CLAIMS

1. A method for updating a code table, comprising:

acquiring source stream video data;

inputting the source stream video data into a trained preference perception model, wherein the preference perception model analyzes the source stream video data and outputs a video quality distribution table, the video quality distribution table recording prediction preference probabilities corresponding to combinations of different second video code rates and second video resolutions therein, wherein the prediction preference probabilities are predicted values of preference probabilities of a user for inputted video data at combinations of different video code rates and video resolutions, the preference perception model is trained by using sample video data in perception data sets as an input and using sample preference probability distribution as an output, the preference perception model is acquired by training based on perception data sets corresponding to sample video data of different content types, the perception data set is constructed based on distribution of preference degrees of human eyes for videos of different content types in a resolution dimension, and the perception data sets record sample preference probabilities corresponding to the corresponding sample video data at combinations of different third video code rates and third video resolutions; and

updating the code table based on the video quality distribution table, wherein the code table records combinations of first video code rates and first video resolutions at different video definition levels.

2. The method for updating the code table according to claim 1, wherein updating the code table based on the video quality distribution table comprises:

traversing video definition levels in the code table, and determining code rate rows corresponding to the video definition levels in the code table from the video quality distribution table, wherein the code rate rows comprise the prediction preference probabilities corresponding to the different second video resolutions at the second video code rates; and

updating the combinations of the first video code rates and the first video resolutions at the different video definition levels in the code table based on the corresponding code rate rows.

3. The method for updating the code table according to claim 2, wherein determining the code rate rows corresponding to the video definition levels in the code table from the video quality distribution table comprises:

determining, in a case that the video quality distribution table comprises a second video code rate consistent with the first video code rate in the code table, a code rate row of the second video code rate as a code rate row corresponding to the video definition level; or

determining, in a case that the video quality distribution table does not comprise a second video code rate consistent with the first video code rate in the code table does, a code rate row of a second video code rate closest to a first video code rate corresponding to the video definition level as a code rate row corresponding to the video definition level.

4. The method for updating the code table according to claim 2, wherein updating the combinations of the first video code rates and the first video resolutions at the different video definition levels in the code table based on the corresponding code rate rows comprises:

determining, for the different video definition levels in the code table, whether the corresponding code rate row comprises a second video resolution meeting an encoding parameter update condition; and

updating, in a case that the corresponding code rate row comprises the second video resolution meeting the encoding parameter update condition, a first video resolution at a corresponding video definition level in the code table based on the second video resolution.

5. The method for updating the code table according to claim 4, wherein in a case that a maximum prediction preference probability in the code rate row reaches a set probability threshold, the code rate row comprises the second video resolution meeting the encoding parameter update condition.

6. The method for updating the code table according to claim 1, wherein the preference perception model is built based on a residual structure, utilizes a KL divergence loss function as a model loss function, and is optimized based on a random gradient descent algorithm, and a full connection layer of the preference perception model maps video feature vectors of the sample video data based on a set size, wherein the set size is determined based on a distribution table size

corresponding to the sample video data at the combinations of the different third video code rates and third video resolutions.

7. An apparatus for updating a code table, comprising a data acquiring module, a data analyzing module, and a code table updating module, wherein

the data acquiring module is configured to acquire source stream video data;

the data analyzing module is configured to input the source stream video data into a trained preference perception model, wherein the preference perception model analyzes the source stream video data and outputs a video quality distribution table, the video quality distribution table recording prediction preference probabilities corresponding to combinations of different second video code rates and second video resolutions therein, wherein the prediction preference probabilities are predicted values of preference probabilities of a user for inputted video data at combinations of different video code rates and video resolutions, the preference perception model is trained by using sample video data in perception data sets as an input and using sample preference probability distribution as an output, the preference perception model is acquired by training based on perception data sets corresponding to sample video data of different content types, the perception data set is constructed based on distribution of preference degrees of human eyes for videos of different content types in a resolution dimension, and the perception data sets record sample preference probabilities corresponding to the corresponding sample video data at combinations of different third video code rates and third video resolutions; and

the code table updating module is configured to update the code table based on the video quality distribution table, wherein the code table records combinations of first video code rates and first video resolutions at different video definition levels.

8. A device for updating a code table, comprising: a memory and one or more processors, wherein

the memory is configured to store one or more programs, and

wherein the one or more processors, when loading and running the one or more programs, are caused to perform the method for updating the code table as defined in any one of claims 1 to 6.

9. A storage medium storing one or more computer-executable instructions, wherein the one or more computer-executable instructions, when loaded and executed by a processor of a computer, cause the processor of the computer to perform the method for updating the code table as defined in any one of claims 1 to 6.