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Fieldbus Facts Online

Your Global Source for FOUNDATION™ Technology News

March 2012

Fieldbus Facts Online is brought to you by the Fieldbus Foundation, an international, not-for-profit corporation consisting of industry leaders dedicated to providing the "Freedom to Choose" and the "Power to Integrate."

Featured This Month



FieldMate™
Versatile Device Management Wizard

In This Issue...

Foundation Briefs

End users, suppliers flock to São Paulo for Fieldbus Foundation General Assembly

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Nearly 250 of the world's leading FOUNDATION fieldbus suppliers and end users met in São Paulo, Brazil earlier this month to attend the 2012 Fieldbus Foundation General Assembly. The key automation industry event took place March 6-8 at the Sheraton São Paulo WTC Hotel.

Following the theme "In a World of Choices, FOUNDATION Brings it all Together," the meeting included a comprehensive, end-user-oriented agenda that focused on fieldbus project case studies and tabletop exhibitions from leading automation vendors across the globe and a demonstration of the new FOUNDATION for Remote Operations Management technology.



As part of the event, the Fieldbus Foundation's End User Advisory Council (EUAC) met on Tuesday, March 6, to discuss and offer direction for FOUNDATION technology. The session on Wednesday, March 7, featured a keynote address by Ronaldo Magalhaes, automation director at Petrobras; FOUNDATION technology updates; and presentations by key process end users. A networking reception concluded the day. On Thursday, March 8, the Fieldbus Foundation conducted its annual for-members-only business meeting.

São Paulo was selected as the site for this year's General Assembly because of its status as one of the world's fastest growing industrial regions and the overwhelming demand for

FOUNDATION technology within the area, according to Fieldbus Foundation President and CEO Rich Timoney. "Brazil has been experiencing rapid growth in automation projects utilizing FOUNDATION technology and is arguably the central hub of the process automation industry in all of Latin America," he said. "Petrobras, Brazil's largest oil producer, has been integrating FOUNDATION fieldbus into their plants for some time, and is in the midst of a large expansion project utilizing the technology."



Timoney noted that the 2012 General Assembly program highlighted the advantages of FOUNDATION fieldbus as a world-class solution for improving plant asset management, reliability, and economic performance. "FOUNDATION technology is advancing to meet the needs of the process industries, including developments such as FOUNDATION for Remote Operations Management, FOUNDATION for Safety Instrumented Functions (FF-SIF), Control in the Field (CiF), field diagnostics, and wireless," he said.

For more information about the 2012 General Assembly, visit the [General Assembly Page](#) on the [Fieldbus Foundation Website](#), or [email the Fieldbus Foundation](#) marketing department with your questions.

Simplify Processes

fieldbus solutions

Sponsors



FOUNDATION fieldbus continues to lead process industries market, ARC study shows

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FOUNDATION fieldbus continues to lead the market in digital fieldbus communications for the process industries, according to a new study recently released by ARC Advisory Group, a manufacturing research and advisory firm based in Dedham, MA.

According to "Fieldbus Solutions in the Process Industries: Worldwide Outlook," FOUNDATION fieldbus accounted for nearly three-quarters of the total digital process fieldbus marketplace in 2011. ARC also predicted ongoing expansion of the market for process fieldbus products and solutions, with continued double-digit growth over the next five years.

FOUNDATION fieldbus provides an all-digital communication infrastructure for process automation, with powerful multivariable measurement capabilities and device diagnostics, and the ability to integrate wireless devices across multiple networks. The unique block structure of FOUNDATION fieldbus provides true distributed functionality for implementing CiF, improved data management, and alarm and alert management. FOUNDATION technology is well equipped to take advantage of the growth opportunities in fieldbus technology over the next decade.

"Fieldbus technology has made further inroads into the culture of process automation, despite the negative impact that the global recession had on the market," said ARC Analyst Kevin Crisafulli, adding that "manufacturers are beginning to understand that the real value of fieldbus savings and increasing efficiency are more closely related to operating expenditures, which will drive growth going forward."

Commenting on the report, Fieldbus Foundation global marketing manager Larry O'Brien said, "Thanks to the efforts of our supplier partners and the stringent testing and registration process at the Fieldbus Foundation, there is a wide range of products, systems, and components to choose from. With FOUNDATION fieldbus expanding into more and more application segments such as FOUNDATION for Remote Operations Management and FOUNDATION for Safety Instrumented Functions, we are easily looking at a market opportunity in the billions of dollars on an annual basis for the foreseeable future. FOUNDATION fieldbus remains the popular choice among end-users as an all-digital process automation solution that brings very positive returns to the bottom-line," he added. "The technology allows you to see your process in high definition; manage information in real time; and optimize people, processes, and technology."

A list of technical whitepapers and links to the resources, including the newest ARC market study, may be found on the [Fieldbus Foundation website](#). Click on "New ARC Market Study" to download the latest report free.

Industry organizations outline progress of FDI Cooperation project

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Development work on a single common solution for Field Device Integration (FDI) was the focus of a recent press conference at last month's ARC Forum in Orlando, Florida. Participating in the event were the five major automation foundations--Fieldbus Foundation, FDT Group, HART Communication Foundation, Profibus & Profinet International, and OPC Foundation—who have formed FDI Cooperation LLC, a joint company committed to developing a single technology for the management of information from all intelligent devices throughout all areas of the plant.

The mission of the group is to:

- Complete the standardization of FDI under the International Electrotechnical Commission (IEC);
- Manage the FDI specification;
- Finalize FDI tool kits for system and device manufacturers;
- Promote and provide high quality technology support for FDI, independent of and common to the respective communication protocols;



- Preserve end-user and automation manufacturer investments by providing state-of-the-art technology that is fully backward compatible; and
- Ensure stability, interoperability, and compatibility of FDI-based products.

FDI technology will provide a scalable solution that users can deploy in applications from simple configuration to complex management of the most sophisticated field devices for tasks associated with all phases of their lifecycle from configuration, commissioning, and diagnostics to calibration. FDI is a truly unified solution that addresses end-user requirements across the spectrum, and will essentially eliminate the need for different solutions for different devices.

At the press conference, the Fieldbus Foundation, Profibus, and HART explained that although they all use EDDL as a core technology, each varies the technology slightly. The FDI Cooperation has harmonized EDDL across communication protocols, enabling single cross protocol FDI design and test tools, including a common EDD Interpreter. The completion of EDDL harmonization greatly facilitates the second step and ultimate goal of FDI: harmonization between EDDL and FDT technologies.

In November 2011 at the NAMUR meeting in Germany, FDI device packages were used for the first time to integrate Foundation fieldbus, HART, and Profibus field devices from various manufacturers within a process control system. Typical applications, such as parameter assignment, configuration, diagnostics, and maintenance were demonstrated. The purpose of the working prototype was to verify the FDI concepts, apply the standard host components in a system context, and demonstrate FDI functionality.

The first draft of the FDI specification has been published. The next steps of the project include completion of:

- Conformance test concepts;
- Validation and review of the FDI specifications within the foundations; and
- FDI standard host components, such as EDD engine, and User Interface (UI) engine by the FDI Cooperation.

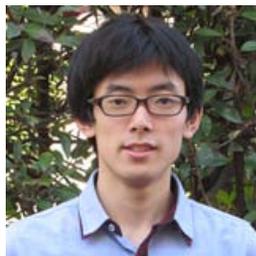
For more information, visit the [FDI Cooperation LLC website](#)

Three students awarded James O. Gray scholarships

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Three students from around the world will receive 2011-2012 James O. Gray—Fieldbus Foundation scholarships, the Fieldbus Foundation announced recently. The James O. Gray—Fieldbus Foundation Scholarship Fund honors the memory of James (Jim) O. Gray, a long-time leader in the Fieldbus Foundation who passed away in 2002, through a perpetual \$250,000 endowment fund that awards scholarships to students seeking a career in the industrial automation profession. Since 2003, the program has provided 26 educational scholarships to students globally.

Receiving the 2011-2012 scholarship awards are:



Wataru Futagoishi, Waseda University, Tokyo, Japan. Wataru Futagoishi is a first-year student in master's courses in Waseda University's Department of Applied Mechanics. His course work focuses on mechanics, mathematics, and related topics. Wataru has been recognized at the head of his class in mechanical engineering and won the JSME Hatakeyama Prize, the most prestigious award for junior students in the Japan Society of Mechanical Engineers. He was enrolled as a research member to address diagnostic problems using FOUNDATION fieldbus devices. Wataru is currently studying corrosion diagnostics with Coriolis mass flowmeters. He will graduate in March 2013.

Gang Zhao, SAIT Polytechnic, Calgary, Alberta, Canada. Gang Zhao is in his second year in the Instrumentation Engineering Technology program at SAIT Polytechnic. A native of Shandong, China, Gang completed his bachelor's degree in physics in 1983. He then worked first for a power supply company and later at an environmental firm where he was involved with a variety of lab analysis instruments. Gang plans to use his strong interest in instrumentation to gain additional knowledge about and seek professional opportunities in FOUNDATION fieldbus technology.



Thunyporn Sathapaporn, King Mongkut's Institute of Technology Ladkrabang (KMITL), Bangkok, Thailand. Thunyporn Sathapaporn is a junior majoring in automation engineering at KMITL. In this area of study, she has learned fieldbus technology basics and has served as a professor's assistant in KMITL's 2010 FOUNDATION fieldbus seminar and workshop. Thunyporn is currently studying PID control, sequence control systems, and the design and configuration of fieldbus control strategies in industrial operations.

Fieldbus Foundation President and CEO Rich Timoney congratulated the latest scholarship recipients. "Each year, the James O. Gray—Fieldbus Foundation Scholarship Fund recognizes a group of deserving students involved in the field of instrumentation and industrial automation," said Timoney. "This unique scholarship was established with the support of control technology stakeholders around the world, whose efforts will help maintain a strong and vibrant control industry."

Jim Gray was sales and marketing manager for Invensys/Foxboro for 25 years. In addition to being very active within the Fieldbus Foundation from its inception, he was secretary of the Board of Directors, a member of the Executive Committee, and a member of the U.S. Marketing Committee.

Fieldbus Foundation members and others interested in promoting the progress of the automation industry are encouraged to participate in the James O. Gray—Fieldbus Foundation Scholarship Fund. For more information about the program and the various levels of support that are available, call Talon Petty of the Fieldbus Foundation at 512-794-8890, ext. 21, or visit the Fieldbus Foundation website.

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Global News & Events

End-user seminars focus on 'FOUNDATION fieldbus throughout the plant lifecycle'

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The Fieldbus Foundation's Americas end-user seminar series for 2012 will focus even more on realizing the benefits of FOUNDATION fieldbus throughout the plant lifecycle—and that it's probably easier than you thought! Initial locations have been set for the programs, which have been refined to be even more interactive and provide more valuable content for end users and systems integrators.

Come to the first seminar May 23 in Calgary, Alberta, Canada and discover what FOUNDATION fieldbus can really do for you. Other 2012 seminars will be held in Houston, Texas, USA in September and Philadelphia, Pennsylvania, USA in November. Lunch is included.

Each 2012 end-user seminar participant will receive a certificate for PDH hours and copies of all presentation materials. Attendees also will be given discount certificates for

10% percent off regular course pricing at any North American FOUNDATION Certified Training Center. Additional seminar details will be available in the coming months. Check the Fieldbus Foundation website soon for more information.

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Fieldbus Foundation again co-hosts Field Communication Lounge at Hannover Fair

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The Fieldbus Foundation is joining the FDT Group, HART Communication Foundation, PI (Profibus and Profibus International), and the OPC Foundation in hosting the second co-sponsored Field Communication Lounge in Hall 9, Booth D05, at this year's Hannover Fair, April 23-27, 2012, in Hannover, Germany.

With its theme "Bringing Field Communications Together for YOU," the Field Communication Lounge aims to create a single area for visitors to see and experience the latest in field communication technologies and discuss how these technologies work together to deliver powerful results to improve plant operations and performance and a company's profitability. The Lounge's combined exhibit concept better aligns with the way users often integrate field communication technologies at their own facilities. Visitors to the fair will have a central location to discuss and compare the leading automation communication protocols; their advantages, applications, and integration; and how they can work together.



A key feature of the 450 sq m Field Communication Lounge is the common display area in which the organizations will exhibit their individual process and factory automation communication technologies in dedicated technology kiosks. The Fieldbus Foundation will use its technology kiosk to conduct live technology demonstrations using its multi-vendor systems to show the key benefits of FOUNDATION fieldbus, including process integrity, business intelligence, and open scalable integration. The demonstration



systems consist of several live FOUNDATION fieldbus segments featuring three DCS systems and numerous field devices and physical layer components. The fully functional set-up allows the demonstration of all situations that may occur during the installation, commissioning, and operation of a real process plant. Diagnostics according to NE107, CiF, and performance under extreme conditions will be simulated and the new DesignMate™ software planning and implementation tool will be utilized.

In addition to the five technology displays, member companies of each association have the opportunity to be featured on purpose-built company kiosks to present practical field communications solutions including field devices, configuration, control and asset management applications, wireless technology, integrations products, and other solutions that deliver value and benefits to the enterprise today and tomorrow. The Field Communication Lounge also features a common presentation forum in which experts from the five organizations will present the latest field device communication technology solutions in a series of 30-min. technical and educational presentations held daily from 10:30 am to 4:00 pm.

Thomas Kasten, chairman of the Fieldbus Foundation German Marketing Committee, said he is looking forward to welcoming visitors to the Field Communication Lounge.

"We received such positive feedback to last year's Field Communication Lounge concept from show visitors that it was clear that we would be adopting the concept again for the major shows in 2012," he said, "although the participating associations have had the opportunity to further enhance the experience that the stand visitors will have. Users appreciate the opportunity to view the various communications technologies together so that they can make comparisons and discuss integrated solutions with experts on hand."



Fieldbus Foundation members participating in the Field Communication Lounge include: ABB, APAT, Emerson Process Management, Endress+Hauser, Fieldbus International, Heinrichs Messtechnik, Honeywell, Invensys, Leoni, Pepperl+Fuchs, Phoenix Contact, Rockwell, R. Stahl, Siemens, Softing, Vega, Yokogawa, and many more.

The Field Communication Lounge exhibit will also be featured at ACHEMA 2012 (located on Mezzanine Level 11 via B29) June 18-22, 2012, in Frankfurt, Germany.

For more information about the Fieldbus Foundation German Marketing Committee and its activities, visit the [Fieldbus Foundation website](#) or [email the committee](#) directly.

Additional information, including the presentation schedule, is available on the [Field Communication Lounge website](#).

Seventh annual German FOUNDATION fieldbus conference another success

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The Fieldbus Foundation German Marketing Committee (FFGMC) hosted its seventh annual German FOUNDATION Fieldbus Conference at the Feierabendhaus Knapsack on Wednesday, February 1, 2012 in Hürth, Germany. The event followed the successful format of previous events held across the region and attracted 75 end users, engineering contractors, and prospective implementers of FOUNDATION technology as well as representatives of major suppliers.

Thomas Kasten, Fieldbus Foundation German Marketing Committee (FFGMC) chairman, reflected on the event: "These end-user conferences are always extremely popular," he said, "as they offer a unique opportunity for attendees to hear established end users share and discuss their experiences relating to the implementation of FOUNDATION fieldbus technology and to meet experts representing several of the world's leading suppliers of FOUNDATION fieldbus products and services."



Following the opening of the conference by Thomas Kasten, chairman of the German committee, Marc Van Pelt, vice-president, Fieldbus Foundation EMEA Operations, gave an overview of the Fieldbus Foundation's activities. The morning agenda included presentations by Fatih

Denizer, Fieldbus Foundation, Sven Seitsch from BIS Prozesstechnik GmbH., and Edwin Elias from InfraServ GmbH & Co. Knapsack KG, which included an update on the new FF ROM Remote Operations Management project, an insight into the new possibilities available through field device diagnostics, and the use of simulation tools in automation technology testing.



In the afternoon, attendees were able to attend two of three parallel roundtable discussion groups on Tendering & Planning; Operation, Maintenance & Diagnostics; and Automation Concepts including CiF, Fieldbus for Safety Instrumented Functions (SIF), and Remote Operations Management. Moderated by industry experts Frank Jablonski, online editor, *Process*; Dr. Ulla Reutner, chief editor, *P&A Magazine*; and Armin Scheuermann, chief editor, *Chemie Technik*, the roundtable sessions generated lively, user-focused discussions.

The event was sponsored by Bürkert, Emerson Process Management, Endress+Hauser, Hans Turck, MTL Instruments, Pepperl+Fuchs, Phoenix Contact, R. Stahl, Samson, Siemens, Softing, Vega, and Yokogawa. Representatives from the sponsoring companies were on hand at a tabletop exhibit to discuss products, services, and applications during break times.

For more information, visit the German pages on the [Fieldbus Foundation website](#) or [email the committee](#) directly.

Multaqa 2011: More than 100 attend Middle East End User Council conference

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More than 100 delegates participated in the Fieldbus Foundation Middle East Marketing Committee (FFMEMC) and the FOUNDATION Fieldbus End User Council-Middle East (FFEUC-ME) 6th Biennial Middle East End User Council Conference (Multaqa 2011), held December 12-13, 2011, at Le Royal Méridien, Abu Dhabi, United Arab Emirates. End users, engineering companies, consultants, and vendors attended the successful two-day event, enjoying an extensive program of presentations by end users and implementers of FOUNDATION technology as well as FOUNDATION technical presentations by worldwide experts. A formal dinner was held on the 12th for all attendees.

Fieldbus Foundation President and CEO Rich Timoney was on hand to deliver the keynote address of the event. In his presentation, Timoney emphasized the importance of the Middle East market, pointing out that half the new capital projects in that area are deploying FOUNDATION Fieldbus technology.



Themed workshops and live technology demonstrations offered delegates hands-on practical experience and the opportunity to participate in focused discussions. Using the theme "FOUNDATION Fieldbus—Easier Than You Thought," one workshop addressed four key areas: Best practices in FOUNDATION fieldbus installation and commissioning; FOUNDATION fieldbus field device replacement; diagnostics and asset optimization with FOUNDATION fieldbus; and CiF. A second workshop dealt with FOUNDATION Fieldbus Safety Instrumented Functions (FF-SIF).



Pre-registered delegates received a 10% discount voucher that can be redeemed against the costs of a certified FOUNDATION fieldbus training course at STC-Group's certified training facility at Brielle, The Netherlands or locally in the Middle East region conducted by a certified STC-Group trainer.

In addition to the presentations, a tabletop exhibition featuring products and devices from the 16 event sponsors offered attendees the opportunity to hear brief product overviews and discuss applications with a number of Fieldbus Foundation member companies. Events sponsors included ABB, Azbil Yamatake, Emerson Process Management, Endress+Hauser, Honeywell, Invensys, Metso Automation, MTL, Pepperl+Fuchs, Phoenix Contact, Rockwell Automation, R. Stahl, Samson, Siemens, Turck, and Yokogawa.

For more information about the function and activities of the FFMEMC, visit the Middle East section of the [Fieldbus Foundation website](#) or [email the FFMEMC](#) directly.

Technology News

Fieldbus Foundation releases updated H1 Conformance Test Kit

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An updated H1 Conformance Test Kit (H1 CTK) 3.0.1 is now available from the Fieldbus Foundation. Designed for suppliers developing new H1 (31.25 kbit/s) communications stacks and those who have modified an existing stack and want to run test cases prequalifying it for the registration process, the H1 CTK is a complete testing solution enabling fieldbus device developers to ensure their H1 communication stack conforms to the Fieldbus Foundation's test requirements.

The fieldbus communication stack is the messaging component of a field device. The H1 CTK will verify the correct communication behavior of an H1 device as defined in the FOUNDATION fieldbus specifications. The H1 CTK 3.0.1 includes the following updates:

- Correction of known issues with prior test cases, which have been re-released into Version 3.0.1; and
- Miscellaneous bug fixes and improvements.

In addition, the Fraunhofer Institute has agreed to use H1 CTK 3.0.1 in parallel with Version 2.25 for certification campaigns starting in January 2012.

The H1 stack conformance test consists of a suite of automated and manual test procedures. The automated test procedures validate both Fieldbus Message Specification (FMS) and System Management (SM) messaging. The test system validates that messages for the different services are formed and decoded correctly by the stack-under-test (SUT). Other testing procedures validate the data structures present in the device's Object Dictionary (OD) and ensure they conform to current FOUNDATION specifications. Additional tests examine the distribution and synchronization of the application time clock. Finally, stacks classified as a Link Master undergo special testing to validate Link Active Scheduler (LAS) functionality.

The H1 CTK 3.0.1 upgrade is free to companies owning a license agreement for the enhanced 3.0 test kit version.

For more information, go to "Development Resources" under the FOUNDATION™ Technology button on the [Fieldbus Foundation website](#), or [email the Fieldbus Foundation](#) directly.

Call to action: Consider joining the FOUNDATION for ROM demo team

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The Fieldbus Foundation and several major end users and suppliers have formed a FOUNDATION for ROM demo team. The team will conduct live field trials of the Fieldbus Foundation's Remote Operations Management (ROM) technology around the world in a wide range of applications from oil and gas fields to tank farms to shale oil processing. Supported by four major end users, the team is already planning its first trial project as well as various media events around the world.



The FOUNDATION for ROM demo team provides a valuable opportunity for suppliers who want to be seen supporting new technologies that provide real economic value to end users. If you are interested in joining the team or providing instruments for the demonstrations, [email Larry O'Brien](#), marketing manager of the Fieldbus Foundation.

List of registered FOUNDATION products continues to grow

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The Fieldbus Foundation continues to register a growing number of FOUNDATION fieldbus products from all segments of the automation market. The foundation is one of the only automation industry organizations with a registration program requiring mandatory testing of critical elements of its technology. The effort encompasses FOUNDATION fieldbus host systems and field devices and physical layer components such as power supplies and device couplers.

The most recently registered products are shown in the table. They are listed by manufacturer, type, and model.

New and Updated Registered H1 Devices

Manufacturer	Type	Model / Device Name
Softing AG	Linking Device	FG-110 FF
Yokogawa Electric Corporation	Pressure Transmitter	EJX
Updated Device Description and Capability File		
Manufacturer	Type	Model / Device Name
Fieldbus International AS	Level Meter	Level Radar Device
Fieldbus International AS	Level Meter	Level TDR Device
Yamatake Corporation	Smart Valve Positioner	SVP3000 AVP204/AVP304
Yamatake Corporation	Smart Valve Positioner	SVP3000 AVP203/AVP303
Emerson Process Management	Discrete Valve Controller	D2-FF
ABB Automation Products GmbH	Electromagnetic Flowmeter	ProcessMaster/HygienicMaster FEX300/FEX500
ABB Automation Products GmbH	Coriolis Mass Flowmeter	FCM2000

For a complete list of registered FOUNDATION fieldbus products, visit the [Fieldbus Foundation website](#).

To learn more about FOUNDATION fieldbus interoperability, download "[Understanding Host Profile & Testing Registration](#)," a free whitepaper from the Fieldbus Foundation.

Products & Solutions

Microcyber Fieldbus OEM solutions simplify device development

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Fieldbus OEM solutions from Microcyber help automation equipment suppliers develop FOUNDATION fieldbus devices. Offerings include a newly designed FOUNDATION fieldbus H1 communication board that can be tailored to specific requirements. The board quickly allows a traditional instrument to be upgraded to FOUNDATION technology, and includes a communications stack, function blocks, communication circuit, and interface circuit.

In addition, Microcyber provides technical support for FOUNDATION fieldbus registration testing and for integration testing with all kinds of Distributed Control Systems (DCS). FOUNDATION fieldbus Interoperability Test Kit (ITK) pre-testing services are also available.

For more information, visit the [Microcyber website](#).

MTL launches redundant FOUNDATION fieldbus barrier

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Fieldbus barriers are widely adopted in FOUNDATION fieldbus networks to connect to intrinsically safe instruments in Zone 1 hazardous areas. When used as part of a "High Energy Trunk" concept, they can support heavily loaded segments and long trunk cable lengths, while retaining the ability to conduct "live-working" on the spur connections.

Although redundancy is routinely specified for many aspects of the fieldbus installation to avoid downtime and lost production, overall system availability has been compromised by the lack of redundancy in the device coupler. Now, MTL gives users the choice of specifying redundant fieldbus barriers for fieldbus segments that are critical to the uptime of the process.



By duplicating the barrier function in the remote field enclosure, the units will tolerate hardware failures without interrupting the operation of the fieldbus segment. If a fault occurs, the host control system is notified so that the failed hardware can be replaced promptly and full redundancy restored without process interruption at any time. When used in conjunction with redundant fieldbus power supplies, redundant fieldbus barriers significantly improve system availability to allow their use in even the most critical applications.

For more information, visit the [MTL website](#).

Pepperl+Fuchs' FieldConnex® power supplies meet many needs

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Well known for its highly reliable FieldConnex® Power Hub fieldbus power supplies, Pepperl+Fuchs also offers a variety of other FieldConnex power supplies to meet any number of fieldbus installation

power needs.

For device configuration, Pepperl+Fuchs offers the USB-FBPS-1.11.45.NI, a compact USB-powered fieldbus power supply that enables technicians to conduct single-field device work that is typical during plant start-up or maintenance, such as device configuration, testing, and device tagging.

For battery or solar-powered applications, the company's KLD2-FBPS-1.12.220 power supply is an all-in-one solution that powers single fieldbus segments and provides the required impedance filter. This supply is specifically designed to operate in very demanding environmental conditions.

For applications that require troubleshooting, Pepperl+Fuchs offers the BP-FBPS-1.30.1 portable fieldbus battery that is able to validate device communication and fieldbus installation testing even when the line voltage or DCS system is not available, enabling verification of the quality of the installation at early stages. The fieldbus battery features a rugged housing for indoor/outdoor use and output voltage that can be adjusted to match the value of a later-used fieldbus power supply.

For more information, visit the [Pepperl+Fuchs website](#) or [email the company](#) directly.

Rockwell Automation supports upcoming educational conferences

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Rockwell Automation is helping manufacturers around the world succeed and grow through its participation in a variety of upcoming events. If you plan to attend one of the educational conferences listed here, be sure to look for us. We'll be there to help you learn more about our PlantPax process automation system and how FOUNDATION Fieldbus enhances our process offerings. Rockwell

Automation will be present at:



- [AnuagaFoodTec](#): March 27-30 in Cologne, Germany
- [Automation World 2012](#): April 3-6 in Seoul, Korea
- [Offshore Technology Conference](#): April 30-May 3 in Houston, TX, USA
- [IFAT ENTSORGA](#): May 7-11 in Munich, Germany
- [Arenasphere](#): May 14-15 in Las Vegas, NV, USA
- [Hispack 2012](#): May 15-18 in Barcelona, Spain
- [FOOMA 2012](#): June 5 in Tokyo, Japan
- [ACHEMA 2012](#): June 18-22 in Frankfurt, Germany
- [NEFTEGAZ 2012](#): June 25-29 in Moscow, Russia
- [MSR Spezialmesse](#): June 27-28 in Leverkusen, Germany
- [INTERPHEX JAPAN 2012](#): June 27-29 in Tokyo, Japan

Learn more anytime by visiting the [Rockwell Automation website](#).

Stronger Rockwell Automation-Endress+Hauser alliance eases device integration

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A typical plant uses hundreds of different components including controllers, remote I/O, electrical drives, safety equipment, and sensors. Each must be integrated, configured, and optimized during start-up and operation. Recognizing the challenges these situations present, Rockwell Automation and Endress+Hauser have strengthened their strategic alliance to provide scalable, off-the-shelf process automation solutions that use best-in-class instrumentation, software, and control systems solutions.



To supply robust system solutions, Rockwell Automation recently completed pre-testing common devices for flow, temperature, and pressure via FOUNDATION Fieldbus in its system test laboratory for compatibility with the Rockwell Automation PlantPax process automation system. Each field device is connected to the PlantPax system and subjected to interoperability testing procedures similar to plant operating procedures. In addition, accompanying integration documents supply information on installation, configuration, startup, and operation of the integrated system to help reduce risk with ease of integration.

Documentation for integration via FOUNDATION Fieldbus is now available for:

- [Promass 83 Flowmeter](#)
- [iTEMP TMT 162 Temperature Transmitter](#)
- [Prowirl 73 Flowmeter](#)
- [Cerabar S Pressure Transmitter](#)
- [Deltabar S Differential Pressure Transmitter](#)

More about the strategic alliance between Rockwell Automation and Endress+Hauser is available on the [Rockwell Automation website](#). More about the PlantPax process automation system may be found on the [Rockwell Automation website](#) as well.

R. Stahl digital I/O coupler ensures effective FOUNDATION fieldbus connections

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R. Stahl's explosion-protected digital I/O coupler for the ISbus system ensures a direct and consistent integration of simple sensors and actors to enable an effective connection of Ex i discrete signals in a FOUNDATION fieldbus environment. The device is certified for installation in Zone 1, Zone 2, and Division 2. Four high-performance Ex i outputs are available, in addition to eight channels for NAMUR/EN 60947-5-6-compliant Ex i discrete input signals. The coupler can be used to connect proximity switches, contacts, indicator lights, and a wide range of solenoid valves. Up to four intrinsically safe solenoid valves, each with two position feedback signals, can be directly integrated into a FOUNDATION fieldbus H1 network.



Extensive function block support ensures that such solutions benefit from particularly powerful FOUNDATION fieldbus technology features. The coupler provides DI, DO, MDI, and MDO functions, and advanced functions such as AI for frequency signals, CI for counters, and logic transducer blocks for logical input/output combinations.

The Type 9413 coupler comes in customized GRP or stainless steel enclosures. Wire breaks and short circuits are monitored on all channels and diagnostic messages are reported via the bus. Each output channel delivers a maximum current of 30 mA and a no-load voltage of 23.5 V makes the product suitable for nearly all intrinsically safe solenoid valves. Status LEDs for all single inputs and outputs status, line fault as well as the bus and power lines are available. The coupler requires a 24-V dc power supply and is suitable for operation in high-power trunk installations or on an intrinsically safe FISCO bus.

For more information, visit the [R. Stahl website](#).

Softing first to participate in Fieldbus Foundation DSP program

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Softing is the first participant in the Fieldbus Foundation's Development Services Provider (DSP) program. Exceptionally qualified for this work because of its recently released FOUNDATION fieldbus stack, the company has a long history of technology experience and competency. The new stack version includes among other new functionalities a FOUNDATION fieldbus software download via fieldbus class 3 and is ITK 6 compliant.

The DSP program assists automation equipment suppliers in designing and manufacturing products employing FOUNDATION fieldbus. Appointed DSP program participants have the tools, training, and experience to support a wide range of FOUNDATION fieldbus development projects. Most parties interested in implementing FOUNDATION fieldbus find they must outsource a portion of the development process because of limited resources. This program helps make FOUNDATION fieldbus products easier to develop and speeds the time needed to bring fieldbus equipment to market.

For more information, visit the [Softing website](#).



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