

ICS 25.040

CCS N 10



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 29618.529-2018

**Field device tool (FDT) interface specification -- Part 529:
Communication implementation for common language
infrastructure -- IEC 61784 CPF 9**

Issued on: September 17, 2018

Implemented on: April 1, 2019

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

GB/T 29618 "Field Device Tool (FDT) Interface Specification" is temporarily divided into the following parts.

- Part 1. Overview and guidelines;
- Part 2. Concepts and detailed descriptions;
- Part 301. Communication profile integration FF fieldbus specification;
- Part 302. Communication Profile Integration General Industrial Agreement;
- Part 306. Communication profile integration INTERBUS fieldbus specification;
- Part 309. Communication profile integration of addressable remote sensor high-speed channel;
- Part 315. Communication profile integration MODBUS fieldbus specification;
- Part 41. Object model profile integration common object model;
- Part 42. Object model profile integration common language infrastructure;
- Part 515. General object model communication implementation MODBUS fieldbus specification;
- Part 511. Communication of the general object model to implement the FF fieldbus specification;
- Part 512. Common object model communication implementation of general industrial protocols;
- Part 516. Communication of the universal object model to implement the INTERBUS

fieldbus specification;

--- Part 519. Communication implementation of the generic object model IEC 61784CPF9;

--- Part 5115. Communication implementation of the general object model IEC 61784CPF15;

--- Part 521. Communication of the common language infrastructure to implement the FF fieldbus specification;

--- Part 522. Common language infrastructure communication implementation of general industrial protocols;

--- Part 5231. Communication implementation of common language infrastructure IEC 61784CP3/1 and CP3/2;

--- Part 5232. Communication implementation of common language infrastructure IEC 61784CP3/4, CP3/5 and CP3/6;

--- Part 529. Communication implementation of the common language infrastructure IEC 61784CPF9;

--- Part 5215. Communication implementation of the common language infrastructure IEC 61784CPF15;

--- Part 61. Device Type Manager Style Guide for the Common Object Model;

--- Part 62. Field Device Tool (FDT) Style Guide.

This part is part 529 of GB/T 29618.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to IEC /T R62453-52-90..2017 "Field Device Tool (FDT) Interface Specification No. 52-90

Part. Communication of the common language infrastructure implements IEC 61784CPF9.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

--- GB/T 29618.309-2013 Field Device Tool (FDT) Interface Specification Part 309. Communication Profile Integration Addressable

Remote sensor high speed channel (IEC 62453-309..2009, IDT).

This section has made the following editorial changes.

--- Modified the standard name.

This part was proposed by the China Machinery Industry Federation.

This part is under the jurisdiction of the National Industrial Process Measurement Control

and Automation Standardization Technical Committee (SAC/TC124).

This section drafted by. Southwest University, Mechanical Industry Instrumentation Institute of Integrated Technology and Economics, He Youxin (Shanghai) Automation System Trade

Yi Co., Ltd., Suzhou Meiming Software Co., Ltd., Rockwell Automation (China) Co., Ltd., Shanghai Automation Instrument Co., Ltd., Zhejiang

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Introduction

This section is an interface specification for FDT for functional control and data access in a client/server architecture (currently

Field device tool) component developer. This section is intended to develop the results of standard interfaces, analysis and design processes that are used to facilitate

Seamless interoperability between components developed by a manufacturer.

Integrating the fieldbus into the control system requires some additional tasks. In addition to specific fieldbus or specific device tools

In addition, it is necessary to integrate these tools into higher-level system planning or engineering tools. In particular, for extended and heterogeneous control systems

The use of the medium, usually in the field of the process industry, the clear definition of the engineering interface that is easy for all participants to use is very heavy need.

DTM (Device Type Manager, DeviceTypeManager) is a software component of a specific device, which will be

The DTM software is provided to the user along with the device. The DTM is integrated into the engineering tool via the FDT interface defined in the specification. The episode

The method is open to all fieldbuses, thus meeting the requirements for integrating different types of devices in heterogeneous control systems.

Figure 1 shows the location of this part in the structure of GB/T 29618.

Figure 1 This part of GB/T 29618

Field Device Tool (FDT) Interface Specification

Part 529. Communication implementation of a common language infrastructure

IEC 61784CPF9

1 Scope

This part of GB/T 29618 provides the integration of HART technology into the FDT interface specification (GB/T 29618.42) based on the CLI

Realized information.

This section specifies the implementation of communications and other services based on IEC 62453-309.

This section does not contain the FDT specification or the FDT specification.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 29618.1-2017 Field Device Tool (FDT) Interface Specification Part 1. Overview and Guidelines (IEC 62453-1.

2016, IDT)

GB/T 29618.2-2017 Field device tool (FDT) interface specification Part 2. Concepts and detailed description (IEC 62453-2.

2016, IDT)

GB/T 29618.42-2017 Field Device Tool (FDT) Interface Specification Part 42. Object Model Profiles

Basic structure (IEC /T R62453-42.2016, IDT)

IEC 61784-1.2014 Industrial Communication Network Profiles Part 1. Fieldbus Profiles (Industrialcommunication

networks-Profiles-Part 1. Fieldbusprofiles)

IEC 62453-309.2016 Field Device Tool (FDT) Interface Specification Part 309. Communication Profile Integration IEC 61784

CPF9[Fielddevicetool(DFT)interfacespecification-Part 309.Communicationprofileintegration-IEC 61784CPF9]

3.1 Terms and definitions

Terms defined in GB/T 29618.1-2017, GB/T 29618.2-2017, GB/T 29618.42-2017 and IEC