



CASE STUDY

Preparing for the Future: King's Hawaiian® Standardizes Technology Requirements for All Machine Builders at New Facility

Common Network & Integrated Architecture Ease Integration & Data Sharing Between All Machines

PROJECT SUMMARY

Despite several expansions starting in the 1990s, King's Hawaiian had outgrown its facilities once again in 2010. Its California factory and bakery were operating 24/7, and consumer demand was spreading across the country. The company had also expanded its product line.

With rising gas prices and other transportation costs weighing on the bakery's budget, King's Hawaiian decided to build a new facility in the Eastern United States. This way, the company could get its growing family of products to store shelves more quickly and cost-effectively.

CHALLENGE

Create a common infrastructure for machine builders for the first centralized data-collection system on a greenfield site.

King's Hawaiian chose to build a highly automated 125,000-square-foot facility in Oakwood, Ga., and set a goal to be up and running within 10 months. The timeline posed a challenge, especially considering the complexity of the project. The entire bread-baking process required a total of 11 specialized machines, manufactured by a different original equipment manufacturer (OEM), with a control and information platform requiring a unique design environment, user interface and vendor support model.

SOLUTION & BENEFITS

The Bachelor Controls Inc. (BCI) team took the lead on creating a standardized plant architecture that would facilitate an enterprise-wide visualization and MES implementation. Since there were numerous OEM suppliers on this project, BCI started with a specification that provided OEMs with both hardware selection and program development standards that would simplify the enterprise connectivity goals targeted by King's Hawaiian.

The new facility opened one week earlier than planned. Immediately, it doubled the company's bread production.



BCI put a lot of emphasis on front-end design and forced me to be a better customer. They made us work hard to answer important questions up front so they could provide a return that was closer to what we actually wanted versus what we started with.

– MIKE WILLIAMS, DIRECTOR OF ENGINEERING

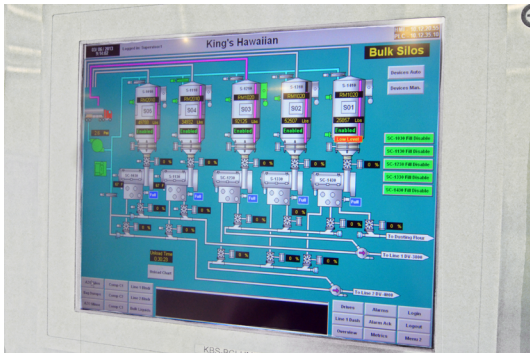


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TESTIMONIALS

"By standardizing on the Integrated Architecture system, our people are now able to go from one process to another within the plant, and use the same software and same knowledge to address any number of issues," Williams said. "The architecture also allows us to collect vast amounts of data – about everything from oven temperatures and bake times to scale weights and maintenance operations – that previously we couldn't manage manually."

– MIKE WILLIAMS, DIRECTOR OF ENGINEERING



RESULTS

Met Implementation Timeline Goals

- ▶ Designed and delivered an integrated plant within a tight timeline one week ahead of schedule

Doubled Production & Increased Capacity

- ▶ Added capability to produce additional 180,000 pounds of bread per day, doubling production

Integrated Architecture System

- ▶ Scalable control across all machines in facility with Rockwell's Logix control platform
- ▶ EtherNet/IP network provides seamless, real-time communications structure & single design environment with consistent tools
- ▶ Rockwell's FactoryTalk software suite provides graphically rich, role-based production data; remote access to real-time and historical time-series data from all equipment and data sources in the plant; and intuitive production dashboards that provide a comprehensive picture of the factors contributing to operational performance

System Design and Delivery

- ▶ Bachelor Controls Inc., a Solution Partner within the Rockwell Automation PartnerNetwork™ program, designed and delivered the solution

Headquarters

Sabetha, KS

123 N. Washington
Sabetha, KS 66534
P: 785.284.3482

Branch Office

Kansas City, KS

10417 W. 84th Terrace
Lenexa, KS 66214
P: 913.438.3482

Branch Office

Memphis, TN

4445 Malone Road
Memphis, TN 38118
P: 901.795.3482



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www.bachelorcontrols.com