

Fast Track Automation for Manufacturing Agility

Solution Note

Honeywell's Fast Track Automation is specifically designed to help life sciences manufacturers quickly respond to changes in product demand through parallel-path automation design and implementation of full-scale production. Our pre-structured solution can be available for use in half the time depending on process requirements.

The manufacturer can even start to apply digital transformation to the manual steps during development to better consolidate and analyze data, and prepare electronic submittals for regulatory review and approval. Then, the data can be used to prepare for the final production automation design. Our Fast Track Automation includes process automation elements that can be rapidly configured virtually and then implemented once a product is approved and ready for production.

Fast Track Automation leverages a breadth of complete virtual and cloud solutions not matched by any other technology company. Our end to end cybersecurity is embedded in each of our solutions from the start. Our unique ability to combine Pharma 4.0-ready virtual engineering, flexible assignment of computing power, virtual factory acceptance tests (FATs), virtualized control as a service, remote collaboration and control monitoring, and efficient fast-track project implementation makes this solution flexible and scalable. Real-time manufacturing data, with enhanced visibility and the power of predictive insights, enables agile response to demand fluctuations.

The examples outlined below illustrate use of our innovative technologies in recent projects, resulting in greater operational flexibility as well as preservation of existing process equipment and automation when required.



Bring products to market faster while ensuring compliance, quality, and efficiency.

- *Supports electronic data submission*
- *Scale up to full production in half the time*

FEATURES & BENEFITS

- Lean automation project execution
- Batch operational visualization technology
- Flexible I/O configuration
- Manufacturing execution system (MES) interface
- Integrated data analytics
- Built-in data integrity
- End-to-end cybersecurity
- Control from a data center
- Compliant with 21 CFR Part 11 and EU Annex 11

Application Spotlight: Rapid Startup for a Large Implementation

This project for a contract manufacturer required a solution that could flexibly address the lifecycle requirements of a large biopharma facility and a vaccine plant. Their facility primarily consisted of fermentation reactors and cleaning units for use between batches. A large implementation demanded a solution that could scale easily and provide capabilities for agile lifecycle changes.



Most importantly, the solution would need to provide the flexibility needed to accommodate design and production changes inherent to contract manufacturing organizations (CMO). As a drug manufacturer and a CMO, product change requests from clients challenged this organization to react quickly to new production opportunities. The inability to make frequent changes to the products they produced had the potential to impact profitability and competitive differentiation.

The solution relied on the Honeywell Virtual Engineering Platform (VEP) to design a scalable and flexible automation system. Together with virtualized operations, Experion® Batch is the core component of an infrastructure solution with the following advantages:

- Physical and virtual Unit Operations Controllers
- Batch execution in the process controller
- Integration of 3rd party skids using an orchestration layer that allows direct control of any PLC
- Portable processing equipment

The advantages enable this CMO to perform direct batch control to the PLC (one-on-one) without going through a Microsoft server running batch execution software. This saves on hardware cost and communication time, and requires less configuration by eliminating one node in the communication layer. In addition, the virtual design of the system gives the organization the ability to move to production with the physical system already qualified, significantly speeding up the validation process.

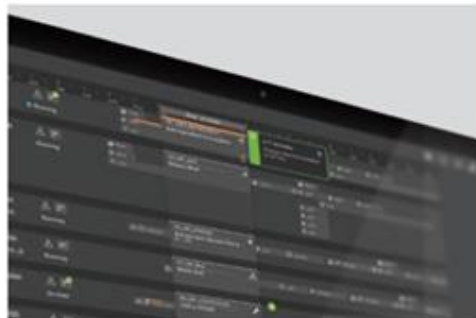
Application Spotlight: Supporting Continuous Evolution

This project for a biopharma manufacturer required a solution that could accommodate an evolution of the process control system without requiring new skid equipment.

Again, Honeywell's Virtual Engineering Platform (VEP) proved invaluable, enabling the manufacturer to simulate the process within the design stage. Experion Batch is the core component of an infrastructure solution with the following advantages:

- Virtual Unit Operations Controller
- Distributed control
- An orchestration layer that allows direct control of any PLC
- Batch automation
- Patent-pending visualization

The result is a new human machine interface (HMI) that optimizes availability, productivity and reliability. In addition, integrated support for a 3rd party PLC controller and an existing user interface enabled this manufacturer to implement virtual operations without having to "rip and replace."



Use data collected during product development to prepare for the full production automation system.

An Experion® SCADA system overlaying clinical trial data collection can be scaled up into a DCS system when needed.

Experion® is flexible and nimble enough to be scaled up or down in response to demand fluctuations.

Why Honeywell?

Honeywell's implementation leverages our global Batch Centers of Excellence, engineering teams, internal project execution and authorized solution providers for expert installation. This project delivery "ecosystem" is positioned to serve the needs of life sciences at an expedited pace - at a time of exceptional need.

Some of Honeywell's greatest innovations are the result of our commitment to helping customers continuously evolve while maintaining their current systems. We provide lifecycle investment protection by providing smooth migration paths to the latest control system technology when the time is right.

All our solutions are supported with global training, engineering, and support as well as over 45 years of experience in control automation, with the largest installed base of integrated systems and the greatest longevity in the industry. Manufacturers rely on our experience and expertise to reduce risk and expedite proven performance.



For More Information

Learn more about Honeywell's Life Sciences suite of offerings by visiting our website at www.HoneywellProcess.com/LifeSciences or contact your Honeywell Account Manager, Distributor or System Integrator.

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 201203

www.honeywellprocess.com

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**THE
FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell