CLAIMS

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

receive a bitstream the bitstream including:

a first coded picture,

a second coded picture,

a sequence parameter set associated with both the first and second coded pictures, the sequence parameter set including a first set of parameters defining a first cropping window,

a first picture parameter set associated with the first picture, and

a second picture parameter set associated with the second picture;

decode the first coded picture and store the first picture as a reference picture;

determine a scaling factor from at least one parameter in the sequence parameter set defining the first cropping window;

determine a predictor for the second picture from the reference picture and the scaling factor;

decode the second coded picture using the predictor; and

output for display the first picture as cropped in accordance with the first set of parameters defining the first cropping window in the sequence parameter set.

2. The decoder of claim 1, wherein:

the second picture parameter set includes a second set of parameters different from the first set of parameters and defining a second cropping window;

the second picture is decoded and stored as a second reference picture;

a second scaling factor is determined from at least one parameter in the second set of parameters; and

a second predictor is determined from the second reference picture and the second

scaling factor.

3. The decoder of claim 1, wherein the first set of parameters comprise a plurality of values from which four corners of a rectangular cropping window can be determined.

4. The decoder of claim 1, wherein the first set of parameters defining a first cropping window comprise a top offset, a bottom offset, a left offset and a right offset.

5. The decoder of claim 1, wherein the first coded picture has a first resolution, the second coded picture has a second resolution, and the first resolution is smaller than the second resolution.

6. The decoder of claim 1, wherein the first coded picture has a first resolution, the second coded picture has a second resolution, and the first resolution is larger than the second resolution.

7. The decoder of claim 1, further comprising:

an entropy decoder processor configured to receive the bit stream and decode the bitstream into quantized coefficients;

an inverse quantization and inverse transformation processor configured to process the quantized coefficients including performing an inverse discrete cosine;

a deblocking filter;

a frame buffer; and

an intra prediction processor.