<< www.profibus.com
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PROFINET PASSES ONE MILLION NODES!
Independent Notary confirms numbers, based on specific device types

At a significant press conference held at Hannover Fair in April, new PNO Chairman and PI Chairman-designate Jörg Freitag (right) announced that by the end of 2007 the number of installed PROFINET nodes had reached 1.14 million. He told journalists that the numbers had been collected by an independent Notary (a lawyer mandated to do this kind of work) and that vendors taking part had submitted their individual numbers in confidence. "Only the total is known to PI," he said.

"These are the first 'official' numbers to have emerged from our marketplace," he added. Furthermore only automation devices such as PLCs, remote IO stations, HMIs, robots, proxies, drives, and sensors were included. Devices like switches, hubs and peripherals (e.g. printers) were not included. At the press conference one journalist asked: "How do other organizations count their numbers?" "We don't know,"

New PNO Chairman Jörg Freitag at the Hannover Fair press conference: PROFIBUS nodes increased by 4.5 million in 2007 he told journalists, while PROFINET passed 1.14 miilion nodes at the end of 2007. "These are very powerful messages to the market about our technologies!"

Freitag replied, "you'll have to ask them!"

PI will update the numbers at regular intervals to show the ongoing success of PROFINET. It is expected that 3 million nodes will be reached by 2010.

Freitag also announced that a

further 4.5 million PROFIBUS nodes were sold in 2007, bringing the total to 23 million. "We're well past 24 million today and expect to reach our next target of 30 million before 2010," he said.

WHITE PAPERS

Two new White Papers on the positioning of PROFIBUS and PROFINET highlight the sustainability of both technologies.

The first paper - 'Strategic Overview: PROFIBUS + PROFINET' (right) elaborates on the individual advantages of PROFIBUS and PROFINET, and then their synergies. PROFIBUS continues to be the undisputed market leader. The experience and success of PROFIBUS will help propel PROFINET to the


same position. PROFINET brings Ethernet-based technologies to the plant floor with full realtime

support, wireless and easy IT integration. Modularity means not everything has to be used at once. PROFINET seamlessly integrates fieldbus systems to protect existing investments.

In the second Paper 'Enhancing the High Performance of PROFINET', some enhancements for smaller, line structures are identified.

Download the papers here, free:

• '**STRATEGIC OVERVIEW**'

• '**ENHANCING PROFINET**'.
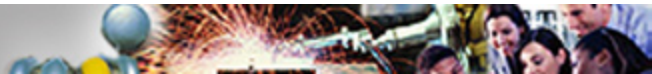
PI News

CHINESE EXPERT DAYS A HUGE SUCCESS

In April 2008, a series of 'Chinese PROFIBUS and PROFINET Experts Days' took place in Beijing, Shanghai and Xi'an. More than 500 people attended the presentations, which covered the latest technological achievements of PROFIBUS and PROFINET. Automation topics included redundancy, high speed, asset management, troubleshooting, product development AND installation.

Everybody worked very closely together, without barriers. "All faces pointed in the same direction and we got the job done!" was one comment.

It was the first time in China that a live demo of PROFIBUS and PROFINET was attempted. From scratch, a configuration was created with both running from one controller. It was shown that PROFIBUS and PROFINET have a perfect match and can save you energy, weight, materials, spare parts, documentation and lots of effort. The main message was: "your investment is completely safe for now, the future, yourself and your children". At the end, experts answered direct questions. More than 10 automation magazines and a Beijing TV Station picked up the messages.

In October 2008 a new round of Expert Days will be organized in Guangzhou, Kunming, and Shenyang. Members of PI can reserve a 'table top' to promote their products and services.

(See also Page 7)

PROFIsafe DESIGN WORKSHOP

A 3 days workshop in English will be organised by PNO in conjunction with TÜV (German safety body) on June 25-28, 2008, in Karlsruhe, Germany. More information from **germany@profibus.com**

CERTIFICATION EXPANDED

Starting in January 2008, the accredited test laboratories of PI (PROFIBUS & PROFINET International) began offering certification of Electronic Device Descriptions (EDDs) for PROFIBUS PA devices.

An EDD is tested against its own test specification based on IEC 61804. Syntax and usability tests are of paramount importance as they ensure compatibility with manufacturer-specific tools. The device description must also be compatible with its associated device and for this a test procedure must be generated individually for each EDD.

A high degree of automation is achieved using the 'PROFIBUS EDD Tester', developed at the Institute for Information Technology at the Technical University of Munich, Germany (itm). This is used in accredited test laboratories for certification and can be used for in-house preliminary tests by the device manufacturer.
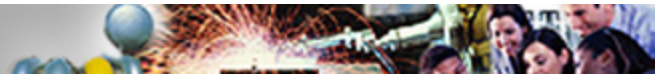
PROFINET SETS EVEN MORE STANDARDS

Two recently passed standards include the PROFINET IO specification. IEEE 1588 standardizes Precision Time Protocol for Ethernet based communication. It includes the relevant parts of the PROFINET IO specification and was passed on March 27, 2008.

The PROFINET IO 'Media Redundancy Protocol' (MRP) is part of IEC 62439, which was passed on April 11, 2008.

INTERNATIONAL COOPERATION TEAMS MAKE GOOD PROGRESS

PI continues to actively support international collaborations to make things easier for end users. In April 2007, the *EDDL Cooperation Team (ECT)* and the FDT Group announced that they are jointly working on a uniform solution for device integration, which is fully compatible with both EDDL and FDT, the two technologies that currently exist on the market. These efforts are being promoted in the project *Field Device Integration (FDI)*. Use cases have been completed and the requirements defined. The validation of the use cases was made in consultation with NAMUR (the interest group for automation technology of the process industry), the WIB (International Instrument Users' Association) as well as the AIDA (Automation Initiative of German Domestic Automobile Manufacturers). Currently, the architecture and the technical specifications are being developed. A first draft will be completed by December 2008; the final technical specifications are expected by the end of 2009.

The *Wireless Cooperation Team (WCT)* was founded in August 2007. Here, the Fieldbus Foundation, the HART Communication Foundation and PNO in Germany (for PI) have agreed on unprecedented and unique cooperation in the area of wireless technology for the manufacturing and process industry. The aim is to establish a common open standard and to promote greater acceptance of wireless technologies.

For process automation, WirelessHART technology is to be employed. In a first stage, the specifications for gateways between wireless HART networks and the individual fieldbus systems (FF as well as PROFIBUS and PROFINET) are being created. For this purpose, the three organizations have agreed to develop joint guidelines for inclusion into their respective product registration procedures.

PI News

INTERVIEW WITH ...

Jörg Freitag, who was elected new PNO Chairman at Hannover Fair in April and is currently Chairman-designate of PI.

What do you think is the next major challenge for PNO?

Most of the great technical issues have been settled so we must capitalize on the great progress made with PROFIBUS by building and delivering the support needed to grow PROFINET into the most successful Industrial Ethernet. We must continue to support members internationally and look outwards to see where we can give help in other ways too.

Does PI, your other responsibility, present any different challenges?

Not really. The team effort based in Karlsruhe radiates worldwide with cooperative efforts taking place internationally to push our technologies onwards. I believe this team effort is one of the unique features of our organization and part of my job now is to encourage and develop it further. You can actually watch this happening, with the fantastic international network of Regional PI Associations, Test Centers, Competence Centers and Training Centers still growing, and all pulling together with a common aim - to make PROFIBUS and PROFINET successful. The figure of $50 billion has been mentioned as the total value of the PROFIBUS market to date. None of that could have been achieved without teamwork.

The uptake of Ethernet technologies has been slower than expected, hasn't it?

In some ways yes, but we never thought that Ethernet was going to rise rapidly simply because it was new technology. Users need significant added value to make major changes to their automation networks. More than four years ago, my predecessor Edgar Küster said that the next phase of the fieldbus evolution was going to be 'picking the low hanging fruits', by which he meant that the market had been won and all our vendors had to do was build excellent PROFIBUS products and sell and support them in a professional manner, which they did. We are surprised however by the almost unstoppable success of PROFIBUS. In 2007, for example, we sold more PROFIBUS devices than in any previous year, and that trend is not slowing. PROFINET is beautifully tied in with PROFIBUS to ensure that those expensively-acquired investments are not thrown away. PROFINET and PROFIBUS are a strategic partnership, and that is a unique feature for us.

What significance do you attach to the announcement that 1.14 million PROFINET nodes have been sold?

The figure of 1 million is the important milestone that we needed to pass to reinforce the credibility of PROFINET. It proves we have achieved the success we promised. PROFINET is widely spread now and, because we're not delivering a single device but a system architecture, we can now see the future much more clearly. This is the breakthrough moment for PROFINET and the rate at which it continues to rise in popularity will now increase. We confidently expect to reach 3 million installed nodes by 2010.

"PROFINET and PROFIBUS are a strategic partnership, and that is a unique feature for us."

The 'notary' method of counting the nodes has come as a surprise to some people. What led you to employ this method of counting PROFINET numbers?

We needed to find a way to remove the uncertainties, and we also needed to wait until sufficient vendors could collaborate. After much discussion we decided to include only the devices that truly impact on an automation network - IO, drives, etc.

Thus, we needed to know device sales, which is obviously sensitive information. So, we looked for a neutral third party to help. Once all the pieces were in place we were ready. We hope the market can see that we are being open and realistic, and that by delivering genuine market numbers we have set a benchmark by which all Industrial Ethernet vendors can be measured.

PI is also involved in other technologies besides PROFIBUS and PROFINET. What do these mean for the organization?

A body such as PI, once it's grown to a certain point, has to take responsibility for more than just its own interests. It's part of life and we try hard to take the responsibility seriously. We have always supported international Standardization and now we find ourselves filling gaps such as helping to bring FDT and EDD together within the FDI (Field Device Integration) project. We collaborate extensively with other bodies in similar positions - HART, FF, OPC and the FDT Group for example.

What other initiatives are you involved in?

The TCI (Tool Calling Interface) project was thrust on us by large end users who wanted a common engineering solution for the diverse configuration tools they had to deal with.

IO-Link is particularly interesting because it's complementary communications technology and now that the integration issues have been settled this market can move forward.

Our collaboration in international efforts to establish wireless standards is also continuing and we see this as particularly important, given that the process market has made its choice but the far larger factory market has not.

Your efforts in emerging technology areas are another success story I believe.

In process automation our PA technology dominates because of our ability to handle 'hybrid' networks so well. The number of PROFIBUS PA devices increased by 120,000 to 750,000 in 2007, bringing the total number of installed PROFIBUS nodes in the process industries to 4 million, which corresponds to an additional 700,000 nodes in 2007.

Motion Control is another major success for us. Also Safety: the number of established PROFIsafe nodes increased by 180,000 to 410,000 in 2007, which equates to 41,000 systems - an increase of 15,000 across the year. All these figures convey how strong our deliverables really are.

Finally, what message would you like to offer to end users about PROFIBUS and PROFINET?

PNO will be 20 years old in 2009! Since 1989 we have aimed to deliver strong and relevant technical solutions tightly focused on real end user needs. We have kept to that vision and the result is that a level of trust has been built up between ourselves, our vendor members and end users that underpins our market success. We won't deviate from that strategy, and I promise to continue supporting the market in the same ways, and to my fullest capabilities.

Applications

AUSTRALIA / PAINT: BlueScope Steel set up their first Colorbond paintline facility in 1966 at Port Kembla and, over the years, demand for its roofing, guttering, fences, sheds and warehouses has shown phenomenal growth. With demand pushing capacity limits in 2003, the company decided to locate a new plant at Erskine Park in Sydney, as the city's western region had become the single biggest consumer of Colorbond products in Australia.

An internal feasibility group to determine capital expenditure was set up in 2004, comprising engineers each with at least ten years experience, at one of BlueScope's paintline facilities at Acacia Ridge, Port Kembla and Western Port. This group knew first hand many of the problems that might be encountered during construction and commissioning of a greenfield paint plant and undertook a 12-month feasibility study, focusing on reducing these problems, for submission to the BlueScope Board.

The team took the bold and unusual step of reviewing process instrumentation suppliers during their conceptual stage, and they decided to future-proof their new plant by implementing PROFIBUS fieldbus technology throughout the project. "We wanted to do some front-end engineering before submissions. Thus, when approval came, there would be a greater degree of certainty around what the Board was approving," explains Shannon Ballard, Project Engineer.

Interoperability, ease of engineering integration, troubleshooting and future scalability were all contributing factors in BlueScope's selection of the technology.

Although the spend on instrumentation is relatively small compared with the overall project cost, the BlueScope team acknowledged that having accurate and reliable process data is critically important if the process plant is to function efficiently. The team had witnessed projects where instruments were chosen from a variety of vendors, and there was little vendor ownership regarding product selection, installation, commissioning and training. The team also knew that incorrectly selected instruments that are improperly installed have a negative flow-on effect through the whole plant life.

With this in mind, BlueScope shortlisted three vendors that it felt could be potential instrumentation partners. Leading European company Fata Hunter was appointed mechanical paintline equipment supplier to the project, sourcing their equipment from nine different countries. BlueScope provided them with their preferred instrumentation vendor list, but because Endress+Hauser had the broadest range of products, the highest level of PROFIBUS competence, and a worldwide presence, it won MIV (Main Instrument Vendor) status and supplied almost all the measuring devices for the project. The first Colorbond product was painted on 15 August 2007, approximately 20 months after construction started.

The plant comprises a paintline facility producing 120,000 tonnes per annum; a wastewater treatment plant; a regenerative thermal oxidizer, a significant rainwater capture and re-use

system with total capacity in excess 800,000 litres, and cooling towers.

To eliminate all potential environmental risks emerging from the use of solvent-based paints, BlueScope implemented what is believed to be the world's best practice in air emission control for this type of plant – a Regenerative Thermal Oxidizer (RTO). The plant runs at virtually zero gas emission because the RTO uses the thermal energy in the solvent – which is a fuel – to self-combust. This is recycled through a heat exchanger back into the ovens. "So once the system is heated up, we pull back on our gas systems and just use the solvents to fuel the ovens," explains Ballard.

A range of Endress+Hauser instrumentation linked by PROFIBUS PA networks was used for the measurement and control processes. The instruments include: magnetic and vortex flow meters and flow switches; temperature switches, sensors, and thermocouples; Cerabar M and Deltabar S pressure and DP transmitters; Micropilot M radar and Levelflex M guided microwave level products; analytical products including pH and conductivity sensors,

and all the devices are linked by PROFIBUS PA technology to the plant's automation system - supplied by Rockwell - via a Prosoft interface.

PROFIBUS technology has provided BlueScope with the data needed to make better management decisions over the long-term, and provide flexibility for future expansion.

The BlueScope team is currently reviewing Endress+Hauser's Fieldcare and partnering it with W@M – the Web based Asset Management tool. If implemented, this will allow BlueScope to diagnose the health of, and monitor the performance of, their process instruments 24/7, as well as make all the manuals, certificates, spare parts lists available online. **ENDRESS+HAUSER AUSTRALIA** or info@au.endress.com
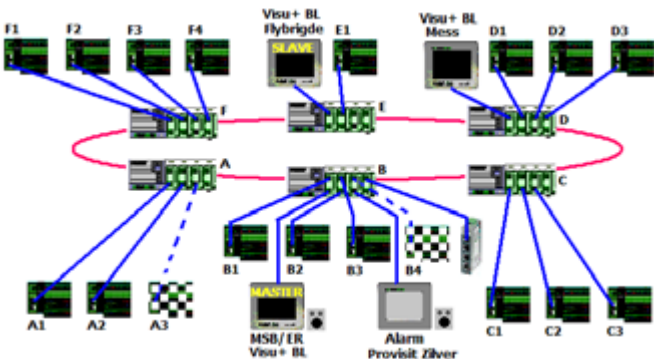
Applications

NETHERLANDS / MARINE:
eL-Tec Elektrotechnologie, in Hattem in the Netherlands, is building an alarm system for a luxurious sailing yacht, the 52 meter 'Boreas'. The company has a lot of experience in control and monitoring systems for ships but up to now has used separate control and service systems. For

this ship, a more powerful and extensive system was needed, so the engineering team explored new possibilities. The answer lay with S-MAX, a powerful Phoenix Contact PLC with an integrated touch-screen service panel (HMI) and a PROFINET interface.

Four S-MAX controllers are deployed in the 'Boreas'. Using PROFINET these exchange data transparently with equipment such as the motor management and

fire alarm systems. PROFINET is certified for shipping and handles the data transported between the PLC and the I/O modules and the normal Ethernet data simultaneously in real-time. The system has the required reaction speed and supports very fast visualization. With the HMI integrated into S-MAX costs and programming hours are much reduced.

The monitoring system controls all vital functions of the ship – the motor, the valves in the bilge pump, fuel and ballast tanks, fresh water tanks, the heating and cooling installations, fire alarms, battery system, the navigation lights and the deck lights.

The simplest, and the most complicated, systems are handled with PROFINET IO, from the dimming of the lights in the accommodation area to the hydraulic system for reefing and hoisting the sails. Everything is done with a strong emphasis on energy saving. An important reason for choosing PROFINET was the savings realised in cabling. The whole system communicates via one PROFINET fiber network, which delivers a big commercial advantage together with considerable weight savings – important in ship design.

The ship is divided into six segments, each with its own managed PROFINET switch which

connects to the I/O devices around the ship. A separate glass fiber cable has been installed which will only be used for this system, and the whole network is tightly secured against interference.

The yacht will sail around the world, so eL-Tec has proposed that a fully redundant system be

installed. The primary system would then have a back up, which PROFINET supports easily. If the customer agrees, eL-Tec will also implement the software needed to let its support engineers in Hassen help the crew remotely solve any problems that arise via the internet. **PHOENIX CONTACT**

BRAZIL / OIL TERMINAL: In partnership with the company Automind – Automação Industrial Ltda., ALTUS is supplying PROFIBUS remote systems from the Ponto Series to roll out a telecommand system for valves with electric actuators at the floating REMAN pier in Manaus.

Three docks are being installed for loading the tanker ships taking oil and gas from the Arará hub in Urucu to the foreign and Northern/ Northeastern domestic markets. In all, the system has approximately 60 valves, divided among three PROFIBUS networks.

The remote systems will be supplied with classified area Ex-d. protection and tropicalized electronic boards. The distribution of the remote systems will be allocated in accordance with the valve placements. Each will be used to control the opening torque of the valves from 0-100%, in maintenance mode and automatic remote operation, as well as diagnostic functions. The entire

valve sequencing and alignment will be done with an iFix SCADA, to be interconnected to the remote system using an Ethernet TCP/IP network.

Owing to the difficult placement of the fixtures and electric ducts on the floating pier and the need to increase network availability, the remote system will have two PROFIBUS DP-V1 masters, operating in parallel.

In performance tests the communication network reached transmission rates of 12 Mbits, which generated an update of 120 operands close to 240 bytes per master in 0.48ms per housekeeping.

The application led to improvements in operations by way of better asset management using predictive maintenance. The resources for predictive and remote parameterization maintenance offered by PROFIBUS DP were fundamental to the implementation of the system. **ALTUS** or weiser@altus.com.br

Profibus A
ProfibusB
Ethernet TCP/IP
All Net

New Products

I/O MODULE + CPU

Siemens Industry Automation has added CPU functionality to the Simatic ET200S product family. The IM151-8 PN/DP CPU handles control tasks and communications functions via PROFINET. The IM151-8 PN/DP has the performance power of a Simatic S7-300 CPU 314, and users can implement distributed structures via PROFINET. The PROFINET communication interface has three ports for linear bus topologies. Programming functions are on board and can be expanded with a PROFIBUS DP master. The new module supports RT (Real Time) and IRT (Isochronous Real Time) and can control up to 128 IO devices. The module is also available in a fail-safe version. Distributed configurations with both standard and fail-safe modules can be deployed. **SIEMENS**.

PRESSURE TRANSMITTER

WNK79 is a pressure transmitter with ceramic sensor and networking capability via PROFIBUS PA. It features a high purity ceramic sensor, very good reproducibility and excellent long-term stability. Turn down is 100:1 but can be higher on request. The transmitter can be used for process pressure monitoring up to SIL3 and is certified to IEC 61508. Quick commissioning is possible thanks to quick setup menu and the device has extensive diagnostic functions. **WNK**

PROFINET GATEWAYS

TURCK has a new BL67 Ethernet gateway for PROFINET. I/O modules are configured independently of the fieldbus, and up to 32 I/O modules may be connected to a gateway. This means systems may include up to 512 digital I/O or 128 analog channels. All BL67 systems use TURCK's free I/Oassistant software package to perform the initial configuration, parameterization, documentation, commissioning and diagnostic functions. It is recommended to use I/Oassistant to verify that all restrictions regarding power and size are met. I/Oassistant can be downloaded for free. The PROFINET BL67 gateway is compatible with TURCK's RFID system. **TURCK**.

MULTI-VARIABLE DENSITY

The DT303 family with PROFIBUS PA is for measuring density, concentration and temperature directly in industrial processes. It makes the monitoring and control of processes possible in real time. Devices are available in two models: industrial for general purpose use and a sanitary model for food, beverage and pharmaceutical applications. They can be installed in tank or in line. Three analog Input blocks are incorporated. **SMAR** or evaristo@smar.com.br

BUS COUPLER

The BK9103 Bus Coupler connects PROFINET with modular, terminal blocks. A unit consists of a Bus Coupler and up to 255 Bus Terminals which automatically configure themselves to the process image. Connection is through normal RJ45 connectors. The IP address is set using a DIP switch or via DHCP. An additional RJ-45 port is available and both operate as 2-channel switches. The I/O stations can thus be configured with a line topology. Up to 20 Couplers are cascadable, enabling a line length of 2km to be achieved. **BECKHOFF** or info@beckhoff.com.

MORE PRODUCTS ON-LINE

Our **on-line Product Guide** has over 2500 product entries. Search on keywords, text or profile.

PI News

IO-LINK INTEGRATION SPEC. PUBLISHED

PI has published documents covering the integration of IO-Link into PROFIBUS and PROFINET networks, opening the way to wider deployment of IO-Link.

Many sensor manufacturers and a host of manufacturers of I/O modules have introduced IO-Link products. The publication of the integration documentation facilitates the open integration of IO-Link in PROFIBUS and PROFINET systems. To illustrate this, PI set up a live application at its Hanover Fair booth in April.

The physical layer and protocol specification of IO-Link are independent so IO-Link can be used with any fieldbus or Ethernet-based system. As well as PROFIBUS and PROFINET, work to integrate IO-Link into other fieldbus systems is under way. The definition of an independent device description for IO-Link, IO Device Description (IODD), is also under review.

The number of active companies in the IO-Link consortium has passed 30. In addition to manufacturers of sensors and actuators, they include manufacturers of I/O components, automation systems and semi-conductors.

DEVELOPING PROFINET PRODUCTS

PNO presents on June 24/25, 2008 a 2-day workshop for developers of PROFINET products. The event takes place in Frankfurt and will be held in English. The objective of the workshop is to inform about the development possibilities of PROFINET products. For this purpose, some of the leading technology companies will present their range for development support. The main topics are PROFINET in the system environment; Topology; Fast Start-Up; TCI (Tool Calling Interface); iPar-Server; Device exchange without engineering system; IRT concept; Conformance Classes; GSD preparation; Certification; Experiences from current implementations; Advice for product development.

MORE INFORMATION

Member News

PROFINET ACCREDITED

INTEX in Poland has been accredited as a PI Competence Center for PROFINET.

INTEX now wants to establish itself as the training center in Poland for PROFINET. They already provide regular PROFIBUS training courses and will soon apply for PITC status.

Artur Szymiczek is the responsible person for technical activities at INTEX. **INTEX** or aszymiczek@intex.com.pl

PI World

SOUTH EAST ASIA

Thanks to sponsors Excel Marco Singapore, Gecma / MTL, Siemens Malaysia, TDS Technology Singapore, TURCK Singapore, PROFIBUS SEA attended the Offshore Asia 2008 and showed the latest technology for process automation with PROFIBUS. Offshore Asia set a record attendance at this third annual conference and exhibition dedicated to Asia's offshore oil and gas industry, held 17-19 March 2008 at Kuala Lumpur, Malaysia. PROFIBUS SEA also attended the PIA Exhibition in Vietnam. How much PROFIBUS is being used in Vietnam was established based on visitors' questionnaires completed during this event. The feedback shows clearly that PROFIBUS is the fieldbus of choice. Some Vietnamese companies deploying PROFIBUS are Holcim Cement, Lever Vietnam, Kinh Do Corp, Phu My Fertilizer, Vinaconex Cam Pha, Binh Tay Brewery, Vietso Petro and Linde Gas. southeastasia@profibus.com

FRANCE

FRANCE PROFIBUS announces its annual road show in three cities: Rennes (June 10), Paris (June 12) and Lyon (June 17), presenting features of PROFIBUS / PROFINET networks for industrial applications. Based on an industrial example, solutions for machines, the entire factory and multi sites production will be demonstrated.

Industrial and building automation applications are in the focus, and there will be time for exchange between visitors and members of FRANCE PROFIBUS. The program will also cover topics like interoperability of the equipment, diagnostic functions, remote communication (Web, radio, Wifi…) and security.

Visitors will see an exhibition of French member companies and will be able to

CHINA

In March PROFIBUS/PROFINET experts from 7 companies from around the world attended the 'Chinese PROFIBUS and PROFINET Experts Days 2008' organized by the China Association for Mechatronics Technology & Application (CAMETA) to promote PROFIBUS & PROFINET technology. Separate events took place in Beijing, Shanghai and Xi'an.

Almost 500 delegates attended. They showed great interest in the presentations of 10 experts, and a live table top demonstration. The presentations covered the latest technologies comprehensively,
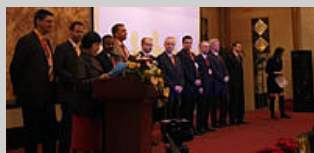
explain their needs, get the information they need and find solutions. Eric Lobet: france.profibus@wanadoo.fr

IRELAND

PROFIBUS Ireland exhibited at the annual ISA Ireland exhibition in April. Pictured is Joseph Lee on the booth. A range

of products from PROCENTEC and Comsoft was shown, together with two prototype products under development by PROFIBUS Ireland - a PC-based Master Class 2 which provides diagnostics information as OPC tags, and a system that provides raw telegrams to a remote client. In an accompanying seminar Hassan Kaghazchi, the Chairman of PROFIBUS Ireland, presented an overview of PROFIBUS. The organizers of Pharmatex have invited PROFIBUS Ireland to give a presentation on PROFINET in Process at their exhibition in September. A series of technical presentations is also planned. **PROFIBUS IRELAND.**

UK

Practical examples and demonstrations of PROFIBUS and PROFINET system health monitoring and diagnostics will be presented in the workshop sessions organized for the annual UK PROFIBUS and PROFINET User Conference in

including material that national audiences had no previous opportunity to know. At the end of the meetings, audiences handed in questions which the experts answered in detail.

The experts included Jörg Freitag, Björn Möller, Bernd Lieberth and Walter Möller-Nehring from Siemens; Arasu Thanigai from Pepperl + Fuchs; Jochen Müller from Endress + Hauser; Johan Bjorklund and Paul Rix from ABB; Stefan Ruebesam from profichip; Dennis van Booma from PROCENTEC. **MORE INFORMATION**

June. In parallel with the main two-day conference, there will be a set of workshop presentations providing a hands-on practical approach. These sessions will demonstrate the application of diagnostics and health checking tools. PROFINET diagnostics will be presented by Vladimir Kulla of Siemens in Prague, responsible for PROFINET software development and also for the Certification Laboratory and PI Competence Centre. **www.profi-bus.co.uk**

NORTH AMERICA

The PTO and PROFI Interface Center training class program continues apace. Classes center on PROFIBUS, PROFIBUS in the process industry and PROFINET. There are full details **HERE**. To include people unable to attend a class in person, a series of webinars is also planned, the first four focusing on process automation. **DETAILS HERE**. The PTO has also appointed Victor Wolowec, Vice-President, Solutions Business at Endress+Hauser, to its Board. Mr. Wolowec will be replacing Todd Hubbell, who was recently promoted to Vice-President of Logistics at Endress+Hauser.

PI Network