



# Wilmington Delaware Section

# The Sensor January 2008

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## Upcoming Events

- Jan 29 Joint Meeting with IEEE at DTCC
- 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

January 29, 2008  
**Issues Related to IEC 61511**  
 Rick Dunn of DuPont and  
 Vic Maggioli of Feltronics  
 5:30 PM at DTCC in Wilmington

## SECTION OFFICERS 2007-2008

**Bill Balascio**  
 President  
 Carew Associates Inc  
 Wbalascio@yahoo.com

**Matt Murphy**  
 Membership Chair  
 DuPont  
 302 999-6321  
 matthew.f.murphy@usa.dupont.com

Your Name Here  
 President Elect / Secretary

**Tammy Mukoda**  
 Treasurer  
 DuPont  
 tammy.l.mukoda-1@usa.dupont.com

**Eric Waugh**  
 Webmaster  
 DuPont  
 eric.j.waugh@usa.dupont.com

**Mike Morkun**  
 Program Chair  
 DuPont  
 302 774-4174  
 michael.b.morkun@usa.dupont.com

**Stephen Prettyman**  
 Past President  
 Rohm & Haas  
 302 366-0500 x2808  
 sprettyman@rohmmaas.com

**Chuck Grannum**  
 Program Chair  
 DuPont  
 Charles.k.grannum@usa.dupont.com

**Nick Sands**  
 Newsletter Editor  
 DuPont  
 856 540-2080  
 nicholas.p.sands@usa.dupont.com

## Issues Related to IEC 61511, the International process sector safety standard

Rick Dunn of DuPont & Vic Maggioli  
 retired DuPont

This will be a joint presentation addressing issues raised in the maintenance of the IEC 61511 standard (ANSI/ISA 84.00.01-2004 in the USA). Rick will outline a proposed addition to IEC 61511 Part 3 which relates to the allocation of safety functions to protection layers. Vic will review significant international comments received by the committee that relate to the overall safety life cycle. The objective is to inform, initiate discussion, and encourage the attendees to participate in the commenting process.

WISA Welcomes New Members!

**William Epstein of Accenture**  
**Derek Robinson of DuPont**

WISA Welcomes New Members!

# President's Message

By Bill Balascio

Our calendar year is quickly coming to an end, and while our section's year has just begun, I think that we should take this opportunity to assess where we are, and try to figure out where we are going. I believe that such an effort is good for an individual, and also for an organization.

Where am I? Professionally I like to think I am in a good place. I made a mini-career change almost two years ago, changing from systems integration of automatic control systems into ELECTRICAL ENGINEERING. I no longer program PLC and DCS systems, instead I design electrical power distribution, control, and instrumentation for municipal and commercial facilities. I have the opportunity to learn something new every day, I enjoy my work, I work reasonable hours, and I'm home every night. Working reasonable hours and being home at night allow me to participate in Wilmington ISA and other organizations. With the demands of today's workplace you might not be so lucky, which leads me to the next question.

Where are we? That is a hard question to answer. ISA has changed in every imaginable way over the past "few" years and our section has tried to change along with it. I am not sure that those changes have been successful. We are a strong organization, with a dedicated Executive Committee, but one of the measures that we rely on for the vitality of our section is attendance at section meetings. Frankly, attendance has been poor. I have tried everything short of begging to get people to come out, and the only thing that has worked had nothing to do with me. Nick Sands gave the talk at our last section meeting and pulled in about 50% more than the usual. But short of bottling Nick (he might object), we would like to find ways of bringing in more people. You can help with that by telling us what you are interested in hearing and learning. That brings me to the final question.

Where are we going? This is encouraging. We are trying to plan for the future and look at our programming in new ways. Although the details have not been worked out at this point, it appears that we are on our way to bringing you a much improved Show/Exhibit in November of 2008. A big part of that effort is to provide you with quality free and paid (through ISA national) training in subjects that you care about. Please use this opportunity to ask yourselves where you are, and where you do you want to be – and let us help you get there.

## WISA Bylaws

The WISA executive committee has made revisions to the section bylaws. The bylaws are posted on the WISA website. The bylaws are open for review and comment by any member of the section. A vote on bylaws will take place at the October section meeting.

# The Steps of the Dance

Take care, have a  
and I hope to see  
IEEE meeting in



great holiday season,  
you at the Joint ISA/  
January.

## A Guide to the Project Management Body of Knowledge Third Edition

from the Project Management Institute

BB (Boring)

Reviewed by Nick Sands

Project management is one of the most important skills on automation projects. The Project Management Institute (PMI) has worked since its formation in 1969 to set standards for project managers. The third edition of A Guide to the Project Management Body of Knowledge, (ANSI/PMI 99-001-2004), provides the steps necessary for any project. The guide was first issued in 1987 and revised by a team of certified Project Management Professionals (PMPs).

The first chapters provide background on the guide, overview the project lifecycle, and a review of the project management standard. The remaining chapters cover the nine project management knowledge areas and detail each of the project management processes. Projects often proceed in phases and the project management processes of each knowledge area are often used in each phase. There are many interactions between the processes, especially around the key tools of scope, schedule, budget, resources, and change control.

Project integration management includes development of the project charter, the preliminary scope, integrated change control and project closing. Project scope management includes planning the scope and creating the work breakdown structure (WBS), a key input to time management.

Project time management includes activity definition, duration estimating and sequencing, resource estimating, and the schedule development. All of these flow into the budgeting part of the project. Project cost management includes cost estimating, budgeting for the project, and cost control.

Project quality management includes planning, quality assurance and quality control. In the end, the quality management process is targeted to satisfy the customer, an important step not always completed. Project human resources management includes resource planning, acquisition, development and management. A key step here is to plan time, including holidays and vacation, as well as training requirements.

Project communication management includes communications planning, information distribution, performance reporting and management of stakeholders. Project risk management includes planning, risk identification, qualitative and quantitative risk analysis, response planning, and risk monitoring and control. This process helps to anticipate problems and develop contingency plans.

# Standards & Practices: SP93 Sealing Technologies Committee

By Nick Sands

The application of sealing and fugitive emission technologies as they pertain to: the manufacture and industrial use of process measurement and control equipment; environmental laboratory and production oriented test methods; and environmental issues in the manufacture, installation, and use of devices designated as "Fugitive Emission" equipment or devices. This includes but is not limited to linear and rotary actuating valves, pumps, level gages and sight glasses, flow control equipment, metering equipment, flanges, and leak-detection devices.

ANSI/ISA-93.00.01-1999 Standard Method for the Evaluation of External Leakage of Manual and Automated On-Off Valves

This Standard establishes a uniform process for assuring that manual and automated on-off valves are tested using uniform methods and will meet user needs in complying with volatile organic compounds (VOC) fugitive emissions requirements. The test method is not intended to be a pass-fail criteria.

## Safety Interlock Testing

By Rusty Shackelford

Nick Sands gave an interesting and entertaining review of the how's and why's of safety instrumented system testing. The requirements from the ISA84 standard (IEC61511) were given and the value of those requirements was illustrated by a number of incidents where things did not work as planned.

Sands closed with some good recommendations on implementing a testing program, including training for those that write test procedures and those that run test procedures. He stressed designing the interlocks so they can be easily tested.

### WISA Trivia Question?

For what company does Vic Maggioli ?

Email your answer to  
WISA newsletter editor Nick Sands  
At [nicholas.p.sands@usa.dupont.com](mailto:nicholas.p.sands@usa.dupont.com)

**Win an ISA shirt.**

# Rick Dunn of DuPont and Vic Maggioli of Feltronics

Richard Dunn

Safety Instrumented Systems Consultant, DuPont

Rick graduated from the Michigan Technological University, class of 1982, with a BS in Mechanical Engineering and has worked for DuPont for 23 years in the areas of process design, textile fibers research and development, manufacturing operations support, quality control engineering, instrument and control system design, and safety instrumented systems.

Currently, Rick leads DuPont's Corporate Safety Interlock Support Team, holds primary responsibility for DuPont's Safety Instrumented Systems (SIS) standards, and provides consulting services in the areas of SIS design and implementation and Layer of Protection Analysis. Rick is a member of the Instrumentation, Systems and Automation Society (ISA). He is chairman of ISA's Standards Panel 91 and Vice-man of Standards Panel 84 which prepare national safety standards and guidelines on use of SIS to control process hazards. Rick also represents the USA on the International Electrotechnical Commission (IEC) standards committees for functional safety. He is actively involved with the maintenance of IEC 61511, the global process sector functional safety standard and IEC 61508, the global functional safety standard for all industrial sectors.

Victor Maggioli

President, Feltronics Corporation.

Vic graduated from the University of Rhode Island, class of 1953, with a BS in Electrical Engineering and worked for DuPont's Engineering Department for 38 years in design and consulting services. He has been self-employed since 1992. At DuPont, his tasks included development, design, start-up, and standards preparation for high voltage distribution, lighting, grounding, lightning protection, variable speed drives, Electrical/Electronic/Programmable Electronic (E/E/PE) process control, programmable controllers, fiber optics, E/E/PE installation practices, E/E/PE safety practices, etc. Currently Vic does front-end loading in the above areas and chairs national and international standard bodies developing safety standards for the use of instrumented systems. Vic is a member of the Instrumentation, Systems and Automation Society (ISA), the Institute of Electrical and Electronic Engineers (IEEE), and the European Workshop for Industrial Computer Safety (EWICS).

Presently, Vic is a Managing Director of ISA Standards Panel 84 and Standards Panel 91, an active member of SP84 and SP91 preparing national safety standard on use of programmable electronics to control chemical hazards, and preparing a guideline outlining quantitative methods to determine the integrity of safety instrumented systems, the chair of IEC 61511, the process sector functional safety standard and a member of IEC 61508, the generic functional safety standard.

## Automatic Control Systems Division

The Automatic Control Systems Division (ACOS) of ISA aims to address the control demands of complex systems by exchanging knowledge with leader's regarding new and innovative solutions that are relevant to industrial applications, geological processes, and principles and practices of automatic control.

The intrinsic value of ACOS membership aligns your personal interests with your professional goals. By recognizing that what you do does make a difference, you are stimulated to higher productivity. Accomplishments are enjoyed more when shared with others. Furthermore, the contacts made through ACOS will be valuable throughout your professional career and you have the opportunity to share your experiences as well as the opportunity to learn from your peers.

## The Steps of the Dance Continued...

Project procurement management includes planning for purchases, acquisitions, and contracting, requesting seller responses, selection of sellers, and contract administration and closure. This process includes determining the types of contracts, such as time and material (T&M) or lump sum.

A Guide to the Project Management Body of Knowledge (PMBOK) is the national standard that defines all of the processes to properly manage a project of almost any type. Even experienced project engineers and automation professionals will learn a few things about how to improve their projects from reading this book. There is no plot, and the sections are somewhat repetitive, so it may be considered boring (BB). The PMBOK is available for about \$30 from Amazon.com.

**ISA - Wilmington Section**  
**P O Box 9245**  
**Newark, DE 19714-9254**