

FEBRUARY 2021



Real-Time Data



Smart Manufacturing Starts
with Digital Device Data

Happy New Year!

Healthy Metrics Driven by a Standardized Data Centric IIoT Platform



Lee Lane
Chairman of the FDT
Board of Directors

I wish you, your colleagues, and your family the best of health, happiness, and prosperity in 2021.

It is energizing to see the world-wide enthusiasm for the new FDT 3.0 standard. We have large users looking to immediately place an instance in their facilities and we have vendors that are new to the FDT standard that are looking to incorporate FDT technology within their product line-up. Our virtual developer forum at the end of last year drew more attendees than we have had in recent memory. All this underscores that the new FDT standard hits the market requirements as the data-centric platform independent solution empowering standardized Web Services for remote and mobile access and native OPC UA integration allowing IT/OT data-flow enterprise wide. We continue to host virtual introductions to the new FDT standard so if you would like to schedule one for you and your staff, we are happy to help.

As the chairman of the FDT Board, I see a healthy metric for the FDT Group reflected in the new members that have joined our efforts. As a membership lead organization, we welcome the active participation and leadership of our newest members — Auburn FilterSense, Fuji Electric Company and GP Systems GmbH. We could not be happier to have them onboard. I look forward to learning of their success stories with the FDT standard.

I would like to take a moment to ask your company, whether a user or a vendor, to join the FDT Group membership in support of the activities of our non-profit organization. We host a rich, collaborative environment of the best business, marketing and technical minds coming together to engineer and advance the most popular device integration and information standard in the industry. Our organization is run largely by volunteer resources that lead and drive the various activities of the FDT Group. It makes for a very inspiring and synergetic working environment. To learn more about joining as a member in support of the FDT mission, please visit fdtgroup.org/membership.

One new member led working group initiative is to enhance the capabilities of the new FDT Web Services interface with support for special purpose Apps. These new FDT Apps that will be writeable by end-users or vendors to leverage the information available through the FDT Server will drive unique business outcomes and workflows. If you would like to be a part of this defining phase, please let us know by reaching out to info@fdtgroup.org. The work is about to kick off at the committee level through virtual meetings. These are exciting times as we continue to drive innovation with customizable add-on new tech solutions leveraging FDT's 3.0 data-centric server platform for the new era of manufacturing and process systems. I look forward to reading their recommendations.



Smart Manufacturing Starts with Data-Driven FDT 3.0 Device Type Managers™ (FDT/DTMs™)

Automation suppliers can innovate device business models with customizable device functions, OPC UA and mobility solutions

Developed and maintained by the not-for-profit FDT Group, FDT® technology has been at the forefront of digitization since it was first introduced in the 1990s. Its goal is to empower the intelligent enterprise with open and standardized data-centric integration independent of platform, field communications protocols and devices—driving widespread implementation of standards-based automation solutions for process, hybrid and discrete manufacturing.

The recently released FDT 3.0 specifications support the FDT IIoT Server (FITS™) platform, which will enable automation vendors to drive smart manufacturing operations. FITS includes comprehensive security, an OPC Unified Architecture (UA) Server for IT/OT data access and a Web Server for mobile and remote access, allowing for unified, standards-based, platform-independent, information-driven business models across the manufacturing sector.

The key driver of FDT's smart manufacturing functionality starts with its core technology component—Device Type Managers™ (DTMs™) running the new FDT 3.0 standard.

Evolving Data-Driven, Intelligent Device Solutions

Intended for use with both simple and complex devices, the FDT/DTM contains the application software that defines all the parameters and capabilities included in each instrument. The DTM encapsulates all device-specific data, functions and business rules such as the device structure, its communication capabilities, internal dependencies, and its human-machine interface (HMI) structure.

The FDT standard incorporates a number of specific DTM types, including Device DTMs, Interpreter DTMs, Universal DTMs, Communications DTMs, and Gateway DTMs. These DTMs empower a standardized way of communicating, while exchanging information completely independent of the manufacturer, device type, system, or IT/OT protocol used in applications ranging from small desktop environments to enterprise-wide server/cloud architectures.

New generation DTMs automatically make device data and health information available via an OPC UA Server embedded on the FDT Server used in the FDT 3.0 architecture, asset management is now deployable as a cloud service as part of an Industrial Internet of Things (IIoT) or Industrie 4.0 initiative. This architecture “flattens” the automation pyramid so that any application requiring data from devices can retrieve it directly from OPC UA through the DTM.

FDT 3.0 DTMs have further evolved with business logic shifting to Microsoft .NET Core technology and the user interface moving to web-based technology, thus diversifying the presentation of asset-related device information. The use of web technology allows server-based distributed architectures to enhance the user experience with mobile and remote access solutions.

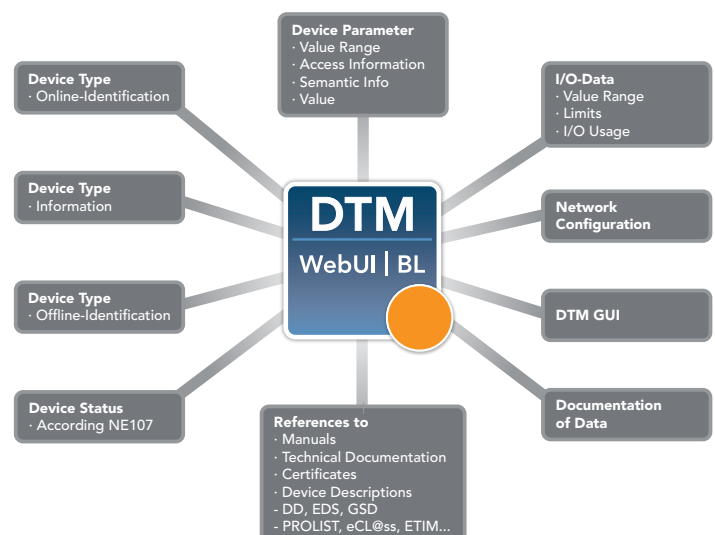
Unlike DTMs based on the earlier FDT 1.2 or FDT 2.0 standards, FDT 3.0 DTMs employ responsive touch screen features as part of HTML 5.0 development, which are mandatory for use with tablets and smart phones. This ensures the familiar interface found on today’s mobile devices is integral to the DTM environment.

Utilizing a Modern, Integrated Development Environment

With the introduction of the FDT 3.0 standard, FDT Group released associated FDT 3.0 DTM Common Components toolkits to help the vendor community jump start FDT development with a modernized Integrated Development Environment (IDE). The updated FDT 3.0 DTM Common Components—the only platform-independent testing tools of their kind in the industry—help to minimize engineering effort, simplify DTM certification and shorten time to market for new product offerings.

When the DTM Common Components toolkits were first introduced with the FDT 2.0 standard, their primary purpose was to provide better interoperability and help instrumentation companies expedite their DTM development activities. This functionality has been enhanced with FDT 3.0 while leveraging decades of recognized industry expertise embedded in the toolkit.

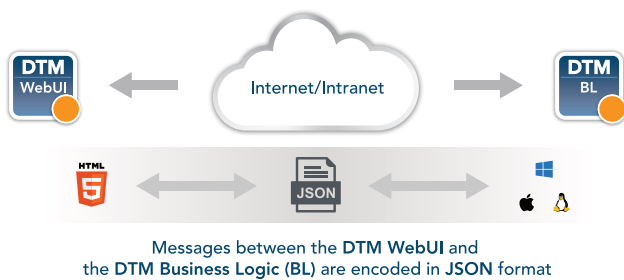
Enhancements to the FDT Common Components from FDT 2.0 to the current FDT 3.0 standard have greatly improved their ease of use for DTM developers, thus contributing to reduced time and effort for related development programs within a new contemporary environment. New capabilities with the toolkit will benefit companies seeking to differentiate their products from the competition. These features are intended to free DTM development teams to focus on value-added parameter profiles for device functions, web UI and other customized App features.



FDT DTM Interfaces and Device Specific Functions

The latest enhanced FDT features supported by the FDT 3.0 DTM Common Components include platform independence, an advanced Web User Interface (UI), auto-enabled OPC UA compatibility, customized graphical parameterization, and rigorous DTM security.

Since the FDT 3.0 DTM Common Components are completely platform independent—allowing FDT-based solutions to feature cross-platform functionality—they can be used on leading computing platforms such as Apple, Linux and Windows. This approach allows users to retain their preferred environment for device firmware manufacturing while ensuring a unified development approach. In addition, the use of web technology now makes it possible to create a true distributed architecture by separating the user interface from the server. The client, server and DTMs are all thin and can be hosted on any platform.



The FDT 3.0 DTM Common Components are essential in driving development initiatives centered around the creation of OPC UA information models. With these tools, OPC UA is auto-enabled for DTMs—meaning no additional coding or work is required. The native integration of OPC UA makes it possible to publish data for a wide-range of purposes. This will provide end users with an out-of-the-box solution for accessing DTM information and making it available to cloud-based applications.

The FDT 3.0 standard and its DTM Common Components support a secure DTM deployment procedure, enabling developers to package and sign DTMs and offer customers the assurance they have been tested and certified by FDT Group. Updated security measures also provide non-repudiation and tamper evidence so users can be confident of the source of their DTMs and know their functionality has not been altered by a third-party.

Deploying Innovative, Smart Device DTM Business Models

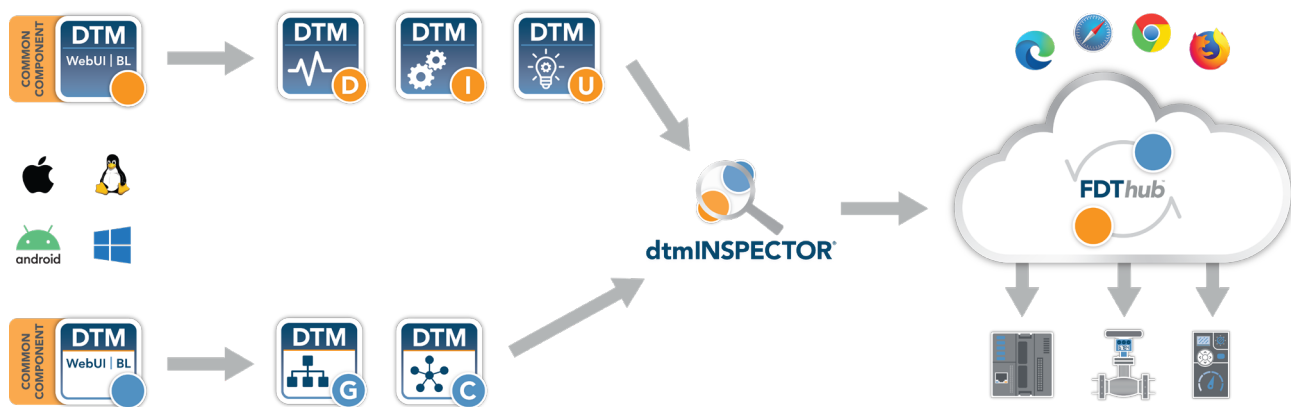
From a business perspective, the FDT 3.0 standard makes it possible for automation companies to deploy new, innovative device DTM business models, which leverage the advantages of improved interoperability, native OPC UA support, a modern Web UI providing customization and mobile access capabilities, streamlined DTM certification and cloud repository features, and easier developer tools to help reduce time to market for new smart DTM-based products.

For example, companies that use FDT 3.0 DTM Common Components will see reduced cost and effort for DTM development and certification. The FDT 3.0 DTM Common Components include thousands of lines of prewritten and tested code that ensure DTM base code complies with the FDT standard. As such, this robust toolkit frees DTM developers from having to write and debug voluminous amounts of their own code. They no longer have to become experts on FDT technology, but rather can focus on enhancing their products with advanced features.

By combining the FDT 3.0 DTM Common Components with value-added parameter profiles enabling the unique functionality and UI of their device, development teams can move forward with a customized solution without having to learn all the technical nuances of the FDT specification. FDT 3.0 DTM Common Components Help Files provide step-by-step instructions for optimizing DTM development activities.

In addition, developers can make use of FDT 3.0 Sample DTMs, which show how to utilize the various features and capabilities of the FDT 3.0 DTM Common Components toolkit. The Sample DTMs include basic functionality that developers can apply as a starting point for their creating their own DTMs.

The Common Components also assist device suppliers looking to migrate existing FDT DTM 2.0 business logic to support FDT 3.0 applications. (The business logic can largely stay intact but needs to be updated to .NET Core technology, which may involve some work in converting the UI.) This is an important benefit for organizations that are transitioning to FDT 3.0 technology and seeking new ways to present DTM information to their customers.



Device, Interpreter, Universal, Gateway and Communication DTMs are certified for compliance before entering the FDThub.

FDT 3.0 DTM Development and Certification Process

The robust web UI with FDT 3.0 allows DTMs to be opened in any browser, including mobile devices carried by field personnel. Mobility applications are a specific example of where the power of FDT 3.0 DTMs comes into play. Companies can utilize the technology's standardized mobility platform as part of their service functionality, helping site engineers solve problems with remote assistance.

The FDT 3.0 DTM Common Components also enable developers to address the majority of the test cases involved in the DTM certification process while eliminating the need to test and verify their own software functions. With the toolkit's pre-written base code, compliance is auto-enabled and there is no need to review the FDT specification to implement compliance code. Rather, developers can customize specific device functionality and web UI code. The FDT 3.0 DTM Common Components also help with development of manifest files and the utilization of an open package format to streamline delivery of DTM packages.

All certified FDT 3.0 DTMs comply with the NAMUR NE-107 recommendation, which stipulates that operators need a view of the process including the status of the instrumentation in a simple and uniform way—regardless of source device—to support predictive maintenance

strategies. As such, the DTMs are a crucial enabler for apps intended to view the health of field devices, and subsequently improve maintenance workflows.

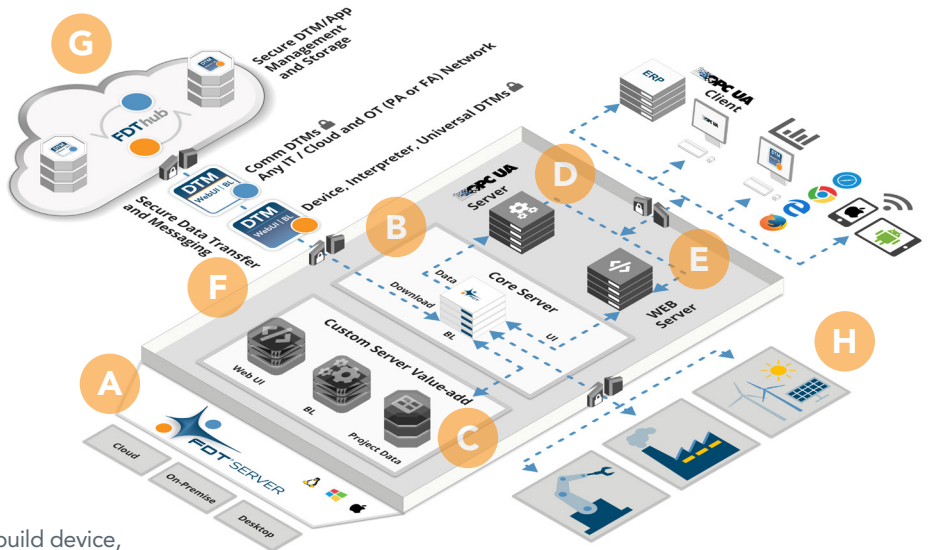
Finally, the FDT Group has unveiled the new FDThub repository for certified DTMs. This repository, which can be in the cloud or on premise, is where DTMs are securely stored and managed, allowing for automatic device discovery and notifications for end users when new DTM updates are available. With the FDThub solution, the days of searching for DTMs are over. The vendor community can now manage their DTMs with user role access privileges.

Conclusion

With the availability of FDT 3.0 DTM Common Components, and their ability to optimize the development of standardized and compliant DTMs, device suppliers can achieve a number of important technical and business advantages. First, they can provide a new generation of robust DTMs meeting the expectations of their customers. Secondly, they can leverage technology enhancements supporting the new era of industrial automation with connected sensor-to-cloud systems in modern industrial facilities. Finally, they can deliver new DTMs to market faster and subsequently improve their bottom line.

Authored by: Robert Hartmann and
Dr. Michael Gunzert – CodeWrights

How the FDT IIoT Server Solution Works



A FDT Server

- Utilizes .NETCore open source software to build device, cloud and IIoT applications.
- Compatible with a choice of operating systems, including iOS, Linux and Windows.
- Offers a variety of deployment options, including cloud, edge, on-premise and air-gapped.
- Employs Server Common Components relieving the developer of integrating the standard into products, allowing them to focus on value-added capabilities.

B Core Server

- Functions as IIoT data hub for the FDT Server.
- Included in Server Common Components.
- Incorporates DTM user interfaces and business logic.
- Stores, instantiates and executes DTMs, which are always kept up to date via the FDT Hub repository.
- Provides the FDT topology information.

C Custom Server Value-add

- Integrates into a larger system for enhanced functionality, including higher level, complex systems such as asset management applications, PLC tools and DCS/engineering applications.
- Utilizes Server Common Components with all the basic coding groundwork for business logic, project data and Web UI, which system vendors can customize by adding their own wrapper for branding purposes.

D OPC UA Server

- Leverages a client-based environment.
- Enables IT/OT integration and gateway to data and health information.
- Allows developers to leverage industry-standard OPC UA Server included in the Server Common Components, or easily exchange it for their preferred OPC UA Server.
- Supports ERP/MES to optimize enterprise-level connectivity, plant availability and quality yield production.
- Offers OPC UA client/server-authenticated access to plant application data.
- Utilizes Publish-Subscribe environment for real-time data exchange.

E Web Server

- Leverages a browser-based environment.
- Mobilizes field device management.
- Transforms OT access for improved asset management and maintenance.
- Enables browser-based access to physical plant/facility assets using authenticated computer, tablet or phone, or via DCS, PLC, asset management application, etc.
- Programmed into Server Common Components however, system vendors may replace the preprogrammed Web Server with their server of choice.

F Security

- Provides encrypted communications using Transport Layer Security (TLS).
- Utilizes on-the-wire-security for enabled industrial automation protocols.
- Implements role-based user security.
- Supports 509v3 certificates for authentication.

G FDT Hub™

- Enables convenient access to all certified Device and Communication DTMs in a single repository.
- Supports cloud-based deployment with automatic device discovery.
- Available as a local server for on-premise, air-gapped deployment.
- Supports machine-to-machine communications with 509 certificates for machines with authorized access.

H Remote Facility Connections

- Allows a single server to support multiple facilities.
- Provides access to FDT Hub DTM repository.
- Optimizes security and connectivity via TLS, 509v3 certificates, authentication, authorization, and encryption.
- Compatible with VPN for IT environments, edge with a gateway for a specific protocol such as MQTT or AMQP and Intranet — ensuring communication stays within the secure enterprise network.

OUR FDT SERVICES SPECTRUM



FDT Consultation and Advisory



OPC UA Integration to FDT
Host Devices

FDT Interoperability Service



DTM Development and Conversion
(uDTM SDK, uFDI-DTM/DD-DTM)

FDT Pre-Compliance and
Certification Support



FDT 1.2/2.0 to FITS Migration

FDT Host Development




Test Automation Framework for
FDT Components

Asset Health Monitoring
Application Development



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 **13 years**
Industrial Experience

 **150+**
Global Clients

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A digital transformation strategy that includes upgrading to a modern DCS can help producers be more productive, profitable and reduce risk

How can a process industry producer or manufacturer
move beyond the status quo to keep up with industry and
technological trends?

A one-size-fits-all solution just won't cut it anymore.
It's time to get surgical about solutions.

Enter: Digital transformation as enabled by the modern
distributed control system (DCS).

LEARN HOW



DTM ENHANCES PLANT OPERATIONS AND SAFETY IN AADVANCE PROCESS SAFETY CONTROL SYSTEM

Rockwell Automation adds support for AADvance HART I/O Modules

In today's rapidly changing environment, safety is always at top of mind, but do you have the flexibility and visibility to quickly adjust to meet the next challenge? The **AADvance® Control System** from Rockwell Automation offers a



AADvance® Control System

distributed, scalable architecture, which allows you to specify the level of safety integrity and availability you need throughout your facility to meet a wide range of operational needs. This level of flexibility is available for projects sized from a few IO points to large systems; with safety integrity levels from no safety requirement to SIL 3; and safety architectures including fail-safe to multiple fault tolerant.

Safety can be enhanced with remote maintenance practices and increased instrument health visibility. Rockwell Automation DTMs for the AADvance Control System enable remote configuration of field devices and transforms those devices into diagnostic rich data sources accessible to plant staff near or far to meet the challenges of frequent product or grade changes. Maintenance

technicians gain on-demand, remote PC-based access to field device data to support troubleshooting activities that keep the facility running or get it back online quicker. Additional performance improvements can be obtained using applications that continuously monitoring process instrument health status. This increased visibility using industry standards like NAMUR NE107 helps prioritize maintenance activities to improve safety and productivity.

Network Tag	Chan...	Device type (DTM)
Host PC		
FactoryTalk Linx CommDTM		FactoryTalk Linx Comm
AADvance Controller	Chan...	AADvance Controller
AADvance I/O Module	SLOT01	AADvance I/O Module
DELTAPILOT	CH01	DeltaPilot S / DB 5x / V1
ITEMP	CH02	iTemp / TMT 182 / V1.1
TrustSens / TM...	CH03	TrustSens / TM371-TM3

To download the latest DTMs from Rockwell Automation, including the FactoryTalk® Linx CommDTM, the AADvance Gateway DTMs, or DTMs for other HART IO families, please visit our [Product Compatibility and Download Center](#) (PCDC) click on "Find downloads" and search for "DTM".



**Learn more about our
AADvance System.**



**You can also check out the latest
process safety updates from our
Automation Fair® At Home event.**

REDUCED THE OPERATIONAL TIME AND TIME TO MARKET WHILE ENSURING FDT STANDARD COMPLIANCE

Device Driver for Digital Valve Controllers for a Leading OEM

Summary:

One leading industrial automation giant, specialized in Manufacturing, Production, and Lifecycle Services for Valves, Actuators & Regulators, and other plant assets faced practical difficulty in configuration and maintenance of their various field devices. Utthunga developed a single Device DTM, which reduced the operational time and time to market while ensuring compliance with FDT 1.2 standard.

Challenge:

Client is the manufacturer of a wide variety of industrial products including smart valve positioners, ball and sliding stem valves, steam conditioning equipment, and actuators.

They needed to develop a Device Driver/Device Type Manager (DTM) that allows the user to:

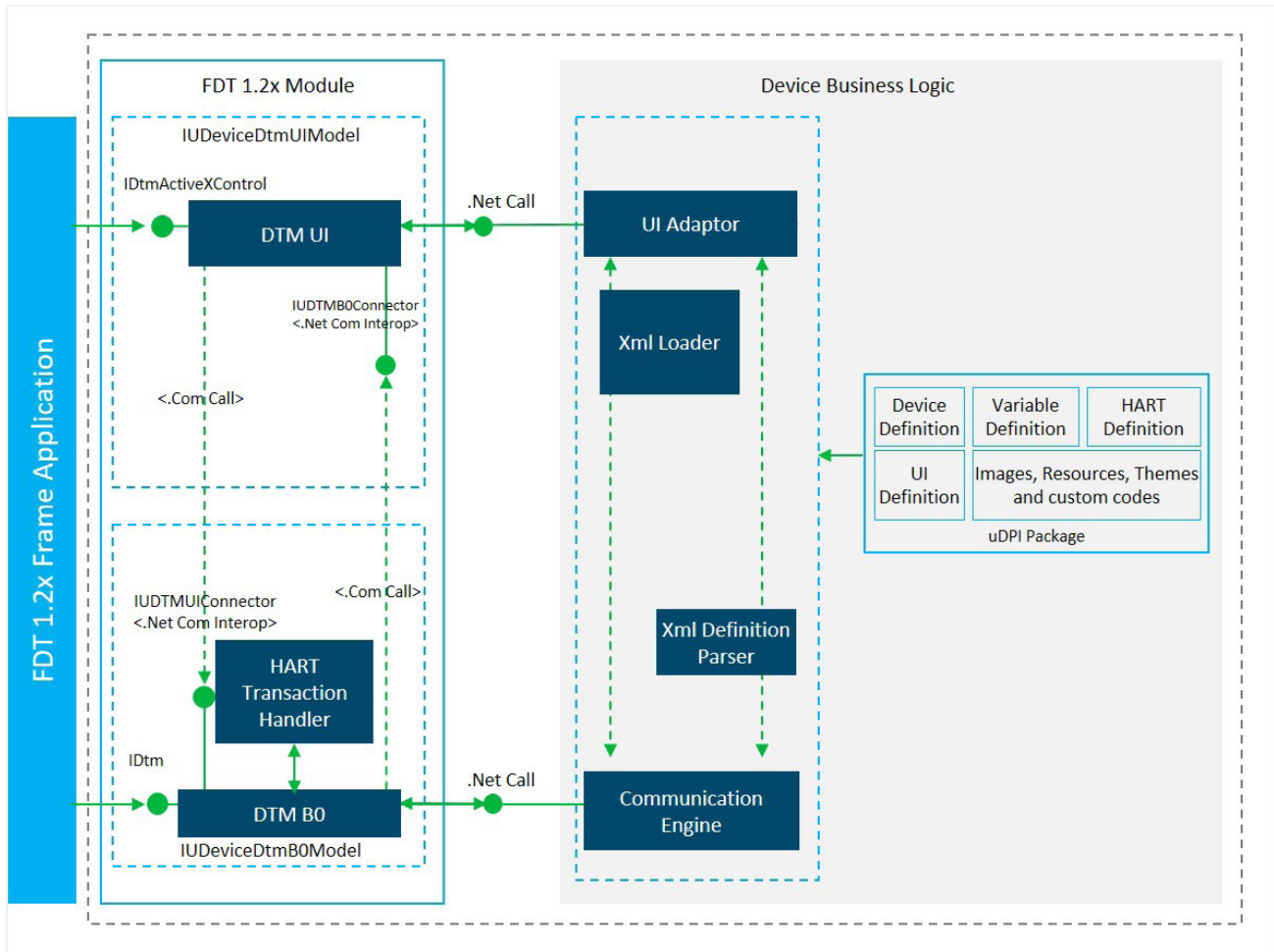
- Perform Device Setup for 150+ Actuator types, Partial & Full Stroke methods
- Monitor the health check of the instruments
- Configure the input/output configuration parameters
- Extend the instrument's monitoring and diagnostic capabilities

They wanted their device driver to be compliant with the FDT 1.2 standards to operate in various FDT/FRAM applications including DCS. It was a crucial time for them to deliver the device driver to the market with very limited duration.

Solution:

Based on the requirement analysis, the end user environment, and needs, Utthunga proposed below solutions for the client's challenges.

- Create mock-ups for complex methods like Device Setup, Auto Tuning, Stroke Value, Linearization, and Calibration. The actual Device Setup method flow had 100+ screens, which had been simplified into 20+ screens without changing any algorithm or the flow of the method logic.
- Develop the Device DTM to meet FDT 1.2 standard and PROFIBUS PA Profile with 3.02 compliance and related attributes shall be added in the Device DTM for identification purpose.
- Perform pre-compliance testing to reduce time spent for fixing the issues during the FDT certification process.
- Provide a better user experience and usability by following Human Centred Design to reduce the duplicate screens and methods.
- Set up the test environment to work with the existing Device Description and to have complete understanding of the device functionality.
- Provide multiple language support with very minimal development efforts by only providing the resource strings in XML.



Internals of uDTMsdk, Utthunga's proprietary DTM development framework

Result:

The client was able to achieve tangible benefits in various aspects:

- The single Device DTM shall be used to work with 150+ Actuator types and Actuator sizes.
- Quick and on-time demonstration/deployment of the device DTM resulted in gaining the trust of new customers and actively engaging them.
- Reduced the development efforts for this project from 12 months to 7 months while providing high quality deliverables using Utthunga's proprietary framework, uDTMsdk.
- Reduced the time spent for executing the complex methods flow, which in turn saved time during commissioning.
- Same device configuration can be loaded to N number of device by using upload & download operations.

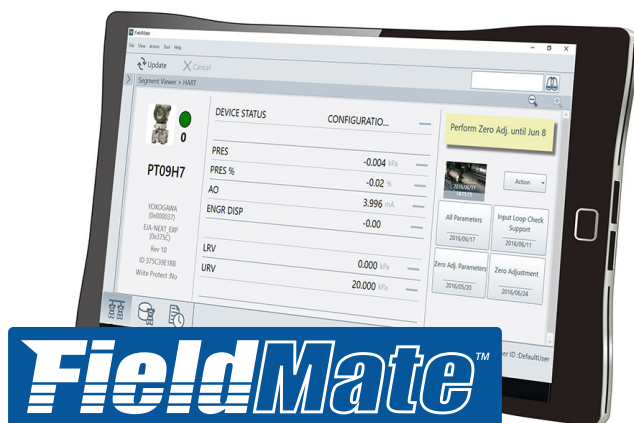
For more details on our FDT solution visit utthunga.com or email us contact@utthunga.com.

Authored by: Ms. Divya Selvakumar

Email: divya.s@utthunga.com

EASY-TO-USE INTERFACE LETS
USERS JUMP-START DEVICE
MAINTENANCE EFFORTS

Mobile FieldMate for Field Device Management



The major factor driving the growth of this Field Device Management market is the notable change from conventional technology to automated technologies with enhanced mobility support. Due to digitalization and deployment of Industry 4.0 and IOT has opened a tremendous opportunity for the Field Device Management for reducing operating and maintenance costs.

Digital communications standards are playing an increasingly important role in communications between plant central control systems and field devices. With a number of digital communication standards in use today, plants often have devices from multiple vendors that use different standards. Software tools are thus required that have the versatility to configure, adjust, and manage these devices.

With its support of a variety of digital communication standards and its ability to configure, adjust, and manage a variety of devices from different manufacturers, FieldMate is up to this challenge. With this recent update, FieldMate has become even easier to use and improves the efficiency of field device management

FieldMate 3.X is a PC/Tablet based configuration tool that performs numerous tasks, including initial setup, daily maintenance, troubleshooting, and configuration backup for device replacement. These tasks are streamlined by FieldMate's intuitive operation and integrated environment, which is independent from communication protocols and device vendors.

FieldMate incorporates the open FDT technology standard and is compliant with FDT/DTMs that use either the FDT 1.2 or 2.0 standards. Additionally, the tool supports built-in DTM interpreting of existing Device Descriptions (DD) instantaneously for those devices that do not have DTMs. The FDT/FRTM application is an integral part of FieldMate. Many DTMs are included with the FieldMate tool, and third party DTMs are available from most field device vendors. FDT/FRTM-enabled applications standardize the communication and configuration interface between all field devices and host systems. FDT/DTMs (Device Type Manager) provide the software application defining the Graphical User Interface (GUI).

FieldMate R3.03 efficiently and speedily supports calibration work in combination with Pressure Calibrator CA700.

In smaller installations, FieldMate can be used as a low-cost Plant Asset Management system. It lets operators store all associated documentation and calibration records for that instrument in one location. Data can also be transferred to a remote storage device for back up or to allow multiple users access to the information.

The intuitive, easy-to-use interface lets users jump-start device management maintenance efforts directly from the start-up screen. FieldMate automatically scans the bus and

lists the devices found and provides their status and basic device parameters. From there, users can navigate to device details such as diagnostics, configuration parameters, maintenance information, etc. An audit trail function is one of many standard features. Additional features include the ability to do standard tasks right from the front interface such as all parameter download/comparison functions/work reports, zero adjust parameters, input loop check support and perform zero adjustments. The ability to show notes or generate a note on that particular instrument for future reference including pictures is also granted.

Easy Connection and Operation

FieldMate enables instant device recognition upon connection and quicker device configuration. To set a function used most frequently to the top screen and to increase productivity of work with easy operation.

Device parameter can be exported by text, HTML, Excel format, and customized format by Word or Excel.

Calibration Support

The dedicated screen is prepared for the new 4-Wire Converter FLXA402 and the SENCOM™ Smart adapter SA11.

Supports calibration work in combination with Pressure Calibrator CA700.

By the graphical interface, calibration work can be performed with monitoring the input pressure.

Easy, Useful Memo & Image Display Function

Displaying the message and precaution for the maintenance work together with memo or image is useful for preventing the generation of errors in the maintenance work.

History Function

Saving the operation log and performing the filter and full-text searching function for maintenance and troubleshooting.

FieldMate conforming to FDT2 Standards

FDT1.x and FDT2 DTMs can be worked on the FieldMate, and the latest device DTMs which are enhanced functionalities are available.

Device Interface Function

Displays the current status of the field device including errors, warnings and good status. Device Viewer.

Configuration Function

Parameter Manager: FOUNDATION fieldbus H1, HART

The Parameter Manager is a simple parameter viewing window, in which adjustment and field device replacement can easily be performed.

DD Menu: FOUNDATION fieldbus H1

The existing Fieldbus DD is utilized to enable function block configuration.

DTM Works: BRAIN, FOUNDATION fieldbus H1, HART, PROFIBUS, ISA100.11a

DTM Works provides not only configuration, but easy setup, calibration, simulation wizards etc. as defined by the device vendors' DTM.

FieldMate is the handy tool of choice to support the easy maintenance patrol activity in your entire facility. It facilitates the accurate update of information in the Plant Asset Management system for ease of operations and maintenance. Additionally, FieldMate supports linking additional user information about the device condition or installation environment such as photo's, movies, audio, memo's etc., to each device. FieldMate synchronizes seamlessly with Yokogawa's PRM (Plant Resource Manager) tool to provide a clear path to asset excellence.

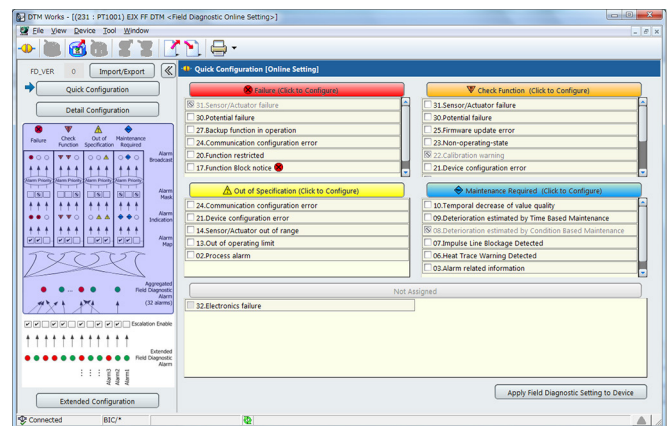
Device Replacement Tool

It will make device maintenance and engineering work speedy especially when the existing transmitters need to be converted to HART EJA and EJX series. Plus, transmitter HART5 to HART7 conversion is also incorporated.

AXF Verification Tool (Optional)

This is provided as option applicable to Advance version. Without having to dismantle the HART AXF magnetic flow meter from process line, its healthiness can be verified, reported in printing and stored in device maintenance information in well assorted manner. (Displayed language is English only)

NAMUR NE107 Field Diagnostics Function



Configuration and confirmation of device alarms conforming to NE107 Field Diagnostics can be implemented intuitively on the graphical display.

FieldMate Validator (Optional)

This function is an option for N-I/O (I/O module) of Yokogawa CENTUM VP and ProSafe-RS. Validation of connection between I/O module and the field devices is possible by the FieldMate Validator without FCS/SCS. The I/O module configuration and input/output validation are also possible without FCS/SCS.

PRM Synchronization

Synchronize information between FieldMate and PRM to make best use of PRM as a master database. Bi-directional file transfer operation is supported.

YOUR PATH TO ASSET EXCELLENCE

FieldMate™

Versatile Device Management Wizard



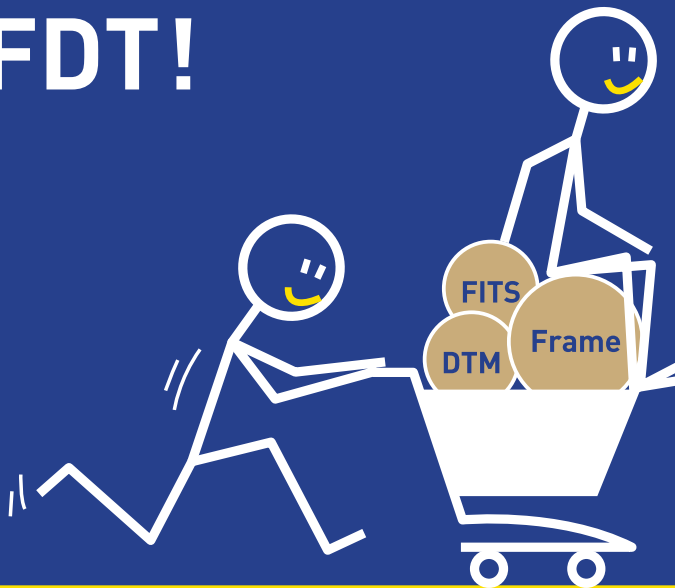
Reliability + Maintainability = Availability

The Yokogawa FieldMate Versatile Device Management Wizard is a FDT compliant PC-based integrated software tool that handles parameter setting for intelligent field devices, regardless of their make or field communication protocol. FieldMate speeds up device configuration and problem solving, and automatically stores a work log for a traceable field maintenance database that consolidates the maintenance work flow and facilitates the sharing of maintenance know-how. In addition, FieldMate synchronises seamlessly with Yokogawa's PRM Plant Asset Management solution.

yokogawa.com/Fieldmate

YOKOGAWA 

One-Stop-Shop for FDT!



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BY PEOPLE WITH PASSION
Member of **WAGO** Group

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PLANNING, REALIZATION AND OPERATION OF DIGITAL BUSINESS MODELS

Your One-Stop-Shop for FDT

M&M Software is a technology and consulting company for industrial software and belongs to the co-founders of the FDT technology. Due to its services and products, M&M is established as a technology leader in the FDT area and participates in key working groups of FDT Group.

As a specialist for technical industrial solutions, M&M acts as a system partner for its customers and supports them in the planning, realization, and operation of (digital) business models. Therefore, M&M is characterized by the holistic integration of system solutions from the sensor to the Cloud. Software applications from M&M are created based on certified know-how in the relevant technologies and the associated tools. For the realization, M&M consistently relies on the use of state-of-the-art software technologies.

FDT Services

Consulting

M&M Software provides professional and comprehensive consulting on the topic of device integration and helps to find a customized and future-proof device management strategy. This strategy also takes the latest technology innovations and trends, such as FDT 3.0 (FITS), FDI and EDDL, web-based parametrization, Edge computing, etc., into account.

FDT Desktop Integration

M&M assists in the integration of the official FDT DESKTOP Common Component ([fdtCONTAINER](#)) for desktop applications into existing host systems.



**Test-drive the current
FDT DESKTOP application.**

FDT Server Integration

M&M offers integration support to add the official FDT Server Common Component into existing systems. This also includes extending the FDT Server by adding individual features that make software solutions unique and ready for a new era of automation.

DTM Development

M&M develops DTMs, including FDT 3.0 DTMs that are accessible on web/mobile, for field devices and communication components quickly and efficiently based on our development platform [dtmMANAGER](#). We also convert DD / FDI packages to a DTM ([basicDTM](#)).

Development Tools

M&M offers FDT specific development tools, which allow customers to fully concentrate on the essentials — their own software solution. Using [dtmMANAGER](#) reduces the complexity of developing a DTM to a minimum. The [fdtCONTAINER](#) is the reliable and future-proof basic framework of every FDT Desktop application.

DTM Test & Certification

M&M is an official FDT Accredited Test Site for all your DTM testing needs. As the developer of the official toolset for testing, we assist you in preparing your DTMs for the testing procedure to avoid any conformance issues.

As one of the official FDT Accredited Test Sites M&M performs testing and certification of DTMs. In addition, we assist in preparing DTMs for testing. This avoids potential problems and delays.

For more information, please visit: mm-software.com/en/



FDT Group AISBL · 5 Industrieweg · 3001 Heverlee · Belgium

Phone: +32 (0)10 22 22 51

Email: businessoffice@fdtgroup.org

fdtgroup.org



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