

Pre-Heating Perfection

A Success Story of Batch Optimization



CUSTOMER OVERVIEW

For over a century, a leading global food ingredient company has been at the forefront of advancing production efficiency and sustainability. Committed to its mission of providing products and practices that enhance both human health and environmental well-being, this company continuously seeks innovative ways to refine its business operations.

In one of its facilities located in New Jersey, the company specializes in the production of mixes, bases, and concentrates for a variety of bakery items including bread, cakes, bagels, tortillas, pretzels, and pastries. The facility's extensive variety of raw materials and recipe variations presented challenges in kitting and blending processes. Recognizing the need to improve its batching processes and modernize its record-keeping methods for maintaining product quality and customer satisfaction, the company collaborated with InflexionPoint, a renowned solutions provider, to integrate a comprehensive operational management system into its production processes.

Features



Batch Management



Electronic Records



Performance Management



Production Management

Goals

- Remove paper from the shop floor
- Eliminate bottlenecks & minimize downtime
- Optimize batch processes
- Gain production-wide visibility
- Enable rapid alerting and response times
- Benchmark performance metrics to drive continuous improvements

Challenges

- Paper-based records bogged down production
- Minimal insight into batch processes and execution
- Minimal insight into production
- No efficient method for rapidly sharing information across teams and departments

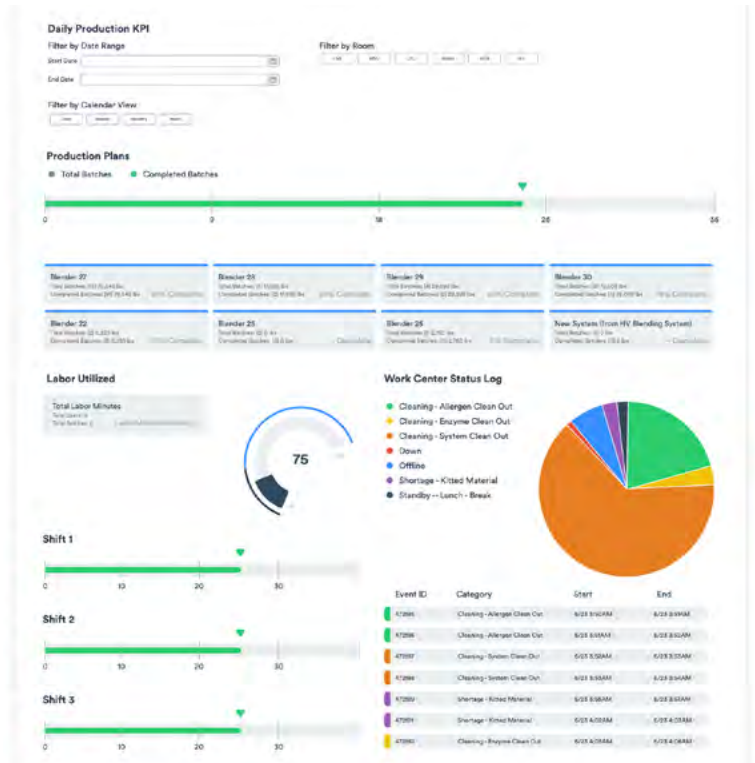


SOLUTION OVERVIEW

The Nexilis platform plays a crucial role in storing recipe parameters for various product types, orchestrating the entire manufacturing process from kitting and blending to packaging and labeling. By leveraging a Level-2 automation/SCADA system previously deployed, the team was able to digitize the plant floor, effectively eliminating all paper-based processes. The introduction of Nexilis staging screens further enhanced the digital capabilities of the shop floor, allowing operators to easily monitor the progress of each batch in real-time.

Operators have been equipped with tablets to access customizable Nexilis dashboards, enabling them to closely follow production processes, capture photos for documentation, and review all necessary records. These tablets also feature a call-to-alert button, which significantly reduces downtime by facilitating immediate communication with supervisors when issues arise. Additionally, the use of Nexilis digital forms and electronic work instructions, which include the option for image capture, has been instrumental in streamlining operations.

A key aspect of the system's implementation is its traceability feature, ensuring that the production and quality teams can accurately track components from raw materials through to the final product in real-time. This capability, combined with the introduction of electronic signatures and mandatory team member card scans, has established a comprehensive audit trail for enhanced accountability and traceability.



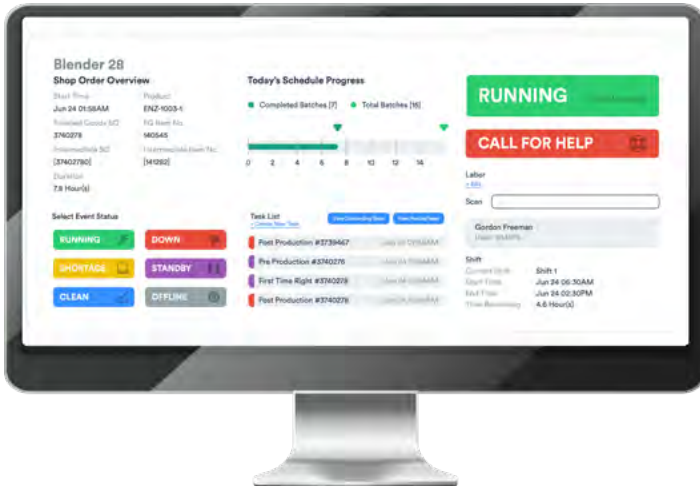
What were the benefits of this solution?



Certainly, the visibility of data (documents completed and outstanding, issues with setup, data capture, and data accuracy) all rank high on the list. Our staging screen allows for the real-time orchestration of kitting to blender activities. These are all big wins! Generally; however, going paperless was a pretty big step for us. Performance data is starting to accumulate and we have begun to establish general run rates leading to accurately tracking OEE.



SOLUTION OVERVIEW



To maintain the highest quality standards for finished goods, Nexilis was configured to monitor foreign metal contaminants in products during the production line. The system's architecture includes multi-tier development and production environments, designed to safeguard against any potential disruptions in production.

Document control, along with the review and approval processes, has been central to the transition towards using electronic batch records (EBRs). The implementation of status screens for document management has been a significant advancement. These screens enable quality control personnel to oversee documents associated with work orders, monitor completion statuses, follow audit trails, verify approval statuses, and make final approvals. Furthermore, the system allows for the printing of documents in PDF format as required, ensuring that all compliance and quality standards are met efficiently and effectively.

Results

- Implement Electronic Batch Records (EBRs), removing paper from the process, thereby providing instant visibility into food safety and cleaning record checks
- Enforce and verify allergen cleaning compliance protocols
- Reduce downtime
- Provide teams and supervisors with real-time batch and production data to stay on top of bottlenecks, and machine, labor resource, and material issues
- Link MRP planning to the automated scheduling of batches and batch components.