

TotalPlant Batch



Honeywell's TotalPlant[®] Batch is an advanced, flexible and secure batch management solution for designing, modeling and automating batch-oriented production processes. It can be easily scaled to address the full range of batch requirements from single-unit applications to highly complex, network-structured, multi-product applications. It is focused on providing key process operations benefits:

- Increased production capacity
- Increased manufacturing agility
- Improved product quality and consistency
- Reduced operating and lifecycle costs
- Improved time to market

TotalPlant Batch delivers, in an easy-to-use graphical configuration environment, all the functionality needed to maximize effectiveness of batch manufacturing. The solution provides:

- Batch scheduling and dispatching
- Recipe and equipment management
- Batch management and execution
- Batch history and reporting
- Batch simulation

Flexible Batch Automation

Agile, accurate and repeatable processing is essential in batch manufacturing. TotalPlant Batch is a proven solution that meets these requirements. The flexible and modular design provides a competitive edge by allowing you to add new products more rapidly and make a greater variety of products than ever before.

TotalPlant Batch is built around the Instrumentation, Systems and Automation Society's (ISA) S88.01 standard and Honeywell's Modular Batch Automation (MBA) methodology. The MBA

methodology offers a structured approach to batch automation design, implementation and operation. The structured approach simplifies the design of batch procedures and recipes, reduces implementation and testing effort, and enables efficient operation and maintenance of the solution.

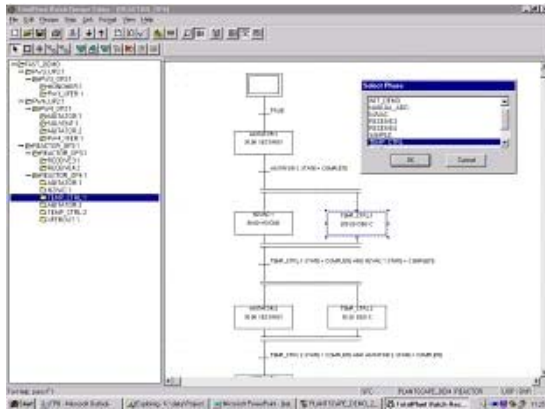
In TotalPlant Batch, the emphasis is on graphically configurable software modules with S88.01 functions built in and designed so data is entered only once. Configuration of multiple databases and complex interface logic to communicate between the batch logic and the controller-based phase logic are not required. As a result, you avoid the effort and cost of implementing, supporting and modifying a batch project as commonly experienced in other less configurable or custom environments. For example, TotalPlant Batch can reduce implementation time on batch automation projects from 50 to 75 percent compared with other solutions.

Advanced Tools

Honeywell provides advanced graphical tools (Control Builder for the Experion[®] Process Knowledge System and Phase Builder for TPS systems) for the specification, implementation, operation and documentation of control or phase logic. You no longer need to program and maintain control logic in ladder logic or a programming language. TotalPlant Batch tools deliver an embedded interface to the batch application's S88.01 state model, and no programming effort is required to implement or maintain these interfaces.

The equipment model defines the manufacturing capabilities of the plant. In the Equipment Editor, you define these manufacturing capabilities by process cells, units, unit classes and equipment modules. The equipment modules define the logical grouping of equipment controls that form the building blocks of recipes.

Recipes define the procedural sequence, equipment requirements and formula specifications required to produce a specific product. The Recipe Editor is a graphical tool used to create, store and maintain recipes. The Recipe Editor uses procedural function charts (PFCs) to provide a graphical representation of recipe procedures at all four recipe levels: phases, unit operations, unit procedures and batch procedures.



Flexible recipe building using graphical tools

A simulation tool is built into the application. This tool allows you to easily and efficiently test recipes before they are used on process, saving time and money.

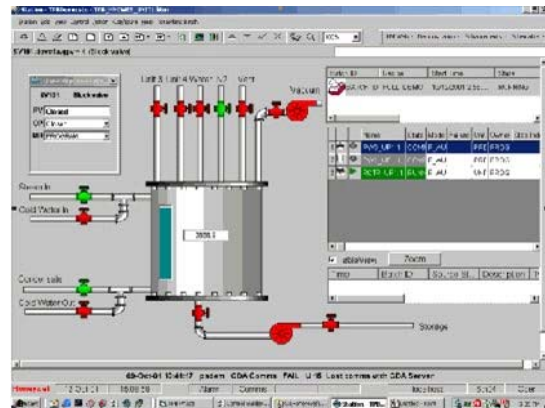
TotalPlant Batch provides a scheduler that assigns batches to production equipment and gives each batch an ID number. Safeguards prevent a recipe from being assigned to equipment that cannot successfully execute the recipe.

The TotalPlant Batch execution environment provides the precision to consistently execute to quality standards. The batch execution environment provides the following functions:

- Allocates units to batches at batch creation or dynamically at runtime
- Performs equipment arbitration
- Executes the recipe procedures
- Coordinates controller-based phase communication and execution
- Provides the operator interface to start, hold, abort or manually step through a batch procedure
- Allows for a single user interface and security model within the Experion process environment

The flexible and dynamic nature of the batch runtime also helps to reduce delays and downtime, resulting in reduced batch cycle times. For example, dynamic unit allocation helps maximize equipment utilization by allowing batches to progress and automatically select at runtime the next available batch unit so that operator input is not required. Additionally, the flexible arbitration capability of the system allows you to make runtime adjustments as necessary to maximize throughput.

As reporting and product traceability requirements become more demanding, accurate and comprehensive recording of production information becomes essential. TotalPlant Batch provides a journaling feature to collect a detailed record, including such information as what equipment was used and when, what materials were used, what operator actions were performed, and when batches started and stopped.



Integrated process and batch control environment

TotalPlant Batch provides a standard batch reporting function and report editor to format batch reports. For advanced reporting capabilities, Honeywell's Procedure Analyst provides a collection of standard batch reports and a flexible configuration environment. Procedure Analyst also supports a flexible batch query application and a batch trending tool that allow operators to view process trends for currently running batches plotted against historical batches.

System Requirements

TotalPlant Batch executes on Windows 2003 for the server and Windows XP for the clients.

Project Services

Honeywell is a full-service provider of batch automation solutions. With worldwide offices and experienced teams, Honeywell provides key capabilities including feasibility studies, design, implementation and commissioning services.

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

More Information

For more information on Honeywell's batch management solutions, visit www.honeywell.com/ps or contact your Honeywell account manager.

Automation & Control Solutions

Process Solutions
Honeywell
2500 W. Union Hills Dr.
Phoenix, AZ 85027
Tel: +1-602-313-6665 or 877-466-3993
www.honeywell.com/ps

PN-07-06-ENG
February 2007
© 2007 Honeywell International Inc.

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