



ecotech

environmental monitoring solutions

WINAQMS

Data Acquisition & Control System

WinAQMS Data Acquisition System

The WinAQMS Data Acquisition System (DAS) is the result of over 35 years experience developing data collection and control software for ambient air and emission monitoring applications.

Operating on a MS Windows 7 platform, WinAQMS can collect and store up to 20 years of environmental data. It interfaces with a wide variety of instruments digitally and provides advanced remote control functions.

DESIGN

WinAQMS uses four main software components:

- Client:** Is the user interface used to view data and alter the setup of the logger components
- Server:** Collects, stores and manages data collection.
- Data server:** Responds to requests for data.
- Data pusher:** Pushes data to a FTP server.

Data is stored on a robust solid state hard disk designed to eliminate the risk of data loss.

DIGITAL COMMUNICATION

WinAQMS is designed to log data from an extensive range of environmental monitoring instruments.

It uses digital communication to acquire data from digital instruments and an A/D termination panel to capture analog inputs.

Digital communication has many advantages over conventional A/D systems, including:

- Reduced system wiring.
- Increased accuracy and precision of data.
- Multi-dropping of analysers through a single serial port.
- Improved remote communication with instruments allowing a vast array of diagnostic information to be captured and examined.

SUPPORTED MANUFACTURERS

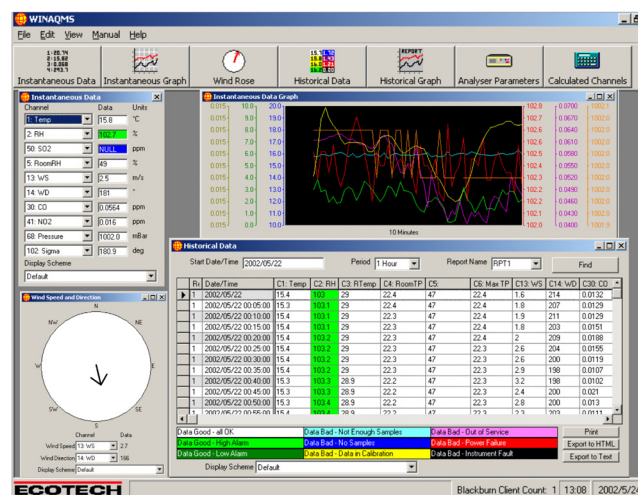
- | | |
|----------|----------------|
| API | Baseline |
| Dasibi | Dani |
| Ecotech | ICP DAS |
| Gill | Grimm |
| MetOne | LNI |
| Opsis | RM Young |
| Teledyne | Synspec |
| Thermo | Vaisala |
| Verewa | Environment SA |

REMOTE CONTROL

WinAQMS allows remote access to an air quality monitoring system or continuous emission monitoring system. By installing a second copy of WinAQMS client software on a computer in the office or at home allows the user to connect to the WinAQMS server at the monitoring site.

Tasks can be performed by multiple WinAQMS clients from different locations simultaneously connecting to the server.

Remote control is facilitated via radio, mobile or land line modem as well as wireless network or Ethernet TCP/IP.



Powerful remote control functions

When connected to the WinAQMS server the settings and parameters can be changed to suit the user. These include:

- Rebooting WinAQMS
- Changing instrument parameters and settings.
- Viewing and/or collecting data.
- Setting reporting periods.
- Setting alarms.
- Configuring and initiating calibrations.

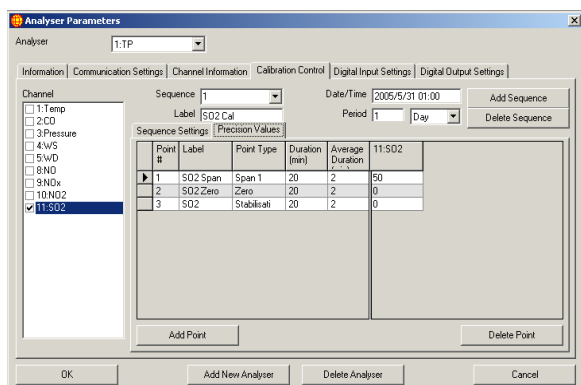
The WinAQMS Client remote access feature can be used at any monitoring site to connect to any other WinAQMS server in the network.

Data can be obtained from WinAQMS in a variety of ways including:

- Manual or automatic downloads using Ecotech's data management software, Airodis.
- Pushed to secure or non-secure FTP sites.
- Exported as text files.
- Exported to HTML from the WinAQMS Client program.
- Output through MODBUS protocol.

REMOTE CALIBRATION

WinAQMS interfaces to supported instrument calibration systems either digitally or via digital outputs. This is extremely useful as it provides the ability to configure and perform remote calibrations using a remote WinAQMS Client without having to visit the monitoring site.



In the case of on-site visits, calibrations can be performed for the next site visit from the current monitoring system's WinAQMS terminal.

EXCEEDANCE ALARMS

WinAQMS can be configured to send alarms for exceedances or predefined user ranges for any parameter. These alarms can be sent:

- To a mailbox via email.
- To a mobile phone via SMS⁽¹⁾.
- To another device via serial port or digital outputs.

CALCULATED CHANNELS

Calculated channels allow users to create a new channel (parameter) based on a calculation performed on a different parameter.

Features include:

- A wide variety of calculations performed on standard channels.
- New channels offset or compensated for due to specific events or influences.
- Data converted into different units.

MULTILINGUAL SUPPORT

WinAQMS is available in three languages: English, Spanish and Chinese.



Additional features

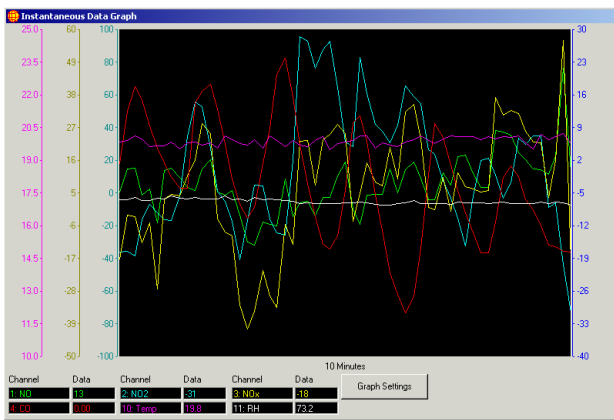
DATA REPRESENTATION

WinAQMS presents data in a number of different formats. Data can be instantaneously generated and displayed as it's logged, or historical data logged from a user defined time period.

Graphical representation

Instantaneous data or historical data can be displayed as a line graph with multiple parameters plotted in different colour lines.

When viewing data, the graph updates every minute (or the minimum reporting period set). The graph displays up to three hours of data and shows an auto scale axis and data points.



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Instantaneous data table

Data can also be displayed in multiple data tables allowing up to 100 parameters to be displayed at once. The parameter displayed can be selected with drop down menus.

The screenshot shows a window titled 'Instantaneous Data' with a table of parameters. The table has columns for Channel, Data, and Unit. The data points are: 1: NO (20), 2: NO2 (-14), 3: NOx (7), 4: CO (0.01), 10: Temp (19.9), 11: RH (74.6), 12: Pressure (895), 13: WS (6.6), 14: WD (356.2), 20: RTemp (28.8).

Channel	Data	Unit
1: NO	20	ppb
2: NO2	-14	ppb
3: NOx	7	ppb
4: CO	0.01	ppm
10: Temp	19.9	°C
11: RH	74.6	%
12: Pressure	895	mbar
13: WS	6.6	m/s
14: WD	356.2	°
20: RTemp	28.8	°C

Wind Rose

WinAQMS displays wind speed and direction information in an easy to interpret Wind Rose graph. This information is useful when viewing data and the effects wind has on measurements.

SPECIFICATIONS

- Stores greater than 20 years of data
- Windows 7 Operating System (Windows XP optional).
- Refer to termination panel data sheet for A/D connections.

⁽¹⁾ Using a 3rd party provider.



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