

# THIRD PARTY 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. Do you know the challenges your operators face due to obsolete equipment?

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

- Lack of standardization across control devices, networks and databases
- Unplanned shutdowns resulting from unsupported equipment
- Increased maintenance expenses due to unavailability of spare parts
- Loss of knowledge to maintain outdated systems
- Limited skills for complex ladder programming
- Problems complying with new safety standards

- Isolated information in operational siloes
- High costs to manage multi-vendor PLCs
- Growing cybersecurity risk

**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 cost of ownership by 25 percent with a single database management approach
- Reduce integration cost by 80 percent by reuse of TPN tag names
- Decrease maintenance effort by 50 percent
- Retain valuable intellectual property
- Capitalize on existing DCS knowledge base
- Optimize your existing automation assets
- 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.

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.

**Implement a connected and interoperable solution.** Honeywell's standardized, connected strategy for controls migration is intended for customers with legacy PLCs connected to Honeywell TotalPlant™ Solution (TPS)/TDC3000 systems. Our approach provides an integrated DCS and PLC migration solution that is sustainable and secure. It lowers your migration risk by retaining existing intellectual property and ensures full interoperability between all controllers. The Honeywell solution also eliminates the need to manage multiple configuration software types and maintain a separate HMI for the DCS and PLCs.



Through native integration of existing 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 PLC/DCS network without additional infrastructure and engineering costs.

# WHY USE STATE-OF-THE-ART CONTROL EDGE™ TECHNOLOGY?

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 modular, powerful, and scalable controller offers an ideal solution for replacing outdated PLCs with new, modernized control functionality tightly connected to your plant DCS.

The ControlEdge solution includes two personalities with same hardware:

- Enhanced Logic Manager Module (ELMM) – Utilizing multiple programming languages, including IEC61131-3, this option can be chosen when ladder programs are preferred and TotalPlant™ Network (TPN) tags must be retained.

- Unit Operations Controller (UOC) – Offering the same programming environment as Honeywell's current generation C300 controller, this option is suitable for end users who prefer to have a database that is identical to the DCS controller.

**Leverage a common HMI and support strategy.** Together, ControlEdge PLC and Honeywell's Experion® PKS 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 Experion/TPS-level extended system lifecycle.

ControlEdge PLC's diverse connectivity 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.

# 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 intellectual property and reduce risk.** Honeywell's approach lowers total cost of ownership and enables faster decision making through superior integration with our DCS platform. This approach also improves integration workflows so migration projects can be efficiently executed to achieve the expected results

For example, the ControlEdge solution reuses TotalPlant Network (TPN) tag names so you can keep your current operator displays, maintain existing peer-to-peer communication and integrate other Local Control Network (LCN) nodes as needed.

Honeywell's migration service also includes legacy PLC program conversion using tools and 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.

Finally, our Trace change management software simplifies the identification of PLC tags accessed across DCS nodes after the migration process has been completed.

# 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 DCS 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 and asset management solutions
- Pre-built PLC diagnostic displays
- Improved lifecycle support
- Consistent HMI interface for PLC and DCS
- Greater engineering flexibility for reduced project overhead
  - Compatible with Universal I/O
  - Easily adapts to late 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



- Built-In connectivity options for easy integration of Honeywell and non-Honeywell assets
  - Compatibility with OPC UA, EtherNet/IP, Modbus, HART-IP, DNP3, CDA, EUCN, and other user-defined protocols
  - Protocols built into the controller and through serial communication modules
  - OPC Secure capabilities
  - 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 virtualized 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 integrated PLC, DCS migration and modernization in incremental steps
- Improves your process without impacting existing investments in controls and graphics
- Lowers Total Cost of Ownership, migration risk and integration cost
- Allows you to capitalize on existing DCS knowledge base and optimize your existing assets
- Global Center of Excellence 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: Honeywell is the only vendor to support 40+ year-old control systems
- 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 [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

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