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## DEBUNKING THE MYTHS



Barely into March and we are already thinking of presenting the 2008 Golden Polly Award to Rich Timoney of the Fieldbus FOUNDATION no less, who has published a [comparison document](#) identifying the alleged 'weaknesses' of PROFIBUS compared to FOUNDATION Fieldbus. It is full of classic parrot marketing, most of which we have debunked before - like 'PROFIBUS doesn't use Function Blocks!' So, let's put the record straight ... with no holds barred!

**Myth 1: PROFIBUS now consists of three separate protocols grouped under the common umbrella name of PROFIBUS. These protocols are PROFIBUS-FMS, PROFIBUS-DP and PROFIBUS-PA**

**Response 1:** No Rich, it's one protocol - PROFIBUS - which, unlike FF, is optimized for all kinds of instrumentation needs in both factory and process automation. PROFIBUS PA devices use the same protocol as DP. However, because of the 'Manchester Encoded, Power on the Bus' technology needed for hazardous areas, the PA Physical Layer (that's the cable to you and me) needs to be changed - hence the 'coupler' device that's involved. Being just a physical device it's not a 'gateway' either! FMS, by the way, faded into disuse 10 years ago.

The great advantage of the PROFIBUS method is that discrete-like processes (drives, motors, valves) AND process instruments like transmitters can exist on the same network, and be run from the same controller if needed. We call these 'hybrid' networks, and a very high percentage of process plants exhibit this requirement. FF has no solution, which is why PROFIBUS is so dominant in process (see below).

**Myth 2: The largest percentage of applications is PROFIBUS-DP, and a very small percentage of the**

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total is PROFIBUS-PA.

**Response 2:** Er, yes! But, FF and PA were running roughly neck and neck in process last time we looked - at about 600,000+ each - although when you add the 'hybrid' PROFIBUS devices described above it comes to about 4,000,000 for PROFIBUS. There are roughly 24,000,000 PROFIBUS devices out there in total - more than **all** the competition - including FF's contribution - added together! Oh, and don't forget that many process instruments use PROFIBUS DP, so the number out there with PROFIBUS definitely exceeds the number with FF!

**Myth 3:** In addition, there are a number of totally proprietary protocols that are called PROFIBUS.

**Response 3:** Utter nonsense, bilge and dirty dishwasher. It's also wrong!

[For more about Function Blocks](#)

[For more de-bunking of FF's myths about PROFIBUS](#)

[For even more de-bunking of FF's myths about PROFIBUS](#)

**GENERAL NEWS**

**ONE DAY TRAINING EVENTS:** The PTO and PROFI Interface Center are holding one-day training classes throughout North America for the sixth consecutive year. There are [24 cities in the initial schedule](#). Classes center on PROFIBUS, PROFIBUS in the process industry, and PROFINET. Attendees of each class receive a certificate for 5.5 Professional Development Hours (PDH). The PTO raffles a week-long Certified Network Engineer Class (a \$2695 value) at each PROFINET event! The table below summarizes upcoming classes.

UPCOMING VENUES		
PROFIBUS	Process	PROFINET
<a href="#">Las Vegas, NV</a> Mar 20th	<a href="#">Houston, TX</a> Mar 18th	<a href="#">Portland, OR</a> Mar 11th <b>DEV WORKSHOP</b> Mar 12th <a href="#">Montreal, QC</a> Mar 25th <a href="#">Toronto, ON</a> Mar 27th
<a href="#">Milwaukee, WI</a> Apr 22nd	<a href="#">Boston, MA</a> Apr 17th <a href="#">Ft. McMurray, AB</a> Apr 29th	<a href="#">Cleveland, OH</a> Apr 2nd <b>DEV WORKSHOP</b> Apr 3rd
<a href="#">Richmond, VA</a> May 13th	<a href="#">Calgary, AB</a> May 1st <a href="#">Anchorage, AK</a> May 29th	<a href="#">Raleigh, NC</a> May 15th

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**PROFINET DEVELOPER WORKSHOPS:** In conjunction with the PROFINET training mentioned above, PTO is sponsoring a series of PROFINET Developer Workshops at no charge. Targeted at developers and marketers of control devices each **free** half-day workshop provides an explanation of the PROFINET development tools available. This workshop is conducted on the morning following the full-day introductions to PROFINET in Portland AND Cleveland, and prior attendance of one of those classes is mandatory. [Please see the above table.](#)

**Topics covered:** Following a brief overview of tool types, eight development tools are introduced. Development tool providers Altera Corporation, Grid Connect, Inc., Hilscher North America, Inc., HMS Industrial Networks, Inc., Siemens Energy & Automation, Real Time Automation, Softing North America and Molex are available for consultation. Each has a unique approach; the workshop will help determine which ones suit your needs.

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**NEW USA TRAINING CENTER:** RC Systems, in Johnson City, Tennessee, has been accredited as a PI Training Center for PROFIBUS DP and PA. RC Systems is owned by Ron Mitchell (right), whom many readers may know. Ron recently retired after twenty-four years with Texas Instruments and Siemens. For his last ten years with Siemens he was a member of the PROFIBUS Interface Center (PIC) in Johnson City, actively involved in PROFIBUS promotion and support. Working in conjunction with the PTO, he has given dozens of PROFIBUS seminars. Ron was one of the original developers of the PROFIBUS Certified Engineer Class, which is now offered around the world, and he taught this class for the PIC for six years. He is also the author of the ISA book 'PROFIBUS: A Pocket Guide'. [RC Systems](#) offers:



- Product development advice
- Network architecture design
- On-site certification training
- On-site maintenance & troubleshooting training
- Network analysis and troubleshooting

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**NEW CHILEAN TRAINING CENTER:** [RP Ingenieria](#), located in Concepción City, in the south of Chile, has become an accredited PI Training Center. RP was founded in 2002 by Rodrigo Pinto Cárdenas, who 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 give the Certified PROFIBUS Installer and the Certified PROFIBUS Network Engineer course in Spanish."*

RP has a multi-vendor PROFIBUS demo with equipment from Siemens, Beckhoff, Acromag, Telemecanique and Procentec. There's capacity for up to 10 persons on site. RP's PROFIBUS offer includes:

- Scheduled training
- Onsite training
- Network architecture design (multi-vendor)
- Network Troubleshooting and Analysis (multi-vendor)
- Network components (cable, repeaters)
- Network Analysis Tools (Profitrace II)

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**PROFIdrive STANDARDIZED:** The PROFIdrive profile for PROFIBUS and PROFINET is now an international standard. IEC 61800-7 defines device profiles for electric variable speed drive systems and their mapping on existing communication systems by applying a generic drive interface. The PROFIdrive profile can be used on both PROFIBUS and PROFINET, with many common features making engineering and operations easier. The separation of application and communication makes it possible for device manufacturers and users to easily use PROFIdrive applications on either PROFIBUS or PROFINET and to freely select the optimal communication system for their needs.



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**EDD CERTIFICATION STARTS:** In January 2008, PI accredited itm in Munich, Germany, as the first EDD test laboratory. At the same time the first EDD Certificate was issued. Accredited EDD test laboratories, among them ifak and itm, will offer the EDD accreditation service alongside existing PROFIBUS certification tests. PI has also commissioned ifak, also from Germany, to implement a new EDD import library, to ease the development of device descriptions by making it easier to adapt to device characteristics. The library will provide electronic device descriptions for PROFIBUS PA profile conformant blocks, which can be composed to a device EDD. For PI members, the new library will be available free of charge. [itm](#) or [ifak](#). PI also supports FDT and is part of the EDDL Cooperative Team (ECT) with HART, FF, OPC, and now the FDT Group, too. A common solution uniting EDDL and FDT is being pursued by the ECT.

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**INTERNATIONAL MEETING INTRODUCES FREITAG:** Twelve Regional PI Associations (RPAs) were represented at a special RPA Chairmen Meeting held on January 17, 2008, in Karlsruhe, during which Acting Chairman Mike Bryant introduced the new Deputy Chairman Jörg Freitag (right). Agreeing and further developing the worldwide PI Strategy was one of the main goals of this meeting. Bryant took his colleagues through a brand new strategic plan for the organization, explaining several new initiatives. Freitag welcomed attendees and spoke about the exciting challenges that lie ahead. "PROFINET will very soon reach the same level of acceptance worldwide that PROFIBUS has," he said. "The worldwide PI organization is one of the reasons for our success and meetings like this demonstrate the talent and enthusiasm that is ultimately going to make PROFINET even more successful than PROFIBUS."



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**NEWS FROM THE BLOG:** PROFIBLOG continues to attract attention. Latest topics include a serious look at more of the myths mentioned in the Timoney paper (see [Polly](#) above). There's often some silliness to lighten the atmosphere (can you really judge a fieldbus by the number of books published about it?) and, frequently, educational items and helpful advice too. RSS can make the job of keeping up to date easier - see next item.

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**RSS ... a.k.a. NEWS FEEDS a.k.a. WEB FEEDS:** Are you using web feeds yet? No, then take a look at [our primer here](#) to find out what they are, how they work and how you can benefit from them. [PROFiblog](#) uses them, so that might be a great place to start learning what they offer.

To help get you started, Carl Henning is making available his list of Industrial feeds. [Visit our primer](#) to get it.

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## WORLD NEWS

**South East Asia:** The PROFIBUS booth at CIA 2007 in Singapore attracted over 400 visitors. A new demo system was on display, showing a multi-vendor combination of PROFIBUS DP devices. The PROFIBUS Association also presented 4 papers during the conference. **China:** The first



Certified PROFINET Engineers course was held in December 2007, in conjunction with PROCENTEC of the Netherlands. All delegates passed and the first PROFINET Engineers are now ready to serve the Chinese market. 'Chinese PROFIBUS and PROFINET Experts Days 2008' are being organized during

March and April in 3 cities. **UK:** The PROFIBUS Group in conjunction with the PI Competence Center at Manchester Metropolitan University (MMU) and PROCENTEC of the Netherlands is organizing the first ever Certified PROFINET Engineer Course in the UK, at MMU in May. Jörg Freitag, the new Deputy Chairman of PI, will deliver the keynote speech at the 2008 PROFIBUS conference in June. **Poland:** A conference in Krakow in January was attended by 65 engineers.



Chairman Dariusz Germanek presented the forthcoming activities of PROFIBUS PNO Poland. Participants also took part in practical demonstrations of PROFIBUS diagnostics and members – currently there are more than 20 – presented their own products and solutions. **Brazil:** During the ISA Show Brazil in November 2007, the Brazil Latin America RPA organized another Case Study Seminar, aimed at showing successful applications of PROFIBUS. Topics included the modernization of the Petrobras Pargo Platform, automation solutions in sugar, alcohol and ethanol plants, and a PROFIBUS application in Explosive Atmospheres.

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## NEW PRODUCTS

**EMBEDDED PLC:** A PROFIBUS interface is one of the features of the latest embedded SODIMM-PLC module. Equipped with direct IO and communications and programmable in Step7 this module can provide fast, deterministic and reliable hardware PLC control in a small form factor. It offers up to 32 digital inputs and 24 digital outputs directly on-chip. The IO interface is configurable to provide high level user functions like hardware counter modes. It's equipped with an interface that can easily share data with external devices using the PROFIBUS DP Slave interface. **Profichip:** +49 (0) 9132 744 200



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**PROFINET I/O:** The Inline installation system from Phoenix Contact has been extended to include the new IL PN BK DI8 DO4 2TX-PAC bus coupler, which acts as the link between an I/O station and PROFINET networks. Up to 61 standard and function terminals from the Inline automation kit, such as I/Os, counters or power switches, can be connected. It has eight digital inputs and four digital outputs. Diagnostic LEDs provide support for quick startup and easy maintenance. In addition to standard functions like LLDP, PDEV and I&M the



device supports the creation of redundant network structures (ASR). The GSDML description file required to configure the device can be downloaded. [Phoenix Contact](#).

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**LEVEL GAUGE:** Prosonic S is an ultrasonic level measurement device with up to 6 output relays and 4 digital inputs. The PROFIBUS DP version is able to function like remote IO for small remote control applications. All relays and digital inputs of the unit are controllable by PROFIBUS DP via standardized function blocks independent of the measurement signal. The device is fully certified to PROFIBUS Profile 3. [Endress + Hauser](#).



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**CONTROLLOGIX MASTER SUPPORTS FDT:** ProSoft Technology's MVI56-PDPMV1 PROFIBUS Master V1 Module for the Rockwell Automation ControlLogix platform now supports FDT/DTM technology and ProSoft Technology's CIPConnect™ technology. The two together allow direct connectivity between a PC and field devices by routing data over Ethernet through the ControlLogix 1756-ENBT EtherNet/IP module to the MVI56-PDPMV1 module. The combination allows users to 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). Only one IP address is required. RSLinx is not required. [ProSoft Technology](#).



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