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Welcome to the September 2005 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/icenews09-2005.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 hits are 900 per day with a peak of 1900. ICEnews is another mechanism to get this information out to you. Our database is in excess of 1000 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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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, Tradeshow, 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.

ICEart

PLCopen has started work on Part 4 to define a set of function block extensions to coordinate multi-axis motion in 3D space and hope to have the draft ready by April 2006.

ARC Advisory Group and sixteen leading manufacturers have formed an Automation Industry Benchmarking Consortium. There are 10 teams in the Working Group to focus on functional and industry specific metrics. The owner operator members of the consortium have guided the identification of suitable metrics and associated calculation methods.

ABB have recently released two handheld units for configuring and calibrating HART instrumentation.

Sigma-Aldrich have developed a new Microbiology Media Data Bank CD that can be requested through their web site at http://sigma-aldrich.com/microbiology_cd

Yamatate has released their MVF Series microflow thermal vortex meter that measures gas mass flow.

Emerson Process Management now has a series of Intrinsically Safe HART I/O cards suitable for Zone 1, 2 and Class 1 Division 2 applications. Fieldbus cards are to follow. A new energy limiting fiber optic switch to permit fiber optic cable in Zone 1 areas without protective sheathing has also been unveiled.

Smart Remote Automation is the new extension for the upstream oil and gas sector to collect data from remote sites from Emerson Process Management.

Rockwell Automation Power-Flex AC Drives and SCANport enabled drives can now be accessed via the Wireless Interface Module (WIM) using Bluetooth or Wi-Fi on a PocketPC.

A series of standards and white papers about on-line maintenance can be accessed from the Download section of the MIMOSA web site at <http://www.mimosa.org>. This group has developed a number of XML standards to transfer maintenance information between different systems.

The ARC web site has an interesting article about ISA-95 and the OAGi group about possible clashes related to integrating control and business systems. The article can be found at <http://www.arcweb.com/NewsMag/ent/isa-oagi-ins38-82505.asp>. The same site has a report on the Plant Asset Management Systems market at <http://www.arcweb.com/NewsMag/auto/pam082505.asp>.

Siemens Automation and Drives Group and Phoenix Contact have reached a cooperative agreement in which Phoenix Contact will be responsible for production and development of Siemens terminal blocks.

Triconex has released a new communications module that supports an embedded OPC server and Modbus TCP/IP as well as full TCP/IP routing functions. Parent company Invensys has a series of asset performance management solutions available at the component and system level.

Iconics has released a pocket version of their popular OPC based HMI suitable for Symbol Technologies mobile solutions to complement their existing Windows CE/Pocket PC platforms already supported by past revisions.

Schneider Electric has announced their Modicon Advance Program to upgrade aged automation systems to the most recent version of the Modicon PLC family. The Telemecanique family has also been expanded with the new compact Preventa XPSMC safety controller suitable for EN 954-1 Category 4 via 16 inputs or 32 outputs modules.

The new CM Series Coriolis Flow Meters from Fluid Components International (FCI) is available in larger line sizes up to 12 inches, and flow rates to 2200 metric tons/hr.

ABB Inc. and Intergraph Corporation have announced that Intergraph SmartPlant® Instrumentation has been Industrial IT Enabled. The two companies have signed a cooperative marketing and distribution agreement to support the developed integration between SmartPlant Instrumentation and System 800xA, along with a memorandum of understanding (MOU) for current and future collaborative development efforts.

The U.S. WITTENSTEIN Group, a subsidiary of WITTENSTEIN AG of Igersheim, Germany, (alpha gear drives, Inc., WITTENSTEIN manufacturing Corp, and WITTENSTEIN aerospace and simulation, Inc.) has relocated to a new 27,000 sq. ft. headquarters facility at 1249 Humbracht Circle Bartlett, Illinois, tripling the size of the company's previous separate facilities.

Five organizations joined together to demonstrate interoperability of the Web Services Distributed Management (WSDM) OASIS Standard. Developed by the OASIS WSDM Technical Committee, the standard enables management applications to be built using Web services, allowing resources to be controlled by many managers, as well as giving managers access to more resources across and between enterprises.

Members of the OASIS international standards consortium also recently announced plans to define a set of protocols for coordinating the outcome of distributed application actions. The new OASIS Web Services Transaction (WS-TX) Technical Committee brings together users and vendors in an open process to refine and finalize a set of specifications based on three initial contributions, Web Services Coordination (WS-Coordination), Atomic Transaction (WS-AtomicTransaction), and Business Activity Framework (WS-BusinessActivity).

Flow Technology, Inc. (FTI) has released VisualLink flowmeter programming software. VisualLink is designed for turbine flowmeters employing FTI's LinearLink® and LinearLink® Temperature Compensated Interface (TCI). The new software simplifies flowmeter programming and eliminates the need for manual calibration data entry.

Curvaceous Software, inventors of Geometric Process Control technology, is this year's proud winners of the AMEC Award for Innovation and Excellence in a Small Medium size Enterprise. The Institution of Chemical Engineers presented the award at their annual awards ceremony.

Roland Heersink, co-founder and CEO of Industrial Evolution, has joined as a managing partner assuming the position of President and Chief Operating Officer of PAS Inc. Roland was a former University classmate or editor Ian Verhappen. Congratulations Roland.

Citect, recently unveiled its Ampla suite of Manufacturing Execution Systems (MES), providing manufacturing and utility industries with the means to achieve business interoperability, incremental cost reductions and improved productivity in their operations. Ampla is an ISA-95 compliant, scalable suite of MES solutions, delivering real-time access to aggregated plant and business intelligence.

ISA has made its published reports and draft standards on manufacturing and control systems security available free of charge until the end of 2005. ISA is taking this unique step to encourage understanding and application of the approved guidance in its two ANSI approved technical reports, and to obtain even broader input to the next generation of standards that are well underway in development. The two published guidance documents and the two draft standards can be accessed at <http://www.isa.org/securitystandards>. Comments, suggestions, questions, and offers to help can be submitted to ISA at <mailto:ISASP99@isa.org>.

IHS ATP moving to IHS offices, at Willoughby Road, Bracknell Berkshire RG12 8DW UK at the end of October. ATP was acquired by IHS in early 2005. IHS provides technical information needs of businesses worldwide, with both hardcopy books and standards and online subscriptions to technical information. The address is

ICEbus

Handheld Fieldbus diagnostics tool manufacturer Relcom Inc. has released an update to their industry standard FBT-3. The new FBT-6 unveiled at the ISA Show in Chicago is also being promoted with a contest. The company is looking for the most interesting report of how the fieldbus tester was used to diagnose a physical layer problem in their facility. All submissions should be sent to <mailto:fieldbusdiagnostics@mtl-inst.com>.

CAN in Automation (CiA) has submitted the CANopen device profile for electric drives and motion control for international standardization to the IEC as part of standard 61800-7. The standard was enhanced with type-specific PDO mapping (process data object) and additional operating modes before submitting it to the IEC. The additional operating modes consist of cyclic synchronous modes for position, velocity and torque.

The Profibus organization has released for sale their "Profibus Installation Guide". The guide can be purchased by contacting Profibus in Scottsdale, Arizona.

An alliance to develop a Certified Great Lakes FOUNDATION™ Fieldbus training center has been announced by Tri-State University (<http://www.tsutechcenter.org>) and ICE-Pros Inc (<http://www.ice-pros.com>). The classroom laboratory will enable students to gain a thorough understanding of the theory and application of Fieldbus technology. A fully modular pilot plant will provide a hands-on environment representative of regional industries capable of using Fieldbus technology. These industries include: pharmaceuticals, alternative energy, electric utilities and traditional refining. The laboratory and pilot plant will incorporate the latest H1 and HSE FOUNDATION™ Fieldbus technology in portable modules for transportation to customer and regional training sites. In addition, the alliance is structured to provide system integration testing with other non-real time archival and maintenance systems

ICEed

Tri-State University, the Fieldbus Foundation's regional training centre for the Midwest and South Central Canada, has announced that they will be offering their first certified classes in January 2006. To learn more or register for the "Introduction to Fieldbus" course look to <http://www.tsutechcenter.org>.

The body of knowledge that forms the requirements for ISA's Certified Automation Professional (CAP) program is now the subject of a new resource from ISA - A Guide to the Automation Body of Knowledge, edited by Vernon L. Trevathan. With contributions from over thirty leading experts (including the editor or ICEnews) from all aspects of automation, this book defines the most important automation concepts and processes, while also describing the technical skills professionals require to implement them in today's industrial environment. The content focuses on the seven technical categories defined by the CAP body of knowledge: Basic Continuous Control; Discrete, Sequencing, and Manufacturing Control; Advanced Control; Reliability, Safety and Electrical; Integration and Software; Deployment and Maintenance; and Work Structure.

Beginning in January 2006, the three ISA certification exams: Certified Automation Professional (CAP), Certified Control Systems Technician (CCST), and Certified Industrial Maintenance Mechanic (CIMM) will be offered electronically and will be available at test sites around the world. This added flexibility and accessibility will make the certification process much faster and easier. However, it does involve a change in testing policy to ensure that exam security is maintained: all exams will be closed book as of 1 January 2006.

ICEfacts

The mounting complexity of electronics combined with the need for open interface standards among electronic control units (ECUs) is fuelling innovation in the European automotive software industry. In fact, about 90.0 per cent of the innovation in the automotive industry is software related and it is estimated that the cost of software per vehicle in Europe was 5.8 per cent of the total cost of the vehicle in 2004. Propelled by the desire for more comfort and safety in cars, there is expected to be a progressive increase in the amount of software embedded in the different ECUs. Consequently, the cost of software for every vehicle is expected to form 11.0 per cent of the total cost by 2011.

Spintronics - the pioneering new technology, wherein both the charge and spin of an electron are used to carry information - is generating great excitement in the world of technology for its immense potential in a wide variety of applications. Perhaps spintronics' biggest potential lies in embedded memories.

Non-volatile memory devices such as magnetoresistive random access memory (MRAM) will revolutionise the memory market and contribute to the development of sophisticated and versatile computing and personal devices. Promising to introduce innovations such as instantly bootable computers, MRAM looks poised for resounding success.

ICEletters

The Automation Network initiated by Software GmbH has more than twenty independent "Automation Network" member companies, offering products and services for the entire industrial automation area. This group has a new newsletter that can be accessed or subscribed to at <http://www.automation-network.com>

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ICEmerge

Honeywell has acquired InterCorr International, Inc., a worldwide leader in solving corrosion and materials problems. InterCorrs™ proprietary SmartCET* technology will be integrated with Experion Process Knowledge System (PKS).

Ametek Inc. will be acquiring the Solartron Group as well as the SPECTRO Beteiligungs GmbH Spectro Analytical Instruments optical emission and ED-XRF atomic spectroscopy business.

Johnson Controls is strengthening its hold in the Building Automation sector by acquiring York International Corporation.

Emerson Process Management has acquired Numatics as a compliment to their Asco Joucomatic division. They have also purchased Solartron Mobrey who will be renamed Mobrey Measurement.

Spirax Sarco has purchased EMCO Flow Systems. EMCO will become a division of Spirax Sarco.

ICEnet

A new RFID Industry Group have agreed to form an intellectual property licensing consortium as a way to manage patents related to this technology thus providing a single source to purchase necessary patents for licensing from a single source.

NATO (North Atlantic Treaty Organization) has approved Standardization Agreement STANAG 2233 for "Consignment and Asset Tracking by Radio Frequency Identification" (RFID). This agreement will encourage the use of standardized RFID for tracking of consignments between the signatory nations.

HP and Royal Philips Electronics are partnering to offer interoperable solutions for the new EPC Class 1 Generation 2 RFID standard.

ICEnew

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

- The ICEweb Forum page has been updated.
http://www.iceweb.com.au/discuss_frm.htm
- Switches- Some excellent technical links from the Switches Reference Centre
<http://www.switches.machinedesign.com/>
- High System Availability for Foundation Fieldbus - This application note from Relcom focuses on the requirement for high availability of the physical layer components such as Power Supplies
<http://www.relcominc.com/pdf/500-988%20High%20Availability%20For%20FF.pdf>
- The importance of Isolation for Foundation Fieldbus This technical note from Relcom covers Maintaining Isolation between the fieldbus pair and plant ground is critical for the reliability of a Foundation fieldbus application, this application note addresses this.
<http://www.relcominc.com/pdf/500-989%20Isolation%20For%20FF.pdf>
- MTL has released an updated version of its versatile Fieldbus Calculator. New features in v1.5.0 include field device list updated and new Megablock versions.
<http://www.mtl-inst.com/mtlsupport.nsf>
- FISCO, FNICO plug in, users, approvers tout the advantages of dual fieldbus safety concepts- By Ellen Fussell ISA
<http://www.isa.org/InTechTemplate.cfm?Section=InTech&template=/ContentManagement/ContentDisplay.cfm&ContentID=41787>
- Sealing F-connectors - Details from Relcom how to install a special type of heat shrink tubing to environmentally seal the connection - cable, F-connector-Tap
<http://www.relcominc.com/pdf/500-972Carrier-bandConnectorSealing.pdf>
- Ground Isolation Taps -This networking paper details concerns about grounding, ground currents (or loops), the generation of noise due to these currents, and how the isolated Tap can overcome these problems
<http://www.relcominc.com/pdf/500-970TapGroundIsolation.pdf>

- Torque Wrench (.pdf) details the need for correct torque and how to use a "click-stop" torque wrench.
<http://www.relcominc.com/pdf/500-971TorqueWrench.pdf>
- The control valve –the diamond in the control–from our valued sponsor Metso Automation
<http://www.metsoautomation.com/automation/magazinebank.nsf/MainNotesLU/97.07>
- Smart valves and online monitoring improve operations -from our valued sponsor Metso Automation
<http://www.metsoautomation.com/automation/magazinebank.nsf/MainNotesLU/97.08>
- Control Valves for Heater Bypass applications--from our valued sponsor Metso Automation
[http://www.metsoautomation.com/Automation/magazinebank.nsf/resource/automation_0205_p14-15/\\$file/automation_0205_p14-15.pdf](http://www.metsoautomation.com/Automation/magazinebank.nsf/resource/automation_0205_p14-15/$file/automation_0205_p14-15.pdf)
- Check out the New Links and sponsor Tyco Flow Control Pacific on Valveweb
<http://www.iceweb.com.au/Valve/ValveWeb.htm>
- Questions on Pressure Relief Valves? Take a look at our [new PRV page](#).
<http://www.iceweb.com.au/PressRelief/prv.htm>
- A new Bursting disc/ Rupture disc page has been added, some quality technical information links here.
<http://www.iceweb.com.au/PressRelief/RuptureDisc.htm>
- Some new Fieldbus comparison links have been added to the ICEweb fieldbus page.
<http://www.iceweb.com.au/Instrument/fieldbus.htm>
- Have a look at our new Continuous Emission Monitoring page which is part of Analyser web.
<http://www.iceweb.com.au/Analyzer/ContinuousEmissionMonitoring.htm>
- ICEweb has developed a new Oxygen Analyser Page.
<http://www.iceweb.com.au/Analyzer/oxygen.htm>
- New technical information on Tunable Diode Laser Absorption Spectroscopy (TDLAS) has been added to our [Humidity/Moisture](#) page.
http://www.iceweb.com.au/Analyzer/humidity_measurement.htm
- EXia Intrinsically Safe Mobile Phone-A mobile phone that can be used in Australian Hazardous Areas
<http://www.dcaexpro.com/index.html>

ICEtools

The National Institute of Standards and Technology (NIST) have developed a tool box to assist with the development of international standards for manufacturing systems. The tool box can be accessed from <http://mel.nist.gov/msid/msidprod.html>.

A series of test and calibration white papers, technical and application notes are available from GE Sensing at <http://www.gesensing.com> under the “White Papers” or “Technical Notes” icons.

Endress+Hauser have released a technical note at <http://www.us.endress.com/flowmetercalibration> discussing how ISO 17025 compared to NIST.

Omega Engineering has a white paper explaining the importance and process of calibration. The paper is available from <http://www.calibratorsontheweb.com>

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>

2005

October

3 – 7 Emerson Exchange, Orlando World Center, Orlando Florida

16 – 19 Canadian Chemical Engineering Conference, Toronto, Ontario

17 – 18 38th annual Congress of the Brazilian Pulp and Paper Technical Association Sao Paulo, Brazil
http://www.abtcp.org.br/m3.asp?cod_pagina=1822

18 **Foundation Fieldbus End User Council Meeting**, Top Hotel Praha Blažimská 1781/4, 149 00 Prag 4 – Chodov, Czech Republic

24 – 27 Honeywell Users Group Europe, Prague

25 – 27 ISA Expo 2005, Chicago, Illinois <http://www.isa.org>

Visit ICE-Pros, Inc. at our kiosk in Booth 406 You can get a free registration here:
<https://register.rcsreg.com/regos-1.0/isa2005/ga/index2.html>

26 – 27 2005 Huntsville Simulation Conference, Huntsville Marriott Hotel Huntsville, Alabama
<http://www.scs.org/hsc>

29 – November 2 Telvent UGC 2005 <http://www.telventcanada.com>

30 – November 1st AIChE Annual Meeting, Cincinnati, Ohio

31 – November 3 IEEE Sensors 2005, Irvine California. Advance program at
http://www.epapers.org/sensors2005/ESR/session_sched.php additional information at
<http://etp.ieee.org/tc/sensors/sensors2005/index.html>

November

1 – 3 CHEM SHOW, New York City, New York

3 - 4 Fieldbus Foundation End User Council Meeting, Cambridge, Massachusetts

9-11 Measurement & Control Show 2005 TOKYO, Tokyo Big Sight

13 – 16 Multiphase Pumping & Technologies 2005, The Diplomat Radisson SAS Hotel, Manama, Bahrain
<http://www.multiphasepumping.com>

16 – 17 Allen-Bradley's Automation Fair

22 – 24 ISA Show South America 2005, White Pavilion of Expo Center Norte (São Paulo - SP – Brazil,
<http://www.isadistrito4.org.br>

23 – 24 Process Automation, Instrumentation and Electronics Expo, Eden Park, Auckland

28 – December 1 Interkama Asia, Shanghai New International Expo Centre.
<http://www.interkama-asia.com>

29 – December 2 ChemAsia 2005, Singapore

December

6 – 7 **Multaqa – 2005**, Foundation Fieldbus Middle East End User Council meeting, Gulf Hotel, Bahrain
<http://ffeucme.org>

12 – 14 Kuwait First International Petrochemicals Conference <http://www.kuwaitpetrochem.com>
2006

January

22 – 24 5th FCS International Exhibition", Fieldbus and New Technologies in Process Control, Persian Esteghlal Hotel, Tehran

February

20 – 23 IFPAC 2006 Arlington, Virginia. <http://www.ifpac2006.org> to learn more.

27 – March 3 Measurement Science Conference, Anaheim, California www.msc-conf.com

28 – March 2 **Fieldbus FOUNDATION** General Assembly. Shanghai, China.

March

6 – 8 Kuwait 2nd International Oil and Gas conference and Exhibition <http://www.kuwaitoilexpo.com>

12 – 17 PITTCON, 2006 Pittsburgh Conference, Orlando, Florida <http://www.pittcon.org>

29 – 30 Canadian School of Hydrocarbon Measurement <http://www.cshm.ca>

29 – 31 FLOWEXPO CHINA 2006 Guangzhou Gymnasium (No.783, BaiYundadao, Guangzhou, China
contact zhaoyu <mailto:luyghai@163.com> for information

April

3 – 6 SAE World Congress, Cobo Center, Detroit, USA

May

9 -12 ABB Automation World 2006, Hilton Americas in Houston, Texas. Further information will be available at www.abb.com/automationworld

22 – 24 Air Pollution 2006, The New Forest, UK
<http://www.wessex.ac.uk/conferences/2006/air2006/cfp.html>

June

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

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

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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

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>

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