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Model Implementation Conformance Statement (MICS) for IEC 61850 for SEL Real-Time Automation Controllers

June 28, 2017



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1 INTRODUCTION

This Model Implementation Conformance Statement (MICS) describes IEC 61850 for the SEL Real-Time Automation Controllers (RTAC).

This document applies specifically to the following RTAC models and firmware versions.

Model	Firmware Version
SEL-3530 RTAC	SEL-3530-R139-V1-Z001001-D20170628
SEL-3530-4 RTAC	SEL-3530-4-R139-V1-Z001001-D20170628
SEL-2241 RTAC	SEL-2241-R139-V1-Z001001-D20170628
SEL-3505 RTAC	SEL-3505-R139-V1-Z001001-D20170628
SEL-3505-3 RTAC	SEL-3505-3-R139-V1-Z001001-D20170628
SEL-3532 RTAC	SEL-3532-R139-V1-Z001001-D20170628
SEL-3555 RTAC	SEL-3555-R139-V1-Z001001-D20170628
SEL-3560 RTAC	SEL-3560-R139-V1-Z001001-D20170628

This MICS document specifies the modeling extensions compared to IEC 61850 Edition 2. For details on the standardized model, please see the ICD substation configuration file: 03530 006.ICD.

2 COMMON DATA CLASS EXTENSIONS

2.1 Supported Common Data Classes

The IEC 61850 Client and Server in the SEL RTAC[®] can map the mandatory attributes of the following data classes with a functional constraint of ST or MX:

Common data class specifications for status information

- Single point status (SPS)
- Double point status (DPS)
- Integer status (INS)
- Enumerated status (ENS)
- Protection activation information (ACT)
- Directional protection activation information (ACD)
- Binary counter reading (BCR)

Common data class specifications for measurand information

- Measured value (MV)



- Complex measured value (CMV)
- Phase-to-ground related measured values of a three-phase system (WYE)
- Phase-to-phase related measured values of a three-phase system (DEL)
- Sequence (SEQ)

Common data class specifications for controllable status information

- Controllable single point (SPC)
- Controllable double point (DPC)
- Controllable integer status (INC)
- Controllable enumerated status (ENC)
- Binary controlled step position information (BSC)
- Integer controlled step position information (ISC)

Common data class specifications for controllable analog information

- Controllable analog set point information (APC)
- Binary controlled analog process value (BAC)

Common data class specifications for description information

- Device name plate (DPL)
- Logical node name plate (LPL)

2.2 Unsupported Common Data Classes

Common data class specifications for description information

- Curve shape description (CSD)

Common data class specifications for status information

- Security violation counting (SEC)

Common data class specifications for measurand information

- Sampled value (SAV)
- Harmonic value (HMV)
- Harmonic value for WYE (HWYE)
- Harmonic value for DEL (HDEL)

Common data class specifications for status settings

- Single point setting (SPG)
- Integer status setting (ING)



- Enumerated status setting (ENG)
- Object reference settings (ORG)
- Time setting group (TSG)
- Currency setting group (CUG)
- Visible string setting (VSG)

Common data class specifications for analog settings

- Analog setting (ASG)
- Setting curve (CURVE)
- Curve shape settings (CSG)