

WHAT IS CLAIMED IS:

1. A decoder, the decoder comprising circuitry configured to:
receive a bitstream including a current coded block of a current picture;
5 detect a header for the current coded block in the bitstream;
determine, using the header, a global motion model for the current block, the global
motion model being one of translational motion, 4-parameter affine motion, or 6-
parameter affine motion, wherein parameters for the determined global motion model are
not explicitly signaled in the bitstream; and
10 decode the current block of the current picture using the determined global motion model.
2. The decoder of claim 1, wherein the header includes a sequence parameter set.
3. The decoder of claim 1, wherein the header includes a picture parameter set.
- 15 4. The decoder of claim 1, wherein the global motion model includes a translational motion
model.
5. The decoder of claim 1, wherein the global motion model includes a four parameter
20 affine motion model.
6. The decoder of claim 1, wherein the global motion model includes a six parameter affine
motion model.
- 25 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;
30 a deblocking filter;
a frame buffer; and

an intra prediction processor.

8. The decoder of claim 1, wherein the current block forms part of a quadtree plus binary decision tree.

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9. The decoder of claim 1, wherein the current block is a coding tree unit.

10. The decoder of claim 1, wherein the current block is a coding unit.

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