

Application software for remote control of up to 24 Innova 1316 Multi Gas Monitors

LumaSoft Gas Multi Point 7950

- For each location, the LumaSoft Gas Multi Point 7950 stores up to five gas concentrations
- Supports all of INNOVA 1316 models
- Displays measurement data in either a table or a graphical window; the user chooses the data to be displayed
- Easy exchange of displayed data for different measurement locations
- Multi Point 7950 runs under Windows XP, Vista, Windows 7
- Measurement data stored in SQL Server 2005 database
- Online access to the measurement data from Microsoft Excel
- Login-secured access to measurement data
- Alarm reporting for each gas at each measurement location
- Build in OPC Server



The LumaSoft Gas Multi Point 7950 enables remote control from a personal computer of up to 24 Multi Gas Monitor - INNOVA 1316 models. The software coordinates the functions of the instruments to form a monitoring system which can perform gas-monitoring tasks in up to 24 different locations. When a user sets up a measurement task using the software, the task is performed automatically and measurement data is collected and displayed on the screen.

Getting Started

The Monitors are connected to the computer via the USB or the RS232 interface cables. To connect multiple Monitors to the computer USB-hubs can be used. The user decides where

the measurements should be taken. Air-samples are then drawn from the locations and analyzed by the Gas Monitors.

The user starts the 7950 and opens a database to receive the data from the new task and then configures the 7950 to the desired task. The configuration windows are shown in Fig. 1 and 2. When the configuration is complete the task can be started and the 7950 is in control of the instruments.

Application areas:

- Remote-control of a system comprising: up to 24 Multi Gas Monitor - INNOVA 1316 models
- Enables multi-gas sampling in up to 24 locations

Multi-points Gas Monitoring System

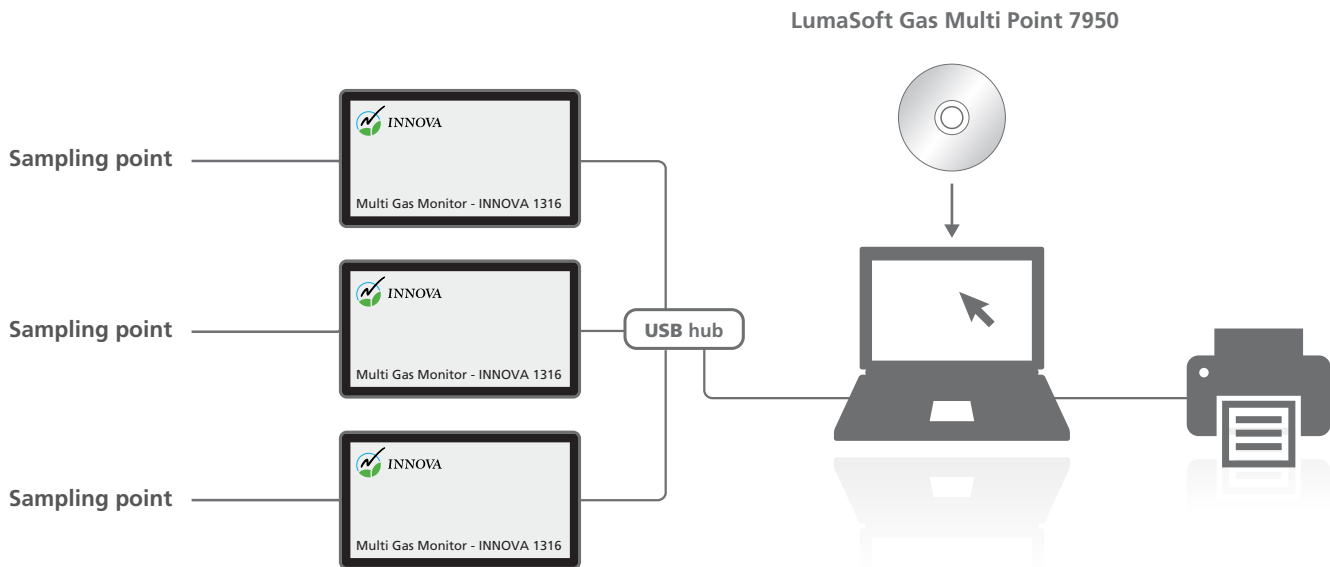


Figure 1: The Innova 1316 Multi Gas Monitors are connected to the computer via an electronic multiplexer using a multiple ports USB hub. The LumaSoft Gas 7950 software coordinates the functions of the instruments to form a monitoring system which can perform gas-monitoring tasks in up to 24 different locations. When a user sets up a measurement task using the software, the task is performed automatically and measurement data is collected, stored into the SQL server immediately and displayed on the computer screen.

Software Features

Multipoint Gas Monitoring

The 7950 comprises a powerful Multi-Point, Multi-Gas monitoring system, controlling up to 24 Multi Gas Monitors. Each Monitor can then measure the concentrations of up to five gases in each sample.

Data Exchange Capability

All Data stored in SQL server 2005 database are easily accessible while performing a measurement task. The user has online access to the measurement data from Microsoft Excel while the instrument is running. Data can also be exported to Excel during a measurement task or used for tailor made report.

Data Display and Output

Measurement data, and the running status of the instruments, are displayed on screen. Measurement data can be presented as a graphical window (Fig.5) or in table form (Fig.6); each is updated as new data is received. When using the graphical window, up to five curves (gas-concentration/time) can be shown simultaneously.

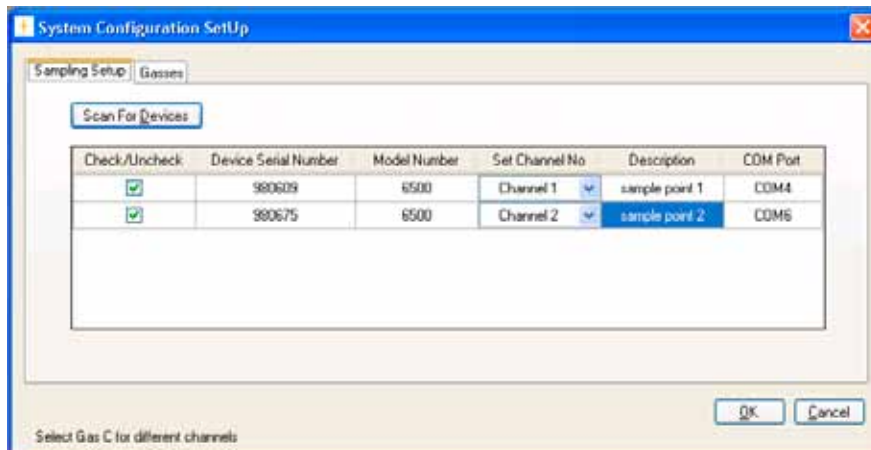


Fig.2 Sampling Setup dialogue: enables the user to perform a scan for connected Monitors.

Data Display

The numeric window is represented as two tabs, a Real-Time tab presenting the instantaneous data and a Historical tab.

The 7950 software collects measurement data every 1 second from the 1316 Gas monitors and stores the measured data into the SQL server database immediately.

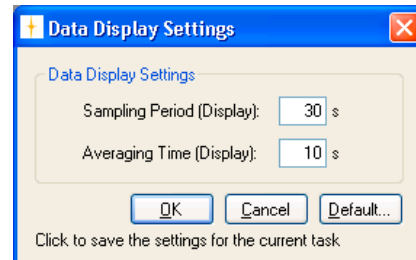


Fig. 3 The Data Display Settings window. This dialogue enables the user to set how the displayed data is re-sampled and averaged.

The measured data can be re-sampled and averaged by the 7950 in order to reduce the amount of displayed data in the numeric and graphical windows. See Fig. 3.

Statistical Data

In the graphical window (Fig. 5) statistical data can be shown next to the measurement results for each channel. Within a certain time span: min, max, mean and standard deviation for the gasses measured in the selected task are shown.

Alarm Features

The function is used to define software alarms for each gas on each channel when the concentration reaches either a minimum or a maximum level. There are four different alarms that can be configured: Low, Low-Low, High, and High-High.

The low alarm can be set to give a warning when the concentration of the gas is dropping below the normal level. The low-low alarm can be configured to give an alarm whenever the gas concentration drops below the lowest allowable concentration.

The High and High-High alarm levels are set to give alarm for a concentration above a certain limit and when the maximum allowable concentration is exceeded.

OPC Interface

The LumaSoft Gas Multi Point 7950 is supplied with a built in OPC Server to give access from an OPC Client. The OPC Server/Client system enables transfer of Setup, Measurement Data and Alarms.

Event Marks

While running a measurement task it is possible to mark individual measurements with an event mark to attach a description of a certain event occurred at that particular time.

Error and Warnings

Measurement error and warnings from the attached Gas Monitors are reported and displayed in the 7950 Software. Error and warnings during handling of the software are also displayed.

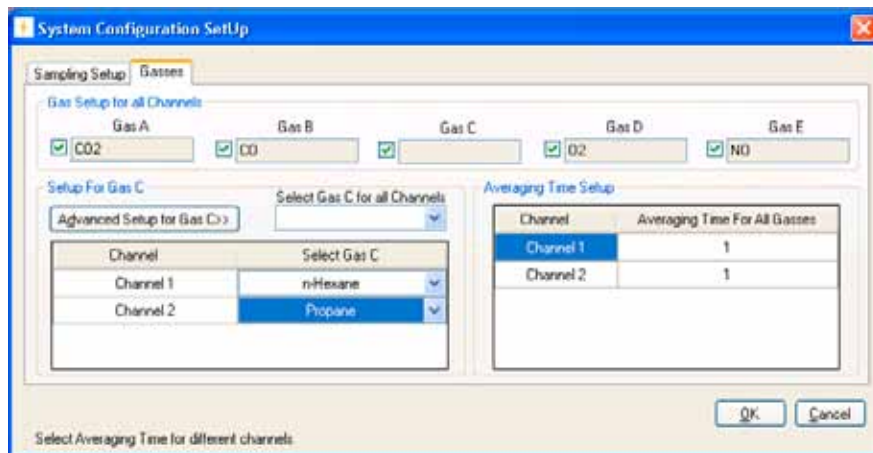


Fig.4 Gases dialog: enables the user to select the gasses to be measured.

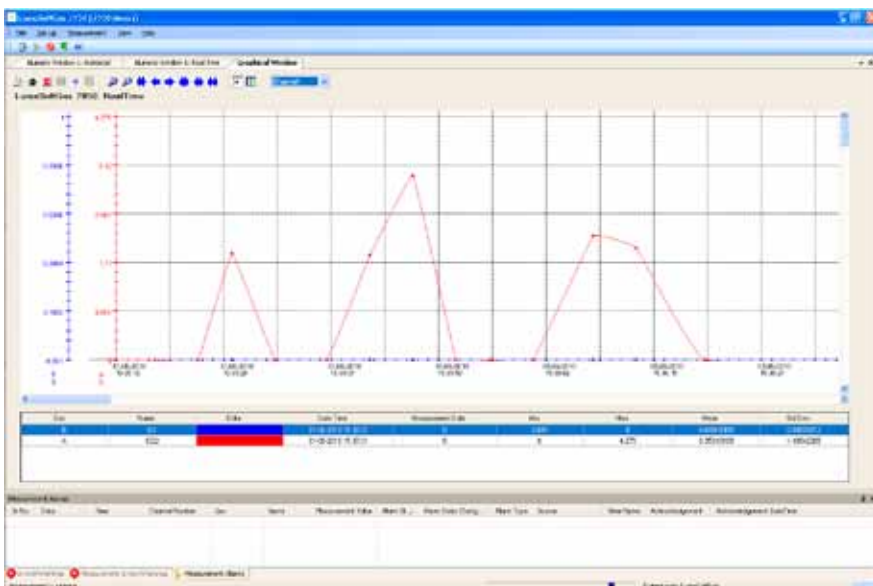


Fig.5 Graphical window: enables the user to format and visualize up to five graphs in a single window

Time	Gas	Value
27.06.2019 11:38:02	CO2	0.000
27.06.2019 11:38:04	CO2	0.000
27.06.2019 11:38:07	CO2	0.000
27.06.2019 11:38:10	CO2	0.000
27.06.2019 11:38:13	CO2	0.000
27.06.2019 11:38:16	CO2	0.000
27.06.2019 11:38:19	CO2	0.000
27.06.2019 11:38:22	CO2	0.000
27.06.2019 11:38:25	CO2	0.000
27.06.2019 11:38:28	CO2	0.000
27.06.2019 11:38:31	CO2	0.000
27.06.2019 11:38:34	CO2	0.000
27.06.2019 11:38:37	CO2	0.000
27.06.2019 11:38:40	CO2	0.000
27.06.2019 11:38:43	CO2	0.000
27.06.2019 11:38:46	CO2	0.000
27.06.2019 11:38:49	CO2	0.000
27.06.2019 11:38:52	CO2	0.000
27.06.2019 11:38:55	CO2	0.000
27.06.2019 11:38:58	CO2	0.000
27.06.2019 11:39:01	CO2	0.000
27.06.2019 11:39:04	CO2	0.000
27.06.2019 11:39:07	CO2	0.000
27.06.2019 11:39:10	CO2	0.000
27.06.2019 11:39:13	CO2	0.000
27.06.2019 11:39:16	CO2	0.000
27.06.2019 11:39:19	CO2	0.000
27.06.2019 11:39:22	CO2	0.000
27.06.2019 11:39:25	CO2	0.000
27.06.2019 11:39:28	CO2	0.000
27.06.2019 11:39:31	CO2	0.000
27.06.2019 11:39:34	CO2	0.000
27.06.2019 11:39:37	CO2	0.000
27.06.2019 11:39:40	CO2	0.000
27.06.2019 11:39:43	CO2	0.000
27.06.2019 11:39:46	CO2	0.000
27.06.2019 11:39:49	CO2	0.000
27.06.2019 11:39:52	CO2	0.000
27.06.2019 11:39:55	CO2	0.000
27.06.2019 11:39:58	CO2	0.000
27.06.2019 11:40:01	CO2	0.000

Fig.6 The numeric window. This window shows measurement results and other appropriate information in table form for each sample channel.

Technical Specifications

The 7950 software, USB driver and manual is supplied on CDs and comes complete with a license dongle. Data analysis on existing data files can be done without the dongle.

System Requirements

Multi Gas Monitor – INNOVA 1316
(up to 24 units of the same model)

Teflon tubing AF0614
USB cable 5m AM0002A

Computer Requirements

Hardware:

Pentium processor or better

Min. 512 MB RAM (min 2GB on Windows 7)

Min. 500 MB free space available on hard-disk

One USB port for the license dongle

One serial port (RS-232) or USB port for each 1316 Monitor

One or more USB-hubs if the PC does not hold a sufficient number of USB ports for the 1316 Monitors (Please use the USB extension kit for distance from PC to 1316 Monitor >5m)

Software:

Windows® XP, Vista or Windows 7

Data Exchange Capability

Data can be exported to Microsoft Excel.

Data can be transferred through online access to the SQL Server 2005 database to Microsoft Excel

Calculation of Values

The 7950 can calculate the following parameters from the curves printed from measurement results:

- Mean value of curve points
- Spread of curve points
- Minimum/maximum values on curve

Ordering Information

LumaSoft Gas Multi Point 7950

Includes the following accessories

Instruction Manual

License Dongle

Accessories

From computer to monitor (alternatives):

RS-232 cable 9/9 pins WL0816

USB cable 5m AM0002A

USB-HUB 7-PORTS ¹ VH1002A

USB extension 30 m ² UA0995A

¹ Including external power supply

² Kit for distance up to 35m, including external power supply

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