

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 a coded picture and a supplemental enhancement information (SEI) network abstraction layer (NAL) unit with a NAL unit type (nal_unit_type) equal to a suffix SEI NAL unit type (SUFFIX_SEI_NUT) and containing a scalable nesting SEI message; and
decoding, by a processor of the decoder, the coded picture to produce a decoded picture.
2. The method of claim 1, wherein the scalable nesting SEI message contains one or more scalable-nested SEI messages.
3. The method of any of claims 1-2, wherein the one or more scalable-nested SEI messages include a decoded picture hash SEI message.
4. The method of any of claims 1-3, wherein the scalable nesting SEI message associates SEI messages with specific output layer sets (OLSs).
5. The method of any of claims 1-4, wherein the scalable nesting SEI message associates SEI messages with specific layers.
6. The method of any of claims 1-5, wherein the scalable nesting SEI message includes a payload type (payloadType) set to one hundred thirty-three.
7. The method of any of claims 1-6, wherein the scalable nesting SEI message includes a scalable nesting layer identifier (layer_id[i]) that specifies a NAL unit header layer identifier (nuh_layer_id) value of a i-th layer to which the scalable-nested SEI messages apply.
8. A method implemented by an encoder, the method comprising:
encoding, by a processor of the encoder, one or more coded pictures into a bitstream;
encoding into the bitstream, by the processor, a supplemental enhancement information (SEI) network abstraction layer (NAL) unit with a NAL unit type (nal_unit_type)

equal to a suffix SEI NAL unit type (SUFFIX_SEI_NUT) and containing a scalable nesting SEI message;

performing, by the processor, a set of bitstream conformance tests on the bitstream based on the scalable nesting SEI message; and

storing, by a memory coupled to the processor, the bitstream for communication toward a decoder.

9. The method of claim 8, wherein the scalable nesting SEI message contains one or more scalable-nested SEI messages.

10. The method of any of claims 8-9, wherein the one or more scalable-nested SEI messages include a decoded picture hash SEI message.

11. The method of any of claims 8-10, wherein the scalable nesting SEI message associates SEI messages with specific output layer sets (OLSs).

12. The method of any of claims 8-11, wherein the scalable nesting SEI message associates SEI messages with specific layers.

13. The method of any of claims 8-12, wherein the scalable nesting SEI message includes a payload type (payloadType) set to one hundred thirty-three.

14. The method of any of claims 8-13, wherein the scalable nesting SEI message includes a scalable nesting layer identifier (layer_id[i]) that specifies a NAL unit header layer identifier (nuh_layer_id) value of an i-th layer to which the scalable-nested SEI messages apply.

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 a coded picture and a supplemental enhancement information (SEI) network abstraction layer (NAL) unit with a NAL unit type (nal_unit_type) equal to a suffix SEI NAL unit type (SUFFIX_SEI_NUT) and containing a scalable nesting SEI message;

- a decoding means for decoding the coded picture to produce a decoded picture; and

- a forwarding means for forwarding the decoded 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 one or more coded pictures into a bitstream; and

- encoding into the bitstream a supplemental enhancement information (SEI) network abstraction layer (NAL) unit with a NAL unit type (nal_unit_type) equal to a suffix SEI NAL unit type (SUFFIX_SEI_NUT) and containing a scalable nesting SEI message;

- a hypothetical reference decoder (HRD) means for performing a set of bitstream conformance tests on the bitstream based on the scalable nesting SEI message; 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.