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## PRESS TOUR DECLARES PROFIBUS 'THE WINNER'; PREPARES FOR NEXT NETWORKING PHASE



A major PROFIBUS International Press Tour of four continents is underway, with two key objectives. The first is to put into perspective the current fieldbus market situation, and the second is to set the scene for the next big stage in networking - the arrival of Industrial Ethernet in the shape of PROFINET, the only Industrial Ethernet solution that can embrace ALL other fieldbuses to provide a common solution for end users. Led by PROFIBUS International Chairman Edgar Kuester and Deputy Chairman Mike Bryant of the North American PROFIBUS Trade Organisation the Press Tour has already visited Germany, North America and UK. Next steps are planned for other parts of the world, including South Africa, China and Japan. The overall message is clear: PROFIBUS now dominates the fieldbus market and with the help of new ally Interbus, is in a strong position to repeat this achievement. This issue of PROFInews explains more.

## 10,000,000 DEVICES PROVE PROFIBUS IS No. 1!



The key announcement has been that the total number of PROFIBUS nodes installed worldwide passed the 10 Million mark at the end of 2003, making PROFIBUS the world's most popular fieldbus by far. According to published sources PROFIBUS is substantially ahead of Interbus, and appears to have more than 3 times the market share of any other fieldbus. PROFIBUS International (PI) estimates that this total will double to 20 million by 2008.

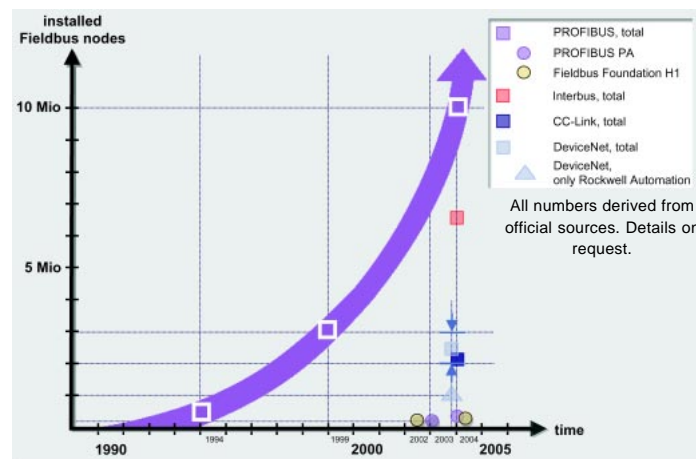
Said Kuester during the USA tour: "this means that PROFIBUS members will sell as many devices in the next 4 years as they have in the past 12 years! With development costs mostly behind them our members may now pick the low-hanging fruits."

Nevertheless, said Kuester, nothing stands still in technology. With PROFIBUS markets expected to slow after the end of the decade, PI is already looking at the next big step for members and end users ... Industrial Ethernet. PROFINET, PI's unique

Ethernet-based automation solution, started to come on stream at Hannover Fair/Interkama. (See above.)

Initially, PROFINET will be used in high end applications. Also, 10M installed PROFIBUS devices means that the majority of automation users with their huge investment in PROFIBUS - training, staff, inventories, software, hardware and of course installations - have no need to change especially as PROFIBUS prices have fallen.

PROFINET will slowly take over from PROFIBUS in new installations particularly where IT connectivity is important. However, added Kuester, uptake will be faster than in the early days of fieldbus because today everyone understands the benefits. "By the next decade I expect PROFINET to be overtaking PROFIBUS in numbers of devices in use. After that I believe the sky is the limit. Our huge installed base, plus that of our ally Interbus, is sure to be a big determining factor."



PI NEWS

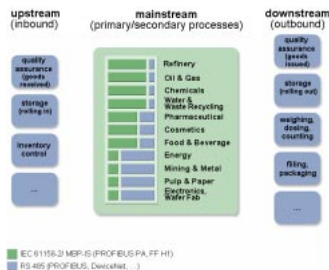
## No. 1 IN PROCESS TOO ... WITH MORE THAN 1.3 MILLION DEVICES

**PI Press Tour** The market numbers presented during the Press Tour (see Page 1) also highlight how PROFIBUS dominates the process sector. The total number of PROFIBUS devices in the process industries is conservatively estimated at 1.3M.

PROFIBUS PA, with its 'power on the bus' and IS capability, appears to be running neck and

neck with its major competitor in mainstream process applications. However, PROFIBUS wins out overall because most plants are 'hybrid' i.e. they have factory automation functions upstream and downstream of the main process line - and it's here that PROFIBUS DP becomes important. PROFIBUS is the only fieldbus with compatible protocols for process *and* factory sectors so it can be a primary option in almost all process applications. Even PROFIBUS's major competitor has to use another fieldbus upstream and downstream ... and PROFIBUS DP is often first choice!

In fact, mainstream processes account for a surprisingly small part of the total fieldbus market - about 5 - 7%, or roughly 630,000 field devices. PROFIBUS PA holds just over 50% of this total.



All process plants need fieldbus support both sides of the mainstream process, though the proportions vary. PROFIBUS DP is ideal for the purpose as it is compatible with PROFIBUS PA, which helps make PROFIBUS the most popular fieldbus in 'process', with an estimated 1.3M devices installed.

## REAL-TIME ETHERNET WORKING GROUP FOR JAPAN

**PI Press Tour** The Japanese PROFIBUS Organization (JPO) has announced that a PROFINET Working Group has been set up "to investigate the possibility of using Ethernet as a Factory Network", and "to exchange the information on real-time Ethernet between Europe and Japan".

The main goal is to consider the requirements of the Japanese market with regards to PROFINET. Over the last 3 years JPO has introduced PROFINET into the Japanese market by means of seminars and demonstrations. In 2003 JPO held PROFINET demonstrations at several exhibitions and at a real-time seminar in July.

The working group includes HMS, M-System Co., OMRON Corporation, Siemens K.K., Toshiba Corporation, Hilscher GmbH, Fuji Electric Advanced Technology Co., Ltd., Yaskawa Siemens Automation & Drives Corp., and Yokogawa Electric Corporation. They will spend 2 years investigating industrial real-time Ethernet based on PROFINET and will have permanent contact with other PROFINET working groups in Europe. JPO chairman Mr. Shinichi Motoyoshi believes that "the strong membership of the working group will lead to new trends being set in industrial real-time Ethernet, and help make them a reality".

## PROFINET 'TSUNAMI' BEGINS TO ROLL AT HANNOVER FAIR



The PROFIBUS booth at Hannover/Interkama Fair showed the usual vast range of products and vendors supporting the PROFIBUS protocol - there are now 2400 products and nearly 300 vendors in all. The close co-operation on PROFINET between PROFIBUS and Interbus (on the adjacent booth) was highlighted by the joint hospitality area and a 'bridge', (see right), showing graphically the new relationship brought about by the commitment of both sides to support PROFINET. The 'bridge' linked both booths and also displayed PROFINET products. There are now 30 in all, including four PROFINET IO modules.

Elsewhere PROFIBUS and Interbus collaborated in an

Industrial Forum called 'The Future of Automation' (see picture above) where presentations were given throughout the week on the benefits of PROFINET as a new automation solution rather than just a new communications technology.



Juggler Stephan Ehlers entertained the crowds in front of the PROFINET 'bridge', using three colored balls and a fast commentary to emphasize the new relationships being forged in the world of automation.

## INTERBUS/PROFINET WORKING GROUP

**PI Press Tour** PROFIBUS International has set up a new working group called "Integration of INTERBUS", to facilitate the integration of INTERBUS into PROFINET. The group is preparing a specification that will adapt the PROFINET 'proxy' concept and define the required engineering. A draft specification is expected by end of September 2004. The working group consists of specialists from PROFIBUS International and the INTERBUS Club. The Chairman is Dr. Jürgen Jasparneite of Phoenix Contact. With respectively 10 million and 6.5 million nodes PROFIBUS and INTERBUS have the highest installed basis of all fieldbus solutions. Markets experts are expecting PROFINET to be the market leader for Ethernet-based automation systems.

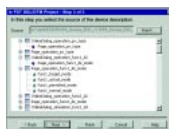


## ▶ PRODUCT GALLERY

### DTMs FROM EDDs

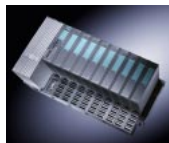
is **DTMcreator EDD** uses Electronic Device Description (EDD) files for the automatic generation of DTMs. Supported fieldbus systems are PROFIBUS (DP/V1 and PA) and HART.

is **DTMcreator EDD** opens a direct path into the FDT world and protects existing investments. Code generation uses VisualC++. The EDD is translated into a C++ source project for a DTM which is then compiled into a DLL. The whole generation process is done in about half an hour and the functionality and GUI can be extended. **ifak: +49 391 54 45 63 60**



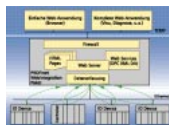
### ET200 GOES PROFINET

Industrial Ethernet can be brought right down to the field level in familiar style using the new ET200S which has a PROFINET interface. The ET 200S frequency converter can, of course, also be integrated. A plug-in Micro Memory Card supports replacement during servicing without the need for any special tools. Also new, but using conventional PROFIBUS, is the ET200iSP, for operation in Zones 1 and 21 areas. Up to 256 digital or 128 analog signals can be connected. Also features redundancy of comms and power supply, a counter function, connection of valves and problem-free interfacing to HART devices. **Siemens: +49 911 895 4839**



### PROFINET WEB INTEGRATION

Softing's new PROFINET WebIntegration package provides access to process, device and plant information from various visualization, diagnostic, monitoring and asset management applications. Data are acquired using PROFINET and applications access the information via HTML or OPC XML DA. The PROFINET WebIntegration package allows simple browser-based solutions and the integration of powerful visualizations. It also features a firewall and scaled security concept, plus data access security. According to Softing, the use of field-proven hardware and Linux enable highly cost-effective solutions. Softing is also extending the OS support for its PROFIBUS PC interfaces. Besides Windows, drivers are now also available for Linux Venturcom RTX - free of charge! **Softing: +49 089 45656 340 or info.automation@softing.com**



### MONITOR HAS OPC INTERFACE

The new IT-Monitor from itm allows direct recording of both PROFIBUS DP and PA segments, an important feature especially for monitoring redundant systems. An OPC interface provides an uncomplicated way of remotely accessing analysis results and process values. The user interface permits easy recording of telegrams, filtering and decoding of different protocol levels (FDL, FMS, DP-V2), and the detection of errors. These make the IT-Monitor an indispensable tool for commissioning, predictive maintenance and diagnostics, as well as for product development. **itm: peter@itm.tum.de**



### FIBER INTERFACE

A PROFIBUS interface has been introduced by Weed Instrument. The new 2C22 module complies with PROFIBUS DP and supports signals that use the Weed EOTec 2000 optical systems. Rail mountable and compact, they can easily be combined for point to point, daisy chain, star and self-healing network topologies. Integrated BUS connections allow inter-module connection of data and power. **Weed: +1 512 434 2850 or fiberop@weedinstrument.com**



### NETWORK ANALYZER ON USB

PROFIBUS Center Netherlands has introduced a Network Analyzer which it claims is the most powerful and high-speed available. It is based on USB and is the latest in a line of busmonitor products. It incorporates advanced algorithms and has a smart link between protocol- and electrical measurements. An analyzer is an essential tool for maintenance, commissioning, troubleshooting as well as product development. **PROFIBUS Center Netherlands: +31 174 671800 or info@profibuscenter.nl or www.profibuscenter.nl**



## ▶ APPLICATIONS

### UK/ SPECIALITY CHEMICALS

Burkert Fluid Control Systems has supplied PROFIBUS valves for a new batching system at Rockwood Electronic Materials, Ultra Pure Chemicals' plant at Riddings in Derbyshire.



Following a strategic business decision, a new automated mixtures production plant was commissioned recently, featuring algorithm-controlled processing to enable the fast and accurate introduction of etchants and cleaners for the semiconductor industry. A Wonderware In-Batch system was used as this allowed simple integration with the existing Protean system and variable fill rate elements operate via a series of Burkert PROFIBUS DP process valves, comprising Burkert 2712 stainless steel globe valves, 2731 stainless steel diaphragm valves and 2730 PVDF diaphragm valves. The process produces some 300 different chemical mixtures. Bulk raw materials are delivered to environmentally controlled holding tanks. Andrew Hutchison, Facilities Manager, said: "Integrity of cleanliness in the handling of sometimes aggressive chemicals was a criterion in selection of these control valves. We selected Burkert process valves because of their robust construction and their integrated PROFIBUS DP control heads which are easily incorporated into our control system." **Bürkert Fluid Control Systems: +44 1453 733020 or marketing.uk@burkert.com**

## IN OUR NEXT ISSUE:

More details of the ongoing International Press Tour, plus further updates on PROFINET as the 'tsunami' gathers pace. Expect to see news of the revolutionary ERTEC 400 4-port ASIC switch, which begins testing soon and see latest PROFINET IO products as they begin to reach the market. PLUS all the usual news about latest PROFIBUS products and specifications, also Regional PROFIBUS Associations.

## » AROUND THE WORLD

### KOREA

The Korean PROFIBUS Association is organizing an English-speaking Development Seminar in co-operation with the



PROFIBUS Center Netherlands. The date is 6-8 July and the venue is Seoul. The seminar is intended for companies who want to develop PROFIBUS DP/PA products. ASICs, software, schematics, GSD files and

certification will be explained. More information can be obtained from [kpa@profibus.co.kr](mailto:kpa@profibus.co.kr) or [chays@profibus.co.kr](mailto:chays@profibus.co.kr). The Korean seminar is also featured on the Netherlands' web site, at [www.profibuscenter.nl/ppd](http://www.profibuscenter.nl/ppd)

### DENMARK & NORWAY

The Danish and Norwegian Regional PROFIBUS Associations are all at sea! They are planning a joint 'PROFIcruise' in June. Danish participants will embark ferry ship MS Crown in Copenhagen on June

15th and have a national seminar during the sailing to Oslo. Next morning they join with Norwegian participants to visit a PROFIBUS-equipped paper plant. During the afternoon of June 16th there will be an international PROFIBUS seminar on-board MS Crown and a dinner during the evening as it sails back to Copenhagen. On June 17th, Norwegian participants are invited to visit the Carlsberg brewery to see PROFIBUS in action again. Finally, a national seminar will be held by the Norwegians on their return journey to Oslo.

### JAPAN

Hitachi has joined the Japanese PROFIBUS Organization (JPO) bringing the number of members to 70. Welcome to Hitachi. JPO started in 1997 with 11 members and is now one of the largest fieldbus organizations in Japan. The number of the distribution list of JPO mail news has also grown. JPO started its mail news in Japanese three years ago. Now the distribution number exceeds 1000, sending the latest (hot) PROFIBUS News in local language ASAP. To join the list please contact [info@profibus.jp](mailto:info@profibus.jp)

attendees. Full details can be found on the web at [www.profibus.co.uk](http://www.profibus.co.uk). Or call the special conference number at +44 870 141 7378. A special web page has been set up at [www.profibus.enetplus.co.uk/Index.asp?PageID=24](http://www.profibus.enetplus.co.uk/Index.asp?PageID=24), where you can download a pdf about the Conference.

### USA

PROFIBUS Trade Organisation is ten years old this year! Chairman Mike Bryant said that at the beginning he did not know what to expect, with colleagues telling him that "this European protocol ain't

going nowhere!" Nearly 1,000,000 PROFIBUS field devices are now installed in North America - roughly on a par with the biggest indigenous supplier - and over 130 companies are now members. The future with PROFINET looks equally buoyant, says Mike. A celebratory party is to be held in Phoenix in August at the time of the annual General Assembly meeting. Editors from major magazines are expected to attend and a special press briefing on the emergence of the ERTEC 400 ASIC will be held. Editorial 'time slots' may also be made available for members during the meeting. Contact Mike Bryant.

### UK



PROFIBUS UK is deep into the run up to their PROFIBUS Conference at Ragley Hall in June. A strong set of Papers have been agreed and the exhibition is being supported by 10 companies. An open meeting of PROFIBUS Competence Centres is planned, and various delegate and hospitality options are available to

## CHAIRMEN'S' MEETING GREET'S NEW POLISH ASSOCIATION

A new Regional PROFIBUS Association has been founded in Poland. Based in Silesia in the southern part of Poland the new association intends to capitalize on the growth in automation now taking place in the country. Piotr Ostrowski (left) and Dariusz Germanek (right) attended the Chairmen's Meeting at Hannover Fair to explain their plans and meet other RPA Chairmen. The meeting also heard about the International Press Tour being undertaken by PI Chairman Edgar Kuester and Mike Bryant of the PROFIBUS Trade Organization. (See Page 1)



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