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Architecture unifiée OPC – Partie 3: Modèle de l'espace d'adressage

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OPC unified architecture – Part 3: Address Space Model

Architecture unifiée OPC – Partie 3: Modèle de l'espace d'adressage

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OPC UNIFIED ARCHITECTURE –

Part 3: Address Space Model

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INTRODUCTION

This International Standard is the specification for developers of OPC UA applications. The specification is a result of an analysis and design process to develop a standard interface to facilitate the development of applications by multiple vendors that inter-operate seamlessly together.

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OPC UNIFIED ARCHITECTURE –

Part 3: Address Space Model

1 Scope

This part of IEC 62541 describes the OPC Unified Architecture (OPC UA) *AddressSpace* and its *Objects*. This Part is the OPC UA meta model on which OPC UA information models are based.

2 Normative references

The following referenced documents are indispensable for the application 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.

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

IEC 62541-4[1], *OPC Unified Architecture – Part 4: Services*

IEC 62541-5[1], *OPC Unified Architecture – Part 5: Information Model*

IEC 62541-6[1], *OPC Unified Architecture – Part 6: Mappings*

IEC 62541-8[1], *OPC Unified Architecture – Part 8: Data Access*

ISO/IEC 10918-1, *Information technology – Digital compression and coding of continuous-tone still images: Requirements and guidelines*

ISO/IEC 15948, *Information technology – Computer graphics and image processing – Portable Network Graphics (PNG): Functional specification*

ISO 639 (all parts), *Codes for the representation of names of languages*

ISO 3166 (all parts), Codes for the representation of names of countries and their subdivisions

XML Schema Part 1,available at <http://www.w3.org/TR/xmlschema-1/>

XML Schema Part 2, available at <http://www.w3.org/TR/xmlschema-2/>

XPATH, available at <http://www.w3.org/TR/xpath/>

IETF RFC 3066, *Tags for the Identification of Languages,* available at <http://tools.ietf.org/html/rfc3066>

IEEE 754-1985, *IEEE Standard for Binary Floating-Point Arithmetic*, available at <http://ieeexplore.ieee.org/servlet/opac?punumber=2355>

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3 Terms, definitions, abbreviations and conventions

3.1 Terms and definitions

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

3.1.1
DataType
instance of a *DataType Node* that is used together with the *ValueRank Attribute* to define the data type of a *Variable*.

3.1.2
DataVariable
Variables that represent *values* of *Objects*, either directly or indirectly for complex *Variables*, where the *Variables* are always the *TargetNode* of a *HasComponent Reference*

3.1.3
EventType
ObjectType Node that represents the type definition of an *Event*

3.1.4
Hierarchical Reference
Reference that is used to construct hierarchies in the *AddressSpace*

NOTE All hierarchical *ReferenceTypes* are derived from *HierarchicalReferences*.

3.1.5
InstanceDeclaration
Node that is used by a complex *TypeDefinitionNode* to expose its complex structure; It is an instance used by a type definition

3.1.6
ModellingRule
metadata of an *InstanceDeclaration* that defines how the *InstanceDeclaration* will be used for instantiation; It also defines subtyping rules for an *InstanceDeclaration*

3.1.7
Property
Variables that are the *TargetNode* for a *HasProperty Reference*; *Properties* describe the characteristics of a *Node*

3.1.8
SourceNode
Node having a *Reference* to another *Node*; For example, in the *Reference* “A contains B”, “A” is the *SourceNode*

3.1.9
TargetNode
Node that is referenced by another *Nod;,* For example, in the *Reference* “A Contains B”, “B” is the *TargetNode*

3.1.10
TypeDefinitionNode
Node that is used to define the type of another *Node*; *ObjectType* and *VariableType Nodes* are *TypeDefinitionNodes*

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