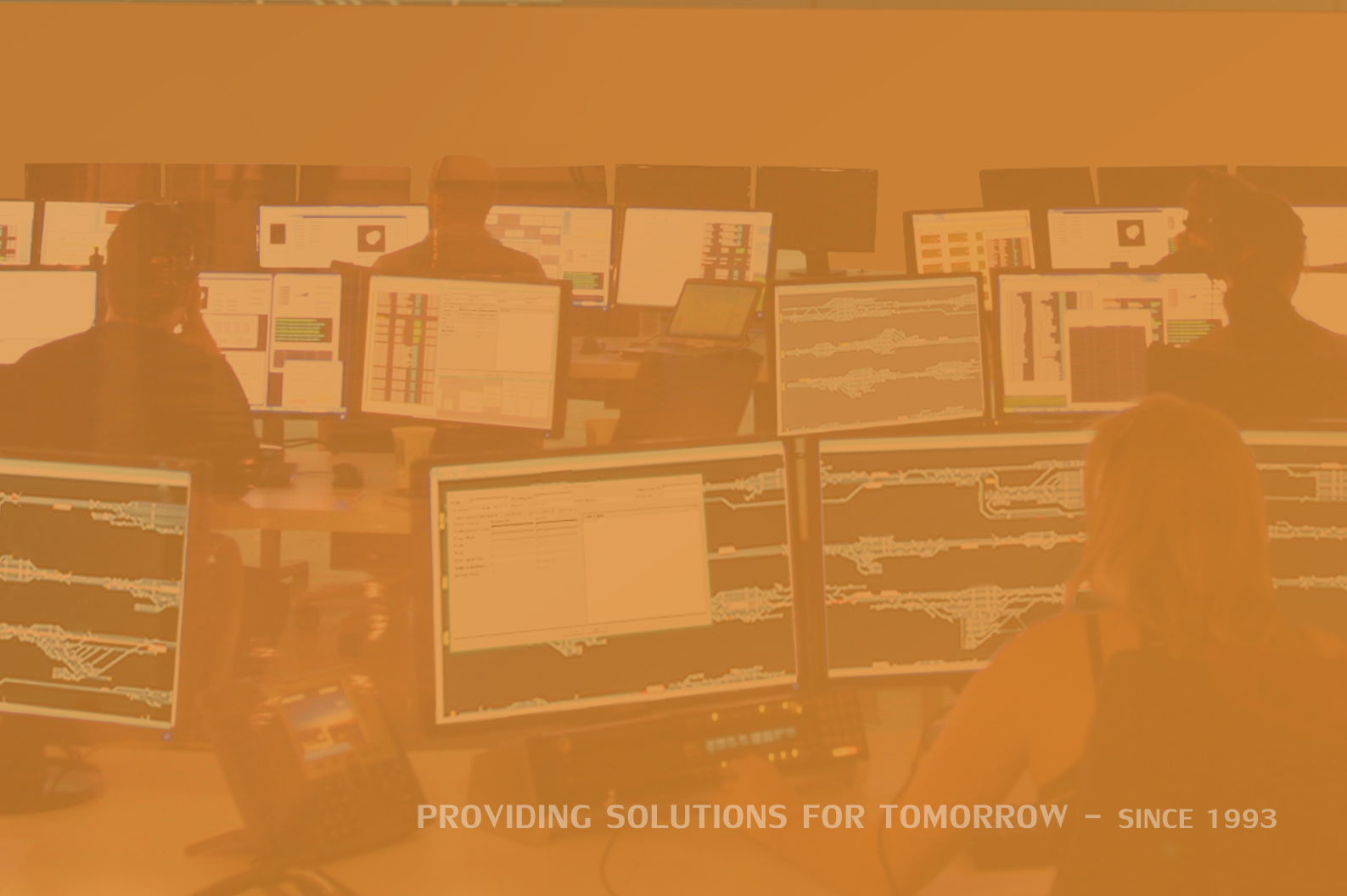


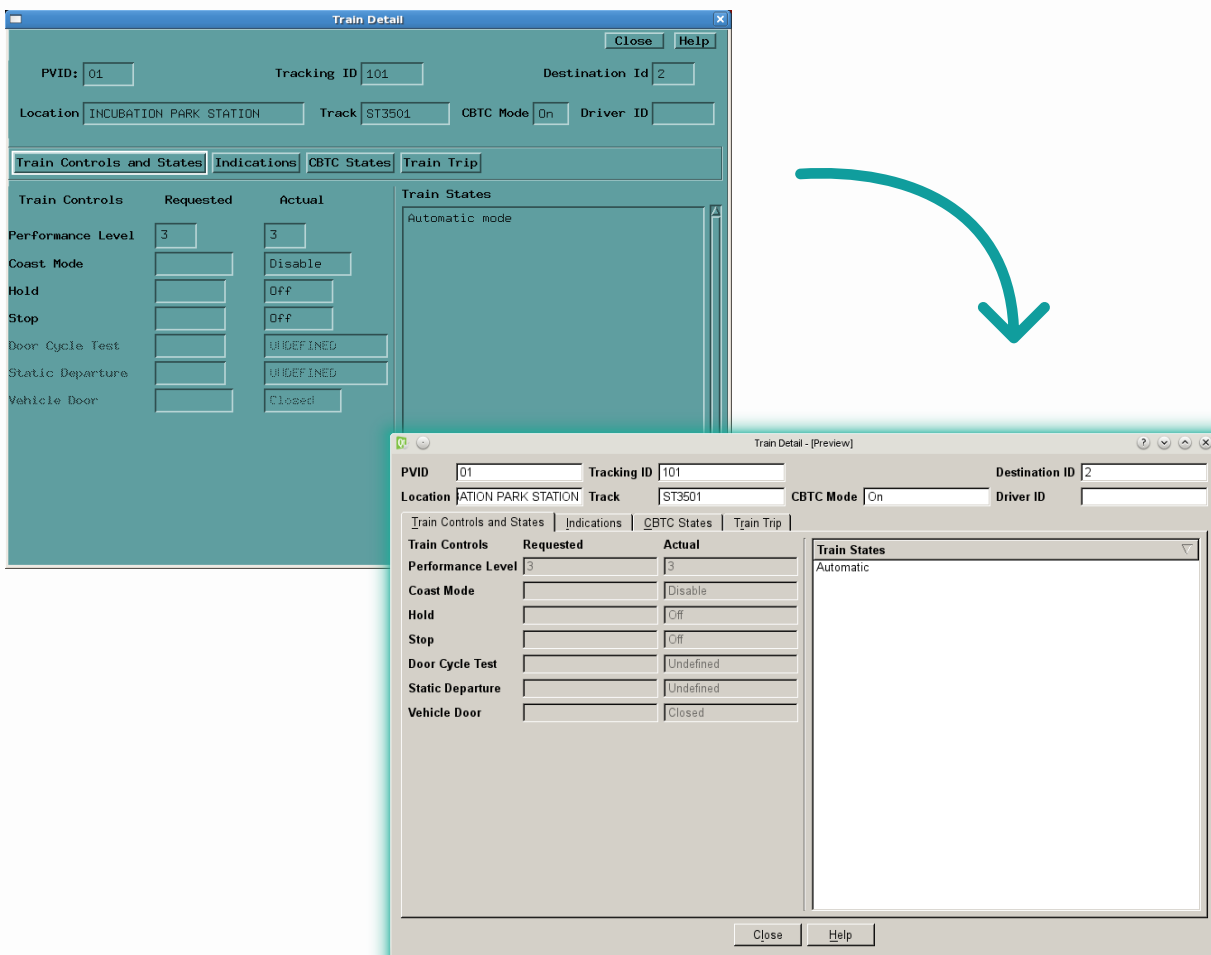
ATS PRODUCT INTERFACE MIGRATION

Datasheet



Project objective

Execute porting of the UI source code of the Automatic Train Supervision (ATS) product from Motif to Qt framework. The need was due to the outdated Motif framework that required extensive code refactoring to update it. It brought both cost and safety risks that may have created concerns with the management of complex rail networks.



Result

The source code of the ATS module was updated for all the subsystems and could be linked against both Motif-based and QT-based frameworks. The New Qt-based interface allows users to easily check, update, and edit real-time information that contributes to the ATS system for reliable and unhindered management of complex rail areas globally. Hardware-accelerated GUI provides an even better user experience and is even more reliable.

Scope of work

- ❖ Investigation of product architecture. Definition of GUI functional requirements, and APIs of the promoted framework to support ATS functionality
- ❖ Proof of Concept (PoC) application showing the possibility of new elements being built within Qt-based ATS product
- ❖ Baseline interface modules to be used within all the product elements
- ❖ Redesign of windows, forms, and pop-up menus for the ATS product
- ❖ Updates of source code to use Qt forms and resources with functioning business logic
- ❖ Definition, creation, and execution of unit tests for 25 different Train Sheet forms
- ❖ Development, migration, testing, and internalization guidelines development
- ❖ Test the functionality of the production build of the product

Activities

- ❖ Environment setup
- ❖ New GUI design
- ❖ GUI update in Qt Designer
- ❖ Source code update
- ❖ Documents preparation
- ❖ Unit testing

About the project

Technologies

- ❖ C/C++
- ❖ Qt
- ❖ RedHat
- ❖ GCC
- ❖ Bash
- ❖ Eclipse
- ❖ VMware
- ❖ ClearCase
- ❖ ClearQuest
- ❖ TCP/IP



Project size

- ❖ 2 people

Duration



Platforms

- ❖ Linux