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***Field device tool (FDT) interface specification –
Part 303-1: Communication profile integration –
IEC 61784 CP 3/1 and CP 3/2***

Approved 31 May 2011

**ANSI/ISA-62453-303-1 (103.00.05)-2011, Field Device Tool (FDT) Interface Specification –
Part 303-1: Communication profile integration –
IEC 61784 CP 3/1 and CP 3/2**

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INTRODUCTION

This part of IEC ISA-62453 is an interface specification for developers of FDT (Field Device Tool) components for function control and data access within a client/server architecture. The specification is a result of an analysis and design process to develop standard interfaces to facilitate the development of servers and clients by multiple vendors that need to interoperate seamlessly.

With the integration of fieldbuses into control systems, there are a few other tasks which need to be performed. In addition to fieldbus- and device-specific tools, there is a need to integrate these tools into higher-level system-wide planning- or engineering tools. In particular, for use in extensive and heterogeneous control systems, typically in the area of the process industry, the unambiguous definition of engineering interfaces that are easy to use for all those involved is of great importance.

A device-specific software component, called DTM (Device Type Manager), is supplied by the field device manufacturer with its device. The DTM is integrated into engineering tools via the FDT interfaces defined in this specification. The approach to integration is in general open for all kinds of fieldbuses and thus meets the requirements for integrating different kinds of devices into heterogeneous control systems.

Figure 1 shows how IEC ISA-62453-303-1 (103.00.05) is aligned in the structure of the IEC ISA 62453 series.

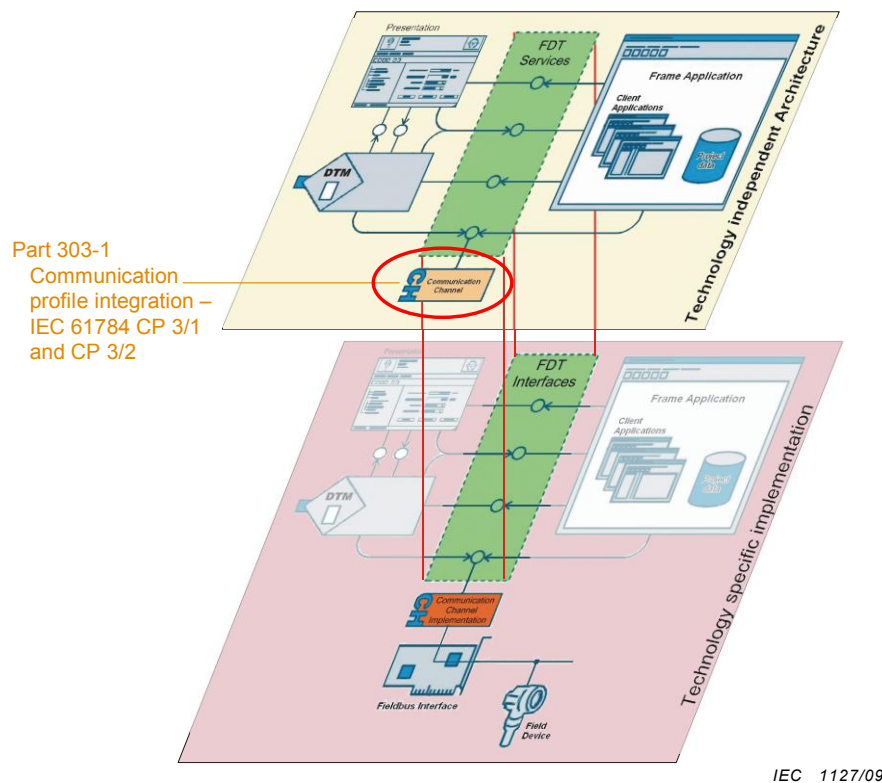


Figure 1 – Part 303-1 of the IEC ISA-62453 series

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FIELD DEVICE TOOL (FDT) INTERFACE SPECIFICATION – Part 303-1: Communication profile integration – IEC 61784 CP 3/1 and CP 3/2

1 Scope

Communication Profile 3/1 and Communication Profile 3/2 (commonly known as PROFIBUS™¹) defines communication profiles based on IEC 61158-2 Type 3, IEC 61158-3-3, IEC 61158-4-3, IEC 61158-5-3, and IEC 61158-6-3. The basic profiles CP 3/1 (PROFIBUS DP) and CP 3/2 (PROFIBUS PA) are defined in IEC 61784-1.

This part of ~~IEC~~ ISA-62453 provides information for integrating the PROFIBUS protocol into the FDT interface specification (~~IEC~~ ISA-62453-2 [103.00.02]).

This part of the ~~IEC~~ ISA-62453 specifies communication and other services.

This specification neither contains the FDT specification nor modifies it.

2 Normative references

The following referenced documents are indispensable for the application of this specification. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies

IEC 61131-3:2003, *Programmable controllers – Part 3: Programming languages*

IEC 61158 (all parts), *Industrial communication networks – Fieldbus specifications*

IEC 61158-2, *Industrial communication networks – Fieldbus specifications – Part 2: Physical layer specification and service definition*

IEC 61158-3-3, *Industrial communication networks – Fieldbus specifications – Part 3-3: Data-link layer service definition – Type 3 elements*

IEC 61158-4-3 *Industrial communication networks – Fieldbus specifications – Part 4-3: Data-link layer protocol specification – Type 3 elements*

IEC 61158-5-3: *Industrial communication networks – Fieldbus specifications – Part 5-3: Application layer service definition – Type 3 elements*

IEC 61158-6-3, *Industrial communication networks – Fieldbus specifications – Part 6-3: Application layer protocol specification – Type 3 elements*

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