

WinAQMS Data Acquisition System

The WinAQMS Data Acquisition System (DAS) is Ecotech's fifth generation data collection and control software system.

WinAQMS interfaces with a wide range of analysers via industry standard RS232 serial or USB protocols. Serial connection enables WinAQMS to communicate directly with instruments in digital format and enables multi-dropping of a number of analysers through a single serial port. This confers advantages over conventional A/D systems including reducing the amount of wiring required by the system and increasing the accuracy and precision of the data collected .

WinAQMS has been designed to facilitate full system control including automatic multipoint calibrations at user defined intervals and customisation of graphs and reports

Applications

WinAQMS features two complimentary processes:

WinAQMS Server runs in the background providing continuous data acquisition and control of an Air Quality Monitoring System (AQMS).

WinAQMS Client provides the graphical user interface (GUI) facilitating access to all data, system control and reporting parameters.



Features

- Uses an MS Windows XP operating system.
- Remote automatic data collection using Ecotech's WinCollect software.
- Remote communication with full user interface via TCP/IP network or dial-up connection.
- Remote system restart and reboot facility including automatic calibrations.
- Two hard drives included (redundant hard drive) to prevent loss of data if hard drive fails (standard).
- Redundant power supply preventing datalogger downtime due to power supply failure (Optional)
- Calculated channels capability (including nested calculations, vector and rolling averages).
- Instantaneous wind rose.
- Multi-Language support .
- User configurable settings for viewing graphs and reports.
- Visual output of collected data.
- Four selectable averaging periods ranging from 1 minute to 7 days.



Remote Control

A second version of WinAQMS Client Software may be installed on a remote PC enabling full external remote control of the AQMS. Multiple Clients can connect to the server from different locations simultaneously allowing a number of remote computers to view the data as it is logged in real time. Remote control capability is facilitated via mobile modem, landline modem, wireless network or Ethernet TCP/IP.

Calibration Control

WinAQMS provides automatic multi-point calibration capability via RS232 and bit patterns sent to an Ecotech Termination Panel. WinAQMS can perform calibrations at any time and vary the calibration interval by the year, month, day, hour or minute. Calibration data is highlighted to separate it from measurement data and any calibration status information returned by the analyser is recorded in WinAQMS.

Data Representation

The data logged by WinAQMS can be viewed in a variety of different ways.

Instantaneous

Instantaneous data readings can be shown in a plain text format or plotted on a colour coded graph with up to three hours of data.

Historical

Averaged data can be shown on a graph or in text format with colours to indicate data status. An auto scale axis and data points are shown with a graph.

Wind Rose

Data can be mapped on the wind rose which displays signal magnitude, direction and 'alarm' status.



Termination Panel

Analogue inputs from non digital sensors can be interfaced to WinAQMS using an Ecotech Termination Panel. The Termination Panel is a 16 bit device that translates analogue signals to digital data which are then stored by WinAQMS. All analogue inputs have built in surge protection and provision for additional lightning protection can be added if required.



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