LSI listens

"Can We Automate A Custom Blending Process and Still Use Our Custom ERP system?"

What Our Client Said

In our sheet molding composites process, we create 125 different products, and our current means of custom blending is limiting our throughput and plant capacity. Plus, trying to integrate with our current unique ERP system has caused significant issues in the past.

What We Heard

We need help overcoming the limitations imposed by our current ERP system of recipe management for blending and batching. We need to improve the process adding product traceability and recipe editing without replacing the whole system.
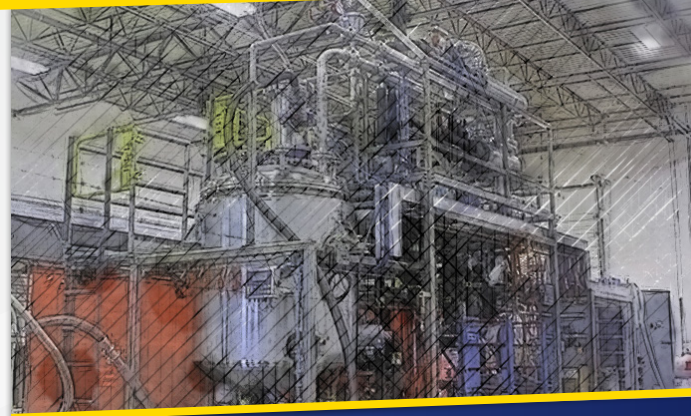
What We Did

As always, LSI listened to the customer, asked questions and did our homework on the current system. We then replaced the existing semi-automatic batching and small ingredient weigh system with a flexible, maintainable control technology. In addition to other improvements, LSI created a connected enterprise system by directly driving Rockwell's FactoryTalk Batch execution from the existing plant ERP application. Our team also added a barcode validation system for materials verification and lot traceability.

LSI provided:

- Project management
- Electrical design
- Wireless barcoding
- PLC and HMI programming
- AngularJS, React, OPC-UA
- C# and Web Services
- Weigh system upgrade

The control system consisted of:

- Rockwell PlantPAx / ControlLogix (utilizing PlantPAx objects)
- FactoryTalk Batch directly interfaced to ERP
- FactoryTalk Batch in a virtualized application environment

The Results Speak For Themselves

Reliability

- Industry-leading control infrastructure provides improved reliability and maintainability

- Improved troubleshooting allows issues to be identified in seconds

- Eliminated the need for product-by-product engineering intervention of the batch and small ingredient weighing systems

Simplicity

- Added Process Command capability into ERP product recipes

- Plant Batches created and Recipe Management implemented dynamically from ERP Level. no control system modifications needed for recipe changes

Usability

- Created a master FactoryTalk batch recipe that produces all 125 products configured at batch creation from the plant ERP application

- Improved batching control allows users to fine tune the quality of batches

- Allowed major system update in capability while leaving the existing ERP system in place without changes

- Material verification and Lot traceability added

Let LSI listen to your challenges today, and we'll work together to write a success story for you.

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Tags: Batching, ERP integration, weigh system, FactoryTalk Batch, Recipe Management, raw material traceability, verification, inventory

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LSI listened,

Then developed a custom solution by utilizing standard OEM products and LSI's process knowledge best suited for the customer. Because LSI is an independent systems integrator and services provider and not owned by a manufacturer, we were able to put the customer's needs first – selecting the best technology for the job. The flexibility and improved batching capabilities allowed the customer not only to improve their current throughput, but also to plan for expansion in the future.

Customer feedback on this project has been extremely positive. By improving the overall standardization of the facilities batching, LSI's work added visibility, stability and traceability to the process – all while working with a relatively obscure and challenging ERP.