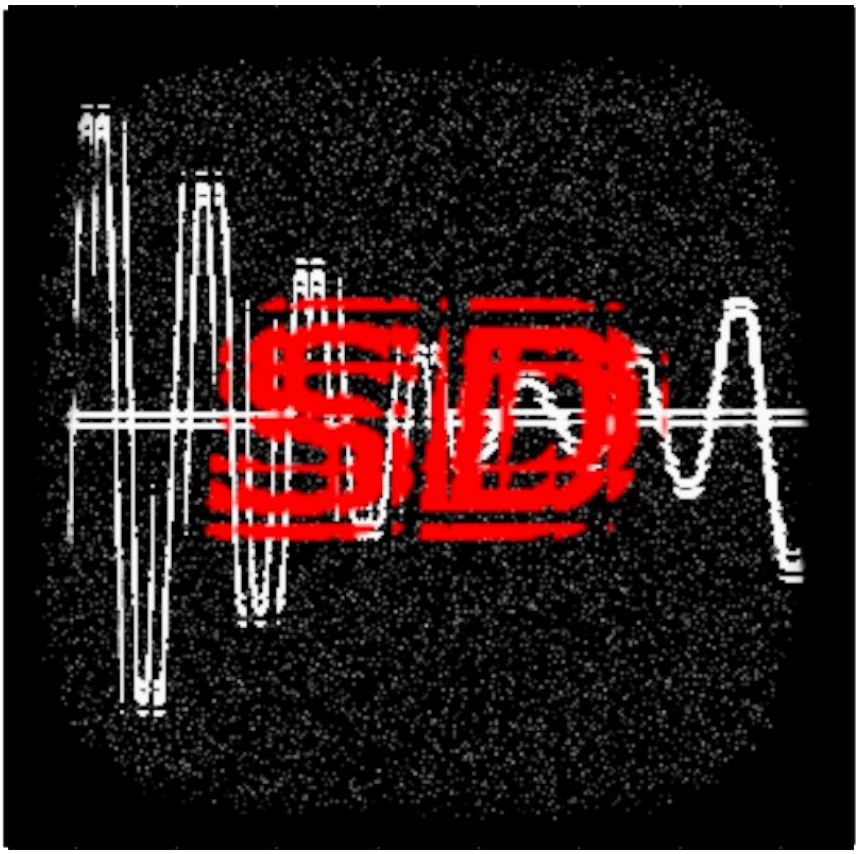
Instruction Manual

SD PLOTTER

Version 1.00

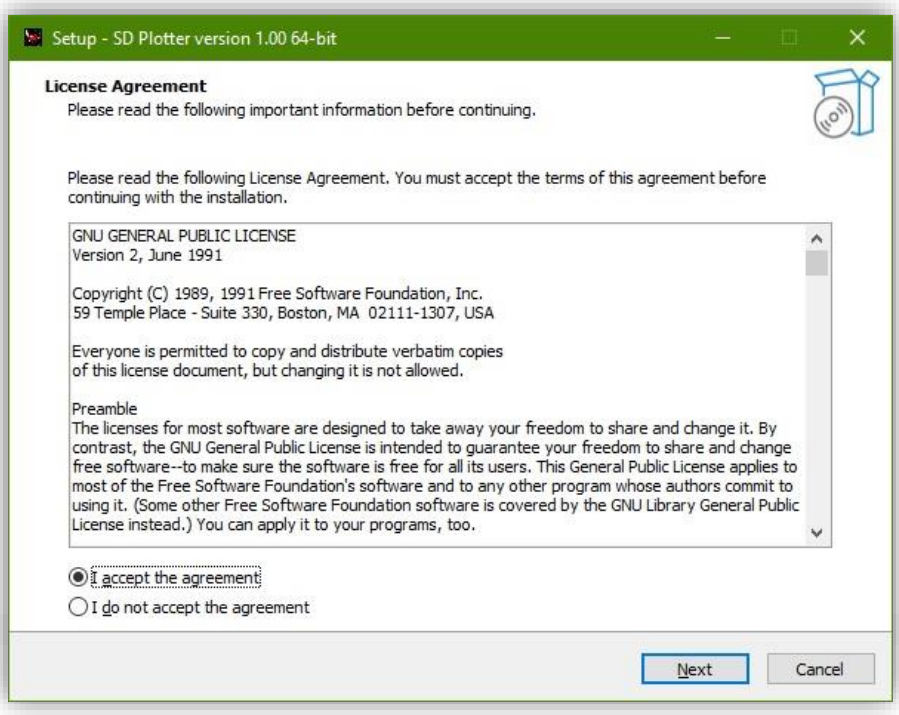
Ver 1.00



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.

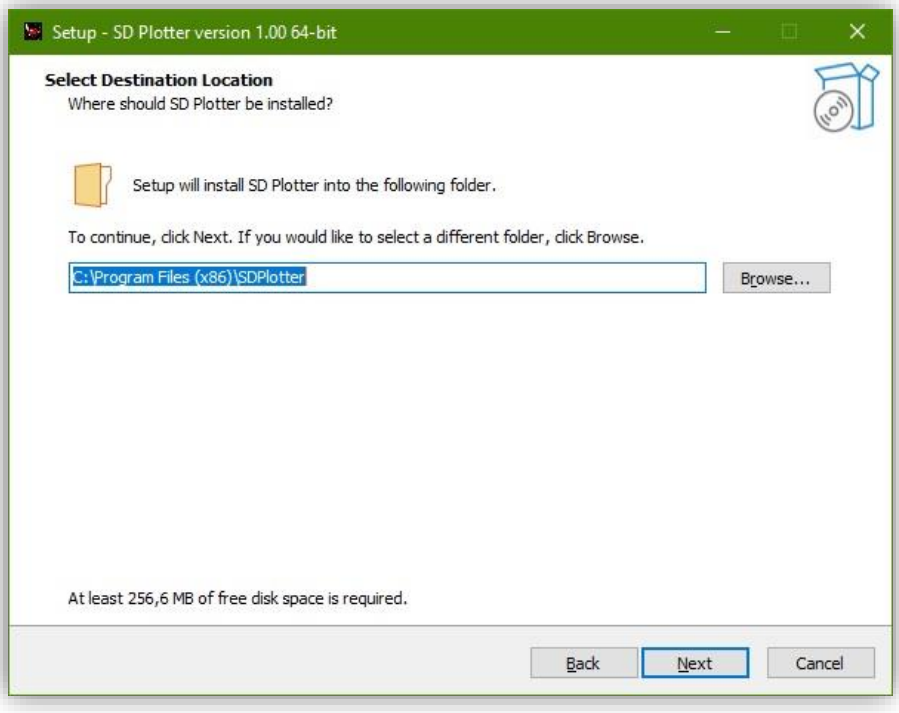
We will start by installing the software.

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



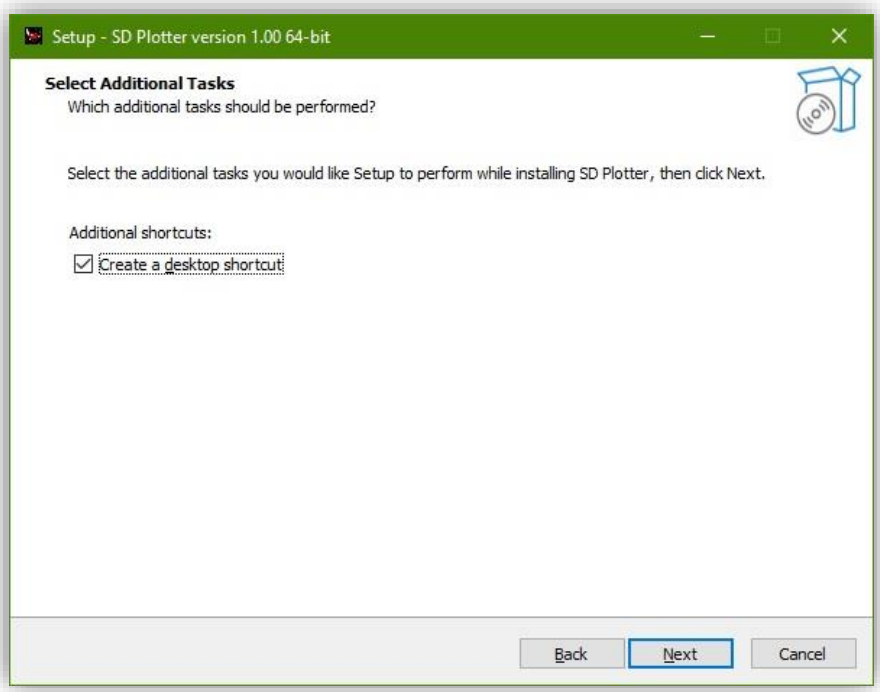
Click on next.

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

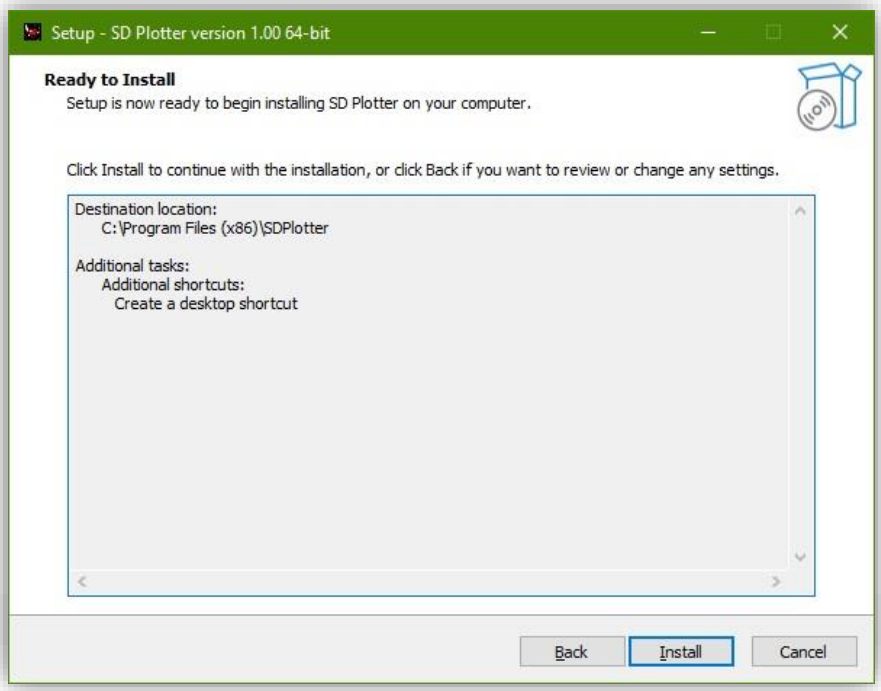


Click on next.

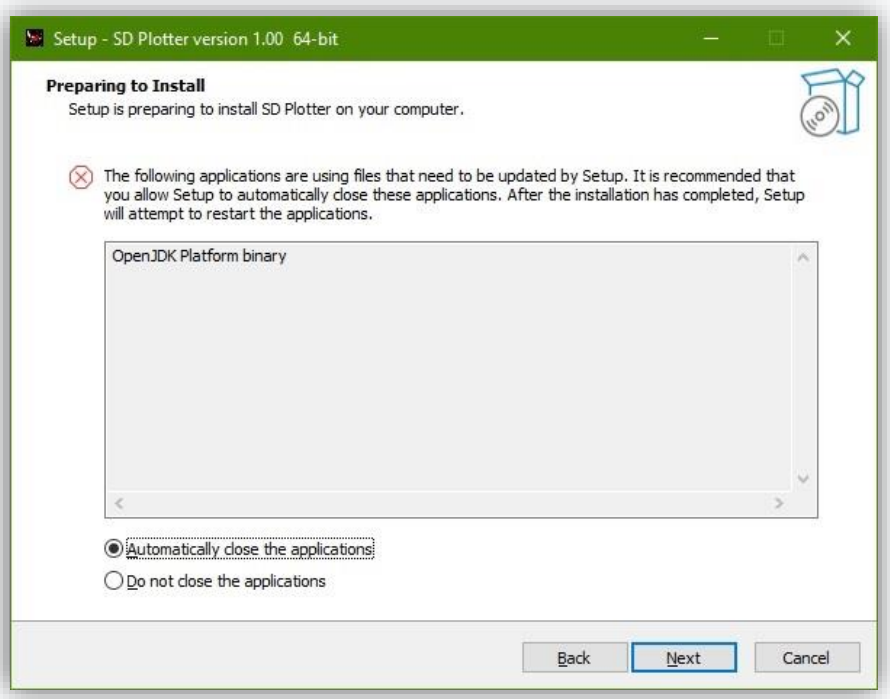
Check to have the installer create a desktop shortcut for the program.



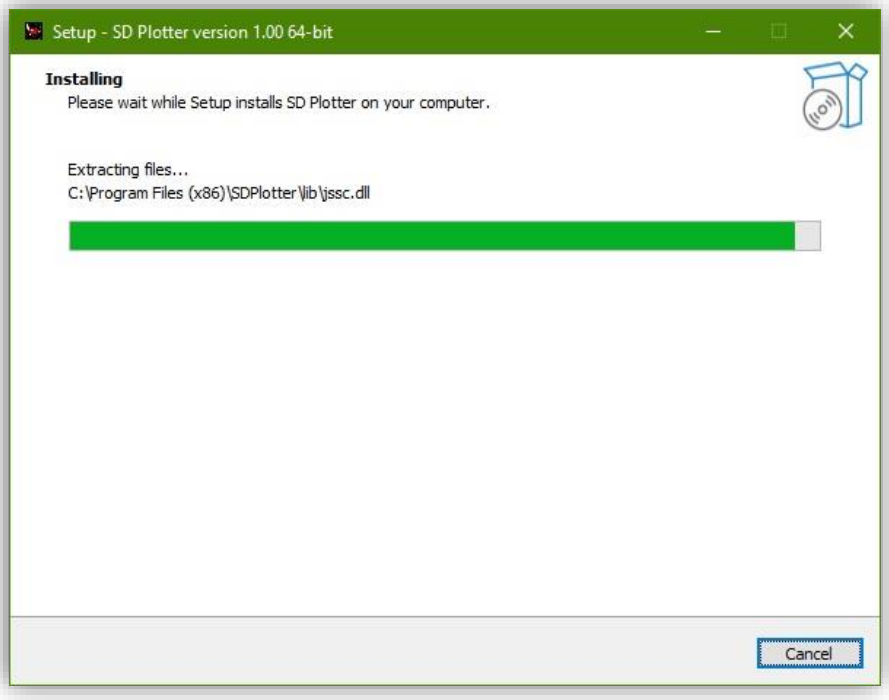
On this next screen, a summary of the installation parameters will be informed.



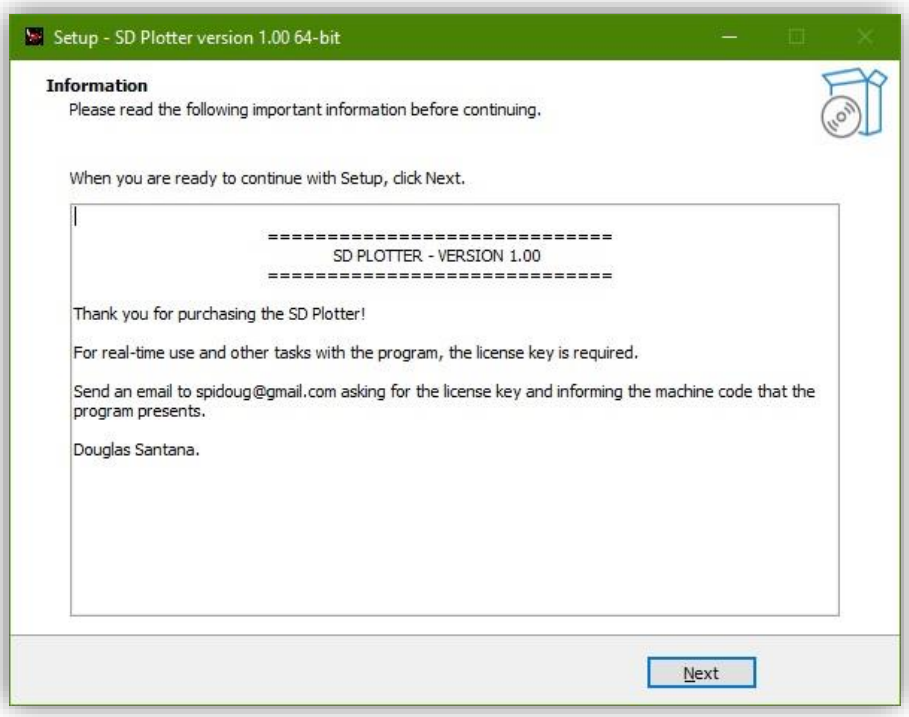
Click on next. If the program is already running and you are reinstalling it at the same time, this screen will appear. Close the program and continue the installation.



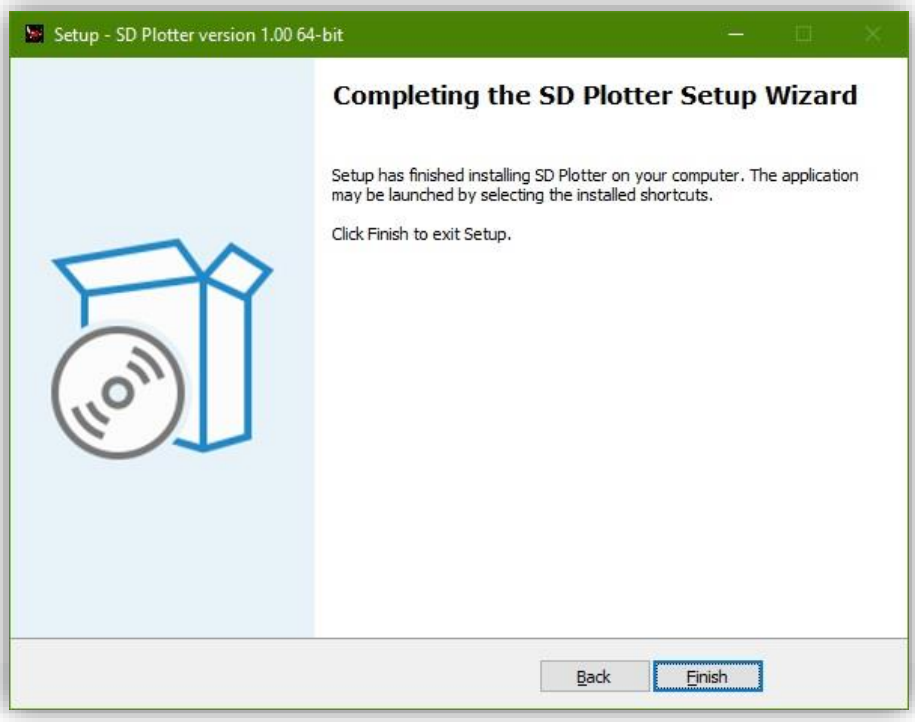
At this moment the system will be installing the files in the operating system.



When the system finishes installing the files, this window will appear.



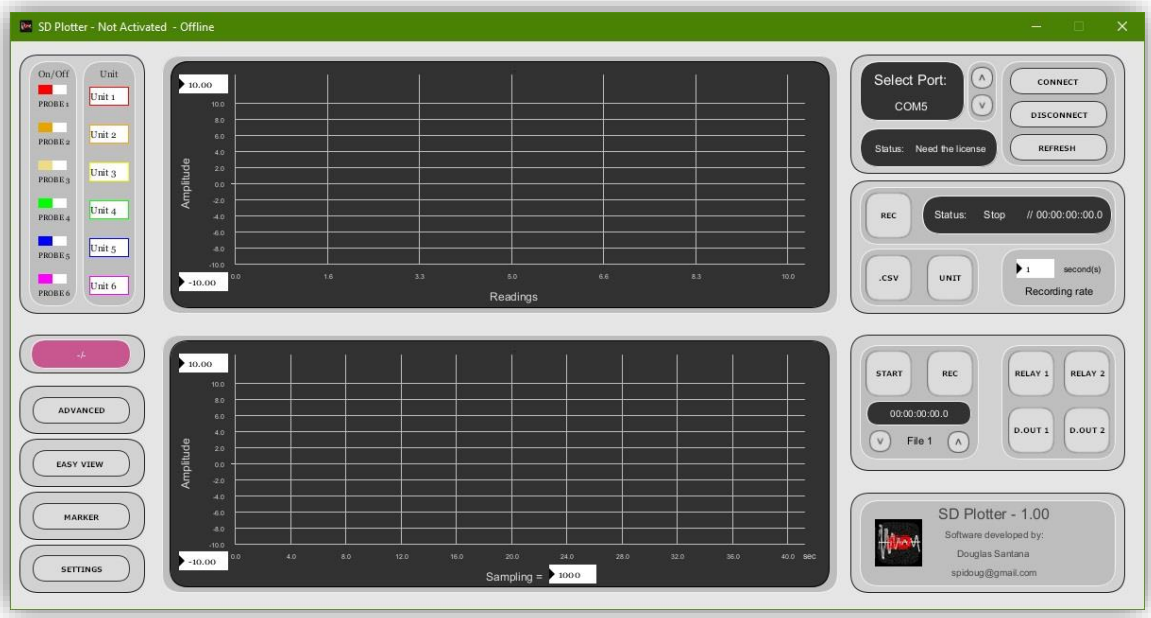
Click on next.



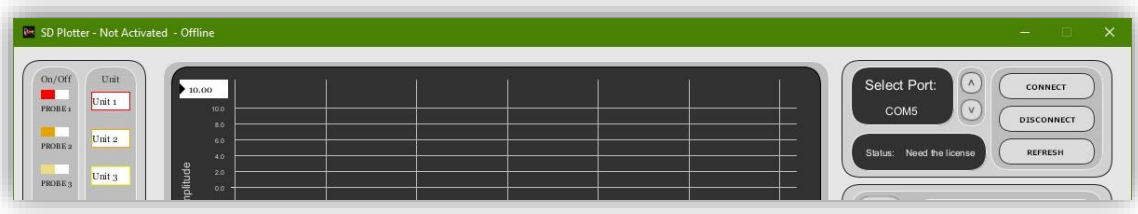
Open the program via the Windows start button or the desktop icon.

When starting the program after installation, the following screen will appear for 4 seconds, now the settings files will be defined.

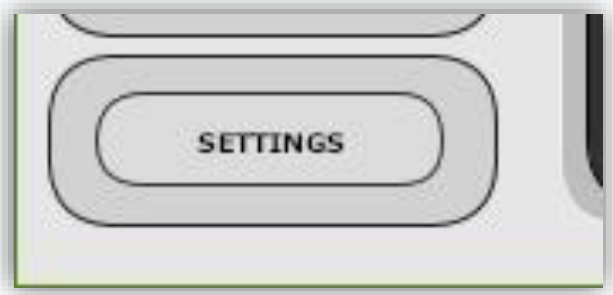
Open the program again and it will start normally from now on.



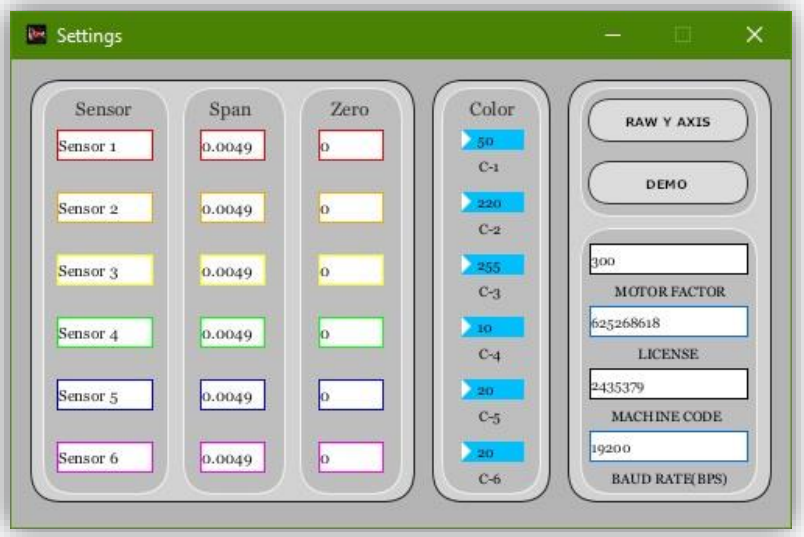
When the installation is carried out and the software is started, the software will inform you of the need to purchase the license for use.



Click on the settings button.



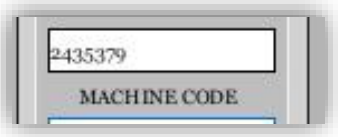
The settings screen will open.



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 e-mail: spidoug@gmail.com and request the license informing the machine code that the software presents.

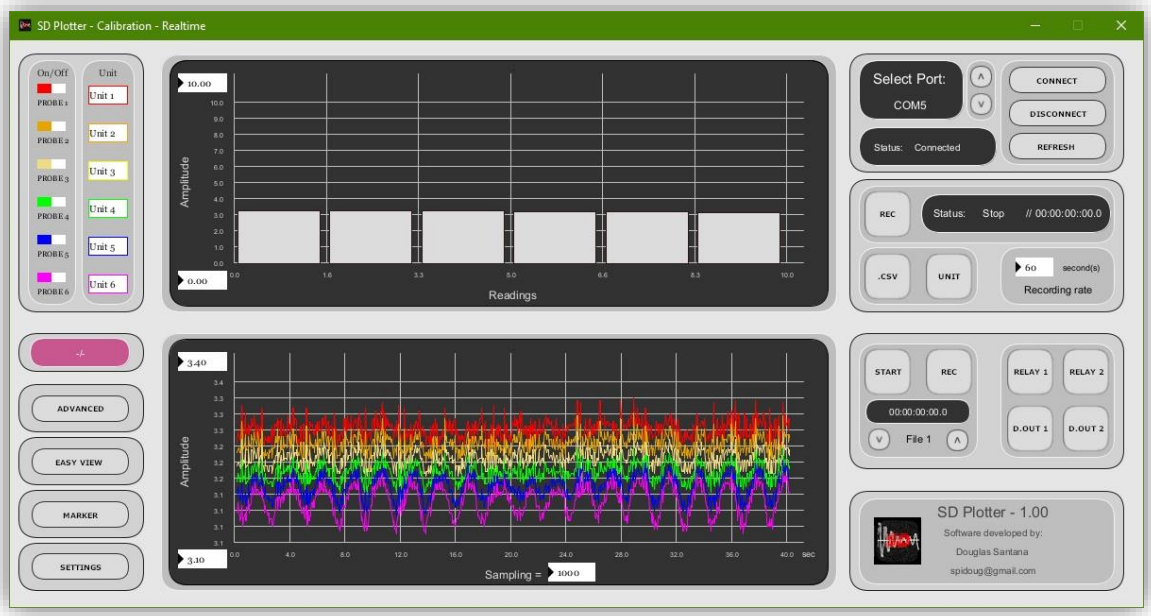


Having the license available for the presented machine code, enter it in the corresponding field and click on the demo button to validate the action.

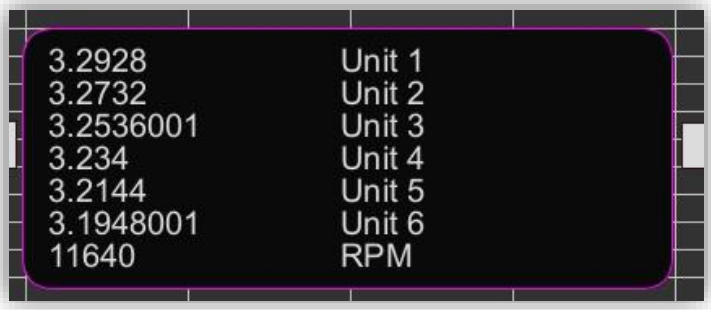
When entering only the license in the corresponding field, the software will work in operator mode, so it will not be possible to edit the calibration settings of the system. To enter calibration mode, being able to edit the mentioned parameters, enter the following wording in the license field: "machine code" + "license".

From this point, the software operation explanation will be for the calibration mode.

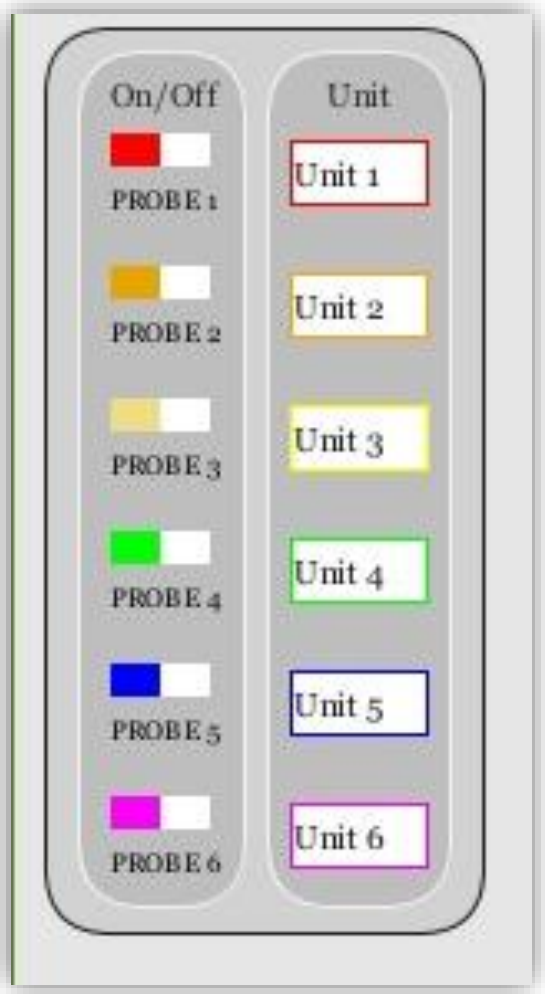
This is the main screen of the program, recording signals with noise and using a zoom system for better definition.



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



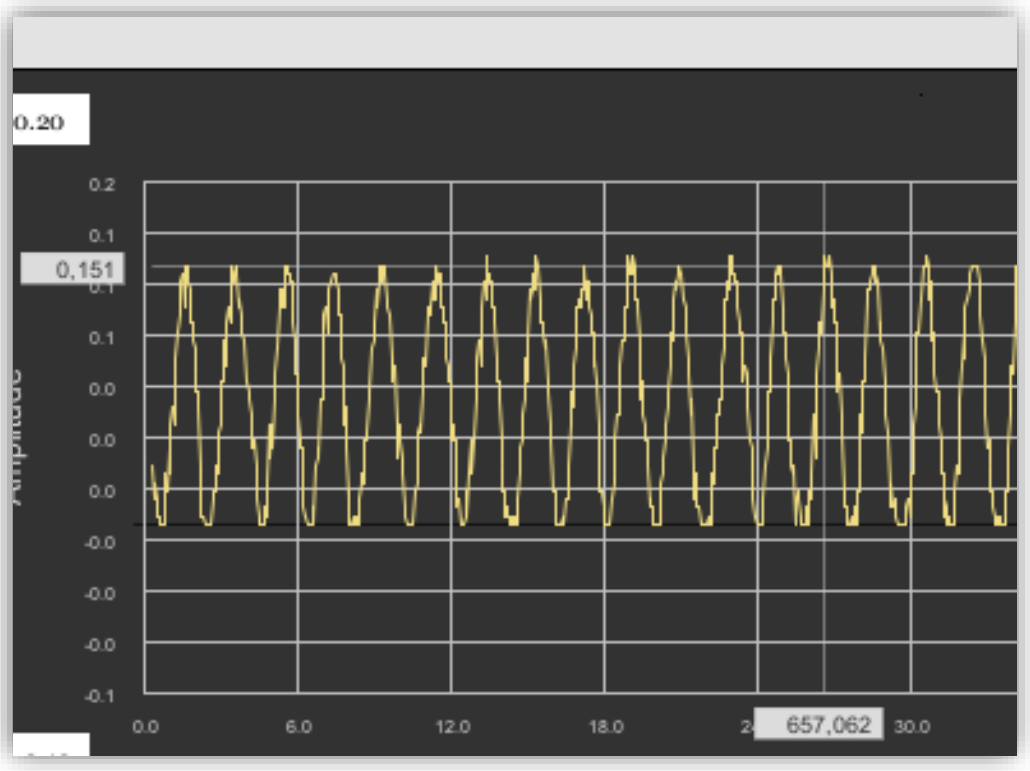
In the upper left part of the software, we can find the field for enabling or disabling and naming the sensor units connected to the system.



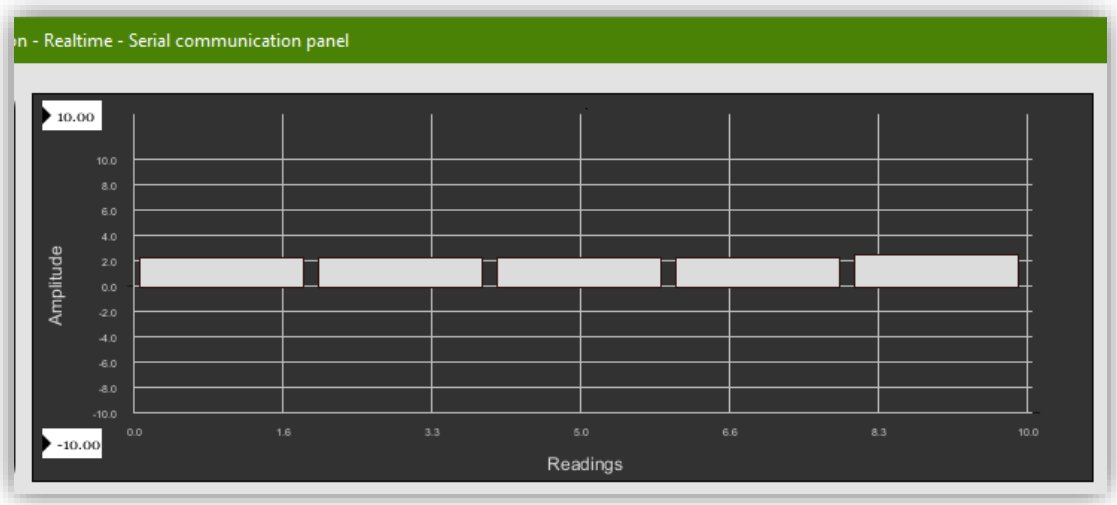
All information defined in the fields will be recorded and processed in the final output file (.TXT or .CSV).

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.



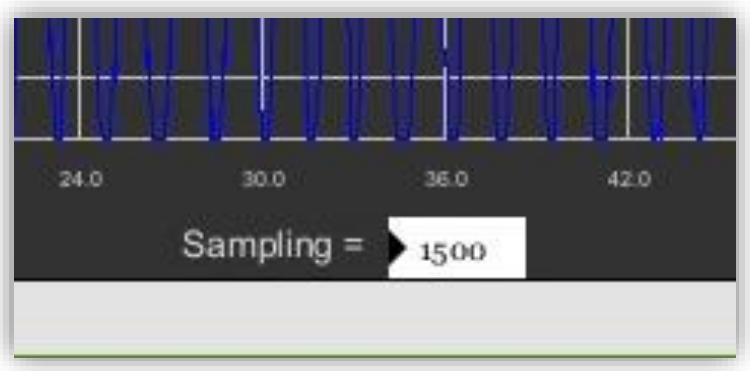
When the easy view function is not used, it is possible to monitor the graph by bars.



The connection between equipment and software is through a serial connection. The search, connection and disconnection 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 sensor identification functions, span, zero, motor factor became available for editing. When the software is closed, all calibration parameter information and operator mode settings (scale adjustment, recording time rate, sample rate, baud rate, last used method file) will be saved.

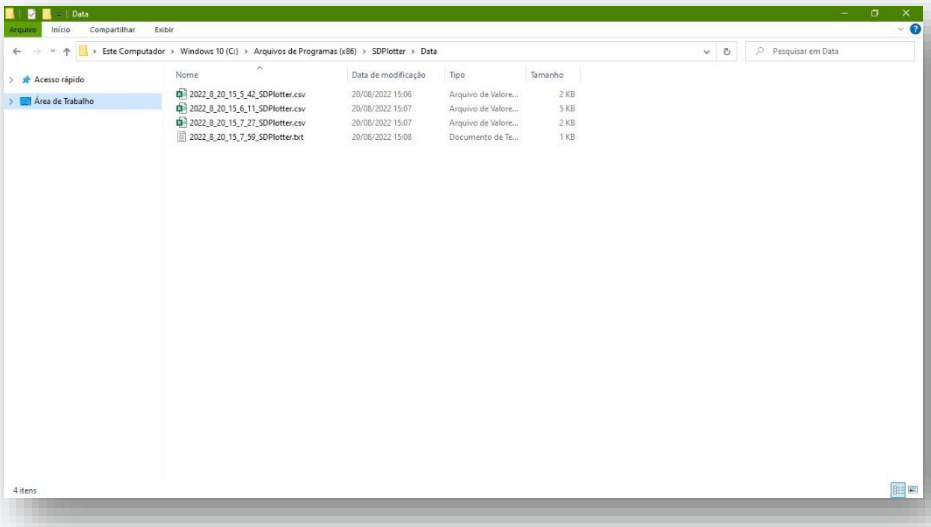
This field refers to data recording.

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 bits value.

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

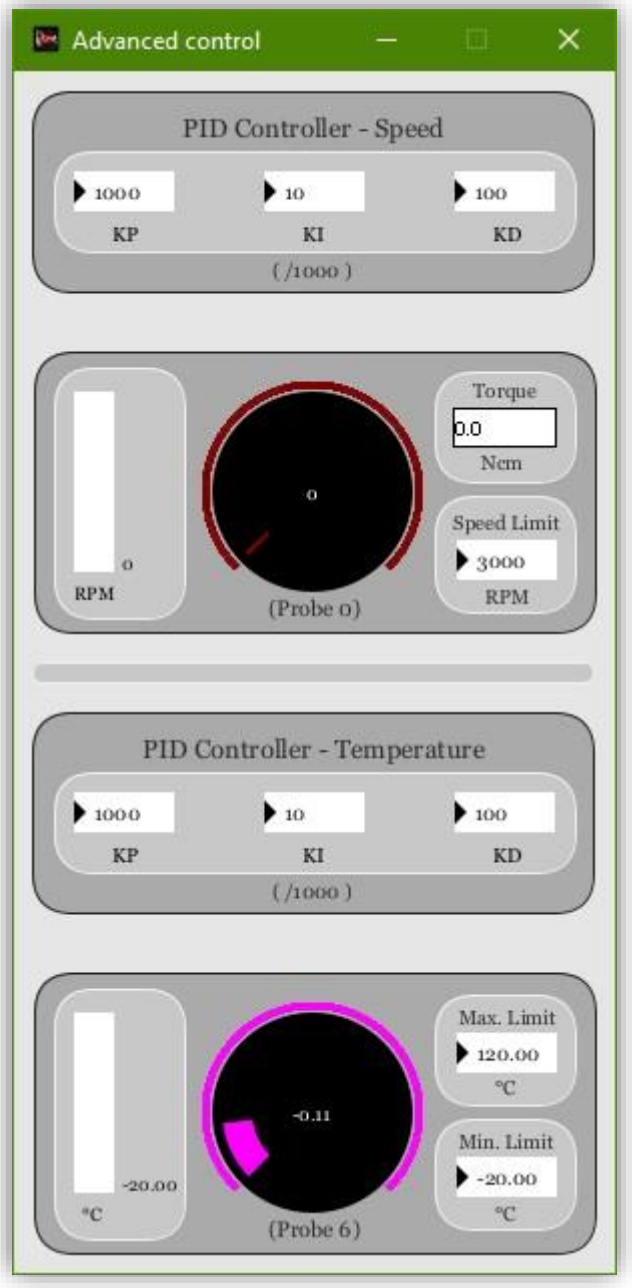


This field of the software in the main window is intended for recording and reproducing the activation of the control of the relays and variation of the knobs of the speed and temperature controls present in the advanced screen.

Up to 100 different trigger method files can be recorded.

For process control click on the advanced button.

By clicking on the advanced button, the following screen will be displayed:



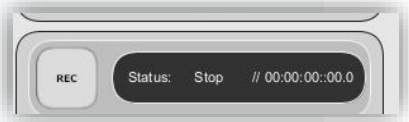
THE CONSTANTS KP, KI, KD WHEN SENT TO THE PROCESSING UNIT WILL BE DIVIDED BY 1000.

VALUES ARE LIMITED FROM 0 TO 9999.

WHEN RECORDED OR PLAYED ANY METHOD IN THE MAIN WINDOW, KNOBS WILL BE PART OF THE PROCESS.

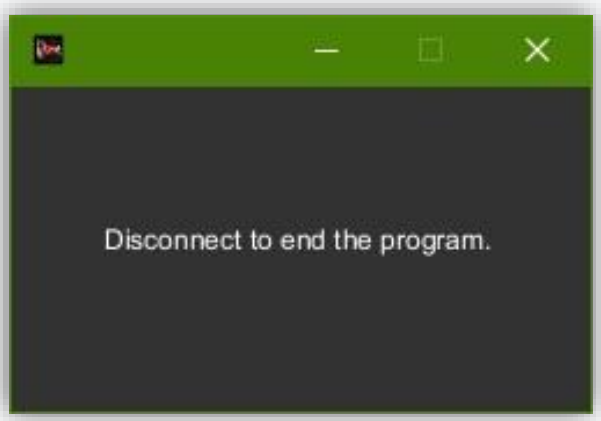
IN OPERATOR MODE THESE VALUES CANNOT BE CHANGED.

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



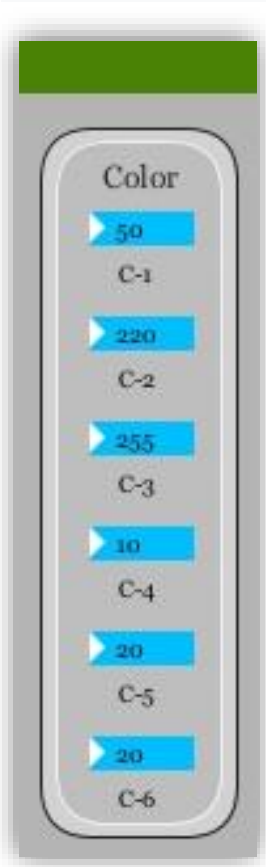
While the system is connected, it will not be possible to close the software.

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 - Changes the background color of the graph.

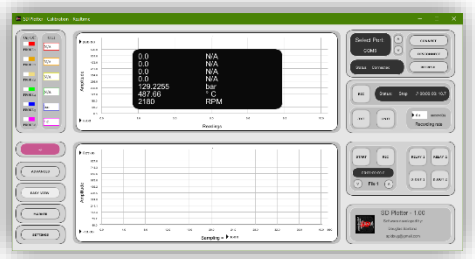
C-2 - Changes the color of graphic characters.

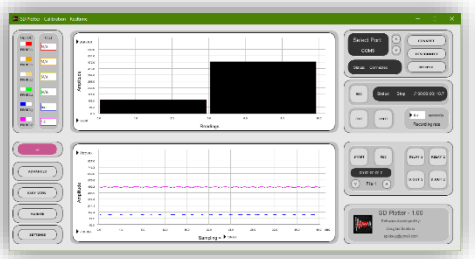
C-3 - Changes the character color of the easy view display.

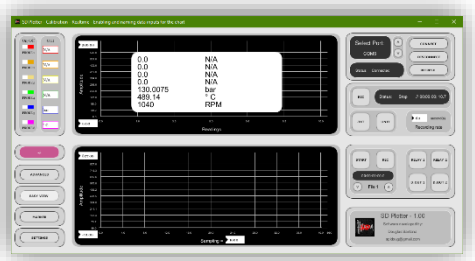
C-4 - Change the background color of the easy view display.

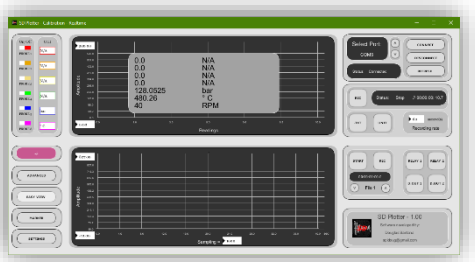
C-5 - Changes the character color of the settings panel (engine factor, license, machine code and baud rate)

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





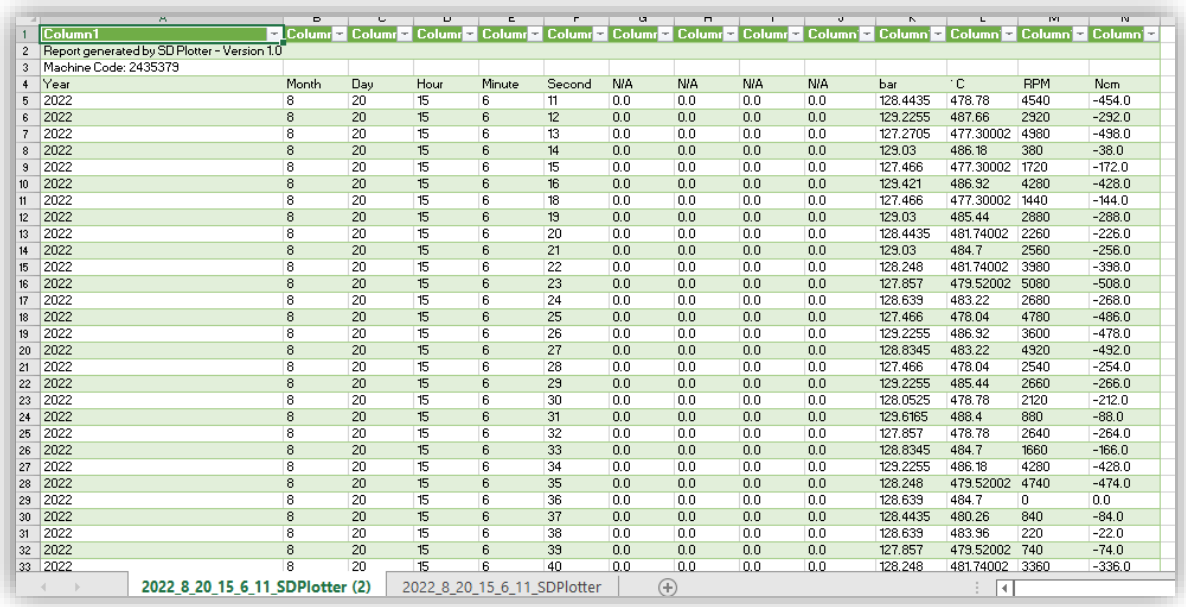




Uninstalling the software can be performed from the control panel. When uninstalled, the files created after installing the software will remain in the folder, so the files of operating parameters, control methods, and analysis data will remain in the folder even when the software is reinstalled, including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

In calibration mode, the analysis data will not be stored in the spreadsheet or text file when it is requested to record it.

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



Column1													
Report generated by SD Plotter - Version 1.0													
Machine Code: 2435379													
Year	Month	Day	Hour	Minute	Second	N/A	N/A	N/A	N/A	bar	°C	RPM	Ncm
2022	8	20	15	6	11	0.0	0.0	0.0	0.0	128.4435	478.78	4540	-454.0
2022	8	20	15	6	12	0.0	0.0	0.0	0.0	129.2255	487.66	2920	-292.0
2022	8	20	15	6	13	0.0	0.0	0.0	0.0	127.2705	477.30002	4980	-498.0
2022	8	20	15	6	14	0.0	0.0	0.0	0.0	129.03	486.18	380	-38.0
2022	8	20	15	6	15	0.0	0.0	0.0	0.0	127.466	477.30002	1720	-172.0
2022	8	20	15	6	16	0.0	0.0	0.0	0.0	129.421	486.92	4280	-428.0
2022	8	20	15	6	18	0.0	0.0	0.0	0.0	127.466	477.30002	1440	-144.0
2022	8	20	15	6	19	0.0	0.0	0.0	0.0	129.03	485.44	2880	-288.0
2022	8	20	15	6	20	0.0	0.0	0.0	0.0	128.4435	481.74002	2260	-226.0
2022	8	20	15	6	21	0.0	0.0	0.0	0.0	129.03	484.7	2560	-256.0
2022	8	20	15	6	22	0.0	0.0	0.0	0.0	128.248	481.74002	3980	-398.0
2022	8	20	15	6	23	0.0	0.0	0.0	0.0	127.857	479.52002	5080	-508.0
2022	8	20	15	6	24	0.0	0.0	0.0	0.0	128.639	483.22	2680	-268.0
2022	8	20	15	6	25	0.0	0.0	0.0	0.0	127.466	478.04	4780	-486.0
2022	8	20	15	6	26	0.0	0.0	0.0	0.0	129.2255	486.92	3600	-478.0
2022	8	20	15	6	27	0.0	0.0	0.0	0.0	128.8345	483.22	4920	-492.0
2022	8	20	15	6	28	0.0	0.0	0.0	0.0	127.466	478.04	2540	-254.0
2022	8	20	15	6	29	0.0	0.0	0.0	0.0	129.2255	485.44	2660	-266.0
2022	8	20	15	6	30	0.0	0.0	0.0	0.0	128.0525	478.78	2120	-212.0
2022	8	20	15	6	31	0.0	0.0	0.0	0.0	129.6165	488.4	880	-88.0
2022	8	20	15	6	32	0.0	0.0	0.0	0.0	127.857	478.78	2640	-264.0
2022	8	20	15	6	33	0.0	0.0	0.0	0.0	128.8345	484.7	1660	-166.0
2022	8	20	15	6	34	0.0	0.0	0.0	0.0	129.2255	486.18	4280	-428.0
2022	8	20	15	6	35	0.0	0.0	0.0	0.0	128.248	479.52002	4740	-474.0
2022	8	20	15	6	36	0.0	0.0	0.0	0.0	128.639	484.7	0	0.0
2022	8	20	15	6	37	0.0	0.0	0.0	0.0	128.4435	480.26	840	-84.0
2022	8	20	15	6	38	0.0	0.0	0.0	0.0	128.639	483.96	220	-22.0
2022	8	20	15	6	39	0.0	0.0	0.0	0.0	127.857	479.52002	740	-74.0
2022	8	20	15	6	40	0.0	0.0	0.0	0.0	128.248	481.74002	3360	-336.0

2022_8_20_15_6_11_SDPlotter (2) | 2022_8_20_15_6_11_SDPlotter

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

Instruction manual produced by Douglas Santana

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