

## Mix Plant Control System Conversion and Upgrades

Comprehensive Software Conversion and Replacement, Bar Coding Infrastructure and Equipment Upgrades

- ✓ Batch Control
- ✓ Batch Scheduling
- ✓ MES (Manufacturing Execution System)
- ✓ Software Conversion
- ✓ Bar Coding

Continental Mills  
Krusteaz® Brand Products  
Hopkinsville, KY

Bob Durbin  
Project Manager  
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*The controls software conversion project start-up was **one of the most successful start-ups I have ever been on.** I cannot believe that for a project of its size, we only had two, small punch list items.*

Doug Wenthe  
Controls Coordinator

*It was the **best project I've ever been involved with.***

Bob Cowee  
Director of Engineering

**BCI BATCH ENGINE™**



Bachelor Controls, Inc.

Systems Integration for Manufacturing

### Project Summary

Continental Mills (CM) and the Bachelor Controls (BCI) / AZO Incorporated team have established a history of working together to successfully implement high-level batching systems. So when CM chose to convert its existing control system software to another vendor and make additional upgrades to its system — including a comprehensive software conversion/overhaul and bar coding infrastructure/equipment upgrades — BCI and AZO (producer of the world's finest ingredient management equipment) were up to the task.



### Objectives / Requirements

The project required a plantwide software conversion, including converting iBatch to RSBatch, iFix to RSView SE, and Sybase to SQL Server, as well as new computer and barcode replacement hardware. Also included in the iBatch to RSBatch conversion was a recipe conversion from many single purpose recipes to a few, data-driven, multipurpose recipes that would provide a significant time savings for recipe development, recipe check-out, Factory Acceptance Test (FAT) and recipe validation during startup. To complicate matters, the changeover and implementation had to take place over a single weekend shutdown.

Several project planning meetings, hundreds of hours of development, strict adherence to proven project methodologies, and a comprehensive check-out and FAT would be critical to ensuring a successful weekend.

### Results / Benefits

Crediting proper planning and a well-structured project methodology, the BCI/AZO project team provided a successful transition and implementation, utilizing excellent communication and teamwork with both CM plant and corporate personnel to overcome any problems. With the entire team working together to meet project milestones, seemingly large obstacles were handled efficiently and as natural challenges that occur when implementing complex software into a real-time, multi-user environment.

- Project delivered on-time; met original start-up date set at kickoff meeting
- All test batches run during shutdown were successful, sellable product (no re-work)
- Project delivered on-budget
- Software challenges assessed and resolved without lost production, attributable to good vendor communication and the on-site creation of a stop-gap/backup solution during start-up
- All tasks on start-up schedule were completed each day
- Project yielded only “two, small punch list items”

*Bachelor Controls' project methodology and management procedures enabled us to **implement a major control system software conversion project during a single weekend shutdown with minimal problems and without losing any scheduled production.***

Bob Durbin  
Project Manager

