



AZO.

AZO.

BCi BATCH ENGINE™ XC

Automated Batch Control System

AZO COMPONENTER®



Bachelor Controls, Inc.

Systems Integration for Manufacturing



AZO.

INGREDIENT AUTOMATION

Batching Management and Control System

Recipe management and batch control configured to meet your unique system requirements

Bachelor Controls (BCI) has leveraged more than two decades of specialized batching experience to design *BCI BATCH ENGINE XC* — a flexible, configurable batch scheduling and control system. Working closely with AZO engineers and specialists, Bachelor Controls has produced a package tailored to work with AZO's top-quality ingredient automation and management equipment.

BCI BATCH ENGINE XC provides you with flexibility in recipe design, enabling you to optimize your cycle times and equipment utilization, and to provide data collection and management for corporate reporting and analysis. In short, we seek to maximize the efficiency of your production process.

Using state-of-the-art technology and proven best practices, BCI has produced a package capable of handling batch control issues in your system. *BCI BATCH ENGINE XC* provides advanced recipe editing and management, flexible inventory and ingredient solutions, batch control and execution options, and robust data and reporting tools to improve your corporate performance. Options include campaign management components, lot tracking capabilities and enhanced security features.

Recipe Manager — Maintain unlimited recipes (with version control)

Recipes are the key to producing batches and are built around your unique equipment configuration. Each recipe consists of a set of sequential steps, and each step consists of one or more phases. The phases contain the ingredients and their corresponding percentages or set weights necessary to produce a given product. The phases also contain any run-time parameters required to make a given product, such as mix times and mix speeds.

BCI BATCH ENGINE XC is very flexible and allows many different products or variations of products to be produced by creating different recipes.

The Recipe Manager allows you to create, modify and delete an almost unlimited number of recipes, each with a time and date stamp and revision number for version control.

- Enhanced Accuracy
- Batch Scheduling / Execution
- Campaign Scheduling (optional)
- Unlimited Recipe Management and Editing (with Version Control)
- Inventory Management and Flexible Ingredient Assignment
- Lot Tracking (optional)
- Microsoft SQL Server Backbone
- Scalable and Expandable System Architecture
- Flexible Reporting
- Security Features (optional)
- On-Line Help

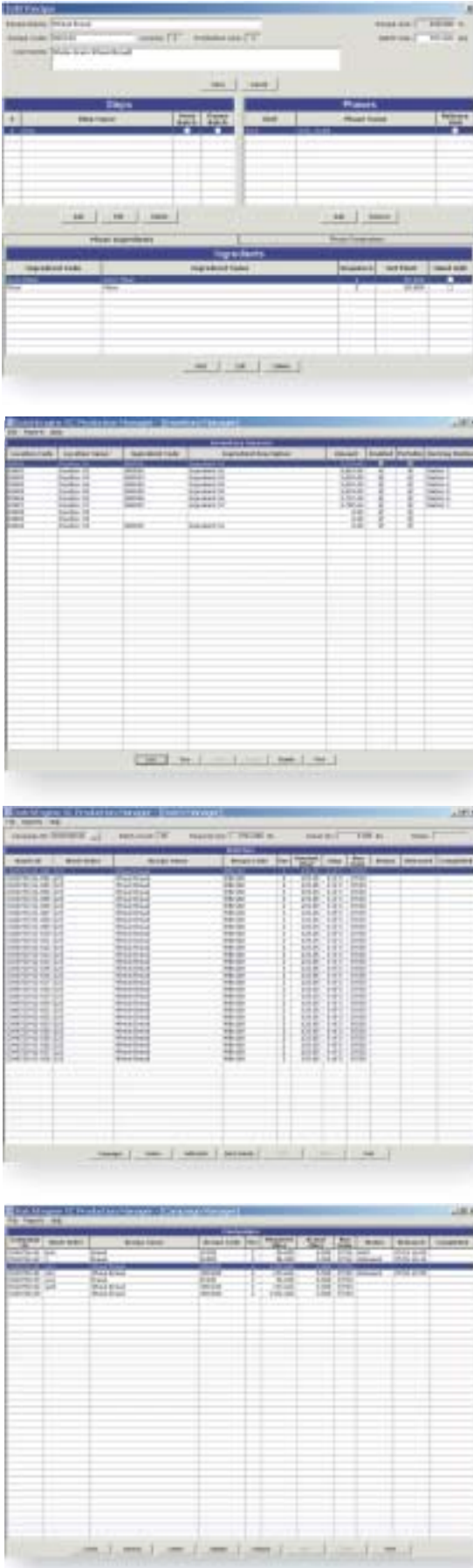


www.batchengine.com



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Inventory Manager — Add flexibility to your ingredient locations

Create flexible ingredient locations in your plant. With Inventory Manager, you can assign ingredients to specific storage locations, adjust quantities in these locations, and view the current, calculated inventory (adjusted at the end of each phase, based on reported ingredient usage).

Batch Control — Automate and coordinate batch execution

Create, control and monitor your batch in Batch Manager. Using information such as Batch ID, Recipe Name, Batch Size, Batch Run Date and Batch Status, operators can set up and release batches to the batch system, where each batch automatically starts in the order it was released. During batch execution, the Batch Controller will run each step in sequence as defined in the recipe. *BCI BATCH ENGINE XC* can manage multiple batches running on multiple production lines.

Reporting Tools — Valuable feedback for improved system performance

Improve batching performance with on-demand and automatic reporting capabilities, including

- Batch Report
- Ingredient Usage Report
- Inventory Report
- Recipe Report

Campaign Scheduling (Optional) — Manage multiple campaigns from one source

Create, control and monitor a campaign (a group of batches) in Campaign Manager. The operator specifies a recipe, enters a combination of total number of batches, batch size and total campaign quantity, then releases the campaign. Once *BCI BATCH ENGINE XC* is ready to produce the campaign, it will automatically sequence and start each batch in the campaign and run them to completion.

Lot Tracking (Optional) — Improve ingredient genealogy and process analysis

Trace a given “lot” of material through the system and associate that “lot” with a number of specific batches or a production run. Lot tracking not only contributes to batch ingredient integrity, but also provides information important to vendor evaluation and yield analysis. With the data resident in a SQL Server database, analysis is limited only by the creativity of the individual looking for ways to improve the corporate performance. In the event a product recall should become necessary, lot tracking can narrow the potential recall window.

Security (Optional) — Manage access by users and/or groups of users

Access to system functions can be controlled on an individual or group level.

*a simple solution for
automated batch control*



Working together to provide state-of-the-art ingredient automation and management equipment and technology

Organizational values, production goals and systems design all work together to create a unique and complex interaction of forces. It is important that you find the right team to negotiate these factors on your behalf to find the most effective solution for your business and your processes.

Bachelor Controls (a leading systems integration company) and AZO (producer of the world's finest ingredient management equipment) have teamed up to provide state-of-the-art ingredient automation and management equipment and technology with the development of BCI BATCH ENGINE XC.

AZO reigns as the largest company in the world whose business is solely devoted to the total automation and management of ingredients. AZO's strength comes from diversified experience. AZO works in a variety of industries including food, pharmaceutical, personal care, plastics and chemicals. In short, AZO provides effective solutions for any process that utilizes powder, liquid or pelletized ingredients. This puts AZO in a unique position to accurately and rapidly determine the best solution to the particular needs of your process.

A licensed engineering firm, Bachelor Controls is a leading provider of control and systems integration solutions to manufacturers with focused experience in the food processing, petfood, pharmaceutical, plastics, specialty chemicals, and feed and grain industries. BCI is well-respected in the automation and systems integration industry and has been recognized as a Charter CSIA Certified Member, Charter Rockwell Automation Solution Provider, and Microsoft Certified Partner.

Together, they form a team you can trust for your process and batching needs.



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