Amended Set of Claims 1 to 29

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

coding a first syntax element for a first picture, wherein a first value for the first syntax element indicates in-picture prediction is allowed across slices for slices of the first picture, and wherein the first picture is divided into a plurality of tiles;

in response to the first syntax element indicating in-picture prediction is allowed across slices, coding a second syntax element indicating in-picture prediction is allowed across a slice, wherein the second syntax element is part of a slice header of the slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element; and,

in response to the first syntax element indicating in-picture prediction is allowed across slices, coding a first coding unit of a first slice of the first picture based on information of a second coding unit of a second slice of the first picture.

2. (cancelled)

3. (cancelled)

4. The method of claim 1, further comprising:

coding a starting address for a slice, wherein the starting address for the slice is located before the second syntax element in the slice header.

5. The method of claim 1, wherein the first syntax element is part of a picture parameter set (PPS).

6. The method of claim 1, wherein coding the first syntax element comprises coding a first instance of the first syntax element, the method further comprising:

coding a second instance of the first syntax element for a second picture, wherein a second value for the second instance of the first syntax element indicates in-picture prediction is not allowed across slices for slices of the second picture.

7. The method of claim 6, further comprising:

coding the slices of the second picture independently.

8. The method of claim 1, wherein coding the first syntax element comprises encoding the first syntax element, wherein encoding the first syntax element comprises generating the first syntax element with the first value, and wherein coding the first coding unit comprises encoding the first coding unit.

9. The method of claim 1, wherein coding the first syntax element comprises decoding the first syntax element, wherein decoding the first syntax element comprises parsing the first syntax element to determine the first value, and wherein coding the first coding unit comprises decoding the first coding unit.

10. A device for coding video data, the device comprising:

a vide coder configured to:

code a first instance of a first syntax element for a first picture, wherein a first value for the first syntax element indicates in-picture prediction is allowed across slices for slices of the first picture, and wherein the first picture is divided into a plurality of tiles;

in response to the first syntax element indicating in-picture prediction is allowed across slices, code a second syntax element indicating in-picture prediction is allowed across a slice, wherein the second syntax element is part of a slice header of the slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element; and,

code a first coding unit of a first slice based on information of a second coding unit of a second slice.

11. (cancelled)

12. (cancelled)

13. The device of claim 10, wherein the video coder is further configured to:
code a starting address for a slice, wherein the starting address for the slice is located before the second syntax element in the slice header.

14. The device of claim 10, wherein the first syntax element is part of a picture parameter set (PPS).

15. The device of claim 9, wherein the video coder is further configured to:
code a second instance of the first syntax element for a second picture, wherein a second value for the first syntax element indicates in-picture prediction is not allowed across slices for slices of the second picture.

16. The device of claim 15, wherein the video coder is further configured to:
code the slices of the second picture independently.

17. The device of claim 10, wherein the video coder comprises a video encoder, and wherein the video coder is further configured to generate the first syntax element with the first value and encode the first coding unit of the first slice based on information of the second coding unit of the second slice.

18. The device of claim 10, wherein the video coder comprises a video decoder, and wherein the video coder is further configured to parse the first syntax element to determine the first value and decode the first coding unit of the first slice based on information of the second coding unit of the second slice.

19. The device of claim 10, wherein the device comprises at least one of:
an integrated circuit;
a microprocessor; and,
a wireless communications device that includes the video coder.

20. A device for coding video data, the device comprising:
means for coding a first syntax element for a first picture, wherein a first value for the first syntax element indicates in-picture prediction is allowed across slices for slices of the first picture, and wherein the first picture is divided into a plurality of tiles;
means for coding a second syntax element indicating in-picture prediction is allowed across slices in response to the first syntax element indicating in-picture prediction is allowed across a slice, wherein the second syntax element is part of a slice header of the slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element; and,
means for coding a first coding unit of a first slice based on information of a second coding unit of a second slice of the first picture in response to the first syntax element indicating in-picture prediction is allowed across slices.

21. (cancelled)

22. (cancelled)

23. The device of claim 20, further comprising:
means for coding a starting address for a slice, wherein the starting address for the slice is located before the second syntax element in the slice header.

24. The device of claim 20, wherein the first syntax element is part of a picture parameter set (PPS).

25. The device of claim 20, wherein the means for coding the first syntax element comprises means for coding a first instance of the first syntax element, the device further comprising:

means for coding a second instance of the first syntax element for a second picture, wherein a second value for the second instance of the first syntax element indicates in-picture prediction is not allowed across slices for slices of the second picture.

26. The device of claim 25, further comprising:

means for coding the slices of the second picture independently.

27. The device of claim 20, wherein the means for coding the first syntax element comprises means for encoding the first syntax element, wherein the means for encoding the first syntax element comprises means for generating the first syntax element with the first value, and wherein the means for coding the first coding unit comprises means for encoding the first coding unit.

28. The device of claim 20, wherein the means for coding the first syntax element comprises means for decoding the first syntax element, wherein the means for decoding the first syntax element comprises means for parsing the first syntax element to determine the first value, and wherein the means for coding the first coding unit comprises means for decoding the first coding unit.

29. A computer-readable storage medium storing instructions that when executed cause one or more processors to:

code a first instance of a first syntax element for a first picture, wherein a first value for the first syntax element indicates in-picture prediction is allowed across slices for slices of the first picture, wherein the first syntax element is part of a picture parameter set (PPS) , and wherein the first picture is divided into a plurality of tiles;

in response to the first syntax element indicating in-picture prediction is allowed across slices, coding a second syntax element indicating in-picture prediction is allowed across a slice, wherein the second syntax element is part of a slice header of the slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element;

for the first picture, code a first coding unit of a first slice based on information of a second coding unit of a second slice; and,

code a second instance of the first syntax element for a second picture, wherein a second value for the second instance of the first syntax element indicates in-picture prediction is not allowed across slices for slices of the second picture.

CLAIMS

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

coding, in a picture parameter set, a first syntax element for a first picture of the video data, wherein a first value for the first syntax element indicates that in-picture prediction is allowed across slices for slices of the first picture by indicating that syntax elements in headers for one or more slices of the first picture are allowed to be predicted from syntax elements in a header of a preceding slice of the first picture;

in response to the first syntax element indicating that in-picture prediction is allowed across slices, coding, in respective slice headers of slices in the first picture, a second syntax element indicating whether in-picture prediction is allowed across that slice by indicating whether syntax elements in a header of the respective slice are predicted from syntax elements in the header of the preceding slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element indicating that in-picture prediction is allowed across slices for slices of the first picture; and,

in response to the first syntax element indicating that in-picture prediction is allowed across slices and a respective second syntax element, for a first slice of the first picture, indicating that in-picture prediction is allowed across the first slice, coding a first coding unit of the first slice of the first picture of the video data based on information of a second coding unit of a second slice of the first picture of the video data.

2. The method of claim **1**, further comprising:

coding a starting address for a slice of the video data, wherein the starting address for the slice is located before the second syntax element in the slice header.

3. The method of claim **1**, wherein coding the first syntax element comprises coding a first instance of the first syntax element, the method further comprising:

coding a second instance of the first syntax element for a second picture, wherein a second value for the second instance of the first syntax element indicates that in-picture prediction is not allowed across slices for slices of the second picture.

4. The method of claim **3**, further comprising:

coding the slices of the second picture independently.

5. The method of claim **1**, wherein coding the first syntax element comprises encoding the first syntax element, wherein encoding the first syntax element comprises generating the first syntax element with the first value, and wherein coding the first coding unit comprises encoding the first coding unit.

6. The method of claim **1**, wherein coding the first syntax element comprises decoding the first syntax element, wherein

decoding the first syntax element comprises parsing the first syntax element to determine the first value, and wherein coding the first coding unit comprises decoding the first coding unit.

7. A device for coding video data, the device comprising:

a memory configured to store a first picture of the video data; and

a video coder configured to:

code, in a picture parameter set, a first syntax element for the first picture, wherein a first value for the first syntax element indicates that in-picture prediction is allowed across slices for slices of the first picture by indicating that syntax elements in headers for one or more slices of the first picture are allowed to be predicted from syntax elements in a header of a preceding slice of the first picture;

in response to the first syntax element indicating that in-picture prediction is allowed across slices, code, in respective slice headers of slices in the first picture, a second syntax element indicating whether in-picture prediction is allowed across that slice by indicating whether syntax elements in a header of the respective slice are predicted from syntax elements in the header of the preceding slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element indicating that in-picture prediction is allowed across slices for slices of the first picture; and,

in response to the first syntax element indicating that in-picture prediction is allowed across slices and a respective second syntax element, for a first slice of the first picture, indicating that in-picture prediction is

allowed across the first slice, code a first coding unit of the first slice of the first picture of the video data based on information of a second coding unit of a second slice of the first picture of the video data.

8. The device of claim **7**, wherein the video coder is further configured to:

code a starting address for a slice of the video data, wherein the starting address for the slice is located before the second syntax element in the slice header.

9. The device of claim **6**, wherein, to code the first syntax element, the video coder codes a first instance of the first syntax element, and wherein the video coder is further configured to:

code a second instance of the first syntax element for a second picture, wherein a second value for the first syntax element indicates that in-picture prediction is not allowed across slices for slices of the second picture.

10. The device of claim **9**, wherein the video coder is further configured to:

code the slices of the second picture independently.

11. The device of claim **7**, wherein the video coder comprises a video encoder, wherein, to code the first syntax element, the video coder is further configured to generate the first syntax element with the first value, and wherein, to code the first coding unit, the video coder is configured to encode the first coding unit.

12. The device of claim **7**, wherein the video coder comprises a video decoder, wherein, to code the first syntax element, the video coder is further configured to parse the first syntax element to determine the first value, and wherein, to code the first coding unit, the video coder is configured to decode the first coding unit.

13. The device of claim **7**, wherein the device comprises at least one of:

an integrated circuit;

a microprocessor; and,

a wireless communications device that includes the video coder.

14. A device for coding video data, the device comprising:

means for coding, in a picture parameter set, a first syntax element for a first picture of the video data, wherein a first value for the first syntax element indicates that in-picture prediction is allowed across slices for slices of the first picture by indicating that syntax elements in headers for one or more slices of the first picture are allowed to be predicted from syntax elements in a header of a preceding slice of the first picture;

means for coding, in response to the first syntax element indicating that in-picture prediction is allowed across slices and in respective slice headers of slices in the first picture, a second syntax element indicating in-picture prediction is allowed across that slice by indicating whether syntax elements in a header of the respective slice are predicted from syntax elements in the header of the preceding slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element indicating that in-picture prediction is allowed across slices for slices of the first picture; and,

means for coding, in response to the first syntax element indicating that in-picture prediction is allowed across slices and a respective second syntax element, for a first slice of the first picture, indicating that in-picture prediction is allowed across the first slice, a first coding unit of the first slice of the first picture of the video data based

on information of a second coding unit of a second slice of the first picture of the video data.

15. The device of claim **14**, further comprising:

means for coding a starting address for a slice of the video data, wherein the starting address for the slice is located before the second syntax element in the slice header.

16. The device of claim **14**, wherein the means for coding the first syntax element comprises means for coding a first instance of the first syntax element, the device further comprising:

means for coding a second instance of the first syntax element for a second picture, wherein a second value for the second instance of the first syntax element indicates in-picture prediction is not allowed across slices for slices of the second picture.

17. The device of claim **16**, further comprising:

means for coding the slices of the second picture independently.

18. The device of claim **14**, wherein the means for coding the first syntax element comprises means for encoding the first syntax element, wherein the means for encoding the first syntax element comprises means for generating the first syntax element with the first value, and wherein the means for coding the first coding unit comprise means for encoding the first coding unit.

19. The device of claim **14**, wherein the means for coding the first syntax element comprises means for decoding the first syntax element, wherein the means for decoding the first syntax element comprises means for parsing the first syntax element to determine the first value, and wherein the means for coding the first coding unit comprise means for decoding the first coding unit.

20. A non-transitory computer-readable storage medium storing instructions that when executed cause one or more processors to:

code, in a picture parameter set, a first syntax element for a first picture of the video data, wherein a first value for the first syntax element indicates that in-picture prediction is allowed across slices for slices of the first picture by indicating that syntax elements in headers for one or more slices of the first picture are allowed to be predicted from syntax elements in a header of a preceding slice of the first picture;

in response to the first syntax element indicating that in-picture prediction is allowed across slices, code, in respective slice headers of slices in the first picture, a second syntax element indicating whether in-picture prediction is allowed across that slice by indicating whether syntax elements in a header of the respective slice are predicted from syntax elements in the header of the preceding slice, wherein presence of the second syntax element in the slice header is dependent on the first value of the first syntax element indicating that in-picture prediction is allowed across slices for slices of the first picture;

in response to the first syntax element indicating that in-picture prediction is allowed across slices and a respective second syntax element, for a first slice of the first picture, indicating that in-picture prediction is allowed across the first slice of the first picture of the video data, code a first coding unit of the first slice based on information of a second coding unit of a second slice of the first picture of the video data.