The method of claim 8, wherein the set of bitstream conformance tests are performed by a hypothetical reference decoder (HRD) operating on the processor.

10. The method of any of claims 8-9, wherein the VPS includes a total number of output layer sets minus one (num_output_layer_sets_minus1) plus one that specifies a total number of OLSs specified by the VPS.

11. The method of any of claims 8-10, further comprising selecting, by the processor, each OP as an OP under test (targetOp) by selecting a target OLS with an OP OLS index (opOlsIdx) and a highest OP temporal identifier value (opTid).

12. The method of any of claims 8-11, wherein each OLS is a set of layers for which one or more of the layers are specified as output layers.

13. The method of any of claims 8-12, wherein the VPS includes a general HRD parameters (general_hrd_parameters) syntax structure that provides HRD parameters that apply to all OLSs specified by the VPS.

14. The method of any of claims 8-13, wherein a presence of the HRD parameters in the bitstream indicates a decoder is capable of decoding the bitstream according to a delivery schedule.

15. A video coding device comprising:

a processor, a receiver coupled to the processor, a memory coupled to the processor, and a transmitter coupled to the processor, wherein the processor, receiver, memory, and transmitter are configured to perform the method of any of claims 1-14.

16. A non-transitory computer readable medium comprising a computer program product for use by a video coding device, the computer program product comprising computer executable instructions stored on the non-transitory computer readable medium such that when executed by a processor cause the video coding device to perform the method of any of claims 1-14.

17. A decoder comprising:

a receiving means for receiving a bitstream comprising one or more output layer sets (OLSs) and a video parameter set (VPS) specifying the OLSs, wherein the bitstream has been checked by a set of bitstream conformance tests that test conformance of each operation point (OP) of each OLS specified by the VPS;

a decoding means for decoding a picture from the OLSs; and

a forwarding means for forwarding the picture for display as part of a decoded video sequence.

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 bitstream comprising one or more output layer sets (OLSs); and

encoding into the bitstream a video parameter set (VPS) specifying the OLSs;

a hypothetical reference decoder (HRD) means for performing a set of bitstream conformance tests at each operation point (OP) of each OLS, as specified by the VPS, to test each OP for conformance; and

a storing means for storing the bitstream for communication toward a decoder.

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

21. A computer-readable medium comprising a bitstream encoded or decoded by the method of any one of claims 1-14.