

CLAIMS

1. A three-dimensional (3D) video encoder comprising:

circuitry to generate a flag associated with a block of a depth view of multiview video, the flag to indicate the block of the depth view is encoded based on inherited prediction parameters associated with a block of a texture view of the multiview video, wherein the depth view and the texture view are of a same view, the block of the depth view and the block of the texture view are co-located, and the prediction parameters comprise at least a motion vector and a reference index;

circuitry to encode the flag and the prediction parameters into a bitstream representing 3D video, wherein the block of the texture view comprises video information for rendering a picture including luminance and chroma samples and the block of the depth view comprises information corresponding to the block of the texture view for forming 3D video comprising depth values on a per-pixel basis;

circuitry to determine a mode decision for the block of the depth view based on a set of best prediction parameters from locally derived prediction parameters or the inherited prediction parameters; and

circuitry to generate at least one locally derived prediction parameter for the block of the depth view, wherein the circuitry to encode is further to encode the at least one locally derived prediction parameter into the bitstream.

2. The 3D video encoder of claim 1, wherein the block of the depth view is larger than or smaller than the block of the texture view.

3. The 3D video encoder of claim 1, wherein the flag indicates use of inherited prediction parameters on a per-sequence, per-view, per-slice, per-picture, per-coding unit (CU), or per-prediction unit (PU) level.
4. The 3D video encoder of claim 1, wherein the prediction parameters further comprise at least one of a picture coding structure, an inter, intra, or hybrid prediction mode, or a partition size and shape.
5. The 3D video encoder of claim 1, wherein the same view comprises a same camera perspective or angle.
6. The 3D video encoder of claim 1, wherein the circuitry to encode is further to encode a second block based on second inherited prediction parameters associated with a third block, wherein the second block and third block are from different views.
7. The 3D video encoder of claim 6, wherein the second inherited prediction parameters comprise at least one second motion vector and at least one second reference index, the second block comprises a depth view block or a texture view block, and the third block comprises a depth view block or a texture view block.
8. A system comprising:
a display; and
a three-dimensional (3D) video encoder including:

circuitry to generate a flag associated with a block of a depth view of multiview video, the flag to indicate the block of the depth view is encoded based on inherited prediction parameters associated with a block of a texture view of the multiview video, wherein the depth view and the texture view are of a same view, the block of the depth view and the block of the texture view are co-located, and the prediction parameters comprise at least a motion vector and a reference index;

circuitry to encode the flag and the prediction parameters into a bitstream representing 3D video, wherein the block of the texture view comprises video information for rendering a picture including luminance and chroma samples and the block of the depth view comprises information corresponding to the block of the texture view for forming 3D video comprising depth values on a per-pixel basis;

circuitry to determine a mode decision for the block of the depth view based on a set of best prediction parameters from locally derived prediction parameters or the inherited prediction parameters; and

circuitry to generate at least one locally derived prediction parameter for the block of the depth view, wherein the circuitry to encode is further to encode the at least one locally derived prediction parameter into the bitstream.

9. The system of claim 8, wherein the flag indicates use of inherited prediction parameters on a per-sequence, per-view, per-slice, per-picture, per-coding unit (CU), or per-prediction unit (PU) level.
10. The system of claim 8, wherein the prediction parameters further comprise at least one of a picture coding structure, an inter, intra, or hybrid prediction mode, or a partition size and shape.

11. The system of claim 8, wherein the circuitry to encode is further to encode a second block based on second inherited prediction parameters associated with a third block, wherein the second block and third block are from different views.

12. A system comprising:

a graphics subsystem; and

a three-dimensional (3D) video encoder including:

circuitry to generate a flag associated with a block of a depth view of multiview video, the flag to indicate the block of the depth view is encoded based on inherited prediction parameters associated with a block of a texture view of the multiview video, wherein the depth view and the texture view are of a same view, the block of the depth view and the block of the texture view are co-located, and the prediction parameters comprise at least a motion vector and a reference index;

circuitry to encode the flag and the prediction parameters into a bitstream representing 3D video wherein the block of the texture view comprises video information for rendering a picture including luminance and chroma samples and the block of the depth view comprises information corresponding to the block of the texture view for

forming 3D video comprising depth values on a per-pixel basis; and

circuitry to determine a mode decision for the block of the depth view based on a set of best prediction parameters from locally derived prediction parameters or the inherited prediction parameters; and

circuitry to generate at least one locally derived prediction parameter for the block of the depth view, wherein the circuitry to encode is further to encode the at least one locally derived prediction parameter into the bitstream.

13. The system of claim 12, wherein the flag indicates use of inherited prediction parameters on a per-sequence, per-view, per-slice, per-picture, per-coding unit (CU), or per-prediction unit (PU) level.

14. The system of claim 12, wherein the prediction parameters further comprise at least one of a picture coding structure, an inter, intra, or hybrid prediction mode, or a partition size and shape.

15. The system of claim 12, wherein the circuitry to encode is further to encode a second block based on second inherited prediction parameters associated with a third block, wherein the second block and third block are from different views.

16. A non-transitory computer readable medium having a computer program including instructions to cause a processor to:

generate a flag associated with a block of a depth view of multiview video, the flag to indicate the block of the depth view is encoded based on inherited prediction parameters associated with a block of a texture view of the multiview video, wherein the depth view and the texture view are of a same view, the block of the depth view and the block of the texture view are co-located, and the prediction parameters comprise at least a motion vector and a reference index;

encode the flag and the prediction parameters into a bitstream representing 3D video wherein the block of the texture view comprises video information for rendering a picture including luminance and chroma samples and the block of the depth view comprises information corresponding to the block of the texture view for forming 3D video comprising depth values on a per-pixel basis;

determine a mode decision for the block of the depth view based on a set of best prediction parameters from locally derived prediction parameters or the inherited prediction parameters;

generate at least one locally derived prediction parameter for the block of the depth view;
and

encode the at least one locally derived prediction parameter into the bitstream.

17. The computer readable medium of claim 16, wherein the flag indicates use of inherited prediction parameters on a per-sequence, per-view, per-slice, per-picture, per-coding unit (CU), or per-prediction unit (PU) level.

18. The computer readable medium of claim 16, wherein the prediction parameters further comprise at least one of a picture coding structure, an inter, intra, or hybrid prediction mode, or a partition size and shape.

19. The computer readable medium of claim 16, wherein the computer program further includes instructions to cause the processor to:

encode a second block based on second inherited prediction parameters associated with a third block, wherein the second block and third block are from different views.