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TECHNICAL REPORT

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Field device tool (FDT) interface specification – Part 52-32: Communication implementation for common language infrastructure – IEC 61784 CP 3/4, CP 3/5 and CP 3/6

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CONTENTS

FOREWORD 5
INTRODUCTION 7
1 Scope 8
2 Normative references 8
3 Terms, definitions, symbols, abbreviated terms and conventions 9
3.1 Terms and definitions 9
3.2 Abbreviations 9
3.3 Conventions 9
3.3.1 Datatype names and references to datatypes 9
3.3.2 Vocabulary for requirements 9
3.3.3 Use of UML 9
4 Bus Category 9
5 Access to instance and device data 9
5.1 General 9
5.2 IO signals provided by DTM 10
5.3 Data interfaces 10
5.3.1 General 10
5.3.2 Mapping PROFINET datatypes to FDT datatypes 10
5.3.3 SemanticInfo 11
6 Protocol specific behavior 12
6.1 PROFINET device model 12
6.2 Configuration and parameterization of PROFINET devices 13
6.3 PROFINET – related information of a Device DTM 13
6.4 Remarks on FDT 1.2 / 2 Compatibility 14
7 Protocol specific usage of general FDT datatypes 14
8 Protocol specific common datatype: PnDeviceAddress 14
9 Network management 15
9.1 General 15
9.2 Configuration 16
9.3 Process Data Items 28
9.4 Parameterization 28
10 Communication datatypes 28
10.1 General 28
10.2 ConnectRequest and ConnectResponse Services 28
10.2.1 PnConnectRequest Service 28
10.2.2 PnConnectResponse Service 29
10.3 DisconnectRequest and DisconnectResponse Services 30
10.3.1 PnDisconnectRequest Service 30
10.3.2 PnDisconnectResponse Service 31
10.4 TransactionRequest and TransactionResponse Services 32
10.4.1 PnReadRequest Service 32
10.4.2 PnReadResponse Service 33
10.4.3 PnWriteRequest Service 35
10.4.4 PnWriteResponse Service 36
10.4.5 PnCancelRequest Service 37
10.4.6 PnCancelResponse Service 38

10.5 SubscribeRequest and SubscribeResponse Service 39
10.5.1 PnSubscribeRequest 39
10.5.2 PnSubscribeResponse 40
10.6 UnsubscribeRequest and UnsubscribeResponse Service 41
10.6.1 PnUnsubscribeRequest Service 41
10.6.2 PnUnsubscribeResponse Service 41
10.7 AbortMessage Service 42
10.8 PnResponseError 42
10.8.1 Communication error 42
10.8.2 Handling of errors during Connect and Disconnect 43
11 Datatypes for process data information 43
11.1 General 43
11.2 PnIOSignalInfo 43
11.3 Mapping of PROFINET datatypes to FDT datatypes 45
12 Device identification 45
12.1 General 45
12.2 PnDeviceScanInfo datatype 45
12.3 PnDeviceIdentInfo datatype 49
Bibliography 51

Figure 1 – Part 52-32 of the IEC 62453 series 7
Figure 2 – PROFINET Device Model 13
Figure 3 – PROFINET Device Address 15
Figure 4 – PROFINET Network Data 16
Figure 5 – PnConnectRequest 29
Figure 6 – PnConnectResponse 30
Figure 7 – PnDisconnectRequest 31
Figure 8 – PnDisconnectResponse 32
Figure 9 – PnReadRequest 33
Figure 10 – PnReadResponse 34
Figure 11 – PnWriteRequest 36
Figure 12 – PnWriteResponse 37
Figure 13 – PnCancelRequest 38
Figure 14 – PnCancelResponse 39
Figure 15 – PnSubscribeRequest 40
Figure 16 – PnSubscribeResponse 40
Figure 17 – PnUnsubscribeRequest 41
Figure 18 – PnUnsubscribeResponse 41
Figure 19 – PnAbortMessage 42
Figure 20 – PnResponseError 43
Figure 21 – ProtocolIOSignalInfo 44
Figure 22 – PnDeviceScanInfo datatype 46
Figure 23 – PnDeviceIdentInfo 49

Table 1 – Mapping of datatypes 11

Table 2 – Usage of SemanticInfo 12
Table 3 – Usage of general datatypes 14
Table 4 – PnDeviceAddress 15
Table 5 – PROFINET Network Data 17
Table 6 – PnConnectRequest datatype 29
Table 7 – PnConnectResponse datatype 30
Table 8 – PnDisonnectRequest datatype 31
Table 9 – PnDisconnectResponse datatype 32
Table 10 – PnReadRequest datatype 33
Table 11 – PnReadResponse datatype 35
Table 12 – PnWriteRequest datatype 36
Table 13 – PnWriteResponse datatype 37
Table 14 – PnCancelRequest datatype 38
Table 15 – PnCancelResponse datatype 39
Table 16 – PnSubscribeRequest datatype 40
Table 17 – PnSubscribeResponse datatype 40
Table 18 – PnUnsubscribeRequest datatype 41
Table 19 – PnUnsubscribeResponse datatype 42
Table 20 – PnAbortMessage datatype 42
Table 21 – PnResponseError datatype 43
Table 22 – PnDatatypeInfo 44
Table 23 – ProtocolIIOSignalInfo datatypes 45
Table 24 – PnDeviceScanInfo datatype 46
Table 25 – PnDeviceScanInfo specific mapping 47
Table 26 – PnDeviceIdentInfo datatypes 49
Table 27 – PnDeviceIndentInfo specific mapping 50

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIELD DEVICE TOOL (FDT) INTERFACE SPECIFICATION –

Part 52-32: Communication implementation for common language infrastructure – IEC 61784 CP 3/4, CP 3/5 and CP 3/6

FOREWORD

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IEC TR 62453-52-32, 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 62453-303-2.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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 fieldbusses 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.

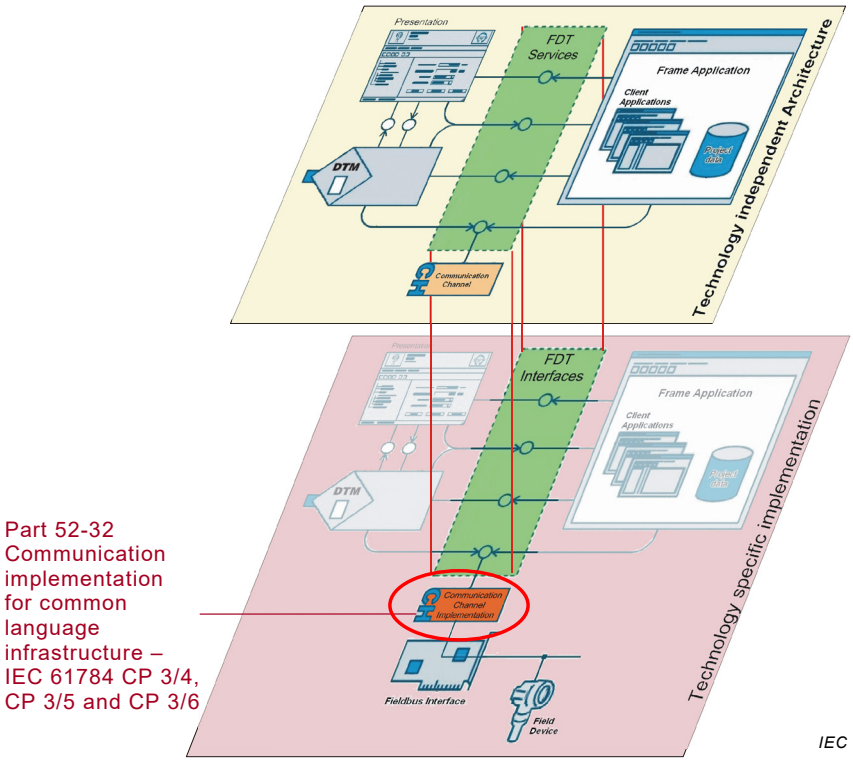


Figure 1 – Part 52-32 of the IEC 62453 series

FIELD DEVICE TOOL (FDT) INTERFACE SPECIFICATION –

Part 52-32: Communication implementation for common language infrastructure – IEC 61784 CP 3/4, CP 3/5 and CP 3/6

1 Scope

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

This part of IEC 62453 specifies implementation of communication and other services based on IEC 62453-303-2.

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 61158-6-10, *Industrial communication networks – Fieldbus specifications – Part 6-10: Application layer protocol specification – Type 10 elements*

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

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*

IEC 62453-303-2:2009, *Field device tool (FDT) interface specification – Part 303-2: Communication profile integration – IEC 61784 CP 3/4, CP 3/5 and CP 3/6*
IEC 62453-303-2:2009/AMD1:2016

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