



**Wilmington Delaware  
Section**

# The Sensor

## February 2010

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### Upcoming Events

March 23-25	Applications in Automation Conference & Training
April 27	Shrimp Boil
May 25	Meeting: Advanced Control
June 22	WISA Picnic

### Register Now!

### Mid-Atlantic ISA Applications in Automation Technical Conference

**Wednesday, March 24th**  
**DuPont Barley Mill Conference Center**  
**Wilmington, DE** <http://isatechcon.eventbrite.com/>

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### ISA Applications in Automation Conference

**Wednesday, March 24 (8 AM—5 PM)**

**Local ISA Technical Conference with Product and Solutions Showcase**  
 presentations on today's hottest automation topics organized into the following sessions:

- Maximizing Controller Performance
- Process Optimization
- Control System Upgrades
- Safety and Security

with a presentation by our Keynote Speaker:  
 Robert Lowe, Executive Director, [CSIA](#)

Register and view the program at:  
[www.isatechcon.eventbrite.com](http://www.isatechcon.eventbrite.com)  
 \$60 for ISA members, \$160 for non-members

Address: 4417 Lancaster Pike—BMP 20  
 Wilmington, DE 98055

**Evening Networking Event (5:30—7:30 PM)**  
**@ Twin Lakes Brewery (\$20/person)**

Visit Wilmington ISA on the Web!

<http://www.isa.org/MSTemplate.cfm?MicrositeID=525>

## President's Message

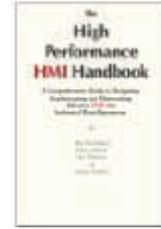
By Shawn Coughlan

Living in the Mid-Atlantic states has been a trial this winter of 2010. The first storm hit in mid December and the second major hit was the first weekend in February. Kids love the anticipation of the build up to the snow, especially when there is a chance that school will be canceled. Many older people dread the snow because it is so very difficult to clean up and because it makes it difficult for them to get around. Me, I love the snow. I like being outdoors and the snow offers a new set of conditions to explore. But, it is the really big storms that I like the most because the shared misery brings neighbors together is a common cause. I see and talk to my neighbors mostly as we pass each other on the way to work or when we are out cutting the grass. We have our typical conversations about the weather etc, etc. But during these big snowstorms we work together, we help each other dig out our driveways. Then we go and dig out the driveway of our neighbor who has a bad back, we help the old woman down the street who can't shovel her driveway. In the end I always come away with sore muscles, but I always have a great feeling because I helped someone through a difficult time.

This feeling of community service brings neighbors closer together. You can see it the Wawas, the Starbucks, the grocery stores and the restaurants during and immediately after a large snowstorm. As the intensity of the storm grows, we start to shed our normal insular self-centered ways and begin to reach out and help neighbors and strangers in need. We stop to help the guy who is stuck on the side of the road. We help our neighbor shovel their sidewalk. We are more courteous in the grocery store. This shared experience brings us closer together by giving us an opportunity to work and speak together due to a mutual hardship.

I recently watched a program about some Palestinian and Israeli women who were gathered together in a weight loss program. In my lifetime, the struggle between the Palestinians and Israelis has been constant and with seemingly no end in sight. During this weight loss program, these women who are normally segregated not only by physical walls, but emotional, religious, political and social walls, were joined together in a shared struggle. Over a period of about three months they would meet weekly and discuss their struggle with weight. They would talk about preparing meals, taking care of children, their struggles getting fresh food and the everyday mundane task that we all do. Over time, they realized that they had much in common, that if this struggle between the Palestinians and Israelis did not exist, that they could actually be friends.

## A Display Worth A Thousand Words



### **A Display Worth A Thousand Words - BBBBB (Bonus)** *The High Performance HMI Handbook*

By Bill Hollifield, Dana Oliver, Ian Nimmo, and Eddie Habibi  
Reviewed by Nick Sands

Once there was an empty place on the bookshelf waiting or HMI books. Now that place is getting crowded. One of the new books is *The High Performance HMI Handbook* by Bill Hollifield, Dana Oliver, Ian Nimmo, and Eddie Habibi. Hollifield, a principal consultant at PAS for 7 years with 27 years at Union Carbide and Dow, has a BS in Mechanical Engineering from Louisiana Tech and an MBA from the University of Houston. Oliver, also a PAS principal consultant with 18 years of chemical industry experience including Honeywell and Union Carbide, has a ME degree from Texas A&M University and is a member of the ISA 101 committee. Nimmo, president and a founder of User Centered Design Services, served 10 years as a senior engineering fellow with Honeywell, was a founder and program director for the Abnormal Situation Management Consortium, and worked for 25 years for Imperial Chemical Industries in the UK. He has an electrical and electronic engineering degree from Teesside University. Habibi, the CEO and founder of PAS, has an engineering degree and an MBA, and has previous experience at Schlumberger and Honeywell.

In the introduction the authors state an important warning: HMI design can be a touchy subject. Many people resist changes to their displays. The problems with many current HMIs evolved with the technology. Good practices were developed for panel boards. The same practices were applied to DCS displays, with controller groups and process lines in different colors replicating panel or P&IDs. Some systems offer 3D shapes, animated motors, and dancing flames. The authors highlight these as examples of bad practices. An airplane HMI is given as an example of what is possible in an HMI. Some of the characteristics of a high performance are listed, including good navigation, display hierarchy and limited use of color.

The first step, of the authors seven step process, is to adopt an HMI philosophy that documents the design principles and a style guide with the implementation details for a specific control system. The authors rail against the use of P&ID like representations of the process in displays and the use of too many numbers and too few trends.

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## ISA Automation Week 2010 Oct 4-7, 2010 in Houston, TX

ISA Automation Week will feature intensive educational and applications-based technical conference sessions delivered by subject matter experts. Discrete and process automation professionals will have a chance to learn techniques and solutions for creating more efficient, productive, and economical manufacturing processes. ISA training courses and standards meetings will also be held concurrently, making ISA Automation Week a one-stop shop for automation and control knowledge and networking opportunities.

The ISA Automation Week conference program will focus on the latest industry developments and standards in key manufacturing disciplines like automation, energy and power, green manufacturing, instrumentation and process control, safety and security, systems and enterprise integration, and wireless, networking, and industrial communications. Conference sessions will include both theory-based and applications-based presentations to appeal to a wide variety of automation and control professionals. The event will feature a focused exhibition area for a limited number of companies to showcase products and services during scheduled networking and exhibit sessions.

For more information visit:  
[www.isaautomationweek.org](http://www.isaautomationweek.org)

## President's Message

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This idea of bringing people together to talk through their differences is not new. It was the basis for the League of Nations and found its greatest expression in the United Nations. It permeates literature in the many utopian themed novels. It was a cornerstone of the hippie era. It is the first step for all of our diplomatic efforts. And yet wars and disputes continue to thrive. So after several hours of shoveling my driveway and helping my neighbors I often find myself thinking that it would be nice if the entire world could have a big snowstorm or two. Not anything tragic mind you. I wouldn't want anyone to get hurt. Just something we could all deal with together, some common experience that could show us that we are all in this together. And maybe for a few hours would could all get that sense of community in the world.

## Nov Meeting: Professional Development By Jeff Arbogast

The Wilmington ISA section meeting on Tuesday, November 17, 2009, featured an interesting and enlightening presentation on professional development by Nick Sands entitled "The Rise and Fall and Rise of Your Career: A Discussion on Professional Development". At the society level, Nick is the ISA Vice President for Professional Development.

Nick stressed that "your professional development is your responsibility" - you may get support from your employer. There are many resources available to support your professional development, including ISA (and other technical societies), books, classes, and mentors.

Nick organized his discussion of the actions to take in your professional development around four stages of your career:

- **Early Career:** Identify your talents, Find what you love, Find a mentor
- **Mid Career:** Set your goals, Make a plan, Develop new skills
- **Late Career:** Review and reset your goals and plans, Mentor others, Network
- **Extended Career:** Follow technology, Stay positive

However, this does not mean that someone early in their career (like me) should wait to set goals, make a plan, mentor others, or network. At this early stage in my career, I have already benefited greatly from the network that I have built and have begun to mentor others.

(Nick's presentation is [available](#) on the WISA website under Presentations (November 2009). To motivate our professional development, Nick included profiles of the ISA Fellows associated with the Wilmington ISA section.)

## WISA Trivia Question?

How many ISA Fellows have ties to the Wilmington Section?

Email your answer to  
WISA newsletter editor  
at [jeffrey.arbogast@airliquide.com](mailto:jeffrey.arbogast@airliquide.com)

**Win an ISA shirt.**

## Register for ISA Training in Wilmington, DE

DuPont Barley Mill Conference Center

**Tuesday, March 23, 2010**

[Alarm Management - Introduction to the Management of Alarm Systems \(IC39C\)](#)

[Wireless - Industrial Wireless Systems \(IC85C\)](#)

**Thursday, March 25, 2010**

[Safety Systems - Safety Instrumented Systems—The Must Know for Implementation \(EC50C\)](#)

[Security - Introduction to Industrial Automation Security and the ANSI/ISA99 Standards \(IC32C\)](#)

To register, visit: [www.isa.org/training](http://www.isa.org/training)  
(Location: Barley Mill Training Center)  
\$445 for ISA members, \$545 for non-members

## A Display Worth A Thousand Words

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Indicator bars and profile lines are recommended. The practice of mostly gray scale graphics is one that often generates resistance. The authors provide many specific recommendations for displays. They also provide specific examples of the level 1 through level 4 displays in their recommended hierarchy, which is essential to the high performance HMI. The second step is to assess and benchmark the existing graphics against the philosophy.

The next two steps are to determine specific performance objectives for the control of the process and to perform task analyses to identify the control actions needed to achieve the objectives. This information is used in step 5, the design and implementation of the displays, using the philosophy and style guide. Step 6 is to commission the displays and complete training. The final step is to continue to reassess and maintain the HMI performance. Beyond this process, the authors provide guidance on control room design and the layout for the operator consoles. The goal of the well designed HMI is to increase the operator's situational awareness.

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The book is well designed for the subject, with many color illustrations to show the do's and don'ts of displays. The authors, though they advocate gray scale, often state black and white views on HMI design. Still, The High Performance HMI Handbook is an excellent practical guide to a better operator interface with just a few extreme views in the mix and only a little sales pitch in the appendix. HMI design is an important part of every control system and this book is a must for every automation professional (BBBBB). It is available from Amazon for ~\$130.

### Contribute to **ISA Automation Week 2010**

October 4-7, 2010, Houston, TX

Abstracts and Bios due April 16, 2010

Visit: [www.isaautomationweek.org](http://www.isaautomationweek.org)

### Coming to Wilmington ...

## Mid-Atlantic ISA Applications in Automation Technical Conference

**Wednesday, March 24th**

(see front page for more information)