CLAIMS

1. A method of decoding an encoded video sequence, comprising:
obtaining a value of a reference picture list (RPL) syntax element from a bitstream of the video sequence, the RPL syntax element specifying whether syntax elements related to reference picture lists are present in the bitstream;
when the RPL syntax element specifies that the syntax elements related to reference picture lists are present in the bitstream: a) obtaining, from the bitstream, values of the syntax elements related to reference picture lists and b) constructing at least one reference picture list for inter prediction using the obtained values of the syntax elements related to reference picture lists; and
when the RPL syntax element specifies that the syntax elements related to reference picture lists are not present in the bitstream, constructing at least one reference picture list for inter prediction without further obtaining values of syntax elements from the bitstream;
wherein the constructing at least one reference picture list for inter prediction without further obtaining values of syntax elements from the bitstream comprises performing a sliding window method to construct at least one reference picture list for inter prediction.

2. The method of claim 1, further comprising:
when the RPL syntax element specifies that the syntax elements related to reference picture lists are not present in the bitstream, obtaining, from the bitstream, a value of a second syntax element related to reference picture marking.

3. The method of any one of claims 1 to 2, wherein the syntax elements related to reference picture lists are first syntax elements related to reference picture lists constructing.

4. The method of claim 3, wherein the first syntax elements related to reference picture lists constructing are included in at least one reference picture list syntax structure, wherein each reference picture list syntax structure is used to construct one reference picture list.

5. The method of claim 2, wherein the second syntax element related to reference picture marking provides information on a maximum number of reference pictures usable for inter prediction of pictures of the video sequence.

6. The method of any of the preceding claims, wherein the RPL syntax element is a flag and a first value of the flag specifies that syntax related to reference picture lists is present in the bitstream and a second value of the flag different from the first value specifies that syntax related to reference picture lists is not present in the bitstream.

7. The method of claim 6, wherein the first value is 1 and the second value is 0.

8. The method of any of the preceding claims, wherein the value of the RPS syntax element is obtained from one of a sequence parameter set, picture parameter set and slice header.

9. The method of any of the preceding claims, wherein the syntax elements related to reference picture lists are obtained from a sequence parameter set and/or a slice header.

10. The method of any of the preceding claims, further comprising, when the RPL syntax element specifies that syntax related to reference picture lists is present in the bitstream, obtaining a value of at least one third syntax element from a slice header specifying whether the syntax elements related to reference picture lists are obtainable from a sequence parameter set or a slice header.

11. The method of claim 10, wherein the at least one third syntax element comprises two third syntax elements, wherein the value of one of the two third syntax elements is obtained for a first reference picture list and, in case that a fourth syntax element obtained from the bitstream indicates that another third syntax element is present in the bitstream, the value of the other one of the two third syntax elements is obtained for a second reference list.

12. The method of claim 11, wherein the fourth syntax element is another flag, a value of 1 of the other flag indicating that the other third syntax element is present in the bitstream.

13. The method of claim 10, 11 or 12, wherein the at least one value of the third syntax element is obtained in case that there is at least one reference picture list syntax structure signalled at sequence parameter set level in the bitstream, wherein each reference picture list syntax structure is used to construct one reference picture list.

14. A method of encoding a video sequence, comprising:

determining whether values of syntax elements related to reference picture lists are to be used for construction of at least one reference picture list for inter prediction;

generating a bitstream comprising a RPL syntax element specifying whether syntax elements related to reference picture lists are present in the bitstream, wherein the RPL syntax element specifies that the syntax elements related to reference picture lists are present in the bitstream in case that it is determined that the values of the syntax elements related to reference picture lists are to be used for construction of at least one reference picture list for inter prediction; and

the RPL syntax element specifies that the syntax elements related to the reference picture lists are not present in the bitstream when it is determined that the values of the syntax elements related to the reference picture lists are not to be used for the construction of the at least one reference picture list for inter prediction to enable a decoder to construct at least one reference picture list for inter prediction without further obtaining values of syntax elements from the bitstream when the RPL syntax element specifies that the syntax elements related to the reference picture lists are not present in the bitstream;

wherein the constructing at least one reference picture list for inter prediction without further obtaining values of syntax elements from the bitstream comprises performing a sliding window method to construct at least one reference picture list for inter prediction.

15. The method of claim 14, wherein the bitstream comprises a second syntax element related to reference picture marking, when it is determined that values of syntax elements related to reference picture lists are not to be used for construction of at least one reference picture list for inter prediction.

16. The method of claim 14 or 15, wherein the syntax elements related to reference picture lists are first syntax elements related to reference picture lists constructing.

17. The method of claim 16, wherein the first syntax elements related to reference picture lists constructing are included in at least one reference picture list syntax structure, wherein each reference picture list syntax structure is used for construction of one reference picture list.

18. The method of claim 15, wherein the second syntax element related to reference picture marking provides information on a maximum number of reference pictures usable for inter prediction of pictures of the video sequence

19. The method of any one of claims 14 to 18, wherein the RPL syntax element is a flag and a first value of the flag specifies that syntax related to reference picture lists is present in the bitstream and a second value of the flag different from the first value specifies that syntax related to reference picture lists is not present in the bitstream.

20. The method of claim 19, wherein the first value is 1 and the second value is 0.

21. The method of any one of claims 14 to 20, wherein the RPL syntax element is signalled in one of a sequence parameter set, picture parameter set and slice header.

22. The method of any one of claims 14 to 21, wherein the syntax elements related to reference picture lists are comprised in a sequence parameter set and/or a slice header.

23. The method of any one of claims 14 to 22, wherein at least one third syntax element is comprised in a slice header specifying whether the syntax elements related to reference picture lists are obtainable from a sequence parameter set or a slice header, when it is determined that values of syntax elements related to reference picture lists are to be used for construction of at least one reference picture list for inter prediction.

24. The method of claim 23, wherein the bitstream comprises a fourth syntax element and the at least one third syntax element comprises two third syntax elements, wherein one of the two third syntax elements is for a first reference picture list and the other one of the two third syntax elements is for a second reference list in case that a value of the fourth syntax element indicates that the other third syntax element is present in the bitstream.

25. The method of claim 24, wherein the fourth syntax element is another flag, a value of 1 of the other flag indicating that the other third syntax element is present in the bitstream.

26. The method of any of claims 23 to 25, wherein at least one reference picture list syntax structure is signalled at sequence parameter set level in the bitstream, wherein each reference picture list syntax structure is used for construction of one reference picture list.

27. An encoder (20) comprising processing circuitry for carrying out the method according to any of claims 14 to 26.

28. A decoder (30) comprising processing circuitry for carrying out the method according to any of claims 1 to 13.

29. A decoder, comprising:
one or more processors; and
a non-transitory computer-readable storage medium coupled to the processors and storing programming for execution by the processors, wherein the programming, when executed by the processors, configures the decoder to carry out the method according to any one of the claims 1 to 13.

30. An encoder, comprising:
one or more processors; and
a non-transitory computer-readable storage medium coupled to the processors and storing programming for execution by the processors, wherein the programming, when executed by the processors, configures the encoder to carry out the method according to any one of the claims 14 to 26.

31. A non-transitory computer-readable medium carrying a program code which, when executed by a computer device, causes the computer device to perform the method of any one of the claims 1 to 26.

32. A non-transitory storage medium which includes a coded bitstream, the bitstream being generated by dividing a current picture of a video signal or an image signal a plurality of blocks, wherein the bitstream comprises a plurality of syntax elements, wherein the plurality of syntax elements comprises a RPL syntax element specifying whether syntax elements related to reference picture lists are present in the bitstream, the plurality of syntax elements further

comprises the syntax elements related to reference picture lists when the RPL syntax element specifies that the syntax elements related to reference picture lists are present in the bitstream; and

when the RPL syntax element specifies that the syntax elements related to reference picture lists are not present in the bitstream, constructing at least one reference picture list for inter prediction without further obtaining values of syntax elements from the bitstream;

wherein the constructing at least one reference picture list for inter prediction without further obtaining values of syntax elements from the bitstream comprises performing a sliding window method to construct at least one reference picture list for inter prediction.