

Enterprise Integration



Control System Details:

- 53 sites
- Utilizing nationwide WAN
- Some facilities utilizing wireless technologies
- "Push/Pull" using RsSQL to SQL database

Rockwell System Components

- 60+ ControlLogix Processors
- Numerous PLC5s
- Numerous SLC5/05
- Flex I/O
- Remote I/O
- MODBUS modules for reading tank levels

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For years IAE has worked closely with a major railroad as a preferred system integrator for anything from fuel platform automation to automated locomotive wash stations. IAE was selected to implement a large enterprise integration project to install nationwide data collection, interpretation, and communication hardware and software to operate in a "lights out" condition to enable web-based fueling facility reporting. This project was to start with 11 of 50 fueling sites (with the balance of sites getting completed and brought online over the following few years) and communicate data into the railroad's central database using "push/pull" data transfer algorithms across their WAN by utilizing Rockwell's RsSQL capabilities. The information from the database will then be displayed in various configured and ad-hoc reports utilizing the ease and flexibility of a web-based reporting solution.

Each site is utilizing a main ControlLogix processor to store a global memory map that will collect the various values to be written to the database. Each site's control platform will be unique beyond that, however, the ControlLogix global memory map will make each site "appear" to be the same by using a standard data table structure.

The reports are used by railroad personnel across the country for uses such as fuel tank reconciliation, current tank levels, fuel dispensing and receiving, fuel tank percent variance based on receiving / dispensing and current level, purchasing fuel in large quantities split among the facilities, etc.

