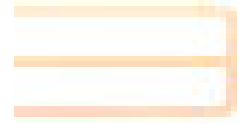


# RFID READER



Volume 1, Issue 2

April, 2006

### April Events:

- CELDi Conference, Orlando, FL. April 17 - 18
- Wal\*Mart supplier Forum, Dallas TX. April 25-26



### Inside this issue:

Symbol Strategic Sponsor	2
Myths and Realities of RFID	2
Avery Dennison Cube	2
Did you know.....	2
UofA at RFID World	3
Student Profile	3
Lab Sponsors	4

To request a copy of this newsletter by mail or email please contact: RFID @walton.uark.edu



## UofA RFID Research Center Opens Training Facility For Company Testing

The University of Arkansas has opened a further aspect of its research lab to companies interested in implementing RFID. David Cromhout oversees all company training and says “this lab is an opportunity for a University to do what it does best: educate. We need to disseminate the knowledge and skills being honed in here to not only assist individual companies onto the curve, but also to dispel many of the myths and misconceptions surrounding the CPG side of RFID.”

The lab conducts personalized training for each company, during which an insightful, tailored understanding of RFID is conveyed. Companies will be proficient in understanding

not only the main concepts of RFID and how it applies to their business case, but some of the finer technical details behind deployment options and integration.

Training will cover various aspects including product “sweet-spot” discovery, dock door portal and conveyor portal deployment and optimization, configuration, and middleware.

The training is an opportunity to broaden knowledge and understanding of RFID for businesses regardless of their previous exposure. The RFID Research Center’s training personal will guide people of differing levels of knowledge through the main principles. If you are interested in any of the

training conducted by the RFID research lab please contact David at:

dcromhout@enr.uark.edu

**KSW Microtec  
SMART TAGS  
Testing Now  
Being Done At RFID  
Research Center**

KSW Microtec is setting new standards with several of its products including, but not limited to Smart Active Label products, RFID- and transponder technology, advanced chip development activities, and the novel and environmentally friendly battery technology.

We are currently using Smart Tags in the lab for temperature testing. The results of which have been extremely useful and given much more insight into the supply chain. Produce can be tracked and its exact temperature recorded, ensuring freshness as it reaches the consumer.



## Symbol Now Strategic Sponsor

We would like to welcome Symbol Technologies as the newest strategic sponsor of the RFID Research Center.

Symbol Technologies, an enterprise mobility company, integrates advanced data capture products, RFID technology, mobile computing platforms, wireless infrastructure, mobility software, and services into solutions that create competitive advantages for the world's leading companies.

Symbol has already provided the research center with numerous pieces of equipment such as readers and antenna, and is now helping to integrate more of this equipment into lab testing. The University of Arkansas RFID lab and Symbol will collaborate on research projects, and use the latest technology to uncover new milestones in the RFID industry. Symbol's expertise will greatly benefit the University and the lab's ability to make first-rate progress in R&D of RFID.



We look forward to working with this outstanding company.

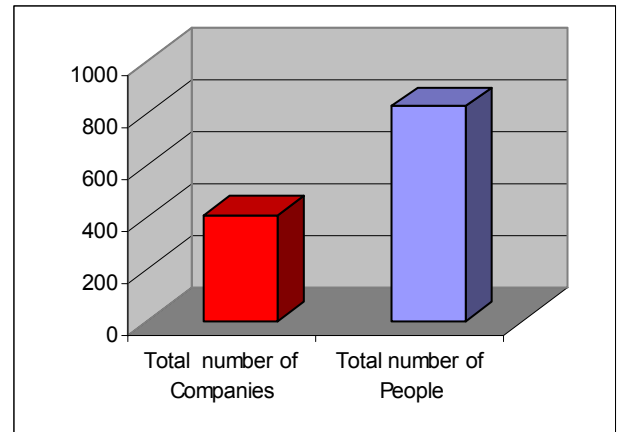
## Did you know.....

Since its opening in June 2005, the University of Arkansas RFID research lab has had more than 800 visitors from over 400 companies.....

Actual numbers as of 4/1/06

Companies: 408

People: 828



## New and Improved Avery Dennison Testing Cube



Avery Dennison has recently donated their full scale "testing cube" for sweet-spot testing purposes. With this new testing cube the lab can now measure many of the factors that determine tag placement optimization. Levels of attenuation can also be measured to insure tag placement is optimized.

Avery Dennison, primarily a high volume, low cost RFID manufacturer of tag inlays for Gen-1 and Gen-2, have developed a static tester for tag placement.

This system will allow the

measurement of sensitivity on individual tags. The linear antenna calibrates a uniform tag through all different frequency in the range. A graph is then displayed showing the prominent position for a particular tag on a particular box product. This is one of the methods used for tag optimization. The University of Arkansas will use this technology to insure optimal tag placement for any company who conducts testing with us.



## 'Myths and Realities of RFID' White Paper

'Myths and Realities of RFID' published by Bill Hardgrave and Robert Miller discusses 10 different myths and realities of RFID. The white paper discusses controversial issues such as "Tags contain information about anything and everything, including sensitive personal information" and "RFID can be used to continuously track people/objects wherever they go". The paper goes on to discuss what is 'myth' and what is 'reality' regarding each of these 10 issues while also giving a detailed overview of RFID, how it is used, who uses it, and in what regard it is being used. To download the white paper please visit:

<http://itri.uark.edu/>



**RFID RESEARCH CENTER**  
Information Technology Research Institute

**Sam M. Walton  
College of Business**

**RFID Research Center**

Director: Dr. Bill Hardgrave  
Phone: (479) 575-6099  
Email: bhardgrave@walton.uark.edu

**RFID Lab**

2700 S. Armstrong Road  
Dock 28  
Fayetteville, AR 72701  
Lab Manager: Justin Patton  
Phone: (479) 718-3650  
Cell: (479) 236-5890  
Email: jpatton@walton.uark.edu

<http://itri.uark.edu/rfid>

# U of A at RFID WORLD Conference

Dr. Bill Hardgrave (Center Director), and lab personnel Justin Patton (Lab Manager), David Cromhout (Training Manager) and Jeff Riemenschneider (Testing Manager) attended the 4th Annual RFID WORLD conference in Dallas, Texas last month.

The conference demonstrated an overall maturing in the industry. Direction and focus that have previously been lacking in the Consumer Packaged Goods -RFID arena was more prevalent this year. As vendors have gained experience they have applied those lessons learned, and as end-users have gained knowledge they've started asking more of the right questions to these vendors.

All in all the conference provided a

more applicable view of what the future holds for this sector of the technology.

There is also more preoccupation with RFID-generated data, and the analysis and management thereof, than has been evident in the past. Most of the technology-acceptance hurdles seem to have been cleared.

“There was an impressive display of technology,” said Dr. Hardgrave. “The integration of RFID technologies into both manufacturing and CPG industries has come a long way in the past year.”

## Student Profile



**Rudy Ledbetter**

A Tester of the RFID Research Center, Rudy Ledbetter, was born in Memphis, TN in 1982. Rudy's love for mathematics and analytical problem solving led him to obtain a Bachelors of Science in Applied Mathematics with minors in Accounting and Interdisciplinary Studies from the University of Central Arkansas. His thirst for en-

riching his mind did not end at UCA. Rudy is currently pursuing a Masters degree from the University of Arkansas in Transportation and Logistics Management.

While at UCA, Rudy formed “Serving Central Arkansas Together,” a recognized student organization, and served as Executive Vice-President of Operations for the Student Government Association. Rudy chaired Presidential Candidate General Wesley Clark's '04 UCA speaking engagement, as well as voter registration for Mi-

chael Moore and Anne Coulter's speaking events. Rudy also planned UCA's Walk Against Cancer in honor of UCA President Hardin as well as bring Jon Heder (Napoleon Dynamite) to speak at UCA. Through his work with SCAT and SGA, Rudy won UCA Outstanding University Student and was named Who's Who in American Colleges and Universities.

Rudy graduates with a Masters in Transportation and Logistics Management in July 2006. He has an innate forte to delve for solutions and be a leader in today's entrepre-

neur centered world. Rudy loves to help people, in any way. He thinks the best thing in life to be is someone who has positively impacted others, which is what he wants to be known as. To see Rudy's résumé, and other lab employees résumés please visit

www.<http://itri.uark.edu/>.com or email the Lab [rfid@walton.uark.edu](mailto:rfid@walton.uark.edu)

---

## *Strategic Sponsors*

ACNielsen  
Cisco-Eagle, Inc.  
Deloitte Consulting, LLP  
Hytrol Conveyor Co., Inc.  
Intel Corp.  
Intel Solution Services  
Microsoft Corporation  
Symbol Technologies

## *Business Sponsors*

ABF Freight System, Inc.  
Campbell Soup Co.  
E. & J. Gallo Winery  
Hanna's Candle Co.  
JBHunt Transport Services, Inc.  
Tyson Foods, Inc.  
Wal-Mart Stores, Inc.

## *Lab Sponsors*

Alien Technology  
Avery-Dennison  
epcSolutions, Inc.  
Hugg & Hall  
IBM, Inc.  
Loftware  
Markem  
Moore Wallace  
OATSystems, Inc.  
Omron Electronics LLC  
Paxar  
Printronic  
RFID Global Solution, Inc.  
RFID Journal  
ThingMagic  
Weber Marking Systems  
UPM Rafsec  
Zebra Technologies Corp.  
Zero Mountain

---

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

Dr. Bill Hardgrave  
Director, RFID Research Center  
Sam M. Walton College of Business  
University of Arkansas  
Fayetteville, AR 72701  
[bhardgrave@walton.uark.edu](mailto:bhardgrave@walton.uark.edu)  
(479) 575-6099