



Application Note Custom Engineering

Custom Engineered Digital Train Motion Simulator

Customer Profile

- High Technology for Railway and Urban Transport

Application

- Testing of Grade Crossing Predictors

Business Benefits

- Significant Cost Savings
- Eliminates Product Down-time for Testing
- Simple to Use
- Collaborative Development Process
- Prototyping and Testing Service
- Comprehensive Documentation
- Final Product Packaging

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Overview

Ansaldo STS required a method for testing the accuracy, safety and effectiveness of Grade Crossing Predictors (GCPs). These Grade Crossing Predictors are installed at level train crossings and control the lights, bells and boom gates ensuring the safety of people in other vehicles.



The Challenge

When Ansaldo approached Omnitronics there were no available products to test these GCPs without the use of a real train. This is a highly costly exercise especially if it means that major resources companies need to shut down their transportation links, and therefore cutting production, to allow for such testing.

The Solution



Through a collaborative consultation process, Omnitronics created the Digital Train Motion Simulator which allows for Warehouse Testing of the GCPs.

Testers can now configure the Simulator to test GCPs for a wide range of scenarios including for Distance, Speed and Direction. Furthermore it can test for unique events such as train stoppages.

A full documentation suite, product housing and packaging were included as part of the Omnitronics' service.

Conclusion

The Digital Train Motion Simulators have now been used to successfully warehouse test a large number of GCPs. Additionally, multiple units have been connected together to test a crossing with 8 tracks, the most complicated level crossing ever tested.

