

RFID READER

Volume 1, Issue 5
September, 2006



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To request a copy of this newsletter by mail or by email contact:

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Testing Process—Dock Door

This month’s testing process spotlight is on the dock door, or pallet testing. When the lab starts its testing for the product, they carry out a series of static tests with the Avery Dennison sweet-spot tester. The optimal location for the tag to be placed can then be determined. The lab then collects the requested tag types, and places them on the pallet of product accordingly. The temperature and humidity are measured and the desired readers are turned on where a spectrum analysis is recorded of the read



field. The pallet is then taken through a series of 30 runs to achieve a random distribution. Up to 5 different tag types are tested depending on the company preference, and the data is collected for analysis. When the product is being analyzed, the lab looks at it from a simple *read or misread* view. Meaning, they don't analyze how many times the tags read in the field, but whether or not the tag showed up at all. The test order form is then completed, including all the percentages, in where the company decides the proper actions. For more information contact Justin Patton at jpatton@walton.uark.edu.

Impinj Now in the Lab

Impinj recently donated two Speedway™ UHF Gen 2 readers to the Research Center. Impinj is a semiconductor and RFID company whose patented Self-Adaptive Silicon® technology enables its two business lines: high performance RFID products and semiconductor intellectual property. The Speedway reader was equipped with a near-field antenna, designed for the short-range reading of RFID-tagged products, including those high in liquid and metallic content. (The antenna attaches to the reader like any RFID antenna.)

This capability will allow the lab to begin researching how the reading of such products has been improved through

the availability of these specialized products.



Impinj also donated a variety of its Monza™ powered tags for use in this testing. These small form factor tags were designed specifically for high performance in near-field applications. The Research Center is pleased to add Impinj products to its company testing catalog, which will enable the production of a more comprehensive report. For more information about Impinj, visit www.impinj.com.

EPCSolutions Software



slap and ship systems.

EPCSolutions, Inc., has recently sent the lab new middleware that will help businesses network their RFID devices, print labels, encode tags, verify tags, and help with reports. epcSolutions, Inc., is a middleware provider behind the SensorOS which is the heart of their RFID solution. The new software labeled RFIDTagManager is designed around the SensorOS which promotes “ease of use” of RFID

The “ease of use” is evident through its wizard based setup which will guide the user through each step required to setup their devices. epcSolutions is offering three levels of their product based on your specific needs: Basic, Professional, and the Professional Plus editions. Evaluation copies are available for free at the lab, ask for one the next time you visit.

Student Profile

Joseph Ray



Equipment and Product Tester, and Research Developer at the RFID Research Center at the University of Arkansas, Joseph grew up in Little Rock where he has worked since the age of 15. Being a people person, and having an outgoing personality, Joseph began working at Izzy’s Restaurant, where he worked through his senior year in high school. Now attending the University of Arkansas, and having one more year to complete his degree, Joseph will graduate in May of 2007 with a B.S. in Finance and a minor in Marketing.

By working since his freshman year in college at BestBuy, Joseph has acquired skills that involve daily interaction with client. Working as a product specialist, he has developed his communication and customer service skills that were required. He also says that working in a corporate environment such as BestBuy gives a different view of the business that helped him grow as an employee.

Now working at the RFID lab for over a year, Joseph has shown an interest in learning about the technology as it has evolved since the early stages of its implementation, and has gained knowledge that only comes through experience.

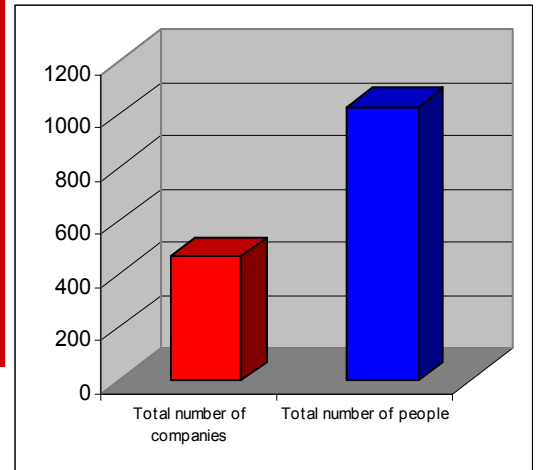
To contact Joseph email Justin at jpatton@walton.uark.edu or Joseph at jaray@uark.edu.

Lab Count Update

Lab visitors as of September 1, 2006

Total number of people: 1030

Total number of companies: 470



Sealed Air's: Turbo Tag

Turbo Tag™ is a newly developed high frequency RFID temperature logging solution aimed at the fresh meat and produce industries. This solution was developed by Sealed Air Corporation’s Cryovac Packaging Division. The temperature monitoring tags are a modified version of the Variosens® label from KSW-Microtec. Tag design modifications include a longer lasting battery from Thin Battery Technologies, and a stiffer casing, and post-production calibration for greater time and temperature measurement accuracy. The Session Manager software manager has many innovative features such as a shelf life calculator that is based on the measured temperature data and a user-defined activation energy value.

In combination with the Session Manager software, Sealed Air has added more security and ease of use to the tags by adapting a small amount of the data storage capacity for user-defined monitoring parameters. This reduction in storage takes the available data points from 720 to 702. The solution also comes with a handheld unit that can read, analyze and store information from up to 99 tags, transmitting wirelessly via a wireless infrared port to a computer or a small printer unit. When transmitted to a computer, the information is automatically imported into the Session Manager software. Along with this solution, a recycling mailer system for tags, including an optional UHF “piggyback” tag for EPC-based tracking, is also available.



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Sponsor Highlight—Intel Solution Services

In this month’s sponsor highlight section of the newsletter we take a look at Intel and how their company is moving forward with RFID through their worldwide consulting organization, Intel® Solution Services.

Intel® Solution Service’s began working on RFID with a large Arkansas-based food processing company on a year long project that helped them become familiar with the expectations, implementations, and value-add of RFID technology. Since then, Intel’s RFID interest has included close relationships across many industry sectors including custom closed loop applications. In Fast Moving Consumer Goods (FMCG), Intel, through its consulting organization Intel® Solution Services, has collaborated with METRO Group in business process optimization projects assisting with the adoption of RFID technology from METRO’s Innovation Center to their Distribution Centers and stores in Europe. Intel’s RFID experience and engagements have touched all aspects of Container Packaged Goods supply chain as well as other vertical markets including Transportation & Logistics, Overseas Shipping, Entertainment & Media, Manufacturing, Utilities, Oil & Gas, and Healthcare. Their practical experience ranges from Business Case development up to physical implementation including network design. Intel’s most recent RFID collaboration is with AT&T. Having worked with AT&T on a number of projects in the past, and understanding how both companies want to drive such a valuable future technology to aid adoption, Intel knew that they wanted to collaborate with



AT&T to provide a solution that could do exactly that. The two companies are working together to offer a combination of technical expertise and business experience to help companies of any size expand their RFID pilots to full-scale production implementations or begin their RFID journey.

Intel Solution Services supports AT&T’s end-to-end managed RFID service. This network solution incorporates end-to-end services for RFID networks across diverse hardware platforms, operating systems, applications, and databases. A five step approach allows clients to implement RFID at whatever level they need. The steps are: assessing the client’s business process to determine how RFID can drive ROI, selecting tags and readers, testing the tags and readers, implementing the solution, and then managing it end-to-end. The selection and testing of (as part of the RFID edge infrastructure and technical testing) is where the University of Arkansas RFID Research Center becomes involved. Being a strategic U of A lab sponsor enables Intel to send product for testing in the lab’s facilities to more rapidly discover unexpected phenomena and help determine the proper actions for those steps. What makes this joint service unique is its pay-as-you-go feature. Clients can now have full access to RFID solutions in a unique on-demand hosting service, in which the customer pays for the service based on capacity used. This will allow a company to begin implementation without buying servers, storage, and managed operating systems, thereby being able to take advantage of RFID technology.

As part of the U of A RFID Research Center’s mission, we will continue to collaborate and work with all business processes and applications that drive RFID to further implementation of small to large businesses.

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Company RFID Training

The University of Arkansas now offers Company Training at the U of A RFID Lab. The 2-day training session is limited to 1 company per session and is designed to provide an introduction to RFID via a hands-on work with a company's product. So, bring your product and a minimum of 5 people for hands-on, company specific training. For more information contact Justin Patton at:

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For more information about becoming a sponsor of the RFID Research Center, contact:

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