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## PI Network

## NEW WEBSITE FOR PROFIBUS & PROFINET

PI has unveiled a brand new website. Familiar features such as the product catalog and download areas are retained, complemented by a contents list that perfectly rounds off the new internet presence of PI, the Regional PI Associations and 1400+ member companies.

Special focus is given to three key aspects: the two primary technologies of PI - PROFINET and PROFIBUS - and the global 'community' on which so much of PI's success is based.

The new website utilizes a completely new content management system. This will be largely invisible to general visitors, but for PI personnel, member companies and others who need to keep the site updated, this



management system offers many powerful new tools that make the site easier to maintain and develop. So, adding new data, features or sections will be much easier and faster to implement. Expect the site to evolve rapidly to improve the user experience and add value for everyone.

Please take a look. PI will be pleased to welcome you and wishes you fun in finding the information you need!

Further information or assistance from: [info@profibus.com](mailto:info@profibus.com) or **+49(0)721 9658 590**

## HANNOVER BOOTH CELEBRATES PROFIBUS 20th ANNIVERSARY



A total of sixty nine companies participated in the 330m<sup>2</sup> PI Booth at Hannover Fair in April. More than 200 products based on PROFIBUS PA, IO-Link, PROFIsafe, PROFIdrive, PROFInergy and of course

PROFINET were shown. On Wednesday evening, the 20th anniversary of PROFIBUS was celebrated with a birthday cake!

Professor Klaus Bender, one of the founding fathers of PROFIBUS and the PNO, had the honor of cutting the cake (see photo).

## FIRST IRT PROFINET DEVICES CERTIFIED

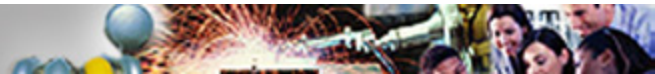
The first Certificates for PROFINET Conformance Class C devices covering Isochronous Real Time (IRT) functionality were awarded during the Hannover Fair in April. The devices are from Hilscher and Siemens. Testing was performed by ANF DATA of the Czech Republic, which is a PROFINET Competence Center and Test Lab.

ANF has also unveiled an IRT test module called SPIRTA,

which is an integrated plug-in module for the standardized PROFINET test system MoTest. SPIRTA will be used by all accredited PROFINET test laboratories in future for certifying PROFINET with IRT devices. [anf@anfdata.cz](mailto:anf@anfdata.cz)



Left to right: Dr. Peter Wenzel, Xaver Schmidt, André Loburg and Hans-Jürgen Hilscher celebrate the awarding of the first PROFINET Conformance Class C certificates at the Hannover Fair.



## PI News

### EMERSON JOINS PNO

Emerson Process Management has joined the PROFIBUS Nutzerorganisation (PNO) in Germany to expand technology that will improve asset and machinery health management for its customers.

Emerson expects collaboration with the technical committees and working groups of PNO and its PI affiliates to enhance asset management in devices that use PROFIBUS DP, like electronic drives, motor starters, and others. "We are pleased to be joining other member companies of the PNO to develop and improve open technologies that underpin industrial automation," commented John Berra, Chairman of Emerson Process Management.

### NEW BOOK ABOUT PROFINET

A 'successor' book to the popular 'Rapid Way to PROFINET' has been published.



Written by Manfred Popp, it is called 'Industrial Communication with PROFINET' and it goes beyond the bits and bytes to provide a good introduction to PROFINET. The target group includes manufacturers of field devices, plant engineers and commissioning staff. The content concentrates on essential information and a close reading will provide the required knowledge about PROFINET. [info@profibus.com](mailto:info@profibus.com)

### TRAINING IS KEY TO COMPETENCE IN SAFETY SYSTEMS

PROFIBUS Germany, together with TÜV-Süd, is organizing a 3-day PROFIsafe Training Course for designer, developers, test engineers and safety assessors.

The course will take place July 13-15, 2009 in Karlsruhe/Germany and be held in English.

PROFIsafe products and systems are critically dependent on the know-how, quality and competence of the development teams and engineers involved. Only adequate training can assure these factors. That's why the responsible PI working groups, in cooperation with TÜV, have developed this training course.

The course includes written tests. Participants passing all tests will receive a TÜV certificate designated 'Certified PROFIsafe Designer'. Further information about the course and a registration form [here](#).

### THREE NEW PUBLICATIONS

Are you considering developing PROFINET-enabled products, but are not sure what's involved? That's what this new brochure is for. Learn how easy it is to integrate and use PROFINET by [downloading it here](#).



If you want to dig deeper into PROFINET, then our new System Description may be exactly what you need. It will help answer more detailed technical questions and pave the way to easier, faster PROFINET developments. [Download it here](#).



Finally, if you're unsure what PROFINET is all about and how it fits into the market, there's a brand new White Paper just published that puts everything

about the technology into perspective. Entitled 'PROFINET in Context' it delivers an easy-to-digest overview of PROFINET including the reasons why it is being so successful today. Also included are details of recent successful applications. [Download the White Paper](#).



### About PROFINEWS

PROFINEWS is published 6 times a year to promote PI technologies and member companies. As well as being emailed around the world, it's published on-line at [www.profinews.com](http://www.profinews.com).

Member companies can have their stories published free of charge here by emailing [profinews@profibus.com](mailto:profinews@profibus.com)

To be added to the circulation list, please email: [profinews@profibus.com](mailto:profinews@profibus.com)

## Member News

### 10 YEARS OF 'AUTOMATION IN SILICON'

profichip GmbH is celebrating its 10th year in business. profichip, located in Herzogenaurach, Germany, is proud of the role it has played in the success of PROFIBUS. One of its first steps was to develop an alternative to the PROFIBUS ASICs which were available then and deliver them in fixed silicon.

In the first year profichip launched its PROFIBUS Slave Controller

VPC3+, followed one year later by the Lean Slave Controller VPCLS. During 2009 profichip will introduce its fifth-generation VPC3+S.

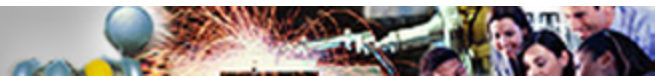
The company has remained 'independent and flexible', aiming to create technologically leading products. profichip's latest innovation is the first single chip PLC for Step7.

profichip looks forward to a positive future, says managing director and founder Wolfgang Seel, and confidently expects to remain a leader in 'automation in silicon'. **PROFICHIP**

### FREE SUPPORT UNTIL END OF JUNE!

One day of free support is being offered to device makers interested in PROFIdrive, PROFIsafe or PROFINET IRT. Czech company and PI Competence Center ANF DATA is making the offer. It has supplied support, implementation, integration and test services for PROFIdrive, PROFIsafe and PROFINET applications since 2004. The offer is valid until 30th June 2009; Contact **ANF DATA** or [profinet@anfdata.cz](mailto:profinet@anfdata.cz)





## Applications

### BRAZILIAN BIOENERGY PROJECTS FOCUS ON PROFIBUS

As a result of the big expansion in bioenergy projects - sugar and ethanol production combined with electrical energy co-generation and the creation of new sugar cane plantations - PROFIBUS is playing a big role in the automation of three new industrial plants in central Brazil.

Smar was selected as the supplier for being able to offer a complete automation and control solution for mega-projects like these.

All three units started up in time for the new sugar crop, totally

in automatic control mode, prioritizing ethanol production first and soon after that, the production of VHP (very high polarity) sugar.

It is worth mentioning that to attain this degree of success, a detailed planning process was undertaken in each case, including Factory Acceptance Tests (FAT) and Site Acceptance Tests (SAT).



These depended on the efforts of all the personnel involved, like operators, maintenance technicians, process team, supervisors and managers, together with the proven

#### CNAA Corporation Group



In March of last year, Santelisa Vale in association with a group of investors, established CNAA, a company responsible for new projects in Brazil. The company is made up of Santelisa Vale, Global Foods, Goldman Sachs, Discovery Capital and Carlyle/Riverstone. CNAA has since constructed two new production units - at Central Itumbiara de Bioenergia located in the state of Goias and Ituiutaba



Bioenergia, in the state of Minas Gerais. Eng. Éder José Biazi, instrumentation chief for Itumbiara said: "In spite of having little experience of digital nets, the tools provided by smar allowed us to start operations without problems, even though the instrumentation and control area was the last to be completed." Added Eng. Inácio Alves Pereira, Itumbiara Bioenergia industrial manager: "Start up was very smooth ... way beyond expectations!"



**Mega-project Team 2 at Itumbiara:** José Roberto Sponchiado, Smar Sales Manager; Inácio Pereira, Itumbiara Industria; Marcos Siqueira, Smar Sales Manager; Éder Biazi, Itumbiara Automation Supervisor

#### Tropical Bioenergia

This company, located in the Edéia municipality (GO), is a joint venture between the Santelisa Vale Group, the Maeda Group - one of the largest Brazilian cotton producers - and British Petroleum. In addition to meeting production and productivity goals, attention was focused on maintaining high safety standards, which, according to industrial manager, Eng. Ana Cristina, were adopted in accordance with British Petroleum procedures.



The control architecture uses PROFIBUS PA, PROFIBUS DP and AS-i and includes 15 operator stations (with multiple monitors and redundant servers), an engineering station and a maintenance workstation. Process control data can be exported via the web. "In spite of the normal adjustments at startup, the decision to use PROFIBUS brought large benefits to the automation team as well as to the operators, due to the excellent cooperation between smar and the Tropical technical teams," said Ms. Ana Cristina Balan Oliveira Roque, Tropical Bioenergia industrial manager.



**Mega-project team 1:** Fernando César Afonso, Production Assistant; Juliano Paiva, Automation Technician; Ana Cristina Balan Oliveira Roque, Industrial Manager; Marcos Túlio Campos Oliveira, Automation Technician; Milton Fernando de Oliveira, Production Assistant.

competence of the construction companies and the technical support of the Santelisa Vale corporate team.

Smar provided extensive support throughout the projects, from the specification and pre-definition of control loops to the design of control architectures and individual nets. For example, AS-i, PROFIBUS DP and PROFIBUS PA were used. The plants use a total of about 1,200 nets and more than 35,000 supervision points, across the three projects.

Now, Smar is considering the clients' needs regarding a second phase of investment and is already working on projects relating to the co-generation of electrical power.

Smar adds: "When bad news

prevails and pessimism is almost everywhere, the moment we visit these three fantastic projects, we recall William Ward's famous proverb: 'The pessimist complains about the wind, the optimist waits that it changes, the realist adjusts the sails.'" [brazil@profibus.com](mailto:brazil@profibus.com)

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success  
stories  
on-line  
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## Product News

### 2-PORT PROFINET INTERFACE HAS FAST START-UP

This new Anybus module is a 2-port PROFINET IO communications interface with integrated switch which can provide a plug-in PROFINET IO interface according to Conformance Class B. The new module permits PROFINET IO real-time communication with star, line or bus topologies without the need for expensive external switches. It incorporates advanced features such as network management (SNMP), topology recognition (LLDP) and 'fast start-up'. It also has an embedded web server and FTP server, an e-mail client and a full featured TCP/IP socket interface. The module fulfils the requirements of demanding applications such as from the AIDA group of automobile manufacturers, says its makers.



HMS INDUSTRIAL NETWORKS

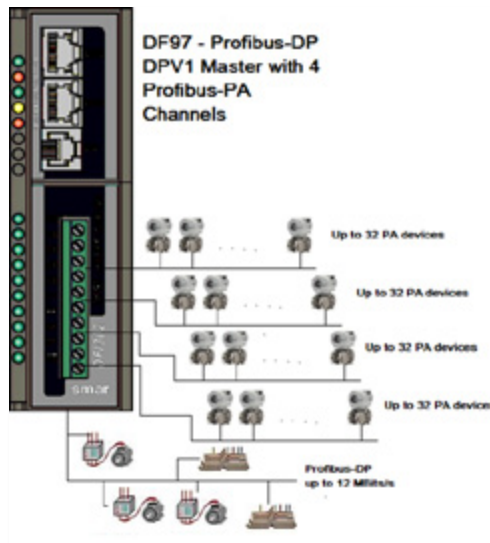
### PROFINET CONTROLLER PLATFORM

Phoenix Contact's robust and compact S-MAX 400 CE PN controller is a ready-to-run combination of PC platform, PLC runtime, and fieldbus master with PROFINET and Interbus support. In addition to its usual controller functions, it also implements all the tasks involved in communicating with distributed control and ERP systems. The package also has an integrated Web server for remote machine control, an FTP server for exchanging data, and TCP/IP or UDP components. The PLC and fieldbus functions can be programmed universally using PC Worx automation software. As a result of its high performance, it can be used universally across all sectors.



PHOENIX CONTACT

### MASTERS INTEGRATE PA COUPLERS



DP/PA couplers, reducing considerably hardware and installation costs in process automation. SMAR or [cesarcass@smar.com.br](mailto:cesarcass@smar.com.br)

Smar has launched two PROFIBUS DP V-1 masters incorporating PA couplers, for use in PROFIBUS DP and PROFIBUS PA applications. DF97 has 4 PROFIBUS PA channels and DF95 has 2 PROFIBUS PA channels. They eliminate the need for separate

### HYBRID PROFINET CABLING

HARTING has introduced a range of hybrid PROFINET cables which combine PROFINET data and 24V power distribution in a single cable. The cables are ideal for use with HARTING's PROFINET Han 3A RJ45 connector family. The new design significantly reduces on-site installation time. The data lines are configured in a star-quad configuration and support Category 5/100 MHz data communications. They offer an ideal solution for harsh industrial environments and are RoHS compliant and UL approved. HARTING has also produced a new PROFINET industrial cabling brochure providing in-depth information about PROFINET cabling strategies and systems. HARTING



### SCOPE AND DIAGNOSTICS INTEGRATED

Two Trebing & Himstedt solutions have been integrated to deliver commissioning,



troubleshooting and monitoring functionality from a single source. To achieve this, the PROFIBUS Scope diagnosis tool and the xEPI 2 diagnostic unit for web-based monitoring have been launched in new versions which seamlessly integrate. The new versions of the PROFIBUS Scope (4.1) and xEPI 2 (5.1) can be downloaded from TREBING & HIMSTEDT

### ETHERNET TOOLBOX

INAT NetSpector for PROFINET is a toolbox for analysing Industrial Ethernet networks. The Sniffer observes the network traffic, records data packages using filters and triggers, and decodes them. The toolbox consists of 3 components: the display unit (network viewer), the recording unit (echorecord) and echoTAP for recording telegrams via a USB port. It 'sees' and monitors all 7 protocol layers and is invisible to the network. It gives a simplified presentation of PROFINET information and offers browsing and detailed telegram analysis. Included in delivery is a USB stick containing all echoTAP drivers and the latest version of the NetSpector software. [info@inat.de](mailto:info@inat.de) or INAT



### RELIABLE TERMINATION

The T1 Terminator provides active and reliable termination for PROFIBUS networks based on RS 485. It makes it possible to turn off, remove and/or replace devices without disturbing the bus communication. The T1 has a redundant power supply and diagnostic LEDs to indicate the status of each power source. It is also equipped with a DB9 connector for use with ProfiTrace or other maintenance/engineering tools. The DB9 connector can also be used as the primary bus connection if circumstances dictate. The T1 Terminator can be installed on a standard DIN-rail. [PROCENTEC](http://procentec.com) or [info@procentec.com](mailto:info@procentec.com)



## Member News

### 1 MILLION



The Anybus family of interchangeable communication modules has shipped its one millionth module. Annual shipments are running at more than 200,000 says its makers HMS and the second million is expected to be passed "in significantly less time than the first".

The latest generation of Anybus products is powered by Anybus-NP30 technology, a single chip high performance network processor. "Anybus-NP30 shows our commitment to maintain HMS's position as a leading supplier of embedded industrial network technology," says CEO Staffan Dahlström. HMS



# PI World

## SOUTH EAST ASIA

PROFIBUS Association South East Asia hosts a free technology knowledge-sharing seminar named 'Meet The Experts' and has just completed seminars in Kuala Lumpur, Malaysia, Singapore, Bangkok, Thailand and Ho Chi Minh City



Vietnam. An 'overwhelming response' has been received with more than 200 participants overall. In the seminars, PROFIBUS experts shared the latest news about PROFIBUS and PROFINET, and discussed a wide range of applications in industries such as oil and gas, chemical and petrochemical, offshore and marine, food and beverage, power, water and more. The events are designed for automation professionals, system integrators and engineering contractors who want to learn more about PROFIBUS and meet up with PROFIBUS Experts. PROFIBUS is becoming more and more popular and around 75% of participants are interested in becoming members. Currently there are 83 members in South East Asia.

## JAPAN

Each year since 2006 the Japanese



PROFIBUS Organization (JPO) has held an event called 'PROFIBUS Day' and this year is no exception. 'PROFIBUS Day 2009' will take place in July in three cities - Tokyo, Osaka and Kita-kyushu, and JPO expects 210 people to attend. Sixteen JPO members and two other organizations (AS-i Japan and Keiso-kenkyukai) will support the event. JPO plans to show a wide range of presentations about PROFIBUS and PROFINET – from the development of devices through to engineering, application and future technologies. JPO will also show its multivendor demonstration systems covering PROFIBUS DP, PROFIBUS PA, PROFINET and AS-i.

## CHINA



During March and April the China Association for Mechatronics Technology & Application (CAMETA) and PI combined to hold the 2009 'China PROFIBUS & PROFINET Expert Days' in Guangzhou, Kunming and Nanjing. Mrs. Wang Jun, the Secretary General of CAMETA, hosted the events and Mr. Jörg Freitag, the Chairman of PI, attended in person. Working Group leaders from PI also attended, along with domestic and external experts. Since the success of the 'PROFIBUS and PROFINET Expert Days' in 2008, this year's event received a great deal of attention. The event included not only wonderful



presentations from the experts, but also table tops from supporting companies. Over 500 people from various industries participated and a lot of professional questions about PROFIBUS and PROFINET were answered. There's more about the Expert Days here.



## INDIA

The first one-day PROFIBUS Product Developer Training workshops took place in Pune, India on 13th and 14th March 2009. One workshop was conducted in the headquarters of Honeywell Automation for their development engineers and the second one was in Hotel Le Meridian for various aspiring PROFIBUS developers in India. Both events were organized by the UL Group based in Pune and presentations were given by Peter Fredehorst (Field Application Engineer), Lothar Schroettel (Sales

Director) from Profichip GmbH and Dileep Miskin who is head of the PROFIBUS centre at UL Group. Around 50 engineers in total were trained how to start a PROFIBUS Product Development. The main topics were the software and hardware structure of an integrated PROFIBUS interface, the differences between DP-V0, DP-V1 and DP-V2 protocols, PROFIBUS ASICs from Profichip, the RS485 physical interface design and PROFIBUS Tools. UL Group is setting up the first PI Competence Center in India.

## Member News

### PROFIBUS IN ASIA!

Endress+Hauser returned to Asia in May to conduct a Certified course for customers in Kuala Lumpur.

If you want to explain PROFIBUS to Chinese service engineers it helps to know what PROFIBUS has to do with the Chinese Emperor and his commanding generals! Understanding this helped Endress+Hauser give participants a firm grasp of how PROFIBUS cyclic and acyclic communication works.

Just as important is wiring. Wiring a segment, setting the correct terminations and using an oscilloscope and the latest troubleshooting tools to measure the DP and PA signals can go a long way to helping you spot



potential issues in the plant. After the basics had been covered, delegates also learned how important this can be to Life Cycle Management. They also appreciated the new PROFIBUS PA Profile 3.02, and E+H was able to demonstrate the automatic ident number adaptation with its new iTEMP TMT 84.

"In this way we created a lively learning atmosphere," says the company, "with theory in the mornings and encounters of the real kind in the afternoons."

**ENDRESS+HAUSER**

## PI World

## ITALY

PNI has elected a new board. Antonio Augelli (Industrial Communication Manager at Siemens) takes over the commitment of being President from Maurizio Ghizzoni, who held the post for the previous 14 years. Supporting Augelli in his new role, as vice presidents, are Raffaele Esposito (Phoenix Contact) and Alberto Sibono, (Molex-Woodhead Software & Electronics). A new committee has also been elected, including 5 new members - a strong signal of renewal. These are: Stefano Capello (Saia-Burgess), Franco Vigentini (Auma), Giovanni Riva (Pepperl&Fuchs Elcon), Roberto Gusulino (Endress&Hauser), Massimo Bassini (Gefran) and Marco Salviato (Biffi). The new committee is charged with increasing the integration of PROFIBUS and PROFINET technologies in the manufacturing and utilities sectors. Particular targets are process, marine engineering, motion control and building automation.

**2009 road-show:** The 'PROFIBUS and PROFINET Day' road shows are reaching 5 cities during 2009. More than 130 participants attended the first Conference in Brescia. Jörg Freitag, Chairman of PI, and Antonio Augelli opened the day by presenting the PNI organization and its technologies, including the latest PROFenergy concept. A lot of enthusiasm was expressed for the training of Prof. Paolo Ferrari (main teacher of electronics and automation at Brescia University) concerning the use of PROFIBUS and PROFINET. Six case histories were also presented. A small exhibition area, close to the Conference room, gave visitors the chance to get to know PROFIBUS and PROFINET. The road show moves to Potenza on September 30, Padova on October 19 and Ferrara on November 18. [antonella.galimberti@profi-bus.it](mailto:antonella.galimberti@profi-bus.it)



## UK

A two day exhibition of PROFIBUS and PROFINET products and technology was staged in Stratford on Avon during June alongside the annual PROFIBUS and PROFINET User Conference. The annual Conference included many presentations describing examples of user experiences, and there were review papers which set the global scene and showed the history and reasons for the growth in the adoption of fieldbus and Industrial Ethernet technology. A further event is expected next year. For information visit [www.profi-bus.co.uk](http://www.profi-bus.co.uk) or **+44 020 8144 9597** or [admin@uk.profibus.com](mailto:admin@uk.profibus.com).

## NORTH AMERICA

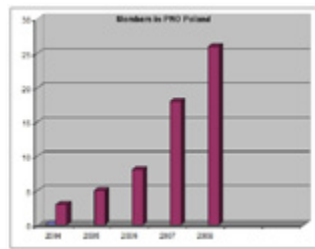
PTO's series of nationwide training sessions, courses and workshops is now in full swing for 2009. Attendances continue to break records, especially the PROFINET free one-day training sessions. Carl Henning, Deputy Director of the PTO, blogs extensively about these events and it's well worth following his PROFIBlog to keep up to date. As well as reporting what happens 'on the road', Carl includes snippets about the questions asked and the feedback he gets from delegates. He also covers key matters relating to automation in general and networks in particular, with copious links to other blogs and sources. [Read PROFIBlog here](#). Upcoming PTO webinars can be found [here](#). (PS: You can [Tweet with Carl](#) here!)

## GERMANY

A PROFINET Developer Workshop was held on June 18 in Würzburg, organized in collaboration with leading technology suppliers. Topics included PROFINET Conformance Classes as well as updates on PROFINET with IRT, Fast Start-up, TCI (Tool Calling Interface) and the iParamater Server. Speakers also reported their experiences of current implementations and answered questions and provided support to participants. Experts from the supplier companies were also available at a 'mini-fair' for further discussions. Participation was free. Further information about future Workshops from PI.

## POLAND

The Polish Regional PI Association PNO Poland celebrated 5 years of operations in May 2009. The headquarters of PNO Poland is in Gliwice, southern Poland, and the organization has been led from the beginning by Chairman Dariusz Germanek and vice-chairmen Piotr Ostrowski and Leszek Remiorz (pictured below). Originally there were less than 10 members but each year the number has increased and there are now 30 member companies including five universities and polytechnics.



PNO Poland publishes information about PROFIBUS and PROFINET, including translations of the most important materials into Polish. They also make these available [on the web here](#).



**Artur Szymiczek (PICC Poland (Intex), Dariusz Germanek (Chairman, PNO Poland) and Pietro Zappa (PICC Poland (Intex)).**

PNO Poland also helps end users and universities to undertake projects and applications. The local PICC (PI Competence Center) is also in Gliwice, at the company Intex. In July PNO Poland will host the international PI & PICC/PITC Meetings, with more than 70 participants expected from 20+ countries. Topics will include international marketing strategies and the exchange of marketing and technical information. The position of PROFIBUS and PROFINET in the Polish market is expected to improve further in coming years and the aim is to always be one step ahead. "Thanks a lot", to everybody who helped us during these 5 years", says PNO Poland Chairman Dariusz Germanek.

## PI Network

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