**SIEMENS**

# Charter Controls, Inc:
# TIA Portal Application Awards – 2012

**Company Name:** Charter Controls, Inc.

**Location of Application:** Camas, WA

**Website:** *http://www.chartercontrols.us*

**Key Business Activities:** UL508A panel shop, focusing on OEM automation and drives integration

**Name of Application:** Underwriters Laboratories (UL) 1581 Vertical Tray Flame Test Apparatus

**Description of Application:** Charter's application is for control of a wire testing apparatus under exposure to direct flame of a burner to reach UL 1581 standards. The wire is tested by applying the burner flame and determining if the wire burns for longer or shorter than 60 seconds; a time longer than 60 seconds would result in a test failure. This apparatus used a PLC & HMI system to control a varying room ventilation and gas flow into the burner.

**What challenges led you to look at a new solution?**
This particular control system had to be as small and as flexible as possible; it also had to maximize mobility for its operators, who would be testing the wires on an already utilized workbench.

**What Siemens automation products were chosen for this project and why?**
The SIMATIC Mobile Panel 177 PN HMI and S7-1200 PLC were chosen for this application, because of the native PROFINET integration of PLC and HMI, and because the S7-1200 platform allowed for a high degree of possible expandability in the control system. The Mobile Panel HMI gave the operator flexibility to move around the apparatus and to manage space-sharing on the workbench.

**What features in the TIA Portal addressed your project challenges?**
The TIA Portal's integrated engineering environment of PLC, HMI and Network allowed for flexibility during the engineering of the system. The time necessary to integrate PLC and HMI was next to none! It is extremely simple for our newer engineers to learn, via the intuitive layout and usability. Also, the floating licensing model gave us the option to have multiple engineers share the workload with great ease. With the TIA Portal, we were able to easily accomplish the requirements of our Customer, which helps build trust in our business relationship.

**How has your business improved?**
The innovations in TIA Portal software have greatly reduced our time getting our end product to the End User – we would approximate a total saving of 40% over previous software environments. Our Customer really appreciates the fact that they only have one software interface to maintain their entire machine!