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TECHNICAL REPORT



OPC unified architecture – Part 1: Overview and concepts

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPC UNIFIED ARCHITECTURE –

Part 1: Overview and concepts

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IEC TR 62541-1, which is a Technical Report, has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

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

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

Italics are used to denote a defined term or definition that appears in the "Terms and definition" clause in one of the parts of the series.

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The *italicized terms* and names are also often 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.

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OPC UNIFIED ARCHITECTURE –

Part 1: Overview and concepts

1 Scope

This part of IEC 62541 presents the concepts and overview of the OPC Unified Architecture (OPC UA). Reading this document is helpful to understand the remaining parts of this multi-part document set. Each of the other parts of IEC 62541 is briefly explained along with a suggested reading order.

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.

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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 62541-7, *OPC unified architecture – Part 7: Profiles*

IEC 62541-8, *OPC unified architecture – Part 8: Data access*

IEC 62541-9, *OPC unified architecture – Part 9: Alarms and Conditions*

IEC 62541-10, *OPC unified architecture – Part 10: Programs*

IEC 62541-11, *OPC unified architecture – Part 11: Historical Access*

IEC 62541-12, *OPC unified architecture – Part 12: Discovery and global services*

IEC 62541-13, *OPC Unified Architecture – Part 13: Aggregates*

IEC 62541-14, *OPC unified architecture – Part 14: PubSub*

ITU X.509, *Information technology – Open Systems Interconnection – The Directory: Public-key and attribute certificate frameworks*
<https://www.itu.int/rec/T-REC-X.509>

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