EMERTXE TRAINING PROJECT DOCUMENTATION FRAMEWORK
REQUIREMENTS & DESIGN DOCUMENT

Module – Qt Programming

Media Played

ΣMERTXE

Contents

1 Abstract

The media player is one of the most commonly used applications in both PC and Embedded devices. These applications typically play the given audio or video file and provide the required output by streaming the audio and video via various I/O interfaces like monitor, LCD, speakers etc. Qt provides excellent front end / UI development and back-end library support features to implement these functionalities.

This project aims to develop a media player application, capable of playing the audio and video files. It will enable participants to implement a stable player which will perform following high level tasks:

- Media list creation on UI

- Playing the next track when current track ends

- Creation of play, pause, next and previous buttons with respective functionalities

- Tracking current track's play time along with the overall time

- Update current track information in title.

It is recommended to have this application run in an Embedded target (Raspberry Pi / ARM). However, the scope can be limited to running as a desktop / PC based application as well.

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2 Requirements

The proposed project is development of Media Player application, capable of playing the MP3 medias. The following functionalities are expected from the project outcome

- Stable running media player on any user interaction

- MP3 media files are listed in the UI. On press of the list, the respective track is played

- On Press of Play button first time, listing all the media and start playing

- At the end of the track playing next track without user interaction

- On Press on Play/Pause button, actual play status toggles between play and pause

- Next button press, plays the next available track. When the current track reaches the end of track on press of next leads playing the first track.

- Previous button press, plays the Previous available track. When the current track reaches the first track on press of previous leads leads playing the last track.

- Current track information is updated on the title. When title exceed the UI text box, it shall be truncated with 3 dots (...)

- Track current play time and total play time is displayed

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3 Sample Output

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4 Artifacts

4.1 References

- Media Player Software – Wikipedia

- Multimedia using Qt

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