CLAIMS

1. A method for encoding N-dimensional data, comprising:

obtaining N-dimensional data, where N is equal to or greater than three,

encoding the N-dimensional data,

generating a data unit including the encoded N-dimensional data,

generating first information, and

generating a bitstream including the data unit and the first information,

wherein

in the encoding of the N-dimensional data, determining whether to use a continued context, and

the first information indicates whether to use the continued context.

2. The method according to claim 1, wherein

when it is determined not to use the continued context, a context used for the encoding is initialized at a leading data of the data unit.

3. The method according to claim 1, further comprising:

generating a data unit group including a plurality of data units,

wherein when it is determined not to use the continued context, a

context used for the encoding is initialized at a leading data of the data unit group.

4. The method according to claim 1, wherein

the data unit includes a plurality of sub-data units, and

when it is determined not to use the continued context, a context used for the encoding is initialized at a leading data of each sub-data unit.

5. The method according to claim 1, wherein

the data unit includes a plurality of sub-data units, and

for each sub-data unit, it is determined whether to use the continued context in its encoding.

6. The method according to claim 5, wherein

the plurality of sub-data units each include geometry information and attribute information.

7. The method according to claim 1, wherein

the data unit includes geometry information and attribute information, and

the first information is stored in metadata common to the geometry

information and the attribute information.

8. The method according to claim 1, wherein

the data unit includes geometry information and attribute information, the bitstream includes second information,

the first information indicates whether to use the continued context in the encoding of the geometry information, and

the second information indicates whether to use the continued context in the encoding of the attribute information.

9. The method according to claim 8, wherein

the first information is stored in metadata of the geometry information, and

the second information is stored in metadata of the attribute information.

10. A method for decoding N-dimensional data, comprising:

obtaining, from a bitstream, first information indicating whether to use a continued context,

obtaining, from the bitstream, a data unit including encoded N-dimensional data, where N is equal to or greater than three, and

decoding the data unit using the first information, and

in the decoding of the data unit, determining whether to use the continued context based on the first information.

11. The method according to claim 10, wherein

when it is determined not to use the continued context, a context used for the encoding is initialized at a leading data of the data unit.

12. The method according to claim 10, further comprising:

obtaining, from the bitstream, a data unit group including a plurality of data units,

wherein when it is determined not to use the continued context, a context used for the encoding is initialized at a leading data of the data unit group.

13. The method according to claim 10, wherein

the data unit includes a plurality of sub-data units, and

when it is determined not to use the continued context, a context used for the encoding is initialized at a leading data of each sub-data unit.

14. The method according to claim 10, wherein

the data unit includes a plurality of sub-data units, and

for each sub-data unit, it is determined whether to use the continued context in its decoding.

15. The method according to claim 14, wherein

the plurality of sub-data units each include geometry information and attribute information.

16. The method according to claim 10, wherein

the data unit includes geometry information and attribute information, and

the first information is stored in metadata common to the geometry information and attribute information.

17. The method according to claim 10, wherein

the data unit includes geometry information and attribute information,

the bitstream includes second information,

the first information indicates whether to use the continued context in the decoding of the geometry information, and

the second information indicates whether to use the continued context in the decoding of the attribute information.

18. The method according to claim 17, wherein

the first information is stored in metadata of the geometry information, and

the second information is stored in metadata of the attribute information.

19. An apparatus for encoding N-dimensional data, comprising:

a processor; and

memory, wherein

using the memory, the processor:

obtains N-dimensional data, where N is equal to or greater than three,

encodes the N-dimensional data,

generates a data unit including the encoded N-dimensional data,

generates first information, and

generates a bitstream including the data unit and the first information,

wherein

in the encoding of the N-dimensional data, the processor determines whether to use a continued context, and

the first information indicates whether to use the continued context.

20. An apparatus for decoding N-dimensional data, comprising:

a processor; and

memory, wherein

using the memory, the processor:

obtains, from a bitstream, first information indicating whether to use a continued context,

obtains, from the bitstream, a data unit including encoded N-dimensional data, where N is equal to or greater than three, and

decodes the data unit using the first information,

wherein, in the decoding of the data unit, determines whether to use the continued context based on the first information.