

<b>STN</b>	<b>Funkčné bloky (FB) na riadenie procesov a jazyk na popis elektronických zariadení (EDDL). Časť 4: Interpretácia elektronického popisu zariadenia EDD.</b>	<b>STN EN 61804-4</b>  01 3756
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Function blocks (FB) for process control and Electronic Device Description Language (EDDL) - Part 4: EDD interpretation

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. 07/16

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English Version

**Function blocks (FB) for process control and Electronic Device  
Description Language (EDDL) - Part 4: EDD interpretation  
(IEC 61804-4:2015)**

Blocs fonctionnels (FB) pour les procédés industriels et le  
langage de description électronique de produit (EDDL) -  
Partie 4: Interprétation EDD  
(IEC 61804-4:2015)

Funktionsbausteine für die Prozessautomation und  
elektronische Gerätebeschreibungssprache - Teil 4:  
Interpretation von Gerätebeschreibungen  
(IEC 61804-4:2015)

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## **European foreword**

The text of document 65E/465/FDIS, future edition 1 of IEC 61804-4, 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 61804-4:2016.

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) 2016-08-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-11-11

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## Annex ZA (normative)

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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.

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<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 61784-2	-	Industrial communication networks - Profiles - Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3	EN 61784-2	-
IEC 61804-2	-	Function Blocks (FB) for process control -- Part 2: Specification of FB concept	EN 61804-2	-
IEC 61804-3	-	Function blocks (FB) for process control and EDDL - Part 3: EDDL specification and communication profiles	EN 61804-3	-
IEC 61804-5	-	Function blocks (FB) for process control and EDDL - Part 5: EDDL Built-in library	EN 61804-5	-
ISO/IEC 10918	series	Information technology - Digital compression and coding of continuous-tone still images: JPEG File Interchange Format (JFIF)	-	series
ISO/IEC 15948	-	Information technology - Computer graphics and image processing - Portable Network Graphics (PNG) - Functional specification	-	-



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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

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



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# NORME INTERNATIONALE



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Partie 4: Interprétation EDD**

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## CONTENTS

FOREWORD.....	8
INTRODUCTION.....	10
1 Scope.....	11
2 Normative references .....	11
3 Terms, definitions, abbreviated terms, acronyms and conventions.....	11
3.1 General terms and definitions .....	12
3.2 Terms and definitions related to modular devices.....	12
3.3 Abbreviated terms and acronyms.....	13
3.4 Conventions.....	13
4 EDDL user interface description .....	13
4.1 Overview.....	13
4.2 Menu conventions for handheld applications .....	14
4.3 Menu conventions for PC-based applications .....	14
4.3.1 Overview .....	14
4.3.2 Online Root Menus .....	14
4.3.3 Offline Root Menu.....	15
4.3.4 Example of EDD menu structure .....	15
4.3.5 User interface.....	20
4.4 Containers and contained items .....	23
4.4.1 Overview .....	23
4.4.2 Containers .....	23
4.4.3 Contained items.....	26
4.5 Layout rules .....	30
4.5.1 Overview .....	30
4.5.2 Layout rules for WIDTH and HEIGHT.....	30
4.5.3 Layout rules for COLUMNBREAK and ROWBREAK.....	31
4.5.4 Layout examples .....	37
4.5.5 Conditional user interface.....	45
4.6 Graphical elements .....	46
4.6.1 Overview .....	46
4.6.2 Graph and chart.....	47
4.6.3 Common attributes .....	47
4.6.4 CHART .....	48
4.6.5 GRAPH.....	56
4.6.6 AXIS.....	65
4.6.7 IMAGE.....	66
4.6.8 GRID .....	67
5 EDDL data description.....	69
5.1 Variables .....	69
5.1.1 VARIABLE TYPEs .....	69
5.1.2 VARIABLE CLASS.....	70
5.1.3 VARIABLE ACTIONS.....	70
5.2 EDDL application stored device data.....	70
5.2.1 Overview .....	70
5.2.2 FILE .....	71
5.2.3 LIST .....	73

5.3	Exposing data items outside the EDD application.....	80
5.4	Initialization of EDD instances.....	80
5.4.1	Overview .....	80
5.4.2	Initialization support .....	80
5.4.3	TEMPLATE.....	80
5.5	Device model mapping.....	81
5.5.1	BLOCK_A.....	81
5.5.2	BLOCK_B.....	82
6	EDDL METHOD programming and usage of Builtins .....	82
6.1	Builtin MenuDisplay .....	82
6.2	Division by zero and undetermined floating values .....	85
6.2.1	Integer and unsigned integer values .....	85
6.2.2	Floating-point values .....	85
7	Modular devices .....	85
7.1	Overview.....	85
7.2	EDD identification .....	86
7.3	Instance object model .....	86
7.4	Offline configuration.....	87
7.5	Online configuration.....	87
7.6	Simple modular device example.....	87
7.6.1	General .....	87
7.6.2	Separate EDD file example with direct EDD referencing .....	88
7.6.3	Separate EDD file example with classification EDD referencing and interfaces .....	89
7.6.4	One EDD file example .....	92
7.6.5	Combination of single and separate modular device example .....	93
7.7	COMPONENT_RELATION .....	93
7.7.1	General .....	93
7.7.2	NEXT_COMPONENT usage .....	93
7.7.3	REQUIRED_RANGES and ADDRESSING usage .....	93
7.8	Upload and download for modular devices .....	93
7.9	Diagnostic.....	94
7.10	Reading modular device topology .....	95
7.10.1	SCAN .....	95
7.10.2	Detect module type.....	96
7.11	Configuration check .....	97
8	Edit session.....	98
8.1	Data management.....	98
8.1.1	Overview .....	98
8.1.2	General rules.....	99
8.1.3	Data caching for dialogs and windows .....	99
8.1.4	Data caching for METHODS.....	100
8.2	UI aspects of editing sessions.....	102
8.3	User roles .....	103
9	Offline and online configuration .....	103
9.1	Overview.....	103
9.2	Offline dataset .....	104
9.3	Offline configuration.....	104
9.4	Online dataset .....	104

9.5	Online configuration .....	104
9.6	Upload and download .....	105
9.6.1	Overview .....	105
9.6.2	Error recovery.....	106
9.6.3	Upload procedure .....	106
9.6.4	Download procedure.....	107
10	EDDL communication description .....	109
10.1	COMMAND .....	109
10.1.1	General .....	109
10.1.2	OPERATION.....	109
10.1.3	TRANSACTION .....	110
10.1.4	Command addressing .....	113
10.2	Parsing data received from the device .....	114
10.2.1	General .....	114
10.2.2	Parsing complex data items.....	114
10.2.3	FOUNDATION Fieldbus .....	114
10.2.4	HART .....	115
10.2.5	PROFIBUS and PROFINET .....	115
10.3	FOUNDATION Fieldbus communication model.....	115
11	EDD development.....	119
11.1	Dictionaries.....	119
11.2	Reserved .....	119
Annex A	(normative) Device simulation.....	120
Annex B	(informative) Predefined identifiers .....	121
Figure 1	– EDD example of root menus.....	20
Figure 2	– Example of an EDD application for diagnostics .....	20
Figure 3	– Example of an EDD application for process variables.....	21
Figure 4	– Example of an EDD application for primary variables .....	21
Figure 5	– Example of an EDD application for process-related device features .....	22
Figure 6	– Example of an EDD application for device features .....	22
Figure 7	– Example of an EDD application for maintenance features .....	23
Figure 8	– Usage of COLLECTION MEMBERS in MENUs of STYLE GROUP.....	26
Figure 9	– Displaying single bits of BIT_ENUMERATED .....	27
Figure 10	– Displaying multiple bits of BIT_ENUMERATED.....	28
Figure 11	– Example of an EDD application for a variable of type BIT_ENUMERATED .....	28
Figure 12	– EDD source code for layout for protruding elements example.....	32
Figure 13	– Layout for protruding elements .....	32
Figure 14	– EDD source code for layout for partially filled rows example.....	33
Figure 15	– Layout for partially filled rows.....	33
Figure 16	– EDD source code for layout for partially filled rows example.....	34
Figure 17	– Layout for partially filled rows.....	34
Figure 18	– EDD source code for layout for oversized elements example.....	35
Figure 19	– Layout for oversized elements.....	35
Figure 20	– EDD source code example for a layout for columns in stacked group .....	36
Figure 21	– Layout for columns in stacked group .....	36

Figure 22 – EDD source code for layout for columns with GRAPHS in stacked group example .....	37
Figure 23 – Layout for columns with GRAPHS in stacked group .....	37
Figure 24 – Example of an EDD for an overview menu .....	37
Figure 25 – Example of an EDD application for an overview window .....	38
Figure 26 – Example of an EDD using COLUMNBREAK .....	38
Figure 27 – Example of an EDD application for an overview window .....	39
Figure 28 – EDD example for an overview window .....	39
Figure 29 – Example of an EDD application for an overview window .....	40
Figure 30 – Example of an EDD for in-line graphs and charts .....	40
Figure 31 – Example of an EDD application for an in-line graph .....	41
Figure 32 – Example of an EDD for full-width graphs and charts .....	41
Figure 33 – Example of an EDD application for a full-width graph .....	42
Figure 34 – Example of an EDD for nested containers .....	43
Figure 35 – Example of an EDD application for nested containers .....	43
Figure 36 – Example of an EDD for EDIT_DISPLAYS .....	44
Figure 37 – Example of an EDD application for EDIT_DISPLAYS .....	44
Figure 38 – Example of an EDD for images .....	45
Figure 39 – Example of an EDD application for images .....	45
Figure 40 – HEIGHT and WIDTH attributes for CHART and GRAPH .....	47
Figure 41 – EMPHASIS attribute to differentiate one or more SOURCES or WAVEFORMs .....	48
Figure 42 – Example of a chart with one curve in a dialog .....	50
Figure 43 – Example of a chart with two SOURCES .....	51
Figure 44 – Displaying example of a chart with two SOURCES .....	52
Figure 45 – Example of a chart with three horizontal bars .....	53
Figure 46 – Displaying example of a chart with three horizontal bars .....	54
Figure 47 – Example of a chart in a dialog .....	56
Figure 48 – A graph and the visual elements .....	57
Figure 49 – Example of a graph .....	60
Figure 50 – Multiple used axes .....	61
Figure 51 – EDD with device-supported zooming and scrolling .....	65
Figure 52 – EDD example of an IMAGE .....	66
Figure 53 – EDD example of an IMAGE with the LINK attribute .....	66
Figure 54 – EDD example of a GRID .....	68
Figure 55 – Result of the EDD example .....	68
Figure 56 – Wrong usage of a BIT_ENUMERATED variable .....	69
Figure 57 – Usage of ENUMERATED instead of BIT_ENUMERATED .....	69
Figure 58 – Example of a file declaration .....	72
Figure 59 – Example of comparing valve signatures .....	73
Figure 60 – Example of more complex file declaration .....	74
Figure 61 – Example of reviewing the stored radar signals .....	75
Figure 62 – Example of an EDD that inserts, replaces, or compares radar signals .....	80
Figure 63 – Example of TEMPLATE usage .....	81

Figure 64 – Example of a BLOCK_A .....	82
Figure 65 – Example of a wizard .....	84
Figure 66 – The different relations of a module .....	87
Figure 67 – Components and possible configuration of the modular devices .....	87
Figure 68 – Separate EDD file example with direct EDD referencing .....	88
Figure 69 – EDD example for module1 .....	89
Figure 70 – EDD example for module2 .....	89
Figure 71 – EDD example for modular device .....	90
Figure 72 – EDD example for module1 .....	91
Figure 73 – EDD example for module2 .....	91
Figure 74 – EDD example for module2 .....	93
Figure 75 – NEXT_COMPONENT usage .....	93
Figure 76 – REQUIRED_RANGES usage .....	93
Figure 77 – Upload/download order of a modular device .....	94
Figure 78 – Example of a SCAN METHOD .....	96
Figure 79 – Example of a DETECT METHOD .....	97
Figure 80 – Example of a CHECK_CONFIGURATION METHOD .....	98
Figure 81 – Data caching for an offline session .....	98
Figure 82 – Data caching for an online session .....	99
Figure 83 – Sub dialogs or windows using a shared edit cache .....	100
Figure 84 – Sub dialogs or windows using separate edit caches .....	100
Figure 85 – Data caching for nested METHODS .....	101
Figure 86 – Data caching for a METHOD invoked within a dialog .....	101
Figure 87 – Data caching for a METHOD invoking a dialog using an edit cache .....	101
Figure 88 – Data caching for a METHOD invoking a dialog .....	102
Figure 89 – Data flow for download to the device .....	105
Figure 90 – Data flow for upload from the device .....	105
Figure 91 – Example of a single item mask .....	111
Figure 92 – Mapping example with a single item mask .....	111
Figure 93 – Multiple item masks .....	111
Figure 94 – Mapping example with a multiple item mask .....	112
Figure 95 – INFO qualifier .....	112
Figure 96 – INDEX qualifier .....	113
Figure 97 – INFO and INDEX qualifier .....	113
Figure 98 – Example device with 2 unique BLOCK_A definitions .....	116
Figure 99 – Example EDD for a device with 2 unique BLOCK_A definitions .....	117
Figure 100 – BLOCK_A example with PARAMETER_LISTS .....	118
Figure 101 – Example EDD for a BLOCK_A with PARAMETER_LISTS .....	119
Table 1 – List of defined root menu identifiers for handhelds .....	14
Table 2 – List of defined root menu identifiers for PC-based devices .....	14
Table 3 – Fall back alternatives for online root menus .....	15
Table 4 – Fall back alternatives for offline root menus .....	15
Table 5 – Permitted contained items and default STYLES .....	24

Table 6 – WIDTH and HEIGHT span and applicability .....	31
Table 7 – Image formats .....	67
Table 8 – String handling .....	69
Table 9 – Examples of floating-point results .....	85
Table 10 – Usages of COMPONENT_PATH .....	86
Table 11 – Diagnostic classifications .....	95
Table 12 – Builtins for method cache controlling .....	102
Table 13 – List of defined upload menu identifiers .....	106
Table 14 – List of defined download menu identifiers .....	107
Table 15 – PROFIBUS and PROFINET communication mapping.....	110
Table B.1 – Predefined identifiers .....	121

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

## FOREWORD

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This first edition cancels and replaces IEC TR 61804-4 published in 2006. This edition constitutes a technical revision.

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

- New paragraph:
  - EDDL data description
  - EDDL METHOD programming and usage of builtins
  - Edit session
  - Offline and online configuration

– EDDL communication description

- Enhancements in paragraph EDDL user interface descriptions

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

FDIS	Report on voting
65E/465/FDIS	65E/481/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 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.

**IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

## INTRODUCTION

This part of IEC 61804 was developed using material from FDI Cooperation LLC (Foundation™ Fieldbus<sup>1</sup>, HART®<sup>2</sup> Communication Foundation (HCF), PROFIBUS™<sup>3</sup> Nutzerorganisation e.V. (PNO)), OPC Foundation (OPCF) and FDT Group. IEC 61804 has the general title "Function blocks (FB) for process control and Electronic Device Description Language (EDDL)".

This edition does not reflect many of the various rules defined by the different communication foundations, however it is not a complete representation of those rules defined by each of the communication foundations today. Therefore, an EDD application and EDD developer will need to rely on both IEC 61804-4 and the respective communication foundation documents (e.g. specifications, test requirements, test cases) to develop a conformant application that will meet foundation registration requirements.

Conformity assessment of an EDD application is the responsibility of the respective communication foundations. In cases of any ambiguity, the rules of the respective communication foundations apply.

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.

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<sup>1</sup> FOUNDATION™ Fieldbus is the trademark of the Fieldbus Foundation. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

<sup>2</sup> HART® is the registered trademark of the HART Communication Foundation. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

<sup>3</sup> PROFIBUS and PROFINET are the trademarks of the PROFIBUS Nutzerorganisation e.V. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

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

IEC 61804-2, *Function blocks (FB) for process control – Part 2: Specification of FB concept*

IEC 61804-3<sup>4</sup>, *Function blocks (FB) for process control and Electronic device description language (EDDL) – Part 3: EDDL syntax and semantics*

IEC 61804-5<sup>5</sup>, *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*

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<sup>4</sup> To be published.

<sup>5</sup> To be published.