

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 group of frames header disposed outside a coded representation of a texture component or a geometry component and identifying a video codec used for coding the texture component or the geometry component; 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 group of frames header disposed outside a coded representation of a texture component or a geometry component and identifying a video codec used for coding the texture component or the geometry component; and
transmitting the encoded bitstream toward a decoder.
3. The method of any of claims 1 to 2, wherein the coded representation is included in a payload of a PCC network abstraction layer (NAL) unit.
4. The method of any of claims 1 to 3, wherein the payload of the PCC NAL unit contains the geometry component corresponding to the video codec.
5. The method of any of claims 1 to 3, wherein the payload of the PCC NAL unit contains the texture component corresponding to the video codec.
6. The method of any of claims 1 to 5, wherein the video codec is high efficiency video coding (HEVC).
7. The method of any of claims 1 to 5, wherein the video codec is advanced video coding (AVC).
8. The method of any of claims 1 to 5, wherein the video codec is versatile video coding (VVC).

9. The method of any of claims 1 to 5, wherein the video codec is essential video coding (EVC).
10. The method of any of claims 1 to 9, wherein the geometry component comprises a set of coordinates associated with a point cloud frame.
11. The method of claim 10, wherein the set of coordinates are Cartesian coordinates.
12. The method of any of claims 1 to 11, wherein the texture component comprises a set of luma sample values of a point cloud frame.
13. 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 12.
14. The coding apparatus of claim 6, further comprising a display configured to display an image.
15. 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 13 to 14.
16. 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 12.