CLAIMS:

1. A method of processing events in a media stream, the method comprising:

obtaining media data;

generating, from the media data, one or more event segments;

appending the one or more event segments to a first event processing buffer, the one or more event segments comprising an event start offset for each of the one or more event segments based on a time at which the each of the one or more event segments is appended to the first event processing buffer;

appending the one or more event segments to a second event processing buffer, the one or more event segments comprising event dispatch information for the each of the one or more event segments; and

dispatching the one or more event segments based on the first event processing buffer and the event dispatch information in the second event processing buffer; generating one or more new event segments;

splitting the one or more event segments in the first event processing buffer and the second event processing buffer based on event duration of one or more new event segments; and

overwriting the one or more event segments in the first event processing buffer and the second event processing buffer based on the event duration of the one or more new event segments.

2. The method according to claim 1,wherein the appending of the one or more event segments to the first event processing buffer causes the each of the one or more event segments to align respective presentation time and duration of the each of the one or more event segments

with respective presentation time and duration of at least one associated media sample in a media buffer.

3. The method according to claim 1,wherein the event dispatch information comprises information indicating at least one of event initialization, event appending, event purging, event duration, or event overwrite.

4. The method according to claim 1,wherein the appending of the one or more event segments to the second event processing buffer comprises duplicating the appending of the one or more event segments to the first event processing buffer.

5. The method according to claim 1,wherein the appending of the one or more event segments to the second event processing buffer is based on the event dispatch information for the each of the one or more event segments.

6. The method according to claim 1, wherein the dispatching of the one or more event segments comprises:

determining whether the one or more event segments is included in a dispatch event table; and

based on determining that the one or more event segments is not included in the dispatch event table, dispatching the one or more event segments to an application.

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

after the dispatching of the one or more event segments, adding the one or more event segments to a dispatch event table.

8. The method according to claim 1, wherein the overwriting of the one or more event segments comprises:

determining that the one or more event segments in the first event processing buffer are not associated with a same media segment;

deleting the one or more event segments from the second event processing buffer;

deleting the one or more event segments from the first event processing buffer;andappending the one or more new event segments to the first event processing buffer and the second event processing buffer.

9. The method according to claim 1, wherein the each of the one or more event segments is associated with at least one media sample in a media buffer.

10. An apparatus for processing events in a media stream, the apparatus comprising:

at least one memory configured to store computer program code;

at least one processor configured to access the computer program code and operate as instructed by the computer program code, the computer program code including:

first obtaining code configured to cause the at least one processor to obtain media data;

first generating code configured to cause the at least one processor to generate, from the media data, one or more event segments;

first appending code configured to cause the at least one processor to append the one or more event segments to a first event processing buffer, the one or more event segments comprising an event start offset for each of the one or more event segments based on a time at which the each of the one or more event segments is appended to the first event processing buffer;

second appending code configured to cause the at least one processor to append the one or more event segments to a second event processing buffer, the one or more event segments comprising event dispatch information for the each of the one or more event segments;

and first dispatching code configured to cause the at least one processor to dispatch the one or more event segments based on the first event processing buffer and the event dispatch information in the second event processing buffer;

second generating code configured to cause the at least one processor to generate one or more new event segments;

first splitting code configured to cause the at least one processor to split the one or more event segments in the first event processing buffer and the second event processing buffer based on event duration of the one or more new event segments; and

first overwriting code configured to cause the at least one processor to overwrite the one or more event segments in the first event processing buffer and the second event processing buffer based on the event duration of the one or more new event segments.

11. The apparatus according to claim 10, wherein the appending of the one or more event segments to the first event processing buffer causes the each of the one or more event segments to align respective presentation time and duration of the each of the one or more event segments with respective presentation time and duration of at least one associated media sample in a media buffer.

12. The apparatus according to claim 10, wherein the event dispatch information comprises information indicating at least one of event initialization, event appending, event purging, event duration, or event overwrite.

13. The apparatus according to claim 10, wherein the appending of the one or more event segments to the second event processing buffer comprises duplicating the appending of the one or more event segments to the first event processing buffer.

14. The apparatus according to claim 10, wherein the appending of the one or more event segments to the second event processing buffer is based on the event dispatch information for the each of the one or more event segments.

15. The apparatus according to claim 10, wherein the first dispatching code further comprises:

first determining code configured to cause the at least one processor to determine whether the one or more event segments is included in a dispatch event table; and

second dispatching code configured to cause the at least one processor to, based on determining that the one or more event segments is not included in the dispatch event table, dispatch the one or more event segments to an application.

16. The apparatus according to claim 10, further comprising:

first addition code configured to cause the at least one processor to add the one or more event segments to a dispatch event table, after dispatching the one or more event segments.

17. The apparatus according to claim 10, wherein the first overwriting code further comprises:

second determining code configured to cause the at least one processor to determine that the one or more event segments in the first event processing buffer are not associated with a same media segment;

first deleting code configured to cause the at least one processor to delete the one or more event segments from the second event processing buffer;

second deleting code configured to cause the at least one processor to delete the one or more event segments from the first event processing buffer; and

third appending code configured to cause the at least one processor to append the one or more new event segments to the first event processing buffer and the second event processing buffer.

18. A non-transitory computer readable medium storing a program causing a computer to execute a process, the process comprising:

obtaining media data;

generating, from the media data, one or more event segments;

appending the one or more event segments to a first event processing buffer, the one or more event segments comprising an event start offset for each of the one or more event segments based on a time at which the each of the one or more event segments is appended to the first event processing buffer;

appending, the one or more event segments, to a second event processing buffer, the one or more event segments comprising event dispatch information for the each of the one or more event segments; and

dispatching the one or more event segments based on the first event processing buffer and the event dispatch information in the second event processing buffer;

generating one or more new event segments;

splitting the one or more event segments in the first event processing buffer and the second event processing buffer based on event duration of one or more new event segments; and

overwriting the one or more event segments in the first event processing buffer and the second event processing buffer based on the event duration of the one or more new event segments.