CLAIMS

1. A method of providing a time-synchronized multi-stream data transmission, which method includes the steps of:

providing a first recording or generating device for providing frames of a first data stream;

encoding the first data stream into packets, wherein each first data stream packet includes a presentation time and a predetermined number of first data stream frames;

providing a second recording or generating device for providing frames of a second data stream;

encoding the second data stream into packets, wherein each second data stream packet includes a presentation time and a predetermined number of second data stream frames;

transmitting the first and second data streams to a processing device;

associating a start reference time with the first packet of the first and second data streams transmitted;

assigning a first stream start time to the first packet of the first data stream transmitted and a second stream start time to the first packet of the second data stream transmitted;

associating a first time offset from the start reference time and first data stream start time with each subsequent packet of the first data stream and associating a second time offset from the start reference time and second data stream start time with each subsequent packet of the second data stream;

at the processing device, time-aligning the first data stream packets with the second data stream packets using the first time offset associated with the first data stream and using the second time offset associated with the second data stream;

at the processing device, applying a common presentation time to the aligned first and second data stream packets, irrespective of the original presentation time of the first and second data streams, thereby modifying values of the presentation times within the first and second data stream packets; and

distributing the first and second data stream packets containing the common presentation time from the processing device to a remote device for display, wherein the remote device is capable of processing the common presentation time contained within the distributed first and second data stream packets.

2. The method according to claim 1, wherein the first and second data streams comprise streams of video, audio or data.

3. The method according to claim 2, wherein the transmission includes a broadcast.

4. The method according to claim 3, wherein the start reference is: a time of day stamp; a derivation thereof; or an arbitrary time that is selected.

5. The method according to claim 4, wherein the time offset is determined: with reference to increments; or by comparing time of day stamps.

6. The method according to claim 4, wherein the processing device is a server.

7. The method according to claim 6, wherein the recording or generating device is a video recorder, a microphone or a device that generates data.

8. The method according to claim 7, wherein the first and second recording or generating devices apply the time of day stamp or time offset to each packet during recording or data generation.

9. The method according to claim 7, wherein the first and second recording or generating devices transmit the first and second data streams to the processing device and the processing device applies the time of day stamps or time offsets to the received first and second data stream packets upon receipt of the first and second data streams.

10. The method according to claim 9, wherein the time of day stamp includes at least one of GPS time stamps, NTP server time stamps, and manually created time stamps.

11. The method according to claim 10 , wherein the remote devices are not capable of processing time of day time or time offset stamps.

12. The method according to claim 11, wherein the remote devices are computers, TVs or smartphones.

13. The method according to claim 12, wherein the start reference time is associated to the time of day stamp of the first packet of the first and second data streams transmitted.

14. The method according to claim 13, wherein the processing device is a single processing device.

15. The method according to claim 13, wherein the processing device comprises first and second processing devices synchronized by the start reference time.

16. The method according to claim 15, wherein the start reference time is synchronized with a second processing device that receives a third data stream, such that the second processing device can time align the third data stream with the first and second data streams.