Applied Energy Systems, Inc.: TIA Portal Application Awards - 2012

Company Name: SEMI-GAS® Systems Division- Applied Energy Systems, Inc.

Location of Application: 180 Quaker Lane, Malvern, PA 19380

Website: www.semi-gas.com

Key Business Activities: The Applied Energy Systems' SEMI-GAS® Division specializes in the design and manufacture of ultra-high purity gas source, distribution, and control systems. SEMI-GAS® serves leaders across the globe in the most advanced University, Research and Development, Photovoltaic and Semiconductors environments, as well as customers in related industries that seek our world-class designs for safety, quality, and performance.

Name of Application: Nanoturion™ Semi Automatic VMB with GigaGuard™ GSM Controller

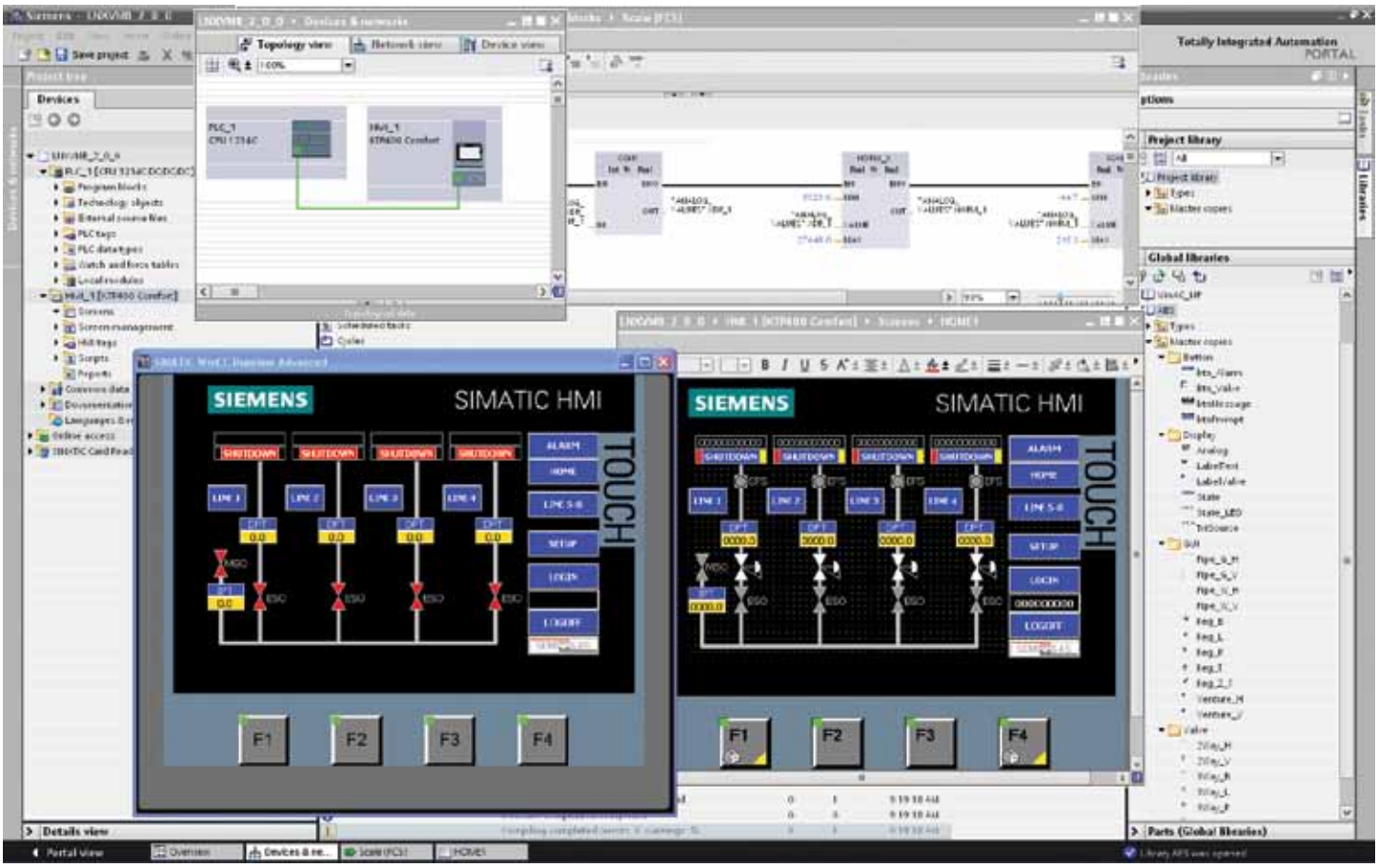
Description of Application: Valve Manifold Boxes (VMB) are used to regulate and distribute the supply of hazardous production material gas to multiple tools, safely, and without contamination or pressure fluctuations that may affect the end process.

What challenges led you to look at a new solution?
The main challenge that Applied Energy faced was rapid development of the engineering software needed for the control and customization of their machines. In their industry, accurate delivery times of equipment is critical, and so any delays due to engineering software development will affect their business. Therefore they were looking for ways to standardize and reuse code wherever possible. In addition, Applied Energy wanted to enhance their existing product line with a new cost effective control system that delivered the features they needed.

What Siemens automation products were chosen for this project and why?
The gas distribution system that Applied Energy developed used a S71214 CPU, KTP400 and KTP1000 Comfort Panels, along with Analog and Discrete I/O. These products were the perfect fit for Applied Energy's application because of the price and feature set that they delivered. In addition they can be configured and programmed with one engineering software, the TIA Portal.

What features in the TIA Portal addressed your project challenges?
One of the main features for Applied Energy was the fact that the PLC and HMI engineering could be combined inside one software platform. In the past where they had different engineers work on different parts of the program, inconsistent tag names between the PLC and HMI was an issue. This was eliminated with the TIA Portal because of the single data base between the PLC and HMI. The cross reference of tags is a great tool to troubleshoot problems, and again is much easier because of the single database. Setting up the networking and communications between the PLCs and HMIs was also much easier in the device and network view by just graphically connecting them together. However the feature that saved Applied Energy the most in engineering time was the Global Library feature. This allowed them to engineer parts of their code once, and then place it in the library for reuse by other engineers on later projects. This feature, combined with the development of standard function blocks for parts of their machine, allowed Applied Energy to meet the challenge of developing reusable code that could be shared across their company's product line.

How has your business improved?
The use of the TIA Portal has allowed Applied Energy to quote delivery times on their equipment that they are confident they will meet. It is allowing them to get their product faster to the market which in turn helps them be more competitive and grow their business. Applied Energy stated that they will win more business in the future because delivery time is so important to their industry. They estimate that the TIA Portal software has allowed them to reduce their engineering development time by at least 25%.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