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Communication networks and systems for power utility automation – Part 4: System and project management



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Communication networks and systems for power utility automation – Part 4: System and project management

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CONTENTS

FOREWORD 4
1 Scope 6
2 Normative references 6
3 Terms and definitions 6
4 Abbreviations 10
5 Engineering requirements 10
5.1 Overview 10
5.2 Categories and types of parameters 12
5.2.1 Classification 12
5.2.2 Parameter categories 13
5.2.3 Parameter types 14
5.3 Engineering tools 15
5.3.1 Engineering process 15
5.3.2 System specification tool 17
5.3.3 System configuration tool 17
5.3.4 IED configuration tool 17
5.3.5 Documentation tool 19
5.3.6 Engineering tool workflow 19
5.4 Flexibility and expandability 23
5.5 Scalability 23
5.6 Automatic project documentation 24
5.6.1 General 24
5.6.2 Hardware documentation 25
5.6.3 Parameter documentation 25
5.6.4 Requirements of the documentation tool 26
5.7 Standard documentation 26
5.8 System integrator's support 27
5.9 System testing and engineering 27
6 System life cycle 27
6.1 Requirements of product versions 27
6.2 Announcement of product discontinuation 29
6.3 Support after discontinuation 29
6.4 Backward compatibility 29
6.4.1 General 29
6.4.2 Components 30
6.4.1 Use cases 30
6.4.2 Impacts 30
7 Quality assurance 37
7.1 Division of responsibility 37
7.1.1 General 37
7.1.2 Responsibility of the manufacturer and system integrator 37
7.1.3 Responsibility of the customer 39
7.2 Test equipment 40
7.2.1 General 40
7.2.2 Normal process test equipment 40
7.2.3 Transient and fault test equipment 40

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7.2.4 Communication test equipment 40
7.3 Classification of tests 40
7.3.1 Basic test requirements 40
7.3.2 System test 41
7.3.3 Type test 41
7.3.4 Routine test 42
7.3.5 Conformance test 42
7.3.6 Factory Acceptance Test (FAT) 42
7.3.7 Site Acceptance Test (SAT) 43
7.3.8 Maintenance tests (after commissioning) 43
Annex A (informative) Announcement of discontinuation (example) 45
Annex B (informative) Delivery obligations after discontinuation (example) 46
Bibliography 47

Figure 1 - Structure of the UAS and its environment 11
Figure 2 - Structure of UAS and IED parameters 13
Figure 3 – Engineering tasks and their relationship 16
Figure 4 – IED configuration process 18
Figure 5 - Engineering workflow steps from system to project 19
Figure 6 - Change of system tool first stage 20
Figure 7 - Change of system tool second stage 21
Figure 8 – interaction between projects, first stage 22
Figure 9 - interaction between projects, second stage 22
Figure 10 - Project related documentation of UAS 24
Figure 11 - Two meanings of the system life cycle 28
Figure 12 - Template table of acceptable impacts 31
Figure 13 : Backward compatibility first use case 32
Figure 14 : Backward compatibility second use case 33
Figure 15 : Backward compatibility third use case 35
Figure 16 : Backward compatibility fourth use case 36
Figure 17 - Stages of quality assurance – Responsibility of manufacturer and system integrator 38
Figure 18 - Contents of system test 41
Figure 19 - Contents of type test 42
Figure 20 - Contents of routine test 42
Figure 21 - Testing stages for site acceptance test 43
Figure A.1 – Announcement conditions 45
Figure B.1 – Periods for delivery obligations 46

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMUNICATION NETWORKS AND SYSTEMS FOR POWER UTILITY AUTOMATION –

Part 4: System and project management

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IEC 61850-4 edition 2.1 contains the second edition (2011-04) [documents 57/1103/FDIS and 57/1122/RVD] and its amendment 1 (2020-11) [documents 57/2256/FDIS and 57/2271/RVD].

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International Standard IEC 61850-4 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

This edition aligns the document more closely with the other parts of the IEC 61850 series, in addition to enlarging the scope from substation automation systems to all utility automation systems.

A list of all parts of the IEC 61850 series, under the general title: *Communication networks and systems for power utility automation*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment 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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COMMUNICATION NETWORKS AND SYSTEMS FOR POWER UTILITY AUTOMATION –

Part 4: System and project management

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1 Scope

This part of IEC 61850 applies to projects associated with processes near automation systems of power utilities (UAS, utility automation system), such as substation automation systems (SAS). It defines the system and project management for UAS with communication between intelligent electronic devices (IEDs) in the substation respective plant and the related system requirements.

The specifications of this part pertain to the system and project management with respect to:

– the engineering process and its supporting tools;
– the life cycle of the overall system and its IEDs;
– the quality assurance beginning with the development stage and ending with discontinuation and decommissioning of the UAS and its IEDs.

The requirements of the system and project management process and of special supporting tools for engineering and testing are described.

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 60848, *GRAFCET specification language for sequential function charts*

IEC 61082 (all parts), *Preparation of documents used in electrotechnology*

IEC 61175, *Industrial systems, installations and equipment and industrial products – Designation of signals*

IEC 61850-6, *Communication networks and systems for power utility automation – Part 6: Configuration description language for communication in power utility automation systems related to IEDs*

IEC 61850-7 (all parts), *Communication networks and systems for power utility automation – Part 7: Basic communication structure*

IEC 81346 (all parts), *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
supporting tools
those tools that support the user in the engineering, the operation and the management of the UAS and its IEDs

NOTE These tools are usually a part of the UAS.