

**Honeywell**

# IMPROVE THE QUALITY AND CONTROL OF YOUR VALUABLE BATCH

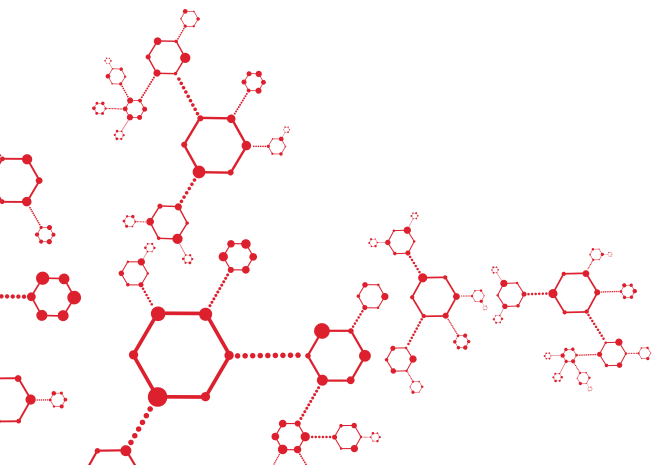
Experion® LX: Purpose-built solutions for pharmaceutical and specialty chemicals



ENTER



# CONTENTS



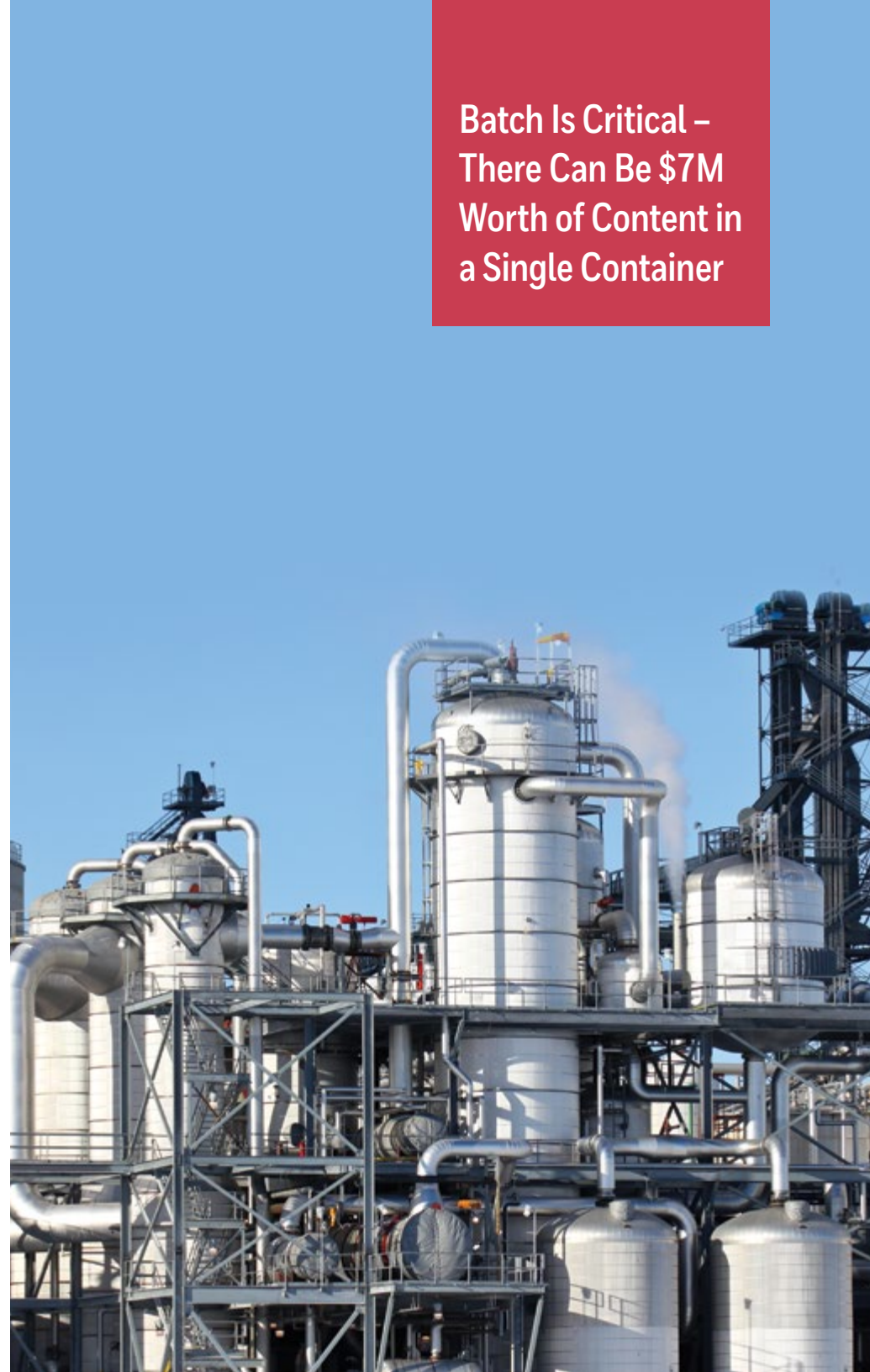
# TODAY'S CRITICAL CHALLENGES

Manufacturers in the pharmaceutical and specialty chemicals industries are facing continual pressure to optimize their production operations.

- Reduce batch cycle time and costs
- Increase product quality and yields
- Comply with changing government regulations
- Respond to increased global competition

It is crucial to leverage R&D investments, capitalize on new products, control manufacturing costs, and maintain consistent and reliable operations.

Batch Is Critical –  
There Can Be \$7M  
Worth of Content in  
a Single Container



# EXPECTATIONS FOR A CONTROL SYSTEM

Plant owners or operators have high expectations for modern control solutions, which are needed to achieve greater flexibility, optimized production and improved regulatory compliance.

- **Shorter Time to Market** – Swift transition from R&D/pilot plant to production
- **Improved Compliance and Data Integrity** – Inherent compliance with government regulations and industry safety requirements
- **Enhanced Production** – Reduce batch cycle times, improve quality and repeatability, and optimize real-time operations
- **Increased Agility** – Manage production and schedule changes, and ensure future scalability
- **Reduced Costs** – Avoid low-quality yield, reduce asset downtime, enable cognitive operations, and support guided troubleshooting
- **Integrated Control** – Unify batch and continuous operations, allow wider connectivity, and employ a one-stop solution
- **Improved Predictability** – Convert experience into real-time analytics, and utilize custom reporting capabilities

Today's process control systems must provide benefits in terms of improved plant performance and better business results.



Your Productivity  
and Bottom Line –  
Require the Right  
Technology Decision

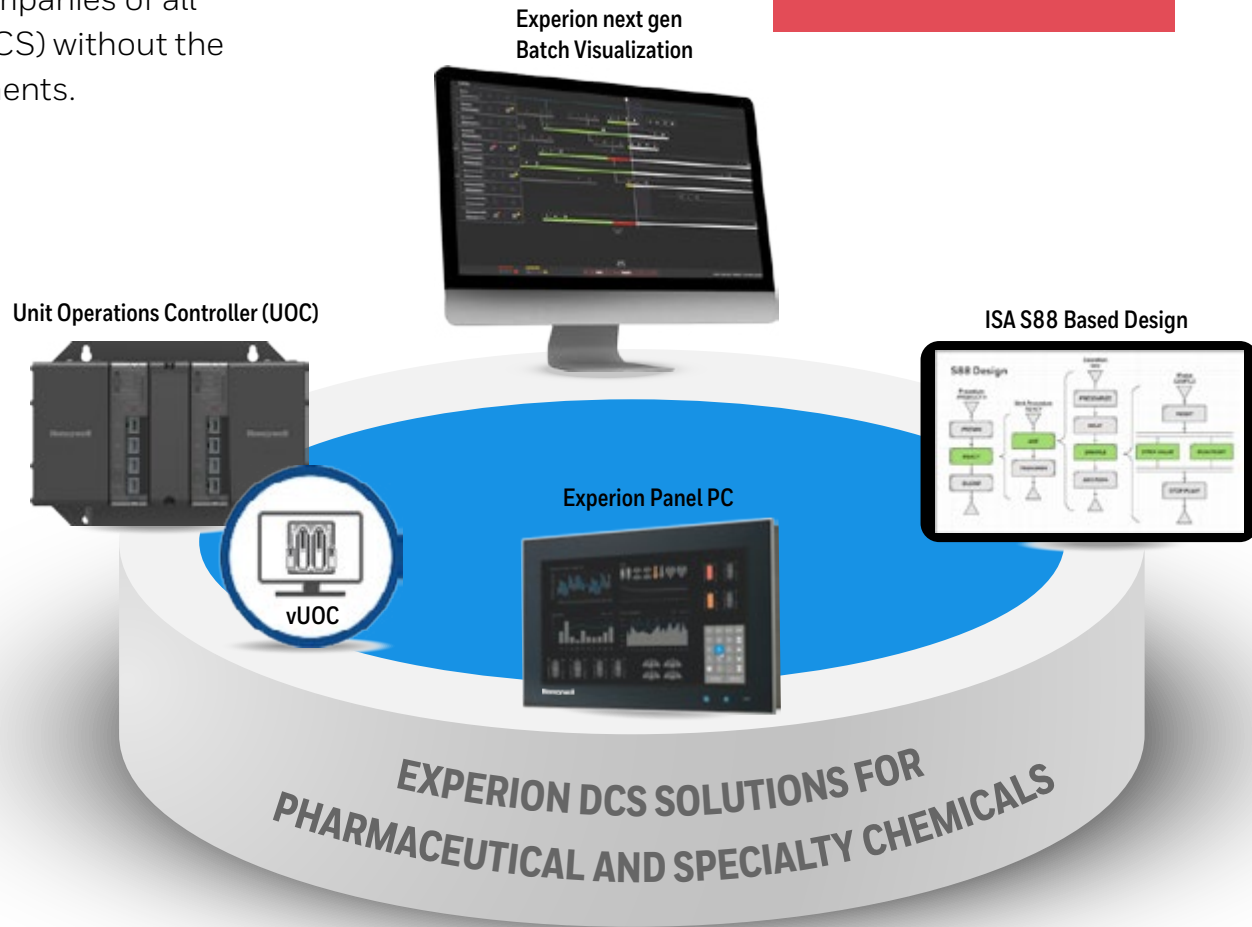
# INTRODUCING EXPERION® LX

Honeywell's Experion® LX solution enables companies of all sizes to utilize a Distributed Control System (DCS) without the typical implementation and overhead requirements.

- Increase production efficiency
- Enable reproducibility of processes
- Decrease process and quality variability
- Ensure long-term stability and consistency
- Shorten product development cycles
- Reduce project time and lifecycle costs

Now you can utilize a one-stop, integrated control solution to drive better reliability, efficiency and quality – and achieve greater peace of mind.

A DCS That Meets  
the Diverse Demands  
of Continuous and  
Batch Control



# SIX PILLARS OF AN **EFFECTIVE OPERATION**

With the Experion LX solution, Honeywell customers can implement a structured approach to improving the quality and control of their valuable batch operations.

Companies must become more strategic in managing manufacturing to achieve the highest quality production at the lowest possible cost.

Recipe for **Success**



Honeywell  
Understands  
Your Unique  
Requirements  
and Can Help You  
Succeed

## STAY COMPETITIVE

Pharmaceutical and specialty chemicals firms face difficult operating demands and must deliver the right quality product in shortest possible cycle time. Many are rethinking their approach towards manufacturing and safety practices.

- Honeywell's Virtual Unit Operations Controller (vUOC) is a twin soft-controller for R&D/pilot plants – enabling faster turnaround from development to production
- Users can deploy inherent ISA S88 Batch with 21CFR Part11, Version Management and e-Signature – ensuring compliance with good manufacturing practices and strict industry standards

Experion LX is the answer to elevating productivity and economic performance in a highly competitive global business environment.

**Make Every Day the Best Day of Production**

## STAY PROFITABLE

High-quality batches result in higher profits. That's why Honeywell developed a solution allowing multiple batch recipes to execute in a reliable, robust and independent controller environment.

- Better performance than a typical server-based batch control system
- Run a complete batch in the controller – achieve 3-5% increased throughput cycle while avoiding Windows maintenance overhead
- Deploy Abnormal Situation Management (ASM)-compliant HMI and tools – implement standardized, real-time operations

Experion LX is the only process control system allowing manufacturers to execute batch where it belongs!

**Quality is Your No. 1 Objective**



## STAY CONNECTED

Pharmaceutical and specialty chemicals manufacturers need a centralized, plant-wide solution that eliminates “islands of automation” or “data silos” by connecting critical data, systems and assets across their plant.

- Honeywell’s single controller option for handling continuous, batch and sequential control and operations
- Paperless chart recorders and Programmable Automation Controller (PAC) control for Balance-of-Plant and Clean-in-Place (CIP) operations tightly integrated with control systems
- Honeywell offers a wireless suite, video management, plant asset management system and MES/ERP solutions
- Mobility and Cloud solutions (IIoT) and process virtualization capabilities are available

Experion LX integrates batch operations of any size, and implements automation and control on any scale, enabling plant-wide connectivity based on your needs.

**Connectivity is an Enabler of Endless Optimization Opportunities**

## STAY VIGILANT

Experience has shown that innovative automation technologies can improve the vigilance of plant operators, helping them drive improved performance and better business results.

- Honeywell offers an advanced HMI solution for a guided messaging workspace – transforming experience and good practices into operating standards
- Custom report generation for batch parameters – allowing operators to see only what matters most
- Experion Panel PC for field operations – providing a consistent, intuitive HMI and tools

The right automation solution extends organization-wide visibility, provides real-time data access, and transforms daily insights into crucial decision steps.

**Make Automation a Key Business Advantage**



## STAY PRUDENT

The broader your product range, the more important flexibility is across the entire production process. It's a good idea to be prudent when implementing strategies for plant optimization.

- Honeywell's Experion LX system offers a cognitive, real-time batch timeline view – allowing personnel to check CTQ parameters and simplifying troubleshooting
- Guided operator messages, future actions, delay notifications and complete batch cycle visibility like never before
- Class-based recipe templates - ensuring repeatability, flexibility of production, and data integrity across the automation system

With Experion LX, manufacturers have a control solution that's scalable and purpose-built, enabling efficient operations for better throughput.

**An Advanced HMI Solution for Batch Operations for Greater Efficiencies**

## STAY FUTURE-READY

As a manufacturer, you seek to stay ahead of the competition and respond to new business opportunities. This means optimizing production planning to service customers worldwide.

- Experion LX is an inherently scalable control system – start from unit/machine operations and grow as needed – at a pace you decide
- Take advantage of Honeywell's Distributed Server Architecture (DSA) to connect multiple Experion clusters (units) seamlessly without duplicating engineering work

A rapid and targeted response to customer needs and changing market requirements has never been more crucial.

**A Scalable Control System to Keep Pace with Future Growth**

# EXPAND YOUR VIEW OF BATCH PROCESSES

In many cases, operators have a fragmented view of the units and batches under their control. There may be guesswork on when important steps will occur, and they can't always get it right.

- Uncertainty about upcoming tasks – resulting in inefficient operations
- Unaware of steps being delayed – potentially compromising production
- Difficulty in troubleshooting – leading to a loss of quality

All-too-often, operators have no view of batch execution flow and status against real time. To plan their work, they have to refer to different custom graphics and tools which do not show them what they really need.

It's Time for  
Cognitive, Real-time  
Batch Operations



# DEPLOY TIME-BASED BATCH VISUALIZATION

With Honeywell's technology, it's easier to see how batches are performing. Operators can access relevant graphics to perform specific controls, and batch cycle times are not held up.

- Know what's coming up and respond faster – enabling increased throughput and higher product quality
- Know immediately when there is a delay – helping to improve efficiency
- Troubleshooting is faster and easier – leading to improved asset utilization

Plant personnel can now look ahead in the timeline and get ready to perform upcoming production-related tasks.

Get the Right  
Information, When  
It's Needed Most



Better asset utilization and batch throughput

Higher quality batch through efficient operations

# SEE THE BENEFITS FOR YOURSELF



**A leading biotechnology company** develops and manufactures a wide variety of vaccines, which it exports to more than 75 countries. Vaccine production is highly complex with numerous critical operations.

The biotechnology company chose Honeywell to deliver a control solution providing precise process control and plant-wide integration. The Experion LX system was configured to meet demanding vaccine production application requirements, and can be expanded to integrate with the company's business operations.

**Upgraded Performance and Increased Scalability**



**The largest pigment producer in Asia** manufactures and distributes phthalocyanine, chrome yellow and molybdate orange pigments for the ink, specialty coating and plastics markets.

As part of an expansion of its production operations, the pigment producer implemented the Experion LX system to help increase production efficiency and enable effective, enterprise-wide management capabilities. In addition, the solution assisted the company in meeting increasingly stringent safety and environmental regulations.

**Better Efficiency and Improved Safety**

# SEE THE BENEFITS FOR YOURSELF



**A global pharmaceutical leader** develops medications and active pharmaceutical ingredients (APIs) for drug manufacture, diagnostic kits, critical care, and biotechnology products.

After considering different process automation solutions, the pharmaceutical firm selected Honeywell's Experion LX system to help ensure its compliance with regulatory standards. The system runs batch sequence in the controller to reduce latency and improve agility, and incorporates system logs that are secure from tampering and alteration.

**Greater Agility and Enhanced Compliance**



**A growing specialty chemicals firm** in India sought technical help for the development and production of intermediates used in the agrochemical and pharmaceutical industries. It needed a control solution that would enable higher product quality and process reliability.

The specialty chemicals firm partnered with Honeywell to implement advanced automation technology. Plant managers were already familiar with Honeywell's Experion systems Process Knowledge System (PKS) from earlier installations, and decided upon Experion LX to deliver the scalable and cost-effective control performance it needed.

**Higher Quality and Improved Reliability**

# RELY ON HONEYWELL

Around the world, Honeywell's control systems are employed in the most demanding industrial applications to improve process safety, reliability and efficiency. You can rely on our proven, advanced DCS technology to improve your operational and business performance.

**Experion<sup>®</sup> LX.**  
Integrated.  
Scalable.  
Easy-to-Use.  
Purpose-Built.

Discover a  
Perfect-Fit  
Control System



## For More Information

Visit the [Experion LX](#) and [Experion Batch](#) web pages or contact the Honeywell account manager in your region or write to us at [hpsmarketing@honeywell.com](mailto:hpsmarketing@honeywell.com).

Honeywell Process Solutions  
1250 West Sam Houston Parkway  
South Houston, TX 77042

Honeywell House, Skimped Hill Lane  
Bracknell, Berkshire, England RG12 1EB UK

Building #1, 555 Huanke Road, Zhangjiang  
Hi-Tech Industrial Park, Pudong New Area,  
Shanghai China 201203

[www.honeywellprocess.com](http://www.honeywellprocess.com)

Experion® is a registered trademark of Honeywell International Inc. All other trademarks are the property of their respective owners.

EB-18-003-ENG | 11/18  
© 2018 Honeywell International Inc.

**Honeywell**