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INTERNATIONAL STANDARD



Field Device Integration (FDI[®]) –
Part 4: FDI Packages

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIELD DEVICE INTEGRATION (FDI®) –

Part 4: FDI® Packages

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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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. It is an International Standard.

This third edition cancels and replaces the second edition published in 2021. This edition constitutes a technical revision.

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

- a) added DocumentClass to Package Schema, Description of Feature Table and Documentation Catalog, individual schemas for Feature Table and Package Documentation Catalog, schema for UnitConversion, interactive download to device, and Feature Unit Conversion;
- b) moved DocumentClass to Package Documentation Catalog Schema;
- c) updated Description of Feature Table updated XML schema for Feature Table.

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

Draft	Report on voting
65E/857/CDV	65E/914/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

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®¹ 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 this figure.

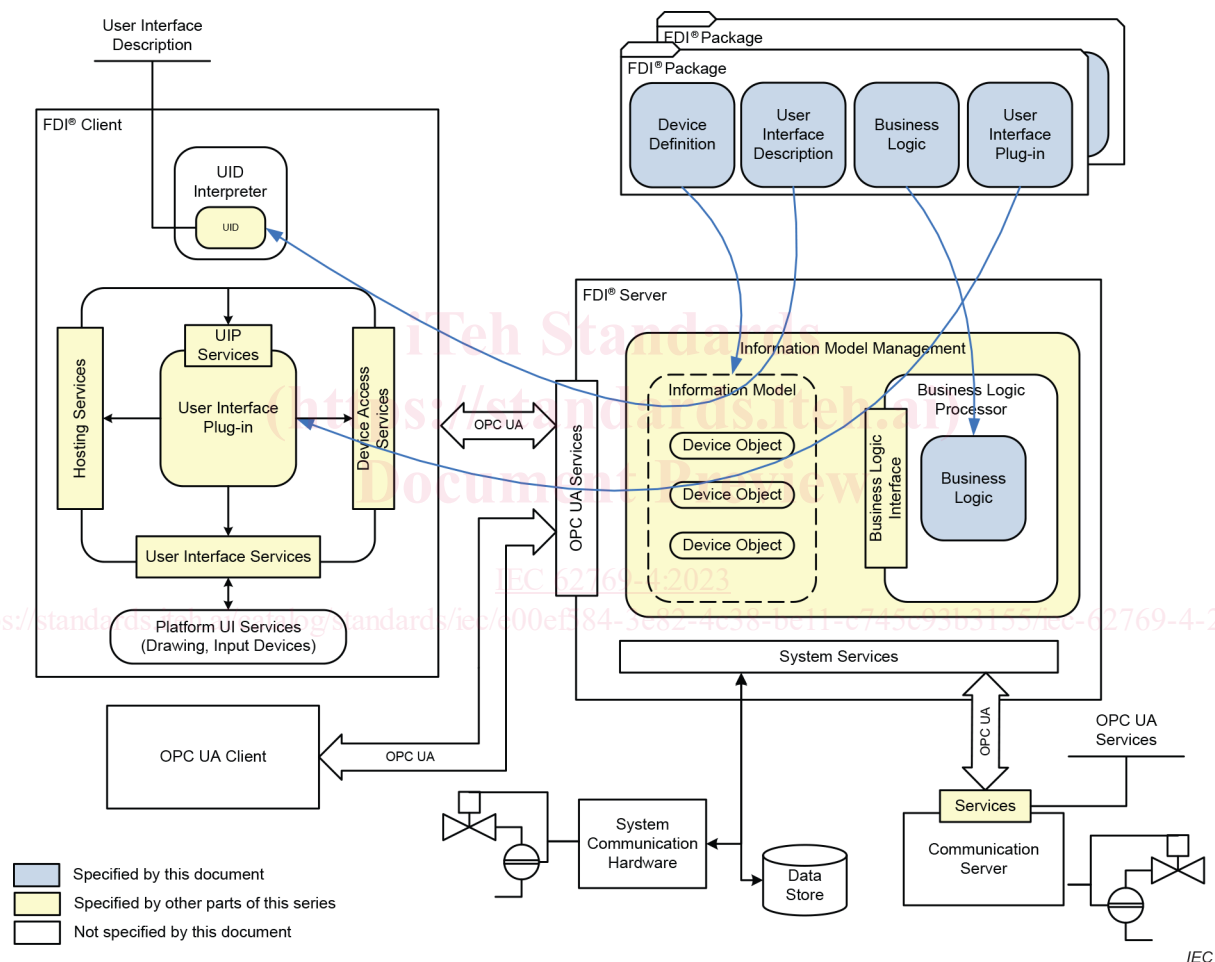


Figure 1 – FDI® architecture diagram

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.

¹ FDI® is a registered trademark of the non-profit organization Fieldbus Foundation, Inc. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the trademark holder or any of its products. Compliance does not require use of the trade name. Use of the trade name requires permission of the trade name holder.

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 61804-3, *Devices and integration in enterprise systems – Function blocks (FB) for process control and electronic device description language (EDDL) – Part 3: EDDL syntax and semantics*

IEC 61804-5:20152020, *Devices and intergration in enterprise systems – Function blocks (FB) for process control and electronic device description language (EDDL) – Part 5: EDDL Built-in library*

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

IEC 62769-2, *Field Device Integration (FDI®) – Part 2: Client*

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

IEC 62769-6, *Field Device Integration (FDI®) – Part 6: FDI® Technology Mappings*

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

IEC 62769-1xx (all parts), *Field Device Integration (FDI®) – Part 1xx-y: Profiles*

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

ISO/IEC 29500-2:20162021, ~~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*

Dublin Core Metadata Initiative: DCMI Metadata Terms, 2020

FCG TS10099, *Field Device Integration (FDI®) – Technology Management*

FIPS 140-3:2019, *Security Requirements for Cryptographic Modules*

~~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/>>~~

~~FIPS 140-2, Security Requirements for Cryptographic Modules~~

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)*