



Wilmington Delaware Section

The Sensor February 2008

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Upcoming Events

- Feb 26 Section Meeting at ACE
March 25 Section Meeting at ACE
April 22 Shrimp Boil at ACE
May 27 Section Meeting at ACE
June 24 WISA Picnic at Chestnut Run

February 26, 2008
Patch Management
by Matt Murphy of DuPont
5:30 PM at ACE in Newark

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Using Automatic Updates for Microsoft Patch Management

Matt Murphy of DuPont

Microsoft Security updates are a required to address security vulnerabilities in Microsoft software. In order to effectively manage the system, security updates must be installed in a timely manner, but at the same time they must be controlled such that their effects on the system are understood before they are broadly deployed. The initial qualification of the patches is done by the user or vendor on a test system.

For systems with a minimal number of nodes, it is not a large task to copy the qualified patches to removable media and manually load the updates on each node. Having a method to broadly deliver the patches to the Process Control Network (PCN) nodes after they have been qualified by is of big benefit to the end users with large systems containing multiple nodes. This session will present a solution that allows utilization of standard utilities to expedite the deployment of hot fixes to multiple nodes.

WISA Welcomes New Members!
Michael Russo
WISA Welcomes New Members!

President's Message

By Bill Balascio

I would like to know – what interests you? Is there some topic that you find fascinating and cannot get enough information about? The Wilmington Section of ISA has held a lot of programs over the past few years that have concentrated on certain underlying themes. The two that I can readily think of are wireless and safety.

Is that a bad thing? Perhaps, but I personally don't think that is the case. I think that we are being responsive and responsible.

On the responsible end of the spectrum, few in our industry would argue that there is any subject more important than safety. We have a responsibility to ourselves, our families, our coworkers, and the public at large that cannot and should not be ignored. One of the best ways of living up to that responsibility is to be aware of the standards and best practices that our peers are willing to share with us. Let's all learn from the experience of others.

To me, being responsive means having programs in new areas where experience is hard to come by. Wireless is still a relatively new technology that will present applications challenges to the first time practitioner. Coming to a section meeting can help to short circuit the learning process and make our own experiences less painful.

We plan to always be responsible, but you can help us to be responsive. Let us know what interests you. Tell us about it, by email or preferably by coming to a section meeting. Let us become your conduit to new information. If we can find a local speaker, your subject can be the topic of a local section meeting. If ISA has a course, it might be the subject taught at our next training event at the Fall 2008 Exhibit & Show.

We are entering the "fun" stage of our section's calendar soon. We have two more section meetings before the Shrimp Boil in April, Dinner Meeting in May, and Picnic in June. I hope that you can make the "serious" part of our schedule in February and March, but if you can't please come to the fun events and take the opportunity to tell us what you want. We will be glad to hear from you.

Ralph Moore Scholarship

Each year the Wilmington section ISA extends a \$1,000 scholarship to a high school senior who is planning to attend a 4-year college, University or a technical training school. An ISA member of our section must sponsor the candidate and applicants pursuing a technical or science degree will be given higher preference.

The scholarship committee will select the successful candidate. The application deadline is May 15 and the check written to the college of the candidate's choosing will be presented at the ISA Annual Picnic in June. The details of the selection criteria and the application may be found on the WISA website.

Where Instruments Come From



Graduated by Years from 0 to 100 by Arch Merrill
Honeywell: The First 100 Years by Judith Yates Borger
A Little of Ourselves by Employees of The Foxboro Company
BB (Boring)

Reviewed by Nick Sands

Transmitters, valves, and control systems were not always the way we see them today. In fact feedback control was used in only rare occasions until the 1900's. One way to understand how far we have come, and a little about the pioneers that helped us get here, is to read the histories of those innovators. Three of the companies that led the way are the Taylor Instrument Companies, Honeywell, and the Foxboro Company.

The history of the Taylor Instrument Companies from 1851 to 1951 is recounted in Graduated by Years from 0 to 100. George Taylor and David Kendall started a thermometer and barometer company in 1851 that grew into the Taylor Instrument Companies. Taylor provided instruments to the US government through the civil war and both World Wars and eventually developed industrial controllers and a wide range of industrial instruments, including a complete pneumatic control solution with Tri-Act controllers.

Honeywell, according the company history Honeywell: The First 100 Years, started in 1885 in Minneapolis, Minnesota as the Butz Thermo-Electric Regulator Company. Albert Butz developed a feedback control mechanism that adjusted dampers to control room temperature. Through a series of name changes the company became Minneapolis Honeywell by 1930. The original product lines of home heat regulators expanded to electronic controllers with the acquisition of the Brown Instrument company in 1934. This technology led to the automatic pilot for aircraft in 1941, a strategic advantage for the US in World War II, and eventually to the introduction in 1975 of the first DCS, the TDC2000. Honeywell's expertise in electronics made them a key defense contractor and, in partnership with GE, a key manufacturer of information systems in the 1970s.

A Little of Ourselves documents the history of the Foxboro Company from 1908 to 1958. Edgar (E.H.) and Bennet (B.B.) Bristol founded the Industrial Instrument Company in Foxboro, Massachusetts in 1908, with the Standard Instrument Time Company and the Standard Gauge Company. The name changed to the Foxboro company and with further acquisitions, notably Atlantic Precision, went on to become one of the most innovative in the field of industrial control. The first products where pressure gauges, followed by temperature gauges, multi-pen recorders, and flow gages. In 1914, Foxboro introduced the first direct-set and calibrated-scale industrial controller and in 1929, it released the granddaddy of all PID controllers, the Model 10 Stabilog.

Standards & Practices: SP95 Enterprise-Control System Integration

By Nick Sands

The ISA95 committee has developed and is continuing to work on a multipart series of standards that defines the interfaces between enterprise activities and control activities. This is one of the most active ISA committees. The chairman is Keith Unger of StoneTek.

ANSI/ISA-95.00.01-2000, Enterprise-Control System Integration, Part 1: Models and Terminology, provides standard terminology and a consistent set of concepts and models for integrating control systems with enterprise systems that will improve communications between all parties involved. The models and terminology emphasize good integration practices of control systems with enterprise systems during the entire life cycle of the systems. This Part 1 standard is currently undergoing revision by the ISA95 committee.

ANSI/ISA-95.00.02-2001, Enterprise-Control System Integration, Part 2: Object Model Attributes, contains additional details and examples to help explain and illustrate the Part 1 objects. This Part 2 standard also is currently in revision.

ANSI/ISA-95.00.03-2005, Enterprise-Control System Integration, Part 3: Activity Models of Manufacturing Operations Management, presents models and terminology for defining the activities of manufacturing operations management.

ANSI/ISA-95.00.05-2007, Enterprise-Control System Integration, Part 5: Business-to-Manufacturing Transactions, defines the transactions to interface business and manufacturing activities.

In addition to the revision work mentioned above, ISA95 is currently developing additional standards in the series, including Part 4: Activity Models of Manufacturing Operations Management.

WISA Trivia Question?

What year did Taylor instruments start?

Email your answer to
WISA newsletter editor Nick Sands
At nicholas.p.sands@usa.dupont.com

Win an ISA shirt.

Matt Murphy of DuPont

Matt Murphy, Senior Instrumentation and Control Systems Consultant, DuPont

Matt is a senior instrumentation and control systems engineer in the Electrical, Instrumentation, and Control Systems department at DuPont where he has worked for 18 years. He is responsible for providing process instrumentation and control system project planning and execution expertise for new installations and consulting services for troubleshooting existing installations. He also provides support and direction to DuPont businesses globally for the utilization of automation products and services from strategic alliance vendors. Matt is a senior project engineer in the DuPont Project Engineering Center. He is located in Wilmington, Delaware, USA.

Matt worked for many years as a site engineer developing process automation improvements at DuPont Plants in Edge Moor, DE; Asturias, Spain; and Belle, WV; and has had lead responsibility for design, implementation, and startup of process controls and instrumentation globally within DuPont. Matt has experience in batch controls, continuous chemical process controls, burner management, and safety instrumented systems. He is currently leader of the Process Automation System Design Guide within DuPont which is developing design standards for bottom line implementation of process automation systems. He is also a member of the DuPont Process Automation System Leadership Team.

Matt received his Bachelor of Science degree in electrical engineering from Boston University in 1985. Matt is an executive committee member of the Wilmington Instrumentation, Systems, and Automation Society of America (ISA) and he is a Honeywell User Group Steering Committee member.

Issues with IEC61511

By Rusty Shackelford

With a mixed crowd of ISA and IEEE members in attendance, Rick Dunn of DuPont, and Vic Maggioli discussed their concerns with the IEC 61511 standard, Functional Safety: Safety Instrumented Systems for the Process Industry Sector.

Rick covered a method to evaluate hazards events to determine the Safety Integrity Level (SIL) requirements for safety interlocks. The method, called the AIB method, has been used for almost 20 years in DuPont. The method used Approved Independent Backups (AIBs) as high integrity Independent Protection Layers (IPs). The method was recently reviewed with the IEC61511 committee.

Vic, former ISA Vice President of Standards and Practices, and chairman of IEC61511, discussed some of the comments submitted for the maintenance revision of IEC61511, mostly from the US.

The presentation was made in the Delaware Tech Wilmington campus.

Chemical & Petroleum Division

Chemical and Petroleum Industries Division (also known as CHEMPID) is organized within the Industry and Sciences Department of ISA. CHEMPID is the leading business advocate on issues related to acquisition and handling of raw materials and reagents and the processing and inspection required to produce and handle petroleum, natural gas, chemical and petrochemical products.

The primary focus of CHEMPID is to create an open forum for discussion with colleagues who are concerned with the safe, efficient, and environmentally responsible production and transportation of materials and goods. CHEMPID reflects the scope and depth of ISA and its members by providing a network of contacts, specialized training, industry specific information, and numerous professional programs.

A membership in CHEMPID can expand your views of the industries complex technological systems and increase your knowledge in the many aspects associated within the industry. CHEMPID helps its members to establish an information exchange in order to help its members stay on the cutting edge of technology and information.

Where Instruments Come From Continued...

Foxboro also pioneered flow meter and control valve design, putting a little of themselves into every instrument they made.

To some, it will be fascinating to learn when the first instruments or controllers of their kind were developed, and to have a glimpse of those who invented them. To others the same books may be tedious to read. Perhaps the general view would be boring (BB) for these books, but not to everyone. The availability varies. Graduated by Years from 0 to 100 is available as a free PDF file online and nowhere else. Honeywell: the First 100 Years is available for about \$20. A Little of Ourselves is rarely available.

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