



ISA
67 Alexander Drive
P.O. Box 12277
Research Triangle Park, NC 27709
PHONE (919) 549-8411
FAX (919) 549-8288
E-MAIL info@isa.org
www.isa.org

Meeting: ISA Automation Executive Summit
Date: 3 October 2007
Chairman: Patrick Gouhin, Executive Director & CEO
Recorder: Bernard Penney, Director, Marketing & Corporate Communications
Location: ISA Expo 2007, Reliant Center, Houston, TX
Distribution: Attendees

Attendees:

Dr. George Cheng PhD, CEO CyboSoft
Paul Galeski President Maverick Technologies
Dr. James Truchard CEO National Instruments Group
Vernon Trevathan P.E., CAP, PMP Control & Integration Management
Thomas G. Nelson Vice President Racine Federated Inc
Patrick Gouhin Executive Director & CEO ISA
Steve Huffman President ISA
Kim Miller Dunn President-Elect ISA

Dialog:

An informal discussion took place over lunch focusing on the most strategic issues the profession faces over the next decade or more. The attendees were thanked for participating in ISA’s first annual Automation Executive Summit. Gouhin stated the need to have a voice of automation that could benefit corporations and the automation profession as a whole.

The discussion over the next two hours is summarized below and organized (post-meeting) by main challenge themes and efforts already underway or for consideration to counter the challenge.

CHALLENGE

- One of our biggest problems is recruiting knowledgeable, skilled, workers.

STATEMENTS/SOLUTIONS

- Universities are now getting back to the basics on their class work to make students more employable. Now the time is right to affect curriculum!
Should we use the CAP (Certified Automation Professional) program as a rallying point, to use this as a lightning rod to drive university curriculum. We’ve also released the new CAP Associates program to try and draw in recent graduates to the profession.
Unfortunately, universities are not currently teaching the right curriculum to support that CAP Associates program.
The field of “Mechatronics” is very important as it is so broadly-encompassing and we should look for ties to these efforts.

- What is the value in creating a Foundation to support engineering scholarships. This could enable us to hire employees with the skills we're looking for as well as to enhance partnering opportunities with universities and technical colleges.
- ISA, through its members and strategic alliances, needs to take the lead role in advancing the automation profession and advancing the stature of the profession and all those in it so that we can more soundly compete with other professions that pull the best and brightest of the workforce away from our opportunities.
- We (National Instruments) have worked to expand course work and curriculum with universities to make classes more appropriate for automation careers. We have expanded the scope of classes beyond the Test & Measurement discipline - ISA should do this.
- The term 'Process Instrumentation' is way too narrowly defined. We are expanding the definition to encompass all of Automation.
- One action that works well for us in trying to recruit young automation professionals is to offer to pay off their college loans if they agree to come to work for us.
- Could the CAP Associates program be used as a basis to build a Masters Degree Program in Automation?
- As it turns out, nearly one-quarter of our new hires are interns – Internship is invaluable.
- One model is that used by law firms – they are offering jobs to students when they first enter law school.
- The timing could not be better for ISA to undertake a workforce development initiative and stay focused on how we can benefit the profession and industries we represent for decades to come.

## CHALLENGE

- Everyone can see that we (the automation industry & ISA) have a natural tie-in to academia and those efforts continue but what about the need for closer relations with government entities.

## STATEMENTS/SOLUTIONS

- ISA staff met with the National Institute for Standards and Technology (NIST) to discuss their SBIR program of allowing anyone to view all of their research materials to look for commercialization potential AND paying them to do it! These sorts of programs can put real dollars into the hands of our companies and attract more university participation into the field of automation.
- The Federal Manufacturing Extension Partnership (MEP) program allows corporations to receive federal money to contribute to their competitiveness through using automation and other technologies and innovations.
- Staff and senior volunteer leaders have been meeting with Senators/Congressmen about Automation and they are very interested in our platform in representing the needs of the industry.
- Establishing relations with government entities involves two-way communication. We should be ready to help solve the challenges the government faces and they want to better understand who we are, what we represent, and what we are concerned about.
- Government relations not only reaches out to politicians and lawmakers but also the vast network of government agencies and all of the civil servants therein.
- The government bridge will be necessary to strengthen the tie to the academic community through enhancing the networking opportunities and the potential for federally funded research dollars to make

their way into the academic sector through partnership with industry that essentially makes up the entire profession today.

- All large corporations have government relations staff that stays abreast of issues impacting the company. Many of these issues span beyond the company boundaries and thus have a common theme applicable to much if not all of the profession. Where applicable, these corporate experts would welcome the additional support and push coming from the likes of a neutral non-profit entity that represents the advancement of automation.

## CHALLENGE

- Are Engineering Departments struggling and can we collectively help to strengthen them. It appears as if engineering students these days are on their own in regards to getting career assistance and placement from their universities. For instance, who is out there to counter the sensational, but untrue, story that engineering jobs are being out-sourced, yielding the negative image that there is not future with an engineering degree.

## STATEMENTS/SOLUTIONS

- School curriculums are currently looking at what are marketable skills for their students.
- ISA does sponsor student engineering competitions but maybe we should be doing more to appeal to a broader market.
- National Instruments is also sponsoring competitions, specifically the “Odyssey of the Minds” for high school students. We are also contacting high school guidance counselors.
- ISA has had discussions with an organization of high school guidance counselors and is working to push automation materials and subject matter into the established system to promote the profession to the next generation.
- If we had a unified voice for the profession by gathering the right organizations together and reaching a critical mass, then we can make a significant difference in creating a true, positive image for the automation profession.
- The National Academy of Engineering (NAE) is a highly influential organization that publishes reports for Government recommendations. That is a strategic area we could be involved in.
- This ties into a published report called ‘Rising Above the Gathering Storm’, that address future engineering issues which ISA has studied and is committed to following with other professional societies.
- An example of an excellent marketing vehicle that changed the perception toward a profession is the show ‘American Chopper’, they have built up a loyal following, and we need to replicate that type of excitement & exposure. Where is our Automation push that shows the excitement of the profession?
- How do we counter the negative image and stereotype portrayed by the media, for example ‘Dilbert’?
- FIRST Robotics has proven to be an effective mechanism. [www.usfirst.org](http://www.usfirst.org)
- Contact Dean Kamen about establishing a relationship with FIRST. [http://en.wikipedia.org/wiki/Dean\\_Kamen](http://en.wikipedia.org/wiki/Dean_Kamen)
- FIRST’s mission statement: *To create a world where science and technology are celebrated... where young people dream of becoming science and technology heroes.*

## CHALLENGE

- How can ISA assist in bringing more International exposure and awareness to automation?

## STATEMENTS/SOLUTIONS

- It is very important to the mission of ISA to have international appeal and broad credibility in all the areas of automation. In fact, we hired a director of global operations a year ago and recently added a country manager in Mumbai, India to do precisely that, expand the scope and reach of ISA on a worldwide basis.
- It is very important that leaders of any volunteer organization adapt to new times, or that organization will fail. We (ISA) are also trying to adopt with the today's needs.
- Automation' is the discipline that we are trying to promote, the other issues are specialties under that umbrella.

## CHALLENGE

- Where will this profession be in 20 years out and what can we do now to positively influence that direction?

## STATEMENTS/SOLUTIONS

- We could assemble a panel of visionaries to conduct such discussions in public forums
- We could hold an annual invitation only gathering of 50 of the top stakeholders of the profession and conduct a workshop on the future vision and challenges and issue a report on findings.
- We should continue to gather the right group of leaders to identify the biggest hurdles we collectively face.

## NEXT MEETING

Those in attendance concluded that this was a worthwhile exercise and one that would warrant a further expenditure of their time. Each executive agreed to recruit one of their peers from another company and return back to Expo 2008 for the 2<sup>nd</sup> Annual ISA Automation Executive Summit on Wednesday 15 October 2008 from 12:00 to 2:00.