



# High**PROTEC**

IEC 61850 | TICS

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**MCA4**

Software-Version: 3.4.a

Tissue Implementation Conformance Statement (TICS)

UCA International Users Group Testing Sub Committee

English

## 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 MCA4 Version 3.4.a (Firmware-Build 35591).

## 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  | <b>116</b> | GetNameList with empty response?                    | Y                |
|      | <b>165</b> | Improper Error Response for GetDataSetValues        | Y                |
|      | <b>183</b> | GetNameList error handling                          | Y                |
| 7-4  | None       |   |                  |
| 7-3  | <b>28</b>  | Definition of APC                                   | na               |
|      | <b>54</b>  | Point def xVal, not cVal                            | na               |
|      | <b>55</b>  | Ineut = Ires ?                                      | Y                |
|      | <b>60</b>  | Services missing in tables                          | na               |
|      | <b>63</b>  | mag in CDC CMV                                      | Y                |
|      | <b>65</b>  | Deadband calculation of a Vector and trigger option | na               |
|      | <b>219</b> | operTm in ACT                                       | na               |
|      | <b>270</b> | WYE and DEL rms values                              | na               |
| 7-2  | <b>30</b>  | control parameter T                                 | Y                |
|      | <b>31</b>  | Typo  | Y                |
|      | <b>32</b>  | Typo in syntax                                      | Y                |
|      | <b>35</b>  | Typo Syntax Control time                            | Y                |
|      | <b>36</b>  | Syntax parameter DSet-Ref missing                   | Y                |
|      | <b>37</b>  | Syntax GOOSE "T" type                               | Y                |
|      | <b>39</b>  | Add DstAddr to GoCB                                 | Y                |
|      | <b>40</b>  | GOOSE Message "AppID" to "GoID"                     | Y                |
|      | <b>41</b>  | GsCB "AppID" to "GsID"                              | Y                |
|      | <b>42</b>  | SV timestamp: "EntryTime" to "TimeStamp"            | na               |
|      | <b>43</b>  | Control "T" semantic                                | Y                |
|      | <b>44</b>  | AddCause - Object not sel                           | Y                |
|      | <b>45</b>  | Missing AddCauses (neg range)                       | na               |
|      | <b>46</b>  | Synchro check cancel                                | na               |
|      | <b>47</b>  | ". ." in LD Name?                                   | Y                |

| <b>Part</b> | <b>Tissue Description<br/>Nr</b>                                | <b>Implemented<br/>Y/na</b> |
|-------------|---|-----------------------------|
|             | <b>49</b> BRCB TimeOfEntry (part of #453)                       | Y                           |
|             | <b>50</b> LNName start with number?                             | Y                           |
|             | <b>51</b> ARRAY [0..num] missing                                | na                          |
|             | <b>52</b> Ambiguity GOOSE SqNum                                 | Y                           |
|             | <b>53</b> Add DstAddr to GsCB, SV                               | Y                           |
|             | <b>151</b> Name constraint for control blocks etc.              | Y                           |
|             | <b>166</b> DataRef attribute in Log                             | na                          |
|             | <b>185</b> Logging - Integrity periode                          | na                          |
|             | <b>189</b> SV Format  | na                          |
|             | <b>190</b> BRCB: EntryId and TimeOfEntry (part of #453)         | Y                           |
|             | <b>191</b> BRCB: Integrity and buffering reports (part of #453) | Y                           |
|             | <b>234</b> New type CtxInt (Enums are mapped to 8 bit integer)  | Y                           |
|             | <b>275</b> Confusing statement on GI usage (part of #453)       | Y                           |
|             | <b>278</b> EntryId not valid for a server (part of #453)        | Y                           |
| Part 6      | <b>1</b> Syntax   | Y                           |
|             | <b>5</b> tExtensionAttributeNameEnum is restricted              | Y                           |
|             | <b>8</b> SIUnit enumeration for W                               | Y                           |
|             | <b>10</b> Base type for bitstring usage                         | na                          |
|             | <b>17</b> DAI/SDI elements syntax                               | Y                           |
|             | <b>169</b> 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.

| <b>Part</b> | <b>Tissue Nr</b> | <b>Description</b>                                  | <b>Implemented<br/>Y/N/na</b> |
|-------------|------------------|---|-------------------------------|
| 8-1         | <b>235</b>       | Extension of Name length                            | Y                             |
| 8-1         | <b>246</b>       | Control negative response (SBOs) with LastAppLError | na                            |
| 8-1         | <b>545</b>       | Skip file directories with no files                 | na                            |
| 7-2         | <b>333</b>       | Enabling of an incomplete GoCB                      | na                            |
| 7-2         | <b>453</b>       | Combination of all reporting and logging tissues    | Y                             |
| 6           | <b>245</b>       | Attribute RptId in SCL                              | N                             |
| 6           | <b>529</b>       | Replace sev - Unknown by unknown                    | na                            |