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RFID eNEWS

In this issue:

RFid Creates Smart Product Tracking and Real-Time Data Management for Automotive Seat Manufacturing

A Tier-one supplier of automotive seats has adopted an RFID-based smart label system using Texas Instruments RFid tags and readers to more accurately identify and track automotive seat components and finished products throughout the manufacturing process. The real-time data management solution was developed by systems integrator Youngstown Systems Company and automated conveyor systems and software provider Transept USA. The RFID system is running on four, automotive seat manufacturing lines with more contracted for this year and in 2003.

13.56 MHz RFID smart labels are incorporated into the build ticket for each seat. The build ticket stores information about the seat (color, material, type, VIN, etc.) and links the individual bar-coded components used to assemble the seat during the manufacturing process. The small, thin, flexible RFID tags with read/write capabilities can store 2000 bits of data, more than 30 times that of low-frequency RFID systems typically used today. As the seat moves down the automated assembly conveyor system, each component is scanned into the system and the information is

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written to the RFID tag, which acts like a real-time data carrier. By storing the data on the tag during manufacturing, it reduces the processing capacity and storage requirements of the manufacturer's centralized database system and also speeds production. In addition, RFID aids in quality assurance testing and repair. When a seat is completed, the RFID tag is scanned at one of six test stations and the results are written to the build ticket and communicated to the host computer system. Items diverted to repair are easily tracked by the system and information about the nature of the repair is carried with the seat.

The returnable shipping pallets also contain an RFID smart label. Each pallet holds an entire seating package for a car. As each seat is completed, the information on the build tickets is transcribed to the RFID tag on the pallet via an RFID reader inside the conveyor so the pallet "knows" it has all of the seats in the right line-up. This information is communicated to the central plant computer to ensure that the seats will be shipped correctly to their OEM manufacturing plant.

TI is also working with automotive OEMs on using RFID for item-level identification and tracking of seat components. RFID brings dramatic benefits not only to the manufacturing process; it also makes product warranty and recalls more effective. Automotive manufacturers are required to maintain a database about safety items in the seat for 10 years. An example is the Passenger Occupant Detection System (PODS). By storing information such as the serial number, torque values, calibration data, operator information, and installation method in the tag's memory, it links the information

directly to the item and can automatically be retrieved from the finished seat without line-of-sight using an RFID reader. RFID reduces the labor-intensive process of pulling apart the seat to read a bar code tag in the event of a product recall or for product warranties. It also potentially limits manufacturer liability during an accident by providing the data that the product was manufactured and installed by the OEM. RFID can also help manufacturers more quickly determine specific products that are being recalled.

TI Highlights Intelligent RFID Retail Supply Chain at Frontline Solutions' Supply Chain Week 2002

As an exhibitor at the Frontline Solutions Show, September 24-26, TI-RFid demonstrated the power of its RFID 13.56 MHz smart label technology across the entire integrated supply chain. At an interactive display, TI showed how RFID is used for item-level tracking at points along the supply chain, including manufacturing, distribution, in retail stores, and for point-of-sale transactions.

TI-RFid Systems partner, Databrokers, Inc., a systems integrator, designed and implemented the wireless inventory management systems demonstrated in TI's booth. A Zebra Technologies printer was used to print and program an RFID item label to tag a garment. Snyder Electronics developed both the distribution center tunnel reader and the shelf reader system used to

provide real-time inventory of items on a store shelf. Databrokers also showed an RFID wireless payment check-out system.

Additional partners demonstrated other applications of TI-RFid's technology. The 3M Safety and Security Systems Division showed its RFID Smart Solutions, which are used to identify, track, and manage items in environments such as legal, accounting, insurance, mortgage, and banking, where the ability to locate files or specific documents is integral to business operations. 3M also demonstrated its complete RFID-based Digital ID Collection Management System, currently used in more than 60 libraries around the world. Dynasys Technologies, an authorized distributor of TI-RFid products, showed its extensive line of high and low frequency automatic data collection equipment distributed throughout the United States.

At the Frontline Solutions RFID Summit, Bill Allen, marketing communications manager of TI-RFid and Bruce Eckfeldt, engagement manager for IconNicholson, a systems integrator, presented a case study on the advances TI-RFid has made in bringing 13.56 MHz RFID contactless smart tag technology to retailers. Focusing on the implementation of RFID technology in Prada's New York Epicenter, the speakers teamed up to discuss how an RFID-based system can accurately identify and track Prada merchandise and staff, creating a seamless shopping experience for customers. They also discussed how the technology and success of the Prada model can be applied to other retail functions, including front-end cashless payment, backroom supply chain operations, and customer loyalty programs.

TI Access Control Products Shown at Largest International Security Tradeshow

The European market had their first opportunity to see TI-RFid's new 13.56 MHz card and reader solutions for access control at this year's Security show in Essen, Germany. The show was held October 8 – 11 and boasted over 29,000 attendees. TI was an exhibitor at Essen, which is held every two years and is considered the largest international security tradeshow. This year's show had a visitor increase of about nine percent over the last show in 2000. Bill Allen, marketing communications manager, TI-RFid said, "The show was highly successful in both introducing our products and learning about the security market in Europe."

RFID Improves Access Control and Data Management at International Exhibition and Conference

The annual European Congress for Radiologists (ECR) in Vienna attracts more than 12,000 visitors from all over the world. Using TI-RFid's 13.56 MHz technology, Vienna-based systems integrator Bruck Technologies developed an innovative solution for fast and easy contactless access to the various ECR exhibits and conferences, while automatically gathering valuable

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data on visitors for exhibitors and organizers.

As part of the registration process, attendees received a nametag embedded with an RFID smart label tag. As visitors roamed the show floor, their badges were electronically read by TI-RFid readers located at strategic points throughout the conference halls and exhibition areas, granting immediate access and saving time by eliminating lines and the need to swipe access cards.

The data was read from the badges and transmitted to a host computer for further processing for use by organizers and exhibitors. Event organizers automatically collected, processed, and analyzed attendee data and disseminated it in electronic form to provide exhibitors with higher quality information allowing them to quickly evaluate the success of their exhibit. The technology also reduced administrative costs by saving time and decreasing staffing.

An RFID tag enables exhibitors to gather accurate information about visitors at their booth, including monitoring who enters and exits, how often, when, and the duration of the visit. Because of the speed and convenience of RFID technology, exhibitors can effortlessly organize leads, follow-up with inquiries, and improve promotional activities.

Labatt Promotes Budweiser at Charity Event with TI-RFid

In looking for new and innovative ways to promote its Budweiser product in Canada, Labatt Brewing Company, one of Canada's largest and oldest breweries, recently used RFID technology to provide local community support in a fundraising charity golf tournament. Labatt, along with R. Moroz Limited, an RFID solutions provider and Canadian distributor of Texas Instruments RFid Systems, and FEIG Electronics, came up with the concept for using RFID technology for the tournament.

Labatt donated a Budweiser glass beer mug to each of the 225 registered golfers, which were distributed upon arrival at the check-in table. A TI high frequency ISO 15693 smart label inlay containing a unique identification number was placed onto the bottom of each mug. As part of the registration process, a digital picture of each golfer was taken and saved in an Access database file with the golfer's name and a pre-assigned barcode number. The golfer's information was then scanned and linked to the smart label inlay and the unique identification number. This process ensured that the owner of each beer mug with an RFID inlay was paired with the correct digital picture, name, barcode identification, and chance to randomly win a prize.

At the reception following the tournament, when each golfer approached the bar and placed his or her mug on the FEIG high frequency pad reader located on the bar counter, the bartender filled the mug with a beverage. The reader read the smart label inlay on the mug and all of the golfer's information, including picture, name, prize won, and a short promotional phrase, such as "Bob, thank you for your support!" or "Bob, this Bud's for you!" was transmitted to a big screen in the dining area of the clubhouse for everyone to view.
In addition, the golfers went home with their

Budweiser mug, which promoted Labatt's Budweiser beer as well as told a unique RFID story.

With the success of this event, Labatt is now considering other ways it can use RFID technology to attract consumers. Labatt mentioned it was very impressed with the capabilities of RFID and the "limitless" creative ways this technology can be incorporated into its brand awareness, customer loyalty, sponsorship events, and community services programs.

Calendar of Events

TI-RFid Systems will participate in the following upcoming shows and conferences:

Cartes 2002
November 5-7, 2002
Paris, France

EXPOSEC 2002
November 5-7, 2002
Sao Paulo, Brazil

Toegang+Controle 2002
November 12-13, 2002
Veldhoven, Netherland

Editor's Comments

eNEWS will be distributed via email on a monthly basis to keep you abreast of product and business highlights of Texas Instruments Radio Frequency Identification Systems.

I welcome your feedback. Send your email to: billallen@ti.com.

Regards,
Bill Allen
Editor

Erratum

eNews Issue No. 12 listed Stuart Nicholls' (SCN Containers) phone number as 0854 601 5035. The correct phone number is 0845 601 5035. International inquiries: +44 845 601 5035.

Subscription Information

To unsubscribe, change an email address, or add a new subscriber, send an email to Isabel Roco at isabelroco@ti.com.

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