



SAM-WI

Data Acquisition Systems

SAM-WI Data Acquisition System:

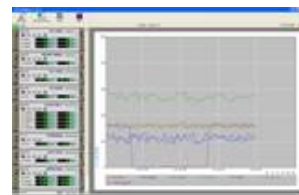
- Manages the acquisition of data originating from various measuring devices;
- Pilots the instruments and ensures they are operating correctly;
- Sets a Quality Code to each produced measurement;
- Records all events;
- Detects the dysfunctions of the instrumentation;
- Supervises the measured levels;
- Signals any over threshold.

SAM ARGOPOL™ Data Acquisition Systems are an essential part of the iséo offer; they are perfectly integrated in architectures we propose.

Developed by the iséo company, specialist in the environmental market, the SAM-WI Data Acquisition System belongs to the SAM ARGOPOL™ range. Dedicated for Windows™ platform, robust, reliable and modular, these systems are dedicated to manage environmental metrology.

The software foundation enclosed in this systems offers to the user functionalities suited to the management of the pollution monitoring stations, whatever the used instrumentation could be.

Multitask, real time, the software architecture guarantees a high degree of robustness and availability.



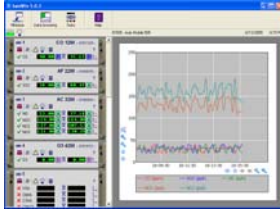
SAM-WI Data Acquisition System

Main features

SAM-WI software

SAM-WI includes a powerful Windows™ based software for data management and Data Acquisition System maintenance with the following main features:

- Local data visualization
- Graphical data real-time follow up
- Calibration set up and control
- Analysers connections Control
- ...



SAM- WI software main window

Data Acquisition

- Acquisition of instantaneous measurements at a programmable frequency ranging from 5 seconds up to 24 hours
- Management of the metrological context: analysers' parameters and internal defects, technical measurements, external signals (door open, flow, etc.)
- Controls of lower and higher validity limits, sensitivity threshold, immobility, slope and follow-up of peak episodes
- Management of power-up and analysers maintenance mode (pre-heating parameter setting, automatic calibration)
- Variable aggregation period



Data view with SAM-WI software

Aggregated Data

- Variable aggregation period
- Data aggregation kinds: arithmetic mean, vector average, sum, rolling average
- Association of a quality code to each value
- Evaluation of quality indicators for each data: min, max, standard deviation, the number of over-thresholds, availability ratio
- Calculations of the number of consecutive over-thresholds for values or of moving average to detect alarms (6 thresholds)

Technical features

Basic characteristics

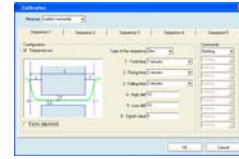
- Industrial rack frame and PC architecture
- MS Windows Operating System XP & Seven
- Ethernet Network connection



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Calibration

- Automatic management of calibration sessions: 5 span points

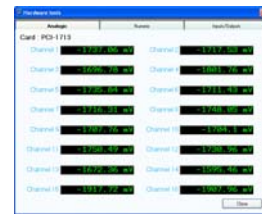


Data calibration control with SAM- WI software

- Ability to modify linearization parameters according to calibration results
- Control of absolute, relative drifts, drifts between span points, standard deviation drifts
- Storage of all the information related to calibration

Communication

- Various communication modes: switched telephone, GSM, IP, GPRS...
- Remote software update
- Secured administration software operating in local and remote mode
- Exchange data files following the ISO 7168 standard
- Ability to call the central server on failure or overlapping data
- Ability to remotely takeover on the numerical analysers (using XR software)
- Permanent update of a status file remotely readable by the XR software (this is also available through the Modbus protocol).



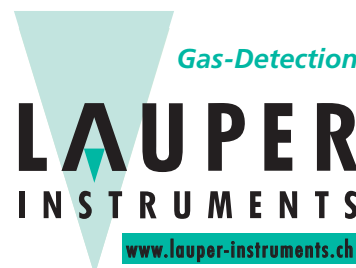
Analogical analyzers control

Communication Protocols

- Environnement SA® « Mode 4 »
- Sick-Maihak
- Rupprecht & Patachnik® TEOM
- API®
- Thermo Environmental Instruments® 4xC range
- Opsis® DOAS
- GNP (German Network Protocol)
- AK (German Automobile Industry's Protocol)
- Watersam® sampler
- Knick® Oxygen, Temperature, pH
- French Air Quality Modbus mapping
- Etc...

This protocol list is regularly updated.

- Local Hard Drive for Data storage
- Serial ports, analogical ports, digital inputs and outputs
- Modems and other medias for telecommunications
- SAM-WI software and SamMaint interface included



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