The **ProSofi**. A PUBLICATION OF PROSOFT TECHNOLOGY, INC **ISSUE ELEVEN | 2017**

6 **Modernization:** What are Your Priorities?

11 What's next for the HoT?

> **14** Clear communications for an aluminum supplier

22 Manufacturing cables – thanks to the migration gateway

contents

ProSoft Perspective

Editor's Note

6 11 14

5

Modernization: What are Your Priorities?

0

Ø

The next wave of IIoT-related business improvements

Keeping currents safe for aluminum supplier

11 61 1



ISSUE 11 | 2017

Magazine Staff

Editor-in-Chief Lauren Robeson

Graphic Artists Jim Duncan Juliane Bone

ProSoft Senior Leadership Team

Vice President, General Manager Subhajit Bagchi

Vice President, Global Sales/Marketing Joe Rich

Vice President, Global Marketing Ken Roslan

Vice President, Engineering Daniel Wade

The ProSoft Magazine is a publication of ProSoft Technology, Inc., headquartered at 9201 Camino Media, Bakersfield, California USA. Please address all correspondence to the Editor-in-Chief at the above address. The magazine is published twice a year (Spring and Fall). All trademarks, company names and product names referred to throughout this publication are used for identification purposes only and are the properties of their respective companies. All rights reserved. The contents of this publication may not be reproduced in whole or part without consent of the copyright owner.

SUBSCRIPTIONS: Qualified reader subscriptions are accepted from the Industrial Automation industry at no charge. To apply for a free subscription, fill out the subscription form found at **psft.com/BBI.** To non-qualified subscribers in the US and Canada, subscriptions are \$20 per year. All other regions are \$30 per year. \blacklozenge

Improving the Cleaning Process

Manufacturing cables

ProSoft Profiles

Were You There?

×

14

ŝ

4

Spot the Difference

ProSoft Technology: An Industrial Solution Provider

JOE RICH VP, Global Sales & Marketing

ProSoft Technology has always been a company focused on helping our customers solve network and communication issues within their operations, but we've never thought of ourselves as a true solution provider...until now.

At ProSoft, we've realized that our value to our customers isn't just the products we make and how we support them, it's the unique business challenges we help our customers solve every day. This is an important distinction, as moving forward, everything we do will be focused on how we can better support our customers' businesses.

Today, we can categorize the business challenges ProSoft can address for our customers into the following four areas:

- 1. Modernization of legacy control systems to new technology.
- 2. Migration from one control platform to another.

- 3. Connecting disparate control systems and remote assets (wireless and cellular).
- 4. Optimizing critical processes, such as Oil and Gas flow and high-speed computing.

You're going to see some positive changes coming to ProSoft as a result of this evolution. Product Development, Sales and Marketing, and Technical and Applications Support will all center on enhancing our ability to address these business challenges, and new ones, for our customers. We'll enhance our existing product portfolio and develop exciting new products that will allow our customers to further solve the types of challenges described above. Our Marketing material will focus more on the specific types of applications that we can deliver. Our Sales teams are going to work harder to understand their customers' operations and offer suggestions as to how we can help them run more smoothly. And we're investing in Technical Support so that we can better replicate and understand customer applications as systems, not just our products.

Thank you for taking the time to browse through our magazine. We hope you find the content interesting and useful, and we welcome your feedback. We're excited by our evolution into becoming a true industrial solution provider, and thank you, our customers, for the trust you place in us every day. •

OPTIMISM IN AUTOMATION

Editor-in-Chief

Last year I was at a show that is automationfocused in every degree and talking with someone who works in banking.

If you're reading this, chances are good you've been to at least one trade show, and you know the drill: If you're there as a customer or representing a customer, you may have an application that you're looking to start soon and have some purchasing decisions coming up; you could have a more major project coming up at some point and you're just trying to get some base information before diving in. If you're a vendor, you want to find out what booth visitors' pain points are, and whether there's a way you can help make their lives that much easier.

This particular booth visitor didn't have an obstacle to overcome, and was at the show for the first time, just learning more in general. He'd heard very little about ProSoft, which was both humbling and vaguely daunting (in case you haven't delved deep into our solutions, spoiler alert: we have a lot of them).

Then he asked me a question that I really liked: What makes me excited about working for ProSoft?

There's a lot of answers to that one, but one stands out pretty clearly above all others: I like being able to help people. (Super broad, so for him I narrowed that down to how we're able to help people give an assist to the environment and their bottom line by aligning their building automation equipment with their control system to increase their energy efficiency. Yes, I'm passionate about that and what else our solutions can do, and yes, I'm a geek to the nth degree, but come on – you've got to admit that's pretty cool.)

The truth is, if there's nothing redeemable you can find in your profession, sooner or later that's going to be a problem. Another truth: There's lots to love about working at ProSoft, but helping customers see what they can achieve is really great. This is especially true when it comes to projects where customers assume their option was massive upheaval with lots of costly downtime vs. keep on keeping on until chaos on the day the legacy equipment finally says, "See ya!" That we can streamline the modernization of legacy control systems to phases with minimized scheduled downtime is something that is, to me, pretty amazing. That's not just because I work here and have an editor's letter to write - from where I'm typing, that's the kind of technology that helps us help you optimize your processes so that you can do even more, and accomplish the things that you thought you couldn't do a year ago.

That kind of optimism speaks to me in a time where the world and the technologies and opportunities we're all afforded change each day. Not always for the best, of course, but usually there's a few things to be grateful for each day, even though I never remember to write them down like I pledge to. As of late for me that includes finding out how people are using and liking our solutions, and getting the chance to write about such cool uses (check out a particularly interesting highcurrent application on page 14); getting to work with such awesome people worldwide; and low-rated prestige television series that are thankfully still on the air (much love, FX and AMC).

There's a lot to be hopeful about as we consider how new resources and technology can transform our lives, both at work and outside of it. Changes we see this year could help us all do our jobs even more effectively, reach that ever-elusive work-life balance, or...well, the sky's the limit. That sort of renewed, everchanging interest in what you do and how you do it just might lend itself to your own interesting trade-show conversations this year. •

MODERNIZATION: WHAT ARE YOUR PRIORITIES?

LAUREN ROBESON

If you have legacy architectures throughout your operation, there's a good chance your thought process on modernization falls into at least one of the following camps:

- You know at some point you will need to modernize, but it seems to be a ways off so you're not too focused on it yet.
- You know modernization will need to be addressed soon, but aren't exactly loving the idea of finding enough scheduled downtime to upgrade your systems.

And with all that comes more analyses than anyone would want to read that don't necessarily speak to what you might even be wondering about and sometimes are summed up with "you'll have to do this sometime." (Thanks, that was helpful!)

With this article, we're aiming to help you by giving you an overview of what your peers are considering when it comes to some modernization projects, and the benefits these changes can bring to help make your operation more productive, profitable, and secure.



A phased migration represents a low-risk option.

Modernizing your operation

Modernization of legacy equipment seems to get more attention, potentially because of the perceived costs involved.

For some Rockwell Automation® users, their legacy Remote I/O[™]- or DH+[™]-based equipment is nearing retirement age. Now that the industrial giant's newer equipment utilizes EtherNet/IP™, some customers are wondering what's at stake in regard to revenue loss from downtime. Bobby Maxwell, a Product Manager at ProSoft who specializes in modernization solutions, notes that the three main upgrade options can on a base level be classified by their risk level: Doing nothing is a high-risk option, while a rip-and-replace still brings some risk to your operations. A phased migration represents a lowrisk option.

Maxwell says a primary concern by customers is the price of modernizing. The good news is that there are solutions that allow them to utilize a phased modernization approach, as opposed to the dreaded rip-and-replace.

"Typically, a rip and replace of your control system - if you're going to pull out a controller and the I/O, drives, and a PanelView[™] - is a big project that costs a lot of capital and requires significant scheduled downtime. So, for companies that don't want to spend that kind of money and time, our solution allows them to only upgrade a single component, whether that is a drive, a PanelView, a single node of FLEX[™] I/O, or upgrade their controller and use their existing I/O," Maxwell explained. "So they can do it a little bit at a time, and it stays within their maintenance budget."

This approach helps users minimize the scheduled downtime that is a hallmark of a system rip-and-replace.

"Another concern they have is that they think, when they use ProSoft's migration gateway, that they have to go in and rewrite PLC-5® code," Maxwell said. "Like, 'Aghh, I have to get this PLC-5 that doesn't speak EtherNet/IP to talk to this new component that does!' With our modules, they don't have to worry about that, because we do all the conversion in our device. So, for example, the PLC-5 still thinks it's talking to the old drive. It doesn't have any idea that it's a new EtherNet/IP drive."

Wondering what your options are if you're upgrading a legacy Siemens[®], GE, TI, or Schneider Electric[®] PLC? In those applications, a phased migration is still a great option, with a variety of modules and gateways available that allow your new EtherNet/IP controller to control your existing I/O while sparing you a complete overhaul. ProSoft offers migration solutions in these applications that support Texas Instruments[™] 505 I/O, Modicon® 800 Series I/O, Square D[®] I/O, or GE Genius™ I/O. Need your new EtherNet/IP PAC to communicate peer to peer with other legacy PLCs? We have interfaces for Siemens PLCs via PROFINET, PROFIBUS, and Siemens Industrial Ethernet.

Have a Modbus Plus® network? We have a module that enables your ControlLogix® to connect as a peer on the Modbus Plus network. We also offer migration solutions for several legacy DCS systems that let your new PlantPAx[™] system control your existing I/O, minimizing your risk during the upgrade.

As you might expect, newer equipment helps users gain value from the Industrial Internet of Things as well. Additional diagnostic data is a key benefit, and can even help you predict necessary maintenance.

"If they can connect those Ethernetbased components back to their SCADA system or central control room of some sort, they can view those components in a

cell. These devices provide important diagnostic and operational data that can be used to reduce downtime," Maxwell said.

"If you have an automotive facility, you have moving vehicles - some of the equipment may be on a moving skillet or overhead conveyor and if those components are Ethernetbased, they can wirelessly connect to the peripherals, and get that data back so they can make more intelligent decisions. They can see what's going on in the factory, essentially."

That extra data comes in handy in other ways as well. By utilizing in-chassis modules and gateways to link building automation equipment such as HVAC systems, AC/heating units, and similar systems that speak a dissimilar protocol to the one utilized by your controller, you can ensure that the valuable data they gather about your energy usage can get to the enterprise level. There, your personnel can analyze and have the controller act upon the data to lower your energy costs and meet corporate sustainability objectives.

Oil and energy applications

In the oil and gas industry, some companies are looking for ways to streamline their operations while

The scalability allows

you to design once

and then reuse.

retaining the freedom to change their setup down the road without facing major alterations.

On some multiwell pad sites, you'll see multiple

RTUs, standalone flow computers, and a PLC. By using a setup involving a PLC-based in-chassis flow computer, you can eliminate the RTUs and standalone flow computers, lowering your capital spend and maintenance costs while ensuring a scalable system that can expand as your operation grows.

Erik Syme, a Director of Program Management at ProSoft who specializes in solutions for the oil/ gas and energy industries, said this standardization on a common control platform is a key benefit of the single flow computer setup.

"By being able to standardize the control and flow measurement on a

common platform, you can have a modular solution that can be scaled throughout the Logix platform to everything from small-scale systems using CompactLogix[™] to large-scale systems, including fully redundant automation systems. So you get kind of the best of both worlds," Syme explained. "Also, since ProSoft's module is a co-processor, as you get more meter runs in an installation on a multi-well pad site, you can add additional cards for your measurement activities rather than having to add additional flow computers or RTUs to do the same type of measurement. The scalability allows you to design once and then reuse. Especially in today's industry, where everybody's trying to reduce their capital expenditures, it allows them to scale to just the right solution based on a common control architecture. And if they need to scale up for larger well-pad sites, they can do that; if they need to scale down, they can utilize a smaller-scale system, like CompactLogix."

Syme said that in the energy sector, operations have been modernizing by adopting the use of IEC 61850 technology.

"Some customers are able to see the benefits of having an object-oriented solution where it reduces their overall SCADA development time and gives them a solution that ties in very nicely with control architecture for their relay and protection schemes," he said. "So there's some definite benefits of utilizing that over some legacy protocols like DNP and IEC 104, and we're seeing customers shift toward the newer 61850 protocol to take advantage of the implementation and also get more data up to the SCADA systems. By doing this, they're basically reducing their overall installation costs to get that information and not have to have a bunch of data concentrators out on site gathering information from various devices."

Wireless benefits via modernization

By modernizing your operation to include wireless communications, you can benefit in a variety of ways, said Keith Blodorn, Director of the Wireless Program at ProSoft.

"Wireless networks can eliminate failure-prone slip rings and festoons, enable automation of material handling equipment like AGVs, and provide a means for maintenance and operations personnel to access equipment from anywhere in the plant," Blodorn said.

Wireless I/O systems are also being used to send I/O signals without the installation pains of running wires and conduit. In existing infrastructures, Blodorn said, some manufacturers use Wireless I/O to connect machines in spots where putting new conduit would be too difficult.

"One machine OEM is installing Wireless I/O to connect the machine's operator control panel to the control system on the machine. Eliminating the need to run 500 feet of conduit and cable on each site results in significant installation savings," he said. "Another customer avoided an expensive trench across a road by installing a Wireless I/O system to connect equipment on one side to the main plant on the other."

Wireless networks are also being utilized in the oil and gas industry as companies look to optimize their resources, Syme said.

"The downturn has caused everybody to really look at their architectures. They're trying to find ways to optimize production to increase data availability and essentially to reduce their completions cost. So they're looking to go ahead and be able to get more production with less resources, whether it be manpower or CAPEX. That's caused a lot of customers to look toward wireless solutions at the well pad site," he said. "That can minimize electrical installation costs. It gives them a flexible architecture where if they need to go ahead and put in additional tanks or vapor recovery units or things like that, they can go ahead and put that in without having to trench and re-wire their control systems.

"They're looking to go to essentially using pre-wired installation cabinets. So as a well changes through different forms of artificial lift, from natural flowing to either gas lift or rod pump, they can swap out the artificial lift mechanism relatively quickly without having to run a bunch of wiring. By using wireless and Ethernet technology at the well pad site, they can go ahead and have a modular solution that they can swap out without having to run a bunch of cables and pay for trenching and electrical costs as the well site progresses from one form of artificial lift to another."

While wireless communications can help streamline your operation, there are several factors that need to be addressed to ensure strong and secure communications.

One of those is understanding your factory's radio frequency environment, Blodorn noted.

"Interference with other wireless systems can cause unwanted communications drops, so it's critical to plan an RF installation carefully," he said. "Know what frequencies are in use by other systems and how to minimize the RF 'footprint' of the plant wireless network, and apply the appropriate technology for the application."

At a time when headlines frequently mention hacking, security needs to be considered as well.

"Because data in a wireless system travels over the air as opposed to on copper wires, industrial customers worry about the security of the networks in their plants," Blodorn explained. "Security is best addressed by using industrystandard authentication standards, understanding how users should (and shouldn't) interact with the network, and applying data encryption so any nefarious snoopers will see nothing but unintelligible encrypted data."

Blodorn said that the type of wireless technology you use also depends on whether you're dealing with an automation or enterprise application.

"Industrial applications present unique challenges that are unimportant to enterprise use.

How **ProSoft** Can Help

To find out more about how you can modernize legacy Allen-Bradley® Remote I/O[™] and DH+™ equipment in phases, go to **psft.com/B3L.**

Looking to upgrade to a newer Rockwell Automation® PAC from your legacy DCS or PLC? Go to **psft.com/B3K** to learn more about a variety of options that will allow your new PAC to control your existing I/O.

If you're looking to simplify your oil and gas setup, learn about your options at **psft.com/B3I.** You can learn more about ProSoft's IEC 61850 solutions at **psft.com/B3M.**

For more information about ProSoft's secure wireless solutions for a variety of industries, visit **psft.com/B3J.**

continued Modernization: What Are Your Priorities?

One example is roaming in Wireless LAN networks. When using a wireless link to connect I/O with a main controller, it's critical that I/O updates reach the controller at a regular rate to avoid nuisance communication loss faults. However, clients in enterprise networks typically roam in 150 milliseconds or more. Even applying the added complexity and expense of a Wireless LAN Controller (WLC) only improves this to 50 milliseconds or so. Ultra-fast roaming of 10 milliseconds or less with no WLC drastically improves the reliability of I/O traffic, and is a feature unique to true industrial wireless products," Blodorn said. "Similarly, industrial wireless products should be able to provide status and diagnostic information directly to control systems, not just to IT network management software."

Beyond just offering clearer and more reliable communications, wireless networks offer users the ability to efficiently and cost-effectively access data, he said.

"Often, this ability to gather more data is a secondary consideration when implementing a wireless solution, but users quickly discover and make use of the value once the network is in place."

Are you curious about what benefits an Industrial Internet of Things-enabled setup could bring, but aren't sure about your options - or the security involved?

Being able to collect and analyze data can help manufacturers diagnose any issues earlier, plan for predictive maintenance, and optimize their resources. These benefits can be realized on a smaller scale or a larger one: If you have control equipment located remotely around the globe, you can monitor and edit it from anywhere in the world using a secure, cloudnative platform such as ProSoft Connect. •

THE NEXT WAVE THE NEXT TED OF 110T-RELATED OVERMENTS OF 110T-RESS IMPROVEMENTS SUSSINESS IMPROVEMENTS

By now we've well and truly covered the point that the IIoT is, in fact, not hype. For end users and OEMs, IIoT, cloud, and big data analytics are creating very real business opportunities.

The IIoT not only enhances the communication between machines and people - it is facilitating the next wave of value-added customized business services. ARC Advisory Group reports that 30 percent of end users and OEMs are already actively using IIoT tools or investing in projects. With OEMs, for example, according to ARC, the "IIoT provides new visibility that enables value-added services, competitive advantage for product design, and revenue growth. Adoption is no longer an option."

Human productivity is also an area that has huge potential for improvement thanks to IIoT-related services. I recently attended an event hosted by the International Business Congress and heard a figure quoted on "wrench time" for field operators. It said that in a 10-hour shift a worker spends only 2.5 hours on productive work work that adds value to the business. The rest of the time is taken by looking for information – probably traveling back and forth to a central maintenance office presumably searching filing cabinets looking for service manuals, along with admin work and various other non-value-add tasks. This is a very interesting figure because it means that the worker is only actively productive for 25 percent of his time!

The IIoT from a services standpoint will have several key benefits for our field worker, his boss, the business, and its suppliers.

continued The Next Wave of IIoT-related Business Improvements

Firstly, technology vendors and suppliers will increasingly be called on to deliver their knowledge and expertise to their customers as a service. This means sites can outsource some of their maintenance. For example, a facility that is trying to downsize its staff can rely on its suppliers to monitor critical equipment health via secondary sensors and upload data to the cloud. This can be very useful for complicated highperformance machinery because the vendor is, in fact, likely to be the expert in the operation of the equipment. It also means that the business does not need to directly employ a specialized, and highly paid, staff member to wait around and fix an issue when it arises. Alternatively, if a company does want in-house specialists and has multiple sites, they can hire one expert who, through the use of the IIoT, can monitor critical equipment at multiple sites.

Secondly, the IIoT and related services will improve the efficiency of staff in the field no matter their age or experience level. We refer to this as the augmented operator and it can be illustrated through this simple analogy: If a 55-year-old operator walks by a machine that is making a funny noise, he may well know from experience exactly what the issue is and how to solve the problem. Contrast that with the new 25-year-old operator who, without the aid of mobility devices, has to go back to the maintenance office to look for the manual of the equipment and, when he can't find it, start ringing around to find someone who is experienced with the equipment. Going forward, the 25-year-old will be able to pull the manual and troubleshooting charts up on his mobile device.

> Some newer equipment even has the capability to flash a dynamic QR code directly on the device,

> > 00/0

allowing the operator to access realtime information on the problem the equipment is experiencing, which helps the operator diagnose and solve the issue much more quickly.

Thirdly, on the customer side, the IIoT will assist in the management of the maintenance supply chain by making it easier to track spare parts and inventory levels, and simplifying the ordering process. From the vendor side, this represents an opportunity to build new service revenue streams by creating such digitized services - including digitized options for ordering manuals and spare parts and putting in place models to monetize the knowledge, advice, and best practice of its own employees for greater customer service.

Finally, IIoT services will make the "great crew change" a less scary transition. Similar to my points above on worker efficiency and productivity, as we move from experienced operators to the next generation there are two telling statistics about the aging workforce:

- 1. 50 percent of all refinery staff will retire in the next 5 to 7 years.
- 2. The millennial generation will be the largest generation in the workforce by 2025.

So in a short period of time, digital natives will make up the majority of the workforce. This means

moving from an average workforce age of 50-plus to a new guard of 20-somethings who have vastly less experience and very different working practices. Bridging this gap will require digital tools to not only capture the knowledge of older workers before they retire, but also make it available to the new generation in a way that supports their preference for digital work practices - tools such as augmented reality applications, dynamic QR codes, and access to easy online support. •

KEPING CURRENTS SAFE FOR ALUMINUM SUPPLIER

LAUREN ROBESON

Many people use something that's aluminum-based fairly often. Whether you're drinking a canned beverage or covering a dish, chances are you're not thinking of how the material came to be produced. The process of aluminum production is a long and potentially hazardous one if precautions are not in place. Clauser Dunkerque, a company based in France, knows the challenges involved and the precision required, and set about to strengthen communications in the aluminum production process for a supplier in the Middle East.

Clauser Dunkerque primarily manufactures high-current conductors and special machinery for use in aluminum production. In this case, it was manufacturing an earthing trolley for the company, and it needed to ensure strong, clear communications. The device is used in a facility filled with potlines. These reduction pots hold extracted aluminum, and are electrically connected in a series. Once in the pots, the aluminum melts down and is divided. A potline can feature 1,000 or more pots in some cases, with high current to match.

With such a high-current application, it's important to ensure that any potential leaky current is taken care of as soon as possible. A leakage can be caused by a variety of factors, including an insulation fault or humidity. In the best-case scenario, a leak left unfixed causes energy loss - and potentially losses in productivity and profit. Worst-case scenario, this can be hazardous



continued Keeping currents safe for aluminum supplier

to workers and cost a lot of money - if one flash occurs due to an unexpectedly high current, it could kill the substation, costing the company 100 million to 200 million euros.

So clear communications are a must in this type of facility. But they can be tricky: Running wires or cables from inside the potline to an outside environment wasn't possible in this operation. And even some wireless radios could face an issue if used in the facility thanks to interference caused by electrical noise. Previously, the communications were hard wired to FLEX™ I/O and had to be connected and unconnected every time the trolley was moved. That led to maintenance issues, with connectors being damaged, and did not allow for monitoring of the current.

That's where ProSoft Technology came in.

"We already had a business relationship with ProSoft Technology," said Clauser Dunkerque Project Manager Fréderic Vervelle, who had worked with Feby Mohammed and Aurélien Fabre of ProSoft's EMEA office in the past. "We also liked that local support was available."

ProSoft Technology's Weatherproof and Industrial Hotspot radios were used with MIMO antennas in conjunction with a Rockwell Automation[®] ControlLogix[®] system. The Weatherproof radios are perfect for this rugged application, and the 802.11n MIMO and channel bonding allows for high-resolution video monitoring while the I/O is being controlled - ideal for this application, where real-time information is crucial. The Industrial Hotspots offer Ultra-Fast access point switchover times of less than 10 ms, which came in handy as the earthing trolley connected to the closest repeater. Two master radios

connected on different channels to avoid interference and ensure redundancy between the repeaters.

"Our on-site tests went well. We especially liked that the system was flexible with reduced configuration - it took just half a day to configure the radio system, and less than a week for the full deployment of the application," Mr. Vervelle said. "We also like that ProSoft's solution was approved by the Telecommunication Regulatory Authority – if it hadn't been, we would have had declaration fees and a bandwidth-based payment."

Now this reliable communications network helps ensure safe division and processing of aluminum.

Find out more about ProSoft Technology's Industrial Wireless Solutions at **psft.com/BU5.** +



IMPROVING THE CLEANING PROCESS ONE MODULE AT A TIME

MAGMA

TSHIP -

19.00 (ante)

6.0527

When your food or beverage products are made in - or go through - a variety of machines in a processing or bottling facility, a top priority for their manufacturers is cleanliness. In this day and age, automated cleaning systems just make sense.

Cleaning in Place (or CIP) systems provide a perfectly regulated way to keep every piece of equipment clean. These systems essentially allow users to clean machinery and pipes without having to dismantle a whole system. By coordinating with the production PLCs in a facility, a CIP system is able to schedule, perform, and complete the cleaning operation.

The coordination of these separate systems is critical to assure that production cannot resume until the entire cleaning cycle is complete. The communication is used as a handshake between the production PLC and the CIP PLC so that both systems know when cleaning starts; when it ends; and when product can safely be put back into the devices.

MAGMA SAP of Poland manufactures CIP stations for a variety of beverage manufacturers.

"Fifty years ago, you would have had a guy with a garden hose washing down the equipment," said Maciej Alksnin, MAGMA CEO. "With our system, it is both hygienic and completely automated."

MAGMA builds four to six stations per year. Their stations are constructed and controlled in accordance with Hazard Analysis Critical Control Point (HACCP) standards, which analyze and control hazards involved with material production and distribution. MAGMA's CIP stations are set up to supervise the temperature and concentration of the closed-loop washing solution; the timing of the cleaning process' steps; the configuration of the circuit connections throughout the system; and the flow inside the equipment being cleaned. The cleaning solution's setup is protected with a password, and the solution's parameters can be set up individually, making it easier to customize your setup or make adjustments as needed. The cleaning stations are equipped with a controller that communicates with an HMI, which is used by the operator on each cleaning cycle, which is used to archive data that is set by the controller.

For a recent CIP station done for a bottled mineral water manufacturer, a Rockwell Automation[®] CompactLogix[™] was used. Siemens[®] systems are widely used in the food and beverage industry in Poland, so you can see where there would be a communication issue. That's where ProSoft Technology helped.

"MAGMA wanted a partner that was reliable and would work with them through the process," said Krzysztof Hajzyk, Regional Sales Manager for ProSoft Technology. "They have a good relationship with their Rockwell Automation distributor and ProSoft Technology had provided on-site support with their first few applications. They have worked with Allen-Bradley® controllers containing ProSoft inchassis PROFIBUS cards in several other applications and had success."

MAGMA has also used ProSoft products for other applications, including pigging systems in food processing projects. ProSoft's in-rack PROFIBUS solutions allowed the CompactLogix to communicate with the Siemens equipment used throughout the facility. The module enabled the controller to exchange data with the facility's existing PLCs and measuring equipment, which tracks flow, temperature, pressure, and level, ensuring that any issues are communicated quickly. Without ProSoft's PROFIBUS modules, it would have been far more costly and complicated to communicate with the existing production line and coordinate data transfers involving the statuses of equipment such as tanks, pipes, and valves.

Without ProSoft's PROFIBUS modules, an alternative would have been the addition of extra I/O, which would have been more expensive and taken more time to implement. The new setup also allowed for direct access to data in other processors' memory, allowing for ease of use when it came to monitoring the system. In addition, having one network for all equipment and data exchanges helped simplify the operation: With the process machines connected to each other, connecting to one allowed access to the rest.

These improvements allowed MAGMA and the end user to focus on the most important part of the process: keeping the mineral water clean.

For more information about ProSoft Technology's PROFIBUS modules and gateways, visit **psft.com/BJ0.** ◆





MANUFACTURING CABLES WITH HELP FROM A MIGRATION GATEWAY

LAUREN ROBESON

ProSoft Technology's AN-X2-AB-DHRIO Migration Gateway is something of a superstar. We're not just saying that: The gateway serves many functions in helping users opt for a phased approach when updating the extensive installed base of legacy Allen-Bradley[®] control systems, from PLCs, PanelViews and Drives to FLEX[™] I/O adapters.



But even we hear about new uses for it from time to time. An India-based manufacturer needed a new way to monitor the manufacturing process of its communication cables, and sought help on finding a solution from Concord Technologies of India.

The company wanted to create a data visualization, analysis, and reporting portal, but it needed to gather process data from 16 PLC-5® controllers spread across 3 areas to a ControlLogix® PLC to do so. The ControlLogix controller used the EtherNet/IP™ protocol, creating a communications issue with the legacy PLC-5 systems, which utilized DH+™.

That's where ProSoft Technology's Migration Gateway came into the picture. The Migration Gateway has been enhanced a few times with new capabilities since its initial arrival on the market, and a few months before this project, support for the DH+ protocol was added to the gateway. This meant that the gateway could be used to connect the PLC-5 and ControlLogix controllers.

Due to the distributed nature of the PLC-5 controllers, three gateways were used to connect each DH+ network to the EtherNet/IP network. This setup helped the company meet its needs: scrap reduction, quality improvement, proactive decision-making, and a reduction in manual activities. The information passed through the gateways into the ControlLogix helped the customer realize benefits from the Industrial Internet of Things: By connecting the components involved in the production of the fiber optic cables, they were able to identify and troubleshoot inefficiencies and redundancies, optimizing their resources and improving the overall production process.

Beyond extending the company's Connected Enterprise, the gateways satisfied more technical requirements as well.

"This solution has helped gather data at the required speed, without much change in the existing PLC hardware and software," said Concord Technologies Manager Sameer Ambegaonkar, who also praised the gateways' quick installation.

For more information about ProSoft Technology's Migration Gateway, go to **psft.com/BQU.** ◆

PROSOFT PROFILES

Amber Logsdon

Accounts Receivable/ Payroll Administrator

Hobbies: Sports, son's activities

Amber Logsdon has been working at ProSoft Technology for more than two years as the Accounts Receivable/ Payroll Administrator, after working in a similar role at a family-owned company. That close-knit company environment has been a constant.

"The family environment here is awesome," Logsdon said of working at ProSoft. "There aren't many companies that have this dynamic, and I think it makes coming to work more enjoyable."

Her role in payroll has its share of bright spots as well.



"I really enjoy my job as the Payroll Administrator because it gives me the opportunity to interact with employees from all the departments," she said.

In addition to her work in accounting, Logsdon frequently helps organize fun events at ProSoft's headquarters in California, including a holidaythemed Paint Nite.

"The barbecues and team building activities are always fun and bring out some friendly competition at times!" she said, recalling a Sports Day that included a fun cornhole tournament. Outside of work, Logsdon spends time with her family. "I enjoy watching my son play baseball and football and that keeps me very busy," she said. "I also enjoy camping and going to the lake in the summertime. When I have time, I also play adult slow-pitch softball to stay active." She also enjoys going to concerts, most recently seeing Blake Shelton.

Andrea Mazzucchelli

Ο

Regional Sales Manager, Mediterranean Countries

Hobbies: Sports, volunteering

For Andrea Mazzucchelli, working as a Regional Sales Manager for ProSoft Technology offers plenty of benefits. Mazzucchelli, an Italian whose region covers the Mediterranean countries, truly appreciates learning more about the different cultures he encounters



while helping his customers. "It is great for me to travel outside Italy and know different cultures, and learn different languages and different business markets," Mazzucchelli said. "Spain, Portugal, Turkey, and Israel are completely different and fascinating in different ways."

Another key benefit for Mazzucchelli is the global nature of the company - different viewpoints and business experience gives everyone more insight.

As a sales manager, Mazzucchelli encounters a variety of applications, at locations ranging from a feedmill (see page 20) to amusement parks. A recent project presented an interesting communication challenge that he found a solution for. An Italian OEM manufactures machines that use either Rockwell Automation® or Siemens® control systems depending on the end user. All of the machines have to communicate with a flow meter using Modbus® serial, and needed a standard solution to do so.

"Now all these machines are equipped with our gateway and are able to be connected to the flow meters," Mazzucchelli said.

Outside of work, he has varied interests. Three years ago, he became the founder of a volunteer-based organization that aims to help save needy or abandoned dogs and cats. He also enjoys skiing and playing tennis, and helps lead the football team that his 13-year-old son, Dario, plays for.

Mazzucchelli has been a sales manager for ProSoft for four years. Previously, he worked in the vision system industry; at Cognex for four years; and as a senior sales engineer at a major Cognex system integrator.

WERE YOU THERE?



Automation Fair

It was a packed first morning of the 2016 Automation Fair® in Atlanta, Ga. Last year, we were happy to be joined in our booth by our sister company Tripwire.

RAOTM – Mumbai

Secure | Remote | Acces

SOLUTION

At the Rockwell Automation On the Move show in January in Mumbai, Rexel engineer Pritam Jagdale, left, and ProSoft's South West Asia Business Development Manager, P K Saxena, were stationed at ProSoft's booth.

RAOTM – Beijing

At the Rockwell Automation On the Move event in Beijing in February, a ProSoftfocused presentation was given by a technical engineer from Xiongyue, a distributor.



RAOTM – San Ramon

Regional Sales Manager Tim Allen, right, talks with a show attendee at the Rockwell Automation On the Move event in March in San Ramon, California.

SPOTTHE DIFFERENCE

There are 10 differences in the photos below, taken at ProSoft's new HQ. Can you spot them?





ןס. בפּנָר אפּגנּוַכמן אמןן ווחפּ גפּשסאפ<mark>ּ</mark>ל

7. _____

- 6. Left security camera moved up
- 8. Тгазh bag has been removed
- ל. Far-left vertical roof rim line moved
- 9. Адdress питрег ароve door changed
 - המר-זיטלד מסרגיוחם גוסה מודפרפם
- ץ. Far-left horizontal window frame removed
 - 3. Γαr-right αwning fin gone
 - ד. Black מומגש box changed sides
 - г, רפנן מאטויט איומסא גפוןפכניסט גפעסאפ<mark>ק</mark>.

SECURE. REMOTE. ACCESS.



- Reduce support travel
- Simplified access to remote equipment
- Employs latest cloud service technology Find out more at psft.com/B4A



engineers in mind!



Where Automation Connects

