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Funkcijski bloki (FB) za nadzor procesov in opisni jezik za elektronske naprave (EDDL) - 4. del: Interpretacija EDD

Function blocks (FB) for process control and electronic device description language (EDDL) - Part 4: EDD interpretation

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Blocs fonctionnels (FB) pour les procédés industriels et le langage de description électronique de produit (EDDL) - Partie 4: Interprétation EDD

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TITLE:

Function blocks (FB) for process control and electronic device description language (EDDL) - Part 4: EDD interpretation

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**FUNCTION BLOCKS (FB) FOR PROCESS CONTROL AND ELECTRONIC
DEVICE DESCRIPTION LANGUAGE (EDDL) –****Part 4: EDD interpretation****FOREWORD**

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

This edition was developed by merging material from multiple variants of existing EDDL specifications including those from FieldComm Group (Foundation™ Fieldbus¹, HART®²),

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

- Communication profiles ISA100 and GPE were added.
- Description of rules for optimized-column-width layout have been added.
- Description of the concatenation of labels and help was added.
- Color banding for meter type charts was added.

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

FDIS	Report on voting
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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 61804 series, published under the general title *Function blocks (FB) for process control and Electronic Device Description Language (EDDL)*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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

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- withdrawn,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

The National Committees are requested to note that for this publication the stability date is 2023.

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INTRODUCTION

This part of IEC 61804

- contains an overview of the use of EDDL;
- provides examples demonstrating the use of the EDDL constructs;
- shows how the use cases are fulfilled; and
- shows the proper EDD application interpretation for each example.

This part of IEC 61804 is not an EDDL tutorial and is not intended to replace the EDDL specification.

Instructions are provided for the EDD application, which describe what will be performed without prescribing the technology used in the host implementation. For example, the FILE construct describes data that is stored by the EDD application on behalf of the EDD. The FILE construct does not specify how the data is stored. The EDD application can use a database, a flat file, or any other implementation it chooses.

EDDL features are limited by profile for each of the communication technologies. The descriptions in this part of IEC 61804 refer to these features in a general sense and not all communication technologies will support all of the features described. The profile definitions in IEC 61804-3 shall be referred to in order to understand the features supported by each communication technology.

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FUNCTION BLOCKS (FB) FOR PROCESS CONTROL AND ELECTRONIC DEVICE DESCRIPTION LANGUAGE (EDDL) –

Part 4: EDD interpretation

1 Scope

This part of IEC 61804 specifies EDD interpretation for EDD applications and EDDs to support EDD interoperability. This document is intended to ensure that field device developers use the EDDL constructs consistently and that the EDD applications have the same interpretations of the EDD. It supplements the EDDL specification to promote EDDL application interoperability and improve EDD portability between EDDL applications.

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 61784-1, *Industrial communication networks – Profiles – Part 1: Fieldbus profiles*
IEC 61784-2, *Industrial communication networks – Profiles – Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3*

IEC 61804-3, *Function blocks (FB) for process control and Electronic device description language (EDDL) – Part 3: EDDL syntax and semantics*

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

ISO/IEC 10918 (all parts), *Information technology - Digital compression and coding of continuous-tone still images*

ISO/IEC 15948, *Information technology - Computer graphics and image processing - Portable Network Graphics (PNG): Functional specification*

3 Terms, definitions, abbreviated terms acronyms and conventions

3.1 General terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61804-3 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1.1

EDD developer

individual or team that develops an EDD

3.1.2

container

user interface elements that contain other user interface elements

Note 1 to entry: Containers can include menus, windows, dialogs, tables, pages, groups, and other containers.