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(54) Title: AUDIO PROCESSING METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND PROGRAM PRODUCT

(54) 发明名称: 音频处理方法、装置、设备、存储介质和程序产品

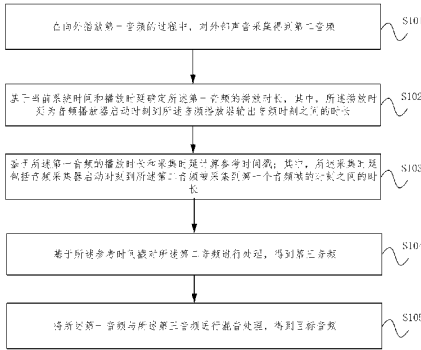


图 1

- S101 During outward playback of a first audio, collect external sound to obtain a second audio
- S102 Determine a playback duration of the first audio on the basis of the current system time and a playback delay, wherein the playback delay is a duration between a starting moment of an audio player and an audio output moment of the audio player
- S103 Calculate a reference timestamp on the basis of the playback duration of the first audio and a collection delay, wherein the collection delay comprises a duration between a starting moment of an audio collector and a moment when the second audio is collected to a first audio frame
- S104 Process the second audio on the basis of the reference timestamp to obtain a third audio
- S105 Mix the first audio and the third audio to obtain a target audio

(57) Abstract: The present disclosure relates to an audio processing method and apparatus, a device, a storage medium, and a program product. The method comprises: during outward playback of a first audio, collecting external sound to obtain a second audio; determining a playback duration of the first audio on the basis of the current system time and a playback delay; calculating a reference timestamp on the basis of the playback duration of the first audio and a collection delay; processing the second audio on the basis of the reference timestamp to obtain a third audio; and mixing the first audio and the third audio to obtain a target audio. The technical solution provided by the present disclosure optimizes the influence of a delay on an audio during mixing of a first audio and a second audio, such that the played back first audio and the recorded second audio are synchronized, the influence of the delay on audio hearing is reduced, and the karaoke experience of users is improved.

(57) 摘要: 本公开涉及一种音频处理方法、装置、设备、存储介质和程序产品, 该方法包括: 在向外播放第一音频的过程中, 对外部声音采集得到第二音频; 基于当前系统时间和播放时延确定第一音频的播放时长; 基于第一音频的播放时长和采集时延计算参考时间戳; 基于参考时间戳对第二音频进行处理, 得到第三音频; 将第一音频与第三音频进行混音处理, 得到目标音频。本公开提供的技术方案在第一音频和第二音频进行混音的过程中, 优化时延对音频的影响, 使得播放的第一音频和录制的第二音频同步, 降低时延对音频听感的影响, 提高用户K歌体验。

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