WHAT IS CLAIMED IS:

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

receive a bitstream;

store a plurality of long term reference frames in a reference list;

retain a long term reference frame in the reference list for a length of time based on a retention time; and

decode at least a portion of video using the long term reference frame retained in the reference list.

2. The decoder of claim 1, where each long term reference frame in the stored long term reference frames includes an associated retention time.

3. The decoder of claim 1, further configured to mark the long term reference frame as unavailable after the long term reference frame has resided in the reference list for at least the retention time.

4. The decoder of claim 3, further configured to mark the long term reference frame as available based on a signal in the bitstream.

5. The decoder of claim 1, wherein the bitstream includes a signal to remove the long term reference frame from memory.

6. The decoder of claim 5, further configured to remove the long term reference frame from the reference list based on the signal.

7. The decoder of claim 1, further comprising:

an entropy decoder processor configured to receive the bitstream 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.

8. The decoder of claim 1, further configured to:

receive a coded block;

determine that an inter prediction mode is enabled for the coded block; and

determine a decoded block using the long term reference frame as a reference frame and according to the inter prediction mode.

9. The decoder of claim 8, wherein the decoded block forms part of a quadtree plus binary decision tree.

10. The decoder of claim 8, wherein the decoded block is a non-leaf node of the quadtree plus binary decision tree.

11. A method comprising:

receiving, by a decoder, a bitstream;

storing, by the decoder, a plurality of long term reference frames in a reference list;

retaining, by the decoder, a long term reference frame in the reference list for a length of time based on a retention time; and

decoding, by the decoder, at least a portion of video using the long term reference frame retained in the reference list.

12. The method of claim 11, wherein each long term reference frame in the stored long term reference frames includes an associated retention time.

13. The method of claim 11, further comprising marking the long term reference frame as unavailable after the long term reference frame has resided in the reference list for at least the retention time.

14. The method of claim 13, further comprising marking the long term reference frame as available based on a signal in the bitstream.

15. The method of claim 11, wherein the bitstream includes a signal to remove the long term reference frame from memory.

16. The method of claim 15, further comprising removing the long term reference frame from the reference list based on the signal.

17. The method of claim 11, wherein the decoder further comprises:

an entropy decoder processor configured to receive the bitstream and decode the bitstream into quantized coefficient;

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.~~

~~18. The method of claim 11 further comprising:~~

~~receiving a coded block;~~

~~determining that an inter prediction mode is enabled for the coded block; and~~

~~determining a decoded block using the long term reference frame as a reference frame and according to the inter prediction mode.~~

~~19. The method of claim 18, wherein the decoded block forms part of a quadtree plus binary decision tree.~~

~~20. The method of claim 18, wherein the decoded block is a non-leaf node of the quadtree plus binary decision tree.~~

1. A decoder configured to:

receive a bit stream including signaling information and a plurality of coded pictures including first coded picture, a second coded picture, and a subsequent coded picture;

decode the plurality of pictures including the first, second and subsequent pictures and store the decoded pictures in a decoded picture buffer, where the decode comprises:

decoding the first picture by forming a first list of active reference pictures from the pictures in the buffer, one of the active reference pictures being a long term reference picture which is an IDR picture, and decoding a block of said first picture using the long term reference IDR picture;

decoding the second picture by forming a second list of active reference pictures from the pictures in the buffer, said second list not including the long term reference IDR picture and, in response to at least one parameter in the signaling information, indicating that the long term reference IDR picture is inactive as a reference picture while continuing to store the long term reference IDR picture in the buffer; and

decoding the subsequent picture by forming a subsequent list of active reference pictures from the pictures in the buffer including, in response to at least one parameter in the signaling information, changing the indication of the long

term reference IDR picture from inactive to active as a reference picture and including the long term reference IDR picture in the subsequent list, and decoding a block from the subsequent picture using the long term reference IDR picture.

2. The decoder of claim 1 further configured to mark the long term reference picture as unused for reference and remove the long term reference picture from the buffer.

3. The decoder of claim 1 wherein the parameter is a time related parameter.

4. The decoder of claim 1 wherein the bitstream is a single view bitstream.