# PROFINE S

ISSUE 42 FEBRUARY 2005



## in this issue

## Official Newsletter of PROFIBUS International

## CONTENTS

## **PI NEWS**

(PAGES 1, 2)

- NAMUR ENDORSES PROFIBUS
- SEE PROFIBUS AT HANNOVER
- GSD EDITOR
- WHY NOT TAKE ADVANTAGE OF BEING A PI MEMBER?
- ARC ANALYST INSIGHTS AIDA DECISION
   PI INITIATIVES ADDRESS
- PERIODRATIVES ADDRESS KEY SECURITY ISSUES
   INDUSTRIAL SECURITY
- GUIDELINE PUBLISHED NEW PROFINET CBA RUNTIME
- ORDER PROFINET BOOK
  VIA WEB
- PROFINET SLIDE SETS AVAILABLE FOR DOWNLOAD
- ✤ IT'S IN SWEDISH TOO!

## **AROUND THE WORLD**

(PAGE 4)

- SOUTH EAST ASIA
- CHINA
- ▶ FRANCE
- ➡ USA
- WUK

## **APPLICATIONS**

(PAGE 3)

GERMANY/ CEMENT

## PRODUCT GALLERY

(PAGE 3)

- ▶ RS-485 TRANSCEIVER
- ✤ OPTOCOUPLERS
- ▶ FDT PARAMATERIZATION
- ▶ LEVEL MEASUREMENT
- AS-I TO PROFIBUS GATEWAY
- ▶ FLEXIBLE I/O
- CONTROLLER AND DEVELOPMENT KIT

Click any item above to visit the relevant page

ITEMS SHOWN IN GREEN REFERENCE INDUSTRIAL ETHERNET AND PROFINET



The general assembly of NAMUR (the process control engineering interest group of the Chemical and Pharmaceutical industries), held in November last year, endorsed the use of PROFIBUS in the process industries. In its 'Fieldbus Experience Report' NAMUR clearly identified 'positive experiences' in both planning and operations, citing the examples of Vitex system at DSM in Basle, where 450 HART devices work alongside 940 **PROFIBUS** multi-vendor field devices and the Ketek project at Sanofi-Aventis in the Hoechst Industrial Park where over 1600

PROFIBUS devices are in use. Users confirm that a wide selection of fieldbus-capable components is now available, also that PROFIBUS represents a connectivity 'breakthrough' that results in reduced wiring, planning and installation costs. End users have also gained greater infrastructure flexibility. Martin Schwibach from BASF AG in Ludwigshaven stated: "PROFIBUS is ready for use!" A unique feature of PROFIBUS is its ability to serve mainstream processes and their associated discrete applications. Other process fieldbuses need to use a second fieldbus.

# PI INITIATIVES ADDRESS KEY SECURITY ISSUES



(left to right): Peter Früauf, VDMA, Franz Köbinger, PNO/ Siemens, Dr. Wolfram Schmidt, infraserv/NAMUR, Dr. Markus Winzenik, ZVEI, Dr. Kurt Bettenhausen, VDI/Siemens, Dr. Reinhard Hüppe, ZVEI, Dr. Wolfgang Morr, Bayer/NAMUR and Dr. Volker Oestreich, PNO

'Security' is becoming increasingly important in the world of automation, particularly for Ethernet-based communication systems. PROFIBUS International's (PI) 'Security' Working Group has therefore developed a new 'Industrial Security Guideline'. The PROFIBUS Nutzerorganisation (PNO) has also begun a collaboration with GMA, NAMUR, VDMA and ZVEI regarding security in PROFINET and PROFIBUS plants, and a first meeting (see picture above) took place in January in Frankfurt. For more about industrial security please go to Page 2.

# ARC ANALYST INSIGHTS AIDA DECISION

An important new Insight from Market

Analysts ARC examines the decision by the AIDA carmaker group of Germany to commit to PROFINET as their Industrial Ethernet solution for future automation systems. In the ARC Insight, analyst David Humphrey (pictured above) writes : "Automobile manufacturers ... tend to be industry pioneers that exert influence over other industries so these commitments are sure to spur interest in unified Ethernet architectures elsewhere." Read the the ARC Insight HERE.

# SEE PROFIBUS AT HANNOVER



At Hannover Fair and Interkama 2005, PROFIBUS will have a major presence in Hall 11, Booths A41 & A48, where the latest developments in PROFIBUS and PROFINET will be shown. The PROFIBUS show space will occupy over 330 sq ms, with all the latest PROFIBUS products from multiple vendors on display. Live demonstrations will enable visitors to see the best of PROFIBUS 'in action'.

# INDUSTRIAL SECURITY GUIDELINE

PUBLISHED

▶ PINEWS

A brand new PI guideline has been published, providing an introduction to network security and describing a 'Security Concept' for modern automation networks. This Guideline is available free to members, from www.profibus.com. Non-members may purchase it from their local PROFIBUS Organisation or the PROFIBUS International Support Center (Order No.: 7.002, Language: English) using the linked order form at the end of this article.

What's the rationale? Automation systems have moved rapidly towards highly interconnected applications employing widelyused technology such as MS Windows and TCP/IP.

Furthermore, today's systems are being increasingly integrated with enterprise systems and other business applications. This means new security requirements have to be considered. Pl's Industrial Security Guideline starts with a general introduction on automation and security in general. Automation systems are far from being ordinary IT systems; there are fundamental differences. An outline of the ISA's efforts in this field is also included. The major part covers security requirements and a corresponding Security Concept as developed by the PI working group 'PROFINET Security' (TC3/WG18). A short analysis then shows the extent to which the PROFINET Security Concept meets security requirements. Finally, an outline for implementing the PROFINET Security Concept rounds up the guideline. Download an order form HERE.

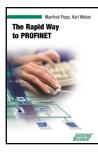
# NEW PROFINET CBA RUNTIME

The PROFINET CBA Runtime Software V2.0 has been updated to version V2.01, which supports the 'PROFINET - Architecture Description and Specification V2.02' specification. The software pack as well as the

Windows32 and the PROFINET Test Tool have been replaced with new versions. Find the upto-date software on www.profibus.com in the DOWNLOAD area.

implementation example for

# ORDER PROFINET BOOK VIA WEB



'The Rapid Way to PROFINET', available in English and German, can now be purchased via

www.profibus.com. Simply download an order form HERE and return it by fax. The book and an invoice will then be sent to you.

# GSD EDITOR



The latest GSD Editor (V5.0) is now available to members for free download from www.profibus.com (browse DOWNLOADS). The new version is based on GSD-Specification V5.01 and replaces the old GSD-Editor V4.1.

# WHY NOT TAKE ADVANTAGE OF BEING A PI MEMBER?

PROFIBUS, with more than 10 Million installed nodes (including 1.6 million in process automation!), is the undisputed leader of fieldbuses. PROFIBUS International (PI) is the global organisation behind PROFIBUS and its sister technology PROFINET, supported by more than 1200 member companies and 25 Regional PROFIBUS Organisations and 30 Competence Centers around the world. Why not become a member of this powerful and influential organization?

Full membership offers a large range of benefits, such as participation in marketing activities, technical support and participation in PROFIBUS Working Groups. Members are also entitled to advance information about the technology and can influence that technology as it develops. Free downloads of PROFIBUS and PROFINET guidelines and profiles are available, plus free publication of stories here in PROFInews and inclusion of products in the Product databases at www.profibus.com. Discounts on device certification and registration, plus books, and training at PROFIBUS and PROFINET Competence Centers are also available.

The online product guide offers the following benefits:

it is the first destination of users searching for a PROFIBUS or PROFINET product

detailed descriptions can be included of products, services, pictures, contact addresses, GSD-files and links.

For more information contact your local PROFIBUS Organisation (see back page) or email info@profibus.com.

# PROFINET SLIDE SETS AVAILABLE FOR DOWNLOAD

Three new PROFINET slide sets are available for download from www.profibus.com, in English and German. PROFINET is the integrated comprehensive Industrial Ethernet standard from PI which covers all areas and aspects of manufacturing and process automation, from the field level to the MES interface. It can accommodate standard control right up to high end motion control applications and work is in hand to integrate safety and security functions too. PROFINET satisfies the demand for greater flexibility in production processes as well as easy maintenance for automation systems by means of system-wide, vendorindependent engineering. It also includes a way of easily incorporating any other fieldbus system. Find out more by downloading these slide sets.

# IT'S IN SWEDISH TOO!

In our last issue we said that the PROFINET System Description was available in German, English, Japanese, Chinese, and French. We're happy to point out that it's been available in Swedish for some time too!

## ▶ PRODUCT NEWS

### **RS-485 TRANSCEIVER**



The ADM2486 is an isolated RS-485 **PROFIBUS** Transceiver using patented iCoupler Digital Isolation Technology to isolate the input from the logic side using chip-scale transformers. It offers significant savings in cost and board space, plus better performance and lower power. Key features include 20Mbps maximum data rate, 5ns pulse skew, differential output voltage of >2.1V, and 5V or 3V operation.

#### Analog Devices: www.analog.com/ADM2486 or interface.supervisory@analog.com

## OPTOCOUPLERS



This new series of optocouplers is designed for operations up to 10Mbps, a speed which manufacturers

say is often used by OEMs for PROFIBUS. Devices feature a

the

reinforced insulation construction combining a highly efficient LED and an integrated photodiode IC detector optimized for high data rates. Other features include 2.9ns PWD, a propagation delay of only 50ns and fast rise and fall times. Six versions are available, three with a single channel and three with dual channels. Single channel types include an enable function for strobing. Vishay: www.vishay.com or bob.decker@wallstcom.com

## **FDT PARAMETERIZATION**

PROFIdtm is a PROFIBUS

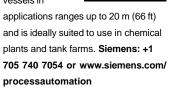
Communication Device Type Manager. It allows all devices that provide a DTM to be configured and parameterized easily. PROFIdtm finds all the devices that are

connected in a plant and adds them to a live list. Relevant DTMs are loaded into the engineering tool, saving time. PROFIdtm version 1.10 has been compliance-tested and is already used in a wide variety of plants in combination with PACTware, FieldCare, SmartVision and FDT Navigator. Softing: +49 89 456 56379 or www.softing.com

## LEVEL MEASUREMENT

This new digital version of Pointek CLS 300 has PROFIBUS PA connectivity allowing the user to set up the instrument and make adjustments remotely. It features a capacitance switch for level detection of interfaces, solids, liquids, slurries and viscous materials in demanding conditions of low/high pressure to 35 bar (511 PSI), temperatures up to 400°C (725 °F), and corrosive and abrasive materials.

Insertion lengths up to 35 m (115 ft) are available. The latest SITRANS LR200 Radar Level gauge is for liquid bulk storage or simple process vessels in



## AS-I TO PROFIBUS GATEWAY



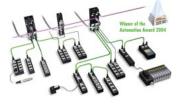
PROFIBUS Gateway can be simply operated via PROFIBUS. New features include the automatic

This new AS-i/

detection of one address being allocated to two slaves, with an error message pointing to the duplicate addresses in plain text, and the PROFIBUS node receiving this

information for further action. An AS-i earth fault detector is also fitted and the controller is directly informed of any earth fault via PROFIBUS. The third new feature is an AS-i noise detector, which continually checks the analog signal on the bus line and detects noise and overvoltage, enabling emerging problems to be discovered covered before telegram repetitions start to occur. Bihl + Wiedemann: +49 621 339 9621 or www.bihl-wiedemann.de





Cube67 I/O puts value on simple installation and start-up with the clear objective of saving assembly time. Fully configurable inputs and outputs, as well as extensive diagnostics, not only reduce the number of components, but also work effectively at eliminating expensive downtime. These factors, together with a compact design and high protection from full-potting, ensure a flexible solution is provided for applications in machine and plant construction. Murrelektronik +49 7191 47 0, or www.murrelektronik.com OR info@murrelektronik.com

## ▶ APPLICATIONS

## **GERMANY / CEMENT**

A German cement and aggregates producer has achieved substantial productivity gains by using a new overhead bulk crane based on PROFIBUS communications. Wietersdorfer & Peggauer attribute a large portion of the gains to the ICS5000L positioning system from Trimble, which has reduced the crane's running time by 50%. The crane has a span of 24.4 metres, a hoisting speed of 50 metres per minute and includes wear-optimized controls. Overall, a productivity increase of 10% has been identified, largely thanks to state-of-the-art crane technology. The dynamic Trimble positioning system and skew control optimize the crane's travelling profile to enable the increase in capacity. An S7 PLC controls the crane. This can itself be controlled from a separate stock management work station and is monitored via WIN CC. Trimble: +49 6142 21000166 or

karl-heinz\_foerderer@trimble.com

# HUNDREDS OF OTHER **APPLICATIONS!**

PROFIBUS is used in a huge range of applications around the globe, in both process and discrete manufacturing industries. For more examples please **CLICK HERE** 

# PROFINET PRODUCT NEWS CONTROLLER AND DEVELOPMENT KIT



A new CPU for the SIMATIC S7-300 and a PROFINET I/O Development Kit for field devices in mid-range applications is now available. The PROFINET interface is used for Industrial Ethernet communication at the cell level as well as

for connecting I/O devices and other field devices with PROFINET. PROFIBUS

devices are connected via an additional PROFIBUS interface which makes this CPU suitable as a router between PROFINET and PROFIBUS too. The CPU can be programmed over the Ethernet from a central point and the field devices connected to PROFIBUS can also be accessed. PROFINET field devices are developed quickly using the SDK and a license for the development and production of a single product line are included. Siemens: www.siemens.com/ ...

## ▶ AROUND THE WORLD

# ON THE ROAD IN ... SOUTH EAST ASIA ...

To meet rapidly growing interest in PROFIBUS in China and South East-Asia, the Regional PROFIBUS Associations are organising a series of Roadshows, in co-operation with PNO Germany.



The Roadshow in South East Asia will focus on 'PROFIBUS in Process Automation' and 'PROFIsafe', and will visit the following five cities :

- ✤ Singapore (with press conference) April 26 and 27, 2005
- Malaysia / Kuala Lumpur (with press conference) May 4 and 5, 2005
- ✤ Indonesia / Jakarta May 17 and 18, 2005
- Philippines / Manila May 25 and 26, 2005 ₩
- >> Thailand / Bangkok June 2 and 3, 2005

# ... AND CHINA

The Roadshow in China will focus on 'PROFIBUS in Process Automation' and 'PROFINET in Factory Automation' and is planned to visit the following six cities between May and September: Beijing, Dalian, Shanghai, Guangzhou, Kunming, Changchun

A Roadshow held in China in 2004 was a great success, with several hundred visitors at every stop. During that Roadshow, Mr. Li Baihuang, chairman of the Chinese PROFIBUS Organization, stated: "PROFIBUS provides not

## FRANCE

France PROFIBUS has published Issue 7 of its popular PROFImag, this time an eight page version packed with useful information and news about PROFIBUS activities in France. PROFIBUS successes and events are included, plus announcements

about the PROFIBUS Competence Center in Tours and first news of the Journées Techniques to be held during 2005.



only the latest technology in industrial automation but also meets the trends and expected requirements of Chinese customers". Nearly all companies

attending the 2004 Roadshows expressed strong interest in using fieldbuses within the next 2 years and more than 70% indicated their

preferences for PROFIBUS, principally because of the unique advantages of PROFIBUS in

For further information about forthcoming Roadshows please contact julia.john@profibus.com

# USA

The PROFIBUS Trade Organization has appointed Carl Henning as Director of PROFINET

Marketing. Carl will

evangelize PROFINET as the integrated and open Industrial Ethernet standard for automation. Carl's experience with the PTO team dates back to its founding . when he served on the first Board of Directors. Said Carl: "With the emergence of PROFINET this is an exciting time to re-engage with PROFIBUS. I look forward to helping make PROFINET a worldbeating standard for automation"

## UK

PROFIBUS Group UK reports that the Certified PROFIBUS Engineer courses organized by Manchester Metropolitan University can now be presented at end user sites, following substantial investment in new equipment. Up to 8 engineers can be trained at a time in a 3 1/2 day course covering the detailed theory of PROFIBUS DP network operations. Design, installation and troubleshooting are all covered. The course is based on the highly successful one developed in USA by the PROFIBUS Interface Center and the PROFIBUS Trade Organization. Successful graduates have the right to have their name listed in the Certified **PROFIBUS Engineer section of** www.profibus.com

## IRELAND



The new PROFIBUS Competency Center (PCC) at the University of LImerick has just certified its first group of PROFIBUS engineers. The candidates attended a three day hands on course and took a practical and theoretical exam on Day 4. The certification is valid for four years after which Certified Engineers can 'refresh' themselves for a further three year period. The PCC also offers **PROFIBUS** Installer courses for individuals. Browse www.ir.profibus.com or email ireland@profibus.com. Pictured above from the initial course are: (left to right, standing) Hassan Kaghazchi (Chairman, PROFIBUS Ireland), James Anderson, Dermot Clancy, Micahel Tracey, Ramon Del Rio, (and sitting) Declan Bennett, Colin Foley, Barry O'Shea and Brendan Curtin

#### PROFINEWS Issue 42, Page 4

Australia - Mr. Andrew Janiak Tel: +61 3 9761 5599; Fax: +61 3 9761 5525 Email: australia@profibus.com

Belgium - Mr. Herman Looghe Tel: +32 2 706 80 00: Fax: +32 2 706 80 09 Email: belgium@profibus.com www.be.profibus.com

Brazil - Mr. Paulo Camargo Tel: +55 11 3833 4958; Fax: +55 11 3833 4183 Email: brazil@profibus.com www.br.profibus.com

China - Mrs. Wang Jun Tel.: +86 10 62 02 92 18; Fax: +86 10 62 01 78 73 Email: china@profibus.com www.cn.profibus.com

Czech Republic - *Mr. Zdenek Hanzalek* Tel.: +420 2 2435 7610; Fax: +420 2 2435 7610 Email: czechrepublic@profibus.com www.cz.profibus.com

Denmark - Mr. Kim Husmer Tel.: +45 40 78 96 36: Fax:+45 44 07 77 36 Email: denmark@profibus.com www.dk.profibus.com

Finland - Mr. Taisto Kaijanen Tel: +35 8 9 5307259; Fax: +35 8 9 5307360 Email: finland@profibus.com www.sf.profibus.com

France - Mrs. Christiane Bigot Tel: +33 1 45 74 63 22; Fax: +33 1 45 74 03 33 Email: france@profibus.com www.fr.profibus.com

Germany - Mr. Peter Wenzel/Mr Volker Oestreich Tel: +49 721 96 58590; Fax: +49 721 96 58589 Email: germany@profibus.com www.de.profibus.com

Ireland - Mr. Hassan Kaghazchi Tel: +353 61 202 107: Fax: +353 61 202 582 Email: ireland@profibus.cor www.ir.profibus.com

Italy - Mr. Maurizio Ghizzoni Tel: +39 030 3384030; Fax: +39 030 396999 Email: pni@profibus.com www.it.profibus.com

Japan - Mr. Shinichi Motoyosi Tel: +81 3 54 23 86 28; Fax: +81 3 54 23 87 34 Email: japan@profibus.com www.jp.profibus.com

Korea - Mr. Ahn Young-in Tel: +82 2 523 5143; Eax: +82 2 523 5149 Email: korea@profibus.com www.rk.profibus.com

Netherlands - Mr Dolf van Eendenburg Tel: +31 33 469 0507; Fax: +31 33 461 6638 Email: netherlands@profibus.com www.nl.profibus.com

Norway - Mr. Kai Atle Myrvang Tel: +47 909 88640; Fax: +47 904 05509 Email: norway@profibus.com www.no.profibus.com

Poland - Mr. Dariusz Germanek Tel: +48 32 371365; Fax: +48 32 372680 Email: poland@profibus.com www.profibus.com

Russia - Mrs. Olga Sinenko Tel: +7 095 742 68 28; Fax: +7 095 742 68 29 Email: russia@profibus.com www.rus.profibus.com

Slovakia - Mr Richard Balogh Tel: +421 7 6029 1411, Fax: +421 2 6542 9051 Email: slovakia@profibus.com www.sk.profibus.com

South-East Asia - Mr. Volker Schulz Tel: +65 6490 6464; Fax: +65 6490 6465 Email: southeastasia@profibus.com www.sea.profibus.com

Southern Africa - Mr. Tony Jacobsen Tel: +27 11 262 8000: Fax:+27 11 262 8062 Email: southernafrica@profibus.com www.rsa.profibus.com

Sweden - Mr. Peter Bengtsson Tel: +46 4 51 49 460; Fax: + 46 4 51 89 833 Email: sweden@profibus.com www.se.profibus.com

Switzerland - *Ms. Karin Beyeler* Tel: +41 32 672 03 25; Fax: +41 32 672 03 26 Email: switzerland@profibus.com www.ch.profibus.com

Thailand - Mr Peter Price Tel: +66 2 715 4570; Fax: +66 2 715 4841 Email: thailand@profibus.com www.th.profibus.com

UK - Mr. Bob Squirrell Tel/Fax: +44 845 456 3203 Email: uk@profibus.cor www.uk.profibus.com

USA & CANADA - Mr. Michael Bryant Tel: +1 480 483 2456; Fax: +1 480 483 7202 Email: usa@profibus.com www.usa.profibus.com

Editor: Geoff Hodgkinson 1 West St. Titchfield, Hants, UK PO14 4DH. Tel: +44 (0) 1329 846166; Fax: +44 (0) 1329 512063 Email:geoff@ggh.co.uk

Published by: PROFIBUS International Haid-und-Neu-Str. 7 D-76131 Karlsruhe, Germany





