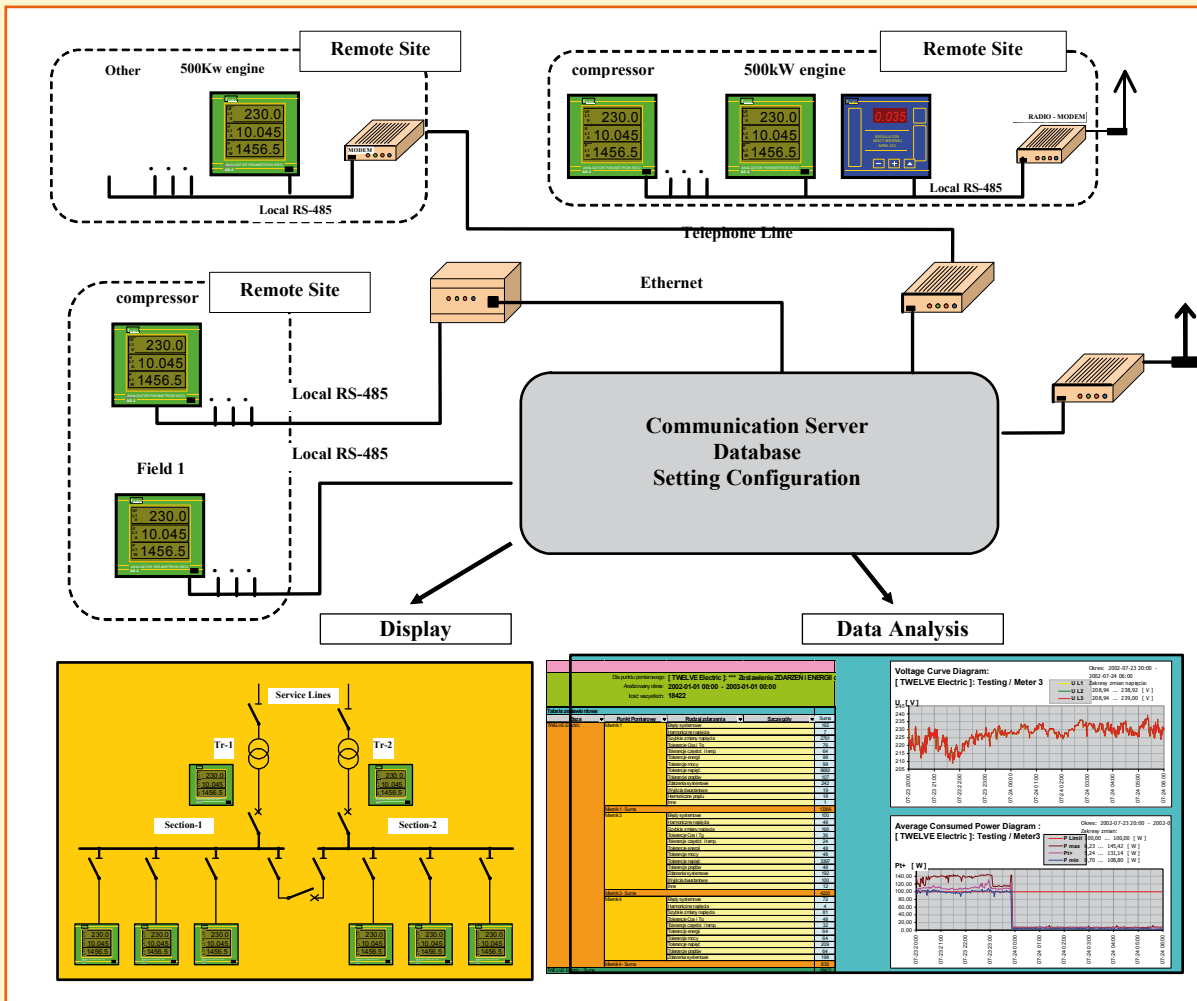


AS-Multi system

MEASUREMENTS, IDENTIFICATION, COMMUNICATION, VISUALISATION, REPORTING



APPLICATIONS

The AS-Multi 2002 system of parameters and interferences monitoring is a complete solution designed for both "small" power consumers and large industrial factories. It can be configured to work locally in a single distribution board or, if combined with an appropriate data transfer system, to handle multiple, dispersed objects (e.g. countrywide). Thanks to standard data exchange protocols the AS-Multi 2002 can make a part of more complex systems monitoring all of the supplies (electricity, gas, water).

DESCRIPTION

The main characteristic of the system is that it passes the measuring and identification of parameters and phenomena onto AS-3 and AS-3 plus analysers. Use of their large memory gives the independence of measuring and identification from the supervising software. The software receives ready-processed information from individual analysers. The system includes:

The AS-3 family of analysers - parameters analysers and registers

AS-Koncentrator - communication program for remote control of analysers and for archiving the information they gather

AS-Wizualizacja - graphic data presentation environment producing analogue and digital graphs

AS-Raport - Excel tools for automatic preparation of reports from selected periods consisting of graphs and tables with measured parameters and oscillograms of disturbances

FUNCTIONALITY DESCRIPTION

The AS-3 family of analysers:

- AS-3, AS-3plus, AS-3eko, AS-3mini, AS-3mini UPS, AS-3energia, AS-3diagnoza
- measurement of TrueRMS voltages and currents, four-quadrantal power analysis
- measurement and analysis of rapid voltage alterations to 10ms (1/2 network cycle)
- measurement of harmonics in voltages and currents, THDU, THDI, K-factor
- registration of threshold overrides and normal state resumptions for each parameter
- four-quadrantal registration of loads and the range of rapid alterations of energy extraction
- registration of average voltages and currents, and fluctuations
- oscillographic recording of 'U' and 'I' waves, with frequency of 1.6/6.4Hz, triggered by events
- UPS up to 2h, insulated 'I' inputs, the Central Office of Measures' Type Approval
- control of equipment operating conditions

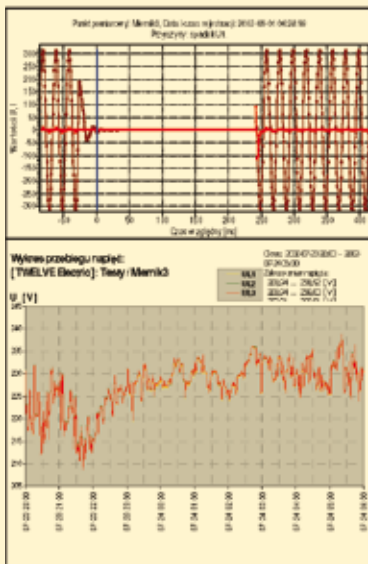
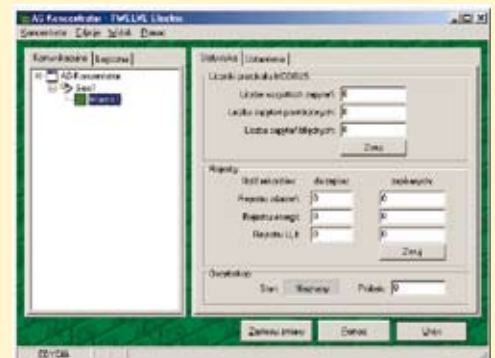


AS-Koncentrator – communication program:

- provision and control of communication with analysers
- management of the system's structural configuration
- automatic archiving of registers contents
- maintenance monitoring of running parameters
- remote controlling and setting
- registers' time synchronisation
- distribution of running parameters readings to other applications (DDE server)
- firmware monitoring and updates
- statistics
- efficiency

AS-Wizualizacja - software for graphic presentation of data:

- multi-testpoint presentation of running parameters
- intuitive analog and digital graphics form
- running parameters alterations history graphs
- events history (overrides, alarms, system events)
- utilisation of raster and vector graphics elements
- digital signals recognition (displaying, control)
- DDE client
- overrides and hazards alarms



AS-Raport – quality analysis:

- statistics statements
- tables with parameters values
- time graphs
- oscillograms of disturbances including the time of an event
- analysis of loads and energy consumption within tariff slots
- statistical analysis of parameters alterations: interruptions, shut-downs, decays, short circuits, etc.
- graphs pre-sorted for quick statistical analysis of disturbances
- automatic data processing for selected objects in a predefined range

option	AS-3 plus	AS-Koncentrator	AS-Raporty	AS-Wizualizacja
minimal	1	1	1	-
single-testpoint	1-(n)	1	1	1
multi-testpoint	1-(n)	1	1-(n)	1-(n)
maximal	1-(n)	1-(n)	1-(n)	1-(n)

n - indicates the number of testpoints necessary for measuring

TECHNICAL REQUIREMENTS:

environment: :	Windows NT / 2000 / XP Microsoft Office 2003
database:	Professional MS Access/Firebird
communication:	RS-232 / 485 / Ethernet / modem / GSM
protocols:	MODBUS / TCP/IP
data exchange:	TCP/IP/DDE

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