

Axle Counter System

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The Challenge

Monitor and record high-frequency signals from a PXI-based railway data collection system, then analyze recorded signals to deduce information about trains and axle count for the purpose of performance analysis and preventive maintenance.



Figure 1. Electromagnetic sensors embedded in a railway track.

The Solution

Proximal Technologies engineers used NI hardware and LabVIEW software to develop a robust application to record and analyze the high-frequency signals generated when trains pass over electromagnetic sensors embedded in the railway track.

Problem Background and Solution

The customer was experiencing frustration with the in-house LabVIEW software they had developed on their own to perform the railway analysis because it was slow, prone to errors, and difficult to expand. Having heard about Proximal Technologies' reputation for creating professional LabVIEW software with intuitive and modern user-interfaces, the customer reached out to us about refactoring their code. We completely reworked the architecture and interface of the project to make it more dependable, and easy to maintain. Proximal Technologies engineers also created a new configuration management interface for the customer, as well as a new tool for automatically generating Word documents reports that can be easily distributed.

NI Hardware:

PXIe-5105

Next Steps

Do you need a similar solution? If you have need for custom hardware and software integration, we at Proximal Technologies are ready to help!

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