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The advanced Industrial Ethernet solution for  
automation, motion control and IT integration

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The official email newsletter of the PROFIBUS Trade Organization

Issue 5 Nov 2005

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**DID YOU KNOW?**

[www.profibus.com](http://www.profibus.com)  
includes over 10,000 pages of PROFIBUS and PROFINET information. The site is being re-launched on November 22nd. Don't miss it!

By coincidence, the North American web site is being re-launched shortly too. Keep up to date by [monitoring here](#)

Free seminars conclude successfully in 2005; free training courses planned for 2006. Watch [this website](#) for cities and dates.



**>>> MORE INFO**

[All Events](#)

[Monitor PROFINET venues](#)

[Monitor PROFINET IO classes](#)

**FREE TRAINING COURSES PLANNED FOR 2006:** The current free seminar series throughout North America draws to a close with a final PROFIBUS DP seminar in Salt Lake City on November 29. This year's programs were a huge success attracting thousands of attendees in 29 cities. Now, the 2006 schedule is being planned with a different syle of event envisaged. Since PROFIBUS's main competition comes not from other fieldbuses but from non-fieldbus users, the 2006 courses will include more basic information for newcomers, with unbiased inclusion of other fieldbuses and how they compare with PROFIBUS. Like in 2005, a special [North American training course page](#) has been created and will be updated regularly during the year.

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**ARC STUDY CONFIRMS REAL FIELD BUS PRIORITIES:** A new process industry end user fieldbus study from Boston-based market analysts ARC is set to reveal fresh insights into long established 'fieldbus' beliefs. The study reveals that the most desirable feature of a fieldbus is the closely-coupled nature of process and discrete automation. Guess what? That is what PROFIBUS has been saying for years, in the face of entrenched alternative thinking.

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The new survey compared today's beliefs with a similar survey carried out in 2003. Then, the fieldbus 'vision' for most process users was still in its infancy. With more experience behind them, process users now feel that simple and close integration of mainstream processes with upstream and downstream segments is their biggest need.

227 questionnaires were returned. Only answers from end users, system integrators and OEMs were considered. In contrast to the last survey, where the results were very much shaped by North America, just under 40% came from the USA, with contributions from Latin America up from 2 to 8%. Europe accounted for 34%. The chemicals industry had the largest participation rate at 17% followed by the food & beverages industry, oil and gas industry, pharmaceuticals industry and pulp & paper industry and power generation. The cross-section from the process industry was therefore much more representative this time.

In 2003, only a very small share of the participants would have confidently used field bus systems for "Mission Critical Applications". The latest results reveal, however, that the acceptance level in the process industry has already risen to 27%. A convincing 61% aim to use new field bus systems for new installations. Some 26% plan to do so within the next three years and only 9% have not yet drawn up any plans yet.

With an approval rate of 88%, the greatest significance worldwide is attached to "Integration of Process Field Bus Networks and Device Networks" a major plus for PROFIBUS. "Improved Instrument Maintenance" and "Device Interoperability" are also high on the preference list. PTO Deputy Director Carl Henning said: "The PTO attaches great value to the latter for it is the only way that the field devices of the member companies can be inter-exchanged without encountering problems". Surprisingly, 'Control in the Field' is way down the list of preferred features. Most PROFIBUS users benefit from the diversity of "multi-vendor plants". Propounding the benefits of the PROFIBUS system, Henning added: "PROFIBUS is the only system that provides users with the possibility of selecting from the best DCS systems, system suppliers and field devices, with subsequent problem-free integration in one system. A truly excellent result".

The full survey is expected to be published shortly.

**I&M AND PAM MAKE GREAT PARTNERS:** I&M Functions represent a quantum leap towards industry- and manufacturer-independent identification of PROFIBUS devices. The Identification&Maintenance functions (I&M) are an important component for integrating PROFIBUS devices into asset management solutions. They represent a uniform basis for recognizing PROFIBUS devices and make easier and, above all, open, device integration possible. In addition to unique device identification, I&M contains a concept for accessing device-related online information via the Internet. All such information needed in the current phase of the device life cycle can be provided in real-time. The usefulness of I&M lies in that the Web URL is determined by an I&M-compatible tool, making it possible to efficiently access information without complex manual Internet searches. I&M functions must be implemented in all slave devices with MS1/MS2 channel for which a new ID number is assigned. This is checked during certification of all slave devices submitted for testing after October 1, 2005.

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**NEW PROFIsafe and PROFIdrive Specs:** PROFIsafe v2 and PROFIdrive v4 specifications have been formally adopted for PROFIBUS and PROFINET. It means that both specs are applicable across both technologies, increasing their common functionality and making development use and maintenance much easier.

[>>> MORE INFO](#)

With the functional extension of the PROFIsafe safety technology from PROFIBUS to PROFINET, PROFIsafe is the very first safety technology to merge standard automation and safety automation into one platform, running on different communication systems, using the same communication mechanisms, and thus providing the highest productivity to the end user.

"The extension of this technology means that PROFINET users will have access to the full functionality of PROFIsafe, which is proven in about 15 000 safety applications based on PROFIBUS" said Carl Henning, Director of PROFINET Marketing. "This will undoubtedly bring a new level of productivity to systems integrating standard and safety automation technologies." The announcement is particularly important to the automotive industry, where integrating safety and general automation functions within an Industrial Ethernet environment is crucial.

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PROFIsafe has with more than 100,000 nodes installed in PROFIBUS applications, operating in about 15,000 installations including both process plants and automated factories. An engineer at an automotive plant described his PROFIsafe installation: "The system was started up and we just forgot about it because it was working so well. We did not experience any problems. Although we have to get used to the new philosophy, safety is actually integrated into this system."

The safety measures are encapsulated in the communications protocols. By fully integrating safety and control in a process automation system, users can significantly reduce the risk of loss in injuries, production, equipment, resources, and profit. Integrated systems carry continuous self-testing and diagnostics for correct operations, and adjust the process to a safe status in the event of a hazardous situation. Mr. Henning concluded: "PROFINET now with PROFIsafe functionality covers all areas and aspects of automation from the field level to the MES interface, from standard control level to high-end motion control, as

well as the integration of safety and security. The industry will benefit greatly from this widely supported standard."

**AROUND THE WORLD:** PTO is just one of 25 Regional PROFIBUS Associations. The others are just as active as we are. In the **Netherlands** for example a service team from the Finnish company KCI Konecranes has been trained on-site by the PROFIBUS Center on fault finding bus systems. In **Japan** the Japanese PROFIBUS Organization (JPO) reports intensive ongoing activities with seminars, workshops and developers classes. Recent document translations include 'The Rapid Way to PROFINET', the new PROFINET Catalog, the ARC Insight 'AIDA Activity' and the ARC White Paper 'The Value Proposition of PROFIBUS in the Process Industries.' JPO summarises activities as follows: "The market share of PROFIBUS is increasing in Japan and will accelerate. For vendors, the development and production costs of PROFINET are key; for users, it is how to merge the network with IT". In **Thailand**, 'Getting the Message Through' was the theme for the RPA Thailand booth at the IMAC 2005 fair, held in Bangkok. A survey taken at the fair showed how important the process industry is. It also confirmed that PROFIBUS is the most popular fieldbus in Thailand. Back in Europe, PROFIBUS **Switzerland** held its first PROFINET IO training course in August. The first Swiss Industrial Networks



Day takes place on November 15th. In **France** meanwhile, the French PROFIBUS Competence Center held a PROFINET developers course in October in conjunction with Agilicom. In **UK** November 2nd saw a seminar called 'Solving Process Problems with PROFIBUS' being held. Manfred Popp, author of 'The Rapid Way to PROFINET' is visiting UK soon to discuss PROFINET.

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**ISA EXPO FEATURED PROFINET WALL:** A PROFINET Wall, highlighting PROFINET connectivity for Interbus, DeviceNet, AS-Interface and PROFIBUS was the main feature of the PTO Booth.

2005 PTO ISA booth participants included: [ASCO Valve](#), [Automation Direct](#), [Eaton Electrical](#), [Endress + Hauser](#), [Grid Connect](#), [Hilscher](#), [HMS](#), [MESCO Engineering](#), [Moore Industries](#), [Network Vision](#), [ProSoft Technology](#), [Real Time Automation](#), [Siemens](#), [Softing](#), [Turck](#) and [WAGO](#).

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**PROFINET MAKES WASHING MACHINES:** Electrolux in Italy has become one of the first White Goods manufacturers to deploy PROFINET. Its new factory in Porcia was built using Component Based Automation offered by PROFINET.

>>> **MORE INFO**

[Download Washing Machine story here](#)

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**THE PROFINET WORLD EXPANDS:** The ISA EXPO saw the publication of an updated PROFINET flyer showing that there are now 115 certified products from 28 suppliers.

>>> **MORE INFO**

[Download PROFINET flyer here](#)

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**GUIDE TO TROUBLESHOOTING PROFIBUS:** James Powell has written a concise guide to help engineers troubleshoot PROFIBUS PA networks.

>>> **MORE INFO**

[Download troubleshooting guide here](#)

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## NEW PRODUCTS x SIX!

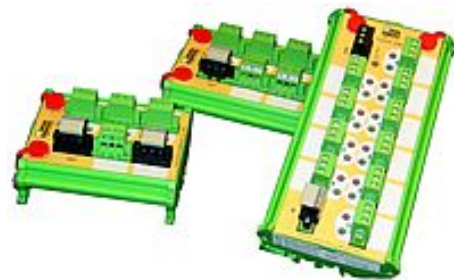
**National Semiconductor** has introduced the DP83848 PHYTER family of application-specific 10/100 physical layer Ethernet transceivers. The PHYTER family is the first to address the expansive, unique needs of embedded design engineers who are developing products that require network connectivity. National also provides the PHYTER Ethernet integrity software utility that provides unmatched access for system support, debug and system design work.



>>> **MORE INFO**

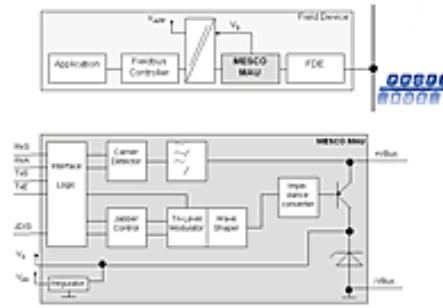
[National Semiconductor](#)  
or  
(800) 272-9959

**Moore Industries International** has acquired the Hawke International line of PROFIBUS PA device couplers and fieldbus power supplies. Marketed under the banner Moore-Hawke, these include TRUNKGUARD, the first coupler to provide fully automatic segment termination. MooreHawke also offers ROUTE-MASTER I.S. Power Supplies, which provide up to 350mA per segment in hazardous locations.



[MooreHawke](#)  
or  
+1 818 894 7111  
or  
[visit here](#)

**Mesco** has launched a discrete functional replacement for the discontinued SIM1 and uSAA22Q ASICs. This provides a Medium Attachment Unit (MAU) allowing for the implementation of the IEC 61158 physical layer. The design ensures complete independence from ASIC suppliers.



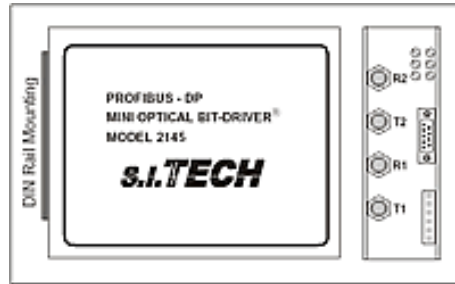
[Mesco](http://www.mesco-systems.com)  
 or  
 +49 07621 89031 0  
 or  
[info@mesco-systems.com](mailto:info@mesco-systems.com)

**RDE Connectors and Cables** has a new circular feed-through system which makes interfacing and data acquisition from control and communication panels a snap! It's IP68 rated, will meet/exceed the NEMA rating on most panels and is available at a "very attractive" price, say its makers.



[RDE Connectors & Cables](http://www.rdeconnectors.com)  
 or  
 +1 954 746 6400

**S I Tech** has introduced the Fiber Optic Bit Driver, a two optic port repeater designed for interfacing PROFIBUS with fiber cable, for long distance transmissions or EMI sensitive applications and redundancy. It can be used with plastic, Multimode and Singlemode fiber and mounts on a DIN rail.



S.I.Tech: +1 630 761 3640  
 or  
[sales@sitech-bitdriver.com](mailto:sales@sitech-bitdriver.com)

**Woodhead Industries** has released a new intelligent gateway for Profibus to Ethernet/Serial networks. The GATEway is more than a standard tunneling gateway. It is the first solution that allows connecting devices with a choice of more than 20 different industrial protocols - Profibus, Ethernet, and Serial - using a single hardware platform. The GATEway interoperates as follows: " Multi Profibus n Multi Profibus (same and different protocols) " Multi Profibus n Multi-Ethernet TCP/IP " Multi Profibus n Mono Serial " Multi-Ethernet TCP/IP n Multi-Ethernet TCP/IP (same and different protocols).



[Woodhead Industries](http://www.woodhead.com)



Published by PTO  
 16101 N. 82nd Street, Suite 3B  
 Scottsdale, AZ 85260

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[feedback@profinews.us](mailto:feedback@profinews.us)

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