Model Implementation Conformance Statement

for the IEC 61850 Client Interface in <client system>

<date, version, referencenr>

UCA International Users Group

Testing Sub Committee Template version 1.0

Date 18 December 2014

# Introduction

This model implementation conformance statement is applicable for the IEC 61850 Ed1 and/or Ed2 client interface in <client system>, with firmware <version>. This MICS document specifies the supported Common Data Classes for IEC 61850 Edition 1 and Edition 2 and mapping of the quality.

# Supported Common Data Classes

The “Ed” column indicates Edition 1 and/or Edition 2.

Common data class specifications for status information

| **CDC** | **Ed** | **Description**  | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| SPS | 1,2 | Single point status |  |  |
| DPS | 1,2 | Double point status |  |  |
| INS | 1,2 | Integer status |  |  |
| ENS | 2 | Enumerated status |  |  |
| ACT | 1,2 | Protection activation information |  |  |
| ACD | 1,2 | Directional protection activation information |  |  |
| SEC | 1,2 | Security violation counting |  |  |
| BCR | 1,2 | Binary counter reading |  |  |
| HST | 2 | Histogram |  |  |
| VSS | 2 | Visible string status |  |  |
| Notes: |

Common data class specifications for measurement information

| **CDC** | **Ed** | **Description**  | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| MV | 1,2 | Measured value |  |  |
| CMV | 1,2 | Complex measured value |  |  |
| SAV | 1,2 | Sampled value |  |  |
| WYE | 1,2 | Phase to ground/neutral related measured values of a three-phase system |  |  |
| DEL | 1,2 | Phase to phase related measured values of a three-phase system |  |  |
| SEQ | 1,2 | Sequence |  |  |
| HMV | 1 | Harmonic value |  |  |
| HMV | 2 | Harmonic value |  |  |
| HWYE | 1 | Harmonic value for WYE |  |  |
| HWYE | 2 | Harmonic value for WYE |  |  |
| HDEL | 1 | Harmonic value for DEL |  |  |
| HDEL | 2 | Harmonic value for DEL |  |  |
| Notes: |

Common data class specifications for controls

| **CDC** | **Ed** | **Description** | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| SPC | 1,2 | Controllable single point |  |  |
| DPC | 1,2 | Controllable double point |  |  |
| INC | 1,2 | Controllable integer status |  |  |
| ENC | 2 | Controllable enumerated status |  |  |
| BSC | 1,2 | Binary controlled step position information |  |  |
| ISC | 1,2 | Integer controlled step position information |  |  |
| APC | 1 | Controllable analogue process value |  |  |
| APC | 2 | Controllable analogue process value |  |  |
| BAC | 2 | Binary controlled analog process value |  |  |
| Notes: |

Common data class specifications for status settings

| **CDC** | **Ed** | **Description** | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| SPG | 1,2 | Single point setting |  |  |
| ING | 1,2 | Integer status setting |  |  |
| ENG | 2 | Enumerated status setting |  |  |
| ORG | 2 | Object reference setting |  |  |
| TSG | 2 | Time setting group |  |  |
| CUG | 2 | Currency setting group |  |  |
| VSG | 2 | Visible string setting |  |  |
| Notes: |

Common data class specifications for analogue settings

| **CDC** | **Ed** | **Description** | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| ASG | 1,2 | Analogue setting |  |  |
| CURVE | 1,2 | Setting curve |  |  |
| CSG | 2 | Curve shape setting |  |  |
| Notes: |

Common data class specifications for description information

| **CDC** | **Ed** | **Description** | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| DPL | 1,2 | Device name plate |  |  |
| LPL | 1,2 | Logical node name plate |  |  |
| CSD | 1,2 | Curve shape description |  |  |
| Notes: |

Common data class specifications for tracking

| **CDC** | **Ed** | **Description** | **Supported** | **Comment** |
| --- | --- | --- | --- | --- |
| CST | 2 | Common service tracking |  |  |
| BTS | 2 | Buffered report tracking service |  |  |
| CTS | 2 | Control tracking service |  |  |
| GTS | 2 | GOOSE Control block tracking service |  |  |
| LTS | 2 | Log control block tracking service |  |  |
| MTS | 2 | MSVCB tracking service |  |  |
| NTS | 2 | USVCB control block tracking service |  |  |
| OTS | 2 | Log tracking service |  |  |
| STS | 2 | SGCB tracking service |  |  |
| UTS | 2 | Unbuffered report tracking service |  |  |
| Notes: |

Supported

Y = Client can issue an ASCI service on this CDC and process the data from/to the CDC

N = Client can’t issue an ASCI service on this CDC and doesn’t process the data from/to the CDC

Quality mapping

|  |  |
| --- | --- |
| **61850 Quality** | **<client system> quality** |
| Good |  |
| Questionable |  |
| Invalid |  |
| Reserved |  |
| Overflow |  |
| Out of range |  |
| Bad reference |  |
| Oscillatory |  |
| Failure |  |
| Old data |  |
| Inconsistent |  |
| Inaccurate |  |
| Substituted |  |
| Test |  |
| Operator blocked |  |

Time quality mapping

|  |  |
| --- | --- |
| **61850 Time Quality** | **<client system> quality** |
| Leap seconds known |  |
| Clock not synchronised |  |
| Clock failure |  |
| Accuracy |  |

**Revision History**

|  |  |
| --- | --- |
| **Revision** | **Changes** |
| 1.0 | MICS extracted from TPCL 1.0 and fixed some Ed2 only CDC  |
| 1.1 | Added quality mapping |
|  |  |