USER MANUAL

OPTIMATION

Utility Software for DAT 1400 and MCT 1302

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pesatura elettronica industriale

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Rel ID 162903 SW 1.1.13

WARNINGS

READ this manual BEFORE using the utility software.

FOLLOW these instructions carefully.

SAVE this manual for future use.

CAUTION

The installation and maintenance of this software must be allowed to qualified personnel only.

Be careful when you perform inspections, testing and adjustment with the instrument switched on.

Not observing these precautions, you may be tampering with the operation of the plant where it is connected.

DO NOT allow untrained personnel to work, or tamper with the instrument configurations in which the software is online.

INTRODUCTION

This utility software is used to read and program, in local or remote, data of the DAT 1400 transmitters and MCT 1302 indicator, via the USB connection.

The software works with all PCs equipped with Windows XP or higher

The main functions of the software allow you to:

- Make the set-up of the transmitters
- Calibrate the transmitters
- Testing the inputs and logic outputs and the analog output
- Acquiring weight values by exporting to CSV
- Back up the data by saving them in a file on PC
- Restore previously data saved on PC

INSTALLATION

The installation file is normally provided in a compressed folder both on electronic format and in the CD containing the technical documentation delivered with the transmitters.

Extract all files in the folder Inovation2. Double click on the Setup file to start the installation program. At the end you will open a folder with the USB drivers, install them.

It 'is important that the MANUAL folder is kept in the same file location on SETUP, to allow to the OPTIMATION software to retrieve manuals on DOCUMENTATION menu.

The images contained in this manua are referred to DAT 1400.

In the case of the MCT 1302, when different or not present, are indicated next to its image.

OPERATION

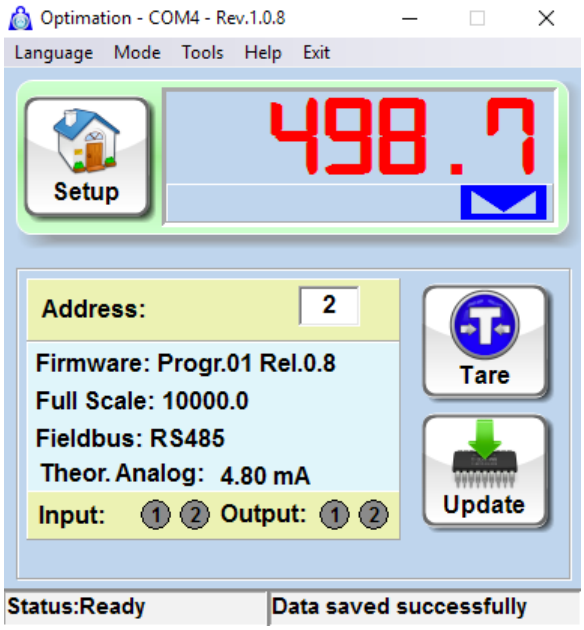
Start the program on the PC, turn on the instrument, connect the USB port to the PC .

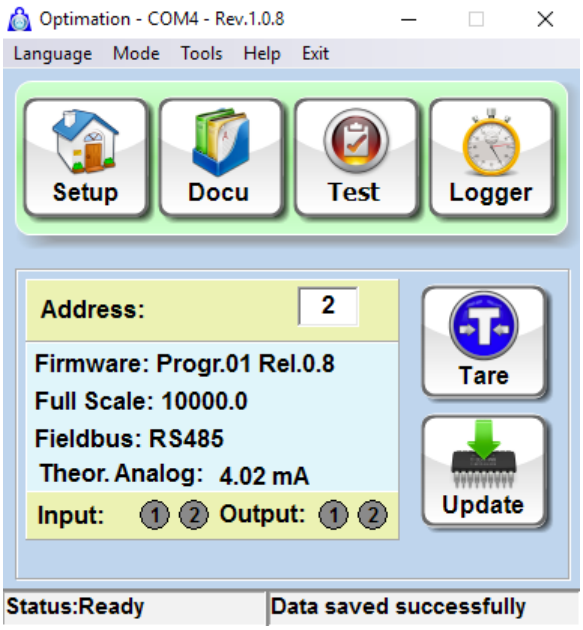
This will open the following screen that allows us to choose which instrument we using.

Once selected, the program recognizes the presence of the instrument; if you know the channel number, set it in the box, or by setting 0, it will automatically detect the first available device.

When the device is found, you will see the type of program and firmware version of the connected instrument, the weight and some other information based on hardware features.

Drop down menu:





Language: Select the preferred language of the program (English or Italian).

Connect: Select the connection mode with the transmitter; USB, RS232 or in Offline Mode to use the program without an instrument connected.

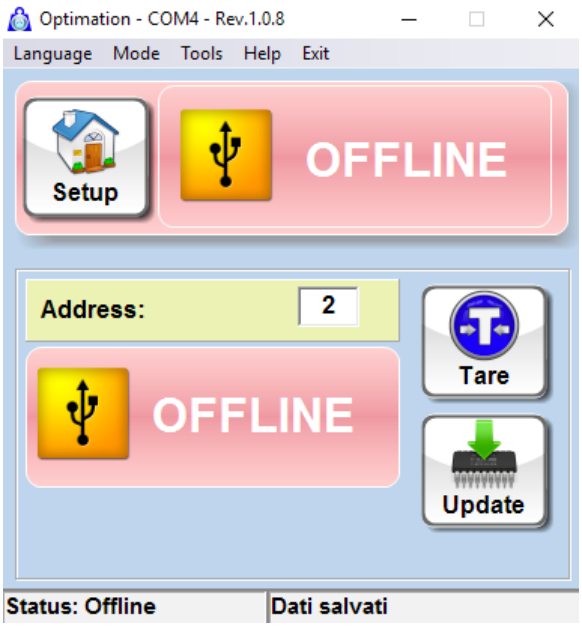
Help: Open this document.

Exit: Exit the program.

On the lower part of the window there are the status LEDs of the inputs and outputs.

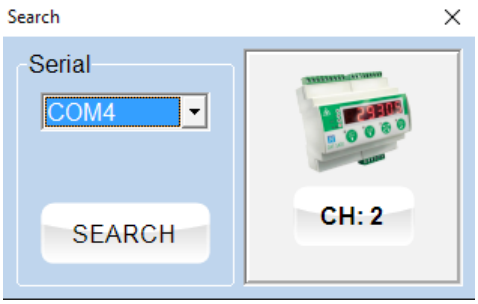
On the right are two buttons corresponding to the TARE and updating of the instrument software.

If the main screen shows the OFFLINE message, it means that there is no communication between the PC and the instrument.



In this case, go to the CONNECT menu, select SEARCH, set the correct port and click the SEARCH button.

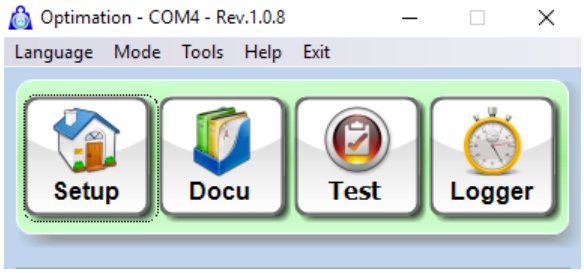
When the device is detected, it will appear the channel number, press the button and the DAT will be automatically connected.



The main screen also allows to access the full menu of OPTIMATION when we move the cursor on the weight indication.

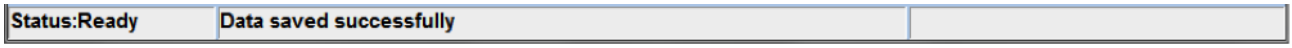
The main menus are:

SETUP, DOCUMENTS, TEST and LOGGER.

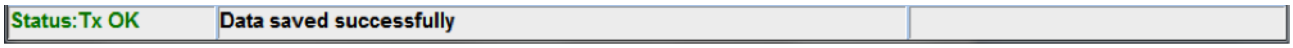


A status bar at the bottom allows to know the status of the instrument and the changed data.

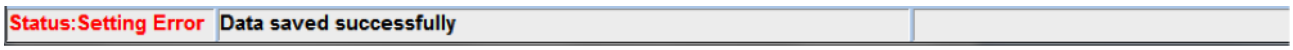
This bar appears when the instrument is waiting for data and all changed data were stored in the instrument.



This message appears when there was a communication with the instrument and there has been a positive response.

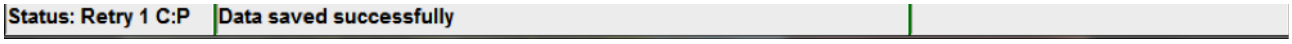


This message appears when it was attempted writing a parameter outside the allowed values.



This message appears when you have changed a parameter in the instrument and it has been acquired but not saved permanently. To store the data permanently click on the Red bar.

This message appears when the instrument has not responded to the change request, the application automatically retries the writing.



INSTRUMENT SETUP

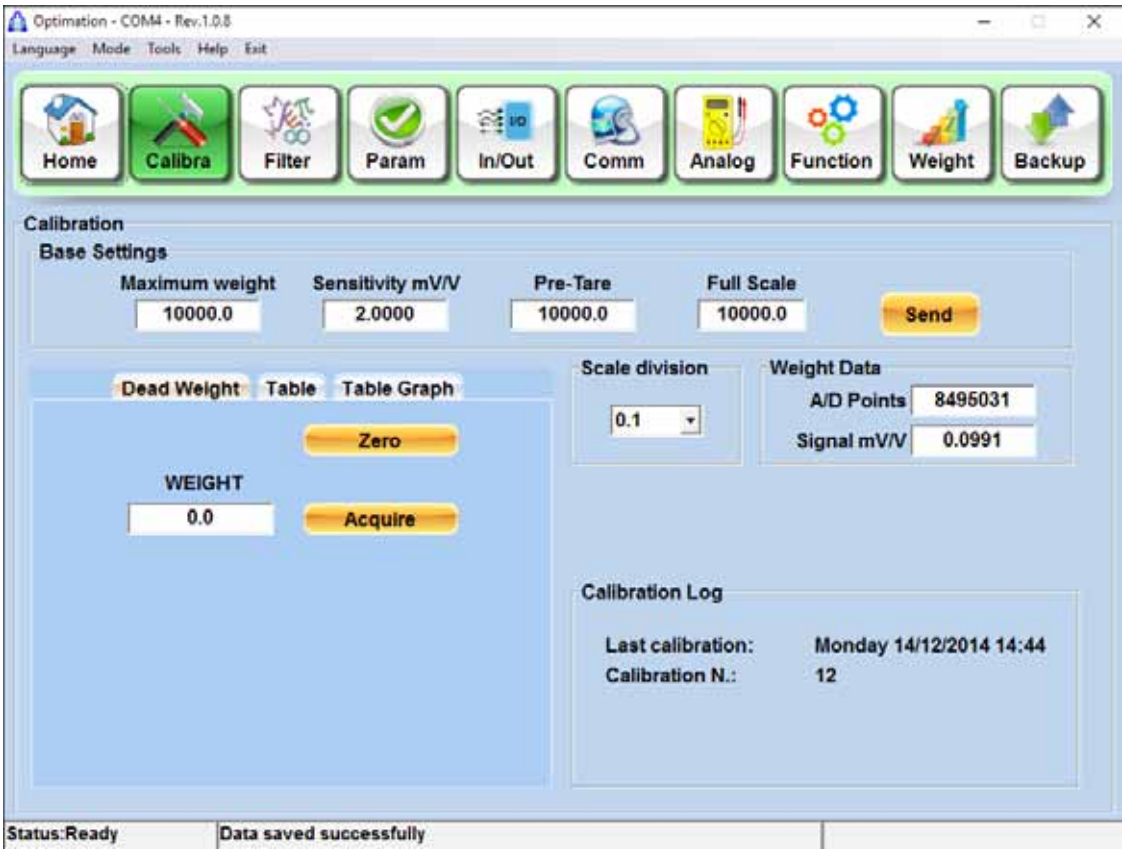
Pressing the SETUP button you enter the configuration of the instrument, it will appear at first the calibration.

For details on the programmable parameters of the instrument refer to the technical manual.

During the procedures the selection buttons will be replaced by the following panel where you can view the operation main values.

CALIBRATION

In the following screen you can set the weight data as the main capacity and sensitivity of the load cells, you can choose the division value and perform the calibration.



Set the instrument according to the specifications of the system and press SEND to confirm; A confirmation message will appear, accept.

For calibration there are 3 buttons:

ZERO = unloaded system press to make the calibration of Zero.

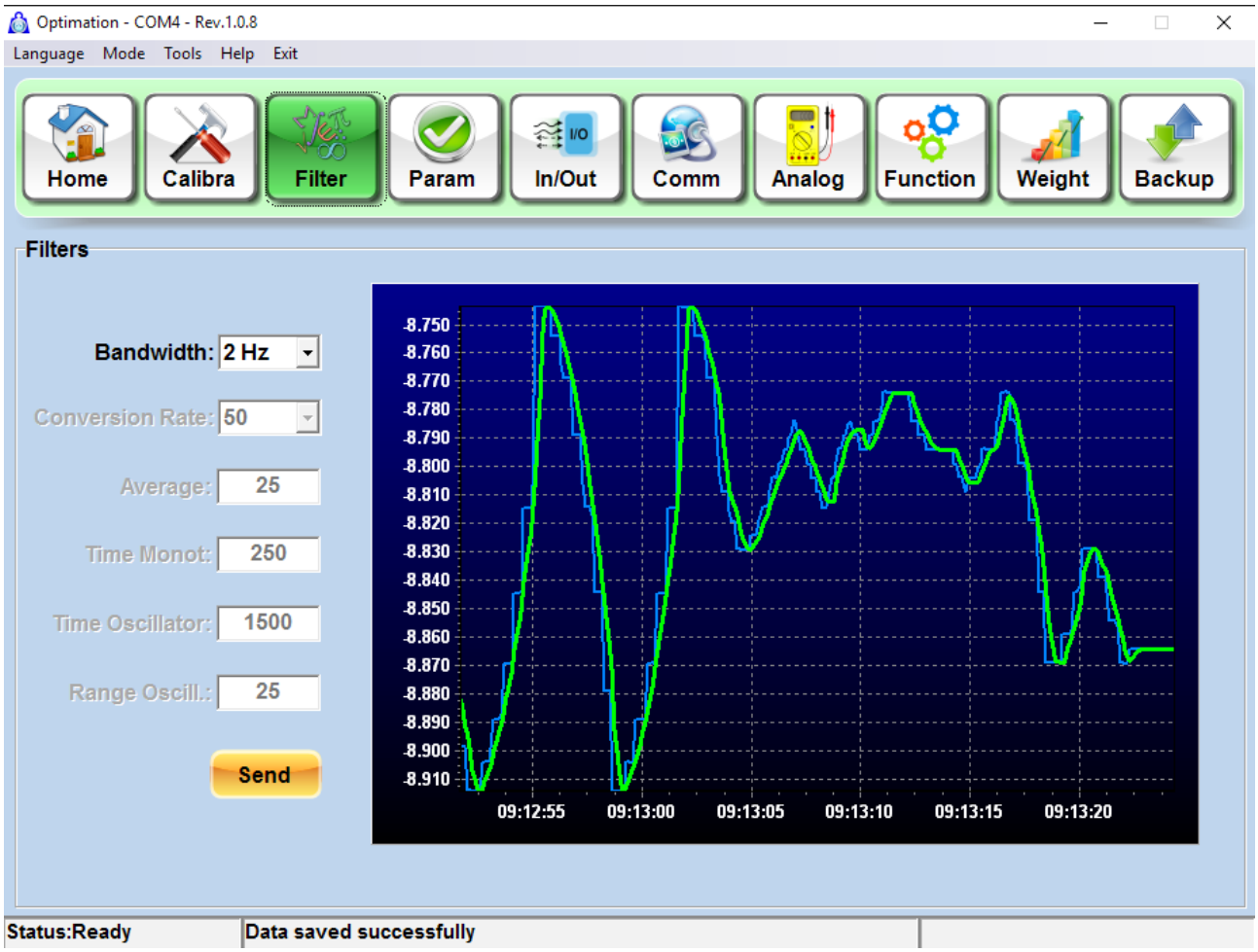
ACQUIRE = Enter in the box "WEIGHT" the weight value loaded on the system and press the key to perform the FS calibration.f

RESET CALIBRATION = Cancel the last calibrated performed.

NOTE: At the end of each procedure press the status bar at the bottom of the window to save the new parameters in the permanent memory of the transmitter.

FILTER

In this screen you can set the weight stabilization filter, you can use the preset filters or set a manual filtering by selecting 'Manual' and changing the numbers manually.



Very useful can be the graph in which stands out the unfiltered weight (Blue Line) and the filtrate weight (Green Line).

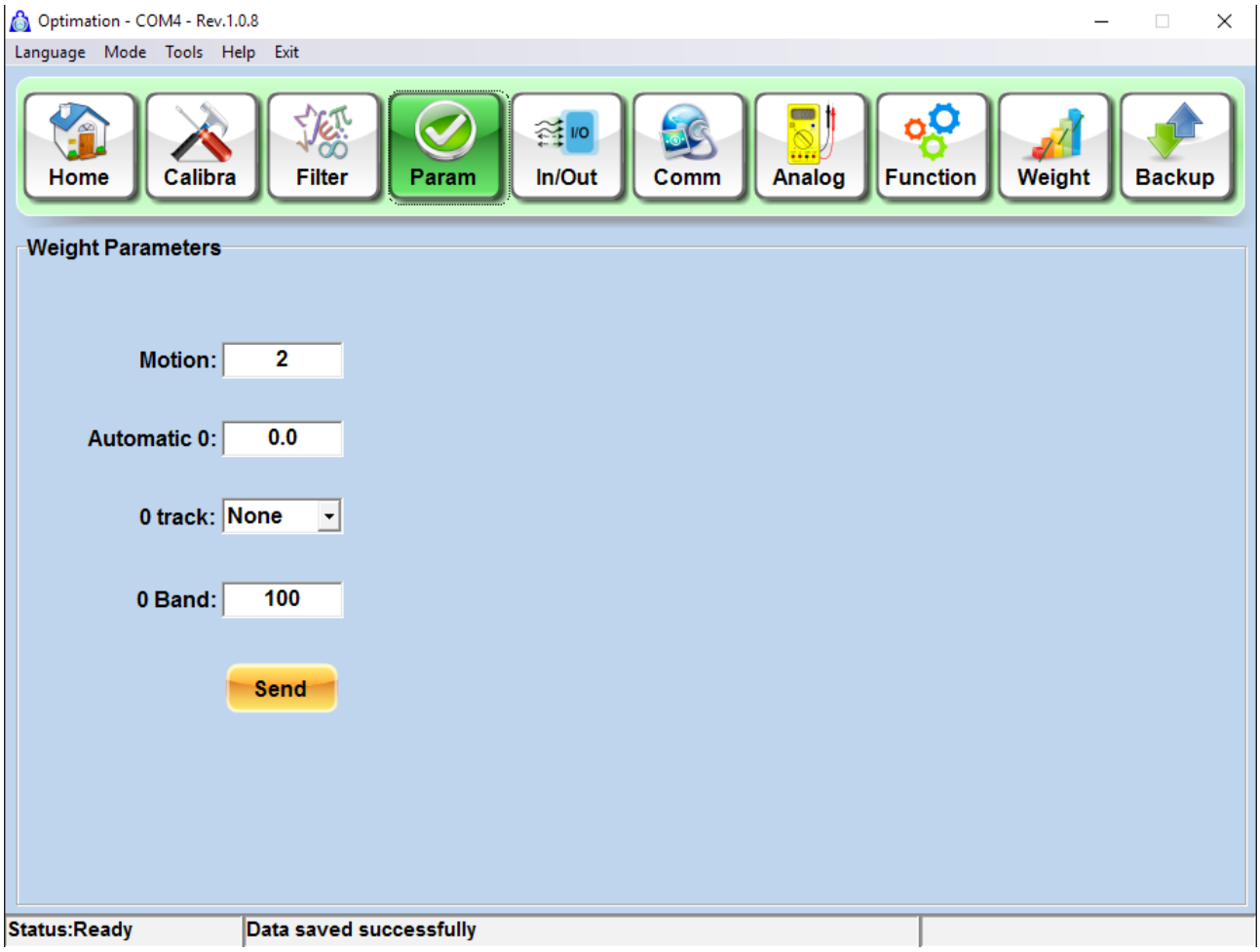
It will be possible to use the filter value suitable for the application that you are testing.

N.B. The set values will be active immediately but are not saved until the red bar is clicked or you quit the program.

PARAMETERS

In this menu you can set the parameters of the weight filter and check online via the graphical display the weight trend.

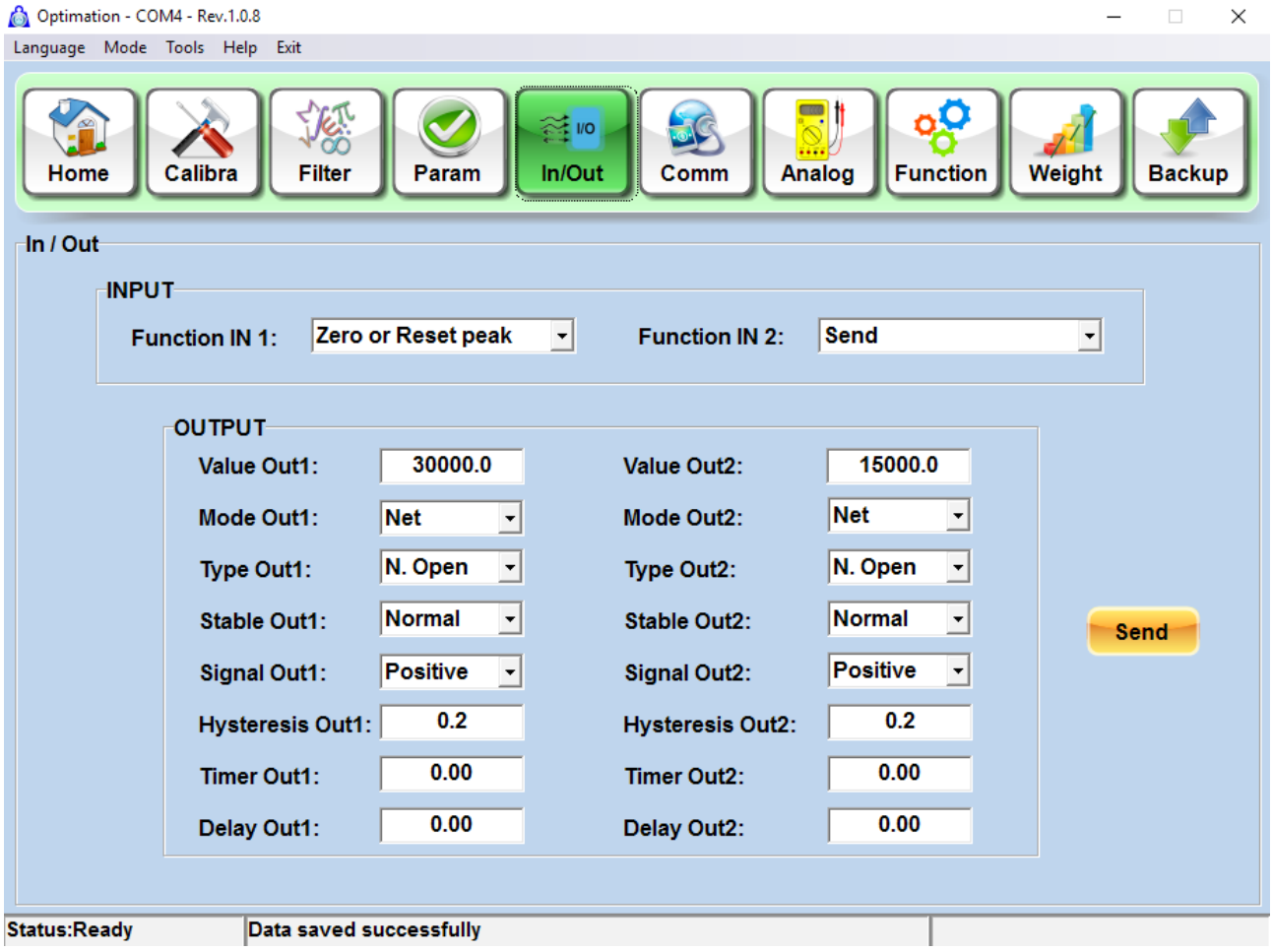
Press **Send** after choosing the desired parameters and save by clicking on the status bar below.



INPUT / OUTPUT

Not present when connected to MCT 1302. Input /Output parameters must be configured directly on instrument.

Set all the parameters for the logic outputs. Press **Send** and save by pressing the status bar below.



SERIAL

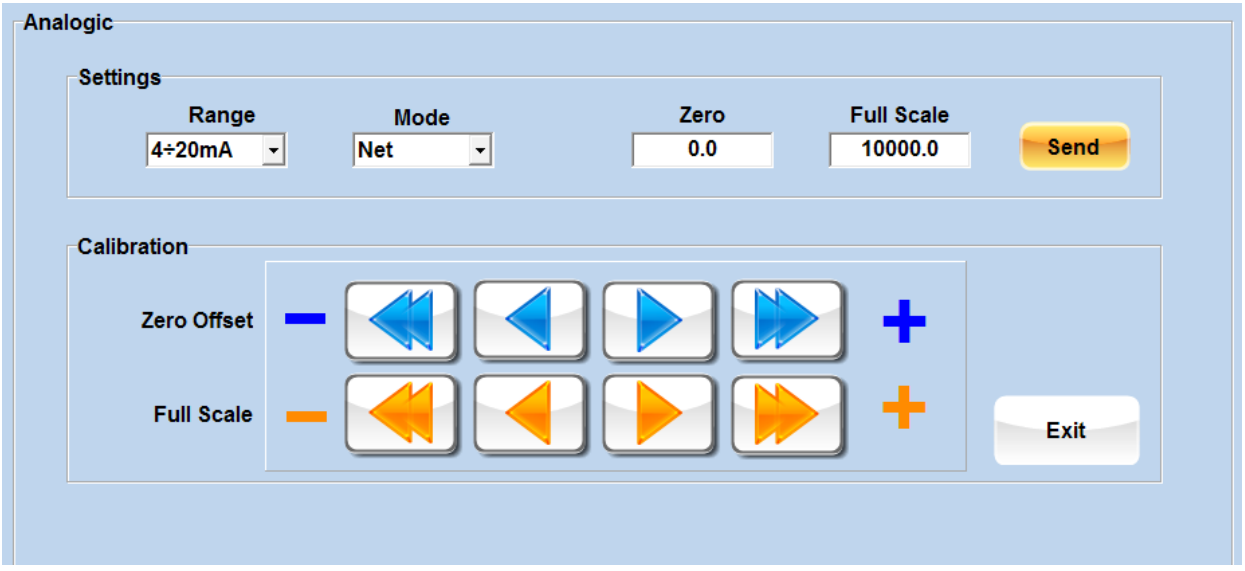
Program the parameters relating to the serial ports and when present the FIELDBUS.

NOTE: At the end of each procedure press the status bar at the bottom of the window to save the settings. The parameters are acquired but if not saved they will be lost when you restart the instrument.

ANALOG OUTPUT

In this menu you select the operating mode of the analogue output when present.

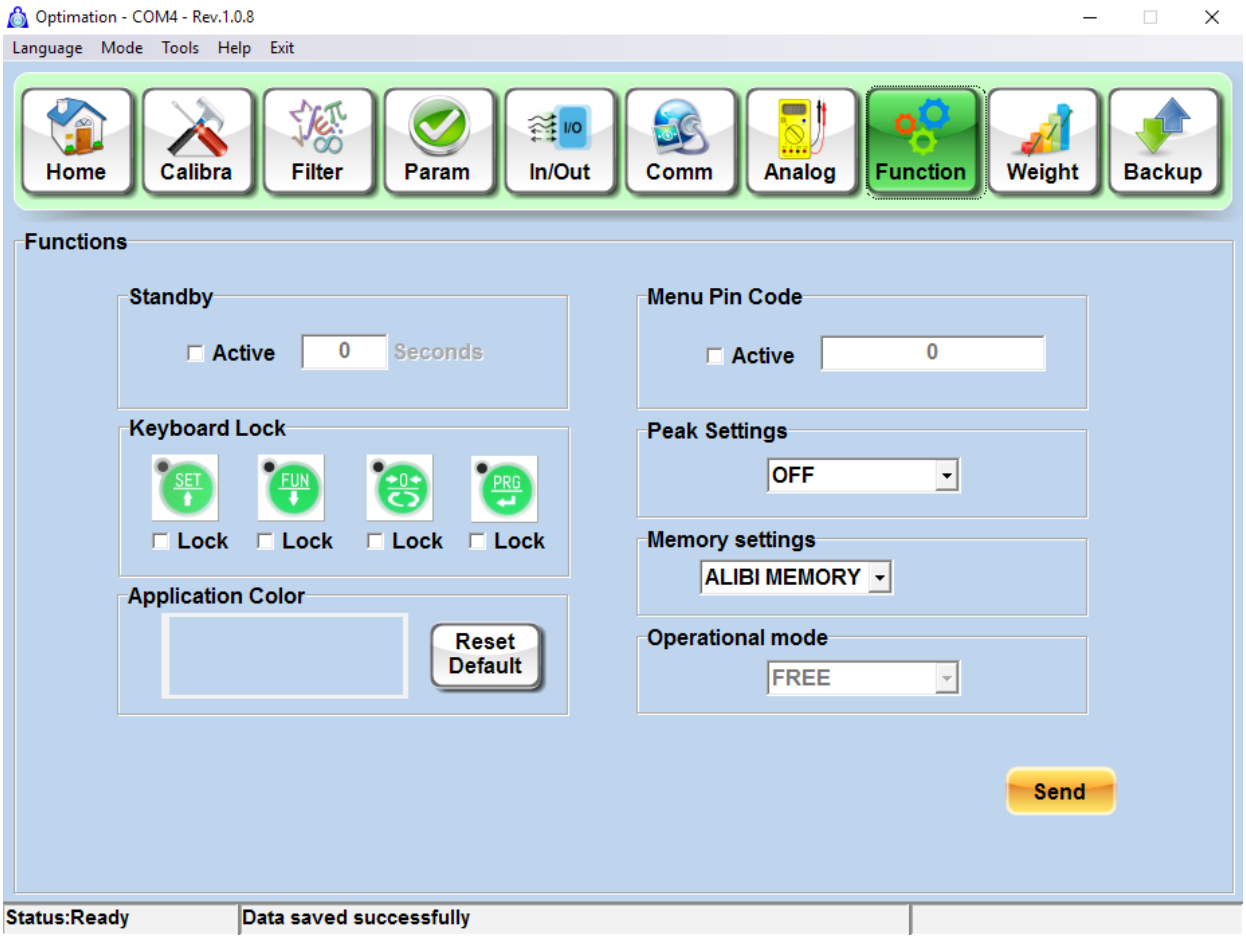
Pressing Ctrl + K keys it appears hidden menu for the adjustment of the analog output. Adjust with the arrows Zero and Full Scale of the analog output. To hide the menu again press Ctrl + K keys, or press **Exit**.

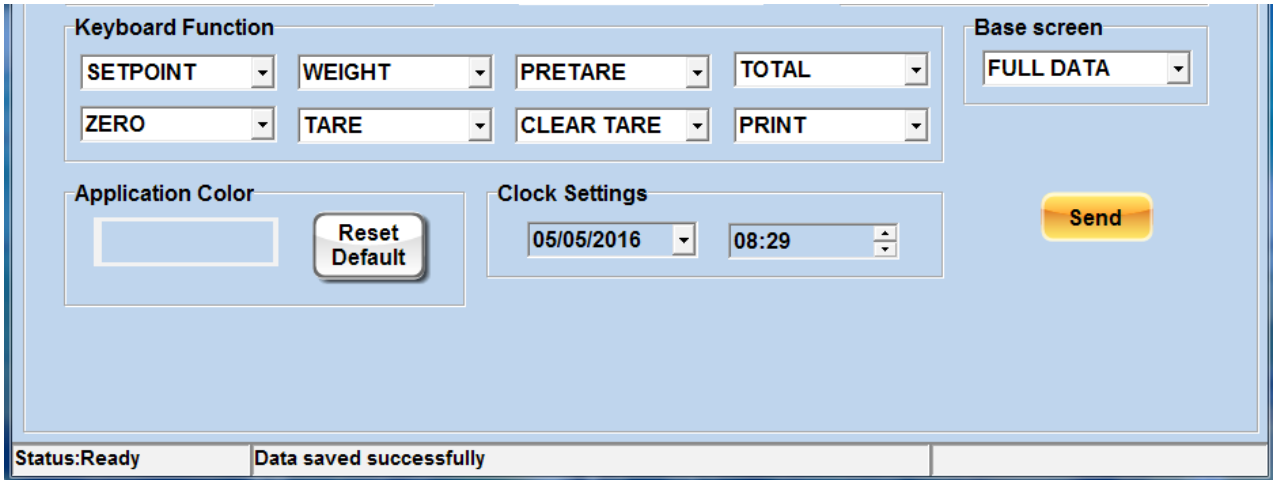


NOTE: At the end of each procedure press the status bar at the bottom of the window to save the settings. The parameters are acquired but if not saved they will be lost when you restart the instrument.

FUNCTIONS

Menu to enable some additional features of the instrument or change the application's PC color.



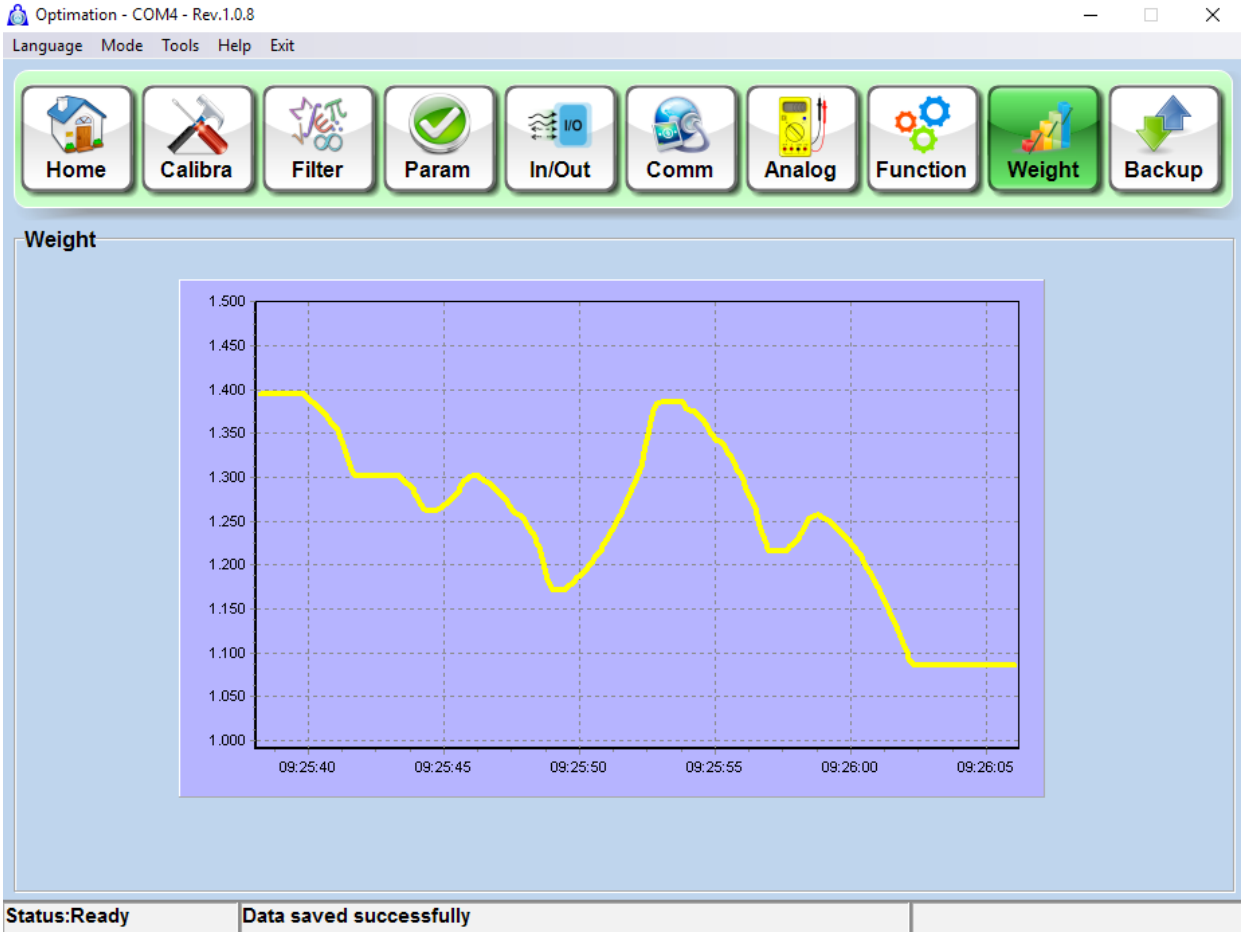


Screenshot with MCT 1302

Pressing **Reset Default** it returns to the default settings

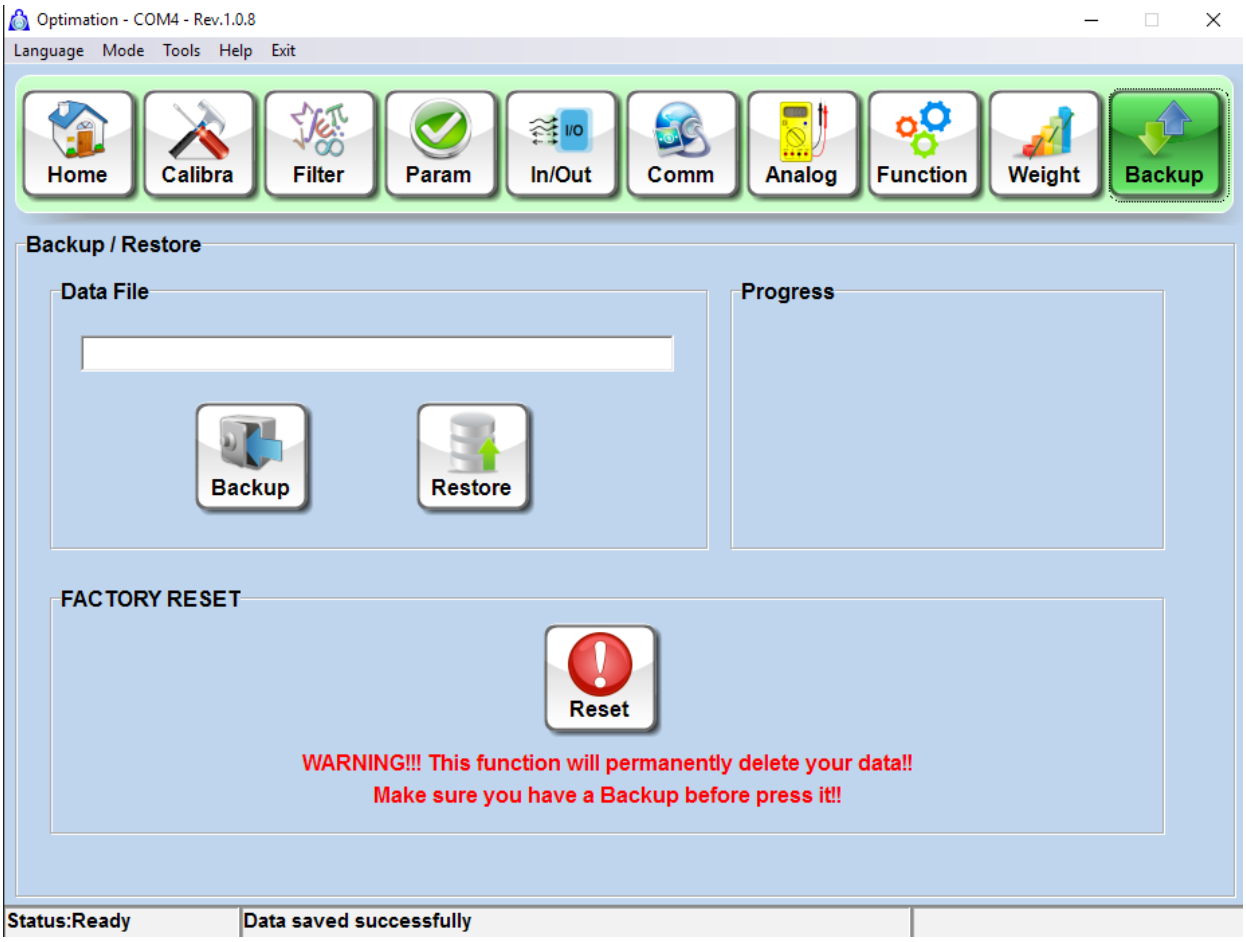
WEIGHT CHART

Graphical weight display; useful for check automatic procedures or operating parameters.



BACKUP AND RESTORE

Menu for saving and / or restoring data previously saved in a PC file.



Press **Backup** to store data on a PC; it will open the classic Windows message "save as", select the destination and the file name.

To **Restore** press the button and select a configuration file previously saved.

Warning: When you make a "RESTORE", all parameters are written in the instrument, so if you just want to display a configuration file on the screen, disconnect the instrument and work in Offline mode.

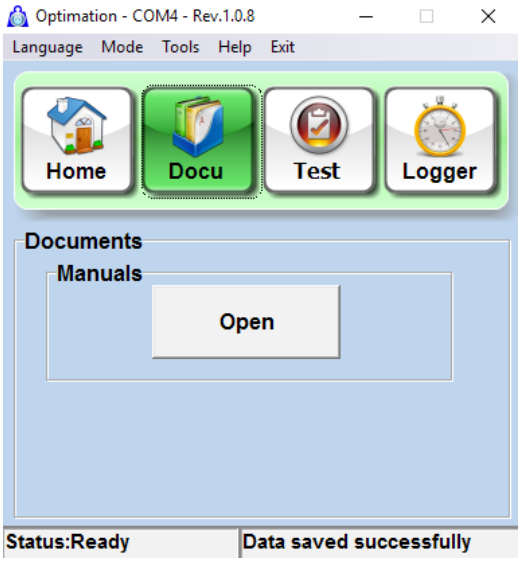
FACTORY RESET

Procedure protected by password, to be requested to the customer service. The password allows to reset the transmitter to the factory values.

WARNING: all the data set, including calibrations, will be lost. Make a backup before doing this procedure.

MANUALS AND DATASHEETS

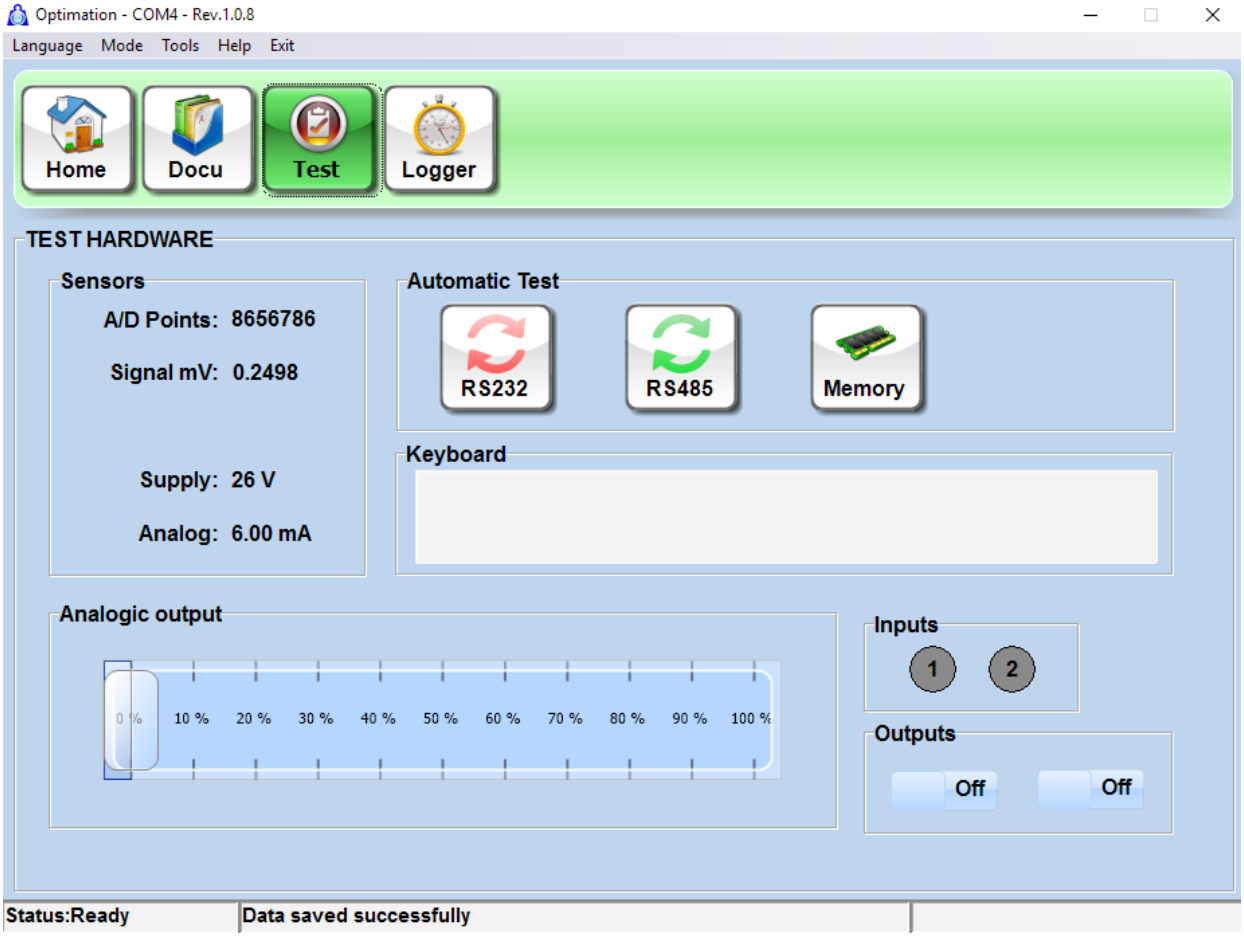
Pressing the DOCU key you can access the page display of the manual and the configuration file (if present).



HARDWARE TEST

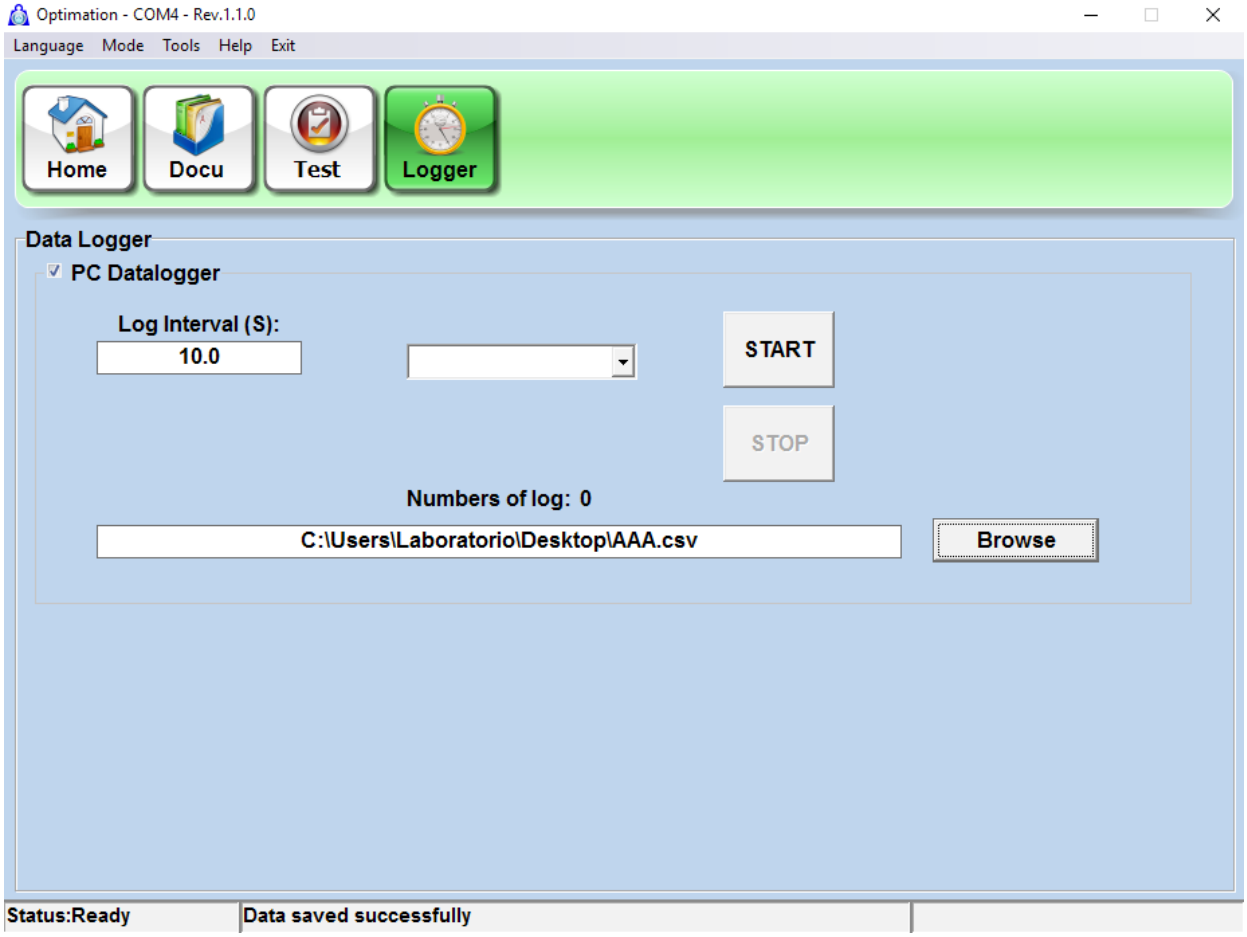
Test menu of the transmitter.

You can simulate the analog output via the percentage bar, open and close the outputs and view the inputs status.



DATA LOGGER

In this screen you can set a data logger from the PC, it can be used to capture data og an application and then check them in the laboratory.



You can select three types of the logger acquisitions:

MANUAL, TIME and N ° LOG.

Manual: The operation of the START and STOP is handled manually by pressing the buttons.

Time: You set the number of seconds you want to get data

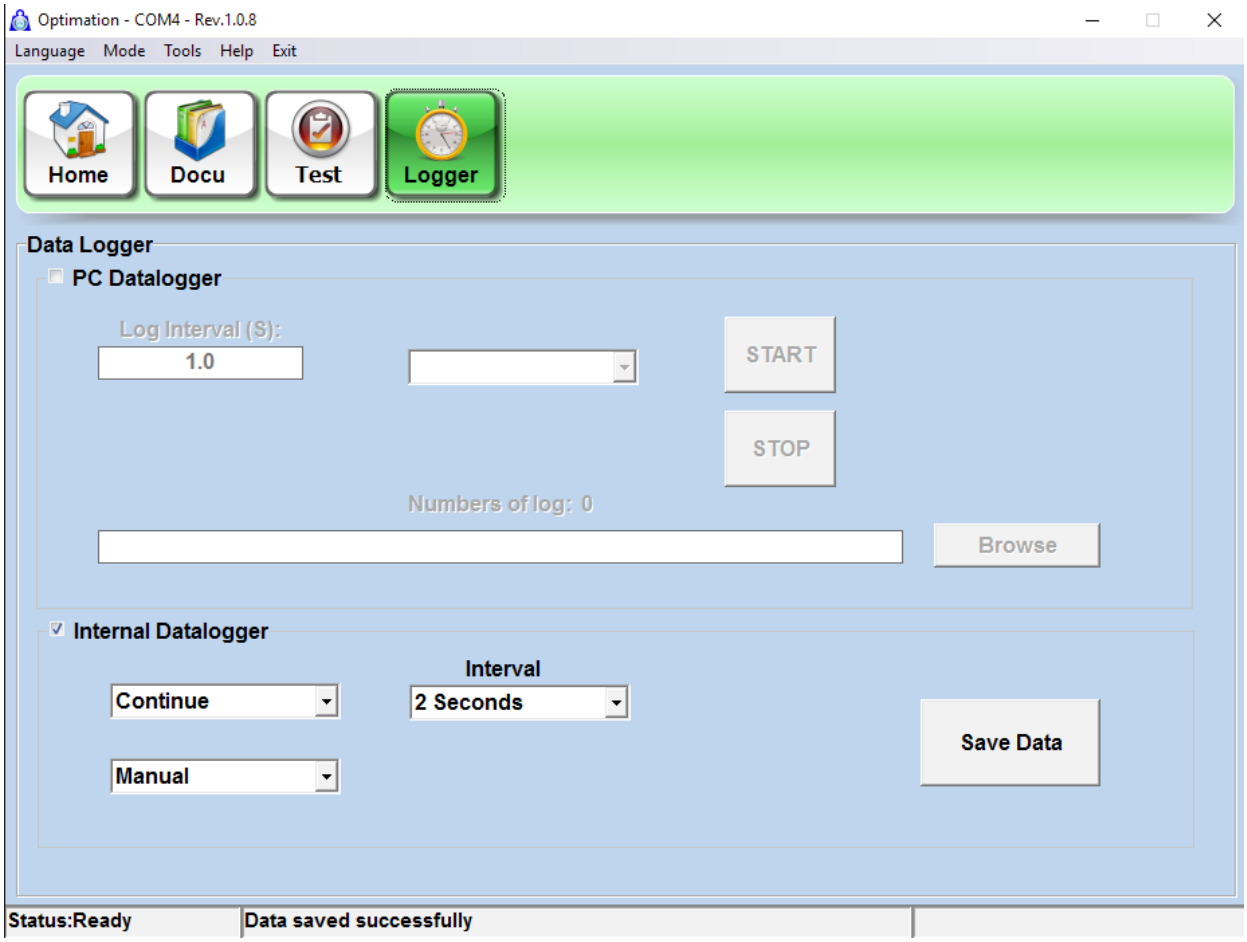
N ° Log: Set the No. of log to be acquired.

To start the data logger it is necessary to enter a value in seconds in the "**Log interval**" to determine each every seconds you want to gain the weight. Select the type of acquisition Manual, Time or No. Log, enter the amount of Log or Total time.

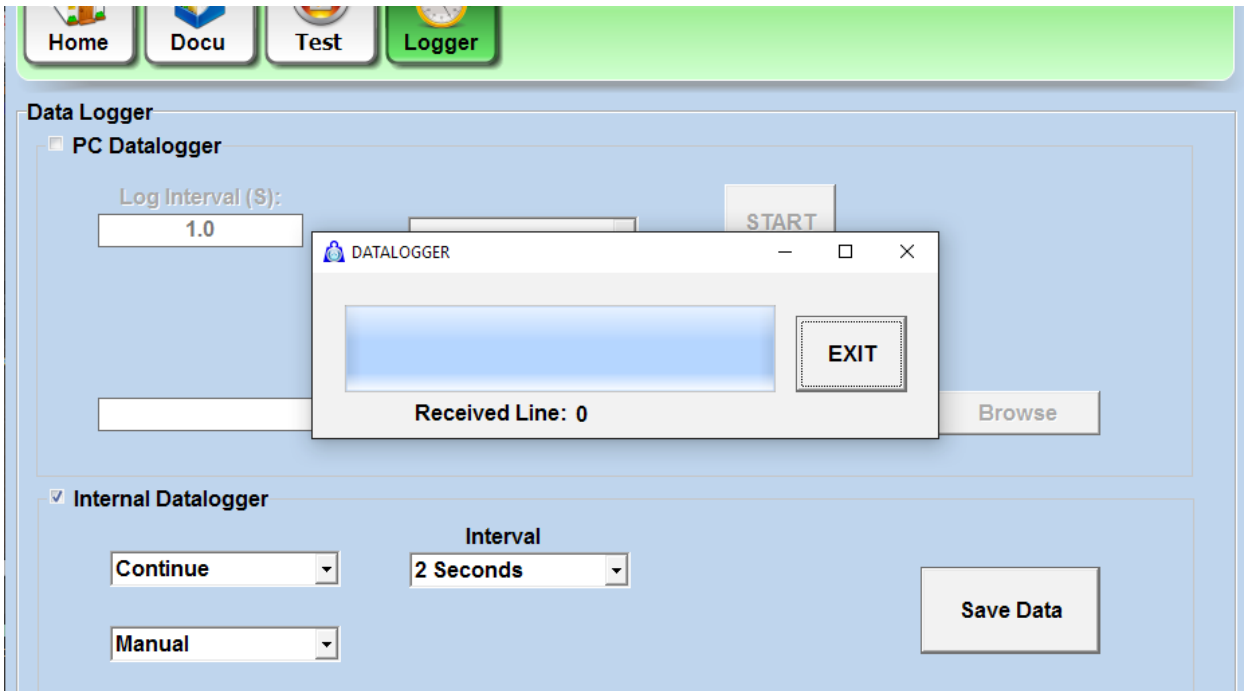
Now press the **Browse** key to enter the name of the file and its destination and press START.

The logger will save a .csv file with date, time and measured value.

You can also, if present built-in memory, set the internal logger of the instrument.



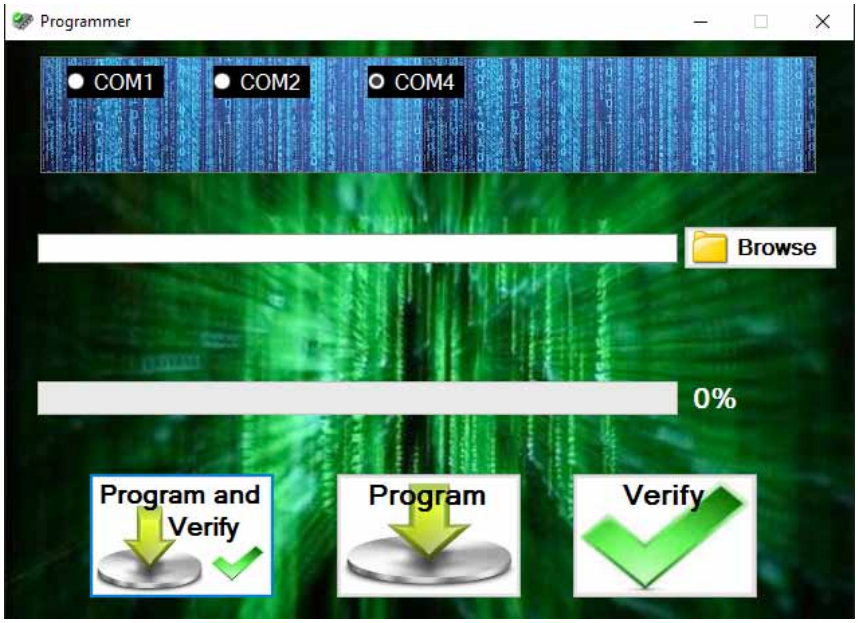
When you save to data from instrument opens this window will indicate that the number of logs received.



Once the window is open enter the DAT menu and download data.

FIRMWARE UPDATE

On this page you can proceed with the machine firmware update



To perform an update, proceed as follows:

1. Connect the instrument to the application
2. Press the UPDATE button
3. The instrument will go into Boot and will open the programmer.
4. Load the file to program
5. Check the file parameters (date, time, size and position)
6. Press Program and Verify button
7. At the end of programming the instrument will reboot

N.B. in case of failure of the procedure, do not turn off the instrument, but wait for the BOOT written on the instrument and press the Program key.

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Certifications:

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