DEVICE INTEGRATION STRATEGIES

Simplifying device-level networking with FDT

2014 - 3 Issue

PACTware Tracks Instrument Performance in a Hydrazine Hydrate Plant

As part of an essential modernization of the field instrumentation, PACTware and FDT have been introduced into a hydrazine hydrate plant in France. Very soon after installation, PACTware was recognized as a very helpful platform that unified the handling of field devices from different suppliers. It also optimized certain control loops and to support predictive maintenance by tracking the instruments. Continuous valve monitoring became one of the most important applications.

In This Issue

Chairman's Letter

A World Wide Presence

This is the time of year when our marketing teams around the world are in full gear. It never ceases to amaze me how the volunteers from our member companies manage to project such a diverse global presence that rivals that of many commercial companies. It is a testament to their dedication and enthusiasm toward the success of the FDT standard. Here is a sampling of their activities.

Our North American team has furthered their relationship with the ISA organization through a partnership agreement that leverages webinars, web-based articles and podcasts promoted through ISA's social media channels, topic-focused email blasts, and the posting of white papers in the online version of ISA's InTech magazine. The FDT team is off to a great start including a recent webinar that you can watch at: **http://tinyurl.com/fdtgroup001**. They are also active on the ISA blog site. Here is a recent

Get Social with FDT

Stay connected with the latest news and trends with FDT Technology.

Microsite   LinkedIn

Newsletter   YouTube

Contributors

code WRIGHTS   Dearborn Electronics   Endress+Hauser   ICS   invensys   M&M   PHOENIX CONTACT

Rockwell Automation   Schneider Electric   STTT Sensor Integration & Technology Testing   softing   YOKOGAWA

Chairman's Letter *continued*

posting that I enjoyed reading: **http://tinyurl.com/FDTGroup002**. They also support the local ISA chapter meetings with program speakers that are FDT fluent. If you would like to have FDT as a topic at your upcoming chapter meeting, send an email to **maggie.carlson@fdtgroup.org**.

The European team takes full advantage of the flourishing tradeshow industry in their region during this time of year. The mega Hanover Fair has already taken place and the FDT Group was well represented with the updated integrated brewing display. This year the demonstration included a live demonstration of how FDI device packages can be seamlessly used in an FDT system.

Check out the video on our FDT Group You Tube channel **https://www.youtube.com/user/fdTGroupNA**. Seemingly without catching their breath, the European Marketing Team has already participated in two Meorga Fairs as well as the new All About Automation fair in Friedrichshafen, Germany. Make sure to stop by the booth at upcoming Meorga Fairs and the SPS Fair in November to see the fantastic demo while enjoying a fine Belgian beer.

Other regions of the world have been active as well. Our India Marketing Team sponsored the ARC Bangalore 2014 Forum in July and provided speakers for this growing industry gathering. Our Japan Marketing Team is planning their highly popular user forum to be held in Nakano, Tokyo, Japan on the 11th of November. The day after, they will be at the SICE Industrial Applications Division 2014 Annual Conference in Ookayama, Tokyo, Japan and then on 19th through the 21st of November they will be exhibiting at the JEMIMA Measurement & Control Show 2014 in Nakanoshima, Osaka, Japan. Our China Marketing Team held an FDT Developer Forum in Suzhou in June sponsored by our member company, M&M Software.

While on the topic of marketing, I cannot help but comment on the tremendous success of this Device Integration Strategy e-newsletter. We are now just over one year into this new format and our last issue saw distribution to more than 80,000 persons. We receive many very nice comments on the content of the articles and our sponsors are reporting excellent responses from the readership. My thanks to the sponsors that make this newsletter possible and a special thanks to the folks that work behind the scenes to bring this great industry resource to you on a quarterly basis. Please feel free to send us your feedback at **info@fdtgroup.org**.

Hartmut Wallraf

PACTware Tracks Instrument Performance in a Hydrazine Hydrate Plant *continued*

Arkema, a global chemical supplier and the world leader in supplying hydrazine hydrate and derivatives, recently boosted production by optimizing manufacturing processes at its Lannemezan industrial site in France / Hautes-Pyrénées. Arkema, the largest chemicals producer in France, is enhancing the future of the chemical industry every day. Deploying a sustainable, innovative strategy, the group produces specialty chemicals that provide customers with practical solutions to challenges such as climate change, access to drinking water, the future of energy, fossil fuel preservation and the need for lighter materials. With operations in more than 40 countries, 14,000 employees and 10 research centers, Arkema generates annual revenue of approximately €6.4 billion.

Decision to digitize all field instrumentation

The Lannemezan facility uses an Invensys I/A Series control system and field instrumentation from about ten different vendors, including Mettler Toledo, Foxboro, Foxboro/Eckardt, Rosemount, Yokogawa, Vega, Samson, Masoneilan, Chauvin Arnouz and Siemens. When managers in Lannemezan decided to upgrade, they wanted to maximize benefits from the control system and optimize the entire production process. They decided to convert all the facility's instrumentation base to digital technologies using the HART communication protocol.

Managers wanted to eliminate multiple manufacturer-specific configuration programs by replacing the disparate software tools with a single standard communications interface. Arkema's management team also determined that common configuration would help optimize control loops by drawing on diagnostic functions built into some instruments. This helps reduce the need for human intervention, which previously included loading vendor specific configuration tools on laptops deployed in hazardous areas.

Installation of PACTware technology

ARKEMA realized that a project of this magnitude required a partner with extensive automation expertise. They turned to Invensys, who had experience in similar projects. After a thorough review, Invensys recommended using the Field Device Technology (FDT) interfacing technique. The company also selected PACTware (FDT Frame Application), a freeware program used for parameter adjustment and configuration of field instruments, remote I/0 systems and communication modules in fieldbus systems and networks. It supports instruments from different manufacturers and communication protocols. The Frame Application is used as the device handling tool to optimize the audit trail from the I/A Series system engineer's station to the field devices.

The FDT interface and PACTware were combined with the Invensys VAL-care-DTM, a device type manager for valve monitoring. A dedicated pilot control for the SRD991/ SRD960 digital positioner was installed on an Invensys I/A Series AW 70 engineering station. Invensys Foxboro FBM214 and FBM215 HART communication I/O cards provided the interface between the field instruments and the I/A Series system.

Foxboro new "S" Series Pressure Transmitter Utilizes FDT Technology

Loop powered HART devices measure gauge and absolute pressure using patented FoxCal technology. The DTM simplifies configuration of the transmitter; it shows a new parameter called "time in service." When connected to the DTM, the customer can see the read-only value of the total number of days the device has been powered. **Click here** for more information.

Invensys

Develop, Certify and Use
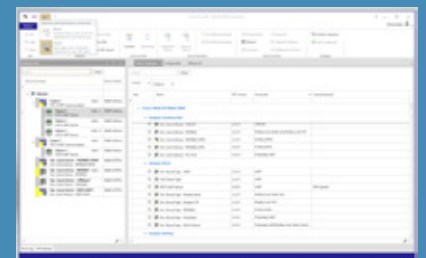
M&M Software's complete dtmMANAGER development suite will make creating DTMs easy and cost-efficient. Do you need a Frame Application? Download a free version of fdtCONTAINER application with a new, modern and touch-optimized user interface today!"

M&M Software

PACTware Tracks Instrument Performance in a Hydrazine Hydrate Plant *continued*

Valve monitoring with the "VALcare-DTM"

With the new technology, the Arkema operators could continuously monitor around 100 control valves, watching the difference between the actual valve position value and the required setpoint. When deviations occur, an alarm is activated. Managers can also archive histograms using the AIM Historian suite. The Invensys DTM analyzes, interprets, and reports the status automatically.

Built-in pressure sensors on positioners can be used for continuous monitoring of the difference between the positioner supply pressure and the output pressure on the actuator. An abnormal deviation in this value may flag a mechanical problem, such as a friction point or leak.

Two valves, the steam general supply valve and a column level control valve, were deemed critical for the process. They have been equipped with SRD960 positioners with built-in pressure sensors. Using PACTware, this option allows continuous monitoring of friction (difference between the output pressure and the spring range). An abnormal deviation in this value may highlight a mechanical problem in these valves, prompting preventive maintenance. Pilot functions on digital positioners have allowed Arkema to optimize control loops.
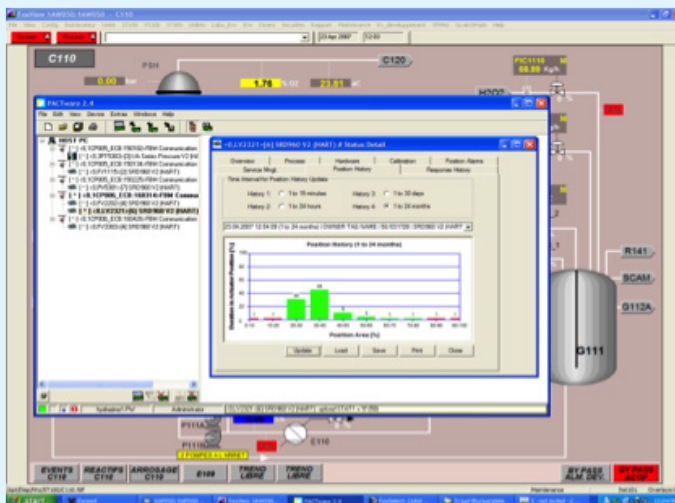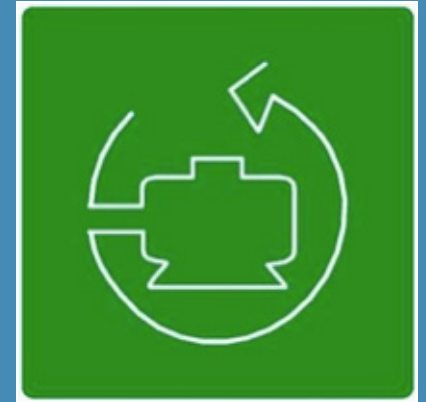
Arkema is seeing significant benefits. When an abnormal number of cycles on an exchanger water flow suggested a regulation problem, it was corrected by modifying the derivative parameter. Tracking instrument performance in this way will help maximize the effectiveness of the next plant shutdown. Monitoring position and response histograms, on control valves, for example, will help define priority levels valve reviews.

Results and user comments

By installing DTMs for other field devices from manufacturers such as Vega, Samson, or Yokogawa, and using generic DTMs for Emerson instruments, the entire management of the instrumentation base at the hydrazine plant has been significantly improved. Device handling is unified and some control loops have been optimized, thanks to the various diagnostics incorporated in the instruments. Tracking the instruments generally allows us to plan for the next plant shut down and to optimize the maintenance concept. Personnel can perform reliable, optimized maintenance,
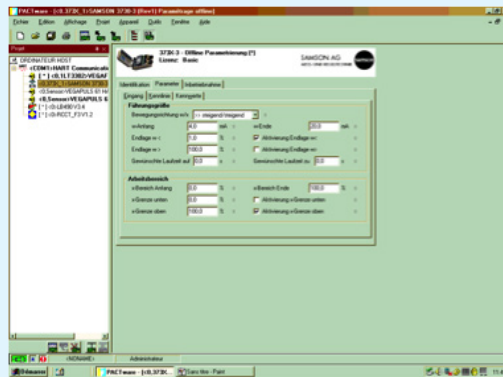
PACTware Tracks Instrument Performance in a Hydrazine Hydrate Plant *continued*

reacting to problems or performing predictive maintenance. Tracking results are processed and displayed by PACTware at the AW70 station.

"Since converting to digital and installing FDT Technology along with PACTware, we have been able to complete all downtime maintenance jobs within the allotted deadlines says Mr. Nonnez, EIA manager at the Lannemezan facility. "Using a single interface simplifies both our management and our audit trail. Configuring dedicated alarms for some sensors has allowed us to highlight malfunctions. Tripping a temperature alarm programmed to monitor a steam flow pressure transmitter, for example, revealed steam leaking from an isolation manifold."
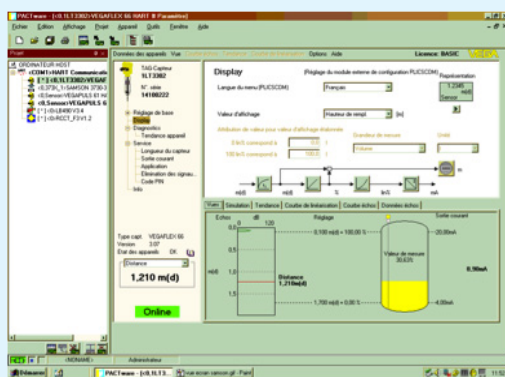
About PACTware

A capable and cost efficient device handling and integration platform is a key issue infieldbus-based automation systems. PACTware exactly met these requirements from its beginning in 2001 (Foundation of the PACTware Consortium e.V.) or even from 1997, when the first version was developed.

Today, "device handling" or more correct "device management" describes a broad range of operations with intelligent field devices ranging from planning and engineering, to parameterization and implementation, to plant control and maintenance issues. The free of charge PACTware tool allows execution of all these functions online and centralized from the control room or another location in the plant or in the workshop for offline device parameterization.

PACTware stands for user-friendly and self-explanatory instrument control. It acts as the Frame Application of the standardized FDT interface and provides the user with intuitive access to the connected instruments. Software modules in the form of
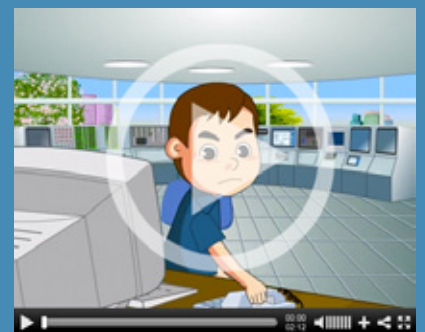
PACTware Tracks Instrument Performance in a Hydrazine Hydrate Plant *continued*

device-specific DTMs (Device Type Manager) are used for controlling the connected units and allow highly specialized and efficient control.

PACTware is supported and further developed by the PACTware Consortium e.V. with its 24 member companies. On-going innovation work ensures investment protection and keeps existing installations up to date – the current version includes a new topology scan, an expanded diagnosis scan (according to NAMUR NE 107) and functions for handling IO-Link and TCI.

For more information on Pactware or to download the Pactware Frame Application, please visit: **http://www.pactware.com/en/downloads/ pactware.html**.

Authored By: *Thomes Westers; Pactware and Stéphane Hernu; Invensys*

Free FDT Developer Forum USA

September 9-10, 2014
Boston, MA

Participation is free of charge.

The FDT Group and M&M Software will jointly host a FDT Developer Forum on September 9-10, 2014 in Boston, MA; for Frame and DTM experts and developers. Participation is free of charge.

The goal for this two day event is to provide highly detailed insight into the technical properties and features of FDT2, and to thoroughly discuss all aspects of FDT technology with a panel of experts. Furthermore, you will also have the chance to take a look at the current state of FDT developer tools and the architecture of FDT Frame Applications. On the second day, you will have the chance to arrange individual meetings with M&M FDT/DTM experts. Use this possibility to talk about your FDT/DTM projects and related issues or questions.

For more information and to register, please visit: **http://mm-software.com/en/fdt-developer-forum-usa-2014**

Proactive Maintenance Strategies with Bottom-Line Benefits

To maximize your investment in smart measurement devices, it's ideal to manage your operations and lower operating costs. Intelligent information in those devices should be available to operators and managers; otherwise, management has limited ability to positively impact bottom line.

Most installed measurement instrumentation provided by the 4-20mA signal is "smart," according to industry estimates. But in order to maximize your investment in smart measurement devices, better manage your operations and lower your operating costs, intelligent information in those devices should be available to operators and managers. Because without a better view of the diagnostic condition and status of your devices, management has limited ability to take action that can have significant, positive impact on your bottom line.

Intelligent device information

Measuring devices, regardless of field protocol, can communicate many categories of information. In addition to multiple measurements (with newer devices reporting as many as eight process variables), devices can report important device diagnostics and process information. Think of the usefulness of the diagnostics in your automobile or your computer: The diagnostic system in your automobile performs hundreds of measurements and adjustments continuously to provide a quick indication of the status and potential availability (or lack thereof) of your car or your computer. Using FDT Technology, you can get the same type of diagnostic warnings or device status from your installed smart instrumentation.

Pending diagnostic warnings, however, are only helpful if a warning is investigated, and appropriate action is taken. Your smart measurement device has the ability to provide valuable diagnostics information — but it's valuable only if you're checking to see if there is a problem. An FDT-based Frame Application using DTMs (Device Tool Managers) is a cost-effective tool needed to review and analyze these potential problems and can help you avoid unplanned situations.

Move from reactive to proactive

With many updated control and asset management systems, intelligent device diagnostic information is accessible and available for immediate use. For those that don't, there are many different cost-effective products that make access to intelligent device information possible. This diagnostic information enables you to change your maintenance activities from re-

active — work on what's broken — to more proactive or even predictive activities, such as fixing small problems before they turn into bigger problems.

Imagine the benefits of using real-time device diagnostics to reduce the number of trips to the field, prevent an unscheduled shutdown or reduce the length of a scheduled shutdown. Whether you are part of the reliability, maintenance, process improvement, management or other plant function, putting this valuable information to work can produce big results with relatively small investments and low risk.

Let's look at a some examples of the real bottom-line benefits that are being realized by users around the world…

Real bottom-line benefits

In 2002, the MOL Group's Danube Refinery in Százhalombatta, Hungary, set out to improve profitability using its installed smart technology in 2002, and only three years later, decided to overhaul its maintenance systems with a new, unified asset management system (AMS) strategy. The combination of the two technologies has changed the way MOL runs maintenance and the way it looks at diagnostic data.

The company connected many of the plant's smart devices, such as control valves and instruments used in critical control loops, directly into the plant's AMS. This has resulted in an on-line diagnostic system in which instrument signals are directly connected to plant maintenance and control systems.

"On-line diagnostics provided by the these instruments does something more than preventive maintenance," says József Bartók, automation engineer at MOL Danube Refinery, adding that this "ensures the stable operation of the system and increases the precision of control." Beyond fixing what breaks or keeping the plant running, a reliable, stable operation contributes to bottom-line profitability.

For example, when the head pressure control was slow on one unit, it led to the assumption that a valve was stuck and in need of removal and repair. But technicians using on-line diagnostic tools used device diagnostic data to interrogate the valve and find current-to-pneumatic damage in the intelligent positioner — but not the whole valve. Operators put the valve in manual, and the fix took a half hour of instrumentation work. This repair saved the plant at least two days of unscheduled downtime, worth at least $834,400.
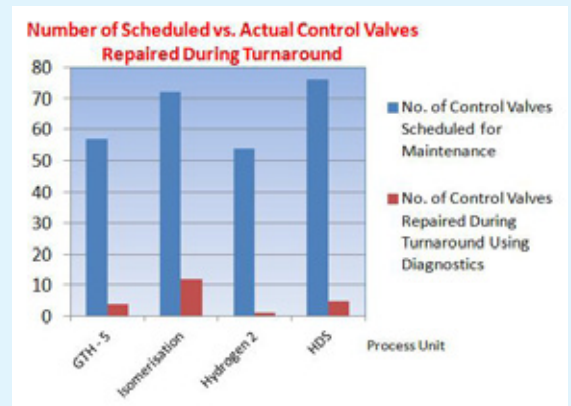
Before using device diagnostics, about 60 percent of the control valves were selected for repair in a typical plant shutdown. While all faulty valves were likely corrected, others may have been removed unnecessarily due to a lack of data. With device data, the company estimates average savings of $70,000 per unit, per shutdown; it's no longer necessary to disassemble and repair failure-free control valves during a shutdown.

Having a better handle on valve performance also allows MOL to pull fewer valves at turnaround time, substantially reducing maintenance costs and shortening the time needed before production is resumed. "Ten years ago, we pulled all of the valves," Bereznai says. "Now, we pull two dozen instead of 200, saving $20,000 to $70,000 per turnaround."

Proactive Maintenance Strategies with Bottom-Line Benefits *continued*

Similarly, at the Dow Chemical Company's complex in Deer Park, Texas, intelligent device diagnostics have helped slash plant trips attributable to instruments and control valves by 70% over the past three years, delivering "millions of dollars in savings," according to Dow's Shadrach Stephens, instrument reliability engineer, and Christopher Garcia, instrument/electrical technology leader.

The Case for Change – Value Creation
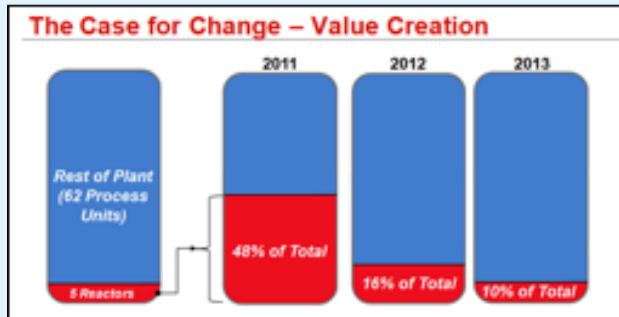
In order to prioritize their efforts, Stephens and Garcia first analyzed sources of downtime and found that five reactors accounted for a full 48% of instrument- and valve-related outages. "We needed to see what the opportunity was so we could justify the necessary resources to management. Where could we make the biggest bang for the buck?" Stephens says.

Their first priority was to deploy continuous monitoring for the plant's most critical control valves, which also were the biggest contributors to downtime. The plant now uses asset management software not only to help mitigate failures, but also to push out preventive maintenance intervals, Stephens says. "We can work with operations to resolve issues without incurring downtime."

"And as we get into more root-cause investigations, it definitely helps to have more data," Stephens continues. "Intelligent device information helps us understand what's happening and to mitigate potential problems." Up next for Dow Deer Park is dynamic analysis of flow measurement data to identify and rectify issues such as fouling and plugging. "That's the next tier for us," Stephens says.

Conclusion

The intelligence in your installed measurement devices might be one of the under-utilized assets available in your plant today. By integrating the intelligent device diagnostics into an asset management or automation system, you begin the process of monitoring the device status, allowing the opportunity to improve your bottom line. Using FDT Technology-enabled solutions, which includes a Frame Application and device DTMs that are available from your device suppliers, you will be able to identify minor problems before they become critical, lowering maintenance and operating costs. FDT Technology-based products and solutions are supported by and available from most major device and systems suppliers.

So take the first step to realizing bottom-line benefits of intelligent device information integration. For more information, check out the presentation video on **Proactive Maintenance Strategies with Bottom-Line Business Benefits** on YouTube. Please also visit **www.fdtgroup.org**.

Why Control System Manufacturers Should Try Out the iDTM for FDI.

FDT, FDI and iDTM combine to make life easier for automation personnel.

The world could be so easy:

You connect a field device to the communication infrastructure; the system software in the control room will detect it and automatically select the correct driver. Just imagine how the end user would be released from the burden of acquisition and selection of drivers. Users could take care of all their tasks again without checking name plates, installations and software versions. For your customers, this could be an important argument in the selection of the control system or plant asset management software.

The question is: Can FDT, FDI and iDTM contribute to this scenario?

FDT is the leading software technology in device integration when it comes to the variety of supported bus protocols. As Glenn Schulz, the Managing Director of FDT Group, presented at this year's Hanover Fair press conference, FDT is supporting in principle all major communication protocols in the field of process and factory automation. Furthermore, a technology update was made in order to fit the latest Microsoft technology with FDT2. FDT is proven and used in numerous plants around the world.

The focus of FDI within process automation (HART, Foundation Fieldbus and PROFIBUS) is to achieve a standardization of tools. For a long time, all three communication protocols successfully used the textual description of field devices defined by the EDDL (Electronic Device Description Language). The relevant language standards, translators, interpreters and development tools have been maintained by separate interest groups even though their contents were not substantially different. FDI was launched by leading manufacturers and by major bus organizations (HCF, FF and PI) with the aim to create a uniform integration technology by combining the advantages of EDDL and FDT. This great step alone will bring end users significant simplification in the future. FDI Device Packages will then allow the operation of field devices for process automation.

This is all well and good, but end users may ask whether they have to replace previously installed FDT systems or whether it's possible to connect FDT and FDI? Also, system manufacturers can probably not expect their customers (the end users) to exchange their complete software environment just because of a new device integration technology.

These concerns are why the CodeWrights iDTM-technology is coming into consideration, to help end users overcome technological barriers. For more than five years, this product has been used by the industry in the form of iDTM-EDD, either for HART or FOUNDATION Fieldbus EDDs. More than 800 HART and more than 400 FOUNDATION Fieldbus devices are made available in FDT-Frames, making life easier for many people.

Shortly, FDI will be commercially available. Then the iDTM-FDI will allow FDI Device Packages for FDT systems to be easy to implement. And it offers the basis of FDT2! As shown in Hanover in a real-world installation, this gives all FDT2 system manufacturers an easy way to turn their FDT2 Frame into an FDI host with just a flick of a finger.

Try it out and convince yourself of the simplicity of our solution. Demystify the subject of FDI and FDT for yourself, your system and your customers. For more information about the free, non-binding pilot program, please contact **sales@codewrights.biz**.

The Foxboro Evo™ Foxboro Field Device Manager – Maximize your Uptime and Performance

FDM improves configuration, commissioning, and diagnostic capabilities.

Configure, commission, maintain and diagnose fieldbus devices throughout their entire lifecycle with our comprehensive, fully integrated engineering & maintenance environment. The Foxboro Field Device manager (FDM) user interface & diagnostic capabilities provide the means to increase uptime and performance while significantly lowering maintenance costs.

Truly Open Technology. FDM offers interoperability with any device, from any vendor, with any protocol. With Foxboro interoperability and anybus capabilities, you can maintain your preferences because the system adapts to you. The choice is yours!

Unmatched device configuration, commissioning, and diagnostic support. FDM is the first to offer support for FDT & Enhanced EDDL, two technologies enabling device vendors to program device configuration & maintenance content for the host system. This greatly simplifies configuration, commissioning and maintenance while including advanced diagnostics to optimize your field devices.

Simplify engineering & increase productivity. Reusable engineering is provided through customizable templates for each device model. A Commissioning Wizard automates all the steps of device commissioning, making it easy to replace a failed device.
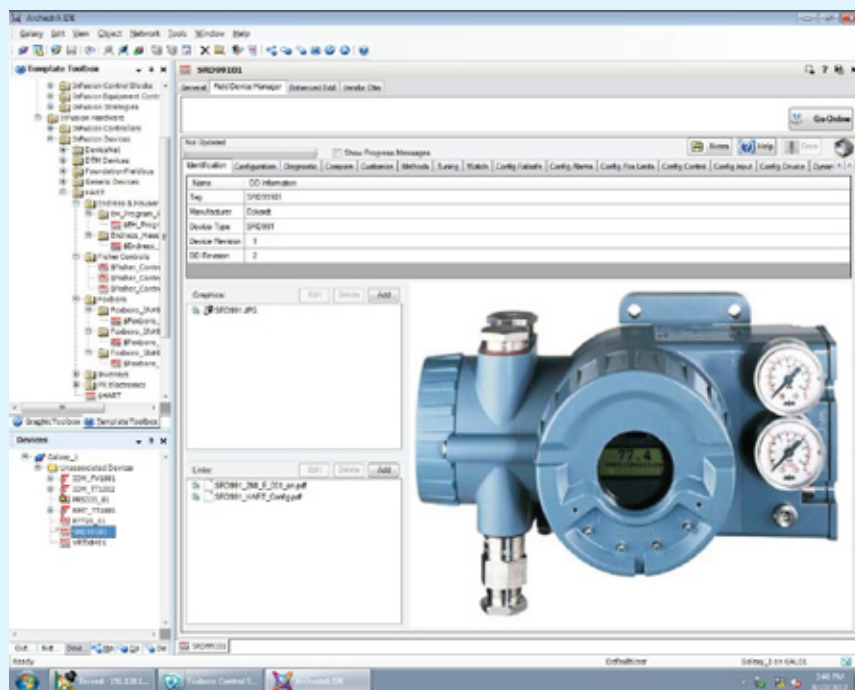
Eliminate wasted maintenance & reduce downtime. Moving to predictive device maintenance approaches helps you spot problems early, before they become severe, giving time to plan corrective action without downtime.

For more information, please visit:
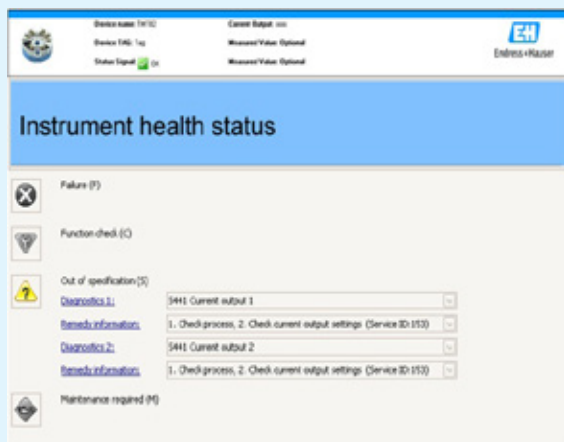**www.foxboro.com/foxboroevo/maintain**

DTM Diagnostic Module Simplifies Troubleshooting

Endress+Hauser devices support NAMUR NE 107 diagnostics and the new Fieldbus Foundations FF-912 Diagnostics

An increasing number of Endress+Hauser devices currently on the market now have device DTMs which include the uniform NE107 diagnostics module as well the new FF-912 Diagnostics specification. These modules display status signals in accordance with the criteria of the NAMUR recommendation NE 107. NE 107 Diagnostics is independent of the fieldbus communication protocols HART, PROFIBUS or FOUNDATION fieldbus.

NAMUR is an international association of process automation that provides recommendations to help end users by showing best practices. NAMUR also guides suppliers and industry foundations on future technologies and product development. NAMUR represents about 15,000 process control experts, of whom approximately 300 are active in 33 working groups. Names like Novartis, BASF, Bayer, Evonik, Shell and Clariant are typify membership in this association.

"The new method to display the NE107 status symbols has advantages for both plant operators and maintenance staff," explains the responsible technology manager at Endress+Hauser Process Solutions. "They receive only the information they need. The information sent to the operator or maintenance station can be tailored to the needs of the plant. Uncertainties in operating the plant can be thereby avoided."

The dynamic diagnostic information is automatically presented as health status after opening the device DTM in FDT-based Plant Asset Management tools such as FieldCare. It comprises a clear, plain text message. If there is a diagnostic need, details of possible causes of failures and exact resolution instructions for fixing the problem are provided. In this way, it is possible to access quickly and efficiently remedy errors without digging into the operating manual.

Display of diagnostic information in FieldCare

One example of how to create a beneficial implementation of the NE107 specification was implemented for the Endress+Hauser FOUNDATION fieldbus DTMs. Available diagnostic messages from a field device are generally predefined by Endress+Hauser. Depending on application requirements, the user is able to customize diagnostics to his application needs.

For example, the category MAINTENANCE receives higher importance. It can be marked as highest level by easily checking the related field in the DTM. On the other hand side, a failure of an unimportant event should receive a low ranking. Related checkboxes have to be selected.

In the standard area of the Endress+Hauser DTM application, the user has the possibility to group diagnostic events which are independent from the device types. For each of the four categories (failure, function check, out of specification and maintenance required),

DTM Diagnostic Module Simplifies Troubleshooting *continued*

the events are grouped into further subcategories called sensor, electronics, configuration and process.

In addition, specific diagnostic messages can be changed according to the needs of the customer. These events are mostly application-related diagnostic events, e.g. lost echo detection from a radar level device.

Endress+Hauser's implementation of the Fieldbus Foundation's Field Diagnostic Profile specification and NAMUR NE 107 diagnostics is an excellent example of how an automation supplier can utilize the FOUNDATION fieldbus standard while building in specific functionality for managing diagnostic data. The Endress+Hauser implementation of FOUNDATION fieldbus diagnostics also conforms to NAMUR's recommendations both by distinguishing between device and process problems and by using the standard NAMUR diagnostic FCSM classifications as its standard diagnostic classification.

More information? **fdt@solutions.endress.com**
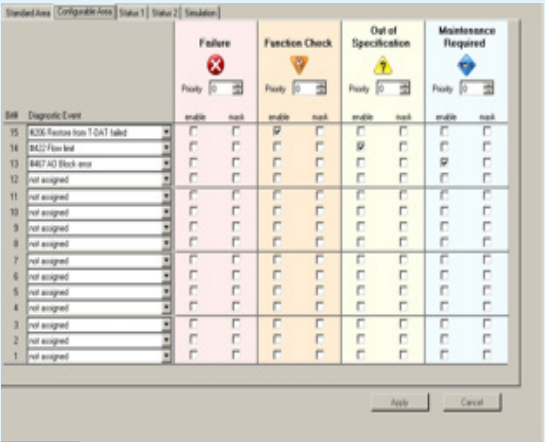
PROFIBUS and HART Asset Management – Quickly Installed and Easy to Use

Combining Softing's Ethernet-to-PROFIBUS gateway TH LINK PRO-FIBUS with the matching Communication and Device DTMs mainte-nance gives engineers central access to all PROFIBUS and HART devices in a system directly from the control room. This keeps main-tenance expenses low and makes commissioning much easier.

TH LINK PROFIBUS enables remote access to all HART devices connected to the bus via all major asset management software solutions supporting FDT, such as FieldMate (Yokogawa), Field Care (Endress + Hauser), SmartVision (ABB), Field Device Manag-er (Honeywell) or PACTware.

Even though it requires little space, the gateway can be used for a variety of maintenance tasks. During operation, field device parame-ters can be configured centrally from the control room, saving costs by avoiding lengthy walks in the plant. In combination with any FDT (Field Device Tool) Frame Application, the entire system or individual devices can be tested easily by loop check during commissioning.

Thanks to integrated PROFIBUS diagnostics, maintenance engi-neers get data on the health of the bus at any time, helping to pre-vent plant downtimes caused by communication failures.

For more information about TH LINK PROFIBUS and DTM Library please visit: **http://industrial.softing.com/ en/communication/products/profibus/field-device-management/th-link-profibus-network.html**.

Effective from May 1st, 2014 Softing took over the Industrial Communication product and service portfolio of Trebing + Himstedt.

High-Performing DTM for Softing's Modbus to FF Gateway

Softing has released the latest version of the FF-HSE-LD CommDTM for its Foundation™ fieldbus to Modbus Gateway (FG-110 FF). Version 1.30 conforms to the FDT specification 1.2 and can be used without a specific license key or license dongle. The easy-to-use software, consisting of a FF HSE Communication DTM and a FF Linking Device Gateway DTM, supports three Microsoft operating systems: Windows XP, Windows 7 and Windows 8. The software ensures a seamless integration of standard FDT Frame Applications like SMART VISION, FieldMate, Field Device Manager, or PACTware with Softing's FG-110 FF or Softing's Foundation fieldbus Interface Module FIM-110 FF. The FF-HSE-LD CommDTM allows transparent access to field devices that support the FDT standard and are connected to the referring FF H1 networks. The software is included with Softing's gateway solutions FG-110 FF and FIM-110 FF (CD-ROM) or, alternatively, can be downloaded from the Softing website free-of-charge.

For more information, **click here**.

Rockwell Automation Offers I/O Enabled with Asset Management

Rockwell Automation offers several I/O options that provide configuration and advanced operator interactions such as radar level gauge calibration or valve partial stroke testing. These options also include diagnostic data for the connected smart field devices (all available remotely). FLEX and FLEX Ex HART analog modules are ideal for use in applications that need connection with FDT (Field Device Tool) compatible asset management software. Device Type Management files can be downloaded at no cost. In addition, 1756 I/O modules support asset management software to HART devices.

Your choice of I/O can be used with the PlantPAx process automation system. For more details, please visit: **www.rockwellautomation.com/go/process**.

## Device-Specific DTM for Inline Frequency Inverter

The decisive advantage of this device-specific DTM is that it provides a comfortable and speedy way of setting the parameters of an entry-level frequency inverter.

Typically, the first time that a frequency inverter is set up, setting the parameters requires a considerable time expenditure. That's especially for inexperienced users. The device-specific DTM gives advice and graphical support along with tool-tips during the parameterization procedure, reducing setup time.

The main view of the DTM contains frequently needed parameters. The customer has to set motor data first and then determine velocity characteristics, etc. The time period for parameter settings is thus significantly shortened. Furthermore, it is possible to operate the drive via DTM for testing purposes.

The DTM is exclusively compatible with ILC 100er class small scale controllers and provides support for four different types of inline frequency inverters. These entry-level devices are part of the Easy Automation System of Phoenix Contact and the inverters are available in the power range from 0.75 kW to 4.0 kW.

For more information, please visit: **www.phoenixcontact.com**
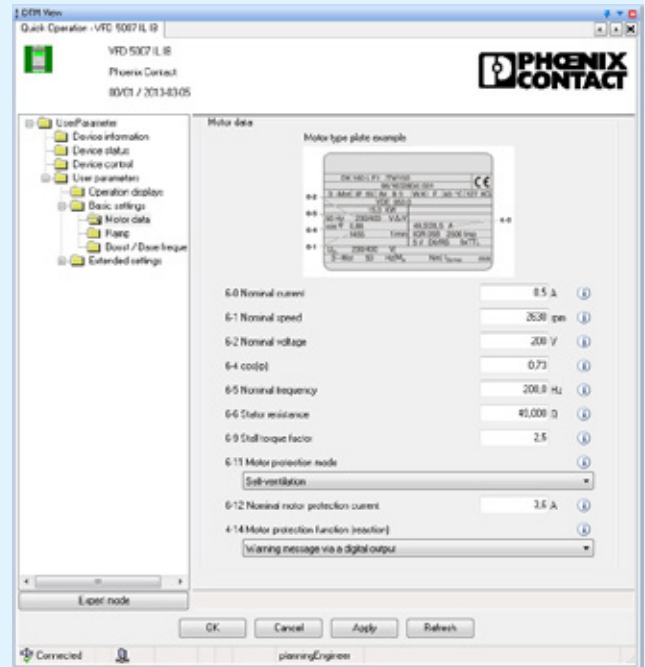
Generic HART® DTM for all HART® Devices in all Sites

Generic HART DTM Release 6 supports all HART protocol versions: 5, 6 and 7. The DTM automatically recognizes the protocol version implemented by each connected device and configures itself accordingly.

All parameters are displayed by this DTM, and all universal and common practice commands defined by the according protocol version are executed.

The DTM will be provided as brand labelled version to be used as a universal DTM with HART modems, HART multiplexer and with certain Frames Applications.

In combination with an FDT Frame Application like PACTware, commissioning and calibration of HART devices can now be supported with this inexpensive solution. Additional maintenance data is provided by DTMs that document who worked when with which device in a plant unit.

Learn more about the new release at **http://www.icsgmbh.com/english/sensorsoft/GenHART6.htm**

DTM Library for FDT 2.0, 1.2 and 1.2.1 Accelerates Device Development

Dearborn Electronics' (DE) DTM library provides a set of reusable components that accelerates the development of device DTMs, Communication DTM and Gateway DTMs.

Presently the DTM library supports HART, Profibus PA and Foundation Fieldbus, with forthcoming support for more of the major Fieldbus communication protocols. The library has already been deployed by high profile customers that used the DTM library to create DTMs for their products.

This DTM library implements the FDT DTM interfaces for FDT 1.2/1.2.1 and 2.0. The DTM library for FDT2 comes with a Wizard Manager (WM) with features such as User Controls, DTM Layout, Protocol Support and Logger Helper Functions that can be used with the official FDT 2.0 core component provided by FDT group. The DTM Library for FDT 1.2 and 1.2.1 comes with the FDT 1.2/1.2.1 core components along with the Wizard Manager.

The Wizard Manager provides the interface, business logic etc. and helps create DTMs in an interactive fashion. These DTM library components are delivered in the form of binaries which support inputs in custom XML file format and EDD formats. The DTM library's pricing format is tuned to customer needs. The DTM library supports all Windows OS and also is compatible with any standard FDT Frame/Container Applications.

DE's DTM library capabilities continue to grow with upgrades that will include support for FDI DTMs.

For further information please contact us at **ratneshk@deindia.com**.

All-Round Talent iDTM

Device type manager simplifies integration.

The iDTM-EDD makes device integration quick and easy. It is this simple: your existing EDD is integrated into an iDTM that is adapted for you, as a device manufacturer, with your logo, pictures and colors.

You will deliver this DTM to your end users with your device – as usual.

CodeWrights supports you in optimizing your EDD, providing usability and adding offline configuration capabilities to support device replacement scenarios or secure archiving of device data sets. Some device functions may need implementations beyond EDDL capabilities. CodeWrights has a solution for this: DTM modules. This is a smart way for you to make complex functions operable and to emphasize unique selling points of your device. The nice thing about this option is that the end user will not feel any difference, because the DTM modules are seamlessly inserted into the iDTM´s user interface.

In some installations, DTMs cannot be used for integration. Instead, the integration in EDD hosts often requires small but specific adaptations to the EDD. In this case CodeWrights offers its expertise, by analyzing your EDD and performing host-specific adaptations. This ensures the successful integration of your device, even when the FDT / DTM is not applicable.

Typically CodeWrights. Simply Integrated.

For more information, please visit: **www.codewrights.de**
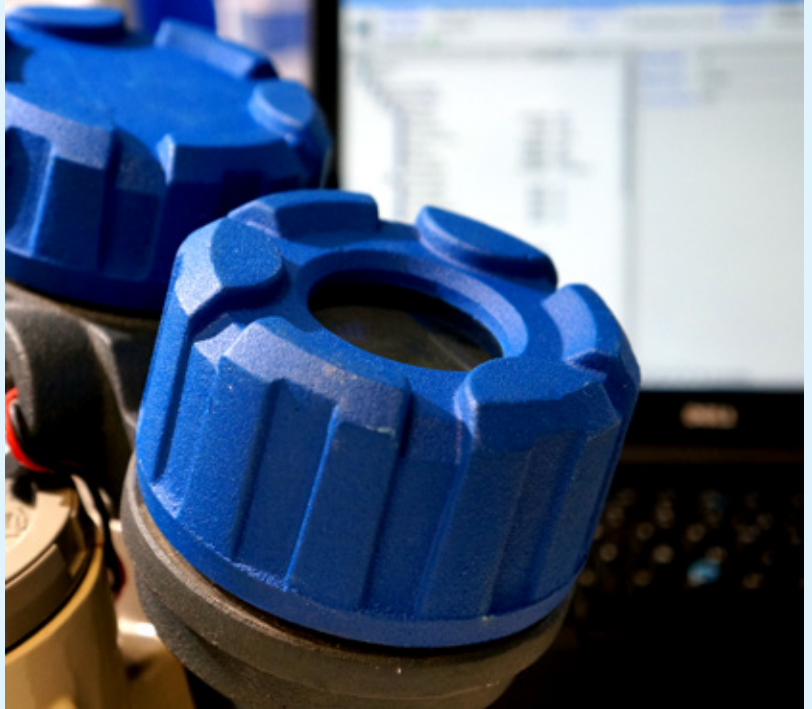
FDT Events

>> **FDT Developer Forum USA**
No Registration Fee, Attend for Free
Sept 9-10, 2014
Boston, MA

>> **Yokogawa User Group and Conference**
Sept 9-11, 2014
Houston, TX

>> **FDT Webinar**
Sept 16, 2014
Register Online Today

>> **MEORGA MSR Messe**
Sept 17, 2014
Ludwigshafen, Germany

>> **Industrial Automation 2014**
Sept 30-Oct 1, 2014
Stuttgart, Germany

>> **PACTware Roadshow**
Oct 21, 2014
Frankfurt, Germany
Oct 23, 2014
Rotterdam, The Nederlands
Oct 23, 2014
Antwerpen, Belgium
Oct 24, 2014
Ludwigshafen, Germany

>> **MEORGA MSR Messe**
Nov 5, 2014
Bochum, DE

>> **FDT User/ Vendor Seminar**
Nov 11, 2014
Nakano, Tokyo, Japan

>> **SICE Industrial Applications Division 2014 Annual Conference**
Nov 12, 2014
Ookayama, Tokyo, Japan

>> **Rockwell Automation – Process Solutions User Group**
Nov 17-18, 2014
Anaheim, CA

>> **JEMIMA Measurement & Control Show 2014**
Nov 19-21, 2014
Nakanoshima, Osaka, Japan

>>**SPS/IPC/Drives**
Nov 25-27, 2014
Nürnberg, DE

>>View more events

FDT Resource Links

» **Contact Us**

» **Certified Product Catalog**

» **Frequently Asked Questions**

» **Membership**

» **News and Events**

» **Newsletter Registration**

» **Newsletter Archive**

» **Press Releases**

» **Technical Brochure**

Solid Technology, Strong Membership