ICS 25.040
CCS N 10

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 41771.5-2022

Field device integration - Part 5: Information model

Issued on: October 12, 2022 **Implemented on: May 1, 2023**

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

Table of Contents

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 for Standardization Documents" drafting.

This document is Part 5 of GB/T 41771 "Field Device Integration". GB/T 41771 has issued the following parts.

--- Part 1.Overview;

--- Part 2.Client;

--- Part 3.Server;

--- Part 4.Package;

--- Part 5.Information Model.

This document is equivalent to IEC 62769-5.2021 "Field Device Integration (FDI) Part 5.Information Model".

The following minimal editorial changes have been made to this document.

--- Modify the standard name to "Field Device Integration Part 5.Information Model";

--- Move the informative referenced IEC 62541-6 from Chapter 2 into references;

--- Include the normative referenced IEC 61804-4 in Chapter 2.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

The field device integration series standards are important technical standards to guide related activities such as industrial process measurement and control. GB/T 41771 aims to

Establish the normative criteria applicable to equipment integration, which is proposed to be composed of 15 parts.

--- Part 1.Overview. The purpose is to define the concept and overview of field device integration specifications.

--- Part 2.Client. The purpose is to specify the relevant requirements for field device integration clients.

--- Part 3.Server. The purpose is to specify the relevant requirements for field device integration servers.

--- Part 4.Package. The purpose is to build a field device integration package model that provides the integration of devices, network components and communication servers into

All elements required by the system.

--- Part 5.Information Model. The purpose is to specify the topology of the automation system, used to describe the equipment and communication of the automation system

Connect Network.

--- Part 6.Technology Mapping. The purpose is to specify the technical mapping of the concepts described in field device integration;

--- Part 7.Communication equipment. The purpose is to specify the elements that implement the communication capability.

--- Part 8.General protocol of the profile. The purpose is to specify the required communication servers, gateways and devices described by the field device integration package

Details of the general protocol.

--- Part 9.Profile Foundation Fieldbus H1.The purpose is to specify the field device integrated communication of H1 fieldbus technology

regulation.

--- Part 10.Profile Foundation Fieldbus HSE. The purpose is to specify the field device integration communication of HSE fieldbus technology

letter rules.

--- Part 11.Profile PROFIBUS. The purpose is to specify the field device integration communication profile of PROFIBUS technology.

--- Part 12.Profile PROFINET. The purpose is to specify the field device integration communication profile of PROFINET technology.

--- Part 13.Profile HART and WirelessHART. The purpose is to specify the HART and WirelessHART technology

Field device integration communication profile.

--- Part 14.Profile Modbus-RTU. The purpose is to specify the field device integration communication profile of Modbus-RTU technology.

--- Part 15.Profile ISA100.The purpose is to specify the field device integration communication profile of ISA100 technology.

Field Device Integration Part 5.Information Model

1 Scope

This document specifies the FDI information model. One of the main tasks of the information model is to reflect the topology of the automation system. Therefore, letter

The information model represents the equipment of the automation system and the communication connection network. The network of communication links consists of properties, relationships, and

The action to perform. The types in the AddressSpace of the FDI server constitute some sort of FDI package-generated directory.