Eagrán Uimh: 15.070809 Tréimhse: Meitheamh/Iúl/Lúnasa 2015 ISSN 0791-4369

Read-out

Readout Ireland's Journal of Instrumentation, Control & Control

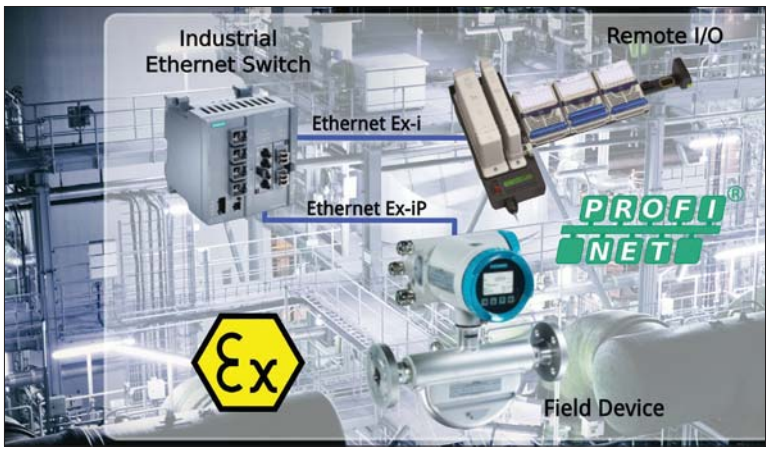
read-out.net

Ireland's journal of instrumentation, control, and automation

Not your copy? Register on page 4

Inter-Company co-operation explores possibilities

Feasible concept for intrinsically safe Ethernet standardisation



Ethernet suitable for deployment in hazardous areas, including power supply for devices, interoperability with various manufacturers ensured, all without a tedious process of intrinsic safety certification. This is not possible so far?

Working with the German National Metrology Institute (PTB), R. Stahl, **Siemens** and other partners are determined to turn this into reality. Preliminary results were presented at the ACHEMA 2015 show in Frankfurt. Already widely used in factory automation e.g. in the shape of Profinet, Ethernet is now also becoming increasingly popular in process automation. Compared to analogue 4-20 mA signals, HART technology or current two-wire fieldbuses such as Profibus PA or Foundation Fieldbus H1 featuring 31.25 kBit/s, the advantages of Fast Industrial Ethernet with a bandwidth of 100 MBit/s are strikingly impressive. However, unlike in other manufacturing, explosion protection requirements are de rigueur in many process plants. While there are solutions for Ethernet in hazardous areas, e.g. Remote I/O systems using fibre optic lines, there is no standardised intrinsically safe solution to match those available for fieldbuses.

This PTB-led team is therefore working to specify intrinsically safe Ethernet, hoping to keep as closely as possible to the established IEEE 802.3 Ethernet standard. Aside from applications already possible today, future approaches revolving around the "Industrial Internet of Things" concept are to be taken into consideration as well. Within this framework, the working group has now defined two models for intrinsically safe Ethernet: "Ethernet Ex-i", which enables transfer rates of up to 1 GBit/s with separate energy supply, is suited for complex devices. "Ethernet Ex-iP" is the designated choice for simple field devices. Much like two-wire fieldbuses, intrinsically safe power supply for field devices takes place via Ethernet cables suitable for full duplex 100 Mbit/s communication, so there is no need for separate supply lines. Besides conventional intrinsically safe supply, a so-called pseudo-linear-source ("F4-i") can also be used for supply. This enables an intrinsically safe feed of up to 4 W net power to a connected device.

The intriguing presentation of the current state of this research project at the ACHEMA provided a glimpse of the potential of this new standardised Ethernet. Experts at the stands of PTB and the member companies welcomed interested visitors discussing further details, possible applications and ideas with them.

Stahl products are marketed in Ireland by **Douglas Control & Automation** and they are also system partners with Siemens.

douglas-esl.ie/

Many of our readers would prefer to receive Read-out via e-mail in pdf format. If you wish to do so please email us at pdf@read-out.net

iStig inside

Company News 1,5,6

Inside Front 2

Application 3

People 4

FPID 2106 6

Products 7,8,9,10,11

Today's News Today!

ON A COMPUTER NEAR YOU
READ-OUT.NET

Next Issue Deadline 20 Sept 2015

Instrument Technology www.calibrate.ie

How fares ISA Ireland?

President Alan Batemen reports!

President Alan Bateman

The Ireland Section of the International Society of Automation held it's 38th annual general meeting at which **Alan Bateman** was re-elected President of the section. Here are the notes from his address to the meeting.

Goals and Objectives

The primary goal of the ISA Ireland Section is to provide valuable knowledge and service to our membership and our industries. A secondary goal and by-product of success in our primary goal is to grow both the Section membership and membership participation on the committee. We had some good success in meeting these goals in the past year through:

- conducting Section activities and events (in particular offering ISA training programs to our members and of course our excellent technical program).
- developing and promoting modern means of communication with the membership
- identifying new, and developing existing committee members.

In order to deliver against the objectives set out above and ensure the long term viability of the Section, the Section requires a secure source of funding. To this end, we greatly appreciate our corporate sponsors and I would make a very special thank you to **John Downey** for all the time, effort and dedication to bring this to what it is now. Our seminars, events and membership also contribute to critical funds to help ensure the sustainability of our section.

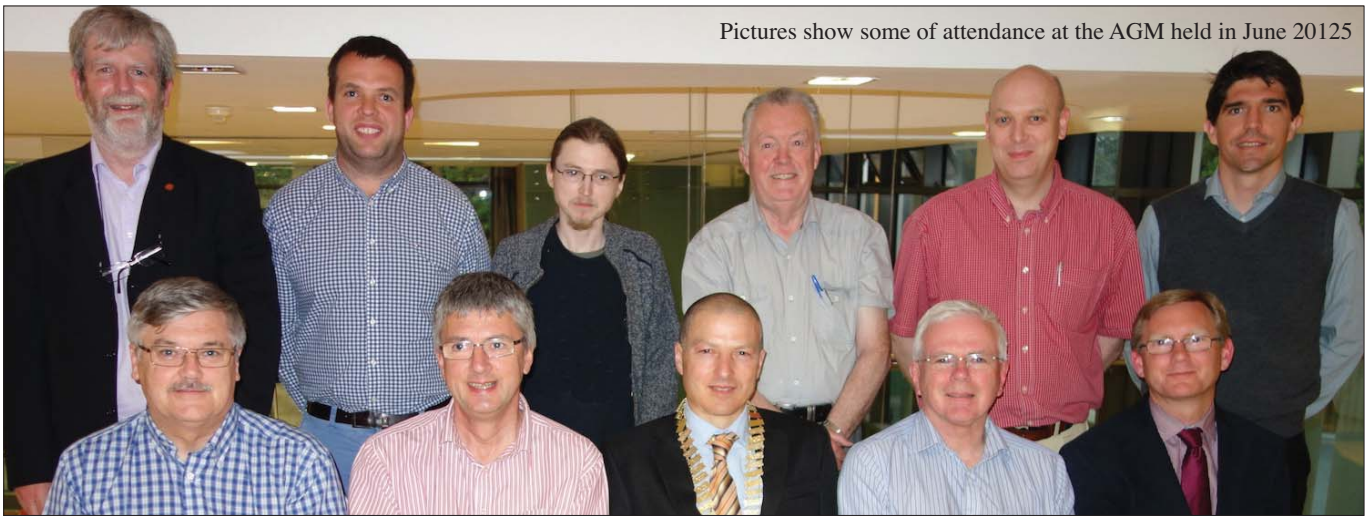
Conclusion

In the past year we have;

- Run an extensive and interesting technical program which was well attended and covered such diverse areas as safety standards, wireless technology (2 evening talks; one on wireless in Cork Harbour), Remote Access Solutions, Data Capture, Harmonising Validation and an excellent seminar on Technology Modernisation.
- Expanded our relations with educational institutions which can now be further developed to provide practical input to the relevant courses and promote student interest in the ISA.
- Expanded our sponsor group to provide significant income in a sustainable manner.
- Expanded the use of the ISA Ireland website for communication and publication of events and conferences.
- Used web 2.0 tools such as Linkedin, Twitter, Eventbrite, Mailchimp and Webex to improve our communications both internally and with the broader Automation community.
- Completed ISA training courses in Ireland (ISA-99 and ISA-95).
- The committee is well staffed for the coming year with good representation of end-users.

www.isa.ie

Pictures show some of attendance at the AGM held in June 20125



GOOD ENGLISH WINE!

Over recent years wine has become increasingly popular in Britain and it seems fair to say that its image has changed significantly over this time. It has largely lost its elitist image and has emerged as an alcoholic beverage that is enjoyed by a large number of the population. You need only take a trip to your local supermarket or high street retailer to be presented with a wide choice of wines from all over the world, but do we really need to look so far afield to enjoy a glass of wine? It may still come as a surprise to many, but award winning wine is produced in England.

Based in Kent, the award winning Chapel Down winery produces truly world-class Traditional Method sparkling wines and a range of still wines, as well as premium beer and cider. They boast some of the best winemaking facilities in England and were recently looking for a portable measurement device that could provide accurate measurement and volume monitoring of juice and wine during transfer operations.

After careful consideration, they decided to have a portable device manufactured that incorporated Krohne's Optiflux 2100 electromagnetic flowmeter. The device consists of an Optiflux 2100 attached to an inlet and outlet pipe and mounted on wheels. The device can then be easily moved around the winery to perform accurate measurement wherever it is required.

The inlet pipe is attached to a tank and the medium is then pumped through it at a flowrate of 5-10,000 l/hr. It passes through the electromagnetic flowmeter and then via the outlet pipe into another vessel. The unit accurately measures the volume of the medium and once the desired quantity has been reached the pump is switched off.

Previously Chapel Down used sight glasses running down the side of the tank, which was labour intensive. By automating the process using the instrument they now have consistently accurate measurement and instead of two people being required to carry out the transfer operation, the process can be carried out by one person alone.

Josh Donaghay-Spire, winemaker at Chapel Down comments, *"We were keen to automate the transfer process, however we needed a flowmeter that could cope with dissolved CO2 as this makes the more traditional flowmeters ineffective. We were aware that Krohne had previous experience with a similar application and that their unit could easily cope with the process conditions whilst providing accurate and reliable measurement. We can now not only make more efficient use of man-power but we can also cali-brate certain tanks which previously didn't have calibration charts."*

Krohne products are marketed in Ireland by DWN.

www.dwn.ie

"Just Can't Stop a Magnetrol"

Magnetrol® International announces the "Just Can't Stop a MAGNETROL" contest to honour the hardest-working, longest-lasting level switches still in operation. Ever since MAGNETROL invented and introduced the first mechanical buoyancy switches to process industries over 80 years ago, customers have counted on their exceptional reliability and performance in level control applications – even after decades of service. Their products are marketed in Ireland through **Ntron**. MAGNETROL switch owners can visit the site up to October 31, 2015 and submit the device's age, its application and a photo to be eligible to win one of three prizes:

- 1st Place: €500 Amazon.com* gift card, plus a new MAGENTROL mechanical buoyancy switch
- 2nd Place: €300 Amazon.com* gift card
- 3rd Place: €100 Amazon.com* gift card

*Amazon.com or similar

First and second place prizes will be awarded based on the age of the unit and a description of the application in which the unit works. Third place prize will be awarded based on a random drawing of all qualified entries.

JustCantStop.Magnetrol.com

PJ|BONNER

INSTRUMENTATION | WEIGHING

Providing Quality Services, Products and Systems Since 1978.

CALIBRATION

- Expert Calibration Service
- ISO9001:2008 Certified
- Nationwide Service
- Traceable Calibrations
- Legal Verification
- Fixed, Full Time Schedules
- Flexible Schedules
- On Demand / Emergency
- Fully Qualified Staff
- Online Certificates & Reports

MAINTENANCE

- I&C Maintenance
- Qualified Instrumentation Technicians
- Fully Documented Support Reporting
- Emergency & Breakdown Resonse Times

COMMISSIONING

- New Plant and Upgrade Commissioning Service
- Full Documentation provided
- Loop Checking
- Bench & Loop Calibration

PRODUCTS

- Instrumentation Sales
- Measurement & Control
- Leading Manufacturers
- Technical Support
- Calibration Prior to Dispatch
- Project Procurement
- Weighing Sales
- Analytical/Precision Balances
- Bench/Platform Scales
- Retail EC Approved
- Platform, Check, Counting
- Loadcells

SYSTEMS

- Wireless Temperature Monitoring Systems
- Weighing Control Systems Including Batching
- Alarm Monitoring
- Calibration & Maintenance Management System

Pharmaceutical | Medical Device | Food & Dairy | Beverage
Manufacturing | Healthcare | Water | Chemical | Retail

P.J. Bonner & Company
Web www.pjbonner.com
Mail sales@pjbonner.com
Phone +353 (0)1 4505050

NSAI AUTHORISED VERIFIER
ISA Ireland Section Partner

FOLLOW US

On Twitter	On Facebook	On LinkedIn
ReadoutSignpost	ReadoutSignpost	Read-out Signpost News Group

The SME Education Foundation recently announced that **Michael Marlowe**, Managing Director and Director of Government Relations at the Automation Federation, has been elected to its Board of Directors.

Emerson has appointed a new president to manage its Control Techniques business unit. **Scott Anderson** will lead the business from its headquarters in the Britain.

Manotherm Limited

The Control Centre

4 Walkinstown Rd.,
Dublin 12.
Tel: 01 4522355 Fax: 01 4516919
email: info@manotherm.ie

MANOTHERM AUTOMATIC CONTROLS

THE CONTROL CENTRE

Read-out Registration Form

PLEASE COMPLETE DETAILS

OR CLIP YOUR BUSINESS CARD

1ST NAME:

SURNAME:

JOB TITLE:

COMPANY:

ADDRESS:

TEL NO: MOBILE FAX NO:

E-MAIL ADDRESS:

FOILSEACHAIN READOUT PUBLICATIONS, CAORAN, BAILE NA HABHANN, CO GALWAY, IRELAND.

TEL: 087 2663282 • FAX: 091 506872 • E-MAIL: readout@iol.ie

YOUR INDUSTRY (Please Tick)

- 01 Pharma & Chemical Industry ☐
- 02 Consultant ☐
- 03 Contractor ☐
- 04 Education/Training ☐
- 05 Electronics & Electrical ☐
- 06 Engineering ☐
- 07 Food & Drink ☐
- 08 Foreign Inst Manf ☐
- 09 Public Services (incl Govt Depts, Unions, Hospitals) ☐
- 10 Instrument Manufacturer ☐
- 11 Instrument Sales ☐
- 12 Power ☐
- 13 Process Industry ☐
- 14 R&D ☐
- 15 Water & Waste ☐
- 16 Recruitment ☐
- 17 Publisher - Magazines ☐
- 18 Publisher - Books ☐
- 19 Exhibition Organiser ☐
- 20 Public Relations & Journalists ☐
- 21 Software Development ☐
- 99 Other Please give details: ☐

CATEGORIES (Please Tick)

- 01 Service Engineer ☐
- 02 Specifier/Consultant ☐
- 03 Supplier ☐
- 04 Manager/Director ☐
- 05 Inst Technician ☐
- 06 Inst Fitter ☐
- 07 Student/Apprentice ☐
- 99 Other Please give details: ☐

Are you involved in choice of purchase of instrumentation? Yes ☐ No ☐

APPLICATIONS (Please Tick)

- 01 Process Control ☐
- 02 T&M ☐
- 03 Laboratory ☐
- 04 Environment ☐
- 05 Safety ☐
- 06 Quality ☐
- 99 Other Please give details: ☐

EMPLOYEE NOS (Please Tick)

1+ ☐ 25+ ☐ 100+ ☐ 500+ ☐

Member ISA Yes ☐ No ☐
Member InstMC Yes ☐ No ☐

Do you read other Instrument Journals?

Intech Yes ☐ No ☐
Control Engineering Yes ☐ No ☐
Instrumentation Yes ☐ No ☐
Other *(name)* Yes ☐ No ☐

Have you access to InterNet? Yes ☐ No ☐

My name may be used for mailings other than **Readout** or **Readout** related mailings

Yes ☐ No ☐

T3 Readout cGraithe leis an gCoimisinOir Cosanta SonraT • Uimhir CIGraithe 1302A • Readout is registered with the Data Protection Commissioner

Those who do not qualify for free distribution of **Read-out** will be invoiced at the appropriate rate.

I WISH TO RECEIVE READOUT EVERY SECOND MONTH:

INITIALS: .....

DATE: .....

Read-out is produced on an Apple Power Macintosh using Quark Xpress, MS Word, MS Excel and Adobe Photoshop.
Clóchur/Type Setting: Read-out: 087 2663282
Cló/Printing: O'Sullivan Print: 086 2583053
Dáileadh/Distribution: Sooner Than Later: 01 2844777

Cóipceart/Copyright © 2015 Read-out

Environment monitors

OTT Hydrometry has appointed **NVM Ltd** as exclusive distributor for Ireland. Based in Drogheda, NVM are responsible for sales and service in Ireland with immediate effect.

"We are delighted with this agreement," says NVM Managing Director **Noel Carr**. *"OTT products enjoy an excellent reputation world-wide, and have a large installed base in Ireland, so, coupled with the introduction of OTT equipment to our existing clients, this represents an excellent growth opportunity for us."*

The OTT product range includes instrumentation for monitoring groundwater, streams, rivers, coastal water and meteorology. In addition to the OTT branded products, the range also includes Hydrolab water quality monitors and Adcon telemetry systems.

"Our business is focused on the accurate and reliable collection of field data, either manually or with logging and telemetry, so there is a good fit between our two companies," Noel comments. *"Our team have already received comprehensive training on the OTT instruments, dataloggers and telemetry systems, and we have invested in appropriate spares, consumables and calibration equipment, so we are now able to provide a full service capability."*

nvm.ie

Truck on the road

The Siemens Safety Truck has been touring in Ireland and presenting customers and potential users to listen to their expert team presenting on a variety of safety issues covering both discrete manufacturing and the process industries.

The industrial control world today faces unprecedented levels of legislative, economic and technological change at a time when system safety engineering is increasingly becoming a no-compromise issue.

Siemens demonstrates a different approach to safety systems with a wide portfolio from stop buttons through to intelligent safety sensors, safety integrated drive technology and world-class programmable safety systems which provide a fully integrated solution.

douglas-esl.ie/

Cybersecurity & SCADA

In interesting function was held recently in the iconic Croke Park in Dublin recently. This was a Breakfast Briefing on *"Understanding the Cyber Security Risks Threatening your SCADA Systems."*

Espion, the organisers, have specialised in IT and Cybersecurity with a range of products especially suited to the protection of DCS/SCADA C & A Systems.

Participants had the opportunity to gain insight into the level of cyber security threats to SCADA systems and the impact it has on their organisation They were helped to understand how to utilise industry best practice to reduce the risk of cyber attacks to systems.

They also discovered how to mitigate risk through the use of technical controls/technologies to protect and detect cyber attacks on your critical infrastructure

The event included a tour of Croke Park's SCADA systems learning about the cyber security challenges facing Ireland's national stadium.

Two experts in the field addressed the attendees. One their own resident SCADA expert, **Mark Carolan** and the other was FOX IT's **Peter**

to page 6

E-direct
High Quality – Low Price!

Easy access + simple selection
www.e-direct.endress.com

Sensors, switches, components, displays and recorders

Benefits
▪ Simple product version selection ▪ Best value for money ▪ Clarity due to a price/quantity display ▪ Short delivery times

Information around the clock
▪ Access to the complete E-direct product offering ▪ Summary of product versions and prices ▪ Technical data at a glance ▪ Download technical datasheets

Shop now!
www.e-direct.endress.com

iTHERM® TM401
Hygienic, aseptic, modular resistance thermometer, Pt100 or 4 to 20 mA
▪ Fast-response sensor technology
▪ Good long-term stability
▪ PC programmable transmitter

€ 79.–
11–35 pcs.

Complete product information:
www.e-direct.endress.com/tm401

Endress+Hauser (Ireland) Ltd.
Exchequer House,
Embassy Office Park,
Kill, Co. Kildare
Phone 045 98 92 17
Fax 045 86 81 82
e-direct@ie.endress.com
www.e-direct.endress.com

Endress+Hauser
People for Process Automation

From Page 5

Geijteenbeek who has experience working with companies such as Honeywell and Yokogawa.

www.espiongroup.com

Partner of the year!

SolutionsPT has been named as ACP's International Partner of the Year for the third year running at ACP's prestigious Channel Partner Awards. **Rob Dinsmore**, Product Manager, accepted the award on behalf of SolutionsPT at the ACP annual global conference, Thindustrial15, in Orlando, USA. SolutionsPT was recognised as the most successful distributor outside of the United States.

Keith Jones, director at ACP International, added: *"ACP's prestigious Channel Partner awards are given to those partners who have performed exceptionally - not only in sales performance, but also customer satisfaction, growth and vision. This year's International Partner of the Year, SolutionsPT, excelled in all these areas and have justifiably earned their third such award."*

Rob Dinsmore said: "It is great to see that all our hard work over the last 12 months has paid off and to be recognised for the third year running by a major industry player such as ACP is a real honour. ACP is an industry leading company and we are proud to distribute its products and encourage the growth of thin client architecture in the industrial automation industries in Britain and Ireland."

During the event, ACP also announced the launch of ThinManager 8. The new ThinManager includes support for Active Directory and continues to operate with the Relevance mobile platform which allows modern facilities to create location-based work environments to deliver content to the right person, in the right location and at the right time. The new release will also include support for Android-based mobile tablets, as well as continued support for Apple iPads and iPhones.

On the new launch Dinsmore added: *"The launch of ThinManager 8 is a great step in the field of mobility. Whilst it is still very much an early adopter trend, we work with a number of larger and more advanced companies imple-menting mobility solutions. This new release will increase compatibility and, in opening up the Android market, reduce cost. Importantly for a number of our customers, unlike Apple, Android products qualify for ATEX safety ratings meaning they can be used across a wider variety of locations."*

Picture below shows SolutionsPT product manager Rob Dinsmore & system architect Chris Whitehead, receiving the award from Matt Crandell president & CEO of ACP and Keith Jones, international sales director.

www.solutionspt.com

International Food and Pharma Event Planned for Dublin in 2016

About one hundred and sixty professionals within the automation and control field and the pharmaceuticals and food industries are expected in Dublin next March (2016) to explore solutions to the critical challenges relating to automation in food processing and drug manufacture and distribution.

The third annual ISA Food and Pharmaceutical Industries Division (FPID) Symposium will deliver best-practice insights and approaches to leaders of pharmaceutical and food processing companies seeking to improve quality, safety, reliability, profitability, cost control and production throughput.

The meeting's content-rich technical program will highlight the latest trends, innovations, strategies and techniques in process automation through expert-led technical sessions and numerous roundtable discussions. A spectrum of technical sessions will cover key topics and issues of importance.

The first such event was held in North Carolina (2014) the second in Phildelphia earlier this year, both in the USA. (Read-out published a report on the second symposium online at bit.ly/1LvsZll)

This will be the first of these internationally focused ISA symposia to be held outside of continental North America. The local ISA Section is heavily involved in the organising of the event and has extensive experience in the organising of national events such as the Technology Modernisation seminar reported on in the last issue of Read-out and illustrated below.

Updates will be highlighted and contact details will be listed on the symposium website.

Pencil it into your diary for 14-15 March 2016

www.isafpidsymposium.com/

The ISA Ireland Technology Modernisation Seminar held in Dublin last March

Coriolis and vortex flowmeters to ASME B31.1.

Emerson's Micro Motion Coriolis and Rosemount 8800 Vortex Flowmeters have been certified to the ASME B31.1 Power Piping design standards, in addition to the existing B31.3 Process Piping design standard.

B31.1 Power Piping design standard certification applies to all areas of the power plant except for Boiler External Piping (BEP), and is a basic design requirement for products sold into the power industry. B31.1 Code Stamp certifica-tion applies to the BEP area of the plant.

www2.emersonprocess.com/

Climate control for food

When it comes to food storage, the reliability of control equipment used matters. A major European manufacturer of storage and climate control systems for the agricultural industry has chosen to install Michell's PCMini52 humidity and temperature probes to monitor temperature and humidity conditions in the systems they supply. After extensive field tests the probe was selected not only due to its overall resilience, resistance to contamination and reliability, but also for its small size. These and other Michell products are marketed in Ireland by Instrument Technology.

Climate control for storing and transporting fruit and vegetables calls for cool but humid conditions. Ideally, the humidity should be kept at around 80%, but not more than 95% RH. If conditions are too dry the fruit will wither: too damp and it will rot. While this atmosphere is ideal for fruit and vegetables it is extremely demanding for the electronics of any control equipment. The employed instrument's electronics must therefore be well protected from the humidity to ensure reliable, automatic operation of the climate control system over longer periods.

A response time of less than 10 seconds for the PC Mini52 sensors allow the control system to rapidly adjust the climate to the ideal conditions so no product is wasted during storage.

With the miniature size, the simplicity and robustness the PC Mini52 humidity and temperature sensors can be easily maintained by either the end user or a service technician once the climate control system has been installed in the field.

www.itl.ie

No metal flowmeter

We have two product releases from Blue-White Industries.

Their F-462N Series flometers feature metal-free wetted parts, making them ideal for use in many ultrapure applications, where contact with metal could contaminate the fluid.

Constructed of molded Polysulfone, F-462N meters offer better resistance to high temperatures and pressures, as well as many harsh chemicals, than most plastic flowmeters.

Maximum fluid temperature is 200 degrees at 0 psi. Maximum working pressure is 150 psi/ 10.3 bar at 70 degrees F/ 21c. An optional splash shield is available.

The high capacity F-462N utilises precisely engineered ridges molded into the meter body, which guide PTFE floats. Calibration range is 2.0 to 80 GPM/8.0 to 300 LPM.

Additional features include: Polysulfone 2" F/NPT fittings with FKM O-Rings and half union adaptor connections, socket fusion fittings are also available. Permanent direct reading scales are easy to read.

Peri Metering Pump

Designed for smaller municipal water and wastewater systems, the ProSeries-M® M-2 peristaltic metering pump is well suited for injecting the aggressive, and/or viscous chemicals, often used in water treatment.

The thoughtfully engineered Flex-A-Prene® dual-tube assembly is uniquely designed and now available for the M-2. Unmatched tube life and high

to page 8

Automation news daily on read-out.net/signpost/nuacht.html

Insteco Limited

PEPPERL+FUCHS

FOR A COMPLETE RANGE OF HAZARDOUS AREA SOLUTIONS

Intrinsic Safety Isolators • Zener Barriers • Zone 1&2 Remote I/O
Fieldbus • Exe Enclosures • Exd Control Panels • Ex Lighting
Purge Solutions • Zone 1 & 2 HMI's PC's

Meath Office: 041 9884288 · Cork Office: 021 4883798 · www.pepperl-fuchs.co.uk

from page 7

pressure capability (110PSI) reduces pump maintenance and replacement costs. Multiple patents are pending.

M-2 has an intelligent control system that permits connection to SCADA systems, and other remote controllers.

M-2 features include: exclusive TFD (Tube Failure Detection) system; a 5 year manufacturer's warranty; feed rates from .01-15GPH/.28-56.2 LPH; 200:1 turndown ratio; NSF Listed Std.61.

www.blue-white.com

Instrument catalogue

Precision Digital Corporation, represented here in Ireland by **P.J.Bonner**, has published the 2015 Catalogue. This organised compilation contains all the product information about Precision Digital's expanding product line in one location.

It includes the latest product offerings from the company, including the PD6400 High Voltage & Current Meter; the enhanced PD6100 Strain Gauge Meter; and the PD6800-0L1 decimal level display with bargraph indicator, part of the company's expanding ProtEX® line of field-mounted instruments for hazardous areas.

It summarises each of Precision Digital's vast array of products and provide conve-nient pricing for all models and accessories. New products for a growing number of applica-tions are prominently featured, and easily-identifiable chapters and sections make locating products and accessories effortless. Product information can be looked up by application: level, flow, pressure, or temperature. Available features and options are displayed to help the user make the most informed choice. Details include specifications and pricing on the ProtEX® Explosion-Proof Series, ProVu® 1/8 DIN Digital Panel Meters, Trident X2 Large Display Panel Meters, Vigilante® II Alarm Annun-ciators, and LoopLeader® Loop-Powered and Intrinsi-cally Safe Meters and Rate/Totalisers. Quickly find which products have the agency approvals needed, including FM, CSA, ATEX, IECEx, and UL. Most products are NEMA 4X and carry CE marking. The Vantageview Series offers ProtEX func-tionality and NEMA 4X protection in rugged plastic field-mounted enclosures perfect for wet or dirty environments.

www.pjbonner.com

Energy management info

Energy Advisor is a real-time energy management informa-tion system, launched recently by **Emerson**, that automates the process of monitoring and managing energy consumption across mills, plants and refineries. With real-time, meaningful information about a site's energy performance, process manufacturers can identify inefficiencies and irregularities and take correc-tive action, saving on average 5 to 10 per cent in energy costs annually.

In energy-intensive process industries like chemical, metals and mining, oil and gas, pulp and paper, and refining, where energy is often 30 to 50 per cent of their operating expense, these savings can have a significant impact on the bottom line.

"Energy Advisor is a natural extension to Emerson's Smart Energy Management portfolio," said **Peter Zornio**, chief strategic officer, Emerson Process Management. *"In 2011, we announced the company's commitment to improving our customers' industrial energy efficiency and we began focusing on how to help our customers best optimise combustion processes, steam systems, and on-site electrical generation. In 2013, Emerson unveiled its pervasive sensing strategy that extends wireless technologies beyond process controls to include the extensive use of wireless sensors to monitor energy consumption in our custo-mers' operations. Energy Advisor leverages this technology with analytics to provide visualisation of the full energy picture, helping companies make smarter decisions with real-time insight into site-wide energy performance."*

Energy Advisor pulls energy data from various sources, including (but not limited to) Emerson's DeltaV™ and Ovation™ distributed control systems, as well as its wireless infrastructure, to provide real-time analysis and historical context. Using Emerson's unique process models, manufacturers are now able to analyse and compare three critical items: the amount of energy a system is designed to use, what it has used over time, and what it is consuming in the moment.

"Many manufacturers are looking at their energy performance, but it is usually in hindsight and is often an incomplete picture, with data culled from disparate sources," said **Barbara Hamilton**, energy management programme manager at Emerson. *"To increase energy productivity and eliminate waste, manufacturers need more than historical data. They need real-time insight into what is going on to drive continuous improvement behaviour. That is what Energy Advisor delivers."*

Energy Advisor integrates seamlessly with current site control and information systems, allowing a straight-forward and cost-effective implementation. Key features of the technology include Consumption Monitoring which identifies and logs root causes for energy over-con-sumption events and a Data Integrity Checker that verifies integrity of energy data before it is used. There is also an Energy Target Calculator which creates models from past historical data to predict target energy consumption. Optional process models from Emerson provide theoretical targets as well as other energy-related performance indicators. Standard Reports include cost per unit of production, energy performance trends and electrical demand cost.

www.EmersonProcess.com/EnergyAdvisor

Liquid Level Switches

The Liquiphant FTL31 and FTL33 liquid level switches, from **Endress+Hauser** , are based on vibrating tuning fork technology. The sensors are excellent replacements for float switches or conductive, capacitance and optical sensors. The FTL31 is designed for the chemical, oil and gas and other Industries, while the FTL33 is

To page 9

from page 8

more suited for use in the food and beverage, and pharmaceutical industries. Both sensors also work in areas where those measuring principles are not suitable due to conductivity, build-up, foam, turbulence, flow conditions or air bubbles.

A piezoelectric drive causes the tuning fork of the sensor to vibrate at its resonance frequency. When the tuning fork is immersed in a liquid; its frequency changes due to the change in density of the surrounding medium. The electronics system in the switch monitors the resonance frequency, and indicates whether the tuning fork is vibrating in air or is covered by liquid.

The level switches can be installed in any vertical or horizontal position in a vessel, pipe or tank. Foam formation, changing conductivity or density does not affect their function. Both level switches have an external function test feature and an LED indicator for on-site testing.

This instrument is suitable for use in tanks, vessels and pipes. It has a 316L stainless steel housing, works in process temperatures up to 302 ºF and pressures to 580 psi, and is unaffected by changes in ambient temperature. Leading applications include overfill prevention or pump dry-run protection in cleaning and filter systems, as well as in cooling and lubrication vessels.

It meets food industry requirements with 3-A and EHEDG certificates. It designed to work in applica-tions where CIP and SIP cleaning takes place, and has a stainless steel enclosure with optional IP69K protection. It can be used in storage tanks, mixing vessels and pipes where internal and external hygiene requirements are particularly stringent.CRN, EN10204-3.1 material certificate, and marine certifications are available.

Both sensors can have either a three-wire DC-PNP output or 2 wire ac/dc output when the liquid level reaches the switching point. Each device has two operating modes:

In maximum safety (MAX) mode, the device keeps the electronic switch closed as long as the liquid level is not touching the fork, as in overfill prevention applications.

In minimum safety (MIN) mode, the device keeps the electronic switch closed as long as the fork is immersed in liquid. This is useful in applications such as dry-run protection for pumps.

By choosing the correct operating mode, a user ensures the device switches in a safety manner even if the power supply is interrupted.

www.ie.endress.com

Web-based solution

FAST/TOOLS® R10.02, the latest version of Yokogawa's web-based real-time operations management and visualisation software package brings revolutionary changes to real-time process information intelligence. This release is designed to significantly reduce engineering of large geographically dispersed systems, which requires both a different engineering approach and central managed deployment.

The introduction of a master enterprise engineering database establishes a single engineering environment containing all common enterprise definitions and deployment data. This is easier to manage, less restrictive, and less complex than distributed databases.

Yokogawa has identified a rising need for the integration of the various disciplines and functions required for the delivery of human-centric information solutions utilising new technologies such as industrial cloud computing, industrial SaaS, and the Industrial Internet of Things. In essence, the aim is to connect sensors, devices, and plant facilities to facilitate the remote access of data and enable supervisory control from just about anywhere. The FAST/TOOLS enterprise automation platform addresses these needs by offering comprehensive solutions for the deployment, operation, and monitoring of control system environments. This will help companies make faster decisions, reduce total cost of

to page 10

From page 9

ownership (TCO), and achieve operational excellence.

1. Enterprise engineering management

To reduce engineering time during the design phase and reduce travel time and costs for engineers and designers, Yokogawa has developed a platform-independent enterprise engineering module that allows engineers in remote locations to securely collabo-rate with each other and deploy applications via global IT networks. When installed on any of the servers belonging to an enterprise's automation system, this module facilitates intuitive and centralised concurrent engineering and application deployment, with engineers and other project personnel being able to access the same up-to-date project information on their displays, wherever they may be. This is easier to manage, less restrictive, and less complex than distributed databases. To enhance security, both user and server authorisation is in place and the system and its applications are hardened to prevent failure and protect against unauthorised access.

2. Enhanced data sharing

As part of Yokogawa's vision to help users unlock actionable insights from big data, R10.02 includes an embedded RDBMS engine. This is ideal for use in the enterprise automation environment, where data sharing is often required over multiple servers and domains and where there is a bi-directional exchange of data with external sources and within multiple environments. The embedded RDBMS engine allows for the parallel archiving and storage of data in a local historical database as well as the central RDBMS.

3. Improved operational alarm management

As enterprise environments grow more complex and need to handle an ever growing amount of data, alarms tend to occur with greater frequency. To reduce the number of maintenance- & commission-ing-related nuisance alarms that can distract operators from responding to key operational alarms, a function has been added with R10.02 that inhibits the issuance of alarms based on limit settings. With this function, equipment maintenance can be performed without disturbing routine plant operations.

4. Role-based geo intelligence

The sharing of data globally across multiple levels and disciplines requires true role- and location-based security. With R10.02, users who sign in to the system using their OS login credentials are allowed access to data and controls based on their role and the location of their assets. Users can access their data and utilise allowed control functions from any available device.

Nobuaki Konishi, head of the PA Systems Business Center at Yokogawa's Platform Business Headquarters, comments: *"Yokogawa has embarked on a new approach to concurrent engineering management that will speed up project execution by making it possible for engineering to be carried out simultaneously from any location. This includes the ability to take part in factory acceptance tests from any remote location. R10.02 offers significant enhancements in engineering efficiency and functionality that give our customers greater flexibility in how they work".*

Main target markets include: oil, gas upstream/midstream, petrochemicals, chemicals, renewable energy, power, pulp and paper, pharmaceuticals, food, iron and steel, water supply and wastewater treatment

www.yokogawa.com/eu

DAQ Controllers

National Instruments has announced the new CompactDAQ 8-slot controller, which expands their offering to meet high-channel count applications in rugged environments. By integrating the processor, signal conditioning and I/O into a single CompactDAQ system, engineers can reduce overall system cost and complexity while increasing measurement accuracy. Integrated measurement systems reduce the number of components, connections and wiring needed, which often introduce noise and additional costs, to ensure high-accuracy measure-ments and cost-optimised systems.

Both the 4-slot and 8-slot CompactDAQ controllers feature an Intel Atom dual-core processor that can run either Windows Embedded 7 or NI Linux Real-Time. By pairing industry-standard OS options with LabVIEW system design software, customers can easily port LabVIEW code from existing measurement systems to these new CompactDAQ controllers. They can combine LabVIEW and over 60 sensor-specific I/O modules for CompactDAQ to quickly customise data acquisition systems to meet their application needs.

"We've expanded the CompactDAQ family by adding an 8-slot controller to give customers another rugged and integrated solution," said **Stefanie Breyer,** Director of Data Acquisition R&D at NI. "The Intel Atom 3800 processor gives engineers powerful processing paired with high-accuracy measurements that can be used in a variety of applications from in-vehicle data logging to distributed *measurements."*

www.ni.com

Temperature

The new temperature sensors from E+E Elektronik, available through Instrument Technology, are now also available with 0-10 V or 4-20 mA outputs. The active sensors extend the portfolio of the Austrian sensor specialist in the field of HVAC and building technology. The compact, innovative housing and mounting concept with protection class IP65 / NEMA 4 facilitates extremely simple and fast installation of the sensors.

Their temperature sensor range includes duct mounted types, sensors for wall mounting indoors and outdoors, a strap-on sensor for mounting on ducts and pipes, and a version with remote probe. Special immersion wells with innovative mounting spring turn the duct versions into immersion sensors for temperature measurement in fluids.

The sensors offer outstanding accuracy and a wide temperature range. The measured values are available at a 0-10 V or 4-20 mA output. The factory scaling is freely selectable and can be subsequently changed by the user by means of an optional configuration kit and free configuration software.

The clever housing design offers a considerable advantage when it comes to installing the sensor. Thanks to the external fixing holes, the device can be mounted with closed cover, which keeps the electronics protected against construction site pollution.

The new temperature sensor series from E+E Elektronik rounds off their existing product range of transmitters for

Daily Automation News on line at read-out.net

from page 10

humidity, CO2 and air velocity, thereby offering an extensive sensor package for HVAC & building technology.

www.itl.ie

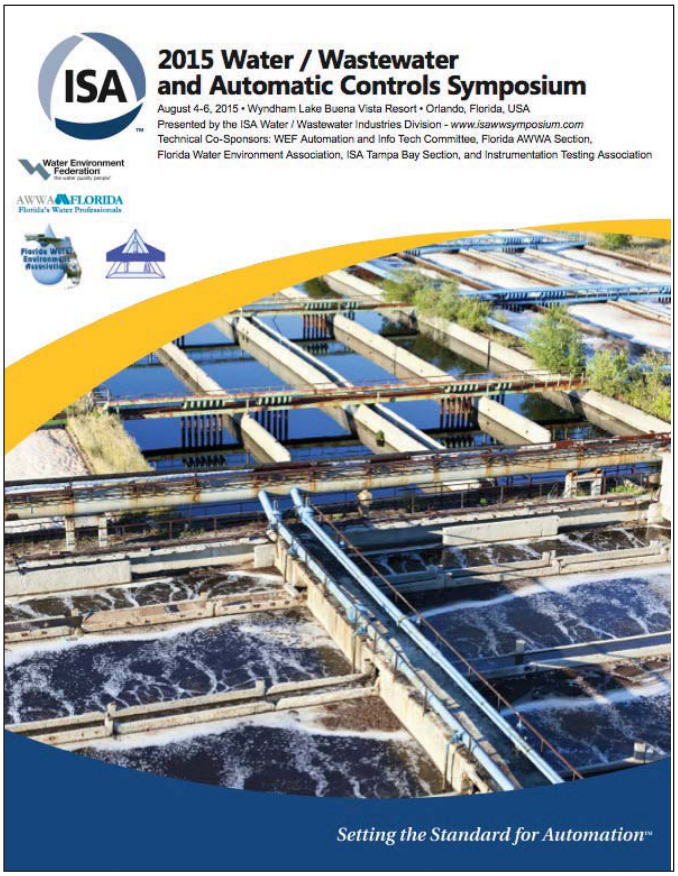
Communications Wall

The FieldComm Group, formed by combining all assets of the former Fieldbus Founda-tion and Hart Communication Foundation and dedicated to the integration of intelligent devices in process automation facilities worldwide, recently announced the first live publically viewable display of functioning FDI Package IDE (development tools) and FDI Common Host . As the organisation responsible for delivering and maintaining the tools of this new standard on behalf of the participating industry partners of FDI Cooperation, LLC, (Field-Comm Group, FDT Group, OPC Foundation and PROFIBUS & PROFINET International), FieldComm Group introduced these tools publically for the first time to the market at this years Achema in Frankfurt/Main (D).

They displayed not only these new cutting edge development tools for Field Device Integra-tion (FDI) but also FOUNDATION™ Fieldbus and HART® technologies on a massive Technology Wall designed to demonstrate how the Group is 'connecting the world of process automation' through a full portfolio of solutions that connect and integrate valuable digital data from intelligent field devices. The multi-vendor display included nearly 40 leading suppliers and over 70 devices integrated into both new and current systems that provide valuable device and process information leading to improved plant performance.

With the availability of these new development tools for FDI, process automation suppliers and developers can now efficiently implement and test FDI Device Packages for FOUNDATION Fieldbus, HART and PROFIBUS®. In addition, they may also use the FDI Common Host Compo-nents to build FDI compatible host systems to ensure full integration and consistency of the FDI standard within device management tools, asset management tools and process interface systems.

www.fieldcommgroup.org



Temperature Guide

A new white paper from Moore Industries highlights how plant and site engineers can ensure the most accurate temperature measurement for critical applications.

"A Practical Guide to Improving Temperature Measurement Accuracy" details steps that can help end users improve the stability of their measurements and reduce calibration costs.

The paper shows how to select the best sensor for a particular application and ways to improve the accuracy of the sensor you choose. In particular, it details the reasons why 4-wire RTD sensors are almost always the best choice for high-accuracy temperature applications. The paper also explains the relationship between classes of sensors (such as Standard and Premium Grade thermo-couples and Class A RTDs) and their error rates. It also covers how to reduce errors caused by plant noise.

www.miinet.com/

Event response can't be left to chance. My operators need the confidence that they are taking the right action – every time.

YOU CAN DO THAT

SYNCADE **Make every operator your best operator.** Emerson helps operators meet production goals by ensuring work is done accurately and consistently. Syncade Suite combines document, equipment, and materials management into electronic work procedures to create an optimised manufacturing environment. By implementing Syncade as your MES, you integrate plant-floor data with procedural processes to help your operators do their best work. Visit **www.EmersonProcess.com/Syncade** to learn more.

EMERSON™
Process Management

The Emerson logo is a trademark and a service mark of Emerson Electric Co. © 2015 Emerson Electric Co.

EMERSON. CONSIDER IT SOLVED.™