2017 Year-in-Review

Reader, Field Communication Insider is an e-newsletter featuring the latest news and developments in the application of HART, FOUNDATION Fieldbus and FDI technology around the world. To ensure that you continue to receive Field Communication Insider, please add pstudebaker@putman.net to your address book and subscribe here.

Avoid costly downtime, detect faults early

How are your machines working? Monitor machine health with Wilcoxon Sensing Technologies vibration monitoring sensors; including our HART-enabled field configurable vibration sensor. The PCH420V programmable transmitter allows vibration data to be accessed using existing HART-enabled process automation and condition monitoring infrastructure. PCH420V is powered by the network for continuous coverage, and easy integration without extra infrastructure and cable costs. We offer guidance, expertise, one-stop shopping for your vibration monitoring needs. Learn more.

FieldComm Group Marks Major Achievements, Technology Growth in 2017

For FieldComm Group, 2017 was a remarkable and important period of time. It began with registration of the first-ever host system conforming to the HART Communication Protocol Specification. There were also key milestones in areas such as standards development, testing and registration, as well as enhanced integration and cyber security. Finally, FieldComm Group’s annual General Assembly capped an exciting and successful 12 months. With 2017 coming to an end, it’s time to look back at the news and developments that defined the past year. There is much to cover, but at a high level these are the issues and events that stand out:

**NEWS**

Receiving Best Technology Award
FieldComm Group’s field device integration technology standard, FDI, received the Best Technology award at India’s Automation Expo 2017. Read more.

Recognizing the “Plant of the Year”
FieldComm Group named the Shell Prelude Floating Liquefied Natural Gas plant/ship of Royal Dutch Shell as its 2017 Plant of the Year. Read more.

Conducting Successful General Assembly
FieldComm Group’s 2017 General Assembly focused on the latest developments in HART, WirelessHART, FOUNDATION Fieldbus, and FDI technologies. Read more.

Expanding Industry Involvement
FieldComm Group’s strategic importance in “simplifying the complexity” of process automation systems gained significant prominence. Read more.

Continuing Standards Development
To develop standards, FieldComm Group uses a collaborative working model that leverages hundreds of volunteer subject matter experts from more than 340 member companies. Read more.

Supporting Growing Regions
As part of its effort to provide localized support in the world’s growing industrial regions, FieldComm Group established a position for a regional director in the Middle East. Read more.

Presenting IIoT Webinar Series
FieldComm Group, in cooperation with Control magazine, hosted an Industrial Internet of Things (IIoT) Webinar Series. Read more.

Publishing Control Magazine Supplements
The supplements covered subjects ranging from practical tips for digital transformation, to end user experiences with HART, WirelessHART and FOUNDATION Fieldbus technologies. Read more.

Initiating HART Host Registration
In a significant development for HART technology, FieldComm Group registered the first ever host system conforming to the HART Communication Protocol Specification. Read more.

Staging FDI “PlugFests”
FieldComm Group and PROFIBUS/PROFINET International cooperated during 2017 to stage a series of “PlugFests” to validate the interoperability promise of FDI technology. Read more.

Leveraging Asset Investments
Regardless of Industrial Internet of Things (IIoT) initiatives, future architectures or newly available protocols, the value of intelligent field devices did not diminish during 2017. Read more.

Enhancing Fieldbus Usability
Efforts to simplify the implementation and operation of FOUNDATION Fieldbus-based digital controls systems in the process industries continued to show progress during the previous year. Read more.

Cooperating on Physical Layer Advancements
FieldComm Group, ODVA and PI (Profibus & Profinet International) joined together on a work project to achieve and promote an advanced physical layer for EtherNet/IP, HART-IP and PROFINET. Read more.

Opening FDI Product Registration
FieldComm Group announced the availability of testing and registration for FDI Device Packages and FDI Host Systems to the industry integration standard. Read more.
Increasing Product Registration
As devices, hosts, and architectures become more complex, assured adherence to standards at the protocol and information model level is a requirement for maximizing captured value. Read more.

Offering WirelessHART Bootcamp
In 2017, FieldComm Group conducted WirelessHART Bootcamp, a multi-week online educational program led by the organization’s staff and associates. Read more.

Strengthening Integration Capabilities
FieldComm Group closed a successful year by releasing version 1.1 of the FDI Technical Specifications and version 1.2.1 of the FDI Development Tools. Read more.

EVENTS

Exhibiting at Smart Industry Conference
FieldComm Group demonstrated how its open standards like FOUNDATION Fieldbus, HART, WirelessHART and FDI help enable the IIoT at the Smart Industry 2017 conference. Read more.

Participating in Major Tradeshows and User Groups
FieldComm Group participated in major industry tradeshows and user groups at every corner of the globe. Read more.

PRODUCTS

New product news you might be interested in:

- Emerson Introduces Wireless Toxic Gas Monitor for Remote Locations
- Endress+Hauser’s Field Xpert SMT70 – Device Configuration and More!
- Microcyber Offers A1110 Adapter to Enable Device Wireless
- Moore Industries Provides Dual Input Smart HART Temperature
- Transmitter ProComSol Delivers Mobile HART Communicator iOS App

Put gas flow measurement on the bus

To get air/gas flow measurements into your control system running HART or Foundation Fieldbus, look into FCI. FCI offers the largest selection of thermal mass flow meters available with bus communications and unsurpassed application expertise to provide the most effective solutions.

- All gases
- Line sizes from ¼” (6mm) to the largest of stacks and ducts

- Always multi-function (flow rate, total flow, temperature and pressure)
## Upcoming Events

### North America
- ARC Industry Forum – Orlando – Feb. 12-15
- Honeywell User Group – San Antonio – June 18-22
- Smart Industry – Chicago – Sept. 24-26
- Emerson Exchange – San Antonio – Oct. 1-5
- Rockwell Automation Fair – Philadelphia – Nov. 12-13

### Europe, Middle East, Africa (EMEA)
- ISA Oman – Oman – Feb. 28-29
- Emerson Exchange Europe – The Hague – Mar. 7-9
- Hannover Messe – Germany – Apr. 23-27
- ACHEMA – Germany – June 11-15
- FieldComm Group Working Group Meeting – Barcelona – July 16-20
- SPS Drives – Germany – Nov. 27-29

### India
- FieldComm Group Working Group Meeting – Bangalore – Feb. 19-23
- Mumbai Automation Expo – Mumbai – Aug. 29-Sept 1

### Asia Pacific
- M&C Show – Osaka – Nov. 7-9
FieldComm Group’s field device integration technology standard, FDI, received the Best Technology award at India’s Automation Expo 2017. Selected by a prominent judging panel of industry executives and experts, FDI was chosen as the award winner from a pool of over 500 exhibitors. The technology enables a seamless evolution from existing device description languages to a new standard, which adds capability and simplifies getting field device data into hosts and the cloud. Read More.
Recognizing the “Plant of the Year”

By FieldComm Group
Jan 08, 2018

The Shell Prelude FLNG received the 2017 Plant of the Year award.

FieldComm Group named the Shell Prelude Floating Liquefied Natural Gas (FLNG) plant/ship of Royal Dutch Shell as its 2017 Plant of the Year. This annual award recognizes the people, companies and plant sites around the world that are using the advanced capabilities of FOUNDATION Fieldbus, HART and WirelessHART technology in real-time applications for improved operations, maintenance and asset productivity. This is the second Plant of the Year award presented to a Shell facility; the citation was given to Shell Scotford, Alberta, Canada, in 2011. Read more.
FieldComm Group’s 2017 General Assembly, based on the theme “Engage Today to Empower Tomorrow,” attracted more than 200 attendees from around the world.

Members of the global automation industry converged on Long Beach, Calif., on October 16-20 to take part in FieldComm Group’s 2017 General Assembly. The event focused on the latest developments in HART, WirelessHART, FOUNDATION Fieldbus, and FDI technologies. Based on the theme “Engage Today to Empower Tomorrow,” the General Assembly attracted more than 200 attendees and featured an end user seminar addressing the state of digital transformation in the industrial sector. Leading experts looked at current automation technology advancements, including implementation of FOUNDATION Fieldbus- and HART-based solutions for process plant operations. Read More.
FieldComm Group’s role in the global automation industry expanded during 2017, with the organization’s strategic importance in “simplifying the complexity” of process automation systems gaining prominence. As the integration solution of choice for many protocols, FieldComm Group’s FDI technology enables users and suppliers to focus less on the underlying protocol and more on the data. Read More.
To develop standards, FieldComm Group uses a collaborative working model that leverages hundreds of volunteer subject matter experts from more than 340 member companies. In the past year, it also pursued partnerships with organizations like the OPC Foundation to create “information models” that help extend field device information from the OT world to IT side where many users are less familiar with the origin and meaning of process data.
As part of its effort to provide localized support in the world’s growing industrial regions, FieldComm Group established a position for a regional director in the Middle East. Mohammed (Mo) Loch will serve in the new post. His responsibilities include the development and execution of regional marketing strategies and plans, and building support for FieldComm Group activities. In addition, he will serve as a liaison to regional industry organizations.

Read More.
FieldComm Group, in cooperation with *Control*, hosted an Industrial Internet of Things (IIoT) Webinar Series. Webinar topics included: Device Integration for IIoT, Security for *WirelessHART* and FDI, FOUNDATION Fieldbus Usability, Formula for IIoT Success, Smart Devices, Digital Transformation, Interoperability and Integration in the Cloud, and Seamless Integration with HART-IP. The webinars presented in 2016 and 2017, made possible by supporting sponsor companies, have had over 2,000 views, educating the process automation community on FieldComm Group technologies and their value to the end user. The on-demand webinar series is available on the FieldComm Group website.
To help keep its stakeholders advised of the latest developments in industrial communications protocols and related integration standards, FieldComm Group published a series of multi-page supplements in *Control* magazine. The supplements covered subjects ranging from practical tips for digital transformation, to end user experiences with HART, WirelessHART and FOUNDATION Fieldbus technologies. The supplements are available on FieldComm Group website.
FieldComm Group registered the first ever host system conforming to the HART Communication Protocol Specification – Honeywell’s Field Device Manager (FDM).

In a significant development for HART technology, FieldComm Group registered the first ever host system conforming to the HART Communication Protocol Specification. Honeywell’s Field Device Manager (FDM) passed the comprehensive Device Description (DD) Host Test and Registration Procedure, which assures industrial automation devices and systems conform to the same standard, and operate within the same environment, without loss of functionality. Read More.
Staging FDI “PlugFests”

By FieldComm Group

Jan 08, 2018

FieldComm Group and PROFIBUS/PROFINET International cooperated during 2017 to stage a series of FDI “PlugFests.”

FieldComm Group and PROFIBUS/PROFINET International cooperated during 2017 to stage a series of “PlugFests” to validate the interoperability promise of FDI technology. The events are intended for members of both organizations seeking to improve the interoperability of FDI Device Packages and FDI Host Systems being developed and released onto the market. Read More.
Regardless of Industrial Internet of Things (IIoT) initiatives, future architectures or newly available protocols, the value of intelligent field devices did not diminish during 2017. These devices deliver data through robust protocols supported by FieldComm Group, and are trusted by users to meet their performance, interoperability and security needs. Read More.
Efforts to simplify the implementation and operation of FOUNDATION Fieldbus-based digital controls systems in the process industries continued to show progress during the previous year, with FieldComm Group’s Working Group helping the technology reach several important milestones. This included validating new “fieldbus for I/O” specifications and working on device/system interface prototypes based on the usability initiatives. Future plans call for the release of Interoperability Test Kit (ITK) Version 7.0 incorporating developments such as standard connection points and other enhanced features. Read More.
Cooperating on Physical Layer Advancements

By FieldComm Group
Jan 08, 2018

FieldComm Group, ODVA and PI (Profibus & Profinet International) joined together on a work project to achieve and promote an advanced physical layer for EtherNet/IP, HART-IP and PROFINET. This effort is aimed at extending existing Ethernet technology to address traditional two-wire topology and intrinsic safety. Read more.
FieldComm Group announced the availability of testing and registration for FDI Device Packages and FDI Host Systems to the industry integration standard. Official testing and registration of FDI-compliant products, as well as EDDL-only based products, is an important step for device manufacturers as it ensures robust, compliant solutions that meet or exceed industry requirements. It also offers a level of assurance to users that the product will operate as expected regardless of manufacturer. Read More
As devices, hosts, and architectures become more complex, assured adherence to standards at the protocol and information model level is a requirement for maximizing captured value. In the past year, FieldComm Group’s verification team completed new or updated registrations for nearly 200 products. Read More.
Offering *WirelessHART* Bootcamp

By FieldComm Group

Jan 08, 2018

*WirelessHART* Bootcamp included a multi-week online educational program led by FieldComm Group staff and associates.

In 2017, FieldComm Group conducted *WirelessHART* Bootcamp, a multi-week online educational program led by the organization’s staff and associates. This innovative program enables enrollees to gain an understanding of topics such as mesh networking basics, *WirelessHART* system design, *WirelessHART* and wired systems, network security, and integrating *WirelessHART* into the organization. *Read More.*
FieldComm Group closed a successful year by releasing version 1.1 of the FDI Technical Specifications and version 1.2.1 of the FDI Development Tools. These specifications and tools allow suppliers to develop a broader range of products with fewer tools and better capabilities, while enhancing security and integration capabilities for their customers. The new versions provide cyber security updates, additional protocol support, a generic protocol extension, and support for standalone DD Development – further fulfilling the promise of “One Device. One Package. All Tools.” Read More.
FieldComm Group demonstrated how its open standards like FOUNDATION Fieldbus, HART, WirelessHART and FDI help enable the IIoT at the Smart Industry 2017 conference, held September 18 in Chicago, Ill. FOUNDATION Fieldbus, HART and WirelessHART devices can be the basis for digitization supporting IIoT initiatives. At the same time, the FDI standard greatly simplifies device integration and takes account of the various tasks over the entire lifecycle for both simple and complex devices, including configuration, commissioning, diagnosis and calibration.

Read More.
In 2017, FieldComm Group participated in major industry tradeshows and user groups across the globe.

FieldComm Group participated in major industry tradeshows and user groups at every corner of the globe including; Emerson Exchange (USA), Honeywell User Group (USA), ARC Industry Forum (USA), ISA (Oman, UAE, and Bahrain), M&C Show (Japan), Mumbai Automation Expo (India). In addition, seminars and events were held by the various regional marketing committees.
In response to the critical need for monitoring of toxic hydrogen sulfide gas in wellheads, tank farms, and other remote locations, Emerson introduced its first fully integrated wireless gas monitor. The Rosemount 928 Wireless Gas Monitor is a fully integrated WirelessHART toxic gas monitoring solution. The gas monitor improves safety in areas and applications that were previously considered to be too expensive and difficult to monitor due to remote or difficult-to-access locations, challenging topology, and other issues.

For more information, please visit the Emerson website.
Endress+Hauser’s latest addition to its device configuration portfolio is an industrial tablet suitable for use in safe and explosion hazardous areas. The new Field Xpert SMT70 has an 11.6” touch screen and offers up to 14 hours operation on rechargeable batteries. It supports the user in all aspects of device configuration, providing documentation of set parameters, historical comparisons and Heartbeat verifications. It can also be used to connect to Endress+Hauser’s IIoT Analytics web application.

Field Xpert SMT70 supports HART, https://www.controlglobal.com/fieldbus/ Fieldbus, PROFIBUS DP/PA and Modbus, as well as the Endress+Hauser service protocols. Its device library contains over 2,700 device and communication drivers (DTMs), including all Endress+Hauser drivers. This means that practically all devices can be configured immediately. New or updated device drivers are easily installed by Internet download.
Particular attention has been given to ease of use, including a “play button” that automatically establishes communication with the field device and loads the correct driver. Twenty languages are currently supported. The result is a robust all-around solution that makes device configuration quicker, simpler and safer.

For more information, please visit the Endress+Hauser website.
Microcyber’s A1110 WirelessHART adapter can seamlessly connect a traditional wired HART device to the network without the need for development work, and coexists with existing systems without affecting each other. The A1110 takes electricity from the 4-20mA loop, and can optionally use DC power or battery. It can also serve as a low-cost WirelessHART repeater.

Features:

- Provides WirelessHART network direct installation solution
- Supports any 2-wire, 3-wire or 4-wire system HART device
- Supports HART5/6/7 device
- Supports 4-20 mA analog devices
- Supports sub-device power supply control if using external power
• Offers wireless data reliability higher than 99%
• Compatible with HART7.6 standard
• Passed WirelessHART certification (core wireless module)

For more information, please visit the Microcyber website.
More Industries Provides Dual Input Smart HART Temperature Transmitter

By FieldComm Group
Jan 08, 2018

Designed and built in compliance with IEC 61508 for use in Safety Instrumented Systems (SIS), the SIL 3 capable STZ temperature transmitter offers dual sensor input that reduces process interruptions. Backup and fail-over protection allows either of the sensors or inputs to be designated as the primary measurement, with the secondary input acting as a backup sensor in the case of primary sensor failure. The dual sensor input also allows for average and differential measurements and high-select and low-select options. It has features designed for smarter control and monitoring, including sensor drift and corrosion detection, which increases overall process availability.

The STZ is HART 7-compliant with exception-based reporting and dynamic variable mapping. It is HART and DTM programmable, and can be configured and interrogated using the HART DD on the 4-20 mA loop via any HART handheld communicator or HART compatible host.

For more information, please visit the Moore Industries website.
A full-featured HART Communicator App is now available for your iPhone or iPad. Because the App uses the Device Descriptors (DD) for the connected HART instrument, all instrument parameters including Methods are available to the user. The full DD library is also included.

For more information, please visit the ProComSol, Ltd. website.