

Project Proposal – Vision System Configuration Tool

1. Introduction

- The CEF-Vision System is an overall camera solution for vehicle use. It is safe and reliable to use even in the most demanding conditions.
- The system is user-friendly and easy to modify and maintain. It is based on open interfaces, enabling the use of third-party devices such as cameras and thermal cameras.
- End users are people inside of the vehicles.
- See more information from <https://products.savox.com/products/savox-vision-system>



2. Project goals

- Graphical configuration tool is needed to configure needed inputs and input multiplexer for each output.
- Graphical configuration tool is needed to update firmware for video switch and displays.

3. Technologies

- Technical requirements are that Qt is strongly preferred for user interface development and application is primarily targeted for Windows laptop. Secondly application is targeted for operating systems built around the Linux kernel and running in embedded computer.
- Strongly preferred requirement is that user interface is linked to the CEF-Vision System product and communicating through to command interface that should be done using Python programming language. Dummy library that simulates and can be easily replaced to communication with CEF-Vision System will satisfy.

4. Requirements for the students

- Preferring application programming skills from majority of the group.
- Difficulty of Qt programming: Easy
- Difficulty of user experience design (wireframes, etc.): Moderate

5. Legal Issues

Intellectual Property Rights (IPR): The client gets all IPRs to the results.

Confidentiality: The client will share some confidential information with the students.

6. Client

- Savox expertise is based on improving and saving lives by providing safety, rescue and communication solutions for professionals working in demanding environments. The product and service portfolio are extended and strengthened with industrial, rugged and security computers and displays. Savox has offices in Espoo, Savonlinna and Jyväskylä in Finland.
- Veli-Matti is available for sprint planning meetings, backlog grooming and sprint review meetings. And he is ready during the sprint few hours per week to have small talks and share the pain.
- Helder will attend all necessary meetings
- Savox gives demonstration of CEF-Vision System using four cameras, one video switch and one display at Keilaranta 15 B, Espoo.
- Savox will offer demonstration of old configuration tool mockup that is implemented with Qt. It is not completed and not in use. But it might give some ideas, pros and cons how to proceed in the beginning.

Client representative(s)

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| • Software Manager | • Product Owner for CEF-Vision System |
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Preselected Student Team Members

- Savox does not have any preselected team members.

7. Additional information

- All documentation in English
- Microsoft Teams in Savox preferred as communication channel