[0007] In view of the above-described circumstances, it is desirable to handle sound data appropriately.

Solution to Problem

[0008] According to a first aspect, there is provided an information processing apparatus including: circuitry configured to receive a multiplexed image signal and sound signal from another information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS); and perform control to cause reduction of data contained in a packetized elementary stream (PES) payload in a PES packet packed in a transport (TS) packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT) and to extract a presentation time stamp (PTS) contained in a PES header portion of the PES packet after requesting the another information processing apparatus to reduce a sound data amount

[0009] In the first embodiment, the controller may make the request to the another information processing apparatus based on a first trigger. In this manner, an embodiment of the present disclosure exerts an effect of making a request to another information processing apparatus based on the first trigger.

[0010] In the first aspect, the controller may specify, when making the request to the another information processing apparatus, one of the first sound data reduction method in which the MPEG2-TS multiplex signal containing the PES packet carrying sound data is generated and transmitted and a second sound data reduction method in which the MPEG2-TS multiplex signal not containing the PES packet carrying sound data is generated and transmitted. In this manner, an embodiment of the present disclosure exerts an effect of specifying, when making a request to another information processing apparatus, one of the first sound data reduction method in which an MPEG2-TS multiplex signal containing a PES packet carrying sound data is generated and transmitted and the second sound data reduction method in which an MPEG2-TS multiplex signal not containing a PES packet carrying sound data is generated and transmitted.

[0011] In the first aspect, the controller may perform control to extract sound data contained in the PES payload when requesting the another information processing apparatus to restore an original sound data amount based on a second trigger while receiving the MPEG2-TS multiplex signal in which the sound data amount is reduced and performing demultiplexing on the MPEG2-TS multiplex signal received from the another information processing apparatus after the request. In this manner, an embodiment of the present disclosure exerts an effect of extracting sound data contained in a PES payload when requesting another information processing apparatus to restore an original sound data amount based on the second trigger while receiving an MPEG2-TS multiplex signal in which a sound data amount is reduced and performing demultiplexing on an MPEG2-TS multiplex signal received from another information processing apparatus after the request.

[0012] In the first aspect, the first trigger and the second trigger may be caused by user operation. In this manner, an embodiment of the present disclosure exerts an effect of using the first trigger and the second trigger caused by user operation.

[0013] In the first aspect, the first trigger may be caused by detection of a user exiting around the information processing apparatus or movement of the user. In this manner, an embodiment of the present disclosure exerts an effect of using the first trigger caused by detection of a user existing around an information processing apparatus or the movement of the user.

[0014] In the first aspect, the controller may retain a sound volume setting value of sound

output before the request is made, requests the another information processing apparatus to restore an original sound data amount, and sets the retained sound volume setting value at timing when sound data contained in the PES payload is extracted after the request. In this manner, an embodiment of the present disclosure exerts an effect of retaining a sound volume setting value of sound output before a request is made, requesting another information processing apparatus to restore an original sound data amount, and setting the retained sound volume setting value at timing when sound data contained in a PES payload is extracted after the request.

[0015] According to a second aspect, there is provided an information processing apparatus including: circuitry configured to transmit a multiplexed image signal and sound signal to another information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS); and perform control to reduce a packetized elementary stream (PES) payload data amount in a PES packet stored in a TS packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT), based on a request from the another information processing apparatus, without changing the PID and to multiplex and transmit the PES packet for sound signal transmission in which the data amount is reduced and the PES packet for image signal transmission.

[0016] In the second aspect, the controller may perform control to reduce a data amount, when requested to reduce a sound data amount from the another information processing apparatus, by making the PES payload data amount to substantially zero or completely zero. In this manner, an embodiment of the present disclosure exerts an effect of reducing a data amount, when requested to reduce a sound data amount from another information processing apparatus, by making a PES payload data amount to substantially zero or completely zero.

[0017] In the second aspect, the controller may perform control to store, when requested to restore an original sound data amount from the another information processing apparatus while transmitting the PES packet for sound signal transmission in which the data amount is reduced by the first sound data reduction and the PES packet for image signal transmission after multiplexing, normal sound data in the PES payload, and to multiplex and transmit the PES packet for sound signal transmission and the PES packet for image signal transmission. In this manner, an embodiment of the present disclosure exerts an effect of storing, when requested to restore an original sound data amount from another information processing apparatus while transmitting a PES packet for sound signal transmission in which the data amount is reduced by the first sound data reduction and a PES packet for image signal transmission after multiplexing them, normal sound data in a PES payload, and multiplexing and transmitting the PES packet for sound signal transmission and the PES packet for image signal transmission.

[0018] In the second aspect, the controller may perform control to perform, when requested to use sound data reduction other than the first sound data reduction to reduce a sound data amount from the another information processing apparatus, second sound data reduction in which the PES packet carrying sound data is not generated without including information of the PID specifying sound data in the PMT, and to transmit a PES packet for image signal transmission without multiplexing a PES packet for sound signal transmission. In this manner, an embodiment of the present disclosure exerts an effect of performing, when requested to use sound data reduction other than the first sound data reduction to reduce a sound data amount from another information processing apparatus, the second sound data reduction in which a PES packet carrying sound data is not

generated without including information of a PID specifying sound data in a PMT, and transmitting a PES packet for image signal transmission without multiplexing a PES packet for sound signal transmission.

[0019] In the second aspect, the controller may perform control to store, when requested to restore an original sound data amount from the another information processing apparatus while transmitting the PES packet for image signal transmission without multiplexing the PES packet for sound signal transmission after the second sound data reduction is performed, normal sound data in the PES payload with the PID specifying sound data transmission included in the PMT, and to multiplex and transmit the PES packet for sound signal transmission and the PES packet for image signal transmission. In this manner, an embodiment of the present disclosure exerts an effect of storing, when requested to restore an original sound data amount from another information processing apparatus while transmitting a PES packet for image signal transmission without multiplexing a PES packet for sound signal transmission after the second sound data reduction is performed, normal sound data in a PES payload with a PID specifying sound data transmission included in a PMT, and multiplexing and transmitting a PES packet for sound signal transmission and a PES packet for image signal transmission.

[0020] Disclosed herein is a communication system including: a first information processing apparatus configured to wirelessly transmit a multiplexed image signal and sound signal to a second information processing apparatus using an MPEG2-TS, reduce a PES payload data amount in a PES packet stored in a TS packet specified by a PID specifying sound data transmission described in a PMT, based on a request from the second information processing apparatus, without changing the PID, to perform first sound data reduction in which a PES packet containing a PTS in a PES header portion is generated, and to multiplex and transmit the PES packet for sound signal transmission in which the data amount is reduced and the PES packet for image signal transmission; and a second information processing apparatus configured to discard data contained in the PES payload in the PES packet stored in the TS packet specified by the PID specifying sound data transmission described in the PMT and to extract the PTS contained in the PES header portion, when requesting the first information processing apparatus to reduce a sound data amount while receiving the multiplexed image signal and sound signal from the first information processing apparatus using the MPEG2-TS and performing demultiplexing on an MPEG2-TS multiplex signal received from the first information processing apparatus after the request. In this manner, an embodiment of the present disclosure exerts an effect that the first information processing apparatus reduces a PES payload data amount in a PES packet stored in a TS packet specified by a PID specifying sound data transmission described in a PMT, based on a request from the second information processing apparatus, without changing the PID, performs the first sound data reduction in which a PES packet containing a PTS in a PES header portion is generated, and multiplexes and transmits a PES packet for sound signal transmission in which the data amount is reduced and a PES packet for image signal transmission, and the second information processing apparatus discards data contained in a PES payload in a PES packet stored in a TS packet specified by a PID specifying sound data transmission described in a PMT and extracts a PTS contained in a PES header portion, when requesting the first information processing apparatus to reduce a sound data amount and performing demultiplexing on an MPEG2-TS multiplex signal received from the first information processing apparatus after the request.

[0020a] According to a third aspect, there is provided a communication system including:

a first information processing apparatus having circuitry configured to transmit a multiplexed image signal and sound signal to a second information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS), reduce a packetized elementary stream (PES) payload data amount in a PES packet packed in a TS packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT), based on a request from the second information processing apparatus, without changing the PID, and to multiplex and transmit the PES packet for sound signal transmission in which the data amount is reduced and the PES packet for image signal transmission; and a second information processing apparatus having circuitry configured to cause reduction of data contained in the PES payload in the PES packet packed in the TS packet specified by the PID specifying sound data transmission described in the PMT and to extract the PTS contained in the PES header portion after transmitting the request to the another information processing apparatus to reduce a sound data amount.

[0020b] According to a fourth aspect, there is provided an information processing method, implemented by an information processing apparatus, including: performing, by circuitry of the information processing apparatus, communication to receive a multiplexed image signal and sound signal from another information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS); and performing, by the circuitry of the information processing apparatus, control to cause reduction of data contained in a packetized elementary stream (PES) payload in a PES packet packed in a TS packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT) and to extract a PTS contained in a PES header portion after requesting the another information processing apparatus to reduce a sound data amount.

[0020c] According to a fifth aspect, there is provided an information processing method including: performing, by circuitry of the information processing apparatus, communication to transmit a multiplexed image signal and sound signal to another information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS); and performing, by the circuitry of the information processing apparatus, control to reduce a packetized elementary stream (PES) payload data amount in a PES packet packed in a TS packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT), based on a request from the another information processing apparatus, without changing the PID, and to multiplex and transmit the PES packet for sound signal transmission in which the data amount is reduced and the PES packet for image signal transmission.

[0020d] According to a sixth aspect, there is provided a non-transitory computer readable medium that stores a program that when executed by an information processing apparatus causes the information processing apparatus to perform a method including: performing communication to receive a multiplexed image signal and sound signal from another information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS); and performing control to cause reduction of data contained in a packetized elementary stream (PES) payload in a PES packet packed in a TS packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT) and to extract a PTS contained in a PES header portion after requesting the another information processing apparatus to reduce a sound data amount.

[0020e] According to a seventh aspect, there is provided a non-transitory computer readable medium that stores a program that when executed by an information processing apparatus causes the information processing apparatus to perform a method including:

performing communication to transmit a multiplexed image signal and sound signal to another information processing apparatus using a moving picture experts group (MPEG) 2-transport stream (TS); and performing control to reduce a packetized elementary stream (PES) payload data amount in a PES packet packed in a TS packet specified by a packet identifier (PID) specifying sound data transmission described in a program map table (PMT), based on a request from the another information processing apparatus, without changing the PID, and to multiplex and transmit the PES packet for sound signal transmission in which the data amount is reduced and the PES packet for image signal transmission.

Advantageous Effects of Invention

[0021] Embodiments of the present disclosure exert an excellent effect of handling sound data appropriately. The effect described herein is not necessarily restrictive, and any of the effects described in the present disclosure may be exerted.

Brief Description of Drawings

[0022]

[fig.1] FIG. 1 is a diagram illustrating a configuration example of a communication system 10 according to the first embodiment of the present disclosure.

[fig.2] FIG. 2 is a block diagram illustrating a functional configuration example of an information processing apparatus 100 according to an embodiment of the present disclosure.

[fig.3] FIG. 3 is a sequence chart illustrating a communication processing example of a source device 50 and a sink device 60 that are bases of an embodiment of the present disclosure.

[fig.4] FIG. 4 is a sequence chart illustrating a communication processing example of a source device 50 and a sink device 60 that are bases of an embodiment of the present disclosure.

[fig.5] FIG. 5 is a sequence chart illustrating a communication processing example of a source device 50 and a sink device 60 that are bases of an embodiment of the present disclosure.

[fig.6] FIG. 6 is a diagram illustrating an example of an RTSP message exchanged between the source device 50 and the sink device 60 that are bases of an embodiment of the present disclosure.

[fig.7] FIG. 7 is a diagram illustrating an example of an RTSP message exchanged between the source device 50 and the sink device 60 that are bases of an embodiment of the present disclosure.

[fig.8] FIG. 8 is a diagram illustrating an example of information exchanged between information processing apparatuses according to the first embodiment of the present disclosure.

[fig.9] FIG. 9 is a diagram illustrating an example of information exchanged between information processing apparatuses according to the first embodiment of the present disclosure.

[fig.10] FIG. 10 is a diagram illustrating an example of information exchanged between information processing apparatuses according to the first embodiment of the present disclosure.