

TNI	Špecifikácia rozhrania softvérových nástrojov na prácu s prevádzkovými prístrojmi (FDT) Časť 52-150: Implementácia komunikácie pre všeobecnú jazykovú infraštruktúru - IEC 61784 CPF 15	TNI CLC IEC/TR 62453-52-150 18 4012
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Field device tool (FDT) interface specification - Part 52-150: Communication implementation for common language infrastructure - IEC 61784 CPF 15

Táto technická normalizačná informácia obsahuje anglickú verziu CLC IEC/TR 62453-52-150:2019, IEC/TR 62453-52-150:2017.

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infrastructure - IEC 61784 CPF 15
(IEC/TR 62453-52-150:2017)

Spécification des interfaces des outils des dispositifs de terrain (FDT) - Partie 52-150: Mise en œuvre d'un profil de communication pour l'infrastructure commune de langage - CPF 15 de l'IEC 61784 (IEC/TR 62453-52-150:2017)

Field Device Tool (FDT)-Schnittstellenspezifikation - Teil 52-150: Kommunikationsimplementierung mit der allgemeinen Sprachinfrastruktur - Kommunikationsprofilfamilie (CPF) 15 nach IEC 61784 (IEC/TR 62453-52-150:2017)

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CLC IEC/TR 62453-52-150:2019 (E)**European foreword**

This document (CLC IEC/TR 62453-52-150:2019) consists of the text of IEC/TR 62453-52-150:2017 prepared by SC 65E "Devices and integration in enterprise systems" of IEC/TC 65 "Industrial-process measurement, control and automation".

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61131-3	2013	Programmable controllers - Part 3: Programming languages	3:EN 61131-3	2013
IEC 61158-5-15	2010	Industrial communication networks - Part 5-15: Fieldbus specifications - Part 5-15: Application layer service definition - Type 15 elements	-EN 61158-5-15	2012
IEC 61784-1	2014	Industrial communication networks - Part 1: Profiles - Part 1: Fieldbus profiles	-EN 61784-1	2014
IEC 62453-1	2016	Field device tool (FDT) interface specification - Part 1: Overview and guidance	EN 62453-1	2017
IEC 62453-2	2016	Field device tool (FDT) interface specification - Part 2: Concepts and detailed description	EN 62453-2	2017
IEC TR 62453-42	2016	Field device tool (FDT) interface specification - Part 42: Object model integration profile - Common language infrastructure	-	-
IEC 62453-315	2009	Field device tool (FDT) Interface specification - Part 315: Communication profile integration - IEC 61784 CPF 15	EN 62453-315	2009



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**Field device tool (FDT) interface specification –
Part 52-150: Communication implementation for common language
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IEC TR 62453-52-150

Edition 1.0 2017-06

TECHNICAL REPORT



**Field device tool (FDT) interface specification –
Part 52-150: Communication implementation for common language
infrastructure – IEC 61784 CPF 15**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIELD DEVICE TOOL (FDT) INTERFACE SPECIFICATION –

**Part 52-150: Communication implementation
for common language infrastructure –
IEC 61784 CPF 15**

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IEC TR 62453-52-150, which is a technical report, has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

Each part of the IEC 62453-52-xy series is intended to be read in conjunction with its corresponding part in the IEC 62453-3xy series. This document corresponds to IEC 63453-315.

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The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
65E/440/DTR	65E/514/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The list of all parts of the IEC 62453 series, under the general title *Field device tool (FDT) interface specification*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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INTRODUCTION

This part of IEC 62453 is an interface specification for developers of Field Device Tool (FDT) 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 Device Type Manager (DTM), 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 kind of fieldbuses and thus meets the requirements for integrating different kinds of devices into heterogeneous control systems.

Figure 1 shows how this part of the IEC 62453-52-xy series is aligned in the structure of the IEC 62453 series.

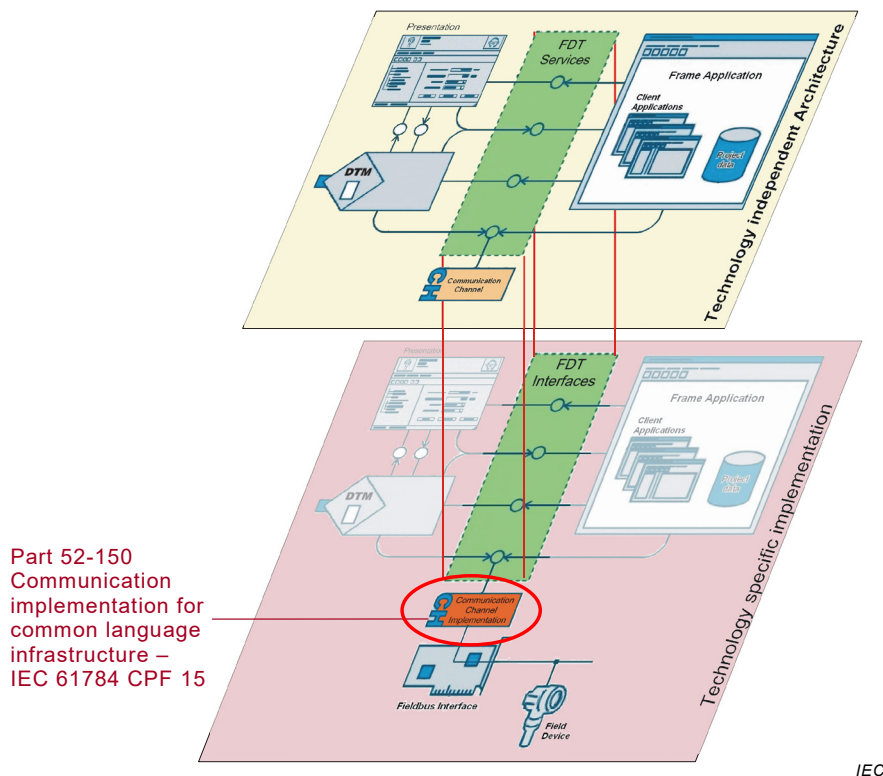


Figure 1 – Part 52-150 of the IEC 62453 series

FIELD DEVICE TOOL (FDT) INTERFACE SPECIFICATION –

Part 52-150: Communication implementation for common language infrastructure – IEC 61784 CPF 15

1 Scope

This part of the IEC 62453-52-xy series, which is a Technical Report, provides information for integrating the Modbus®¹ technology into the CLI-based implementation of FDT interface specification (IEC TR 62453-42).

This part of IEC 62453 specifies the implementation of communication and other services based on IEC 62453-315.

This document neither contains the FDT specification nor modifies it.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61131-3:2013, *Programmable controllers – Part 3: Programming languages*

IEC 61158-5-15:2010, *Industrial communication networks – Fieldbus specifications – Part 5-15: Application layer service definition – Type 15 elements*

IEC 61784-1:2014, *Industrial communication networks – Profiles – Part 1: Fieldbus profiles*

IEC 62453-1:2016, *Field device tool (FDT) interface specification – Part 1: Overview and guidance*

IEC 62453-2:2016, *Field device tool (FDT) interface specification – Part 2: Concepts and detailed description*

IEC TR 62453-42:2016, *Field device tool (FDT) interface specification – Part 42: Object model integration profile – Common language infrastructure*

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