Product Information Note

Experion LX Batch Manager

Honeywell's Experion LX Batch Manager improves plant throughput efficiency, reliability and operability.

Improved Speed and Availability in Batch Automation

In many batch processes, there are benefits to executing unit procedures directly in a controller to reduce complexity or improve availability or speed of execution. Honeywell delivers these benefits with Batch Manager in Experion LX.
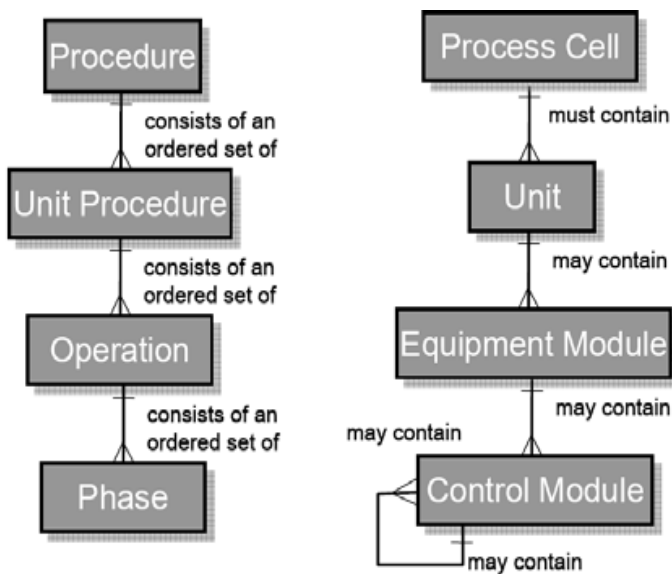
- Increased batch execution availability by executing a complete single unit procedure in a redundant C300 controller
- Increased throughput by reducing batch execution times and latency between applications
- Improved operator usability through display integration and interactive instructions
- Covers all levels of sequence functionality in the ISA S88.01 model.

Overview of ISA S88.01

Batch Manager

Batch Manager provides the ability to execute batches using multiple batch units from the procedure level downwards in the S88 hierarchy. It executes in the Experion LX C300 controller, which is optionally redundant, thus increasing the availability of the platform on which the batch executes. Since the batch executes in a controller environment, the sequence execution cycle time is configurable as fast as 50 milliseconds in a C300.

A batch is a procedure composed of unit procedures, operations and phases. A recipe is configured in the same Control Builder tool as other Experion LX control schemes. Recipe elements can be configured in series or parallel and can loop as required. A recipe has parameters associated with it which are typically used for process set points, raw material quantities, routing information and the storage of process variables for reporting.

Batch Process Benefits

Complexity

Batch Manager can be used for single or multi unit processes to execute complete procedures without the need for a server level batch application. Batch Manager can therefore reduce costs and reduce system complexity.

Execution Speed

In some processes, product quality, equipment protection and safety are impacted by the speed at which a batch can execute, particularly the time between completion of one procedural element and the start of the next. In fast moving processes with short cycle times, controller execution speed influences the capacity of the plant. The execution time of a procedure and associated recipe elements can be configured to a deterministic value, which can be as fast as 50 milliseconds for a C300 controller. When implemented in this environment, Batch Manager delivers improved throughput and quality.
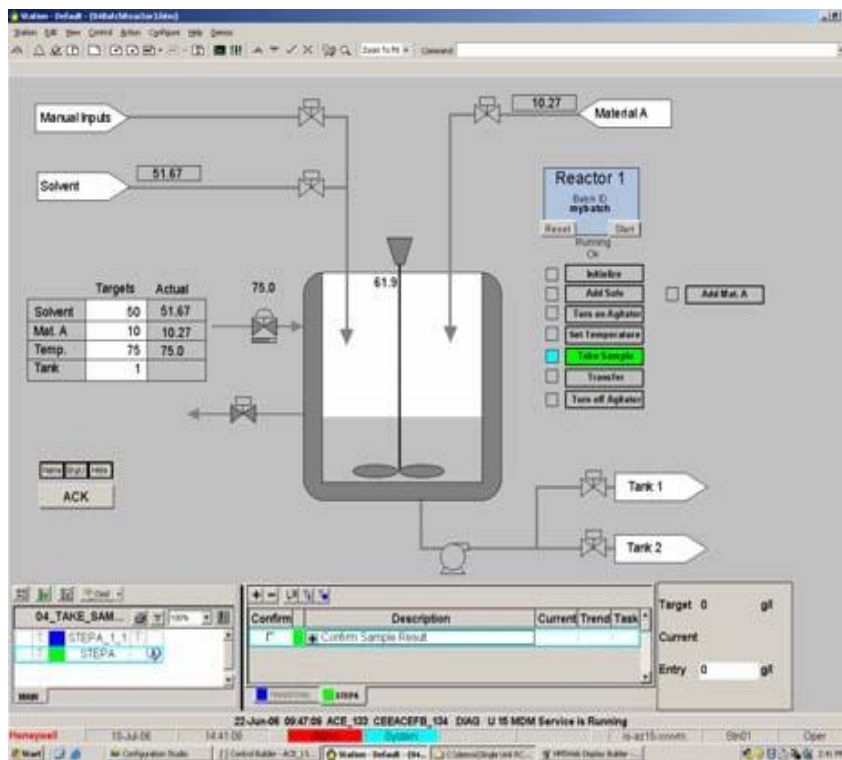
Increased Availability

For some processes, a communication interruption between an engineering station and controller may result in delaying time critical actions or may allow a process to continue beyond the optimum point. The redundant C300 controller offers high availability, passing that availability along to Batch Manager.

Operator Interaction

Batch Manager provides interactive instructions between an operator and the batch system. The operator may be prompted from a Direct Station graphic display to take an action such as adding a raw material, taking a sample, enter a value or changing a product route. Each instruction can include free format details, warnings and the facility to view plant operating procedures. Every instruction and response is recorded in the Experion LX alarm and event journal. These instructions are configurable without the need for custom coding.

Reporting

Honeywell's Procedure Analyst is optionally available for batches executed by Batch Manager. Procedure Analyst enables sophisticated batch reporting and provides the ability to query the historical database and compare history over multiple executions.

Typical Batch Manager Display

System Requirements

Batch Manager is an option for Experion LX. The procedures execute within the C300 Environment. The operator monitors the procedures through the Direct Station.

For More Information

To learn more about how Honeywell's Batch Manager, visit our website www.honeywellprocess.com or contact your Honeywell account manager.

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