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**NATIONAL STANDARD OF THE
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**Field device tool (FDT) interface specification - Part 5120:
Communication implementation for common object model - IEC
61784 CPF 2**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is part 5120 of GB/T 29618 "Field Device Tool (FDT) Interface Specification". GB/T 29618 has been released

The following parts.

- Part 1. Overview and guidelines;
- Part 2. Concept and detailed description;
- Part 301. Communication profile integration FF fieldbus specification;
- Part 302. Communication profile integration general industrial protocol;
- Part 306. Communication profile integration INTERBUS fieldbus specification;
- Part 309. Communication profile integration addressable remote sensor high-speed channel;
- Part 315. Communication profile integration MODBUS fieldbus specification;
- Part 41. Object model profile integration general object model;
- Part 42. Object model profile integration common language infrastructure;
- Part 515. Communication implementation of general object model MODBUS fieldbus specification;
- Part 5110. Communication implementation of general object model IEC 61784CPF1;
- Part 5120. Communication implementation of the common object model IEC 61784CPF2;
- 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 common language infrastructure IEC 61784CPF9;
- Part 5215. Communication implementation of common language infrastructure IEC 61784CPF15;

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

---Part 62.Field Device Tool (FDT) style guide.

The translation method used in this document is equivalent to IEC /T R62453-51-20.2017 "Field Device Tool (FDT) Interface Specification No. 51-20

Part. Communication Implementation of Common Object Model IEC 61784CPF2.

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 16657.2-2008 Industrial Communication Network Fieldbus Specification Part 2.Physical Layer Specification and Service Definition

(IEC 61158-2.2007, IDT);

---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.Concept and detailed description

(IEC 62453-2.2016, IDT);

---GB/T 29618.41-2013 Field Device Tool (FDT) Interface Specification Part 41.Object Model Profile Integration Communication

Use object model (IEC 62453-41.2009, IDT);

---GB/T 29618.302-2013 Field Device Tool (FDT) Interface Specification Part 302.General Communication Profile Integration

Industrial protocol (IEC 62453-302.2009, IDT).

The following editorial changes have been made to this document.

---Change the standard name to "Field Device Tool (FDT) Interface Specification Part 5120.Communication Implementation of General Object Model IEC 61784CPF2".

---According to the content of the main text, the IEC 61784-1.2014 in Chapter 2 is revised to IEC 61784-1, and IEC 62453-1.2016 is revised to

IEC 62453-1, IEC /T R62453-41.2016 is revised to IEC /T R62453-41, IEC 62453-302.2016 is revised to

IEC 62453-302.

Introduction

This document is an interface specification for the FDT group for functional control and data access in a client/server architecture

Software developer. This document is the analysis result and design process of the standard interface development, which aims to promote servers and clients developed by different manufacturers

Seamless interoperability between terminals.

Integrating the fieldbus into the control system needs to complete some other tasks. In addition to fieldbus and device-specific tools,

It is necessary to integrate other tools into higher-level, system-wide planning or engineering tools. In particular, for the expansion and heterogeneous

For the use in control systems, especially in the field of process industry, the clear definition of engineering interfaces makes it easy for all participants to use.

Very important.

Device Type Manager (DTM, DeviceTypeManager) is a device-specific software component. DTM soft

The parts and equipment are provided to the user together. The DTM is integrated into the engineering tool through the FDT interface defined in the specification. Usually, the integration

The method is open to all fieldbuses, so it meets the requirements of integrating different types of equipment in heterogeneous control systems.

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

Figure 1 This part of GB/T 29618 series

GB/T 29618 aims to provide interface specifications for field device tools (FDT), which is to be composed of the following parts.

---Part 1.Overview and guidelines. The purpose is to specify the overview and guidelines of the GB/T 29618 series, including.

- * Explain the structure and content of GB/T 29618 series;
- * Provide some instructions that are commonly used in other parts of the GB/T 29618 series;
- * Describe the relationship with other parts of GB/T 29618.

---Part 2.Concept and detailed description. The purpose is to explain the general principles