SVENSK STANDARD SS-EN 62541-9

Fastställd	Utgåva	Sida	Ansvarig kommitté
2015-06-10	2	1 (1+88)	SEK TK 65

OPC Unified Architecture – Del 9: Larm och villkor

OPC unified architecture – Part 9: Alarms and conditions

Som svensk standard gäller europastandarden EN 62541-9:2015. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62541-9:2015.

Nationellt förord

Europastandarden EN 62541-9:2015

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62541-9, Second edition, 2015 - OPC unified architecture - Part 9: Alarms and conditions**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62541-9, utgåva 1, 2013, gäller ej fr o m 2018-04-29.

ICS 25.040.40; 35.100.00

Denna standard är fastställd av SEK Svensk Elstandard,
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62541-9

May 2015

ICS 25.040.40; 35.100

Supersedes EN 62541-9:2012

English Version

OPC unified architecture - Part 9: Alarms and conditions (IEC 62541-9:2015)

Architecture unifiée OPC - Partie 9: Alarmes et conditions (IEC 62541-9:2015)

OPC Unified Architecture - Teil 9: Alarme und Zustände (IEC 62541-9:2015)

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62541-9:2015 E

SEK Svensk Elstandard

Foreword

The text of document 65E/382/CDV, future edition 2 of IEC 62541-9, 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 62541-9:2015.

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
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-04-29

This document supersedes EN 62541-9:2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

Endorsement notice

The text of the International Standard IEC 62541-9:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62541-7	NOTE	Harmonized as EN 62541-7.
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, 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.

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 62541-8	-	OPC Unified Architecture - Part 8: Data Access	EN 62541-8	-
EEMUA 191		Alarm systems - A guide to design, management and procurement	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPC UNIFIED ARCHITECTURE –

Part 9: Alarms and conditions

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62541-9 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 2012. This edition constitutes a technical revision.

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

a) added section to describe expect behaviour for A&C servers and the associated information model in the case of redundancy or communication faults, see 5.14 for additional details.[ref 698 & 967];
b) changed the DialogConditionType to be not abstract since it is expect that instance of this type will exist in the system, see Table 19 for additonal details [ref 1622];

c) updated ConditionRefresh Method to allow the use of the well know NodeIds associated with the types for the MethodId and ConditionId instead of requiring the call to use only the MethodId and ConditionId that is part of an instance. Without this change, servers that do not expose instance may have problems with ConditionRefresh, see 5.5.7 for additional details [ref 2091];

d) Fixed ExclusiveLimitStateMachineType and ShelvedStatemachineType to be sub-types of FinitStateMachineType not StateMachineType. See 5.8.3 and 5.8.5.2 for additional details [ref 2091].

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

CDV	Report on voting
65E/382/CDV	65E/408/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 *OPC Unified Architecture*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the 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.

OPC UNIFIED ARCHITECTURE –

Part 9: Alarms and conditions

1 Scope

This part of IEC 62541 specifies the representation of *Alarms* and *Conditions* in the OPC Unified Architecture. Included is the *Information Model* representation of *Alarms* and *Conditions* in the OPC UA address space.

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 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 Architecture – Part 5: Information Model*

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

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

EEMUA: 2nd Edition EEMUA 191 – *Alarm System – A guide to design, management and procurement (Appendixes 6, 7, 8, 9)*, available at http://www.eemua.co.uk/