

WHAT IS CLAIMED IS:

1. A decoder, the decoder comprising circuitry configured to:
receive a bitstream;
5 extract from the bitstream a parameter set associated with a coded picture in the
bitstream, wherein the parameter set includes a signal indicating that a global
motion model is enabled, the global motion model comprising an affine motion
model using control point vectors; and
decode the coded picture using a motion model for each block of the coded picture, the
10 motion model for each block having a complexity that is no greater than a
complexity of the global motion model, wherein the complexity of a motion
model is a function of a number of motion vectors needed to decode a block.
2. The decoder of claim 1, wherein the parameter set includes a sequence parameter set
15 (SPS).
3. The decoder of claim 1, wherein the global motion model includes a four-parameter
affine motion model.
- 20 4. The decoder of claim 1, wherein the motion model includes a six-parameter affine motion
model.
5. The decoder of claim 1, wherein each block is a coding tree unit.
- 25 6. The decoder of claim 1, wherein each block is a coding unit.
7. The decoder of claim 1, wherein each block in the coded picture is decoded using a
translational motion model.

8. The decoder of claim 1, wherein each block of a first region of the coded picture is decoded using the global motion model and each block in a second region of the coded picture is decoded using a translational motion model.

5 9. The decoder of claim 1, wherein the global motion model is a six-parameter affine motion model, each block in a first region of the coded picture is decoded using the global motion model, and each blocks of a second region of the coded picture is decoded using one or both of a four-parameter affine motion model and a translational motion model.

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