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01/29/2019

2018 Year-in-Review

Amanda, *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 control_eneews@putman.net to your address book and [subscribe here](#).

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FieldComm Group Marks Growth, Technology Achievements in 2018

For FieldComm Group, 2018 was a year marked by continued growth and numerous successful technology milestones. It began with a major announcement by FieldComm Group and OPC Foundation of an alliance to advance process automation system multi-

vendor interoperability and simplified integration by developing a standardized process automation device information model. Other key achievements included the delivery of the first



FIELDCOMM GROUP™
*Connecting the World of
Process Automation*

Unified Electronic Device Description Language (EDDL) Technical Specifications, support for the standardization of an advanced physical layer for Industrial Ethernet (APL), and the launch of a new, expanded registry and online repository for HART and FOUNDATION Fieldbus products.

Finally, our annual General Assembly capped an exciting and successful 12 months. Attendees from all over the world gathered in Singapore to learn about the latest trends in digital transformation and had an opportunity to meet one-on-one with recognized experts. The General Assembly is held annually at the last working group of the year and rotates between global regions. In 2019, the General Assembly will be in Germany.

This issue of Field Communication Insider looks back at the news and developments that defined 2018.

In 2019, Field Communication Insider will take on a slightly modified format with an emphasis on different technology themes in each issue. This approach will enable us to speak directly to the interests of industry stakeholders while keeping a keen eye on how Field Device Integration (FDI), FOUNDATION Fieldbus, HART and *Wireless*HART technologies are contributing to digital transformation in manufacturing, as well as the adoption of advanced developments such as the Industrial Internet of Things (IIoT) and Industry 4.0 in process automation.

The planned themes for 2019 include:

- March: The Power of Process Automation Protocols
- May: Device Data and Integration to the Cloud
- July: Emerging Technologies
- Sept.: Digitalization Requires Interoperability
- Nov.: Information Models and the impact on Process Industries
- Jan. 2020: FDI – Available Now!

We hope you'll continue to read Field Communication Insider in the months ahead!

NEWS



Conducted a Successful General Assembly

FieldComm Group held its 2018 General Assembly on December 3-7 in Singapore, which focused on the digital future of industrial automation.

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Formed an Alliance with OPC Foundation

FieldComm Group and OPC Foundation announced an alliance to advance process automation system multi-vendor interoperability and simplified integration.

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Recognized the “Plant of the Year”

Mangalore Refinery and Petrochemical Limited (MRPL) received the annual Plant of the Year Award. MRPL has extensively deployed FieldComm Group technologies, including smart transmitters, intelligent valve positioners, and *WirelessHART* infrastructure.

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Established a Dedicated Vendor-Neutral FDI Web Presence

FieldComm Group established a new, vendor-neutral website for automation industry stakeholders seeking to learn more about the Field Device Integration (FDI) standard, www.ask4fdi.com.

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Launched the New Product Registry

FieldComm Group launched a new Product Registry and online Repository, designed to provide a unified tool to obtain the latest device files and APIs.

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Are you troubled with maintenance of the control valves?

The PLUG-IN Valstaff strongly supports the realization of Condition Based Maintenance based on the diagnostic information of the control valves by communicating with Azbil Corporation's Smart Valve Positioner, which supports HART® communication.



azbil

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TECHNOLOGY

APL
Advanced
Physical Layer

Supported an Advanced Physical Layer

FieldComm Group, ODVA and Profibus & Profinet International joined together to support the standardization of an advanced physical layer for Industrial Ethernet.

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Released an Updated Interoperability Test Kit

An updated version of the FOUNDATION Fieldbus H1 Interoperability Test Kit (ITK) was released for use by process automation equipment suppliers.

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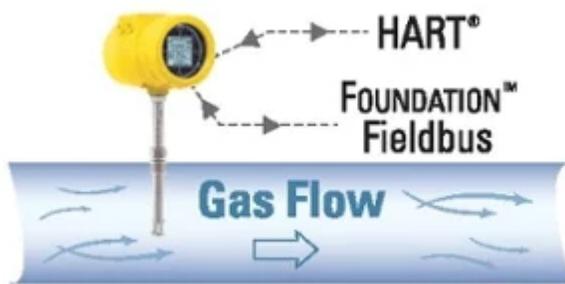
Delivered Unified EDDL Specifications

FieldComm Group and Profibus/Profinet International delivered the first Unified Electronic Device Description Language (EDDL) Technical Specifications.

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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)

[Learn more.](#)

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EVENTS

Displayed at ARC Forum

A display of digital transformation technologies for the process industries was presented by FieldComm Group at the 2018 ARC Industry Forum.



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Exhibited at AICHEMA 2018

FieldComm Group staged a major exhibit at AICHEMA 2018, showing how it's connecting the world of process automation through digital

data from intelligent field devices.

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Presented at Honeywell Users Group (HUG)

The 2018 Honeywell Users Group (HUG) Americas Conference, held June 17-22 in San Antonio, Texas, was the site of another FieldComm Group digital transformation technology display.

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Participated in the Smart Industry Conference

For the second consecutive year, FieldComm Group participated in the Smart Industry Conference in Chicago.

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PRODUCTS

New product news you might be interested in:

- [Emerson Introduces Digital Level Controllers for Hassle-free Calibration and Enhanced Safety Levels](#)
- [FCI Offers Industry's Broadest Selection of Thermal Flow Meters with HART](#)

The Device Drivers You Need—Now All in One Place!

Visit our new online FDI, HART and FOUNDATION

Fieldbus

[Product Repository](#)



FIELD COMM GROUP™
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Process Automation*

CALENDAR

North America

ARC Industry Forum

Orlando, Fla., USA

February 4-7, 2019

[» More Information](#)

Americas Working Group Meeting

Denver, Colo., USA

February 25, 2019

[» More Information](#)

Honeywell User Group

Dallas, Texas, USA

June 10-14, 2019

[» More Information](#)

Asia Pacific

Field Communication User Seminar

Shinjuku-Ku, Japan

March 7, 2019

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Conducted a Successful General Assembly

By FieldComm Group

Jan 24, 2019



FieldComm Group held its 2018 General Assembly on December 3-7 in Singapore. The event focused on the digital future of industrial automation and included the organization's annual member meeting, several days of working group meetings, and an end user seminar. Both FieldComm Group members and non-members attended the General Assembly. The meeting was open to FOUNDATION Fieldbus, HART, *WirelessHART* and FDI suppliers, end-users and other participants from around the world. [Read More.](#)



FieldComm Group's 2018 General Assembly in Singapore focused on the digital future of industrial automation.

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Formed an Alliance with OPC Foundation

By FieldComm Group

Jan 24, 2019



FieldComm Group and OPC Foundation announced an alliance to advance process automation system multi-vendor interoperability and simplified integration by developing a standardized process automation device information model. The two organizations conducted a joint session at the ARC Forum in Orlando, FL, entitled, "Integration Technologies and Information Modeling for Digitized Process Automation Systems." [Read More.](#)

3. Standardize independent of protocol

Monitoring + Optimization

- Type/class specific App
- Generic App a
- Generic App b
- Type/class specific App

Information Model "Class PA, Type a"	Information Model "Class PA, Type b"																																																		
<table border="1"><thead><tr><th>Element</th><th>Device ID</th><th>Device Name</th><th>Manufacturer</th><th>Protocol</th></tr></thead><tbody><tr><td>Device ID</td><td>001 "01"</td><td>OPCUA DI</td><td>001</td><td>OPCUA DI</td></tr><tr><td>Device Name</td><td>001 "01"</td><td>001 01001-100</td><td>001</td><td>001 01001-100</td></tr><tr><td>Manufacturer</td><td>Class 01001-100</td><td>OPCUA DI Protocol</td><td>001 01001-100</td><td>OPCUA DI Protocol</td></tr><tr><td>Protocol</td><td>Class 01001-100</td><td>"PA device"</td><td>001 01001-100</td><td>"PA device"</td></tr></tbody></table>	Element	Device ID	Device Name	Manufacturer	Protocol	Device ID	001 "01"	OPCUA DI	001	OPCUA DI	Device Name	001 "01"	001 01001-100	001	001 01001-100	Manufacturer	Class 01001-100	OPCUA DI Protocol	001 01001-100	OPCUA DI Protocol	Protocol	Class 01001-100	"PA device"	001 01001-100	"PA device"	<table border="1"><thead><tr><th>Element</th><th>Device ID</th><th>Device Name</th><th>Manufacturer</th><th>Protocol</th></tr></thead><tbody><tr><td>Device ID</td><td>001 "01"</td><td>OPCUA DI</td><td>001</td><td>OPCUA DI</td></tr><tr><td>Device Name</td><td>001 "01"</td><td>001 01001-100</td><td>001</td><td>001 01001-100</td></tr><tr><td>Manufacturer</td><td>Class 01001-100</td><td>OPCUA DI Protocol</td><td>001 01001-100</td><td>OPCUA DI Protocol</td></tr><tr><td>Protocol</td><td>Class 01001-100</td><td>"PA device"</td><td>001 01001-100</td><td>"PA device"</td></tr></tbody></table>	Element	Device ID	Device Name	Manufacturer	Protocol	Device ID	001 "01"	OPCUA DI	001	OPCUA DI	Device Name	001 "01"	001 01001-100	001	001 01001-100	Manufacturer	Class 01001-100	OPCUA DI Protocol	001 01001-100	OPCUA DI Protocol	Protocol	Class 01001-100	"PA device"	001 01001-100	"PA device"
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Gateway

- Each protocol is mapped to common field of PA DI
- Machine to Machine data is delivered in context
- Users of advanced applications and analytics can now focus on the data rather than the device brand or protocol
- Once organized, Enterprise wide analysis and monitoring can more easily manage big data from the DI and turn it into intelligent information

At the 2018 ARC Forum, FieldComm Group and OPC Foundation announced an alliance to develop a standardized process automation device information model.

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Jan 24, 2019



Mangalore Refinery and Petrochemical Limited (MRPL) was chosen to receive FieldComm Group’s annual Plant of the Year Award. MRPL has extensively deployed FieldComm Group technologies, including thousands of smart transmitters, intelligent valve positioners, and *WirelessHART* infrastructure. The company utilizes FOUNDATION Fieldbus for process control, including control-in-the-field for many control loops. In addition to cost savings in infrastructure and maintenance time, MRPL has realized savings resulting from averted shutdowns and interruptions. [Read More.](#)



Mangalore Refinery and Petrochemical Limited (MRPL) received the annual Plant of the Year Award.

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Established a Dedicated Vendor-Neutral FDI Web Presence

By FieldComm Group

Jan 24, 2019



FieldComm Group established a new, vendor-neutral website for automation industry stakeholders seeking to learn more about the Field Device Integration (FDI) standard. Located at www.ask4fdi.com, the website provides access to in-depth information tailored to the interests of automation suppliers and end users. **Read More.**



A new, dedicated website helps automation industry stakeholders learn more about the Field Device Integration (FDI) standard.

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Launched the New Product Registry

By FieldComm Group

Jan 24, 2019



In order to deliver expanded information about HART and FOUNDATION Fieldbus registered products and development resources, FieldComm Group launched a new Product Registry and online Repository. The new web-based resource is designed to provide a unified tool to obtain the latest device files while also offering online access to APIs that host system manufacturers can tap into to enable built-in, real-time access to the latest versions of Electronic Device Descriptions (EDDs) and FDI Device Packages for field devices. [Read More.](#)

The screenshot shows the FieldComm Group Product Registry website. The top navigation bar includes links for About, Events, News, Contact, Blog, and Guest. Below the navigation bar are tabs for TECHNOLOGIES, EDUCATION, SERVICES, and MEMBERSHIP. The main content area features a large red banner with the text "TRUST IN REGISTERED" and a description of the Product Registry. Below the banner are three icons for FOUNDATION, FDI REGISTERED, and HART REGISTERED. The main content area is divided into a search section on the left and a product list on the right. The search section includes a search bar, protocol filters (Any, FOUNDATION Fieldbus, HART), category and manufacturer dropdowns, and a checkbox for "Show only FDI Device Packages". The product list shows four items: A2-ACM-H1, PC 900-NR, INDUSTRIAL IT SYSTEM 800XA, and 2600T SERIES - MODEL 2541B. Each item includes a small image, the product name, manufacturer, protocol, and category.

FieldComm Group's new Product Registry and online Repository delivers expanded information about HART and FOUNDATION Fieldbus registered products and development resources.

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Supported an Advanced Physical Layer

By FieldComm Group

Jan 24, 2019



FieldComm Group, ODVA and Profibus & Profinet International joined together to support the standardization of an advanced physical layer for Industrial Ethernet – commonly referred to as “APL” – that will be suitable for use in demanding applications in process instrumentation. This initiative will leverage the work of the IEEE 802.3cg Task Force, including amendments to the IEEE 802.3 Ethernet standard for an Ethernet physical layer operating at 10 Mb/s over single-pair cable with power delivery, as well as additional developments to define the requirements and develop the necessary technology to achieve an Industrial Ethernet suitable for use in hazardous locations up to Zone 0, Division 1. [Read More.](#)

APL
Advanced
Physical Layer

FieldComm Group, ODVA and Profibus & Profinet International have joined together to support the standardization of an advanced physical layer for Industrial Ethernet – commonly referred to as “APL.”

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By FieldComm Group

Jan 24, 2019



An updated version of the FOUNDATION Fieldbus H1 Interoperability Test Kit (ITK) was released for use by process automation equipment suppliers. ITK Version 6.3.1 reinforces support for Standardized Connection Points (SCP). This developer-oriented tool allows automation suppliers to run a battery of tests against their field devices to ensure robust and effective support for SCP. SCP represents a major milestone within FieldComm Group's FOUNDATION Fieldbus Usability Initiative, which has already delivered backwards compatibility enabling end users to replace an existing field device with a like device and have the new device seamlessly operate in the preexisting state. This capability has made device replacement scenarios simpler and faster. [Read More](#).



ITK Version 6.3.1 enables automation suppliers to run a battery of tests against their field devices to ensure robust and effective support for Standardized Connection Points (SCP).

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Delivered Unified EDDL Specifications

By FieldComm Group

Jan 24, 2019



FieldComm Group and Profibus/Profinet International delivered the first Unified Electronic Device Description Language (EDDL) Technical Specifications. The newly unified specifications consist of three separate documents combined into a single package, which will be enhanced and improved collectively moving forward – making it simpler for automation developers and other stakeholders to source and adhere to the Electronic Device Description (EDD) standards. [Read More.](#)

A screenshot of a web interface. At the top left is the FieldComm Group logo and tagline. Below it is a navigation menu with "Dashboard", "Folders" (expanded), "Personal Folders", and "Shared Folders". The main content area shows a folder icon and the text "EDDL Technical Specifications [2018]". Below the folder are three PDF files, each with a red document icon: "FCG_TS61804-3{4.0}_EDD-Syntax-Semantics.pdf", "FCG_TS61804-4{2.0}_EDD-Interpretation.pdf", and "FCG_TS61804-5{2.0}_EDD-Builtin-Library.pdf".

Unified EDDL specifications make it simpler for automation developers and other stakeholders to source and adhere to the Electronic Device Description (EDD) standards.

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Displayed at ARC Forum

By FieldComm Group

Jan 24, 2019



A display of digital transformation technologies for the process industries was presented by FieldComm Group at the 2018 ARC Industry Forum, held February 12-15 in Orlando, Florida. This year's forum (2019), marking the 23rd annual ARC event, centered on the theme, "Driving Digital Transformation in Industry and Cities," will again be held in Orlando, Florida and FieldComm Group will again be in attendance. FieldComm Group will be displaying our new cloud demonstration unit that illustrates how a few simple integration techniques enabled through FDI can get information out of a HART device into the cloud. [Read More.](#)



A display of digital transformation technologies was presented at the 2018 ARC Industry Forum in Orlando, Florida.

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Exhibited at ACHEMA 2018

By FieldComm Group

Jan 24, 2019



FieldComm Group staged a major exhibit of its automation protocols and standards at ACHEMA 2018, June 11-15 at the Messe Frankfurt in Frankfurt, Germany. The organization showed how it is connecting the world of process automation through solutions that deliver valuable digital data from intelligent field devices. The ACHEMA exhibit displayed the capabilities of Field Device Integration (FDI) technology (e.g., easy host and device integration, digital transformation and cloud connectivity) and the advanced physical layer for Industrial Ethernet, which is commonly referred to as “APL.” [Read More.](#)



FieldComm Group showed how it is connecting the world of process automation at ACHEMA 2018 in Frankfurt, Germany.

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By FieldComm Group

Jan 24, 2019



The 2018 Honeywell Users Group (HUG) Americas Conference, held June 17-22 in San Antonio, Texas, was the site of another FieldComm Group digital transformation technology display. The exhibit explained how FOUNDATION Fieldbus, HART and *WirelessHART* devices are the basis for digitization supporting Industrial Internet of Things (IIoT) initiatives. It also described how the FDI standard greatly simplifies device integration and takes account of the various tasks over the entire lifecycle for both simple and the most complex devices, including configuration, commissioning, diagnostics, and calibration. [Read More.](#)



Honeywell Users Group (HUG) Americas in San Antonio, Texas, was the site of another FieldComm Group digital transformation technology display.

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Participated in the Smart Industry Conference

By FieldComm Group

Jan 24, 2019



For the second consecutive year, FieldComm Group participated in the Smart Industry Conference in Chicago, Illinois. Aimed at accelerating digital transformation, the event helps attendees learn how the Industrial Internet of Things (IIoT) and Industrie 4.0 will combine the benefits of the information technology (IT) market space with the practicality and execution of the operational technology (OT) space. FieldComm Group's booth presented the latest news and information about Field Device Integration (FDI), FOUNDATION Fieldbus, HART and *WirelessHART*. [Read More.](#)

4TH ANNUAL
Smart Industry 2018
GATHERING OF DIGITAL INNOVATORS

For the second consecutive year, FieldComm Group participated in the Smart Industry Conference in Chicago, Illinois.

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Emerson Introduces Digital Level Controllers for Hassle-free Calibration and Enhanced Safety Levels

DLCs offer hassle-free calibration and SIL2 capabilities

By FieldComm Group

Jan 24, 2019



Emerson has introduced the Fisher™ FIELDVUE™ DLC3100 and DLC3100 SIS digital level controllers (DLCs) for hassle-free calibration and safety integrity level 2 (SIL2) capabilities.

Featuring a new intuitive local user interface, the DLCs provide easy-to-understand on-screen instruction for setup and calibration without the need for other tools. Level and temperature alarms, measuring range, and fluid density are readily configurable.

The DLC3100 SIS is certified for SIL2 use in accordance with the IEC61508 standard and designed to be used in safety functions to achieve a tolerable risk for a process hazard and potential risk reduction for people, systems, devices and processes.



2018 Oil & Gas State of Technology eBook

This ebook charts past and present forces enabling industry's future

The DLCs are HART-communicating instruments used with displacer level sensors to measure liquid level, level of the interface between two liquids, and/or liquid density. Both controllers are loop-powered instruments with a 4-20 mA HART transmitter output. HART®-registered DLC3100 instruments provide device diagnostics and recommended actions to restore instrument functionality. Alert records stored in the device also provide reference points for maintenance personnel to carry out troubleshooting.

For more information, please visit the Emerson website.

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FCI Offers Industry's Broadest Selection of Thermal Flow Meters with HART

FCI thermal mass flow meters with HART represent the next generation in thermal mass flow meter design

By FieldComm Group

Jan 24, 2019



Fluid Components International (FCI) now offers the industry's widest selection of Thermal Mass Flow Meters available with the HART®.

FCI's ST51, ST75, ST98, ST100 and MT100 Thermal Mass Flow Meter families, including 12 models, are all available with the HART Communication Protocol to provide a range of solutions for air or gas flow measurement in HART-based process and plant applications. They represent the next generation in thermal mass flow meter design, with highly accurate and repeatable, all-welded, equal-mass flow sensors.



FCI's thermal mass flow meters are compatible with any gas or mixed composition gases in pipe diameters from ¼ inch (6mm) to the largest of stacks. From air to biogas, flue gases and flare gases, FCI meters provide superior accuracy, repeatability and reliability throughout the world.



Engineering Systems for Hazardous Areas

Current trends when dealing with engineering systems in hazardous areas.

FCI thermal mass flow meters feature best-in-class design and performance. Superior accuracy, temperature compensation, application optimized sensor choices, rugged NEMA/IP rated enclosures in both aluminum and stainless steel, global agency approvals for EX installations, AC or DC powering, in-situ calibration verifications and more, are all part of the FCI thermal flow meter solutions.

For more information, please visit the FCI website.