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(54) Title: METHOD AND DEVICE FOR DETECTING FRAME TYPE AND FRAME SIZE OF VIDEO STREAM

(54) 发明名称: 视频流的帧类型检测、帧大小检测方法及装置

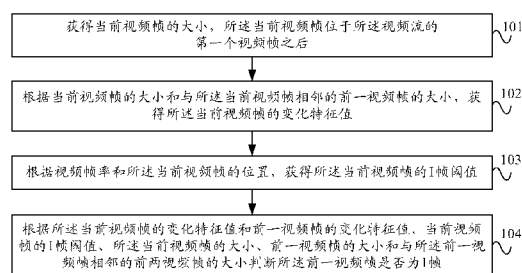


图 1 / Fig. 1

101 OBTAIN A SIZE OF A CURRENT VIDEO FRAME, THE CURRENT VIDEO FRAME BEING LOCATED AFTER A FIRST VIDEO FRAME OF A VIDEO STREAM
102 OBTAIN A CHANGING CHARACTERISTIC VALUE OF THE CURRENT VIDEO FRAME ACCORDING TO THE SIZE OF THE CURRENT VIDEO FRAME AND THE SIZE OF A FORMER VIDEO FRAME ADJACENT TO THE CURRENT VIDEO FRAME
103 OBTAIN AN I FRAME THRESHOLD OF THE CURRENT VIDEO FRAME ACCORDING TO THE VIDEO FRAME RATE AND A LOCATION OF THE CURRENT VIDEO FRAME
104 DETERMINE WHETHER THE FORMER VIDEO FRAME IS AN I FRAME ACCORDING TO THE CHANGING CHARACTERISTIC VALUE OF THE CURRENT VIDEO FRAME AND A CHANGING CHARACTERISTIC VALUE OF THE FORMER VIDEO FRAME, THE I FRAME THRESHOLD OF THE CURRENT VIDEO FRAME, THE SIZE OF THE CURRENT VIDEO FRAME, A SIZE OF THE FORMER VIDEO FRAME, AND SIZES OF THE FORMER TWO VIDEO FRAMES ADJACENT TO THE FORMER VIDEO FRAME

(57) Abstract: Embodiments of the present invention provide a method and a device for detecting a frame type and a frame size of a video stream. The method for detecting the video frame type comprises: obtaining a size of a current video frame, the current video frame being located after a first video frame of the video stream; obtaining a changing characteristic value of the current video frame according to a size of the current video frame and a size of a former video frame adjacent to the current video frame; obtaining an I frame threshold of the current video frame according to the video frame rate and a location of the current video frame; and determining whether the former video frame is an I frame according to changing characteristic values of the current video frame and the former video frame, the I frame threshold of the current video frame, sizes of the current video frame, the former video frame, and the former two video frames. According to the present invention, a complete and effective method for detecting the frame type is provided, a video frame before the former video frame may only be considered when the frame type of the former video frame is detected, and the effect of the video frame rate is fully taken into consideration.

(57) 摘要:

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RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, **本国际公布:**

CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, — 包括国际检索报告(条约第 21 条(3))。
TG)。

本发明实施例提供一种视频流的帧类型检测、帧大小检测方法及装置。视频帧类型检测方法包括：获得当前视频帧的大小，所述当前视频帧位于所述视频流的第一个视频帧之后；根据当前视频帧和与所述当前视频帧相邻的前一视频帧的大小，获得所述当前视频帧的变化特征值；根据视频帧率和所述当前视频帧的位置，获得所述当前视频帧的 I 帧阈值；根据所述当前视频帧和前一视频帧的变化特征值、当前视频帧的 I 帧阈值、所述当前视频帧和前一视频帧、前两视频帧的大小判断所述前一视频帧是否为 I 帧。本发明提供了一套完整有效的检测帧类型的方法，并且使得在检测前一视频帧的帧类型时可以只考虑其之前的一个视频帧，且充分考虑了视频帧率的影响。