Claims

1. A video transmission method, wherein the method is applied to an encoding end, and the method comprises:

   obtaining a video frame to be encoded, the video frame to be encoded being any video frame in a video to be encoded except the first frame;

   dividing the video frame to be encoded into a first preset number of sub-video frames;

   encoding each sub-video frame respectively to obtain the first preset number of encoded sub-video frames, and sending the encoded sub-video frames to a decoding end, wherein the number of key frames in the encoded sub-video frames is less than the first preset number.

2. The method as claimed in claim 1, wherein encoding each sub-video frame respectively comprises:

   determining a first data amount and a second data amount corresponding to the video frame to be encoded, wherein the first data amount is a data amount for encoding the video frame to be encoded as a key frame, and the second data amount is a data amount for encoding the video frame to be encoded as a non-key frame;

   determining a frame type of the video frame to be encoded based on the first data amount and the second data amount;

   encoding each sub-video frame respectively according to the frame type.

3. The method as claimed in claim 2, wherein determining the frame type of the video frame to be encoded based on the first data amount and the second data amount comprises:

   in response to determining that the first data amount is greater than or equal to the second data amount, determining the frame type of the video frame to be encoded as a non-key frame;

   in response to determining that the first data amount is less than the second data amount, determining the frame type of the video frame to be encoded as a key frame.

4. The method as claimed in claim 2, wherein encoding each sub-video frame respectively according to the frame type comprises:

in response to determining that the frame type of the video frame to be encoded is the key frame, determining at least one target sub-video frame required to be encoded as the key frame from each sub-video frame, the number of the at least one target sub-video frame being less than the first preset number;

encoding the at least one target sub-video frame as the key frame, and encoding the remaining sub-video frames in each sub-video frame as non-key frames; or,

in response to determining that the frame type of the video frame to be encoded is a non-key frame, encoding each sub-video frame as the non-key frame.

5. The method as claimed in claim 4, wherein determining the at least one target sub-video frame required to be encoded as the key frame from each sub-video frame comprises:

calculating a third data amount corresponding to each sub-video frame respectively, wherein the third data amount is a data amount for encoding the sub-video frame as the key frame;

determining the second preset number of sub-video frames with the smallest third data amount as the at least one target sub-video frame required to be encoded as the key frame, wherein the second preset number is greater than or equal to 1 and the second preset number is less than the first preset number.

6. The method as claimed in claim 1, wherein after dividing the video frame to be encoded into the first preset number of sub-video frames, the method further comprises:

adding a sequence number mark to each sub-video frame in turn, the sequence number mark being used for guiding the decoding end to merge the sub-video frames.

7. The method as claimed in claim 1, wherein dividing the video frame to be encoded into the first preset number of sub-video frames to be encoded comprises:

determining a data amount of the video frame to be encoded;

in response to the data amount being greater than a preset data amount, dividing the video frame to be encoded into a first number of sub-video frames to be encoded;

in response to the data amount being not greater than the preset data amount, dividing the video frame to be encoded into a second number of sub-video frames to be encoded, wherein the second number is less than the first number.

8. The method as claimed in claim 1, wherein before obtaining the video frame to be encoded, the method further comprises:

encoding the first video frame of the video to be encoded as a key frame to obtain a target key frame;

sending the target key frame to the decoding end.

9. The method as claimed in claim 1, wherein the maximum value of the first data amount is the first predetermined number minus one.

10. The method as claimed in claim 3, wherein the method further comprises:

comparing the first data amount with the second data amount in response to at least one of the first data amount and the second data amount satisfying a preset numerical condition.

11. The method as claimed in claim 2, wherein encoding each sub-video frame separately according to the frame type comprises:

in response to determining that the frame type of the video frame to be encoded is a non-key frame, encoding each sub-video frame as the non-key frame.

12. The method as claimed in claim 1, wherein dividing the video frame to be encoded into the first predetermined number of sub-video frames comprises:

dividing the video frame to be encoded evenly into the first predetermined number of sub-video frames.

13. The method as claimed in claim 1, wherein dividing the video frame to be encoded into the first predetermined number of sub-video frames comprises:

dividing objects of different brightness, different image or different resolution of image data carried in the video frame to be encoded into the first predetermined number of sub-video frames.

14. A video transmission method, wherein the method is applied to a decoding end, and the method comprises:

obtaining a first preset number of encoded sub-video frames transmitted from a encoding end, wherein the number of key frames in the encoded sub-video frames is less than the first preset number;

decoding each encoded sub-video frame respectively to obtain the first preset number of sub-video frames;

merging the first preset number of sub-video frames into a target video frame.

15. The method as claimed in claim 14, wherein merging the first preset number of sub-video frames into the target video frame comprises:

merging the first preset number of sub-video frames into the target video frame in the order of receiving each encoded sub-video frame.

16. The method as claimed in claim 14, wherein merging the first preset number of sub-video frames into the target video frame comprises:

extracting sequence number marks carried in each encoded sub-video frame;

merging the first predetermined number of sub-video frames into the target video frame in the order of the sequence number marks.

17. The method as claimed in claim 14, wherein the encoded sub-video frames are obtained by the encoding end dividing the original video frame to be encoded into multiple sub-video frames according to preset division rules, and then encoding each sub-video frame separately.

18. A video transmission system, comprising:

an encoding end, arranged for obtaining a video frame to be encoded, the video frame to be encoded being any video frame in a video to be encoded except the first frame; dividing the video frame to be encoded into a first preset number of sub-video frames; and encoding each sub-video frame respectively to obtain the first preset number of encoded sub-video frames, and sending the encoded sub-video frames to a decoding end, wherein the number of key frames in the encoded sub-video frames is less than the first preset number;

the decoding end, arranged for obtaining a first preset number of encoded sub-video frames transmitted from a encoding end; decoding each encoded sub-video frame

respectively to obtain the first preset number of sub-video frames; and merging the first preset number of sub-video frames into a target video frame.

19. An electronic device, comprising a memory, a processor, and a computer program stored on the memory and executable on the processor, wherein the processor executes the computer program to implement the method as claimed in any one of claims 1-17.

20. A computer-readable storage medium, storing a computer program, wherein the computer program is executed by a processor to implement the method as claimed in any one of claims 1-17.