

Baldwin Richardson Foods *Tastes Success* with ERP Integration and LXE.

CASE STUDY

BALDWIN RICHARDSON FOODS produces bakery fillings, syrups, sauces, toppings, beverage mixes, condiments packets and other food products at a factory in Macedon, NY and distributes them from a distribution facility in nearby Williamson.



Baldwin Richardson Foods knew manual data entry and paper-based processes were not the ingredients it needed to serve its growing customer base. It wanted to automate to support major product line expansions and sales growth, but struggled to find the right recipe of mobile computing systems and bar code data collection to support its own flavor of ERP from Ross Systems.

Integration Experience Needed

"Our operations were all manual. We wanted to automate and had looked into different bar coding systems over the years, but nothing was the right fit," said Craig Czajka, the IT manager at Baldwin Richardson Foods. "Our ERP system is everything to us - it runs the whole business. We couldn't take a chance with any systems or vendors that hadn't proven they could integrate with it."

LXE had the experience, products and perspective to help Baldwin Richardson Foods transition to real-time visibility and control over raw materials, production status and inventory transfers, warehousing and distribution to customers.

"Bar coding doesn't fix things, it just makes things faster," said Czajka. "We had to fix our processes first. The knowledge LXE had about working with our Ross ERP system was very valuable to us. Some of the other vendors we looked at had started to support Ross, but they weren't there yet."

A New Recipe for Operations

LXE helped Baldwin Richardson Foods design a wireless network and mobile data collection systems to support new processes that provide real-time visibility for batch traceability, raw materials levels and finished goods inventory.

Previously, production was carefully controlled, but handling and storage of finished products relied on fork-

truck drivers using paperwork. Raw materials are delivered to "cook decks," where cooks manually recorded the contents and amounts of each ingredient used in a batch. Completed products are stacked in cases on pallets at the end of the production lines. Fork-truck drivers cruised among any of the five to seven lines running that day, looking for full pallets, which they would pick up and deliver to a staging area for transfer to Baldwin Richardson Foods' distribution facility. Paper order tickets told drivers which truck bay to deliver each pallet.

Some production runs last three days, others are completed in a shift. During production runs there were very few updates to the ERP system. One employee closes out jobs and updates the ERP system for all production lines. Backlogs developed and jobs often weren't closed until three to six days after the actual production run ended. Since there were very few updates during production, data in the ERP system was often several days behind, making it difficult to accurately manage inventory and production.

"Some of the flavorings we use have little crossover in our product lines, so they might last six months. They come in 500-pound drums, but only 10 pounds might be used in a recipe. Flavorings are very expensive - some drums cost in the thousands, so we don't want to keep extra that we don't need," said Czajka. "When the flavoring is delivered to the cook deck, the entire drum was taken out of inventory, and the system wouldn't show it as available until after the job was closed out. If it was needed for something else, we knew it probably was in stock, but we didn't really know, or know how much. We wanted to be more real time, and that's what bar coding does for us."

To protect against production stoppages from running out of ingredients, Baldwin Richardson Foods began taking full inventories every three or four months. "We had to, because we couldn't trust what was happening on the floor," said Czajka.



From Paper to Wireless

Now bar-code scanners attached to mobile LXE computers record every materials transaction, finished goods pickup, inventory transfer, and update the ERP system in real time. When phase two of the project is complete, fork-truck drivers will be recording the ingredients they deliver to cook decks on LXE VX7 vehicle-mounted computers. Cooks will then scan bar code menu sheets using MX7 handheld computers to record what they use, so materials levels are updated in real-time, and the balance is made available for use.

Ross Systems developed the screens so Baldwin Richardson Foods' VX7 and MX7 wireless computers could be used to interact with the ERP system. The MX7s have a full color 3.5-inch, 1/4 VGA display, integrated 802.11-standard radio and integrated bar code reader with 40-foot range. The VX7 vehicle-mount is a full-screen, touch screen computer with a full keyboard and peripheral scanner. Instead of following instructions from paperwork and filling out forms, activity is now directed on the screen and recorded instantly.

"The system really reduces our paperwork," said Czajka. "Now everything is auto time stamped and date stamped, with lot numbers and quantities recorded."

The production system is updated continuously, which helps manage materials, identify potential problems, and direct fork-truck drivers efficiently. Full pallets are delivered to a shrink-wrap station, where they also receive bar-code labels containing product information. Labels are scanned at loading bays to record the transfer to the shuttle truck which will carry them to the distribution facility. Scanning at loading also lets the system automatically check the order for accuracy; as a result, quantity errors that once were common now are rare.

"Now we have up-to-the-minute visibility of what cases we have available to ship," said Czajka. "Our system has so much detail now that at any time we can see who touched an order, where it is, the production quantity and all the lot information. It helps our lot tracking tremendously."

DC Improvements

Wireless data collection has also improved control and productivity at the distribution facility. Manual receiving, order picking and shipping have been replaced by bar code procedures. Bar code scanning ensures product codes and lot numbers are entered accurately. The ERP system relies on this information for FIFO inventory management. Workers are directed to pick based on expiration date, helping to prevent holding expired products in inventory. As at the produc-

tion facility, outgoing orders are scanned at the loading dock to ensure orders are complete and accurate. A shipping department operator's job had regressed into checking loads and chasing paperwork so orders could be released. Now that processes are automated, the worker is back to spending the majority of his/her time on more productive work.

"The fork truck drivers don't have to ask the shipping person where things are all the time because now they can find them on their own; they just look them up on their handhelds. That's saving a lot of time at the warehouse," said Czajka.

Production and distribution operations that used to rely on paper now rely on LXE wireless computers. Despite its drawbacks, paper never crashes. The LXE computers rarely do, even though they are used heavily throughout the day and are carried in and out of coolers, freezers and the busy production floor.

"Heavy duty was our number one requirement for mobile computers," said Czajka, "LXE is well known for being rugged, and they have a very good name in the industry. I can't imagine what things would be like if the LXE computers weren't as rugged as they are."

The ruggedness and reliability of LXE computers were key ingredients in Baldwin Richardson Foods' recipe for blending new processes and technology to improve operations. The project so far has been successful and the company expects benefits to grow as users gain experience with the system. The immediate benefits are already impressive:

- Records that were out-of-date by days are now updated in real time;
- Blind spots have been eliminated from production and inventory operations;
- Productivity is rising;
- Shipping errors have declined;
- Paperwork and the time it takes to complete it have been driven out of production, handling, warehousing and shipping operations;
- Lot tracking has improved and compliance with traceability regulations is simplified; and,
- As the system proves itself, Baldwin Richardson Foods will be looking to eliminate the two-day shut downs to take inventory at both facilities.

"The wireless computers give us the ability to fix our problems faster," said Czajka. "Now we know within a few hours if something is wrong. Before, errors might not show up for days or even weeks after production, and by that time it's hard to track down what happened. Today our orders are more accurate, and our people are working more quickly."

About LXE Inc. LXE Inc. improves supply chain performance by applying over 36 years' experience developing wireless products and solutions. From wireless computers, advanced auto-ID technologies, and wireless network infrastructure, to our award-winning customer support - LXE's easy-to-use products are as reliable as the people who install and support them.

Based in Norcross, Georgia, LXE also offers a full range of turnkey services, including radio integration, project and installation management, network design, technical support, and repair services. LXE is a wholly-owned subsidiary of EMS Technologies, Inc. (NASDAQ: ELMG), and has offices worldwide. For more information, visit www.lxe.com.

The logo for LXE Inc. features the letters "LXE" in a bold, blue, sans-serif font. A stylized blue wave or swoosh is positioned beneath the letters, extending from the left side of the 'L' towards the right.