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Field device integration (FDI) – Part 6: ~~FDI~~ Technology Mapping

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CONTENTS

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FIELD DEVICE INTEGRATION (FDI) –

Part 6: ~~FDI~~ Technology Mapping

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62769-6:2015. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

International Standard IEC 62769-6 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) redesign of the security concept for UIP execution.

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

FDIS	Report on voting
65E/763/FDIS	65E/773/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.

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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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~~Zurich, 8050~~
~~Switzerland~~

~~b) Phoenix Contact GmbH & Co KG~~
~~Intellectual Property, Licenses & Standards~~
~~Flachsmarktstrasse 8, 32825 Blomberg~~
~~Germany~~

~~c) Fisher Controls International LLC~~
~~John Dilger, Emerson Process Management LLLP~~
~~301 S. 1st Avenue, Marshaltown, Iowa 50158~~
~~USA~~

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– Part 1: Overview
– Part 2: FDI Client
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- 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

FIELD DEVICE INTEGRATION (FDI) –

Part 6: ~~FDI~~ Technology Mapping

1 Scope

This part of IEC 62769 specifies the technology mapping for the concepts described in the Field Device Integration (FDI) standard. The technology mapping focuses on implementation regarding the components FDI Client and User Interface Plug-in (UIP) that are specific only to the WORKSTATION platform/.NET as defined in IEC 62769-4~~:2015, Annex E~~.

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 61804 (all parts), *Function blocks (FB) for process control and Electronic Device Description Language (EDDL)*

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

IEC 62541 (all parts), *OPC Unified Architecture*

~~IEC 61804 (all parts), *Function blocks (FB) for process control*~~

~~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 1 IEC 62769-2 is technically identical to FDI-2022.~~

~~NOTE 2 IEC 62769-2 is technically identical to FDI-2023.~~

~~IEC 62769-4:2015, *Field Device Integration (FDI) – Part 4: FDI Packages*~~

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

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

~~NOTE 1 IEC 62769-5 is technically identical to FDI-2025.~~

~~NOTE 2 IEC 62769-5 is technically identical to FDI-2027.~~

ISO/IEC 19505-1, *Information technology – Object Management Group Unified Modeling Language (OMG UML) – Part 1: Infrastructure*

ISO/IEC 29500, (all parts) *Information technology – Document description and processing languages – Office Open XML File Formats*

IEC 62769-6

Edition 2.0 2021-02

INTERNATIONAL STANDARD

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Field device integration (FDI) – Part 6: Technology Mapping

Intégration des appareils de terrain (FDI) – Partie 6: Mapping de technologies

IEC 62769-6:2021-02(en-fr)

CONTENTS

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_____

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Part 6: Technology Mapping

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IEC 62541 (all parts), *OPC Unified Architecture*

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ISO/IEC 29500, (all parts) *Information technology – Document description and processing languages – Office Open XML File Formats*

SOMMAIRE

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_____

INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 6: Mapping de technologies

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Cette deuxième édition annule et remplace la première édition parue en 2015. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) redéfinition du concept de sécurité pour l'exécution de l'UIP.

Le texte de cette Norme internationale est issu des documents suivants:

FDIS	Rapport de vote
65E/763/FDIS	65E/773/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 62769, publiées sous le titre général *Intégration des appareils de terrain (FDI)*, peut être consultée sur le site web de l'IEC.

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– Partie 1: Vue d'ensemble
– Partie 2: Client FDI
– Partie 3: Serveur FDI
– Partie 4: Paquetages FDI
– Partie 5: Modèle d'Information FDI
– Partie 6: Mapping de technologies FDI
– Partie 7: Appareils de Communication FDI
– Partie 100: Profils – Extensions de protocoles génériques
– Partie 101-1: Profils – Foundation Fieldbus H1
– Partie 101-2: Profils – Foundation Fieldbus HSE
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– Partie 115-2: Profils – Définitions spécifiques au protocole pour Modbus-RTU
– Partie 150-1: Profils – ISA 100.11a

INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 6: Mapping de technologies

1 Domaine d'application

La présente partie de l'IEC 62769 spécifie le mapping de technologies pour les concepts décrits dans la norme d'intégration des appareils de terrain (FDI). Le mapping de technologies porte essentiellement sur la mise en œuvre relative aux composants: Client FDI et Plugiciel d'Interface Utilisateur (UIP) qui ne sont spécifiques qu'à la plate-forme WORKSTATION (Poste de travail)/.NET telle que définie dans l'IEC 62769-4.

2 Références normatives

Les documents ci-après, dans leur intégralité ou non, sont des références normatives indispensables à l'application du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 61804 (toutes les parties), *Blocs fonctionnels (FB) pour les procédés industriels et le Langage de Description Electronique de Produit (EDDL)*

IEC 62769-1, *Intégration des appareils de terrain (FDI) – Partie 1*: *Vue d'ensemble*

IEC 62769-2, *Intégration des appareils de terrain (FDI) – Partie 2: Client FDI*

IEC 62769-4, *Intégration des appareils de terrain (FDI) – Partie 4: Paquetages FDI*

IEC 62541 (toutes les parties), *Architecture unifiée OPC*

ISO/IEC 19505-1, *Information technology – Object Management Group Unified Modeling Language (OMG UML) – Part 1: Infrastructure* (disponible en anglais seulement)

ISO/IEC 29500 (toutes les parties), *Information technology – Document description and processing languages – Office Open XML File Formats* (disponible en anglais seulement)