Opto 22 announces world’s first Edge Programmable Industrial Controller: *groov* EPIC

*Completely new system brings the future of automation to the present by combining guaranteed-for-life I/O, real-time control, local and remote HMI, and industrial/IT data exchange in a compact, industrial package*

Temecula, CA - February 14, 2018 – Experienced industrial automation manufacturer and industrial internet of things tools developer Opto 22 today announced a groundbreaking new industrial system to address the needs of automation engineers and developers solving the challenging automation and industrial internet of things (IIoT) problems in today’s fast-moving, data-centric environment.

Current IIoT solutions typically require multiple moving parts, including stitched-together software technologies, bolted-on communications protocols, legacy controllers and I/O, and a medley of gateways. These solutions are expensive to build, difficult to troubleshoot, require multi-domain expertise, and are unsustainable over the long term. The new *groov* EPIC® system helps solve these problems by combining I/O, control, data processing, and visualization into one secure, maintainable, edge-of-network industrial system. *groov* EPIC lets engineers and developers focus on delivering value, not on triaging loosely connected components.

“We are a company of engineers inspired and driven to create products that unleash our customers’ imaginations,” says Mark Engman, Opto 22 CEO. “*groov* EPIC is a culmination of that mission, a response to industry requests to more wholly integrate IT and OT technologies, simplify development and deployment, and provide a platform for long-term growth now and well into the future.”

Combining reimagined intelligent I/O with an embedded Linux® real-time controller, gateway functions, and an integrated display, *groov* EPIC offers field-proven industrial hardware design
with a modern software ensemble, to produce the results that visionary engineers want today. Connecting legacy systems, controlling processes and automating machines, subscribing to web services and creating mashups, acquiring and publishing data, visualizing that data wherever it is needed, and mobilizing operators—all of these are now within reach. In addition, groov EPIC simplifies commissioning and wiring and helps engineers develop rapidly and deploy quickly.

“The groov EPIC system incorporates in one unit everything needed to connect and control field and operational devices and data, through on-premises IT databases, spreadsheets and other software, to cloud storage and services—and back again,” says Benson Houglund, Opto 22 vice president of Marketing & Product Strategy. “This ability to easily exchange data and use it where needed opens opportunities automation engineers have not had until now. This is a truly new system that builds on the past but looks fundamentally to the future of our industry.”

The groov EPIC system will be of particular interest for process control, machine control, OEM, manufacturing, SCADA/RTU, building and facilities, and IIoT applications. Commercial, retail, warehousing, and distribution customers will also find that the system opens a wide variety of new options for tracking, storing, and visualizing data—all of which are essential to developing more efficient operations.

Of particular interest to original equipment manufacturers (OEMs) will be optional access to the Linux operating system through secure shell (SSH). This access, along with toolchains and interpreters for Java, C/C++, Python, JavaScript/Node.js, and more, allows OEM developers to execute their own custom developed applications on this ruggedized, edge processing control system.

**Features** of the new system include:

- Industrial modular intelligent I/O, real-time Linux-based automation controller, and edge gateway in a single stainless-steel chassis
- UL Hazardous Locations approved and ATEX compliant
- Integrated high-resolution color touchscreen with HDMI output for optional external monitor
- Compact footprint with integrated power supply and dead-front design
- On-board system configuration, commissioning, and troubleshooting; no PC required
- Remote configuration and troubleshooting from any web browser on any device
- Dual, independent Gigabit Ethernet network interfaces
- Dual USB ports for serial communications, touchscreen monitors, or WiFi adapters
• Multiple power supply options including AC, DC, and pass-through
• Wide -20 to 70 °C operating temperature range
• Touch-sensitive pad on I/O modules for configuring, commissioning, and testing
• Spring-clamp terminal strip directly atop I/O module accommodating up to 14 AWG wire
• LED indicators for module health at a glance, and for individual discrete channels
• I/O module density of up to 24 channels per module
• Multi-featured analog inputs supporting voltage, current, and loop sourcing in single module
• Analog input resolution of 20 bits at 0.1% accuracy over span
• Channel-to-channel isolation available for most I/O modules
• Real-time, open-source Linux OS running on an industrial quad-core ARM® processor
• 2 GB RAM, 6 GB user space on industrial solid-state drive

**Software features** include:
• *groov* Manage software for tool-less configuration, commissioning, and debugging on-board and from anywhere on the network
• PAC Control flowchart-based control development environment with scripting and visual debugger
• *groov* View visualization server for creating and viewing HMIs, trends, and events for any mobile device or web browser; also viewable locally on integral touchscreen
• Node-RED flow-based development environment and runtime for edge data processing, handling, and communications
• Ignition Edge® from Inductive Automation® with drivers to Allen-Bradley®, Siemens®, and more
• MQTT/Sparkplug protocol for efficient, industrial publish/subscribe communications
• 100% backward compatible with SNAP PAC systems and SNAP Ethernet I/O
• Available secure shell access, SDKs, and cross-compiler for custom user-written applications

**Availability**
The *groov* EPIC system is slated for release in May 2018, with pre-orders beginning in April. For additional information and application advice, contact an Opto 22 pre-sales engineer: 951-695-3000 or toll-free, 800-321-6786.
About Opto 22

Opto 22 designs and manufactures industrial control products and internet of things platforms that bridge the gap between information technology (IT) and operations technology (OT). Based on a core design philosophy of leveraging open, standards-based technology, Opto 22 products are deployed worldwide in industrial automation, process control, building automation, industrial refrigeration, remote monitoring, and data acquisition applications. Designed and manufactured in the U.S.A., Opto 22 products have a worldwide reputation for ease-of-use, innovation, quality, and reliability. For over 40 years OEMs, machine builders, automation end-users, and information technology and operations personnel have and continue to trust Opto 22 to deliver high-quality products with superior reliability. 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. Follow us on Twitter, Facebook, LinkedIn, YouTube.

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