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**OPC Unified Architecture –
Part 10: Programs**

**Architecture unifiée OPC –
Partie 10: Programmes**



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Part 10: Programs**

**Architecture unifiée OPC –
Partie 10: Programmes**

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OPC UNIFIED ARCHITECTURE –**Part 10: Programs****FOREWORD**

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International Standard IEC 62541-10 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) Based on NIST review, security considerations have been included as 4.2.2;
- b) Fixed the definition of the Program Diagnostic Type into a data type (5.2.8) and added missing data type for the Program Diagnostic Variable in the ProgramType in Table 5.
- c) Corrected the BrowseName of the audit events for Program Transitions in Table 7.

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

FDIS	Report on voting
65E/383/FDIS	65E/409/RVD

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

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OPC UNIFIED ARCHITECTURE –

Part 10: Programs

1 Scope

This part of IEC 62541 is part of the overall OPC Unified Architecture (OPC UA) standard series and defines the information model associated with *Programs*. This includes the description of the *NodeClasses*, standard *Properties*, *Methods* and *Events* and associated behaviour and information for *Programs*.

The complete address space model including all *NodeClasses* and *Attributes* is specified in IEC 62541-3. The services such as those used to invoke the *Methods* used to manage *Programs* are specified in IEC 62541-4.

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 62541-3:2015, *OPC Unified Architecture – Part 3: Address Space Model*

IEC 62541-4:2015, *OPC Unified Architecture – Part 4: Services*

IEC 62541-5:2015, *OPC Unified Architecture – Part 5: Information Model*

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

3 Terms, definitions and conventions

3.1 Terms and definitions

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

3.1.1

function

programmatic task performed by a server or device, usually accomplished by computer code execution

3.1.2

Finite State Machine

sequence of states and valid state transitions along with the causes and effects of those state transitions that define the actions of a *Program* in terms of discrete stages

3.1.3

ProgramType

type definition of a *Program* and is a subtype of the *FiniteStateMachineType*