

MANUFACTURING / DISTRIBUTION – Logistics System

Overview

Coca-Cola Bottling Co. Consolidated is the second largest Coca-Cola bottler in the United States, and is a leader in manufacturing, selling, and distributing soft drinks. With corporate offices in Charlotte, North Carolina, the Company does business in eleven states, primarily in the Southeast. The Company's product offerings include carbonated soft drinks, bottled water, teas, juices, isotonics, and energy drinks.



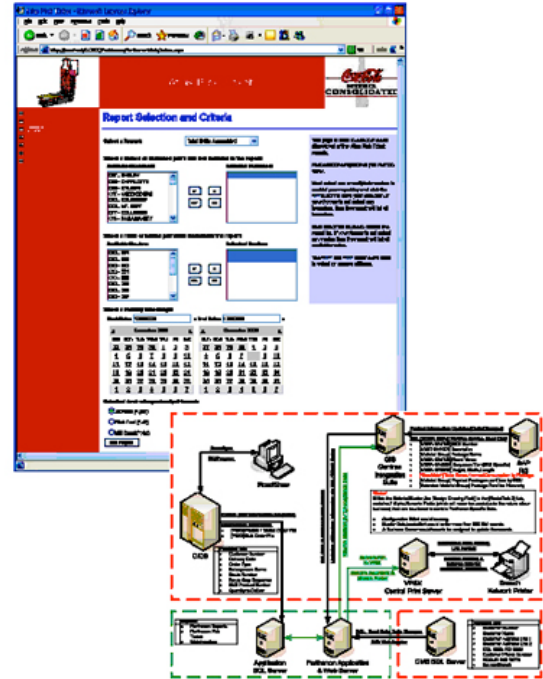
Business Needs

The overall objective of this initiative was to automate the data flow processes for pallet load builds associated to Route Delivery, and to alleviate unnecessary manual intervention. The system needed to generate Pick Tickets, which are utilized across all warehouses for the daily loading of route deliveries. The system was developed to generate these Pick Tickets based upon complex business, load and balancing rules.

Strategy

Logical Advantage performed an in-depth Discovery Process with subject matter experts from the CCBCC staff in order to document all business and technical requirements of the system. The system needed to reference product dimension and weight specifications, warehouse footprint, as well as route and order data in order to determine proper stacking of a pallet. Sixty-four unique business rules were identified in the packing, sorting and balance algorithms alone, and these algorithms were designed to be highly customizable through a series of maintenance screens and configuration settings.

We enabled Pick Tickets to be printed remotely via automated processes, as well as through on-demand printing. We designed the system to integrate with a number of existing applications, including the mainframe, telephone order system, and customer databases. Event-based dispatched route data from the corporate mainframe was routed using MQ Series and converted into XML, then imported into the system. The system was designed with Pick Area Layout Maintenance screens to reflect the physical layout of the warehouses. The system was enabled to produce a variety of reports for warehouse management, as well as real-time production and system monitoring tools. To address the client's security concerns, we integrated the system with Active Directory and added role-based security to maintain the new application.



Benefits

The system brought immediate benefit to multiple aspects of the pallet load builds and, as a result, the project resulted in extremely high Return on Investment for the client. Specific benefits included:

- Route Dispatch – The Pick Tickets are now generated centrally and dispatched to remote sites, drastically reducing dispatch time.
- Warehouse Loading – The Pick Tickets are now aware of the warehouse footprint and therefore eliminate a large amount of redundant traffic during the picking and loading process
- Pallet Load Optimization – By utilizing the algorithm, pallets are stacked more logically, reducing the number of needed pallets. Better-balanced pallets have also enhanced ease of movement through the warehouse and during route delivery, as well as providing increased safety to the employees.
- Route Delivery – Pallets are now stacked and loaded in order of route stops, and orders are never broken between pallets. These improvements allow for quicker delivery and shorter delivery route times.

About Logical Advantage

Logical Advantage is an award-winning, full-service Information Technology consulting and application outsourcing company. We are dedicated to providing high-quality, cost-effective custom software development and consulting services. We specialize in mastering complex business challenges, delivering mission critical solutions backed by our deep expertise and proficiency in Microsoft® technologies.