ICS 25.040.40, 35.100.05 SLOVENSKÁ TECHNICKÁ NORMA December 2020

STN	**Jednotná architektúra OPC** **Časť 3: Model adresového priestoru**	**STN** **EN IEC 62541-3** 18 4021

OPC Unified Architecture - Part 3: Address Space 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. 11/20

Obsahuje: EN IEC 62541-3:2020, IEC 62541-3:2020

Oznámením tejto normy sa od 12.08.2023 ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62541-3

September 2020

ICS 35.100.05; 25.040.40

Supersedes EN 62541-3:2015 and all of its amendments and corrigenda (if any)

English Version

OPC Unified Architecture - Part 3: Address Space Model (IEC 62541-3:2020)

Architecture unifiée OPC - Partie 3: Modèle d'espace d'adressage (IEC 62541-3:2020)

OPC Unified Architecture - Teil 3: Adressraummodell (IEC 62541-3:2020)

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Comité Européen de Normalisation Electrotechnique
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European foreword

The text of document 65E/715/FDIS, future edition 3 of IEC 62541-3, 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 IEC 62541-3:2020.

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) 2021-05-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-08-12

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Endorsement notice

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62541-11 NOTE Harmonized as EN 62541-11

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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.

Publication	Year	Title	EN/HD	Year
IEC/TR 62541-1	-	OPC unified architecture - Part 1: Overview and concepts	CLC/TR 62541-1	-
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	EN IEC 62541-8	-
ISO/IEC/IEEE 60559	2011	Information technology - Microprocessor Systems - Floating-Point arithmetic	-	-
ISO 639	series	Code for the representation of names of languages	-	-
ISO 3166	series	Codes for the representation of names of countries	-	-
ISO 8601	series		-	-
IETF RFC 5646	-	Tags for Identifying Languages	-	-
Unicode Standard Annex #15	-	Unicode Normalization Forms	-	-
W3C XML Schema Definition Language (XSD) Part 2	-	Data Types	-	-
TAI	-	International Atomic Time	-	-

IEC 62541-3

Edition 3.0 2020-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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OPC unified architecture – Part 3: Address Space Model

Architecture unifiée OPC – Partie 3: Modèle d'espace d'adressage

IEC 62541-3:2020-07(en-fr)

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IEC 62541-3

Edition 3.0 2020-07

INTERNATIONAL STANDARD

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OPC unified architecture – Part 3: Address Space Model

Architecture unifiée OPC – Partie 3: Modèle d'espace d'adressage

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPC UNIFIED ARCHITECTURE –

Part 3: Address Space Model

FOREWORD

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International Standard IEC 62541-3 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition published in 2015.

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

a) Added new improved approach for exposing structure definitions. An Attribute on the DataType Node now simply contains a binary description.
b) Added new flags for Variables to indicate atomicity when reading or writing.
c) Added Roles and Permissions to allow configuration of a role-based authorization.
d) Added new data types: "Union", "Decimal", "OptionSet", "DateString", "TimeString", "DurationString", NormalizedString", "DecimalString", and "AudioDataType".

e) Added definition on how to use the ModellingRules OptionalPlaceHolder and MandatoryPlaceHolder for Methods.

f) Added optional Properties “MaxCharacters” and “MaxByteStringLength” to Variable Nodes.

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

FDIS	Report on voting
65E/715/FDIS	65E/731/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.

Throughout this document and the other parts of the IEC 62541 series, certain document conventions are used:

Italics are used to denote a defined term or definition that appears in Clause 3 in one of the parts of the series.

Italics are also used to denote the name of a service input or output parameter or the name of a structure or element of a structure that are usually defined in tables.

The *italicized terms and names* are also, with a few exceptions, written in camel-case (the practice of writing compound words or phrases in which the elements are joined without spaces, with each element's initial letter capitalized within the compound). For example the defined term is *AddressSpace* instead of Address Space. This makes it easier to understand that there is a single definition for *AddressSpace*, not separate definitions for Address and Space.

A list of all parts of the IEC 62541 series, published under the general title *OPC Unified Architecture*, 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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OPC UNIFIED ARCHITECTURE –

Part 3: Address Space Model

1 Scope

This part of IEC 62541 defines the OPC Unified Architecture (OPC UA) *AddressSpace* and its *Objects*. This document is the OPC UA meta model on which OPC UA information models are based.

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 TR 62541-1, *OPC Unified Architecture – Part 1: Overview and Concepts*

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*

ISO/IEC/IEEE 60559:2011, *Information technology – Microprocessor Systems – Floating-Point arithmetic*

ISO 639 (all parts), *Codes for the representation of names of languages*

ISO 3166 (all parts), *Codes for the representation of names of countries and their subdivisions*

ISO 8601 (all parts), *Date and time – Representations for information interchange*

IETF RFC 5646, Tags for Identifying Languages
http://tools.ietf.org/html/rfc5646

Unicode Standard Annex #15: Unicode Normalization Forms,
http://www.unicode.org/reports/tr15/

W3C XML Schema Definition Language (XSD) Part 2: DataTypes
http://www.w3.org/TR/xmlschema-2/

TAI: International Atomic Time
http://www.bipm.org/en/bipm-services/timescales/tai.html