Código : IEC 61499-1:2012
Título Prim. : Function blocks - Part 1: Architecture
Título Sec. : Function blocks - Part 1: Architecture
Comité Técnico : TC 65/SC 65B TC 65/SC 65B
Data de Publ. : 11/7/2012
Objetivo : IEC 61499-1:2012 defines a generic architecture and presents guidelines for the use of function blocks in distributed industrial-process measurement and control systems (IPMCSs). This architecture is presented in terms of implementable reference models, textual syntax and graphical representations. The models given in this standard are intended to be generic, domain independent and extensible to the definition and use of function blocks in other standards or for particular applications or application domains. It is intended that specifications written according to the rules given in this standard be concise, implementable, complete, unambiguous, and consistent. This second edition cancels and replaces the first edition published in 2005 an constitutes a technical revision. It includes the significant technical changes with respect to the previous edition related to: Execution control, Temporary variables, Service sequences, the syntax for mapping of FB instances, the Syntax for definition of segment types, the Function block types for interoperation with programmable controllers and the READ/WRITE management commands.

Código : IEC 61499-2:2012
Título Prim. : Function blocks - Part 2: Software tool requirements
Título Sec. : Function blocks - Part 2: Software tool requirements
Comité Técnico : TC 65/SC 65B TC 65/SC 65B
Data de Publ. : 11/7/2012
Objetivo : IEC 61499-2:2012 defines requirements for software tools to support the following systems engineering tasks enumerated in IEC 61499-1:
- the specification of function block types;
- the functional specification of resource types and device types;
- the specification, analysis, and validation of distributed IPMCSs;
- the configuration, implementation, operation, and maintenance of distributed IPMCSs;
- the exchange of information among software tools. This second edition cancels and replaces the first edition published in 2005 and constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition: The contents of Annex A have been updated to conform to the technical changes of the second edition of IEC 61499-1. CDATA sections are now allowed for the textual contents of algorithms in Tables A.4 and A.5.

Código : IEC 61499-4:2013
Título Prim. : Function blocks - Part 4: Rules for compliance profiles
Título Sec. : Function blocks - Part 4: Rules for compliance profiles
Comité Técnico : TC 65/SC 65B TC 65/SC 65B
Data de Publ. : 1/30/2013
Objetivo : IEC 61499-4:2013 defines rules for the development of compliance profiles, which specify the features of IEC 61499-1 and 61499-2 to be implemented in order to promote the following attributes of IEC 61499-based systems, devices and software tools:
- interoperability of devices from multiple suppliers;
- portability of software between software tools of multiple suppliers;
- and configurability of devices from multiple vendors by software tools of multiple suppliers. This second edition cancels and replaces the first edition published in 2005. It constitutes a technical revision and includes the following significant technical changes: Table B.1 has been updated for consistency with Table 8 of IEC 61499-1:2013.

Código : IEC 61850-3:2013
Título Prim. : Communication networks and systems for power utility automation - Part 3: General requirements
Título Sec. : Communication networks and systems for power utility automation - Part 3: General requirements
Comité Técnico : TC 57 TC 57
Data de Publ. : 12/12/2013
Objetivo : IEC 61850-3:2013 defines the general requirements, mainly regarding construction, design and environmental conditions for utility communication and automation IEDs (intelligent electronic devices) and systems in power plant and substation environments. These general requirements are in line with requirements for IEDs used in similar environments, for example measuring relays and protection equipment. This new edition includes the following significant technical changes with respect to the previous edition:
- requirements are in line with those of other equipment used in the same environment (e.g. protection relays);
- product safety added based on IEC 60255-27;
- EMC requirements completed and in line with IEC 60255 series and IEC 61000-6-5.

Código : IEC 61850-4:2011
Título Prim. : Communication networks and systems for power utility automation - Part 4: System and project management
Título Sec. : Communication networks and systems for power utility automation - Part 4: System and project management
Comité Técnico : TC 57 TC 57
Data de Publ. : 4/11/2011

Objetivo :	IEC 61850-4:2011 applies to projects associated with process near automation systems of power utilities (UAS, utility automation system), like e.g. substation automation systems (SAS). It defines the system and project management for UAS systems with communication between intelligent electronic devices (IEDs) in the substation respective plant and the related system requirements. This second edition constitutes a technical revision to align 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. This publication is of core relevance for Smart Grid.
Código :	IEC 61850-5:2013
Título Prim. :	Communication networks and systems for power utility automation - Part 5: Communication requirements for functions and device models
Título Sec. :	Communication networks and systems for power utility automation - Part 5: Communication requirements for functions and device models
Comité Técnico :	TC 57 TC 57
Data de Publ. :	1/30/2013
Objetivo :	IEC 61850-5:2013 applies to power utility automation systems with the core part of substation automation systems (SAS); it standardizes the communication between intelligent electronic devices (IEDs) and defines the related system requirements to be supported. The major technical changes with regard to the previous edition are as follows: - extension from substation automation systems to utility automation systems; - inclusion of interfaces for communication between substations; - requirements from communication beyond the boundary of the substation.
Código :	IEC 61850-6:2009
Título Prim. :	Communication networks and systems for power utility automation - Part 6: Configuration description language for communication in electrical substations related to IEDs
Título Sec. :	Communication networks and systems for power utility automation - Part 6: Configuration description language for communication in electrical substations related to IEDs
Comité Técnico :	TC 57 TC 57
Data de Publ. :	12/17/2009
Objetivo :	IEC 61850-6:2009(E) specifies a file format for describing communication-related IED (Intelligent Electronic Device) configurations and IED parameters, communication system configurations, switch yard (function) structures, and the relations between them. The main purpose of this format is to exchange IED capability descriptions, and SA system descriptions between IED engineering tools and the system engineering tool(s) of different manufacturers in a compatible way. The main changes with respect to the previous edition are as follows: - functional extensions added based on changes in other Parts of IEC 61850, especially in IEC 61850-7-2 and IEC 61850-7-3; - functional extensions concerning the engineering process, especially for configuration data exchange between system configuration tools, added; - clarifications and corrections. This publication is of core relevance for Smart Grid.
Código :	IEC 61850-6:2018 Amd.1
Título Prim. :	Amendment 1 - Communication networks and systems for power utility automation - Part 6: Configuration description language for communication in power utility automation systems related to IEDs
Título Sec. :	Amendment 1 - Communication networks and systems for power utility automation - Part 6: Configuration description language for communication in power utility automation systems related to IEDs
Comité Técnico :	TC 57 TC 57
Data de Publ. :	6/7/2018
Objetivo :	
Código :	IEC 61850-7-1:2020
Título Prim. :	Communication networks and systems for power utility automation - Part 7-1: Basic communication structure - Principles and models
Título Sec. :	Communication networks and systems for power utility automation - Part 7-1: Basic communication structure - Principles and models
Comité Técnico :	TC 57 TC 57
Data de Publ. :	8/31/2020

Objetivo : IEC 61850-7-1:2011+A1:2020 introduces the modelling methods, communication principles, and information models that are used in the various parts of the IEC 61850-7 series. The purpose is to provide - from a conceptual point of view - assistance to understand the basic modelling concepts and description methods for:
- substation-specific information models for power utility automation systems,
- device functions used for power utility automation purposes, and
- communication systems to provide interoperability within power utility facilities. Compared to the first edition, this second edition introduces:
- the model for statistical and historical statistical data,
- the concepts of proxies, gateways, LD hierarchy and LN inputs,
- the model for time synchronisation,
- the concepts behind different testing facilities,
- the extended logging function. It also clarifies certain items.
This consolidated version consists of the second edition (2011) and its amendment 1 (2020). Therefore, no need to order amendment in addition to this publication.

Código : IEC 61850-9-2:2020

Título Prim. : Communication networks and systems for power utility automation - Part 9-2: Specific communication service mapping (SCSM) - Sampled values over ISO/IEC 8802-3

Título Sec. : Communication networks and systems for power utility automation - Part 9-2: Specific communication service mapping (SCSM) - Sampled values over ISO/IEC 8802-3

Comité Técnico : TC 57 TC 57

Data de Publ. : 2/12/2020

Objetivo : IEC 61850-9-2:2011+A1:2020 defines the specific communication service mapping for the transmission of sampled values according to the abstract specification in IEC 61850-7-2. The mapping is that of the abstract model on a mixed stack using direct access to an ISO/IEC 8802-3 link for the transmission of the samples in combination with IEC 61850-8-1. Main changes with respect to the first edition are:
- addition of an optional link redundancy layer;
- redefinition of "reserved" fields in link layer;
- evolution of USVCB and MSVCB components;
- evolution of encoding for the transmission of the sampled value buffer.
This consolidated version consists of the second edition (2010) and its amendment 1 (2020). Therefore, no need to order amendment in addition to this publication.

Código : IEC/TS 61850-1-2:2020

Título Prim. : Communication networks and systems for power utility automation - Part 1-2: Guideline on extending IEC 61850

Título Sec. : Communication networks and systems for power utility automation - Part 1-2: Guideline on extending IEC 61850

Comité Técnico : TC 57 TC 57

Data de Publ. : 6/16/2020

Objetivo : IEC TS 61850-1-2:2020, which is a technical specification, is intended for any users but primarily for standardization bodies that are considering using IEC 61850 as a base standard within the scope of their work and are willing to extend it as allowed by the IEC 61850 standards. This document identifies the required steps and high-level requirements in achieving such extensions of IEC 61850 and provides guidelines for the individual steps.
Within that scope, this document addresses the following cases:
• The management of product-level standards for products that have an interface based on IEC 61850
• The management of domain-level standards based on IEC 61850
• The management of transitional standards based on IEC 61850
• The management of private namespaces based on IEC 61850
• The development of standards offering the mapping of IEC 61850 data model at CDC level
• The development and management of IEC 61850 profiles for domains (underlying the role of IEC TR 62361-103 and IEC TR 61850-7-6)
This document includes both technical and process aspects:
On the technical side, this document:
• Reminds the main basic requirements (mostly referring to the appropriate parts of the series which host the requirements or recommendations)
• Lists all possible flexibilities offered by the standards
• Defines which flexibilities are allowed/possible per type of extension cases
On the process side, the document covers:
• The initial analysis of how the existing IEC 61850 object models and/or communication services may be applied and what allowed extensions may be required for utilizing them in new or specific domains (including private ones). The results of that step are expected to be documented
• The extension of the IEC 61850 object models for new domains. The typical associated work is to identify existing logical nodes which can be reused "as is", to determine if existing logical nodes can be extended, or to define new logical nodes
• The purpose and process to use transitional namespaces, which are expected to be merged eventually into an existing standard namespace
• The management of standard namespaces
• The development of private namespaces

Código : IEC/TS 61850-2:2019

Título Prim. : Communication networks and systems for power utility automation - Part 2: Glossary

Título Sec. : Communication networks and systems for power utility automation - Part 2: Glossary

Comité Técnico : TC 57 TC 57

Data de Publ. : 4/17/2019

Objetivo : IEC TS 61850-2:2019 (E) contains the glossary of specific terms and definitions used in the context of Substation Automation Systems which are standardized in the various parts of the IEC 61850 series.
This second edition cancels and replaces the first edition, published in 2003. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:
a) definition of new definitions used in the new edition of the IEC 61850 standard series;
b) updating of existing definitions to the new domain power utility automation of the IEC 61850 standard series and to provide homogeneity
c) removal of deprecated definitions (logical device class; generic system state event; substation automation system);
d) provision of clarifications and corrections to the first edition of IEC 61850-2.
This publication is of core relevance for Smart Grid