

Annex G (normative)

SCL Implementation Conformance Statement (SICS)

This SICS is applicable for:

- Tool Name: IET600
- Main role: SCT
- Version: 5.3

The following tables contain mandatory and optional features of System Configuration tools and IED configuration tools. It is up to the tool manufacturer to decide to which extent his tool fulfills one or both roles. At least for one main role all mandatory features shall be supported.

The IED configurator features can also partly be implemented within the IED itself, if it can be configured by an SCD or CID file. In this case the conformance statement refers to the combination of IED and IED configurator tool. If an IED tool supports several IED types with different engineering capabilities, then for each combination of tool and IED type a separate IED configurator conformance statement should be given.

The features are grouped. If a group is mandatory, then at least all mandatory features of this group shall be implemented. If a group is optional, then either all features of this group shall be missing, or at least all mandatory ones shall be implemented.

The result of an export function can be checked in the generated SCL file. The result of an import can be checked by tool behaviour, and at the final configured IED, by browsing through it or by its communication behaviour.




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Table 2 – System configurator conformance statement


		Mandatory/ optional	Value/ comments
ICD&IID import and usage		M	
S11	IED data model	M	yes
S12	Predefined data sets	M	yes
S13	Predefined control blocks	M	yes
S14	Support MustUnderstand concept (8.2)	M	yes
S15	Import up to current SCL version and revision	M	yes
S16	Substation bay template with LN links, if it exists	O	no
S17	Reuse already imported DataTypeTemplates for identical types	O	yes
S18	Keep attributes and elements of unknown XML name spaces outside Private elements for SCD export	O	no
S19	Import single line layout coordinates defined in C.1	O	no
S110	Import of IID file; update configuration values & setting values, modify data model (see 10.1).	M	yes
S111	Imports SCL in UTF-8 coding	M	yes
Communication engineering		M	
S21	Configure (edit) IED names	M	yes
S22	Create and configure Subnetworks and IED communication addresses	M	yes
S23	Create/import client IEDs, master clocks, switches and routers	M	yes
S24	Create and configure physical connection attributes (9.4.6)	O	yes
S25	Configure IdName values	C1	yes, provided it is allowed by IED services
S26	Configure InInst and LN prefixes, if the IED allows this	O	no
Data flow and log engineering		M	
S31	Configure control blocks for all types of dataflow and log-related control blocks.	M	yes
S32	Create control block types / instances, if IED capabilities allow so for all types of dataflow and log-related control blocks.	M	yes
S33	Create data sets, if IED capability allows this	M	yes
S34	Modify existing data sets if IED capability allows this	M	yes
S35	Manage control block confRev for all types of dataflow related control blocks.	M	yes
S361	Allocate control block instances to clients & define data destinations (<i>ClientLN</i> element, <i>IEDName</i> element) for all types of dataflow related control blocks.	M	yes

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		Mandatory/ optional	Value/ comments
S362	Allocate LOGs to LogControl	M	yes
S37	Edit Input sections in LNs (9.3.13)	M	yes, (inputs can be added to LLN0 and re-allocated to other LNs and removed)
S381	Create Input section from configured data set flow based on Goose and SMV services	M	yes
S382	Create Input section from configured data set flow based on Reporting services	O	no
S39	Provide source control block reference for signals in Input section (9.3.13)	M	yes
SCD Substation section handling		O	
S41	Import Substation section from SSD/SCD file	AtLeastOne(1)	yes (first-time import only)
S42	Edit / create substation section	AtLeastOne(1)	yes
S43	Bind logical nodes from IEDs to substation section	O	yes
S44	Create bay instances from IED / ICD substation templates	O	no
S45	Edit / create substation topology (connections between primary equipment (9.2.4))	O	yes
S46	Edit substation element names and desc attributes.	O	yes
S47	Edit Equipment terminals (<i>name</i> attribute of the <i>Terminal</i> element)	O	no
S48	Edit / create the <i>Function</i> / <i>SubFunction</i> / <i>GeneralEquipment</i> / <i>EqFunction</i> / <i>SubEqFunction</i> naming hierarchies	O	partially (no equipment below Function / Subfunction can be generated)
SCD Modifications		M	
S51	Handle SCD Header revision & version (9.1); mark an SCD file change by a new revision or version indication	M	yes
S52	Set configuration values (attributes with <i>fc</i> =CF, DC)	O	no
S53	Set Parameter (Setting DATA, <i>fc</i> =SP) values, also for different setting groups	O	no
S54	Add / Modify layout coordinates according to C.1	O	yes
S55	Show IED service / engineering capabilities to engineer	O	partially (only services related to Dataflow configuration).
S56	Interpret IED capabilities and prohibit unsupported usage	M	yes
S57	Editing of data attributes <i>valKind</i> property according to IED capabilities (9.5.4.1)	O	no
S58	Handle SCD Header revision history (9.1) with a new entry for each new version or revision.	O	yes
SCD export		M	

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		Mandatory/ optional	Value/ comments
S61	Previous version(s) and revision(s) export	O	partially (only for pure Ed.1 projects, not for mixed systems).
S62	Current version / revision export	M	yes
S63	Reserved	O	
S64	Re-export imported Private sections	M	yes
S65	Export restructured DataTypeTemplates types (keeping all instance-related information and all Private information constant)	O	yes
S66	Keep type identifiers in DataTypeTemplates section unique even if on ICD import the same ID is used in different ICD files for different type structures.	M	yes
S67	Export SCL in UTF-8 coding	M	yes
SCD Import		O	
S71	Version 2003 import	M	yes
S72	Version 2007B import	M	yes
S73	Reserved	O	
S74	Add new bays / equipment in substation section	O	no (on one time import, the substation section will be imported; but later modifications via SCD import are not possible).
S75	Add links from substation section to IEDs	O	no (on one time import, the substation section will be imported; but later modifications via SCD import are not possible).
S77	Update IED configuration values	O	no (editing of CF attributes currently not supported)
S78	Update IED Setting DATA values	O	no (editing of SV attributes currently not supported)
S79	Add new IEDs	O	yes
SED handling		O	
S81	Export SED for selected dataflow IEDs	M	yes
S82	Import SED with exported part	M	yes
S83	Prohibit editing of own IEDs exported with dataflow right (inclusive Substation section links & communication addresses)	M	yes
S84	Import SED for usage in own project; export modified SED back to source project	O	yes
S85	Import/merge Substation section part from SED	O	no
S86	Import/merge Communication section part from SED	O	yes

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	Mandatory/ optional	Value/ comments
C1	Mandatory for tools supporting the 2007 SCL version or higher	
AtLeastOne(n)	At least one of the elements of group (n) should be available.	
O	Optional; should match the IED capabilities; i.e. if an IED claims that RCBs can not be configured by SCL, then the tool shall prohibit it.	
M	Mandatory; should match the IED capabilities; i.e. if an IED claims that RCBs can not be configured by SCL, then the tool shall prohibit it.	

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