

Automation

TODAY

Issue 66

ASIA PACIFIC

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Trailblazing your Digital Transformation



●●● Navigating the complexities and challenges of staying competitive has prompted manufacturers and producers to look to new technologies. The global pandemic has made more people rely on technology than ever before. It has made us all take a step back and rethink the growing importance of digital technologies in a post-pandemic world.

Digital transformation has provided a lifeline for organisations to remain productive in the current environment. It has become clear just how important it is to be as efficient and profitable as possible while reducing operational risk. By integrating digital technologies, manufacturers are able to achieve this.

A modern Distributed Control System (DCS) is essential for digital transformation. The latest DCS platforms have kept pace with technological developments. They now include features such as a simplified development environment, data, analytics and insights that help enable real-time decision-making capabilities. A Modern DCS can help build a Connected Enterprise as part of the digital transformation journey.

This issue of Automation Today deep dives into the power of digital transformation and how a modern DCS makes life simpler and more productive. It focuses on how embracing new technologies will fundamentally change how you do business and considers if the latest DCS platform can help in your digital transformation journey.

It features topics that provide practical insights to help you on your digital transformation journey, including: **A Modern DCS is Essential for Digital Transformation; Premier Integration Reduces Engineering Time and Costs;** and, **How Augmented Reality Can Help Life Sciences Manufacturing.**

This issue also includes the latest products and technologies, customer case studies that demonstrate how we help customers address their application challenges and recent company news and events.

As we wind up what has been a challenging 2020, I hope this issue of Automation Today helps you to identify areas for improved productivity and profitability in your operations as you progress in your digital transformation journey.

Wishing you a happy holiday and looking forward to a productive and prosperous 2021!

Scott Wooldridge
President, Asia Pacific Region
Rockwell Automation

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ROCKWELL AUTOMATION

Automation Fair At Home

●●● *Rockwell Automation Reaffirms Commitment to Carbon-Neutrality Through Accelerating Smart, Safe and Sustainable Manufacturing at 29th Automation Fair At Home*

The first hybrid live and virtual **Automation Fair At Home** saw over 40,000 participants registered from 146 countries and featured speakers include PartnerNetwork representatives from Cisco, Cytiva, ExxonMobil, Gartner, Microsoft, Thermo Fisher Scientific and more. This signature industry showcase event was held from November 16-20, 2020.

Due to the pandemic, the event had been dynamically re-imagined as a primarily virtual experience to safeguard customer, partner, and employee health and safety, with all content from the event available on-demand now until June 2021.

Automation Fair At Home showcases the newest products, solutions, and services in industrial automation and digital transformation. Due to the hybrid nature of this year's event, attendees across different time zones and geographies had access to over 175 engaging educational opportunities and over 90 exhibits, through livestreams and on-demand video recordings. The agenda included engaging hands-on labs, training sessions focused on the newest hardware and software technologies, industry-focused forums, and more.

Commenting on the event, Blake Moret, CEO and Chairman, Rockwell Automation, said, "The acquisition of ASEM S.r.l and Kalypso, as well as partnerships with Microsoft, PTC, and others, make our ecosystem the best in the industry. This partner ecosystem combined with our technology and domain expertise allow us to say that there is no one better positioned to add value at the convergence of IT, and operational OT technology for our customers. We bring the Connected Enterprise to life for customers around the world and across a wide variety of industries. And during these times it's especially important to look at the ways we increase the resilience, agility, and sustainability of our customers."

He added, "Sustainability is at the forefront of Rockwell Automation and our customers' minds. We are committed to a carbon-neutral future, helping our customers achieve their own sustainability goals such as increased energy efficiency, recycling to play a role in the circular economy, and renewables."

Scott Wooldridge, President of Asia-Pacific at Rockwell Automation, said, "With its rapid urbanisation, growing middle-class population and talent pool, Asia-Pacific is already a global manufacturing hub, and the sector continues to be one of the region's key growth drivers."

"The Asia-Pacific operations from Rockwell Automation are of strategic interest to our global business and we want to partner with established and emerging enterprises and industries across all

local markets to help them make the digital leap; facilitating the region's economic recovery from the pandemic," he continued.

To access Automation Fair At Home On-Demand, free online registration is required [here](#).



GLOBAL EVENTS

Rockwell Automation Acquires Fiix Inc., Cloud Software Company

●●● *AI-Enabled Computerized Maintenance Management System Modernizes Operations Planning, Management, and Equipment Failure Prediction for Leading Edge Maintenance Solutions*

Rockwell Automation recently announced that it has entered into an agreement to acquire Fiix Inc., a privately-held, AI-enabled computerized maintenance management system (CMMS) company. Fiix, founded in 2008, is headquartered in Toronto, Ontario, Canada. As the number of industrial connected assets multiplies, the ability to gain insights from maintenance operations is becoming increasingly important to a manufacturer's ability to gain competitive advantage. This insight enables another level of productivity in addition to the core automation.

Fiix's cloud-native CMMS creates workflows for the scheduling, organizing, and tracking of equipment maintenance. It connects seamlessly to business systems and drives data-driven decisions. The company's revenue grew 70% in 2019 with more than 85% recurring revenue. Fiix has more than 2 million assets under management and creates more than 6 million work orders a year.

"We believe that the future of industrial asset management is performance-based," said Tessa Myers, vice president, product management, Software & Control, for Rockwell Automation. "With the addition of the Fiix platform and expertise, our customers will benefit from a 360-degree view of integrated data across automation, production, and maintenance, helping them to monitor and improve the performance of their assets and optimize how maintenance work is done."

James Novak, Fiix CEO, said, "From the beginning, Fiix has been on a mission to connect maintenance and operations teams to the tools, resources, and technology they need to modernize and join the future of maintenance. Joining Rockwell Automation will allow us to

help even more companies modernize maintenance and increase asset performance by connecting to industry-leading data, automation, and production systems.”

The addition of Fiix directly aligns with Rockwell Automation’s software strategy. It also enhances Rockwell Automation’s capabilities in its Lifecycle Services business, which provides a full range of industrial automation services to help customers maximize the value of their production assets, systems, plants, and processes. Additionally, it illustrates Rockwell Automation’s focus on helping customers be more sustainable. Through a CMMS, businesses can operate more efficiently, reducing waste and energy use while also saving money.

Fiix will be reported as part of Rockwell Automation’s Software & Control operating segment. The transaction is expected to close by the end of the 2020 calendar year, subject to customary approvals and conditions.

PTC and Rockwell Automation Extend Strategic Alliance

●●● ***Having already helped almost 250 new customers around the world to achieve their digital transformation goals, PTC and Rockwell Automation announced the expansion and early extension of their strategic alliance.***

This extension will ensure continuity in both companies’ sales and product development efforts and expand the agreement to include PTC’s product lifecycle management and software as a service (SaaS) products. This expansion will streamline both companies’ commercial efforts to extend a comprehensive digital thread solution, from upfront design through the operate, maintain and optimize-lifecycle stages. PTC will also offer Rockwell Automation’s virtual machinery simulation and testing software to its own customer and partner network. Under the agreement, both organizations will continue to leverage each other’s resources, technologies, industry expertise, and market presence to seamlessly serve their customers through 2023 and beyond.

The companies’ primary joint offering, FactoryTalk InnovationSuite, powered by PTC, is the industry’s first comprehensive digital transformation software suite that offers fully integrated Industrial Internet of Things (IIoT), edge-to-cloud analytics, manufacturing execution systems (MES), and augmented reality (AR) – required for the connected enterprise. FactoryTalk InnovationSuite makes it simple to rapidly develop, operationalize, and globally scale innovative solutions to operations.

“Our selection of FactoryTalk InnovationSuite, powered by PTC could not have come at a better time for our company,” said Teja Schubert, Director, Controls, Automation and Technology,

Norbord, an international producer of wood-based panels. “As the first wave of COVID-19 hit, it became even more important to have a platform that helps us reduce costs, improve our employee’s experience, and make better use of our maintenance and training efforts. This ever-important alliance has made it easier for our company to navigate the COVID-19 pandemic so far, and we look forward to leveraging future solutions.”

Rockwell Automation and Microsoft Expand Partnership to Simplify Industrial Transformation

●●● ***Partnership aims to empower manufacturers with agility, intelligence, and scale to deliver digital transformation initiatives—from the cloud to the edge***

Rockwell Automation, Inc and Microsoft Corp. announced a five-year partnership expansion to develop integrated, market-ready solutions that help industrial customers improve digital agility through cloud technology.

“Today, one thing we know for sure is that no business is 100% resilient. Those fortified with digital capabilities and assets are more resilient than others, and the cloud is how they will thrive,” said Judson Althoff, executive vice president of worldwide commercial business, Microsoft. “We are pleased to deepen our already strong, decade-long relationship with Rockwell Automation to help businesses simplify industrial transformation, accelerate business outcomes and innovate with agility.”

To date, the companies have co-developed over 20 use cases across Food & Beverage, Household and Personal Care and Life Sciences industries. The solutions developed from this partnership will augment and enhance our current offerings.

“This partnership provides Rockwell Automation and Microsoft customers with a holistic, simple solution for IIoT development and operations and removes data silos that hinder industrial digital transformation initiatives,” said Blake Moret, Chairman and CEO of Rockwell Automation.

“Our team has seen the preview release of this new solution and we are excited about collaboration between our strategic partners, Rockwell Automation and Microsoft,” said Tristan Hunter, GM Automation & Operational Technology at Fonterra Co-operative Group Limited, New Zealand’s largest company and responsible for 30% of the world’s dairy exports. “Moving data from our on-premise assets securely with context and providing new workflows for us to analyze and drive better outcomes is important to maintaining Fonterra’s high standards across our many plants globally.”

Organizations can access Rockwell Automation solutions now via the **Microsoft Azure Marketplace** with more solutions currently in development.

A Modern DCS is Essential for Digital Transformation

●●● ***A digital transformation strategy that includes upgrading to a modern DCS can help you improve productivity and reduce risk***

Producers and manufacturers operating in industries ranging from pharmaceutical, consumer packaged goods and food and beverage to mining and chemical are adept at navigating the complexities and challenges of staying competitive. It is important to protect profits and optimize production by expanding throughput, decreasing downtime, improving consistency, maintaining quality and keeping employees safe. Furthermore, the lifecycle costs associated with engineering, inventory, and system maintenance and support must also be considered.

This is particularly relevant in light of the current worldwide pandemic. It becomes clear just how important it is to be as productive and profitable as possible, while reducing operational risk.

Keeping up with industry and technological trends can be challenging but is required to take operations to the next level of sophistication to help achieve success and growth. Industrial Internet of Things (IIoT) technologies can help. A good place to start is by developing a digital transformation strategy.

Can digital transformation help?

The term 'digital transformation' means different things to different people but in relation to industrial automation, **digital transformation** can be described as modernizing, upgrading, or improving operations by integrating digital technology into all areas of your business.

Digital transformation is a fundamental, cultural shift impacting how organizations work, how the plant floor operates and how value is delivered to customers. It is about outcomes and meeting ever-changing customer needs. It is a systemic change for any producer – and that is why a modern DCS can be a cornerstone of this transformation.

Developing a strategy for your digital transformation means determining objectives and business goals, assessing the system needs to achieve those objectives, and planning the execution of your strategy.

Accelerating and simplifying digital transformation can help you increase productivity, and performance consistency, while reducing downtime. With competitors investing in technology and transforming their operations, the pressure is on to do your research and make decisions. A good question to start with is, "Do I need an upgrade?"

'Digital transformation is a fundamental, cultural shift affecting how organizations work, how the plant floor operates and how value is delivered to customers'

Time to consider a DCS upgrade

A traditional DCS features a closed system design, is difficult to migrate and modernize, and has a higher total cost of ownership in most cases.

The modern DCS is preferable for many reasons, including higher performance, site-wide availability, scalable system capabilities, the open technology stack and the ease of integration.



A plant-wide control system using common automation technologies enables seamless integration for process control, discrete control, power control and safety control with plant-floor and business systems.

If you think your DCS has run its course, you're not alone. The global DCS installed base nearing end of life totals about US\$65 billion. And many of these systems are more than 25 years old and in dire need of updating.

Reasons to replace a DCS can include an increased failure rate, higher incidence of product quality issues, accelerating maintenance costs, lack of legacy DCS expertise, capacity limitations, and inability to interface with contemporary systems.

Benefits of a modern DCS

The latest DCS features platforms have kept pace with technological developments. A **modern DCS** can help build a **Connected Enterprise** as part of the digital transformation strategy.

These platforms can reduce the architectural footprint with fewer servers and more powerful controllers, support consistency with native process objects in the controller, streamline workflows with an improved design experience of system attributes, provide robust analytics for real-time decision-making, and align with international cybersecurity standards.

This means a modern DCS should help producers achieve plant-wide control and optimization, maximise operations, achieve high availability, reduce costs and increase production. In essence, it makes life simpler.

It is also designed to address three major challenges faced almost universally by producers and manufacturers:

1. Increasing productivity

How can you best innovate when disparate systems throughout the enterprise create bottlenecks and inefficiencies? The sheer amount of information from supply chains, plant assets and business systems can overwhelm teams trying to function in real time or create a new concept. Rapid improvements in technology allow producers to access more information than ever for decision-making purposes

2. Doing more with less to help the bottom line

Production teams must do more with less to meet budget expectations throughout their plant's life cycle. Your operations must find ways to gain the visibility and control needed to reduce unplanned downtime, prevent quality issues, and eliminate waste from production. Producers are looking for plant-wide automation that is easily updated and supported, and technology must help the plant remain in continuous operation.

3. Reducing operational risk

Risk is everywhere and takes many forms respective to your network infrastructure, the backbone of your system. Even when contingencies are considered, unforeseen events can impact safe and reliable plant operations. As you identify factors that contribute to various risks, you need systems that can navigate dynamic conditions and that allow them to aggressively respond armed with information. As threats shift from operational risks to external actors, control systems need to be strong yet adaptable. Are you implementing a robust infrastructure for your system?

Simplifying DCS modernization

Converting a legacy control platform to a modern DCS might be complex, and it is not a one-size-fits-all endeavor. To help mitigate risk and spread costs over time, many companies choose a phased approach to migration. On the other hand, a 'rip-and-replace' conversion strategy is appropriate for others.

Simply put, each modernization project is unique and require proper planning. In most cases it is essential to perform the conversion with very little downtime and minimal risk, and these requirements determine much of the upgrade strategy. Decide on the three main strategic choices before the conversions take place.

1. Will the upgrade be vertical or horizontal?

In a vertical upgrade, just one process area is upgraded at a time. In a horizontal upgrade, multiple similar process units are upgraded simultaneously, generally across process areas.

2. Will the upgrade be done by replacing all automation system components simultaneously or with a phased migration approach?

With a phased approach, replacing the automation system takes longer, but will require less downtime and entail less risk. Breaking the planned downtime into multiple short phases often is a great advantage for maintaining production, and it spreads out migration costs over a longer period.

3. Will it be a 'hot' or 'cold cutover'?

With hot cutover, the old DCS and the new automation system operate simultaneously, with one control loop at a time migrated from the old DCS to the new automation system at the I/O level. With cold cutover, the old DCS is replaced by the new automation system, with the entire process being restarted at once.

You can examine each upgrade area for opportunities to improve system performance. Return on investment (ROI) from these improvements compared to legacy systems is often very quick and can include improved operations, better quality, more throughput, few safety-related incidents, augmented cybersecurity and less unplanned downtime.

The keys to digital success

The challenges are all too familiar – the need for more frequent process changes, larger datasets, tighter budgets and greater traceability and compliance requirements. From oil refineries to food and beverage plants, process engineers are being asked to manage increasingly complex systems – and to do more with less.

The good news is that the latest DCS platforms have kept pace with technological developments. This makes it possible for DCS users to upgrade and modernize their systems for optimal performance and digital success.

A commonly asked question amongst process engineers is, 'How

will a DCS modernization help manage system complexity and improve productivity?' The latest release of **The Modern DCS** addresses key challenges throughout the lifecycle of your system – and makes life simpler in four critical ways.



1. Purpose-built, robust controllers minimize complexity.

By their nature, processing plants are multifaceted and continuously changing. As applications expand and become more sophisticated, many older controllers and I/O platforms simply cannot keep up. For many plants, adding controllers to the existing automation infrastructure to meet new demands has been the only practical response.

But as you know, introducing more and sometimes disparate systems makes an inherently complex DCS even more complex – and more costly to integrate and maintain.

Now new process controller types provide a better option. Significant gains in processing power and capacity mean you can manage more strategies with fewer controllers – and reduce architecture complexity and related lifecycle costs.

The latest release also enables "report-by-exception," which significantly reduces architecture stress caused by alarm and event polling. And for many systems, less polling means fewer data servers as well.

2. Embedded process objects keep applications and user experience consistent

Everyone has their own ideas about how a system should function. And while we all appreciate the skills of a good developer, one person's undocumented "tweaks" become another's significant challenge when maintaining or updating a system.

Additionally, once a vendor-provided object library is modified, you can no longer rely on the vendor to maintain, migrate and document it. That becomes the job of your staff or system

integrator, increasing costs and risks over the lifecycle of the system.

As part of a DCS modernization, new controller types feature process objects embedded in the firmware to drive more design consistency. Embedded process objects support a modern approach to system development by “locking down” core controller functionality, which allows developers to focus on configuration for higher-level applications.

Because core functionality aligns with industry standards and cannot be edited, embedded objects help maintain system integrity – and speed replication plant to plant. Embedded objects also automatically migrate when new firmware revisions become available to make future upgrades simpler.

3. Automatic diagnostics save time.

Your existing DCS tag database includes diagnostic information regarding your controller, I/O and field devices. Making that information accessible to operators may require significant development work on the back end.

In fact, identifying diagnostic tags in the control system and then configuring links to those tags in the HMI platform could account for up to 30% of the coding required to design and maintain a system.

DCS modernization streamlines this process. Using the expanded capacity of the new process controller, preconfigured alarms automatically deploy directly to the HMI with a single click. This capability saves significant time during initial development – and throughout the life of your system as process requirements evolve.

4. Alignment with latest standards helps minimize cybersecurity risk.

To take advantage of the latest IIoT technologies, your DCS must

integrate with enterprise-level systems. But connecting more information across your enterprise could inadvertently expose your process operations to risk.

A Modern DCS recognizes the need to both take advantage of advanced analytics and other digital technologies – and help protect your critical data. The latest release allows you to migrate forward and implement a system and process controllers **aligned with international standard IEC 62443** – and global cybersecurity best practices based on defense-in-depth.

As the term implies, a defense-in-depth strategy recognizes that any one point of protection will likely be defeated. Cybersecurity systems based on this strategy establish multiple layers of protection through a combination of physical, electronic and procedural safeguards.



Modern DCS in action

A pharmaceutical company used a modern DCS to automate its bioprocess equipment and access data by integrating with a manufacturing execution system (MES) application and electronic batch records.

As a result, they have seen 10 to 20 percent increases in production throughput, availability and production-employee efficiency, and 5 to 30 percent decreases in energy use, scrap material, batch-release time, maintenance, and downtime investigations.

In another example, a firm in the food and beverage industry needed to scale operations and upgrade its automation system. The company experienced a 20 percent increase in capacity in just one year after implementing a modern DCS. The real time data now available provides constant access so staff can make immediate, informed decisions on the fly.

Digital transformation is not going away – at some point, every manufacturer and producer will have to start their journey. For many manufacturers, it is considered the new normal.

At its highest level, digital transformation is a foundation and potentially radical evolution for industrial producers. Embracing new technologies will fundamentally change how you do business. Evaluate your legacy DCS to see if the latest DCS platform can help in your digital transformation journey. **At**



DuPont Improves Quality, Throughput with DCS Upgrade



Modernizing a solvent plant's batch control system not only improved quality control and increased revenue but also eased operator frustrations with alarm notifications

●●● The small but powerful semiconductors in our smartphones and other devices can take several weeks and hundreds of steps to manufacture. During production, cleaning solvents play a crucial role in maintaining a high level of purity in these small and delicate microelectronics.

DuPont's small-batch production facility in Hayward, California, makes semiconductor cleaning solvents in dozens of varieties. Unfortunately, the batch control systems used in the plant started showing their age in recent years.

The systems no longer were supported. They also were creating production issues, such as pop-up alerts that frustrated operators and alarms that were difficult to manage. More importantly, a customer audit found the systems lacked recipe-based automation that could help improve quality control in the production process.

The plant faced a choice: replace the legacy batch control systems or stay with the status quo and lose thousands of dollars in monthly business. The plant moved forward with the upgrade. In doing so, it not only improved quality control but also helped raise plant throughput to create new monthly sales.

Need for an upgrade

Most of the legacy control systems at the Hayward plant were

manually operated. Only the bulk addition of material from a storage tank to a blend tank was automated. Operators manually added all other materials using a drum-pumping station and solids-conveying station. Operators also set the timing for the materials to blend and circulate through filters and took product samples. Once the desired product was achieved, operators manually sent it to the filling systems in the packaging area. Here, workers dispensed product into packages that ranged from 1- and 5-gallon containers to 200-gallon totes.

These manual processes introduced the potential for errors. For example, an operator might intend to mix a material for 15 minutes but end up mixing for 18 minutes because of the need to carry out another task. Instances like these created the potential for slight product variations.

The legacy systems also at times disrupted production. "The HMI was configured in a way that it generated a pop-up alert every time we opened or closed a valve," shares Nancy Givens, an automation and process control engineering consultant for DuPont. "If the operator wanted to open three valves, they'd get three pop-ups. This was frustrating for operators. And it created opportunities for errors. Cluttered interfaces could result in operators opening or closing the wrong valves."

Alarms were another issue. The legacy systems used a mix of hard-coded and user-editable alarm setpoints. The hard-coded alarms were difficult to manage, with operators often struggling to locate specific code. The alarms also didn't use modern alarming best practices, such as the ability to assign priorities.

These issues — combined with the customer's demand for greater quality control — necessitated a control system upgrade.

Phase One: Controls Upgrade

Givens worked with system integrator TechKnowsion and Rockwell Automation, a DuPont global alliance supplier, to plan and execute the controls upgrade. The team carried out the upgrade using a two-phased approach.

In the first phase, they replaced the batch system's programmable logic controller (PLC) and HMI with a **PlantPAX distributed control system** (DCS). This involved reverse engineering the legacy PLC's code to determine the requirements for new control code. "We didn't want to just duplicate or convert the code," explains Givens. "We went back to the functional requirements of the system to significantly clean up and improve the code. We then incorporated that code into our PlantPAX-based process objects library, which we have customized over the years to our specific needs within DuPont."

The control system's new HMI used modern visualization practices to give operators a better viewing experience. "The legacy HMI used multiple colors that could create cluttered screens," Givens notes. "The new grayscale HMI highlights items in red to alert operators of critical issues. I've done spot checks on the floor since we implemented the new HMI, and our operators always know where to pay attention. They never miss a thing."

Phase Two: Batch Automation

In phase two the Rockwell Automation global solutions team worked directly with DuPont to configure and install **FactoryTalk Batch software** to achieve full recipe control and sequential automation.

Givens and her team wanted to follow the ISA S88 standard that lays out the framework for implementing batch systems. This required Rockwell Automation first to build a physical model of the production equipment and then create a procedural model of the automated manufacturing phases. These phases serve as building blocks for use whenever needed in different recipes.

"Phase management features within batch software allowed us to explicitly follow the S88 standard," Givens says. "This saved significant time. The team only had to configure a phase, such as mixing or addition, once. We could then reuse it multiple times. It's much more efficient than creating new code for each recipe."

The team also utilized the batch software for manual processes, such as sampling and recipe reviews. The software provides manual phases that integrate with automated phases to give users a seamless operating experience between the two. "We widely use this feature across DuPont," Givens says. "We find it easier and smoother

to implement than writing manual-process code in the controller."

Finally, the team worked with Rockwell Automation to install the software for tracking materials in the plant's storage tanks. The software replaced a paper-based logging system that required manual inventory tracking.

The software also incorporates automatic tank switching. "Previously, if a tank ran out of material during an addition phase, operators had to track how much material was added and calculate the remaining amount needed from the tank," Givens explains. "Now, the software automatically calculates the remaining amount of material needed, switches tanks, and adds the required amount of material until it reaches the setpoint."

Quality control and throughput

The new automated system was implemented in one week, all during scheduled downtime. The upgrade took the plant from obsolete to fully supported platforms. In addition, the new HMI resolved the pop-up and alarm-management issues that had frustrated workers.

The Rockwell Automation library of process objects cut design, configuration and deployment time. In fact, Givens estimates the library helped trim programming configuration time by 40%. Even today, with the new system up and running, the library continues to provide efficiency savings.

"The library is helpful for maintenance and troubleshooting," says Givens. "If we want to go in and change a description, we don't have to go into an engineering workstation or programming software. We can do it right in the HMI using the faceplates. Or, if a valve won't open, an operator can open a faceplate and then open an interlock icon to see what's wrong. In the past, workers may have had to configure a screen to see the valve interlocks or sift through paper documents to troubleshoot the issue. Now, the answer is just a couple clicks away."

Meanwhile, the batch software took the plant from very limited automation to full batch automation, including automated cleaning processes. This helped the plant achieve the level of quality control that DuPont's customer wanted. After modifying the software to improve coordination between the different production units, the plant also saw a significant boost in throughput. **AS**



Quarry Leads the Way in Intelligent Motor Control



Boral upgrades legacy equipment with the latest motor control technology

●●● **Boral** is a leading provider of construction materials and building products in Australia. Products include cement, aggregates, concrete, asphalt, bricks, roofing, masonry products and timber.

With an extensive network of concrete, asphalt and manufacturing sites across Australia, Boral's leading position is underpinned by around one billion tonnes of quarry reserves strategically located close to key markets.

Boral's Charlton quarry is located in Victoria, almost half way between Melbourne and Mildura. It is one of the few hard rock quarries in the region with the capability to produce notable volumes. The quarry produces a range of quarry products and supplies product to infrastructure projects in the region.

With a commitment to delivering high-quality building and construction solutions, Boral Quarries holds Quality Management System Certification to ISO 9001:2015 for its operations.

Boral works to maintain an engaged and reliable workforce and minimise environmental impact. In keeping with this mission, Boral recently invested in an industry leading motor control solution for their Charlton quarry to improve uptime and leverage the longevity and compliance provided by the latest motor control technology.

Smart motor control

Boral engaged SS Electrics, a progressive electrical contracting business based in Ballarat, Victoria, to implement a solution to modernise the electric equipment at the quarry.

"We have worked with Boral on projects at their other quarries previously and therefore understood the importance of minimising downtime onsite during commissioning. The Rockwell Automation MCC was the most appropriate choice for this application because it is a fully designed and integrated system that is essentially 75 percent commissioned upon arrival. This really helped reduce engineering time and helped meet the tight commissioning timeline for this project," explained Chris Nunn, Director, SS Electrics.

The Allen Bradley **CENTERLINE 2500 Motor Control Centers (MCCs)** offer optimal safety, performance and reliability to help quarries meet their production requirements. Modern motor control solutions need to be able to integrate with existing systems and provide advanced diagnostics capabilities. The CENTERLINE 2500 meets these requirements with premier integration and reduced engineering time.

"The quarry required a MCC solution that would meet the highest standards and also one that would be cost effective as well as adopting some of the integration benefits," explained Matthew Treeby, account manager, Rockwell Automation.

SS Electrics worked with Rockwell Automation and their distributor NHP Electrical Engineering Products to select the smart components which are at the heart of the 12 column MCC including the E300 Electronic Overloads, SMC Flex soft starters, POINT I/O modules, Guardmaster safety relays, Stratix switches, ControlLogix control system and PowerFlex 525 variable speed drives for the crushers, conveyors and processing equipment.

“The MCC provides a reliable solution for motor control in Boral’s Charlton quarry. The MCC is a ‘best of both worlds’ solution because it is not only high quality, fully tested and compliant, as would be expected from a global supplier, but the customer was also able to customize the solution to meet their unique requirements because the design and project management is done locally,” explained Treeby.



The MCC was pre-built in a portable room prior at SS Electric’s facility prior to being shipped to site



The Allen-Bradley CENTERLINE 2500 Motor Control Centers (MCCs) offer optimal safety, performance and reliability to help quarries meet their production requirements

Diagnostics and safety

With a strong commitment to employee safety, Boral chose to include ArcShield Technology in the MCC. ArcShield helps to reduce arc flash hazards and provides increased protection against internal electrical arcing faults.

Offering a scalable safety solution, the MCC’s Guardmaster safety relays (GSR) addresses both the compliance standards and functional safety requirements for the quarry.

Boral’s MCC also features IntelliCENTER® technology, which enhances the intelligence of the MCC by using built-in networking to capture information that can be used for predictive maintenance, process monitoring, and advanced diagnostics. Connecting motor control devices over Ethernet allows operators and maintenance to realise the benefits of **The Connected Enterprise** by monitoring and analysing operations from anywhere at any time.

Improved productivity and compliance

Boral’s Charlton quarry is now benefitting from the new smart motor control solution which provides key diagnostic information that optimises performance with real time access to operation and performance trends. As the quarry moves towards a more Connected Enterprise, this increased visibility into the system and real time diagnostic data can be transformed into actionable and insightful information.

“A key focus of the Charlton project was to replace end of life electrical equipment for improved compliance and safety, while minimising any required downtime at the quarry,” explained Jake McClellan, Asset Manager, Boral Australia. “This was achieved with the new solution and the help of SS Electrics and Rockwell Automation. It was a very smooth project, and thanks to the increased visibility into the system, fault-finding time has been reduced from hours to minutes and what was previously a very manually controlled process is now completely automated.”

“In addition, the plant manager can now monitor production trends and energy consumption in real time, which assists with plant optimisation. With the new MCC, the quarry can confidently service customer demand well into the future. As a result of the success of this project, we have plans to implement similar systems in our other quarries,” said McClellan. **AT**



The new smart motor control solution which provides key diagnostic information that optimises performance with real time access to operation and performance trends

Premier Integration Reduces Engineering Time and Costs

●●● **Taking advantage of advanced integration assures operators and technicians they will have the information to keep machines running more productively and profitably**

As automated production systems continue to grow in complexity, productivity is becoming increasingly important in all aspects of manufacturing operations – including the machine design and configuration stages. Plant managers are continually challenged by all of the work required to configure and connect controllers and smart devices. An effective level of integration requires several software tools and extensive programming.

As such, the traditional approach of manually integrating and configuring devices is time consuming, costly and counter-intuitive to the needs of today's manufacturers. Thankfully there is a better way.

Premier integration helps to make programming less cumbersome, time consuming and costly. It is the result of a combination of two things: smart motor control devices and a logical plant control system. These two things offer significant value independently. Combining them enables data to be accessed across the enterprise and streamlines multiple levels of user activity.

The exclusive Premier Integration experience from Rockwell Automation consolidates controller programming, device configuration and machine operation/maintenance – all into user-friendly software environments. The end result for operators is easier and faster access to critical machine diagnostics for improved maintenance, machine uptime and productivity details throughout the enterprise.

Experience Premier Integration

Premier integration is the experience of integrating Allen-Bradley smart devices into the Logix control system. It combines the functionality of an automated control system with the resources in the field device communications infrastructure. It is unique to specific control-system elements from Rockwell Automation, including; controllers, drives, network switches, motor control centres, overload relays, and soft starters. With Premier Integration, engineers only need one development environment – the **FactoryTalk Studio 5000** design environment.

It is the only software needed when designing, integrating and

configuring different Allen-Bradley devices in your Logix control system. Premier Integration offers a business-enhancing alternative to the traditional integration approach. It can help ease integration by reducing development time. In addition, you can achieve improved visibility and productivity analytics important for your manufacturing operations.

Seamless communication

Reducing design, commissioning and maintenance times has often been a target in industrial automation projects. As industrial automation devices are more dependent on digital communication, the success of a project will greatly depend on how easily devices are configured to exchange data across digital networks.

Simultaneously, improved data integration between controllers, drives and smart devices will result in systems that can be more productive, and deliver more information and diagnostics. Organizations using devices from multiple vendors often experience difficulties in communication and compatibility when using multiple software tools.

This can result in extended engineering time and increased costs. Also, an array of devices in the control system can create future maintenance challenges. A simpler, more holistic integration approach helps industrial engineers get their applications configured, and running much faster and reduce complexity. Development becomes more streamlined and better integration is achieved, all leading to more manageable maintenance and troubleshooting activities.

Simplify your operations

Beyond reducing integration complexity, Premier Integration can help industrial manufacturers reduce engineering time and cost through features including:

Device Mapping and Configuration

Using the Studio 5000 software environment can help reduce costly development errors when redundant programming is used

'Customers who saved time with Premier Integration were able to: 'Spend more time improving/ updating plant process documentation, as well as allow for more time to improve plant processing through data acquisition.' Chief Technology Officer, Medium Enterprise Food Company.'



in multiple software tools. Similarly, the ability to configure the controller and drive network connections from one location can help reduce I/O mismatch errors.

When mapping devices, the Logix-based controller can recognize specific Allen-Bradley components and automatically import their device profiles. For example, when integrating an Allen-Bradley PowerFlex 755 AC drive, the engineer can select the specific module and the Studio 5000 design environment automatically pulls in all drive parameters. This means that you no longer need to manually associate parameter numbers with descriptions or enter the drive details such as power and voltage.

Premier integration also automatically populates descriptive tag names and tag types. This eliminates the inefficient process of manually entering this information for each tag. This could save hours or even days of configuration time depending on system complexity.

Copy and Paste

Once a device is configured, the simple copy-and-paste capabilities within the Studio 5000 design environment can help reduce the time needed to integrate additional, similar devices. For example, if duplicate devices are needed for the same project, the engineer could copy the original to create additional device nodes. The FactoryTalk Studio 5000 design environment automatically transfers the descriptive tag names and configuration settings used in the original drive to the new drives through the copy-and-paste process.

Tag-Aliasing

Early development significantly speeds the time for product designs to get to market. Within a Logix-based architecture, an engineer can write an entire program with meaningful tag names before the physical hardware is ready, and then assign the physical module and terminal information later. This capability, or tag-aliasing, is commonly used to develop programs before wiring diagrams are available, which improves your final configuration and start up times.

Library Management

Library management is a key element of Premier Integration.

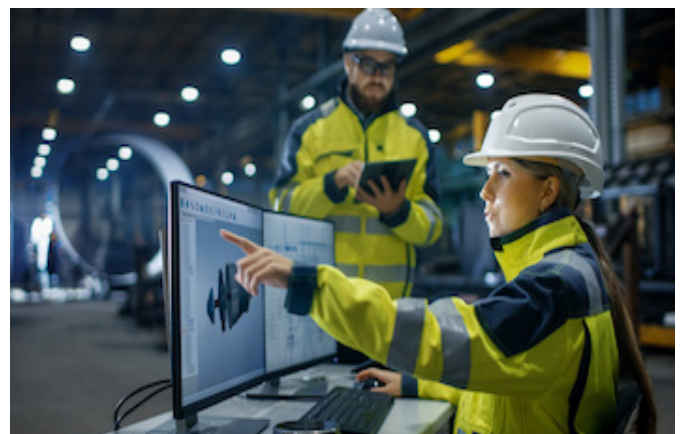
Engineers can efficiently store, manage and reuse application code from their programs. This saves development time when producing similar projects.

Using Application Code Manager can extend Studio 5000 design environment to focus on efficient project development practices. In this tool, logical models are created in objects and can be applied to any physical equipment. These libraries can establish company standards, code reuse for similar applications, or assistance in building logical models by dragging and dropping code sections. Then within the Premier Integration experience, the software carries over all logic and tags with the code when imported into Studio 5000.

Benefits of Premier Integration

Premier Integration creates a foundation of a networked automation system that simplifies the design, operation and maintenance lifecycle for customers. The benefits of Premier Integration extend beyond development to production operations. It enables information-capturing and delivery capabilities to be inherent to the system. As a result, operators or technicians can easily access device diagnostics, faults, alarms, and other critical event information. This information can be used to make better decisions from the machine up to the enterprise level.

For more information visit: <http://www.rockwellautomation.com/global/products-technologies/intelligent-motor-control/overview.page>. **AT**



How Augmented Reality can help Life Sciences Manufacturing

●●● **Augmented reality (AR) is an essential component for digital transformation in life sciences. It is important to understand the areas of your organization that could benefit most from AR – as well as how you can leverage it to drive tangible benefits**

There is no doubt that 2020 has been a year like no other. COVID-19 has accelerated digital transformation for many organizations as social distancing, remote work and sudden shifts in demand become the new normal. For organizations to survive and thrive, they need to invest in new technologies and ways of doing things.

Augmented reality has emerged as a technology that is uniquely positioned to help organizations navigate the future of work and bring digital technology to the frontline, helping them to maintain business continuity and drive resiliency. This is particularly important in life sciences manufacturing where sudden shifts in market demand and production constraints have resulted in a re-evaluation of priorities.

Worker safety continues to be the number one priority for life sciences organizations during these times. New measures facilitating social distancing for those on the plant floor and enabling remote operations for non-essential workers brought added pressures but getting them right was essential. In the face of this uncertainty, AR has come to the fore to support a range of activities designed to improve productivity and enhance safety.

In the current climate, the value of AR has become more apparent, shifting from a nice-to-have on the technology adoption roadmap to a must-have technology that allows enterprises to adapt to changing circumstances. As a result, decision makers are overcoming their previous reservations to rapidly bring AR into industrial processes.

The AR advantage

Leaders across the life sciences sectors have watched closely as AR technology has matured, weighing up its utility in supporting tasks such as design review, quality assurance and predictive maintenance of equipment.

As hardware such as Microsoft's HoloLens and Google Glass have developed into enterprise-ready solutions and use of mobile devices is now ever more ubiquitous, implementing AR has become substantially less onerous over time.

Augmented reality is a powerful technology that accelerates onboarding, transforms learning and training practices, enables remote support and collaboration, and drives productivity improvements. In a new normal that is increasingly virtual,

augmented reality marries the physical world and the digital world, empowering frontline workers in the factory and in the field. It delivers many benefits including:

1. *AR supports Business Continuity*

Events of recent months have put pressure on manufacturers to keep operations running against a variety of challenges. The inability for skilled experts to travel to physical locations (and particularly across borders, due to mandatory quarantining) and the need for distancing between workers on the shop floor has made it difficult to transfer important knowledge to where it's needed.

AR supports continuity in various ways. Firstly, manufacturers can use the technology to provide remote support so that expert skills can be accessed on demand. Further, AR allows for information to be captured on aspects such as performing complex procedures, resolving fault scenarios and equipment repair. Through the technology, such information can be made widely and instantly available.

2. *AR Works with Existing Plant Machinery*

One of the major challenges manufacturers face in embracing innovation is the need to balance new technologies with their existing installed infrastructure and equipment, which have often been in operation for decades. Digital transformation is, and will remain, a key priority for manufacturers. Some elements will require deeper technical structural and organisational change, while some parts can utilise hardware that remains separate from operational technologies.

This is the case with AR, which can sit as a separate layer, meaning that manufacturers can adopt capabilities without having to rip and replace their core infrastructure. Instead, the AR-enabled devices act as standalone tools, which supplement the technology on the plant floor.

3. *AR Helps Expand the Range of Possibilities*

If told earlier in the year that automotive companies would be making ventilators, or that gin and whiskey companies would be producing critical hand sanitisers, one may have raised an eyebrow. Yet, once the severity of COVID-19 was known, this is precisely what happened. Switching production to produce critical equipment, vastly different to what they and their staff are used to manufacturing, is a massively complex task.

In such situations, however, AR can be immensely helpful in educating workers on how to build the equipment and manage assembly of the products. This is through capturing the initial manual assembly in the virtual world so that technicians can follow digital assembly instructions, thus expediting the process of transition and delivering faster speed to patient.



4. **AR Reduces the Financial Burden of Training**

In a highly skilled manufacturing industry like life sciences, the most valuable assets aren't just the specialised production equipment, but the people who direct and operate them. Training staff has traditionally been a major (yet unavoidable) expense for the industry, and one that's required an ongoing financial commitment due to personnel changes and the emergence of new skills. A pharmaceutical company typically has an average of more than 1,000 standard operating procedures (SOPs), and the training costs per employee are significantly higher than other manufacturing industries.

AR can help life sciences manufacturers to completely remodel how they train and onboard staff, creating substantial cost savings and bringing consistency to training operations. This has been particularly important in recent months where there's been the need to transfer knowledge due to rapidly shifting operating circumstances.

5. **AR Enhances Broader Digital Transformation Efforts**

In a tightly-regulated environment such as **Life Sciences**, change can be a long process. Manufacturers know that, if they are to stay competitive as the sector evolves, they need to become more efficient in their production processes and their use of data. This can only really be achieved by digitalising their plant operations and leveraging the power of technologies such as IoT, predictive analytics, machine learning and AI.

AR has become an integral part of this, helping manufacturers to visualise important information, such as machine performance data, and improve remote operations through the technology's inherent accessibility and scalability.

Digital transformation

Organizations that are further advanced in their digital transformation journey have had an advantage in navigating the sudden challenges posed by COVID-19 compared with companies reliant on manual processes.

Rockwell Automation and PTC are working together to support executives in building the business case for making AR part of their operations. Combining our expertise in AR and long history of working with life sciences customers, we're able to help design and implement the AR solutions that they need, both to support worker safety and productivity in current conditions, and to deliver on broader transformation ambitions.

'Investing in AR is a must for life sciences organizations'



Latest release of PlantPAx Improves Productivity, Drives Profitability and Reduces Risk Across Plant Operations

●●● *New process functionality native to controllers, cyber-secured architectures, and improved system availability and workflows unlocks value and reduces overall costs at all phases of the plant lifecycle for hybrid and continuous process industries*

The latest version of the PlantPAx 5.0 distributed control system (DCS) from Rockwell Automation helps industrial producers positively impact the lifecycle of their plant operations with plant-wide and scalable systems. This helps to drive digital transformation and operational excellence.

New system capabilities help digitally transform operations by introducing process functionality native to the controller, improving the availability of system assets driving compliance in regulated industries, while enabling the adoption of analytics at all levels of the enterprise. Intuitive workflows and the use of industry-leading cybersecurity standards will help teams design, deploy, and support a DCS infrastructure which reduces time-to-market and helps plants realize profit at a faster rate.

“We’re excited to bring PlantPAx DCS 5.0 to our customers,” said Jim Winter, Global Process Director, Rockwell Automation. “New system features are step changes in helping our customers lower the overall costs to design and commission. The functionality improves the overall effort to integrate the process control layer to the enterprise. By reducing the lifecycle cost of the system and lowering operational risks, we are continuing to find innovative ways to bring more value to end users.”

Process end users desire a system that offers the benefits of a modern experience without the burdens that come with a traditional DCS. The new 5.0 release innovates the modern DCS in the following areas:

Reduced Footprint

- This release introduces new process controllers and extends the Logix family with cutting-edge processing power and capacity to reduce the complexity of PlantPAx architectures. This action reduces total cost of ownership of the system throughout the lifecycle.

Project Consistency

- With native process instructions embedded in the controller firmware, project teams can adopt approaches to control strategies that drive consistency for individual projects or multi-site deployments. Consistency simplifies the lifecycle management of deployed systems as teams modernize their automation infrastructure. Consistency lowers total cost of ownership (TCO).

Streamlined Workflows

- PlantPAx 5.0 provides improved design and operational user experiences. Development teams will realize savings in the configuration of instrumentation, alarms and diagnostic system elements. Operators will have the extended ability to view underlying control logic in a safe and secured manner. Maintenance will have controlled view access for troubleshooting.

TÜV -Certified for Cybersecurity

- To operate at peak performance and minimize cybersecurity threats, PlantPAx 5.0 system architectures are TÜV certified to the international standard ISA-99/IEC 62443-3-3 which provides guidance on the implementation of an electronically secured system.

Analytics Enabled

- Process end users recognize the value of analytics as an essential strategy to realize profit in their process operations. The PlantPAx 5.0 release has purpose-built frameworks that easily connect live and historical data from the DCS into reporting and analytical tools.
- Enables extended experiences, such as Augmented Reality, using workflows aligned with process strategies controlling plant operations.
- Allows extensible scalable analytic packages leveraging predictive and prescriptive models for process applications such as soft sensors, anomaly detection, or model predictive control.

As producers continue their digital transformation journey, the advances from this system release will help them unlock value and reduce overall costs at all phases of the plant lifecycle. For more information about PlantPAx DCS 5.0, please visit rok.auto/plantpax.



New Capabilities in FactoryTalk InnovationSuite, Powered by PTC, Helps to Accelerate Digital Transformation

●●● *Latest release of Industrial IoT solution automates IT/OT integration, simplifies edge-to-cloud analytics and machine learning, creates a scalable digital thread, and includes consulting and delivery services.*

Rockwell Automation announced a set of new capabilities for **FactoryTalk InnovationSuite**, powered by **PTC** to simplify, scale, and accelerate digital transformation for industrial organizations. This news follows the recent announcement that the two companies are **extending and expanding the scope of their strategic alliance** following strong market momentum and widespread industry recognition of InnovationSuite. Since its original launch in 2018, InnovationSuite has successfully delivered a range of high-value solutions for the world's largest automotive, consumer packaged goods, healthcare, oil and gas, and pharmaceuticals companies across 21 countries.

"The need for digital transformation has increased significantly as our customers accelerate innovation, maximize workforce productivity, and optimize operations," said Arvind Rao, director of product management at Rockwell Automation. "These new capabilities combined with our industry-leading partner ecosystem helps us extend our technology and solutions leadership, meeting our customers' needs for simplicity, scale, and domain expertise."

FactoryTalk InnovationSuite is the industry's first comprehensive digital transformation software suite that offers fully integrated industrial internet of things (IIoT), edge-to-cloud analytics, manufacturing execution system (MES), and augmented reality (AR) capabilities – required for the connected enterprise. InnovationSuite makes it simple to rapidly develop, operationalize, and ultimately scale innovative solutions to operations globally.

"We are pleased to be collaborating with the Rockwell Automation team on the next generation of our InnovationSuite offering," said Don Busiek, senior vice president, strategic alliances, PTC. "As we help organizations realign their digital transformation goals to combat the current macroeconomic environment, we are confident that InnovationSuite offers the most comprehensive and effective way to optimize their people, products, and processes – empowering manufacturers to embrace their new normal."

New enhancements to InnovationSuite were designed to help customers across a range of digital transformation priorities, including:

Accelerating IT/OT Integration

The recently announced **FactoryTalk Edge Gateway** enhances the fidelity of operational technology (OT) data with rich contextualization using the Rockwell Automation unique FactoryTalk Smart Object capability, and packages it to a configurable data model that can be mapped to upstream information technology (IT) applications to glean enterprise insights.

The company recently expanded its relationship with **Microsoft** to accelerate digital agility from edge to cloud by integrating this trusted, unified data model with PTC's **ThingWorx IIoT Solutions Platform** and Microsoft Azure IoT Hub. With the acquisition of **ASEM by Rockwell Automation**, customers have access to a broader portfolio of industrial edge hardware and software options.

Simplifying Edge-to-Cloud Enterprise Analytics

FactoryTalk Analytics now offers a comprehensive array of simplified data science capabilities for multiple personas— process engineers, data scientists, and citizen data scientists— and reduces analytics data preparation effort by up to 70%. New capabilities include end-to-end data orchestration with visual data modelling, open-stack connectivity, pre-built analytical templates, and self-service model deployment for a full-service customer journey.

Enabling Enterprise-Class Digital Thread

The **Rockwell Automation Digital Thread** uniquely enables a collaborative workflow across product designers, production engineers, and OEM suppliers, optimizing the design process from the beginning.

This approach shrinks new product development time to months from years. Further, by validating and optimizing performance in a virtual environment prior to physical implementation, commissioning time is cut in half. As data models born in the design phase are automatically used in advanced analytics applications, new powerful insights can be leveraged to achieve new levels of performance.

Delivering Value through World-class Consulting and Professional Services

With the acquisition of **Kalypso**, Rockwell Automation now offers a full suite of consulting, data science, technology, business process management and managed services that enable the transformation of the value chain, from product to plant to customer.

With approximately 250 new InnovationSuite customers and a library of dozens of repeatable industrial use cases, the Rockwell Automation **consulting and delivery services** are highly differentiated components of the InnovationSuite digital transformation journey to accelerate time to value.

Rockwell Automation Targets Market Expansion With New High-performance, Scalable Kinetix Integrated Motion Drives

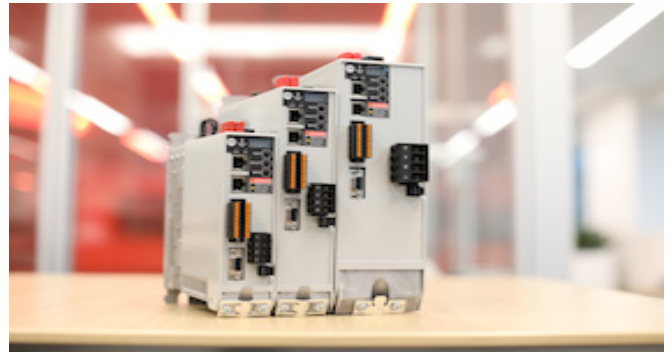
●●● *In continued efforts to enable flexible manufacturing for its customers, Rockwell Automation's motion business has expanded its Kinetix line of servo drives with intelligent and scalable solutions.*

The new Allen-Bradley **Kinetix 5300 servo drive** is a fully integrated, CIP Motion solution for global machine builders looking to increase performance and leverage a single-design environment for control and motion. When paired with the new TLP motors, customers get the competitiveness of a coordinated platform as they extend the power of the connected enterprise into simple machines, an approach that positions Rockwell Automation to accelerate growth in emerging markets throughout Asia and mature markets in Europe. The new product line, combined with the rest of the Kinetix family, provides a complete range of servo drive offerings from Rockwell Automation for everything from small, standalone machines to large, complex systems.

The Kinetix 5300 servo drives are designed for diverse machine applications such as electronics assembly, packaging and converting, printing and web (CPW). The new drives also feature capabilities that can help simplify machine design and optimize performance throughout the machine lifecycle. Like other Kinetix integrated motion drives, Kinetix 5300 leverages Studio 5000 as a single design environment. Using a single family of servo drives allows machine builders to program all their drives in this one

design environment and reuse code across drives, streamlining the design and commissioning process. Kinetix 5300 native integration with Logix control enables smart tuning capabilities that adjust for changes in inertia and resonances automatically, helping to optimize machine performance and simplify machine maintenance over time.

"Our expanded portfolio provides machines builders a complete family of scalable servo drives for diverse applications," said Bill Kegley, director, product management – motion control at Rockwell Automation. "Now with the addition of the Kinetix 5300 to our family of servo drives, we are in a position to deliver truly scalable and intelligent motion solutions that help our customers achieve productivity and sustainability for a wider range of applications."



Updated ThinManager Software Improves Industrial Application Delivery and Device Management

●●● To simplify management of industrial applications and devices, Rockwell Automation has updated its **ThinManager software**. The latest release of the thin client management software includes new content delivery methods.

Improvements in the software include a new web browser display client that does not rely on Remote Desktop Services. This new application delivery method provides greater flexibility for delivering content and paves the way for more display client options in future releases.

The updated ThinManager software also supports the Allen-Bradley VersaView 6300 thin clients and industrial PCs. The thin clients are ThinManager ready right out of the box. The industrial PCs are ThinManager compatible. They can be used as a PC, a thin client or both at the same time to help improve the reliability of visualization applications. Expanded compatibility and strategic licensing options for the FactoryTalk View Site Edition (SE) software are also available in the new release.

To support a wider range of users globally, the ThinManager software now allows for all strings and on-terminal commands and prompts to be displayed in a user's local language.

The ThinManager software also continues to expand visualization options for users. The latest version of the software offers:

- An updated configuration wizard for multiple monitors.
- A freeform-style layout tool instead of limited preconfigured layouts.
- Support for portrait mode in any monitor configuration.
- The use of landscape and portrait screens on a single terminal.



New Possibilities for Industrial Companies with LifecycleIQ Services

- *Expanded professional services portfolio combines knowledge and technology to build long-term partnerships and address needs across the industrial value chain*

To help companies innovate faster and more sustainably, especially in these trying times, Rockwell Automation is evolving its service and solutions capabilities and launching a new brand: **LifecycleIQ Services**. The new brand represents the expanding ways that customers can engage with Rockwell Automation technology and highly trained professionals to improve their performance and reimagine what's possible across their industrial value chain.

LifecycleIQ Services provide the transformative partnership that customers need and expect today. By combining digital technologies with expansive human know-how, the services help companies work faster, smarter and with greater agility at every point in their business cycle.

"LifecycleIQ Services create a more intimate customer engagement model, one that can help companies not only solve problems, but also see new possibilities in production and transform them into reality," said Frank Kulaszewicz, senior vice president, Lifecycle Services at Rockwell Automation. "We're investing in providing a wide range of holistic services to help companies be more productive, safe and secure anywhere in a product, process or plant lifecycle."

Industrial companies can use LifecycleIQ Services to achieve outcomes like:

Capturing more value from digital transformation initiatives

Digital initiatives can struggle to get off the ground because companies don't know what steps to take or where to start. Using the knowledge and experience within LifecycleIQ Services, companies can strategically plan, implement and scale their digital initiatives.

Support can begin with defining strategic objectives, identifying use cases and quantifying business value. Rockwell Automation can then continue to support customers through implementation, ongoing maintenance and continuous innovation.

Reducing risk with comprehensive cybersecurity support

Cybersecurity is a top priority today, but few companies have specialists with both information and operations technology (IT/OT) security knowledge. Rockwell Automation is uniquely equipped to address complex security challenges in IT/OT environments. The company understands the OT environment and how it interfaces with IT and follows industry security standards.

LifecycleIQ Services can help companies adopt a proactive cybersecurity approach and address the entire attack continuum – before, during and after an event. Also, as more companies connect their plants to remote workers and partners like original equipment manufacturers (OEMs), Rockwell

Automation can help protect those connections with secure remote access and security posture assessment services.

Improving workforce support

Companies need new ways to support their workforces as they contend with global health challenges and skills shortages brought on by the retirement of trained workers and an influx of new technologies. They also need workforce support as they seek to make the most of IIoT technologies.

LifecycleIQ Services can help companies address their unique workforce challenges and gaps by assessing needs, identifying priorities and creating workforce development programs. Rockwell Automation also uses remote support capabilities and augmented reality technologies to help companies interact virtually with support engineers, strengthen skills with virtual training, and provide safety and security services without sending people into plants.

To improve customer experiences, LifecycleIQ Services is also introducing a new way to receive multiple services in one contract. An **Integrated Service Agreement** allows companies to select a package of offerings to simplify their support needs and have just one number to call to access experts and receive priority service.

Discover more:
www.rittal.com/valuechain

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Rockwell Automation Expands Visualization Offering, Provides Customers Greater Reliability, Security

- ***New VersaView 6300 industrial PCs and thin clients allow users to create a single, secure and dependable visualization system***

Rockwell Automation recently announced the release of new industrial PCs and software to markedly improve the reliability and security of visualization applications. Visualization systems are often among the most expensive plant floor systems to maintain and are a common target for unauthorized users looking to access control system assets and intellectual property.

The new industrial Allen-Bradley VersaView 6300 PCs and thin clients combine with FactoryTalk View human-machine interface (HMI) software and ThinManager thin-client management software to create a complete visualization system. Thin clients are computers connected remotely to a server storing applications, rather than using a local hard drive. For mission critical applications, users can deploy ThinManager redundancy or a VersaView 6300 PC running local and remote applications to help ensure reliability if server communications are lost.

In addition, unlike most industrial PCs, each model in the VersaView 6300 family is individually designed to minimize or remove frequent

points of failure like fans and connectors, helping reduce costs and extend the life of the PC.

“These new industrial PCs and the ability to create a more reliable and cost-effective visualization system are the result of our acquisition of ASEM S.p.A., an Italy-based provider of automation technologies,” said Dan DeYoung, hardware business director, Rockwell Automation. “We’re also working to bring the acquisition to fruition in other valuable ways, such as by offering greater customization and breadth to our industrial computers and expanding remote connectivity options.”

Customers can enhance cybersecurity when they use the new industrial PCs with ThinManager software. Multiple PCs with locally stored applications spread across a plant floor can increase the attack surface and security risks. ThinManager software allows applications to run and be maintained from a central and secure location.

Additionally, when users acquire both the visualization hardware and software from one source, support is simplified. This can reduce the headaches, costs, and mean time to repair that typically come from working with multiple vendors for support issues. Users



Moda Packaging System

Moda is a global leader in producing high performance modular food packaging equipment. Moda integrates the latest technology with hygienic design for the vacuum packaging of meat and dairy products.

Moda equipment has been crafted to endure the challenges of demanding environments, increase productivity, and deliver energy, labor and total package cost savings. The rigorously tested line of Moda systems provides improved ergonomics, product-flow and food safety, also.



Find more information at : www.modanz.com



can also save money by taking advantage of the flexible content delivery methods and simplified licensing that are available from a Rockwell Automation-based system.

The new Allen-Bradley VersaView 6300B box PCs and thin clients deliver dependable performance and are available in multiple options to match user application needs. Other benefits include:

- Atom-class book mount units are lightweight and ideal for HMI, Industrial Internet of Things (IIoT) gateway and data-logging applications.
- i Class book mount units have a compact yet powerful design to provide space savings in control cabinets.
- i Class wall mount units provide high performance at a lower price.
- Both book and wall mount units are available in fanless construction making them ideal for applications requiring low maintenance.
- Fan cooled units will be offered for applications where additional cooling may be required.

The new Allen-Bradley VersaView 6300P panel PCs are scalable to meet a range of performance requirements. Other benefits include:

- They're available in display sizes from 12.1 to 24 inches and offer processing power based on the seventh-generation Core i3, i5 and i7 of the Intel Kaby Lake H platform.

- These units are available with analog resistive touchscreens as well as projected capacitive touchscreens for applications utilizing multi-touch software.
- Fanless design construction reduces maintenance needs.
- True flat touchscreens have reduced bacteria-harboring nooks and crannies to help provide a sanitary work surface in food and beverage applications.

VersaView 6300 industrial PCs include Windows 10 IoT Enterprise



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