Industry Week's

RFID Strategy

May 10, 2005

TOMPKINS ASSOCIATES

The RFID Buzz Factor

From cold climates to cold feet

By Paul Faber, Principal
Tompkins Associates

Welcome to my first column for **IndustryWeek.com**. I am thrilled to be writing about RFID, one of the hottest and controversial technologies in our industry to come about in many years. As we move forward, I hope to include in future columns some implementation case studies to provide real-world feedback on the progress of RFID compliance. As you can imagine, many businesses are reluctant to share details that they feel reveal sensitive competitive data. Fortunately, my daily work gives me a good perspective on the industry "buzz," so I can pass along general observations culled from a variety of implementations.

In this first column, I present two implementation topics and an update on the "What does 2005 Hold for RFID" comments from the February 8 column by Chris York.

Welcome To The Great White North

One of the fundamentals of an RFID implementation plan is product compatibility testing (see RFID Strategy -- In Search Of An RFID Testing Lab, March 8, 2005). For frozen food and other cold-storage products, such a plan would naturally include testing RFID read rates within a cold environment.

I have received scattered but reliable reports that some Gen 1 tags are showing degraded read rates for products that have spent time sitting in shipping yards in Northern winter climates. We spoke to some of our tag-manufacturing representatives who claimed to see no across-the-board temperature issues, but reminded us that tag read-rates are still an evolving process. The conclusion here (for your executive action plan) is to consider both the transportation as well as the production and warehousing environment when discussing tag compatibility tests with your company's test-lab partner. If you ship to or through the North, specify cold and frost compatibility tests. If you ship through the Sunbelt, specify heat and humidity compatibility tests!

It's Not Quite As Simple As Slap-N-Ship

You see a lot of production managers squeezed by senior management to become compliant with RFID, and do so quickly and inexpensively. The problem is that these goals are not always compatible, but they do engender some creative thinking. One example I've heard concerns a product that is a case of oil in typical funnel-shaped bottles. It has a shipping label applied to the lower corner of the box. The initial, obvious solution was to upgrade the capabilities of the label printer to encode an embedded RFID tag. Unfortunately, the lower corner of the box is where all the RFID-absorbing oil is concentrated. The RFID-friendly airspace is at the upper side of the box where the bottles taper to the pointed funnel. This problem was caught in product compatibility testing, but

the moral of the story is one you've heard before (and will keep hearing for a while) -- "RFID is not exactly like barcodes." Allow sufficient room in your implementation schedule to adjust such basic production considerations as label placement and handling.

Update on Outlook for 2005

(See: RFID Strategy -- What Does 2005 Hold for RFID? February 8, 2005.) Of the customers and vendors that pass through the Tompkins Emerging Technology Center in the past two months, there has been a growing concern that companies are delaying RFID programs until they feel "good" about product standardization and availability of Gen 2 tags and hardware. This month's Baird Report confirms these observations. Baird's expectation is that Gen 2 production ramp-up will begin in the third quarter of 2005, with full production in the first quarter of 2006. In the interim, I'd like to remind you that many reader and encoder vendors (including printer/encoders) are offering software-upgradeable products to support Gen 2 and subsequent innovations on hardware that currently deals with Gen 1 tags. If you have an immediate business need for RFID, or simply desire to get into the learning curve now rather than later, discuss your hardware upgrade options with your selected RFID partners.

Paul Faber is a Principal with Raleigh, N.C.-based Tompkins Associates, a global supply-chain-solutions consulting firm. As the chief manager of RFID equipment implementation at Tompkins Emerging Technology Center, he possesses extensive experience in material handling solutions, systems integration, and installation. Paul has managed field integration and operations activities at material handling sites around the world.