

TISSUES Implementation Conformance Statement
for the IEC 61850 interface in SEL-421

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UCA International Users Group
Testing Sub Committee

Template version 0.2
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Introduction

This document provides a template for the tissues conformance statement. According to the UCA IUG QAP the tissue conformance statement is required to perform a conformance test and is referenced on the certificate.

This document is applicable for SEL-421 with firmware version R308.

Mandatory Intop Tissues

During the October 2006 meeting IEC TC57 working group 10 decided that:

- green Tissues with the category “IntOp” are mandatory for IEC 61850 edition 1
- Tissues with the category “Ed.2” Tissues should not be implemented.

Below table gives an overview of the implemented IntOp Tissues.

| Part | Tissue Nr | Description | Implemented Y/na |
|------|------------------------------------------------------|-----------------------------------------------------|------------------|
| 8-1 | 116 | GetNameList with empty response? | Y |
| | 165 | Improper Error Response for GetDataSetValues | Y |
| | 183 | GetNameList error handling | Y |
| 7-4 | None | | |
| 7-3 | 28 | Definition of APC | na |
| | 54 | Point def xVal, not cVal | na |
| | 55 | Ineut = Ires ? | Y |
| | 60 | Services missing in tables | na |
| | 63 | mag in CDC CMV | Y |
| | 65 | Deadband calculation of a Vector and trigger option | N |
| | 219 | operTm in ACT | na |
| 270 | WYE and DEL rms values | Y | |
| 7-2 | 30 | control parameter T | Y |
| | 31 | Typo | na |
| | 32 | Typo in syntax | na |
| | 35 | Typo Syntax Control time | na |
| | 36 | Syntax parameter DSet-Ref missing | na |
| | 37 | Syntax GOOSE "T" type | Y |
| | 39 | Add DstAddr to GoCB | Y |
| | 40 | GOOSE Message "AppID" to "GoID" | Y |
| | 41 | GsCB "AppID" to "GsID" | na |
| | 42 | SV timestamp: "EntryTime" to "TimeStamp" | na |
| | 43 | Control "T" semantic | Y |
| | 44 | AddCause - Object not sel | Y |
| | 45 | Missing AddCauses (neg range) | na |
| | 46 | Synchro check cancel | na |
| | 47 | "," in LD Name? | Y |
| | 49 | BRCB TimeOfEntry (part of #453) | N |
| | 50 | LNNName start with number? | Y |
| | 51 | ARRAY [0..num] missing | na |
| | 52 | Ambiguity GOOSE SqNum | Y |
| | 53 | Add DstAddr to GsCB, SV | na |
| 151 | Name constraint for control blocks etc. | Y | |
| 166 | DataRef attribute in Log | na | |
| 185 | Logging - Integrity periode | na | |
| 189 | SV Format | na | |
| 190 | BRCB: EntryId and TimeOfEntry (part of #453) | Y | |
| 191 | BRCB: Integrity and buffering reports (part of #453) | N | |

| Part | Tissue Description Nr | Implemented Y/na |
|-------------|----------------------------------------------------------------|-----------------------------|
| | 234 New type CtxInt (Enums are mapped to 8 bit integer) | na |
| | 275 Confusing statement on GI usage (part of #453) | Y |
| | 278 EntryId not valid for a server (part of #453) | na |
| Part 6 | 1 Syntax | na |
| | 5 tExtensionAttributeNameEnum is restricted | Y |
| | 8 SIUnit enumeration for W | Y |
| | 10 Base type for bitstring usage | Y |
| | 17 DAI/SDI elements syntax | Y |
| | 169 Ordering of enum differs from 7-3 | na |

NOTE: Tissue 49, 190, 191, 275 and 278 are part of the optional tissue #453, all other technical tissues in the table are mandatory if applicable.

NOTE: Editorial tissues are marked as "na".

NOTE: Final proposal on tissue 45 is not defined yet

Optional IntOp Tissues

After the approval of the server conformance test procedures version 2.2 the following IntOp tissues were added or changed. It is optional to implement these tissues.

| Part | Tissue Nr | Description | Implemented Y/N/na |
|-------------|----------------------|-----------------------------------------------------|-------------------------------|
| 8-1 | 246 | Control negative response (SBOs) with LastApplError | Y |
| 8-1 | 545 | Skip file directories with no files | na |
| 7-2 | 333 | Enabling of an incomplete GoCB | na |
| 7-2 | 453 | Combination of all reporting and logging tissues | N |
| 6 | 245 | Attribute RptId in SCL | N |
| 6 | 529 | Replace sev - Unknown by unknown | na |