Claims

1. A decoder, the decoder comprising circuitry configured to:

receive a bitstream including a sequence parameter set and a first coded picture;

detect in the sequence parameter set associated with the first coded picture, that a coded sub-region is present in the first coded picture and a location of the coded sub-region in the first coded picture;

extract from the first coded picture, and decode, the coded sub-region to form an independent reference picture;

determine a predictor from the reference picture using a scaling constant, the scaling constant being determined from information in the bitstream; and

use the predictor to decode a subsequent picture in the bitstream without requiring retransmission of the reference picture.

2. A method of video decoding, the method comprising:

receiving, by a decoder, a bitstream including a sequence parameter set and a first coded picture;

detecting, by the decoder, in the sequence parameter set associated with the first coded picture, that a coded sub-region is present in the first coded picture and a location of the coded sub-region in the first coded picture;

extracting, by the decoder, the coded sub-region from the first coded picture to form a decoded independent picture that is used as a reference picture;

determining, by the decoder, a predictor from the reference picture using a scaling constant, the scaling constant being determined from information in the bitstream; and

using, by the decoder, the predictor to decode a subsequent picture in the bitstream without requiring retransmission of the reference picture.

3. The decoder of Claim 1, wherein the information in the bitstream used to obtain the scaling constant includes an index.

4. The decoder of Claim 1, wherein the predictor is formed using an interpolation filter.

5. The decoder of Claim 1, wherein the circuitry is further configured to:

detect in the sequence parameter set associated with the first coded picture, the location of a second coded sub-region in the first coded picture;

extract and decode the second coded sub-region to form a second reference picture; and

determine a second predictor in the second reference picture using a second scaling constant determined from information in the bitstream.

6. The decoder of Claim 1, wherein the subsequent picture is a portion of a picture.

7. The decoder of Claim 5, wherein the predictor is determined using a motion vector candidate list constructed using a global motion vector candidate utilized by an adjacent block.

8. The decoder of Claim 7, wherein the second predictor is used to decode a second subsequent picture.

9. The decoder of Claim 8, wherein the first and second subsequent pictures are sub-regions extracted from the same picture.

10. A decoder, the decoder comprising circuitry configured to:

receive a bitstream including a sequence parameter set and a first coded picture;

detect in the sequence parameter set associated with the first coded picture, that a coded sub-region is present in the first coded picture and a location of the coded sub-region in the first coded picture;

extract from the first coded picture, and decode, the coded sub-region to form an independent reference picture;

determine a predictor in the reference picture using a scaling constant obtained from information in the bitstream, the information including an index; and

use the predictor to decode a subsequent picture without requiring retransmission of the reference picture.

11. The method of Claim 2, wherein the information in the bitstream used to obtain the scaling constant includes an index.

12. The method of Claim 2, wherein the predictor is formed using an interpolation filter.

13. The method of Claim 2, wherein the subsequent picture is a portion of a picture.

14. The method of Claim 11, wherein the predictor is determined using a motion vector candidate list constructed using a global motion vector candidate utilized by an adjacent block.

15. A method of video decoding, the method comprising:

receiving, by a decoder, a bitstream including a sequence parameter set and a first coded picture;

determining, by the decoder, in the sequence parameter set associated with the first coded picture, that a coded sub-region is present in the first coded picture and a location of the coded sub-region in the first coded picture;

extracting, by the decoder, the coded sub-region from the first coded picture to form a decoded independent picture that is used as a reference picture;

determining, by the decoder, a predictor in the decoded independent picture using a scaling constant obtained from information in the bitstream, the information including an index; and

using, by the decoder, the predictor to decode a subsequent picture without requiring retransmission of the reference picture.