Issue 75

Automation TODAY

ASIA PACIFIC

INSIDE

CLOUD ENABLEMENT

Rockwell Automation

Contents

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Issue 75

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Cloud-Based Manufacturing – a Game Changer

Almost half (44%) of respondents globally in our recently released 8th annual "State of Smart Manufacturing Report" are planning to increase investment in cloud technology, applications, or infrastructure.

Manufacturers are continuing to reap the benefits of cloud technology and if you are still not convinced, this issue of Automation Today features content breaking down the relevance and value of the technology in manufacturing

Read how our senior vice president of software and control Brian Shepherd links cloud-based, software-as-a-service (SaaS) with becoming a "business cheetah" in the current global climate. Or get recommendations from our Asia-Pacific software and control director Adrian Giecco on how a company that is fully on-premise could move operations onto the cloud.

Also featured are customer success stories using the single-instance, multi-tenant cloud-based SaaS smart manufacturing platform Plex, by Rockwell Automation, to improve traceability and integrate quality data for supply chain planning.

These days, mentions of cloud computing may lead to questions or comments surrounding the still maturing edge computing, and as interest intensifies for this technology, we have a piece unpacking when is best to deploy either paradigm in an industrial scenario.

I hope this issue provides you with the information you need to take the next step on your cloud journey!

Keep safe and stay connected.

Scott Wooldridge

President, APAC
Rockwell Automation

2023 State of Smart Manufacturing Study Finds Over 45% of Asia-Pacific Manufacturers Struggle to Outpace Competitors Due to Lack of Innovation, Skilled Workforce and Technology

Global survey reveals impact of smart manufacturing technology on maximizing data insights, attracting talent, and minimizing risks to supply chain, quality, and cybersecurity

Rockwell Automation announced the results of the 8th annual "State of Smart Manufacturing Report." The global study surveyed more than 1,350 manufacturers across 13 of the leading manufacturing countries including Australia, China, India, Japan and the Republic of Korea.

This year's report reveals a focus on delivering profitable growth without sacrificing quality, an emphasis on accessing data's true potential, and increasing adoption of technology to build resilience, enable agility, increase sustainability, and address workforce challenges.

Key findings include:

- "Balancing quality and growth," and "tracking or quantifying sustainable practices" are the biggest internal obstacles inhibiting progress for Asia-Pacific (APAC) manufacturers this year, compared to deploying and integrating new technology in 2022.
- Globally, twice as many manufacturers believe their organization lacks the technology needed to outpace the competition, as compared to 2022.
- Four out of five manufacturers still lack an end-to-end supply chain planning solution.
- Close to half (44%) of APAC manufacturers plan to adopt smart manufacturing within the next year; out of this, China (80%), Australia (60%) and India (59%) are already using some components of smart manufacturing.
- The biggest barriers to adopting smart manufacturing for APAC manufacturers are employee resistance to technology adoption and change, lack of skill set to manage smart manufacturing implementation, and lack of clear definition of the value/ROI of smart manufacturing.
- Quality management system (QMS) is the smart manufacturing system that APAC respondents have seen the largest ROI, followed by manufacturing execution system (MES) and enterpriseresource planning (ERP).
- Cybersecurity risks rank highest as the obstacle all respondents are looking to mitigate with smart manufacturing initiatives.
- 88% of APAC manufacturers plan to maintain or grow employment due to technology adoption. Additionally, 39% of respondents believe they will be able to repurpose existing workers due to their increasing use of technology.
- Of the 94% of APAC manufacturers who have formal or informal environmental, social and governance (ESG) policies in place, close to half (48%) cite "a competitive differentiator" as the top driving factor for pursuing ESG initiatives.

"Manufacturers are continuing to seek opportunities for profitable growth but are realizing thatuncertainty in workforce availability is impacting quality, along with their ability to meet evolving customer needs," said Veena Lakkundi, senior vice president, Strategy and Corporate Development, Rockwell Automation. "The survey found that smart manufacturing technology is enabling manufacturers of all sizes to optimize more resilient, agile, and sustainable solutions that accelerate transformation. If we've learned anything from history, it's that organizations that invest in innovation, with a bias for action, during times of uncertainty can outpace competitors."

Based on the survey findings, technology is crucial to mitigating risk and delivering growth. However, for one-third of manufacturers globally, the range of available systems and platforms is leading to "technology paralysis" – an inability to decide between solutions. Manufacturers can overcome this indecision by choosing a partner with relevant industry expertise and experience who can advise and guide them in implementing a fit-for-purpose solution to achieve desired outcomes.

"At Rockwell, we combine the power of our portfolio of industry solutions with our second-to-none partner ecosystem to serve as a trusted advisor to leading companies around the world," said Lakkundi.

"As the biggest company focused solely on industrial automation and digital transformation, we work to make the complex simple and meet companies where they are in their journeys."

The full findings of the report can be found here.

Rockwell Automation Announces Acquisition of Knowledge Lens

Acquisition to accelerate Rockwell's delivery of Industrial AI solutions to manufacturers globally

Rockwell Automation has acquired Knowledge Lens. Based in Bengaluru, India, Knowledge Lens is a services and solutions provider that delivers actionable business insights from enterprise data, combining digital technologies with deep data science, artificial intelligence (AI), and engineering expertise. Knowledge Lens will join Rockwell's premier digital services business, Kalypso, to accelerate transformational outcomes for more manufacturers around the world.

Rockwell's digital transformation services business is one of its fastest growing, as demand to scale connectivity across the enterprise and enable data-driven predictive and prescriptive insights increases. Together with Kalypso, Knowledge Lens will significantly expand Rockwell's capabilities to unlock the power of data, enable autonomous manufacturing, and drive continuous optimization for more manufacturers.

"Data offers enormous advantages for those manufacturers able to harness its full potential. But for many, only a fraction of the data generated by their plants and in their supply chains is ever used," said Frank Kulaszewicz, senior vice president of Rockwell's Lifecycle Services segment.

"The acquisition of Knowledge Lens improves our ability to help more manufacturers around the world discover and use the hidden insights in their data to drive game-changing value for their businesses."

Knowledge Lens, founded in 2013, serves a broad range of manufacturers, with a specialization in highly regulated industries, including life sciences. Knowledge Lens also expands Kalypso's ability to serve clients with an open platform approach across leading AI and digital technologies.

"We are excited to join Rockwell and Kalypso and extend our collective ability to innovate and build a more sustainable, resilient, and human-centric society" said Sudheesh Narayanan, Chief Executive Officer and founder of Knowledge Lens. "With our combined experience, and Knowledge Lens' pre-packaged cloud-native solutions for common use cases including smart factory, connected workers, IT/OT integration, data migration, and sustainability, we are well-positioned to extend our impact in the market."

Rockwell Automation Names Shovan Sengupta as Regional Vice President, Market Access

Shovan Sengupta has been promoted to regional vice president, Market Access, for the Asia Pacific region. He will be based in Singapore and report to Scott Wooldridge, president, Asia Pacific.

Rockwell Automation's Market Access organization collaborates with key distributors, systems integrators, original equipment manufacturers (OEMs) and technology partners to help customers design, implement, and maintain solutions that maximize their automation, software and IIoT investments.

"In the Fourth Industrial Revolution, companies need strong partnerships to achieve their full potential. Together, we connect the imaginations of people with the potential of technology to expand what is humanly possible, making the world more intelligent, more connected, and more productive," says Rockwell's Scott Wooldridge, president, Asia Pacific. "Our PartnerNetwork has been evolving as we upskill existing members and add new partners with capabilities in areas like software and cyber security. In his new position, Shovan will play a critical role in helping our partners to transform and grow to meet the challenges of our rapidly changing industry."

Shovan joined Rockwell in 2021 as channel director, Asia Pacific. Since then, he has played a key role in leading the company's channel strategy working with value added distributors, specialty distributors and authorized resellers. Following the acquisition of Fiix, Shovan implemented the Fiix Partner Pilot program and the Information Software Value-Added Reseller Program in the region.

He succeeds Don Shoemaker, who returned to the United States to take up the position of Rockwell Automation's vice president of Market Access in North America.

Rockwell Automation Names Bob Buttermore SVP, Chief Supply Chain Officer

Robert (Bob) Buttermore is senior vice president and Chief Supply Chain Officer, effective Feb. 13. He reports to Rockwell Chairman and Chief Executive Officer Blake Moret.

In this role, Buttermore heads the Integrated Supply Chain (ISC) organization and is responsible for leading global strategy and development of Manufacturing Operations, Manufacturing Engineering, Quality, Sourcing, Logistics, and Customer Care. Buttermore succeeds Brad Skogman, who has served as the interim head of ISC since June 2022.

"Bob has demonstrated vision and leadership in growing our core business and meeting our customers' needs. His strategic vision, leadership track record, passion for building and empowering teams, and ability to work across the company position him well to lead our agile supply chain organization," Moret said.

"I would like to thank Brad for his strong leadership and results during this dynamic supply chain period," Moret said. "He and Bob will partner for a smooth transition, and we are happy to have Brad return as a leader in our Finance organization."

Buttermore has built his career at Rockwell. He joined the company in 1997 in the Operations Leadership Development Program as an engineer in Cleveland, Ohio. He has gained global industry expertise with roles of increasing responsibility and leadership scope in operations management, sales, and sales management, including as regional vice president, Greater China. Most recently, Buttermore was vice president and general manager of the Power Control Business within the Intelligent Devices operating segment, overseeing global operations, and developing and implementing strategic direction for this critical area. In this role, he led Rockwell's recent acquisition of CUBIC. Buttermore holds a bachelor's degree in mechanical engineering from The Ohio State University.

Rockwell Automation information, control & safety solutions sit at the operational heart of new Petrobras FPSO vessel

Highly demanding oil and gas application will thrive on the seamless integration delivered at every level and every stage of the vessel's operations

Rockwell Automation has been chosen to supply the automation and Integrated Control and Safety Systems (ICSS) systems for P-79, an FPSO vessel in the Petrobras fleet.

Through close support from Sensia – Rockwell's joint venture with SLB – and cooperation with the P-79 vessel's builder Saipem/DSME, Rockwell Automation technology and Sensia solutions were selected for their proven track records in the oil and gas industry, as well as for their robust interconnectivity. "We are specialists, both in terms of technology and domain expertise, in the supply of automation and safety solutions for the oil and gas industry," explains Barry Elliot, vice president, global industry, Rockwell Automation. "Typical Floating Production, Storage, and Offloading (FPSO) vessels comprise 15 to 20 major process modules, most of which rely on our solutions for their automation, process and information capabilities, and P-79 is no different. By leveraging our control solutions at the higher level, even greater performance can be extracted, and greater yield realized."

The P-79 project win follows the similar P-78 FPSO project, which also has Rockwell Automation at the core of its automation and ICSS.

Rockwell Automation Partners with Fortinet to Secure Operational Technology Environments

Fortinet joins the Rockwell Automation PartnerNetwork™ as a Gold Technology Partner

Rockwell Automation announced that Fortinet, a global leader in broad, integrated, and automated cybersecurity solutions, has joined the PartnerNetwork Program as a Gold Technology Partner.

By partnering, Fortinet and Rockwell Automation will be able to provide powerful cybersecurity protection to global customers through the convergence of advanced networking and security capabilities. The differences between operational technology (OT) and information technology (IT) environments mean that ICS systems often face different cybersecurity risks and a unique threat landscape that requires security solutions tailored to their challenges. Fortinet has years of experience securing OT environments with solutions that can help connected organizations protect, consolidate, and scale their security.

Traditionally, OT companies have relied upon "air gapping" as a crucial part of their security strategy. By ensuring that no network connectivity existed between OT and IT networks, it was possible to decrease the exposure of ICS components to cyber threats. But today, the air gaps between OT and IT networks are rapidly disintegrating. As a leading vendor of OT security solutions, Fortinet will help Rockwell securely support its evolving customer base around the world.

Dan DeYoung, vice president of product management at Rockwell Automation, points out, "More Rockwell customers are looking at ways connected products or services can provide new revenue streams. But digital transformation initiatives have to be secure, so they're requesting Fortinet products to help them realize their goals. Our customers are looking for ways to reduce complexity with integrated security products that are specifically designed for OT environments. Partnering with Fortinet offers the security efficacy and reliability they need."

"Companies will continue to see a convergence of OT and IT, and this evolution will have a significant effect on manufacturing cybersecurity," said John Maddison, EVP of products and CMO at Fortinet. "The Fortinet partnership with Rockwell Automation will help customers securely navigate their digital transformation journey. Our collaboration with Rockwell will support secure connected organizations by reducing their exposure to cyber threats and help them centralize visibility and management of their security architecture."

Learn more information about Fortinet OT capabilities and solutions.

For more information on Rockwell Automation's Digital Partner Program, or to request more information from your local sales office, go here.

Cloud-based Solutions offer Speed and Agility

Rockwell Automation senior vice president of software and control Brian Shepherd details how the organization is bringing cloud solutions across the entire lifecycle of manufacturing.

"You want to be a cheetah, a business cheetah," said Brian Shepherd, senior vice president of software and control at Rockwell Automation, who spoke at the organization's annual flagship event Automation Fair 2022. In the current global climate, a business cheetah, Shepherd said, needs to be able to pivot with speed and agility. Customers can find that speed and agility in cloud-based, software-as-a-service (SaaS) solutions.

Despite the success stories, Shepherd said, they also hear from customers that things still aren't moving fast enough. "Those old highway signs used to say that speed kills. It seems today that speed is the only way to survive." And agility is just as important.

"We see an almost unending list of challenges that manufacturing companies are faced with and have to address," Shepherd said. "The good news is we're all still here. Manufacturers have been adapting."

Despite the success stories, Shepherd said, they also hear from customers that things still aren't moving fast enough. "Those old highway signs used to say that speed kills. It seems today that speed is the only way to survive." And agility is just as important.

"The cloud is tried and tested. It's proven," Shepherd said.

SaaS in the cloud provides the speed and agility that customers are looking for to meet their key business outcomes. "The cloud enables those business outcomes by changing the way you work," he said.

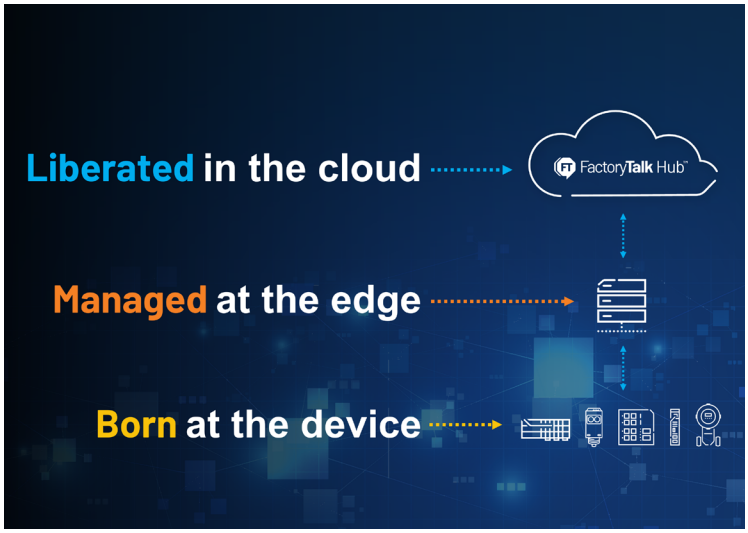
The cloud can also accelerate time-to-value and reduce the need for expensive on-site experts and teams for deployments, patching and upgrades. "That's good because you can't find those people anyway," Shepherd said. Adopting the cloud also eliminates large upfront purchases for hardware and software licenses. "You can start small and scale up fast," Shepherd said. "That's real agility. You can scale back down as business conditions change."

Shepherd said the cloud also boosts collaboration, with the ability to work from anywhere. "Honestly, your employees are going to accept nothing less than that ability to work from anywhere at any time," Shepherd said.

Where processes, machine performance, quality records and maintenance plans are often siloed in certain applications and devices, the cloud can make that data accessible across geographies and time zones. "Manufacturing data is a tremendous asset for your company," Shepherd said. Putting all the data from different sources in context is also important and creates real value in the datasets and ensures trustworthy data. Ultimately, it allows customers to make decisions from that data. "That's the way you change your business, and that's the way that you create value," he said.

Rockwell Automation aims to be the best choice for customers as they pursue agility and speed goals, and it invested in that mission with FactoryTalk® Hub™, a set of SaaS and cloud native offerings. "It covers the entire lifecycle of manufacturing, from the design of new production systems to the operation of those production systems and the maintenance of those production systems," Shepherd said.

For design, Rockwell Automation announced a new cloud offering, FactoryTalk® Design Hub™. "It's a completely new generation of pure cloud software for programming our automation systems," Shepherd said. It offers flexible programming approaches and languages, and it is multi-user to flexibly scale as a team. "And it's multi-controller. It takes a system view, not a single controller view of the automation project," he said.



Rockwell's investment in SaaS-native applications was bolstered by its acquisitions of Plex and Fiix®. "These are big bets that Rockwell was placing on the future of the cloud and manufacturing," Shepherd said. "These applications connect people, plans, activities and results."

Rockwell customer Motus Integrated Technologies, which provides automotive interiors to transportation companies around the world, had a reliance on paper-based processes. "They were flying blind in a world that requires agility," Shepherd said. With Plex and a cloud-based smart-manufacturing platform, Motus implemented the system across three continents in seven different plants. The real-time visibility into production data helped the company identify errors and opportunities in production and helped it to take immediate action during the product manufacturing process. This, in turn, drove significant improvements in scrap and in overall quality for Motus. "This is the kind of performance that companies are achieving today, through the agility and speed provided by the cloud," Shepherd said.

Perth County Ingredients (PCI), a supplier of ingredients for food, beverage and sports-nutrition companies, was mostly doing reactive maintenance on its assets but wanted to move to a more proactive approach. With Fiix, PCI is using data to plan and then optimize the maintenance activities of its important assets. "It's the first step of the journey that PCI is taking on its digital transformation. It's kind of an easy and high-impact way to start that transformation journey," Shepherd said.

With FactoryTalk Hub, Rockwell is focused on the Connected Enterprise® and a unified experience to seamlessly flow data between all applications. "Manufacturing data has historically been gridlocked, trapped in the devices or the applications where it was created," Shepherd said. "You need the right data in the right place at the right time and in the right context to make decisions," Shepherd said. Machine sensors generate tremendous amounts of data about the health of the production processes and the health of assets. "Those data sets are really the vital signs of your factory," Shepherd said.

Edge technology is also integral to cloud-based solutions. "There is no pure cloud manufacturing. It's always a hybrid story," Shepherd said. To manage what is happening on-prem close to the production process, at the next layer up at the edge and at the cloud, Rockwell launched FactoryTalk® Edge Gateway™, a brand-new SaaS solution that lives in the cloud and allows customers to manage edge devices across a fleet of factories, as well as the devices and workloads running on the edge. "This is bringing an IT mindset about managing a fleet of devices across the company, to the OT world where you're doing that remotely. You're doing it via the cloud and doing it securely," Shepherd said.

The value of data comes from the insights it provides, but the real challenge lies in scaling those tools. "That challenge is to grow so that it survives and thrives over time. And, at scale, you really need an industrial approach to data wrangling," Shepherd said. "Otherwise, it's chaos."

The need for an industrial data hub is what drove the need for Rockwell's partnership with Cognite. "We're working with Cognite to build its leading industrial data hub into our new solution that we'll call FactoryTalk Data Mosaics," Shepherd said. The offering will be available mid-2023. "It's the key to unlocking value at scale from this tremendous set of data that you have in the factory," Shepherd said. Creating value from data requires a dataset from a single trusted source of truth. "That's the target for our FactoryTalk Data Mosaics offering. I think it's going to be pretty important for the way that it brings that whole FactoryTalk, SaaS-based set of technologies to life for customers," Shepherd said.

"We're investing in the cloud; we're making those big bets," Shepherd said. "We're meeting customers where they are in their journey and helping them align to achieve those business outcomes that they're looking for around speed and agility, and with a vision, with investment, with technology and with all of you, we're taking manufacturing to a whole new level."

This article was originally published by Control Global as a sponsored content for Rockwell Automation. AT

Q&A with Adrian Giecco on Cloud-powered Manufacturing

Adrian Giecco, our director of software and control in Asia Pacific, addresses frequently asked questions about cloud technology in manufacturing.

1. How would you define what digital transformation is within the realm of industrial automation and its connection to the cloud?

In industrial automation, technologies such as the cloud, artificial intelligence and the Internet of Things (IoT) are key enablers for digital transformation – which is the process by which manufacturers integrate such digital technologies to grow and evolve the automation of production workflows and machinery across the factory and supply chain.

- Leverage analytics to optimize production and empower workers with actionable insights
- Digitize production workflows to improve agility, quality and visibility
- Enable digital engineering to do more in a safer, more collaborative, and more cost-effective virtual environment
- Connect people, systems, machines and supply chains

In short, digital transformation helps to improve productivity, achieve faster time to market and increasingly – helps meet sustainability goals for manufacturing companies. And cloud is one of the key technology enablers of digital transformation.

2. What are the key business drivers for the growth of cloud-based applications in manufacturing over the past five years?

The need for digital transformation in the wake of the pandemic has been a significant accelerator for cloud in manufacturing. Firstly, it provides the opportunity for greater simplification from an information technology (IT) standpoint; cloud-based applications enable moving IT equipment and their management off-premise, alleviating the workload of IT teams who are often overloaded managing existing assets, and reducing the need for upfront capital expenditure.

Furthermore, moving applications to the cloud provides the speed and agility that manufacturers and producers are increasingly looking for today. Project implementation timelines can be compressed by up to 90%. A large manufacturing execution system (MES) deployment in the cloud can be delivered three to six months faster than the equivalent on-premise implementation. This could mean being three to six months ahead of the competition, which is a lifetime in the current business environment! And when the time comes to expand the solution or extend to other facilities, the cloud can scale up gracefully.

Another reason more manufacturers are considering switching to the cloud is increased visibility and collaboration. The cloud is a layer of IT that sits above all your manufacturing sites, making it possible to provide oversight of all production processes more easily. This increases collaboration, access to remote expertise and benchmarking across facilities. The need for greater visibility into production operations was the main reason REE Automotive, a provider of electric vehicle (EV) platforms, chose Plex MES for their digital backbone, as they scale their operations across multiple plants globally.

3. What has changed over the years in terms of reliability, speed and security regarding manufacturing applications in the cloud?

There have been huge improvements across these three dimensions and will continue to improve every year.

Reliability: Cloud solution providers have made significant investments in infrastructure and redundancy to deliver higher levels of reliability. Cloud platforms are designed to handle large-scale workloads and unpredictable traffic patterns that are common in manufacturing applications. Most software-as-a-service (SaaS) providers offer Service Level Agreements (SLAs) that promise typical application availability of 99.5% or beyond, which is important for mission-critical applications that need minimum downtime. We put great focus on this area and are proud of the track record of our platforms such as Plex, with 99.994% or better availability recorded from 2018-2022.

Another concern in some geographies is the reliability of internet access itself. This can be mitigated with multiple types of access configured for automatic failover, e.g., two different wired ISPs and a 5G connection.

Speed: Advances in network infrastructure and traffic management have enabled lower latency and processing times, resulting in quicker round-trips. Software-defined wide area network (SDWAN) technology solutions can be leveraged to optimize and prioritize traffic through load-balancing across multiple ISPs. And for the lowest latency application requirements, many cloud solutions incorporate an edge component that provide local buffering and compute.

Security: What used to be a nice-to-have is now a must-have. Companies are taking security more seriously and most boards have it on their agenda. As such, cloud solution providers have made large investments in security and compliance to address concerns around data privacy and security. By using reliable cloud-based or software-as-a-service (SaaS) solutions, manufacturers can benefit from the expertise and resources of the provider to enhance their cybersecurity posture through features such as encrypted data storage, multi-factor authentication, and automatic software updates, aiding in enhancing the security of the systems and the data stored in them.

SaaS providers typically invest significant resources in securing their systems and maintaining compliance with security standards such as ISO/IEC 27001 and SOC 2. This can help to provide a higher level of security compared to on-premise solutions, which can be more vulnerable to attacks.

When you move to the cloud, there is continuous innovation because the software becomes version-less i.e., always up to date, with many more deployments per year versus an upgrade every few years like the case of on-prem software. This empowers the end user with new capabilities and streamlined functionality through iteration based on usage.

4. For a company that is fully on-premise, what is the framework or steps to move to cloud? Is it all cloud or a hybrid?

The approach will be different for a greenfield versus brownfield plant. In general, the process of moving to the cloud will be easier for a greenfield plant since there is no existing infrastructure to migrate. However, a brownfield plant may have existing investments in hardware and software that can be leveraged and integrated with the new cloud-based infrastructure.

For brownfield plants, you may not want to migrate to cloud a new or recently modernized application, because the total cost of ownership (TCO) may not check out. But there is opportunity when adding new value-added applications or modernizing existing ones. A cloud-based Computerized Maintenance Management System™ (CMMS) like Fiix is something you could get up and running within minutes, for instance, unlocking AI-enabled capability running in the cloud.

But to do this at scale, the best way is to map out your existing applications across the entire lifecycle and the production system, and evaluate platforms that can converge many of these applications like the Plex Smart Manufacturing Platform™.

You'll likely end up with multiple platforms or applications because one cannot do it all, so integration will be important. From this perspective, it's important to look for applications and platforms that offer comprehensive APIs to simplify integration.

On the other hand, a hybrid approach may be more appropriate if you need to keep some applications and data on-premise, while moving others to the cloud. This may be the case if you have legacy systems that cannot be migrated to the cloud or if you have regulatory or compliance requirements that dictate where data can be stored.

5. How is Rockwell Automation helping manufacturing companies interested in embedding cloud technologies as part of their business?

We are here to support customers with their digital transformation journeys, at whichever stage they are at, by building an ecosystem of cloud-native capabilities across the Design, Operate and Maintain lifecycle of a Connected Enterprise® production system.

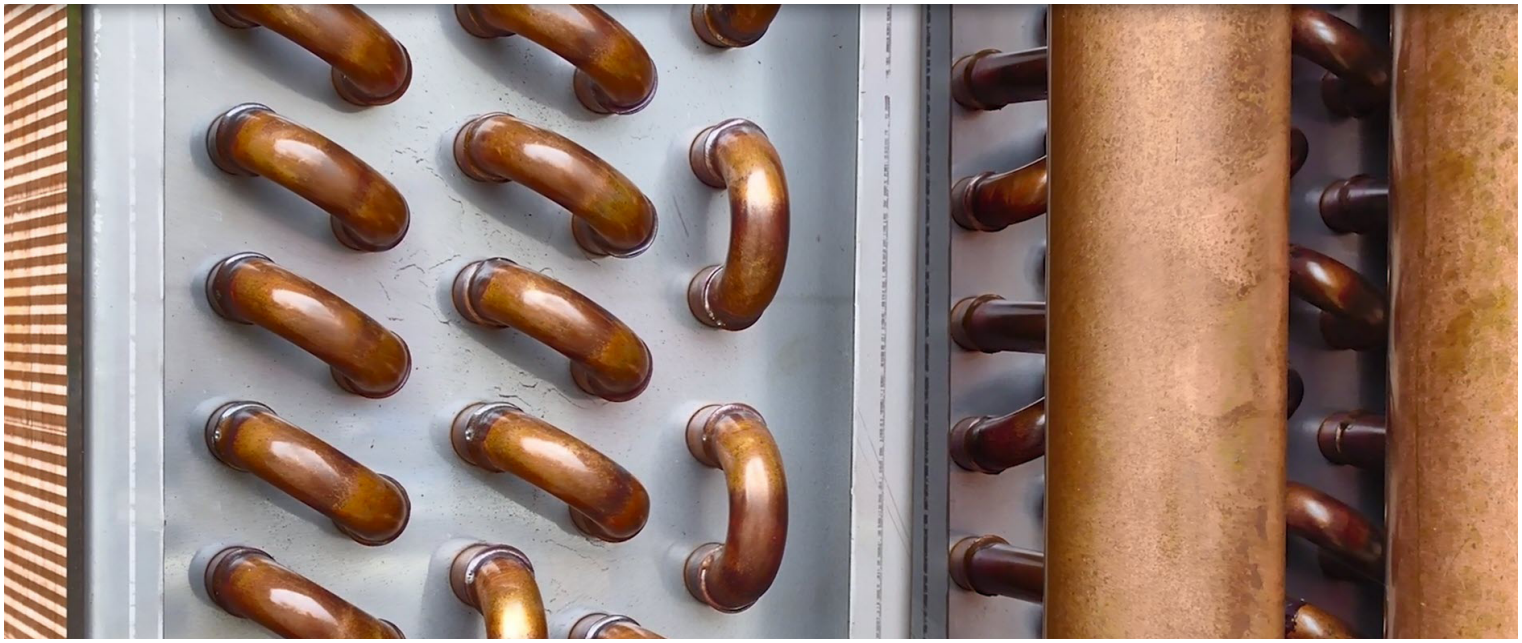
We are doing this through a series of significant in-house developments, technology partnerships as well as well as the recent acquisitions of Plex and Fiix® that complement our on-premise FactoryTalk Hub software offerings. Our partnership with Microsoft helps us deliver trusted and industry relevant solutions built on a globally recognized cloud platform like the Azure public cloud platform.

Not all companies will leverage cloud technologies for all their applications. Most will maintain a mixture of applications on-premise and in the cloud, depending on what makes sense for the business at the time.

The cloud offers so many advantages for manufacturers and producers, including the ability to access the software anytime, from anywhere around the world, avoiding upfront IT hardware costs, simplifying IT management, improved security posture and continuous innovation with version-less software which is always up to date. There are so many advantages that I would ask – can you afford not to adopt cloud for your operations?

CASE STUDY

Arrow Fabricated Tubing Gains Inventory Accuracy



The company implemented Plex MES to provide customers with integrated data and found additional, unexpected benefits of their own.

Challenges

- Data collection was fragmented including manual notations in spreadsheets and paper tallies
- Lack of inventory management and traceability

Solutions

- Plex Smart Manufacturing Platform (MES and ERP)
- Lack of inventory management and traceability

Results

- Inventory accuracy of 99% on a regular basis
- Improved order and purchase forecasting

Meet Frank Freeman, senior manager of sales and operations planning and manufacturing systems for Arrow Fabricated Tubing. They're a leading North American supplier of copper and aluminum fabricated tubing products including braze assemblies for the HVAC industry.

A Need for Integrated Data

Known for its commitment to exceptional design quality, Arrow customers have a strong interest in the supplier's quality data. But until 2015, when Arrow first implemented the Plex Smart Manufacturing Platform, data collection was fragmented including manual notations in spreadsheets and paper tallies.

"Our customers loved the data that we had, but they wanted it to be integrated," explained Freeman. "Plex was the only system that had the ability to integrate quality data, along with the production and other massive amounts of data manufacturing firms collect."

Arrow not only quickly met customer data requests by using Plex, by Rockwell Automation, but they were also able to uncover opportunities to further improve their own operations.

Historical Data with Every Keystroke

"Companies today face limited resources. You need to make sure what you're doing is having a significant effect," said Freeman. "With Plex, you're collecting historical data with every keystroke, and you can see where you should focus your efforts and resources."

Better inventory management was one of those areas. Losing track of inventory was a problem with Arrow's previous process. Now with Plex, Arrow barcodes all inventory from the time production starts to the time it reaches finished goods.

"We scan and control material as it moves through the locations in the organization," explained Freeman. "We went from not very good inventory accuracy in the finished goods category to well above 98%, touching 99% on a regular basis.

Strengthening Customer Relationships with Improved Forecasting

Improved order and purchase forecasting was another positive outcome with Plex. While several Arrow customers had robust systems, most didn't.

"With Plex's DemandCaster (supply chain planning), we were able to use the history we collected to help generate a future forecast for certain items – namely those items for which customers didn't provide forecasts," noted Freeman. "That was huge for us to see what the long-term plan was and to plan out raw material flows."

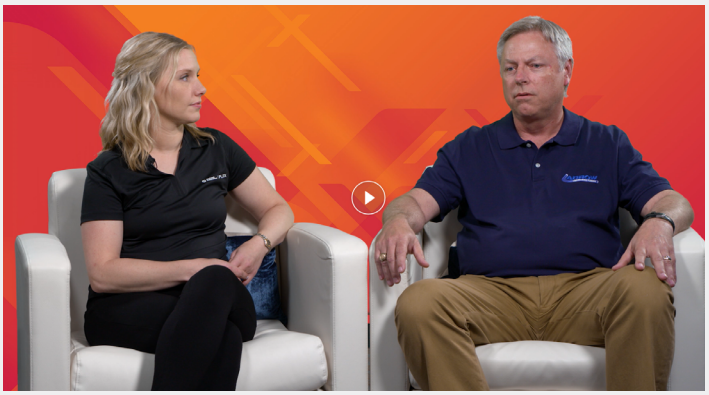
Further, by being able to share forecasts with customers, Arrow has been able to strengthen its customer relationships.

"It helps being able to share data with a customer about what's happening between us. They see there's an interest in doing the right thing for them. Customers value that particularly these days when it's been tough to be successful and have continuity," Freeman said. "If the customer sees you're still focused on them, it makes a big difference."

Leadership Vision Key to Success

Leadership vision and self-reflection have been critical to Arrow's success with Plex.

"We spent a lot of time trying to find the right partner to develop this solution," Freeman recalled. "Then as we developed the implementation process, we spent a significant amount of time studying ourselves — trying to determine what's the best solution for us and how do we want to look at the business going forward."



Watch the video interview with Frank Freeman from Arrow Fabricated Tubing for more details.

OWS Foods Gains Traceability, Efficiency & Scale

OWS Foods seamlessly brings an acquisition into the fold by leveraging Plex Manufacturing Execution software.

Challenges

- Integrate additional complementary manufacturing facility with unique process
- New employee user adoption following an acquisition

Solutions

- Plex Smart Manufacturing Platform (MES and ERP)
- Plex Quality management System

Results

- Batch management with productivity, effeciency and scaling capability
- Total lot traceability throughout the system
- Operation adoption from day one

Meet Christopher Marks, ERP manager at OWS Foods (OWS), a premium foods manufacturer that develops and makes sauces, rubs, blended seasonings, dressings, baking mixes and more. OWS has been a Plex, by Rockwell Automation, customer since 2015 with three facilities using the smart manufacturing platform.

"We run operational implementations, change management, and integrations of acquisitions into our ERP systems for full traceability," said Marks.

Acquisition Expands Manufacturing Capabilities

OWS acquired Head Country Bar-B-Q, a maker of barbecue sauces in 2021. The acquisition brought together the two manufacturer's complementary dry and wet capabilities and products. "With dry manufacturing, we use a split-by-batch operation from our individual control panels with non-fixed sizes, meaning operators can vary the product sizes they pull,"explained Marks. "With our wet facility, we have more of a fixed batch size, meaning we can schedule individual batches. We can go from five to 50 batches, all with a fixed set so we can scale our operation and the product effectively."

Marks and his team have taken advantage of Plex wide range of solutions to integrate the manufacturing operations.

"Plex is part of our enterprise PCN (process control network) structure and has done a great job of providing a holistic view of our business from accounting to raw materials, to quality, to SPC check sheets and EDI," said Marks. " That structure gives us the ability to bolt on an additional manufacturing facility."

Increased User Adoption and Production Efficiency

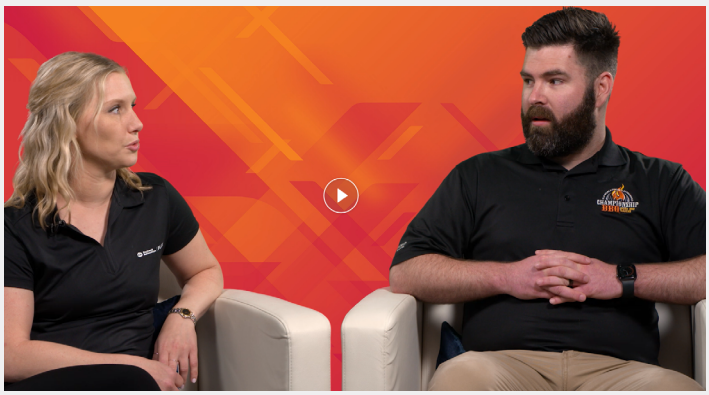
OWS was able to get the newly acquired facility fully operational within six months, including launching batch and lot management tools.

"We've been fully traceable, from the raw material through finished goods, since January 1," said Marks. "The biggest benefits have been the total lot traceability throughout the system and the total productivity, efficiencies, and scaling capabilities with the batch management."

He also noted they've had "great user adoption" because of the front-end work they did with batch management and how they utilized system. Marks said little has changed for the operators.

"It's a similar infrastructure where they're still picking and pulling based on what the system is telling them. But batch management is more about a scheduling optimization than it is picking optimization. The more we can schedule, the more efficiently we can run the lines."

He said it "was an easy choice" to use Plex, solutions for the acquired facility and "to add one more piece of software underneath our Plex umbrella. It's worked out great for us."



Watch the video interview with Christopher Marks from OWS Foods for more details.

Industrial Transformation, the Cloud and the Edge

Edge and cloud computing paradigms are complementary technologies in solving business needs now and in the future

Adapting to Industry 4.0, DX and IX

Industry 4.0 has brought the role of Digital Transformation (DX) to the forefront. Used interchangeably with the notion of the fourth industrial revolution, Industry 4.0 is characterized by higher automation levels, integration of physical and digital worlds via IIoT, smart production, closed-loop control systems, and personalization of products. In short, Industry 4.0 is the DX of manufacturing in industries and related production processes.

As organizations are adopting DX initiatives to evolve their operations, support customers, and adapt to a changed business environment, they're realizing that their success depends heavily on putting industrial data to work.

Industrial Transformation (IX) – a proactive approach to leverage digital solutions to improve discrete, process and batch manufacturing and infrastructure operations – is an important and often the largest subset of a DX program.

Industrial organizations usually operate in a distributed manner, sometimes with plants located all over the world. A mid-size manufacturer often has several or many manufacturing models, hundreds of different types of equipment, a variety of suppliers, and vastly different cultures or nationalities throughout the workforce. Thus, IX also translates into rolling a solution out across a complex network and modifying the solution as required to accommodate differences within specific plants.

As organizations dance around to achieve the broader IX and IT/OT convergence goals, they need to make substantive shifts in how to use the prevalent technology paradigms, namely cloud computing (quite mature at this point) and edge computing (still maturing, with lots of potential). Let's dive deeper into the considerations that CIOs, GMs, and IT/OT administrators must go through for achieving these goals.

Cloud Computing Paradigm

The cloud computing paradigm has evolved from the on-premise deployment model. With cloud computing, you can transmit voluminous industrial data from plants, equipment, machines, vehicles, controllers etc. to IT/OT applications via an internet connection, but the infrastructure details behind the scenes are hidden from the end user.

Because of this approach, cloud computing provides many advantages such as scalability, cost effectiveness and simplicity. You can ramp up cloud services as needed and gain operational

flexibility without hard investments. Since the responsibility of managing the software and back-end infrastructure is upon the cloud services provider, you can save on the personnel and infrastructure investments. It's also easier to abstract the complexity of the hardware away and request additional computing resources as needed.

At the same time, an issue with cloud services is that it needs to be always connected to the internet and is a poor fit for industry use cases involving either no or intermittent network connectivity. Also, cloud computing is bandwidth intensive because a lot of data needs to be transmitted to the servers where the computation and storage happens. This can be rather expensive in scenarios where vast information is generated— such as an industrial setting. Due to the roundtrip network delay, application response time can take from a few seconds to several minutes. This can be a problem for use cases where near real-time response time or decision-making is needed. So, cloud computing cannot be the only answer for all IX use cases.

Edge computing

Enter the edge computing paradigm. The shift here is to place computing resources closer to the user or the device, at the "edge" of the network, rather than in a hyperscale cloud data center that might be many miles away in the "core" of the network. The edge approach emphasizes reduced latency and provides more processing of data close to the source—eliminating a lot of round-trip data movement.

Thus, the edge computing model is useful for use cases that involve time-sensitive and data-intensive applications. These applications can deliver near real-time performance by computing resources closer to the source of data generation. Moreover, these applications help prevent overloading of the network backhaul by processing more data locally and being selective about the amount and frequency of data sent to the cloud. By keeping data local, you also achieve better security, privacy and data sovereignty.

IDC, a renowned analyst firm, sees a strong outlook for edge solutions as they attract the attention of C-suite executives. According to an IDC survey, 73% of senior IT and line-of-business decision makers view edge as a strategic investment. These organizations are looking to edge as a way of increasing productivity and improving security, leading to faster, more informed decision making.

IDC also predicts that by 2023, over 50% of new enterprise IT infrastructure will be deployed at the edge rather than corporate infrastructure; by 2024, there will be an 800% increase in the number of applications at the edge.

As the edge computing paradigm is evolving and gaining interest, it is impacting the digital ecosystem in both discrete and continuous process applications and empowering manufacturing organizations to focus on production-centric outcomes. Companies are leveraging edge computing on assets, machines, and production lines to improve plant reliability and overall equipment efficiency through applications like HMI/SCADA, machine analytics, and asset performance.

Cloud Versus Edge computing

So where do you go from here? Which computing paradigm is best for your IX initiatives?

The most likely industrial scenario is that an OT application will not only live in the edge but will also need to communicate and interact

with other cloud or on-premises workloads. This is borne out by an earlier Automation World survey, which finds that manufacturers are taking the middle path of generally not choosing between computing paradigms. Instead, they are deploying a range of cloud and edge technologies depending on their specific business use cases and are ultimately leveraging the paradigms as complementary. The key, per the experience of practitioners, is mapping out an architecture and strategy designed to encompass both paradigms.

System architects who adapt to both paradigms to the best advantage of the overall system will create value for their organizations. They will build flexibility into the architecture so that data that goes to the cloud might someday be leveraged on-premise too. The overall architecture will need to encompass edge and cloud architectures so that they can play well together for future business needs.

Conclusion

With edge-to-cloud deployments increasingly becoming the norm, industrial organizations need to stop thinking about where to deploy data and applications and instead focus on the underlying business need.

IX leaders should consider the requirements relating to cost, security, latency, and a reliable internet connection—and then choose between edge or cloud.

To sum it up, edge and cloud computing are not competing technologies. They just solve different needs. Cloud computing is apt for on-demand, scalable applications that need to be ramped up or wound down. Edge computing is great for real-time response applications that generate a lot of data. In short, both cloud and edge computing have their use-cases and must be chosen according to the application in question. AT

Cloud-Based MES Puts EV Suppliers in Fast Lane

Cost-effective SaaS approach ramps up quickly – and boosts flexibility and efficiency – for electric vehicle Tier suppliers

The electric vehicle (EV) revolution is in full swing. Automotive manufacturers are rapidly expanding their EV portfolios — and pledging to end the sale of new internal combustion engine (ICE) offerings in line with government mandates taking effect over the next decade.

If you're an automotive Tier supplier, the ripple effect of this manufacturing revolution is likely challenging the limits of your production capabilities. As the industry transitions to a new paradigm, you must continue to support both existing ICE platforms — and emerging EV offerings.

Industrial organizations usually operate in a distributed manner, sometimes with plants located all over the world. A mid-size manufacturer often has several or many manufacturing models, hundreds of different types of equipment, a variety of suppliers, and vastly different cultures or nationalities throughout the workforce. Thus, IX also translates into rolling a solution out across a complex network and modifying the solution as required to accommodate differences within specific plants.

Flexible manufacturing has never been more important. But like many Tier suppliers, you may lack the production management tools you need to respond to an increasingly complex and competitive supply chain.

How MES Can Change the Equation

Carmakers have long used manufacturing execution systems (MES) to improve agility and optimize throughout.

MES solutions enforce specified production processes and standards — and coordinate activities throughout a plant to keep orders on track and assets performing optimally.

Traditional MES solutions, deployed on premise, integrate with other manufacturing, business and supply chain systems — and can be customized to address specific production requirements in a plant.

Without question, MES platforms deliver extraordinary visibility and control across the enterprise and are foundational to digital transformation and smart operations.

But the same characteristics that make traditional MES attractive to many complex automotive manufacturers — on-premise implementation and customized design — can be a big hurdle for Tier suppliers.

Filling the Gap with Homegrown Solutions

Typical Tier suppliers do not have the extensive IT and engineering resources required to support on-premise MES solutions. Instead, many rely on a patchwork of homegrown solutions, each focused on one aspect of production management.

Does this scenario sound familiar: inventory is handled manually, an Excel spreadsheet tracks orders and quality information, and a white board is updated with production counts each shift? Each department manages their data collection, making it extremely difficult and time consuming to normalize and aggregate data for timely decision-making across the plant, let alone the enterprise.

Since in-house tools tend to proliferate behind the scenes, duplicate systems and data are common. In addition, these outdated tools are exceedingly difficult to maintain and can strain IT infrastructure.

In fact, you might not know how many systems exist — or the potential cybersecurity risk they introduce.

The bottom line? With only disparate solutions at your disposal, you cannot access the contextualized data you require to build a more efficient and responsive operation or apply a consistent approach to production management uniformly across a plant or enterprise.

A Better Way: Cloud-Based MES

Now there's a better way. This multi-tenant, software as a service (SaaS) platform, delivers the MES capabilities you need to stay on top of your day-to-day production, meet quality standards, speed time-to-market — and better contain costs.

And because the solution is cloud-hosted, you can realize the advantages of an MES quickly — without additional IT or engineering resources.

One Tier supplier increased on-time delivery from mid-80% to 98%. Another exceeded efficiency goals with better visibility to real-time OEE — leading to $9 million in annual savings.

What else can you expect from the flexible, SaaS platform?

- Fast implementation, thanks to pre-validated, automotive-specific templates based on best practices and backed by deep domain expertise.
- Automatic software updates that keep you current with the latest technology and innovation, sourced from the real-life experience of a community of users.
- Consistent support and IT management from industry experts focused on helping you maintain unparalleled uptime and best-in-class security.
- No upfront capital costs — and predictable SaaS expenses charged to your operating budget.

And with the cloud-based solution, you can quickly scale the platform across one plant— or multiple sites to drive global consistency across your enterprise operations.

Learn more about cloud-based MES.

Rockwell Automation Announces Strategic Investment in READY Robotics and Collaboration to Streamline Robot Implementation

Rockwell Automation announced a strategic investment in READY Robotics, a pioneering company in software-defined automation and a Rockwell Technology Partner.

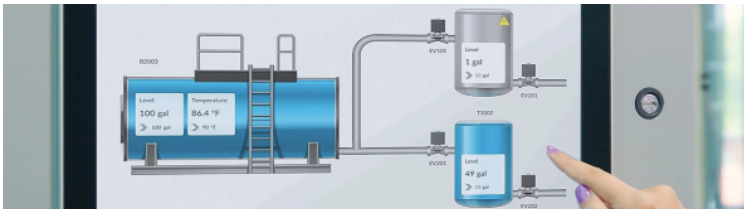
READY Robotics' ForgeOS platform enables operators to control and program the most popular brands of robots from a single user-friendly interface with minimal training. Using Task Canvas, one of many useful ForgeOS Productivity Apps included with the platform, operators can quickly create new automation tasks with a powerful, no-code, flowchart-based interface.

Rockwell and READY Robotics have collaborated to integrate ForgeOS with Rockwell's line of Logix controllers and design and simulation software. The combination will simplify robot integration and accelerate time-to-market of industrial automation deployments. Rockwell's investment will foster continued development of the ForgeOS platform, support its integration with Logix, and accelerate adoption across the Rockwell ecosystem of system integrators and technology and channel partners.

"We are excited to work with READY Robotics to help further simplify the use of diverse robotic systems in automation solutions for our customers. Linking the intuitive ForgeOS software suite with Logix control, design, and emulation capabilities allows a broader range of businesses to implement these powerful tools and spend less time getting their systems up and running," said Matheus Bulho, vice president and general manager, Production Automation at Rockwell.

"Historically, automation has been hampered by software silos between robot vendors," said Ben Gibbs, CEO and co-founder of READY Robotics. "READY's interface alleviates this issue, eases deployment, and enables automation where it might have been prohibitive before, especially in high-mix operations. Our platform enables programming and control of over 3 million compatible robots deployed today."

Rockwell Automation Launches New FactoryTalk® Optix™, an Open, Scalable, Flexible HMI platform with Unlimited Options



Rockwell Automation introduces FactoryTalk Optix as a new addition to their visualization portfolio. Known as "visualization for visionaries," FactoryTalk Optix is a modern, cloud-enabled human-machine interface (HMI) platform that allows users to design, test and deploy applications directly from a web browser anywhere, anytime. Take advantage of new levels of collaboration, scalability, and interoperability to achieve your vision.

FactoryTalk Optix is designed to help improve your process, efficiency and deliverables. Gain unlimited options:

- Design options: Design and test your projects in a modern object-oriented programming environment.
- Deployment options: Create your application once and deploy to any device.
- Graphic options: Style your graphics to support a global audience and provide a responsive experience.
- Extensible options: Achieve openness and interoperability through machine-to-machine and machine-to-cloud communications enabled by OPC UA, MQTT, IOT native connectivity and an open C# interface.

FactoryTalk Optix is one of the five core solutions in FactoryTalk Design Hub Industrial organizations can now transform their automation design capabilities with a more simplified, productive way to work powered by the cloud. Teams of all sizes, skillsets and locations can work smarter through enhanced collaboration, improved lifecycle management and on-demand access to cloud-based software all while adhering to the latest security standards and information technology (IT) best practices. The result is increased design productivity, faster time to market and systems that cost less to build and maintain. Learn more about FactoryTalk Optix.

Rockwell Automation Announces Strategic Investment in READY Robotics and Collaboration to Streamline Robot Implementation

Virtualizing control systems with FactoryTalk®Logix Echo can help customers save significant engineering efforts and financial expenditure at every stage of a project from start to finish. Attention was dedicated to improving testing, giving users access to more than 20 variations of the 5580 ControlLogix® platform at their disposal.

FactoryTalk Logix Echo simplifies the emulator experience by providing users the opportunity to download directly to FactoryTalk Logix Echo without modifications. The modern user interface (UI) paired with project downloads gives anyone the chance to learn how to use it. Having the emulation of the 5580 ControlLogix Ethernet port means that to other software, FactoryTalk Logix Echo looks like another controller, offering flexibility to expand your emulation to visualization or other controllers.

Version 2 will be the first emulation platform to support safety controllers by introducing GuardLogix® 5580 controller catalogs. Users can download to GuardLogix controller types and emulate the execution of both Standard and Safety tasks in their project. The inaugural version supported one 17 slot chassis, but the latest release now supports the creation and communication of multiple chassis with one FactoryTalk Logix Echo license. Users can create the configuration and arrangement of controllers/slots that they need without previous limitations, adding flexibility for multiple users to each access different controllers that can all live in their respective positions.

This expansion, with Studio 5000® Logix Designer V35, includes the support of the Axis Test Mode feature that provides the physical axis to be placed into a test mode during evaluation, emulation, and testing. This gives users downloading a project into FactoryTalk Logix Echo automatically a place motion axis into test mode, removing the need to make modifications.

Rockwell Automation Streamlines Workflows, Stores and Protects Industrial Files, and Automates Project Analysis with FactoryTalk Vault

FactoryTalk® Vault™ has secure, cloud-native centralized storage for manufacturing design teams. With its modern version and access control, FactoryTalk Vault with advanced design tools allows for greater insights into designs through in-depth analysis of controller projects.

Teams can now spend more time working on projects and less time searching for files or working from outdated versions.

FactoryTalk Vault is one of the five core solutions in FactoryTalk Design Hub. Industrial organizations can now transform their automation design capabilities with a more simplified, productive way to work powered by the cloud.

Rockwell Automation Simplifies, Saves Space and Time with New Updated Branch Motor Control & Protection Solutions

Rockwell Automation announces the complete revision of its Allen-Bradley® Branch Motor Control & Protection Solutions of motor control components.

The recent overhaul of its motor control components within its Branch Motor Control & Protection Solution was brought on by the need for updating full systems where components are used to turn on and off motors of all sizes while helping protect the motors from overloading during operation. Basic across-the-line motor starters remain ubiquitous in industrial applications despite the proliferation of solid-state motor starting technologies. These components comprise motor starting contactors, motor-specific circuit breakers and motor-overload relays, where depending on the application, the motor overload functionality can be incorporated in the circuit breaker or applied as a separate component.

For machine designers, selecting and applying the correct combination of products to meet diverse global standards for motor control can be challenging and time-consuming. Rockwell Automation is committed to making this process easier by testing and certifying all valid combinations of Branch Motor Control & Protection Solution components to UL and IEC standards, so customers can easily document the compliance of their system to these standards using the company's online Global Short-Circuit Current Rating (SCCR) tool.

"Customers have expressed they want to spend as little time as possible dealing with basic control technology," said Bill Meindl, business manager for industrial components at Rockwell Automation. "By using Branch Motor Control & Protection Solution products, customers can access the right motor control solution from 5-2650 Amps, all with relevant components and accessories designed and certified to work together."

One of the significant advantages of the system is the availability of the wide-range, energy-saving coils for Bulletin 100-E architecture-class contactors. These coils use much less energy in operation, and cover AC and DC control circuits from 24 to 240 volts, making selection much easier. Safety versions of the contactors are available, as well as NEMA-rated options. Bulletin E100 Electronic Overload Relays are now also compatible with Bulletin 100-E and 100-C Contactors to enhance systems.

The recently launched Bulletin 140MT line of Motor Protection Circuit Breakers and Motor Circuit Protectors provides higher short-circuit ratings than the products they replace. And the range of E100/200/300 electronic overload relays includes options for EtherNet/IP integration that enables comprehensive diagnostics and Logix integration.

For more information on Branch Motor Control & Protection Solutions from Rockwell Automation or to request more information from your local sales office.

Rockwell Automation Delivers Expanded Hardware Support, Feature Enhancements and Productivity with New Version of Studio 5000 Logix Designer V35

One of the most desired improvements to the Studio 5000 Logix Designer experience in the process industry is the expansion for the SequenceManager™ to include 5x80P controller support. Customers will now be able to extend the same functionality that has been available and proven to a process application with the latest in process controller technology.

V35 supports the latest hardware, including the introduction of support for:

- FLEXHA™ 5000 I/O
- GuardLink®
- GuardLink
- 1756-EN4TR Enhancements

A top enhancement request from users within Studio 5000® to support the Motion applications is the ability to virtualize motion for Kinetix®, PowerFlex® and iTRAK® 5730 CIP Motion devices. Axis-Test Mode supports physical controllers and emulated controllers using FactoryTalk® Logix Echo. This allows for greater flexibility and design time experimentation via virtualization.

A new benefit with V35 is the expansion of three new process instructions that will be added and embedded in the software, including P_SD, P_nPOS, and P_valveMP. These instructions, along with the various process improvements made in the software, can be paired with PlanxPAx® seamlessly, making programming a process application more streamlined.

The latest version will align with FactoryTalk Logix Echo V2 and the upcoming Studio 5000 Logix Designer SDK, offering the first publicly available user scripting utility for Studio 5000. This improvement allows users to write C++ script commands to automate repetitive tasks in the Logix Designer application environment.

Rockwell Automation Introduces GuardLink 2.0 with new EtherNet/IP Interface

GuardLink 2.0 is the world's most advanced serially connected safety input solution designed to reduce downtime and installation costs. GuardLink 2.0 offers advanced diagnostics by way of the new Allen-Bradley® 432ES GuardLink EtherNet/IP™ On-Machine™ Interface or a combination of our Dual GuardLink Relay and EtherNet/IP Interface. GuardLink 2.0 protocol also enables safety-rated control device status reporting and automatic diagnostic reporting to an HMI using CIP Safety™ over EtherNet/IP.

The new 432ES GuardLink EtherNet/IP interface allows you to connect up to 96 safety devices via three independent safety channels. The interface can cascade power to additional interfaces and can keep track of timing and frequency of events to improve maintenance and create process efficiencies. The 432ES supports linear, star and Device Level Ring topologies while meeting the highest safety ratings up to SIL 3, Cat 4 PLe.

Rockwell Automation Gives Customers Expanded Capabilities with New Dual DisplayPort Thin Client

Allen-Bradley ASEM™ 6300T Dual DisplayPort thin clients enable connectivity to multiple screens in industrial environments. These thin clients save time, cost and panel space while leveraging the benefits of thin client deployments. Choose from four models based on your memory and mounting requirements, then connect to two ASEM 6300M industrial monitors to enable your operators.

ASEM 6300T Dual DisplayPort thin clients are equipped with an Intel Atom x7-E3950 processor for high performance. The available 8 gigs of RAM give more support for the container functionality of ThinManager® software version 12 and later. Mounting options include either book mount or DIN rail mount at the time of order and can be interchanged. These thin clients feature two Ethernet ports, four USB 3.0 (Type A) ports, one serial port and one audio jack output.

As with the Single DisplayPort versions, these Dual DisplayPort thin clients support 4K and their processing ability make them ideal for human machine interface (HMI), IIoT gateway and data logging applications. Atom class units are also available as ThinManager ready thin clients to boot natively into ThinManager software with no solid-state drive (SSD) on board. These units have a fanless design making them optimal for applications requiring low maintenance and their multiple mounting methods fit specific application needs.

Rockwell Automation Offers Comprehensive Endpoint Protection Services

For organizations to secure their operations and reduce cyber threats, a successful cybersecurity strategy requires solutions to secure endpoints - any device that is connected to a network outside of its firewall, including laptops, HMIs, switches, IoT devices, and more.

Rockwell Automation and CrowdStrike are providing manufacturers with comprehensive Endpoint Protection Services, combining Rockwell Automation's Industrial Cybersecurity Services and CrowdStrike Falcon platform to monitor, protect, investigate, and respond to incidents. Purpose-built in the cloud with a single lightweight-agent architecture, the CrowdStrike Falcon platform delivers rapid and scalable deployment, superior protection and performance, reduced complexity, and immediate time-to-value. Customers benefit from unified technology, intelligence and expertise that delivers security that works across their on-premise, hybrid and cloud environments.

When customers choose the CrowdStrike Falcon platform through Rockwell Automation, they receive the industry-leading software coupled with OT-specific Falcon policies, developed by Rockwell Automation cybersecurity specialists, and backed by software and phone support. Endpoint Protection fits into the expansive Rockwell Automation portfolio of Managed Services along with Incident Response and Threat Detection to provide customers with a holistic cybersecurity solution.

Learn more about how Rockwell Automation is helping today's manufacturer's increase their industrial network security.

Rockwell Automation

Connect with the **Future Of Smart manufacturing**

Plex Manufacturing Execution System is the only single-instance, multi-tenant cloud-based SaaS production platform that operates at scale. Plex offers real-time view of the entire production lifecycle, connecting people, systems, machines, and supply chains to drive precision, efficiency, and agility.

expanding **human possibility**