

THE ROCKWELL AUTOMATION INTEGRATED ARCHITECTURE

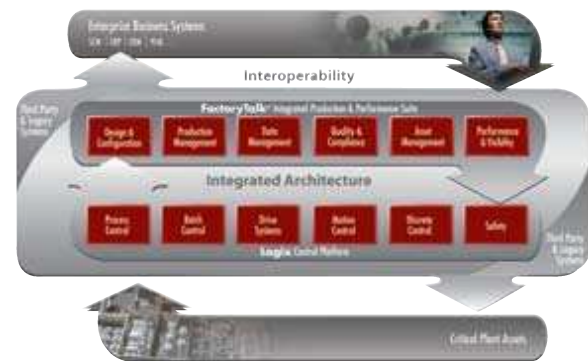
Today, many companies use different control and information systems for each production discipline, programmable logic controllers (PLCs) for discrete systems, distributed control systems (DCS) for process and batch systems, and specialty controllers for motion and safety. This approach means difficult and expensive system integration, multiple software packages, and expansive MRO inventory. Furthermore, decisions are made based on the limitations and boundaries of these disparate systems, diminishing your company's ability to make timely, fully informed decisions and take action to help improve productivity, reduce costs and meet regulatory compliance.

For manufacturers, machine builders and systems integrators, the Rockwell Automation Integrated Architecture™ is a production control and information system that helps improve productivity and reduce total cost of ownership.

Using sophisticated control, networking, visualization and information technologies, the Integrated Architecture system addresses a full range of control and information needs for discrete, process, batch, motion, drive and safety applications. The Integrated Architecture platform also addresses performance information needs including: quality and compliance, production management and asset management. Emphasizing third-party connectivity, interoperability and use of open industry standards, the Integrated Architecture system provides seamless information integration with the rest of the enterprise.

The "Power of One"

Unlike any other system, the Integrated Architecture system leverages one common multidisciplinary control engine, one development environment, one networking protocol and one service-oriented architecture (SOA). The architecture provides fully integrated, scalable solutions for the full range of control and information disciplines, giving you the insight and performance to optimize production, respond quicker to customer or market demands, and reduce costs. Meanwhile, machine builders value the scalability and flexibility of the Integrated Architecture system to help speed time to market and lower total cost to design, develop and deliver a machine.



The Integrated Architecture system consists of the Logix Control Platform and the FactoryTalk® Integrated Production and Performance Suite, providing both plant-wide control and enterprise-wide information.

Enabling these two halves of the Integrated Architecture system are four technologies:

1. The Logix Control Engine is used throughout the system's family of programmable automation controllers (PACs), including the Allen-Bradley® ControlLogix®, CompactLogix®, SoftLogix™ GuardLogix® and DriveLogix™ controllers – enabling the user to choose the most cost-effective controller for the application while maintaining consistency of development and operation. While the ControlLogix PAC is suited for larger applications, the CompactLogix PAC, including the new CompactLogix L23 controllers, brings the power of the Logix control engine to smaller applications.

All Logix controllers are programmed through a single programming software package that lets you choose ladder, function block, sequential function chart or structured text languages. Programming for all control disciplines is done right in the Logix controller rather than in separate specialty controllers, helping reduce design, hardware and integration programming costs.

2. CIP Networks (DeviceNet™, ControlNet™ and EtherNet/IP™) provide a network infrastructure for information flow from the smallest plant-floor device to the enterprise business system, helping you to increase flexibility, reduce installation costs and improve productivity.

OVERVIEW

OF INTEGRATED ARCHITECTURE

Sharing a single, common protocol, these networks provide seamless connectivity with no need for data mapping, proxies or additional programming. This helps simplify design, start-up and maintenance, reducing costs throughout your plant.

Building on the CIP network infrastructure, Rockwell Automation is introducing the Stratix portfolio of industrial Ethernet switches and media, featuring a line of managed switches integrated with Cisco technology. The full portfolio contains many popular features in use today by IT and controls organizations that deploy standard, unmodified Ethernet, with settings optimized for use in EtherNet/IP applications.

3. The View Visualization Platform provides a scalable, unified suite of operator interface and supervisory-level hardware and software that share the same development software, offering faster development and implementation, flexibility and lower cost of ownership. Working with Rockwell Automation visualization solutions, you can easily provide your operators with insight into the production environment for improved decision-making.

4. The FactoryTalk Services Platform is an SOA that provides a common set of software services across the entire manufacturing application by incorporating a standards-based data model. The modular system design supports incremental solution deployments to help you maximize legacy technology investments, while improving the ability to incorporate newer technologies.

Use of common services, such as the FactoryTalk Directory and the FactoryTalk Alarms and Events services, creates a more efficient environment for plant-wide information applications. This makes it easier for you to maintain, monitor and upgrade your systems. In addition, tools such as built-in diagnostics and centralized audit logs help improve control over mission-critical production processes.

This publication is intended to help you understand the Rockwell Automation Integrated Architecture system from the technologies that make up the platform, and the capabilities of the integrated control and information disciplines, to basic product family capabilities. We've also included other valuable information about industry trends and technology implementation.

Please contact your local Rockwell Automation sales office or distributor for additional information, or visit our Web site:

www.rockwellautomation.com/solutions/integratedarchitecture

