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Part 17: Alias Names

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



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IEC SC 65E : DEVICES AND INTEGRATION IN ENTERPRISE SYSTEMS	
SECRETARIAT: United States of America	SECRETARY: Mr Donald (Bob) Lattimer
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.
FUNCTIONS CONCERNED: ☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☐ SAFETY	
☒ SUBMITTED FOR CENELEC PARALLEL VOTING Attention IEC-CENELEC parallel voting The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

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TITLE: OPC Unified Architecture – Part 17: Alias Names
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PROPOSED STABILITY DATE: 2026

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPC UNIFIED ARCHITECTURE –

Part 17: Alias Names

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International Standard IEC 62541-17 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

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

CDV	Report on voting
65E/XX/CDV	65E/XX/RVC

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 publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

Throughout this document and the other Parts of the series, certain document conventions are used:

125 *Italics* are used to denote a defined term or definition that appears in the “Terms and definition” clause
126 in one of the parts of the series.

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

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

134 A list of all parts of the IEC 62541 series is included in IEC 62541-1 clause 4 Structure of the OPC UA
135 series and published under the general title OPC Unified Architecture, can be found on the IEC website.

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

- 139 • reconfirmed,
- 140 • withdrawn,
- 141 • replaced by a revised edition, or
- 142 • amended.

143

144 A bilingual version of this publication may be issued at a later date.

145

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OPC Unified Architecture Specification

Part 17: Alias Names

1 Scope

This specification provides a definition of *AliasNames* functionality. *AliasNames* provide a manner of configuring and exposing an alternate well-defined name for any *Node* in the system. This is analogous to the way domain names are used as an alias to IP addresses in IP networks. Like a DNS Server, an OPC UA Server that supports *AliasNames* provides a lookup *Method* that will translate an *AliasName* to a *NodeId* of the related *Node* on a *Server*. An aggregating *Server* can collect these *AliasNames* from multiple *Servers* and provide a lookup *Method* to allow *Client* applications to discover *NodeIds* on a system wide basis. An aggregating *Server* might also define *AliasNames* for *Nodes* in other *Servers* that do not support *AliasNames*. A GDS may be constructed that would automatically aggregate all *AliasNames* that are defined on any *Server* that has registered with the GDS. In this case the GDS also provides the lookup mechanism for *Clients* at a well-known endpoint and address. The GDS functionality for *AliasNames* is formally defined in Annex B.

2 Normative references

The following referenced documents are indispensable for the application of this specification. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments and errata) applies.

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

IEC 62541-3, *OPC Unified Architecture – Part 3: Address Space Model*

IEC 62541-4, *OPC Unified Architecture – Part 4: Services*

IEC 62541-5, *OPC Unified Architecture – Part 5: Information Model*

IEC 62541-12, *OPC Unified Architecture – Part 12: Discovery and Global Services*

IEC 62541-14, *OPC Unified Architecture – Part 14: PubSub*

<http://www.opcfoundation.org/UA/Part14/>

3 Terms and abbreviated terms

3.1 Terms

For the purposes of this document, the terms and definitions given in IEC 62541-1, IEC 62541-3, IEC 62541-4, IEC 62541-5, IEC 62541-12, and IEC 62541-14 apply.

All used terms are *italicized* in the specification.

3.1.1

AliasName

alternate well-defined name for any *Node* in the system