



Device Integration Strategies

Empowering the Intelligent Enterprise

What is FDT® Technology?

The FDT Group AISBL is an international non-profit corporation consisting of leading worldwide member companies active in industrial automation and manufacturing. The major purpose of the FDT Group is to provide an open standard for enterprise-wide network and asset integration, innovating the way automation architectures connect and communicate sensor to cloud for the process, hybrid and factory automation markets. FDT technology benefits both manufacturers and end users, with advancements such as the Industrial Internet of Things (IIoT) and Industry 4.0 delivered out-of-the-box – enabling modernized asset integration and access to performance data for visualizing crucial operational problems. Around the world, end users, manufacturers, universities, and research organizations are working together to develop the technology; provide development tools, support, and training; coordinate field trials and demonstrations; and enable product interoperability.

FDT has long focused on bringing plants, people and data together. With the new Fourth Industrial Revolution era now here, FDT has strengthened its standard focused on empowering the intelligent enterprise with the release of the new FDT IIoT Server™ (FITS™) platform. The enhanced solution transforms the standard into an information exchange architecture. Empowering innovative business models, FITS features a solid ecosystem of solutions (FDT Server, FDT Desktop, FDT DTM and FDT App) supporting IIoT and Industry 4.0 applications. Built from the ground up with an operating system agnostic environment and a comprehensive security solution, a FITS enabled environment boasts OPC UA integration, mobile device management and a new *FDThub*™ DTM repository. Designed to be flexibly integrated, the architecture is deployable in the cloud, on-premise, edge or desktop environment supporting FDT's heritage and future as the open, standardized, platform independent architecture for universal device integration and asset management.

Newsletter Contributors



Table of Contents

- [3. Editorial: FDT 3.0 Standard and Toolkits Now Available](#)
- [7. FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability](#)
- [15. How Field Tablets are Changing the Game in Instrumentation](#)
- [17. PRM's New Features Optimize Plant Maintenance](#)

Editorial: FDT 3.0 Standard and Toolkits Now Available

FDT IIoT ecosystem unlocks universal device integration



Lee Lane, FDT Group Chairman of the Board of Directors

I want to start this month's editorial off by thanking all the first responders and health care professionals who are working on the front lines during this pandemic. It is times like these where we can see the best in humanity; people working selflessly and tirelessly to help others. I also want to thank the people who work in manufacturing, the supply chain and the pharmacies and grocery stores to keep critical goods stocked on the shelves. The work behind the scenes may not be as visible, but it is just as critical and important to all of us. The other trait of humanity that we are seeing is our ability to adapt. We are seeing countless companies switch over their manufacturing to produce PPE, ventilators, pharmaceuticals, and other medical supplies. We must thank all the engineers who have worked to switch production lines over. It is amazing how quickly these companies have been able to start producing new products. We will all get through this together; because, that is who we are as people. When we collectively put our minds and wills into something, we can overcome anything.

Now, on to the business part of this month's editorial. I trust you have heard that we have fully released our new FDT IIoT Server



[Watch FDT Group's June 3, 2020 Virtual Press Conference Empowering Digital Transformation with FDT 3.0](#)

(FITS™) / FDT 3.0 standard to the marketplace including all of the developers' tools necessary to build products and services that integrate this exciting new technology. I am very excited to see the new products and capabilities that will be introduced to the marketplace built on the FITS standards. Created on the long legacy of the rock solid FDT standard, we now release the features and capabilities that

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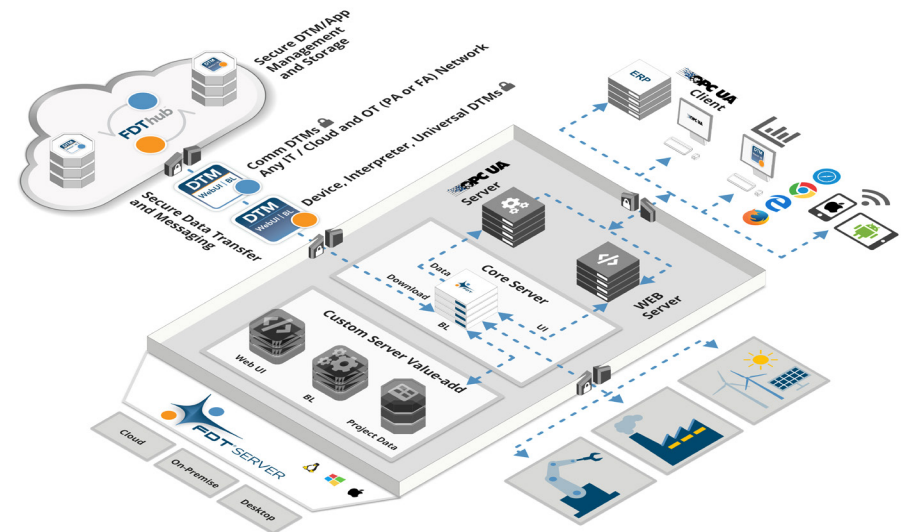
FDT 3.0 Standard and Toolkits Now Available

are needed for IIoT, remote monitoring, mobility, and IT/OT integration. This is one of the most dynamic and exciting times in the 20 plus year history of the FDT standard.

Let us take a closer look at some of the features and benefits that the new standard brings:

Skid to Cloud Deployment: The new FDT standard is completely platform independent in its development and deployment. The server environment can scale from a small, low cost Linux box running a remote OEM skid asset management environment up to a multi-facility, enterprise-wide, cloud-based installation. Any class FDT Server is securely accessible through any authenticated web browser or OPC UA client from anywhere in the world. For the vendor and services community, this scalability is achieved with one development environment that can deploy under a wide variety of operating systems and server classes.

A Robust Security Architecture by Design: We started with a security analysis before the first line of the FITS specification was written and we have maintained a strong security posture throughout by utilizing a separate oversight committee staffed with security experts. Every point of access is protected with industry standard TLS authentication and encryption which can be further hardened through a cus



tomers specified VPN. Authentication of servers and clients is carried out through 509v3 certificates. User authorization follows our time tested FDT role-based security model. The security industry does not stand still, and neither will we as we continue to bolster our FDT security posture.

Remote Access and Mobility: We started this update to the FDT standard with a broad industry survey to understand the emerging requirements for remote access and mobility - this has served as the centerpiece of our development activities. The new FDT standard fully enables authorized remote access from anywhere on the plant



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FDT 3.0 Standard and Toolkits Now Available

floor, within the enterprise or anywhere in the world - all with a standard web browser or OPC UA client on any authorized desktop, laptop, tablet, phone or IIoT device. The recent COVID-19 lockdowns have truly underscored the value of this type of flexible, secure remote access.

IT/OT Integration: Many process industries and manufacturing plants have begun to realize the benefits of cross pollinating the information technology and operations technology departments. The new FDT standard further drives these benefits by allowing deployment topologies that support incumbent architectural requirements of the enterprise. We further enhanced the value of the FDT Server through a fully integrated OPC UA Server within the FDT Server. The FDT Server publishes a full data schema that can be directly browsed by any authorized OPC

UA client anywhere in the enterprise. This architecture eliminates the need for the PLC or DCS to be the broker of all information between the plant floor and the enterprise business systems.

Compatibility: The FDT Standard has been deployed for decades as a single user, desktop environment resulting in the largest installed base of any asset management and device configuration tool or standard. To support and protect this installed base, the new FDT standard is deployable in this exact same configuration allowing legacy and new DTMs to be freely mixed in the same topology. While the older DTM architecture may preclude some of the leading-edge features of the new FDT standard, no existing functionality is lost.

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FDT 3.0 Standard and Toolkits Now Available

To produce a new standard of this scope has required an army of experts working around the clock towards a common vision. On behalf of the FDT Group Board of Directors, I would like to thank everyone that has contributed to this amazing journey. In particular, I would like to thank the leaders of the various parts of the technical organization that brought us to this point in record time: Suriya Kumar Selvaraj (Yokogawa) our Vice President of Technology, Dr. Thomas Hadlich (Rockwell Automation) for leading our Architecture and Specification Team, Mr. Peter Jack (CodeWrights) for leading our Security Team, Mr. James Loh Chia Woon (Yokogawa) for leading our Test and Certification Team, Mr. Benedikt Spielmann (Endress+Hauser) for leading our Style Guide Team and Mr. Manfred Brill for leading the Common Components Teams.

FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

Modernized developer toolkits empower innovative business models supporting open, integration for the new era of automation

Manfred Brill – FDT Developer Tool Lead

Industrial Internet of Things (IIoT) applications promise huge business opportunities. Suppliers of automation systems and devices are seeking to speed up product development efforts to seize the potential of this emerging market.

However, control and instrumentation vendors face unique development challenges compared to other markets. Companies designing next-generation IIoT devices must produce enhanced functionality within limited time and budgets. Leveraging modernized, user-friendly developer toolkits can increase overall efficiency.

FDT Group is driving continued developments in open, standardized, universal network/device integration and asset management. The FDT ecosystem is evolving to incorporate modern web-based and mobile applications in the process, hybrid and discrete manufacturing markets.

The release of updated Common Components toolkits supporting the new FDT 3.0 standard promises to simplify the development of



FDT-based IIoT solutions. Utilization of these advanced toolkits can alleviate many development challenges by helping to improve engineering efficiency while increasing productivity, quality and security.

Advancing the FDT Standard

For suppliers of industrial control products and solutions, implementation of FDT Group's standard is a forward-looking strategy supporting the new era of automation. Thanks to ongoing advancements, FDT technology now offers greater flexibility for developers with

Can you manage configuration and diagnostic information remotely?



Get more from your HART devices with our new I/O DTMs.



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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

innovative solutions supporting IIoT and Industrie 4.0, including applications opening the door for standardized sensor-to-cloud and enterprise-wide integration.

FDT Group's IIoT transformation path to connect and empower the intelligent enterprise has been based on industry-driven feedback. The organization's standards developments have focused on security, performance, ease of use, and investment protection to allow automation suppliers and end-users to take advantage of an evolving open integration and information sharing architecture. These features, embedded in suppliers' system and device offerings, are elevating their product line to meet the digital transformation pathway demanded by the industrial sector.

The recently released FDT 3.0 standard supporting the FDT IIoT Server (FITS™) platform will enable vendors to enhance their product offerings with standards-based, platform-independent, information-driven business models for the process, hybrid and discrete manufacturing markets. FITS will empower the intelligent enterprise by transforming manufacturing practices, enabling open, secure and scalable skid-to-cloud deployment architectures and sensor-to-cloud integration with embedded OPC Unified Architecture (UA) and Web Servers, as well as built-in security features and deployment options for cloud, enterprise, edge, on-premise, and single-user desktop environments.

Indeed, FDT 3.0 will accelerate the transformation journey into the Fourth Industrial Revolution by enabling an



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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

ecosystem of FDT-based solutions to meet demands for IIoT and Industrie 4.0 applications. This updated, platform-independent standard delivers a comprehensive, cloud-based asset management solution deploying a secure-by-design environment, IT/OT integration, universal compatibility benefits and a single FDThub repository for FDT Device Type Managers™ (FDT/DTMs™).

With FDT 3.0, FDT DTMs have evolved with business logic moving to Microsoft .NET Core technology to provide device data and the user interface moving to web-based technology to present asset-related information. This approach eliminates the constraints imposed by a traditional Windows environment.

Additionally, since FITS-based DTMs automatically make device data and health information available via the OPC UA server embedded on the FDT Server, asset management is now deployable as a cloud service as part of an IIoT initiative. The FITS architecture flattens the automation pyramid so that any application requiring data from devices can retrieve it directly from OPC UA through the DTM.

Improving Developer Performance

Automation product developers are welcoming FDT Group's latest technology advancements. Release of the FITS architecture will dramatically change the outlook for the worldwide supplier commu-

nity. The modernized approach inherent in FITS will benefit vendors seeking to take advantage of this innovative technology while greatly improving developer performance.

Over the years, automation solution providers have streamlined their techniques for development of FDT-based products. Whereas developers once spent a tremendous amount of time writing code just to enable features required by the standard, they can now utilize FDT Group's Common Components to create a library of routines that simplify the development process and save countless hours of R&D time, while also allowing engineers to focus on value-added functionally to achieve a competitive advantage. These toolkits have proven to be popular with leading controls and instrumentation manufacturers that have developed and deployed FDT-enabled stand-alone applications, host systems and FDT DTMs.

With the introduction of the FDT 3.0 standard, FDT Group has released associated Common Components toolkits to help the vendor community jump start FDT development with a modernized Integrated Development Environment (IDE) to create next-generation, data-centric FITS solutions, including compliant FDT Server, FDT Desktop and FDT DTM components. The updated Common Components—the only platform-independent testing tools of their kind in the industry—help to minimize engineering effort, simplify FDT DTM certifica-

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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

tion and shorten time to market for new product offerings.

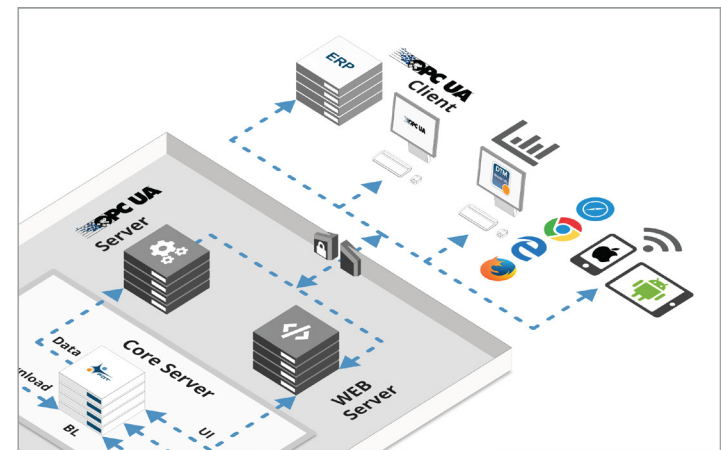
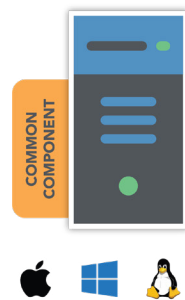
Leading developer organizations supporting FDT Group have devoted thousands of engineering hours to the Server, DTM and Desktop Common Components with the goal of optimizing R&D efforts within the automation vendor community. The toolkits have all been tested together to ensure a high level of confidence in the interoperability of different generations of supplier components. Furthermore, working groups within the FDT organization developed Server and DTM prototypes in tandem to ensure they work and interact in a seamless manner.

FDT Group maintains a change control board comprised of representatives of leading automation companies for each of its Common Components. Board members play an active part in the progress of the technology and are responsible for approving and managing the project schedules for any changes required within the tool sets.

Leveraging Industry Expertise

Manfred Gundel, head of business unit device integration, M&M Software, indicated that FDT 3.0-based Server Common Components can take

advantage of a new web user interface to enable a true client-server concept. "The robust webUI with this toolkit allows DTMs to be opened in any browser, including mobile devices carried by field personnel. The native integration of OPC UA also makes it possible to publish data for a wide range of purposes. This will benefit end users as an out-of-the-box solution for accessing DTM information and making it available to cloud-based applications. The Common Components will also be helpful for developers who want to extend their system capabilities with FDT technology."



FDT Server Common Components Empower Innovative Business Models

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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

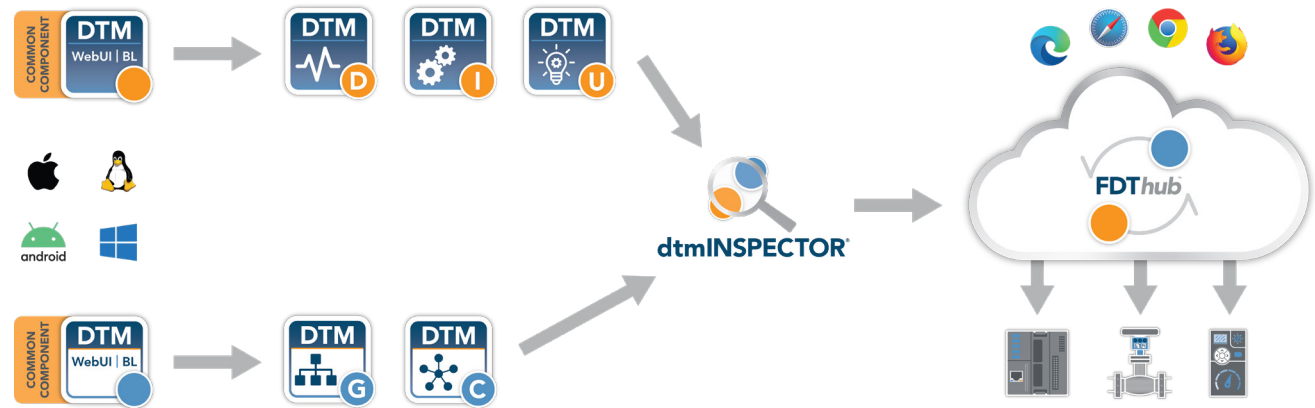
Gundel added, “In older FDT versions, the user interface for DTMs was bound to the Windows platform. This prevented FDT-based applications from being fully distributed. The use of web technology now makes it possible to create a true distributed architecture and separate the user interface from the server. The client, server and DTMs are all thin and can be hosted on any platform.”

The FDT 3.0 Server Common Components incorporate a Core Server to manage DTMs, as well as OPC UA and Web Servers. Users have the flexibility to implement any or all the server components, or even integrate their own OPC server if needed. The FDT Server can scale from a large distributed control system (DCS) application all the way down to a machine builder who simply wants to monitor the health of their skid package. There is also the option to use the Common Components to offer FDT as a service.

Gundel noted that the FDT Desktop Common Components have been in existence since the original

FDT 1.0 standard and have been upgraded to support all existing versions of the technology. This toolkit does not have a web user interface, but rather is implemented in stand-alone applications without the use of an OPC UA server. It is primarily intended to enhance existing systems with FDT functionality.

According to Robert Hartman, senior developer, CodeWrights GmbH, the FDT DTM Common Components are a valuable asset for automation suppliers bringing new or enhanced FDT DTMs to the market. “FDT DTM Common Components provide a fast way for development



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

FDT DTM Development Process

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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

teams to view DTMs in an FDT Desktop application and understand the communication flow between them. The toolkit's web UI allows them to see how different DTMs work together across various machines and operating systems. This is a significant improvement over the previous .NET environment," Hartman said. "The FDT DTM 3.0 Common Components allow developers to easily create manifest files, package their DTMs and focus on the code they need for their hardware. In addition, the test kit improves interoperability and eliminates misinterpretations of the standard when updating DTMs from FDT 2.0 to the FDT 3.0 standard. It also includes a new deployment package that works on all platforms."

Hartman continued, "With the recent FDT technology enhancements, DTMs now natively offer data through OPC UA. This feature eliminates a significant amount of effort on the part of developers; they can implement FDT 3.0 using the Common Components and then rely on the toolkit's clear guidance to support interfaces within the standard."

Increasing Engineering Efficiency

With the release of its platform-independent 3.0

standard, FDT Group has taken additional steps to ensure that its complete, integrated tool chain can be employed on any platform. This approach allows automation suppliers to immediately develop FDT-compliant products for their platform of choice.

The FDT Server and DTM Common Components, utilizing pure Microsoft .NET Core technology, create an environment allowing for quick



FDT 3.0 | Universal Platform

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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

and easy development so system and device vendors can focus on custom/value-added features that will differentiate their products from competitors. These toolkits, available for use with any of the major operating systems, ensure specification compliance, greatly enhance interoperability, and work together to help developers deliver an ecosystem of FDT IIoT-enabled solutions while expediting time to market.

For example, the standard FDT Server Common Components toolkit has a built-in, platform-independent OPC UA Server that is prewired, pretested and ready for immediate deployment. This solution alleviates headaches for developers by eliminating the learning curve for implementing an OPC UA Server and integrating it with an FDT application. The toolkit integrates a pre-built Web Server to support all the browser-based clients in the FITS architecture, and it can even be compiled and employed as a working FDT Server out-of-the-box, without the need for any additional engineering.

For device vendors, the FDT 3.0 standard makes it easier to create compliant device DTMs than ever before. Thanks to the DTM Common Components, DTMs are automatically compatible with OPC UA and compliant with the NAMUR NE 107 status recommendations for predictive maintenance. FITS-based DTMs automatically make device data and health information available via the OPC UA server

embedded on the FDT Server. This empowers innovative business models such as a data-driven approach to maintenance, rich integration of live plant data with manufacturing execution systems (MES), enterprise resource planning (ERP) systems and asset management as service.

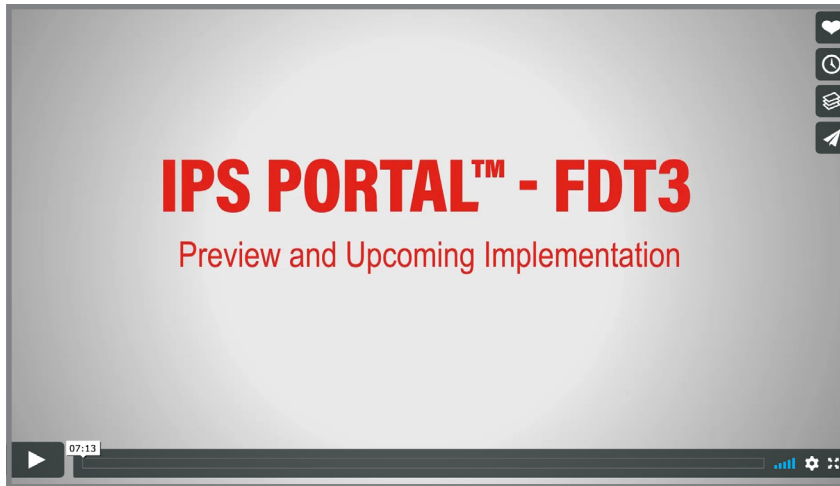
Thanks to the FDT 3.0 standard and Common Components toolkits, automation suppliers can take advantage of a completely integrated development environment employing Microsoft Visual Studio. This makes it possible to produce an FDT Server or DTM that works on any of the major operating systems (macOS, Linux, Microsoft), which will empower the intelligent enterprise by bridging the current FDT installed-base with next-generation solutions supporting IIoT and Industrie 4.0.

A unique advantage of FDT 3.0 is the ability to create a web-style Graphical User Interface (GUI) in HTML5 and JavaScript—eliminating common coding challenges and freeing automation developers from the legacy Windows environment. Moreover, implementation of the FITS solution within FDT 3.0 provides the only open platform, standardized integration architecture with a single interface enabling mobile access cloud-to-plant-floor.

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FDT 3.0 Common Components Decrease Development Efforts and Increase Interoperability

Take a look at Flowserve's FDT 3.0 Server Solution Prototype



The FDT 3.0 Common Components were specifically designed with rigorous security requirements in the mind. FDT Group's security working group analyzed specific threats to the FITS client-server architecture and made its findings available for review by member companies. All ingress and egress points from the client and server are protected by industry-standard, multi-layered security measures such as Transport Layer Security (TLS) enabling Web Sockets Secure (WSS) and Hyper Text Transfer Protocol Secure (HTTPS) capabilities.

This security strategy encompasses encrypted communications using TLS, role-based user security, X.509v3 certificates for device authentication, and on-the-wire-security for enabled industrial control protocols.

Conclusion

The new FDT 3.0 standard supporting the FITS platform will simplify the move to IIoT and Industrie 4.0, providing native OPC UA integration, Web Services, mobility, and control to enhance connectivity and information sharing across control system platforms. These and other opportunities will transform the outlook for industrial automation stakeholders around the world.

The automation supplier community can use FDT 3.0 Common Components to simplify development of FDT Server, FDT Desktop and FDT/DTM components. These tools greatly enhance interoperability across a product portfolio while improving engineering efficiency, reducing the time for certification and accelerating products to market.

How Field Tablets are Changing the Game in Instrumentation

Meet Field Xpert your IIoT maintenance tool

**Fabrício Andrade, Digital Marketing Manager,
Endress+Hauser Digital Solutions**

There are thousands of WhatsApp groups for process improvement, field instruments, and more topics than you can imagine, and I'm just talking about industrial automation here! But a common thread among all these groups revolves around problems with field communicators.

Of course, the user often has a hand in that. For instance, during one chat, a user wanted to know why his handheld had no HART library. I asked him a few questions, one being whether someone tried to use the internal memory card to do another thing. He answered yes, so I had to tell him that this action corrupted his files.

Device libraries have been a common problem for many field communicators, and the complicated update procedure has been a nightmare for many users. Vendors sometimes struggle to understand what really happens in the field, and the chat groups on WhatsApp prove that the challenges still exist out there.

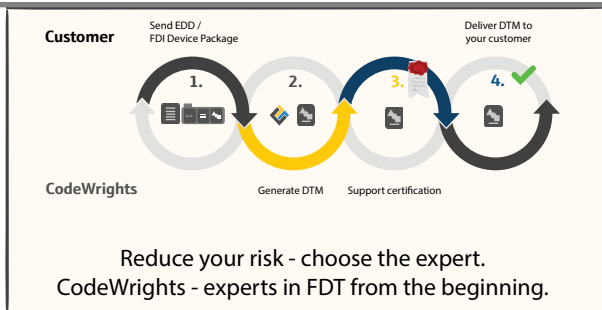
Fortunately, solutions are showing up in the market. Field tablets like the Field Xpert SMT70 give users new hope. These tablets solve lots of old problems and offer new possibilities to field engineers and



technicians. Now your device can offer an automatic DTM update, so you can forget about the headache of installing a new DTM yourself.

If you don't see the right DTM in the list, you can add it manually with a couple of clicks – no extra software needed! This simple feature saves time on figuring out how to upgrade the device library, calling the vendors, shipping the device back and forth, and so on.

A field tablet also supports more protocols and networks, making it light-years better than a traditional handheld. A single tablet can sup-



Protecting your investment these days is probably even more important than a couple of months ago. As the global economy reacts to uncontrollable worldwide influences, now is the time to consider shifting strategies to streamline device integration, ensuring connectivity and data integrity for critical process applications. Today, the process automation industry is saturated with a mixture of device integration standard solutions (EDD, FDT/DTM and FDI), making it hard for device vendors to maintain each solution, with firmware upgrades, standard revisions, etc., for a single device. With customers asking you to support all options for each device type, how about streamlining development efforts by combining all these technologies in just one solution: iDTM? CodeWrights is your Expert to Speed-up Device Development and Deliver Benefits with the iDTM

Your benefits:

- ▶ **Reduce of technological risk , ensure interoperability:** easily integrated in all important FDT FRAME-enabled host systems.
- ▶ **Protect your investment:** Reuse your existing EDDs / FDI Device Packages
- ▶ **Sharpen focus:** Take care for your EDD/FDI Device Package - iDTM delivers FDT technology.
- ▶ **Speed up development:** Usage of standard tools and components.
- ▶ **Use our expertise:** Profit from long-term experience on the market. FDT expertise from the beginning.
- ▶ **Be prepared for future:** Stay up to date with regular updates and latest technology.
- ▶ **Offer backward compatibility:** Deliver your field device into running plants using latest technology.
- ▶ **Implement your design:** Look and feel according to your brand style.
- ▶ **Enjoy an easy process:** Only a few steps to receive a functionable DTM.

Here is how it works:

1. Send EDD / FDI Device Package
2. CodeWrights creates DTM setup
3. Receive your customized setup
4. You are ready to deliver the DTM with your device to your customers.

Please contact us for details.

www.codewrights.com



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How Field Tablets are Changing the Game in Instrumentation

port HART, FOUNDATION Fieldbus, and many other, which cuts down on the number of handhelds you need across your plant.

Finally, we come to the Industrial Internet of Things (IIoT) because companies must beef up the communication in their plants between their devices as well as their employees. The COVID-19 crisis has shown a painfully bright light on the need for digitalization in many segments.

Apart from setting up field devices, field tablets also connect processes to cloud-based services, such as Netilion from Endress+Hauser. Now you can get more than automatic DTM updates – you can send the device’s report directly to the cloud, saving time and paper.

I used to work in the field myself, so I know how important it is to save the

device report. It’s great to be able to take pictures, attach them to the report, and send the whole package using digital cloud-based solutions such as the Netilion Library. The field tablet can connect to the cloud while you’re in the field, so you can take pics and save your report all with one device.

This feature generates faster reporting, develops a data history, and allows you to share all the information with your team so that everyone has the same level of knowledge. It improves the maintenance team’s performance considerably.

The field tablet is a modern tool with tons of benefits, including IIoT solutions for your plant. So, next time someone complains about a handheld’s library, you can say, “Have you heard about field tablets? They can help you out.”



PRM's New Features Optimize Plant Maintenance

Streamline and accelerate plant start-up operations

Suriya Kumar Selvaraj, Senior Manager
Singapore Development Centre, Yokogawa

Yokogawa Electric Corporation have released Plant Resource Manager (PRM™) R4.03, the latest version of a software package in the Asset Management and Integrity family that facilitates the monitoring and control of plant operations by centralizing the management of large volumes of data from instrumentation and manufacturing equipment. PRM R4.03 features powerful device diagnostic functions that help to optimize plant maintenance and ensure safe operations. This translates into greater efficiency and accelerates the transition from reactive to predictive maintenance. PRM fully supports communication standards such as HART, FOUNDATION fieldbus™ (FF-H1), PROFIBUS, PROFINET, ISA100 and FDT/DTM (Field Device Tool/Device Type Manager4) interface standards.

Development Background

Manufacturers are constantly looking for ways to improve maintenance efficiency by using software tools like PRM that can centrally manage large amounts of maintenance information and other types of data from plant monitoring and control devices as well as manufacturing equipment, thus enabling the quick identification of device failures that could interfere with the safe operation of plants. To meet such needs, Yokogawa has continued to enhance PRM's functions.



Diagnostic data screen for InsightSuiteAE starter edition

In recent years, plants have become increasingly reliant on digital communications to handle an ever-growing amount of data. As a result, operators enjoy improved access to field device maintenance information and information on process parameters. In response to customer needs for greater maintenance efficiency and reduced risk of device failure, Yokogawa has enhanced PRM's device and equipment diagnostic functions to make more effective use of data from digital devices that is needed to adjust their operating conditions.





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PRM's New Features Optimize Plant Maintenance

Also, to streamline and accelerate plant start-up operations, a function that helps to set device parameters has been added.

Enhancements

Reduction of maintenance workload

The starter edition of InsightSuiteAE, a Yokogawa software tool for the viewing of diagnostic data that can aid in the identification of device degradation, is now included with PRM. This allows PRM to identify devices that are rarely used and thus may have deteriorated less and have a low risk of failure. Such proactive condition-based monitoring reduces the daily workload for maintenance personnel because only selective device checks need to be carried out.

Reduced risk of equipment failures

PRM now comes with an interface package for generic systems that

enables this software to connect with device and equipment diagnostic systems. This helps to identify abnormal conditions in peripheral equipment and field devices. For example, by connecting to Yokogawa's cavitation* detection system, PRM can identify cavitation inside pumps in real time. By using PRM's alarm function, operators can receive immediate notification of abnormal conditions so that evasive actions such as limiting the flow rate can be taken to prevent pump failure.

Faster plant start-ups

A device parameter audit function has been added to PRM that enables parameter checking to be performed immediately at plant start-up. This confirms that the correct parameters have been set for all field devices of the same model. This function also makes it easier to troubleshoot problems by checking parameter changes and logs.

Join the FDT Group

FDT is the disruptive technology for modern industrial operations, it is a key enabler of the Fourth Industrial Revolution empowering the intelligent enterprise with innovative business models supporting the Internet of Things (IIoT) and Industrie 4.0 applications.

Join other leading companies in the FDT Group today. There are unique advantages for the entire industrial automation industry – end users, suppliers/developers, service providers, universities, and individuals.

For membership information, please visit www.fdtgroup.org



FDT Group Members



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