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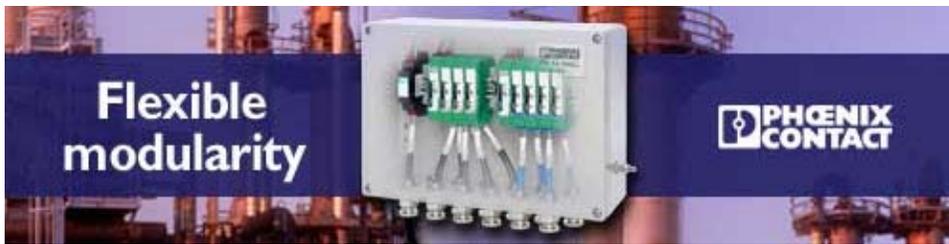
Fieldbus Facts Online

Your Global Source for FOUNDATION™ Technology News

April 2011

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



In This Issue...

Foundation Briefs

[Record numbers attend 2011 General Assembly in Mumbai](#)

[Foundation appoints O'Brien global marketing manager](#)

[Three students awarded 2010-2011 educational scholarships](#)

Global News & Events

[Dates set for 2011 end-user seminars in the Americas](#)

[Field Communication Lounge proves popular with Hannover Fair visitors](#)

[Newly formed Benelux marketing committee to promote FOUNDATION technology](#)

[Fieldbus educational events planned worldwide throughout 2011](#)

Technology News

[Can you help? Volunteer now for FOUNDATION technical teams](#)

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FIELDBUS
WORLDWIDE

Products & Solutions

[Phoenix Contact adds new FOUNDATION Fieldbus products to its process portfolio](#)

[Pepperl+Fuchs introduces intrinsic safety without power limits](#)

[R. Stahl's compact field device couplers suited for Zone 2 hazardous areas](#)

[Smar software analyzes fieldbus strategies before implementation](#)

[Yokogawa autonomous controller key factor in remote asset management](#)

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Foundation Briefs

Record numbers attend 2011 General Assembly in Mumbai

The Fieldbus Foundation's recent 2011 General Assembly in Mumbai, India turned out to be the largest annual gathering in Fieldbus Foundation history. Nearly 500 attendees, including leading



suppliers and end users of FOUNDATION fieldbus, took part in the event, held March 9-10 at the JW Marriott Hotel Mumbai.

India was selected as the site for the gathering because it is the world's fastest growing market for process automation and the area is experiencing an overwhelming demand for FOUNDATION technology. Many of the world's largest FOUNDATION fieldbus installations are located in India, and a considerable amount of application expertise is being developed there.

Based on the theme "Achieving Operational Excellence with FOUNDATION Technology," the 2011 General Assembly highlighted the advantages of FOUNDATION fieldbus as a world-class solution for improving plant asset management, reliability, and economic performance. FOUNDATION technology continues to advance to meet the needs of the process industries with Foundation fieldbus for Safety Instrumented Functions (FF-SIF), control in the field (CIF), field diagnostics, and wireless solutions.

The Wednesday program included an end-user-oriented agenda of fieldbus project case studies given by prominent automation end users from throughout India, as well as various fieldbus tabletop exhibits. Additional presentations updated the latest FOUNDATION technology developments. A reception for all attendees completed the day. The Fieldbus Foundation conducted then its annual business meeting on Thursday, March 10.

The General Assembly began with welcoming remarks from Thampy Mathew, regional sales director-PA, Pepperl+Fuchs, and chairman, Fieldbus Foundation India Committee (FFIC); and B.R. Mehta, senior vice president, Reliance Industries Ltd, and chairman, Fieldbus Foundation India End User Council (FFIEUC).



Addressing the gathering, Fieldbus Foundation President and CEO Rich Timoney introduced new foundation chairman Dr. Gunther Kegel, CEO of Pepperl+Fuchs. Timoney described the continued growth of FOUNDATION technology in established and developing industrial regions of the world. He also highlighted additions to foundation membership in 2010, with total membership increasing 11.3%. Significant membership gains have been made in China, Korea, and other developing areas.



Fieldbus Foundation Director of Technology Development Dave Glanzer summarized recent technology advancements such as enhanced Electronic Device Description Language (EDDL), High Speed Ethernet Remote I/O (HSE-RIO), FOUNDATION fieldbus for Safety Instrumented Functions (FF-SIF), and wireless.

P. Mahajan, technical director, Engineers India Limited (EIL), delivered the 2011 General Assembly keynote address. Mahajan started his career with India's Department of Atomic Energy (DAE) as a scientific officer. During his tenure in the DAE, he was responsible primarily for the engineering, procurement, construction, and maintenance of instrumentation and control systems for heavy water projects. Mahajan played a significant role in the Indian process industries, introducing the concept of electronic instrumentation and intrinsically safe systems in electrically hazardous plants to India in 1974.

Mahajan called FOUNDATION fieldbus "one of the best things to have happened in our industry." Citing the Fieldbus Foundation's long history of end-user involvement in the development and evolution of the technology, he said, "FOUNDATION fieldbus has a definite edge over other fieldbus technologies" and that the onus is on consulting organizations to play a responsible role to suggest the "right usage of the right technology."

Mahajan also said that control CIF with FOUNDATION fieldbus should be the default choice for many process automation applications, and described the technology as an "effective tool" for plant asset management.

Another prominent end user, Patrick Flanders, ESD specialist, Saudi Aramco, KSA, delivered a presentation entitled, "FOUNDATION Fieldbus for Safety Instrumented Functions (FF-SIF)." Flanders said, "The use of FF-SIF technology is nothing short of a breakthrough in safety system design. Using this new communications technology, advancements will be possible that safety system designers never imagined with conventional technology. The field installation planned at Juaymah Gas Plant will provide an opportunity to demonstrate the benefits offered by the introduction of the new FF-SIF communications in the operating environment."



Other 2011 General Assembly speakers included:

- Jonas Berge, director, PlantWeb Consulting, Emerson Process Management—"Asset Management with FOUNDATION Fieldbus";
- Michael Kessler, director-R&D, Pepperl+Fuchs—"New Technology for FOUNDATION Fieldbus Physical Layer";
- Dave Glanzer, director-technology development, Fieldbus Foundation—"FOUNDATION Technology Update";
- Travis Hesketh, Fieldbus Foundation Steering Committee, EMEA—"Control in Field (CIF)";
- H.S. Gambhir, vice president, Reliance Industries Limited—"Implementing FOUNDATION Fieldbus in KGD-6";
- T. Senthil, SGM (Inst), Chemplast—"Operational Excellence Using FOUNDATION Fieldbus";
- Ravi Gupta, manager, I&C, HMEL Refinery—"Advantages Using FOUNDATION Fieldbus"; and
- A. Rajabhadur, director, ARC India—"CAPEX/OPEX Benefits Using FOUNDATION Fieldbus."

A panel discussion among presenters moderated by B.R. Mehta of Reliance Industries Ltd. concluded the General Assembly program. Harsih K. Wadhwa, Fieldbus Foundation India Events Committee chairman, delivered closing remarks.

Presentations from the 2011 General Assembly may be downloaded from the Fieldbus Forums section of the Fieldbus Foundation [website](#).

[Return to Top](#)

Foundation appoints O'Brien global marketing manager



Larry O'Brien is the Fieldbus Foundation's new global marketing manager. O'Brien comes to the Fieldbus Foundation from the ARC Advisory Group, where he spent 18 years as a research director and analyst covering the process automation business. For much of his career, he has been closely tracking and reporting developments surrounding FOUNDATION fieldbus.

As global marketing manager, O'Brien will be responsible for developing the strategic marketing direction for FOUNDATION technology worldwide. He will oversee activities such as fieldbus seminar programs, trade show exhibitions, technical demonstrations, and marketing communications.

"I am very excited to begin my work at the Fieldbus Foundation," said O'Brien. "For many years, I have been writing about the business value proposition of FOUNDATION fieldbus at ARC. Now I get to use the knowledge and experience I have gained to raise the level of awareness of this technology for both end users and suppliers. ARC has always believed that FOUNDATION fieldbus offers a true process automation infrastructure providing significant lifecycle cost benefits and a path to superior asset management."

Fieldbus Foundation President and CEO Rich Timoney welcomed O'Brien to the key post with his organization. "We are excited to have Larry as part of our team, and look forward to his leadership of our global marketing program in support of FOUNDATION fieldbus," said Timoney. "From his time with ARC, Larry has gained an extensive background in the area of digital plant automation. His qualifications will be very helpful in expanding the presence of FOUNDATION technology around the world—particularly in developing industrial markets such as India, China, Latin America, and the Middle East."

O'Brien holds a BA degree from the University of Massachusetts at Lowell. During his time at ARC, he authored numerous market outlook studies and white papers covering topics from fieldbus to distributed control systems, process safety systems, automation services, and field instruments. He has also written several whitepapers for the Fieldbus Foundation on a variety of topics.

Visit the Fieldbus Foundation website to read the whitepapers:

- [Business value proposition of control in the field](#)
- [FOUNDATION Fieldbus for Safety Instrumented Functions \(FF-SIF\)](#)
- [FOUNDATION fieldbus as an automation infrastructure](#)

For more on the appointment as well as other Fieldbus Foundation news, visit the Fieldbus Foundation [website](#).

[Return to Top](#)

Three students awarded 2010-2011 educational scholarships

The Fieldbus Foundation has chosen three students to receive 2010-2011 James O. Gray-Fieldbus Foundation Scholarship Fund awards. The program honors the memory of James (Jim) O. Gray, a long-time leader in the Fieldbus Foundation who passed away in 2002. The Fund establishes a perpetual \$250,000 endowment fund providing scholarships to students around the world seeking a career in the industrial automation profession.

Receiving the 2010-2011 scholarship recipients are:

- **Darren Windle, SAIT Polytechnic, Calgary, Alberta, Canada:** Windle is currently enrolled in the Instrumentation Engineering Technology program at SAIT Polytechnic. Born and raised in Red Deer, Alberta, he works for the City of Red Deer's parks and recreation department in the summer operating and maintaining a variety of heavy equipment. He has also worked as an emergency medical responder for an industrial paramedic company. Windle has been a member of the International Society of Automation (ISA) since enrolling at SAIT in 2009.
- **Hideaki Yamashita, Waseda University, Tokyo, Japan:** Yamashita is a first-year master course student at Waseda University, focusing on process diagnosis with FOUNDATION fieldbus. His studies have concentrated on diagnosis of corrosion within Coriolis mass flowmeters and on changes in pipe thickness. Results of his studies were presented at the Dynamics and Design Conference 2010 at Doshisha University in Kyoto, Japan. His past activities have included participation in the Waseda Ecorun Club, a competition team that builds automobiles for maximum fuel efficiency. He received an award as a mechanic at the Suzuka Convention and he holds a second grade class in Shodou, the Japanese art of calligraphy.
- **William Odom, Fieldbus Center at Lee College, Baytown, Texas, USA:** Odom brings experience as an instrumentation installer to his studies at the Fieldbus Center at Lee College. He holds a Certificate of Completion in Instrumentation Technology, is nearing completion of an Associate of Applied Science (AAS) degree in Instrumentation Technology, and is progressing toward a second AAS degree in Electrical Technology. Odom also has volunteered his time and technical skills to the construction of the analytical instrumentation skills training lab at Lee College, part of ATOP, the Analyzer Technician Opportunities Project funded by a grant from the National Science Foundation.



Fieldbus Foundation President and CEO Rich Timoney congratulated the 2010-2011 scholarship recipients. "The James O. Gray-Fieldbus Foundation Scholarship Fund is pleased to award these scholarships to three very deserving instrumentation students," said Timoney. "The foundation and scholarship recipients appreciate the donations from automation technology supporters around the world, whose efforts will help maintain a strong and vibrant control industry."

Jim Gray, in whose memory the scholarship fund was established, worked for Invensys/Foxboro for 25 years as sales and marketing manager. In addition to being very active within the Fieldbus Foundation from its inception, he held the positions of secretary of the Board of Directors, member of the Executive Committee, and member of the U.S. Marketing Committee.

Fieldbus Foundation members and those interested in the progress of the automation industry are encouraged to participate in the James O. Gray-Fieldbus Foundation Scholarship Fund. For information on the various levels of support and more details on the scholarship program, call Talon Petty at the Fieldbus Foundation at 1-512-794-8890, ext. 21, or visit the Fieldbus Foundation [website](#).

[Return to Top](#)

Global News & Events

Dates set for 2011 end-user seminars in the Americas



The Fieldbus Foundation has finalized its schedule for 2011 FOUNDATION fieldbus end-user seminars in the Americas. The seminar program helps process industry end users understand the operational and economic benefits of the FOUNDATION Automation Infrastructure.

Locations and dates for the 2011 seminars include:

- Carson, California: May 24
- Rio de Janeiro, Brazil: June 16
- Mexico City, Mexico: August 23
- Calgary, Alberta: September 20
- Ft. McMurray, Alberta: September 22
- Detroit, Michigan: October 11
- Corpus Christi, Texas: November 7
- Baton Rouge, Louisiana: November 9
- Beaumont, Texas: November 10

Directed at process control end users and engineering firms, the one-day seminars cover all aspects of FOUNDATION automation infrastructure management. They address core technology topics such as Open, Scalable Integration/Segment Design and Layout; Process Integrity/Safety Integrity Levels (SIL) and Safety Instrumented Functions (SIF); and Business Intelligence/Maintenance and Troubleshooting. Each topic is discussed for 45 min. to an hour and is followed immediately by a 15 to 20-min. hands-on demonstration to reinforce the material. Also included is a discussion of advances such as field diagnostics, control in the field, and wireless. End-user speakers present case studies about their fieldbus applications. The seminars conclude with a demonstration of Electronic Device Description Language (EDDL) technology.

Each participant receives a certificate usable for PDH hours and copies of presentation materials. Lunch is provided.

For more information about 2011 end-user seminars in the Americas, visit the Fieldbus Foundation [website](#).

[Return to Top](#)

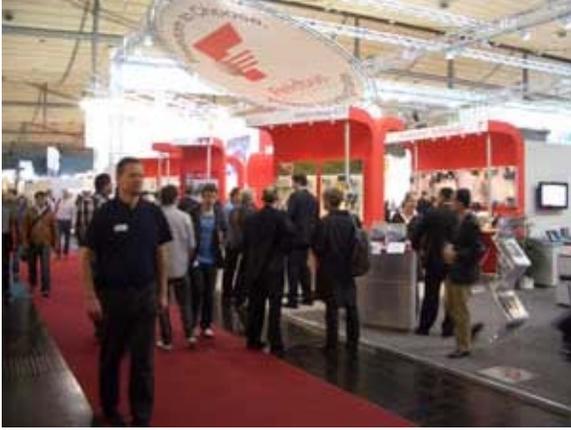
Field Communication Lounge proves popular with Hannover Fair visitors



The first co-sponsored Field Communication Lounge at Hannover Fair proved to be exceptionally popular with attendees. The Fieldbus Foundation joined the FDT Group, HART Communication Foundation, and PI (Profibus and Profibus International) to host the area in Hall 9, Booth D05 of the 2011 Hannover Fair in Hannover, Germany, April 4-8.

Using the theme: "Practical Field Communications for Today and Tomorrow," the Field Communication Lounge created one area in which visitors could see and experience the latest in field communication technology and discuss how the technologies work together to

deliver powerful results to improve plant operations, performance, and a company's bottom line. For the first time, Fair visitors had a central location to discuss and compare different field communication protocols, and learn about their advantages, applications, and integration.



A key feature of the 450 sq m lounge was the common display area and presentation forum in which experts from the four organizations presented the latest field device communication technology solutions. A series of 30-min. presentations by speakers from each organization was held each day, including one by a representative of the Fieldbus Foundation German Marketing Committee on "FOUNDATION Fieldbus—Close Control and SIL," which addressed CIF and FF-SIF.

At the end of each show day throughout the week, each organization hosted a themed Happy Hour at the Forum during which visitors joined representatives of the four associations and their member companies for snacks and drinks. On Thursday, April 7, the Fieldbus Foundation treated visitors to a Palatine-region wine tasting with canapés.

In the Field Communication Lounge, each co-sponsor organization had exhibit space for its member companies to demonstrate practical field communications solutions, including field devices, configuration, control and asset management applications, wireless technology, integration products, and other solutions that deliver value and benefits to the enterprise today and tomorrow.

Coordinated by the Fieldbus Foundation German Marketing Committee, the Fieldbus Foundation section featured purpose-built kiosks demonstrating FOUNDATION technology solutions and applications through static and operational displays of registered devices, host systems, tools, and services available from 13 of the world's leading automation equipment suppliers. Live demonstrations of the key benefits of FOUNDATION technology—process integrity; business intelligence; and open, scalable integration—were conducted throughout the week using the foundation's EMEA Executive Advisory Council's newly commissioned, live-working demonstration systems. The demonstration systems were assembled using host systems from Endress+Hauser and Honeywell; power supplies, wiring components, and junction boxes from MooreHawke, MTL, Pepperl+Fuchs, and R. Stahl; and field devices and displays from ABB, Emerson Process Management, Endress+Hauser, Honeywell, Moore Industries, MTL, Pepperl+Fuchs, R. Stahl and Yokogawa.

Thomas Kasten, chairman of the Fieldbus Foundation German Marketing Committee, was positive about the new Field Communication Lounge concept. He said, "For several years, current and prospective users of fieldbus technology have had to visit several stands—sometimes located in different halls. Having the four main field communication protocol providers together in a single location saved visitors a lot of time and effort. Since most industrial facilities use a combination of field communication protocols," he continued, "it made perfect sense to join forces with the other organizations so that the technologies could be viewed together, comparisons could be made easily, and integrated solutions discussed with experts on hand. This year's show was extremely successful and the Field Communication Lounge concept was fully supported by visitors and exhibitors alike. All participants are looking forward to continuing the concept in next year's trade shows in Germany."

Fieldbus Foundation members participating in the Field Communication Lounge included APAT, Dresser Masoneilan, Emerson Process Management, Endress+Hauser, Fieldbus International, Heinrichs Messtechnik, Leoni, Pepperl+Fuchs, Phoenix Contact, R. Stahl, Siemens, Softing, and Yokogawa.

For more information about activities in this region, visit the Global pages of the Fieldbus Foundation [website](#).

[Return to Top](#)

Newly formed Benelux marketing committee to promote FOUNDATION technology



The Fieldbus Foundation's recently established Benelux Marketing Committee (FFBeneluxMC) is intended to promote an increased awareness and adoption of FOUNDATION technology throughout Belgium, The Netherlands, and Luxembourg through promotional activities and a range of end-user focused activities, including training, technical support, trade show participation, and educational

seminars.

The committee was formally launched at an inaugural meeting Jan. 18, 2011 attended by representatives of Fieldbus Foundation Netherlands member companies and Belgian offices. Marc Van Pelt, vice-president, Fieldbus Foundation EMEA Operations and chairman, Fieldbus Foundation EMEA Steering Committee, also supported the meeting. The new Benelux committee fully incorporates all activities, responsibilities, and members of the former Fieldbus Foundation—Netherlands marketing committee (FFNL).

FFBeneluxMC members include Acta vzw, ABB, AKZO Nobel BV, BP Raffinaderij Rotterdam BV, Electromach BV, Emerson Process Management, Endress+Hauser, Flowserve, Honeywell, Invensys Process Systems, Moore Industries, MTL Instruments, Pepperl+Fuchs, Shin-Etsu VCM BV, Smar, SPIE Controlec Automation BV, R. Stahl, STC Group-Location Brielle, Turck, Wintershall Noordzee BV, and Yokogawa.

Former FFNL chairman Rob van der Zwan and members Hans Rill, Marcel Vennemann, and Peter Klestadt will continue to serve on the new expanded Benelux committee. They welcome Belgian members Harold Balemans and Koen Hoogstoel to the team.

Van Pelt praised the extension of the former Dutch committee's role. He said, "The Dutch group has grown consistently since its launch in 1999, and the expanded committee now has an impressive membership of 16 companies with an additional six honorary end-user and engineering contractor members. It made perfect sense to expand the responsibilities of this successful group to include Belgium and Luxembourg. The participation of our end-user members in the committee, and its end user events, are a valuable asset to both the group itself and to all prospective users of FOUNDATION fieldbus attending the seminars," he continued. "This beneficial arrangement is also being mirrored in other EMEA marketing committees."

With the support of the Fieldbus Foundation EMEA Executive Advisory Council and Fieldbus Foundation EMEA Steering Committee, the FFBeneluxMC will play an important role in promoting the primary value propositions of FOUNDATION technology, which include business integrity; business intelligence; and open, scalable integration of information across process manufacturing plants.

In addition to participating in key exhibitions and conferences in the region, the FFBeneluxMC's marketing committee plans will continue to focus on end users through its seminars for current and prospective users of FOUNDATION technology. Attendees will be updated on technological developments of FOUNDATION fieldbus, participate in technology demonstrations using live systems, attend sample training sessions, and learn about end-user application experiences. They will also have the opportunity to discuss their own applications with fieldbus experts and suppliers of systems and devices. The next event will be held May 19, 2011, at the Acta training center for technology and automation in Kalmthout, Antwerp, Belgium. Later in the year on Nov. 10, the STC Group will host a seminar at its training center at Brielle, close to the Rotterdam-Europort industrial area in The Netherlands.

Having established a unique training center for process control and automation, STC Group, Location Brielle became one of the first educational establishments worldwide to offer fieldbus training courses certified under the Foundation Certified Training Program (FCTP). The program establishes uniform educational standards for fieldbus educational curriculum around the globe, and defines acceptable levels of learning for students of the technology.

For more information about FFBeneluxMC and its activities, visit the Benelux pages of the Fieldbus Foundation [website](#) or [email](#) the committee.

For more on the training courses at STC Group, Location Brielle, visit the Education Section of the Fieldbus Foundation [website](#)

[Return to Top](#)

Fieldbus educational events planned worldwide throughout 2011

The Fieldbus Foundation has scheduled informational and educational events around the world in 2011. Make plans now to attend an event in your area.

LOCATION	DATE	EVENT and CONTACT INFORMATION
EVENTS IN THE AMERICAS		
Austin, Texas, USA	May 17, 2011	Developer Training—Introduction to FOUNDATION Fieldbus Click here for more information
Austin, Texas, USA	May 18-20	Developer Training—Advanced Principles of FOUNDATION Fieldbus

		Click here for more information
Carson, California, USA	May 24, 2011	FOUNDATION Fieldbus End User Seminar Click here for more information
Rio de Janeiro, Brazil	June 16, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Mexico City, Mexico	Aug. 23, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Calgary, Alberta, Canada	Sept. 20, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Ft. McMurray, Alberta, Canada	Sept. 22, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Detroit, Michigan, USA	Oct. 11, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Corpus Christi, Texas, USA	Nov. 7, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Baton Rouge, Louisiana, USA	Nov. 9, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Beaumont, Texas, USA	Nov. 10, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Austin, Texas, USA	Nov. 15, 2011	Developer Training – Introduction to FOUNDATION Fieldbus Click here for more information
Austin, Texas, USA	Nov. 16-18, 2011	Developer Training – Advanced Principles of FOUNDATION Fieldbus Click here for more information
EVENTS IN EMEA (EUROPE, MIDDLE-EAST, AFRICA)		
Johannesburg, South Africa	May 17-19, 2011	PROCESS 2011 Exhibition, FOUNDATION Technology Training Click here for more information
Kalmthout, Belgium	May 19, 2011	FOUNDATION Fieldbus End User Conference More information to come
Plock, Poland	May/June 2011	FOUNDATION Fieldbus Live–Instrumentation Roadshow Click here for more information
Windhoek, South Africa	June 7, 2011	CONTROL Roadshow Click here for more information
Walvis Bay, South Africa	June 9, 2011	CONTROL Roadshow Click here for more information
Secunda, South Africa	July 21, 2011	CONTROL Roadshow Click here for more information
Port Elizabeth, South Africa	Aug. 18, 2011	CONTROL Roadshow Click here for more information
Frankfurt, Germany	Sept. 20, 2011	Developer Training – Introduction to FOUNDATION Fieldbus Click here for more information
Frankfurt, Germany	Sept. 21-23, 2011	Developer Training–Advanced Principles of FOUNDATION Fieldbus Click here for more information

Linz, Austria	Oct. 4-6, 2011	FOUNDATION Fieldbus Presentation, SMART Automation Click here for more information
Vanderbilpark, South Africa	Oct. 20, 2011	CONTROL Roadshow Click here for more information
University of Miskolc, Lillafüred, Hungary	Oct. 24-26, 2011	DCS17 Conference Click here for more information
STC Brielle, Rotterdam, The Netherlands	Nov. 10, 2011	FOUNDATION Fieldbus End User Conference More information to come
Abu Dhabi, UAE	December 2011	Multaqa 2011: FOUNDATION Fieldbus End User Conference More information to come
EVENTS IN ASIA/PACIFIC		
Vungtao, Vietnam	April 2011	FOUNDATION Fieldbus End User Seminar More information to come
Bangkok, Thailand	April 2011	FOUNDATION Fieldbus End User Seminar More information to come
Singapore	May 12, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Kaohsiung, Taiwan	July 6, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Urumuqi, China	July 21, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Mumbai, India	Sept. 20-23, 2011	Automation 2011 Exhibition More information to come
Seoul, Korea	October 2011	FOUNDATION Fieldbus End User Seminar More information to come
Shanghai, China	Oct. 20, 2011	FOUNDATION Fieldbus End User Seminar More information to come
Tokyo, Japan	Nov. 16-18, 2011	JEMIMA Exhibition More information to come
Rayong, Thailand	November 2011	FOUNDATION Fieldbus End User Seminar More information to come
Kuala Lumpur, Malaysia	November 2011	FOUNDATION Fieldbus End User Seminar More information to come
Jakarta, Indonesia	December 2011	FOUNDATION Fieldbus End User Seminar More information to come
Australia	To be determined	FOUNDATION Fieldbus End User Seminar More information to come

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

[Return to Top](#)

Technology News

Can you help? Volunteer now for FOUNDATION technical teams



Among the many exciting benefits of Fieldbus Foundation membership are early access to the latest FOUNDATION technical specifications and development tools for faster time to market and discounts on fieldbus training. Company volunteers also may participate in the various steering committees, technical teams, and working groups that help support aspects of FOUNDATION technology important to all members and that help meet the needs of the global process automation industry.

FOUNDATION Consider joining one of the following teams which currently have openings for foundation member volunteers:

- **Lab Integration Team.** Dedicated to improving the device integration user experience with FOUNDATION fieldbus products, this team identifies interoperability/usability issues discovered during integration testing of multi-vendor applications.
- **H1 Physical Layer Test Enhancement Team—Field Devices.** Dedicated to improving the interoperability of independently manufactured fieldbus devices by enhancing the current 31.25 kbit/s device physical layer tests, this team focuses on physical layer specifications, test requirements, and test cases for H1 fieldbus devices, including action requests for current physical layer specifications.
- **H1 Physical Layer Test Enhancement Team.** This team is dedicated to developing extensions to the H1 Physical Layer Conformance Test Specification (FF-830) to include self-test procedures for FOUNDATION fieldbus isolated device couplers.
- **Function Block Maintenance Team.** This team is dedicated to reviewing and resolving action requests according to the Action Request Resolution Process (FF-548) for the Function Block Application Process Parts 1 through 5 Technical Specifications. Team members should be familiar with FOUNDATION fieldbus and function blocks in the process control industries.
- **System Integration and Maintenance (SIM) Team.** Dedicated to reviewing and resolving action requests filed against the FF-900 Device Description Language Specification, FF-103 Common File Format Specification, FF-901 Device Description Interoperability Specification, and FF-569 Host Interoperability Support Test, this team continues the work of the DD/HIST team to ensure interoperability between field devices and host applications using Electronic Device Description Language (EDDL) technology.
- **Transducer Block Development and Maintenance Team.** Dedicated to determining transducer block profiles that will be registered and the minimum requirements for each block, this team includes device suppliers, host suppliers, and end users.
- **HSE Remote I/O (HSE-RIO) Team.** This team is dedicated to preparing specifications for a wired High Speed Ethernet (HSE) backhaul network, a wireless HSE backhaul integrating various wireless gateways, and an interface to wireless field device networks.
- **Fieldbus Foundation/ISA100.15 Cooperation Wireless Backhaul Networking Team.** This team is dedicated to preparing specifications for the wireless HSE backhaul to the HSE-RIO gateway.
- **Wireless Sensor Integration Team.** This team is dedicated to developing specifications for the interface of wireless sensor networks to the HSE-RIO gateway.

For more information about membership benefits, visit the Fieldbus Foundation [website](#).

To offer your support to a foundation technical team, visit Fieldbus Forums on the Fieldbus Foundation [website](#).

[Return to Top](#)

Products & Solutions

Phoenix Contact adds new FOUNDATION Fieldbus products to its process portfolio

Phoenix Contact has added two new families to its ever-growing process infrastructure portfolio, the overall breadth of the offering providing solutions to almost any process automation challenge. A new line of preconfigured junction boxes makes it easy to connect and protect process instruments, and a redundant fieldbus power supply can prevent downtime in critical applications.

In the field, the stainless steel and aluminum enclosure assemblies include internal components for trunk connection, termination, surge protection, and flexible shielding for easy connection. The user can snap in the type and number of



modular device couplers, FB-2SP or FB-ISO, based on hazardous area and isolation requirements, reducing installation costs by avoiding unused capacity and minimizing enclosure size. At the same time, a one-to-one coupler-to-instrument relationship increases operational integrity.

In the control cabinet, the redundant power supply features a per-segment modular base for connectivity and signal conditioning that improves overall process integrity while saving critical cabinet space and avoiding unused capacity cost. Power modules include Auto Current Balance (ACB) technology and Preventive Function Monitoring with an integrated remote indication contact per module.

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

[Return to Top](#)

Pepperl+Fuchs introduces intrinsic safety without power limits

Pepperl+Fuchs' Dynamic Arc Recognition and Termination System (DART) is a dynamic power supply and control system for intrinsically safe fieldbus installations that dramatically increases the power available to field devices in explosion hazardous areas, while maintaining intrinsically safe energy levels.

"The DART system supplies enough power to support nearly as many devices as is typically supplied in non-hazardous areas, and can also power field instruments that previously required more power than intrinsically safe solutions could offer," says David Hohenstein, department manager, Pepperl+Fuchs. "What makes DART so unique is that it enables process users to fully benefit from the advantages of fieldbus technology in hazardous area applications such as ensuring system availability and lowering total cost of ownership."



During normal operation, a DART power supply feeds full nominal power of 8 to 50 W, exponentially more power than the approximately 2 W normally permitted in intrinsic safety environments. Should a fault occur, the potential spark remains non-incendive. DART detects the resulting change in current and immediately switches off the power supply. In microseconds, energy from the electrical system is reduced to a safe level, robbing a spark of the energy needed to ignite hazardous gases.

When applied to fieldbus, DART provides a much higher intrinsically safe power allowance to the trunk so that the segment can support up to 32 devices per segment, the maximum permitted. This capability reduces capital costs by eliminating excessive fieldbus infrastructure. Moreover, cable lengths as long as 1,000 m are possible, opening up many application areas to fieldbus technology while maintaining intrinsic safety requirements for all devices and cables, including the trunk line. The higher device count per segment eliminates having to design complex network topologies with many sub-segments, each requiring its own power supply, junction boxes, and barriers.

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

[Return to Top](#)

R. Stahl's compact field device couplers suited for Zone 2 hazardous areas



With its new Series 9410 Zone 2 Ex n field device couplers, R. Stahl extends its already wide range of fieldbus installation material. The new, compact and cost-effective couplers are available with 4, 8, and 12 spurs. They are suitable for Zone 2 hazardous area installation and connection to field devices using Ex ic, Ex nL, or Ex nA type protection, and for Zone 1 Ex d and Ex m equipment as well.

All couplers feature detachable screw terminals with locking screws and a red LED for each spur for failure indication. R. Stahl Power Management is also available with these couplers. Softstart function significantly reduces inrush current during startup of a fieldbus segment by energizing one fieldbus device after the other, lowering energy consumption more than 50%. The short-circuit switch-off function de-energizes fieldbus devices in a short-circuit

situation so that even with multiple short circuits energy consumption is limited to one device only.

Series 9410 Zone 2 Ex n Field Device Couplers come with an extensive range of installation materials and enclosures, including GRP and stainless steel material for customized solutions.

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

[Return to Top](#)

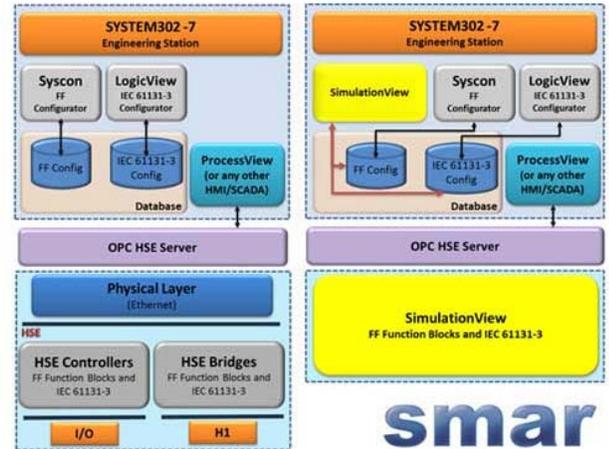
Smár software analyzes fieldbus strategies before implementation

With the release of System302 v. 7.3, Smár presents SimulationView, software that helps improve business results by analyzing the impact of new FOUNDATION fieldbus control strategies before they are implemented live by users.

Using SimulationView, all procedures can be executed offline without disrupting service. The software was conceived to make control strategy simulation easier. Using its powerful features, technicians are able to develop and simulate strategies based on FOUNDATION fieldbus function blocks and ladder logic according to the IEC 61131-3 standard.

Because users can access data directly from the System302 database, no settings need to be exported for simulation. Simulated data are available through System302's OPC server to any HMI or SCADA OPC client.

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



[Return to Top](#)

Yokogawa autonomous controller key factor in remote asset management

Yokogawa's Stardom FCN-RTU low-power autonomous controller is a key component for remote asset management. Registered as an integrated host class system, it brings FOUNDATION fieldbus to inhospitable (-40 to 70° F) and hazardous (FM non-incendive, ATEX Type "n", and CSA) locations.



With FOUNDATION fieldbus, operational expenditures (OPEX) are lowered because devices can be diagnosed and maintained from a central location, eliminating the need for periodic visits to remote facilities such as oil and gas wellheads.

To simplify the introduction of this technology to new applications, Yokogawa has enhanced the FCN-RTU's engineering tool and improved the hardware's reliability and functionality in a variety of ways.

The enhanced software and improved FOUNDATION fieldbus engineering tool features:

- An intuitive look and feel interface, including drag-and-drop operations for device definition and IEC61131-3-like logic programming;
- Improved program code reusability; and
- Compatibility with Microsoft Windows 7 for use with a wider selection of PCs.

The enhanced hardware offers greater reliability through:

- An error check and correct (ECC) memory that prevents software malfunctions caused by memory errors; and
- A battery voltage drop detection function that provides timely notification to operators of the need to back up parameters stored in volatile memory.

Pepperl+Fuchs also has DIN rail- and transmitter-mounted surge protection devices. Fieldbus surge protection is recommended for any cable run over 10 m to protect devices from lightning and surge damage. DIN rail units feature plug-in protection modules for easy maintenance without disrupting any field wiring. They can be mounted in the control room to protect power supplies and hosts or in field junction boxes to protect field devices and segment protectors. Transmitter-mounted surge protectors simply screw into the transmitter housing to protect the individual device.

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



9005 Mountain Ridge Drive, Bowie Building – Suite 200, Austin, Texas 78759-5316 USA

Tel: 512.794.8890 • Fax: 512.794.8893 • E-mail: info@fieldbus.org

www.fieldbus.org

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