



## **IEC 61850 Certificate** Level A<sup>1</sup>

## No. ZE 15 08 89991 002

Issued to:

Končar - Power Plant and Electric

Fallerovo setaliste 22

HR-10000

**ZAGREB** 

**CROATIA** 

Issued by:

TÜV SÜD Product Service GmbH Communication Protocols

Barthstrasse 16 D-80339 Munich

Germany

For the client product:

PROZA NET IEC61850 client

Version: 3.2.10.2

PC Lenovo W520 with Windows 7 Professional SP1

Certification Mark:



This certification mark can only be used for the product defined above.

The client product has not been shown to be non-conforming to:

IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems for power utility automation.

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Test Procedures version 1.0 with TPCL<sup>2</sup> version 1.0\_rev2 with the product's protocol, model and technical issue implementation conformance statements: "PICS for the IEC 61850 interface in PROZA NET IEC61850 Client", "MICS for the IEC 61850 interface in PROZA NET IEC61850 Client", "TICS for the IEC 61850 interface in PROZA NET IEC61850 Client" and product's extra information for testing: "PIXIT for the IEC 61850 interface in PROZA NET IEC61850 Client".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

- Basic Exchange (24/24)
- Data Sets(10/10)
- Data Set Definition (8/8)
- Substitution (3/3) 3
- Setting Group Selection (3/3)
- Setting Group Definition (5/5)
- Unbuffered Reporting (23/23)
- Buffered Reporting (28/28)

- GOOSE Control Block (2/2)
- 12a Direct Control (9/9)
- 12b SBO Control (11/11)
- 12c Enhanced Direct Control (9/9)
- 12d Enhanced SBO Control (11/11)
- 13 Time Synchronization (4/4)
- 14 File Transfer (6/8)
- Service Tracking (6/17)

This certificate includes a summary of the test results as carried out at Munich in Germany with Anvil 3.6.0.0/3.7.0.0 and Wireshark 1.10.3. This document has been issued for information purposes only, and the original paper copy of the TÜV SÜD Product Service GmbH test report: No. 713040781-TR01, version 1.0 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to TÜV SÜD Product Service GmbH by Končar - Power Plant and Electric. The manufacturer's production process has not been assessed. This certificate does not imply that TÜV SÜD Product Service GmbH has certified or approved any product other than the specimen tested.

Munich, 04.08.2015

Maurizio Scavazzon

**Technical Certifier** 

Albi Kospiri Test Engineer

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<sup>1</sup> Level A - Independent Test lab with certified ISO 17025 Quality System

<sup>2</sup> Test Procedure Change List





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Applicable Test Procedures from the UCA International Users Group Edition 2 Client Test Procedures version 1.0 with TPCL version 1.0\_rev2:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrv8, cSrv9, cSrv10 ,cSrvN1, cSrvN2, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets  2+: Data Set Definition		cDs1, cDs2,cDs3, cDs4, cDs5, cDs6, cDsN1a, cDsN1b, cDsN1c, cDsN2 cDs10, cDs11, cDs12, cDs13, cDs14, cDsN10a, cDsN10b, cDsN11
3: Substitution	cSub1	cSub2, cSub3
4: Setting Group Selection	cSg2, cSgN1	cSg1
4+: Setting Group Definition	cSg11, cSg14	cSg10, cSg12, cSg13
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6	cRp1, cRp2, cRp6, cRp7, cRp12, cRp13b, cRp16, cRp17, cRp18, cRpN1
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20	cBr1, cBr2, cBr6, cBr7, cBr12, cBr13b, cBr16, cBr17, cBr18, cBr32, cBr33, cBrN1
9: GOOSE Control Block	cGcb1	cGcb2
12a: Direct control	cCtl4, cCtl5, cDOns1, cDOns2	cCtl1, cCtl2, cCtl3, cDons3, cDons4
12b: SBO control	cCtl4, cCtl5, cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cCtl3, cSBOns4, cSBOns5, cSBOns6
12c: Enhanced Direct Control	cCtl4, cCtl5, cDOes1, cDOes2	cCtl1, cCtl2, cCtl3, cDOes3, cDOes4
12d: Enhanced SBO control	cCtl4, cCtl5,cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cCtl3, cSBOes4, cSBOes5, cSBOes6
13: Time sync	cTm1, cTmN1	cTm2, cTmN2
14: File transfer	cFt1, cFt3, cFtN1	cFt2, cFt5, cFtN2
15: Services Tracking		cTrk1, cTrk2, cTrk4, cTrk5, cTrk8, cTrk10