

SAP Customer Success Story Consumer Products – Flags



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Carter Beard, VP of Manufacturing and Business Systems, Annin & Co.

AT A GLANCE

Summary

When Wal-Mart advised its suppliers to be ready to use radio frequency identification (RFID) technology by 2006, Annin & Co. – the world’s oldest and largest flag manufacturer – decided to get a head start. By implementing SAP® RFID technology and starting a successful pilot, the company is now prepared to send outbound shipments with RFID tags to meet the Wal-Mart deadline.

Web Site

www.annin.com

Key Challenges

- Comply with Wal-Mart requirement to ship merchandise with RFID tags – at low cost
- Drive value from initial RFID investment, over and above benefits of meeting Wal-Mart requirements

Project Objective

Rapidly install an RFID pilot system at a manufacturing and distribution facility that services mass retail customers

Solution and Services

SAP RFID technology and the SAP NetWeaver® platform (SAP Auto-ID Infrastructure, SAP NetWeaver Exchange Infrastructure, and SAP NetWeaver Application Server components)

Why SAP Solution

- Tight integration with existing SAP platform
- Ability to leverage existing SAP-related skill sets of Annin staff
- Assurance of a fast rollout due to preconfigured processes

Implementation Highlight

Successful implementation in only three months

Key Benefits

- Accelerated compliance with Wal-Mart requirement
- Projected payback on investment through 50% reduction in retailer chargebacks, due to increased shipping accuracy, when fully deployed

Implementation Partners

- CIBER Novasoft
- SAP Consulting

Existing Environment

SAP R/3® software, functionality now found in the mySAP™ ERP solution

Database

Microsoft SQL Server

Hardware

- Dell servers
- Alien antennas and reader
- Zebra printer

Operating System

Microsoft Windows NT

ANNIN & CO.

Leading Flag Manufacturer Implements SAP® RFID Technology for Rapid Compliance with Wal-Mart Requirement

Annin & Co. is the world’s oldest and largest flag manufacturer. Its flags have flown at every U.S. inauguration since 1849 and have gone to the moon on Apollo missions. Starting from a loft in downtown New York City – making signal flags for sailing ships in the 1820s – Annin now manufactures more than 10,000 different flags and flag accessories, and the giant retailer Wal-Mart is a major customer.

When Wal-Mart told suppliers to get ready to ship merchandise with radio frequency identification (RFID) tags, Annin – one of the many small and midsize businesses that use SAP® solutions – chose and implemented SAP RFID technology. It will mean a lot to Annin’s biggest customer, too. Although Annin was scheduled for Wal-Mart compliance in 2006, they were ready ahead of time to meet that date, thanks to the success of the SAP project.

“Annin is considered a small business, but we are now able to ship Wal-Mart outbound shipments with RFID tags,” says Carter Beard, vice president of manufacturing and business systems. “This shows Wal-Mart that we are a serious vendor and that we want to be a top-rated supplier with 100% shipment accuracy.”

Pleasing Wal-Mart was reason enough to do the pilot project at Annin's manufacturing and distribution facility that services mass retail customers. But Annin also justified it with a cash calculation.

"We did an analysis of the cost of the project and the RFID tags," Beard says. "SAP RFID technology will enable us to ship more accurately and, as a result, when fully deployed, we expect to reduce retailer chargebacks for shortages by 50%. That alone will pay for our project."

Ensuring Accuracy with SAP RFID Technology

The company also uses the SAP Auto-ID Infrastructure component of the SAP NetWeaver® platform. The component senses and controls automated signals in real time, enabling users to integrate automated communication and sensing devices – like RFID readers and printers, embedded systems, and bar code devices – with their business systems.

During the last production step – packaging – Annin puts RFID labels on the master cartons containing unit boxes. The labels comply with electronic product code standards, and they include both bar codes and human-readable information about the master carton. The cartons are then stored in another warehouse location where Annin uses SAP handling unit management capabilities to help track movement of goods from the manufacturing floor to the warehouse.

The company creates delivery-due lists every 15 minutes, and deliveries with that day's date are scheduled for picking. For full pallets, the system verifies only the serial shipment container code tag. In the case of mixed pallets, master cartons are placed on a power conveyor and travel through a "cage" that houses

a group of antennas. The antennas send out radio waves that "read" the RFID tag and send the data – such as information about product and manufacturer, along with check digits to make sure the data is correct – to a reader.

If for some reason a label can't be read, the conveyor stops automatically. When a pallet is full, a pallet label is generated and travels over the conveyor line in a plastic tote. When the

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RFID antennas register the pallet tag, the system automatically builds the case pallet hierarchy. The hierarchy is then updated by the SAP R/3® software via the handling unit. (SAP R/3 functionality is now found in the mySAP™ ERP solution.)

Innovative Solution to Reduce Costs

In their pursuit of an RFID system that ideally suits their business goals, Annin didn't feel that an investment in a full device controller management system was warranted. Instead, they innovatively leveraged their in-house skills and customized their Microsoft .NET platform to do the job.

“A device controller that manages the reader passes the information to SAP Auto-ID Infrastructure, which sits on a server in the warehouse,” says Mike Wingert of CIBER Novasoft, Annin’s implementation partner. The information is then communicated to the company’s SAP R/3 software through the SAP NetWeaver Exchange Infrastructure and SAP NetWeaver Application Server components.

“Using our RFID solution integrated with SAP R/3 software, the RFID information is compared against the product master data to make sure it’s the right item. The SAP software then triggers the goods issue and generates the advanced shipment notice and invoicing,” says Beard.

The tight integration of SAP RFID technology with SAP software already running at the company figured strongly in Annin’s decision to go the SAP route. “If you do a bolt-on solution, it’s a lot of work to get the software to communicate properly with your system,” Beard says. “SAP RFID technology was developed for SAP and is integrated into the SAP software. It was a no-brainer.”

An additional plus for Annin is the ease with which the user interface of the SAP solution can be customized and simplified for the convenience and productivity of the workers in the warehouse. As a result, the Annin warehouse staff has only to enter material numbers and quantities.

Linking Real-Time Data to Management System

The tight integration means that information captured off the RFID tags for the more than 500,000 master cartons Annin ships annually can be accessed in the management system. This is a tremendous gain for customer service, for example.

“Suppose Wal-Mart calls up and says, ‘Hey, we didn’t get this,’ or ‘We got the wrong item,’” Beard says. “Our customer service reps can pull up the information and say, ‘Here are the tag numbers and pallet license plates for the goods we sent you. Let’s check to see which pallets and cartons you received.’ With SAP RFID technology, we have a serial number for every master carton we ship out. It just leads to a lot more accuracy.”

Annin is glad it jumped the gun on Wal-Mart’s RFID compliance requirements. Already able to process 50 full pallets a day using their RFID solution, Annin sees the day not too far ahead when it will be using the technology to help it ship and track hundreds of full pallets a day.

“The pilot is working, and we’re in discussions with Wal-Mart around when to begin shipping items using RFID,” Beard says. “We wanted to be proactive, instead of sitting around worrying about how we were going to do RFID when the time came. We decided to use SAP RFID technology so we would be ahead of the curve.”

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