

CLAIMS

What is claimed is:

1. A method of point cloud coding (PCC) implemented by a video decoder, comprising:
receiving an encoded bitstream including a data unit header and a data unit, the data unit header containing a type indicator specifying a type of content carried in a payload of the data unit; and
decoding the encoded bitstream.
2. A method of point cloud coding (PCC) implemented by a video encoder, comprising:
generating an encoded bitstream including a data unit header and a data unit, the data unit header containing a type indicator specifying a type of content carried in a payload of the data unit; and
transmitting the encoded bitstream toward a decoder.
3. The method of any of claims 1 to 2, wherein the data unit header is a PCC network abstraction layer (NAL) unit header.
4. The method of any of claims 1 to 2, wherein the data unit is a PCC NAL unit.
5. The method of any of claims 1 to 4, wherein the type indicator specifies that the type of content is a geometry component.
6. The method of any of claims 1 to 4, wherein the type indicator specifies that the type of content is a texture component.
7. The method of any of claims 1 to 4, wherein the type indicator specifies that the type of content is a geometry component or a texture component.
8. The method of any of claims 1 to 7, wherein the type indicator specifies that the type of content is auxiliary information.
9. The method of any of claims 1 to 8, wherein the type indicator specifies that the type of content is an occupancy map.

10. The method of any of claims 1 to 9, wherein the payload comprises a High Efficiency Video Coding (HEVC) NAL unit.
11. The method of any of claims 1 to 9, wherein the payload comprises an Advanced Video Coding (AVC) NAL unit.
12. The method of any of claims 1 to 11, wherein the type indicator comprises five bits.
13. The method of any of claims 1 to 11, wherein the type indicator comprises seven bits.
14. The method of any of claims 1 to 5 and 7, wherein the geometry component comprises a set of coordinates associated with a point cloud frame.
15. The method of claim 14, wherein the set of coordinates are Cartesian coordinates.
16. The method of any of claims 1 to 4 and 6 to 7, wherein the texture component comprises a set of luma sample values of a point cloud frame.
17. A coding apparatus, comprising:
 - a receiver configured to receive a picture to encode or to receive a bitstream to decode;
 - a transmitter coupled to the receiver, the transmitter configured to transmit the bitstream to a decoder or to transmit a decoded image to a display;
 - a memory coupled to at least one of the receiver or the transmitter, the memory configured to store instructions; and
 - a processor coupled to the memory, the processor configured to execute the instructions stored in the memory to perform the method in any of claims 1 to 16.
18. The coding apparatus of claim 17, further comprising a display configured to display an image.
19. A system, comprising:
 - an encoder; and
 - a decoder in communication with the encoder, wherein the encoder or the decoder includes the coding apparatus of any of claims 17 to 18.

20. A means for coding, comprising:
- receiving means configured to receive a picture to encode or to receive a bitstream to decode;
 - transmission means coupled to the receiving means, the transmission means configured to transmit the bitstream to a decoder or to transmit a decoded image to a display means;
 - storage means coupled to at least one of the receiving means or the transmission means, the storage means configured to store instructions; and
 - processing means coupled to the storage means, the processing means configured to execute the instructions stored in the storage means to perform the method in any of claims 1 to 16.