

Issues in Android on Mobile Platform and Their Resolution

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Abstract: Today, as the developing of hardware of mobile is getting better, the performance index is much higher than the actual requirements of the software configuration. Phone's features more depend on software. As the Android operating system is getting more popular, the application based on Android SDK attracts much more attention. But now, some of the Android application interface is very difficult to use, pop-up ads is overmuch and the function is too single, these cause some inconvenience to the users. Media Player forms an integral part of today's Smartphone. It is generally used by users to view media files of various formats. Many users like to watch video by a mobile phone, but the media player has many limitations. With a rapid development of communication and network, multimedia based technology is adopted in media player. Android is an open-source and has powerful APIs which has attracted large number of developers. The papers discuss about the study of the media player with the help of the existing media players which are available in the Android Market and proposed system for the media player which will provide the uninterrupted enjoyment for the user This article presents the application by eliminating the redundancy. The interfaces of these Android apps are pretty and the operation is smooth. Smartphone devices such as iPhone, Blackberry, and those that support the Android operating system are progressively making an impact on society.

Keywords: Android, Media player, video player, audio Player.

I. INTRODUCTION OF ANDROID AND MEDIA PLAYER

Android is a mobile platform developed by OHA "Open Handset Software Alliance". Its main player is Google. OHA is a group of organizations collaborating to build a better mobile phone. It is open-source software, meaning that anyone can download the source code from the Android Open Source Project and use or modify it. It is not just an operating system android is a complete step from operating system to middleware application. Android is a term that means different things to different people. In starting days it was designed only for touch screen inputs but later it's being utilized in game console, digital cameras, regular computers (like HP Slate 21) and other electronics items as well. Security is essential with such an open development environment. Therefore, a tight security model is built into Android.

As the number one mobile operating system in the world, Android devices are used by more people than any other type of mobile device. This gives developers a great opportunity to develop apps that can potentially be used by hundreds of millions of people. Android apps are typically written in a programming language called Java. Java is immensely popular, and as an object-oriented language, it's easy to pick up if you've worked with other object-oriented languages like C#, Objective-C, or Ruby. Android is a powerful Operating System supporting a large number of applications in Smart Phones. These applications make life more comfortable and advanced for the users. Phone is no longer just a communication tool, but also an essential part of the people's communication and daily life.

Media Player is the easier way, if you just want to pay an audio file in the background, somewhere in an application. Media player class can be used to control playback of audio/video files and streams. With the continuous development in Science and Technology, mobile is no longer just a device used for communication but a multimedia platform that provides the ability to play the media. Playing the audio and video is just a basic thing, due the limitations it has, there are limited formats etc. Using Media Player class we can control the behaviour of player like volume control, whether to repeat the current track or not, stop or pause the playback etc. Media player help you enjoy a video by your android phone. After downloading many kinds of movie files, do you have troubles making out what it tells.

II. ANDROID ARCHITECTURE

The following diagram shows the major components of the android operating system. Each section is described in more detail below. It consists of four layers: Application, Application framework, the layer below is divided in two parts: Libraries and Android runtime, and the last layer is Linux kernel.

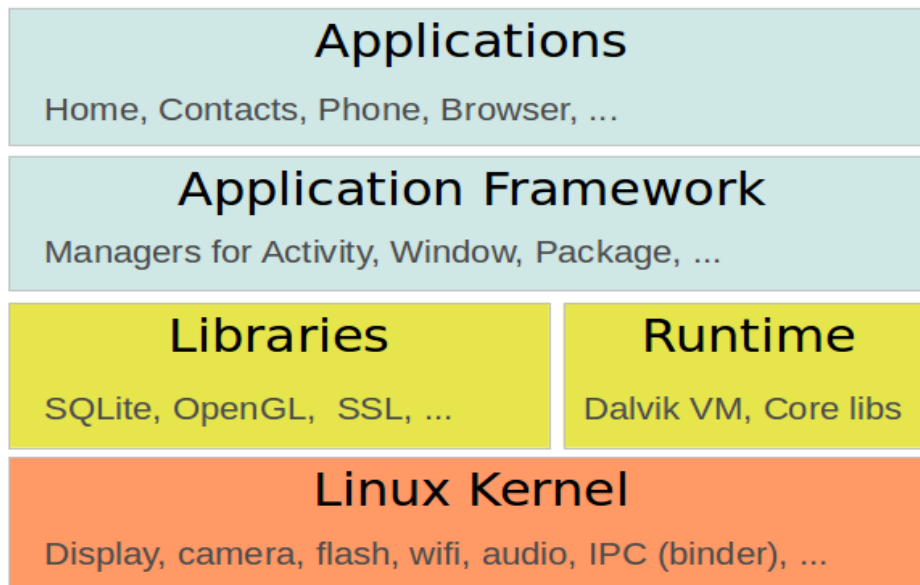


Figure.1 Android Architecture

2.1. Applications:

Application consists of built in application and user application. Basically you can also replace built in application by writing your own code.

2.2. Application Framework:

Application framework manages the android user interface. It avails the classes required for creating apps. It provides an abstraction layer between the hardware and system resources.

2.3. Libraries and Android Runtime:

Libraries part consists of C/C++ libraries, 2D and 3D graphics libraries and media codec's, SQLite, browser engine. SQLite is a database for android, you can call it is a library manager SQL so this is called SQLite. Android runtime consists of core libraries and dalvik virtual machine. The Core Library provides Java core library with most functions. Dalvik virtual machine understand Dex files. Dalvik virtual machine is very compact and has also got very less memory frequent, so that it is very suitable to run on android devices.

2.4. Linux Kernel:

It consists of device drivers. It is responsible for memory management, process management and networking part also knows into the linux kernel.

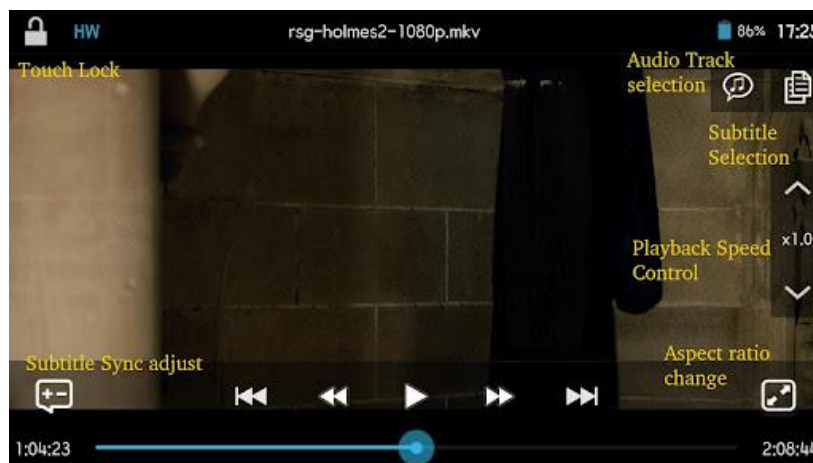
III. METHODOLOGY

Video Player

Video Player is a highly efficient and convenient media player tool. It can plays most multimedia files as well as devices and network streaming protocols. Early versions of Android platform did not support video recording and hence the developers were unable to create any video recording applications. Video Player is achieved through the Eclipse platform. In order to develop android app, we will install a plug-in for Eclipse: Android Development Tools (ADT). Once installed, download Android SDK [10, 12], install and configure the SDK, then we can develop a video player. It is the most powerful Media player in Android Market. It is the best way to enjoy your movie and music.

Features:

- Supports most of popular video and audio file formats.
- Quick start, smooth playback support.
- Small memory, simple operation.
- Smart media library for audio and video files, easier and faster to find all your media files.
- Support for multi-track audio and subtitles.
- Supports auto-rotation, aspect-ratio adjustments.
- Supports gestures to control volume and brightness.
- Playback speed control.
- Add subtitle file.



Video Player

Audio Player

The audio player development tool is the same as the one of video player. System structure and the process is the same as the process of video player. Also defines the interface in the Application Framework layer, and then acquires music files through Content Resolver in the Android Framework layer. Finally, plays the music by using the Service component calling the Media Player class in the Libraries layer. Audio Player is one of the most high quality and powerful audio player, Powerful equalizer, Quick search all music files, Custom background skin, Fantasy Play Interface and Multi-function Playlists were Make up the powerful music player. Audio Player will guide you easily to find all the music in your phone. Audio player is not only based on artists or albums, but also based on the folder structure.

Audio formats : MP3 , MP2 , MP1 , FLAC , OGG , WAV , AIFF , MIDI , AAC , 3GP , S3M , MO3 , M4A .

Features:

- Browse and play your music by albums, artists, genres, songs, playlists, folders, and album artists.
- Dolby, SRS and Beats audio sound effects.
- Lyric support. Automatic scanning all the lyric files and matching the most appropriate lyrics file for your songs.
- Notification status support: display album artwork, title and artist, play/pause, skip forward and stop controls in notification status.
- Edit the song details, now you don't worry about the song without album name or artist name.
- Multi-function Playlist.
- Set the music as ringtone.



Audio Player

IV. PROPOSED SYSTEM

A. User Interface Proposed system will provide improved user interface along with single station for both audio and video. Single station audio and video gives direct audio and video tabs which leads to separate options for both audio and video. The switching of audio to video and vice versa is carried out using just one selection operation like swapping window or clicking button.

B. Sound Effects Current media player do not provide any type of sound effects which does not allow user to enrich multimedia experience. The proposed system eliminate above problem by using audio effects like equalizer, FX booster which will give more entertaining music experience.

C. Pixel problem in video There is one of the most important problem i.e. pixel problems. In future scope, pixel problem will reduce by doing some code.

V. CONCLUSION

The media player consider about improving functionality in terms of user interface, format support through the inclusion of codec. By testing each function on mobile phone and the computer simulator, the result showed that video player and audio player run well and no advertising. Proper devices will surely be very useful. If player are not proper then there will be a problem. It has wide benefits in future.

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