

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, the group of frames header specifying a profile and a level of the encoded bitstream; 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, the group of frames header specifying a profile and a level of the encoded bitstream; and
transmitting the encoded bitstream toward a decoder.
3. The method of any of claims 1 to 2, wherein the group of frames header is a group of frames network abstraction layer (NAL) unit.
4. The method of any of claims 1 to 3, wherein the group of frames header is configured to carry group of frames header parameters.
5. The method of any of claims 1 to 4, wherein at least one of occupancy information, geometry information, and attribute information are included in the group of frames header parameters.
6. The method of any of claims 1 to 5, wherein the group of frames header specifies the profile and the level for decoding auxiliary information for an occupancy map.
7. The method of any of claims 1 to 6, wherein the group of frames header specifies a point cloud reconstruction process that utilizes decoding results of geometry, texture, auxiliary information, and occupancy map.
8. The method of any of claims 1 to 6, wherein the profile or the level indicates capabilities for decoding of auxiliary information and occupancy map components.

9. The method of any of claims 1 to 6, wherein the profile or the level indicates the capabilities for point cloud reconstruction.
10. The method of any of claims 1 to 6, wherein the profile is a specified subset of syntax.
11. The method of any of claims 1 to 6, wherein the profile is a specified subset of coding tools.
12. The method of any of claims 1 to 6, wherein the level is a defined set of constraints on values that may be taken by syntax elements and variables.
13. The method of any of claims 1 to 6, wherein a combination of the profile and the level for the encoded bitstream represents a particular decoding capability required for decoding of the encoded bitstream.
14. 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 13.
15. The coding apparatus of claim 8, further comprising a display configured to display an image.
16. 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 14 to 15.

17. 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 13.