CLAIMS

1. A method of processing video data, comprising:
performing a conversion between a video and a bitstream of the video,
wherein the bitstream comprises one or more supplemental enhancement information (SEI) network abstraction layer (NAL) units according to a rule,
wherein the rule specifies that, when an SEI NAL unit contains a non-scalable-nested SEI message of a first payload type, the SEI NAL unit is disallowed to contain another SEI message of a second payload type,
wherein the rule further specifies that, when an SEI NAL unit contains a scalable-nested SEI message of a third payload type, the SEI NAL unit is disallowed to contain another SEI message of a fourth payload type,
wherein the rule further specifies that, when an SEI NAL unit contains an SEI message with a payload type of filler payload, the SEI NAL unit is disallowed to contain any other SEI message with a payload type not equal to filler payload, and
wherein the rule further specifies that, an SEI message that has a payload type of filler payload is disallowed to be contained in a scalable nesting SEI message.

2. The method of claim 1, wherein the non-scalable-nested SEI message of the first payload type corresponds to a buffering period (BP) SEI message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, or a subpicture level information (SLI) SEI message.

3. The method of claim 2, wherein the first payload type is equal to 0, 1, 130 or 203.

4. The method of claim 2 or 3, wherein the SEI message of the second payload type does not correspond to any of a buffering period (BP) SEI message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, and a subpicture level information (SLI) SEI message.

5. The method of claim 4, wherein the second payload type is not equal to any of 0, 1, 130 and 203.

6. The method of any one of claims 1-5, wherein the scalable-nested SEI message of the third payload type corresponds to a buffering period (BP) SEI message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, or a subpicture level information (SLI) SEI message.

7. The method of claim 6, wherein the third payload type is equal to 0, 1, 130 or 203.

8. The method of claim 6 or 7, wherein the scalable-nested SEI message of the fourth payload type does not correspond to any of a buffering period (BP) SEI message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, a subpicture level information (SLI) SEI message, and a scalable nesting SEI message.

9. The method of claim 8, wherein the fourth payload type is not equal to any of 0, 1, 130, 203, and 133.

10. The method of any one of claims 1-9, wherein the third payload type is not the same as the fourth payload type.

11. The method of any one of claims 1-10, wherein the conversion includes encoding the video into the bitstream.

12. The method of any one of claims 1-10, wherein the conversion includes decoding the video from the bitstream.

13. An apparatus for processing video data comprising a processor and a non-transitory memory with instructions thereon, wherein the instructions upon execution by the processor, cause the processor to:
perform a conversion between a video and a bitstream of the video,

wherein the bitstream comprises one or more supplemental enhancement information (SEI) network abstraction layer (NAL) units according to a rule,
wherein the rule specifies that, when an SEI NAL unit contains a non-scalable-nested SEI message of a first payload type, the SEI NAL unit is disallowed to contain another SEI message of a second payload type,
wherein the rule further specifies that, when an SEI NAL unit contains a scalable-nested SEI message of a third payload type, the SEI NAL unit is disallowed to contain another SEI message of a fourth payload type,
wherein the rule further specifies that, when an SEI NAL unit contains an SEI message with a payload type of filler payload, the SEI NAL unit is disallowed to contain any other SEI message with a payload type not equal to filler payload, and
wherein the rule further specifies that, an SEI message that has a payload type of filler payload is disallowed to be contained in a scalable nesting SEI message.

14. The apparatus of claim 13, wherein the non-scalable-nested SEI message of the first payload type corresponds to a buffering period (BP) SEI message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, or a subpicture level information (SLI) SEI message.

15. A non-transitory computer-readable storage medium storing instructions that cause a processor to:
perform a conversion between a video and a bitstream of the video,
wherein the bitstream comprises one or more supplemental enhancement information (SEI) network abstraction layer (NAL) units according to a rule,
wherein the rule specifies that, when an SEI NAL unit contains a non-scalable-nested SEI message of a first payload type, the SEI NAL unit is disallowed to contain another SEI message of a second payload type,
wherein the rule further specifies that, when an SEI NAL unit contains a scalable-nested SEI message of a third payload type, the SEI NAL unit is disallowed to contain another SEI message of a fourth payload type,

wherein the rule further specifies that, when an SEI NAL unit contains an SEI message with a payload type of filler payload, the SEI NAL unit is disallowed to contain any other SEI message with a payload type not equal to filler payload, and
wherein the rule further specifies that, an SEI message that has a payload type of filler payload is disallowed to be contained in a scalable nesting SEI message.

16. The non-transitory computer-readable storage medium of claim 15, wherein the non-scalable-nested SEI message of the first payload type corresponds to a buffering period (BP) SEI message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, or a subpicture level information (SLI) SEI message.

17. A non-transitory computer-readable recording medium storing a bitstream of a video which is generated by a method performed by a video processing apparatus, wherein the method comprises:
generating the bitstream of the video,
wherein the bitstream comprises one or more supplemental enhancement information (SEI) network abstraction layer (NAL) units according to a rule,
wherein the rule specifies that, when an SEI NAL unit contains a non-scalable-nested SEI message of a first payload type, the SEI NAL unit is disallowed to contain another SEI message of a second payload type,
wherein the rule further specifies that, when an SEI NAL unit contains a scalable-nested SEI message of a third payload type, the SEI NAL unit is disallowed to contain another SEI message of a fourth payload type,
wherein the rule further specifies that, when an SEI NAL unit contains an SEI message with a payload type of filler payload, the SEI NAL unit is disallowed to contain any other SEI message with a payload type not equal to filler payload, and
wherein the rule further specifies that, an SEI message that has a payload type of filler payload is disallowed to be contained in a scalable nesting SEI message.

18. The non-transitory computer-readable recording medium of claim 17, wherein the non-scalable-nested SEI message of the first payload type corresponds to a buffering period (BP) SEI

message, a picture timing (PT) SEI message, a decoding unit information (DUI) SEI message, or a subpicture level information (SLI) SEI message.