Application Brief: One-Step Automation

The Challenge

One-Step Automation in Niverville, Manitoba, builds custom automation systems to control grain handling and seed processing facilities. Automation Specialist Arlin Friesen says One Step's clients increasingly request an HMI or operator interface they can use anywhere. "They want control, monitoring, and live video."

"Much of the equipment in seed processing facilities is driven by variable frequency drives (VFDs)," he explains. "Clients want to adjust those motor speeds based on the quality of product they see coming off the processing equipment. And they want to monitor product quality with a live camera feed."

Customers also want real-time feedback on bin levels, motor failures and alarms, and surge hopper levels, as well as the ability to control shutdown processes.

Currently all of these require an HMI in the facility itself. But Friesen says clients want to run their facilities longer and from remote locations, reducing onsite staff.

One-Step Automation first tackled the challenge with what Friesen calls "a makeshift solution" that involved coding HTML and PHP pages on a web server, plus programming an Opto 22 SNAP PAC controller to exchange data with the web server.

It was uphill work.

"We're primarily electricians," he says. "Naturally our skills aren't as spectacular in these areas. Being a smaller business, we don't have the time or resources to improve or support it to a point where it's polished and able to communicate information to the client in a quick efficient manner."

The Solution

With *groov* from Opto 22, Friesen put together a solution quickly. Using just a web browser with no plugins, he built an operator interface that can be used equally well on computers, tablets, and smartphones—virtually any device with a modern web browser.

Customers control VFD speed using adjustable buttons or sliders, and the interface includes live views from IP cameras on the equipment to clearly show product flow. Customers are happy with their new ability to monitor quality control while away from the processing facility—and One-Step is happy to be able to meet their needs.

In addition to seed and grain handling equipment, the Canadian integrator also builds control panels for machine builders and OEMs (original equipment manufacturers) to use in their products. Friesen expects *groov* interfaces to be an attractive option for these panels and other projects as well.

"I'm excited about the possibilities of *groov* and how this opens the door for our automation systems to be run entirely from mobile devices," he says. "I'm looking forward to watching this product develop over time."

Seed processing equipment is securely monitored and controlled on a smartphone.

The Customer
One-Step Automation
http://www.one-step.ca

About Opto 22
Opto 22 develops and manufactures hardware and software for applications involving industrial automation and control, energy management, remote monitoring, and data acquisition. Designed and made in the U.S.A., Opto 22 products have an established reputation worldwide for ease of use, innovation, quality, and reliability. Opto 22 products, which use standard, commercially available networking and computer technologies, are used by automation end-users, OEMs, and information technology and operations personnel in over 10,000 installations worldwide. The company was founded in 1974 and is privately held in Temecula, California, U.S.A. Opto 22 products are available through a global network of distributors and system integrators. For more information, contact Opto 22 headquarters at +1-951-695-3000 or visit www.opto22.com.