Application Brief: Electronics Manufacturer

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OPTO 22
The Edge of Automation.™

APPLICATION BRIEF: ELECTRONICS MANUFACTURER

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THE CHALLENGE

Mike Hake likes to say that he's "an electrician first and a programmer second." Hake is Senior Facilities Technician at an electronics manufacturer in Bohemia, New York. The company designs and manufactures motion control and other products for applications in aerospace, defense, and industrial automation.

An electrician by training, Hake learned to program automation controllers when the company bought Opto 22's SNAP PAC System to monitor and control the compressors, vacuum pumps, lighting, and other equipment at its manufacturing facility.

Hake also learned to use PAC Display HMI (human-machine interface) software to build operator interfaces for the automated systems. The operator interfaces he built worked well on a Windows PC.

A few years passed, and as Hake saw smartphones multiply and his spare time diminish, he realized how valuable they'd be for remote monitoring and control. Smartphone support became a priority.

Hake thought about using remote desktop software to access his HMI, but using a PC on a smartphone's small display was awkward at best. He searched for something simpler and better.

THE SOLUTION

Hake found his smartphone solution when he read about *groov* products on Opto 22's OptoForums online community, learning that operator interfaces built in *groov* View run in a modern web browser on almost any smartphone. Hake bought a *groov* Box hardware appliance and easily got it up and running, an experience he describes as "very plug and play."

He then built operator interfaces in *groov* View and created user and group accounts, assigning access permissions and operator rights to employees based on job, department, and other criteria.
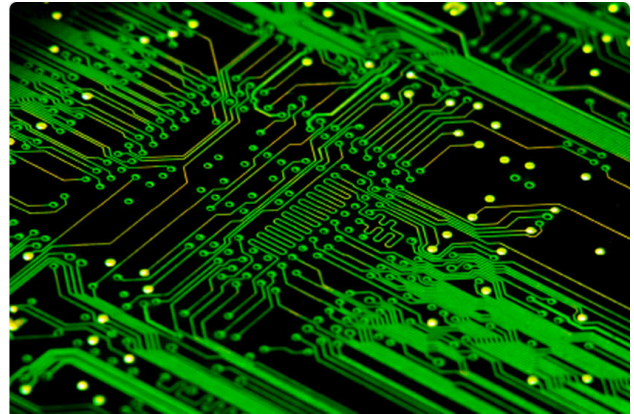
The existing Windows PC-based operator interfaces remain online. Explains Hake: "*groov* View augments those HMIs; it doesn't replace them." He says that *groov* View makes essential information and important controls immediately
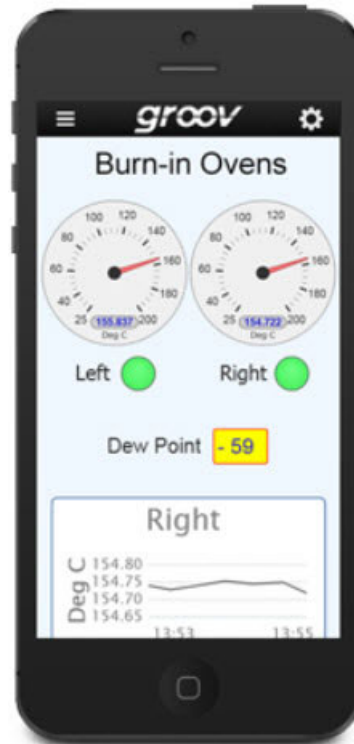
A simple interface, shown here on a smartphone, provides equipment status.

available, while the HMIs provide detailed information that's valuable for analysis and diagnostics.

With his *groov* View interface open on his smartphone, Hake can remotely monitor and control facility compressors, lighting, air conditioning units, pumps, and ovens. He can also see the facility's power consumption data from three Opto 22 OptoEMU Sensor energy monitoring units.

Hake particularly appreciates being able to monitor and, if necessary, override an automated schedule for lighting and some equipment.

Another bonus is the speed of the *groov* View interface. Because *groov* View retrieves only new or changed information, the response is immediate, even over a slow mobile connection when he's away from the plant.

"I can't believe how fast data updates," he notes.

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.

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**:

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