

STN	Integrácia softvérového nástroja. Časť 5: Informačný model FDI.	STN EN 62769-5 18 4012
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Field Device Integration (FDI) - Part 5: FDI Information Model

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/15

Obsahuje: EN 62769-5:2015, IEC 62769-5:2015

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EUROPEAN STANDARD

EN 62769-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2015

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English Version

**Field Device Integration (FDI) - Part 5: FDI Information Model
(IEC 62769-5:2015)**Intégration des appareils de terrain (FDI) - Partie 5: Modèle
d'Information FDI
(IEC 62769-5:2015)Feldgeräteintegration (FDI) - Teil 5: FDI-Informationsmodell
(IEC 62769-5:2015)

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European foreword

The text of document 65E/348/CDV, future edition 1 of IEC 62769-5, prepared by SC 65E "Devices and integration in enterprise systems" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62769-5:2015.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-03-24
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IEC/TR 62541-1	NOTE	Harmonized as CLC/TR 62541-1.
IEC 62541-7	NOTE	Harmonized as EN 62541-7

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61784-1	-	Industrial communication networks - Profiles -- Part 1: Fieldbus profiles	EN 61784-1	-
IEC 61804-3	-	Function blocks (FB) for process control and EDDL - Part 3: EDDL specification and communication profiles	-	-
IEC 62541-3	-	OPC unified architecture - Part 3: Address Space Model	EN 62541-3	-
IEC 62541-4	-	OPC Unified Architecture - Part 4: Services	EN 62541-4	-
IEC 62541-5	-	OPC unified architecture - Part 5: Information Model	EN 62541-5	-
IEC 62541-6	-	OPC unified architecture - Part 6: Mappings	EN 62541-6	-
IEC 62541-8	-	OPC Unified Architecture - Part 8: Data Access	EN 62541-8	-
IEC 62541-100	-	OPC unified architecture - Part 100: Device Interface	EN 62541-100	-
IEC 62769-1	-	Field device integration (FDI) - Part 1: Overview	-	-
IEC 62769-2	-	Field Device Integration (FDI) - Part 2: FDI - Client	-	-
IEC 62769-4	-	Field Device Integration (FDI) - Part 4: FDI - Packages	-	-
IEC 62769-7	-	Field Device Integration (FDI) - Part 7: FDI - Communication Devices	-	-



INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Field Device Integration (FDI) –
Part 5: FDI Information Model**

**Intégration des appareils de terrain (FDI) –
Partie 5: Modèle d'Information FDI**





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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Field Device Integration (FDI) –
Part 5: FDI Information Model**

**Intégration des appareils de terrain (FDI) –
Partie 5: Modèle d'Information FDI**

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CONTENTS

FOREWORD.....	6
INTRODUCTION.....	8
1 Scope.....	9
2 Normative references	10
3 Terms, definitions, abbreviated terms, acronyms and conventions	10
3.1 Terms and definitions.....	10
3.2 Abbreviated terms and acronyms	11
3.3 Conventions for graphical notation.....	11
4 Overview of OPC Unified Architecture	13
4.1 General.....	13
4.2 Overview of OPC UA Devices	13
5 Concepts	15
5.1 General.....	15
5.2 Device topology	15
5.3 Online/offline	17
5.4 Catalogue (Type Definitions).....	18
5.5 Communication	18
6 AddressSpace organization	18
7 Device Model for FDI.....	19
7.1 General.....	19
7.2 Online/offline	19
7.3 Device health.....	20
7.4 User interface elements	20
7.4.1 General	20
7.4.2 UI Description Type	21
7.4.3 UI Plug-in Type.....	21
7.5 Type-specific support information	23
7.6 Actions	23
7.6.1 Overview	23
7.6.2 Action Type	25
7.6.3 ActionService Type.....	25
7.6.4 ActionService Object	26
7.6.5 InvokeAction Method	26
7.6.6 RespondAction Method.....	27
7.6.7 AbortAction Method	28
8 Network and connectivity.....	28
9 Utility functions	29
9.1 Overview.....	29
9.2 Locking.....	29
9.3 EditContext.....	29
9.3.1 Overview	29
9.3.2 EditContext Type	30
9.3.3 EditContext Object.....	30
9.3.4 GetEditContext Method.....	30
9.3.5 RegisterNodes Method	31

9.3.6	Apply Method	32
9.3.7	Reset Method	33
9.3.8	Discard Method	34
9.4	Direct Device Access	34
9.4.1	General	34
9.4.2	DirectDeviceAccess Type	35
9.4.3	DirectDeviceAccess Object	36
9.4.4	InitDirectAccess Method	36
9.4.5	EndDirectAccess Method	37
9.4.6	Transfer Method	37
10	Parameter Types	38
10.1	General	38
10.2	ScalingFactor Property	39
10.3	Min_Max_Values Property	39
11	FDI StatusCodes	40
12	Specialized topology elements	40
13	Auditing	41
13.1	General	41
13.2	FDI Client-provided context information	41
13.3	LogAuditTrailMessage Method	41
14	FDI Server Version	42
15	Mapping FDI Package information to the FDI Information Model	42
15.1	General	42
15.2	Localization	43
15.2.1	Localized text	43
15.2.2	Engineering units	43
15.3	Device	43
15.3.1	General	43
15.3.2	Mapping to Attributes to a specific DeviceType Node	43
15.3.3	Mapping to Properties	43
15.3.4	Mapping to ParameterSet	44
15.3.5	Mapping to Functional Groups	44
15.3.6	Mapping to DeviceTypeImage	44
15.3.7	Mapping to Documentation	44
15.3.8	Mapping to ProtocolSupport	44
15.3.9	Mapping to ImageSet	44
15.3.10	Mapping to ActionSet	45
15.3.11	Mapping to MethodSet	45
15.4	Block	45
15.4.1	General	45
15.4.2	Mapping to Attributes	45
15.4.3	Mapping to ParameterSet	45
15.4.4	Mapping to Functional Groups	45
15.4.5	Mapping to ActionSet	46
15.4.6	Mapping to MethodSet	46
15.4.7	Instantiation rules	46
15.5	Parameter	46
15.5.1	General	46

15.5.2	Private Parameters	49
15.5.3	MIN_Value and MAX_Value	49
15.5.4	Engineering units	49
15.5.5	Enumerated Parameters	50
15.5.6	Bit-enumerated Parameters	50
15.5.7	Representation of records	50
15.5.8	Representation of arrays, and lists of Parameters with simple data types	51
15.5.9	Representation of values arrays, and lists of RECORD Parameters	52
15.5.10	Representation of COLLECTION and REFERENCE ARRAY	52
15.5.11	SCALING_FACTOR	52
15.6	Functional Groups	53
15.7	AXIS elements in UIDs	53
15.8	Actions	54
15.9	UIPs	54
15.10	Protocols, Networks and Connection Points	54
Annex A (normative) Namespace and Mappings		55
Bibliography		56
Figure 1	– FDI architecture diagram	9
Figure 2	– OPC UA Graphical Notation for NodeClasses	11
Figure 3	– OPC UA Graphical Notation for References	11
Figure 4	– OPC UA Graphical Notation Example	12
Figure 5	– Optimized Type Reference	12
Figure 6	– OPC UA Devices Example: Functional Groups	14
Figure 7	– OPC UA Devices example: Configurable components	15
Figure 8	– Example of an automation system	16
Figure 9	– Example of a Device topology	17
Figure 10	– Example Device Types representing a catalogue	18
Figure 11	– Online component for access to device data	20
Figure 12	– Hierarchy of user interface Types	21
Figure 13	– Integration of Actions within a TopologyElement	24
Figure 14	– Action Service	26
Figure 15	– EditContext type and instance	30
Figure 16	– DirectDeviceAccessType	35
Figure 17	– DirectDeviceAccess instance	36
Figure 18	– OPC UA VariableTypes including OPC UA DataAccess	39
Figure 19	– Example: Complex variable representing a RECORD	51
Figure 20	– Complex variable representing a VALUE_ARRAY of RECORDs	52
Table 1	– UIDescriptionType Definition	21
Table 2	– UIPlugInType Definition	22
Table 3	– TopologyElementType with additions for Actions	24
Table 4	– FunctionalGroupType with additions for Actions	25
Table 5	– ActionType Definition	25
Table 6	– ActionServiceType Definition	25

Table 7 – InvokeAction Method Arguments	27
Table 8 – InvokeAction Method AddressSpace Definition	27
Table 9 – RespondAction Method Arguments	27
Table 10 – RespondAction Method AddressSpace Definition	28
Table 11 – AbortAction Method Arguments	28
Table 12 – AbortAction Method AddressSpace Definition	28
Table 13 – EditContextType Definition	30
Table 14 – GetEditContext Method Arguments	31
Table 15 – GetEditContext Method AddressSpace Definition	31
Table 16 – RegisterNodes Method Arguments	31
Table 17 – RegisterNodes Method AddressSpace Definition	32
Table 18 – RegistrationParameters DataType Structure	32
Table 19 – RegisterNodesResult DataType Structure	32
Table 20 – Apply Method Arguments	33
Table 21 – Apply Method AddressSpace Definition	33
Table 22 – ApplyResult DataType Structure	33
Table 23 – Reset Method Arguments	34
Table 24 – Reset Method AddressSpace Definition	34
Table 25 – Discard Method Arguments	34
Table 26 – Discard Method AddressSpace Definition	34
Table 27 – DirectDeviceAccessType Definition	35
Table 28 – DirectDeviceAccess Instance Definition	36
Table 29 – InitDirectAccess Method Arguments	37
Table 30 – InitDirectAccess Method AddressSpace Definition	37
Table 31 – EndDirectAccess Method Arguments	37
Table 32 – EndDirectAccess Method AddressSpace Definition	37
Table 33 – Transfer Method Arguments	38
Table 34 – Transfer Method AddressSpace Definition	38
Table 35 – ScalingFactor Property Definition	39
Table 36 – Min_Max_Values Property Definition	40
Table 37 – Variant_Range DataType Structure	40
Table 38 – Variant_Range Definition	40
Table 39 – Good operation level result codes	40
Table 40 – LogAuditTrailMessage Method Arguments	42
Table 41 – LogAuditTrailMessage Method AddressSpace Definition	42
Table 42 – FDIServerVersion Property Definition	42
Table 43 – DeviceType Property Mapping	44
Table 44 – Setting OPC UA Variable Attributes from EDDL variable attributes	47
Table 45 – Correspondence between EDDL and OPC UA standard data types	47

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIELD DEVICE INTEGRATION (FDI) –

Part 5: FDI Information Model

FOREWORD

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International Standard IEC 62769-5 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

The text of this standard is based on the following documents:

CDV	Report on voting
65E/348/CDV	65E/425/RVD

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

This publication 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 publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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INTRODUCTION

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of patents concerning

- a) Method for the Supplying and Installation of Device-Specific Functionalities, see Patent Family DE10357276;
- 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;
- d) Extensible Device Object Model, see Patent Family US12/893,680.

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FIELD DEVICE INTEGRATION (FDI) –

Part 5: FDI Information Model

1 Scope

This part of IEC 62769 defines the FDI Information Model. One of the main tasks of the Information Model is to reflect the topology of the automation system. Therefore it represents the devices of the automation system as well as the connecting communication networks including their properties, relationships, and the operations that can be performed on them. The types in the AddressSpace of the FDI Server constitute some kind of catalogue, which is built from FDI Packages.

The fundamental types for the FDI Information Model are well defined in OPC UA for Devices (IEC 62541-100). The FDI Information Model specifies extensions for a few special cases and otherwise explains how these types are used and how the contents are built from elements of DevicePackages.

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 illustration.

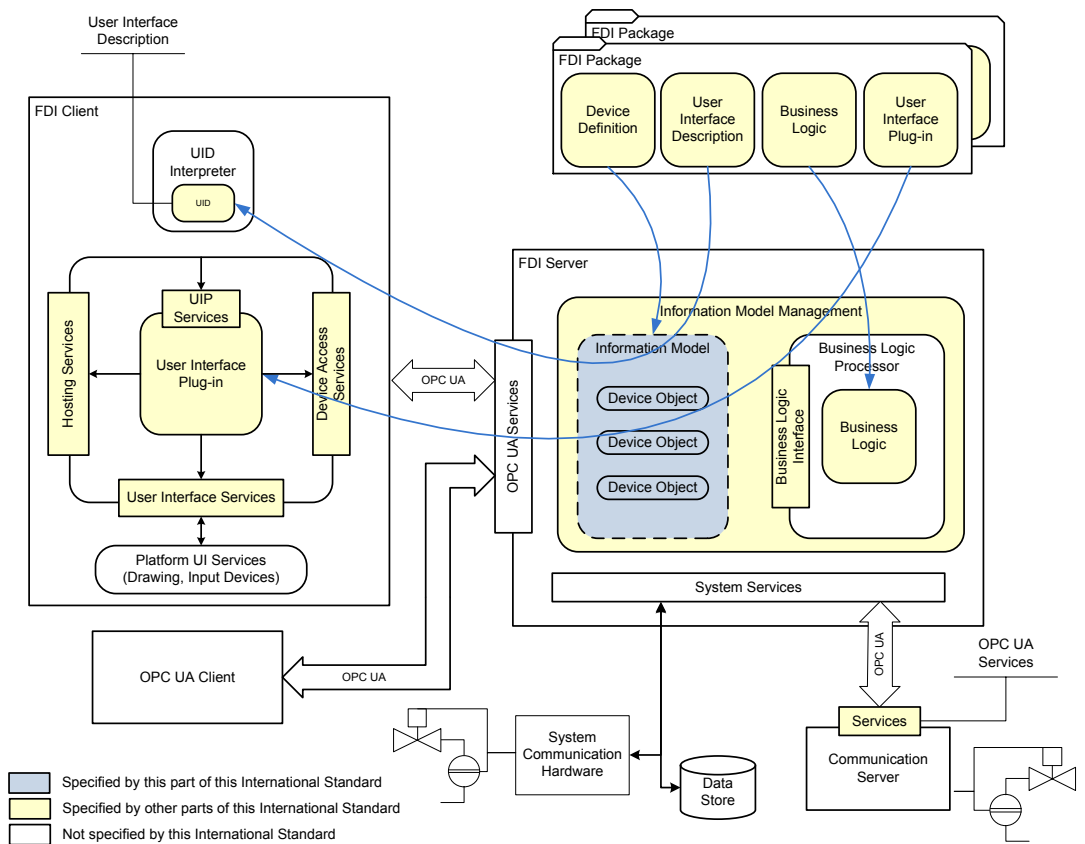


Figure 1 – FDI architecture diagram

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61784-1, *Industrial communication networks – Profiles – Part 1: Fieldbus profiles*

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

IEC 62541-3, *OPC unified architecture – Part 3: Address Space Model*

IEC 62541-4, *OPC unified architecture – Part 4: Services*

IEC 62541-5, *OPC unified architecture – Part 5: Information Model*

IEC 62541-6, *OPC unified architecture – Part 6: Mappings*

IEC 62541-8, *OPC unified architecture – Part 8: Data Access*

IEC 62541-100², *OPC unified architecture – Part 100: OPC UA for Devices*

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

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

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

NOTE IEC 62769-2 is technically identical to FDI-2022

IEC 62769-4, *Field Device Integration (FDI) – Part 4: FDI Packages*

NOTE IEC 62769-4 is technically identical to FDI-2024

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

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

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¹ To be published.

² Under consideration.