

INTERNATIONAL STANDARD



**Field device integration (FDI) –
Part 4: FDI Packages**

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Part 4: FDI Packages

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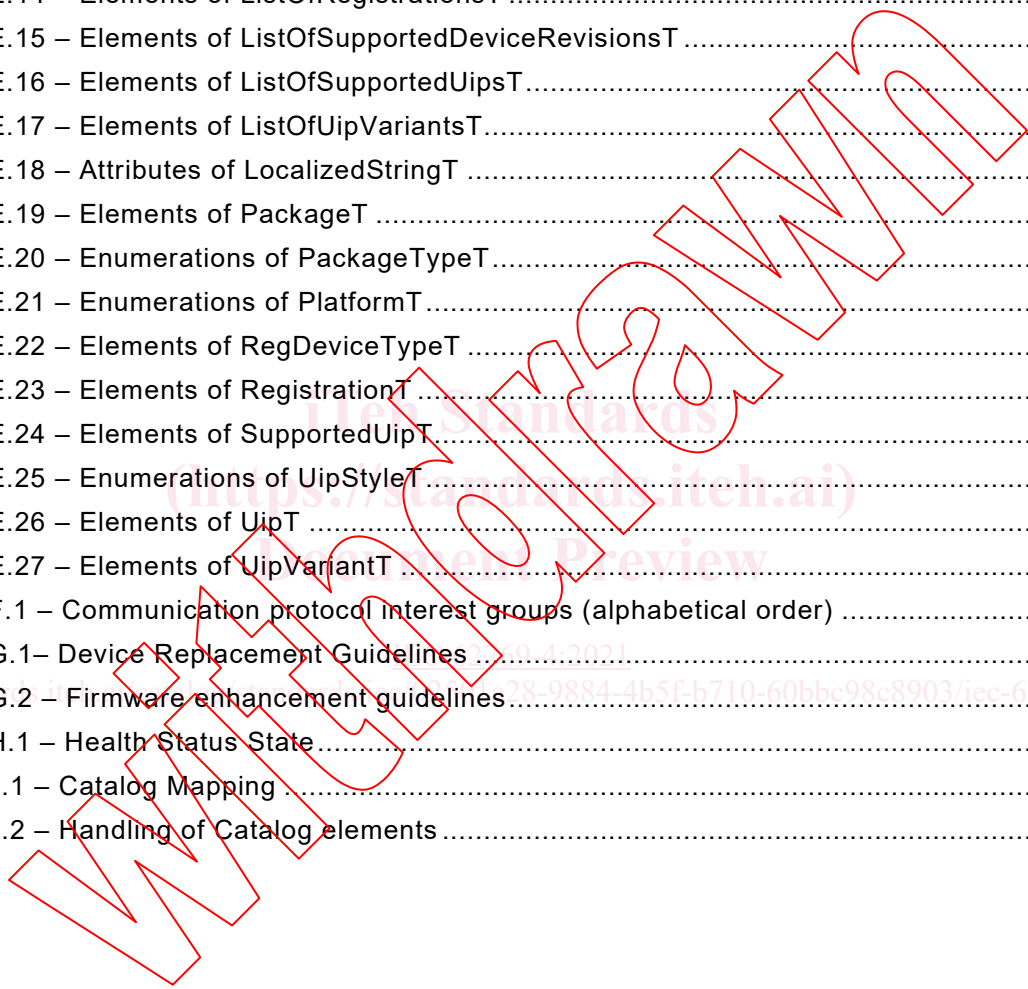
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIELD DEVICE INTEGRATION (FDI) –

Part 4: FDI Packages

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International Standard IEC 62769-4 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) support for Package Developers to build EDDs targeted for today's EDD bases system under a single development tool;
- b) digital signature now includes trusted timestamping for long-term validation of FDI Package;
- c) time stamp for device package signature.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
65E/761/FDIS	65E/771/RVD

Full information on the voting for the approval of this International Standard 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.

A list of all parts in the IEC 62769 series, published under the general title *Field Device Integration (FDI)*, 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,
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- ~~b) method and device for accessing a functional module of automation system, see Patent Family EP2182418;~~
- ~~c) methods and apparatus to reduce memory requirements for process control system software applications, see Patent Family US2013232186;~~
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The IEC 62769 series has the general title *Field Device Integration (FDI)* and the following parts:

- Part 1: Overview
- Part 2: FDI Client
- Part 3: FDI Server
- Part 4: FDI Packages
- Part 5: FDI Information Model
- Part 6: FDI Technology Mapping
- Part 7: FDI Communication Devices

- Part 100: Profiles – Generic Protocol Extensions
- Part 101-1: Profiles – Foundation Fieldbus H1
- Part 101-2: Profiles – Foundation Fieldbus HSE
- Part 103-1: Profiles – PROFIBUS
- Part 103-4: Profiles – PROFINET
- Part 109-1: Profiles – HART and WirelessHART
- Part 115-2: Profiles – Protocol-specific Definitions for Modbus RTU
- Part 150-1: Profiles – ISA 100.11a

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FIELD DEVICE INTEGRATION (FDI) – Part 4: FDI Packages

1 Scope

This part of IEC 62769 specifies the FDI Packages. The overall FDI architecture is illustrated in Figure 1. The architectural components that are within the scope of this document have been highlighted in Figure 1.

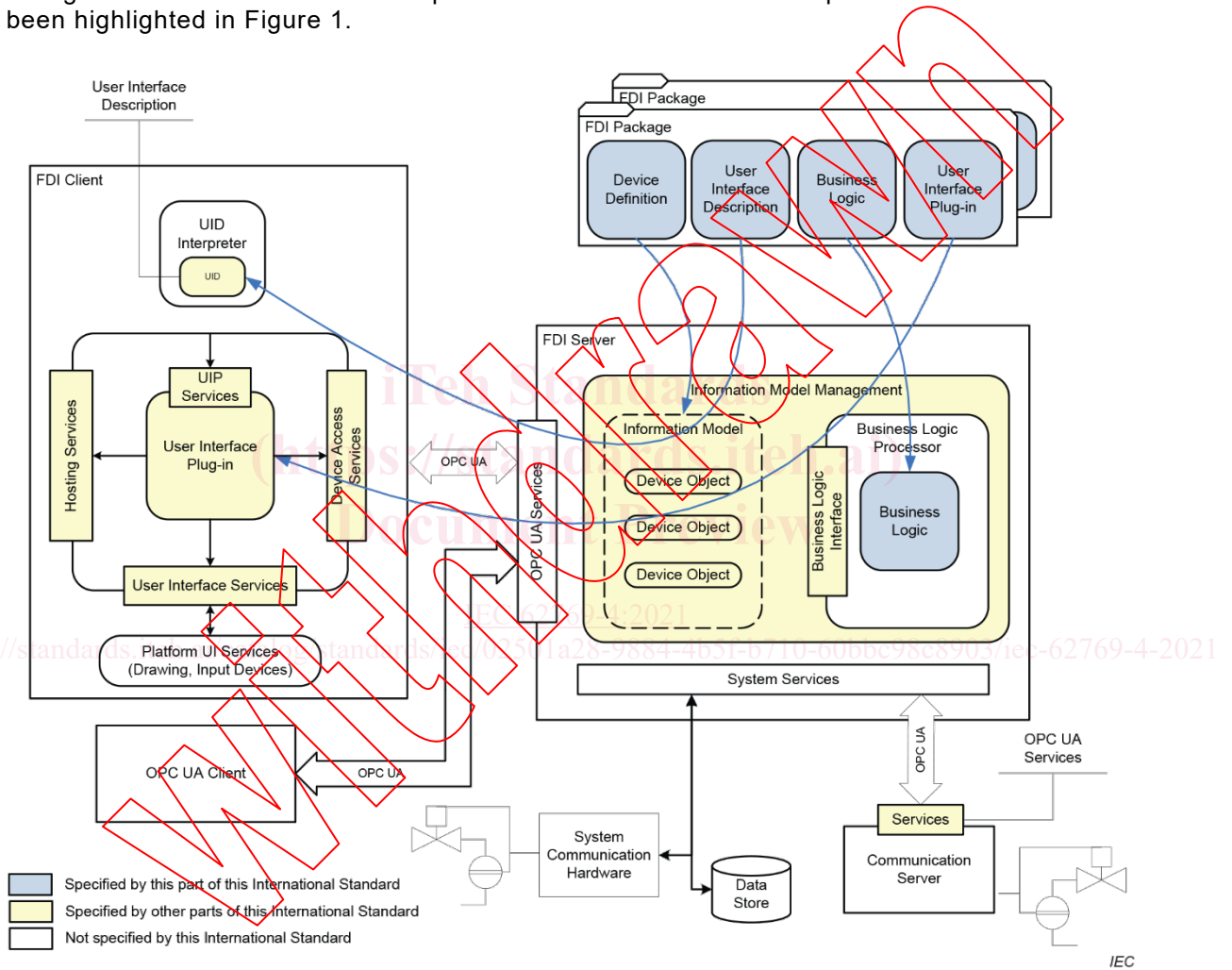


Figure 1 – FDI architecture diagram

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 61804 (all parts), *Function blocks (FB) for process control and electronic device description language (EDDL)*

~~IEC 61804-3¹, Function blocks (FB) for process control and Electronic Device Description Language (EDDL) – Part 3: EDDL syntax and semantics~~

~~IEC 61804-4:², Function blocks (FB) for process control and Electronic device description language (EDDL) – Part 4: EDD interpretation~~

IEC 61804-5:2015, Function blocks (FB) for process control and electronic device description language (EDDL) – Part 5: EDDL Builtin library

IEC 62769-1, Field Device Integration (FDI) – Part 1: Overview

~~NOTE IEC 62769-1 is technically identical to FDI-2021.~~

~~IEC 62769-5, Field Device Integration (FDI) – Part 5: FDI Information Model~~

~~NOTE IEC 62769-5 is technically identical to FDI-2025.~~

IEC 62769-6, Field Device Integration (FDI) – Part 6: FDI Technology Mapping

~~NOTE IEC 62769-6 is technically identical to FDI-2026.~~

~~IEC 62769-7, Field Device Integration (FDI) – Part 7: FDI Communication Devices~~

~~NOTE IEC 62769-7 is technically identical to FDI-2027.~~

~~ISO/IEC 11578, Information technology – Open Systems Interconnection – Remote Procedure Call (RPC)~~

ISO/IEC 29500-2:2014~~2016~~, Information technology – Document description and processing languages – Office Open XML File Formats – Part 2: Open Packaging Conventions

ISO 639-1, Codes for the representation of names of languages – Part 1: Alpha-2 code

ISO 32000-1, Document management – Portable document format – Part 1: PDF 1.7

Extensible Markup Language (XML) 1.0, W3C Recommendation, available at <http://www.w3.org/TR/REC-xml/>

XML Schema Definition Language (XSD) 1.1, W3C Recommendation, available at <http://www.w3.org/TR/xmlschema11-1/>

ETSI EN 319 132-1, Electronic Signatures and Infrastructures (ESI); XAdES digital signatures; Part 1: Building blocks and XAdES baseline signatures

ETSI TS 101 733, Electronic Signatures and Infrastructures (ESI); CMS Advanced Electronic Signatures (CAAdES)

FIPS 140-2, Security Requirements for Cryptographic Modules

¹~~To be published.~~

²~~To be published.~~