Setting the Standard for Automation™

Water/Wastewater Industry Division

Calendar of WWID Events

June 8-10, 2013	**Spring Leaders Meeting** Raleigh, North Carolina, USA
Aug 6-8, 2013	**2013 ISA Water/Wastewater and Automatic Controls Symposium** Crowne-Plaza Orlando-Universal Hotel – Orlando, Florida, USA
Nov 2-4, 2013	**Fall Leaders Meeting** Nashville, Tennessee, USA

In this Issue

Fall 2012 Newsletter

Director's Welcome

Hello Water/Wastewater Industry Division members! As I approach the end of my tenure as Director, I take great comfort in our incoming leadership team. The future is looking very bright for our Division thanks to them and I can see great things ahead.

This year's WWAC Symposium was a tremendous success. Thanks in large part to partnerships with the Florida sections of the AWWA and WEF, we saw record attendance and heard great feedback from vendors and attendees alike. Graham Nasby, our symposium chair, and Joe Provenzano, our program chair, worked extremely hard and deserve our congratulations.

Graham Nasby also happens to be the incoming Division Director. I'd like to take this opportunity to thank him for his extraordinary efforts over the last two years and welcome his leadership. Our Director-elect is also in place (Kevin Patel), which means we have an excellent leadership chain in place for the future.

Be sure to save the date for our 2013 symposium – Aug 6-8, 2013 in Orlando!

Jon DiPietro
WWID Division Director

Newsletter Editor's Welcome

Welcome to our Fall 2012 newsletter! Our fall newsletter is one of reflection and looking forward. In this issue you will find a report on our 2012 symposium, which was held this past August in Orlando, Florida. With record breaking attendance, the symposium was a great success. Read in our pages about people who presented at the symposium the winners of the prizes for best paper, best presentation and best poster.

On page 5 you will find the application form for our 2013 WWID Student Scholarship. Open to members and their children who are pursuing higher education, the scholarship offers up to $2000 in award money this year. Applications are due January 31, 2013. Refer to the form for the email address.

We are also announcing our 2013 symposium in this issue. Please mark the dates August 6-8, 2013 on your calendar. I also encourage you to review the Call for Abstracts and consider sending in a 250 word abstract to present.

Also don't forget to read the two technical articles in this issue. One is about energy optimization in water plants and the other is about ultrasonic level/motion detection. Enjoy!

Graham Nasby
WWID Newsletter Editor

Message from your Director-Elect

In this column, I find myself at a unique point in the history of our division.

In the past year we have successfully rebuilt our division from the ground up by revitalizing our symposium, growing our membership, and completing the first year of what has been a very successful quarterly newsletter. Our 2012 symposium which was held in Orlando this past August had a record-breaking 171 attendees. We had a further 35 attendees attend our 1-day introductory course on cyber security. Our newsletter has been published consistently with 36+ page issues four times a year, with each issue having a good mix of technical content, industry news and personal stories. Our division membership numbers are also on the rise.

Looking to the coming year, we are now in the enviable position of having a strong leadership succession plan in place and doing multi-year planning for our symposium. As I write, the key planning activities for our 2013 symposium are now in place – our hotel is booked, training courses selected, and our call for abstracts has been out for several months. I'm also pleased to report: the hotel contract for our 2014 symposium is in the final steps of being finalized. Being able to do long range planning is a major benefit for our division and is going to allow ever better programming for our membership and the water/wastewater automation community at large. In the next issue of this newsletter, I look forward to introducing our 2013 board to you.

So how did we get here? The answer is using teamwork, collaboration, and partnerships.

All of us who work with automation, instrumentation and SCADA in the water/wastewater sector have a common goal – to make our plants operate reliably, safely and in a cost efficient manner. Whether we are engineers, operators, designers or vendors, we all have to work together to accomplish this. We all bring different skills, knowledge and experience to the table. Our WWID is no different.

During the past year, I have had the privilege of encouraging the volunteers on our WWID board to reach out to our sector. As a result, we now have a strong relationship with WEF, the Florida AWWA, the Florida WEA, NRWA and many other organizations – thanks not just to our volunteers but also thanks to the leadership shown by these organizations. The municipal water/wastewater sector is one of collaboration. Our WWID forms a natural home for all of us who work with SCADA, automation and instrumentation. I'm proud to be on the ground floor of what is an effort to unify the art and science of what we do both in our association, and across the sector as a whole. Join us and come along for the ride!

Graham Nasby, P.Eng., PMP
Incoming 2013 Director, and
General Symposium Chair for the 2013 WWAC Symposium

2013 WWAC Symposium Announced

We are pleased to announce that our 2013 symposium will be taking place August 6-8, 2013 at the Crowne Plaza Orlando-Universal hotel in Orlando, Florida, USA.

The Call for Abstracts is now out! Abstracts are due January 31, 2013. Visit our website at **www.isawwsymposium.com**

The August timeslot has been chosen so that we don't conflict with the major AWWA and WEF conferences. Keep in mind the ISA WWAC Symposium is the only conference that is focused solely on instrumentation, automation, and SCADA in the water/wastewater sector. We look forward to seeing you in 2013!

- ACE13: American Water Works Association (AWWA) June 9-13, 2013 – Denver, Colorado, USA
- **2013 ISA Water/Wastewater and Automatic Controls Symposium** - Crowne Plaza Orlando-Universal Hotel **August 6-8, 2013 - Orlando, Florida, USA**
- WEFTEC 2013: Water Environment Federation (WEF) Oct 5-9, 2013 – Chicago, Illinois

We have selected the August timeslot for several reasons. First of all this is "low season" for the area which translates into better airline and hotel rates – we know that many of our attendees come from public utilities where every training dollar counts.

We also selected the August timeslot so that participants can bring their families – in August school is out and Walt Disney World is just around the corner.

Integrated solutions save you time and reduce energy costs.

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EcoStruxure is an integrated solution that combines advanced power management and a proven automation control system to optimize performance and improve your plant's energy efficiency.

Make the most of your energy℠

Become an energy expert and earn continuing education credits. Enroll in our FREE energy efficiency education courses today!

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Schneider Electric™

Announcing the 2013 ISA Water/Wastewater Division Student Scholarships

The ISA water/wastewater industry division (WWID) is pleased to announce the 2013 ISA WWID Student Scholarship Program. Eligible students can win up to $2000 in scholarship to money to help them pursue higher education.

Students can apply by filling out the application form, accompanied by:

- 200-word essay on why they should win
- a copy of their academic transcript
- confirmation of enrollment form/letter

The application deadline is January 31, 2013.

The division is pleased to continue to providing up to $2000 of scholarship money to encourage WWID members and their sons/daughters to pursue higher education. In addition, winners will receive a complementary 2-year student ISA membership.

Applications are due by postal mail or email by January 31, 2013. Winners will be notified by February 28, 2013 via telephone and email, and will be required to provide a photo and short biography that can be used for publicity reasons. Scholarship money will be distributed by check and mailed after the winner is contacted and has supplied the required photo/bio.

Scholarships will be awarded at the sole discretion of the WWID scholarship committee, with preference being given to students enrolled in technical programs that lead to careers in the water/wastewater sector.

Download and view the student scholarship application form at www.isa.org/wwid .

Mail completed applications to:

Michael Fedenyszen
WWID Scholarship Chairman
60 Whittier Street
Haverhill, Massachusetts, 01830, USA

OR

Email completed application as scanned PDFs to:

scholarship@isawwsymposium.com
AND
mfedenyszen@vanderweil.com

We encourage students to **send in their applications by email** (PDF scans of documents) as this is preferred over postal mail.

WWID Student Scholarship Last Year's 2012 Recipients

The ISA Water/Wastewater Industries Division is pleased to announce the winners of the 2012 WWID Student Scholarships. Open to college and university students, the water/wastewater division's scholarships are given out to promote higher learning. This year's recipients are Robert G. Burmeister and Sharon Miller. Each will receive a $1000 USD scholarship to help defray the costs of their education.

Robert G. Burmeister

Indiana University at South Bend
South Bend, Indiana, USA

"Thank you so much for the scholarship. I'll be able to pay off some of my college debt with this generous gift."

Sharon Miller

College of Mount Saint Vincent
Riverdale, New York State, USA

"I would like to take this opportunity to thank the ISA and the WWID for this scholarship. Scholarships, such as the one offered by the WWID, go a long way towards offsetting high cost college programs such as mine.

Setting the Standard for Automation™

Water & Wastewater Division

2013 WWID Student Scholarship

APPLICATION FORM

The ISA water/wastewater division (WWID) is pleased to award up to $2000 of scholarship money to encourage WWID members and their sons/daughters to pursue higher education. In addition, winners will receive a complementary 2 year student ISA membership. Applications are due by postal mail or email by January 31, 2013. Winners will be notified by February 28, 2013 via telephone and email, and will be required to provide a photo and short biography that can be used for publicity reasons. Scholarship money will be distributed by check and mailed after the winner is contacted and has supplied the required photo/bio. Scholarships will be awarded at the sole discretion of the WWID scholarship committee, with preference being given to students enrolled in technical programs that lead to careers in the water/wastewater sector.

Eligibility (check one)

- ☐ ISA WWID member, ISA Member # _____
- ☐ ISA WWID student member, ISA Member # _____
- ☐ Parent/Guardian ISA WWID member, Their Name: _____ & ISA Member # _____

Other criteria (check off each one)

- ☐ Currently attending 2-4 year university/college
- ☐ Confirmation of enrollment letter (or scan of student card) attached
- ☐ 200 word essay about "why I should win the scholarship" attached
- ☐ Copy of previous year's academic transcript attached

Applicant's Name: _____
Program of Study: _____
Institute Name: _____
Institute Address: _____
Dean of Admissions Name: _____
Institute Phone: _____

Address while at School

Street: _____Apt._____
City: _____
State: _____
ZIP: _____Country:_____
Phone: _____
Email: _____

Home Address

Street: _____Apt._____
City: _____
State: _____
ZIP: _____Country:_____
Phone: _____
Email: _____

Applications can be either sent by mail or emailed. Submission of applications by email (as scanned PDFs) is preferred.

Mail completed application to:
Michael Fedenyszen
WWID Scholarship Chairman
60 Whittier Street
Haverhill, Massachusetts, 01830, USA

OR

Email completed application as scanned PDFs to:
scholarship@isawwsymposium.com
AND
mfedenyszen@vanderweil.com

APPLICATIONS MUST BE RECEIVED BY JANUARY 31, 2013

www.isa.org/wwid

2012 ISA Water/Wastewater Symposium was a Roaring Success

We are pleased to report that the 2012 ISA Water/Wastewater and Automatic Controls Symposium (WWAC Symposium) enjoyed record attendance numbers this year. Held in Orlando, Florida, USA on 7–9 August at the Holiday Inn Castle Hotel, the symposium boasted over 165 attendees.

The record attendance numbers, which are more than triple the numbers of past years, highlight the growing importance of automation and cyber security in the municipal water/wastewater sectors. The surge in attendance is also a testament to the symposium's renewed focus on today's challenges in automation, instrumentation and SCADA (supervisory control and data acquisition) for this important aspect of our public infrastructure.

Additionally, the symposium's full day short course on cyber security, which included guidance on how to set up an effective cyber security risk management programs, boasted over 35 attendees from water utilities from across the United States.

Now in its seventh year, the ISA water/wastewater symposium is experiencing a new-found growth in popularity thanks to newly-formed alliances with the Water Environment Federation (WEF), the Florida Section of the American Water Works Association (FSAWWA), the Florida Water Environment Association (FWEA) and the National Rural Water Association (NRWA). By forming strong partnerships with other associations, the symposium has been able to reach out to automation, instrumentation and SCADA professionals across the industry. For members of these associations, the symposium represents targeted professional development, training, and networking opportunities that they could not find elsewhere.

"Our secret is our focus," says Bob Lindeman, the 2012 President of the ISA. "Our annual WWAC Symposium specifically caters to the needs of professionals involved with automation, instrumentation and SCADA in the municipal water and wastewater sectors. It is a niche event and we are proud of its increasing popularity. There is no other event like it in North America."

The symposium was also specifically positioned so that municipal water and wastewater districts and utilities could easily send their staff. Thanks to the symposium's sponsors including Schneider Electric, Phoenix Contact, Gray Matter Systems, Honeywell, and Eramosa Engineering, among others, the symposium was able to offer inexpensive training and professional development credits.

Additionally, thanks to the symposium's association partnerships with the AWWA and WEF, attendees were able to gain approved CEUs (continuing education units) and PDHs (professional development hours) that could be used towards continuing education requirements for a wide variety of state-issued operator, engineering and technician licenses. Attendees were treated to hot breakfasts, fully catered lunches and an exhibitor hall where they could learn about new products and services. The symposium's exhibitors, who were all focused on automation, instrumentation and SCADA, enjoyed the show's focus and the ability to talk with attendees in a targeted, intimate atmosphere.

With over 30 technical speakers, including a keynote on using automation for asset management and invited talks on cyber security and human-computer interface design, attendees enjoyed the symposium's technical focus. Attendees also received copies of the proceedings in a bound book and PDF-based digital versions, which made it easy for them to take their new-found knowledge home with them. This in turn was rounded out by the symposium's tour of the newly constructed Southern Regional Water Supply Facility by the local water utility, Orange County (Florida) Utilities.

In the symposium's closing remarks, general symposium chair Graham Nasby of Eramosa Engineering, spoke about the need for greater collaboration in the sector. He also talked about the growing importance of automation, instrumentation and SCADA in the municipal water/wastewater sector, and how the ISA WWAC symposium is a natural "niche event" that specifically caters to professionals involved with these unique aspects of our collective public infrastructure.

About the WWAC Symposium

Presented by the ISA Water and Wastewater Industries Division, in collaboration with the Florida AWWA Section and the WEF Automation and Info Tech Committee, the WWAC Symposium helps professionals in the water and wastewater industries understand how instrumentation, SCADA (supervisory control and data acquisition), and automatic control applications are vital to the treatment and distribution of water, and the collection and treatment of wastewater. The symposium also provides an excellent opportunity to gain valuable technical information, networking, professional development, and continuing education credits (CEUs and PDHs). Our 2013 WWAC Symposium is taking place Aug 6-8, 2013 in Orlando, Florida. More information at www.isawwsymposium.com

Organizers from the 2012 WWAC Symposium Team at the ISA division awards luncheon on Sept 25, 2012 in Orlando, FL. From left to right: Joe Provenzano (program chair), Rodney Jones (ISA staff), Jon DiPietro (WWID Director), Graham Nasby (2012 General Symposium Chair)

Photos from the 2012 symposium


Opening remarks at the symposium


Our symposium hotel – Holiday Inn “Castle” hotel


Group shot from the tour of the Southern Regional Water Supply Facility – with our hosts Orange County Utilities.


Photo on the bus to/from the tour – special thanks to Schneider Electric for providing the bus transportation to/from the plant.


Bryan Singer teaching the full-day cyber security short course on the Tuesday. 35 people attended.


Rodney Jones, our ISA staff person, manning registration desk

First Day of the symposium technical program

Invited speaker Bill Hollifield talking how to design high performance HMIs, and the many HMI design challenges

Keynote speaker Celine Hyer speaking about asset risk management and managing the infrastructure funding gap.

Tom DeLaura (blue shirt on left) being introduced as our guest WEF Automation and Info Tech committee speaker.

Pavol Segedy giving a talk about mobile SCADA applications.

ISA President Bob Lindeman (right) with symposium chair Graham Nasby and program chair Joe Provenzano.

Lunch time in the exhibitor hall.

View of one corner of the symposium exhibitor hall.

Volunteer committee celebrating at Vito's Chophouse after a very successful symposium

Thanks to our 2012 Symposium Sponsors

The symposium organizing committee would like to thank the following sponsors who came on board for the 2012 WWAC Symposium. We look forward to seeing you again next year.

Technical Co-Sponsors

Water Environment Federation the water quality people

American Water Works Association AWWA FLORIDA Florida's Water Professionals

Florida Water Environment Association

Orange County Government Florida

Platinum Sponsor

Schneider Electric

Gold Sponsors

Gray Matter Systems, LLC

Honeywell

Phoenix Contact

Silver Sponsors

Eramosa Engineering Inc.

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InTech

Florida Water Resources Journal

Read-out Instrumentation Signpost

WaterWorld

AutomationWorld

Industrial WaterWorld

WE&T water environment and technology

WEF Highlights

Thanks to our 2012 Symposium Exhibitors

The symposium organizing committee would like to thank the following exhibitors who came on board for the 2012 WWAC Symposium. We look forward to seeing you again next year.

Exhibitors

Schneider Electric

Gray Matter Systems, LLC

Phoenix Contact

Trihedral Software for Monitoring & Control

ISA Tampa Bay Section

Scott Safety A Tyco International Company

Water Environment Federation the water quality people

Beijer Electronics

American Water Works Association AWWA FLORIDA Florida's Water Professionals

Florida Water Resources Journal

Beckhoff

Florida Water Resources Conference FWRC FS/AWWA • FWEA • FWPCOA

PFS Primary Flow Signal

Florida Water Environment Association

DCR Engineering Services, Inc.

Motorola Authorized Value Added Reseller

ICL Industrial Control Links, Inc.

How do I sponsor or exhibit for 2013?

For more information on how to become a sponsor or exhibitor at this coming year's 2013 ISA Water/Wastewater and Automatic Controls Symposium, please refer to our 4-page full-color sponsorship and exhibitor opportunities brochure: **www.isawwsymposium.com/exhibit-sponsor/**

Now is the time to consider sponsoring or exhibiting for WWAC 2013!
Contact our general symposium chair via email at graham.nasby@eramosa.com for more information.

2012 WWAC Symposium Award Winners

On Sept 25, 2012 ISA division leaders gathered for the annual ISA Divisions Awards Luncheon. At the Luncheon, the awards for Best Paper, Best Presentation and Best Poster from our 2012 WWAC Symposium were given out. Awards winners were on hand to accept their awards in person while the General Symposium Chair announced the winners to everyone in the room. Program Chair Joe Provenzano and WWID Honors & Awards Chair Michael Fedenyszen were also on hand to help give out the awards.

The awards winners from the 2012 symposium are as follows:

Best Paper

1st PRIZE **High Fidelity Extended Period Dynamic Simulation in Development and Testing of Control Systems for Water Treatment and Distribution Facilities**

- Creig Wilson, CH2M HILL
- Jared Thorpe, CH2M HILL

2nd PRIZE: **Securing Critical Control Systems in the Water Sector – Where do I begin?**

- Don Dickinson, Phoenix Contact

3rd PRIZE **Development of an Integrated Business Solution with Telemetry and GIS**

- Michael Waddell, CDM Smith
- Isabel Szendrey, Puerto Rico Aqueduct and Sewer Authority (PRASA)

Honorable Mention **Optimization of Wastewater Lift Station for Reduction of Energy Usage and Greenhouse Gas Emissions**

- David Wilcoxson, MWH Americas
- Travis Crane, JEA, Jacksonville, Florida

Best Poster

1st PRIZE **Planning and Designing SCADA Systems for Wastewater Collection Optimization**

- Norman Anderson, CH2M HILL

Best Presentation

1st PRIZE **Using Cyber Security Evaluation Tool (CSET) for a Wastewater Treatment Plant**

- Bob Dusza, Manchester Water & Sewer Dept. – Manchester, Connecticut

2nd PRIZE: **Mobile Devices for SCADA Integration and Beyond: Considerations, Security and Applications**

- Pavol Segedy, Brown & Caldwell
- Brandon Erndt, Brown & Caldwell

3rd PRIZE **So you have SCADA, what's next?**

- Grant Van Hemert, Schneider Electric

Honorable Mention **Asset Tracking and Revision Control for Automated Water/Wastewater Control Systems**

- Blair Sooley, Trihedral Engineering,

Additional Awards:

We also gave out the following supplementary awards at the symposium itself.

- 1st Prize – Most prolific "Twitter Participant" during symposium – Jason Hamlin, Plant Electronics Technician, City of Lynchburg, Virginia, USA
- 2nd Prize – Most prolific "Twitter Participant" during symposium – Pavol Segedy, Brown & Caldwell
- Random Draw Prize for "Twitter Participant" – Marcelo Avendano, CDM Smith

WWID Honors and Awards Chair Michael Fedenyszen giving out awards at the luncheon.

Norman Anderson receiving 1st Prize for best poster for his poster on leveraging SCADA for wastewater applications.

Travis Crane receiving the Honorable Mention award for his paper he co-authored with David Wilcoxson from MWH on Optimizing Lift Station at the Jacksonville Energy Authority.

Joe Provenzano receiving the 1st prize for best presentation award on behalf of Bob Dusza from Manchester Water & Sewer, for his presentation "Using Cyber Security Evaluation Tool (CSET) for a Wastewater Treatment Plant"

Honors and awards chairman Michael Fedenyszen and 2012 symposium program chair Joe Provenzano.

Michael Waddell from CDM Smith receiving 3rd prize for best paper for his paper he co-authored: about using GIS and SCADA at the Puerto Rico Aqueduct and Sewer Authority.

Pavol Segedy receiving 2nd prize for best presentation.

SAVE THE DATE

August 6-8, 2013

Tuesday – Thursday

2013 ISA Water / Wastewater and Automatic Controls Symposium

Crowne Plaza Orlando-Universal Hotel
Orlando, Florida, USA
(with Disney World just around the corner)

www.isawwsymposium.com

2 full days of speakers/presentations
Track 1 – Instrumentation, System Integration, Automation,
Plant Case Studies, New Technologies, Optimization
Track 2 – Smart Water, SCADA, HMI, Human Factors, Alarm Management

1-day ISA Training Course on Flowmeters
2-day ISA Training Course on Cyber Security

Plant Tour of a local Water/Wastewater Facility

Trade Show, Reception & Networking Event

Affordable Professional Development for
Plant Operations/Maintenance Staff, Plant Managers,
Plant Designers, Engineers, System Integrators, PLC/HMI/SCADA Programmers

CEUs – Continuing Education Units
PDHs – Professional Development Hours

Water Environment Federation the water quality people
Technical co-sponsor

American Water Works Association AWWA FLORIDA Florida's Water Professionals
Technical co-sponsor

Florida Water Environment Association
Technical tour sponsor

Orange County Government Florida
Technical co-sponsor

Introducing the 2013 ISA Water/Wastewater and Automatic Controls Symposium

From the symposium committee

We are pleased to announce that our 2013 WWAC symposium is now a reality. In the following pages you will read about the technical program, the two optional ISA training courses, and the local water treatment plant tour we have planned.

The 2013 symposium will be held on August 6-8, 2013 in Orlando, Florida at the Crowne Plaza Orlando-Universal Hotel. We have been able to negotiate a discounted hotel rate of only $92/night and online registration is now available.

Thanks to our sponsors, we have also been able to keep our attendee pricing low. List price for the 2.5 day symposium is only $425 and includes breakfast, lunches, a general reception, plant tour, and printed proceedings. ISA members can attend for $325, and AWWA/WEF members can register for the discounted rate of $375.

The theme for our 2013 symposium will be "Smart Water." SCADA technology, including automation and instrumentation, has a wonderful potential to make our municipal infrastructure more effective, robust and cost efficient. It also presents the opportunity for us to make better use of our operational assets, both physical and people-wise.

We encourage you to read our Call for Abstracts on page 18. Abstract submissions are due on January 31, 2013, so now is the time to start talking to your boss and colleagues if you are interested in presenting.

Don't forget to set aside your training dollars for 2013. The symposium offers a very cost effective way to get targeted and relevant training for the annual CEUs/and PDHs you need.

Introducing Asst. Symposium Chair: Kevin Patel, PE, MBA

By Graham Nasby, General Symposium Chair

The symposium committee and I are pleased to announce that Kevin Patel, of Signature Automation, will be joining the 2013 symposium team as Assistant Symposium Chair.

Kevin has been a member of the WWID board since 2011, and was heavily involved with the organizing committee for last year's WWAC2012 symposium. In addition to sitting on the program committee, Kevin assistance's last year was invaluable towards making our 2012 symposium such a great success.

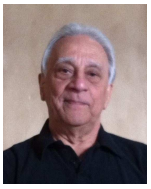
Kevin is the vice-president and a founding partner of Signature Automation, a Dallas-Texas based automation consulting firm that is dedicated to providing quality and reliable automation solutions and offers planning, assessments, programming, training, commissioning, documentation and project management services.

Prior to forming Signature Automation, Kevin was an automation project manager with CDM Smith for over eight years. Prior to working at CDM Smith, he also worked at Westin Engineering and Texas Eastern Pipeline as a systems specialist. Within the ISA, Kevin has been heavily involved with several standards committees, most notably ISA18, ISA101, ISA105 and ISA106.

Kevin is a rising star in the ISA and we look forward to him being part of the team for our 2013 WWAC Symposium. Kevin will also be the General Symposium Chair for the upcoming 2014 and 2015 ISA WWAC Symposiums.

Introducing Symposium Program Chair: Joe Provenzano, MSc

We are delighted to announce that industry veteran Joe Provenzano will be our program committee chair for the 2013 WWAC symposium.



Since the start of his career in 1957, Joe has been involved in the automation, instrumentation and control sector for over 50 years. He has worked for companies large and small, and been involved in positions ranging from hands-on technical roles to being part of executive management teams.

Joe began his career with Sperry Gyroscope, where he started as an electronics test technician, and soon rose through the ranks to be manager of one of their naval electronics groups. He then moved onto ITT WorldCom for a short stint before joining Data Master Inc., a division of the Bristol Company. Joe ended up spending 29 years at Bristol where he became their VP of Systems Engineering.

During his time at Bristol, Joe was one of the key people behind the development of the Bristol Network 3000 Distributed control system (the precursor to the Bristol 3330 that many of us are familiar with). In 1994, Joe "retired" from Bristol to start what became a 15 year career as general manager for Aaron Associates – a Connecticut-based system integration firm. Since 2009, Joe has been working as a systems specialist and general manager for a number of small firms. Earlier this year, Joe embarked on a new venture called KPRO Engineering Services. KPRO is a woman-owned firm that specializes in site services, instrumentation and commissioning.

Joe has been an active ISA member for over 20 years, holding positions throughout the organization that includes officer-level roles at the section, district, division, and society levels as well as being involved with standards committee work. He was one of the key organizers of the first ISA Water/Wastewater and Automatic Controls Symposium which took place in 2003. He has been heavily involved with the symposium ever since. We are delighted to have Joe on board as our 2013 WWAC Symposium program chair!

Earning CEUs and PDHs

Continuing Education Credits at the Symposium

At the 2013 WWAC Symposium, attendees can earn Continuing Education Units (CEUs) and Professional Development Hours (PDHs) for attending the sessions and ISA training courses. Engaging in continuing education and professional development is an ongoing requirement for many professional designations, certifications and licenses. By attending the WWAC Symposium, you can help satisfy your personal professional development and continuing education requirements.

The number of PDHs and CEUs for this year are:

- Symposium attendees will receive 20 PDHs / 2.0 CEUs
- In-Depth Cyber Security Course attendees: 1.4 CEUs
- Flow meter Selection & Sizing attendees: 0.7 CEUs

ISA is an approved Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102; (703) 506-3275. In obtaining this approval, ISA has demonstrated that it complies with the ANSI/IACET 1-2007 Standard which is widely recognized as a standard of good practice internationally. As a result of their Authorized Provider membership status, ISA is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET 1-2007 Standard.

The ISA has also partnered with the Florida Section of the AWWA and the Water Environment Federation (WEF) to certify training credits for use for state-licensed water and wastewater operators, and for state-registered professional engineers. For the 2013 symposium, this certification process is currently in progress. An announcement will be made once this process is complete. As part of the 2012 symposium, all attendees had the benefit of receiving approved CEUs/PDHs for the hours spent in the training course and symposium towards their water/wastewater operator and PE license continuing education requirements.

About the Symposium Hotel

The 2013 ISA Water/Wastewater Symposium will be held at Crowne Plaza Orlando-Universal Hotel in Orlando, FL. This boutique hotel offers luxury accommodations and is only steps from International Drive's world-famous shopping, dining and entertainment. It is also situated close to both Walt Disney World Resort and the Universal Studio's theme parks.

We have negotiated a special $92/night hotel rate for attendees. This rate is good from August 5 to 9, and is available for symposium attendees, speakers, exhibitors, and training course participants.

Crowne Plaza Orlando-Universal Hotel

7800 International Dr. Orlando Florida 32819
www.cporlando.com
sales1@cporlando.com
Reservations: 1 888-233-9527 (toll free)
Local: 1 407-355-0550
Fax: 1 407-355-0504

Symposium Hotel Rate: $92 per night

The hotel is approximately 13 miles from Orlando International Airport (airport code: MCO).

There are several ways to get to the hotel. If you are driving to the symposium, the hotel is not far from Interstate 4, the Florida 528 Highway, and the Florida Turnpike. For those traveling by air, the airport has a large number of rental car agencies.

Shuttle bus and taxi service from the airport is available via Mears Transportation by visiting online at www.mearstransportation.com or by calling 1-800-223-3868. A one-way taxi trip from the airport to the hotel typically costs around $35 USD.

2013 WWAC Symposium Hotel – The Crowne Plaza

Partnerships with WEF, FWEA, FSAWWA and OCU Renewed for 2013

By Graham Nasby, General Symposium Chair

We are pleased to announce that we will again be partnering with various other organizations to put on our 2013 ISA Water/Wastewater and Automatic Controls Symposium.

Our technical co-sponsors will again be:

- WEF Automation and Information Technology Committee , Water Environment Federation (WEF AIT)
- Florida Section of the American Water Works Association (FSAWWA)
- Florida Water Environment Association (FWEA)

Part of these partnerships means discounted symposium rates for AWWA, WEF, FSAWWA and FWEA members. Members of these organizations are able to register at a discounted rate compared to the normal list price. (ISA members also get a discount as well.)

We will again be offering a tour of a local water treatment plant courtesy of Orange County Utilities. Note: An announcement about which facility we will be touring will be made closer to the symposium.

We look forward to reporting more details about these partnerships in the next issue of this newsletter.

Water Environment Federation
the water quality people™

American Water Works Association
AWWA FLORIDA
Florida's Water Professionals

Florida Water Environment Association

Orange County Government
Florida

2013 WWAC Symposium Abstracts are due January 31, 2013

By Joe Provenzano, 2013 WWAC Symposium Program Chair

I am pleased to extend an open invitation for the submission of abstracts for presentations, papers and posters at this year's symposium. Abstracts are to be 250 words long and must be submitted electronically via email to the program committee.

See the Call for Abstracts on page 18
Or visit www.isawwsymposium.com

This open invitation includes anyone who is involved with the automation, instrumentation, system integration, operation, maintenance, management and/or construction of facilities the water/wastewater sector.

There are three ways you can present your work:

- 35 minute PowerPoint presentation (no paper)
- 6-12 page paper and a 35 minute PowerPoint presentation
- Large format 3'x4' poster

This year's symposium also has two speaking tracks:

- Track 1 – Instrumentation, System Integration, Automation, Plant Case Studies, New Technologies
- Track 2 – Smart Water SCADA, HMI, Human Factors, Alarm Management, Plant Optimization

In both speaking tracks, we welcome both technical and "case-study" submissions. Case studies can showcase new plants, plant upgrades, plant optimizations and/or the implementation of new technologies. Lessons-learned talks are also welcome.

Looking for some ideas on what to present? Visit the symposium website at **www.isawwsymposium.com** for a list of over 200 topic ideas under the "Call for Abstracts" link.

- 2013 Call for Abstracts
- 2013 Abstract Submission Template (MS Word)
- 2013 Author rights/responsibilities form

- List of some Presentation, Paper, and Poster Ideas
- General Paper, Presentation, and Poster Guidelines
- Non-Commercialism Policy

- How to write an Abstract
- Sample Abstracts: sample1, sample2, sample3

- Paper Formatting Template (MS Word)
- Sample Technical Papers: sample1, sample2, sample3

- PowerPoint Template (MS PowerPoint)
- Sample PowerPoints: sample1, sample2, sample3

- Large Format Poster Guidelines
- Sample Posters: sample0, sample1, sample2

Why Presenting at a Conference is Fun (and why your boss will think it's a good idea)

By Graham Nasby, 2013 WWAC Symposium Chair

The first and foremost reason to present at a conference is for your own professional development. You get to meet new like-minded people such as yourself, you get a chance to "talk shop" with people who do what you do and understand the challenges of automation in the water/wastewater sector, and you get a chance to share your experience/knowledge with others.

Some other reasons that presenting at a conference is a worthwhile endeavor include:

- Meet and network with like-minded individuals
- Introduce yourself to the water/wastewater automation community as someone who has something to offer
- Establish professional creditability by demonstrating knowledge, skills and experience
- Opportunity to learn from others and "talk shop" with people who understand the challenges of your sector
- Establish contacts in the sector for future collaborations, business opportunities and/or knowledge sharing
- Opportunity to showcase your accomplishments (and those of your company/organization)
- Chance to personally stand out from the crowd
- Chance to practice your presentation skills in a non-threatening environment
- Be actively involved in your professional development
- Get the opportunity to share your knowledge/expertise
- Learn something
- Have fun

First-time Presenters are Welcome!

We actively encourage people who have never presented at a conference to submit abstracts. Presenting at a conference is a great way to practice your presentation skills, establish creditability in the community, and introduce yourself to others in the sector. It is also a great way to meet new people and establish contacts for future knowledge-sharing and collaborations. Don't be scared – you will get a lot out of it and have fun at the same time.

Thinking about presenting but not sure how to get started? Feel free to contact our Program Chair Joe Provenzano (provenzano2@comcast.net) or our General Symposium Chair Graham Nasby (graham.nasby@eramosa.com) if you have any questions.

2013 ISA Water/Wastewater and Automatic Controls Symposium

Crowne Plaza Orlando-Universal Hotel.....Orlando, Florida, USA.....**August 6 to 8, 2013**
Presented by the ISA Water/Wastewater Industries Division – ***www.isawwsymposium.com***
Technical co-sponsors: WEF Automation and Info Tech Committee and the Florida AWWA Section

Call for Abstracts

Presented by the ISA Water and Wastewater Industries Division, in collaboration with the Florida AWWA and the WEF Automation and Info Tech Committee, the WWAC Symposium helps professionals in the water and wastewater industries understand how instrumentation, SCADA (supervisory control and data acquisition), and automatic control applications are vital to the treatment and distribution of water, and the collection and treatment of wastewater. The symposium also provides an excellent opportunity to gain valuable technical information, networking, professional development, and continuing education credits (CEUs and PDHs).

This 3-day symposium is focused on the challenges associated with automation and instrumentation in the water and wastewater sector. It features: 2 full days of presentations, a tour of a local water/wastewater facility, a general reception, networking events, a poster session, and a supplier showcase. The first day begins with registration, an optional full-day short course on a current SCADA/automation related topic, and an evening plant tour. The second day kicks off with a keynote speaker, followed by presentations on general topics such as instrumentation; system integration, automation, plant case studies, new technologies and process optimization/automation. The third day starts with an invited speaker on effective plant automation techniques, and is focused on leveraging "Smart Water" technology with topics geared towards SCADA, HMI, Expert Systems, Data Modelling, and Alarm Management. The Tuesday-Thursday timeslot has been selected so that families can easily take their kids to Disney World, both during and before/after the symposium. Proceedings will be published and made available to water/wastewater division members, and papers will be considered for publication in the ISA's technical journal, *ISA Transactions* (www.isa.org/isatrans/).

Guidelines for Submission

- All authors/speakers must pay the speaker registration fee ($125)
  - The speaker registration fee is a discounted conference rate (regular $425)
- 250 word (max 300 words) abstract in US English shall be submitted electronically
- Authors must indicate what format they wish to present in:
  - 30 minute presentation (no paper)
  - 6-12 page paper and 30-minute presentation
  - Large format 3 foot wide x 4 foot high poster
- Final presentations must be on the supplied symposium PowerPoint template
- Final papers must be submitted in MS Word using supplied symposium template
- Papers/presentations/posters accepted for presentation and/or publication will require completion of ISA Rights and Responsibilities form
- Student papers and posters are welcome
- The lead author is the main contact

Submissions

Submit your abstract via email in MS Word format to:
abstracts@isawwsymposium.com **AND** provenzano2@comcast.net

Deadlines

Abstracts Due ..... January 31, 2013
Notification of Acceptance ..... February 20, 2013
First Draft Due ..... March 22, 2013
Final Draft Due..... May 15 , 2013

A full author information package, along with sample abstracts, templates and a list of topic ideas can be found at www.isawwsymposium.com

For additional information, contact:

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+ 1 519-763-7774
graham.nasby@eramosa.com

Joe Provenzano, M.Sc.
Symposium Program Chair
KPRO Engineering Services
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Rodney Jones
Staff Contact
ISA Symposia
+1 919-990-9418
rjones@isa.org

Topics include but are not limited to:

Speaking Track 1 – General Topics

Instrumentation: New Technologies and Applications
SCADA Security, ISA99, CSET, and Mitigating Risks
Control System Redundancy and Robust Design
Wireless Technologies
System Integration
Automation Techniques for Existing Plants
New Control System Technologies
Project Management for Integration Projects
Plant Case Studies
- Plant Upgrades & New Facilities
- Control System Upgrades & Replacements
- Lessons Learned

Process Optimization
Automated Control Techniques
Project Management Lessons for Integration Projects
Specific Water and Wastewater Challenges

Speaking Track 2 – Smart Water

SCADA – Supervisory Control and Data Acquisition
Modelling Non-revenue water & collection networks
Energy use modelling and Optimization with SCADA
Capturing and Evaluating Stakeholder Needs
HMI Design for Operator Effectiveness
Effective Use of Multiple HMI Screens
Human Factors and Control Room Design
Intelligent & Expert Systems
Alarm Management & Alarm Rationalization
Implementing of ISA, EEMUA, WEF & AWWA Standards
Techniques to Reduce Nuisance Alarms
Call-Out Alarm Rationalization and Techniques
Data Reporting & Presentation Techniques / Strategies
Data Management, Historians, and Data Retrieval
SCADA and the Current Regulatory Environment
Mobile HMIs, Tablets, Remote Access, and Dashboards

2013 WWAC Symposium Program Schedule Preview

Sponsored by the Water and Wastewater Industry Division of ISA, the WWAC Symposium helps professionals in the water and wastewater industry understand how automatic control applications affect processing and distribution of water treatment and provide an outstanding opportunity to gain valuable technical information and training.

The preliminary program schedule is as follows:

Monday – Tuesday, August 5-6, 2013

- Optional 2-day course on in-depth SCADA cyber security
- Optional 1-day course on flow meters selection/sizing
- Symposium Registration
- Local Water Treatment Plant Tour (Tues afternoon)

Wednesday, August 7, 2013

- Keynote speakers
- Presentations and Papers
- Light Breakfast, Coffee Breaks and Buffet Lunch Provided
- Supplier Showcase & Vendor Presentations
- Evening Reception

Thursday, August 8, 2013

- Invited Speaker
- Presentations and Papers
- Light Breakfast, Coffee Breaks and Buffet Lunch Provided
- Poster Session
- Supplier Showcase

Attendees at the symposium can earn up to 20 PDHs (professional development hours).

Provider #1001262

ISA has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102; (703) 506-3275. In obtaining this approval, ISA has demonstrated that it complies with the ANSI/IACET 1-2007 Standard which is widely recognized as a standard of good practice internationally. As a result of their Authorized Provider membership status, ISA is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET 1-2007 Standard.

What there is to do in Orlando, Florida

from the Visit Orlando tourism bureau

Lots! In addition to Disney World, Universal Studio's and Sea World, there is a lot to do and see in Orlando as part of your trip.

Theme Parks

Explore what's new and exciting at Walt Disney World® Resort, Universal Orlando® Resort, SeaWorld Parks & Entertainment and Orlando's other world-famous theme parks.

Attractions

Fill your days and nights with unique experiences outside of the theme parks. From rockets to acrobats, Orlando's attractions will take your vacation to new heights.

Golf

Tee off in one of the world's largest golf destinations. Orlando's famously beautiful golf courses, top-ranked instructors and luxurious resorts cater to the most discerning golf enthusiasts.

Arts, Culture, & History

Discover what inspires a city built on imagination. Live music, theater, dance, galleries, museums and festivals are just a taste of Orlando's arts and culture scene.

Shopping

Whether you're looking for a splurge or a steal, Orlando's collection of malls, outlets, boutiques and galleries, all within a fifteen-minute drive, will indulge every retail whim.

Spas

Whether it's a quick rubdown or a head-to-toe rejuvenation, find your inner (and outer!) glow at one of Orlando's award-winning spas.

Sports, Recreation & Outdoors

Get moving and experience Orlando's unexpected thrills. Whatever your passion, there's an activity for you.

Dining

Whether you're looking for a neighborhood café or a kid-friendly eatery, Orlando's restaurant scene has grown into an eclectic mix of dining experiences at a variety of price points.

Nightlife & Entertainment

Orlando is just as fun after dark as it is during the day. Visit one of our unique entertainment complexes, take in a show at a dinner theater or crack up at an all-ages comedy club.

For more information see: **www.visitorlando.com**

Symposium Registration

Registration for the symposium is now open!

www.isawwsymposium.com/register

Symposium Registration (Aug 6-8, 2013) includes:

- 2 full days of papers and presentations
- poster session
- networking events
- tour of a local water/wastewater facility late-afternoon of Tues, Aug 6
- admission to supplier showcase
- light breakfasts on Aug 7 and Aug 8
- full buffet lunches on Aug 7 and Aug 8
- evening reception on Aug 7 with cash bar and 2 free drink tickets
- name badge
- list of attendees with contact information
- printed onsite program booklet
- printed copy of symposium proceedings
- There are also two optional training courses (additional course fees applies)

Full Symposium registration

List Price..... $425
ISA Members: $325
AWWA / FSAWWA members..... $375
WEF / FWEA members: $375
Students: $125
Authors/Speakers:..... $125

Optional Training Courses (Aug 5-6):

2-day In Depth SCADA Cyber Security..... $1115
1-day Flowmeter Selection & Sizing..... $495

Photo from WWAC 2012 in Orlando, Florida

Testimonials from Past WWAC Attendees

I would like to encourage anyone who has the chance to attend the next symposium – whether as an attendee or a presenter – ***and get a fresh perspective on the issues you face every day****. Maybe even share your experience with others. You'll be glad you did.*

Matt Phillips
SCADA Coordinator
City of Guelph Water Services Dept.

Congratulations on this successful summit. *You did an outstanding job organizing this, sticking to the schedule and keeping us informed. I learned a lot, met some great people (including colleagues at CDM Smith) and was very impressed by your leadership. Not to mention Graham's sense of humor. Superb!*

Michael Waddell – Principal
Application Development Practice Leader
CDM Smith

You and the other members of the symposium team did a masterful job*. I am looking forward to next year when I hope bring other members of the staff, here at the North Broward Regional Wastewater Plant. I came away from that three day event "loaded for bear" in terms of how I want to influence my organization with our many upcoming projects. I sincerely thank you for the opportunity afforded me during that awesome event.*

Tom McGovern, CCST Level III
Water and Wastewater Services
Broward County, Florida

I want to thank you and all of your volunteers for the great training session and very informative symposium. *Cyber Security information and training is paramount to secure and safe water delivery in the US and the world. The plant tour was informative and the hosts were very personable to us all.*

The symposium had a wide variety of topics for control system design and operational considerations. *The speakers were very diverse and shared a wealth of information with us all. Thank you again for heading up a great team of dedicated ISA/AWWA Water/Wastewater volunteer professionals.*
My hat is off to you.

Jeff Blue, CAP
Control Systems Engineer
Southern Nevada Water System

I have had the pleasure of attending the last three WWAC Symposiums and plan to attend again. ***I would encourage anyone in the water and waste water industry to attend...****it is time well spent!*

Daniel Machado,
Technology Support Group Manager
Cobb County, Georgia

Top Ten Reasons to Attend the 2013 WWAC Symposium

1. Opportunity to learn from others and "talk shop" with people who understand the challenges of your sector
2. Get to compare experiences and lessons learned
3. Learn about new technologies, products and services
4. Earn PDH (professional development hours)
5. Earn CEUs (continuing education units)
6. Be actively involved in your professional development
7. Establish contacts in the industry
8. Share Ideas/Experiences with others in the sector
9. Learn Something
10. Have Fun

Registration Now Open!

2013 ISA Water / Wastewater and Automatic Controls Symposium

August 6-8, 2013

Tuesday - Thursday

Crowne Plaza Orlando-Universal Hotel
Orlando, Florida, USA
(with Disney World just around the corner)

www.isawwsymposium.com

2 full days of speakers/presentations
Track 1 – Instrumentation, System Integration, Automation, Plant Case Studies, New Technologies, Optimization
Track 2 – SCADA, HMI, Human Factors, Alarm Management

1 full day ISA Training Course on Flowmeters
2 day ISA Training Course on Cyber Security

Plant Tour of a local Water/Wastewater Facility

Trade Show, Reception & Networking Event

Affordable Professional Development for
Plant Operations/Maintenance Staff, Plant Managers, Plant Designers, Engineers, System Integrators

CEUs – Continuing Education Units
PDHs – Professional Development Hours

Visit the 2013 WWAC Symposium website

Visit our newly updated 2013 WWAC symposium website at:

www.isawwsymposium.com

On the website you will find:

- Overview of the symposium
- Welcome Messages
- Call for Abstracts
- Author Information Kit/Guidelines
- Attendee Information
- Online Registration for the Symposium and Hotel
- Online Registration for the full-day training course
- Preliminary Symposium Program
- Local Plant Tour Information
- Exhibitor Information
- Sponsorship Opportunities
- Exhibitor Prospectus & Sponsorship Program Details
- Program Committee Member Bios
- Press Kit / Media Information
- Hotel Information
- Directions/Transportation Links to Hotel
- Key Symposium Contacts & Contact Information

This year's WWAC Symposium is being held at the Crowne Plaza Orlando-Universal Hotel in Orlando, FL, USA

Phoenix Contact comes on board as 2013 WWAC Symposium platinum sponsor

The symposium committee is pleased to announce that Phoenix Contact has come on board as a Platinum Sponsor for the 2013 ISA Water / Wastewater and Automatic Controls Symposium. The 2013 symposium will be taking place Aug 6-8, 2013 in Orlando, Florida. The symposium hotel will be announced shortly.

"The ISA water/wastewater symposium is a niche event that caters specifically to automation, SCADA and instrumentation professionals in the municipal water and wastewater sectors. Connectivity, reliability and robustness are key drivers in this important part of our public infrastructure. We are pleased to be an active participant in this focused symposium that caters the dedicated individuals that build, maintain and operate the automated systems that mange our water resources " says Don Dickinson, Senior Business Development Manager – Water Sector, Phoenix Contact USA.

We are pleased to have Phoenix Contact join us as a platinum sponsor for the 2013 WWAC Symposiums

PHOENIX CONTACT
INSPIRING INNOVATIONS

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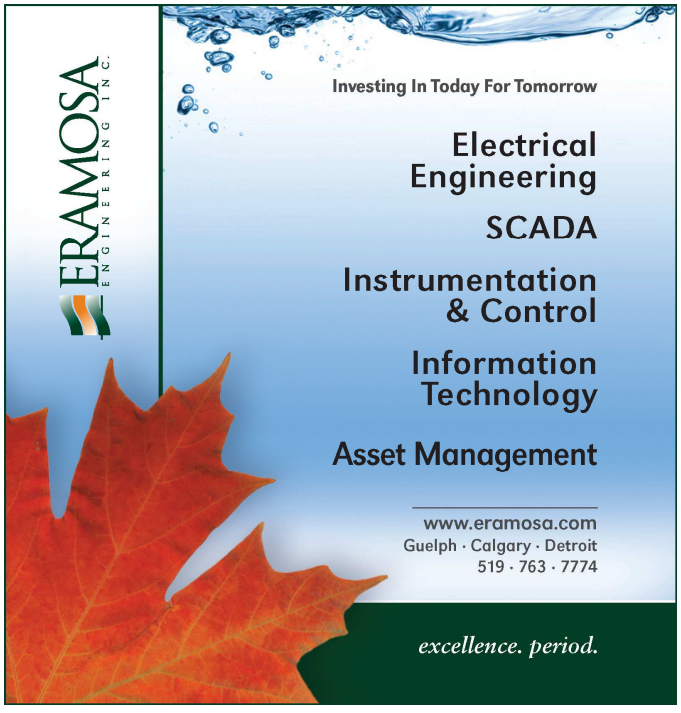
Schneider Electric comes on board as 2013 WWAC Symposium platinum sponsor

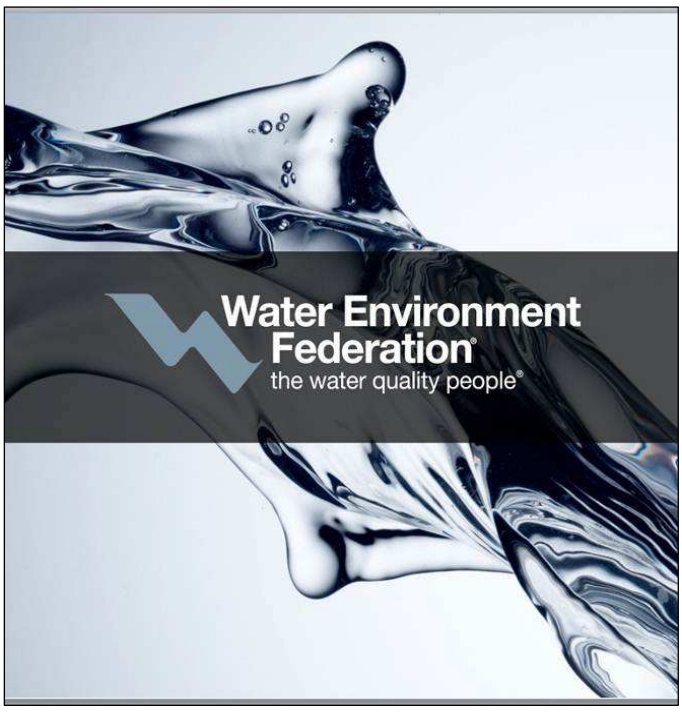
The symposium committee is pleased to announce that Schneider Electric has come on board as a Platinum Sponsor for the 2013 ISA Water / Wastewater and Automatic Controls Symposium. The 2013 symposium will be taking place Aug 6-8, 2013 in Orlando, Florida. The symposium hotel will be announced shortly.

"The WWAC Symposium is an event that speaks directly to the water and wastewater professionals who are involved with automation, instrumentation and SCADA on a daily basis as part of their jobs. Technology has a major impact on the smooth running of our public water infrastructure, and this is why we are proud to be involved with this year's symposium," says Mark Leinmiller, water/wastewater segment manager of Schneider Electric.

We are pleased to have Schneider Electric continue as a platinum sponsor our upcoming 2013 WWAC Symposiums. Schneider Electric was also a long platinum sponsor of our 2012 symposium so we appreciate their continued support.

Schneider Electric





NEWS FROM WEF

WEF installs their incoming 2013 President – Cordell Samuels from Ontario, Canada

The Water Environment Federation, one of the technical co-sponsors for our 2013 ISA Water/Wastewater and Automatic Controls Symposium, is pleased to announce the installation of their 2013 WEF President.

Cordell Samuels of Ontario's Duffin Creek Water Pollution Control Plant – which is not far from where our very own incoming WWID Director Graham Nasby lives – assumed the role of WEF President on October 2, 2012. The installation ceremony was held in conjunction with WEF's annual WEFTEC 2012 trade show in New Orleans.

During a ceremony on Tuesday, October 2, the WEF "gavel of leadership" was passed from President Matt Bond (Kansas City, Mo.) to incoming President Cordell Samuels, plant superintendent for the Duffin Creek Water Pollution Control Plant in the Regional Municipality of Durham in Ontario, Canada. President Samuels will work over the coming months to implement the organization's new strategic initiatives, emphasizing leadership and innovative water management.

"I challenge us all to focus on smarter approaches to managing water and look to drive innovation in our priority areas, including nutrient removal and recovery, energy recovery, and storm water management," said Samuels. "This will require us not just to communicate more and to think bigger but to show how we are ready to adopt new approaches that can provide even better and more sustainable services."

We look forward to continuing to work with WEF and its Automation and Information Technology committee to promote the importance of SCADA and automation in the municipal wastewater sector.

Incoming WEF President Cordell Samuels giving his inaugural address on Oct 2, 2012 in New Orleans at WEFTEC.

WWID NEWS

Looking for a Few Good Volunteers

By Graham Nasby, Incoming 2013 WWID Director

In 2013 I will have the honor and privilege of starting my 2 year term as Director of the ISA water/wastewater industries division. As I have prepared this year for the symposium and for my upcoming role as director, it has made me think a lot of about what it's like to be part of a team and how to inspire others to bring out there best. Volunteer organizations are often said to run in cycles, and we are very fortunate to be on an "upswing" in the WWID at this point in time.

We have a strong team in the WWID division, but a few extra pairs of hands always helps. The division is a great opportunity to meet contacts in the industry, learn about new techniques and work on your "soft skills". It's an organization that will give back to you much more than you put in.

Some of the volunteer roles I am looking to fill in 2013 WWID executive include:

- Symposium Program Committee Members
- Symposium Organizing Committee Members
- Symposium Marketing Committee Members

- Division Secretary
- Technical Columnist for Newsletter
- Association News Writer for Newsletter
- Writers for the Newsletter

- Section-Division Liaison
- Community Colleges Liaison
- Education Liaison
- WebMaster for www.isa.org/wwid

- LinkedIn & Twitter Account Coordinator
- Listserv & Email mailing list Coordinator
- Student Scholarship Committee Members

- Symposium Tour Coordinator
- Symposium Program Booklet Writers
- Symposium Local Sections Liaison
- Symposium Exhibitor Committee

If any of these positions interest you, or you have any ideas for what the division should be doing, please do not hesitate to contact me, Graham Nasby, at graham.nasby@eramosa.com

ISA Water/Wastewater Industry Division

Exhibit Booth Information

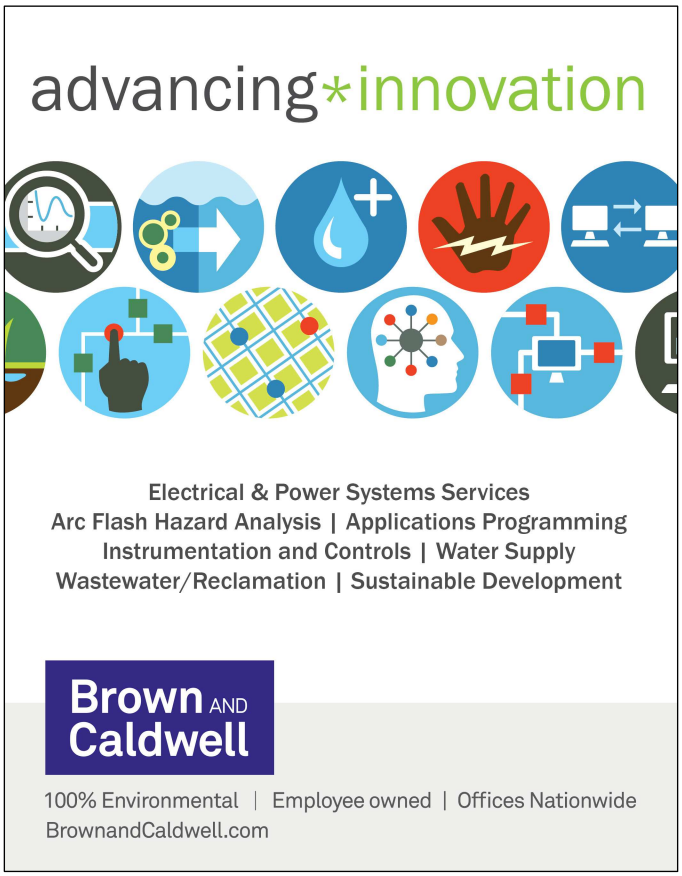
We are currently soliciting exhibitor booths for WWAC 2013.

Exhibitor tables at the 2013 ISA Water/Wastewater and Automatic Controls Symposium will be priced at $875 each which includes:

- one six foot table with skirting, or 10 ft x 10ft space, 2 chairs, duplex electrical outlet
- two vendor passes, which include ID badges and full conference access (an $850 value)
- additional vendor passes can be purchased for $200/each
- breakfasts, coffee breaks, and lunches on Aug. 7 & 8
- admission to the general reception with cash bar on the evening of Aug 7
- exhibits room hours: Aug 7 & 8 (8:00am-5:00pm), and during Aug. 7th evening reception
- exhibit setup: Aug 6 (6:00pm-9:00pm);
- exhibit take down Aug. 8 (4:00pm-7:00pm)

How to Sign up as an Exhibitor

For more information on how to exhibit at the symposium please refer to our 4-page full-color sponsorship and exhibitor opportunities brochure: **www.isawwsymposium.com/exhibit-sponsor/** . Now is also a good time to start thinking about WWAC 2013. Reserve your spot today!



Exhibitors from last year's symposium:

Some of the exhibitors at last year's 2012 WWAC Symposium included:

- Schneider Electric
- Gray Matter Systems LLC
- Phoenix Contact

- Trihedral Engineering
- ISA Tampa Bay Section
- Scott Safety

- Water Environment Federation
- Beijer Electronics
- Florida Section of the AWWA

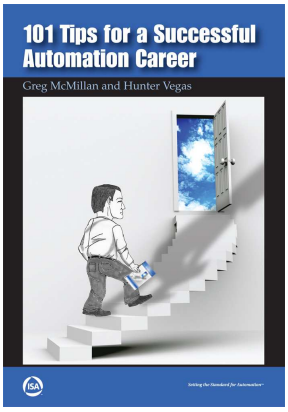
- Florida Water Resources Journal
- Beckhoff
- Florida Water Resources Journal

- Primary Flow Signal
- Florida Water Environment Association
- DCR Engineering Services
- Industrial Control Links

Visit www.isawwsymposium.com and book your exhibit space today!

ISA publishes career guide:
101 Tips for a Successful Automation Career

Our friends at ISA headquarters have published a new book designed to help the next generation of automation engineers steer clear of common career obstacles and reach their professional objectives.



101 Tips for a Successful Automation Career by Gregory K. McMillan and P. Hunter Vegas consolidates career planning recommendations, guidance on technical issues and challenges, interpersonal and workplace advice, and philosophical observations.

"Through our combined 70 years of experience in management, instrumentation, electrical design, modeling and control, Hunter and I have installed hundreds of millions of dollars' worth of equipment and managed thousands of projects," says McMillan, a highly acclaimed automation professional and ISA Life Achievement Award recipient.

"Along with our many successes have come some hard lessons learned. We wrote this book to share what works and what doesn't in order to guide and assist younger automation engineers in their professional journeys."

Written in an inviting, easy-to-read style, the book is aimed at automation engineers involved in controls systems and instrumentation, and engineering students approaching graduation.

"The book is an interesting mix of facts, advice and useful tips gleaned from our many years in the automation field," remarks Vegas, senior project leader at Avid Solutions, an industrial process control system integrator based in Winston-Salem, N.C. "It's not your typical technical resource. It provides a great deal of useful information that is simply not available anywhere else. It's like gaining all the insights and perspectives of a life-long career in automation without experiencing the gray hair."

Examples of topics addressed include:

- Planning a career in automation
- Surviving a control system start up and living to tell the tale
- Avoiding technical and interpersonal pitfalls
- Dealing with bosses, vendors and co-workers
- Becoming the "go to" person

"We hope that by reading this book, you'll avoid the errors that we and others have made, and you'll be better prepared to navigate your way to a long and successful automation career," Vegas adds.

In his automation career, Vegas has engineered and installed fieldbus systems across a variety of industries; designed robotics and automated gauging systems for Babcock and Wilcox, Naval Nuclear Fuel Division; developed next-generation manufacturing equipment for Bristol Myers Squibb; and held numerous instrumentation, engineering and production management positions at Cytec Industries.

He received a Bachelor of Science degree in electrical engineering at Tulane University, and a master's degree in business administration from Wake Forest University.

McMillan is a widely honored automation professional and author. He received the ISA "Kermit Fischer Environmental" Award for pH control in 1991, and the *Control* magazine "Engineer of the Year" Award for the Process Industry in 1994. In 2001, McMillan was inducted into the *Control* "Process Automation Hall of Fame"; in 2003, he was honored by *InTech* magazine as one of the most influential innovators in automation; and in 2010, he received the ISA Life Achievement Award.

He is the author of numerous books on process control, including *Essentials of Modern Measurements and Final Elements for the Process Industry* and *Advanced Temperature Measurement and Control.* He has been the monthly "Control Talk" columnist for *Control* magazine since 2002.

A former Senior Fellow from Solutia/Monsanto and an ISA Fellow, McMillan currently contracts in Emerson Delta R&D via CDI Process & Industrial in Austin, Texas. He earned a Bachelor of Science degree in engineering physics from Kansas University and a Master of Science degree in electrical engineering (control theory) from the Missouri University of Science and Technology.

Copies of the book can be purchased from the ISA online bookstore at www.isa.org/books/ .

WWID Award Winners

We are pleased to announce that the following long-time WWID members received awards this fall at the ISA Divisions Awards Luncheon on Sept 25, 2012 in Orlando, Florida.

Tom DeLaura

2012 Member of the Year Award
to
Tom DeLaura, PE
Eramosa Engineering International
In Recognition For
Promoting Collaboration Between
The WEF Automation, Info Tech Committee
And the ISA Water/Wastewater Industry Division

Jon DiPietro

2012 Outstanding Leadership Award
to
Jon DiPietro
Boston Section
In Recognition for
Pivotal Guidance & Outstanding Leadership

Steve Valdez

2012 Distinguished Service Award
to
Steve Valdez
NJ Section
In Recognition for
Years of Dedicated & Exemplary Leadership

ISA Division Awards

Our WWID also won two awards as a division at the luncheon, namely:

2012 Most Improved Division
Industries and Sciences Department

2012 Most Outstanding Division - Honorable Mention
Industries and Sciences Department

Photos from the Luncheon. Left to Right: Jake Jackson, Frank White, Barbara White, Michael Fedenyszen

Pavol Segedy, Jon DiPietro, Graham Nasby and Joe Provenzano posing with the Most Improved Division award

Jon DiPietro receiving WWID Leadership award

ISA Automation Week poster for Division Awards Luncheon (Joint A&T and I&S Departments Awards Luncheon)

Q&A Spotlight Interview
with Jon DiPietro

Jon DiPietro has been involved with the ISA over 10 years, and has worked in several industries including the water/wastewater sector. Jon was Director of the ISA Water and Wastewater Industry Division in 2008-2009, and was the general symposium chair for the division's 2010 and 2011 ISA WWAC symposium. This year Jon is helping market the upcoming 2012 WWAC Symposium. Jon has kindly agreed to share his insights into the water/wastewater sector and our annual ISA water/wastewater and automatic controls symposium in this issue's Q&A Spotlight.

WWID: Can you tell us a little about yourself?

DiPietro: I like to use the phrase "Engineer by education; Geek by choice; and marketer by necessity".

After receiving a BS in Electrical Engineering, I began my career as an automation engineer working primarily as a PLC programmer and HMI developer. This was my foundation in engineering. Working my way up the information food chain, I became more and more immersed in software and database development until finally being bitten by the entrepreneurial bug in 1997 and co-founding a software company.

The niche we founded the company in was a good one and the company prospered. Soon after its founding, the company became heavily involved in the water/wastewater sector providing data management and compliance management tools. As a founding partner and software architect, the geek in personality was being well fed.

As the company grew, it also encouraged me to branch out into new entrepreneurial areas. One of these areas was in social media. This soon led to me setting up my blog Domesticating IT in 2008, and my more recent project Career Gravity. These days I spend most of my time helping people and businesses learn how to market themselves effectively using social media.

WWID: How did your software company end up getting involved in the water sector?

DiPietro: Believe it or not, it was a phone call back in 2001. At the time, I had been running my company [Bridge-Soft] for several years already, but we had never done any work in the municipal water sector. Up until that point most of the work had been in the chemical, cosmetic and food/beverage industries.

The phone call was from a facility manager of the Goulburn Valley Water District, a water district located in Australia. He had found our company website and hoped that we could help him with a problem he was having.

At the time, new water regulations in Australia required him to collect and report on a wide range of lab, process and analytical data but the there was so much data they couldn't handle using just log books anymore. This grew into an immensely profitable business as our software grew and ended up being used by over half a dozen water utilities in Australia. And it all started with a single phone call.

WWID: How did this correspond to your development as an ISA member?

DiPietro: My membership in the ISA actually falls into the two stints, which I will refer to as "before Australia" and "after Australia".

In my first stint of ISA membership, I joined as a College student in the 1990s. At the time I didn't know much about the ISA as an organization so I let my membership lapse after a few years. At the time, I didn't realize that the ISA, like most technical organizations, only gives back what you put into it.

My second stint as an ISA member was much more successful. It was 2002, and I had just started working in the Australian market. A business development manager I had just hired suggested that I join the ISA. I figured "why not", and gave it a try. With a little bit of guidance from this ISA mentor, I soon learned about the ISA's many opportunities for technical knowledge sharing and networking. I was hooked, and I've been an ISA member ever since.

WWID: When did you start to get involved with ISA leadership?

DiPietro: It was very soon after I joined the ISA for the "second time". In 2002, I was living near Boston, Massachusetts, so I joined the ISA Boston Section. Seeing a fresh new face, they immediately invited me to become their Section Secretary. I did that for two years, followed by being the Section Treasurer, and soon after became Vice-President of the section. I was elected Boston Section president in 2007, and ended up holding the position for the next 2 years.

This was also the same time that I began to develop a fuller appreciation for what the ISA is as an organization. 2007 was the first time I attended a DLC (District Leadership Conference) and attended one of the society-level Fall Leaders Meetings. A whole new world opened up to me when I learned about ISA divisions, symposia, standards, and the other products/services that that the ISA has to offer.

It was also the same time that I started to become actively involved in the ISA Water and Wastewater Industry Division (WWID). It was a fellow section member, Michael Fedenyszen, who introduced me to the WWID and encouraged me to get involved. After a number of years, this lead to me being the WWID Director for 2011 and 2012, and having the opportunity to be general symposium chair for our ISA water/wastewater symposium in 2011. The ISA is a wonderful organization to be involved with as a volunteer. The more you put into it, the more you get out of it.

WWID: I notice that your term as WWID Director ends in 2012, what do you have in store next?

DiPietro: In 2011, I was elected by my peers to be the ISA's VP of Strategic Planning (VP-SPLN) for 2014-2015. For the 2012-2013, I will be filing the VP-SPLN-Elect role.

So for this year, my roles as the Director of the WWID and VP-SPLN-Elect have been keeping me very busy. ISA is also undertaking a massive project to replace its Association Management System and entire website. As a member of the volunteer steering committee for this project, I'm looking forward to helping ISA dramatically improve its member infrastructure and web presence.

WWID: What do you like about working in the Water/Wastewater sector?

DiPietro: If I were to boil it down to one phrase, I would say the spirit of cooperation. Water and wastewater is key part of our public infrastructure. It's a natural monopoly by nature and we all need it. It's a service-based industry that is driven by necessity rather than profit, so as a result individuals who work in the sector are more apt to collaborate with each other towards common goals. This is something that you often don't get in the more competitive, profit-driven industries out there. I find water/wastewater to be a great sector to work in.

WWID: I understand this spirit of cooperation was captured in a paper you presented at the 2010 ISA WWAC symposium entitled "To Hell and Back in Five Days". Can you tell us a little more about the paper and what it was about?

DiPietro: Of course – this was a really interesting paper to write with one of my water clients at the time. Between February 7 and March 14, 2009, more than 400 bush fires across the state of Victoria, Australia, scorched over a million acres of land, killing 173 and injuring 414.

Engineers at Goulburn Valley Water (GVW), provider of urban water and wastewater services to 54 towns and cities on the outskirts of Melbourne, watched as their telemetry system from the Kilmore Dissolved Air Filtration plant reported an ambient control room temperature of 142 °F before going silent on the afternoon of Saturday, February 7.

A site visit on the following day revealed that while the treatment plant survived the fire, its control room was completely incinerated, destroying the electrical switchgear, plant HMI, laboratory, instrumentation and chemical dosing systems. With only five days' worth of water stored, an emergency response plan to rebuild the control room and re-commission the plant went into action.

The paper and presentation was about how they were able to build a completely new control room and get the plant up and running in less than five days. It was a testament to what is possible when water districts, vendors and consultants can collaborate with each other in the face of insurmountable odds.

WWID: That's quite a story. I understand that you now work primarily as an Internet marketing and social media consultant. How did that come to be?

DiPietro: It was journey that started around the same time I started getting involved with the ISA at the society level. It was 2008 and I ended up attending several ISA-provided seminars that were part of its Leadership Development Certificate program. One of the seminars was on how to give effective presentations by long-time ISA member Paul Gruhn. It was an eye opener, and it set me on quest to become a better communicator in general. A "challenge" as they say.

My first foray into social media was in the same year with LinkedIn, this soon followed with Twitter and then Facebook. In fact, it was Jim Cahill from Emerson who introduced me to Twitter. This then led me launching my blog "Domesticating IT" at www.domesticatingit.com later that year. It sort of grew from there.

Also as my original software company matured and grew to a size it did not require as much hand-feeding as before, it allowed me to spend more time to pursue the challenge of becoming a better communicator and develop myself as an Internet marketer.

Today, I make a significant portion of my living as an Internet Marketing Consultant. In addition to having my www.domesticatingit.com blog, I have also recently launched another blog called www.careergravity.com where I offer advice on personal marketing and using social media to support career development.

WWID: What's next?

DiPietro: Only time will tell. My goal of becoming an effective communicator is an ongoing one. I find the Internet and social media to be an interesting tool that is always changing, and that gives the appeal of being an ongoing challenge.

My roots are firmly planted in the water/wastewater sector, but I take special delight in helping individuals, businesses and organizations learn how to effectively market all that they have to offer.

WWID: Our 2012 ISA Water/Wastewater and Automatic Controls Symposium is now in the record books – it was held on August 7-9, 2012. What has it been like being part of the marketing team for this year's symposium?

DiPietro: It's been a great experience. The hardest part of marketing is making sure you have something worth "selling". For our WWAC symposium, this was fortunately very easy to identify. With the strong technical program (30 speakers), industry collaborations with WEF and the Florida AWWA, and a very value-oriented registration fee, the symposium was an easy sell. The trick was how to get the word out.

We put together an extensive symposium website at www.isawwsymposium.com and we optimized for social media and Internet search engines. We made sure we had a professional looking symposium booklet. And, I also suggested our symposium chair maintain an up-to-date blog as part of the website. The result so far has been the largest number of registrations for the symposium, in its over 7-year history. I'm proud of the marketing plans we developed for this year's symposium, and I'm looking forward to our 2013 symposium next year. I encourage anyone who works in the water/wastewater sector's to attend our 2013 WWAC Symposium on Aug 6-8, 2013. The symposium has a lot to offer.

WWID: Earlier in the interview you mentioned that you actually joined the ISA twice – first as a young person who didn't know the organization very well, and later as a more active member who was able to use their membership to grow their career. What advice can you offer to a young person who is considering joining the ISA, so they can avoid the "having to join a second time" experience you had?

DiPietro: I would say first and foremost: talk to your fellow ISA members. In my experience, over 90% of new ISA members join because a friend or colleague recommends they join. To make sure you get the full value of your membership its important seek out and talk to your fellow ISA members. Then you can find out about the many knowledge sharing, networking and volunteer opportunities afforded by the organization. Like any technical society, with the ISA you will always get out of it what you put in. Even a small time investment in the ISA as a member can yield enormous positive results for your own professional and career development.

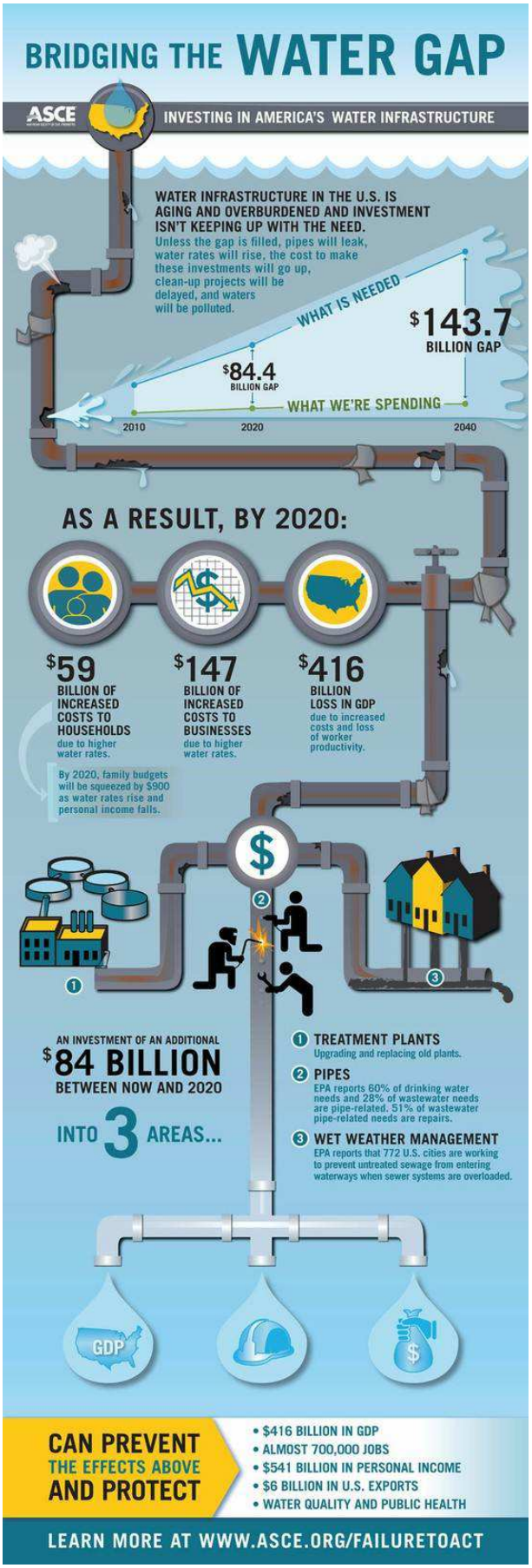
WWID: Lastly, do you have any additional advice for younger members of the WWID who are pursuing a career in the water/water sector?

DiPietro: The water/wastewater sector is an excellent industry to work in. It is a sector that is still in the process of automating and new environmental regulations are constantly being introduced – to cope with this the industry needs young, smart and energetic automation professionals to help them solve these challenges. This is where the younger members of our profession come in to help us. Overall, the workforce in the water/wastewater sector is aging and many of our more experienced operators and engineers will be retiring soon. We need the next batch of automation professionals who understand the latest technology to pick up the torch in our sector. The work and opportunities are there for the young person who is eager, ambitious and up for a challenge.

WWID: An inspiring note to end our interview on. Thanks again for taking the time.

DiPietro: My pleasure!

(Note: This interview has been edited for length and clarity.)



The Many Benefits of ISA Membership

Are you taking advantage of your ISA Membership?

- Information exchange and networking - 154 local sections for professional Members and 115 for student Members
- Free online viewing of ISA's automation standards - ISA has published more than 150 standards,
- recommended practices, and technical reports through the dedicated efforts of a network of industry experts
- Free technical library - unlimited downloads of over 2,500 technical papers published at ISA conferences and symposia
- Free access to over 40 online, pre-recorded web seminars
- Free *InTech* magazine and *Automation Weekly* e-newsletter
- Technical Division membership, connecting Members within 19 industries, sciences, and technologies—around the world
- Free online access to *ISA Transactions* - covering the latest advances in the science and engineering of measurement and automation
- Email list serves for open-forum discussions
- ISA Jobs website for free career and job postings
- Professional development opportunities, including free Leadership Development Certificate Program and
- volunteer opportunities that bring professional recognition
- Free Mentoring Program to enhance workforce development and careers

AUTOMATION SPOTLIGHT

Energy Optimization for Water Treatment and Distribution

By Norman Anderson, PE and P.Y. Keskar, PhD, PE

Energy optimization and management is important to water/wastewater utilities due to operating costs, especially since operating costs are both re-occurring and variable in nature. In the greater scheme, energy usage and water go hand in hand as water is used to produce energy and energy is used to produce water, and the viability of both of these competing needs is what has recently been referred to as the Energy Water Nexus[1].

By using less energy to treat and distribute water, utilities not only save money but help balance our resources to help sustain these resources. Often utilities invest in automation system to provide more consistent treatment, require less physical adjustments, and provide more central management but often these systems are not tuned for optimization and energy management as there is not time or funds at the time of implementation[2].

CH2M HILL, a global engineering firm, has been working with clients to not only provide energy efficient installations but to also optimize current operations to provide energy optimization solutions that require minimal capital investment. By optimizing and managing plant operations and energy usage, water can be delivered efficiently and effectively to customers. This article provides an overview of the many opportunities that exist for energy optimization, as well as several case studies where real cost savings have resulted from implementing energy optimization projects.

Energy Cost of Water Treatment

Typical unit electricity consumption for drinking water treatment plants ranges on average between 1400 and 1800 kWh per million gallons of water produced[3] depending on treatment and distribution system. For most systems, this typically translates to scale at $1M annually in electrical costs for every 10 million gallons produced a day by a facility. Thus, a 30MGD facility would see annual electrical costs averaging $3M. Looking at these costs, even a 5-10 percent savings can often easily equate to hundreds of thousands of dollars saved annually.

The first step in undertaking an energy optimization project is to perform an energy conservation evaluation to look for ways to reduce energy usage and, in turn, reduce costs. A key to an effective energy evaluation is the understanding that energy is not only affected by the electrical equipment and its installation, but knowing that energy usage in a plant is a function of the process, control functions, operations, and electrical equipment. With this in mind, to determine the most effective solutions, information needs to be known about the WTP process, plant control system including implemented control strategies and operational set points, historical plant operations data, and utility bills with rate structure are also of great importance.

Energy Optimization for a Well Field

Many utilities have expressed a need to organize and manage raw water well field operations for their water treatment plants and were concerned about potential inefficiencies within their Raw Water systems.

A particular utility had a groundwater well field consisting of twenty five well pumps all between 75 and 100 horsepower and all sized for their peak demand naturally resulting in being oversized for their average operational need. Analysis revealed that all pumps were being run with their discharge valves throttled in order to maintain drawdown rates, pull less sand and silt, and to reduce pressure to meet current plant requirements which were below the peak demand.

Throttling these valves meant losing considerable energy across each one which translated into an annual loss of about 2.7 million kWh costing approximately $150,000 per year. Options included replacing some or all pumps with smaller 40 to 50 Horsepower pumps and/or providing Variable Frequency Drives (VFDs) for some or all pumps. Additionally, like any well field, wells can often change their production rates and efficiencies or further have different water qualities which can make both raw water pumping and treatment systems inefficient.

By using a well management table integrated into the plant SCADA-based control system, the properties of each well could be documented on the system used to control the wellfield pumping and a pumping queue could be established to control well pump sequencing based on operator selections using information in the table. In this way operation of the well field can be optimized by using a straight-forward, methodical and most importantly repeatable process to run only the wells necessary in a systematic rotation. The result was a significant energy savings in terms of operating energy costs.

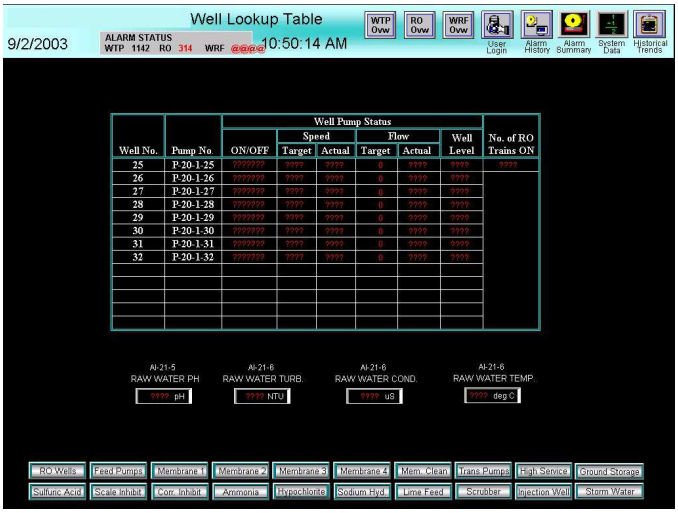


Figure 1 – Well Management Duty Table HMI Screen

Reverse Osmosis System Example

Often control systems are put in place but are not optimized as part of the system commissioning or require additional optimization later after the facility has been operated. A case in point is taken from a site that had a Reverse Osmosis (RO) treatment system. RO is known for being inherently energy intensive due to the need for high pressure feed water systems to drive the RO filtration process.

Figure 2 – Photo of a typical RO filtration installation

As part of an evaluation, the operation of RO feed trains was found to be using modulating feed valves and modulating concentrate valves for each train to maintain a specific recovery rate (percentage of raw water converted to clean water) while maintaining equal flow rates across each membrane train.

What was seen was that the target header pressure was set at approximately 125PSI to meet the flow demands of some of the membrane trains that were running inefficiently with feed valves fully open while membrane trains running efficiently had feed valves that were squeezed down to burn the excess pressure. In order to minimize the energy loss across the feed valves of membrane trains that were producing water efficiently, a new control strategy was devised.

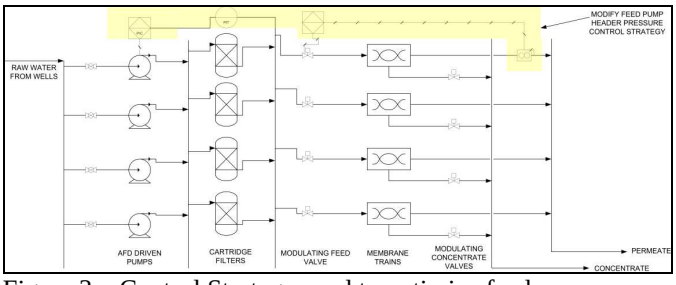


Figure 3 – Control Strategy used to optimize feed pressure

In the new strategy, the feed pressure set point was lowered to a value that was acceptable to meet the overall flow demand considering that the efficient membrane trains could produce more water. To do this, the production flow rate for each train would be controlled individually and feed and concentrate valve positions would be modulated to meet production and recovery rates for a given train.

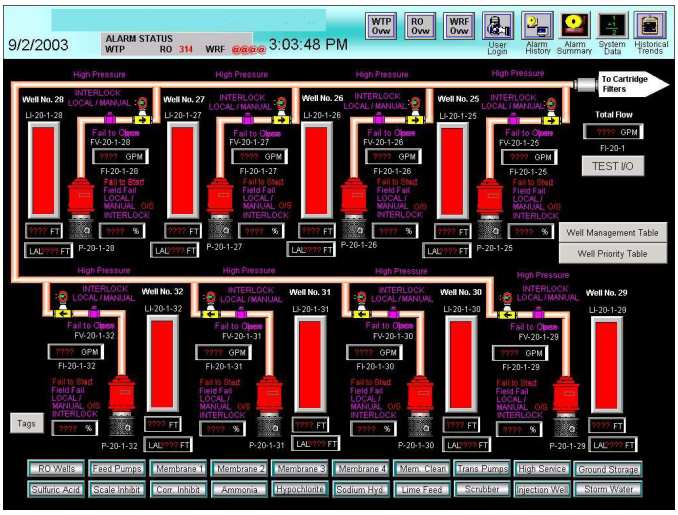


Figure 4 – An example of an RO Well HMI Screen

By modifying the control strategy, the feed pressure of the system was reduced to 119PSI which equated to an annual savings of approximately $16,500. This was done with no capital cost requirements (i.e., no additional equipment had to be purchased or installed), which equated to an immediate financial payback.

A Little Extra Effort During Design Yields Dividends

For some cases we can see the cost savings based on a good initial implementation. In 2003, a new RO system was deployed with four VFD-controlled 500 horsepower pumps for its feedwater pumps. By using VFDs (variable frequency drives) instead of the traditional constant speed pumps with throttling valves, the RO system could be better tuned to meet both normal and maximum flow demands. The other major benefit for this system was the energy savings due to the use of VFDs.

Since its installation, the system has been running 24 hours a day and 7 days a week. The feed pressure control function controls the VFDs to operate at approximately 75-80% speed on average to meet the required permeate flows and recovery rates. Based on actually kW and Amperage measurements, the operation of each pump is closer to 300 Horsepower (HP) on average, but the full 500 HP capability is still there to meet peak demands.

Using the VFDs as opposed to operating with constant speed 500 horsepower pumps with modulating control valves has led to an annual estimated savings in energy cost of $350,000. Each of the VFDs installed cost approximately $125,000 which equates to a simple payback of 1.5 years. This short payback period could also then be applied to other existing systems with constant-speed pumps retrofitted with VFDs.

Time Shifting of Major Loads

Another energy intensive water treatment process is Sodium Hypochlorite Generation. More and more water utilities are switching to onsite sodium hypochlorite generation due to the increasing costs of having this chemical shipped to their facilities and the environmental impact.

As part of an energy evaluation for one system, it was noticed that the 400kW sodium hypochlorite generation system was being operated consistently during the day for 9 hours. This was costing the water utility a lot of money, since it also corresponded to the local electric power company's most expensive "peak" time to provide electricity.

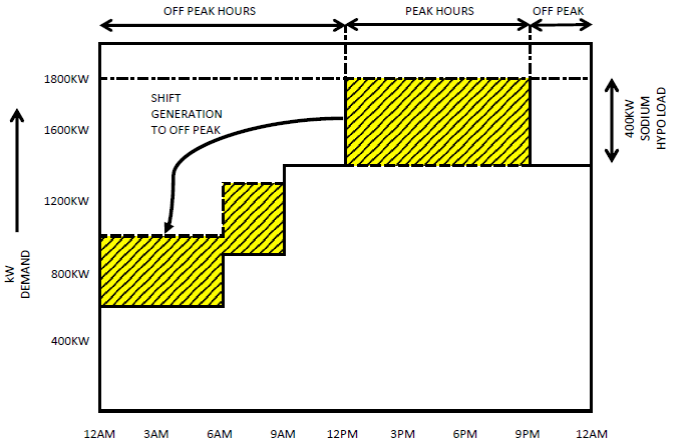


Figure 5 – Energy Savings from Load time shifting

Many industrial utility customers incur peak usage charges if their demand exceeds a particular limit and this client was not an exception. By simply changing the operational hours to off-peak hours, the plant was able to gain an annual savings of approximately $18,000 and balance average energy usage throughout the day without any capital investment.

Figure 6 – Power Monitoring Equipment at MCC

District-wide Energy Conservation

The Florida Keys Aqueduct Authority (FKAA), in Florida, USA, manages facilities over a 130-mile range on 800 islands and spends approximately $2.5 million per year in electrical utility usage to meet water and distribution demands[4,5]. CH2M HILL and FKAA have worked together on a number of different strategies to reduce energy costs and improve efficiencies for this complex system.

In 2006, FKAA started a 20-year capital improvements program to meet future water demands, environmental protection requirements and to improve water transmission, distribution, storage, supply, and treatment. As a part of this program, the project team evaluated the water distribution system to establish a "Baseline for Energy Conservation". Included in the evaluation was the main Water Treatment Plant and booster pump stations to identify energy cost saving opportunities.

As a part of the evaluation it was found that though both constant speed and variable speed pumps were being used at the WTP high service pump station, the constant speed pumps were using the majority of the electrical load. In addition to not being on VFDs, the constant speed pumps were older and had much lower efficiencies than the new VFD-controlled pumps leading to even further inefficiencies.

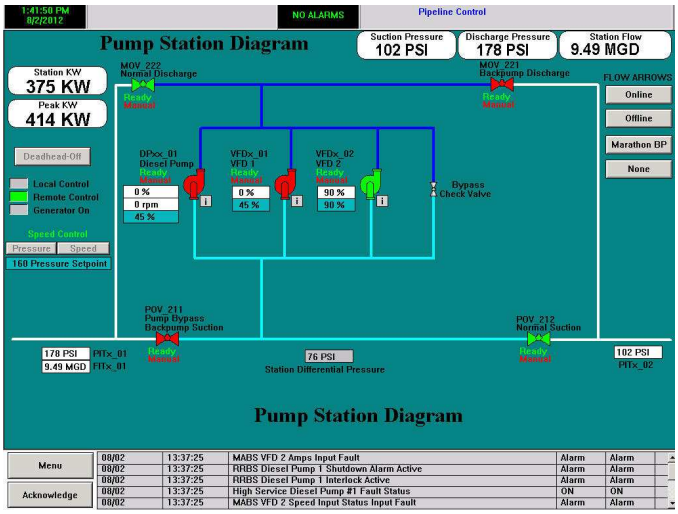


Figure 7 – Typical Pump Station HMI Screen

Recommendations were developed to preferentially run the VFD driven pumps first and to replace the constant speed pump motors with new premium efficiency motors and to add VFDs.

Additionally, a newly upgraded booster pump station having pumps with premium efficiency motors and variable frequency drives was not being utilized to its fullest extent and it was recommend to change the operational procedures to use this pump station as a first choice in boosting distribution system pressure. This evaluation information is now being used to develop a capital upgrades program that will be supported by anticipated savings in energy costs.

The other major benefit of the FKAA evaluation was to establish a baseline for energy conservation. The net result was the implementation of a district-wide energy monitoring program and corresponding energy management system. Power monitoring instrumentation was installed at the water treatment plant (WTP) and remote pressure-booster pump stations to collect data on energy used and to provide real-time monitoring of energy usage. The power monitoring instruments were then linked to the FKAA SCADA (supervisory control and data acquisition) system so that power and energy data could be summarized into report and trending formats on operator workstations to allow for instantaneous and long term operational adjustments.

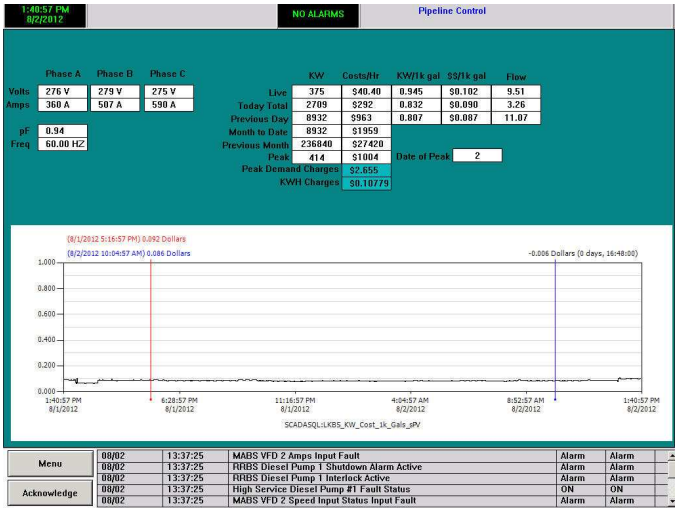


Figure 8 HMI Screen used by operators to monitor energy use

As a part of this implementation operators were given training to use higher efficiency pump stations and to keep track of kW demand during "On Peak" operation hours and to try and shift pumping to Off Peak hours if possible. For example, operators now had the information and training to optimize energy usage for pumping treated water in the FKAA's various storage tanks. As part of a long term plan, information related to system pressure and energy usage will be collected by the SCADA system for use in system wide computer modeling and simulation analysis of the hydraulic and pumping systems to obtain a realistic picture of pumping scenarios and operational strategies.

Summary

In general, there are a multitude of strategies for optimizing water systems, reducing energy usage, and reducing overall cost to make water more accessible for all types of water and wastewater utilities. As with anything proper planning and analysis is essential for determining the most impactful solutions. Often energy savings can be seen with little or no capital costs.

For capital improvement solutions, there are also options such as Energy Service Companies (ESCO), who will cover the capital improvement costs for a share of the overall energy cost savings, making energy savings projects more realistic for utilities that do not have the current budget for these improvements.

Technology for energy optimization continues to improve over time. Solutions exist today to get started on your energy optimization journey. The first step is to explore the options out there and put in place baseline evaluation and corresponding improvement program so that you are able to make the best use of both current and upcoming technologies. Energy optimization is a never ending process with the potential to yield tremendous benefits every step along the way.

About the Authors

Norman Anderson, PE is an electrical, instrumentation and control systems engineer with CH2M HILL in Gainesville, FL. He has over 6 years' experience in the design and commissioning of Process Control Systems for the Water Sector. Norman has provided secure and reliable PLC, SCADA, and Network hardware and software architecture designs and provided control system automation solutions for a range of facilities. Norman has a M.S. in both Electrical Engineering and Physics, is a member of the ISA, and a licensed P.E. in several states. Contact: Norman.Anderson@CH2M.com

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About CH2M HILL

Headquartered near Denver, Colorado, USA, and with offices throughout the world, CH2M HILL is an employee-owned global leader in consulting, design, design-build, operations, and program management for government, civil, industrial and energy clients. With US$6.4 billion in annual revenue and some 30,000 employee, CH2M HILL provides services in the areas of water, wastewater, transportation, environmental, energy, facilities and resources.

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TECHNICAL ARTICLE

Motion Detection Means Protection

By Vijay Acharya, Siemens Americas

The largest of its kind in Canada, the Seymour-Capilano Filtration Plant (SCFP) is part of the Metro Vancouver water supply system in Vancouver, Canada. Once it is running at full capacity, the facility will have the ability to treat 1.8 billion liters of water each day from the Seymour and Capilano watersheds.

Challenge

Dewatering and sludge disposal are two very important processes in the water treatment cycle. Raw water contains solids and dissolved particles that need to be neutralized and removed. The thickener equipment concentrates solids particles and then the dewatering system separates these solids from the liquid. Using sheets of mono-filament fabric, belt presses compress the sludge, taking it from 1-3 % solids to approximately 20 % solids.

SCFP then transports sludge in the form of solid cake with a screw conveyor system, conveying it to trucks waiting downstream for further disposal. These solid cakes can be used as a fertilizer or as construction material.

SCFP has a daily sludge handling and disposal capacity of 80 tons (88 short tons) of cake. That's nearly 60 average-sized passenger cars' worth of sludge cake removed each and every day!

Monitoring the screw conveyor's motion is crucial to keeping operations running smoothly in the sludge dewatering and disposal system. If the screw stops because it breaks or disengages from the motor, conveyance is interrupted and sludge begins building up in the conveyor system. This type of stoppage can cause damage to the filter press as more and more solids build up.

Therefore, any interruption to the screw's motion has to be monitored and reported instantly. Operators can then take immediate corrective action to prevent damage to the filter press and also to ensure that trucks are continuously receiving the sludge.

As well, during truck load-out, monitoring the level of sludge being loaded into the trucks is important for saving both time and money. The goal is to load trucks as close to target as possible to prevent under or overfilling. Measuring levels during the load-out process keeps operations as efficient as possible.

Solution

Seymour-Capilano Filtration Plant uses process protection devices that consist of a motion failure alarm controller and a heavy-duty motion sensing probe.

The system detects any changes in the motion and speed of screw rotation. If there is damage to the conveyor system, the alarm will stop the belt press and machinery will not load any more sludge onto the conveyor. The controller also sends an alarm to the control system, which will shut down the press.

Figure 1 – *A motion failure alarm controller provides reliable alarming directly to the Seymour-Capilano Filtration Plant's control room.*

The motion failure alarm controller is a highly sensitive single setpoint motion sensor system. It is an ideal fit for a wide range of industrial applications including screw conveyor flights, tail pulley shafts, driven pulleys, motor shaft sensing, belt or drag conveyors, bucket elevators, fans and pumps.

The system works in conjunction with the motion sensing probe, an easy-to-install and long-lasting part of process protection technology. The probe can be installed into new processes or retrofitted into existing equipment.

Figure 2 – *A motion failure alarm controller provides reliable alarming directly to the Seymour-Capilano Filtration Plant's control room.*

For keeping truck load-outs efficient, the plant uses non-contact ultrasonic level measurement. This system consists of an ultrasonic transducer mounted above the filling area and a level controller conveniently mounted at eye level to monitor levels of sludge while trucks are being filled. When a truck is filled to its maximum capacity, the level controller notifies the operator, who then moves the truck away and brings in the next one to fill.

Figure 2 – *An ultrasonic used to monitor sludge truck filling at the plant.*

Benefits

The non-contacting ultrasonic transducer and controller ensure truck loading is consistently accurate. This ultrasonic system requires little to no maintenance, therefore reducing its life cycle cost.

Figure 3 – *Three of the units used in the installation: Milltronics MFA4p and Milltronics MSP-12 from Siemens.*

As well, these motion sensing devices protect SCFP's process and the plant's valuable equipment. Since SCFP first installed this process protection system, operators report that the devices have been working well. They are an ideal fit in the plant's dewatering and disposal system. This non-contacting technology also means reduced maintenance requirements.

With up to 80 tons (88 short tons) of cake moving through the screw conveyor each day, it is essential that operators are immediately aware of any stoppages.

With the help of these process protection devices, Seymour-Capilano Filtration Plant is immediately aware of problems and can react to them quickly.

ABOUT THE AUTHOR

Vijay Acharya is an Instrumentation Engineer having more than 25 years of field experience in Asia, Germany & Canada. He has worked with water and waste water industry in Canada, USA, China, India, Japan, Korea, South Africa and Singapore. From last 5 years he is working extensively with municipalities and water utilities in Canada for their application problems in the areas of storm water abatement, asset management in the collection system, treatment plant processes and offered instrumentation solutions that resulted into costs savings, improving efficiency, and safety of the plants. Vijay is a long-time ISA member who recently joined the ISA Water/Wastewater Division: earlier this year. Contact: vijay.acharya@siemens.com

New Alarm Management Technical Report

From the ISA Standards "News" blog

ISA-TR18.2.6-2012, *Alarm Systems for Batch and Discrete Processes*, is published and available online on the ISA website at www.isa.org/standards. This technical report covers the application of alarm management principles in ANSI/ISA-18.2-2009, *Management of Alarm Systems for the Process Industries*, to batch and discrete processes.

The alarm system serves to alert, inform, and guide operators regarding abnormal process conditions or equipment malfunctions. It may include the basic process control system (BPCS) and the safety instrumented system (SIS), each of which uses measurements of process conditions and logic to generate alarms.

The general principles and techniques described in this technical report are intended for use in the lifecycle management of an alarm system based on programmable electronic controller and computer-based human machine interface (HMI) technology. Use of this technical report should consider batch and discrete process alarms from all systems presented to the operator, which may include basic process control systems, annunciator panels, safety instrumented systems, fire and gas systems, and emergency response systems. (See the May/June 2012 *InTech* Standards column for more on batch and continuous applications.)

Following the recommended guidance in this technical report will not necessarily ensure that alarm management problems will be avoided. But it will help to identify and address alarm specification, design, implementation, and management opportunities that are important to batch and discrete processes. It can also help minimize the generation of nuisance alarms that could complicate and frustrate an operator's awareness, understanding, and response to abnormal situations.

ISA18 has five other working groups producing technical reports to augment ANSI/ISA-18.02-2009. These reports will add rationale, usage guidelines, and examples in different areas of alarm management. The complete six reports are:

- TR1 – Alarm Philosophy
- TR2 – Alarm Identification and Rationalization
- TR3 – Basic Alarm Design
- TR4 – Enhanced and Advanced Alarm Methods
- TR5 – Alarm Monitoring, Assessment, and Audit
- TR6 –Alarm Systems for Batch & Discrete Processes

The committee plans to follow this technical report soon with those from WG4 and WG5. For more information on this and other ISA18 documents, visit www.isa.org/standards or contact Charley Robinson, ISA Standards, crobinson@isa.org.

Automation Week 2012 Report
Hundreds of automation professionals share challenges, solutions

More than 1,200 automation professionals, hailing from dozens of countries around the world, exchanged best practices and technical solutions during ISA Automation Week 2012 in Orlando on September 24-27, 2012.

The annual conference featured technical sessions in two Technology Excellence tracks focused on security and wireless, and four Operational Excellence tracks focused on safety and environmental performance, control performance, asset performance, and human performance. The technical program was chaired by Dr. Peter Martin, vice president of business value solutions at Invensys.

Dr. Martin's technical achievements were recently recognized by *Fortune* magazine, which named him a Hero of U.S. Manufacturing. He was also named as one of the 50 Most Influential Innovators of All Time by *InTech* magazine, and is a past recipient of ISA's Life Achievement Award. "The ISA Automation Week program was designed to provide perspectives on how automation technology and talent can drive business value and meet the daunting needs of industry as the business moves toward real-time variability," said Dr. Martin. "We are at the dawn of a transition, and it will be control and automation engineers who will need to step up to meet the challenges presented by the real-time world."

In addition to the more than 60 technical conference sessions, attendees enjoyed three executive keynote presentations, networking receptions, standards committee meetings, training courses and leadership meetings.

Tuesday's keynote address was delivered by Greg Hale, chief safety officer and vice president, worldwide standards and auditing at Walt Disney Parks & Resorts. Hale's presentation provided insights on Disney's innovative creation of technology to drive guest satisfaction and keep employees safe throughout the world. Disney's attention to detail for safety and ongoing maintenance is virtually unmatched in any industry, and the Disney team has been developing and using leading-edge technology for decades. For example, Disney uses maintenance management software that incorporates handheld wireless devices carried by personnel to deliver critical maintenance and safety information including task workflows, status of work tasks, qualifications of personnel, completion of safety checks, and delivery of safety monitoring information in real time in thousands of locations.

In addition to Disney's incredible safety and maintenance technology, the Disney team has developed efficiency innovations with the FirstPass system, improving utilization and throughput of attractions while increasing guest satisfaction; and contributed greatly to the accessibility of Disney parks around the world with Assistive Technology Devices to enhance the experience of guests with disabilities.

Wednesday's keynote address featured a dynamic panel of industry executives, discussing challenges and insights into the future of automation and industry issues. Panelists included Michael Caliel, CEO and president, Invensys Operations Management; Robert Novotny, managing consultant, Price Waterhouse Cooper; Wolfgang Morr, general manager, NAMUR Leverkusen, Germany; Cliff Pedersen, chief information officer, North West Upgrading, Inc.; and Chet Mroz, president and CEO, Yokogawa Corporation of America. Moderated by Dr. Martin, the panel discussed critical topics facing industry, including the changing nature of the workforce, plant and process safety, the convergence of technology, and the role of automation in manufacturing competitiveness.

Thursday's keynote featured Travis Capps, vice president of energy and gases at Valero Energy Corporation. Capps discussed top energy trends and challenges, engaging with the audience to challenge automation professionals to consider how their day-to-day decisions in automation and controls dramatically impact the efficiency, profitability, and long-term sustainability of their companies. Capps shared his insight into today's most significant challenges, and the importance of the link between process control and the enterprise level of operations.

"ISA Automation Week has been a stimulating, friendly, learning-intensive event," said attendee Pousga Kabore of the Chamber of Commerce and Industry in Nigeria.

Attendees enjoyed two evening networking receptions, kicking off with a "Fireside Chat" session with the "Father of the PLC," Dick Morley, on Tuesday evening. Morley's chat offered attendees a rare opportunity to sit and talk with one of automation's best known legends, a leading visionary in the field of advanced technology development and an inventor who holds more than 20 technology patents.

Wednesday evening's Beach Party reception, celebrating ISA's workforce development partnership with FIRST, was hosted by NASCAR driver Jennifer Jo Cobb, Disney's Greg Hale, and Calum Pearson, vice president of technical and show support at Cirque du Soleil. Cobb, one of NASCAR's most successful female drivers, stressed the importance of technology and innovation in her sport, thanking automation professionals for their dedication. Hale and Pearson expressed their support of ISA's partnership with FIRST, an organization dedicated to the inspiration and recognition of science and technology. Pearson called on ISA Automation Week attendees to become mentors of FIRST teams around the world, calling on engineers and technicians to "mentor and coach the next generation, because they need your help and your guidance." Pearson is a long-time supporter of FIRST and a second-year speaker at ISA Automation Week. "This is an awesome event where technology and people come together," he said.

"The networking opportunities were fantastic. Sharing information and participating in in-depth conversations about critical topics like process automation safety made the late

nights and bleary-eyed mornings worth it," said attendee Eloise Rouche of Dow Chemical Company.

Planning is underway for ISA Automation Week 2013, with details to be announced in the coming weeks. "We've had an incredible week, with dozens of true legends in their fields sharing their knowledge and insights with a motivated, excited group of attendees," said ISA Executive Director and CEO Patrick Gouhin. "The program committee, chaired by the renowned Dr. Peter Martin, delivered high-quality, engaging sessions that dovetailed technical applications with bottom-line business results. We're going to continue that focus in 2013, building on themes of operational excellence, management, and technology, and how these disciplines come together to increase profitability."

Gouhin wasn't the only one to talk about the future – in a special press event following Hale's keynote address, MAVERICK Technologies' Founder and CEO Paul J. Galeski announced a three-year strategic partnership with ISA. MAVERICK Technologies will be ISA's Premier Strategic Partner for Systems Integration, engaging with ISA members and customers to offer thought leadership and expert resources. "We have invested in this relationship because of our love for the automation discipline and a belief that, working with ISA, we can help create change in manufacturing," Galeski said.

ISA Automation Week 2013 will be taking place November 4-7, 2013 in Nashville, Tennessee. For more information, see www.isawwsymposium.com

New WWID Members
Recently joined July to November 2012

The Water/Wastewater Industry Division would like to extend a warm welcome to our recently joined members.

September 2012
Mr. Alan Balcombe - Richmond, VA, USA
David Dale Bowen - Ramona, CA, USA
Dr. Dale Francis Brost - Fresno, CA, USA
Mr. Roch Chiasson - Tracadie-sheila, NB, Canada
Mr. Kevin Cutrer, CCST - Austin, TX, USA
Mr. Scott B. Day - Winter Garden, FL, USA
Mr. Bernard J. Dow - Reno, NV, USA
Mr. David M. Eike - Norcross, GA, USA
Matthew Garrison - Bakersfield, CA, USA
Mr. Ivan Gonzales Lorenzana - Tlanepantla Edo De Mexico, MEX, Mexico
Mr. Claudio Groppetti - Victoria, MN, USA
Ms. Carmen Guinea Valle - Pozuelo de Alarcon, MADRID, Spain
Mr. Howard Ross Hammond, CCST - Pensacola, FL, USA
Glenn A. Hebert - Tucson, AZ, USA
Mr. Kevin Hinshaw - Cortland, NY, USA
Mark E. Langenkamp - Plant City, FL, USA
Ms. Ludmila Rodrigues Lopes - Bage, RS, Brazil
Mr. Pat S. McCurdy - Mechanicsburg, PA, USA
Mallory McGuire - Longmont, CO, USA
Mr. Sean McMillan - Houston, TX, USA
Mr. Bhaskar S. Mittal, P.Eng. - Emerald Park, SK, Canada
Mr. Alvaro A. Moises - Antiguo Cuscatlan, 0, El Salvador
Carlos Javier Munoz Arcas - Mairena Del Aljarafe, SEVILLA, Spain
Mr. Cedric Nazareth - Calgary, AB, Canada
Claudio Hideki Okada - Sao Paulo, SP, Brazil
Jose Miguel Olza Martin Loeches - Madrid, MADRID, Spain
Mr. Karl N. Reid - Logan, UT, USA
Mr. David Samuel - Rowlett, TX, USA
Christoph Schiller - Stanford, CA, USA
Raymond Mark Schlehr - Santa Rosa, CA, USA
Aldo Cezar P. Silva - Ananindeua, PA, Brazil
Mr. Matt B. Wolfe - Three Forks, MT, USA
Mr. Fahd G. Zaki, CEM,PE,PMP - Sugar Land, TX, USA

October 2012
Mr. Mohammed A. Al-Ammari - Jubail Industrial City, EasternProvince, Saudi Arabia
Mr. Thomas J. Alpaugh - Hemlock, NY, USA
Mr. Mike David Bohn - Santa Clara, CA, USA
Dr. Maurizio Brancaleoni - Milano, MI, Italy
Mr. Chris Carlson - Olathe, KS, USA
Mr. Terry L. Coodey, Jr. - Allentown, PA, USA
Mr. Rodney Corder - Michigan City, IN, USA
Mr. Eric S. Davis - Lincoln Park, MI, USA
Mr. Michael John Demkowski - Omaha, NE, USA
Andrew Elliott - Kensington, NH, USA
Mr. James Fordyce, II - Raleigh, NC, USA
Mr. Michael Fulk - Sturtevant, WI, USA
Itzel A. Garcia Lara - Nezahualcoyotl, 0, Mexico
Ms. T S Gayathri - Bangalore, KARNATAKA, India
Mr. Robert I. Goldstein - Canoga Park, CA, USA
Mr. Richard Guliuzza - Santa Clara, CA, USA
Kenneth S. Hartman - Woodhaven, MI, USA
Alberto Ibarra - Leon Gto, 0, Mexico
Michelle King - Fort Collins, CO, USA
Mr. Ernest Klimek, III - Sequim, WA, USA
Ms. Thao T. Le - Tustin, CA, USA
Mr. Junsang Dan Lee - Kyongki-do, 0, Korea, Republic of
Mr. Jonathan D. Lew - Benicia, CA, USA
Mr. Yunhua Li - Toronto, ON, Canada
Mr. Gregory Livelli - Warminster, PA, USA
Mr. Rocco C. Matteo - Wanaque, NJ, USA
Douglas McCarver, Douglas - Pullman, WA, USA
Mr. James L. Murphy - Denton, TX, USA
Mr. Ton Oosterhoff - Leusden, 0, Netherlands
Mr. Tom Peterson - Santa Rosa, CA, USA
Mr. Benoit Simard - Laval, QC, Canada
Mr. David Kenneth Stewart Tyler - Las Vegas, NV, USA
Mr. Victor K L Wong - North Vancouver, BC, Canada

November 2012
Mr. Henry R. Hegner - Moneta, VA, USA
Mr. Imran Abulhassan - Aurangabad, MAHARASHTRA, India
Mr. Shahzad Ahmed - Fort Saint John, BC, Canada
Mr. Rodolfo Aramaki Bianco - Londina, PR, Brazil
Ben Brainard - Bellingham, WA, USA
Mr. Denizart Caproni - Londrina, PR, Brazil
Mr. William P. Charles - Worthington, OH, USA
Mr. Thomas E. Clark - Saint Cloud, FL, USA
Mr. Alex Augusto Cordeiro - Pinhais, PR, Brazil
Ms. Suzanne Cross - Vancouver, WA, USA
Mr. Timothy M. Curtis - Pfafftown, NC, USA
Mr. Ricardo Lino Da Silva - Curitiba, PR, Brazil
Mr. Augustus William Davies - Dale City, VA, USA
Mr. Aurimar Fernandes de Almedia - Maringa, PR, Brazil
Mr. Rui Maximo de Carvalho - Londrina, PR, Brazil
Mr. Carlos M. Delgado - Scottsdale, AZ, USA
Nathan Dietrich - Harrisburg, PA, USA
Gary Erb - Bellevue, WA, USA
Mr. John Farrell - Dublin, 0, Ireland
Mr. Perry Fedun - Edmonton, AB, Canada
Ms. Megan R. Foreman - Brookings, SD, USA
Mr. Richard A. Geisler - Indian Trail, NC, USA
Mr. Padraic William Gray - Hanover, MD, USA
Mr. Eugene Heuschel, III - Charlottesville, VA, USA
Mr. Jens A. Jensen, P.E. - Nutrioso, AZ, USA
Mr. Thaer Kaddorah - Sharjah, 0, United Arab Emirates
Mr. Tausif Jaffer Khan - Dammam, 0, Saudi Arabia
Mr. John S. Kontor - Maitland, FL, USA
Mr. Russell W. Kopp, CCST - Corydon, IN, USA
Mr. Maniyan Krishnakumar - Muscat, 0, Oman
Mr. Gediminas Labutis - Kaunas, 0, Lithuania
Mr. Wayne David Maas - Copley, OH, USA
Mr. Mario Manansala, Jr. - La Palma, CA, USA
Mr. Edenilson Costa Martins - Maringa, PR, Brazil
Gary E. Mizell - Santa Clara, CA, USA
Mr. Mark Mulcahy - Co Cork, 0, Ireland
Ms. Bhavna Nagendran - Chennai, TAMILNADU, India
Mr. Marcio Bracaroto Nunes - Londrina, PR, Brazil
Mr. Aidan O'Brien - Tipperary, 0, Ireland
Dan Poole - Calgary, AB, Canada
Ron Prescott, Jr. - Moody, AL, USA
Mr. Andrae D. Rauch - Vacaville, CA, USA
Mr. Alexsandro Castelli Riseiki - Cascavel, PR, Brazil
Mr. Jason David Roache - Belmont, NH, USA
Mr. Greg Robertson - Calgary, AB, Canada
Mr. Jean-Claude Godoy Schott - Belo Horizonte, 0, Brazil
Mr. Bruno Pereira De Souza - Salvador/ba, BA, Brazil
Ms. Kanimozhi Tamilarasan - Kanchipuram, TAMILNADU, India
Lance Eric Teunissen - Sheboygan, WI, USA
Mr. Mike Thompson - Saint Charles, IL, USA
Mr. Edson Shoiti Utiamada - Londrina, PR, Brazil
Mr. Rodrigo Votre - Curitiba, PR, Brazil
Mr. Paul D. Weinberger - Windsor, CO, USA
Mr. Rafael Winter - Foz Do Iguacu, PR, Brazil

ISA Water/Wastewater Industry Division

WWID is on LinkedIn

LinkedIn is a social media site that is geared towards professionals and business people. Located at **www.LinkedIn.com**, the site features online profiles, discussion groups and tools for identifying and keeping track of contacts. LinkedIn currently has over 120 million members and is still growing.

In an effort to provide the latest news and information relating to instrumentation and control systems in water and wastewater management, the Water and Wastewater Industry Division has created a LinkedIn group. We invite anyone affiliated with or interested in the water and/or wastewater industries to join the group and participate in the dialog.

You may use the following link to join the group **http://www.linkedin.com/groupRegistration?gid=2031271**

About LinkedIn

LinkedIn is an interconnected network of over 120 million experienced professionals from around the world, representing 170 industries and 200 countries. You can find, be introduced to, and collaborate with qualified professionals that you need to work with to accomplish your goals.

When you join, you create a profile that summarizes your background and professional accomplishments. Your profile helps you find and be found by former colleagues, clients, and partners. You can add more connections by inviting trusted contacts to join LinkedIn and connect to you.

Your network consists of your connections, your connections' connections, and the people they know, linking you to thousands of qualified professionals.

There are already many ISA members and automation professionals on LinkedIn, as well as several other ISA-related groups. If you'd like to learn more about LinkedIn, the article "100+ Ways to Use LinkedIn" provides many different perspectives on how the site can be leveraged. We hope you'll join us there and network with other ISA, water, and wastewater professionals.

Allowing Your HMI to Provide Insight Instead of Data

By Kevin Patel, Signature Automation

One of the more popular presentations from the 2012 ISA WWAC Symposium in August was given by Bill Hollifield. His presentation on High Performance HMIs really opened up eyes as to how information should be presented to our operators. Instead of having cluttered, colorful, blinking, attractive graphics that may not be useful for an operator, he provided methods to present data to an operator to where they are able to understand the current status of the facility just at a glance.

However, many of our HMI systems are already in place and have been developed based on a certain standard which more than likely does not include strategies presented by Bill. Paul McGuire provided a comment on the LinkedIn WWID discussion stating, "For an existing facility like ours, it would not be practical to convert the hundreds of existing HMI graphics to this style or to have all new graphics follow Bill's guidelines and the remainder to follow our existing standards."

However, by no means is it suggested that your entire HMI system is not done correctly and should be scrapped, but instead should remain as is and be improved upon. In the discussion, Graham Nasby goes on to state that "One technique that is often used on existing systems that have hundreds of screens, is to create a small number of additional screens to act as high performance overview screens for operators." These high level graphics would include pertinent data for a particular process area depicting the data as suggested by Bill Hollifield. From these overview graphics, the operator could then drill down and see the detailed information which consisted of the existing HMI screens that were already part of the facility.

Therefore, the idea of "high performance" graphics can still be included in existing systems by adding another layer to the graphics hierarchy. As with all graphics, planning should take place to make sure the data is being presented in an orderly manner that will assist the operator instead of hindering them.

Call for Newsletter Articles

The WWID newsletter is published four times a year (spring, summer, fall, winter) and reaches the WWID's over 1,700 members. Each issue is approximately 20-30 pages long. The newsletter is distributed electronically in color PDF format.

We are always on the lookout for good articles, and we welcome both solicited and unsolicited submissions.

Article submissions should be 500-1500 words in length and be written for a general audience. While it is understood that the articles are technical in nature, the use of technical jargon and/or unexplained acronyms is to be avoided. While not specifically required, we encourage authors to submit several photos and/or figures to go along with their article submission.

We actively welcome articles from all of our members. However, we do ask that articles be non-commercial in nature wherever possible. One or two mentions of company and/or product names for the purposes of identification is acceptable, but the focus of the article should be technical content and not just sales literature. We ask that authors keep this in mind when submitting articles/content. If you are unsure of whether your article idea would be acceptable, please contact our newsletter editor for more information – we are here to help. With this said, we have had many excellent vendor-written articles in the past, and we look forward to many more.

Some examples of the types of articles we are looking for include:

- Explanatory/teaching articles that are meant to introduce or explain a technical aspect of automation and/or instrumentation in the water/wastewater sector.
- Biographical stories about well-known personalities in the water/wastewater sector.
- Case Studies about plant upgrades and/or the application of new technologies and techniques. This type of article must include at least two photos along with the article text.
- Pictorial Case Studies about a plant upgrade consisting of 4-6 photos plus a brief 200-500 word description of the project undertaken. The article should ideally include one to two paragraphs about lessons learned and/or advice for other automation professionals.
- Historical reflections on changes in technology pertaining to specific aspects of instrumentation or automation, and how these changes point to the future.
- Discussions about changes in the water/wastewater sector and how these affect the automation professionals.

Once we receive a submission, we will work with you to edit it so it is suitable for publication in the newsletter.

Article submissions can be sent to the WWID newsletter editor Graham Nasby at graham.nasby@eramosa.com

WWID Newsletter Advertising

The WWID newsletter is an excellent way to announce new products and services to the water/wastewater automation community. With a circulation of over 1,700 professionals in the automation, instrumentation and SCADA fields, the WWID newsletter is an effective targeted advertising tool.

The WWID newsletter is published quarterly, on the following approximate publication schedule:

- Spring Issue – published in May/June
- Summer Issue – published in August/September
- Fall Issue – published in October/November
- Winter Issue – published in January/February

Advertising in the newsletter is offered in quarter page and eighth page formats. The eighth page size is approximately the size of a North American business card. Advertisements can be purchased on a per issue basis or for four issues at a time. The newsletter itself is distributed as a full-color PDF, so both color and black/white advertisements are accepted.

The current advertising rates are as follows:

Per Issue:
- Quarter page ad (3.5" W x 4.5" H): $100
- Eighth page, business card ad (3.5" W x 2.0" H): $50

Per year (4 issues):
- Quarter page ad (3.5" W x 4.5" H): $325
- Eighth page, business card ad (3.5" W x 2.0" H): $175

Other sizes of advertisements are available, but are priced on an individual basis. Please contact our newsletter editor for more information.

Please book advertising space as early as possible before the intended publication date. Artwork for advertisements should be submitted a minimum of two weeks prior to the publication date; earlier is always better than later. Artwork for advertisements can be submitted in EPS, TIF, PNG, JPG or GIF formats. EPS and PNG formats are preferred. Images should be submitted with at least 300dpi resolution if possible.

The ISA Water/Wastewater Industry Division is run on a non-profit basis for the benefit of its members. Monies raised from the sale of advertising in the newsletter are used to help offset the cost of division programming and events. Like its parent organization, the ISA, the WWID is a non-profit member-driven organization.

For more information, or to discuss other advertisement sizes not outlined above, please contact the WWID newsletter editor Graham Nasby at graham.nasby@eramosa.com.

WWID Board Member Contacts

Note: On January 1, 2013, our current director Jon DiPietro will assume the role of Past-Director, and several of our board members will take on different portfolios. Read more in our next newsletter.

Below is our current 2012 WWID Board:

Director
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Director-Elect
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ISA Staff Contact
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Other WWID Division Volunteers:
Joe Bingham, PE – AES Global Inc.
Josh Gelman, CDM Smith – Fairfax, Virginia
Wally Ingham, P.Eng. – Stantec
Sean McMillan, CDM Smith – Houston, TX
Tom McAvinew – Instrumentation and Control Engineering LLC
Juliana Oyeniyi, CDM Smith – Dallas, TX
Steve Valdez – General Electric – New Jersey

2013 WWAC Symposium Contacts

General Symposium Chair
Graham Nasby, P.Eng., PMP
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Symposium Details
Date: August 6-8, 2013
Location: Orlando, Florida, USA
Venue: Crowne Plaza Orlando-Universal Hotel
Website: www.isawwsymposium.com

About the ISA Water/Wastewater Division

The ISA Water and Wastewater Industry Division (WWID) is concerned with all aspects of instrumentation and automated-control related to commercial and public systems associated with water and wastewater management. Membership in the WWID provides the latest news and information relating to instrumentation and control systems in water and wastewater management, including water processing and distribution, as well as wastewater collection and treatment. The division holds an annual symposium that features presentations by industry practitioners and published proceedings. See **www.isa.org/wwid/**

About the ISA

Founded in 1945, the International Society of Automation is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts conferences and exhibitions for automation professionals. For more information see **www.isa.org**

2013 Water / Wastewater and Automatic Controls Symposium

August 6-8, 2013.....Crowne Plaza Orlando-Universal Hotel.....Orlando, Florida, USA

Presented by the ISA Water / Wastewater Industries Division - *www.isawwsymposium.com*

Technical Co-Sponsors: WEF Automation and Info Tech Committee and the Florida AWWA Section

Conference Preview

Setting the Standard for Automation™

About the Symposium

Presented by the ISA Water and Wastewater Industries Division, in collaboration with the Florida AWWA Section and the WEF Automation and Info Tech Committee, the WWAC Symposium helps professionals in the water and wastewater industries understand how instrumentation, SCADA (supervisory control and data acquisition), and automatic control applications are vital to the treatment and distribution of water; the collection and treatment of wastewater; and the management of stormwater. The symposium also provides an excellent opportunity to gain valuable technical information, networking, professional development, and continuing education credits (CEUs and PDHs).

This 3-day symposium is focused on the challenges associated with automation and instrumentation in the water and wastewater sectors. It features 2 full days of presentations (two speaking tracks), a tour of a local water/wastewater facility, a general reception, networking events, a poster session, and a supplier showcase.

- 2 full days of speakers/presentations
- Track 1 – Instrumentation, System Integration, Automation, Plant Case Studies, New Technologies, Process Optimization
- Track 2 – Smart Water, SCADA, HMI, Human Factors, Alarm Management
- 1 full-day ISA Training Course on Flowmeter Selection and Sizing
- 2 day ISA Training Course on SCADA Cyber Security & Using ANSI/ISA-99
- Plant Tour of a local Water/Wastewater Facility
- Trade Show, Reception & Networking Event
- Affordable Professional Development for Plant Operations/Maintenance Staff, Plant Managers, Plant Designers, Engineers, System Integrators
- CEUs – Continuing Education Units
- PDHs – Professional Development Hours

Attendee Profile

The symposium is targeted at anyone involved with automation, instrumentation, and/or control systems in the water/wastewater sectors. Attendees typically range from plant operators, maintenance, and technical personnel to engineers, programmers and system integrators.

Meet and network with professionals who are responsible for the automation, instrumentation and operating aspects of water and wastewater facilities across North America. According to a recent US EPA study there are over 16,000 publicly-owned water plants across the USA, and another 21,000+ wastewater treatment plants throughout the country.

This knowledge-driven event focuses on bringing together individuals who are looking for technical solutions to their water and wastewater challenges. They are looking for products, services, and partners they can trust to make their jobs easier.

Schedule of Events

Monday - Tuesday, August 5 - 6, 2013
- Optional training courses
- Symposium Registration
- Local Water/Wastewater Plant Tour (late afternoon Tuesday)

Wednesday, August 7, 2013
- Keynote Speaker
- Presentations and Papers
- Light Breakfast, Coffee Breaks and Buffet Lunch Provided
- Supplier Showcase & Vendor Presentations
- Evening Reception

Thursday, August 8, 2013
- Invited Speaker
- Presentations and Papers
- Light Breakfast, Coffee Breaks and Buffet Lunch Provided
- Poster Session
- Supplier Showcase

Technical Program

This year's symposium has a special focus on "smart water" and how SCADA can be used as an effective tool to optimize operations, maintenance and asset planning. The two day technical program will include a keynote address, a special welcome from the incoming director of the ISA water/wastewater division, and two invited speakers on cyber security and effective automation project management techniques. Guest speakers from the AWWA and WEF will also speak about the current advances in using instrumentation and SCADA in their sectors.

Interested in speaking at this year's symposium? Authors can present a 30-minute talk, 6-12 page paper, or a large format poster. The Call for Abstracts is now available at www.isawwsymposium.com/call-for-abstracts/ . Abstracts are due January 31, 2013.

Local Plant Tour

Attendees will have the option of attending a tour of a local water treatment facility on the late afternoon of Tuesday August 6, 2013. The tour is free to all registered symposium attendees. Complimentary bus transportation from the hotel to/from the tour site is included.

Optional Short Courses

Using the ANSI/ISA-99 Standard to Secure Your Control System / In-Depth SCADA Cyber Security (IC32)

Date: Mon. - Tues. August 5 - 6, 2012
Instructor: Jon Cusimano, CFSE, CISSP
Length: 2 days
CEU Credits: 1.4
Cost: $1395 ($1115 for ISA members)

This two day intensive course provides an overview of the ANSI/ISA-99 Security for Industrial Automation and Control Systems family of standards and how these can be applied in a typical water or wastewater district. You will be introduced to the terminology, concepts, and models of ANSI/ISA-99 CyberSecurity. As well, the elements of creating a CyberSecurity management system will be explained along with how these should be applied to commonly used SCADA, DCS and Automation Systems in the water and wastewater sectors.

Selection and Sizing of Flowmeters / Industrial Flow Measurement Overview (EI10C)

Date: Tues. August 6, 2012
Instructor: Jerry Gerlich, Senior ISA Member
Length: 1 day
CEU Credits: 0.7
Cost: $630 ($495 for ISA members)

Applications of modern flow measurement systems are presented. Flowmeter accuracy, performance, sizing, specification, selection, and installation considerations are covered. Focus is on productivity improvement, cost efficiencies of measurement and control, and whether, when, and how to use the technologies looking at measuring flow, the effect of fluid properties and engineering practices required to optimize flowmeter performance. The course includes practical examples of flowmeter selection and problem solutions, with emphasis on basic principles and key technologies.

Why you should attend

Opportunity to learn from others and "talk shop" with people who understand the challenges of your sector

Cost effective professional development and continuing education.

Keep your skills current.

Get to compare experiences and lessons learned

Learn about new technologies, products and services

Be actively involved in your professional development

Establish contacts in the industry

Share ideas and experiences with others in the sector

Learn Something

Have Fun

Benefits for Water Utilities

Inexpensive profressional development

2.5 days of training for $425

Group discounts available

Opportunity for staff to learn about new ideas and industry innovations

Benefits for Engineering Firms

Exposure to new ideas

Learn from plant case studies

Talk to operations and maintenance professionals in an informal environment

Learn about new products and techniques

Registration & Fees

Full Symposium

List Price -	$425
ISA Members -	$325
AWWA & FSAWWA Members -	$375
WEF & FWEA Members -	$375
Students -	$125
Authors / Speakers -	$125

Optional Cyber Security Course

List Price -	$1395
ISA Members -	$1115

Optional Flowmeter Course

List Price -	$630
ISA Members -	$495

The symposium hotel rate is $92/night

2013 Water / Wastewater and Automatic Controls Symposium

Founded in 1945, the International Society of Automation is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts conferences and exhibitions for automation professionals.

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Telephone: (919) 549-8411
Fax: (919) 549-8288
www.isa.org

WWAC2013-EB (12/12)

For more information visit:
www.isawwsymposium.com

ISA WWAC Symposium2013

Registration Form

International Society of Automation
67 Alexander Drive
P.O. Box 12277
Research Triangle Park, NC 27709
PHONE +1 919-549-8411
FAX +1 919-549-8288
EMAIL info@isa.org
www.isa.org

2013 ISA Water / Wastewater and Automatic Controls (WWAC) Symposium

6-8 August 2013 • Crowne Plaza Orlando-Universal Hotel • 7800 International Drive • Orlando, FL, USA

Mail Form and Payment to: ISA—WWAC Symposium
PO Box 3561
Durham, NC 27702-3561

Call ISA Customer Service at: +1 919-549-8411

Email: info@isa.org

Fax Form to ISA Customer Service at: +1 919-549-8288

Online Registration: Instead of filling out this form, please consider registering online at www.isawwsymposium.com

1. Customer Information

Name (first): _____ (initial): _____ (last): _____

Company: _____ Title: _____

Street Address: _____

City: _____ State: _____ Country: _____

Phone: _____ Fax: _____ Postal Code: _____

ISA Member # (if applicable): _____ Email: _____

2. All PARTICIPANTS ARE REQUIRED TO PAY REGISTRATION FEES

Early-Bird Registration
- ❑ Regular Attendee $425
- ❑ ISA Member $325
- ❑ AWWA Member $375
- ❑ WEF Member $375

- ❑ Student Registration $125
- ❑ Author/Speaker Registration $125

Regular Price (after 15 June 2013)
- ❑ Regular Attendee $450
- ❑ ISA Member $350
- ❑ AWWA Member $400
- ❑ WEF Member $400

Symposium Attendees will receive 20 PDHs (CEUs pending approval) for attending.

Optional 2-day Training Course:
Using ANSI/ISA99 to Secure Your Control System (IC32)
5-6 August, 8:00am - 3:30pm - Attendees receive 1.4 CEUs
- ❑ Regular Price $1,395
- ❑ ISA Member Price $1,115

Optional 1-day Training Course
Industrial Flow Measurement Overview (EI10C)
6 Aug, 8:00am-3:30pm, Attendees get 0.7 CEUs
- ❑ Regular Price $630
- ❑ ISA Member Price . . . . . $495`

Your Full Symposium registration includes:

* 2 full days of papers and presentations
* poster session
* networking events
* local water treatment facility tour on Aug 6
* admission to supplier showcase
* light breakfasts on Aug 7 and Aug 8
* full buffet lunches on Aug 7 and Aug 8
* evening reception on Aug 7 with cash bar
* name badge
* list of attendees with contact info
* printed onsite program booklet
* printed copy of symposium proceedings

Registration and Training Course Total: $_____ US Dollars

3. Payment Summary

Charge: ❑ Visa ❑ Mastercard ❑ Amex ❑ Discover

Charge Account Number: _____

Exp. Date: _____

Name on Card: _____

Signature: _____

Make Checks Payable to:
ISA WWAC

Note: Company purchase orders or military vouchers not accepted.

Hotel Registration:
Crowne Plaza Orlando-Universal Hotel
7800 International Drive
Orlando, Florida, USA, 32819
Reservations: 1 888-233-9527 (toll free)
Local: 1 407-355-0550
Fax: 1 407-355-0504
www.cporlando.com

Attendees are responsible for booking their own hotel rooms.
A hotel rate of $92/night is available if booked before **1 July 2013**

www.isawwsymposium.com

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