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Amended Set of Claims

1. A method of decoding video data, the method comprising:
decoding a bitstream that includes video data and syntax information for decoding the video data, wherein the syntax information comprises an active parameter sets supplemental enhancement information (SEI) message of an access unit, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for decoding video data of the access unit, and wherein the active parameter sets SEI message includes a first syntax element that specifies the number of the plurality of SPSs, and one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;
activating the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and
decoding the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.
2. Canceled.
3. The method of claim 1, wherein the active parameter sets SEI message precedes, in decoding order, a first portion of the video data of the access unit.
4. Canceled.
5. Canceled.
6. Canceled.
7. Canceled.
8. The method of claim 1, wherein the first syntax element comprises a `num_sps_ids_minus1` syntax element, and the one or more additional syntax elements comprise `active_sps_id[i]` syntax elements for $i = 0; i \leq \text{num_additional_sps_ids_minus1}; i++$.

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9. The method of claim 1,
wherein the video data comprises at least one of a plurality of layers or a plurality of views,
wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and
wherein decoding the video data of the access unit based on the plurality of SPSs and the VPS comprises, for each of the layers or views, decoding the video data of the layer or view based on the SPS associated with the layer or view.
10. The method of claim 9, further comprising:
determining identifiers that are respectively associated with the plurality of layers or views, wherein determining the identifiers comprises at least one of:
decoding at least one of the identifiers, or
deriving at least one of the identifiers based on a hierarchical position of the respective layer or view; and
determining the plurality of SPSs for respectively decoding the video data of the plurality of layers or views based on the indication in the SEI message and the determined identifiers.
11. The method of claim 9, wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers, and at least one of the plurality of SPSs comprises an active layer SPS.
12. The method of claim 9, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.
13. Canceled.
14. Canceled.
15. Canceled.
16. Canceled.

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17. Canceled.

18. Canceled.

19. Canceled.

20. Canceled.

21. Canceled.

22. Canceled.

23. Canceled.

24. Canceled.

25. Canceled.

26. A device comprising a video decoder configured to:
decode a bitstream that includes video data and syntax information for decoding the video data, wherein the syntax information comprises an active parameter sets supplemental enhancement information (SEI) message of an access unit, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for decoding video data of the access unit, and wherein the active parameter sets SEI message includes a first syntax element that specifies the number of the plurality of SPSs, and one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;
activate the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and
decode the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

27. Canceled.

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28. The device of claim 26, wherein the active parameter sets SEI message precedes, in decoding order, a first portion of the video data of the access unit.

29. Canceled.

30. Canceled.

31. Canceled.

32. Canceled.

33. The device of claim 26, wherein the first syntax element comprises a `num_sps_ids_minus1` syntax element, and the one or more additional syntax elements comprise `active_sps_id[i]` syntax elements for $i = 0; i \leq \text{num_additional_sps_ids_minus1}; i++$.

34. The device of claim 26,
wherein the video data comprises at least one of a plurality of layers or a plurality of views,
wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and
wherein, for each of the layers or views, the video decoder is configured to decode the video data of the layer or view based on the SPS associated with the layer or view.

35. The device of claim 34, wherein the video decoder is further configured to:
determine identifiers that are respectively associated with the plurality of layers or views, wherein determining the identifiers comprises at least one of:
decoding at least one of the identifiers, or
deriving at least one of the identifiers based on a hierarchical position of the respective layer or view; and
determine the plurality of SPSs for respectively decoding the video data of the plurality of layers or views based on the indication in the SEI message and the determined identifiers.

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36. The device of claim 35, wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers, and at least one of the plurality of SPSs comprises an active layer SPS.

37. The device of claim 35, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.

38. Canceled.

39. The device of claim 26, wherein the device comprises at least one of:
an integrated circuit implementing the video decoder;
a microprocessor implementing the video decoder; and
a wireless communication device including the video decoder.

40. Canceled.

41. Canceled.

42. Canceled.

43. Canceled.

44. Canceled.

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48. Canceled.

49. Canceled.

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50. Canceled.

51. Canceled.

52. Canceled.

53. A device comprising:

means for coding a bitstream that includes video data and syntax information for coding the video data, wherein the syntax information comprises an active parameter sets supplemental enhancement information (SEI) message of an access unit, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for coding video data of the access unit, and wherein the active parameter sets SEI message includes a first syntax element that specifies the number of the plurality of SPSs, and one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;

means for activating the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and

means for coding the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

54. Canceled.

55. The device of claim 53,

wherein the video data comprises at least one of a plurality of layers or a plurality of views,

wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and

wherein the means for coding the video data of the access unit based on the plurality of SPSs and the VPS comprises means for, for each of the layers or views, coding the video data of the layer or view based on the SPS associated with the layer or view.

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56. The device of claim 55, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.

57. A computer-readable storage medium having instructions stored thereon that, when executed by one or more processors of a video coder, cause the video coder to:

- code a bitstream that includes video data and syntax information for coding the video data, wherein the syntax information comprises an active parameter sets supplemental enhancement information (SEI) message of an access unit, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for coding video data of the access unit, and wherein the active parameter sets SEI message includes a first syntax element that specifies the number of the plurality of SPSs, and one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;
- activate the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and
- code the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

58. Canceled.

59. The computer-readable storage medium of claim 57,

- wherein the video data comprises at least one of a plurality of layers or a plurality of views,
- wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and
- wherein the instructions that cause the one or more processors to code the video data of the access unit based on the plurality of SPSs and the VPS comprises instructions that cause the one or more processors to, for each of the layers or views, code the video data of the layer or view based on the SPS associated with the layer or view.

60. The computer-readable storage medium of claim 59, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.

CLAIMS

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

decoding a bitstream that includes video data and syntax information for decoding the video data,

wherein decoding the syntax information comprises decoding an active parameter sets supplemental enhancement information (SEI) message of an access unit, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for decoding video data of the access unit, and

wherein decoding the active parameter sets SEI message comprises:

decoding a first syntax element that specifies the number of the plurality of SPSs, and

decoding, based on the specified number of the plurality of SPSs, one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;

activating the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and

decoding the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

2. The method of claim 1, wherein the active parameter sets SEI message precedes, in decoding order, a first portion of the video data of the access unit.

3. The method of claim 1,
wherein decoding the first syntax element that specifies the number of the plurality of SPSs comprises decoding a `num_sps_ids_minus1` syntax element, and
wherein decoding, based on the specified number of the plurality of SPSs, the one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs comprises decoding `active_sps_id[i]` syntax elements for $i=0$; $i \leq \text{num_sps_ids_minus1}$; $i++$.
4. The method of claim 1,
wherein the video data comprises at least one of a plurality of layers or a plurality of views,
wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and
wherein decoding the video data of the access unit based on the plurality of SPSs and the VPS comprises, for each of the layers or views, decoding the video data of the layer or view based on the SPS associated with the layer or view.
5. The method of claim 4, further comprising:
determining identifiers that are respectively associated with the plurality of layers or views, wherein determining the identifiers comprises at least one of:
decoding at least one of the identifiers, or
deriving at least one of the identifiers based on a hierarchical position of the respective layer or view;
and
determining the plurality of SPSs for respectively decoding the video data of the plurality of layers or views based on the indication in the SEI message and the determined identifiers.

6. The method of claim 4, wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers, and at least one of the plurality of SPSs comprises an active layer SPS.

7. The method of claim 4, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.

8. A device comprising:

a memory configured to store video data; and

a video decoder configured to:

decode a bitstream that includes the video data and syntax information for decoding the video data;

decode an active parameter sets supplemental enhancement information (SEI) message of an access unit included in the syntax information, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for decoding video data of the access unit;

decode a first syntax element included in the active parameter sets SEI message, wherein the first syntax element specifies the number of the plurality of SPSs;

decode, based on the specified number of the plurality of SPSs, one or more additional syntax elements included in the active parameter sets SEI message, wherein the one or more additional syntax elements comprise respective identifiers for each of the plurality of SPSs;

activate the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and

decode the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

9. The device of claim 8, wherein the active parameter sets SEI message precedes, in decoding order, a first portion of the video data of the access unit.

10. The device of claim 8, wherein the video decoder is configured to:

decode a `num_sps_ids_minus1` syntax element as the first syntax element that specifies the number of the plurality of SPSs; and

decode an `active_sps_id[i]` syntax elements for $i=0$; $i \leq \text{num_sps_ids_minus1}$; $i++$ as the one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs.

11. The device of claim 8,

wherein the video data comprises at least one of a plurality of layers or a plurality of views,

wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and

wherein, for each of the layers or views, the video decoder is configured to decode the video data of the layer or view based on the SPS associated with the layer or view.

12. The device of claim 11, wherein the video decoder is further configured to:

determine identifiers that are respectively associated with the plurality of layers or views, wherein determining the identifiers comprises at least one of:

decoding at least one of the identifiers, or
deriving at least one of the identifiers based on a
hierarchical position of the respective layer or view;
and

determine the plurality of SPSs for respectively decoding
the video data of the plurality of layers or views based
on the indication in the SEI message and the deter-
mined identifiers.

13. The device of claim 12, wherein each of the plurality
of SPSs is associated with a respective one or more of the
plurality of layers, and at least one of the plurality of SPSs
comprises an active layer SPS.

14. The device of claim 12, wherein the video data
comprises at least one of multiview video data, three-
dimensional video data, or scalable video coding video data.

15. The device of claim 8, wherein the device comprises
at least one of:

an integrated circuit implementing the video decoder;
a microprocessor implementing the video decoder; and
a wireless communication device including the video
decoder.

16. A device comprising:

means for storing video data;

means for coding a bitstream that includes the video data
and syntax information for coding the video data,

wherein the means for coding the syntax information
comprises means for coding an active parameter sets
supplemental enhancement information (SEI) message
of an access unit, wherein the active parameter sets SEI
message indicates a plurality of sequence parameter
sets (SPSs) and a video parameter set (VPS) for coding
video data of the access unit, and

wherein the means for coding the active parameter sets SEI message comprises:

means for coding a first syntax element that specifies the number of the plurality of SPSs, and

means for coding, based on the specified number of the plurality of SPSs, one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;

means for activating the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and

means for coding the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

17. The device of claim **16**,

wherein the video data comprises at least one of a plurality of layers or a plurality of views,

wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and

wherein the means for coding the video data of the access unit based on the plurality of SPSs and the VPS comprises means for, for each of the layers or views, coding the video data of the layer or view based on the SPS associated with the layer or view.

18. The device of claim **17**, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.

19. A non-transitory computer-readable storage medium having instructions stored thereon that, when executed by one or more processors of a video coder, cause the video coder to:

code a bitstream that includes video data and syntax information for coding the video data,

wherein the instructions that cause the one or more processors to code the syntax information comprise instructions that cause the one or more processors to code an active parameter sets supplemental enhancement information (SEI) message of an access unit, wherein the active parameter sets SEI message indicates a plurality of sequence parameter sets (SPSs) and a video parameter set (VPS) for coding video data of the access unit, and

wherein the instructions that cause the one or more processors to code the active parameter sets SEI message comprise instructions that cause the one or more processors to:

- code a first syntax element that specifies the number of the plurality of SPSs, and
- code, based on the specified number of the plurality of SPSs, one or more additional syntax elements that comprise respective identifiers for each of the plurality of SPSs;

activate the plurality of SPSs and the VPS based on the indication of the plurality of SPSs and the VPS in the active parameter sets SEI message; and

code the video data of the access unit based on the plurality of activated SPSs and the activated VPS indicated in the active parameter sets SEI message.

20. The computer-readable storage medium of claim **19**, wherein the video data comprises at least one of a plurality of layers or a plurality of views, wherein each of the plurality of SPSs is associated with a respective one or more of the plurality of layers or plurality of views, and wherein the instructions that cause the one or more processors to code the video data of the access unit based on the plurality of SPSs and the VPS comprises instructions that cause the one or more processors to, for each of the layers or views, code the video data of the layer or view based on the SPS associated with the layer or view.

21. The computer-readable storage medium of claim **20**, wherein the video data comprises at least one of multiview video data, three-dimensional video data, or scalable video coding video data.