Manual

Sealer Monitor Software

Version 0.10.7

Contents

1 Introduction and symbols

This manual guides you through the installation and the use of the "Famos Sealer Programming Software". In this manual the following symbols will be used.

Action

> ... *indicates that a user action is required.*

Warning

> ... *indicates that an action can lead to undesired results.*

Information

> ... *gives extra information.*

2 Installation

2.1 Requirements

To run the software Windows 2000, Windows XP or Windows Vista must be installed on the PC and at least on serial port or USB port must be available. Figure 2.1 shows the rear of a PC with serial port.

Figure 2.1: Rear of a PC

> ⚠️ *The rear of your PC may differ from the figure.*

2.2 Installation process

Before the Sealer Monitor software can be used the sealer has to be connected to a PC. A RS232 cable with two 9 pin female connectors (DE-9) is used to connect sealer and PC. This cable is delivered with the sealer.

➡️ Connect one end of the cable to the male DE-9 connector on the back of the   sealer and connect the other end to the male DE-9 connector on the back of the PC. Figure 2.2.1a shows the correct connection scheme.

ℹ️ Some modern PC's do not have a DE-9 connector. This can be solved by using a USB to serial adapter that are widely available. When using such an adapter two cables are needed to establish the connection between sealer and PC.

The first cable is the RS232 cable that is delivered with the sealer. The second cable is the adapter with a male DE-9 connector on one side and a USB plug on the other side.

➡️ Connect one female DE-9 connector of the RS232 cable to the male DB-9 connector of the adapter.

➡️ Then connect the other female DB-9 connector to the sealer and the USB plug to the PC. Figure 2.2.1b shows the correct connection scheme when an adapter cable is used.
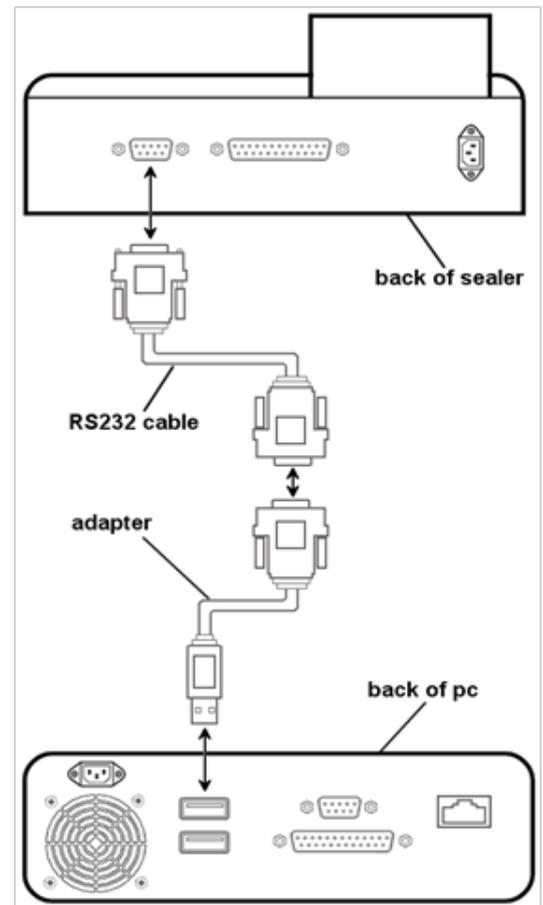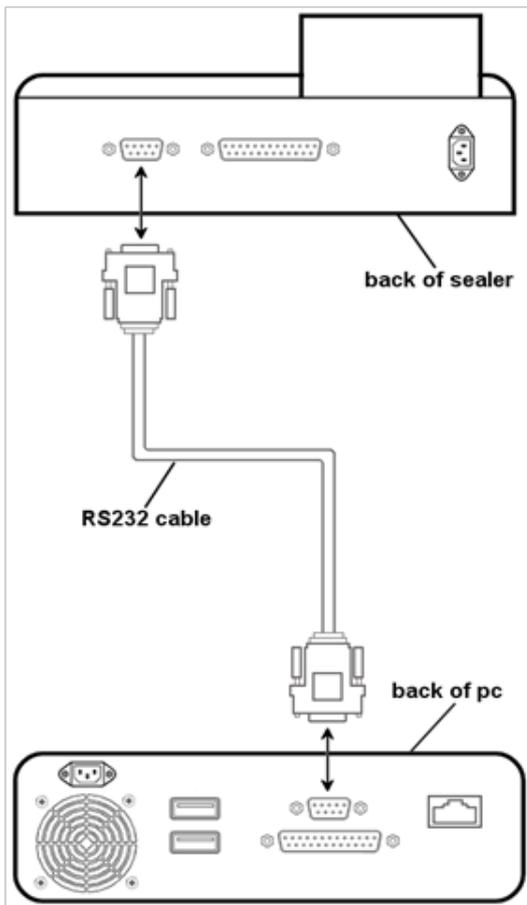
Fig. 2.2.1a: RS232 cable connection scheme

Fig. 2.2.1b: Adapter connection scheme

Together with your heat sealer a USB stick is provided which contains the Sealer Monitor USB software. Please connect the USB stick to the pc.

Select the USB stick on the pc and open the folder.
The Sealer Monitor USB software is being packed as a Win Rar Zip file.
Double click on the SealerMonitor symbol to open the Win Rar program.
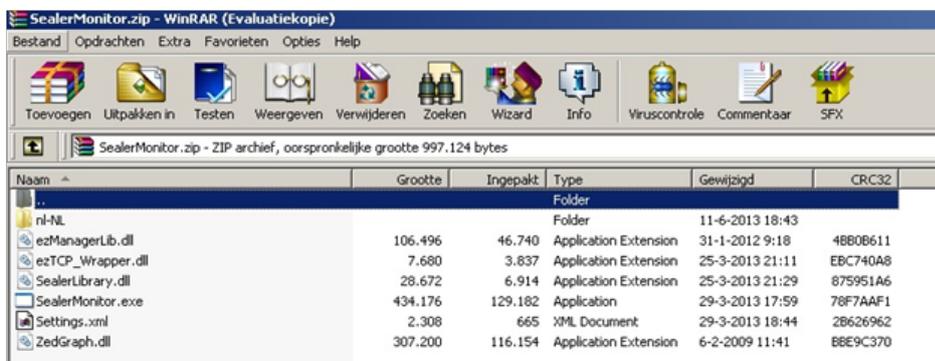Now the screen as indicated in figure 2.2 will appear.

Figure 2.2.2: WinRAR program

Depending on your pc you might get a different screen when double clicking on the SealerMonitor symbol.

➔ Click on the symbol to select the where the files should be extracted to.

➔ Select the location where you want to extract the files to and press OK.
The files will be placed in a folder called SealerMonitor.

➔ Close the WinRAR program and go to the sealerMonitor folder.

Then double click on the symbol to execute the Sealer Monitor USB software.

3 Menu & Tooblar

Existing files can be opened with the "File" menu (see figure 3.1)

Figure 3 file menu

3.1 File menu

In this menu you can open a previously saved measurement and you can exit the program.

The Open option in the File menu enables the user to select a previously saved measurement. Sealer monitor files have a *.mon extension.

Some Famos heat sealer models are equipped with a USB port. When you connect a USB stick to the module, a log will be made of the parameters of each seal. These logs will be stored on the USB stick as Log.txt files.

These Log.txt files can also be opened in the SealerMonitor software through the open option in the file menu. This is also pictured in figure 3.1.
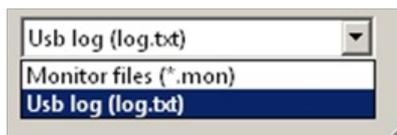

Figure 3.1. Selecting USB log.txt files

The Exit option in the File menu stops the Sealer Monitor program.

3.2 Print menu

Select print in the print menu as indicated in figure 3.2.1 to open the printer settings dialog.

Select the desired printer and the pages to print.
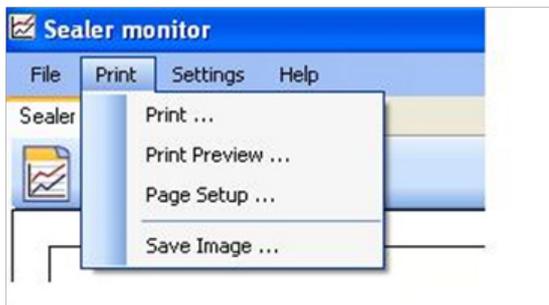
Press the "Ok" button to start printing.

Figure 3.2.1 Print menu

By selecting "Print Preview" a preview is being shown.

Note that the appearance of the preview depends on the settings selected via the Page Setup dialog.

"Page Setup" allows you to set the desired paper margins, size, and orientation.

"Save Image" allows you to save the current graphs to an image file.

3.3 Tab menu

When multiple machines are being connected, for each machine a separate file is being created. You can switch between the files in the tab menu.
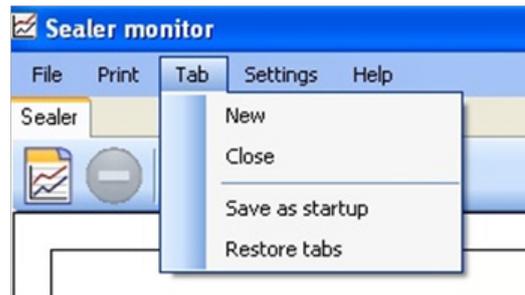

Figure 3.3.1. Tab menu

By selecting the option new in the Tab menu, a new file is being opened.

By selecting the option close in the Tab menu, a file is being closed.

By selecting the option Save as start up, you can save the current file and when you close the program and open it again, the current file will be opened.

By selecting the option Restore tabs, you can restore all machines which are currently connected to the network.

The Tab menu can only be accessed when the Ethernet option has been selected at Settings. When Serial (RS232) has been selected, the Tab menu will be disabled

3.4 Settings menu

In the settings menu you can select the interface as indicated in figure 3.4.1.
Serial (RS232) is the default setting, but this can be changed to Ethernet when your sealer is being equipped with an Ethernet converter (RS232 to ethernet).
The Ethernet option is normally only being used when multiple sealers are being connected.

Figure 3.4.1. Interface settings menu

If you want to use the ethernet interface, it is necessary to configure the ethernet converter first. This can be done through the "Configure devices" option in the help menu.
For more information please check chapter 3.5.

Furthermore you can also select the language in the settings menu as indicated in figure 3.3.2. You can choose between English or Dutch.
The default setting is English.

Figure 3.4.2. Language settings menu

3.5 Help menu

The Configure Devices option in the Help menu as pictured in figure 3.5.1 will allow you to find the heat sealers that are connected through the ethernet converter.

Figure 3.5.1 Help menu

After you have selected the Configure Devices option, the ez Config menu (figure 3.5.2) will appear
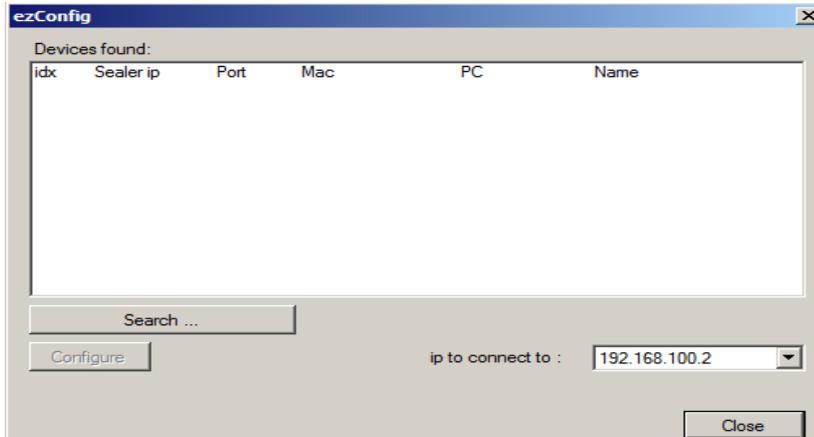

Figure 3.5.2 ez Config menu

Press search to find all connected devices.

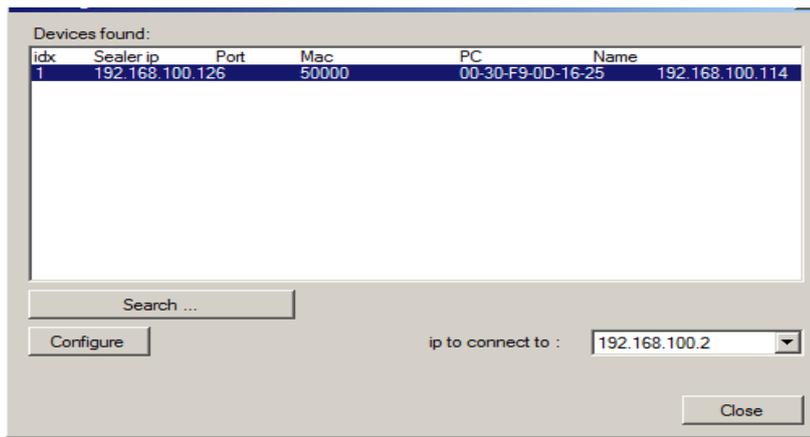Select the correct device as pictured in figure 3.5.3 and press "Configure"

Figure 3.5.3 ez Config menu

Click on [icon] to open the Start new measurement dialog and click on refresh. Now you will be able to start a new measurement with the selected machine.

The About option in the Help menu will display the version of the Sealer Monitor

3.6 Toolbar symbols

Opens the Start new measurement dialog that can be used to start a new measurement. See chapter 6 for more information about staring a new measurement.

Once a measurement has started the user can select this icon to stop the measurement.

Note that some of the icons or functions in the menus may be grey, which means that these options are currently disabled. The Stop (●) icon will be disabled when no measurement has been started.

When the Sealer Monitor software is measuring, the New measurement ([icon]) icon and the Open file option in the file menu will be disabled.

4 Graph

Each graph is divided into two regions of interaction. The center of the graph shows the actual data in a line chart. The border displays the axis scale and a button that shows the number of errors that have occurred.

Figure 4 Chart

4.1 Chart Interaction

The user can use the mouse to change the view of the line chart.

- Pan: holding down the center mouse button and moving the mouse will drag the chart in the direction of the mouse movement.

- Selection: holding down the left mouse and dragging the mouse will result in a selection rectangle. When the left mouse button is released the chart will focus on the selected rectangle.

- Zoom in/out: scrolling the mouse wheel up and down will zoom in/out on the chart.

Note that any of the above actions will disable Auto Focus On Time Span and select the Manual focus style. Section 4.3 describes how to enable/disable Auto Focus On Time Span and Manual focus styles.

4.2 Error button

Each graph has an error button that gives a quick overview of the number of errors. An error occurs when a measurement falls outside the limit box range. The limit box is visualized as a green rectangle in the graph. Section 5.2 describes how the range of a limit box can be changed. Figure 4.2.1 show a green button that indicates zero errors, while figure 4.2.2 clearly shows that seven errors occurred.

Fig. 4.2.1: 0 errors   Fig. 4.2.2: 7 errors

Clicking on the button in 4.2.2 will open a list of errors as depicted in figure 4.2.3. The Go to error column contains buttons that can be used to automatically focus on and mark the error described in that row. An error can be removed by selecting the checkbox in the Clear error column. Selecting the All checkbox below the Clear error column will clear all current errors. This can be useful if errors have been inspected and the user wants to continue with a button that shows zero errors.

Fig. 4.2.3: List of errors

4.3 Pop-up Menu

Clicking the left mouse button somewhere in the graph will open a pop-up menu (see figure 4.3.1). This menu enables the user to change the following settings:

- Show Point Values: enables a small information box when the mouse is hovering above a graph point. This information box contains the time of the measurement and its value.

- Focus on Graphs: centers all graphs and zooms in/out so that all values are visible.
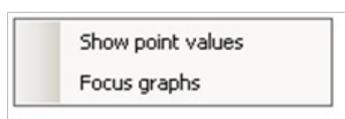

Fig. 4.3.1:Graph menu

5 New Measurement

Clicking on the New measurement icon (⬜) in the toolbar will open the Start new measurement dialog depicted in figure 5. This dialog shows the last used settings or the default settings if this is the first time the program is used. An explanation of the various settings in figure 5 is given in this chapter.
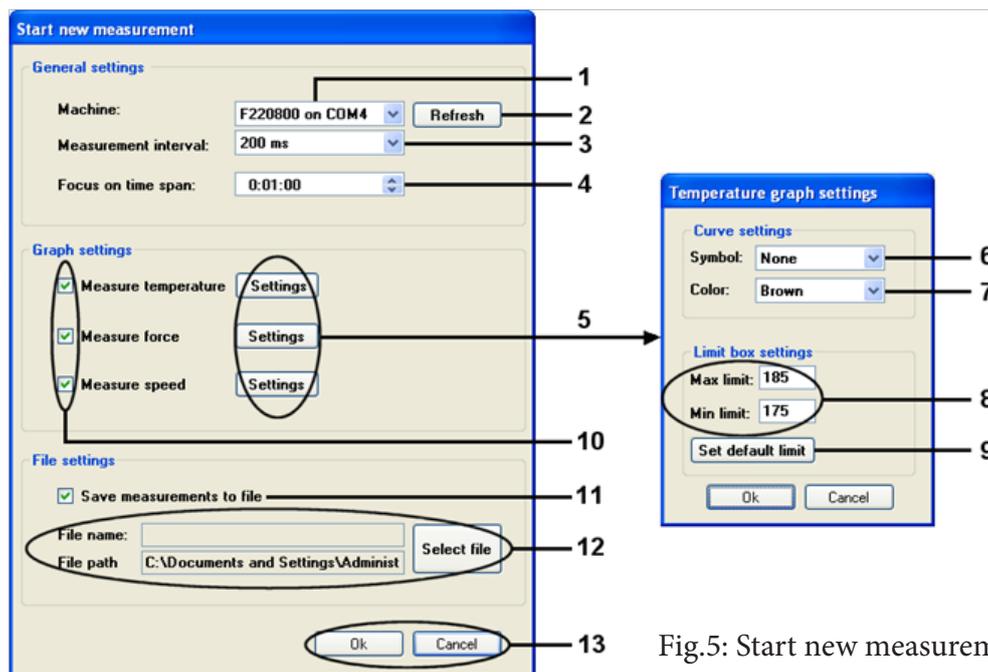

Fig.5: Start new measurement dialog

5.1 General Settings

1. This field shows the selected sealer and the port to which it is connected.
   To select another sealer click on the field and select a machine in the drop-down list.
   Note that the field will be empty if no machines are available or connected.

2. The Refresh button is used to update the list of machines (see 1). If no machine is connected (i.e. 1 is empty) one can connect a sealer to the computer and press Refresh to update the list of available machines. See chapter 2.2 for the correct connection scheme.

3. Sets the desired time between each measurement. To select another interval click on the field and select a new interval value from the drop-down list. For example, 200 ms means that after every 200 ms the temperature, force, and speed values will be retrieved from the sealer. Note that 1000 ms = 1 second.

4. Sets the time span that will be shown in the graphs, i.e. the graphs will autofocus on the last values the fall within the given time span.

5.2 Graph Setting

5.   The Settings buttons opens the graph settings dialogs. In this dialog the settings of individual graphs can be changed.

6.   The symbol that marks values in the graph. Selecting the None symbol in the drop-down list will ensure that no symbols are used.

7.   The color of the curve, including the symbols, can be selected via the color drop-down list.

8.   The Limit box settings are used to set a range that corresponds with the normal operation of the sealer. Every value above or below this range is considered an error and will increase the error button count. See section 4.2 for a description of the error buttons.

When adjusting the parameter limits on the sealer itself, please make sure to adjust the parameters in the settings menu of the Sealer Monitor USB Software as well. The parameter limit settings of the sealer should always be the same as the settings of the USB Software program.

9.   Pressing Set default limit will set the default range.

10. With these checkboxes the desired graphs can be selected. Deselecting a graph will disable the Settings button.

5.3 File Settings

11. Select Save measurements to file to save the measurements. Deselecting the Save measurements option will disable the Select file button.

12. When Save measurements to file is enabled a file must be selected via the Select file button. After selecting a file the File name and File path will show the selected file.

13. When all the setting have the desired value the measurement can be started by clicking on the Ok button. An error message will appear if one or more fields contain invalid values.

6 Getting started

This chapter describes the basic usage of the software. It describes how to start new measurements, how to open an old measurement, and how to print and save graph images.

6.1 Starting a new measurement

Below a short description of how to start a new measurement is given. An extensive overview of all the options can be found in chapter 5.

To start a default measurement follow the following steps:

➔ Start Sealer Monitor software by clicking on the desktop shortcut or use the start menu.

➔ Open the Star new measurement dialog by clicking on the ⬚icon in the toolbar.

➔ In the General settings box, select a sealer using the drop-down list labelled Machine. If this drop-down list is empty make sure that the sealer is connected to the PC (see chapter 2.2) and use the Refresh button to detect the connected machine.

➔ In the File settings box, click on Select file to create a file that will be used to store the measurements. By deselecting Save measurements to file no measurements will be saved.

➔ Click on Ok to start the measurement.

➔ Click on the ⬤ icon to stop the measurement.

6.2 Opening a file

Opening a file enables the user to view the results of a previous measurement. The user can scroll and zoom but no new measurements can be added to the opened file.

➔ Select the open optionin the File Menu to open the Select file dialog.

➔ In the dialog select a file with a Monitor file extension (a file that ends with mon) or a USB Log file (a file that ends with Log.txt).

➔ To load the selected file use the Open button or double click on the selected file.

When you want to open a file while logging, please fo the following:

Go to the Tab menu on the toolbar and click on New
The Tab menu is only available when the Ethernet option has been selected at Settings.

Go to the File menu on the toolbar and click on Open

6.3 Printing and saving images

During a measurement (see 6.1) or when an old measurement has been opened (see 6.2) it is possible to print the current graph or save the graph to an image file.

Printing:

Use the page setup option to set the desired paper margins, size, and orientation.

A print preview can be generated by clicking on the print preview option.

The result of the preview depends on the set paper margins, size, and orientation.

Finally the desired printer can de selected via the print option in the menu.

Saving Image:

Select the Save Image option to open the file save dialog.