



Application Brief: New Enterprise Stone & Lime

Operators avoid the quarry with remote pump system monitoring

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APPLICATION BRIEF: NEW ENTERPRISE STONE & LIME

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THE CHALLENGE

At a stone quarry in Roaring Spring, PA, two powerful 6 in. (15 cm) pumps remove millions of gallons of water each year that builds up from rainfall and runoff.

The quarry is one of many mined throughout central Pennsylvania by New Enterprise Stone & Lime Co., Inc. (NES&L), a supplier of aggregate, crushed stone, hot mixed asphalt (HMA), ready-mixed concrete, and other construction materials to customers throughout the northeastern United States.

The stone quarry is not the kind of place you want to walk into to check a pump. So NES&L Automation Manager Ashley Fleck needed a remote management system for the quarry's unattended pump control system. He wanted electricians and mining technicians to be able to monitor and control the pumps from PCs at company headquarters, and from smartphones and other wireless devices on site.

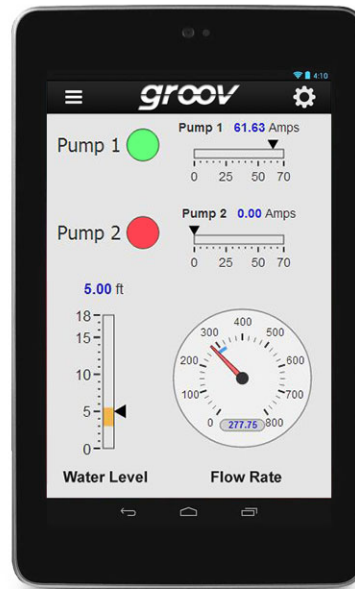
Since the pump control system uses an Opto 22 SNAP PAC R-series controller and SNAP I/O hardware, Opto 22 products were already on Fleck's radar.

THE SOLUTION

Fleck had heard about *groov* products from his regional Opto 22 sales engineer and ordered the *groov* Box hardware appliance, which includes *groov* View for building and viewing an operator interface.

"*groov* View turned out to be the perfect tool for the project," he explains. "We quickly built a web-based interface for the pump control system."

The *groov* View interface, running in a browser on a PC, smartphone, or other device, shows key information like



Pump operational status and current draw are available on a compact tablet.

operational status, current draw, flow rate, and the water level in the quarry. If additional information is needed later, it can be easily added to the interface.

The process of developing and deploying an HMI with *groov* View, says Fleck, was "super easy."

ABOUT OPTO 22

Opto 22 was started in 1974 by a co-inventor of the solid-state relay (SSR), who discovered a way to make SSRs more reliable.

Opto 22 has consistently built products on open standards rather than on proprietary technologies. The company developed the red-white-yellow-black color-coding system for input/output (I/O) modules and the open Optomux® protocol, and pioneered Ethernet-based I/O.

In early 2013 Opto 22 introduced *groov* View, an easy-to-use IoT tool for developing and viewing mobile operator interfaces—mobile apps to securely monitor and control virtually any automation system or equipment.



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Famous worldwide for its reliable industrial I/O, the company in 2018 introduced *groov EPIC*® (edge programmable industrial controller). EPIC has an open-source Linux® OS and provides connectivity to PLCs, software, and online services, plus data handling and visualization, in addition to real-time control.

All Opto 22 products are manufactured and supported in the U.S.A. Most solid-state SSRs and I/O modules are guaranteed for life.



The company is especially trusted for its continuing policy of providing free product support, free training, and free pre-sales engineering assistance.

For more information, visit opto22.com or contact **Opto 22 Pre-Sales Engineering:**

Phone: **800-321-6786** (toll-free in the U.S. and Canada) or **951-695-3000**

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