Irish Standard
I.S. EN 62541-100:2015

OPC unified architecture - Part 100: Device Interface

I.S. EN 62541-100:2015

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62541-100

May 2015

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English Version

OPC unified architecture - Part 100: Device Interface (IEC 62541-100:2015)

Architecture unifiée OPC - Partie 100: Interface d'appareils (IEC 62541-100:2015)

OPC Unified Architecture - Teil 100: Geräteschnittstelle (IEC 62541-100:2015)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN 62541-100:2015 E

Foreword

The text of document 65E/372/CDV, future edition 1 of IEC 62541-100, 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 62541-100:2015.

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) 2016-01-29
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IEC 61131	NOTE	Harmonized in EN 61131 series (not modified).
IEC 61499-1:2012	NOTE	Harmonized as EN 61499-1:2013 (not modified).
IEC 61784	NOTE	Harmonized in EN 61784 series (not modified).
IEC 62591	NOTE	Harmonized as EN 62591.
IEC 62769	NOTE	Harmonized in EN 62769 series [1)] (not modified).

1) At draft stage.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 When 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 62541-3	-	OPC unified architecture - Part 3: Address Space Model	EN 62541-3	-
IEC 62541-4	-	OPC unified architecture - Part 4: Services	EN 62541-4	-
IEC 62541-5	-	OPC unified architecture - Part 5: Information Model	EN 62541-5	-
IEC 62541-6	-	OPC unified architecture - Part 6: Mappings	EN 62541-6	-
IEC 62541-7	-	OPC unified architecture - Part 7: Profiles	EN 62541-7	-
IEC 62541-8	-	OPC Unified Architecture - Part 8: Data Access	EN 62541-8	-

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IEC 62541-100

Edition 1.0 2015-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

OPC unified architecture – Part 100: Device Interface

Architecture unifiée OPC – Partie 100: Interface d'appareils

IEC 62541-100:2015-03(en-fr)

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INTERNATIONAL STANDARD

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OPC unified architecture – Part 100: Device Interface

Architecture unifiée OPC – Partie 100: Interface d'appareils

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPC UNIFIED ARCHITECTURE –

Part 100: Device Interface

FOREWORD

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International Standard IEC 62541-100 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 standard is based on the following documents:

CDV	Report on voting
65E/372/CDV	65E/412/RVC

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 of the IEC 62541 series, published under the general title , can be found on the IEC website.

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OPC UNIFIED ARCHITECTURE –

Part 100: Device Interface

1 Scope

This part of IEC 62541 is an extension of the overall OPC Unified Architecture standard series and defines the information model associated with *Devices*. This part of IEC 62541 describes three models which build upon each other as follows:

- the (base) Device Model is intended to provide a unified view of devices irrespective of the underlying device protocols;
- the Device Communication Model adds Network and Connection information elements so that communication topologies can be created;
- the Device Integration Host Model finally adds additional elements and rules required for host systems to manage integration for a complete system. It allows reflecting the topology of the automation system with the devices as well as the connecting communication networks.

2 Reference documents

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 TR 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 Architecure – Part 5: Information Model*

IEC 62541-6, *OPC Unified Architecure – Part 6: Mappings*

IEC 62541-7, *OPC Unified Architecure – Part 7: Profiles*

IEC 62541-8, *OPC Unified Architecure – Part 8: Data Access*

NAMUR Recommendation NE107: *Self-monitoring and diagnosis of field devices*

3 Terms, definitions, abbreviations and used data types

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC TR 62541-1, IEC 62541-3, and IEC 62541-8 as well as the following apply.

3.1.1
block
functional *Parameter* grouping entity