

DEVICE INTEGRATION STRATEGIES

» Simplifying device-level networking with FDT

2014 - 4 Issue

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Evolution in Instrumentation Maintenance Using an Asset Management System

A case study based on Mitsubishi Chemical's Kashima Plant uses smart instrumentation information monitoring to optimize the lifecycle cost of the plant while enhancing maintenance activities, increasing safety, and improving product quality.

In recent years, the Kashima Plant of Mitsubishi Chemical Corporation (Ibaraki, Japan, Fig1) began using Field Device Tool (FDT), a standardized interface specification, to collect

Article continues on page 3



Fig 1 Kashima Plant of Mitsubishi Chemical Corporation

In This Issue

>> Evolution in Instrumentation Maintenance Using an Asset Management System

P. 03

>> Build For the Future with the Standard of Today

P. 07

>> Explore FDT's Benefits at Rockwell Automation Process Solutions User Group (PSUG) Meetings

P. 10

>> FDT Developer Forums Connect with Users on Three Continents

P. 11

>> Generic HART DTM Works in Four Dimensions

P. 12

Chairman's Corner

Industrial Cyber Security Awareness

The Internet's wonderful, rich connectivity is continuously assaulted by people and organizations whose intents are less than honorable. In recent months we have witnessed the iCloud breach and numerous large data thefts from Home Depot, Target and Jimmy John's.



These nefarious activities require that security architectures and defenses be continually enhanced and fortified. While this has spawned an industry to itself, it is amazing how many security fortresses are penetrated with simple social engineering.

As consumers and general Internet users, we all try to take care that we do not become unwitting accomplices or fall victim to these attacks. We update our virus software, we don't click on links in emails without

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

Microsite

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Contributors



Industrial Cyber Security Awareness *continued*

authenticating them, we discard emails from unknown senders, and we don't respond to any general inquiries that request passwords or account information. We are keenly aware that our reputations, our creditworthiness, our finances, and our relationships can all be put at risk regardless of the scope or scale of the attack. Yet how often do we learn about the hacking of an Internet service that stored confidential credentials and other information "in the clear" or with flawed cryptographic techniques? Users can be victimized by inept business practices.

It's equally important to think about cyber security in the context of automation systems. While a cyber-encroachment in our personal life may wreak havoc that takes months or even years to unravel, a hack of a control system can result in lost production time, stolen intellectual property, injuries, or worse. Standard IT security practices provide some level of protection but it is probably better to be more paranoid when it comes to control system cyber security.

Are you continuously enhancing and fortifying your security architecture and defenses? Do you regularly examine log files from servers, firewalls, routers, and other network infrastructure elements? Do you have a firewall and router policy implemented that allows only pre-authorized traffic between specified clients and hosts and denies all other communications? Do you have an enforced policy regarding USB and other itinerant devices? Do you seek the guidance of security experts to develop your security architecture, your security policies, your security breach response plan, and to audit your security practices and infrastructure? Are your physical plant security protocols aligned with your control system cyber security protocols?

Our FDT Group Executive Committee has recently taken steps to initiate an independent security audit of the FDT standard and our FDT Common Components to determine ways to enhance our security profile to deflect the latest threat vectors. We have also added a "Security" section to our Website's technical documents page to house any security notices or advisories relevant to the FDT standard. Whether you are an FDT vendor or user, I encourage you to visit this section regularly.

Effective cyber security requires awareness, adaptability and continual fortification. A collaborative control system community raises our collective awareness to help keep us all ahead of the black hats. If you have any cyber security concerns or suggestions related to FDT, please send an email to security (at) fdtgroup (dot) org or contact our Managing Director, Mr. Glenn Schulz.

Hartmut Wallraf

Technology Tip:

Dow Chemical's Approach to Successful Asset Management



FDT and FDI:

Participate and Win!



The new integration standard, FDI, is about to enter the market. Which role will FDT play? How are you going to prepare yourself for that? Do you know how to protect your FDT investments? CodeWrights shows you how!

Codewrights

Evolution in Instrumentation Maintenance Using an Asset Management System *continued*

information online from HART- or Foundation fieldbus-compatible devices and storing it in an asset system (PRM from Yokogawa).

One way to use such asset system information is through Plant Asset Management (PAM), which regards equipment in a plant as an asset. In PAM, the operation plan and the asset management plan are optimized considering the lifecycle cost of the plant. In the Kashima Plant, the maintenance of instrumentation is being improved by using PAM.

Optimum maintenance

Maintenance (Fig 2) is essential to keep equipment in good condition throughout the operation phase of the plant lifecycle. Optimum maintenance (Fig 3) means identifying the peak trade-off point between the reliability of equipment and the cost of repairing it. Maintenance activities fall into two categories: preventive maintenance and breakdown maintenance, depending on the importance of an instrument in the production and the safety of the plant. Currently, the main type of preventive maintenance is periodic, based on time (Fig 4).

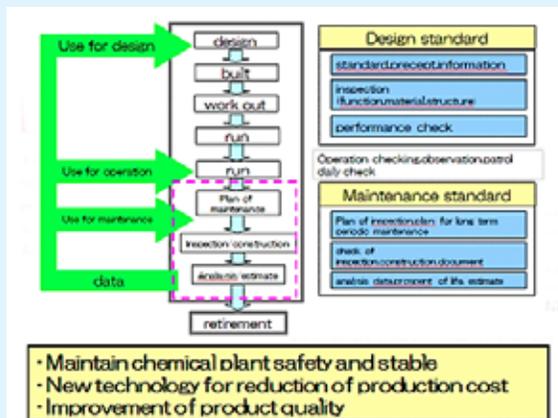


Fig 2 Life cycle of chemical plant and maintenance activity

To make a plant more competitive in production terms, maintenance costs have to be optimized by shifting from time-based maintenance (TBM) to condition-based maintenance (CBM). The maintenance work itself must also be made more efficient. In the Kashima Plant, these improvements are being made as described below.

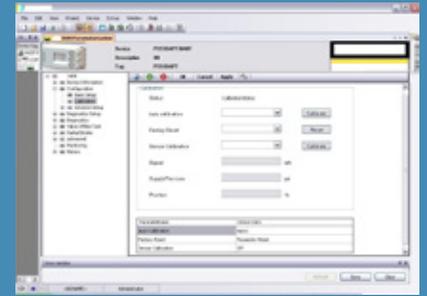
Evolution in maintenance activities by PAM

Mitsubishi Chemical Corp. is one of the five business companies of Mitsubishi Chemical Holdings. Its business activity is based on wide range products covering functional products, healthcare products and fundamental chemical materials, with keyword "KAITEKI" ("comfortable" in English).

Mitsubishi's Kashima Plant is a major Japanese plant which produces fundamental chemical materials. It requires conventional instrument technology as well as the latest instrument technology, using FDT in order to achieve safety and high production performance.

Information is collected from field digital devices and integrated into an asset system by using FDT Technology. This approach enables the asset system to do three tasks (Fig 5, 6):

Dearborn Offers Broad Ranges of Solutions and Services



Dearborn Electronics (A Global Edge Software Company) offers broad ranges of solutions and services. Dearborn Electronics provides embedded product engineering solution and consulting services in the industrial control, measurement & instrumentation space. We are experts in FDT/DTM Technology and have provided our services to several Indian and multi-national organizations. We own proprietary tools and have FDT/DTM libraries which customers can use for DTM development to reduce their time to market.

Dearborn Electronics

Evolution in Instrumentation Maintenance Using an Asset Management System *continued*

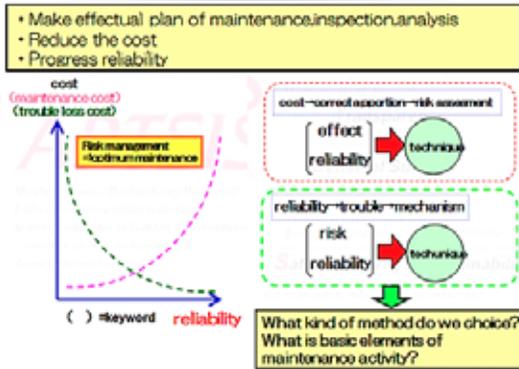


Fig 3 Optimum maintenance activity

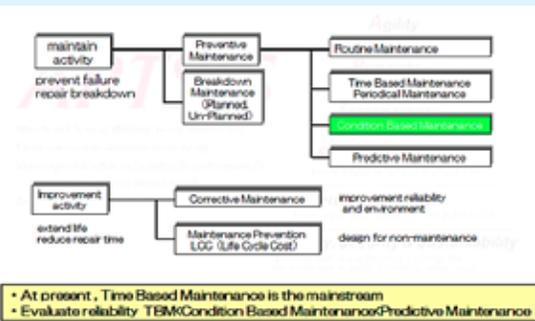


Fig 4 Maintenance methods and best method

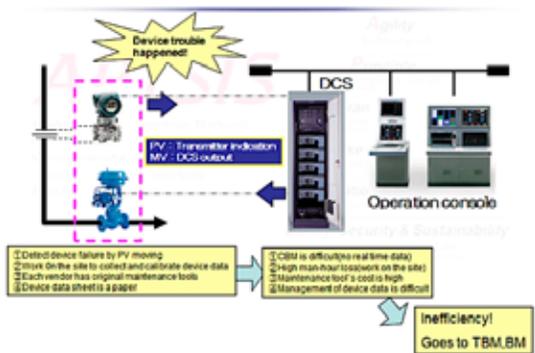


Fig 5 Maintenance environment (conventional)

before and after shutdown maintenance, identifying any problems and helping raise the quality of maintenance. PAM based on an asset system improves the efficiency of maintenance.

Diagnosis by PAM and expectations for CBM

Consider a control valve as an example. A problem with this mechanical instrumentation device could largely affect the plant. The valve is constantly changing in response to stresses of the process, so it tends to deteriorate more rapidly than other devices. For control valves, field dig-

- To access field digital devices from different vendors
- To integrally collect and manage parameters from devices from different vendors
- To integrally manage the maintenance history of devices from different vendors

This approach brings these benefits to maintenance (Fig 7):

- There is no need to use different protocols from each device vendor, nor visit the site to connect any protocol, in order to collect device data.
- Device data is directly saved in the asset system; there is no need to print hard copies or save data to another database.

In short, this approach helps to reduce common infrastructure and working time for collecting device data while also simplifying data management. Furthermore, this online method collects the latest device parameters. That lets it compare parameters

DTM Simplifies Setup, Displays Time in Service



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." The DTM lets the customer see the read only value of the total number of days the device has been powered.

Invensys

FDT Video:

Webinar Presentation: Proactive Condition Based Maintenance Strategies for Improved Plant Reliability



Evolution in Instrumentation Maintenance Using an Asset Management System *continued*

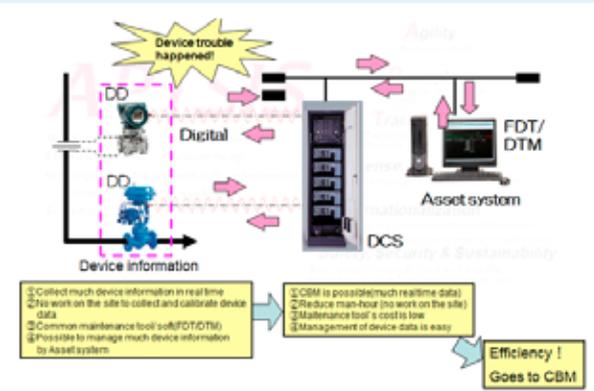


Fig 6 Change of maintenance environment by PAM

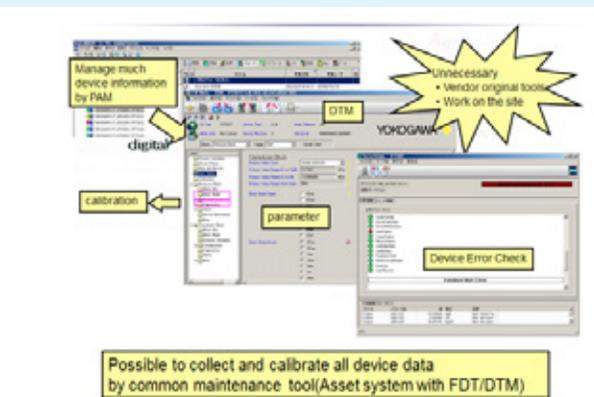


Fig 7 Maintenance environment by PAM

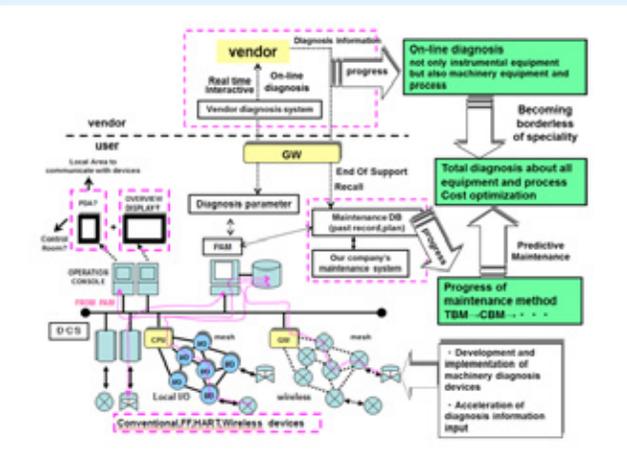
information (flow rate, differential pressure, temperature at capsule) from pressure transmitter.

The Future of PAM

The use of Plant Asset Management is expected to improve daily maintenance and operation. It encourages the use of personal digital assistants (PDAs) to collect information. It also helps shift instrumentation maintenance from TBM to CBM by using diagnosis, and expands the scope

of diagnosis from a single device to all equipment. ital data can be obtained from the valve positioner (giving parameters such as valve opening or stroke value and the pressure of air output) via FDT's Device Type Manager (DTM), and then sent to the asset system. Based on these sets of data, appropriate maintenance can be performed: for example, monitoring changes in the working torque during operation and predicting the lifespan of the valve.

Another example is the impulse line blocking diagnosis of flow measurement using differential pressure transmitter (Azbil) which has an impulse line. We have a good result in plant test for applying freeze detection, using the field digital in-



formation from field digital

With FDT and other technologies, it is becoming easier to use instrumentation devices from multiple vendors and with multi-protocols. As a result, it is becoming viable to collect information from field digital

Simplify Configuration of Signal Conditioners



Many process technology systems have areas with potentially explosive atmospheres. As such, measuring and control circuits are designed with intrinsic safety protection type Ex i.

MACX Analog Ex i signal conditioners and measuring transducers isolate intrinsically safe circuits from non-intrinsically safe circuits at the interface level and safely limit the energy supplied to the Ex area. A straightforward way to configure these devices is through a Frame Application based on FDT Technology. Free DTMs can be used in various FDT Frame Applications from different vendors.

Visit Phoenix Contact at the fair SPS/IPC DRIVES in Nürnberg to see how easy it is to configure MACX Analog Ex signal conditioners with the help of FDT.

Phoenix Contact

Evolution in Instrumentation Maintenance Using an Asset Management System *continued*

devices and shift toward CBM, although there are still difficult issues such as setting the thresholds for diagnoses. In this application, for example, information for determining the optimum settings is still being gathered. Through creative application of the technology, PAM based on FDT and the asset system is expected to greatly improve instrumentation maintenance as a whole, including maintenance methods and their basis (Fig 8).

Authored By: Masayuki Yanagisawa, Mitsubishi Chemical Corporation
Kashima Plant Maintenance and Engineering Department Instrumentation Group Team Leader.

Software Simplifies Integration for Softing's Modbus to FF Gateway Users

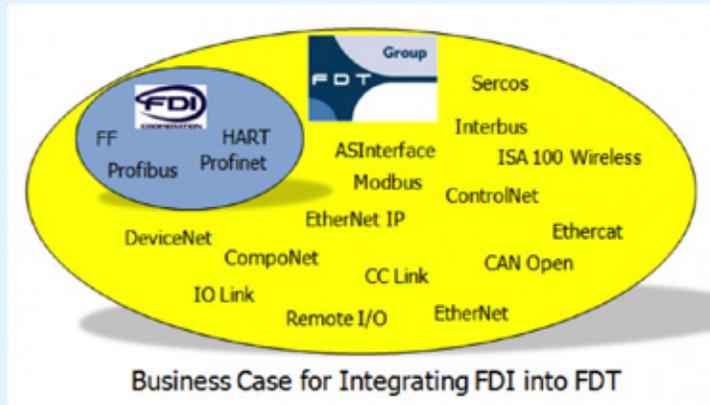


Softing released the latest version of the FF-HSE-LD CommDTM for its Foundation™ fieldbus linking device and Modbus Gateway (FG-110 FF). The software ensures a seamless integration of standard FDT Frame Applications like SMART VISION, FieldMate, Field Device Manager, or PACTware with Softing's FG-110 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). Alternatively, it can be downloaded from the Softing website free-of-charge.

Softing

Build For the Future with the Standard of Today

Control system engineers can use FDT today with certainty that there will be seamless integration when FDI is available in the future.



A technologist's adaptation of Abraham Lincoln's quote about the common man might be "God must love standards because he made so many of them." While everyone gains

significant benefits from industry standards, many design teams might often wish there were fewer of them.

That's generally true in industrial automation, where a number of different communication networks have risen over the past few decades to handle the many diverse automation and production environments. They all developed with the goal of making it easier to link different types of products together. Each focuses on differing requirements for those in the disparate world of industrial automation – process, factory or hybrid. Some standards brought a common connection technique years ago when most companies had proprietary connections. Others augment existing standards with, for example, real time capabilities.

The good news is that the FDT standard makes it easier for communication network managers to access devices in the many facilities that use more than one of these field communication networks. FDT Technology simplifies device integration and brings information from intelligent devices using different communication protocols together to provide a single point of access to device information. It provides independence in many categories such as field communication protocol, control system, device supplier or process, factory or hybrid manufacturing environments.

Many people may not think they have multiple communication networks or hybrid environments. But in fields like brewing and pharmaceuticals, many different technologies are used throughout a single facility and the enterprise. FDT supports most, if not all, of them. The standard operates with PROFIBUS DP, PROFIBUS PA, HART, FOUNDATION Fieldbus H1/HSE, Interbus, PROFINET, Modbus TCP/RTU/ASCII, Ethernet/IP, EtherCAT, DeviceNet, ControlNet, IO-Link, ASInterface, SERCOS, CC-Link, ISA100 and CANopen.

FDT has been evolving and gaining devotees for the past 10+ years, achieving well documented success. The FDT Group membership exceeds 90 device and system/host suppliers who have included FDT Technology on more than 7,500 devices supported by certified DTMs (Device Tool Managers). As an IEC 62453, ISA103 and China GB-T 29618 standard, it enables interoperability of device information designed to work in

19th ARC Forum:

Industry in Transition - The Information Driven Enterprise for the Connected World



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." The DTM lets the customer see the read only value of the total number of days the device has been powered.

ARC Advisory Group

Build For the Future with the Standard of Today *continued*

facilities that have multiple or hybrid communication networks to improve plant reliability, lower cost and maximize their intelligent assets.

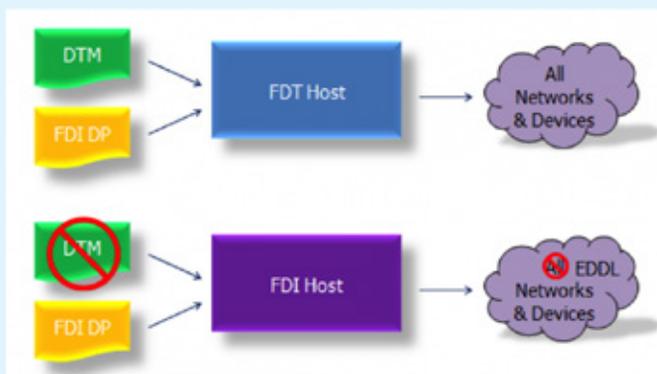
Today, asset management applications are used to configure, monitor and diagnose devices and as well to diagnose fieldbuses and networks since many gateways provide valuable segment and network diagnostics. The application can be a stand-alone PC based tool or embedded in a control system. FDT DTMs provided by device suppliers provide an easy to use, graphical interface to support configuration, diagnostics and troubleshooting of critical measurement devices and other assets.

FDT Technology was designed to be fully compatible with the soon-to-be released FDI (Field Device Integration) standard. Users can be assured that their investment in FDT-enabled tools and devices today can be used in the FDI solutions of tomorrow.

The new FDI standard aims to simplify integration within 'process' automation networks that are EDDL-based (Electronic Device Description Language) such as HART, FOUNDATION Fieldbus and PROFIBUS. FDI is designed from the ground up to be compatible with FDT Technology. FDI products are expected to be available in 2016.

The FDI standard defines a collection of device information, called a Device Package (DP). These DPs, consist of a bundling of the DD/EDD, an optional graphical user interface and optional attachments such as certificates, datasheets that are currently available in the FDT DTM.

Integrating FDI into FDT brings the best of both worlds without compromises. Control system and network engineers can support devices on all communication networks using an FDT-enabled host. They can also access all process variables, diagnostics, configuration and other device resources from DD, EDD, DTMs and FDI Device Packages. FDT Technology enables access to process, factory and hybrid automation applications – bringing together information from multiple communication networks.



As seen in this graphic, an FDT-enabled host is the only host that is able to accept and use both FDT DTMs and FDI Device Packages. As shown, an FDI host is able to accept FDI Device Packages that

support HART, FF and Profibus. For all automation networks including hybrid automation applications, FDT provides the highest level of device information integration, flexibility, ease of use and standardization. FDT is the low-cost, low-risk technology-enabled solution available today and prepared for the future.

FDT White Paper:

Asset Management - Not If, But When!



Do you think you can continue to ignore the information in your intelligent devices? Think again! A successful Asset Management program provides many benefits including bridging the gap created by retiring baby boomers, difficulty attracting technical millennials and the need to increase plant reliability to avoid unplanned shutdowns. This paper looks at how to embrace change for asset management by empowering skilled individuals with the right tools and the support of management. You might find that the journey to improved plant reliability is not as long, risky, expensive or painful as you might anticipate.

Build For the Future with the Standard of Today *continued*

There no way around it, both FDT and FDI are important to the process industry. Control system engineers can use FDT today with certainty that there will be seamless integration when FDI is available in the future. Together, these two standards can make life much easier for those who work in facilities that have multiple networking architectures. Hybrid networks become much easier to manage and expand when standards handle the many facets of connecting devices to a diverse group of networks. And with FDT, you get all features and functions from all Device Packages and DTMs and all major field communication networks are supported and fully integrated. So there is no reason to wait! Use the FDT Standard today that is prepared for the future!

ARCView: An industry insight report from the ARC Group.

PACTware Consortium Success Boosts FDT



PACTware is a high-quality FDT Frame Application for Microsoft Windows. It has been jointly developed by a commercial consortium whose 24 members have benefitted greatly from this effort. The PACTware consortium's development model is noteworthy. The development of PACTware has given a major boost to FDT adoption in automation. Marketeers who see software development requirements as a barrier to success should consider these types of options carefully. ARC believes there could be many more similar success stories. [Click here to read more.](#)

Explore FDT's Benefits at Rockwell Automation Process Solutions User Group (PSUG) Meetings

PSUG provides thought-provoking keynotes, insightful technical sessions, and peer networking activities. The FDT Group will be in attendance as an exhibitor and presenter.



Don't miss an opportunity to attend an industry leading event that can help you align your business toward process automation excellence. The Rockwell Automation® Process Solutions User Group (PSUG) will take place November 17th, and 18th, 2014 at the Anaheim Convention Center in Anaheim, CA. PSUG provides thought provoking keynotes, insightful technical sessions, and peer networking activities that allow you to rub elbows and discuss best practices with industry-leading professionals.

More than 20 customers from around the globe will share their experiences with the PlantPax® process automation system. The FDT Group will be in attendance with a booth at PSUG to discuss the benefits of FDT Technology as part of your device integration strategy. In addition to exhibiting, Glenn Schulz, Managing Director of the FDT Group will deliver a presentation during the technical sessions focused on Standardization and Integration of FDI into FDT on Tuesday, November 18,

2014 at 1:15pm. The latest version of the FDT standard, known as FDT2, delivers a rich new set of features and capabilities while providing backward compatibility with the existing installed base of FDT enabled instruments and devices. One of the many new capabilities is the full support of the emerging FDI standard, including FDI device packages. This presentation will highlight the capabilities of the FDT2 standard and describe how FDI device packages are easily integrated into a standard FDT2 Frame Application.

Extend your automation learning experience by attending the Automation Fair® event on November 19 and 20 at the same location. This event is focused on improving plantwide profitability. Attend industry forums, hands-on labs, technical sessions, workshops, and demonstrations to learn about new hardware, software, services and system solutions from Rockwell Automation and its extensive PartnerNetwork™.

Don't miss the unique opportunities available at PSUG and Automation Fair®.

Registration is now open.

FDT Developer Forums Connect with Users on Three Continents

The best things come in threes. True to this motto, the experts in FDT technology, M&M Software and the FDT Group, recently hosted three FDT Developer Forums on three different continents.

Author: Christian Gnädig, Sales Manager International



The first FDT Developer Forum brought people from all over the world to the M&M headquarters in St. Georgen, Germany in March. Three months later, in June of 2014, a similar event was put on by M&M and the FDT Group in Suzhou, China. Three months later, the FDT Developer Forum event series took a final trip to Chelsea, MA (Boston area), in early September to finish off a very successful run in 2014.

The three FDT Developer Forums were filled with a multitude of different presentations about the FDT/DTM Technology. M&M's FDT experts demonstrated how modern DTM development tools and frameworks help to facilitate the quick and efficient development of DTMs for FDT version 1.2.x and version 2.

These events also introduced the new test and certification process for FDT2 using the new dtmINSPECTOR 4, which was developed by M&M Software and the FDT Group. Furthermore, attendees of these events gained insight into current technologies and concepts. For example, the demonstration of FDT2 for mobile devices resulted in lively discussions about the architecture and use cases of modern FDT2-based Frame Applications.

Several success-stories and field reports from companies such as Schneider Electric, Flowserve, ABB, Rockwell and Steinbeis Transferzentrum complemented the more technical presentations at each FDT Developer Forum. Each company shared parts of their individual FDT2 development concepts and overall FDT strategies. In order to push the informational boundaries even further, Glenn Schulz, the FDT Group's Managing Director, gave insight into the future of FDT2 in combination with FDI during his talk. After the main part of the program, attendees had the opportunity to ask questions regarding FDT/DTM Technology individually, getting answers in individual expert sessions with senior M&M developers. An attendance total of 98 participants who gave very positive feedback made the M&M FDT Developer Forums tremendously successful, one that will continue through the coming years. Stay tuned for the FDT Developer Forum in early 2015.

For more information please visit mm-software.com and mm-software.com/en/events

Generic HART DTM Works in Four Dimensions

Easy to Use DTM provide versatility for applications, communications and configuration.

Everybody likes to use an easy-to-use Device Type Manager (DTM) that supports all basic functions of all HART field devices. It should be as usable as apps that accompany us on our smart phones. The DTMs support us, solving certain tasks in different environments while also bringing the ability to reconfigure them as needed.

Generic HART DTM has been used for more than 12 years worldwide. Many suggestions of our customers were implemented during several releases. This resulted in many ease-of-use improvements. Release 6 now meets the requirements in the following 4 dimensions:

1. Application

- Does a control valve need maintenance?
The NAMUR state display of the DTM gives you a hint.
- Which liquid level do I have in my tank, at what temperature?
Main variables of each device are shown in a bar graph.
- Are there occasional disturbances in the flow?
Use Generic HART DTM as data logger.
- Are limit values to be adjusted during commissioning?
The right parameter value and unit can be easily set.
- A loop test has to be executed regularly?
Calibration of devices can be easily conducted.

2. Communication

Have old and new devices collected in your plant over the years? Generic HART DTM works with all HART protocol variants 5, 6 and 7 and all sub variants. The user interface is adapted automatically to the given protocol release.

If you do remote maintenance in a plant located in China, does your local partner cope with an English user interface?

Let the user in the plant follow your instructions in his own language! In addition to Chinese, the Generic HART DTM today supports German, English, French and Portuguese. Additional languages can easily be added using our special DTM editor.

3. Configuration

Do you perform commissioning tasks in plants as a service provider?

Insert all project data in the DTM to document your work. Then it is clear for you and your customer who executed a given task, when it was executed and what the result was.



Generic HART DTM Works in Four Dimensions *continued*

It is annoying to select the same function in a DTM context menu again and again. On mobile devices, this leads sometimes to incorrect operations. The standard function (called by double click in the project tree) can be configured, while four additional functions can be called immediately on the parameter page.

4. Usage

Tools like PACTware are used on laptops and PCs today. However, mobile devices like tablets are more and more used during maintenance. The user interface of the DTM can be adjusted for safer operation.

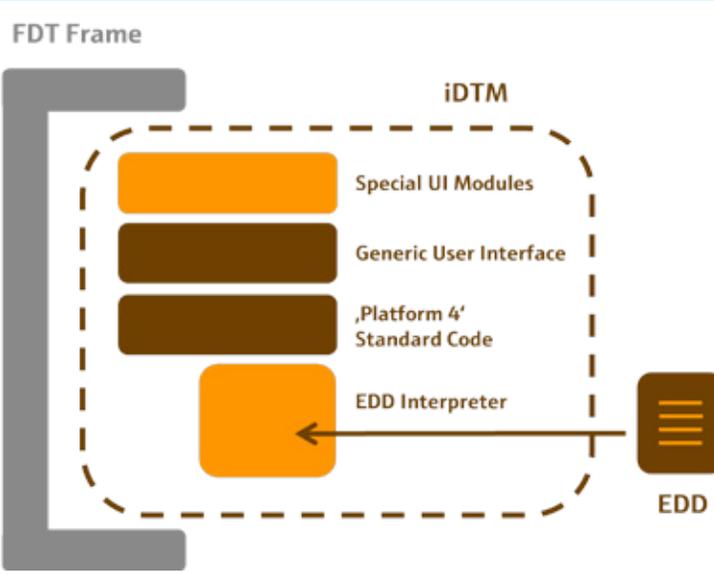
Generic HART DTM can be used with modems or in communication structures containing remote I/O devices or multiplexers. Using the DTM on all work stations in a plant is admitted by a site license.

Modem, multiplexer and remote I/O system manufacturers deliver their products with a brand labelled Generic HART DTM.

And last but not least, Generic HART DTM is the starting point for developing a new specific HART device DTM.

Learn more about the new release 6.

Device Manufacturers Can Breathe Easy with Quick Conversion - From EDD Files to Customized iDTMs



One major challenge for a device manufacturer is to provide devices that can be easily operated, configured and diagnosed in a uniform way with complete functionality.

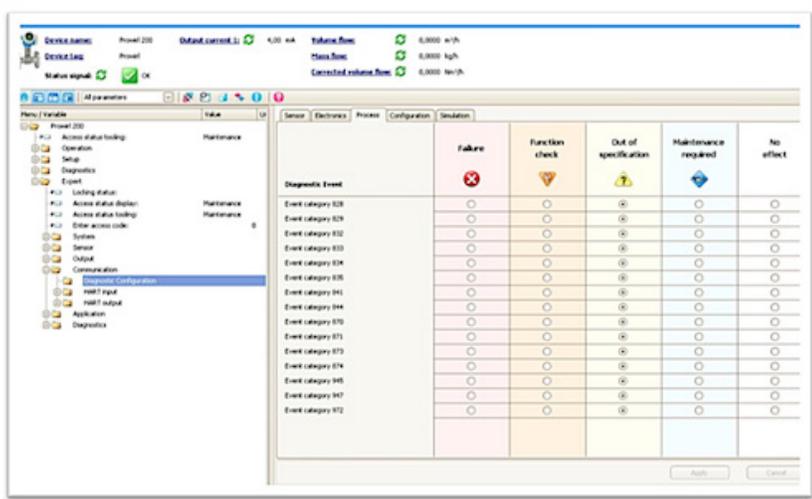
The CodeWrights iDTM-EDD ME (interpreter DTM Manufacturer Edition) offers a suitable solution by interpreting your EDDs by simply “injecting” them into the iDTM.

If you already employ EDD enhancements, the iDTM supports also their display as Group boxes, GRAPHS, CHARTs and WAVEFORMs. When the EDD hits the functional barrier, the graphical displays and/or saving/retrieving functions can be seamlessly integrated with the rest of the DTM, as so called Extension Modules. The DTM end user will face the same parameters and similar GUI as in Emerson AMS® and other

EDD tools. Users will receive a tested end product (an executable DTM setup) which can be directly used and delivered. Furthermore, if you add more devices, the iDTM concept is extensible. It is simple, fast, requires no effort from your side, trimming your development costs. To convince yourself, just ask CodeWrights for an offer!



DTM Diagnostic Line Provides Broad Coverage



High quality, good reliability, plant safety and economic efficiency are important aspects for any measuring point. Whether pressure, level or flow, today's measurement technologies are critical in the oil and gas, chemical, food and life science industries.

Endress+Hauser offers instruments that are perfect for their application. To prepare our customers for the future, we offer a wide range of sensor technology, DTMs and a new FDT-based device configuration tool called DeviceCare.

Endress+Hauser is continuously extending its HART7 portfolio. The newest versions of the field instruments, Deltabar S, Cerabar S, Deltapilot S and our latest Prowirl 200 are now available.

The benefit is clearly seen in the new diagnostic capabilities. Customers say that the new NE107 implementation helps to reduce operational costs significantly.

Endress+Hauser focusses on fulfilling the quality aspects with every new development. "The customer stands clearly in our focus" says Sebastian Fretz from Technology Management.

This new DTM function allows customers to adjust the diagnostics events to their processes.

All commonly-used DTM Frames and for sure the new DeviceCare configuration tool support these DTMs.

For more information, visit <http://www.us.endress.com/en>

Intrinsically Safe Positioner Fits in Many Systems

The SRD991 offers the most advanced technology available on the market today. It includes an infrared interface for wireless operation and configuration and a multi-lingual full-text graphic LCD and a number of popular process automation communication protocols. It offers enhanced applications and methods to analyze recorded stroke data.

All the diagnostics features can be easily configured and display by the Positioner DTM (VALcare). Moreover, the Positioner DTM provides a complete health report of the valve with all data of configuration and diagnostics. Foxboro leverages the power of FDT Technology to visualize the DTM's function block so it is both innovative and extremely helpful for troubleshooting.

The SRD991 has also the capability to control a Partial Stroke Test (PST) that offers operators a tool to identify the trouble-proof function of ESD (Emergency Shut Down) valves.

The SRD can be integrated into system environments and applications that support the FDT/DTM concept according to the Specification 1.2. The device can be integrated into any other common control system such as Fisher Rosemount-AMS or -Delta-V, Siemens SIMATIC- PDM, Yokogawa, Honeywell, ABB and SMAR.

For more information, [click here.](#)



Foxboro
by Schneider Electric

The Smart Software for the Axioline F I/O system: Startup+



Startup+ is a FDT/DTM Technology based start-up software specifically tailored to the Axioline F I/O system. It is used for testing, diagnostics and parameterization of wired I/O stations without having to set a PLC in operation. It also can be used to test the connected peripheral equipment or machine parts as well. For this purpose it is possible to parameterize the I/O modules used and read and write input and output signals. Further, Startup+ offers comprehensive diagnostics during start-up and operation of AxiolineF I/O stations.

The I/O station is connected via Ethernet or the service interface to the PC with Startup+. A user-friendly wizard supports the user to establish a connection between Startup+ and the I/O station. In addition, Startup+ offers other useful functions for the start-up of the AxiolineF I/O system as logging input and output changes and saving the I/O module parameters of an AxiolineF station in a file to enable start-up parameterization for AxiolineF Modbus TCP/IP bus couplers.

For more information, visit www.phoenixcontact.net/product/2700636



Schneider Electric provides DTM for Altivar Process

Schneider Electric has introduced a new range of variable speed drives for process applications. Altivar Process is a services-oriented drive designed to reduce OPEX in Process & Utilities installations, thanks to embedded digital services.

Examples of such services are:

- Embedded power measurement and energy dashboard
- Embedded process monitoring and control
- Embedded pump curves (easy to set 5 points curve)
- Start & Stop function to reduce consumption at stop.
- Asset monitoring & protection
- Easy maintenance (dynamic QR-Code)
- Seamless integration with embedded Ethernet



This new concept of drives meets the major needs of the process and utilities in terms of overall equipment effectiveness and total cost of ownership by supporting the energy management, asset management and also the overall performances of the process.

To manage the drive in an FDT system, Schneider Electric now provides a full featured Device Type Manager. The DTM offers functions for configuration, commissioning, maintenance and diagnostic. Ease of use menus helps to quickly setup your drive including functions for pump applications. Extensive diagnostic capabilities enhance troubleshooting and reduce downtime.

For more information, [click here.](#)



Gateway Gives Control Room Operators Access to Networked Devices

With Softing's Ethernet-to- PROFIBUS gateway, TH LINK PROFIBUS and the matching Communication and Device DTMs, maintenance engineers get central access to all PROFIBUS and HART devices in a system directly from the control room. This keeps maintenance 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), FieldCare (Endress + Hauser), SmartVision (ABB), Field Device Manager (Honeywell) or PACTware.

Even though it has minimal space requirements, the gateway can be used for a variety of maintenance tasks. During operation, field device parameters can be configured centrally from the control room, saving costs by avoiding long distance 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 engineers are aware of the "health" of the bus at any time helping to prevent plant downtimes in case of communication failures.

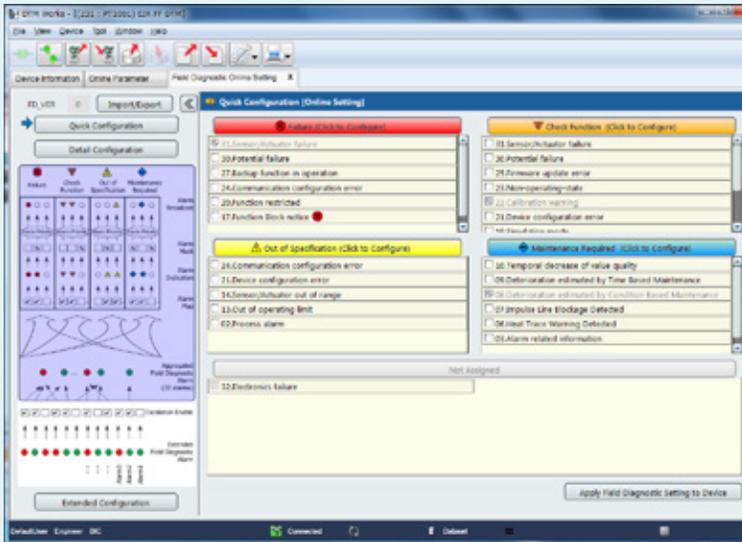
For more information about TH LINK PROFIBUS and DTM Library please visit: http://industrial.softing.com/en/products/plant-asset-management/eddl-emerson-ams/profibus/th-link-profibus.html?wmc=Auto_World

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



softing

FieldMate™ Device Management Tool Comes with NE 107 Compliant DTM's



As digital and multi-functional field devices are increasingly used, users need to process larger amounts of information from such devices.

In addition to the increased volume of information caused by a growing number of parameters from field devices, event and alarm functions provide more detailed information of various types, forcing users to identify important information. NAMUR NE 107 is a recommendation for preventing alarm flooding that offers appropriate diagnostic information to relevant personnel when necessary. Developed as a specification for self-diagnosing field devices, it offers alarms that are categorized into four standardized statuses (F: failure, C: function check, S: out of specification, and M: maintenance required).

To facilitate setting and confirmation for the alarm arrangement in accordance with NE 107, Yokogawa has incorporated NE 107 functionality in its device DTMs for Foundation™ fieldbus and Profibus.

The FieldMate™ "One tool for all" concept allows users to configure, maintain, and manage all field devices, no matter the make or protocol used to communicate, in a very efficient manner and thus helps to save on operational expenditures. FieldMate™ synchronizes seamlessly with Yokogawa's PRM Plant Asset Management tool providing a clear path to Asset Excellence.

For more details go to: <http://www.yokogawa.com/fld/fieldmate/fld-fieldmate-01en.htm>



FDT Events

>> 11/11/14 FDT User/Vendor Seminar
Venue: Nakano, Tokyo, Japan

>> 12/11/14 SICE Industrial Applications
Division 2014 Annual Conference
Venue: Ookayama, Tokyo, Japan

>> 14/11/14 FDT Roadshow China
Venue: Xiamen

>> 17/11/14 Rockwell Automation –
Process Solutions User Group
Venue: Anaheim, CA

>> 19/11/14 JEMIMA Measurement
& Control Show 2014
Venue: Nakanoshima, Osaka, Japan

>> 25/11/14 SPS/IPC/Drives
Venue: Nürnberg, DE

FDT Resource Links

- » Contact Us
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- » Frequently Asked Questions
- » Membership
- » News and Events
- » Newsletter Registration
- » Newsletter Archive
- » Press Releases
- » Technical Brochure

Solid Technology, Strong Membership



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