

# Integration Technology for Process Automation



ONE Device ONE Package ALL Tools

connect ANY automation protocol

rest assured it's SECURE FDI Package Repository CLOUD to instrument connectivity

configure all devices OFFLINE





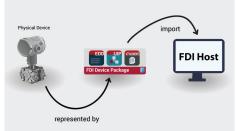




#### WHY ASK FOR FDI?

FDI solves the problem of integrating field devices with the multitude of networks, operating systems, and control systems used in the process industries.

It has been developed and is supported by the automation industry's leading technology foundations and suppliers to address these needs.



FDI brings standardization to the packaging and distribution of all the software and tools necessary to integrate a device with a host system.

FDI combines the advantages of FDT™ with those of EDDL into a single scalable solution and provides benefits for users, field instrument device suppliers, control system manufacturers, and host system developers.

# ONE Device ONE Package ALL Tools

# THE SIGNATURE SLOGAN OF FDI - WHAT DOES IT MEAN?

FDI standardizes the packaging and distribution of software and tools. Host systems need only one FDI Device Package per device type per protocol to successfully integrate each device.



A physical device is virtualized in software as an FDI Device Package. An FDI Device Package is a single file (\*.fdix) which contains all the device information including device definitions, user interface plugins, certificates, device manuals and other components that are essential for managing the field device in the plant.

Therefore, "ONE Device - ONE Package - ALL Tools".

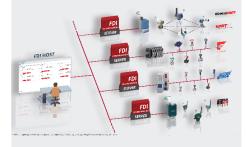
# connect ANY automation protocol

#### IS FDI A NEW PROTOCOL?

No! FDI is an integration technology. Specifically, it is a feature of a host system (an asset manager, configuration tool, DCS, etc.) that brings standardization to device installation and configuration.

# DOES FDI SUPPORT HART AND OTHER PROTOCOLS?

Yes! FDI includes native support for HART, WirelessHART, FOUNDATION Fieldbus, PROFIBUS, PROFINET and ISA100 Wireless.



Other protocols, like HART-IP, EtherNet/IP, Modbus TCP, and practically any proprietary protocol can work with an FDI host through a specialized software module called a Communication Server.









# rest assured it's SECURE

#### STATE-OF-THE-ART SECURITY

FDI technology deploys stateof-the-art security measures to mitigate possible threat vectors in the process industry.

An FDI Device Package is a sophisticated and standardized container with all the components required to describe a field device. There are two digital signatures applied to each FDI Device Package to ensure its authenticity and integrity - one by the manufacturer and the other by FieldComm Group.



#### **CREATE**

An FDI Package Originator creates an FDI Device Package as per the FDI specification.





#### REGISTER

FDI Registration Authority issues the FDI registration certificate after successful conformance tests.





#### **DIGITAL SIGNATURE**

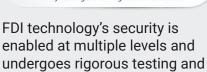
FDI Package Originator again digitally signs the registered FDI Package.



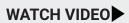


#### **VERIFY**

FDI Host system shall check the signature and certification status by reading the FDI registration certificat



enabled at multiple levels and undergoes rigorous testing and registration to ensure its safety from unauthorized access and tampering.





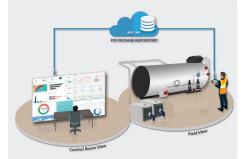
# Package Repository

#### THE AUTHORITATIVE SOURCE FOR REGISTERED DEVICE **PACKAGES**

The core of device revision management lies in keeping the system and handheld field communicator aligned with the latest devices and revisions.



Problems arise when multiple, non-standardized sources, for device drivers are available.



The solution is the FDI Package Repository - a single cloud based distribution source for registered FDI Device Packages, irrespective of vendors and protocols.

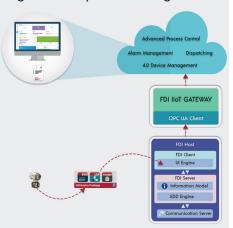
WATCH VIDEO



# **CLOUD** to instrument connectivity

#### FDI: BUILDING BLOCK OF DIGITAL TRANSFORMATION

Industrial Internet of Things (IIoT) and Industrie 4.0 are redefining manufacturing at an unmatched level of efficiency, productivity and performance. IIoT brings together intelligent devices, advanced analytics, and people at work; its services run in the cloud and interact with physical devices via virtual representatives - all with the aim of creating valuable process insights.



The FDI standard lays the foundation for system-wide interoperability and seamless communication via cloud services. FDI-Cloud integration will help in remote data visualization to increase the transparency in asset performance monitoring and optimization of business operations across the globe.

WATCH VIDEO

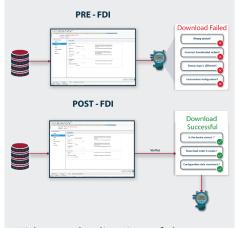


# configure all devices OFFLINE

# FDI STANDARDIZES OFFLINE CONFIGURATION

Commissioning is a critical phase in the plant life cycle. In many cases the commissioning phase, when done correctly, can help a project get back on schedule after it has fallen behind. It is essential that the quality, integrity and functionality of the systems be verified at each stage of commissioning.

In the past, there was no standardized root menu available in the DD for offline configuration and no specific way to determine the download parameters.



With standardization of the root menu for offline configuration in FDI, the device developer chooses the set of device parameters and their download order to remove inter-dependencies.

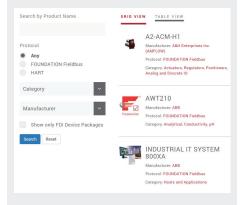
WATCH VIDEO





# FIELDCOMM GROUP REGISTERED PRODUCTS

FieldComm Group has been registering instruments, systems and infrastructure for conformance to the HART and FOUNDATION Fieldbus protocols for nearly twenty years. Registered products undergo rigorous testing to assure conformance to the mandatory features of the respective protocol specifications.



FieldComm Group's Product Registry is a searchable registry of registered FDI, HART and FOUNDATION Fieldbus products from a multitude of manufacturers and categories. Products that carry the registration mark have been tested in the Field-Comm Group lab to ensure conformance to the standards for interoperability and functionality regardless of manufacturer.

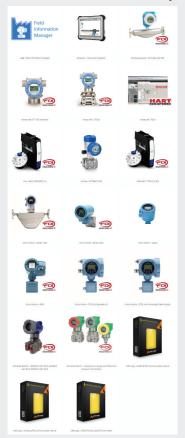
REGISTERED PRODUCTS





# FDI PRODUCTS FROM MEMBER COMPANIES

The FDI Products section on ask4FDI.com spotlights FDI products from FieldComm Group member companies. While the FieldComm Group registry (fieldcommgroup.org/registered-products) features only registered products, this section displays products that are both registered and not registered, but available on the market today.



FDI PRODUCTS

