CLAIMS

1. A method comprising:

obtaining a container file, wherein the container file includes:

at least one video track representing an encoded video, and

a first attenuation map track representing a first attenuation map data stream, the first attenuation map track including a first information box characterizing the first attenuation map data stream.

2. The method of claim 1, wherein the first information box identifies at least one of first pre-processing operations to be applied to samples of the first attenuation map stream, a first energy reduction rate associated with the first attenuation map data stream, a first quality reduction associated with the first attenuation map data stream, or a first set of color components to which the first attenuation map data stream is to be applied.

3. The method of any one of claims 1-2,

wherein the first attenuation map track is a timed-metadata track.

4. The method of claim 3,

wherein the first attenuation map track includes a plurality of samples, and

wherein each sample carries coded video units for an attenuation map corresponding to a coded video frame in the video track.

5. The method of any one of claims 1-2, wherein the first attenuation map track is a restricted video track.

6. The method of claim 5, wherein the first information box is stored in a first restricted scheme information box.

7. The method of any one of claims 1-2, wherein the first attenuation map track is an auxiliary video track.

8. The method of any one of claims 1-7,

wherein the first attenuation map track includes a track reference type box, and

wherein the track reference type box includes a track identifier identifying at least one of the video tracks.

9. The method of any one of claims 1-8,

wherein at least one of the video tracks includes a track reference type box, and

wherein the track reference type box includes a track identifier identifying the first attenuation map track.

10. The method of any one of claims 1-9,

wherein the container file includes a plurality of attenuation map tracks including the first attenuation map track, each of the attenuation map tracks including a track header box, and

wherein a plurality of the attenuation map tracks have identical values of an alternative group field in their respective track header boxes.

11. The method of any one of claims 1-10,

wherein the container file includes a plurality of attenuation map tracks including the first attenuation map track, and

wherein each of the attenuation map tracks includes a track group box associating the plurality of attenuation map tracks into a track group.

12. The method of any one of claims 1-11, further comprising, at a decoder:

decoding the video track to obtain a decoded video;

decoding the first attenuation map track to obtain a decoded attenuation map; and

applying the decoded attenuation map to the decoded video to obtain an attenuated video.

13. The method of claim 12, wherein the decoded attenuation map is applied to the decoded video according to information in the first information box.

14. The method of any one of claims 12-13, further comprising displaying the attenuated video.

15. The method of any one of claims 1-11, further comprising, at a server:

based on information received from a client, selecting the first attenuation map track from among a plurality of attenuation map tracks in the container file; and

streaming the video track and the first attenuation map track to the client.

16. The method of claim 15, wherein the first attenuation map track is selected based on information in the first information box.

17. The method of any one of claims 15-16, wherein the first attenuation map track is selected based on the first energy reduction rate associated with the first attenuation map data stream.

18. The method of any one of claims 15-17, wherein the first attenuation map track is selected based on the first quality reduction associated with the first attenuation map data stream.

19. The method of any one of claims 1-18, wherein the container file is an ISOBMFF file.

20. An apparatus comprising:

a processor; and

a memory storing instructions operative, when executed by the processor, to cause the apparatus to perform the method of any one of claims 1-19.