



Winter 2014 Newsletter

In this Issue

- 1 Welcome from the President
- 1 Message from the Newsletter Editor
- 2 Upcoming Member Meetings and Events
- 3 New Social Media Chair: Bob Loncar
- 3 ISA Hamilton EXPO Vendor Registration
- 3 Technical Article – Automation Project Justification
- 5 New ISA Hamilton Website
- 5 Congratulations Graham Nasby on winning ISA society-level awards
- 6 Call for Speakers & Technical Articles
- 6 ISA Hamilton Section Contacts

Save the Date

Tues, Feb 25, 2014Guest Speaker: Bob Loncar @ McMaster University

Tues, Mar 25, 2014ISA Hamilton EXPO @ Royal Botanical Gardens

Sat-Sun, Apr 25-26, 2014 -District 13 DLC @ Doubletree, Niagara Falls

Tues, April 29, 2014.. Guest Speaker: Graham Nasby @ Endress + Hauser

Fri, May 23, 2014 Annual ISA Hamilton Section Golf Tournament

Tues, May 27, 2014....Annual General Meeting @ Endress + Hauser

Section President
Graham Nasby

Newsletter Editor
Brent Killins

Welcome from the President



The year 2014 brings a new year for ISA Hamilton and we have some great programming lined up for you. Our annual Expo on Tuesday, March 25 at the RBG is starting to come together, and plans are well under way for our traditional Golf Tournament on Friday, May 27.

See our website at www.isahamilton.com for more details. I also encourage you to come to one of our many member meetings.

The year 2014 also brings some changes in our society as a whole. For the past several years the ISA's society-level governance task force has been hard at work making adjustments to the governance structure of the ISA at an international level. Governance review is normal part of most technical societies and usually takes place every ten years or so. The last time the ISA undertook this process was back in 2001, so us undergoing this process in 2013 was quite timely. The changes made this time were numerous as they took a total of 7 motions to be considered at the ISA's annual Council of Society Delegates (CSD) this past November in Nashville.

Most of the changes can be boiled down three core aims (a) streamlining many of the various boards/councils at the international level to help make the society more nimble and to reduce costs, (b) reducing the workload society-level ISA board members to a more manageable level, and (c) making it easier

for individual ISA members to have a say how their society is run. More information can be found at www.isa.org. I would also like to thank our ISA Hamilton delegate Brent Killins for being our section representative at the CSD this fall as part of the process.

Warmest Regards,
Graham Nasby
President
ISA Hamilton Section

Message from the Newsletter Editor



Another year has come to pass and it is at this time that we all take the time to reflect on times gone by and plan for the year to come.

This past year was a very successful one for me both personally and professionally. Taking on the role of newsletter editor for ISA's Hamilton Section as well as becoming more involved with section activities was a major goal of mine for the year and I am happy that I was able to do just that. As Graham mentioned, I was also able to attend the ISA's Fall Leaders Meeting and the Council of Society Delegates in Nashville this past November. It was an excellent experience that allowed me to network with other ISA section, division and department leaders from around the world. I want to thank the ISA Hamilton Section for giving me the opportunity to attend as their representative

The year 2014 is also shaping up to be a very exciting one for our section. In March, we will once again host our ISA Hamilton Expo at the Royal Botanical Gardens (RBG) in Burlington. The EXPO will also be held in conjunction with the McMaster Student's poster competition which will once again be judged by ISA Executive members.

In April we have the District 13 District Leadership Conference (DLC) hosted by our section in Niagara Falls, Ontario. This event will bring together leaders from each section in Eastern Canada to discuss issues in our district, promote leadership skills and conduct district business. May brings our Annual Golf Tournament at Chippewa Golf & Country Club in Mount Hope (a 10 minute drive from Hamilton).

With a lineup of events like this, on top of the monthly membership meetings, we look forward to meeting all of our new members, catching up with our current members and enjoying the company of friends made through our organization.

Regards,
Brent Killins
Newsletter Editor

Upcoming Member Meetings and Events

Member Meeting 4 – Guest Speaker **Use of Custom Code Generation Tool to Enforce Water/Wastewater SCADA Standards**

Who: Bob Loncar
SCADA Programmer, Regional Municipality of Halton

When: Tues. Feb. 25, 2014 @ 6:00 pm to 8:00 pm

Where: McMaster University – Engineering Technology Building, Room ETB237

What: The use of automation in the form of SCADA (supervisory control and data acquisition) systems is one of the cornerstones of operating a modern municipal water/wastewater utility. These systems are, however, fraught with a myriad of options and complexity that can make any standardization effort a daunting challenge. This presentation will give an overview of how the Halton Region developed the software tool, how it was developed with the Region's specific in-house requirements in mind, and lessons learned along the way. Also covered will be how tool was used to take advantage and support advanced PLC programming techniques such as User Defined Types, Add-On Instructions and logically separated tasks, programs and subroutines. The talk concludes with insight into how the tool is being used to help the Region to both enforce and maintain its own SCADA standards for both new and retrofit projects.

Special Event **ISA Hamilton EXPO**

When: Tues., March 25, 2014 @ 9:00 am to 5:00 pm

Where: Royal Botanical Gardens
650 Plains Road West
Burlington, ON

What: Admission is free to the public for our annual Expo. Feel free to join us throughout the day for our vendor trade show where local suppliers will showcase their new process automation technologies and products. There will be various seminars throughout the day on topics relating to process automation. Students in the McMaster Process Automation Technology program will also be holding their annual poster competition showcasing their 4th year design projects.

Special Event **ISA District 13 Leadership Conference (DLC)**

When: April 25 – 27, 2014 (Fri. evening to Sun. at noon)

Where: Doubletree Fallsview Resort Hotel
Niagara Falls, ON

What: ISA Hamilton will be hosting this year's DLC for ISA District 13 (Eastern Canada). Friday evening all members will be greeted with a hospitality suite from 9 pm to 11 pm at the hotel. Saturday will consist of several guest speakers on ISA society-level developments and leadership training seminars followed by a group dinner at Brasa Niagara. Sunday will conclude with the District 14 Council meeting with departure thereafter. More info at: www.isahamilton.ca/2014-dlc/

Member Meeting 5 – Guest Speaker **ISA Standards – Graham Nasby**

Who: Graham Nasby – ISA Hamilton President
& Senior I&C Engineer, Eramosa Engineering

When: Tues, Apr 29, 2014 @ 6:00 pm to 8:00 pm

Where: Endress + Hauser
1075 Sutton Drive
Burlington, ON

What: The ISA has a wealth of knowledge to offer the process industries in the form of ISA standards. These standards written using a committee-based and cross-industry approach can be equally applied to a wide range of industries including oil/gas, chemical, pulp/paper, mining, power, pharmaceutical and municipal water/wastewater, as well as batch and discrete manufacturing. Included in the ISA standards portfolio are technical reports, recommend practice documents, and the standards documents themselves. This talk will provide an overview of some of the ISA standards are frequently used in process industries. In total the ISA has over 180 standards, recommended practices and technical reports, not including those that have been adopted as ANSI and IEC standards.

New Social Media Chair: Bob Loncar

The ISA Hamilton Section executive is pleased to announce Bob Loncar as our new Social Media chair. Bob comes to us from the Regional Municipality of Halton where he is a SCADA Programmer. Please join us in welcoming him by following ISA Hamilton on Twitter, Facebook and LinkedIn where you'll see regular messages from Bob.

ISA Hamilton EXPO Vendor Registration

Attention vendors, if you have not already done so, please get in touch with our new Expo coordinator Cheryl Menzies at expo@isahamilton.com to register your booth for our 2014 expo.

The Expo date is Tuesday, March 25, 2014 and space is filling up quickly. The regular rate is \$650/booth. Vendor booths include an 8 foot skirted table, electrical outlet, and a packet of free expo flyers to distribute beforehand. As always, the EXPO is free for attendees to come to the show, and all attendees get a free lunch.

SAVE THE DATE

ISA Hamilton EXPO 2014

Instrumentation & Process Technology
Exhibition & Conference

Tuesday, March 25, 2014

9:00 AM to 5:00 PM
FREE ADMISSION

Walk-ins Welcome. No Registration Required.

Trade Show, Seminars, and Exhibits

Royal Botanical Gardens

RBG Centre – Main Auditorium
680 Plains Road West.
Burlington, Ontario

For Exhibitor Registration Info Contact
Cheryl Menzies at expo@isahamilton.com

Technical Article

Automation Project Justification – Just About the Math?

By Dick Hill, ARC Advisory Group

Clearly, any new automation project requires economic justification. Although this often involves hard “dollars and cents” quantification of cost savings from increased production, reduced raw material costs, or increased uptime, it is also about “soft” benefits, such as reducing risks and improving agility. All contribute to making your company more competitive. This article will focus on the latter, while also highlighting considerations for the former. It will also share some best practices that ARC Advisory Group has identified.

When considering a change of any kind and researching the alternatives, it is very important to understand that your business is likely to be flooded with opportunities to invest capital and that change needs to be justified for the benefit of the company. Personal or department goals need to be subordinated to corporate goals. In the automation domain, a number of factors should be evaluated for their economic contributions to a justification. But it does not end there. Justification must take into account the broader opportunity to better position your company for future competition, likely involving greater agility, additional products, or improved quality.

Example items to consider in a justification

Maintenance and service costs: These costs will increase for older equipment. Spare parts may be difficult to find. Direct replacements for a component disappear. Those familiar with the technologies may become a rare commodity. In addition to increased costs of repair, older systems are likely to have a longer mean time to repair. If repair requires production shutdown, this downtime will clearly affect production throughput, and it will be important to know your cost of downtime.

Energy costs: Older systems typically use more energy. For example, fixed-speed motors are giving way to variable-speed drives for energy savings. Loose process control may cause cycling that can waste energy or affect product quality. Process control designs can be improved while also improving energy efficiency.

Recycling and sustainability: These factors may also be relevant in corporate culture or product costing. Recycling costs or construction materials may figure into the value of a system or its replacement.

Improved control dynamics: These will also lead to shorter start-ups, improved product quality, quicker product changeovers, and quicker shutdowns. These all have associated cost savings. Removal of physical constraints: Modern control systems, for example, may improve space utilization even with expanded operations.

Improved data analytics: Today's advanced analytics can help streamline operations through system modeling. Perhaps a new solution can rely on data analytics—process modeling to remove the need for physical product sampling. An example of this is predictive emissions monitoring systems replacing continuous emissions monitoring systems in some applications.

Added flexibility: Existing systems may have been designed and implemented for a specific product and purpose, but are difficult to change and adapt to new product or business requirements. These requirements can include product variations or changes to batch or lot sizes. A new system can provide a great deal of flexibility, which could be a significant benefit for your business.

Now, for a couple of items that may not be as intuitive:

Upgrades to complex systems, such as a control system, often allow companies to make continuous improvements over time, plan for graceful degradation of an automation system, and perform future expansions in a well-managed, modular fashion. For example, redundancy is typically a requirement in medium-to-large automation applications. But for smaller applications, the loss of a display console may be compensated for by a backup Web-based human-machine interface direct to a controller. This level of backup can come at a drastically reduced price, while also delivering added flexibility and functionality on a day-to-day basis.

A concentration on modularity for a new system can deliver a great many new features that can be surprisingly easy to implement. Perhaps you will want a text message while you troubleshoot a challenging issue. Perhaps you will want a special report while you are making some control enhancements to generate “before-and-after” analytics. Or, perhaps you will want to plan ahead for integrating additional sensors that you know will be coming with a new enhancement down the line.

Relying on standards and leaving the door open to third-party products and interfaces and ad-hoc and short-term enhancements outside the core functionality of a system could help your company adapt to changing needs. Selecting the right technologies and data infrastructures and focusing on integrating best-in-class components can address your current needs well, while also significantly improving your ability to respond to future and transient requirements.

What makes projects successful?

ARC's vice president of consulting, Dave Woll, did a study on this very topic. Although some aspects of the results were to be expected, some were enlightening. Surveyed manufacturers, with a healthy sampling of industry “leaders” and “followers” and a middle category of “competitors,” enabled ARC to uncover some important best practices.

Project success best practices:

The degree to which projects are considered to be successful varies widely between the three groupings of industrial companies: leaders, competitors, and followers. Understanding the value of automation also varies widely between the three, and so does the degree to which projects are funded. However, at the leader level, there is a correlation across success, understanding, and funding.

Leaders are more satisfied with their projects. In fact, leading companies generally do not have failed projects. They have systems in place to evaluate the merits of a project up front and then typically employ a stage gate process to reassess and adjust project parameters over time. While overall in the survey 70 percent of projects are considered disappointing or not meeting project justifications, the majority of projects among industry leaders are considered successful. This tells us that with the right processes, the outcome can be guaranteed.

Leaders clearly have a better understanding of the value of automation. When asked to rate their understanding, leaders responded with an equal and high measure of both excellent and good responses. The competitors and followers in the field were nowhere near as confident in their value propositions.

Leaders get more projects funded. Over 80 percent of leader respondents highlighted that more than 60 percent of projects considered are funded. Compare this to the approximately 25 percent of projects successfully funded from other respondents.

In a surprising result, leaders include nonquantifiable benefits, indirect benefits, and life-cycle considerations in their analysis; a significant number of respondents in the competitor and follower category indicated that they did not. Almost all companies include an analysis of total life-cycle cost in their project justification process.

Another surprising result was that leaders spend 50 percent less time performing risk analysis for a project than both competitors and followers. The takeaway here is that they focus on upfront design and then on project management, to assure a quality outcome. Leaders also leverage commercial tools or purchased tools for project evaluation and management, rather than ad-hoc solutions or systems on a case-by-case basis.

All respondents recognized the importance of keeping the same project team for the duration of a project. More than 75 percent responded in the affirmative.

When asked how they apportion the benefits of consultants, financial balance, and rules of thumb, leaders showed an equal respect for each. Other respondents gave a much higher weighting (two to one) to rules of thumb. This likely speaks to the lack of rigor, or goes back to the poor understanding of the automation project benefits when justifying projects. Consultants play a major role in helping leaders justify projects. In fact, according to the survey results, leaders weighed the importance

of engaging consultants at over two to one with respect to both best operator advice and rules of thumb.

When reviewing the calculations for economic return, return on investment (ROI) was the most predominant method used. Other methods included economic value added, return on invested capital, and return on capital employed. ROI exceeded all other methods combined.

Finally, when surveyed about the involvement of upper management in project justifications, leaders indicated that projects were more successful when management took an active role in the entire process, from project justification to implementation. This likely drives transparency and improved communications to arrive at the desired outcome.

Conclusion

Many factors will affect the success of automation or related information technology projects. But first considerations should be based on overall company directives with respect to its competitive stance. What will make the company more competitive in the future, and how can this project influence that?

Then, it is important for everyone to be involved with the process. Communicate widely throughout your organization. Consider all alternatives and reevaluate and tune the process to drive toward your desired outcome. If your staff is new or inexperienced in making this type of strategic decision, involve industry experts to assist with selection criteria development, architecture development, vendor selection, or cost justification. However, do not delegate the responsibility completely. Make it a team effort.

© Copyright ISA. This article originally appeared in the November/December 2013 edition of *InTech*. Reprinted with permission.

ISA Hamilton Launches New Website

ISA Hamilton Section's new website is currently online and available at www.isahamilton.ca and will soon be migrated to replace the older website at www.isahamilton.com. A big thank you to our long-time WebMaster Wally Nickel and current president Graham Nasby who have both been working on the new website for the past six months. Wally is looking forward to making use of our new website platform as it will make doing website updates much easier.

The new website features re-designed homepage, a new blog, an event management system, better placements for sponsor logos, and an easier to use menu system. Any Information on section activities should be easy to find. Please check it out and if you have any questions or comments, please don't hesitate to let us know by e-mailing Wally at webmaster@isahamilton.com. Note: All of our @isahamilton.com e-mail addresses continue to function as normal both during the transition and going forward.

Congratulations to ISA Hamilton Section President Graham Nasby

Graham Nasby has had the unprecedented distinction of receiving two of ISA's Member's Choice Awards. Nasby received ISA's Member's Choice Awards for both Division Leader of the Year and Volunteer Leader of the Year. The Division Leader of the Year Award recognizes a Division leader whose activities in the previous year, in an innovative way, have provided exceptional value to a division, or enhanced an existing conference and/or symposia or contributed to the development of a new conference and/or symposia. The Leader of the Year Award recognizes a member who in the previous year has demonstrated exceptional leadership of a taskforce, committee, or board at any level within the Society. Graham, as current director of the ISA Water/Wastewater Division and past-chair of the ISA water/wastewater symposium also received the "2013 Outstanding Technical Division" award on behalf of the water/wastewater division.

Nasby is deeply involved with ISA Divisions, Standards, Symposia, and Sections. As general symposium chair, Nasby is credited with reengineering and reinvigorating the 2012 Water/Wastewater and Automatic Controls symposium resulting in significant profitability and increased attendance over previous years. Having written over thirty combined technical papers, news articles and quarterly newsletters for both ISA Hamilton Section and the Waste Water Industries Division, Nasby has been a major contributor of technical excellence.



2013 ISA President Terry Ives presenting our section president Graham Nasby with three society-level awards at the 51st ISA Awards Gala in Nashville Tennessee in November 2013.

Call for Speakers and Articles

As a service to its members and the automation community at large, the ISA Hamilton Section holds regular dinner meetings and tours. Dinner meetings usually start at 6:00pm and include a guest speaker from 6:30-7:15pm. Tours are usually held at 6:00pm. A light dinner is provided courtesy of ISA Hamilton.

We are currently seeking individuals who would like to make a technical presentation at one of our dinner meetings or who would like to submit technical articles for our newsletter.

For information regarding speaking at one of our meetings, please contact our Program Chair, Michael Bovenkamp at program@isahamilton.com.

For information regarding submission of technical articles for the newsletter, please contact our Newsletter Editor, Brent Killins at newsletter@isahamilton.com

About the ISA Hamilton Section

The ISA Hamilton Section is the local section of the International Society of Automation for the Hamilton, Burlington, Guelph and Golden-Horseshoe areas of Southern Ontario, Canada. ISA Hamilton Section holds regular meetings, sponsors a variety of educational endeavors, produces an annual exhibition, encourages an open exchange of career opportunities, and promotes the goals & objectives of ISA. More information at www.isa.org

Setting the Standard for Automation™

Show your success With ISA Senior membership

Pssst, been in the business ten years? Or, have a degree and six years of work experience? Sounds like you may qualify for ISA Senior Member grade. Why apply? ISA Senior Member grade is a statement of your knowledge and experience. It's also a requirement for becoming a candidate for ISA Fellow grade or to hold a Society-level office.

Find all the details and an application form at www.isa.org/seniormember or call (919) 549-8411.



**Brag a little. Apply today
for ISA Senior Member grade.**

612864

ISA Hamilton Section Contacts

For more information about ISA membership, the ISA Hamilton section or the upcoming section events, please do not hesitate to contact any one of us.

President

Graham Nasby
Eramosa Engineering Inc.
graham.nasby@eramosa.com
(519) 763-7774 x261

Vice President

Maulik Shah
Bestobell Canada
mshah@bestobell.com
(416) 566-7852

Secretary

Jerry Gelata
Arctic Combustion Ltd.
secretary@isahamilton.com

Treasurer

& Past-President
Kenneth Hamilton
treasurer@isahamilton.com

Newsletter Editor

Brent Killins
Westech Industrial
newsletter@isahamilton.com
(905) 812-2247

Membership

Shailesh Parmar
membership@isahamilton.com

Program / Member Meetings

Mike Bovenkamp
ArcelorMittal Dofasco
program@isahamilton.com

Expo Coordinator

Cheryl Menzies
Lakeside Process Controls
expo@isahamilton.com
(416) 523-2636

Golf Tournament

Jerry Gelata
Arctic Combustion Ltd.
golf@isahamilton.com

Education

& McMaster Univ. Liaison
Mike Bovenkamp
ArcelorMittal Dofasco
educate@isahamilton.com

Standards & Practices

Graham Nasby

Honours & Awards

Open

Marketing & Advertising

Open

Social Media

LinkedIn, Twitter & Facebook

Bob Loncar
Halton Region
bob.loncar@halton.ca

Website & e-News

Wally Nickel
ABB Canada
website@isahamilton.com

General Mailing Address

ISA Hamilton Section Inc.
2186 Mountain Grove Ave
Suite 157
Burlington, Ontario
L7P 4X4

Website

www.isahamilton.com




General Inquiries:

Email: info@isahamilton.com
Telephone: Call Graham or Maulik

Fax - use email instead

Note: We retired our old fax number in November 2013. Email docs to us as PDFs instead.

Social Media Links

 : @ISAHamilton
 : /ISAHamiltonSection
 : ISA Hamilton Section Group