

Energizer and Exel Partner on RFID

The battery maker is working with its third-party logistics provider to meet Wal-Mart's mandate for RFID tagging beginning in January 2005.

By Mark Roberti

Oct. 21, 2004—Energizer Holdings has turned to its third-party logistics provider for help in meeting the RFID mandate from Wal-Mart. The \$2.2 billion battery maker is working with Exel, one of the world's largest logistics companies, to test RFID tags under real-world conditions and apply EPC tags to pallets and cases of batteries at Energizer's warehouses.

Under Wal-Mart's planned rollout of RFID, Energizer needs to supply tagged products to three of Wal-Mart's regular distribution centers and five of the retailer's cross-docking facilities in Texas in 2005. The company plans to start tagging about 20 stock keeping units (SKUs) shipped to Wal-Mart, starting in January.

Speaking at the [AIDC 100](#) conference in Stony Brook, N.Y., Dick Pocek, director of logistics at Energizer, said that Energizer does not expect to see a return on its investment in RFID for some time. So why do it?

"We have a mandate," he said. "Are we going to hit the deadline? I can't say right now. Everything we are doing is geared toward that. We have had successful testing of our product at our lab. It is a viable technology, and we will meet the requirement."

Energizer has a simple internal test center consisting of a conveyor with an RFID reader from [Matrics](#). The company places EPC tags on each side of a carton, runs it past the reader and records the read rate. Pocek said the company has some cartons that are challenging to tag. One is the carton for miniature batteries, which is too small for most standard tags. Another is the company's "dense-pack" carton, which has very little airspace between the batteries.

"We've tested a variety of different tags," said Pocek. "Avery Dennison's tag delivered the best performance, but it's also the most expensive tag. We've chosen the Class 0 tag."

The company will apply the tags at its four warehouse facilities. It is taking a "slap-and-ship" approach, where the tags are applied just before they leave the facility bound for Wal-Mart's distribution centers and cross-docks.

One reason for taking the slap-and-ship approach is that it would be difficult to tag cartons in Energizer's production facilities. The company has a seven-day lead time to fulfill an order, so there would not be a lot of time to get RFID tags, encode them, associate the specific shipment with the tag and then send the shipment with an advance shipping notice to Wal-Mart.

Poczek also said that the company does not plan to change its use of bar codes in the near term. "External bar code requirements will be dictated by the market," he said. "We have 20,000 customers worldwide. They will dictate whether they want bar code or RFID. Right now, only a small percentage wants RFID."

Exel runs three of Energizer's four warehouses, and Energizer sees Exel as a strategic partner in its RFID efforts, according to Pocek. Exel has run eight to 10 RFID pilots with other customers worldwide and has expertise that stretches across industries, including automotive and pharmaceutical manufacturing.

Exel also has a test center where Energizer can test tags under real-world conditions. Pocek said the Exel and Energizer found that they got better reads when a forklift was carrying a pallet into a truck, than when the forklift was backing up and removing the pallet from the truck. The testing with Exel also revealed that readers positioned at three contiguous dock doors interfered with one another.

"There were conflicts among signals," he said. "The reads were almost worthless. We had to tune down the antennas and readers to one set per dock door."

One of Energizer's goals is to validate tagged shipments by reading a bar code as a carton moves along a conveyor and then reading the RFID tag and confirming that the right tag was put on the right carton. "We know bar codes are nearly 100 percent accurate," Pocek said. "We'd like to verify the RFID tag against the bar code, but we haven't found a vendor with the equipment to do it at a reasonable cost."

The company expects that it will use about half a million EPC tags to start tagging its products. It would like to form a cooperative with other Exel customers to pool purchases and get volume discounts on tags. "The problem is that from all of our testing, it's clear that there isn't one tag that works with all of our products," Pocek said. "We might need three or four different tags or antenna designs," which makes it more difficult to buy tags in large volumes.

The company does not see the slap-and-ship approach as viable in the medium term. Pocek said that the goal was to meet Wal-Mart's January 2005 deadline, but that Energizer is already looking beyond that. "By June of next year, the situation may be different," Pocek said. "We don't want to slap and ship forever. We want to print our own labels and apply them. The problem is things are changing quickly. We want to meet deadline of Jan. 1 and look ahead to what we should do beyond that."

Pocek said that once RFID adoption reaches critical mass, Energizer would need to embed the RFID tag in its corrugated packaging. The company has a team working on ways to do that. "The question is, How do we take this technology and automate it in our packaging lines, so it's not touched by humans? We need to drive it back to our corrugated-packaging suppliers."

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