Cinema control panel for a 5D movie theater

Customer
A developer and supplier of animatronics (robotic models) and stage sets for trade and entertainment centers, theme parks, water parks and museums.

Objective
Development of an application for the playback of movies, effects and motions of a 5D cinema platform.

Solution
The software is implemented using the Qt 4.7 cross-platform library and the DirectShow technology.

Benefits and Features
- The application is designed both for touch-sensitive control and computer mouse control
- Intuitive interface which requires no detailed study of documents
- Support for Russian and English interfaces
• The possibility of selecting movies from a convenient list with posters and
detailed descriptions
• DVD recording of images generated using the movie theater video camera during
the viewing session

• Support for an external monitor, which can be installed next to the 5D movie
theater
• Data from the video camera are displayed on the external monitor of the 5D
movie theater and in a separate window of the application
• To attract customers, it is possible to show promotional videos, pictures and
trailers on the external monitor of the 5D movie theater
• The current time of the 5D movie shown is displayed
• It is possible to stop the movie playback in case of emergency
• It is possible to broadcast an MP3 audio greeting or advertisement in the movie
theater
- As a means of protection against unauthorized access, the software features operator and administration authorization through password entry into the application.
- It is fitted with automatic and manual diagnostics which does not allow the movie to start in case of malfunction in the 5D movie theater equipment.
- It includes a license control system for 5D equipment and movies.
- It keeps track of the number of people visiting the 5D movie theater.
- It features the function of sending text messages from the 5D movie theater, showing a total number of spectators per day.
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Technologies
Qt 4.7, DirectShow, COM

Programming languages
C++

Project management
MS Visual Studio

Project time
12 months