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Welcome to the November 2004 issue of *ICEnews*, the Instrumentation, and Control Engineering news source. A formatted version of this newsletter can be found at www.iceweb.com.au/icenews/icenews11-2004.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 (ian.verhappen@iceweb.com.au) or Jim Russell (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.ICWeb.com.au>.

ICWeb's primary purpose is to disseminate information about Instrumentation, Control Engineering to you the practitioners and developers of these arts. ICEnews is another mechanism to get this information out to you.

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.

A new Spam Act was introduced in Australia in April 2004 to help minimize the amount of unsolicited emails that you receive in your inbox. This is a tremendous step forward which I am sure that we all embrace in a worldwide context.

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

At ICWeb/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.

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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.

ICEart

Wireless networks are becoming more prevalent in the automation sector. This was certainly confirmed by the number of products in this area at ISA 2004 in Houston. The US Department of Energy (DoE) has established the Extreme Measurement Communications Center (EMC²) (<http://www.ornl.gov/>) to formalize the testing of industrial wireless networks. EMC² is working with WINA (Wireless Industrial Networking Alliance) to improve the reliability and security of wireless networks in industrial settings. Information on EMC2 can be obtained through Wayne Manges at mangesww@ornl.gov.

Staying with control system security, Automation Research Corporation (ARC) has established a cybersecurity portal at <http://public.arcweb.com/cybersecurity/Lists/Announcements> that has links to a couple interesting papers. One is a “White Paper on Security” by Honeywell that can be obtained by request from Kevin Staggs (Kevin.p.staggs@honeywell.com) and the other is a National Institute of Standards publication “Protecting Industrial Networks from Cyber Attacks” at <http://www.isd.mel.nist.gov/projects/processcontrol/SPP-ICSv1.0.doc>

RFID is another “hot” technology and the European Telecommunications Standards Institute (ETSI) has approved a new standard for the use of RFID in UHF frequencies. The two part standard EN 302 208) provides industry guidance on the minimum characteristics necessary to make best use of the available RFID frequencies will be relevant in the 46 member countries of the institute.

Past issues of ICEnews have mentioned the NeSSI (New Sample System Initiative) project. There was a significant announcement at ISA, where Parker and Honeywell announced an alliance/teaming agreement to jointly develop products compatible with this platform. Honeywell brings its small sensor expertise, while Parker supplies the hardware mounting platform for the equipment.

Parker has also released a design tool to assist with the design of NeSSI systems. Information on the Intraflow products and design tool can be found at <http://www.parker.com/ead/cm1.asp?cmid=819>.

Swagelok have a similar product line to Intraflow that they call Modular Platform Components (MPC). Information on this platform can be found at <http://www.swagelok.com/product.asp?bigp=FlowLayerS.jpg>

The Free Standards Group (FSG) released Linux Standard Base (LSB) 2.0 in September. Information on this release can be found at <http://www.freestandards.org>.

The International Instrument Users’ Association has a number of published reports that compare instruments and their application. The list of available reports can be found on their web site at http://www.wib.nl/projects_forsale.html.

Intergraph Corporation has announced the release of SmartPlant Instrumentation 7.0. This product is more commonly known as INtools, but has been rebranded to be consistent with the other products in the SmartPlant suite of engineering design tools.

Not to be outdone, an Australian group, iDesignOffice, has recently released “Instrumentation Design Office 3.0” This Melbourne, Victoria based company offers similar end results to the standalone INtools product. Information can be found at <http://www.idesignoffice.com>

A number of new products have been released recently, including new electromagnetic flow meters from Krohne that includes a conductivity measurement enabling one to recognize product changes in the flow.

Emerson Process Management have also released a new QUANTIM Coriolis mass flow meter/controller suitable for Class 1 division 2 installations capable of handling liquids and gases with an all metal valve seat.

Yamatake has released new versions of its Harmonas and Industrial DEO DCS. Both releases better support web enabled operations consoles with enhanced security and safety.

ABB has ‘country specific’ sites for various regions of the world. For Canada, the site is www.abb.ca while for the United States try www.abb.us and the Australians are a bit different at www.au.abb.com

UK based company Curvaceous Software with an interesting name and interesting product, uses the mathematics of n-dimensional geometry to solve previously intractable problems in Process Improvement, Process Operations, Data Mining and Multivariate Methods with substantial economic impacts. Stochos Inc. of Schenectady, New York has recently been appointed as a new North American Agent.

Datastick www.datastick.com recently announced the first vibration spectrum analysis on PDAs with ICP® accelerometers displaying Fast Fourier Transform (FFT) displays of 13 different frequency ranges up to 0-5 KHz with up to 1024-point single-side spectrum resolution that can be viewed on a Palm handheld using the DAS-1258 with new Datastick Spectrum software.

Raytek (<http://www.raytek.com>) announces the enhanced ThermoView™ Ti30 Thermal Imager Ti30, which offers a broader temperature measurement range of -10 to 250° C and updated software that enables up to 100 thermal images to be collected during an inspection route and downloaded to a PC.

Control Magazine has updated its website and content to more fully cover the complete automation industry. Part of the ‘make over’ includes several new electronic newsletters covering “DigitalField Insider” and “SecureSystems Insider.” Registration for this material can be done at <http://www.ameda.com/cgi-win/putman.cgi?b=CON&m=regsite>

ICEbus

The OPC Foundation announced at ISA that they are working on the next generation OPC platform. OPC-UA (Unified Architecture) aims to unify existing OPC specifications into an environment that takes full advantage of web services, WSDL, XML and WS-* thus making it truly platform independent. Interestingly enough, the Fieldbus Foundation/HART Foundation/Profibus Organisation EDDL efforts and the FDT-Joint Interest Group are also planning to use this platform for their next generation products as well.

The FDT Joint Interest Group (<http://www.fdt-jig.org>) are in the process of a comprehensive rewrite of their standards to a modular format including creation of a Style Guide to provide consistency of data presentation across different manufacturers. The organisation has also announced the formation of a compliance testing and certification process for Device Type Managers (DTMs).

Modbus IDA is forming a number of new technical committees this year in the areas of; IT infrastructure, Conformance Test Policy, Device Description, Safety Layer, Real-Time, and Marketing. Anyone interested in participating should contact Ken Crater (ken@modbus-ida.org).

Another Open initiative is the PLCOpen organization <http://www.plcopen.org/> with memberships starting at US \$50.00/year for educational institutions. PLCOpen is working to develop open standards for PLC communications and programming.

ARC recently published a paper “The Value Proposition of Profibus in the Hybrid Industries” that can be downloaded from the Profibus web site at either <http://www.profibus.co.uk> or <http://www.profibus.com>

Three useful engineering guides are available for download. The popular Foundation Fieldbus AG-181 Engineering guide version 2.0 is available from their home page at <http://www.fieldbus.org> while IAONA’s (<http://www.iaona.com>) “Handbook for Network Security” and “Industrial Ethernet Handbook” have also been updated.

The Japanese Profibus Organisation has translated the “PROFINet Technology and Application” document to Japanese. It is available from the download section of the Profibus web site at <http://www.profibus.com>

Swiss based Ethernet Powerlink Standardisation Group (EPS) (<http://www.ethernet-powerlink.org/>) have two members who have released products using the Ethernet Powerlink protocol. Ixxat Automation GmbH (http://ixxat.de/english/produkte/powerlink/powerlink_stack.shtml) has released a complete protocol stack while Eckelmann AG (<http://www.eckelmann.de>) have their new E.Control ExC66 embedded controllers that interface to CAN buses.

TÜV has certified the CANopen Safety Chip (CSC01) as compliant with SIL3 applications. The chip features two independent on-chip Can modules that are used to achieve redundancy. The CAN transceiver and cable are non-redundant and external circuitry is not part of the certification. More information can be found at <http://www.can-cia.org>

National Instruments new NI-FBUS Configurator 3.1 Evaluation Version Software supports off-line configuration functionality can be downloaded for free from the NI site to create virtual off-line devices with imported capability and DD files. The 50 MB download is available at <http://www.ni.com>

ICEed

SAIT will be offering all three of their Fieldbus classes between December 1 and December 8. Registration can be done on-line at <http://www.sait.ab.ca/fieldbus/courses.htm>.

The Foundation Fieldbus End User Council held another successful pair of seminars in November, one in Vancouver British Columbia and the other in Frankfurt, Germany. Presentations from these events are available from the Fieldbus Foundation web site at <http://www.fieldbus.org>

The Australian End User Council will be hosting a series of Fieldbus Technology seminars in 2005 on Friday’s March 11, May 13, August 19 & October 21. Information on these events can be found on their web site at <http://www.fieldbus.org.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 jimrussell@iceweb.com.au or ian.verhappen@iceweb.com.au

Another great engineering newsletter and website and a sister publication to ICEweb/ICEnews is done by Barry Prince at www.industria.com.nz that is worth a regular (weekly) look and bookmark in your favourites list.

Platinum Metals Review is now published as an E-Journal in HTML and PDF format. This Johnson-Matthey publication covers a large variety of topics related to the use of platinum in a multiple industries. To subscribe point your browser to <http://www.platinummetalsreview.com/>

Hewlett-Packard also has a newsletter about using HP technology at work that can be obtained at <http://www.hp.ca/taw2>

ICEmerge

Phoenix Contact Inc. has acquired Entivity Inc. to give them North American based software to support its related field hardware.

Turck Inc. has also completed its purchase of Interlink BT, the manufacturers of the well known fieldbus 'bricks.'

UK based Halma Group has purchased Ocean Optics, manufacturers of fiber optic spectrometers and optical sensing components.

Parker Hannifin has acquired pneumatic component and control system manufacturer Mead Fluid Dynamics, Ltd.

Galvanic Applied Sciences Inc. has acquired Brimstone Instrumentation Ltd., an analyzer systems manufacturer with expertise in application engineering of analyzer systems that analyze and track sulphur species content.

ICEnet

As today's Control Systems become more reliant on Commercial Off The Shelf technology security is becoming a larger issue. To help in that area, MDT Software (<http://www.mdtsoft.com>) has developed a remote casting utility to help with disaster recovery, patch and update management.

Reader Jonas Berge provided the following update on last issue's note relative to Service Pack 2.

There is a detailed whitepaper on the OPC Foundation web site that addresses the impact of Windows XP SP2 on OPC. The essence of it is:

1. **The Windows firewall** is by default set to disable a key DCOM port as well as OPC servers and the all important OPCENUM.EXE. If users have the Windows firewall enabled it must be configured with these as "exceptions" to permit OPC to work as before. This is pretty easy. It only affects you if you use OPC between different computers, not within a computer. However, a firewall shall really be located at the perimeter between the automation system network and the higher plant information and business networks. This way the software firewall in the workstations need not be used and this will not be a problem.
2. **DCOM security configuration** could previously be manipulated by other applications (!!!) so this capability has been "limited", very strictly by default. To use DCOM these settings must be changed somewhat to permit remote access from OPC clients and servers in other computers. It is relatively easy, but still quite a bit of work to do it manually. In most cases I expect the next version of OPC applications will do this work for us automatically at the time of installation - for now you got to click quite a bit.

ICEnew

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

- We welcome new sponsor PROdetec to ICEweb, check out their sponsorship and technical paper on gas detection in air ducts on the Fire and Gas Technical Information page on <http://www.iceweb.com.au/F&g/techpapers.htm>
- [New tubing and fittings information](#) has been included on the ICEweb fitting pages, thanks to our sponsor Prochem find it at http://www.iceweb.com.au/Tubings/Tubing_Fittings2004.htm
- Anderson and Greenwood Pressure Relief Technical Manual- This 68 page manual from Anderson and Greenwood is fantastic - <http://www.tycovalves-na.com/ld/Tech%20Sem%20Manual.pdf>

- Some additional security technical information has been added on ICEweb's security page. <http://www.iceweb.com.au/Security/security.htm>
- Some great information on orifice plates is added on our flow page. <http://www.iceweb.com.au/Flow/Flowweb.htm>
- Having Trouble with your Fieldbus installation? Troubleshoot with Relcom Tools that are available -Designed specifically for Fieldbus, Relcom offer three hand-held testers for network monitoring, <http://www.relcominc.com/fieldbus/fbt-3.htm> , validating field wiring - <http://www.relcominc.com/fieldbus/fbt-5.htm> , and probing for bus power and Fieldbus signals - <http://www.relcominc.com/fieldbus/fbt-4.htm> .
- A new Carrier Band Network page has been added to ICEweb! <http://www.iceweb.com.au/Carrier%20Band%20Networks/Carrier%20Band%20Networks.htm>
- What is the ATEX directive for Electrical equipment in Hazardous Areas- Find out on ICEweb's Ex Technical pages - <http://www.iceweb.com.au/Ex-web/HA%20Tech.htm>
- New fieldbus and Neles valvguard paper Neles ValvGuard "*exercises*" to keep fit from our valued sponsor Metso Automation - <http://www.metsoautomation.com/automation/magazinebank.nsf/MainNotesLU/93.06>
- Reliability Prediction Method for Safety Instrumented Systems- PDS Method Handbook, 2003 Edition - <http://www.sydvest.com/Products/pds-data/>
- Reliability Data for Safety Instrumented Systems- PDS Data Handbook, 2003 Edition - http://www.sydvest.com/Products/pds-data/#Method_HB
- Fieldbus-Competent people will be at a premium-an article from Jim Russell at ICEweb - <http://www.iceweb.com.au/Instrument/fieldbus.htm>
- Segment Design Tool from our valued sponsor Emerson Process Management - <http://www.emersonprocess.com/systems/support/segment/>
- Safety and related Acronyms From the Laboratory Safety Institute on our SIS page - http://www.iceweb.com.au/sis/sis_index.html
- CANopen Links have been added to the Fieldbus page. CANopen is a CAN-based higher layer protocol. It was developed as a standardized embedded network with highly flexible configuration capabilities - <http://www.iceweb.com.au/Instrument/fieldbus.htm>
- Acronyms - a link from Ireland's great Readout magazine - <http://read-out.net/signpost/cl.html>
- More process control security links have been posted on ICEweb's security page - <http://www.iceweb.com.au/Security/security.htm>
- Have a look at our new solenoid page - <http://www.iceweb.com.au/Solenoids/solenoids.htm>

ICEtools

Fluke Electronics Canada through its web site <http://www.flukecanada.ca> is offering a free "Electrical Measurement Safety Education Program" available on CD, one copy for each user. Topics include a safety video, test tool post-test, meter safety audit, and safety application notes.

A new magazine exploring the world of the small is starting publication. MicroTEC, miniature technology and design can be reserved at <http://www.microtecsmagazine.com>

The SoftWIRE program that allows users to create applications in the .NET environment without writing code can now be obtained for free from <http://www.softwire.com>.

Pepperl+Fuchs (<http://www.pepperl-fuchs.com>) are making available a free pocket sized hazardous area and ATEX regulation guide explaining the markings, zones and categories as well as an introduction to intrinsic safety.

If you would like to learn more about centrifugal pumps, the Hydraulic Institute (<http://www.pumplearning.org/demo/demo-main.html>) has a free e-learning course “Centrifugal Pumps: Fundamentals, Design & Applications” at the above link.

The Automation mail list recently had a thread in which a person was asking about learning more about instrumentation. Some of the responses that our readers may also find useful included: <http://www.sensorland.com>, <http://www.temperatures.com>, and <http://www.instrumentationguide.com>. Of course the more important site is <http://www.iceweb.com>

ICEtime

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

2005

January

10th – 13th IFPAC-05, Crystal Gateway Marriot, Arlington, Virginia <http://www.IFPAC05.org>

28th **Foundation Fieldbus End User Council Meeting** at the Energy Resource Center in Downey, California (Greater Los Angeles area). Information and registration at <http://www.fieldbus.org>

February

23rd – 24th **Foundation Fieldbus General Assembly** Vienna, Austria at the Intercontinental Hotel. Information and registration at <http://www.fieldbus.org>

27th – March 2nd Laurence Reid Gas Conditioning Conference, Norman Oklahoma. Abstract deadline is May 30, 2004. <http://www.lrgcc.org>

March

8th – 9th 2005 Oil Sands Automation Conference, Fort McMurray, Alberta. Information on this event can be found at <http://www.isaedmonton.ca>

8th – 19th 10th international CAN Conference (iCC), Rome, Italy. Information at <http://www.can-cia.org/icc>

16th – 18th IPENZ Annual Convention, Auckland New Zealand. More information at www.ipenz.org.nz

22nd – 23rd Canadian School of Hydrocarbon Measurement at the Hyatt Regency Calgary, in Calgary, Alberta <http://www.cshmc.ca> for more information.

April

10th – 14th 50th ISA Analysis Division Spring Symposium, Marriott Houston Hobby Airport, Houston, Texas. Information at <http://www.isa.org/~analysis>

13th – 14th ISA Calgary Conference and Exhibition, Round Up Center, Calgary Alberta

22nd -25th ABB Automation World Americas at the Westin Galleria /Oaks in Houston, Texas. For more information you can go to www.abb.com/automationworld.

May

9th – 12th 51st International Instrumentation Symposium, Knoxville, Tennessee. <http://www.isa.org>

24th -26th 80th annual International School of Hydrocarbon Measurement (ISHM) will be held at the Cox Communications Center in Oklahoma City, Oklahoma. Registration is US \$95.00 per student and more information can be found at www.ISHM.info

June

6th – 9th FLOMEKO 2005 – 13th Conference on Flow Measurement, Peebles, Scotland. Contact Dr. M.J. Reader-Harris at mreader@tuvnel.com for more information.

July

Jump Aboard 2005, <http://www.fieldbus.org.au/>

September

25th – 29th 18th World Petroleum Congress, Johannesburg, South Africa. Sandton Convention Centre. More information at <http://195.166.37.12/ite-group/og/18wpc/>

October

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

28th Fieldbus Foundation End User Council Meeting, Chicago, Illinois

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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.



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.



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.



Honeywell Automation and Control Solutions (ACS) is a \$7.5 billion strategic business group applying sensing and control expertise that helps create safer, more comfortable, more secure and more productive



environments.

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

For comprehensive Global technology news, daily and weekly, for the South Pacific have a look at www.industria.co.nz

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