

## **Real Time Data in a Wireless Network**

One of the manufacturing facilities here in the Upstate, ships their product by Rail Car. This product is shipped all over the North American Continent.

The facility has multiple sets of the Weightronix Weighline Railscales. This is not a legal



Trade scale – it truly is a weight estimator. It is my customers experience that this device will provide a weight estimate that is within 8 to 10% of the actual weight. This customer uses the Weighline Railscale weight information to fill the railcars with the product. The Railcar then is transferred to the Certified MettlerToledo Railscale – that is accurate!

One of the inherent problems with the Weighline, is it has a “sweet spot” for accuracy. As this photo from the weightronix website shows, the Railcar wheel must be centered in the “orange paint” area in order to provide some semblance of accuracy. The centering requirement can be a real challenge when you have an operation that involves multiple kinds of railcars that are of different lengths. Remember that a standard railcar will require Eight Sets of the the weighline rails, four on each side, four on each end. The yard engine Engineer has a difficult time of getting the railcar centered on the weighline units.

Originally this operation was not a customer of ours. It was painful to come onsite and see all of these Weightronix Blue Rail Scales at their facility! The challenge was – to come up with a way to get the railcars centered onto the Weightronix Weighline Scales.

We initially looked at putting proximity switches on the Rail at the Sweet Spot. Knowing that the Proximity switch was going to be a source of maintenance, we quickly ignored this idea.

It was observed that, while positioning the railcar on the weighline, the railcar was on the “Sweet Spot” when the indicator displayed the greatest weight. Our solution to the customer was to replace the Weightronix WI-130 indicator with the JagXtreme Instrument. The JagXtreme Indicator’s were placed on the company local area network. A wireless Network was installed with a wirelss connection to a Sunlight Readable PDA in the Trackmobile. A Trackmobile operator simply indicated which JagXtreme was to be selected on the display, this is nothing more than selecting the TCPIP address of the JagX to display. To further enhance the application, we developed a simple graphics application that graphically indicated to the Track Mobile Engineer when the weight was increasing or decreasing.

The railcars are filled by weight with the Weighline Railcar Weight information. The JagXtreme proved to provide further enhancements on the Railcar fill controls. The WI-130 indicators were on an RS485 network that proved troublesome. We installed the ModBusPlus card in the JagXtreme, and the units were also connected to the Modicon PLC Network infrastructure. This proved to be a much more effective means of providing real time weight information for fill control.

This application of technology to a competitor's customer, provided Everest Scale, Inc. the ability to demonstrate our equipment competence, and in the end won our company a very good customer.



For more information on Mettler Toledo Weighing Equipment, and the application of technology, please give us a call @ 864-242-5885 or email to Chris Stansberry [cs@everestscale.com](mailto:cs@everestscale.com)