



SIMULTANEOUS VIDEO STREAM RECORDING WITH AUDIO IN ANDROID

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ABSTRACT

Smartphones became sixth finger of our hand. Every Smartphones are used to play music as like Walkman and record videos as like video recorder. But in many smartphone no those two operations can be run simultaneously. As the solution for this problem I had developed an android application for smartphones, which records the video while playing music through Music Player. This application won't Pause/Stop the music player. Also this application merges recording video file with playing audio file. In addition it also involves a feature in which it records the video with the human voice/communication in spite of the song hearing in a head set. This kind of feature is not available for any kind of operating system used in mobile phones. The user will be able to view and hear the merged file saved in the predefined path.

Index Terms— Simultaneous video recording, Music Player, Stop/Pause Music, Play Music record video.

I INTRODUCTION

At present there are many operating system available in market for mobile among them the most popular one is android. It powers more than one billion smartphones and tablets. Since these devices make our lives so sweet, each Android version is named after a dessert. There are many versions in android the most famous among them are Donut-1.6, Éclair-2.0, Froyo-2.2, Gingerbread-2.3, Honeycomb-3.0, Ice Cream Sandwidge-4.0, Jelly Bean-4.1, KitKat-4.4 and Lollipop-5.0.

II RELATED WORK

A.Existing System

The existing work will allow the user to play the music player and record the video separately not altogether. If the user tries to record the video while running an audio file in the corresponding device means, the audio will get stopped/paused. The audio (i.e., song playing through music player) and the video merging application has been developed for MAC Operating System (OS) in the name of JamCam which is available in AppStore. But this kind of application is not developed for an android OS.

The existing system shows the inability to record video while playing music has been the bane of many viners and amateur videographers.

In the existing system when the camera application is opened in an Android device then the application need some permission like camera features, storage permission, Audio Recording permission and location permission. After starting the application all the other application using audio permission will be closed. Even the headset is inserted camera application won't allow the music player or any other application which are using the audio permission to run.

B.DISADVANTAGE OF EXISTING SYSTEM:

- Default Camera Application Pauses/Stops the music player.
- Merging of audio and video file is complicate by using some other application.
- Time consumption is more.
- No songs running in music player hearing through headset can be heard while recording the conversation or voice of human.

C. PROPOSED SYSTEM

To overcome the disadvantage of the existing system I am creating an application for Android which solves one of the most annoying problems with mobile video so you can finally record your video even you are hearing the music. In my project I had proposed the application newly into android, which is present only in iPhones. A new discriminative model is proposed to run both the media player and the video recorder simultaneously without stopping or pausing it. An additional two features had been added to it which is, it can merge the recording video with the default audio running. And can also record the video with the selected audio file from the corresponding device to which this application is installed.

I also added the feature that can record anything anywhere in anytime we want without pausing or stopping our media player, while we hearing songs through headsets. Through this feature we can record the human voice/communication along with the noise in the environment while hearing song through the headset. This will help the user in a high range who finds uneasiness in this concern.

Android APIs had made several key improvements, most notably giving third party apps full access to micro SD card storage and file structures. This allows apps to save data to SD cards (great news for media heavy apps) or even be fully installed on them. Google has also bolstered the security around micro SD card access to cut it off as a route for malware.

That said expandable storage is one of Android's big advantages over iOS so it is great news to see Google once again unleash its full potential, even it is continues not to offer micro SD expansion on its own line of Nexus devices.

Unless access permission is requested by the user, the android operating system does not have access to the rest of the system's resource. The android application runs in a sandbox which is the separate area of the operating system. With this feature it is evidentially proved that android provide full security for the application using in it.

D.ADVANTAGES OF PROPOSED SYSTEM:

- Many users will be satisfied who experienced the difficulty.
- This Project replaces many editing application which are so complicated.
- Time consumed to edit the video will be reduced.

- Reduce the usage of separate Walkman's, iPods, other music playing gadgets and camera for recording.

III MODULE DESCRIPTION MODULES

The proposed method which defines a method for recording both video and audio simultaneously consist of three modules namely

1. Recording with default audio
2. Recording with selected audio file
3. Recording with human interaction
- 4.

This module helps with providing an user interface for selecting any of the three types of video recording methods (without audio, default audio & specific audio file). User can select any of the three types for starting video record.

MODULE IMPLEMENTATION

This module helps with providing a user interface for selecting any of the three types of video recording methods (with default audio, specific audio file & with human interaction). User can select any of the three types for starting video record.

RECORDING WITH DEFAULT AUDIO

- This module creates a camera view for recording and saving a video with the default playing audio.
- It will merge the audio which is playing already while we are recording the video.
- This work like an audio video editor and too ease the work of the user.

RECORDING WITH SELECTED AUDIO FILES

- This module first creates an user interface for selecting an audio file from a list of all the available audio files in the device.
- Then after selection of an audio file, a camera view is created for recording the video.
- Once the recording starts the video is recorded with the selected audio file.

RECORDING WITH HUMAN INTERACTION

- This module allows the user to record the video with the human voice/communication in spite of the song hearing in a head set.
- This was the enhanced feature of my project which is not present in any kind of mobile OS since have been designed.

- It will surely satisfy the need of the peoples who finds disturbance while recording a video.

IV SYSTEM ARCHITECTURE

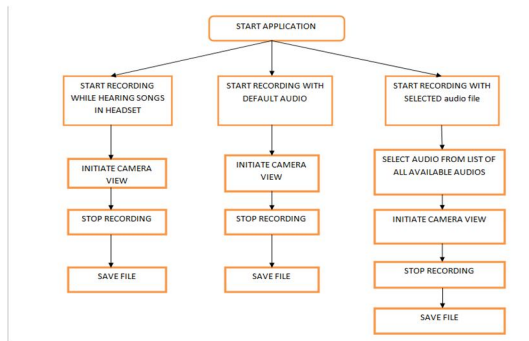


Fig 1: video stream recording with audio

The above fig 1 shows the architectural diagram of video stream recording with audio. This shows the three modules and its working. At first any of the modules can be selected for processing after starting the application. Then the camera view is initiated for the recording with head set and default audio. But for the recording mode with selected audio leads to the screen of list of all available audios and then only it leads to the camera view. After recording is over it can be stopped and the file will get stored in the predefined path.

V SCREEN SHOT RECORDING WITH DEFAULT AUDIO

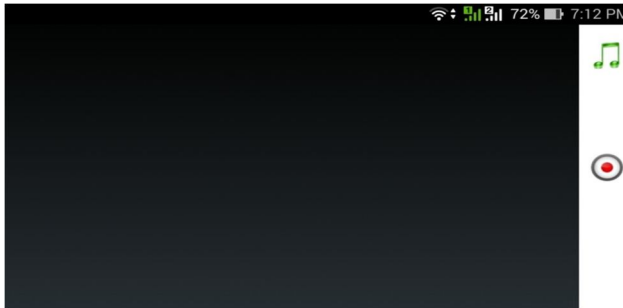


Fig 2: Camera view



Fig 3: Recording mode

RECORDING WITH SELECTED AUDIO

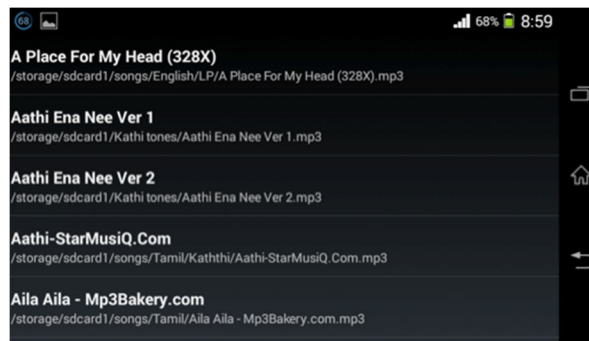


Fig 4: Audio list



Fig 5:Recording mode

VI CONCLUSION

As I explained in abstract, I had developed an Android Application which doesn't pause/stop the music player while recording a video. This application is more useful to the users who love to hear music more time. This application doesn't give any interruption for users. This application satisfies the user at the most.

It will record the video along with the audio which is playing in the device. If needed this app can also be used as an video editor. For that before start recording the

video the song which is needed must be selected first then the recording mode has to be initiated. My proposal will definitely fulfill the need and satisfy the users with the enhanced features which are not available in any of the leading operating system used in mobile phones.

VII FUTURE ENHANCEMENT

In my project the camera view will be initiated after pressing the record button because to get permission for the camera view. In Future this can be rectified and camera view may be initiated before pressing recording button.

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