Multimedia Usability

Descriptions

Multimedia can be defined as the Integration of graphics, audio, video, and text to create an mobile application. Your multimedia design should be simple so user can easily understand. Symbian S60 is providing multimedia facilities which enable sound and graphics in your application.

The multimedia architecture of S60 has been designed and optimized for mobile devices. It's having a rich feature set more akin to a desktop computing environment. With relative ease the different components can be used for numerous tasks, ranging from drawing simple shape primitives to playing ring tones.

Following are the main topics:

- There are major 3 components of Symbian S60 graphics architecture.

```
1. Window server

2. Font & Bitmap Server

3. Multimedia server.
```

- There are lots some basic api by using them you change the brush type, brush color, per color, pen style. By using it you can draw different types of colored line across the screen.
- There are lots of API available which allow you to draw basic shapes in your application like circle, eclipse, square, arcs, pies & many more.
- There are number of fonts available which makes your application to look good. In Third edition device Symbian supports TTF font, you can also install ttf font on a phone and use them, which give u flexibility to user custom font. In Second edition device you can achieve this by using gdr files. You will easily find the code to use GDR & how to install TTF font in mobile on forum.
- You can also display bitmaps in your application. You can also show the transparent image by drawing with it's mask. You can display & access the Image in you symbian application. There are several was to do it buy one of simple way is using mbm file. MBM stands for Multi-Bitmaps and it is symbian specific format to hold bitmaps. Several images of different resolution different colors can be stored in single mbm file. One can load images from mbm file by specifying image index value. You will find lots of sources how to user mbm files.
- The animation architecture, and techniques that help to produce smooth animations, such as using off-screen bitmaps, and double buffering. The Direct Screen Access Framework, which is particularly useful for fast animation games programming, is also introduced.
- You can also apply some operations on images, like rotation, scaling. You can also convert the type of image.
- You can add sound to your application. Both recording sound and playing sound. You can play any mp3, wav, file in you application. Apis are available in Symbian S60.
- You can play video file in your application. you can play standard format videos on mobile supported by mobile phones.
- While multimedia may be one of the most powerful communication tools for application, but poorly designed multimedia applications can create poor application.

Some usability guideline

- Complex multimedia design or overuse of different media can confuse the user as too much information flows.
- It should be design in a way main objective or functionality of application get sufficient attention. If you are playing gif file in your application it should be placed and design the way that it not affect the user attention on application task.
- if you are playing audio or video file on any key press,On the first time start you should set the volume to the average level. You should not set maximum level as user may have not expected that.
- Application developer also have to take care about memory. you should have to limit the usage of images, audio, video files as it takes much memory. Application should not load very big size of audio/video file at a single time. You can load it in part by part in memory.

(C) Copyright Nokia 2014. All rights reserved.

- You should limit the usage of multimedia as application performance doesn't get affected.
- You should use proper combination of color, as you should not use any color, which make your application to look bad. For example, you can not use black text color on black back color.
- You should not use so much stylish font that can not read easily by user.
- Proper design & use of multimedia can make your application look really good but in reverse improper design of multimedia can make your application look dull, poor & slow.

Related links

- Symbian C++ Multimedia Articles
- Java Multimedia Articles

(C) Copyright Nokia 2014. All rights reserved.