



**Rockwell  
Automation**

# PlantPax<sup>®</sup> Distributed Control System

Supporting your plant lifecycle in process industries



# Leading Process industries through market challenges

## THE CHALLENGE OF PRODUCTIVITY

Behind every system and operational challenge, is a team striving to win. Yet the ability to innovate can be challenging with disparate systems throughout the enterprise creating 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 and create new concepts.

## DO MORE WITH LESS TO IMPACT THE BOTTOM LINE

Production teams must do more with less to meet budget expectations throughout their plant's lifecycle. The allocation of approved capital or operational funds must demonstrate a positive return regardless of the scale of investment. Whether tasked with supporting an existing infrastructure or designing a next-generation facility, teams must excel with limited access to resources.

## REDUCING OPERATIONAL RISK

Risk is everywhere and takes many forms. Even when contingencies are considered, unforeseen events can impact safe and reliable plant operations. As teams identify factors that contribute to unplanned delays, downtime, product safety, and worker safety, they require systems that can navigate dynamic conditions.

## A modern DCS

The PlantPax® system utilizes a common automation platform for seamless integration between critical process areas and the balance of your plant. It connects process, discrete, power, information, and safety control into one plant-wide infrastructure, increasing efficiencies and productivity across all layers of your operations. This eliminates disparate control systems, results in significant optimization improvements, and helps reduce your total cost of ownership (TCO).

A modern distributed control system (DCS) provides a wide range of architecture options for increased flexibility. The same platform can be used for single stations or large distributed architectures. It also offers **scalable** system capabilities – HMI, batch management and data collection that does not require extensive architectures – perfect for process skid equipment and rapid integration.

PlantPax DCS is based on **secured**, open communication standards leveraging EtherNet/IP as its backbone. As a result, real-time information is readily available throughout the enterprise for better business decisions. A modern DCS helps improve productivity by delivering production intelligence and visibility into your enterprise level systems helping to drive efficiencies.

In addition, it allows the use of commercial off-the-shelf products and supports the adoption of the latest IT technology that improves productivity. It addresses industrial security from the individual device on the plant floor to the enterprise level.

Built for **flexible** delivery, we encourage optimal implementation based on your needs. No matter where you are on the lifecycle journey, we can help guide you through it. Whether delivered by us or your local process system integrator, our solutions are built to support you.

**Plant-wide** control and optimization  
**Scalable** and modular  
**Secured** open and information-enabled  
**Flexible** delivery and support





# Improving productivity, driving profitability, and reducing risks

Process functionality native to controllers, cybersecure architectures, and improved availability supports the lifecycle needs of plant operations in a variety of industries.

## ROBUST ARCHITECTURES

Process built controllers extend the Logix family with cutting-edge processing power and capacity to reduce the complexity of PlantPax architectures. Our approach to process control creates a unified experience from skid to plant to multi-site, which reduces the total cost of ownership throughout the lifecycle of your system.

## PROJECT CONSISTENCY

With native process instructions embedded in the controller firmware, project teams can adopt approaches to control strategies that drive consistency for your projects. A consistent approach simplifies the lifecycle management of deployed systems as teams modernize their automation infrastructure.

## STREAMLINED WORKFLOWS

With improved design and operational user experiences, development teams realize savings in the configuration of instrumentation, alarms and diagnostic system elements. Operators have the extended ability to view underlying control logic in a safer and secured manner. Maintenance teams will have improved workflows for system troubleshooting to reduce downtime.

## TUV-CERTIFIED FOR CYBERSECURITY

To operate at peak performance and minimize cybersecurity threats, PlantPax 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

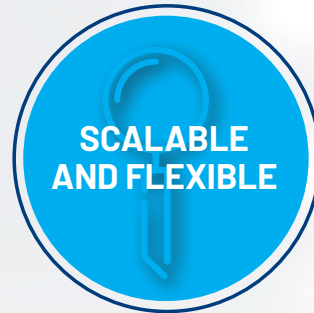
Process end users recognize the value of analytics as an essential strategy to realize profit in their process operations. PlantPax DCS has purpose-built frameworks that easily connect live and historical data from the DCS into reporting and analytical tools. Frameworks enable extended experiences, such as Augmented Reality, using workflows aligned with process strategies controlling plant operations. Our system allows you to adopt a scalable analytics strategy by leveraging predictive and prescriptive models for process applications such as soft sensors, anomaly detection, or model predictive control. This provides your team the digital transformation opportunity to improve uptime, reduce waste, and drive overall profitability.

# Proven DCS configurations

TO ENABLE THE CONNECTED ENTERPRISE



Defined system architectures, enabled by PlantPAx system sizing tools, allow you to design the DCS for your needs with minimal risk and proven system performance.



Built to scale according to your needs using the same platform for a single stand-alone equipment to a large, distributed architecture.



Provides high availability with redundancy built-in at all levels and supported technologies from the I/O to controllers, networks, and servers.



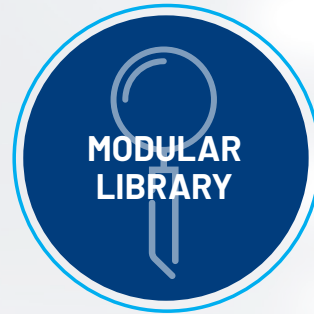
Controllers purpose-built for process reduce architecture complexity. A small footprint reduces lifecycle maintenance. Integration of networked drives and field devices allows for easier information retrieval.



# Develop and deploy quickly and consistently



Same configuration tools across all plant-floor applications minimize development time and human errors. Defined initial setup and virtual templates allow engineers to focus on application specific code.



Predefined logic and HMI objects provide rich operator experience and shorten development time. Prebuilt control strategies of common asset configurations in a plant deliver consistency.



Streamline workflows and facilitate efficient projects with comprehensive deployment guidance. Leverage common references for network configurations or features such as disaster recovery and field device integration.



Leverage the same information from your automation assets with your analytics offerings. Drive consistent reporting with production context.

The PlantPax System ID is a unique identifier that helps **simplify the management of your application over its lifecycle.**

The System ID creates a record of the installed products in the system and provides a dashboard that shows the hardware lifecycle status, notifications of updates and patches, and compatibility information.

# An industry-driven solution

A MODERN DCS ADDRESSES UNIQUE INDUSTRY CHALLENGES...



## CONSUMER INDUSTRIES

Improve quality, safety, compliance and speed to market

### Plant-wide control

Provide operational value and lower the total cost of ownership

### Modular systems

Deliver faster time to market by leveraging a modular approach to plant design

### Open and secured access to information

Easy integration into critical business systems

### Flexible delivery and support

Global support with local resources to achieve uptime



## RESOURCE INDUSTRIES

Optimize production, safety, and uptime

### Improved productivity

Real-time information that is actionable

### Secured environment

Technology that mitigates enterprise risk and helps protect intellectual property

### Available, reliable, and safe systems

Avoid costly downtime while helping to protect your most critical assets

### Operational excellence

Effectively manage assets to drive out costs

# Complete offerings for industry-driven solutions

## Analytics enabled system

for increased profitability through operational efficiencies



## Batch control

to meet your unique production needs



## Process safety

that protects people, the environment and critical control assets



## Lifecycle services

that support your operations every step of the way





# Scalable analytics

An analytics enabled system includes frameworks and objects that leverage a variety of analytic offerings. This information helps to inform operations of issues, extend the DCS into environments such as AR, and drive transformation with enterprise KPIs and supply chain process optimization. With DCS objects that contain systematic context help, the organization can adopt analytic tools with their process assets and DCS elements.

## REDUCES DOWNTIME

Identifies and resolves issues quickly

## IMPROVES YIELD

Deeper insights into batches, assets, materials, and human actions

## ACCELERATES ADOPTION

DCS serves up data with context and standard frameworks



**InnovationSuite**  
powered by **PTC**





# Batch control to meet your unique needs

## IMPROVE UPTIME

Runtime area model edits make your system more flexible while simultaneously improving the system uptime.

## REDUCE RECIPE MANAGEMENT OVERHEAD

Use recipe formulations to reduce complexity of recipe management and provide greater flexibility in product variations. Easily adjust for seasonal, environmental, or other discrepancies.

## MODERN INTUITIVE INTERFACE

FactoryTalk® Batch View™ provides a modern and intuitive portal into a comprehensive batching solution for effective operations. The product leverages its own web server using HTML5 technology to provide native connectivity into a FactoryTalk Batch server.

## ENTERPRISE INTEGRATION

FactoryTalk Batch provides a modern API that is built on top of the Batch View Web Server and easily integrates with the web-based enterprise system.





# Process safety solutions

Increasing safety and productivity while reducing downtime, nuisance trips and lifecycle costs

Hazards and risks are a part of any industrial application, and process safety is a major concern to anyone who works in the process industries. The protection of personnel, processes, and the surrounding environment remains a significant part of any automation strategy. Our scalable process safety solutions support fail-safe, fault tolerant and Triple Modular Redundancy for SIL1 through SIL3 requirements.

## SCALABLE PROCESS SAFETY

Options are available that are designed and packaged for harsh environments—those requiring SIL2 and SIL3 (including undersea use). Safety products are validated to ISO13628-6.

## DEDICATED PROCESS SAFETY RESOURCES

Functional certified safety engineers have the expertise to design, implement and deploy process safety systems. Engineering practices adhere to IEC61511 standards.



# Services spanning all lifecycle phases

## DESIGN PHASE

With faster engineering and standardization, teams can offload non-value add tasks that consume the design stage and instead place focus on providing a differentiated higher level of value to the client.

## OPERATE PHASE

Faster commissioning and better skid integration minimize disruptions to the critical path of the project timeline. Technology features in the DCS must enable global teams to quickly troubleshoot issues in commissioning phases and remain flexible to adopt late-binding changes. Skid integration capabilities and simulation tools to run effective acceptance tests help compress project timelines.

## MAINTAIN PHASE

Easier to maintain, operate and modernize by reducing the total cost of ownership with a smaller footprint and simplified modernization path.

## INNOVATE PHASE

Drive improvements into the enterprise with the ability to expand and enhance with diagnostic capabilities, open access, and analytics and optimization tools.



## SIMPLIFY

the management of your application spanning all lifecycle phases with the PlantPAX System ID



# Resolve your operational challenges

WITH A MODERN DCS



Rapid improvements in technology should not hinder productivity efforts but present opportunities to accelerate the availability of information for decision-making purposes. Whether designing a new plant or sustaining ongoing operations, the adoption of new tools and workflows must allow for workforces to expand their human possibilities to create a competitive advantage.

The concept of dedicated and proprietary systems for process control has proven costly, with faster technology cycles in automation, plants are looking for plantwide automation that is easily updated and supported. Technology must help the plant remain in continuous operations and provide impact to ongoing projects that have constrained timelines. The systems, assets, and support network must demonstrate value to operations at all points in the lifecycle to help them remain profitable.

As the threat vectors shift from operational risks to external actors, systems must be hardened yet adaptable to dynamic conditions. Regardless of the magnitude or source of the risk, operations require the deployment of systems, and workflows to mitigate these challenges which are easily supported throughout their plant lifecycle.

## LEARN MORE ABOUT OUR DCS SOLUTIONS:

VISIT [ROK.AUTO/PROCESS](https://rok.auto/process) ►

Connect with us.    

[rockwellautomation.com](https://rockwellautomation.com)

expanding **human possibility**<sup>®</sup>

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