Claims

1. A method of predictive-encoding a multi-view image, the method comprising:

determining whether each of pictures included in multi-view image sequences is a reference picture referred to by others of the pictures included in the multi-view image sequences for inter-view prediction to generate a determination result; and

encoding the pictures using at least one of inter-view prediction and temporal prediction based on the determination result,

wherein pictures that are determined not to be referred to for inter-view prediction encoding are not stored.

2. The method of claim 1, wherein the information indicating whether each of pictures included in multi-view image sequences is the reference picture is included in a network abstraction layer (NAL) unit header.

3. The method of claim 1, wherein the encoding the pictures comprises encoding information about reference pictures referred to by each of the pictures for at least one of inter-view prediction and temporal prediction based on the determination result.

4. An apparatus for predictive-encoding a multi-view image, the apparatus comprising:

a determination unit that determines whether each of pictures included in multi-view image sequences is a reference picture referred to by others of the pictures included in the multi-view image sequences for inter-view prediction to generate a determination result; and

an encoding unit that encodes the pictures using at least one of inter-view prediction and temporal prediction based on the determination result,

wherein pictures that are determined not to be referred to for inter-view prediction encoding are not stored.

5. The apparatus of claim 4, wherein the information indicating whether

each of pictures included in multi-view image sequences is the reference picture is included in a network abstraction layer (NAL) unit header.

6. The apparatus of claim 4, wherein the encoding unit encodes information about reference pictures referred to by each of the pictures for at least one of inter-view prediction and temporal prediction based on the determination result.

7. A method of predictive-decoding a multi-view image, the method comprising:

receiving a bitstream comprising information indicating whether each of pictures included in multi-view image sequences is a reference picture referred to by others of the pictures included in the multi-view image sequences for inter-view prediction and data about the multi-view image sequences;

extracting the information and the data about the multi-view image sequences from the received bitstream; and

determining whether pictures included in the data about the multi-view image sequences are to be used for inter-view prediction decoding based on the extracted information,

wherein pictures that are determined not to be referred to for inter-view prediction decoding are not stored.

8. The method of claim 7, wherein the information indicating whether each of pictures included in multi-view image sequences is the reference picture is included in a network abstraction layer (NAL) unit header for each of the pictures.

9. The method of claim 9, wherein the extracting the information and the data further comprises extracting information about reference pictures referred to by each of the pictures for at least one of inter-view prediction and temporal prediction.

10. An apparatus for predictive-decoding a multi-view image, the apparatus comprising:

an extraction unit that receives a bitstream comprising information indicating whether each of pictures included in multi-view image sequences is a reference picture referred to by others of the pictures included in the multi-view image

sequences for inter-view prediction and data about the multi-view image sequences, and extracts the information and the data about the multi-view image sequences from the received bitstream; and

a decoding unit that determines whether pictures included in the data about the multi-view image sequences are to be used for inter-view prediction decoding based on the extracted information to generate a determination result, and decoding the multi-view image sequences based on the determination result,

wherein pictures that are determined not to be referred to for inter-view prediction decoding are not stored.

11. The apparatus of claim 10, wherein the information indicating whether each of pictures included in multi-view image sequences is the reference picture is included in a network abstraction layer (NAL) unit header for each of the pictures.

12. The apparatus of claim 10, wherein the extraction unit extracts information about reference pictures referred to by each of the pictures for at least one of inter-view prediction and temporal prediction.

13. A computer-readable recording medium having recorded thereon a program for executing the method of any one of claims 1-3 and claims 7-9.

Claims

1. A method of predictive-decoding a multi-view image, the method comprising:

receiving a bitstream comprising information indicating whether a picture in one view image sequence included in multi-view image sequences is a reference picture referred to by others in another view image included in the multi-view image sequences for inter-view prediction and data about the multi-view image sequences;

extracting the information and the data about the multi-view image sequences from the received bitstream;

determining whether pictures included in the data about the multi-view image sequences are to be used for inter-view prediction decoding based on the extracted information; and

performing predictive-decoding based on a result of the determination by storing in a memory pictures which are reference pictures referred to by others in another view image sequence for inter-view prediction and not storing pictures that are determined not to be reference pictures in the memory.

2. The method of claim 1, wherein the information indicating whether each of pictures included in multi-view image sequences is the reference picture is included in a network abstraction layer (NAL) unit header for each of the pictures.

3. A non-transitory computer-readable recording medium having recorded thereon a program for executing the method of claim 2.

4. The method of claim **1**, wherein the extracting the information and the data further comprises extracting information about reference pictures referred to by each of the pictures for at least one of inter-view prediction and temporal prediction.

5. A non-transitory computer-readable recording medium having recorded thereon a program for executing the method of claim **4**.

6. A non-transitory computer-readable recording medium having recorded thereon a program for executing the method of claim **1**.

7. An apparatus for predictive-decoding a multi-view image, the apparatus comprising:

an extraction unit that receives a bitstream comprising information indicating whether a picture in one view image sequence included in multi-view image sequences is a reference picture referred to by others in another view image included in the multi-view image sequences for inter-view prediction and data about the multi-view image sequences, and extracts the information and the data about the multi-view image sequences from the received bitstream; and

a decoding unit that determines whether pictures included in the data about the multi-view image sequences are to be used for inter-view prediction decoding based on the extracted information to generate a determination result, and performs predictive-decoding on the multi-view image sequences by storing in a memory pictures which are reference pictures referred to by others in another view image sequence for inter-view prediction and not storing pictures that are determined not to be reference

pictures in the memory based on the determination result.

8. The apparatus of claim **7**, wherein the information indicating whether each of pictures included in multi-view image sequences is the reference picture is included in a network abstraction layer (NAL) unit header for each of the pictures.

9. The apparatus of claim **7**, wherein the extraction unit extracts information about reference pictures referred to by each of the pictures for at least one of inter-view prediction and temporal prediction.