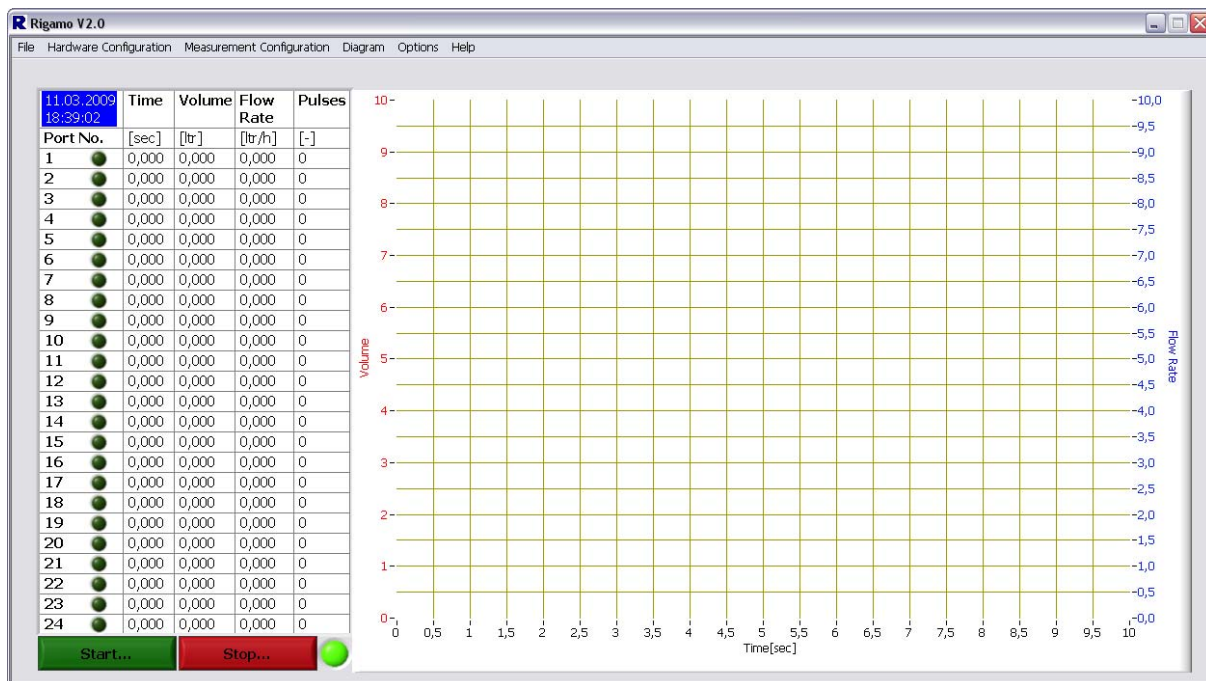### Software Features (overview):

- **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
  o Diagram
  o Test parameters
  o 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)
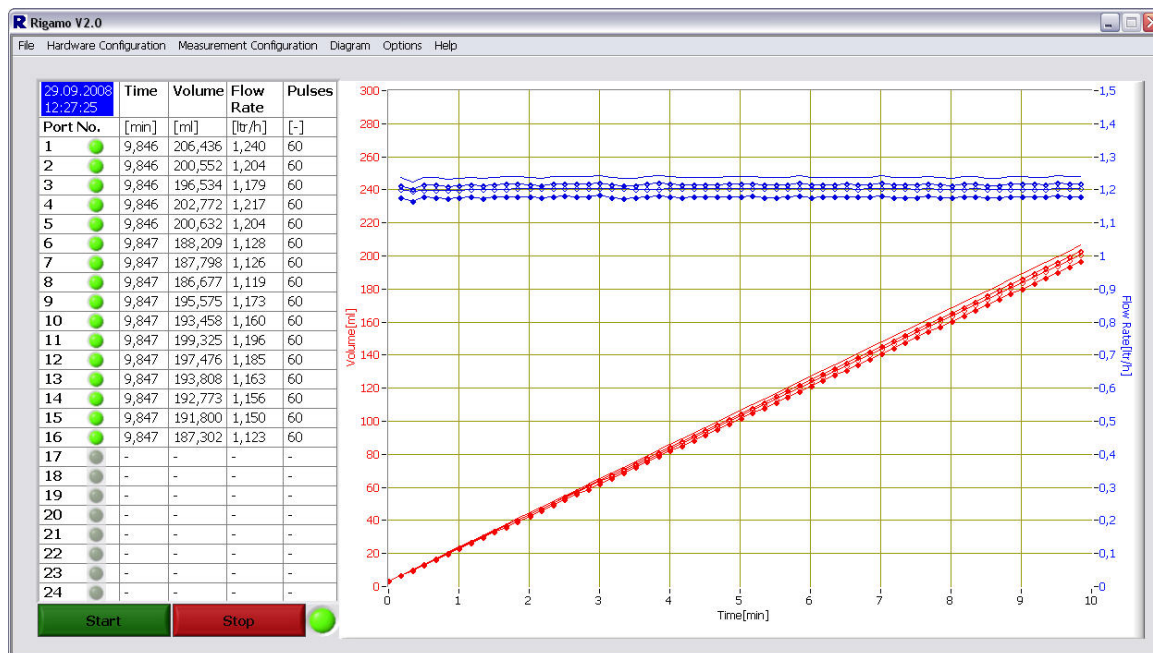- Operating system Windows 2000 or higher
  Please note:
  With Windows Vista, the directory, into which Rigamo was installed, must be accessible for the user by the respective right of use.
- Microsoft Excel® 2003 or higher for data export to Excel
- Recommended processor performance: ≥1.5 GHz
- Random 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):
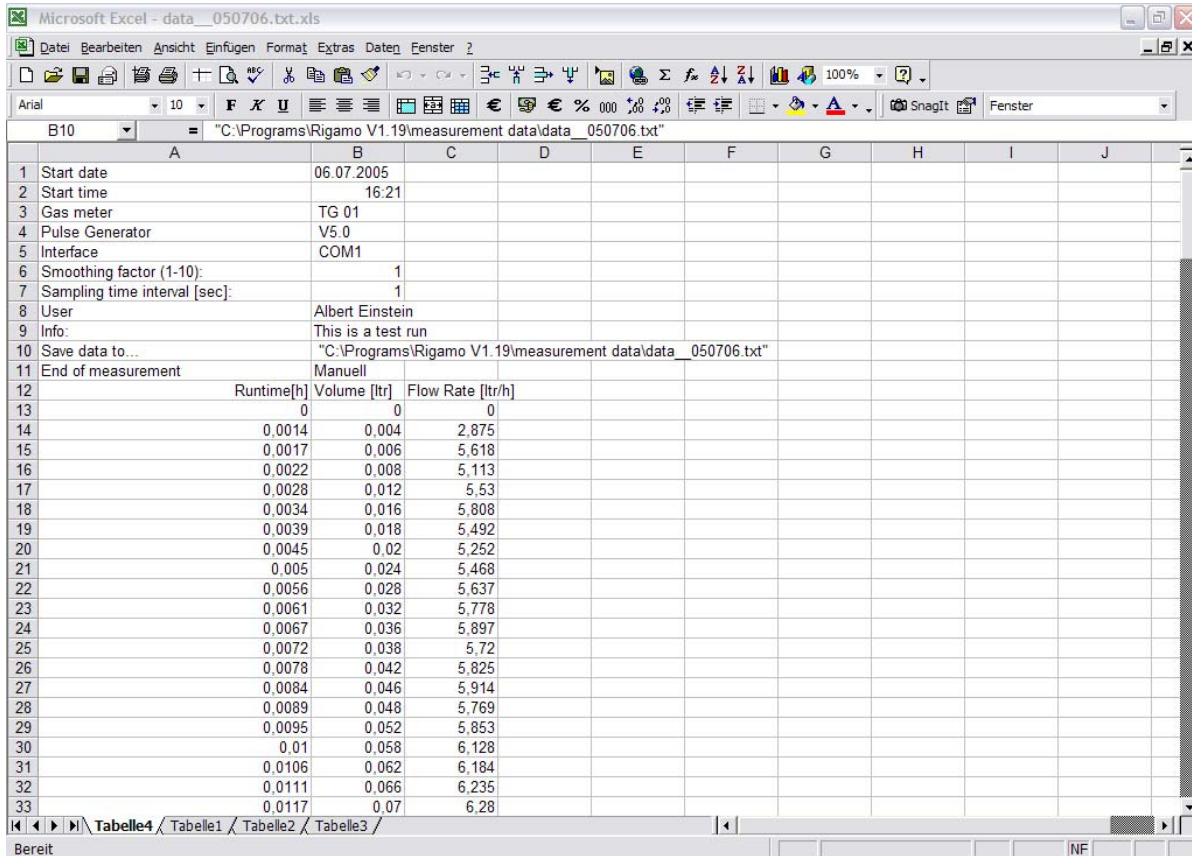(Volume: red graph, flow rate: blue graph)

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 $\Rightarrow$ measurement will be terminated by pressing the button "Stop"
    - Time (min) $\Rightarrow$ measurement will be terminated after a pre-selected time
    - Number of pulses $\Rightarrow$ measurement will be terminated after a pre-selected number of pulses

Subject to alteration

- o 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
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

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