

WHAT IS CLAIMED IS:

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

_____ receive a bitstream;

5 _____ ~~construct, for a current block, a motion vector candidate list including a motion vector candidate having motion information that characterizes a global motion vector;~~

~~reorder~~coded picture, the coded picture including a first region having a first plurality of coding units and a second region having a second plurality of coding units;

10 _____ construct for each coding unit in the first region a motion vector candidate list, each motion vector candidate list ~~such that the~~ having a common motion vector, wherein the order of the motion vector candidates in each motion vector candidate list is determined without regard to frequency of use and the motion vector candidate having the motion information that characterizes the global motion vector is first in the reordered lists are ordered such that the common motion vector candidate list; and is first;

15 _____ ~~reconstruct pixel data~~decode the first plurality of the current block and coding units using the ~~reordered~~ common motion vector from the motion vector candidate list lists, whereby a picture region with common motion is reconstructed in the first region;

20 _____ ascertain from the bitstream individually determined motion vectors for each coding unit of the second region, wherein adjacent coding units in the second region have different individually determined motion vectors, each individually determined motion vector being one of a translational motion vector or a control point motion vector for four parameter or six parameter affine motion; and

_____ decode the second plurality of coding units using the individually determined motion vectors, whereby local motion in the second region is reconstructed.

25 2. The decoder of claim 1, the decoder configured to determine global motion is indicated for ~~a current frame that includes the current block.~~ the coded picture.

30 3. The decoder of claim 1, wherein the ~~reordering includes inserting a first global~~ common motion vector candidate into the merge candidate list includes a control point motion vector.

4. The decoder of claim 1, ~~wherein the constructing of the motion vector candidate list includes the reordering.~~

5. ~~The decoder of claim 1, wherein the global motion vector includes a control point motion vector.~~

6. ~~The decoder of claim 53,~~ wherein the control point motion vector is a translational motion vector.

7. ~~The decoder of claim 53,~~ wherein the control point motion vector is a vector of a four parameter affine motion model.

8. The decoder of claim 53, wherein the control point motion vector is a vector of a six parameter affine motion model.

7. ~~The decoder of claim 1, the decoder further comprising:~~

9. ~~The decoder of claim 1, the decoder further comprising:~~
~~_____ an entropy decoder processor configured to receive the bit stream~~
_____ an entropy decoder processor configured to receive the ~~bit stream~~ 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, wherein at least a coding unit of the current block~~
first plurality of coding units forms part of a quadtree plus binary decision tree.

119. The decoder of claim 1, wherein at least a coding unit of the current block
first plurality of coding units is a coding tree unit.

10. ~~12.~~—The decoder of claim 1, wherein at least a coding unit of the current blockfirst plurality of coding units is a coding unit.

13.—The decoder of claim 1, wherein the current block is a prediction unit.

14.—A method comprising:

receiving, by a decoder, a bitstream;

constructing, for a current block, a motion vector candidate list including a motion vector candidate having motion information that characterizes a global motion vector;

reordering the motion vector candidate list such that the motion vector candidate having the motion information that characterizes the global motion vector is first in the reordered motion vector candidate list; and

reconstructing pixel data of the current block and using the reordered motion vector candidate list.

15.—The method of claim 14, the decoder configured to determine global motion is indicated for a current frame that includes the current block.

16.—The method of claim 14, wherein the reordering includes inserting a first global motion vector candidate into the merge candidate list.

17.—The method of claim 14, wherein the constructing of the motion vector candidate list includes the reordering.

18.—The method of claim 14, wherein the global motion vector includes a control point motion vector.

19.—The method of claim 18, wherein the control point motion vector is a translational motion vector.

20.—The method of claim 18, wherein the control point motion vector is a vector of a four parameter affine motion model;

21. — The method of claim 18, wherein the control point motion vector is a vector of a six parameter affine motion model.

22. — The method of claim 14, the decoder 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.

23. — The method of claim 14, wherein the current block forms part of a quadtree plus binary decision tree.

24. — The method of claim 14, wherein the current block is a coding tree unit;

25. — The method of claim 14, wherein the current block is a coding unit;

26. — The method of claim 14, wherein the current block is a prediction unit.

27. — The method of claim 14, wherein the global motion vector is characterized by a header of the bitstream, the header including a picture parameter set (PPS) or a sequence parameter set (SPS).

28. — The method of claim 14, wherein the motion vector candidate list is a merge vector candidate list.