Non-Patent Document 1: MPEG-DASH (Dynamic Adaptive Streaming over HTTP) (URL:http://mpeg.chiariglione.org/standards/mpeg-dash/media-presentation-description-and-segment-formats/text-isoiec-23009-12012-dam-1)

SUMMARY OF THE INVENTION

PROBLEMS TO BE SOLVED BY THE INVENTION

[0005]

However, no consideration is given to an improvement in efficiency of acquiring a predetermined type of audio data among a plurality of types of audio data of a video content.

[0006]

Embodiments of the present invention are capable of improving the efficiency of acquiring a predetermined type of audio data among a plurality of types of audio data.

SOLUTIONS TO PROBLEMS

[0007]

According to a first aspect of the present invention, there is provided an information processing apparatus, comprising: a file generation unit configured to: allocate a first track of a plurality of tracks for a corresponding type of audio data of a plurality of types of audio data in an audio stream, wherein the audio stream includes the plurality of types of audio data which correspond to the plurality of tracks; and generate a file that includes the plurality of tracks.

[0008]

According to a second aspect of the present invention, there is provided an information processing method, comprising: allocating, by an information processing apparatus, a track of a

plurality of tracks for a corresponding type of audio data of a plurality of types of audio data in an audio stream, wherein the audio stream includes the plurality of types of audio data which correspond to the plurality of tracks; and generating a file that includes the plurality of tracks.

[0009]

In an embodiment, audio data of the predetermined track in the file in which the plurality of types of audio data are divided into the plurality of tracks depending on the types and the tracks arranged is acquired.

[0010]

Disclosed herein is an information processing apparatus including a generation unit that generates a file in which a plurality of types of audio data are divided into a plurality of tracks depending on the types and the tracks are arranged.

[0011]

Disclosed herein is an information processing method according to the above disclosed information processing apparatus.

[0012]

In an embodiment, the file in which the plurality of types of audio data are divided into the plurality of tracks depending on the types and the tracks are arranged is generated.

[0013]

Note that the information processing apparatuses according to the above aspects can be implemented by causing a computer to execute a program.

[0014]

Further, in order to achieve the information processing apparatuses according to the above aspects, a program executed by a computer can be provided by transmitting the program via a

transmission medium, or by recording the program in a recording medium.

EFFECTS OF THE INVENTION

[0015]

According to the above aspect of the presentinvention, audio data can be acquired. Further, according to the above aspect of the present invention, a predetermined type of audio data among a plurality of types of audio data can be acquired efficiently.

[0016]

According to the above aspect of the present invention, a file can be generated. Further, according to the above aspect of the present invention, a file that improves the efficiency of acquiring a predetermined type of audio data among a plurality of types of audio data can be generated.

BRIEF DESCRIPTION OF DRAWINGS

[0017]

Fig. 1 is a diagram illustrating an outline of a first example of an information processing system to which the present disclosure is applied.

Fig. 2 is a diagram showing an example of a file.

Fig. 3 is a diagram illustrating an object.

Fig. 4 is a diagram illustrating object position information.

Fig. 5 is a diagram illustrating image frame size information.

Fig. 6 is a diagram showing a structure of an MPD file.

Fig. 7 is a diagram showing a relationship among

CLAIMS

1. An information processing apparatus, comprising:

a file generation unit configured to:

allocate a first track of a plurality of tracks for a corresponding type of audio data of a plurality of types of audio data in an audio stream,

wherein the audio stream includes the plurality of types of audio data which correspond to the plurality of tracks; and

generate a file that includes the plurality of tracks.

2. The information processing apparatus according to claim 1, wherein the plurality of types of audio data comprises Channel audio, Object audio, HOA audio, and metadata.

3. The information processing apparatus according to claim 1, further comprising a coding unit configured to encode the plurality of types of audio data for each of the plurality of types of audio data in the audio stream.

4. The information processing apparatus according to claim 2, wherein the file generation unit is further configured to:

allocate different tracks of the plurality of tracks to audio data of each object in the audio stream; and

allocate a second track to the meta data, wherein the second track is different from the plurality of tracks of the audio data,

wherein the audio stream includes the plurality of types of audio data, and wherein the plurality of types of audio data comprises audio data of a plurality of objects and metadata corresponding to the audio data of each of the plurality of objects.

5. The information processing apparatus according to claim 1, wherein the file generation unit is further configured to generate a single file that includes the plurality of tracks.

6. The information processing apparatus according to claim 1, wherein the file generation unit is further configured to generate a plurality of files in which the plurality of tracks are arranged for each of the plurality of files.

7. The information processing apparatus according to claim 1, wherein the file is configured such that information about the plurality of types of audio data is arranged as a base track, wherein the base track is a track different from the plurality of tracks.

8. The information processing apparatus according to claim 7, wherein the information about the plurality of types of audio data includes image frame size information, wherein the image frame size information indicates an image frame size of image data corresponding to the each of the plurality of types of audio data.

9. The information processing apparatus according to claim 7, wherein the information about the plurality of types of audio data includes information indicating a position of each of the plurality of types of audio data in the file.

10. The information processing apparatus according to claim 7, wherein the information indicating a first position of each of the plurality of types of audio data in the file and metadata of each of the plurality of types of audio data are arranged in the base track.

11. The information processing apparatus according to claim 10, wherein the metadata of each of the plurality of types of audio data includes information indicating a second position where the corresponding type of audio data is acquired.

12. The information processing apparatus according to claim 1, wherein the file is configured to include information indicating a reference relationship of the first with a second track, wherein the second track is different from the first track.

13. The information processing apparatus according to claim 1, wherein the file is configured to include codec information of the plurality of types of audio data which correspond to the plurality of tracks.

14. The information processing apparatus according to claim 1, wherein a specific type of audio data of the plurality of types of audio data is information indicating a position where a first type of audio data of the plurality of types of audio data is acquired, and wherein the first type of audio data is different from the specific type of audio data.

15. An information processing method, comprising:

allocating, by an information processing apparatus, a track of a plurality of tracks for a corresponding type of audio data of a plurality of types of audio data in an audio stream,

wherein the audio stream includes the plurality of types of audio data which correspond to the plurality of tracks; and

generating a file that includes the plurality of tracks.