

# Pendant Automation TIA Portal Application Awards - 2012

**Company Name:** Pendant Automation

**Location of Application:** 518 B Young Street,  
Havre de Grace, MD 21078

**Website:** [www.pendantautomation.com](http://www.pendantautomation.com)

**Key Business Activities:** Pendant Automation is a Systems Integrator providing a total system solution for their customers' Automation and Control needs.

**Name of Application:** Power Plant Fuel Supply Control System, Bagram Air Base - Afghanistan

**Description of Application:** The system consists of (16) Diesel Storage Tanks and (30) Generator Day Tanks. The Offload PLC Control Panel allows the tanker operator to Offload Diesel Fuel into the any of the (16) Tanks. Using Tank High & Low level detection coupled with a KTP600 Basic HMI from Siemens, allowed the operator to know which tanks were in need of fuel and protect the tanks from an overfill condition.

The Supply PLC Control Panel allowed for automatic transfer of Diesel Fuel from the Storage Tanks to any of the (30) Generator Day Tanks without operator intervention. A Siemens KTP600 Basic HMI allowed a maintenance technician to view all (46) tanks at any given time to see if their fuel levels were within operating range.



## What challenges led you to look at a new solution?

The main challenges that Pendant Automation faced with this and other projects were cost and time. For this project Pendant Automation needed to control over 46 fuel tanks and deliver a competitively priced system on time. They also needed worldwide support for the automation products they use.

## What Siemens automation products were chosen for this project and why?

For this system Pendant Automation used two S71214C PLCs, two Basic Panels (KTP600), local I/O and Ethernet switches. These products were chosen because of their cost and feature set and the fact they can be configured and programmed by one engineering software, the TIA Portal.

## What features in the TIA Portal addressed your project challenges?

The main feature that the TIA Portal addressed for Pendant Automation is the integration of the PLC and HMI software inside one programming environment. This allowed for easy drag and drop of tags between the PLC and HMI editors. Networking and communication between the PLCs used in the project were easy to set up and configure. With a consistent look and feel for all editors, the navigation within the software is easy to follow. The PLC programming editor was easy to work with and allowed for efficient reuse of code with Function Blocks. When commissioning the project, Pendant was able to easily troubleshoot their system because of the online and diagnostics features within the software. They stated that for this fuel delivery and storage system, they were able to debug the machine to the extent that they received no start-up problems on site with the end customer.

## How has your business improved?

Pendant's main requirement was a reduction in cost and engineering time, and with the Siemens automation products and the TIA Portal software they were able to meet and exceed these challenges. They stated that with this software they were able to engineer a system faster with over 46 fuel tanks than compared to a previous fuel system that was done with Automation Direct, which had only 5 fuel tanks. They credit the TIA Portal with at least a 30% reduction in engineering development time, which means they can quote for more and larger systems. Being successful with Siemens is allowing Pendant Automation to grow their business by reducing their engineering development time, reducing their training costs for new employees and by winning more overseas projects.

