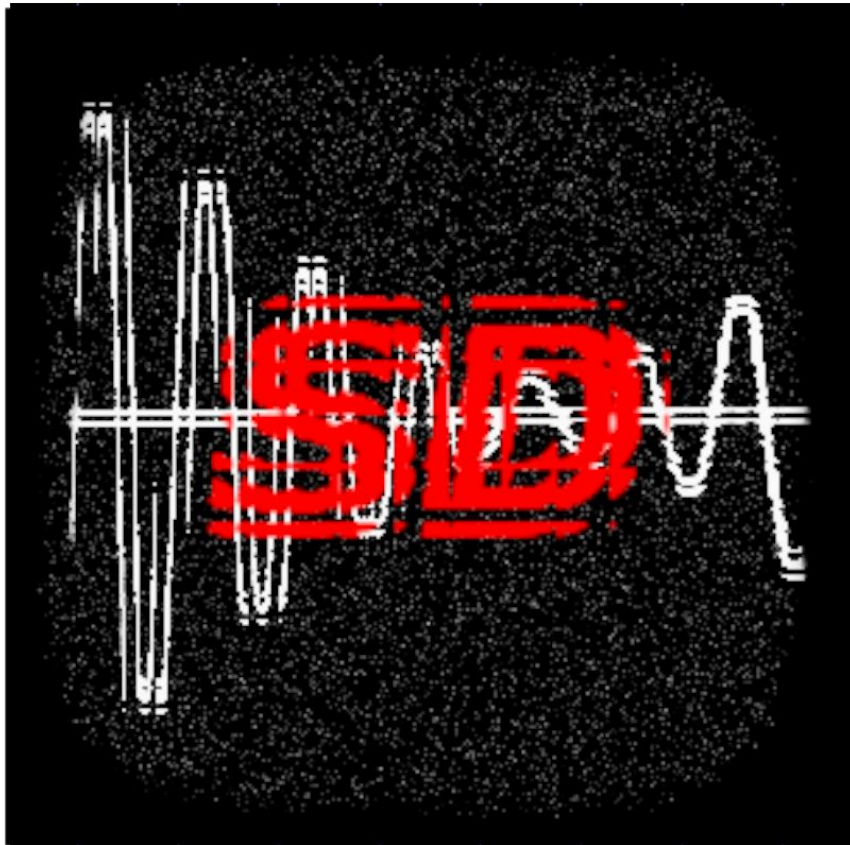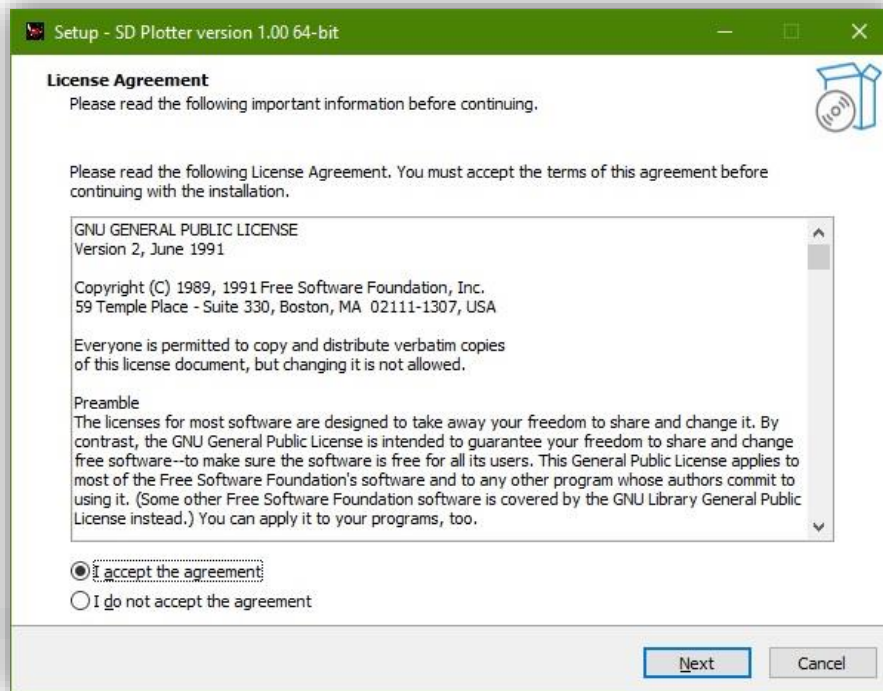# Instruction Manual

SD PLOTTER

Version 1.00

Ver 1.00

This document aims to explain and address topics related to how to operate the SD Plotter software and the controller for data recording and process control.
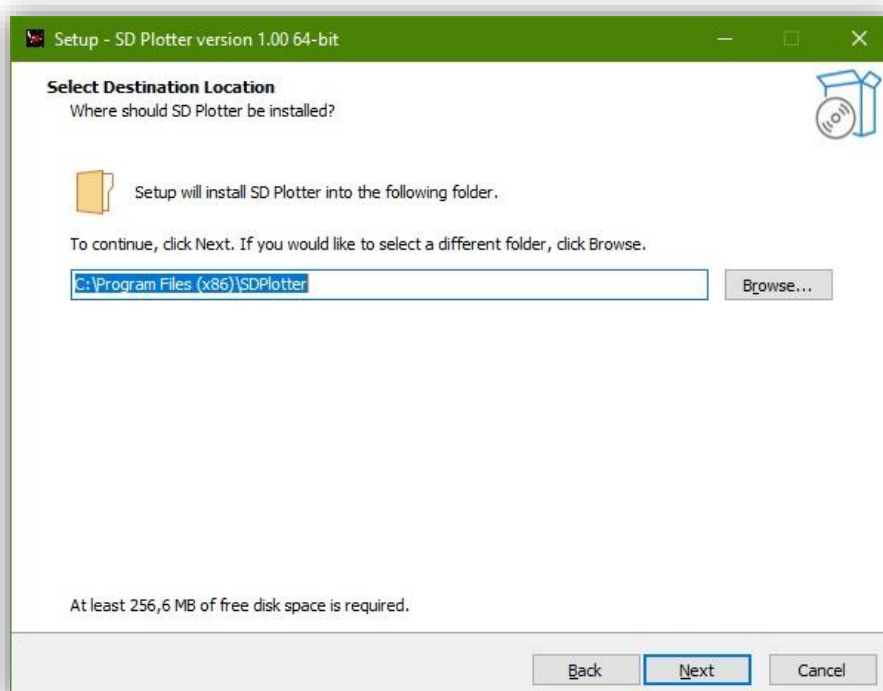
We will start by installing the software.

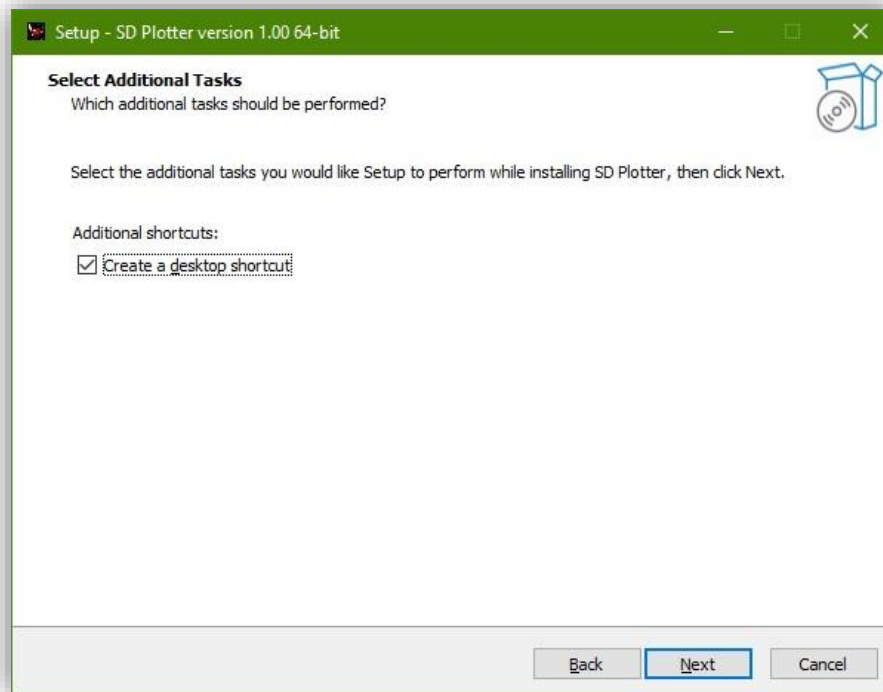By clicking on the installer icon this will be the first step:

Click on next.

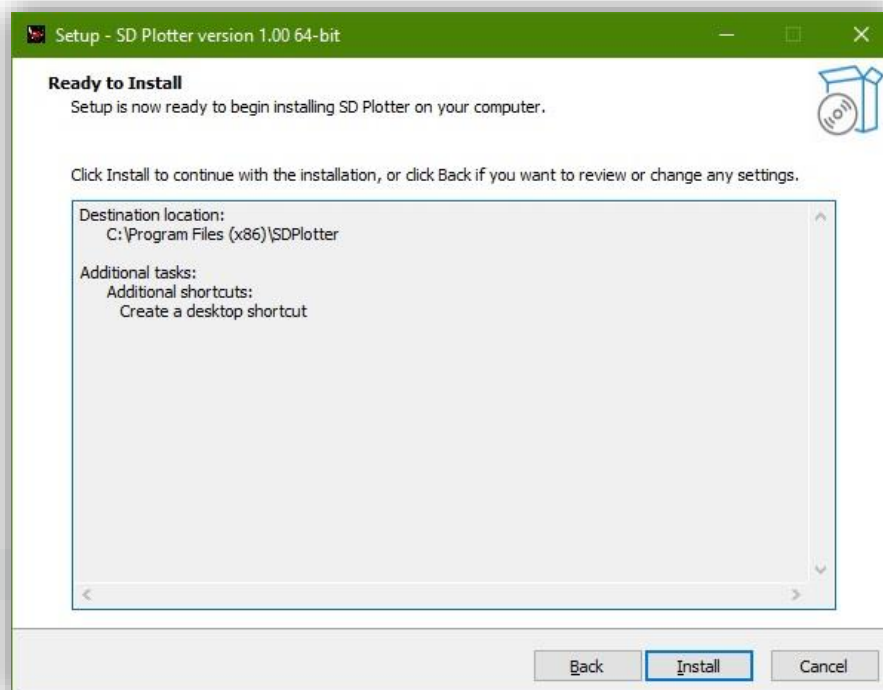Here you can choose the folder where the software will be installed.

Click on next.
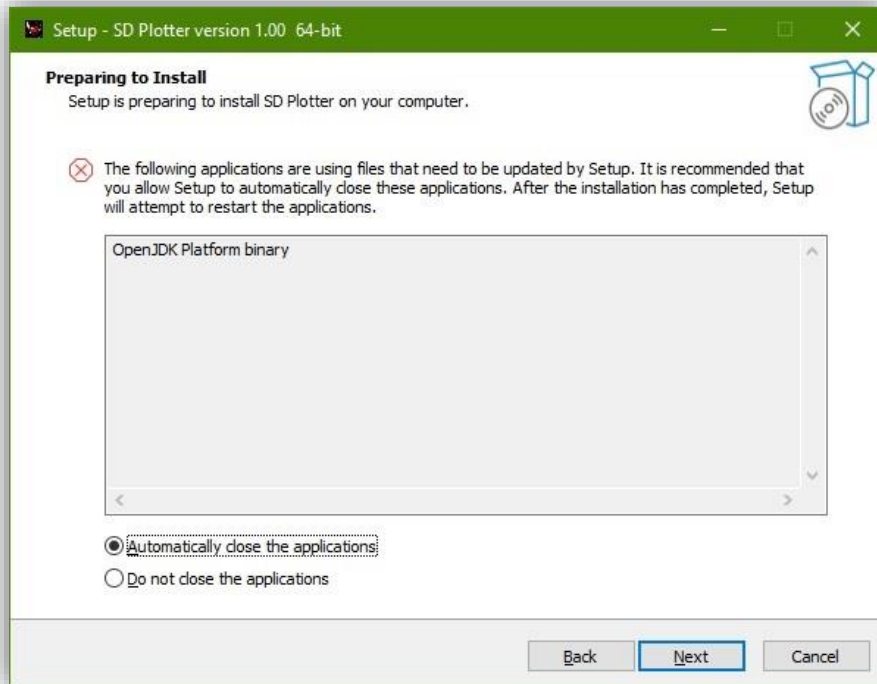Check to have the installer create a desktop shortcut for the program.
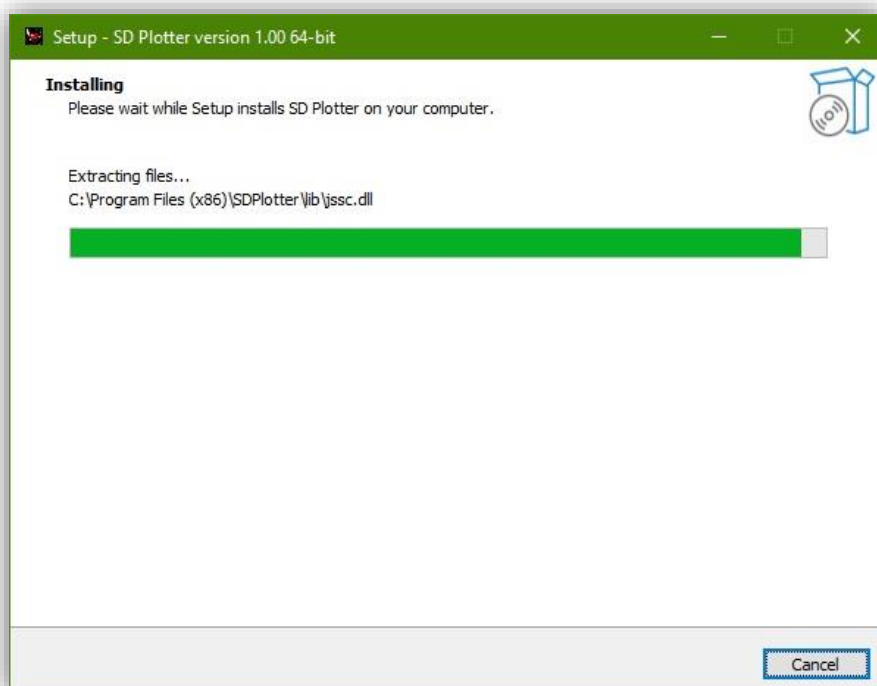

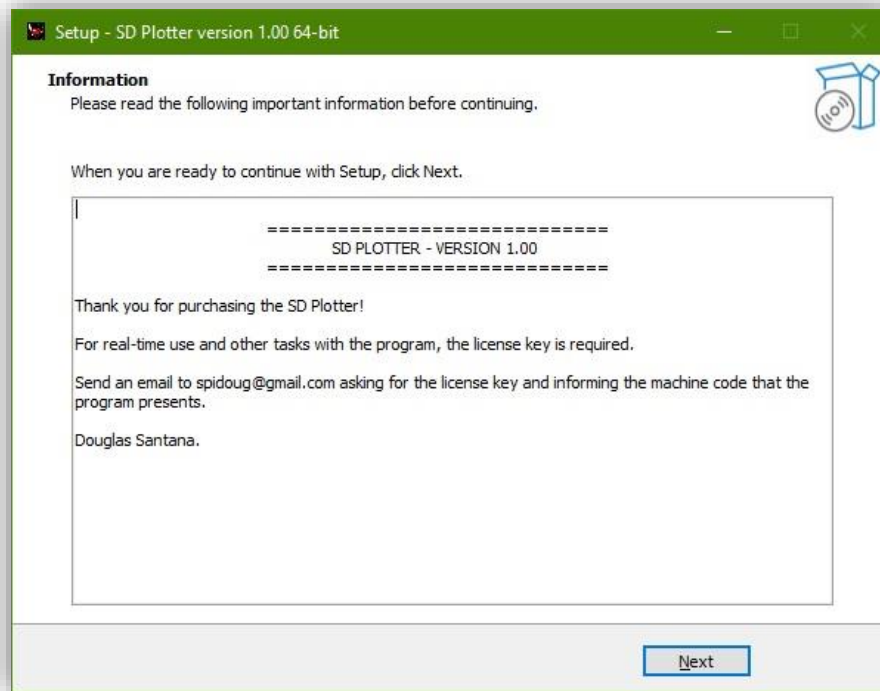On this next screen, a summary of the installation parameters will be informed.

Click on next. If the program is already running and you are reinstalling it at the same time, this screen will appear. Close the program and continue the installation.
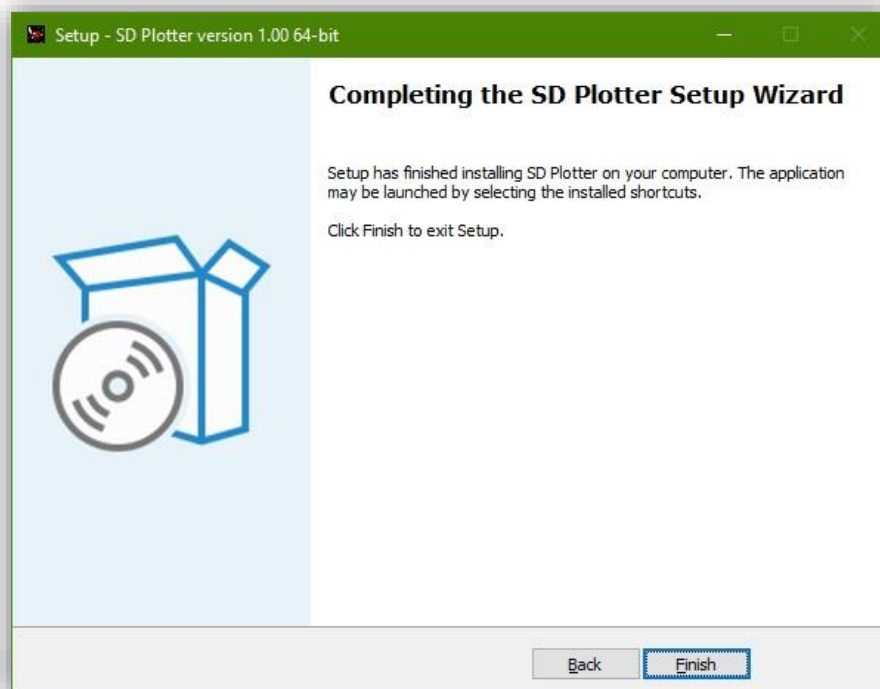

At this moment the system will be installing the files in the operating system.
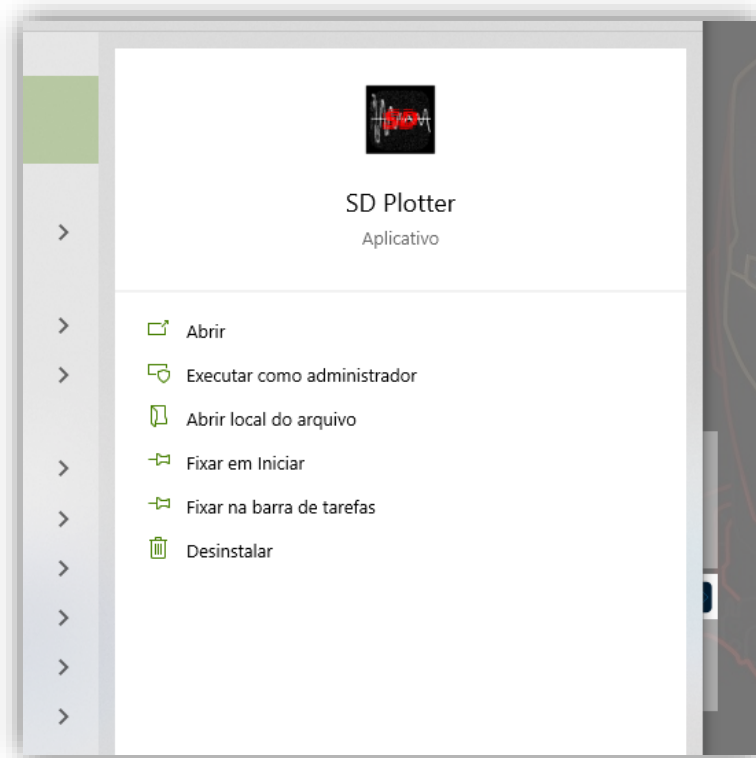
When the system finishes installing the files, this window will appear.

Setup - SD Plotter version 1.00 64-bit

Information
Please read the following important information before continuing.

When you are ready to continue with Setup, click Next.

```
==============================
        SD PLOTTER - VERSION 1.00
==============================
```

Thank you for purchasing the SD Plotter!

For real-time use and other tasks with the program, the license key is required.

Send an email to spidoug@gmail.com asking for the license key and informing the machine code that the program presents.

Douglas Santana.

Next

Click on next.

Setup - SD Plotter version 1.00 64-bit

Completing the SD Plotter Setup Wizard

Setup has finished installing SD Plotter on your computer. The application may be launched by selecting the installed shortcuts.

Click Finish to exit Setup.

Back   Finish

Open the program via the Windows start button or the desktop
icon.

When starting the program, the following login screen will be
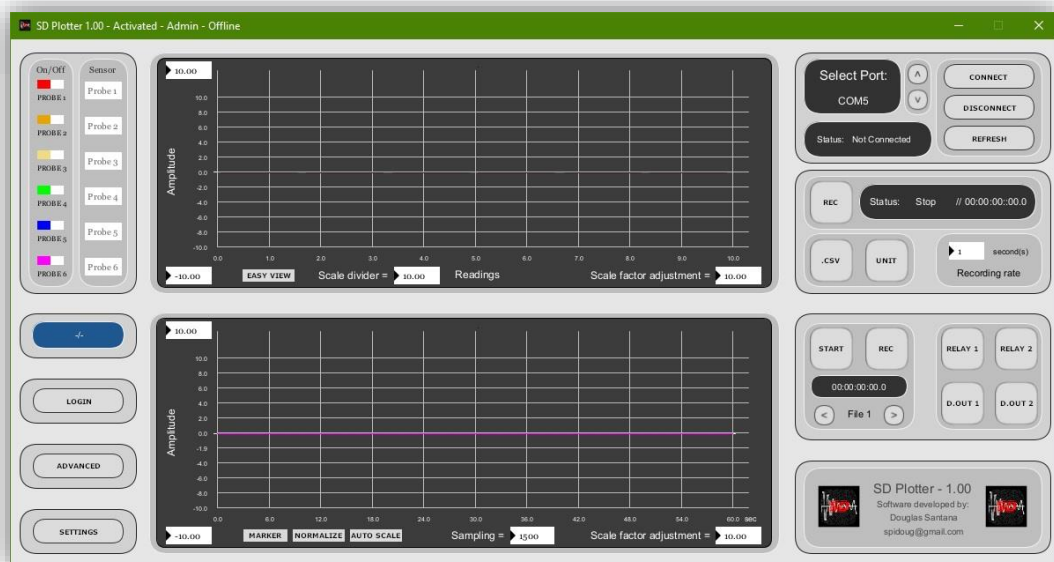displayed:

The default login for administrative access to the software will be:

USERNAME: Admin

PASSWORD: 12345

There will only be a single system admin. The Admin has the possibility to configure sensor parameters, calibration, sensor naming, adding, and deleting users.

The Admin will not be able to perform the analysis recording, there must be at least one operator login for this function. Admin can change login password by creating user Admin with different password. Deleting this user is not allowed.

When the installation is carried out and the software is started, the software will inform you of the need to purchase the license for use.
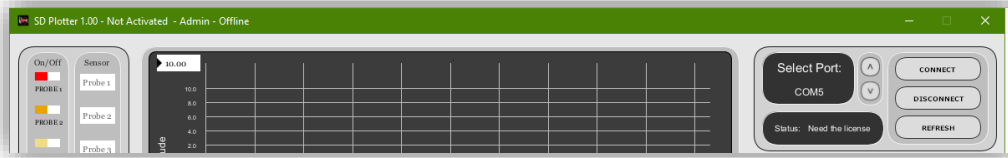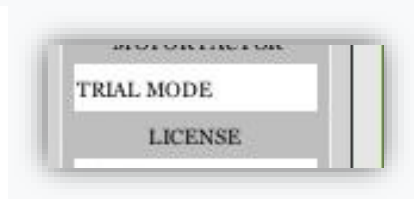

Click on the settings button.
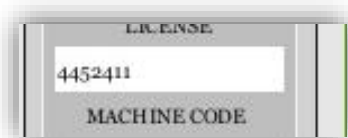

The settings screen will open.

In the settings window, click on the demo button.

The software in the main window will show a signal simulation and in the settings window the field for license will be enabled for editing.

Contact us via spidoug@gmail.com and request the license informing the machine code that the software presents.

Having the license available for the presented machine code, enter it in the corresponding field and click on the demo button to validate the action.
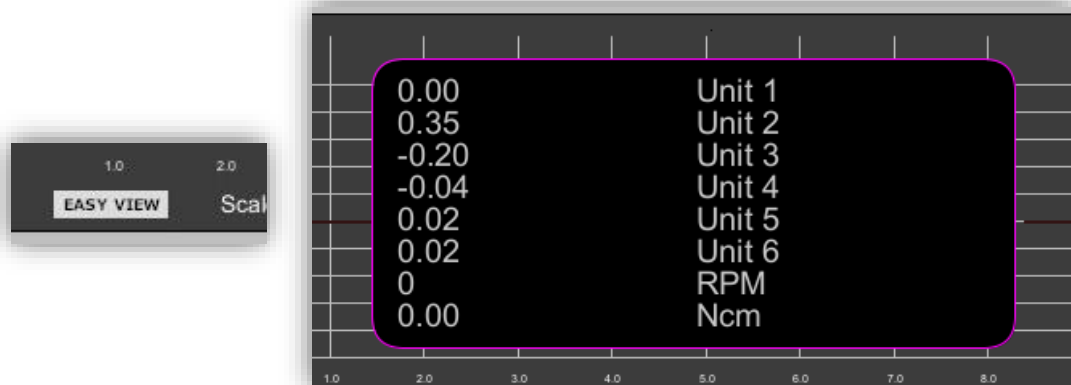
From this point, the software operation explanation will be for the calibration mode.

This is the main screen of the program, displaying signals in demo mode.

Signals with noise characteristic are generated.

As an improved feature, the easy view button when pressed presents the window with values of all instantaneous values of processed signals.

In the upper left part of the software, we can find the field to enable or disable, and name the types of sensors connected to the system.
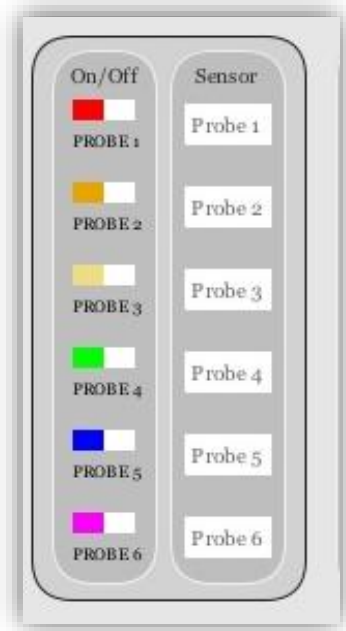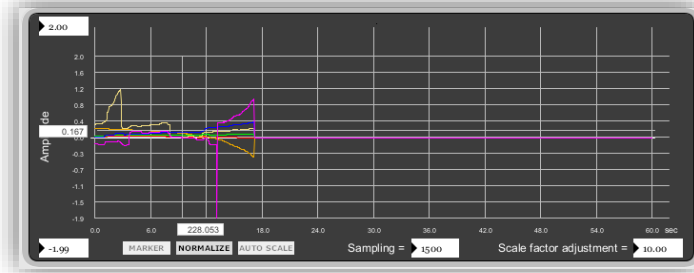
Enabling probe keys does not change the fact that data is recorded in the final file. The keys are used to focus data through the instant graphics.
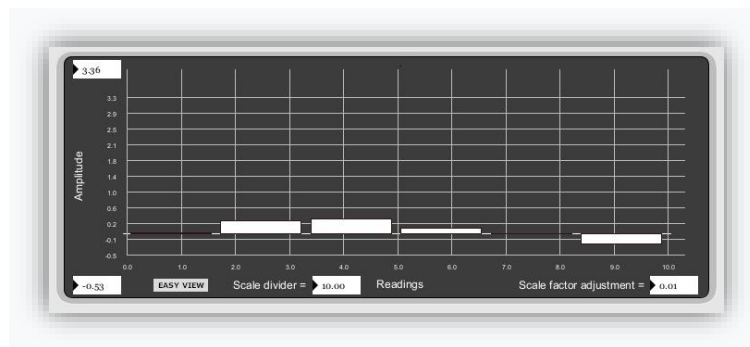
The marker button generates a cross on the time graph, being able to follow the amplitude values in relation to time.

When the easy view function is not used, it is possible to monitor the graph by bars.


The connection between the equipment and the software is made through a serial connection. Searching, connecting, and disconnecting takes place through this panel.

Before the connection is made, the sampling rate that will be used for the graph and data obtained must be chosen.

When there are no COM ports available on the computer, it will be reported as null in select port.
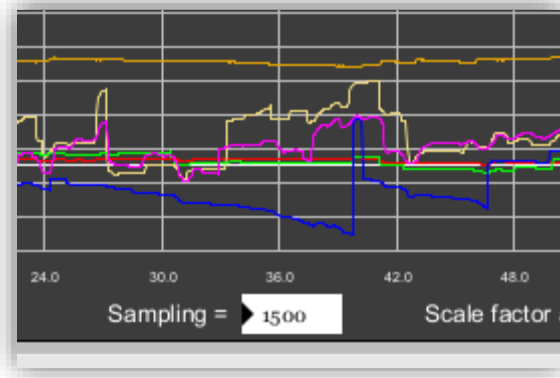
Once the connection has taken place, the sampling rate cannot be changed.

When opening the settings screen in calibration mode, the functions of unit identification, span, zero, smooth, data save location, color adjustment and motor factor will be available for editing for Admin only.
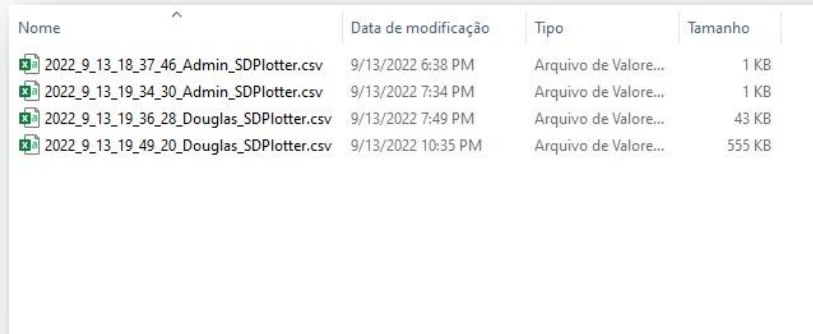
This field refers to data recording.

It is possible to write the data in .txt or .csv mode. When using the unit mode, the data will be recorded in their respective units already properly configured for the already pre-selected extension.
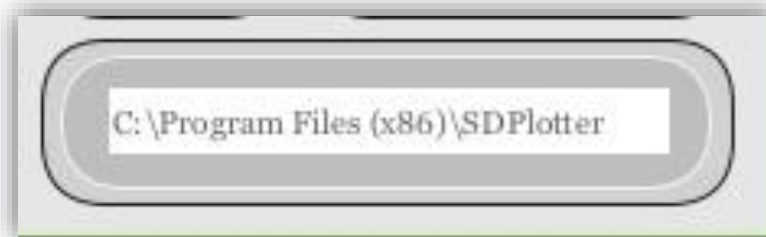
When using raw mode, data will be written in bit value.

Recording data files are available in the data folder located in the software installation folder.

If it is necessary to change the storage location of this data, modify the following field:

This field of the software in the main window is intended for recording and reproducing the activation of the control of the relays and variation of the knobs of the speed and temperature controls present in the advanced screen.

Up to 100 different trigger method files can be recorded.

The Admin has the possibility to delete or create users through the following process:
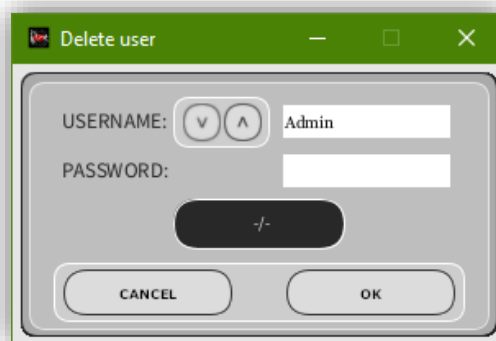
For process control click on the advanced button.

By clicking on the advanced button, the following screen will be displayed:
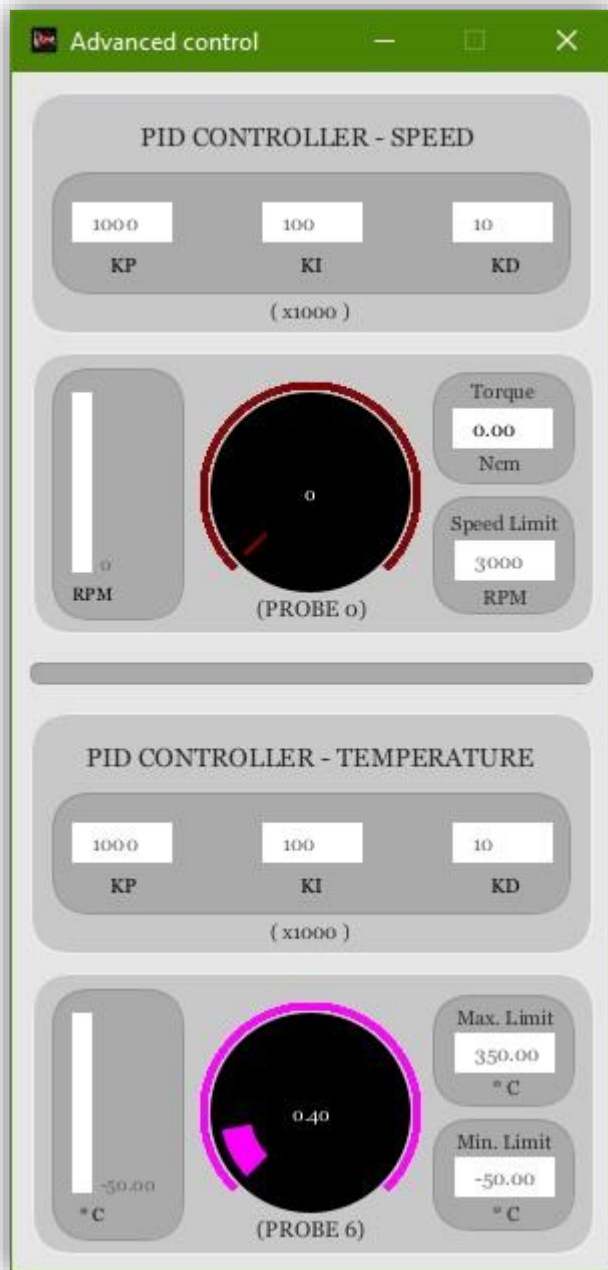
The constants Kp, Ki, Kd when sent to the processing unit will be divided by 1000.

Values are limited from 0 to 9999.

When recorded or played any method in the main window, knobs will be part of the process.

In operator mode these values cannot be changed.

If the system is recording analysis data, recording control method, or playing some method, it will not be possible to disconnect from the software.

While the system is connected, it will not be possible to close the software.

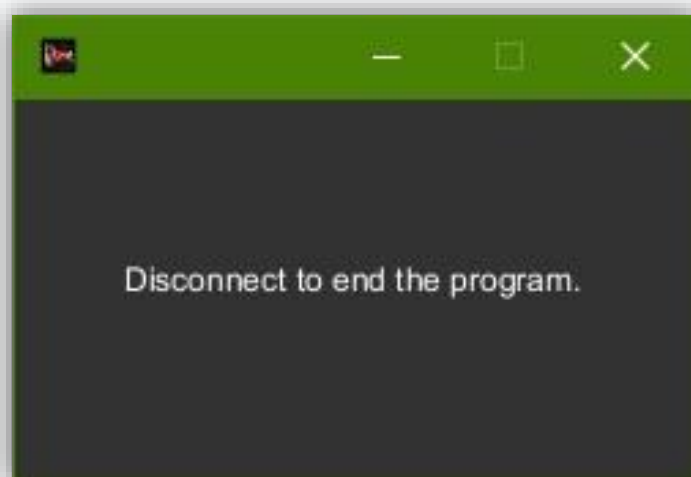This screen will be displayed when this type of situation occurs.

It is possible to change the colors of the graphic, windows, and letters of the software, this is possible through the color panel.

0 = Black   -- 255 = White
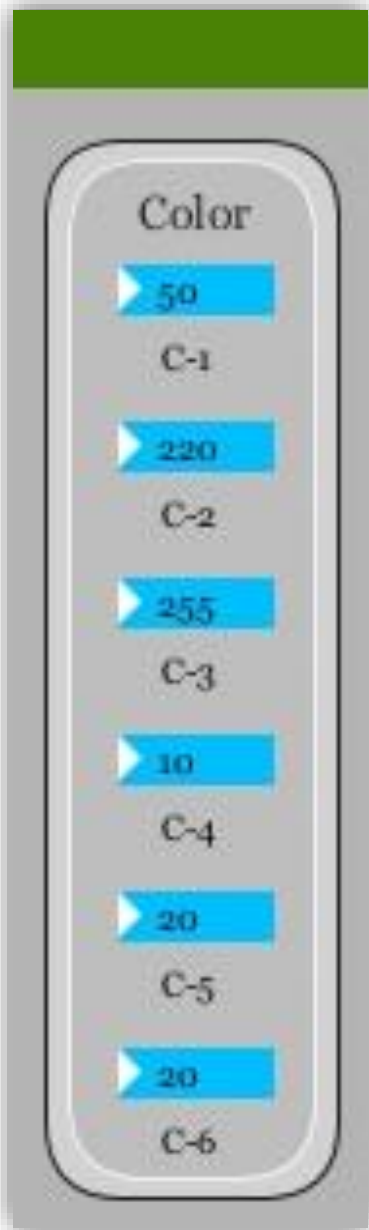
C-1 - Set the background color of the graph.

C-2 – Set the color of graphic characters.

C-3 - Set the character color of the easy view display.

C-4 - Set the background color of the easy view display.

C-5 - Set the character color of the settings panel (engine factor, license, machine code and baud rate)

C-6 - Set the character color of configuration parameters.

Uninstalling the software can be performed from the control panel.

When uninstalled, the files created after installing the software will remain in the folder, so the files of operating parameters, control methods, and analysis data will remain in the folder even when the software is reinstalled, including the activation key of the license.

This is the way to output data in spreadsheet software when used in operator mode.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Report generated by SD Plotter - Version 1.00														
2	Acquired by Operator														
3	Machine Code: 1076389														
4	Year	Month	Day	Hour	Minute	Second	N.C	N.C	N.C	N.C	Keller	Pt 100	Speed	Torque	
5							N/A	N/A	N/A	N/A	bar	* C	RPM	Ncm	
6	2022	9	13	19	49	20	0	0	0	0	0	-5.22	0	0	
7	2022	9	13	19	49	21	0	0	0	0	0	-4.83	0	0	
8	2022	9	13	19	49	22	0	0	0	0	0	-4.58	0	0	
9	2022	9	13	19	49	23	0	0	0	0	0	-4.43	0	0	
10	2022	9	13	19	49	24	0	0	0	0	0	-4.39	0	0	
11	2022	9	13	19	49	25	0	0	0	0	0	-4.31	0	0	
12	2022	9	13	19	49	26	0	0	0	0	0	-4.23	0	0	
13	2022	9	13	19	49	27	0	0	0	0	0	-4.16	0	0	
14	2022	9	13	19	49	28	0	0	0	0	0	-4.07	0	0	
15	2022	9	13	19	49	29	0	0	0	0	0	-4.01	0	0	
16	2022	9	13	19	49	30	0	0	0	0	0	-3.96	0	0	
17	2022	9	13	19	49	31	0	0	0	0	0	-3.94	0	0	
18	2022	9	13	19	49	32	0	0	0	0	0	-3.88	0	0	
19	2022	9	13	19	49	33	0	0	0	0	0	-3.74	0	0	
20	2022	9	13	19	49	34	0	0	0	0	0	-3.68	0	0	
21	2022	9	13	19	49	35	0	0	0	0	0	-3.61	0	0	
22	2022	9	13	19	49	36	0	0	0	0	0	-3.56	0	0	
23	2022	9	13	19	49	37	0	0	0	0	0	-3.55	0	0	
24	2022	9	13	19	49	38	0	0	0	0	0	-3.53	0	0	
25	2022	9	13	19	49	39	0	0	0	0	0	-3.55	0	0	
26	2022	9	13	19	49	40	0	0	0	0	0	-3.54	0	0	
27	2022	9	13	19	49	41	0	0	0	0	0	-3.51	0	0	
28	2022	9	13	19	49	42	0	0	0	0	0	-3.79	0	0	
29	2022	9	13	19	49	43	0	0	0	0	0	-4.24	0	0	
30	2022	9	13	19	49	45	0	0	0	0	0	-4.16	0	0	
31	2022	9	13	19	49	46	0	0	0	0	0	-3.6	0	0	
32	2022	9	13	19	49	47	0	0	0	0	0	-3.23	0	0	
33	2022	9	13	19	49	48	0	0	0	0	0	-3.29	0	0	

Inside the software installation folder, there is the log folder, in which there will be the daily records of the software for all the actions taken.

When a data recording is started, recording or method playback is in progress, it will not be possible to exit the software without first pausing the action that takes place.
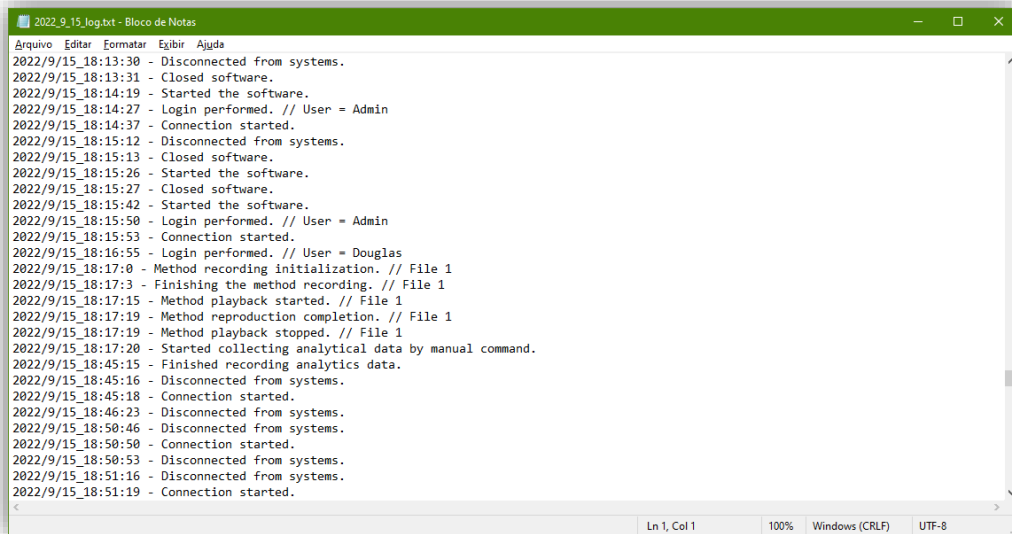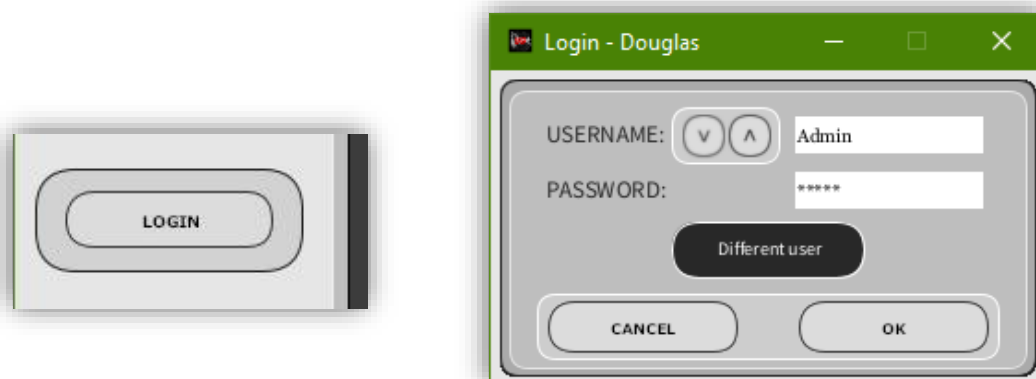
By clicking on the login button, it is possible to change the user, but this can only be done if none of the actions mentioned above are taking place.

This concludes the explanation on the use of the software and its functions.

Instruction manual produced by Douglas Santana

spidoug@gmail.com

SD PLOTTER V1.00