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FOUNDATION BRIEFS

Fieldbus Foundation, others join to demonstrate ISA EDDL

The Fieldbus Foundation joined with other automation industry standards organizations and a “who’s who” of leading control equipment suppliers to demonstrate Electronic Device Description Language (EDDL) at ISA Expo 2008, held in October in Houston. The multi-vendor demonstration confirmed the interoperability of EDDL technology and its conformance to NAMUR NE 105 requirements.

Coordinated by the ISA104 group, the EDDL event was designed to raise awareness of EDDL standard enhancements and to show the new capabilities—such as integrated diagnostics according to NAMUR NE 91 requirements—that products gain from them. EDDL, also known as IEC 61804-3, is the only international standard for device integration. It enables software and handheld communicators to display device information so that technicians can setup and commission a device; calibrate; and perform diagnostics, troubleshooting, and other device management tasks.

Traditional DD was introduced in 1992 and became an international standard in 2004, but lacked graphics. In 2006, graphical enhancements were added, making possible the support of sophisticated (complex) devices. Instrument manufacturers provide an EDDL file for their devices that declare to the system how information should be displayed to make the device easy to use.

At the ISA 104 booth, Emerson, Invensys, and Siemens, among other vendors supporting the technology, exhibited control systems employing enhanced EDDL. A handheld field communicator utilizing the technology was shown as well. Visitors were able to see how system software interoperates with devices from other manufacturers, and how each system vendor has implemented the EDDL enhancements.

The EDDL standard allows one software application or handheld field communicator to work with various devices from many manufacturers. Essentially, one open tool replaces many proprietary ones. A handheld field communicator is smaller, lighter, more rugged, and more portable than a laptop, suiting it for field work such as calibration and commissioning.

Products demonstrated in the booth included devices communicating using HART, FOUNDATION fieldbus, Profibus, and WirelessHART protocols. Many of the systems support several of these protocols simultaneously. The EDDL standard permits a mix of devices using different protocols to be managed by the same software.

Emerson, Endress+Hauser, and Siemens provided simple temperature and pressure transmitters for the EDDL demonstration. Sophisticated (complex) devices included radar level transmitters from Emerson and Siemens and control valves with positioners from Emerson, Foxboro, Masoneilan, Metso, Samson, and Siemens. Siemens supplied a variable speed drive and MTL a fieldbus diagnostics module (a relatively new device that monitors signal and noise level of the bus infrastructure). Visitors viewed advanced setup and diagnostics for all these devices. In addition, Ifak System displayed a software tool that lets device manufacturers write EDDL files for their devices much as they would design a Web page. Fieldbus power conditioners for the demonstration systems were provided by MTL; fieldbus cable was by supplied by LEONI Kerpen.

The EDDL-based systems showcased displays with echo curve from radar level transmitters together with the amplitude threshold curve. Also displayed was a valve signature curve from a positioner, valve position histograms, and multi-variable trends. Demonstrations also illustrated how wizards (EDDL methods) guide technicians step-by-step through device setup and calibration to ensure they are done correctly. Examples included guided pressure transmitter calibration, valve stroking, and manual valve operation.

Visitors also were allowed to test intelligent device management software to remotely interrogate live devices on display and see how devices from different manufacturers are shown with a consistent look and feel. Although display content and structure are defined by the device manufacturer, the appearance and location of buttons used to accept or cancel changes, access help, print, zoom, and pan for trend charts and waveform graphs work the same for all devices. The consistent indication of parameter status—read-write, read-only, download change, database miscompare, lost communication, and failure—also are indicated in the same way. No other solution provides this level of consistency and ease of use.

Instrumentation manufacturers use images--static which illustrate wiring and configuration options and conditional which change with device status--in their EDDL files to make devices easier to use. Manufacturers also are able to embed help text and diagnostics in EDDL files.

Booth visitors were also able to see device libraries of traditional DD and enhanced EDDL files for hundreds of existing devices. Each version has a separate file to prevent conflicts with other versions or types. Files for existing devices are pre-loaded when a system is bought. As new devices are introduced into the plant over time, their EDDL files must be loaded. Because an EDDL file is compressed text (like HTML), not software, it is copied onto the system—not installed—making software employing EDDL easier to update.

The concept of integrated diagnostics was also demonstrated. Here, device status can be checked from the operator workstation. There is no need to go to a separate maintenance station, a benefit for maintenance technicians working in the field. In addition, system vendors showed how data from devices decoded using EDDL can be printed and exported to a Microsoft Excel spreadsheet, and how any changes made to devices are logged in an audit trail. The demonstration also showed how EDDL can be used to configure an OPC server automatically and make device data accessible to other software applications. The role EDDL plays in each system lifecycle phase and how it is supported in a wide range of tools was also shown.

In the theater on the exhibit floor, more information was available on two EDDL topics: an overview of the EDDL standard and how EDDL simplifies commissioning and diagnostics of WirelessHART.

Learn more by visiting the EDDL Website.

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Free download: ARC whitepaper explains FOUNDATION SIF

Learn more about FOUNDATION Safety Instrumented Functions (SIF) in a new whitepaper from the Fieldbus Foundation. Authored by the ARC Advisory Group, a leading research and advisory firm for manufacturing, energy, and supply chain solutions based in Dedham, MA, the document discusses the implications of FOUNDATION SIF (FF-SIF) technology for the global plant safety system market and end users.

FOUNDATION Fieldbus Safety Instrumented Functions Forge the Future of Process Safety explains how successful beta testing of FOUNDATION SIF will mean significant changes in the way automation end users approach Safety Instrumented System (SIS) implementations in process industry plants. In May 2008, the Fieldbus Foundation conducted a successful live demonstration and press day for FOUNDATION SIF technology at Shell Global Solutions in Amsterdam, The Netherlands. At the event, several leading energy companies described their

use of FOUNDATION SIF in a wide range of industrial safety system applications.

In the new whitepaper, Larry O'Brien, ARC Advisory Group's research director—process automation, describes how FOUNDATION SIF is a critical part of the FOUNDATION fieldbus automation infrastructure. FOUNDATION fieldbus' industry-proven distributed function blocks and open communications protocol make it an ideal platform for advancing standards-based solutions for plant SIFs. FOUNDATION SIF lets end users reduce TCO (total cost of ownership) by extending fieldbus benefits into plant safety systems.

"It is very clear that end users want this technology and are striving to include FF-SIF systems in their project specifications," said O'Brien. "Many major end users will probably be specifying FF-SIF systems for their new projects starting in 2011."

The whitepaper reviews the history and development path of FOUNDATION SIF technology, and discusses SIF product registration, conformance to international standards, diagnostics functions and benefits, and future challenges. It also outlines key advantages of FOUNDATION SIF at the safety system layer.

According to O'Brien, "FF-SIF meets the IEC 61508 standard for functional safety systems up to SIL 3, and allows users to build safety systems that adhere to the IEC 61511 standard for functional safety in the process industries. The protocol has already received TÜV approval, and suppliers are going to start submitting their products for TÜV approval over the next year. This means that we should see actual products that are certified by TÜV available commercially some time in 2010."

Download the FOUNDATION SIF whitepaper free from the Fieldbus Foundation Website.

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GLOBAL NEWS & EVENTS

Nearly 200 flock to FOUNDATION fieldbus seminar in China

Nearly 200 representatives from various process industries attended the Fieldbus Foundation educational seminar last month. Held Nov.13, 2008, at the Ramada Pearl Hotel in Guangzhou, China, the event was hosted by the Fieldbus Foundation China Marketing Committee (FFCMC) and organized by the Chinese FOUNDATION Fieldbus Committee (CFFC). Leading Chinese end users at the event described the operational advantages and business benefits of implementing the FOUNDATION plant automation infrastructure.

The seminar included introductory remarks from CFFC chairman Harold Lin. Sam DeKey, technical director, National Instruments, gave an update on current FOUNDATION fieldbus developments around the world. Xie HuaiRen of the Engineering Research Institute of China Petroleum & Petrochemical Industry described various FOUNDATION fieldbus applications across China's petrochemical industry. Shelly Lu, technical manager, Honeywell, gave an overview of the current FOUNDATION fieldbus engineering guide.

In the first end user presentation, "FOUNDATION Fieldbus Implementation in Yunnan Sanhuan Fertilizer DAP Project," Fu Kaiyang, project manager, Sanhuan fertilizer project, explained the use of FOUNDATION fieldbus for large-scale control system applications and how the

technology provides a stable, user-friendly process automation solution.

Zhang YiMin, I&C director, Shanghai Wujing Chemical, talked about a FOUNDATION Fieldbus application at Shanghai Wujing Chemical. His presentation stressed how FOUNDATION technology was easy to install and reduced control system cabinet and cable requirements. In addition, he noted that control in the field improved control system response time and accuracy, and asset management systems reduced commissioning time. According to the report, commissioning time for Shanghai Wujing Chemical's 115 control valves was reduced 80% with fieldbus, compared to conventional technology.

In "FOUNDATION Fieldbus Success Story in Changxing Glass Plant," Gao Cai, project director, Zhejiang Glass Group, described the requirements of digital device maintenance. He said modern asset management tools allow device maintenance to be performed remotely, thus improving safety for instrument technicians. At the same time, digital fieldbus systems reduce physical layer and installation requirements.

Wang Shengli, senior DCS engineer from CNOOC and Shell Petrochemicals Co. Ltd., Dayawan, Huizhou, discussed how "Proactive Maintenance Improves Plant Reliability." He told attendees how FOUNDATION fieldbus, together with host management system tools, enabled a proactive maintenance strategy that has the potential for significant cost savings. He also stressed the importance of proper training, testing, tools, and equipment in successful fieldbus projects.

In his presentation, "Digital Petrochemical Plant," Xie Huairen, consultant, Sinopec Research Institute, described how digital automation technology improves petrochemical plant efficiency. He indicated that a key benefit of FOUNDATION fieldbus is the ability to use robust diagnostic information to enable operators to better understand processes. This capability is supported by preventive intelligence and asset management solutions helping plants avoid unscheduled shutdowns and improve security.

Ye Yingmin, instrument lead, SECCO, spoke on an, "Experience in FOUNDATION Fieldbus Implementation." He discussed SECCO's experience with one of the world's largest FOUNDATION fieldbus projects. According to the presentation, end users must have sufficient skills and knowledge of FOUNDATION technology to ensure a successful fieldbus installation. Users also need to update their implementation procedures to maximize technology benefits. He concluded that applying FOUNDATION fieldbus and asset management solutions helps increase instrument reliability/integrity to 99.8% and reduce failure rates.

Seminar sponsors included ABB, Azbil, CBC, Emerson Process Management, Endress+Hauser, Hirschmann, Honeywell, Metso Automation, Mettler Toledo, MooreHawke, MTL/Relcom, National Instruments, Northwire, Pepperl+Fuchs, Rockwell Automation, Samson, and Turck.

Check out future fieldbus educational seminars on the Fieldbus Foundation Website.

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Australian End User Council plans 'Jump Aboard 2009'

Plans are underway for "Jump Aboard 2009: Fieldbus—the Next Generation." Hosted by the Fieldbus Foundation End User Council Australia (FFEUCA), the end-user council meeting is scheduled for Perth, May 15, 2009. The event typically attracts a large following of automation suppliers and end users throughout Australia and the Asia/Pacific region.

Get more information from the Jump Aboard 2009 Website.

Sponsorship opportunities also are available. Download a pdf with the details.

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2009 Fieldbus technology events planned around the world

The Fieldbus Foundation is planning many informational and educational events around the world in the new year. Make plans now to attend an event in your area.

LOCATION	DATE	EVENT and CONTACT INFORMATION

EMEA (EUROPE, MIDDLE-EAST, AFRICA) EVENTS		
Duesseldorf, Germany	March 2-4, 2009	ARC Process Management Academy More information to come
Hannover, Germany	April 20-24, 2009	Interkama Trade Show More information to come
Frankfurt, Germany	May 11-15, 2009	ACHEMA Trade Show More information to come
Bahrain	October 2009	Multaqa 2009-FOUNDATION Fieldbus End User Conference More information to come
Frankfurt, Germany	November 2009	FOUNDATION Fieldbus End User/EPC Seminar More information to come
Le Havre, France	To be determined	FOUNDATION Fieldbus End User/EPC Seminar More information to come
Italy	To be determined	FOUNDATION Fieldbus End User/EPC Seminar More information to come
Russia (various locations)	To be determined	FOUNDATION Fieldbus End User/EPC Seminars More information to come
Humberside, UK	March 2009	FOUNDATION Fieldbus End User/EPC Seminars More information to come
Brands Hatch, Kent, UK	October 2009	FOUNDATION Fieldbus End User/EPC Seminars More information to come
SEMINARS IN SOUTH EAST ASIA		
Thailand	To be determined	FOUNDATION Fieldbus End User Seminar More information to come
Malaysia	To be determined	FOUNDATION Fieldbus End User Seminar More information to come
Jakarta, Indonesia	To be determined	FOUNDATION Fieldbus End User Seminar More information to come
SEMINARS IN INDIA		
Chennai, India	Mid-December 2008	FOUNDATION Fieldbus End User Seminar More information to come
SEMINARS IN EAST ASIA		
Osaka, Japan	To be determined	FOUNDATION Fieldbus End User Seminar More information to come
Tokyo, Japan	To be determined	FOUNDATION Fieldbus End User Seminar More information to come
Korea	To be determined	To be determined

Click here for a complete list of events.

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TECHNOLOGY NEWS

Updated FOUNDATION fieldbus technical specification now available

An updated FOUNDATION fieldbus technical specification is now available. The latest specification, FOUNDATION Technical Specification (FF-007-2008.3), includes a variety of enhancements for developers and end users of FOUNDATION fieldbus. The updates address:

- H1 network management
- H1 cable test specification
- Fieldbus message specification
- Software download addendum
- Function block AP parts 1-5
- Transducer block common specification
- Temperature transducer block
- Pressure transducer block
- Host interoperability support test profile and procedures
- Profile/profile revision
- Standard tables

The Fieldbus Foundation's open, non-proprietary FOUNDATION fieldbus specifications are essential for controls manufacturers seeking to respond to the rising demand for fieldbus-based control solutions. This enabling technology facilitates significant improvements in process integrity, business intelligence, and open and scalable integration of information across process manufacturing plants.

Members with active specification maintenance agreements can access the specification document on Fieldbus Foundation Website. Locate it in the new integrated Fieldbus Foundation Technical Specifications Release 2008.3 within Fieldbus Forums under Product Forums—FOUNDATION Technical Specifications Support Forum. An account with member access privileges is required to access the document. If you are unable to access the link, email Member Services to activate member privileges.

For more information, call 512-794-8890 or email Member Services.

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Fieldbus Foundation releases enhanced interoperability test kit

The Fieldbus Foundation has released an enhanced H1 Interoperability Test Kit (ITK). Version 5.1 is updated to support Temperature Transducer Blocks, Device Description (DD) 5.1 functionality, and Field Diagnostics Profiles enhancing organization and integration of device diagnostics within FOUNDATION fieldbus systems.

ITK 5.1 test kit verifies the functionality of an H1 (31.25 kbit/s) device and its conformity with the FOUNDATION fieldbus Function Block and Transducer Block specifications. Called an excellent tool for troubleshooting and debugging devices, the test kit includes the hardware and software required to ensure a manufacturer's complete device interoperability as specified by the foundation's official registration testing procedure. Using H1 ITK 5.1, device developers can run tests identical to those used by the Fieldbus Foundation before submitting their device for official registration.

H1 ITK includes a host of powerful new capabilities for end users of FOUNDATION fieldbus devices. DD 5.1 enhancements include a Cross-block Device Description, National Instruments (NI) Communication Driver 3.2.2, and updated DD Viewer. Other updates include support for the FF-904 Temperature Transducer Block Specification (single and dual sensor) and FF-912 Field Diagnostics Profile Specification. The kit also provides a Resource Block parameter set to implement the Field Diagnostics Profile and various other software enhancements.

According to Stephen Mitschke, the Fieldbus Foundation's product manager-fieldbus products, the H1 ITK 5.1 test tool is an essential resource for FOUNDATION fieldbus device developers. He said, “The updated ITK includes expanded capabilities that assist instrument suppliers in implementing powerful role-based diagnostics for fieldbus equipment. This

approach supports categorization of diagnostics according to the NAMUR NE107 recommendations, thus ensuring the right diagnostic information is available to the right person at the right time. In addition, it allows diagnostics to be applied as most appropriate for a particular plant application."

Developed by the Fraunhofer Institute, the testing tool consists of a test engine, communication stack, and function block interface card. The ITK test engine executes a set of more than 400 test cases that exercise the device implementation. The tester also includes a DD "Super Viewer" that allows examination and verification of a device's DD, and a conformance test procedure for the physical layer. The DD Super Viewer was been enhanced to support validation of existing DDs and the new DD 5.1 format. Device developers can walk their DD, execute methods, and render the new visualization elements supported by the new DD 5.1 technology. As additional standard function blocks become available, the ITK will be upgraded with new test cases to verify these expanded implementations.

The interoperability test suite can be paired with an ITK Automation Tool designed to eliminate several manual intervention steps required when performing pre-registration testing of fieldbus devices. The tool improves ITK schedule efficiency and provides a direct reduction in the time and effort needed to complete the testing phase.

Fraunhofer, an internationally-recognized expert in communication and network testing software based in Karlsruhe, Germany, designed the ITK to verify standard function blocks, a unique aspect of FOUNDATION fieldbus that makes device interoperability possible. For a device to pass interoperability testing, it must contain a Fieldbus Foundation-registered communication "stack" that has passed conformance tests.

For more information about the H1 ITK 5.1 test kit, visit the Tools page of the Fieldbus Foundation Website, or contact Talon Petty at the Fieldbus Foundation by email or by phone at 512-794-8890, ext. 21.

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END USER INFORMATION

Emerson will automate Basin Electric Power's new Dry Fork Station

Emerson Process Management has received a contract from Basin Electric Power Cooperative to digitally automate its Dry Fork Station. The new, 385-MW coal-fired power plant in the Gillette, WY, area, is expected to be operational by 2011.

Emerson's comprehensive PlantWeb solution includes deployment of the Ovation expert control system to monitor and control the plant's main and auxiliary boilers, burner management system, and air quality control system, and to balance plant processes. The system will also perform data acquisition, including sequence of events.

The Ovation system will incorporate 230 FOUNDATION fieldbus segments, representing 1,100 devices. In addition, Emerson will provide AMS Suite predictive maintenance software to streamline device configuration and commissioning. AMS Device Manager will provide online access to instrument and valve diagnostics and automatically document field device maintenance information.

Dry Fork also will apply Emerson's SmartProcess combustion optimization technology and a high-fidelity Scenario simulator. Configured using control logic identical to that of the plant, high-fidelity simulators offer a highly realistic training and engineering analysis environment. The simulators will be used to train Dry Fork operators on the new Ovation system, to test and verify control logic, and for unit check-out prior to the plant's synchronization to the grid.

Learn more by visiting the Emerson Website.

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PRODUCTS & SOLUTIONS

ABB introduces advanced fieldbus electromagnetic flowmeters

FSM4000 AC electromagnetic flowmeters (magmeters) from ABB provide high performance and quick response under tough operating conditions. This competitively priced flowmeter is especially suited for applications in industries with high solids content, low conductivity, and pulsating flows, or slurry, paste, sludge, and two-phase fluid conditions.

Operating advantages include:

- Simple, fast start-up using menu-driven configuration;
- State-of-the-art self-diagnostics to reduce operating and maintenance costs; and
- Backward compatibility with existing ABB magmeter sensors and suitability as a universal, high-performance magmeter system, reducing parts stocking and maintenance.

The FSM4000's digital converter (transmitter) may be located up to 300 ft away. It incorporates digital signal processing and simplified capabilities for easy set-up and maintenance. An operating frequency appreciably higher than the line frequency, coupled with narrow bandwidth filters, minimizes signal noise from external equipment. Common fieldbus protocols, including FOUNDATION fieldbus, are available.

The FSM4000 has an accuracy of better than ± 0.5% of flow rate. Measured liquids conductivity may be as low as 20 µS/cm (optional 0.5 µS/cm). Standard fluid temperature range is -40 to 130 F. A high-temperature design can operate at 180 C (356 F).

Learn more by visiting the ABB Website.

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MooreHawke system approved for FISCO compatibility, power redundancy

Route-Master from MooreHawke, a division of Moore Industries-International Inc., is now ATEX-approved (FM pending) as a redundant intrinsically-safe fieldbus system permitting the connection of any mix of FISCO and Entity devices, the company announced recently. It also reports the system is the first approval to offer FISCO compatibility and power redundancy.

Route-Master consists of up to eight Trunk Isolator modules in a 19-in. rack, each connected to one or more RM100 Fieldbus Device Couplers. The combination is now approved for any mix of FISCO and Entity field devices. The RM100 Rack incorporates hot-swappable and load-sharing redundant dc power cards and full galvanic isolation. Intrinsically-safe approvals extend to IEC Gas Group IIC (NEC Groups A and B), with a reported industry-best of 350 m per segment.

The duplex FISCO Route-Master gives a calculated MTBF of 468 years, said to be at least five times better than a conventional simplex FISCO system. Route-Master also allows the full FOUNDATION fieldbus network length of 1,900 m and 120 m spurs, double the normal FISCO restrictions.

RM100 device couplers have auto-resetting short-circuit protection, automatic segment termination to eliminate common installation errors and commissioning delays, and LED status indicators. The manufacturer's short circuit protection method prevents segment failure caused by multiple device faults. A "fold-back" technique automatically removes fault loads from the segment and prevents current flow to those devices until the faults are corrected. Manual termination may be provided at the user's request.

For more information, visit the MooreHawke Website.

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MTL expertise facilitates fieldbus network commissioning

MTL tools and staff are available to help verify the integrity of FOUNDATION fieldbus networks, the company has announced.

Commissioning is crunch time when everyone is under pressure to complete a project, get the plant operational, and turn the cash flow positive. However, the commissioning team often does not have the in-house expertise needed to verify the integrity of the FOUNDATION fieldbus networks. That's when MTL can step in and provide the tools to assist in collecting the data and the staff and experience needed to help gather and, more importantly, interpret the results.

The MTL service has successfully assisted several clients already with excellent results, including complete documentation such as network baseline data, commissioning check sheet, procedures and more operating H1 communications systems. The global team of experts, says MTL, means help is never far away.

To learn more about MTL Services and how the company can help with your next fieldbus project, call toll free in North America: 1-877-FFHELP9 (1-877-334-3579), internationally: +1 780 485 3132, or email MTL.

For additional information, also visit the MTL Website.

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Northwire fieldbus cable designed for rugged industrial networks

DataCell FOUNDATION fieldbus cable from Northwire Inc., a leading manufacturer of cable for industrial networking, is intended for H1 networks in rugged plant environments using networked process automation and control.

The easy-to-strip network cables are rated for ITC/PLTC exposed run (ER) applications as standard, allowing users to eliminate conduit when the cable is installed in accordance with recent National Electrical Code (NEC) amendments. The NEC was amended to permit exposed-runs of certain ITC/PLTC. Metal-clad cable or conduit is no longer required, resulting in significant material and installation cost savings.

Among the most complete lines available, Northwire's FOUNDATION fieldbus cable includes marine-shipboard and arctic grade extreme—suitable for applications to -60 deg C. Cables are certified to meet or exceed new FF-844 specifications for Type A and are approved for use in Class I and Class II Div. 2 hazardous locations. They are UL listed ITC/PLTC-ER and CSA CMX-Outdoor-CMG FT4-rated.

DataCell cables are available in 16- and 18-AWG, single and multi-pair cables with alternate color, shielding, and grounding options. Single-pair cables ship in 12-17 days direct from the factory with no minimums.

Request a complimentary sample on the Northwire Website, or call 877-210-9945.

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Pepperl+Fuchs introduces diagnostic module commissioning kit

Advanced Diagnostic Module Commissioning Kit from Pepperl+Fuchs is a complete diagnostics package assembled in a rugged, portable case that lets users to commission, troubleshoot, and validate a fieldbus segment, even without a control system. All kit components come pre-wired; there is no need to wire anything internally in the fieldbox.

The standard kit includes a Pepperl+Fuchs Mobile Advanced Diagnostic Module, 120-V mA power supply, 25-V Fieldbus power supply, 120-V ac power cable, USB cable, and a fieldbus device cable with clip-on leads. All cables are for external connection only. The commissioning kit is available with a National Instruments PCMCIA H1 interface card so users may verify segments prior to host/control system installation. For users who already have a Mobile Advanced Diagnostic Module, a basic kit is also available with power supplies and cables only.

The Mobile ADM is a comprehensive physical layer measurement tool for FOUNDATION fieldbus H1 and Profibus PA installations. It provides the exact segment and individual device data needed for analysis of the fieldbus physical layer. Intermittent segment malfunctions can be traced without the need for a permanent connection.

In addition, the Mobile ADM eliminates repetitive tasks and automatically generates network documentation for each segment and device, and enables maintenance personnel to pinpoint fault locations quickly and efficiently from the control room. Comprehensive measurements are transmitted in real time to the maintenance station and can be easily viewed by an OPC software client.

Find out more by visiting the Pepperl+Fuchs Website.

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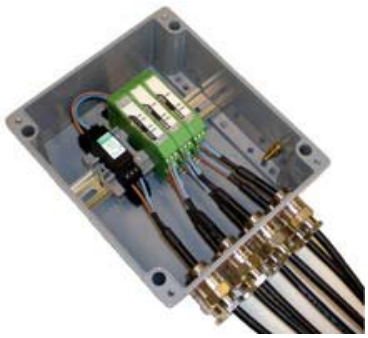
Phoenix Contact physical layer offers numerous benefits



A modular approach to Fieldbus physical layer components from Phoenix Contact provides infrastructure connection between the process Fieldbus controller and field devices. The new concept, says the company, combines industrial electronic packaging and data communications competencies to deliver a high-value Fieldbus infrastructure solution. It provides a number of benefits:

- The fieldbus is expanded without disrupting communication;
- Modular segment protection enables flexibility within the fieldbus network;
- Valuable enclosure space is saved because only the needed number of device couplers are installed;
- Scalability for fieldbus segment protection boosts control; and
- Fieldbus integrity equals a hot swappable modular design.

Get more details by visiting the Phoenix Contact Website.

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R. Stahl readies remote I/O prototype with HSE communication

IS1 remote I/O system for Zone 1 and Div. 1 explosive atmospheres with an industrial Ethernet communication interface is called “the world’s most successful” by its manufacturer, R. Stahl. The system, now available as a prototype study using the FOUNDATION fieldbus High Speed Ethernet (HSE) protocol, was developed in cooperation with Softing AG for validation in the Fieldbus Foundation’s HSE-RIO working group. The group began developing use cases and technical specifications early in 2007 for integration of remote I/O into FOUNDATION architecture. Although the functionality of the prototype has not yet reached final specification, it is expected to be available sometime in 2009.

The new remote I/O system is suitable for testing existing or future FOUNDATION fieldbus HSE hosts. Combining it with the HSE protocol makes it is one of the most important solutions for

future process automation installations, says the company.

As a member of the HSE-RIO working group, R. Stahl plans to develop the IS1 functionality further in parallel with the specification work. Following an interoperability demonstration at end-user sites, the product is expected to be available in 2010.

To find out more, visit the R. Stahl Website.

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Rockwell Automation marks 20 years of business in China

Rockwell Automation has done business in China for 20 years! The company commemorated the occasion recently with a series of celebrations at the Shangri-La Hotel in Beijing. Rockwell Automation senior executives, global manufacturing leaders, industry specialists, strategic decision makers, and media representatives attended the events.

"Most of our early work in China involved working with U.S. customers to apply automated manufacturing technology in their facilities there," said Tom O'Reilly, managing director and chairman of Rockwell Automation China Ltd. "During the past 20 years, our work has evolved to help Chinese manufacturers establish manufacturing infrastructure and systems. Along the way, we have established strong relationships with Chinese enterprises, end users, channels partners, encompass partners, universities, design institutes, OEMs, and suppliers."

Since opening its first Chinese facility in 1988, Rockwell Automation has established 25 sales offices, five training facilities, one software development center, two OEM application and development centers, and manufacturing facilities in Shanghai, employing more than 1,000. The company also recently announced it will consolidate its resources in China—including sales, distribution, R&D, management, finance, and customer support—into a comprehensive platform so that it can serve Chinese customers better and meet market needs.

Learn more about the company's activity in China by visiting the Rockwell Website.

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