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

GB/T 29618.302-2013

**Field device tool (FDT) interface specification -- Part 302:
Communication profile integration -- Common industrial
protocol**

现场设备工具（FDT）接口规范 第302部分：通信行规集成 通用工业协议
(English Translation)

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Foreword

GB/T 29618 "Field device tool (FDT) interface specification" temporarily divided into the following sections.

- Part 1. Overview and guidance;
- Part 2. Concepts and detailed description;
- Part 301. Integrated communication profile Fieldbus Specification FF;
- Part 302. Integrated communication profile Common Industrial Protocol;
- Part --- Article 303-1. communication profile integrated PROFIBUS Fieldbus specifications;
- Article 303-2. Communication profiles integrated PROFINET input and output interface specification;
- Part 306. Integrated communication profile INTERBUS Fieldbus specifications;
- Part 309. Integrated HART communication profile Fieldbus specifications;
- Part 315. Integrated MODBUS communication profile Fieldbus specifications;
- Part 41. Integrated generic object model profiles Object Model;
- Part 501. Communication Common Object Model for the FF Fieldbus specifications;
- Part 502. Communication Common Object Model for the Common Industrial Protocol;
- Part --- Article 503-1. Communication Common Object Model for the PROFIBUS Fieldbus specifications;
- Article 503-2. Communication Common Object Model for the PROFINET input and output interface specification;
- Part 506. Communication Common Object Model for the INTERBUS Fieldbus specifications;
- Part 509. Communication Common Object Model for the HART Fieldbus specifications;
- Part 515. Communication Common Object Model for the MODBUS Fieldbus specifications;
- Part 61. Device Type Manager Style Guide Common Object Model.

This section GB/T 29618 Part 302.

This section drafted in accordance with the rules of GB/T 1.1-2009 and GB/T 20000.2-2009 given.

This section uses the translation method identical with IEC 62453-302:2009 "Field device

tool (FDT) interface specification - Part 302. Through Nobuyuki Compliance Integration Common Industrial Protocol "(in English).

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 16657.2-2008 Industrial communication networks - Fieldbus specifications - Part 2. Physical layer specification and service definition (IEC 61158-2:2007, IDT)

--- GB/T 18858.3-2002 Low-voltage switchgear and control equipment Controller - Device Interface (CDI) Part 3.

DeviceNet (IEC 62026-3:2000, IDT) this part made the following editorial changes.

--- Remove the IEC 62453-302:2009 Introduction, re-write the foreword to this section;

--- Where "IEC 62453" place to "GB/T 29618";

--- According to Chinese customs for some formatting has been modified;

--- Some of the statements apply to international standards to apply to our standard formulation.

This part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee (SAC/TC124) is responsible for the jurisdiction of the national industrial processes.

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Introduction

This standard FDT (Field Device Tool) components developers interface specification, FDT components for client/server architecture Control functions and data access. This section is the result of the development of standard interfaces in the process of analysis and design. These multiple standard interfaces easy Manufacturers develop seamless server and client interoperability.

Field devices integrated into the control system, you need to perform some other tasks. In addition to the specific fieldbus-specific tools and equipment Tools, the need to integrate these tools into a higher level of system-wide planning or engineering tool. In particular, for the large-scale heterogeneous Control system (typically in the process industry) using well-defined and easy to use interface to the relevant project is very important.

Device-specific software components created in accordance with this section called Device Type Manager (DTM). FDT it through this part of the definition of Service, all device-specific data, functions and business rules are integrated into the system.

FDT/DTM method for all types of fieldbus is open, allowing all kinds of devices into heterogeneous systems.

Figure 1 shows the GB/T 29618.302 position in GB/T 29618 series of standards structure.

FIG. 1 GB/T 29618 series - Part 302

Field device tool (FDT) interface specification Part 302. Integrated communication profile
Common Industrial Protocol

1 Scope

Communication profile family CPF2 (collectively referred to as CIP) are defined based on IEC 61158-2 Type 2, IEC 61158-4-2, IEC 61158-5-2, IEC 61158-6-2 and IEC 62026-3 communication profiles. Basic profile CP2/1 (ControlNet), CP2/2 (EtherNet/IP) and CP2/3 (DeviceNet) IEC 61784-1 and IEC 61784-2 defined in. Additional communication profiles (CompoNet) is also based on CIP, it is defined in [14].

This section GB/T 29618 provides the CIP technology into FDT interface specification (GB/T 29618.2) information.

This section provides communications and other services.

This section does not contain the FDT specification nor modify it.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the edition are not applicable to the present file. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 29618.1-2013 Field device tool (FDT) interface specification - Part 1. General and guidance (IEC 62453-1.

2009, IDT)

GB/T 29618.2-2013 Field device tool (FDT) interface specification - Part 2. Concepts and detailed description (IEC 62453-2:2009, IDT) GB/T 19659.2-2006 Industrial automation systems and integration - Open systems application integration framework - Part 2. Based on the ISO control system described with reference (ISO 15745-2:2003, IDT) 11898 of GB/T 19659.3-2006 Industrial automation systems and integration - Open systems application integration framework - Part 3. Based on the IEC 61158 control system described with reference (ISO 15745-3:2003, IDT) IEC 61158-2 Industrial communication