

Manual

Software L-LAS-Monitoring V1.1

(PC software for Microsoft® Windows® 7, Windows® 8, Windows® 10)

for line sensors of the L-LAS series

This manual describes the installation and operation of the PC software L-LAS-Monitoring V1.1.

The software was developed for configuring up to 8 L-LAS sensors of the L-LAS series in a multi-sensor system that can be used for the continuous inline measurement and control of surfaces at several measuring points at the same time. Measurement values are recorded and are also displayed at the PC monitor, and they can be printed out after the end of recording.

The software concept provides two user levels: A password-protected administrator function for configuring the inline measurement system and for setting all the parameters for operation, and an easy-to-use user function that only allows the setting of the start and end of recording with input of production parameters (that have been determined by the administrator). The print function also is available for the normal user.

As a support for commissioning and operation of the L-LAS-Monitoring software this manual explains the individual functional elements of the graphic Windows® user interface.

V1.0.0	17.12.2014	start-up
V1.0.1	16.01.2015	add auto-triggered-mode
V1.1.0	31.07.2019	remove limit of values to be recorded

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Shortcuts:

SEND	F9
GET	F10
GO	F11
STOP	F12

1 Installation of the L-LAS-Monitoring software

Hardware requirements for successful installation of the L-LAS-Monitoring software:

- IBM PC Pentium II or compatible PC
- SVGA graphics
- Microsoft® Windows® 7, Windows® 8, Windows® 10
- Serial RS232 interface or USB interface at the PC
- Microsoft-compatible mouse
- Cable for the RS232 interface (cab-las4/PC) or RS232/USB converter (cab-las4/USB)
- CD-ROM drive
- 40 MByte of free hard disk space

The L-LAS-Monitoring software can only be installed under Windows. Windows must therefore be started first, if it is not yet running.

Please install the software as described below:

1. The software can be installed directly from the installation CD-ROM. The CD-ROM contains a folder named INSTALL, where you can find a SETUP program. Start this SETUP program to install the software.
2. The installation program displays a dialog and suggests to install the software in the C:\"FILENAME" directory on the hard disk. You may accept this suggestion with **OK** or **[ENTER]**, or you may change the path as desired.
3. During the installation process a new program group for the software is created in the Windows Program Manager. In this program group an icon for starting the software is created automatically. When installation is successfully completed the installation program displays a "Setup OK" message.
4. After successful installation the software can be started with a left mouse button double-click on the icon.

Windows® is a registered trademark of Microsoft Corp.

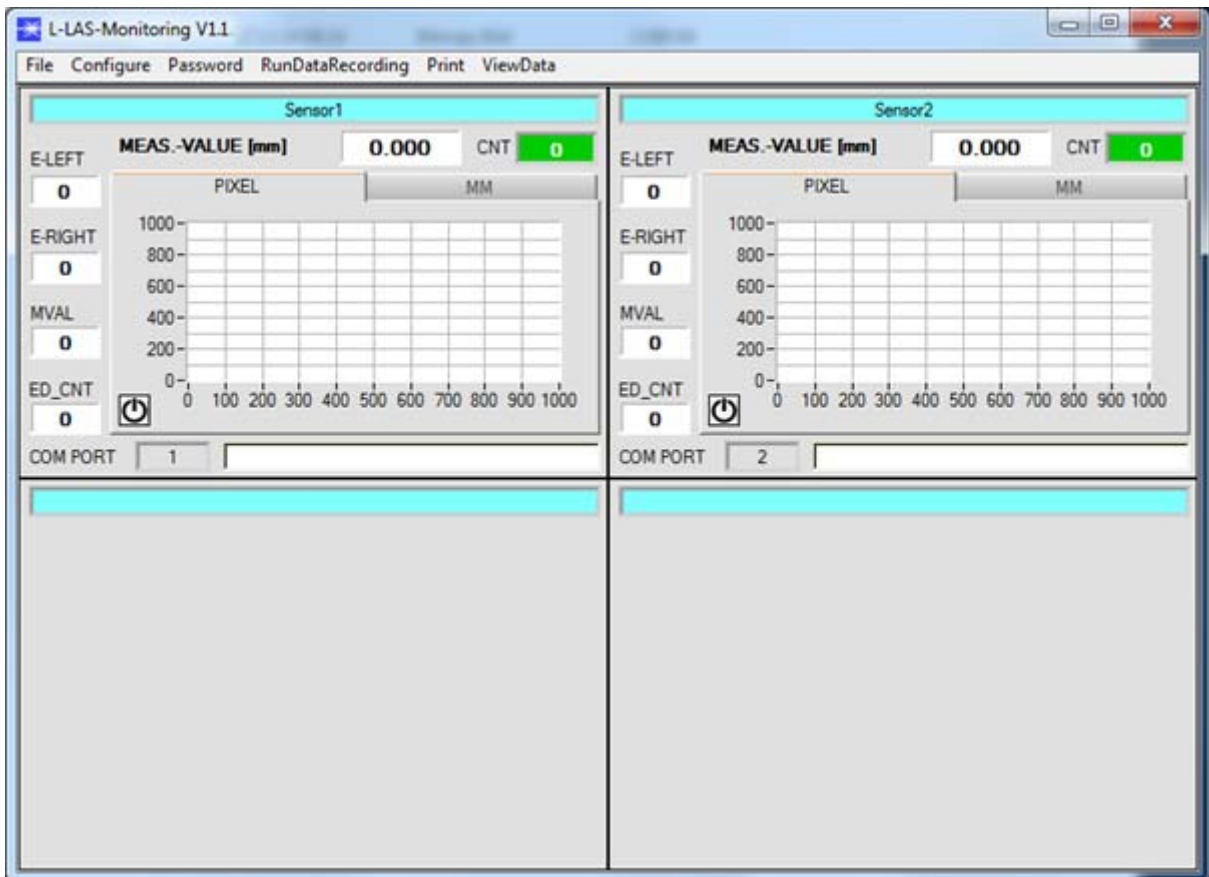
SVGA™ is a trademark of International Business Machines Corp.

2 Operation of the L-LAS-Monitoring software

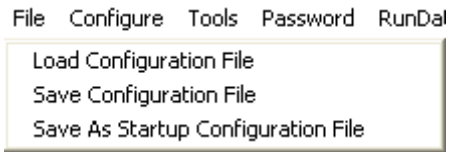
2.1 Software description

Please read this chapter before you start the process of initialising the software.

When the **L-LAS-Monitoring** software is started, the following window appears on the Windows user interface. Depending on the settings in the "**Startup Configurationfile**", various elements are displayed.



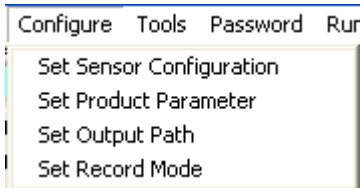
2.1.1 "File" menu



In the **"File"** menu, configuration files that are set under **"Configure"** can be saved to a file or loaded from a file.

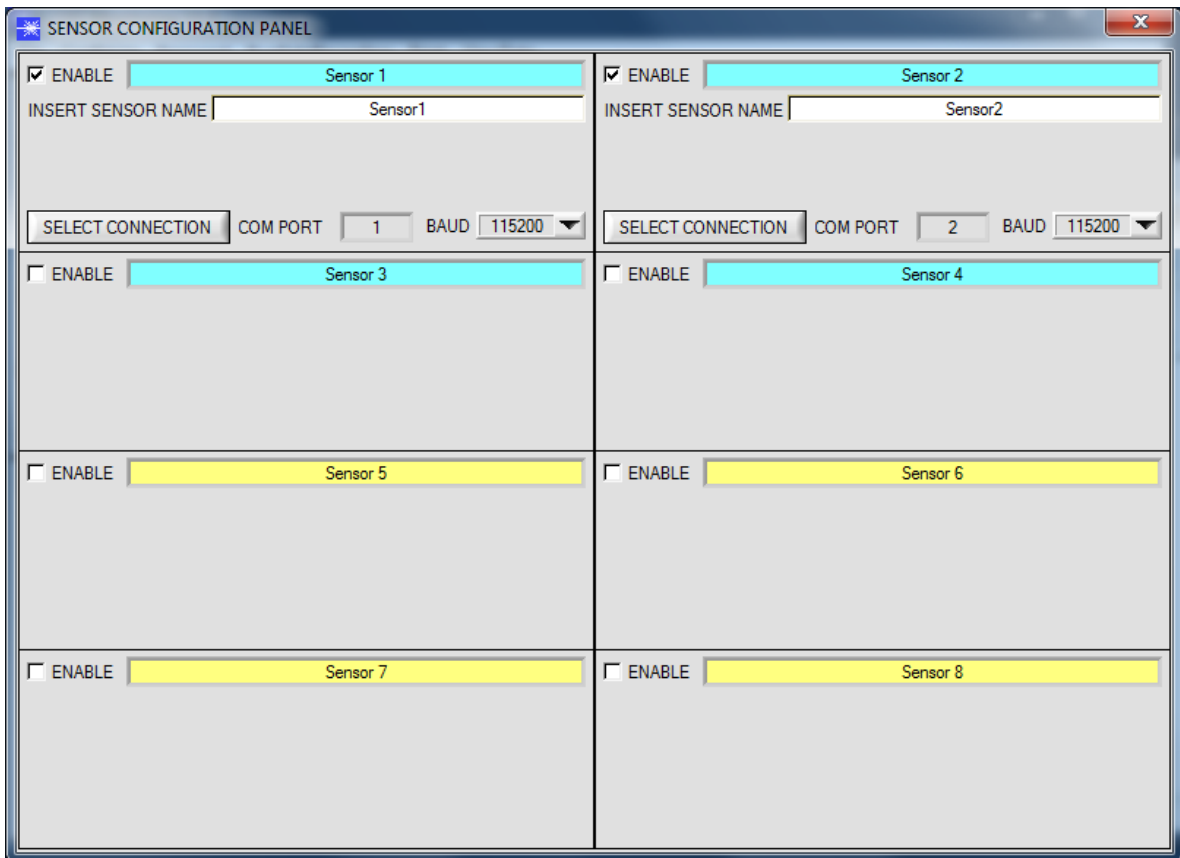
The **"Save As Startup Configuration File"** item defines the currently set parameters as startup parameters, i.e. these parameters will be loaded automatically when the software is started.

2.1.2 "Configure" menu



The **"Configure"** menu can be used for performing certain parameter presettings.

A click on **"Set Sensor Configuration"** opens the following window:

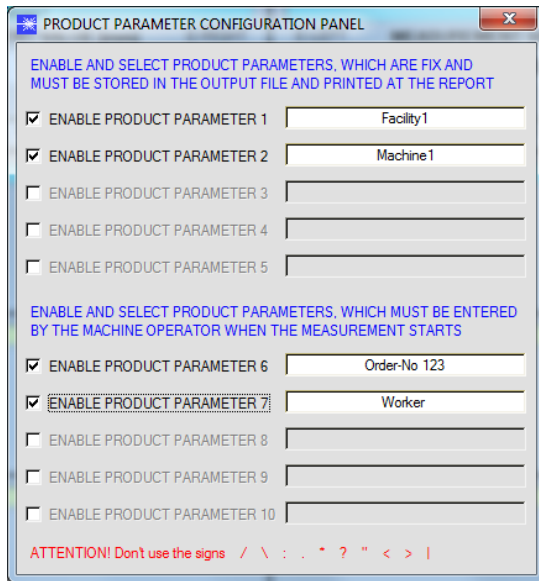


If data should be recorded from a sensor, the sensor must be activated with **"ENABLE"**.

In the **"INSERT SENSOR NAME"** field a name can be assigned to the sensor. This name will then be displayed in the main window, saved in the output file, and will also be printed.

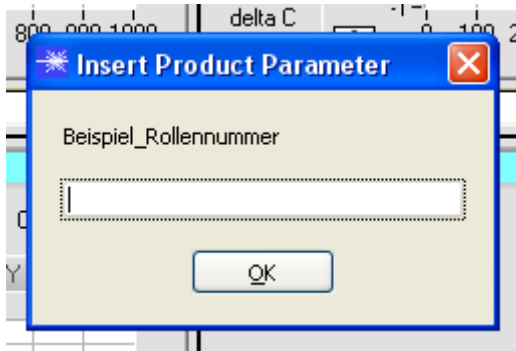
The interface between sensor and PC is determined under **"SELECT CONNECTION"**.

A click on "Set Product Parameter" opens the following window:



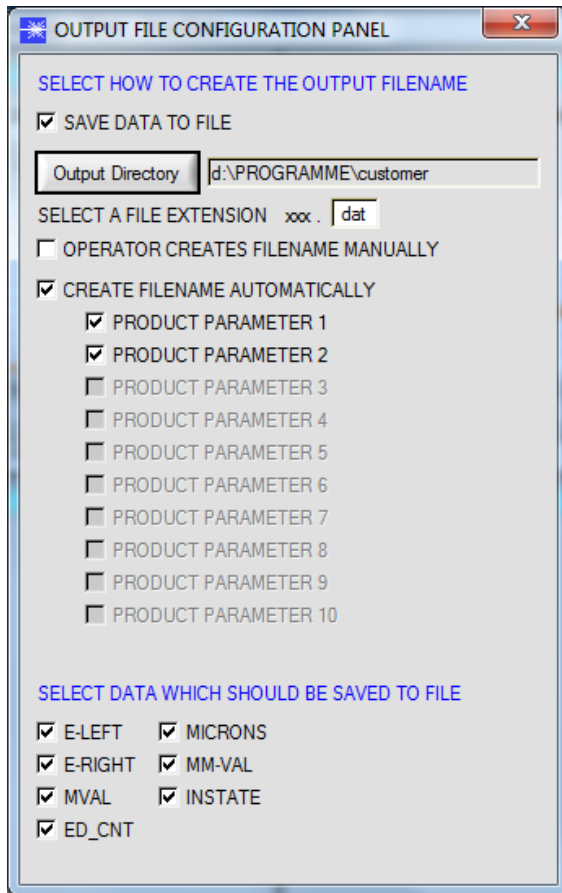
There are 5 parameters that can be individually entered. All these data are fixed and are, if they are enabled, saved in the file and printed in the report. Parameters 6 to 10, if they are enabled, must be entered by the operator after pressing "Start". These data also are saved in the file and printed.

Attention!
The characters / \ : . * ? " < > | must not be used.



Example:
"ENABLE PRODUCT PARAMETER 6" is activated and is assigned the input of "Beispiel_Rollnummer" (i.e. example roll number).
When "RunDataRecording" and "Start" is pressed, a window will appear prompting the operator to enter a roll number.

A click on "Set Output Path" opens the following window:



This window is used for defining the output file.

„**SAVE DATA TO FILE**“ determines whether the data should be stored to a file, or whether they should be visualized only. If „**SAVE DATA TO FILE**“ is not enabled, all setting possibilities will be faded out.

If "**OPERATOR CREATES FILENAME MANUALLY**" is activated, the software, after the operator presses "**Start**", prompts the operator to define an output file.

If "**CREATE FILENAME AUTOMATICALLY**" is activated, the software automatically creates the output file.

The output path is determined with "**Output Directory**". The file name comprises the activated "**PRODUCT PARAMETER**", the sensor name and the extension defined under "**SELECT A FILE EXTENSION**".

Under „**SELECT DATA WHICH SHOULD BE SAVED TO FILE**“ that data are selected, which should be stored.

INFO!

If the output file should be opened with Microsoft EXCEL, the regional settings in Windows should first be set to an Anglo-American country (Great Britain, USA, ...). The reason for this is that EXCEL interprets a number with comma as a date information. If the file is saved in Anglo-American mode and the regional settings are then set back to your respective country, EXCEL will recognise a number with comma correctly. If the file is saved in the Anglo-American mode, and if the regional settings are

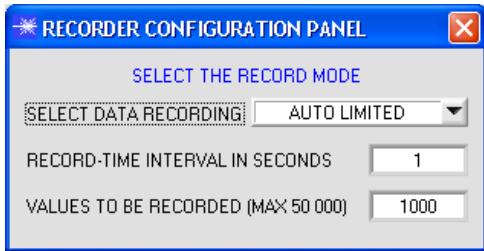
then set back to the respective country, EXCEL recognises the gloss factor as a floating point number.

The following steps must be performed to change to an Anglo-American language:

Start → Settings → Control Panel → Regional and Language Settings

An Anglo-American language can then be selected in the "Regional Settings" tab.

A click on **"Select Record Mode"** opens the following window:



This window is used for determining the data recording mode.

With **"AUTO LIMITED"**, an adjustable number of data is recorded after an adjustable time interval.

With **"AUTO UNLIMITED"** data are recorded after an adjustable time interval until recording is stopped by pressing "Stop".

With **"AUTO TRIGGERED"** the sensor sends data triggered by a LOW/HIGH edge on IN0. After this event the data are recorded and saved.

Attention!

For using the **"AUTO TRIGGERED"** function the sensor must operate in **RS-232-MODE=EXT-IN0-L/H (REC) trigger mode**, because data only are sent when the trigger condition = L/H edge on IN0 is detected (cf. instruction manual L-LAS-Scope).

2.1.3 "Password" menu



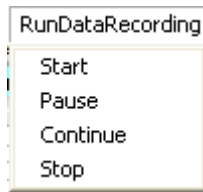
The **"File"** and **"Configure"** items can be protected by a password. Password protection can be enabled and disabled. The default password is: 0000000000 (in words: 10 zeros). The password can be individually changed.



When password protection is enabled, the menu items **"File"** and **"Configuration"** only can be accessed after pressing **"Deactivate Password Protection"** and entering the correct password.

Attention! Password protection must be activated again with **"Activate Password Protection"**.

2.1.4 "RunDataRecording" menu

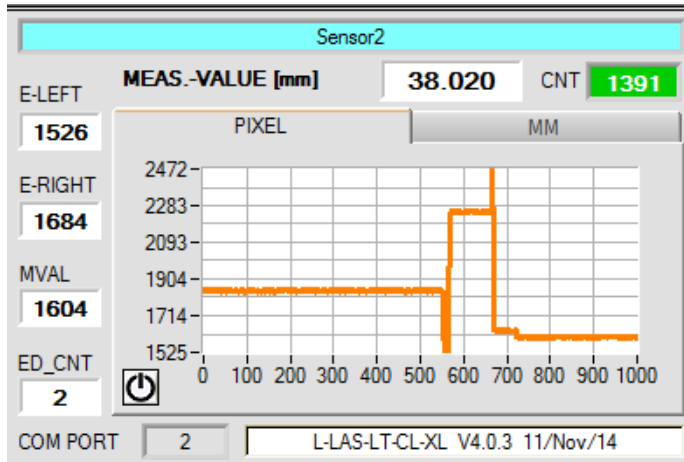


In this menu item data recording can be started with **"Start"** and stopped with **"Stop"**. Data recording furthermore can be paused with **"Pause"** and then continued again with **"Continue"**.

The data are immediately saved in the correspondingly created file and are visualised on the user interface.

When **"Start"** is pressed, the product parameters 6 to 10 that are enabled in **"Set Product Parameters"** must be entered.

If **"OPERATOR CREATES FILENAME MANUALLY"** is activated under **"Set Output Path"**, the operator will be prompted to specify a file.



Data immediately are saved in the corresponding created file, if it is activated, and visualised on the user interface. The total number of recorded values is displayed in the **CNT** field.

Above the graph the **MEASUREMENT-VALUE [mm]** is displayed.

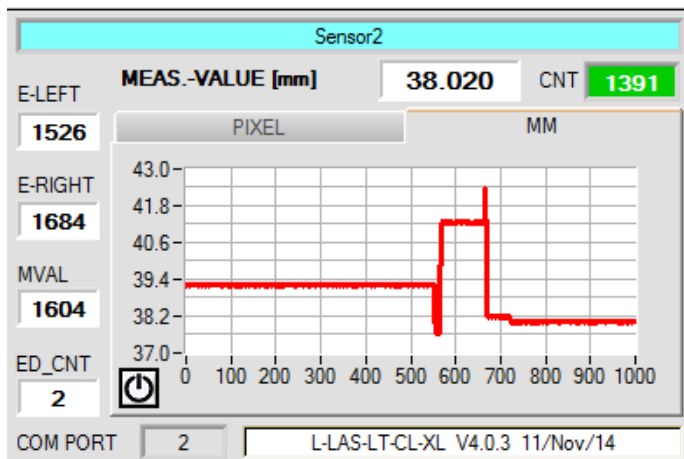
The current edge information of the line-sensor in pixel, **E-LEFT**, **E-RIGHT**, **MVAL** and **ED_CNT** (number of edges) are displayed on the left of the graph.

For reasons of memory space only the last 1000 values are shown in the graph.

The output file, however, contains all the values.

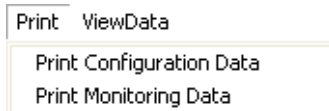


Pressing Reset sets this graph back to 0.



The **[mm]** tab provide a view of the current measurement value in [mm].

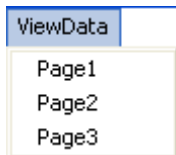
2.1.5 "Print" menu



A stored configuration file can be selected and printed by pressing **"Print Configuration Data"**.

"Print Monitoring Data" prints the activated product parameters and a screenshot of the current user interface.

2.1.6 "ViewData" menu



For reasons of space only 4 sensors can be displayed on a screen.

"Page1" and **"Page2"** can be used to toggle between the first 4 and the last 4 sensors.

"Page3", however, displays the delta C and the C-No. of all 8 connected sensors.

Attention! The display only shows the sensors that are set to enabled.

