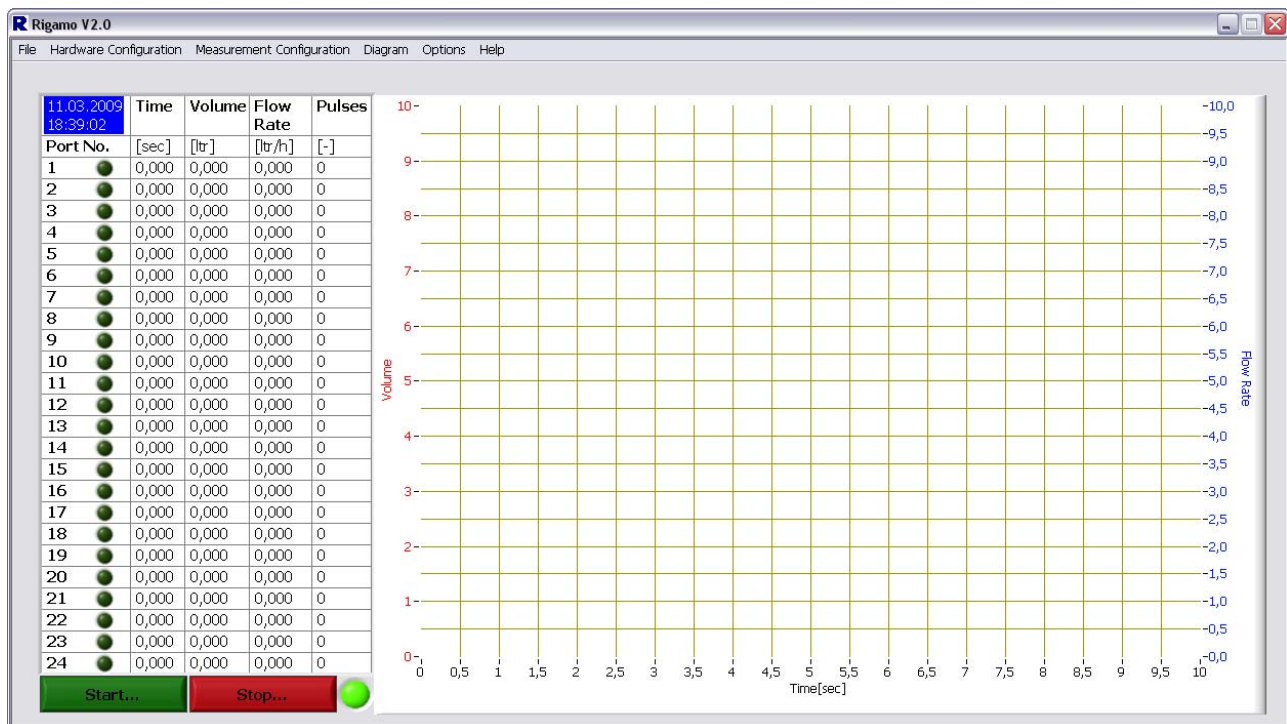


Software Features (overview):

- **Acquisition of measurement data** for gas volume and flow rate from a Ritter gas meter to a PC port
- **Automatic correction** of the dynamic (flow rate dependent) measurement error (MGC only)
- **Graphical and tabular display** of these data
- **Storing** of data
- **Print out** (separately or in any combination) of
 - Diagram
 - Test parameters
 - Measured values in tabular form
- **Export to Microsoft Excel®** spread-sheet (Excel 2003 or higher)



System Specification:

- Gas meter with built-in pulse generator (option)
- Digital Input Module “DIM”
- Licence (dongle) for requested number of ports (= gas meters to be connected)
- Operating system Windows 2000 or higher

Please note:

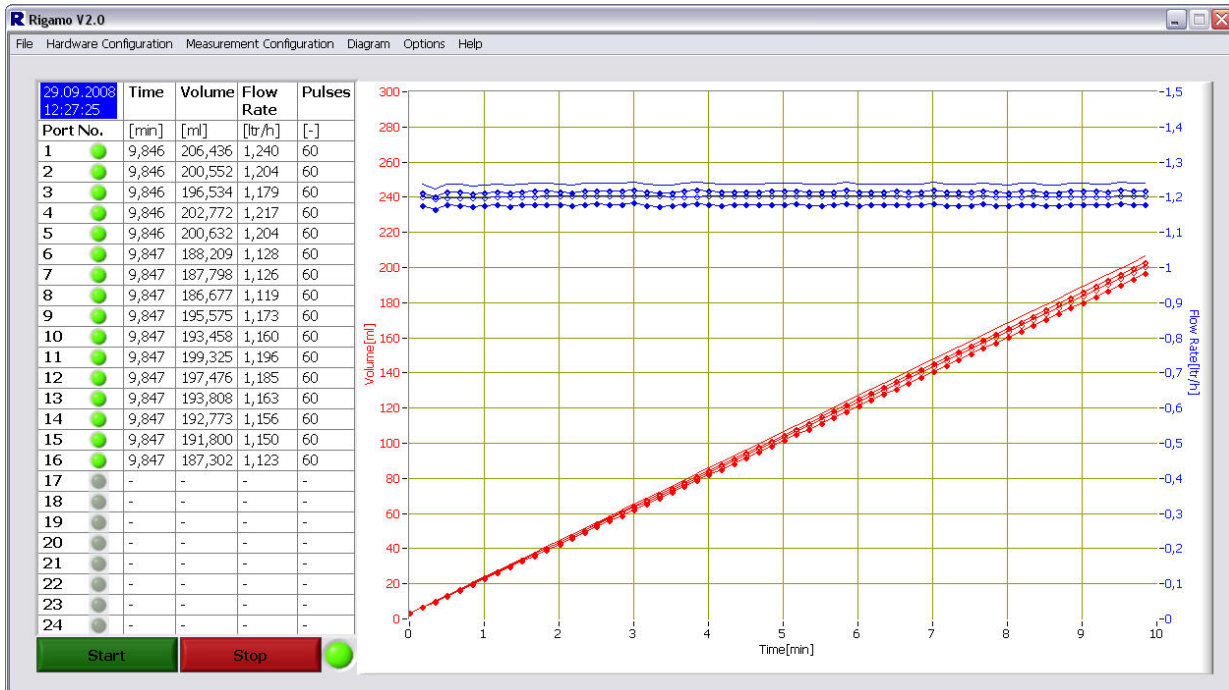
With Windows Vista, the directory, into which Rigamo was installed, must be accessible for the user by the respective right of use.

- Microsoft Excel® 2003 or higher for data export to Excel
- Recommended processor performance: ≥ 1.5 GHz
- Random access memory (RAM): ≥ 500 MB
- 2 free USB ports (1 for data acquisition, 1 for licence dongle)
- Monitor 17”
- Monitor setting: Optimised for monitor resolution of 1280x 1024 pixel

A standard converter “USB to RS232” for connection to COM port cannot be used.

Subject to alteration

Monitor Display of Diagrams (Example):
(Volume: red graph, flow rate: blue graph)

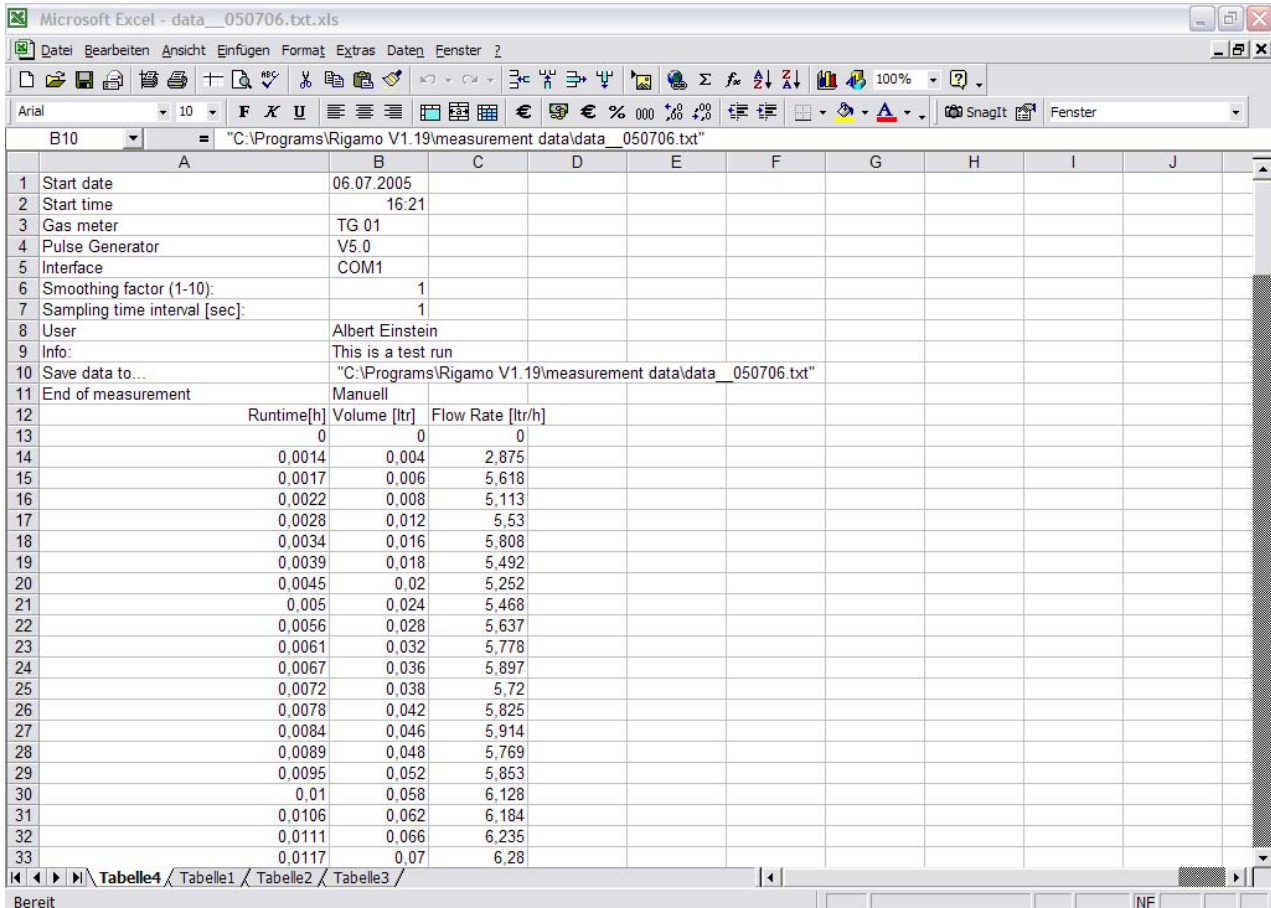


Features:

- Windows-Software
- Data acquisition from gas meter (Pulse Generator) to USB port of PC
- Real time presentation of volume and flow rate in a diagram
- Averaging (smoothing) of the values for the flow rate when flow rates are fluctuating (averaging factor selectable)
- Scale of the axis automatically or manually selectable, different units selectable.
 - X-axis:
 - hours
 - minutes
 - pulses
 - Y-axis 1 (volume):
 - milli-litre [ml]
 - litre [l]
 - cubic meter [m³]
 - cubic feet [ft³]
 - Y-axis 2 (flow rate):
 - Any combinations of units for flow rates with time units
 - hour [h]
 - minute [min]
- Pre-setting of sampling time interval between two measurement points for data display and storage
- Termination of data acquisition selectable by pre-setting of:
 - Manual ⇒ measurement will be terminated by pressing the button “Stop“
 - Time (min) ⇒ measurement will be terminated after a pre-selected time
 - Number of pulses ⇒ measurement will be terminated after a pre-selected number of pulses

- Number of drum revolutions \Rightarrow measurement will be terminated after a pre-selected number of drum revolutions
- Data export to Microsoft Excel

Data export to Microsoft Excel:



	A	B	C	D	E	F	G	H	I	J
1	Start date	06.07.2005								
2	Start time	16:21								
3	Gas meter	TG 01								
4	Pulse Generator	V5.0								
5	Interface	COM1								
6	Smoothing factor (1-10):	1								
7	Sampling time interval [sec]:	1								
8	User	Albert Einstein								
9	Info:	This is a test run								
10	Save data to...	"C:\Programs\Rigamo V1.19\measurement data\data_050706.txt"								
11	End of measurement	Manuell								
12		Runtime[h]	Volume [ltr]	Flow Rate [ltr/h]						
13		0	0	0						
14		0,0014	0,004	2,875						
15		0,0017	0,006	5,618						
16		0,0022	0,008	5,113						
17		0,0028	0,012	5,53						
18		0,0034	0,016	5,808						
19		0,0039	0,018	5,492						
20		0,0045	0,02	5,252						
21		0,005	0,024	5,468						
22		0,0056	0,028	5,637						
23		0,0061	0,032	5,778						
24		0,0067	0,036	5,897						
25		0,0072	0,038	5,72						
26		0,0078	0,042	5,825						
27		0,0084	0,046	5,914						
28		0,0089	0,048	5,769						
29		0,0095	0,052	5,853						
30		0,01	0,058	6,128						
31		0,0106	0,062	6,184						
32		0,0111	0,066	6,235						
33		0,0117	0,07	6,28						