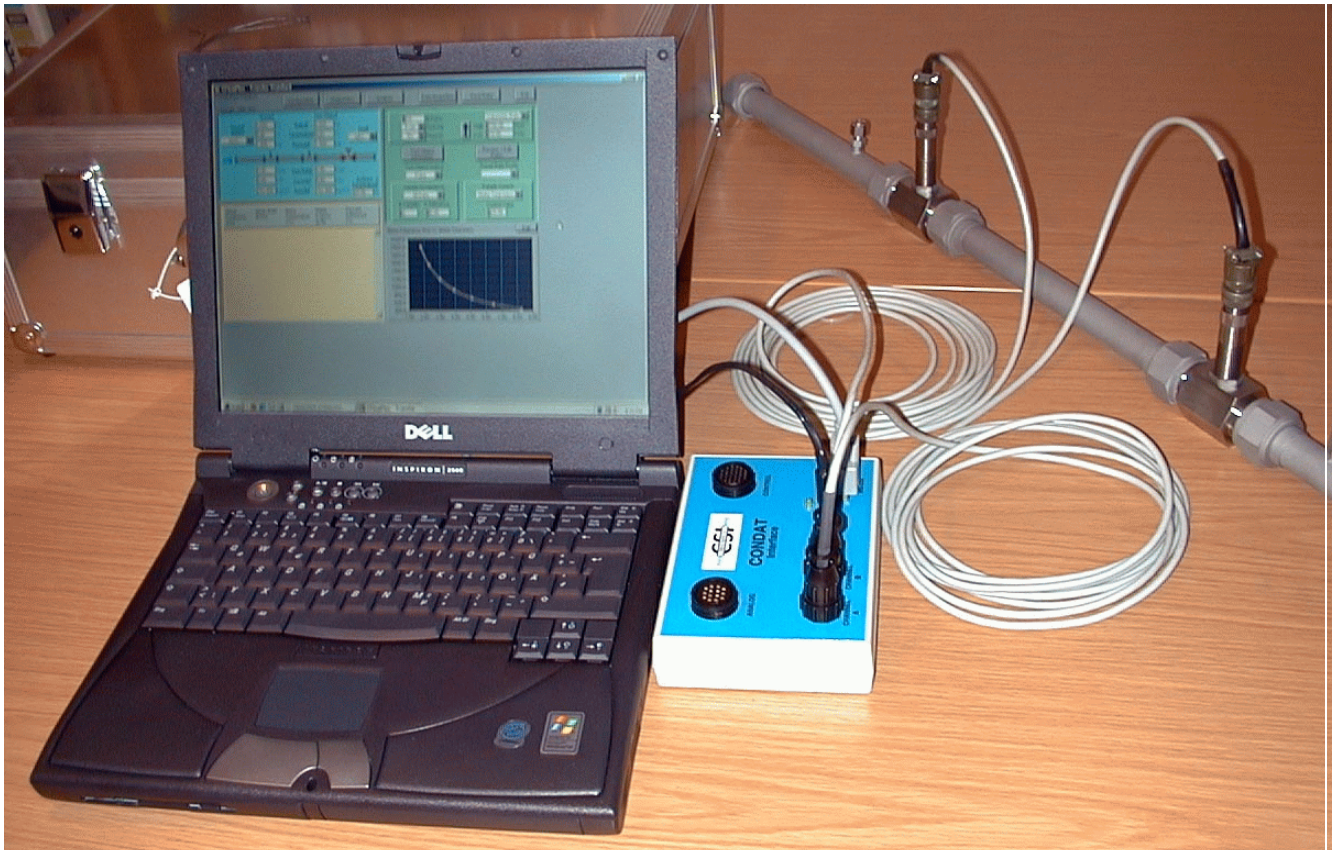


Lysis Flow Computer and Data Logging System



SOFTWARE DESCRIPTION

Lysis is a Windows/LabVIEW PC based Flow Computer designed for monitoring, displaying, totalizing and data logging of flow measurement equipment.

A powerfully flexible and user friendly solution for all flow measurement applications, Lysis turns any PC into a powerful Flow Computer.

Lysis is available in up to 8 channel configurations (2-channel version shown below). All channels fully independent of each other.

1. FLOW COMPUTER FUNCTIONS

Lysis monitors flowmeter outputs and associated temperature and pressure signals. Flowrate is calculated and totalized based on the physical characteristics of the selected master meter.

For each flowmeter channel the following are displayed in real time:

Rate and **Total** (in used selectable **Volumetric** or **Mass** units)

Meter Output (**Pulse** or **Analog**)

Temperature and **Pressure**

Density and **Viscosity**



Three function buttons also appear in each flowmeter section.

A. Log

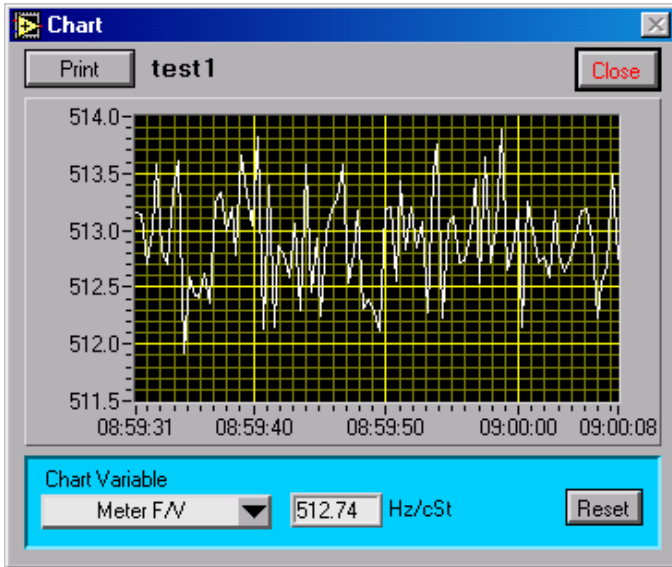
The log function allows for the long-term storage of all measured and calculated values associated with that flow channel.

Log Rate (how often a new sample is gathered and added to the log file) and Sample Duration (the amount of time that the flow measurements are averaged) are operator selectable.

The log file itself is limited only by the size of the hard disk on the computer and the operating system.

B. Chart

This function produces a separate window that displays a strip chart of any of the measured or calculated values associated with that flow channel. It is a quick visual way to view the stability or trend of a particular measurement.



The button at the upper left allows for a snapshot of the trend to be printed to the default windows printer. On the bottom of the screen, in the blue area the desired variable is selected by clicking the control on the left, then clicking the desired variable.

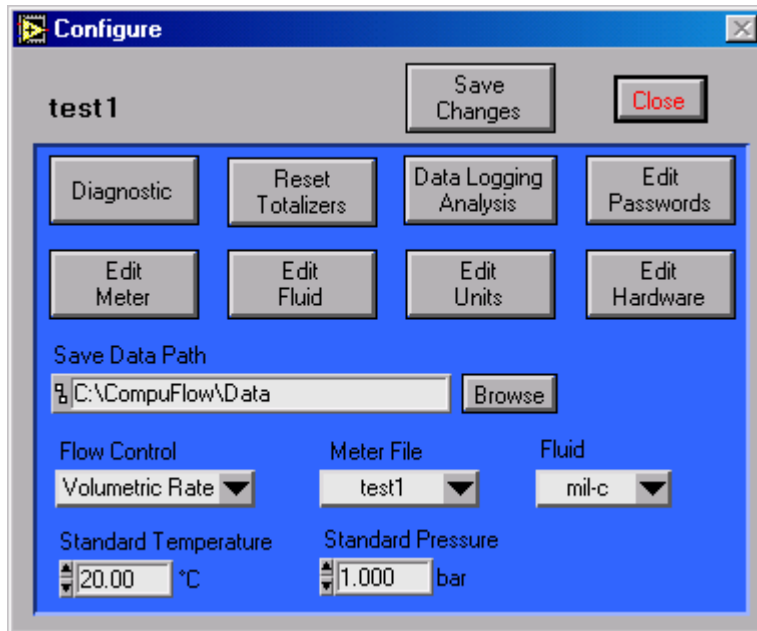
C. Config

This function passes control to the Configuration section of the program. It is password protected to eliminate accidental and unauthorized changes to the flow computer configuration.

2. CONFIGURATION FUNCTIONS

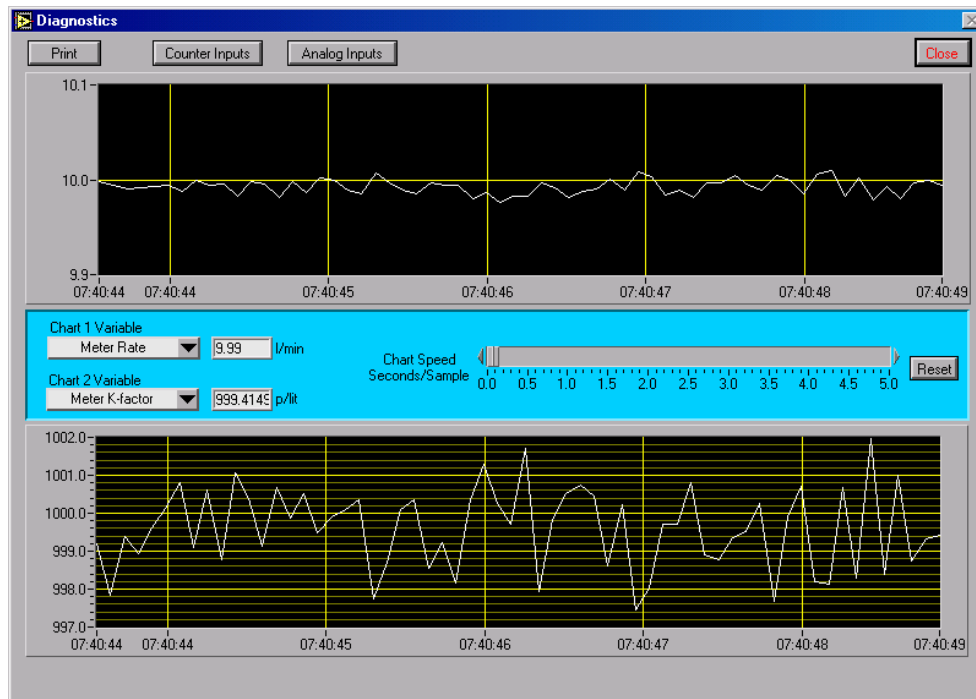
To gain access to the system configuration, the operator will be asked to enter a password.

Then, the Configure panel appears which contains all of the functions necessary to configure the flow computer.



A. Diagnostics

It activates two strip charts, which can be independently selected from the data variable list for display.



B. Reset Totalizers

F. Edit Fluid Characteristics

The physical properties of the various test fluids that are used by Lysis can be programmed here. Density and absolute viscosity can then be entered as a function of temperature. For gases, the Fluid Type toggle must be pushed towards gas to activate the pressure column.

Edit Fluid

Fluid Name: water

Fluid Type: Liquid (selected) Gas

Buttons: Print, Chart, Save, Close

Temperature °C	Pressure bar	Density kg/m ³	Temperature °C	Absolute Viscosity cP
0.00	0.000	999.612	0.00	1.7858
15.56	0.000	997.935	15.56	1.1905
26.67	0.000	996.377	26.67	0.8929
37.78	0.000	994.819	37.78	0.7441
65.56	0.000	981.998	65.56	0.4464
93.33	0.000	962.705	93.33	0.2976
0.00	0.000	0.000	0.00	0.0000
0.00	0.000	0.000	0.00	0.0000
0.00	0.000	0.000	0.00	0.0000
0.00	0.000	0.000	0.00	0.0000

Notes: Water Data

G. Units configuration

Units can be customized by pressing the Edit Units button. The user can select from a wide variety of units, SI or other.

Edit Units

Close

Flow Rate Units: Liters / Minute	Digits: 2	Viscosity Units: cSt	Digits: 2	Mass Units: Kilograms	Digits: 2
Temperature Units: Degrees Celsius	Digits: 2	F/V Units: Hz/cSt	Digits: 2	Frequency Units: Hertz	Digits: 3
Pressure Units: bar	Digits: 3	Count Units: Pulses	Digits: 0	Analog Units: Volts	Digits: 3
K factor Units: Pulses / Liter	Digits: 2	Time Units: Seconds	Digits: 2	Length Units: centimeters	Digits: 2
Density Units: kg / m ³	Digits: 3	Mass K Units: Pulses / kg	Digits: 2	Percent Units: Percent	Digits: 3
Volume Units: Liters	Digits: 2	Standard Rate Units: nlpm	Digits: 2	Absolute Viscosity Units: cP	Digits: 4
Mass Rate Units: Pounds / Hour	Digits: 2	Standard K Units: Pulses / slit	Digits: 2	User Indication Units:	Digits: 2

H. Flow Control

Determines which display is shown on the main flow computer panel. The selections are Volumetric Rate, Mass Rate, Frequency over Viscosity, Meter Output, or Standard Rate.

I. Meter File

This control selects from one of the pre-programmed master meter files.

J. Fluid

This control selects from one of the pre-programmed fluid files.

K. Standard Temperature and Pressure

Values for standard temperature and pressure can be entered here. These values are used in calculated standard flow rates in gas meter calculations.

The Lysis Flow Computer and Data Logger offers some very significant advantages over traditional stand-alone models.

It does everything that the most sophisticated units do but in a more transparent and user friendly way.

In addition, there is much more flexibility and several analysis features that are not possible with traditional flow computers.

The Lysis software will turn any PC into a powerful 2-channel flow computer with many features and data logging capability.



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DKD (Deutscher Kalibrierdienst) ;
by PTB

Equivalent to:

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NVLAP (USA)

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