

CLAIMS

What is claimed is:

1. A method of decoding implemented by a video decoder, comprising:
receiving, by the video decoder, a first picture parameter set and a second picture parameter set each referring to the same sequence parameter set, wherein when the first picture parameter set and the second picture parameter set have the same values of picture width and picture height, the first picture parameter set and the second picture parameter set have the same values of a conformance window; and
applying, by the video decoder, the conformance window to a current picture corresponding to the first picture parameter set or the second picture parameter set.
2. The method of claim 1, wherein the conformance window comprises a conformance window left offset, a conformance window right offset, a conformance window top offset, and a conformance window bottom offset.
3. The method of any of claims 1 to 2, further comprising decoding the current picture corresponding to the first picture parameter set or the second picture parameter set using inter prediction after the conformance window has been applied, wherein the inter prediction is based on a resampled reference picture.
4. The method of any of claims 1 to 3, further comprising resampling a reference picture associated with the current picture corresponding to the first picture set or the second picture set using reference picture resampling (RPS).
5. The method of any of claims 1 to 4, wherein the resampling of the reference picture changes a resolution of the reference picture used to inter predict the current picture corresponding to the first picture set or the second picture set.

6. The method of any of claims 1 to 5, wherein the picture width and picture height are measured in luma samples.
7. The method of any of claims 1 to 6, further comprising determining whether bi-direction optical flow (BDOF) is enabled for decoding the picture based on the picture width, the picture height, and the conformance window of the current picture and a reference picture for the current picture.
8. The method of any of claims 1 to 6, further comprising determining whether decoder-side motion vector refinement (DMVR) is enabled for decoding the picture based on the picture width, the picture height, and the conformance window of the current picture and a reference picture for the current picture.
9. The method of any of claims 1 to 6, further comprising displaying on a display of an electronic device an image generated using the current block.
10. A method of encoding implemented by a video encoder, the method comprising:
 - generating, by the video encoder, a first picture parameter set and a second picture parameter set each referring to the same sequence parameter set, wherein when the first picture parameter set and the second picture parameter set have the same values of picture width and picture height, the first picture parameter set and the second picture parameter set have the same values of a conformance window;
 - encoding, by the video encoder, the first picture parameter set and the second picture parameter set into a video bitstream; and
 - storing, by the video encoder, the video bitstream for transmission toward a video decoder.
11. The method of claim 10, wherein the conformance window comprises a conformance window left offset, a conformance window right offset, a conformance window top offset, and a conformance window bottom offset.

12. The method of any of claims 10 to 11, wherein the picture width and picture height are measured in luma samples.
13. The method of any of claims 10 to 12, further comprising transmitting the video bitstream containing the first picture parameter set and the second picture parameter set toward the video decoder.
14. A decoding device, comprising:
a receiver configured to receive a coded video bitstream;
a memory coupled to the receiver, the memory storing instructions; and
a processor coupled to the memory, the processor configured to execute the instructions to cause the decoding device to:
 receive a first picture parameter set and a second picture parameter set each referring to the same sequence parameter set, wherein when the first picture parameter set and the second picture parameter set have the same values of picture width and picture height, the first picture parameter set and the second picture parameter set have the same values of a conformance window; and
 apply the conformance window to a current picture corresponding to the first picture parameter set or the second picture parameter set.
15. The decoding device of claim 14, wherein the conformance window comprises a conformance window left offset, a conformance window right offset, a conformance window top offset, and a conformance window bottom offset.
16. The decoding device of any of claims 14 to 15, further comprising decoding the current picture corresponding to the first picture parameter set or the second picture parameter set using inter prediction after the conformance window has been applied, wherein the inter prediction is based on a resampled reference picture.
17. The decoding device of any of claims 15 to 16, further comprising a display configured to display an image generated based on the current picture.

18. An encoding device, comprising:
a memory containing instructions;
a processor coupled to the memory, the processor configured to implement the instructions to cause the encoding device to:
generate a first picture parameter set and a second picture parameter set each referring to the same sequence parameter set, wherein when the first picture parameter set and the second picture parameter set have the same values of picture width and picture height, the first picture parameter set and the second picture parameter set have the same values of a conformance window; and
encode the first picture parameter set and the second picture parameter set into a video bitstream; and
a transmitter coupled to the processor, the transmitter configured to transmit the video bitstream containing the first picture parameter set and the second picture parameter set toward a video decoder.
19. The encoding device of claim 18, wherein the conformance window comprises a conformance window left offset, a conformance window right offset, a conformance window top offset, and a conformance window bottom offset.
20. The encoding device of any of claims 18 to 19, wherein the picture width and picture height are measured in luma samples.
21. A coding apparatus, comprising:
a receiver configured to receive a picture to encode or to receive a bitstream to decode;
a transmitter coupled to the receiver, the transmitter configured to transmit the bitstream to a decoder or to transmit a decoded image to a display;
a memory coupled to at least one of the receiver or the transmitter, the memory configured to store instructions; and
a processor coupled to the memory, the processor configured to execute the instructions stored in the memory to perform the method in any of claims 1 to 9 and any of claims 10 to 13.

22. The coding apparatus of claim 20, further comprising a display configured to display an image.
23. A system, comprising:
an encoder; and
a decoder in communication with the encoder, wherein the encoder or the decoder includes the decoding device, the encoding device, or the coding apparatus of any of claims 15 to 22.
24. A means for coding, comprising:
receiving means configured to receive a picture to encode or to receive a bitstream to decode;
transmission means coupled to the receiving means, the transmission means configured to transmit the bitstream to a decoding means or to transmit a decoded image to a display means;
storage means coupled to at least one of the receiving means or the transmission means, the storage means configured to store instructions; and
processing means coupled to the storage means, the processing means configured to execute the instructions stored in the storage means to perform the method in any of claims 1 to 9 and any of claims 10 to 13.