

Migration Solutions

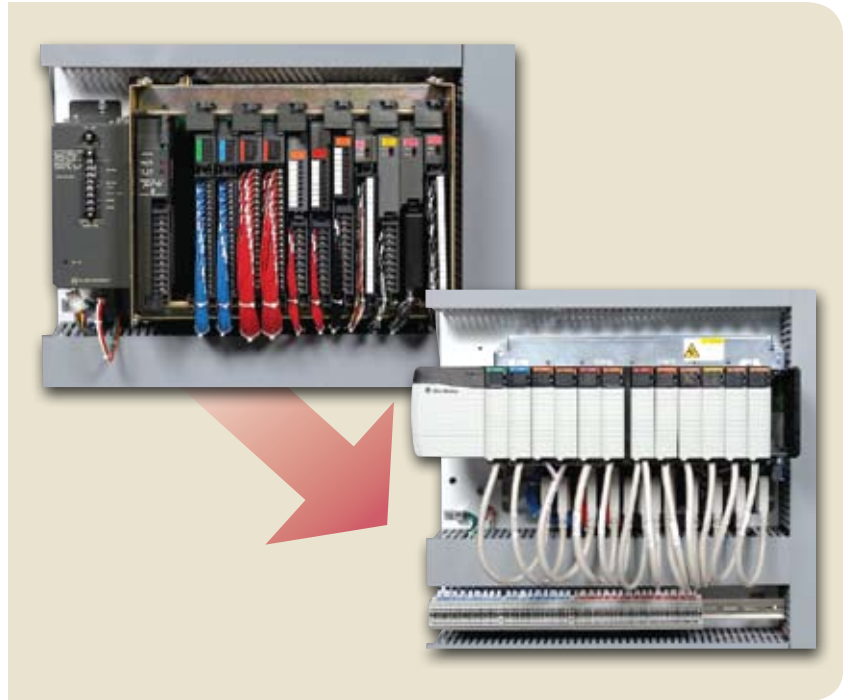
PLC-5® Controllers and 1771 I/O to ControlLogix®

Simplifying 1771 I/O Migrations

- Eliminates risk and reduces labor time
 - convert I/O without disturbing field wiring connections
 - no need for drilling and tapping to mount hardware
 - code conversion tools reduce time to rewrite controller program
- Improves migration and planning using Integrated Architecture Builder tool
- Provides network option to preserve existing Remote I/O network with new 1756-RIO module

New Control System Benefits

- Increased flexibility with new open architecture
- Reduced development time and costs through re-use of engineering practices
- Maximized returns on existing assets through improved control and monitoring
- Increased access to plant and production information
- One programming environment for discrete, motion, process, drive, batch, and safety control



Philosophy

In today's economy it is necessary to have migration solutions that help you to achieve increased productivity and lessen your risk of maintaining your legacy equipment. You need to work with a supplier that has the product, service, and industry knowledge to partner with you on an upgrade strategy that will help you maximize your competitive advantage.

Rockwell Automation and its partners will work with you to outline a plan that fits your application needs and long-term goals. We can help you migrate all at once or in phases, at the pace that is comfortable for you and fits your budget.

With your goals in mind, Rockwell Automation has developed a migration strategy that will allow you to quickly and easily migrate from PLC-5 controller and 1771 I/O to Integrated Architecture, while maintaining the existing field wiring and physical footprint in your control cabinet. This approach will provide you with the following:

- Lower conversion time and labor costs
- Reduce risk by preserving existing field wiring connections
- Lower engineering costs
- Minimizing production downtime

LISTEN.
THINK.
SOLVE.

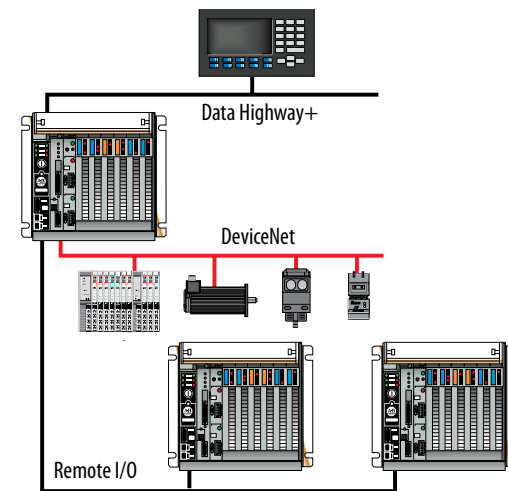
Supporting Your Investment Through a Phased Migration

With industry knowledge and worldwide service support, Rockwell Automation will partner with you to ensure a smooth transition from your PLC-5 controllers and 1771 I/O to the flexible, scalable Integrated Architecture. Here's how:

Phase I: Application Code Conversion

Phase I often begins by converting PLC-5 processor code to Logix code. Our logic and tag database conversion utilities will help you quickly upgrade your processor code allowing you to take full advantage of the Rockwell Automation Logix family of Programmable Automation Controllers (PAC). Once the converted code has been downloaded to the Logix PAC, the new 1756-RIO Remote I/O module can be used as the network interface to the 1771 I/O over the existing Remote I/O network.

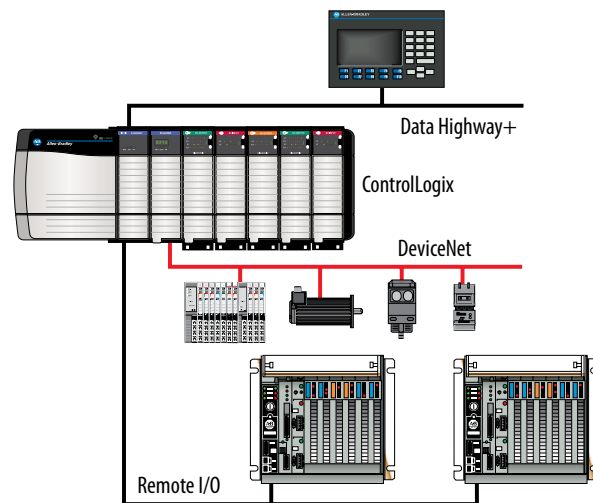
Phase I Tools: Logic Code Conversion Services and 1756-RIO Module



Phase II: Replace PLC-5 Controllers

Phase II involves replacing the existing PLC-5 controller(s), while continuing to use the 1771 Remote I/O. Replace the PLC-5 controller with the Logix PAC and the 1756-RIO Module. The same 1756-RIO Module used in Phase I is now configured to perform as the master instead of the monitor. The Logix PAC can now control any I/O that resides on an 1771 network.

Phase II Tools: 1756-RIO Module

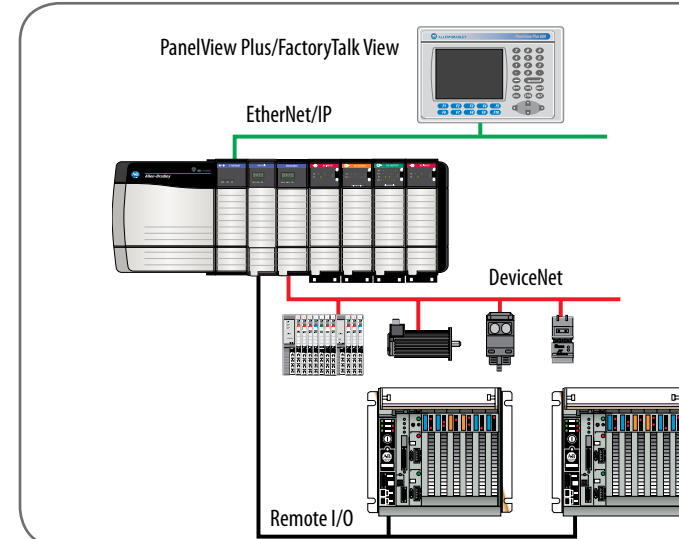


Phase III: HMI/EOI Migration

During this phase of the migration, existing HMIs or EOIs can be replaced with FactoryTalk View products using Application Conversion Utilities (ACU). ACUs not only make operator interface conversion much more cost effective, but give you greater flexibility regarding the final product. This means that you can account for how operators use your equipment and design interfaces that help maximize their productivity. In the end, this will allow you to give your operators the tools they need to get quality product to your customers.

Rockwell Automation currently offers free conversion from WonderWare and Intellution iFIX HMI interfaces.

Phase III Tools: HMI Application Conversion Utility (ACU)

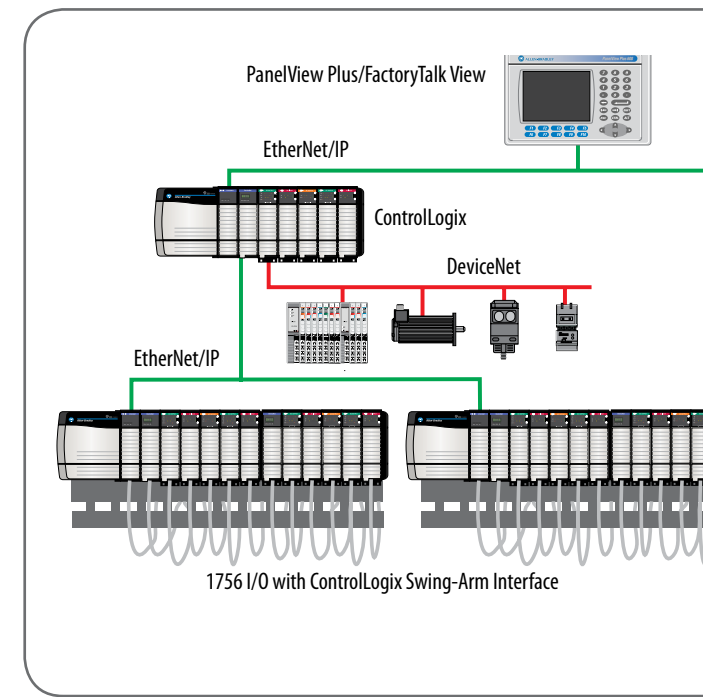


Phase IV: I/O Replacement

In the final phase of the migration process, the I/O Wiring Conversion System is used to replace the 1771 I/O with the ControlLogix I/O. Because I/O replacement represents a large investment, we provide an approach that's right for your schedule and budget.

The I/O Wiring Conversion System provides a method to connect the existing 1771 I/O wiring to the 1756 I/O modules without disturbing the field wiring connections, dramatically reducing labor time and eliminating the potential for downtime that could result from wiring mistakes during the migration. Planning your migration is more manageable as I/O can be swapped one rack at a time or all at once based on your schedule and budget. In either case, you can run both new and old I/O networks simultaneously. Additionally, I/O cross reference documentation assures correctness and provides historical back-up for future troubleshooting or diagnostics.

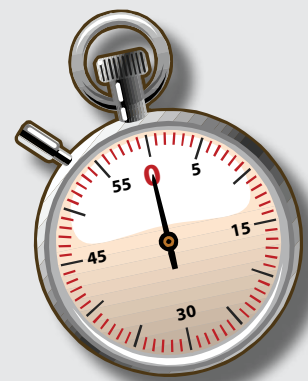
Phase IV Tools: I/O Wiring Conversion System, and ProposalWorks Selection Software



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Roadmap to an Easy and Cost-Effective PLC-5 to ControlLogix Migration

Using the I/O Wiring Conversion System can save you hours and eliminate the risk of costly rewiring mistakes.



1771 I/O chassis.



Remove the 1771 swing-arms from the 1771 modules.



Remove the 1771 chassis from the control cabinet.



Install the I/O conversion base plate in the control panel. Attach conversion base plate.



Install the conversion modules into the baseplate.



Insert the 1771 swing-arm with attached field wires to the conversion module.



Attach the Bulletin 1492 conversion interface cable to the conversion module and 1756 I/O module.



Converted system.



Complete Conversion Services

In any phase of your conversion project, Rockwell Automation can provide you with technical, industry and project management expertise to help make a migration project easier. We will help you design a plan to account for your short- and long-term goals. You will be assigned a primary engineer who will be responsible for coordinating and scheduling implementation activities and resources, and who will also be the primary communications contact.

1: On-site assessment – Using standardized checklists and processes, a job site visit will be performed to confirm the project scope, validate risks, review testing and acceptance criteria, and gather the required information and software to convert existing screens and software code. At the end of step 1, you will receive:

- Completed risk assessment form
- Bill of materials
- Conversion acceptance criteria
- Project schedule and timeline
- Required information sent to conversion engineer team

2: Application conversion engineering – Using custom-developed proprietary software applications designed to convert existing screens and code, our engineers will complete and test the screen conversion process and any required PLC code changes necessary.

- The existing PLC/HMI program converted to the appropriate Logix controller and FactoryTalk products
- Conversion of the documentation database
- Correct and convert any instruction and/or addressing errors to the new processor family
- Multilingual database conversion offered

3: Start-up and acceptance - Prior to installation, comprehensive functional testing will be performed including pre-loading of all applicable software and firmware. Once installation is complete, our engineer, working closely with your plant staff, will conduct an operational compliance. Comprehensive system documentation will be provided upon project acceptance.

- Pre-operational checklist
- Operational test performed and validated by customer
- Customer acceptance
- Necessary documentation, including product sheets and software files

Application Conversion Assistance

If you're only looking for assistance with your conversion project, Rockwell Automation provides a variety of application conversion services designed to aid in the conversion/migration of custom systems with minimal re-engineering of the application.

Rockwell Automation can help you:

- Decreases turn-around time
- Saves money
- Minimizes errors that can occur in a manual conversion

Deliverables include:

- The existing PLC/HMI program converted to the appropriate Logix controller and FactoryTalk products
- Conversion of the documentation database
- Correct and convert any instruction and/or addressing errors to the new processor family
- Multilingual database conversion offered

If you need additional help, Rockwell Automation can provide:

- Application level phone support during the start-up and debugging phase of the project
- Consultation on system re-engineering, operator interface, architecture and communication strategies, training, and on-site start-up is available through our local Rockwell Automation office.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846