

# LEGACY PLC MIGRATION

Eliminate Obsolescence and Reduce Risk with the  
Lowest Total Cost of Ownership



Honeywell

# MODERNIZATION HAS ADVANTAGES. WHAT'S THE BEST STRATEGY?

Regardless of the reliability of your Programmable Logic Controller (PLC), at some point, it reaches the end of its lifecycle. Beware of the challenges your plant operations may face and the downtime that might occur due to breakdown of obsolete equipment.

From our experience at Honeywell, we know that industries with obsolete Programmable Logic Controllers (PLCs) are faced with challenges such as:

- Growing vulnerability and cybersecurity risk in modern installations
- Lack of standardization across control devices, networks and databases
- Interoperability challenges due to lack of support for new open protocols
- Unplanned shutdowns resulting from unsupported equipment
- Increased maintenance expenses due to unavailability of spare parts
- Loss of knowledge to maintain outdated systems and limited documentation support
- Limited skills for legacy PLC programming
- Problems complying with new safety standards
- Isolated information in operational siloes
- High costs to manage multi-vendor PLCs

## ADDRESS STANDARDIZATION AND INTEGRATION CHALLENGES

Within many industrial organizations, PLCs have been added or replaced in silos at different sites. This results in an installed base of multiple control devices and software applications from different vendors, which increases operating costs and complicates asset management. Integration of legacy PLCs with a plant's Distributed Control System (DCS) can also be challenging. Connecting PLCs to the DCS with gateways and protocol converters limits data availability in the control room, and at the same time, increases maintenance cost.

Honeywell's Third Party PLC Migration solution helps customers eliminate obsolescence, reduce risk and ensure the lowest total cost of ownership in today's demanding operating environment. With our minimally invasive migration procedure, you can:

- Lower your total integration effort by 25 percent with a single database management approach
- Reduce migration cost by 60 percent by reusing field wiring, cabinets and taking advantage of Honeywell global engineering assistance in logic and database migration
- Decrease maintenance effort by 50 percent by introducing new age technology and cut down spare inventory with Universal I/Os and Universal marshalling

- Retain valuable intellectual property
- Capitalize on existing DCS knowledge base
- Optimize your existing automation assets and add connectivity to new assets such as Variable Frequency Drives, Field Instruments, SCADA, Cloud etc.
- Improve performance while protecting investments in controls and graphics



# PERFORM UPGRADES USING AN INTEGRATED APPROACH

Honeywell is an industry-leading automation supplier providing PLCs and other control equipment to process industry customers around the world. Our focus is on providing control systems, software solutions and instrumentation that help manufacturers find value and competitive advantage.

## IMPLEMENT A CONNECTED AND INTEROPERABLE SOLUTION

Honeywell's standardized controls migration strategy is intended for customers with legacy PLCs, which are no longer supported by original vendors. Our approach provides an integrated PLC migration solution that is sustainable and secure. It lowers your migration risk by retaining existing intellectual property and ensures full interoperability between plant systems.

The Honeywell solution also eliminates the need to manage multiple configuration software types and maintain a separate HMI for the DCS and PLCs. Through seamless integration of existing and new control assets, your plant operators will gain complete visibility of the process and are able to manage assets in a centralized manner. They can implement a unified database model and exchange data across a single control network without additional infrastructure and engineering costs.

Honeywell has offered solutions that enhance safety, reliability and efficiency in every aspect of industrial plant operation. Our broad product portfolio spans DCS, PLC, advanced application and asset management technologies, as well as field instruments, Human-Machine Interface (HMI) panels and more.



A man with a beard, wearing a grey sweater over a white collared shirt and a blue lanyard, is standing in a server room. He is looking down at a laptop computer he is holding. The server racks are visible in the background, and the lighting is dim with some blue tones.

# WHY USE STATE-OF-THE-ART CONTROLEDGE™ TECHNOLOGY?

## LEVERAGE A COMMON HMI AND SUPPORT STRATEGY

Together, ControlEdge PLC and Honeywell's Experion® process automation system leverage a common HMI platform; pre-built diagnostics; an integrated alarm summary; and history, trending and reporting on a single infrastructure. This solution provides faster field device commissioning and improves device diagnostics.

The ControlEdge/Experion solution dramatically reduces integration costs for balance-of-plant operations. It also minimizes downtime through unified support and lowers total cost of ownership (TCO) through an extended system lifecycle.

ControlEdge PLC's diverse connectivity I/O and communications options adapt to your existing process-line infrastructure, satisfy specific control requirements and accommodate specialty applications. Furthermore, built-in cybersecurity capabilities lower your overall solution cost. The controllers are delivered with industry recognized ISASecure Level2 certification.

The Honeywell ControlEdge™ PLC is part of a next-generation family of controllers providing unprecedented connectivity through all levels of process and business operations. This cybersecure, modular, powerful, and scalable controller offers an ideal solution for replacing outdated PLCs with new, modernized control functionality tightly connected to your plant assets.

# HOW CAN YOU MIGRATE OBSOLETE CONTROLLERS?

With Honeywell's help, industrial sites challenged by aging infrastructure and outdated control equipment can ensure migration to up-to-date, cybersecure PLCs is secure, seamless and cost-effective.

## Retain original wiring, cabinets, and program design thereby reducing risk.

Honeywell's approach lowers total cost of ownership and enables faster decision making through superior integration with our DCS, Field Instruments, Variable Frequency Drives, and other 3rd party devices. This approach also improves integration workflows so migration projects can be efficiently executed to achieve the expected results. Honeywell's migration service also includes support for legacy PLC program conversion using tools

and Honeywell global engineering team expertise, designed to protect the customer's intellectual property. Migration tools can also be deployed over mobile devices to survey and document the number of obsolete PLCs at a site while capturing relevant data for accurate upgrade planning. In addition, pre- and post-migration reports provide extensive support for design, installation and commissioning of new PLCs.



# WHAT ARE THE BENEFITS FOR LEGACY EQUIPMENT USERS?

Honeywell's end-to-end PLC migration solution is intended to help users of legacy control equipment migrate obsolete, risk-prone PLCs to advanced ControlEdge controllers, and thus transform obsolete PLCs from liabilities into productive assets that can enhance process uptime and strengthen the security of an industrial site.

## The specific advantages of Honeywell's migration solution include:

- Seamless Honeywell Experion integration for optimized costs and better decision-making
  - Pre-built diagnostics and integrated alarms
  - Auto-configuration of PLC points
  - Single HMI across the control room and local panels
  - Single vendor for PLC, DCS, SCADA/HMI, and asset management solutions
  - Improved lifecycle support
  - Consistent HMI interface for PLC and DCS
- Seamless integration option to new age Honeywell Variable Frequency Drive (VFD) for efficient energy management and control of motors, pumps, fans in the plant.
- Greater engineering flexibility for reduced project overhead
  - Choice of modular, compact to high density I/O options from ControlEdge 900 and MasterLogic platform
  - HART compatible Universal I/O with redundancy option
  - Easily adapts to late design changes
  - Reduces hardware requirements
  - Fewer spares needed
  - Simplifies engineering
- Proven cybersecurity capabilities to protect critical assets
  - Built-in control firewall on the controller
  - ISASecure Level2 certified, secure and signed firmware, tamper-proof design
- Built-in connectivity options for easy integration of Honeywell and non-Honeywell assets.
  - Compatibility with OPC UA, EtherNet/IP, Modbus, HART-IP, DNP3, MQTT, CDA
  - Protocols built into the controller and through serial communication modules
  - Secure encryption and authentication technologies, such as TLS 1.2, Aes128, Aes256 for OPC UA, MQTT
  - Expanded visibility of control functions





# WHY CHOOSE HONEYWELL?

Honeywell helps customers cost-effectively manage their control and safety infrastructure in the face of constantly evolving technology with extended lifecycle support, flexible and easy migration paths, and simplified upgrade capabilities.

**The ControlEdge family of controllers is part of Honeywell's initiative to turn data into actionable insight, from edge to enterprise, to help customers improve their bottom line.**

- Gives you full control of your evolution by offering control systems migration and modernization in incremental steps
- Improves your process without significantly impacting existing investments in controls and graphics
- Lowers Total Cost of Ownership, migration risk and integration cost
- Allows you to capitalize on existing installed base and optimize your existing assets
- Global network of Honeywell system integrators and engineering services (GES) support provides expert technical assessment and approval for each migration executed globally
- Proven culture of continuous evolution and innovation with longevity that is unsurpassed by our competition
- Proven service and support capabilities
- Best-in-class, 24/7 service from the Honeywell Global Technical Assistance Center

### **For More Information**

To learn how Honeywell's Remote Migration Services improve performance and reduce risk, visit [process.honeywell.com](https://process.honeywell.com) or contact your Honeywell account manager.

### **Honeywell Process Solutions**

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