



Wilmington Section ISA  
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Wilmington Section ISA

ISA—The Instrumentation, Systems, and Automation Society



Check out our web page at <http://www.isa.org/community/wilmi>

## Wilmington ISA - Section Event

### Section Meeting

**"Time of Flight Level Technologies  
Using Ultrasonic and Radar Continuous Level  
Measurement"**

Presented by Jack Roushey  
Sales Manager Endress + Hauser

**5:30 pm Tuesday, October 21, 2003**

**Applied Control Engineering**

The Mill at White Clay Creek  
700 Creek View Road  
Newark, DE 19711

Directions to ACE at [www.ace-net.com](http://www.ace-net.com)

### ISA SENSOR

Published By  
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# The Sensor

October 2003

## October Event:

### "Time of Flight Level Technologies: Using Ultrasonic and Radar for Continuous Level Measurement"

When continuous level measurement of solids and liquids is essential to a process, the modern Time of Flight (TOF) principle provides cost effective, reliable solutions. In industrial settings around the world, TOF technologies – microwave or radar, ultrasonic, or microimpulse – are outperforming the "classics", including capacitive and hydrostatic measurement, displacement or float systems and weighing.

We will review the theoretical and practical application of these various technologies, as compared to each other as well as the more traditional level measurement technologies.

#### Presented by:

**Jack Roushey**  
Inside Sales Manager  
Endress + Hauser Northeast  
Regional Center

Jack has spent the last 28 years in the process measurement industry involved a variety of roles and products. His level experience includes hydrostatic level at Fischer & Porter, CE Taylor and Brooks Instrument, and capacitive and TOF level measurement at Drexelbrook Instruments and Endress + Hauser.

## FUTUREEVENTs

**November 18, 2003**  
**Flow Meters**

**October 21-23 - ISA Expo**  
**Houston, Texas**

**December**  
**No Section Meeting, enjoy**  
**the Holiday**

**January 27, 2004**  
**IEEE Joint Meeting**

He has been involved in product development, product marketing, outside sales and inside sales, as well as overseeing corporate training development and implementation.

Jack received his Bachelor of Science in Marketing from Eastern University in St. Davids, PA.

**Please let Joe Baker know if you plan to come at**  
**joe.baker@us.endress.com**

Hosted by:  
**Applied Control Engineering**  
**Directions: www.ace-net.com**

## Getting to Know your Executive Committee:

**VP/Sec. Ken Lawrence**

Ken is the Account Manager at Applied Control Engineering (ACE) for DuPont, INVISTA (formerly DuPont Interiors & Textiles), Sunoco, and Conectiv to name the larger accounts.

Ken received his BSEE degree from Northeastern University and started his career as a controls engineer for Modicon back in 1979 with the Systems Integration division. He left Modicon in 1990 as Manager of Sales Support when Modicon was sold.

Over the last 12 years, Ken has held manager positions in sales and marketing with US DATA Corp., Control Solutions, Inc and SI Handling Systems. His control engineering and technology background in PLC's, SCADA and DCS systems compliments his selling of control automation and technology information solutions to his customers.

He enjoys serving in the local engineering societies and is a current member of ISA, SME and ISPE. Last year he was president of the SME Lehigh Valley Chapter.

He believes in God and is active in his church as director of the Wednesday night boy's club program.

He celebrated 28 years of marriage with his wife this year and has three grown children and three grandchildren.

## September 23rd Meeting Notes submitted by Tammy Mukoda

Speaker: Glen Restivo, Manager of Rockwell Automation

Title: "Typical Plant Operation: An S88 Approach Using Batch Modules"

Glenn Restivo is a recognized expert in the application of computer systems in the Pharmaceutical and Biotechnology industry to meet FDA regulations pertaining to use of electronic signatures. Glenn started the presentation with a brief overview of Rockwell Automation and their offerings.

Glenn described the challenges in collecting all of the appropriate data to assemble a final batch record. He highlighted the areas across the plant that should have a means to collect data. Manufacturing sites need to not only collect data for the manufacturing process, but also for the inbound warehouse, post process and final distribution areas. This is required to trace a final product back to the source of raw materials.

Assembling the appropriate data from all the manual, semi-automatic and automatic processes is difficult. Glenn explains how Rockwell's RS Batch offers an approach for accurately collecting the appropriate data from all areas of a manufacturing site and assembling in a final batch record for review. The RS Batch also offers electronic procedures, electronic logs and electronic signatures.

Glenn's presentation provided an informative overview of records collection for a typical process.

**Table top display was provided by Pro Quip.** On display were Valtek valves and other Flowserve instrumentation. Mike Piontek gave a quick overview of the display. He informed the section that Flowserve is offering a valve training course November 3-7 at Bothwyn, PA.

**Thank you Pro Quip!**

### **President's corner Nick Sands**

As fall arrives people will gather in Houston for the national ISA Expo. The Expo is both a technical conference and a world-class process control vendor exhibition. The technical portion of the Expo includes training and a technical conference sponsored by the ISA divisions, where the newest technologies and implementations are presented. Also included in the events surrounding the Expo is the Council of Delegates meeting, where section representatives vote on issues that affect the entire society.

This year I will attend the Council of Delegates meeting, the President's meeting and the Expo. Attending the President's meeting changes your view of ISA forever. Until I went to my first president's meeting in the spring, my view of ISA was a very local one. The section is the focal point for most of the activities. The people I know are in our section and the companies I know are represented in our section.

The President's meeting showed me the bigger picture. Leaders from dozens of sections, from literally around the world, gathered and discussed many issues.

The Divisions, the technical communities within ISA, had meetings where they discussed papers and shows and newsletters. The District leaders, representing the sections through regions, were there discussing financial issues and membership issues.

The Departments, the parts of the ISA national organization devoted to education and training and standards, were there meeting on all of the many topics it takes to run a department. And the executive board was there, the governing body of the society.

One of the highlights of the meeting, for me, was to watch some of the Standard and Practices committees in action, like the SP84 committee as they worked out details of the updated standards on safety instrumented systems. It occurred to me that one day I might be on one of these committees that set standards.

About the middle of October I will get the opportunity to attend another President's meeting, my first Council of Delegates meeting, and of course the Expo.

Of Course many from our section have attended these meetings over the past 55 years. The future is wide open though. It could be you representing our section next year or presenting a paper at a future Expo, or leading a SP committee for some future update of a standard. Our section has a lot to offer to the larger society, through you.

### **ISA EXPO 2003 21-23 October · Reliant Center · Houston, TX**

Thought provoking ideas, the latest automation and control technologies and real world expertise await you at ISA EXPO 2003. Featuring some 600 exhibitors, ISA EXPO hosts thousands of professionals from over 70 countries. Discover the applications and solutions today that will open doors tomorrow.

**Through educational programs, training sessions and state-of-the-art technologies, ISA EXPO 2003 provides the tools you need to get ahead and stay ahead:**

Special Forums & Daily Keynotes

ISA EXPO 2003 Technical Conference

ISA's Emerging Technologies Conference

Industrial Network Security Symposium

R&D Updates

Automation Connections

ISA EXPO 2003 Exhibition featuring specialty product and technology pavilions spotlighting Industrial Communications, Bluetooth Wireless, AutomationIT and Sensors.

This year the Expo is featuring the largest and most comprehensive products and services exhibition, two world-class technical conferences, and an unparalleled continuing education and training programs.

**Book Review: Nick Sands Automation at 20,000 Feet Bottom Line Automation by Peter Martin**

Dr. Martin, of Invensys - Foxboro, presents a very high level view of trends in process control. This view, the result of decades of reviews with many professionals and executives, states that changes in process control and IT technology, quality methods, and accounting methods have converged on a new state of process automation that focuses on the bottom line.

This alignment allows dynamic performance measures, enabled by technology, to drive quality and cost improvements.

The technology component, has progressively developed through three stage; technology for manufacturing, technology for technology, and technology for the bottom line. In the manufacturing phase, technology was developed to enable production. Then beginning in the 70's was a phase where technology was implemented for the sake of technology more than for the benefit of manufacturing. Finally, we are at the very beginning of the third phase, where technology is used to improve the bottom line.

Similarly, the author describes three stages in quality systems; quality for manufacturing, quality for technology, and quality for the bottom line. The first stage focused on improving products and processes with quality systems. Beginning in the 80's the focus shifted to the use of statistical methods, where at times the statistics became more important than the process. Now we are entering a new phase where quality systems are focused on the bottom line, as in the six sigma approach.

In a remarkable symmetry, there have been three stages in manufacturing accounting; cost accounting & manufacturing, cost management and manufacturing, and accounting for the bottom line. Cost accounting is focused on cost/pound metrics. Cost management or activity based costing, assigns the cost of functions to products and has been used to remove cost from many manufacturing companies.

The stage we are entering is accounting for the bottom line, where dynamic performance measures are defined and used to support activity based management.

The key message is really about dynamic performance measures. Careful definition and implementation of DPMs drive improvement. The several case studies provide some examples of DPMs. One key attribute of DPMs, is that they should provide information to people that can make changes within a time frame that they can make changes. So a weekly metric is not a good choice of DPM for a shift operator. Also, recognition for implementing a successful DPM should be given to both the implementation team and continue to the people that support the ongoing implementation of the DPM. There should also be very few DPMs.

Overall, I think this book was interesting because of the higher level view of process control and for the case studies of successful DPMs. At 158 pages and \$49 (member price), and available from ISA Press, this , Bottom Line Automation is a good book to borrow.

**Please update your email!**

Starting in May 2004, we would like to move to an electronic Sensor version for members that have email. We will still mail out to those members that request a hard copy.

If you find you are not receiving email flyers from us, then please go onto the WISA page, click on email list and follow the directions to edit your email address.