

WHAT IS CLAIMED IS:

1. A method of video processing, comprising:
performing a conversion between a video comprising one or more video pictures comprising one or more slices and a bitstream of the video,
wherein the bitstream conforms to a format rule, and
wherein the format rule specifies that for a video picture of the one or more video pictures having all slices coded as I slices, P slice and B slice related syntax elements are omitted from a picture header for the video picture.
2. The method of claim 1, wherein a first syntax element indicating that all slices of the video unit are I slices is signaled in the picture header.
3. The method of claim 2, wherein whether or not to signal a second syntax element in the bitstream is based on the first syntax element, and wherein the second syntax element indicates slice type information in a slice header of a slice associated with the picture header.
4. The method of claim 3, wherein the second syntax element is excluded from the bitstream and inferred to be a slice type.
5. The method of claim 3, wherein the second syntax element is signaled in the bitstream and is equal to one of multiple predetermined values based on a conformance requirement.
6. The method of claim 3, wherein a first syntax element indicating that the video unit comprises all I slices is signaled in an access unit (AU) delimiter raw byte sequence payload (RBSP) associated with at least one of the I slices.
7. A method of video processing, comprising:
performing a conversion between a video comprising one or more video pictures comprising one or more slices and a bitstream of the video,
wherein the bitstream conforms to a format rule, and

wherein the format rule specifies that a picture header for each video picture comprises a syntax element indicating whether all slices in the video picture are coded with an identical coding type.

8. The method of claim 7, wherein all slices are coded as either I slices, P slices, or B slices.
9. The method of claim 7, wherein a slice header for a slice excludes slice type information and the slice is inferred to be an I-slice due to the syntax element in the picture header indicating that all the slices are I slices.
10. A method of video processing, comprising:
 - performing a conversion between a video comprising one or more video pictures and a bitstream of the video,
 - wherein the bitstream conforms to a format rule, and
 - wherein the format rule specifies that a picture header for each of the one or more video pictures comprises a syntax element indicating a picture type thereof.
11. The method of claim 10, wherein a slice type of one or more slices in the picture is only allowed to indicate an I-slice due to the syntax element indicating that the picture is an I-picture.
12. The method of claim 10, wherein a slice type of one or more slices in the picture indicates an I-slice and/or a B-slice and/or a P-slice due to the syntax element indicating that the picture is a non-I picture.
13. A method of video processing, comprising:
 - performing a conversion between a video comprising one or more video pictures and a bitstream of the video,
 - wherein the bitstream conforms to a format rule, and
 - wherein the format rule specifies that a syntax element indicating a picture type for a picture is signaled in an access unit (AU) delimiter raw byte sequence payload (RBSP), and wherein the syntax element indicates whether all slices in the picture are I-slices.
14. A method of video processing, comprising:

performing a conversion between a video comprising a video picture comprising one or more video slices and a bitstream of the video,

wherein the bitstream conforms to a format rule, and

wherein, for a picture having each of a plurality of slices in the picture be an I-slice, the format rule specifies that an indication of a slice type is excluded from slice headers of the plurality of slices in the bitstream during encoding or inferred to be an I-slice during decoding.

15. The method of claim 14, wherein the bitstream is organized such that each of the plurality of slices in the picture is an I-slice.

16. The method of claim 14, wherein the bitstream is organized such that a B-slice or a P-slice is not included in the picture.

17. A method of video processing, comprising:

making a determination, for a conversion between a video comprising a W-slice or a W-picture and a bitstream of the video, regarding whether one or more non-W related syntax elements are signaled in a slice header of the W-slice or a picture header of the W-picture, wherein W is I, B, or P; and

performing, based on the determination, the conversion.

18. The method of claim 17, wherein W is I, and wherein non-W is B or P.

19. The method of claim 17, wherein W is B, and wherein non-W is I or P.

20. The method of any of claims 17 to 19, wherein the one or more syntax elements are excluded from the bitstream due to all slices in the picture being W-slices.

21. The method of any of claims 17 to 19, wherein the one or more syntax elements are conditionally signaled in the bitstream due to all slices in the picture being W-slices.

22. The method of any of claims 17 to 21, wherein the one or more syntax elements comprise reference picture related syntax elements in the picture header.

23. The method of any of claims 17 to 21, wherein the one or more syntax elements comprise inter slice related syntax elements in the picture header.
24. The method of any of claims 17 to 21, wherein the one or more syntax elements comprise inter prediction related syntax elements in the picture header.
25. The method of any of claims 17 to 21, wherein the one or more syntax elements comprise bi-prediction related syntax elements in the picture header.
26. The method of any of claims 1 to 25, wherein the conversion comprises decoding the video from the bitstream.
27. The method of any of claims 1 to 25, wherein the conversion comprises encoding the video into the bitstream.
28. A method of writing a bitstream representing a video to a computer-readable recording medium, comprising:
generating a bitstream from a video according to a method described in any of claims 1 to 25; and
writing the bitstream to a computer-readable recording medium.
29. A video processing apparatus comprising a processor configured to implement a method recited in any one or more of claims 1 to 27.
30. A computer-readable medium having instructions stored thereon, the instructions, when executed, causing a processor to implement a method recited in any one or more of claims 1 to 28.
31. A computer readable medium that stores the bitstream generated according to any of claims 1 to 28.
32. A video processing apparatus for storing a bitstream, wherein the video processing apparatus is configured to implement a method recited in any one or more of claims 1 to 28.