



PROZA NET Supervisory Control and Data Acquisition System

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tradition. knowledge. responsibility.



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prozanet

PROZA NET is a multiuser Supervisory Control and Data Acquisition System primarily designed for electric power systems. PROZA NET enables supervisory control and execution of advanced functions (EMS, DMS, GMS) in real-time and study mode. PROZA NET can also apply to process supervision and control in other industrial fields (e.g. gas, water, etc.).

The main system features are high performances, modular architecture and easy integration with external systems, while reliability, flexibility and scalability are its basic advantages.

PROZA NET system can be used for supervision and control at various hierarchical levels from substation computers to large control centres.

SUBSYSTEMS AND APPLICATIONS

SCADA

PROZA NET enables all SCADA functions such as data processing and displaying, control and sequential control, hierarchy control switching, safety blocks, calculations, dynamic network colouring, list and trend displaying, etc. Graphical user interface is based on the state of the art technologies and provides operators with intuitive and flexible environment.

HISTORICAL DATABASE

Historical data are stored in a relational database. Processed or calculated data can be stored according to various criteria. Historical data access is enabled through SCADA client application or via web interface.

WEB INTERFACE - PROZA OPEN

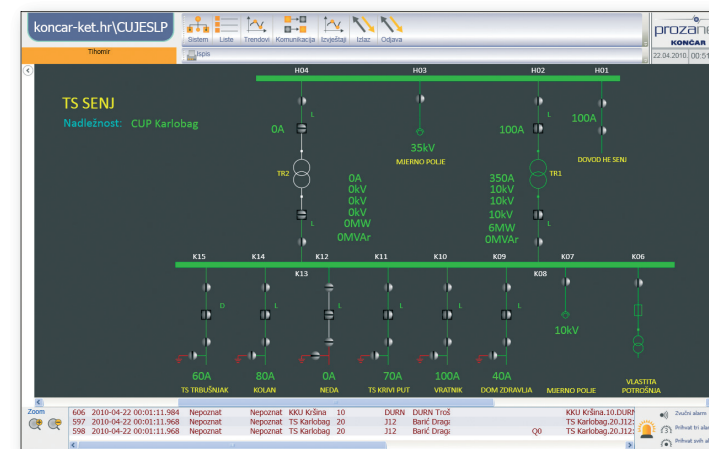
PROZA OPEN enables remote access using web technologies. Data can be accessed over Internet or Intranet while fulfilling all security requirements.



PROZA OPEN - Web access

SYSTEM ENGINEERING

Functionally rich and intuitive tools enable simple system engineering. Data engineering and picture editing tools merit special attention. The database is generated automatically according to created images significantly minimizing potential errors.



PROZA NET client graphic user interface

COMMUNICATION SUBSYSTEM

Large number of communication protocols towards station devices is supported:

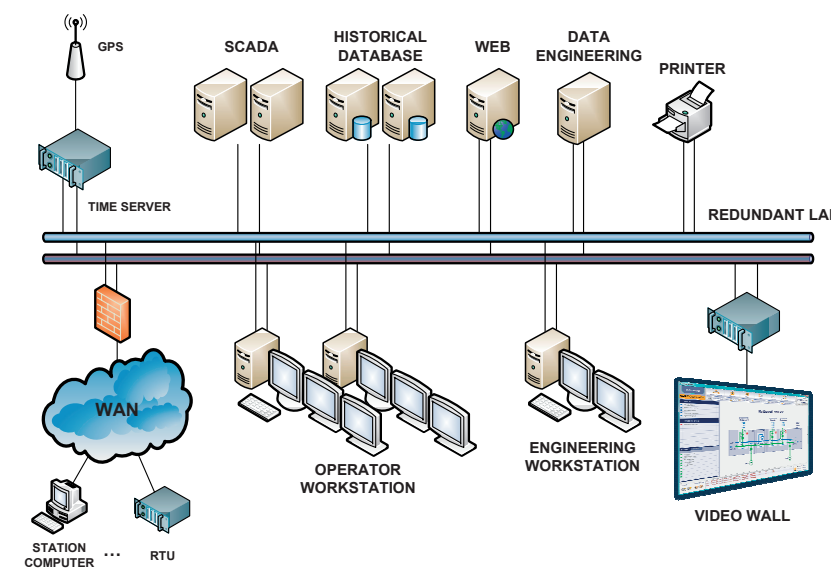
- IEC 61850
- IEC 61400-25
- IEC 60870-5-101
- IEC 60870-5-103
- IEC 60870-5-104
- Modbus Serial
- Modbus TCP/IP
- LON
- DNP3

Communication towards control centres is supported by protocols:

- IEC 60870-5-101
- IEC 60870-5-104
- IEC 60870-6 TASE.2/ICCP

ADVANCED FUNCTIONS

- Energy Management System (EMS)
- Distribution Management System (DMS)
- Generation Management System (GMS)



HARDWARE CONFIGURATION

PROZA NET is a modular and flexible system foreseen for supervision and control of technical processes of various complexities. Depending on the project scale, different hardware configurations are available from station computers to complex distributed configurations for control centres.

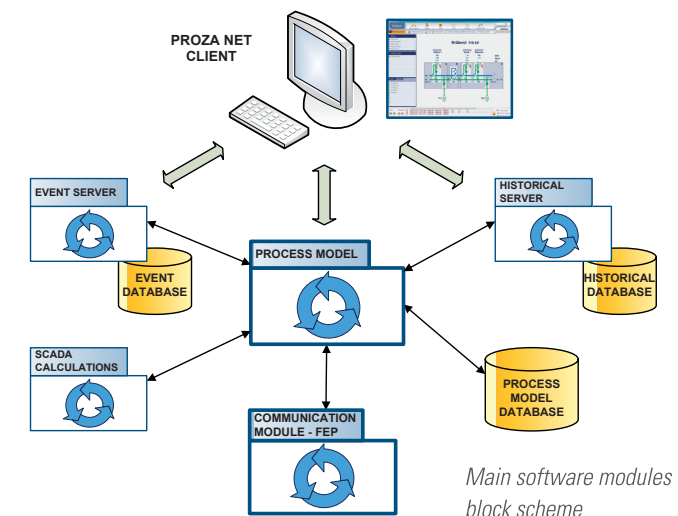
PROZA NET hardware configuration

SOFTWARE ARCHITECTURE

PROZA NET system implements client-server architecture. The system is based on object oriented and component technologies enabling high runtime flexibility and simplifying maintenance. Modular structure enables adaptation and implementation of extensions and new functionalities.



PROZA NET is a standard based system, including IEC communication protocol standards (IEC 60807-5-104, IEC 61850, IEC 60870-6 TASE.2, etc.) and power system Common Information Model (IEC 61970 and IEC 61968).

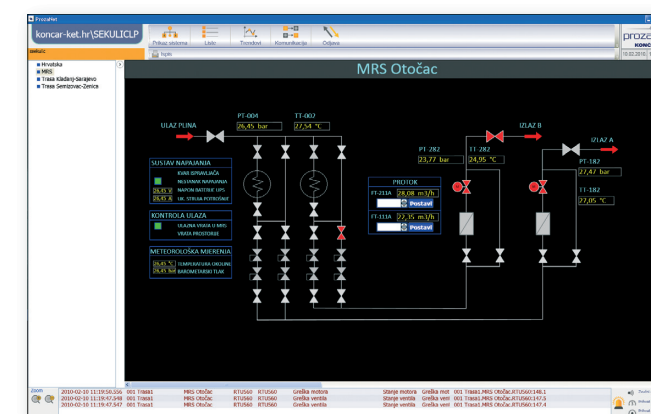


Main software modules block scheme

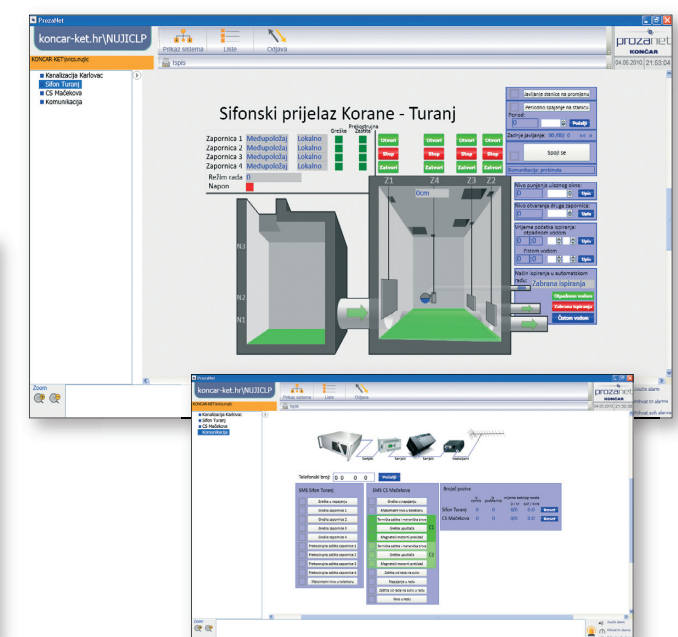
APPLICABILITY TO VARIOUS INDUSTRIES

In addition to the electric power industry, PROZA NET is applicable in other industries such as:

- Gas industry
- Oil industry
- Water supply and sewage, etc.



Gas industry



Water supply and sewer