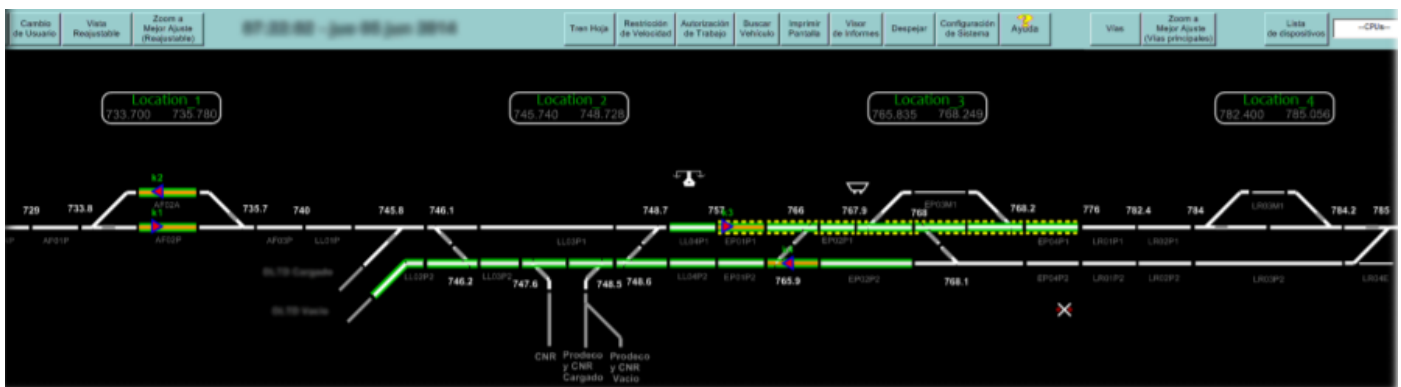# TRAIN CONTROL SYSTEM TESTING FOR A MINING RAILROAD

Datasheet

Project objective

Provide independent Validation & Verification (V&V) activities for a SCADA system allowing for train control functions. Execute a number of testing activities for the Train Control software within the entire system that included redundant virtual servers, storage area networks (SANs), Train Controller workstations, Maintenance/Training workstations, and application software.

Result

SCADA / Train Control system was successfully implemented for 152 miles of a mining railroad that included 15 control points. The delivered system provided planning of train movements, track authorities, and asset management capabilities as major functions.

Scope of work

- Reviewing and updating test cases to cover all kinds of rail scenarios
- Ad hoc testing to get preliminary test results
- Conducting functional tests for a number of software releases, including verification of all system functions
- Execution of functional regression testing on a series of software builds, using the approved factory test procedures
- Investigation of any detected system problems
- Validation of solutions to software defects
- Onsite Factory Acceptance Testing
- Post-FAT issue resolution release test results
- Providing status of the test execution, including tests executed, summary results, and description of any failures or anomalies encountered in the test
- Providing objective evidence (e.g. annotated test data sheets, test records, etc.) of test execution when the test was completed

Activities

- Onsite System Training
- Test Procedures Update
- Requirement Verification Trace
- Factory Acceptance Test Procedures
- Capability Testing
- Factory Acceptance Testing
- Defect Release
- Final Delivery

About the project

Technologies

- MS SQL Server 2012
- FactoryLink V8
- IBM Rational Clear Quest
- VNC Viewer

ClearQuest

Platform

- Embedded
- Windows

Project size

- 1.5 people

Duration

13 months