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Part 3: Address Space Model

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Part 3: Address Space Model

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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

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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:

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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.