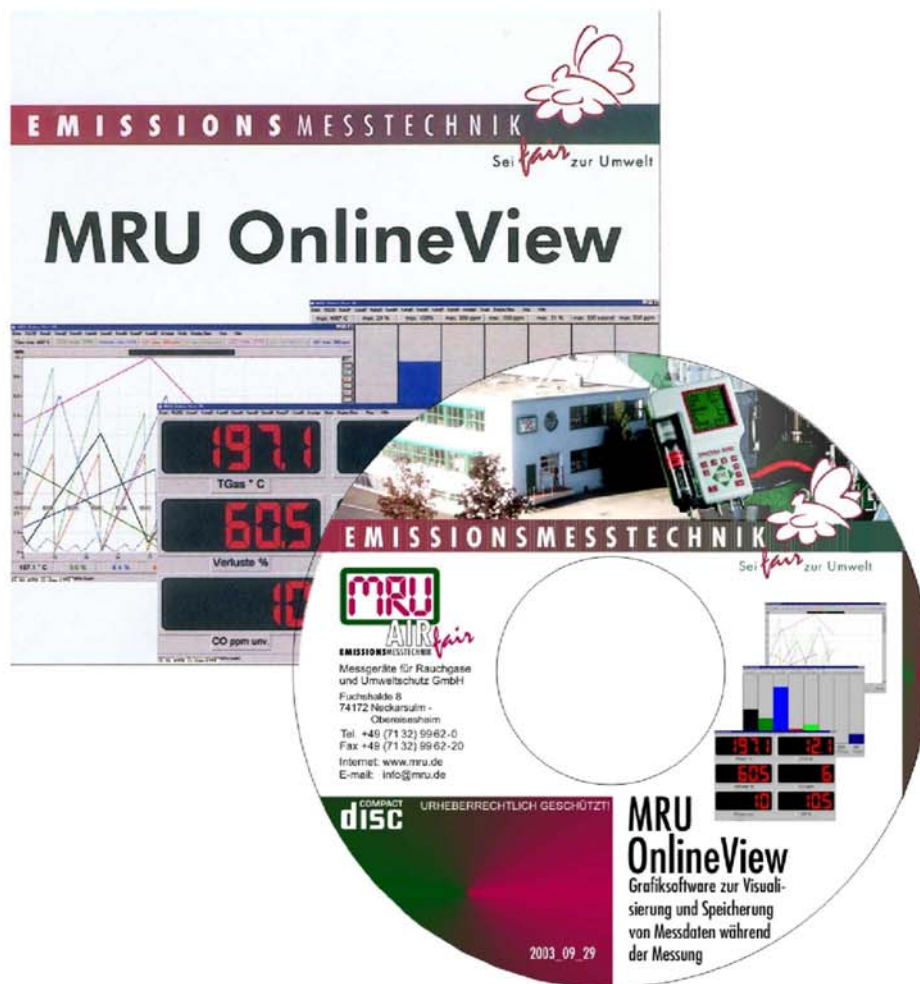




Operating Manual MRU OnlineView



Read carefully
before commissioning



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2 License agreement

1. Use of the software:

This software can be installed on all PC;s of your company as well as make a backup copy of the software.

2. Copyright:

The software and the copies manufactured by the software are mental property of the MRU.

3. Limitation of liability:

The liability for any damages, including compensation and escaped profit is impossible. This non-liability applies, even if a representative of MRU or one of its suppliers to the possibility of such damage one referred. Non-liability applies also to any requirements third.

With the installation of MRU OnlineView you accept these license conditions!

3 Introduction

The graphical software for the visualization and storage of measuring data during the measurement

OnlineView is the ideal addition for all MRU measuring instruments with serial interface. Everywhere to use, where several measured values must be supervised on a view.

Also continuous storage is possible, depending upon non removable disk capacity (per measurement = 1024 byte)

Four representation modes are available:

1. Bar chart
2. Cardiogram
3. LCD display
4. text display

The following advantages apply to all representation modes:

- definable measuring intervals from 1 measurement/second up to 1 measurement/hour
- automatic logging of all measurements during a definable period
- storage of all measuring data from the measuring instrument (all sensors and all AUX sockets)
- storage of the measuring data with date and time for each measuring cycle and thus search possibility of old measurements after time of the measurement
- software runs on all MRU devices, with R-S 232 interface
- print function of the current screen
- indicator modes configurable
 - sequence of the measuring components (channel 1 to 8)
 - colours of the chart or curves for each channel
 - scaling bar individually for each channel
- as many as desired configurations storable and thus at any time again loadable
- display of the real time in the bar and curve plotting
- fading out individual channels
- on-line help

4 Condition for system

Operating system Microsoft Windows 95/98, 2000 or XP

CD-Rom drive

Processor at least 200 MHz

Main memory dependent on the operating system at least 32MB

Screen resolution at least 800 x 600

Free serial interface R-S 232 or alternative USB via USB/RS232 converter

5 Installation

Insert the CD into the CD drive.

Under normal conditions the installation begins now automatically

Otherwise, select manually the CD drive assembly with the Explorer and start the installation through double-click to the file: setup.exe

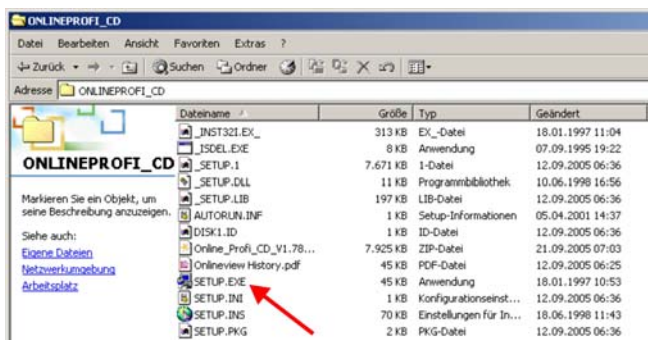
Consequences it the instructions of the on-line assistance during the installation.

After successful installation the program is immediately operational after attitude of the selected PC interface.

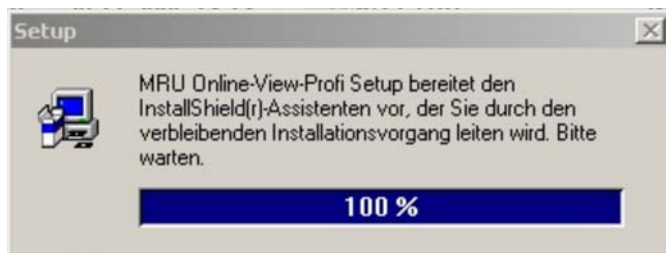
1. Switch-on the PC
2. Switch-on the monitor
- 3.: Activate CD-Rom auto play function (see manual of your windows system)
4. Open CD (DVD)-drive
5. Insert the "MRU-OnlineView" CD
6. If the CD doesn't start automatically (e.g. documentation CD VarioPlusIndustrial), than continue with steps 7 to 10, otherwise see 10:
7. Select windows explorer



8. select folder "ONLINEPROFI_CD"
9. open selected folder by means of on click with the "ENTER-key" or double click with the left key of the PC-mouse



10. select the file "setup.exe" by means of one click with the "ENTER-key" or double click with the left key of the PC-mouse



"MRU OnlineView professional Setup prepares the Install Shield® assistant, who will lead you by the remaining installation procedure. Please wait"



"Welcome to the installation of" Online View "of MRU GmbH, the measuring data management program for all MRU measuring instruments!"

11. Press "forward" by means of one click with the "ENTER-key" or double click with the left key of the PC-mouse

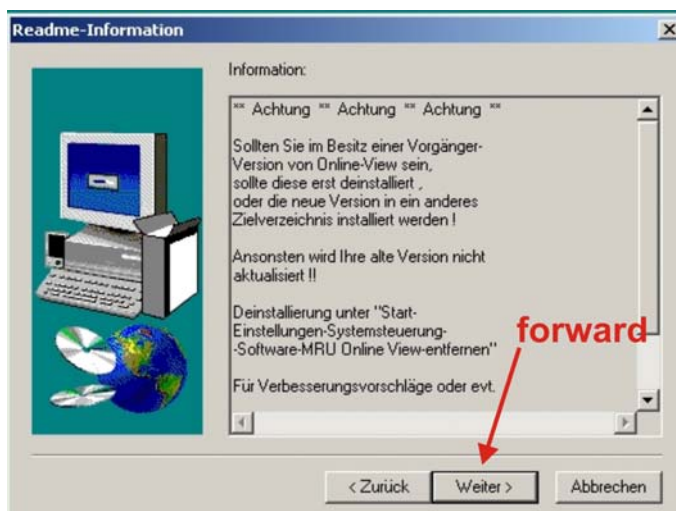


"Welcome to the MRU on-line View professional Setup. With this program MRU on-line View professional will be installed on your computer.

It is urgently recommended that you terminate all Windows programs, before you continue the Setup. Click on break off, in order to terminate the Setup, and afterwards you close all opened programs. Continue to select, in order to continue with the Setup.

WARNING: This application is protected by copyright and international agreements. Unauthorized reproduction or not authorized selling of this application or one of their components are judicially pursued and can lead to substantial punishments."

12. Press "forward" by means of one click with the "ENTER-key" or double click with the left key of the PC-mouse



**** ATTENTION ** ATTENTION ** ATTENTION ****

"If you should be in the possession of a previous version of Online View, please delete this first, or move the new version into another folder!

Otherwise your old version is not updated!!

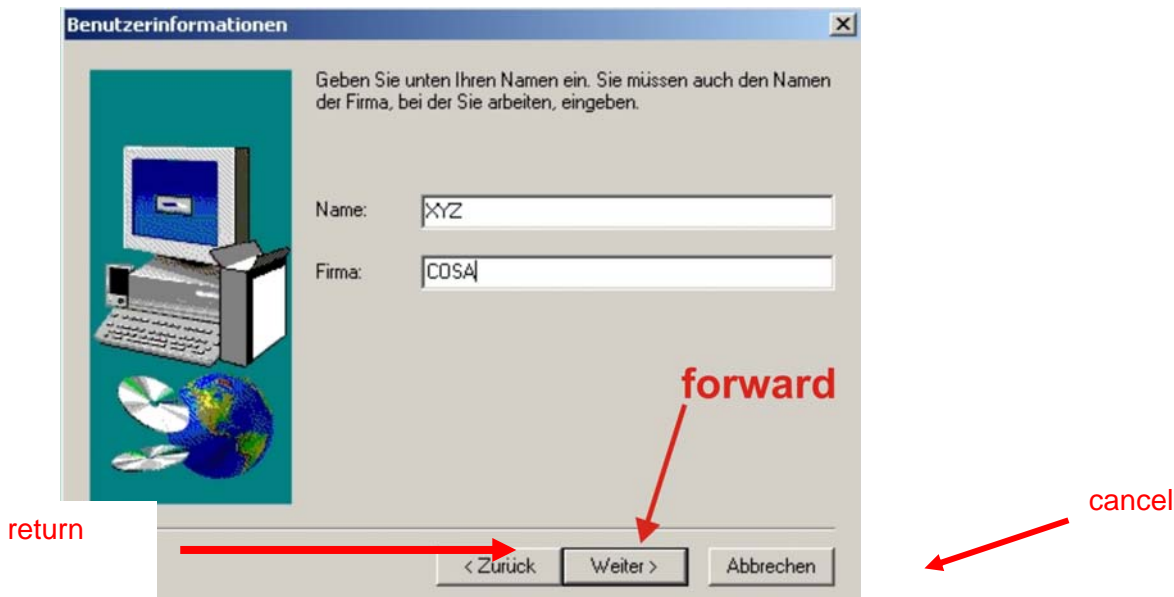
Delete by means of "start / settings / system control software / delete MRU Online View "

For improvement suggestions or Error descriptions in written form!

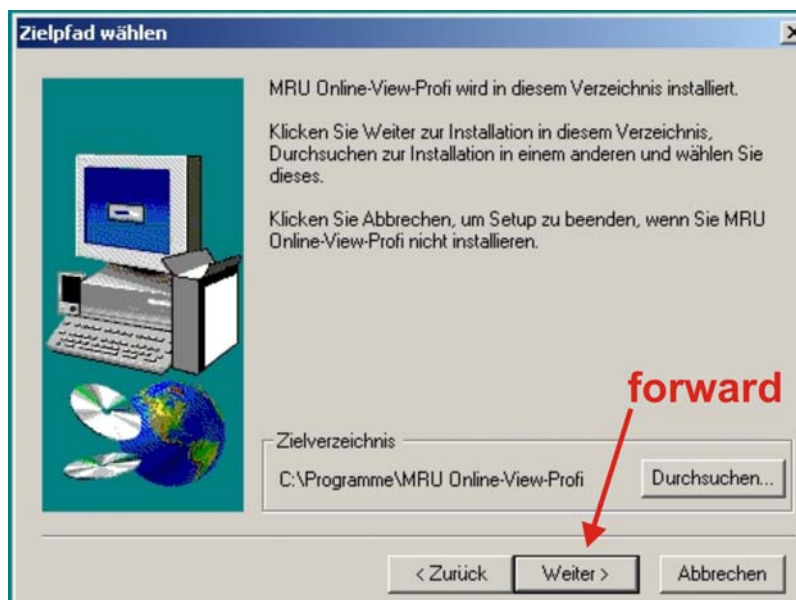
Fax: +49 7132-996220 or mail info@mru.de

MRU GmbH

13. Press “forward” by means of one click with the “ENTER-key” or double click with the left mouse key.



14. Enter your name and the company name by means of the keyboard, after that, press “forward” by means of one click with the “ENTER-key” or double click with the left mouse key.
15. Selection of the folder to install MRU Online-View-Profi

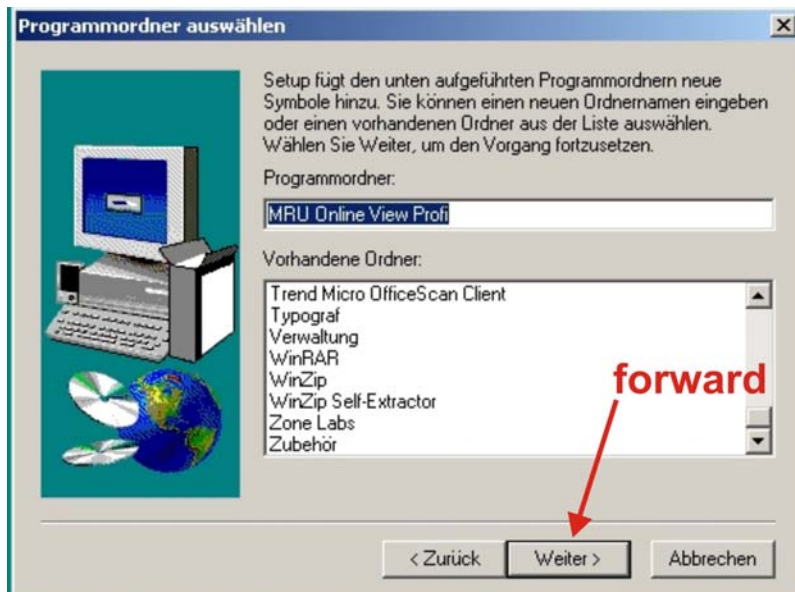


“MRU on-line View professional is installed into this folder.

Click “forward” for installation into this folder.

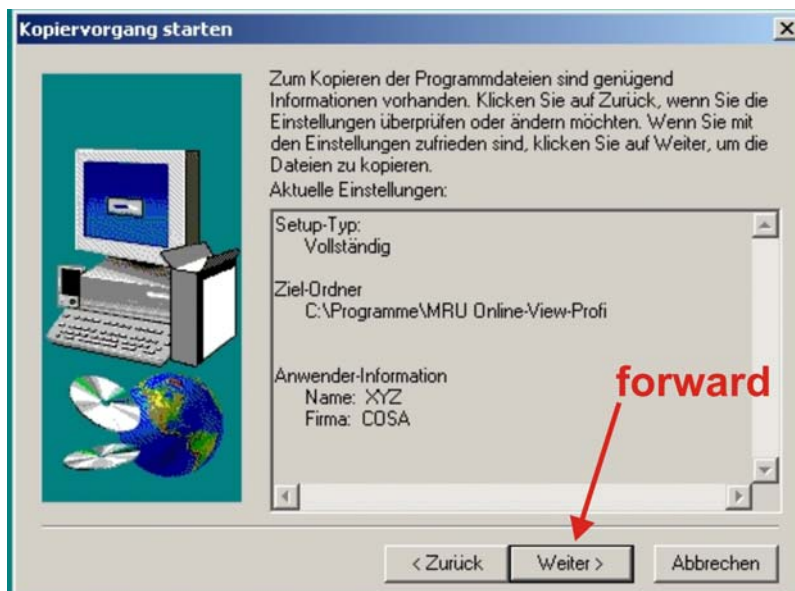
Scan for installation in another and select this. Click on abort, in order to terminate Setup, if you do not wish to install MRU Online View professional.”

16. Press “forward” by means of one click with the “ENTER-key” or double click with the left mouse key.



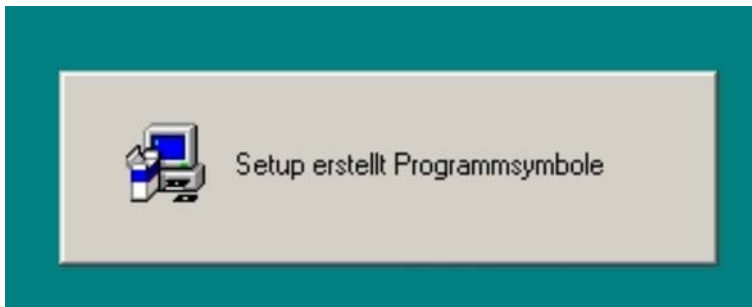
“Setup adds the program files specified down new symbols. You can enter a new file name or select an existing file from the list. Select forward in order to continue the procedure.”

17. Press “forward” by means of one click with the “ENTER-key” or double click with the left key of the PC-mouse



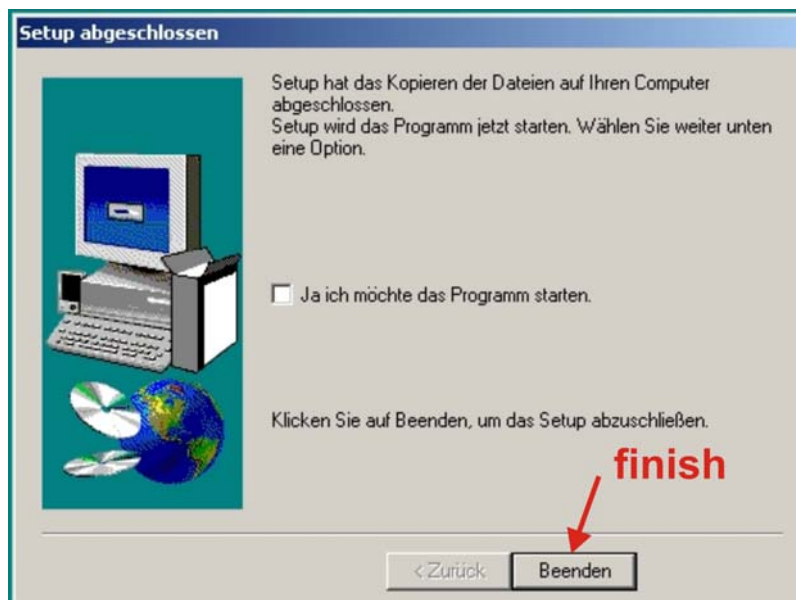
“For copying the program files there are sufficient information present. Click on back, if you liked to check or change the settings. If you are content with the settings, click on forward, in order to copy the files.”

Current settings: .



Setup is editing program icons

18. Press "finish" by means of one click with the "ENTER-key" or double click with the left mouse key.



"Setup has finished the copying of the files on your computer. Setup will now start the program."

Select an option.

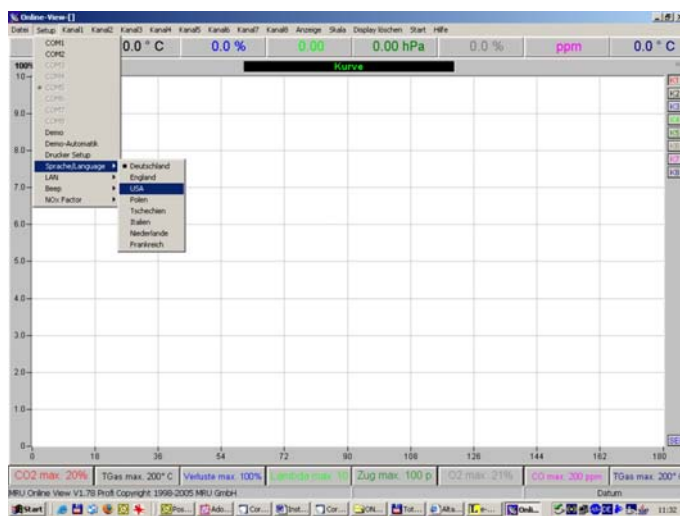
"Yes I would like to start the program."

Click on finish, in order to end the Setup

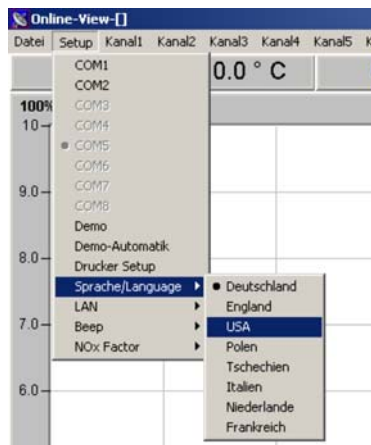
19. Program start



20. Selection of the program language

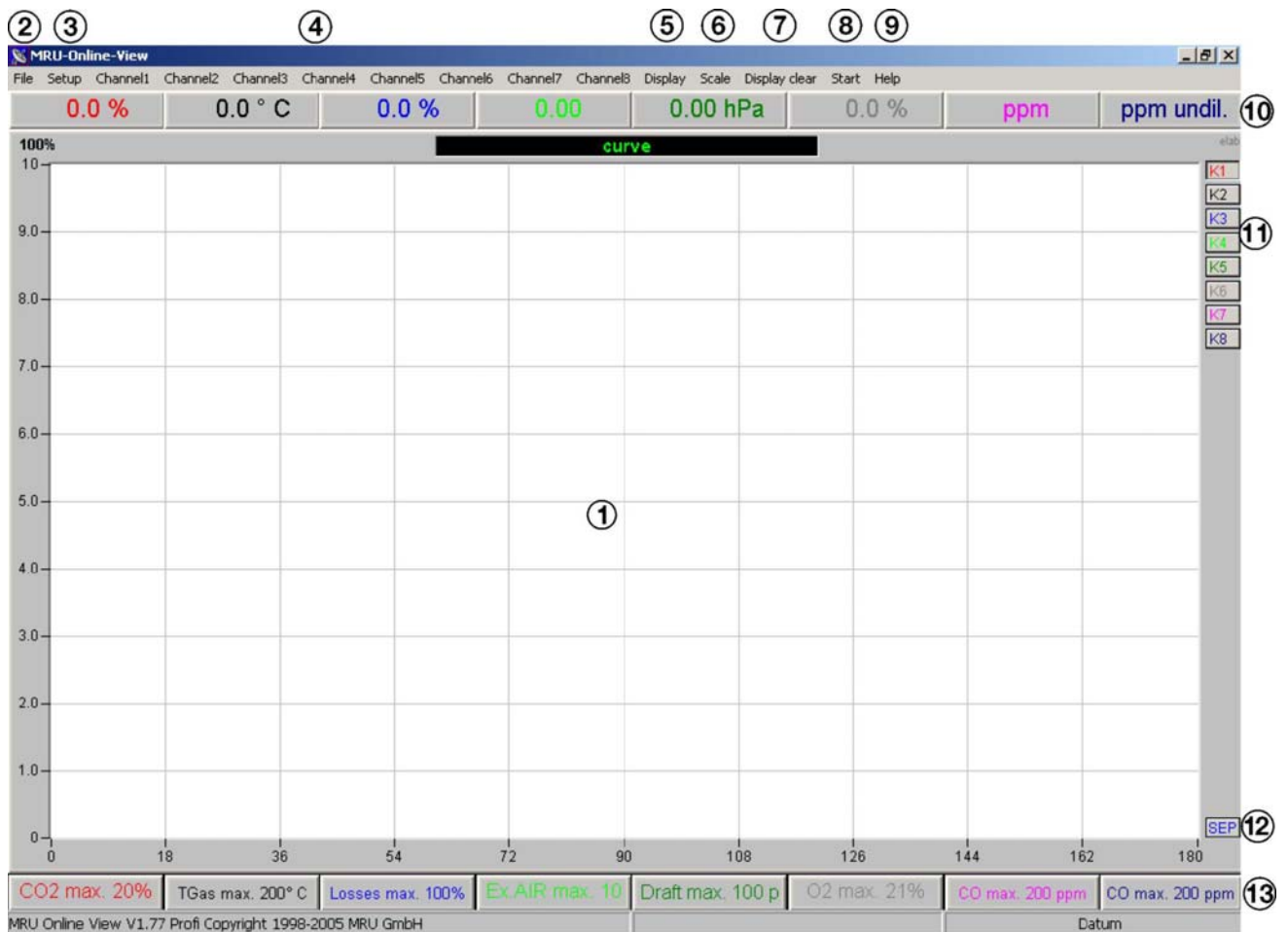


select: Setup / Sprache/Language/...



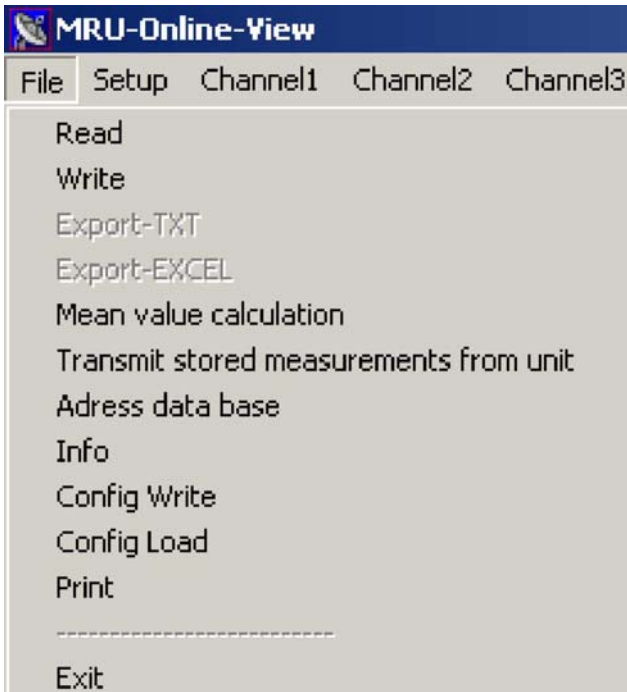
6 MRU OnlineView

6.1 Program overview



1. Display for measured values
2. Item „File“
3. Item, „Setup“
4. Items „Channel 1...channel8“
5. Item „Display“
6. Item „Scale“
7. Item „Clear display “
8. Item „Start“
9. Item „Help“
10. Menu bar channel1...channel8
11. without function
12. without function
13. Switch panel for temporary switch of the single channels

6.2 Item File

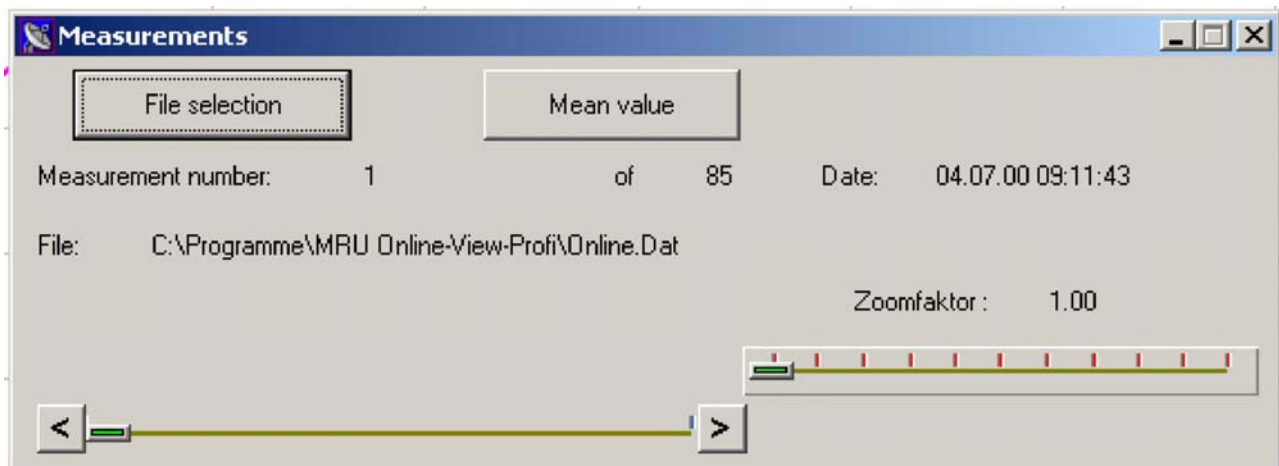


6.2.1 Read

Read in a data file, which was created before with "write"!

Selectable only with PROFESSIONAL VERSION

The following window appears:



File selection: Select the file,

the "measurement number" the current measurement and the number of measurements altogether stored in this file. With date the associated measurement date will be displayed

< and >: scroll the measurements

Zoom:: enlarge the figure

The selected measurement is then displayed according to the display mode. With display mode "curve" is on the left of the selected measurement and further 360 measurements is to the right displayed!

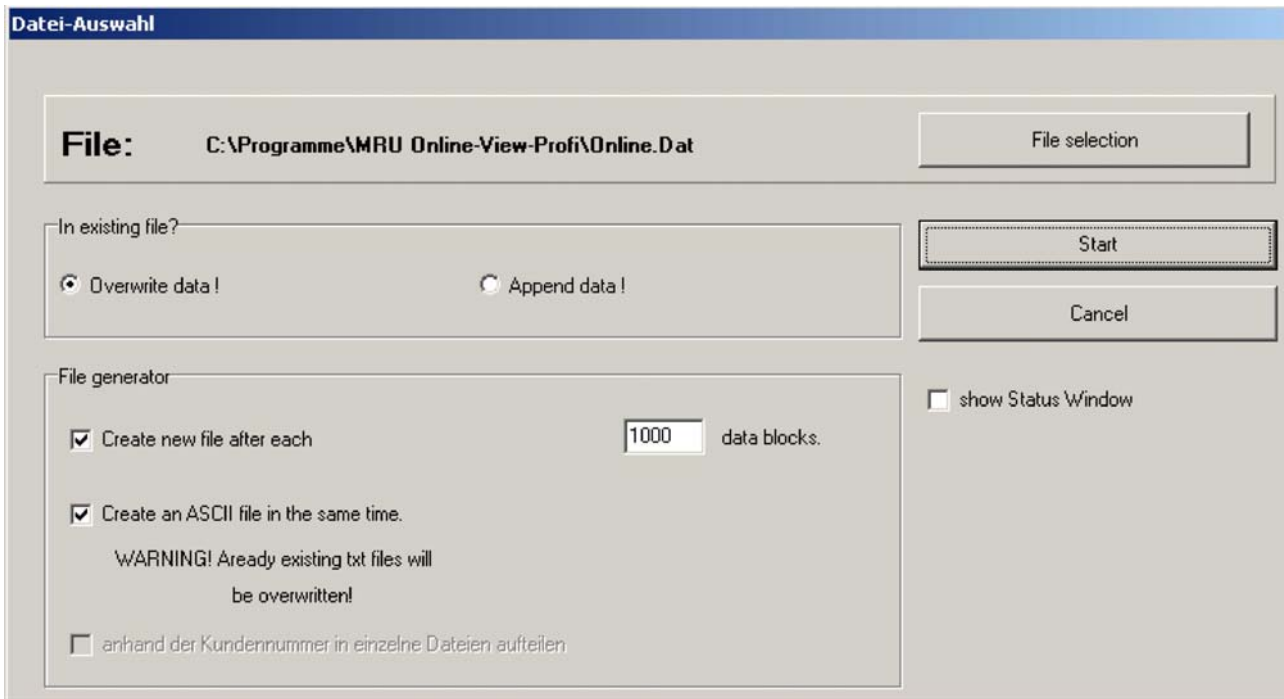
6.2.2 Write

Write in a data file, which was created before with "write"!

Selectable only with PROFESSIONAL VERSION

Not selectable in DEMO mode!

The following window appears:



With selecting a file is selected. With an existing file it must be still decided whether the contained data to be overwritten to be supposed or whether to these is appended.

Also finished is prepared the file for recording, escape with cancel the procedure!

When next starting of the measurement now the recording is started.

Note!! Terminated with the next stop will the recording, and must with letters again be prepared!!

6.2.3 Export

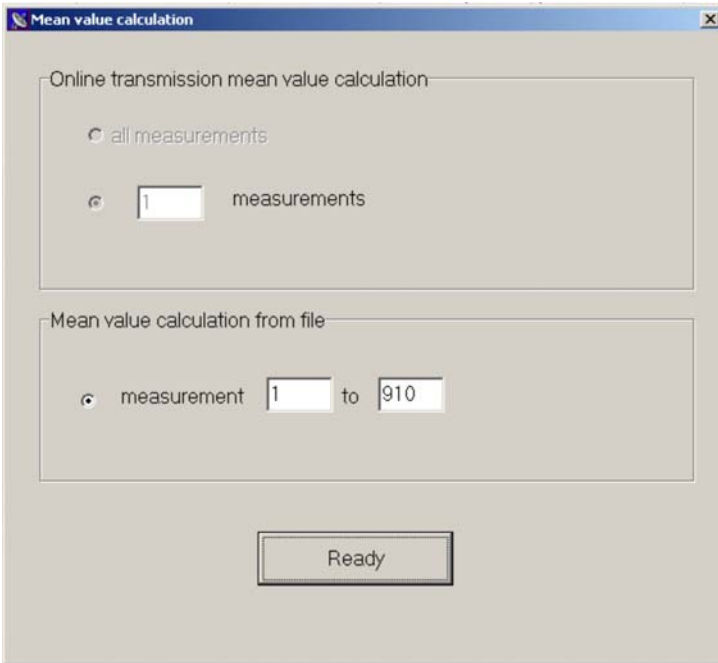
With the export function the stored measuring data (note: not during continuous transmission possible) alternatively as * txt file or as Exel file for further treatment stored.

The text file is stored in the listing of the read in measuring data as * txt.

With the Exel data export the MS Exel (if at the PC installed) is opened independently and the read in measuring data into a table is written automatically.

6.2.4 Mean value calculation

Determination of the average value with current measurement or with stored measurements.
 The following window appears:



With "finished" the average value is indicated and can be printed out.

Kunde : <#0000001>		Model : NOVA 2000	
Measur. : 1	date: 02.04.07 10:21:18	Fuel type :	Extra lourd
to 52	date: 02.04.07 10:22:09	CO2max :	15.9 %
		O2-Ref :	3 %
T-Gas :	25.4 °	CO :	0 ppm 0 ppm/0%
T-Amb. :	25.0 °		0 mg/m3 0 mg/ 3%
Dewpoint :	— °	NO :	0 ppm 0 ppm/0%
T-Boiler :	— °		0 mg/m3 0 mg/ 3%
O2 :	20.9 %	NOx:	0 ppm 0 ppm/0% 0 ppm/ 3%
CO2 :	0.0 %		0 mg/m3 0 mg/ 3%
Losses :	100.0 %	NO2:	0 ppm
Efficiency :	0.0 %	SO2:	0 ppm 0 ppm/0%
Ex.AIR :	0.00		0 mg/m3 0 mg/ 3%
Draft :	0.00hPa	HC :	0 ppm 0 mg/m3
Oil derivat :	negativ	H2S :	0 ppm 0 mg/m3
Soot no. :	—	AUX	2.Pression
		-170.0 —	-1.0 Pa

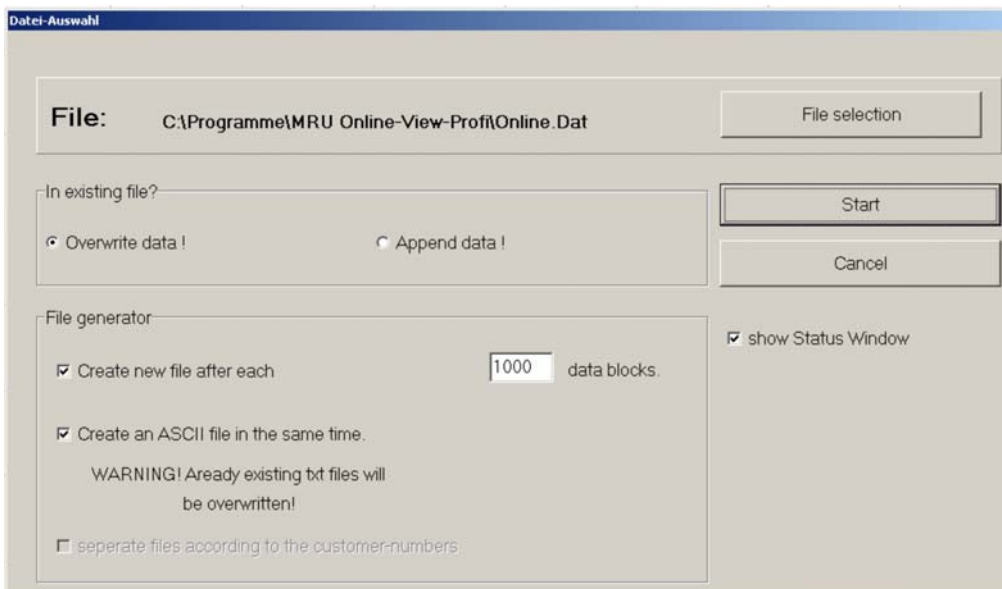
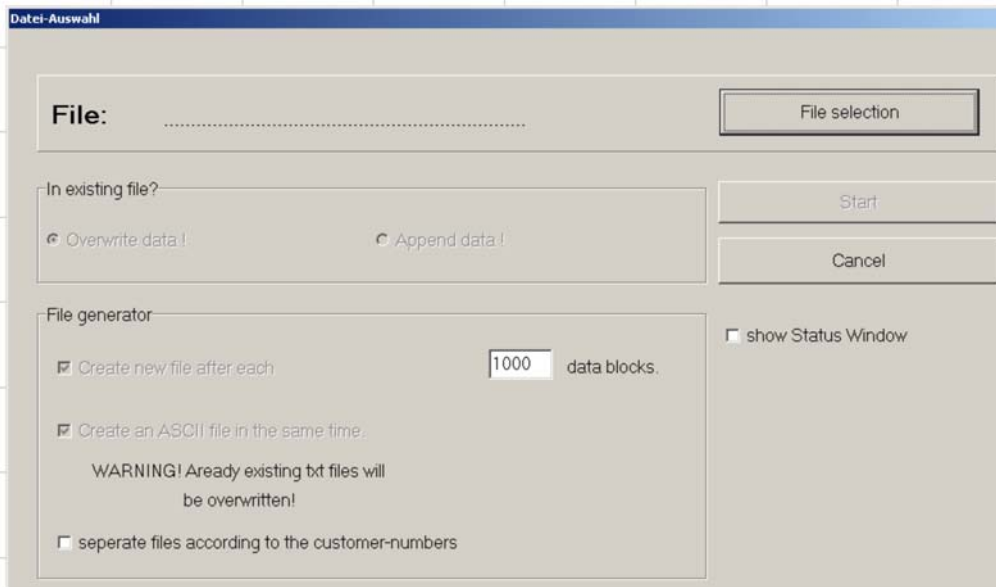
6.2.5 Transfer data from device

The device memory of the MRU measuring instrument will be transferred

When a file is selected. With an existing file it must be decided whether the contained data is to be overwritten or whether it is to be appended.

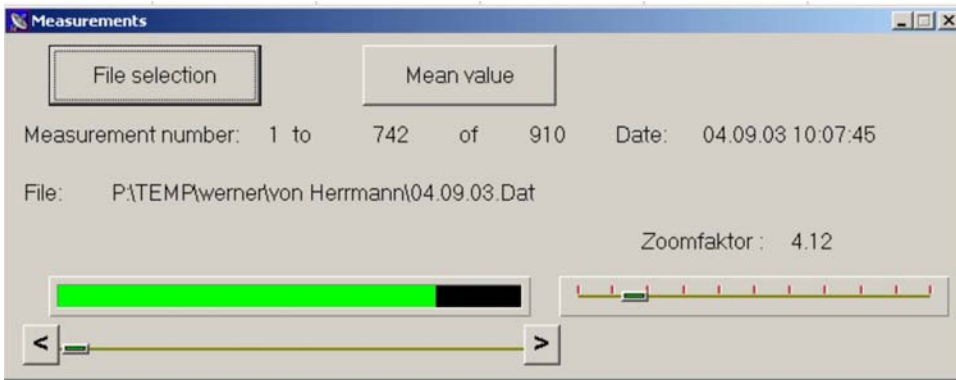
Also finished is prepared the file for recording, escape with cancel the procedure!

When next starting of the measurement now the recording is started.!



The data transfer has to start at the measuring device.

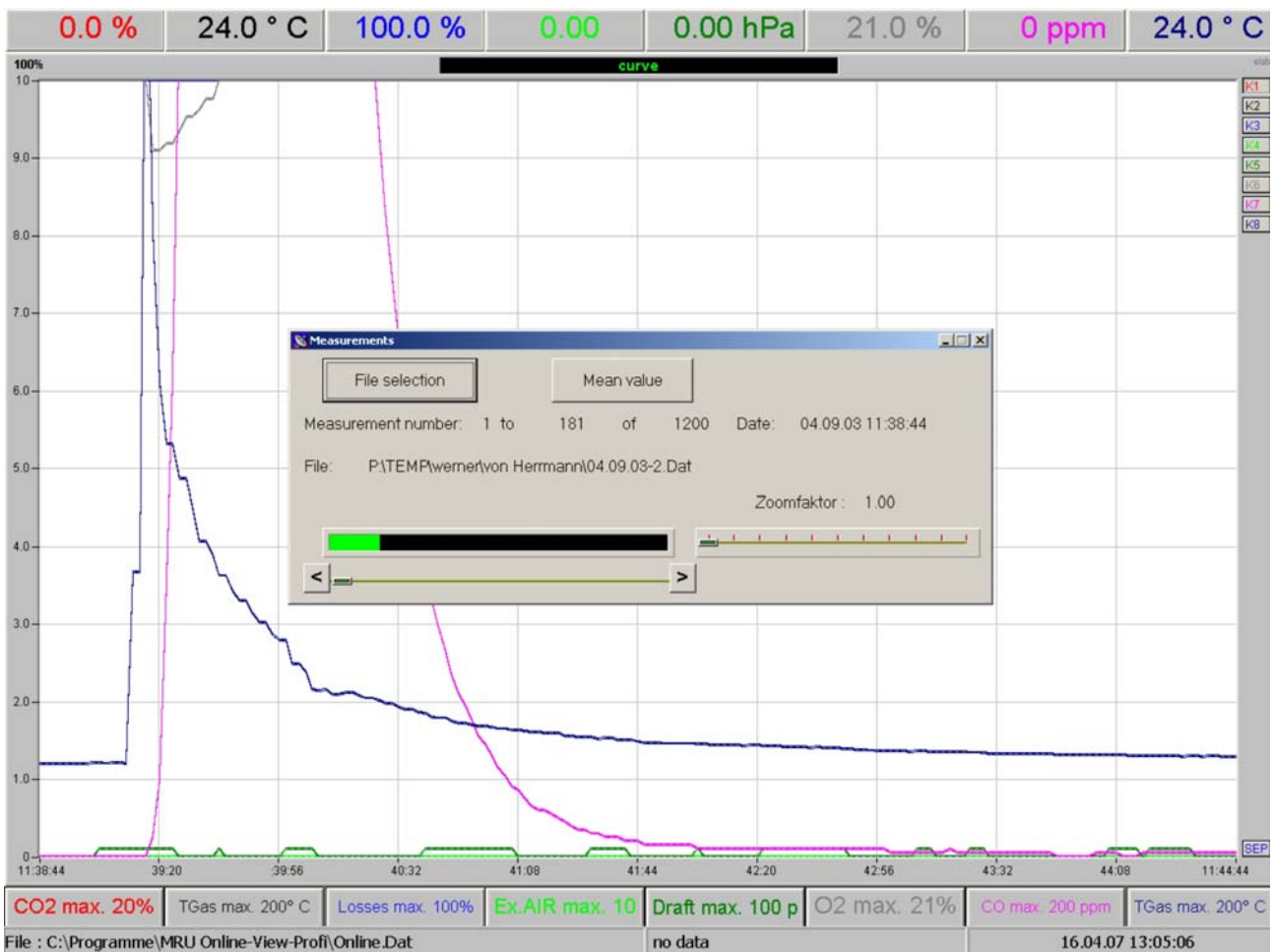




file selection: the tranferred file can be selected.

← and →: the written values can be scrolled.

Zoomfactor: enlarge the scope of values



6.2.6 Address data base

Not for EXPORT-devices

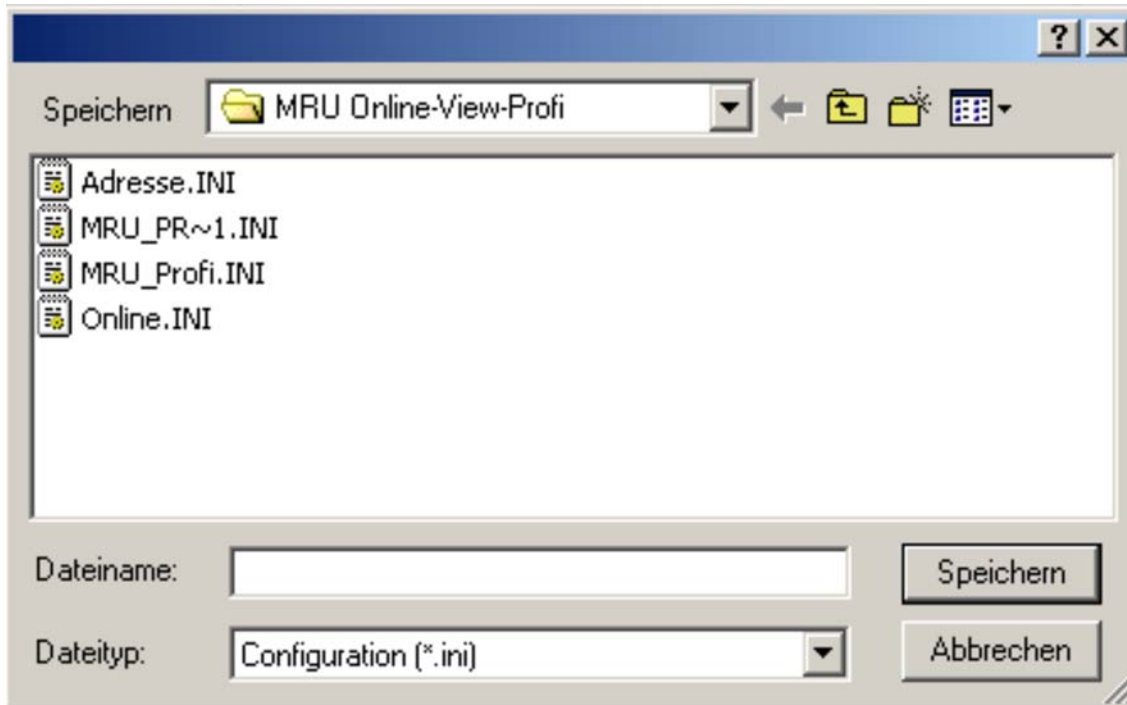
6.2.7 Info

An info window with the version number of the software as well as the telephone number and fax number appears for questions to this software.



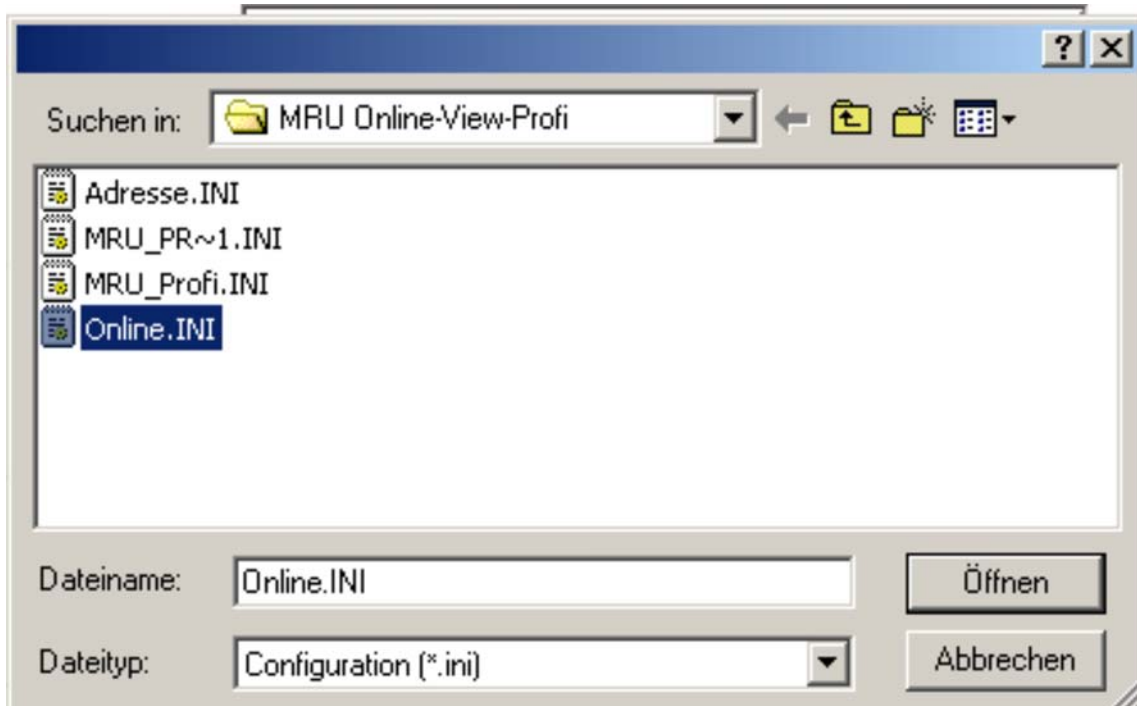
6.2.8 Save (write) configuration

Save the setted parameter.



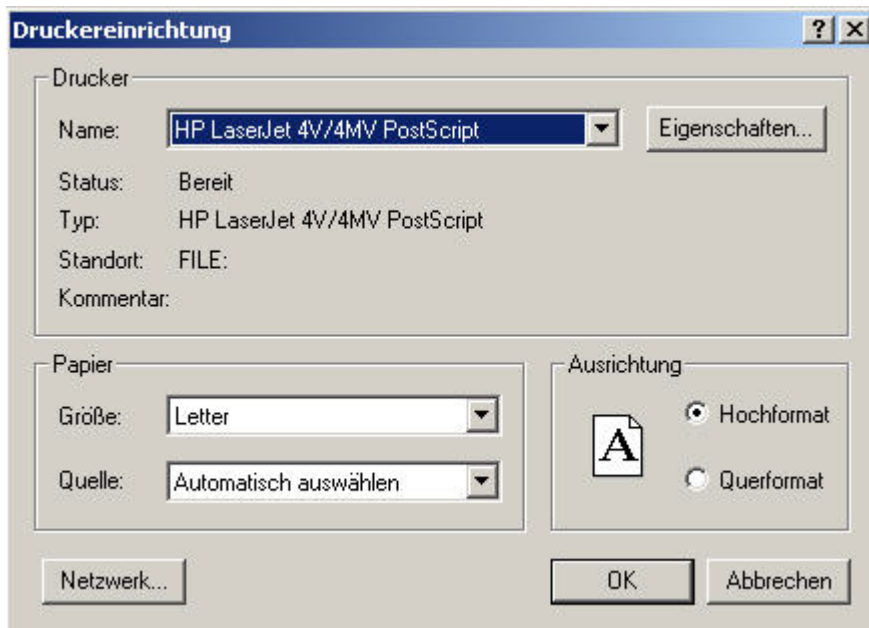
6.2.9 Load (read) configuration

Read the saved parameter



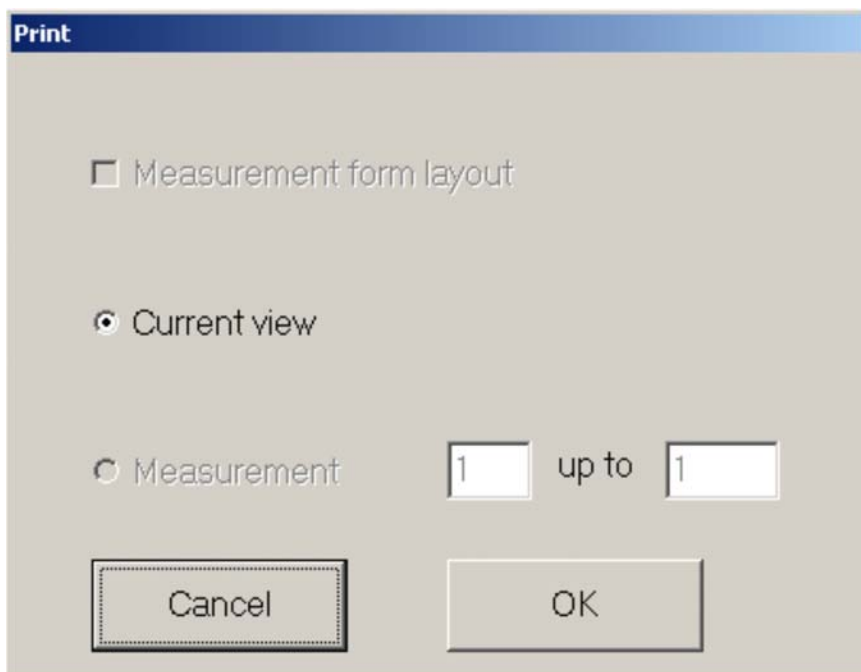
6.2.10 Printer setup

Printer selection (Windows printer setup)



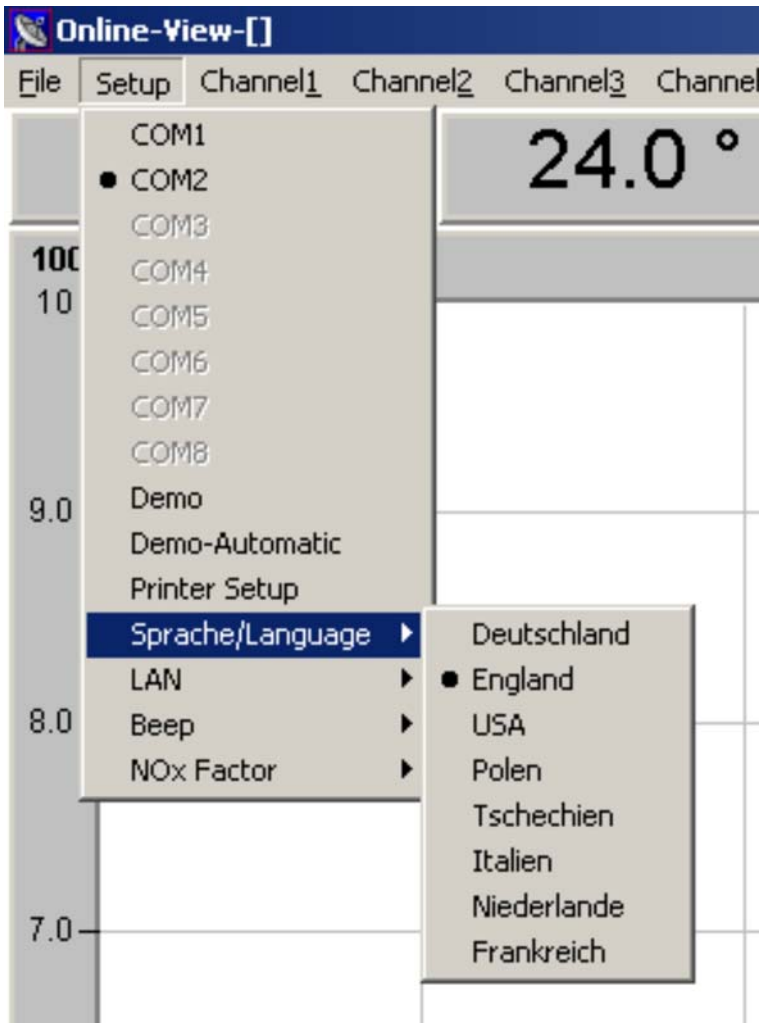
6.2.11 Printer

Actual screen content will be sent as a hardcopy to the selected printer



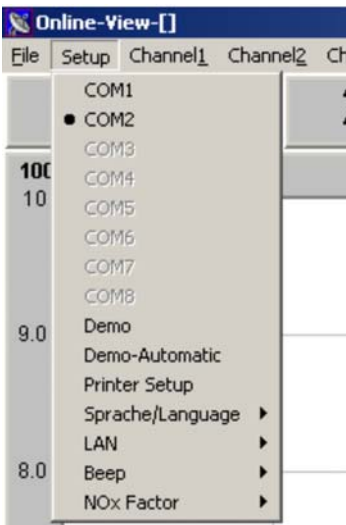
6.2.12 Select language

Select the language

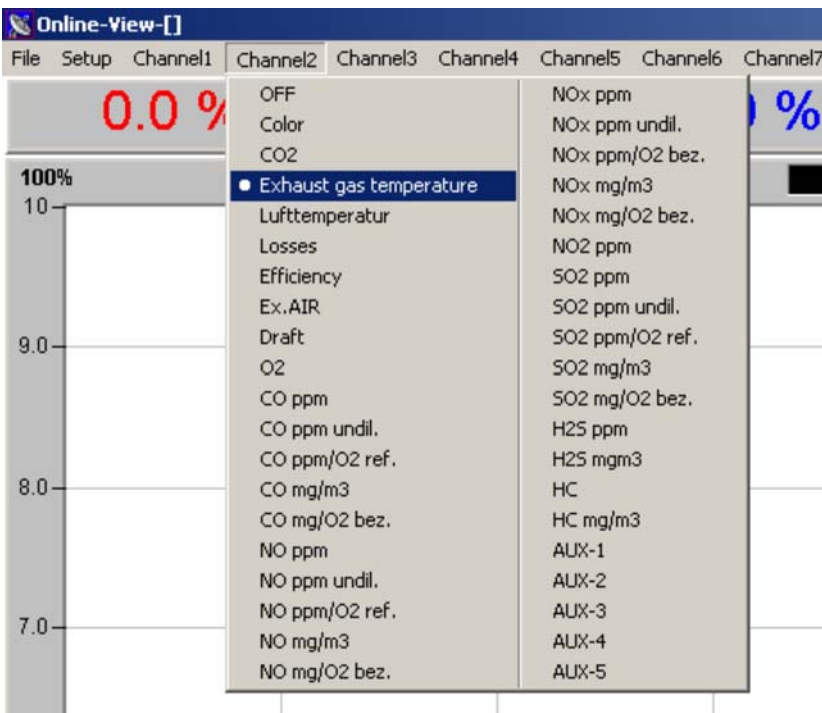


6.3 Menu item RS 232

Select the RS 232 Interface (COM 1 or COM 2)=



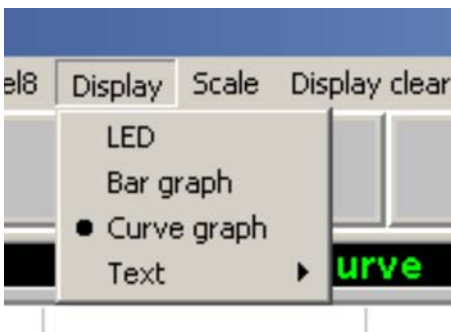
6.4 Channel settings



With channel 1-8 a measuring value is assigned for the suitable canal. Also an individual colour can be assigned here with the menu point COLOUR to the canal. (display in curve or beam)

These settings are stored while finishing the program.

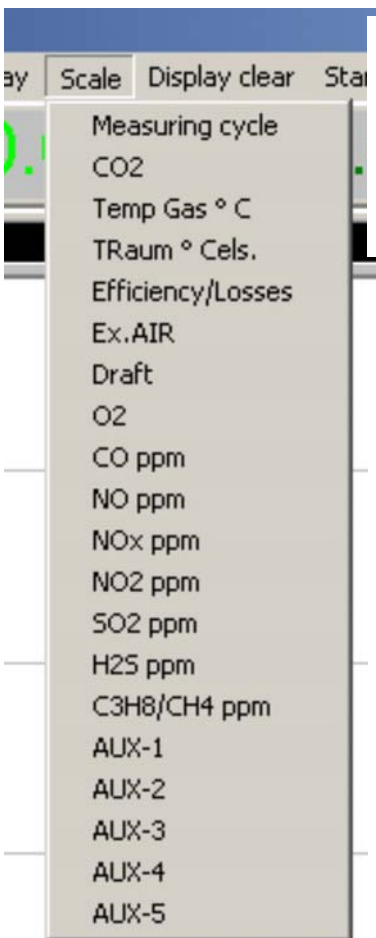
6.5 Display



Selection of the display mode

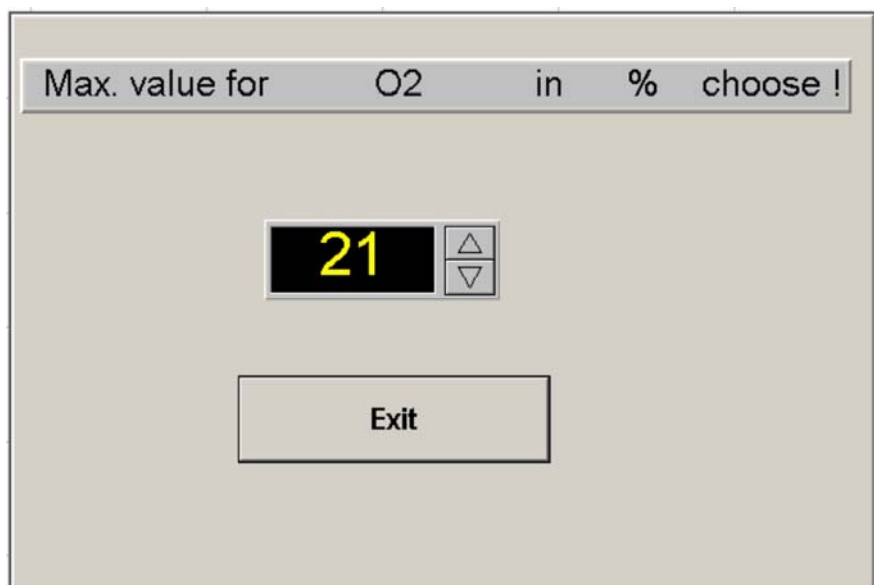
- LED: LED-display 6 channels
- Bar graph: Bar graph display 8 channels
- Curve graph: Curve graph display 8 channels (writer))
- Text: All measuring values as text mode

6.6 Scale



Here the measuring area end can be fixed for every measuring value. (display in curve or beam).

While selecting a menu point appears the following window:



Change the value with the arrow keys. Save with the exit key.

6.7 Display clear



Measuring is stopped and the values of the curve bar display will be deleted.

6.8 Start / Stopp

Start or Stop of the running measurement.

If, in addition, the storage is active, the recording is finished with STOP!

7 Appendix

7.1 address



	Hersteller
Anschrift:	M R U Messgeräte für Rauchgase und Umweltschutz GmbH Fuchshalde 8 D-74172 Neckarsulm-Obereisesheim
Tel.:	+49 71 32 – 99 62 - 0
Fax:	+49 71 32 – 99 62 - 20
Service-Hotline:	+49 71 32 – 99 62 -59
E-Mail:	info@mru.de
Internet-Seite:	www.mru.de
Postanschrift:	Postfach 2736 D-74017 Heilbronn
Expressbahnhof:	Heilbronn-Hbf Selbstabholer

7.2 Seriell connection cables

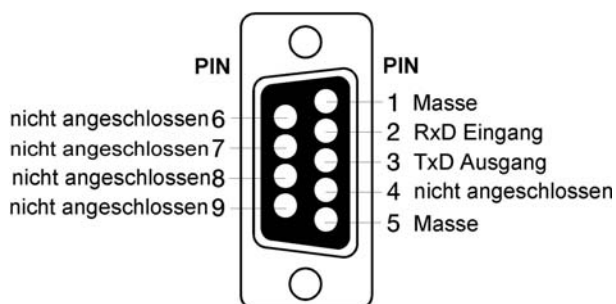
7.2.1 Connection cable 9-pole Sub D

for following MRU analyzers

				
Spectra 2000	Spectra 1600GL	Delta 2000 CD	Nova H8	Varioplus
				
	MRU 95/3	SWG 200		

length	3 m	5 m	10 m	20 m
Order #.	51531	51532	51562	54367


Ansicht Stecker Oberseite



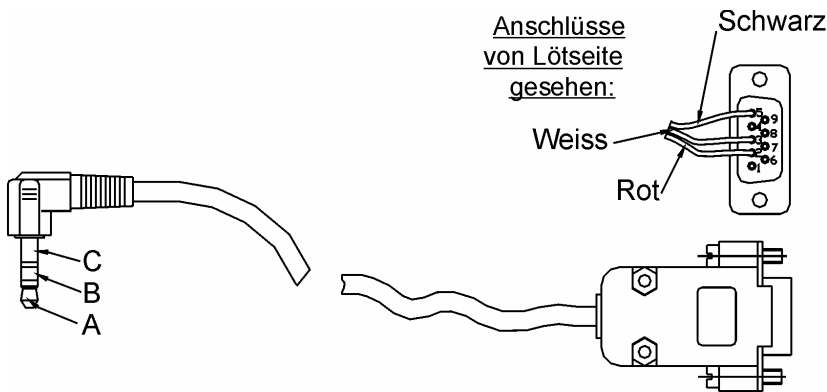
Connection RS 232 (MRU Analyzer)

7.2.2 Connection cable 3-pole plug

for following MRU analyzers

				
Delta 65 Model 2002				

length	3 m			
Order #.	59380			



Connection MRU analyzer

plug	color	Sub D-Pin	function
A	rot	Pin 2	RxD (receive)
B	weiss	Pin 3	TxD (sendl)
C	schwarz	Pin 5	Gnd (ground)
		Rest N.C.	Not connected