

# ICEnews

May 2006

All that's Cool in Instrumentation and Control Engineering

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Welcome to the May 2006 issue of *ICEnews*, the Instrumentation, and Control Engineering news source. A formatted version of this newsletter can be found at <http://www.iceweb.com.au/icenews/icenews05-2006.pdf> ICEnews is a bimonthly compendium of useful information.

We want to make this newsletter a source of information that YOU can use in YOUR job, while also keeping you informed on what is happening in our industry both directly and indirectly. If you have something you would like to contribute, please send it to the editor at Ian Verhappen (<mailto:ian.verhappen@iceweb.com.au>) or Jim Russell (<mailto:jimrussell@iceweb.com.au>). We welcome your Press Releases, information, AND any technical articles you may have that could be appropriate for this newsletter or our web site <http://www.ICEweb.com.au>.

ICEweb's primary purpose is to disseminate information about Instrumentation, Control Engineering to you the practitioners and developers of these arts. The average page views are 900 per day with a peak of 1900. In April ICEweb received a record 28,000 page views. April ICEnews is another mechanism to get this information out to you. Our database is in excess of 1200 quality contacts.

The authors encourage you to support our newsletter sponsors and also appreciate if you tell those companies to which you reply based on this newsletter that the inquiry is based on an article in ICEnews. Thank you.

As an ICEnews member you are on our mailing list so that we can keep you up-to-date technical information.

At ICEweb/ICEnews we take Spam very seriously and aim to make any information that we send out useful and informative.

Whilst we encourage you to remain on the mailing list to benefit from this important information, we would like to provide you with the option of removing yourself from our mailing list.

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If you select either of these options we will remove you from the list. If you wish to continue to receive the information you do not need to take any action.

The newsletter materials are ‘subdivided’ into various topics as follows though not all categories may be present in every issue:

**ICEart** — Technical articles related to instrumentation and control.

**ICEbus** — Information on any of the 26 different bus systems in use in the area of instrumentation and control. The authors however have a definite bias towards Foundation Fieldbus.

**ICEfolks** — News about promotions and changes people in the Instrumentation Control Engineering world.

**ICEletters** — electronic newsletters of potential interest to our readers.

**ICEmerge** — Mergers and acquisitions in the Instrumentation Control Engineering community

**ICEnet** — Internet related topics and sites that may be of interest to our readers. In addition to ICEWEB that is.

**ICEnew** — Great new technical links posted on <http://www.iceweb.com.au/new.htm>

**ICESponsor** — Newsletter sponsor recognition. Normally at the beginning and end of the newsletter. These people have kindly contributed to the creation and sharing of this information by offsetting the costs associated with its production and distribution.

**ICEtime** — Seminars, Tradeshows, Conferences and Events of interest to our readership. (Despite the fact that I am a Canadian, this will not include a listing of ALL the ice hockey games I know of or participate in.)

**ICEtools** — Software and offers that will help with engineering design.

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## ICEart

To download an ARC report on Design, Operate, Maintain Interoperability, point your browser to <http://www.arcweb.com/Events/forums/0606.htm>. ARC also have a 30 year history of the DCS on their website at <http://www.arcweb.com/NewsMag/auto/dcs-ins36-021606.asp>.

Another ARC story of interest is that their Benchmarking Consortium comparing over 25 plants have passed the following milestones: over 120 metrics identified, 18+ metrics release for use, and new vertical teams for different industries including Chemical-Batch, Oil & Gas-Refining and Life Sciences.

Yokogawa Electric Corporation has announced the “Vigilant Integration Partners” (VIP) Initiative to improve integration of member companies’ devices with the CENTUM series control system.

PLCopen have released their Safe Software specification. The 5-TC5 committee took 2.5 years to complete the document that covers the software model, the subset, the generic Function Blocks, and the certification procedure.

ISA, OMAC, and WBF has created “The Automation Federation” as an umbrella organization under which associations and societies engaged in manufacturing and process automation activities can work more effectively to fulfill their missions. It will coordinate the work of member organizations engaged in advancement of the science and engineering of automation technologies and applications.

ISA has also formed two new standards committees. ISA-104 is to support global (IEC) FDT/DTM activities and ISA-103 will support similar EDDL work.

The Manufacturing Interoperability Guideline Working Group, a collaborative venture of ISA, MIMOSA, OAGi, OPC, and WBF, has been formed. The Working Group is the next step in the previous announcement by the Open Applications Group and ISA-SP95 to converge their standards for manufacturing interoperability by working to support the OpenO&MTM Initiative. This group will develop an industry guideline that defines generic business process models between the operations management and business layers of the manufacturing support system.

Curvaceous Software has formed an alliance with Control Specialists Ltd. and thus gain access to their Geometric Process Control (GPC) technology. GPC is based upon parallel co-ordinate geometry and is being used across the whole of the process industries from Petrochemicals & Chemicals to Pharmaceuticals & Food. As the successor to Statistical Process Control (SPC), this new technology is based upon the mathematics of n-dimensional geometry instead of algebra or calculus. GPC does not require any maths expertise to use or understand which makes it easier and faster for users to learn.

The new full Annual Book of ASTM Standards 2006 catalogue can be downloaded at <http://news.ih.com/GoNow/a14065a142829a349763210a1>

Control-See Software Solutions' <http://www.controlsee.com> U.C.ME-OPC, is alarm notification and alarm analysis software that uses SMS, WAP, RSS, Phone, Fax, Email and Multimedia to notify users of alarm situations.

Tyco Flow Controls has a new release of their Biffi ICON Electric actuator that incorporates BlueTooth non-intrusive setup and diagnostics downloads to make it easier to work with the device from "outside" the device.

Pepperl+Fuchs Bebeco EPS introduced the Enviro-Line Series Pressurization Systems as a simple solution for pressurization applications in non-hazardous areas that contain dusty, dirty and corrosive atmospheres. These systems are designed and delivered complete and ready to install, even down to the fastening hardware.

ABB and Tetra Pak have signed a global purchase agreement for worldwide implementation of ABB's automation products. Through an ongoing Technology Partnership, ABB Inc. and Metso Automation Inc. announced today that Metso's Neles ValvGuard™ product has been Industrial IT Enabled.

Emerson has released a press statement that they have won a Bergesen Worldwide contract to digitally automate one of the world's largest ships for production, storage and offloading of oil.

Inmoco (<http://www.inmoco.co.uk>) is taking precision in servo and linear positioning systems to a new level with their new Mercury range of smart encoder systems from MicroE Systems. The new positioning systems offer linear resolutions in the range from 5 microns to 5 nanometers and rotary resolutions in the 6,600 CPR to 67.2 million CPR.

The new version 1.2 of Datastick® Spectrum software for the PDA provides a maximum frequency of 10,000 Hz with Fast Fourier Transform (FFT) spectrum displays of 400, 800, and 1600 lines. FFTs are now calculated up to three times faster than before, and time-domain waveforms are now displayed at resolutions up to 3200 points.

The OASIS international standards consortium has approved the Service Provisioning Markup Language (SPML) version 2.0 as an OASIS Standard. SPML provides an XML-based framework for managing the allocation of system resources within and between organizations. Encompassing the entire life-cycle management of resources, SPML defines the provisioning of digital services such as user accounts and access privileges on systems, networks and applications, as well as non-digital or physical resources such as cell phones and credit cards.

The OASIS international standards consortium has also recently approved the Business-Centric Methodology (BCM) version 1.0 as an OASIS Standard. BCM is a set of layered methods for acquiring interoperable e-business information within communities of interest. The BCM OASIS Standard serves as a road map, enabling organizations to identify and exploit business success factors in a technology-neutral manner, based on open standards.

The SERCOS Controller-to-Controller (C2C) Profile specification for interconnecting distributed controls in modular machines and systems was released at Hannover Fair 2006.

A number of familiar faces from the Industrial Security arena have joined Wurdtech Analytics Inc. including Eric Byres as a partner and Director of the Industrial Security Division. Joining Wurdtech with Eric are Joann Byres (Director of Research), Nate Kube (Manager of Industrial Security Services) and Darren Lissimore (Achilles/Tofino Development Lead). And some of new faces including Tyler Williams (Manager - Advanced Analytics), Lewis Sobotkiewicz (Technical Analyst) and Neil Mackenzie (CEO). This combination of world class security researchers and top-flight mathematicians will allow Wurdtech to take on some exciting new research, particularly in the areas of risk modeling and formal security testing.

### ICEbus

The Fieldbus Foundation has formed a liaison relationship with NAMUR Working Group 2.6 to address the issues of grounding and shielding and device diagnostic profiles. The Foundation has also released ITK Version 5 to fully support the enhancements of enhanced EDDL.

ISA has released the 2<sup>nd</sup> edition of the popular Foundation Fieldbus book by Ian Verhappen and Augusto Periera.

ODVA has published two new specifications since we last published. One is the CIP Safety protocol for Ethernet/IP suitable for up to SIL 3 and the other is the CIP Motion Drive Profile supporting from variable frequency drives through to high performance servo drives.

Siemens Automation and Drives have developed two communication modules for connecting RFID read/write devices to Profinet networks.

### ICEed

Tri-State University is now offering their suite of Foundation Fieldbus courses with the complete listing and registration information at <http://www.tsutechcenter.org/fieldbusinfo.asp>. Next classes are in September.

SAIT will be offering their suite of Fieldbus courses between May 31 and June 6. Information can be found at <http://www.sait.ab.ca/fieldbus>.

The Foundation Fieldbus End User Council Australia will be conducting Essentials and Configuration Courses in June, for full details see <http://www.fieldbus.org.au/training/>

### ICEfacts

If you have trouble putting puzzles together here's an interesting website that does more than that as it can put together pictures <http://www.cs.ubc.ca/~mbrown/autostitch/autostitch.html>. You can check out what it will do here <http://www.cs.ubc.ca/~mbrown/panogallery/panogallery.html>. The guy's a student at UBC and I think this was part of his project - amazing stuff!

### ICEhelp

If anyone can help Jim Todd of Sutton Surrey, find the following paper "The Need for an In-Line Oil-In-Water Monitor" A.W. Jamieson, Shell U.K. Exploration and Production, Aberdeen please contact Jim Russell at <mailto:jimrussell@iceweb.com.au>

**ICEletters**

Subscribe to this newsletter by registering your e-mail address at <http://www.ICEweb.com/au/icenews/register.htm> or sending a note with the subject 'subscribe ICEnews' to <mailto:jimrussell@iceweb.com.au> or <mailto:ian.verhappen@iceweb.com.au>

The winner of the survey last issue was Ashley Wallis of MTL Instruments in Canning Vale, Western Australia. Congratulations Ashley. The survey indicated that the preference is for more regular (monthly) versions of ICEnews and a slightly smaller size making it easier to skim. We will now begin working towards making that happen.

This is the 100th anniversary of the International Electrotechnical Commission (IEC). A complimentary subscription to their electronic newsletter *e-tech* can be obtained at [http://www.iec.ch/online\\_news/etech/subscribe.htm](http://www.iec.ch/online_news/etech/subscribe.htm).

**ICEmerge**

Emerson Process management has expanded its reach by acquiring Bristol Babcock.

Racine Federated has purchased the vortex flow meter product line from J-TEC Associates.

Ultrasonic flow meter manufacturer Controlotron has been acquired by Siemens.

Ashcroft Inc. is to be acquired by Nagano Keiki Co. Ltd. from KPS Special Situations Funds.

**ICEnet**

Pepperl+Fuchs have updated their web site at <http://www.am.pepperl-fuchs.com> that offers improved navigation and access to content.

XACT Sensing (<http://www.Xactsensing.com>) in conjunction with website Automation.com, is sponsoring several community Blogs (web-logs) for technical and scientific professionals. Aerospace Test, Automation Test, Ag and Soil Sciences, Earth/Geo Sciences, Electrical/Building Construction, Electronic Test, Environmental Science, Manufacturing Quality/Metrology, Marine Science, Process Quality, Education / Government Research Lab and Water Quality are some of the select communities.

**ICEnew**

This is a section that highlights those useful technical links that are new to ICEweb.

SIL Determination Techniques Report, this excellent document from ACM Automation covers SIL Determination and the Safety Life Cycle, SIL determination Techniques, ALARP and Tolerable Risk Concept, Semi-Quantitative Method – Fault Tree and Event Tree Analysis, Safety Layer Matrix, Calibrated Risk Graph, Layer of Protection Analysis (LOPA), Evaluating the SIL Determination Options, Process Industry Observations, SIL Program Benefits  
<http://www.iceweb.com.au/sis/ACMWhite-PaperSILDeterminationTechniquesReportA4.pdf>

The Control Valve page has had a major upgrade with many new links being added. This is a very useful resource. [http://www.iceweb.com.au/Valve/control\\_valves.htm](http://www.iceweb.com.au/Valve/control_valves.htm)

Need to know something about level? ICEweb's updated level page has some very useful technical information. <http://www.iceweb.com.au/Level/LevelWeb.htm>

Composite Valves - Looking for a valve without corrosion problems? These valves made from plastics and potentially using Nanotechnology techniques may just solve them.  
<http://www.iceweb.com.au/Valve/Composite.htm>

[Specialist Power Plant Valves](#)- These valves are specific to those power plant issues such as de-superheaters, steam service etc. <http://www.iceweb.com.au/Valve/power.htm>

A new article on Digital Valve positioners [http://www.iceweb.com.au/Valve/control\\_valves.htm](http://www.iceweb.com.au/Valve/control_valves.htm)

## ICEtools

MTL have released a web based Fieldbus Barrier calculation tool that can be run from either your desktop or over the internet. The file can be accessed at <http://www.mtl-inst.com/products/fieldbus/index.htm>

Pepperl+Fuchs introduces Segment Checker version 1.14. This latest version includes new power supplies and devices from Pepperl+Fuchs for FOUNDATION Fieldbus and Profibus PA applications and can be downloaded from <http://www.segmentchecker.com>

Contemporary Controls has an on-line tutorial at [http://www.ctrlink.com/managed\\_features.htm](http://www.ctrlink.com/managed_features.htm) that covers 9 topics related to network performance using network switches.

A number of automation and control ebooks can be accessed from Haison Automation and Control at [http://www.haison.com.vn/automation/index.php?option=com\\_remository&Itemid=26&func=select&id=1](http://www.haison.com.vn/automation/index.php?option=com_remository&Itemid=26&func=select&id=1)

Business Electronics Soldering Technologies have a free “cost of rework” calculator on their website at <http://www.solder.net/xformtest/calculate2.asp>.

The <http://www.clabberhead.com> site provides calculation formulas online for orifice bore, dp, flow and many more forms of flow calculation.

An evaluation copy of instrumentation design software can be downloaded at <http://www.dessoft.co.za>

## ICEtime

If you would like to have your event listed in ICEtime, please send a note or press release to the editor at <mailto:ian.verhappen@iceweb.com.au>

## 2006

### June

5-7 Sensors Expo, Donald E. Stephens Convention Center Rosemont, Illinois. Register to attend at <http://www.sensorsexpo.com>

11- 15 Honeywell Group Americas Symposium, J.W. Marriott Desert Ridge Resort and Spa, Phoenix Arizona <http://www.honeywell.com/ps/hug>

12 Siemens Oil and Gas Industry Summit, Del Lago Resort, Montgomery, Texas <http://www.sea.siemens.com/ogsummit>.

12 – 16 Intergraph 2006 International Users Conference, Orlando, Florida. <http://www.intergraph2006.com>

13 -14 International Automation Network Forum, University of Genova, Italy. <http://www.automation-network.com/index.php?id=1&sec=105&company=106>

21 – 23 Waste Management 2006, Malta <http://www.wessex.ac.uk/conferences/2006/waste2006/cfp.html>

23 Geek Pride Day, The Barn, Mason, NH \$75 per person contact [deb@barn.org](mailto:deb@barn.org) or call 603-878-4365

24 – 28 The “Global Education of European Engineers and Entrepreneurs” (GE4) with the Saint-Petersburg State University of Aerospace Instrumentation will organize the International Conference “Challenges of the Information Age in the Field of Education” The Conference will take place on the board of the comfortable motorship “Saint-Petersburg” cruising by the rivers Neva and Svir, lakes Ladoga and Onega. e-mail [int@aanet.ru](mailto:int@aanet.ru) for more information.

### July

20 -23 4th International Conference on Computing, Communications and Control Technologies (CCCT 2006) <http://www.info-cybernetics.org/ccct06>

#### August

17 – 18 Instrumentation Education, Training and Development Conference (IETDC) in Clear Lake, Texas. More information at <http://www.knowthebus.org>

#### September

26 – 28 11th CAN Conference (iCC), Stockholm, Sweden <http://www.can-cia.org/icc>

#### October

2 – 6 Emerson Global Users Exchange, Gaylord Opryland Resort and Convention Center.

11 – 15 ISA 2006 Conference & Exhibition, Houston, Texas. <http://www.isa.org/expo2006>

16 – 17 Second International Innovations and Real-time Applications of Distributed Sensor Networks (DSN) Symposium, Embassy Suites Crystal City Hotel in Arlington, Virgin  
<http://www.InformaLearning.com/DSN>

#### November

7 - 9 Valve World Conference and Exposition, Maastricht, The Netherlands. [www.valve-world.net](http://www.valve-world.net)

13 – 15 European WBF Conference, Mechelen Conference Centre near Brussels, Belgium, Information at <http://www.wbf.org>

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Well recognized by such brand names as Circle Seal Controls, Hoke/Gyrolok fittings, and Go Regulators, CIRCOR International Inc. is a leading supplier of valves and related products and services to a wide range of users who require precise, efficient, and safe fluid-control systems. For over 125 years they have been

providing a complete array of fluid-control products and technologies to a highly fragmented industry.

For more information go to <http://www.circle-seal.com>



Relcom Inc. specializes in the design and manufacture of wiring components and test equipment for the physical layer of Foundation Fieldbus and Carrier-band industrial local area networks (LAN).

From our headquarters near Portland, Oregon, USA, we have provided taps, repeaters, network monitors, and test equipment to demanding users and leading control system manufacturers since 1985.

For more information go to <http://www.relcominc.com>



The **Zellweger Analytics** group of companies provides gas detection solutions in industries where potentially hazardous chemicals and gases exist. A full range of fixed gas, portable gas and flame detection equipment is available for the measurement of flammable gases, toxic gases and oxygen concentrations.

The company provides design, development and manufacture of electrochemical, catalytic and infrared sensors, along with Chemcassette technology, placing the company at the forefront of innovation. The company offers solutions to increasingly difficult gas detection and monitoring applications.

They also offer project management for specialized fire and gas systems, a global network of service centers and 24-hour on-line technical support.

For more information go to [http://www.iceweb.com.au/Suppliers/zellweger\\_analytics.html](http://www.iceweb.com.au/Suppliers/zellweger_analytics.html)

The **Grimwood** range of flanged immersion heaters can now be manufactured to provide hazardous area protection for users in the Asia Pacific region. Depending on the location and operating environment, units can be made in either carbon steel or stainless steel. The benefits of using locally designed and manufactured product fully complying with hazardous area requirements are shorter supply chains and lead times and quicker, clearer communication.



<http://www.grimwoodheating.com.au/flangeheaters.php>

Controlotron is a leading worldwide supplier of ultrasonic flowmeters for liquid and gas applications. With over 40 years' experience, Controlotron innovations have resulted in numerous patents.



Controlotron flow measurement systems are supplied to many different industries. Installations include petroleum pipelines, petrochemical and chemical processing, water and wastewater treatment facilities, heating and cooling systems, fossil fuel and nuclear power facilities, aircraft hydraulics, food processing, semiconductor and automotive applications. Systems include leak and interface detection, as well as portable and dedicated mass, volumetric and energy flowmeters.

Controlotron non-intrusive ultrasonic flowmeters can be installed outside the pipe, without process shutdown, eliminating the need to cut into the pipe. In addition to superior performance, Controlotron ultrasonic flowmeters provide great savings in installation, operation, maintenance and calibration.

For further details see <http://www.controlotron.com>

ICE-Pros, Inc. is a global independent Instrumentation & Control Engineering consultancy specializing in the areas of Fieldbus technology and process analyzer systems. More complete information can be found on their web site at <http://www.ice-pros.com>

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