# PROFIDUS & PROFINET



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## Official Newsletter of

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# **TECHNOLOGY YOU CAN GET YOUR HANDS ON!**

See PROFIBUS and PROFINET at Hannover Fair 2008

PI's booth in Hall 11. Booth A41 at Hannover Fair will concentrate on interactive dialogs with visitors. The latest trends and solutions for automation technology will be presented. Using functional models and live demonstrations, experts will inform visitors about important topics connected with industrial communications. The IO-Link consortium presently consisting of 32 different companies will show how IO-Link integrates actuators and sensors



into automation systems like PROFIBUS and PROFINET.

The full application range of functional safety with PROFIsafe will be shown in another active demonstration. Overall more

10:00	PROFIBUS - Easy to Use
11:30	PROFINET & Integration
12:00	PROFINET & Performance
13:00	IO-Link - Transparency at Field Level
14.00	PROFINET & Diagnostics
14.30	PROFINET & Safety
16.00	INTERBUS - The Next Generation

than 60 exhibitors will jointly display their products, solutions and services based on the technologies of PI.

The heart of the booth is a large communications center which will include an ongoing forum entitled: 'The Future of Automation.' This takes place on each day of

the fair - please see the table below for full details. Visitors will be able to observe, participate and be astonished, particularly by the tightly coupled partnership of PROFIBUS and PI's Industrial Ethernet solution - PROFINET!

The most important functionalities of PROFINET will be presented, and a 'product wall' will show the growing range of products already available having PROFINET connectivity.

## ROUND TABLE DISCUSSES PRODUCTION SECURITY

Leading representatives of German industry represented the 'Security in Automation' steering committee on February 12, 2008, during an exclusive 'round table' talk at the premises of the German TV station ZDF in Berlin.

The committee is a panel of leading industrial associations, of which PNO is a member along with ZVEI, VDMA, NAMUR, SecIE and VDI/VDE. The importance of IT security for manufacturing industries and OEMs was the



main topic. Companies taking part included BMW, Bayer and Nestle from the consumer goods industry, Nortel (an IT service provider), Lenze and Siemens from automation industries, and Victoria, an insurance company. Mr. Kräußlich, editor of 'Publish Industry Verlag', led the discussions.

Valuable feedback about insurance and liability in the case of internal and external attacks was provided. The damage caused (both self-inflicted and from third parties) is difficult to estimate. Obtaining adequate insurance cover is particularly difficult for self-damage.



# PI News

## FIRST CHILEAN TRAINING CENTER



The PTO in North America has helped

a Chilean

automation company become an accredited PI Training Center.

RP Ingenieria, located in Concepción City, in the south of Chile, was founded in 2002 by Rodrigo Pinto Cárdenas (above). He writes: "We are systems integrators, and a Siemens partner in Chile. Also, we are PROCENTEC and Autem distributors. My company works a lot with PROFIBUS so I became a PI member in 2006 by joining PTO. The quality of the support received from PTO and the PIC led me to take the certified training course in 2006. I was trained by Ron Mitchell and John Swindall at the PIC in Johnson City, and I became a Certified PROFIBUS Network Engineer. PTO sponsored us to open our Training Center to help promote PROFIBUS in our country. We can deliver the Certified PROFIBUS Installer and the Certified **PROFIBUS Network Engineer** course in Spanish."

RP has a multi-vendor PROFIBUS demo with equipment from Siemens, Beckoff, Acromag, Telemecanique and PROCENTEC. There's capacity for up to 10 persons on site and RP's PROFIBUS training offer includes: Scheduled and on-site Training; network architecture design; network architecture design; network troubleshooting and analysis; network components (cable, repeaters); network analysis tools (e.g. Profitrace II). www.rpingenieria.cl

## 'MEET THE PROFIBUS EXPERTS' IN VIENNA IN APRIL

The 'Meet the Experts' event which is taking place in Vienna on 9th of April, 2008, aims to bring together users, suppliers and other stakeholders from the process industry and share expertise and knowledge.

Specialists in PROFIBUS will give presentations about the ease of use of PROFIBUS, and provide an update about recent developments. Other topics range from the opportunities to benefits during installation, Asset Management, and plant safety and uptime.

An accompanying exhibition will give delegates an informal opportunity to discuss best practices in automation technology with the experts.

**MORE INFORMATION** (Please note – the event will be held in German.)

# FOUR NEW PROFILES AVAILABLE

Four new profiles have been published by PI, to suit specific applications domains.

These are:

Profile for Encoder devices, related to PROFIdrive V4.1More about the document.

> Profile for Intelligent Pumps:
More about the document

> Physical Layer Medium Dependent Sublayer on 650 nm Fibre Optics:

More about the document.

> IO-Link Integration Part 1: More about the document

#### PRODUCTION SECURITY Continued from page 1

All participants agreed that Ethernet in the production arena will require additional measures to guarantee IT security. These measures have to cover both the automation and the IT level, as the management level of the enterprise is now functionally linked with the automation level.

Measures related to production staff are also of importance, because lack of knowledge amongst personnel is very often the cause for security-related failures. This means that both technical and organizational measures need to be defined and communicated to everyone in a manufacturing enterprise in the



form of strict company policies that are rigidly policed.

Since the beginning of the development of PROFINET, PI has considered the topic of security to be critical and has already published a document called the 'PROFINET Security Guideline' - to help.

The PROFINET security concept described in this document meets the requirements of network security for Ethernetbased automation systems in manufacturing. The concept fulfils The demands for access control, data encryption, authentication and the logging of security relevant events.

# PI World

#### **JAPAN**

The Japanese PROFIBUS Organization (JPO) held two further PROFINET seminar for developers - on March 11 in Tokyo and on March 13 in Nagoya. A total of 65 engineers from a variety of companies attended. Because most automation companies believe Ethernet will be the trunk



factory communication line in the next generation of automated plants, they want to learn about the latest technologies and trends of Industrial Ethernet PROFINET seems to be one of the most powerful candidates so there is great interest amongst Japanese engineers. During the seminar, JPO explained the market situation, and JPO members - among them Hilscher, HMS, Softing, Siemens and Woodhead - made presentations about their PROFINET development tools. They also demonstrated these tools to the participants in the seminars. While this seminar concentrated on the development of PROFINET products, JPO also holds regular PROFINET introductory seminars - in fact every 3 months - on a regular basis. japan@profibus.com

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Keep up to date with the world's most popular fieldbus AND the best Industrial Ethernet solution in automation

#### **ISSUE 61, APRIL 2008**

# **New Products**

#### LEVEL GAUGE

Magnetrol has a new Model 705 Guided Wave Radar transmitter with PROFIBUS PA output. The Model 705 can be utilized in virtually all level interface and volume applications, including those with visible vapors, varying dielectric media, or specific gravity, and can detect overall level or interface level. It includes a 20-point custom strapping table. No field calibration is necessary. MAGNETROL.

## GIGABIT SWITCHES

The SMCS 6GT/2SFP Smart Managed Switches from Phoenix Contact are compatible with Gigabit-

Ethernet ports and also provide fiber interfaces. Gigabit performance leads to excellent real-time properties for use in PROFINET RT networks. At the same time, IT real-time services such as video or Voice-over-IP can be implemented with high levels of data throughput. The switches have two optical interfaces. Segment lengths can be up to 70 km. They are compatible with PROFINET engineering tools. A pluggable configuration memory with M12 connectors lets you easily exchange devices. PHOENIX CONTACT.

## ASSET MANAGEMENT WITH FDT

AssetView is an asset management system supporting PROFIBUS using simultaneously



EDDL and FDT/DTM. From a list of configured PROFIBUS field devices it's possible to access directly the DTM for the chosen equipment, making parameterization, uploads, downloads, etc. very simple and fast. Operators

can perform maintenance through scheduled programming routines, including notifications by e-mail, without needing specific software. AssetView also allows the inclusion of the equipment in a library that contains datasheets, manuals, maintenance procedures, notes, pictures and internet links for their vendors. SMAR.

## CONTROLLOGIX **MASTER HAS FDT**

ProSoft Technology's PROFIBUS Master V1 Module for the Rockwell Automation Controll ogix platform now incorporates some significant new features



including PROFIBUS DP-V1 Master comDTM support. The MVI56-PDPMV1 is the first module to be enabled with CIPConnect a feature that allows a PC to connect to it over Ethernet via the 1756-ENBT EtherNet/IP module. With CIPConnect, users can configure the PROFIBUS master module and network, upload and download files, and view network and module diagnostics from a PC using the ProSoft Configuration Builder (PCB). RSLinx is not required. PROSOFT TECHNOLOGY: or +1 661 716 5100.

## **MODULAR** PROFINET

The UNIGATE IC modular solution from Deutschmann is now available with a PROFINET interface.



UNIGATE IC is a complete singlechip bus interface solution in a 32-DILhousing in a space of only 45 x 25 mm. It contains all necessary components, such as microcontrollers, Flash, RAM, bus-chip and analog components, such as optocoupler and bus driver. The integrated microprocessor processes the entire data traffic. The target protocol is converted via a Script in the UNIGATE® IC, generated with the free 'Protocol Developer' tool, Deutschman, Here it does not matter whether it is a complex control or a simple actuator or sensor. DEUTSCHMANN.

#### **RFID INTERFACES**

Several new Escort Memory Systems products for industrial auto-ID

applications



have been launched. PROFIBUS communications are now available for the Cobalt HFTM family of highfrequency industrial RFID systems. The standard Cobalt HF platform also has improved installation options, more accessible diagnostics, and an attractive graphical design in a new product revision

Cobalt's flexible architecture has also been extended into Escort Memory Systems' highly successful and long-running HS family of RFID tags, antennas, and controllers, With these new Cobalt HS systems. current installations of HS tags can benefit from the direct Ethernet communications and from the powerful C-MacroTM command set offered in all Cobalt products. DATALOGIC or fred.hanes@datalogic.com.

Domest C Darida

SPOT David Water Multiple

## MASTER API

PROCENTEC has released a master API for its ProfiCore product which makes it possible to

personalize applications for PROFIBUS DP. Anyone with C++ or Visual Basic knowledge can now control their processes exactly as they want. It uses technology from ProfiCaptain to exchange data with nodes in the DP network. Now, for example, it is possible to periodically control the I/O of the nodes and view it on-screen. Automated maintenance tasks can be easily performed from the control room: the 'Scan Network' or 'Steal slave' concept can be part of the application. This provides enormous flexibility in any PROFIBUS DP network. The API supports DP-V1 and is free of charge for ProfiCaptain users. PROCENTEC or info@procentec.com.

#### **MORE PRODUCTS ON-LINE**

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

# Applications

#### POLAND / CARBON BLOCKS:

ASKOM has implemented a complex tracing & tracking system based on PROFINET at the carbon block production line of SGL CARBON S.A in Racibórz. Embracing existing PROFIBUS DP and IE industrial networks, and wanting to minimize production downtimes, ASKOM proposed a solution based on PROFINET CBA, which treats networks and production units as single entities and allows click and drag configuration of the entire plant, saving a huge amount of time.

An S7-300 PN/DP + ET200S controller functions as a data concentrator to track material flows and transfer manufacturing parameters to an SQL database. A SIMATIC S7-300 communication processor runs the PROFINET CBA protocol and PHOENIX **CONTACT** Industrial Ethernet switches and Ethernet optical waveguide and copper cabling are used in the infrastructure.

The deployed system ensures that tasks are realized in a fast and safe way for production continuity, with rich diagnostics employed. It fully uses the Ethernet factory network, providing both the visualization on network stations installed on any office PCs, or HTML visualization on normal web browsers, and also allows production orders to be prepared and preset, batch parameters to be analysed and edited on selected PCs (e.g. by the foreman). It also transfers selected production-related data to the supervisory systems. Easy extension of the system to include new technological nodes from other departments is now possible, at minimal cost.



#### **ISSUE 61, APRIL 2008**

# **PI World**

#### UK

The program for the PROFIBUS and PROFINET User Conference 2008, at Stratford Manor Hotel. Stratford on Avon on June 24 and 25 has been published here. In May, PNO UK members are helping users learn how to simplify their PROFIBUS automation application with a one-day seminar called 'Practical Aspects of PROFIBUS in Factory Automation'. Training courses continue apace: there is a Certified PROFINET Engineer class in May, at the end of which there is a theory exam. Participants who pass gain the title 'Certified PROFINET Engineer' and are awarded an official certificate. Full details here.

#### IRELAND

PROFIBUS Ireland in co-operation with ISA Ireland held a technical talk presentation on



presentation was held on 19th Feb, in Cork. Hassan Kaghazchi, the Chairman of PROFIBUS Ireland, presented an overview of PROFIBUS technology, its benefits to end users, diagnostics and maintenance issues, and some fault finding tips. The presentation was concluded with a live demonstration using the newly released Profitrace 2 tool. The participants were from end users, vendors, academics, and systems integrators. ISA Ireland has extended an invitation to PROFIBUS Ireland to hold a similar presentation at their annual exhibition and seminar on April 22 next. Additionally, in conjunction with PROFIBUS vendor members in Ireland, a series of technical presentations is planned for 2008. www.profibus.ie

#### NORTH AMERICA

The PTO and PROFI Interface Center are holding one-day training classes throughout North America for the sixth consecutive year. 24 cities are in the initial schedule. Classes center on PROFIBUS. PROFIBUS in the process industry, and PROFINET, PTO is also sponsoring a series of PROFINET Developer Workshops at no charge. Each free half-day workshop provides an explanation of the PROFINET

#### GERMANY

The first workshop of this year dealing with the use of PROFINET took place on February 12, 2008, at Würzburg and saw more than 40 participants. Interested companies were informed about the possibilities of developing PROFINET products. Technology leaders like HMS, Hilscher, Siemens, TMG TE, Gleichmann Electronics, KW

Software and Softing presented how they support product developments. During the breaks, the participants had the chance to exchange with experts and get individual answers to their questions. The workshop was evaluated to be very informative and compact by the participants. Further workshop dates will be scheduled and announced soon. More from

germany@profibus.com



development tools available, but prior attendance at a PROFINET one day training event is required. Two classes have just been completed - in Portland and Cleveland, Exhibiting were: Altera Corporation, Grid Connect, Inc., Hilscher North America, Inc., HMS Industrial Networks, Inc., IXXAT, Inc., Siemens Energy & Automation, Real Time Automation, Softing North America and Molex. Overall, class attendance is on the up. In Toronto. for the first time we had to close registrations as the class was filled. More training information here, PTO has just published Issue 19 of its email newsletter, which includes a useful primer about Web Feeds (sometimes known as RSS) which give you easy access to the latest news on PTO's web site. If you're not yet using Web Feeds then read the primer here.

#### SOUTHERN AFRICA

At the recent AGM. Dieter Dilchert whose three year period as Chairman has just finished - reported on some of the organization's achievements in the past months. The newly established Automation Training Council (see PROFINEWS 59) has now trained more than 60 students and is widely recognized as an important initiative. Edwin Bauer of ABB now follows Dieter as Chairman. His main goals are to actively promote and sell the System Integrator Accreditation concept. and to market the use of PROFIBUS technology, especially PROFIBUS PA, through roadshows focused on Project Houses and Key Process Industry customers. The plan is to do about

20 events this year, and hold ongoing technology workshops on topics such as Diagnostic Tools - one is scheduled for May. The training and education initiative at the tertiary institutes (Automation Training Council) will continue to be supported. More from southernafrica@profibus.com.

#### SOUTH EAST ASIA

For the first time, PROFIBUS South East Asia has visited Vietnam. PROFIBUS S.E.A. was at the Processing Instrumentation and Analysis & Lab Vietnam 2008 (PIA), showcasing the latest automation technology and allowing novices, experts and users to have closer interaction with PROFIBUS experts. The event took place at HIECC, Ho Chi Minh City, Vietnam, and there was a seminar alongside where presentations by PROFIBUS members took place. Topics included: Open Solutions for the World of Automation; PROFINET Technologies; Intelligent Asset Management Functions. For further information on the seminar, please contact PROFIBUS Association South East Asia, Singapore. +65 6562 8716 or email:

#### southeastasia@profibus.com

STORIES ALWAYS WELCOME If you're a member of a Regional PI Association you can have your **PROFIBUS and PROFINET stories** published free here in PROFINEWS. In 2008, the distribution list is being considerably extended. We particularly welcome product news and case studies. RPAs can have their successes and achievements reported here also.

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