



## Experion LX

Proven, Easy to Use and  
Purpose-built Distributed Control System





Experion LX is based on Honeywell's award-winning Experion Process Knowledge System (PKS) and leverages Honeywell's proven track record in DCS applications.

# A DCS to control and optimize continuous and batch applications.

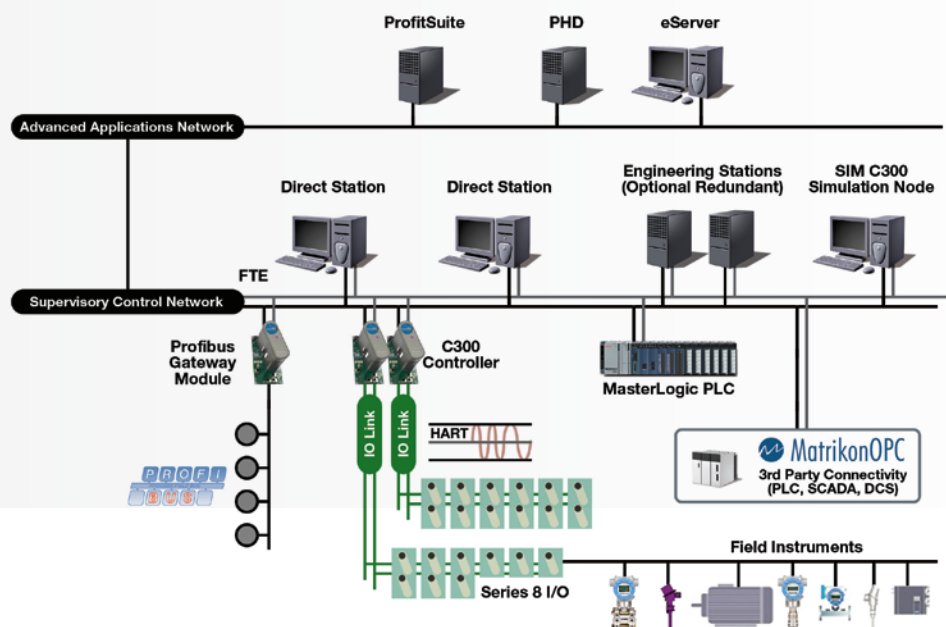
The specialty chemicals, biofuels, industrial and mid-size power, metals, water, and food & beverage industries are continually looking to reduce costs while meeting more stringent regulations and increased sustainability objectives. One way to accomplish these goals is through the functionality of a distributed control system (DCS), which can control and automate your plant while providing the system reliability and greater flexibility that traditional PLCs are unable to offer. However, many leading DCS systems are simply too big and not cost-effective for smaller manufacturing operations.

Honeywell's purpose-built DCS—Experion® LX—helps manufacturers worldwide meet these challenges. It provides you with the agility to respond to product mix changes and offers advanced optimization and batch technology usually found in larger DCS systems—but at an affordable price.

Experion LX manages all continuous process control applications and optimizes batch and sequence-oriented applications. It's scalable from a single HMI and controller to many stations and controllers. It incorporates Honeywell's latest C300 controller technology and an innovative

Series 8 I/O platform. Straightforward configuration and advanced engineering tools enable faster project implementation or system changes, allowing you to expand and modify operations to meet growing and changing business demands. The results are increased production, more flexible product mix changes, and faster introduction of new products and formulations.

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## Why Experion LX?

- Maximize plant uptime.
- Improve plant reliability.
- Optimize plant efficiency.
- Boost plant performance and agility to respond to business changes.
- Enhance operator effectiveness through alarm management and displays.
- Communicate effortlessly with third-party devices and drives.
- Drive down costs through a low total cost of ownership.
- Ensure scalability and future expansion.

## All the functionality you need.

Experion LX is packed with all the sophisticated features you need to control and optimize smaller manufacturing applications:

- Experion C300 controller for powerful and robust control.
- C300 Simulation for proving out control strategies.
- Series 8 I/O module design for compact footprint, efficient installation, wiring and easy maintenance.
- Optional redundancy at all levels: server, network, C300 controller, Series 8 I/O modules.
- Smart device integration through industry standard protocols, such as HART, Foundation Fieldbus, Profibus™, and Modbus and asset management using Honeywell's integrated Field Device Manger software.
- Controller-based S88 compliant modular batch control for high throughput and reliability of batch processing.
- Revolutionary Profit Loop algorithm for model based predictive control.
- High-performance Honeywell Fault Tolerant Ethernet control network.
- Extensive integration of PLC, DCS, RTUs, Drives, Safety Systems and other devices like weigh scales through the rich SCADA capability of Experion LX and Matrikon OPC servers.
- Distributed Server Architecture (DSA) for integration of processes across multiple units, control rooms or geographically distributed locations for optimum flexibility and system maintenance.

# Robustness ensured.

- **Fault Tolerant Ethernet (FTE):** Honeywell's FTE is the highly robust Experion LX control network. It provides multiple communication paths between nodes, eliminating all single points of failure. FTE is dedicated to the control mission—providing not only fault tolerance but also the performance, determinism, and security required for industrial control applications. FTE leverages commercial Ethernet technology to lower the costs of the entire FTE network infrastructure.
- **C300 controller:** Honeywell's C300 controller provides powerful and robust process control for Experion LX. It supports a wide variety of process control situations, including continuous and batch processes and integration with field devices using Honeywell's Series 8 I/O. C300 operates Honeywell's deterministic Control Execution Environment (CEE) software which executes control strategies on a constant and predictable schedule.
- **Direct Station:** A powerful operator station that functions both as a client to the Experion LX Engineering Server but also allows direct access to the C300 controller for process data, alarms and messages so you are never in question about being able to safely monitor and control the process.
- **Safe Operations:** In collaboration with the ASM Consortium, Honeywell has developed safe operator functions, such as Procedural Operations for integrated interactive instructions to reduce incidents related to improper execution of operating procedures and alarm handling and display layouts to improve overall operator response to abnormal conditions.





## The high performance you need.



- **Controller-based batch:** Experion LX allows multiple batch recipes to execute completely in the C300 controller. A controller-based system is inherently more performant than a typical server-based batch system and the absence of a separate batch server removes the associated costs, security and maintenance issues as well as communication latency. Common engineering and operating tools for batch with the rest of the system provide a single consistent platform for batch development and execution that complies with S88 industry batch standards. Batch recipes can be completely executed in the C300 controller in a reliable environment, eliminating the thousands of communication tasks between a server and controller in a typical batch operation and ultimately increasing production throughput and reliability.



- **Profit® Loop:** Honeywell's Profit Loop incorporates the best elements of traditional PID algorithms and model-based advanced control and optimization technologies to address all loop control needs. It delivers greater profitability, reliability and safety with the lowest cost of ownership. Profit Loop increases process stability by up to 30% to significantly lower valve travel and maintenance, delivering improved and advanced control performance that is robust in nature.



## Easy to configure and use.

Experion LX contributes to faster engineering, increased uptime, and lower lifecycle costs, while fully empowering the limited resources of a smaller operation.

- **Engineering advantages:** Reduce the time spent getting the system ready for first production with features such as drag-and-drop configuration, prebuilt algorithms, global database, integrated tag configuration (define tag, alarms, history, displays in one place), over 300 preconfigured displays, common engineering tools for continuous, sequence and batch, template support, bulk build/bulk edit, automatic loop tuning, and control strategy simulation.
- **Operational advantages:** Make it easier for your operators to run your plant by giving them the information they need to make timely decisions without cluttering their view of the process. Features include configuration changes without stopping production, run-time view of control strategy and sequence status, advanced operator alarm management tools such as alarm shelving, integrated workflow for operators including integrated view of all plant data along with fingertip access to operator instructions and procedures.

## Customize to fit your application.

Experion LX is a cost-effective DCS that can be easily tailored to address the specific requirements of your application. It can be extended at any time to include personnel and assets, and even to integrate entire business operations. Experion LX incorporates:

- **In-Built Function Blocks:** These suit a range of DCS requirements unique to various industry applications. Examples include function blocks specific to power plant applications such as Drum Level Compensation Block and Drive Control Modules. The C300 controller also supports Custom Algorithm Blocks (CABs). These are similar in purpose and structure to the standard function blocks but have user-defined algorithms and data structures, allowing tailored strategies to be developed to specific requirements.
- **Pre-Built Templates:** A solution pack with a wide range of templates is ideal for general control applications. These include Split Range PID, Standard Flow Based Dosing, Standard MOV Control, and Split Range Control with bi-directional feed forward.
- **Rich Function Libraries:** Easily create control strategies with the single integrated Control Builder tool for function blocks that support Continuous Control Modules, Sequential Control Modules, Batch Recipe Control Modules and Model Based Control.

## Expand as your business grows.

Choosing Experion LX today offers a path forward for your automation system. You simply decide what level of automation makes the most sense for your business today—Experion LX gives you the ability to expand as your business grows.

## Readily and locally available support.

Experion LX is a purpose-built, integrator-friendly DCS that leverages proven Experion PKS technology to meet your needs. Honeywell's channel partners are fully trained, authorized and experienced to implement and support your project—whether small or large, new or an expansion. Honeywell works together with authorized channel partners, ensuring readily available local support when you need it. In addition, Experion LX customers have full access to Honeywell's Technical Assistance Center (TAC) for product support and consulting. Honeywell TAC experts can help you resolve issues in a timely manner and keep your system running optimally.

Experion® and Profit® are registered trademarks of Honeywell International Inc.

### **For More Information**

To learn more about Honeywell's Experion LX, visit [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

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## A partner you can trust.

Around the world, Honeywell is recognized as a quality brand with a long history of working with the process industry. Honeywell helps industrial customers improve business performance by providing world-class automation technology and services. Honeywell's control systems are employed in the most demanding industrial applications to help improve process safety, reliability and efficiency. Our global expertise ensures you have world-class technology best suited to meet your specific needs. And our local, authorized channel partners for Experion LX give you access to experts close by who know your operation and can work with you as your needs grow and change.

The Honeywell logo is displayed in a bold, red, sans-serif font.

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