



# Thermotrack PC Installation and User Guide

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## 1 Installation of Thermo Track PC

*Important notice before you start :*

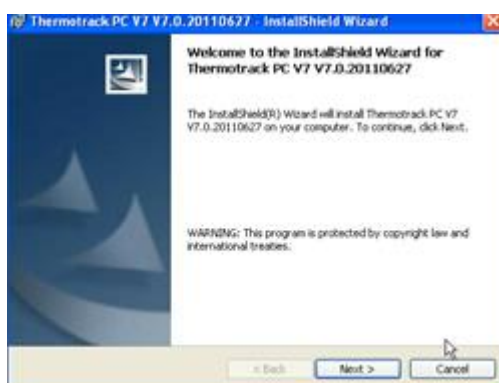
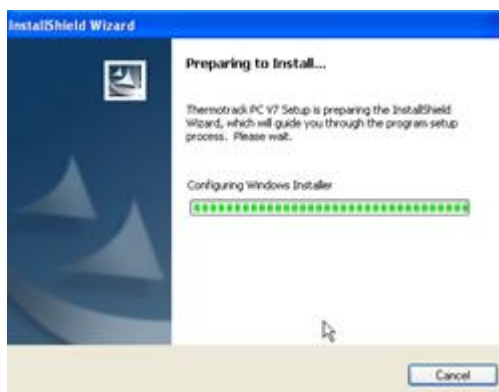
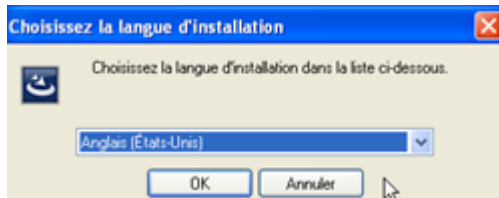
- 1) *If you have a USB adapter do NOT plug it now. Wait until the program tells you to plug it.*
- 2) *Check that you are administrator of the computer. If you are not administrator, the program will not install properly. In this case, contact your IT department.*

- Insert the CD ROM in your computer and wait until you see this window.
- Click Installation of ThermoTrack PC V7

- Choose the installation language

- Wait during the installation

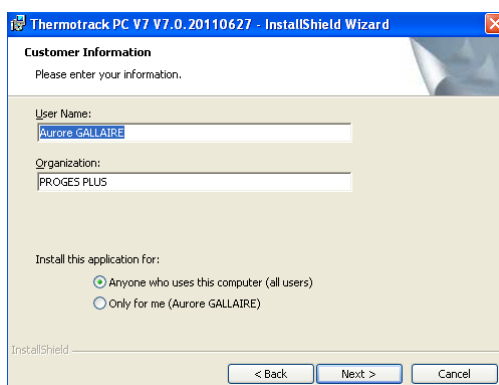
- Click « Next »



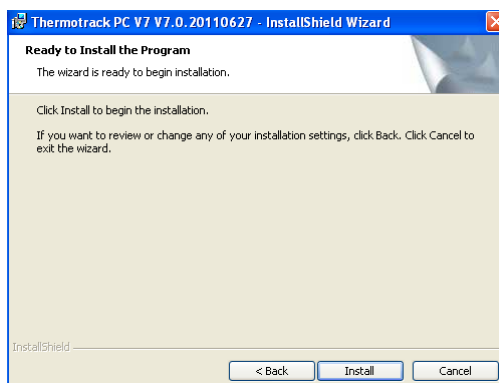
- Read the license agreement and choose « I accept... » and then click « Next ».
- If you don't accept, you won't be able to install the software



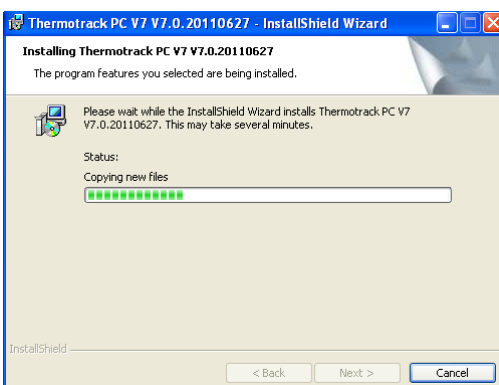
- Enter your name and the one of your organization, then press « Next »



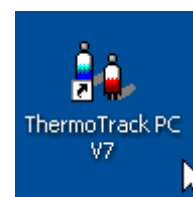
- Click « Install »



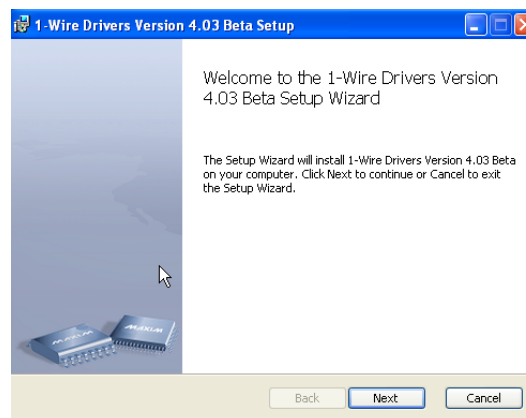
- Wait until the end of the installation and click « Finish ».



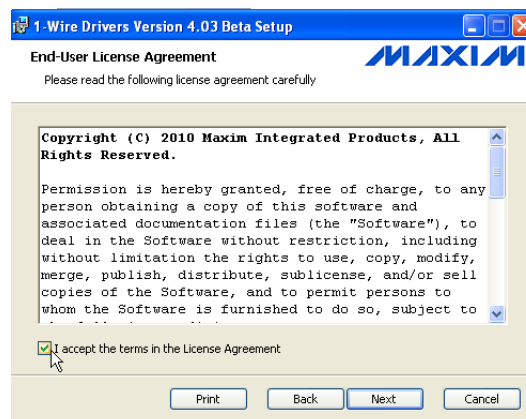
- Click the ThermoTrack PC V7 icon, situated in your desktop, to carry on the installation.



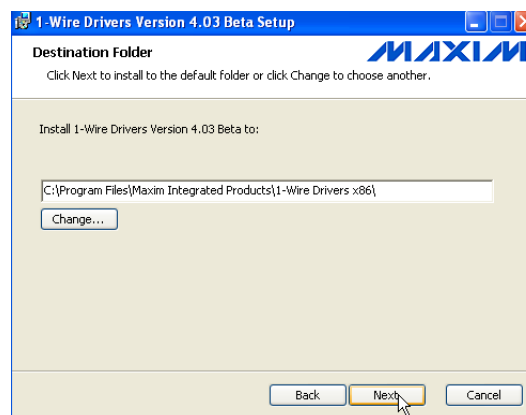
- Click « Next »



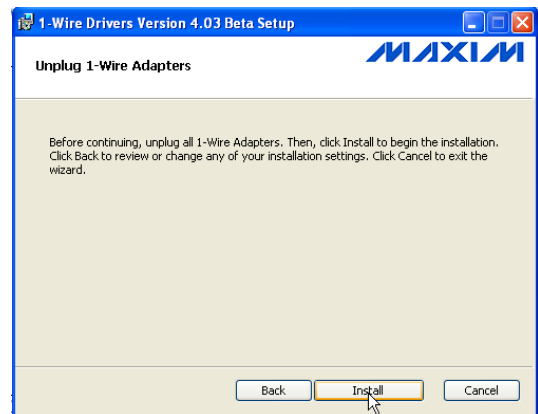
- Tick the box « I accept the terms in the License Agreement » and click « Next ».



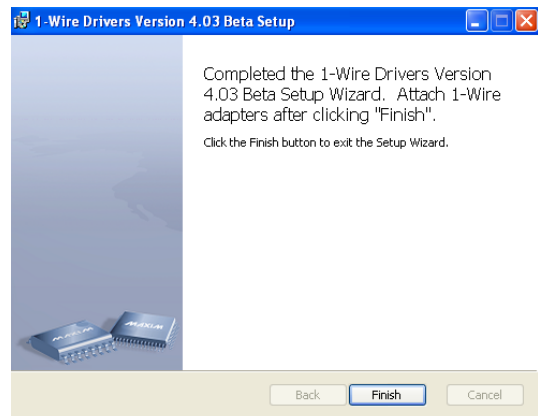
- Click « Next ».



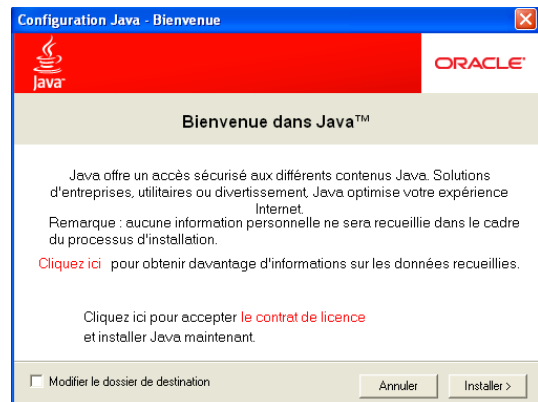
- If your USB reader is plugged, unplug it now and click « Install ».



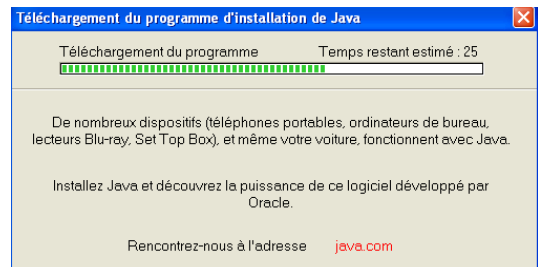
- Now click « Finish »



- Click “Installer”.

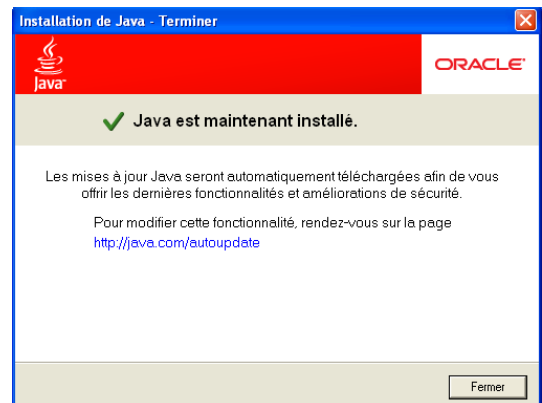


- Wait during installation.

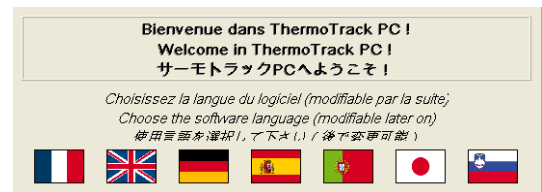




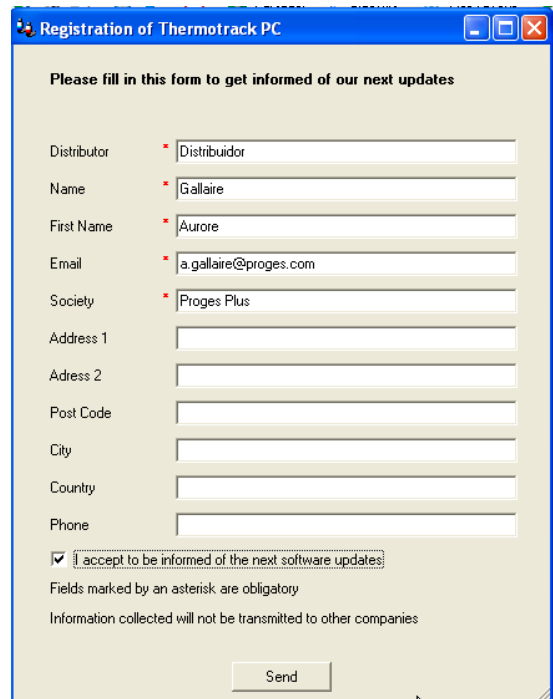
- Click « Fermer ».



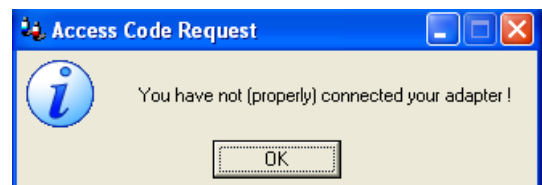
- Choose your language



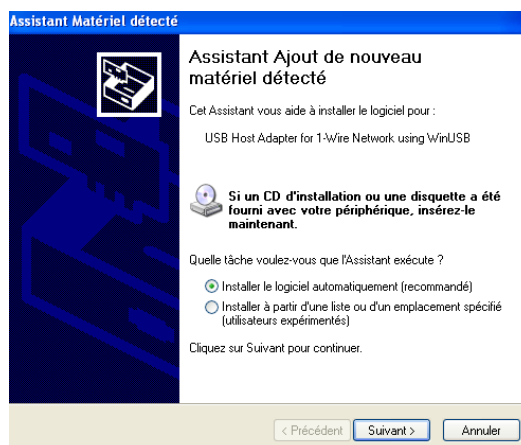
- Enter your data so that we can inform you in case of update. The fields in red have to be filled. Tick the box below if you want to receive information per email about the software evolutions..
- Finally, click «Send ».



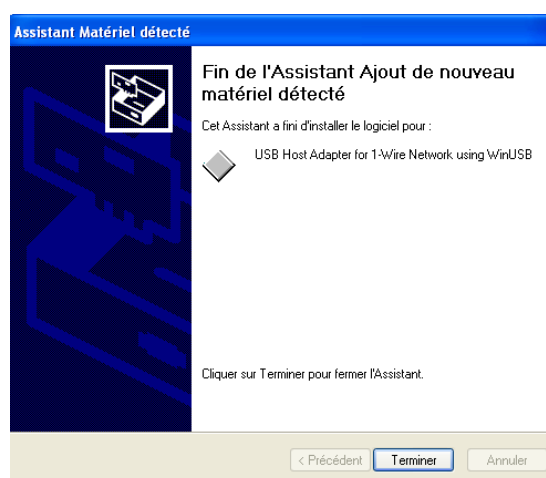
- Plug your USB reader now



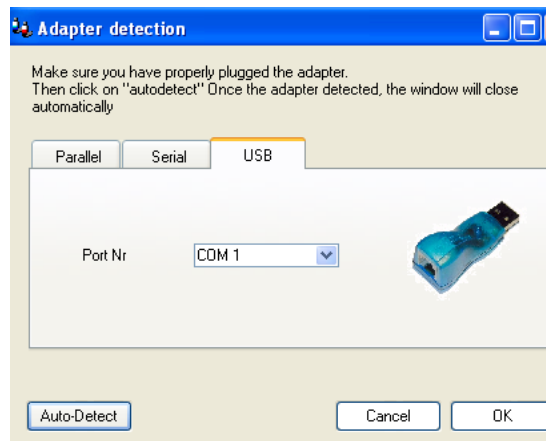
- Click « Next » if the installation wizard appears.



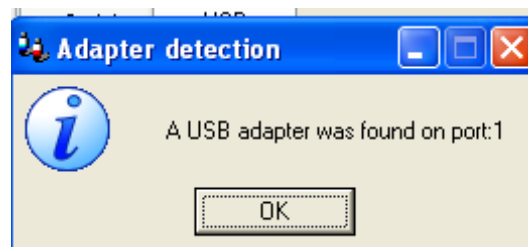
- Click « Finish ».



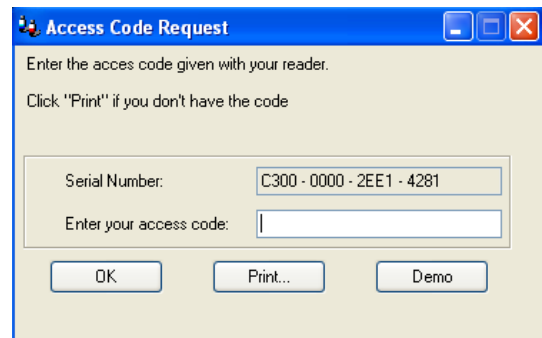
- Click the Thermotrack PC V7 icon. Then click « Auto-Detect »



- This message indicates that your adapter has been detected.



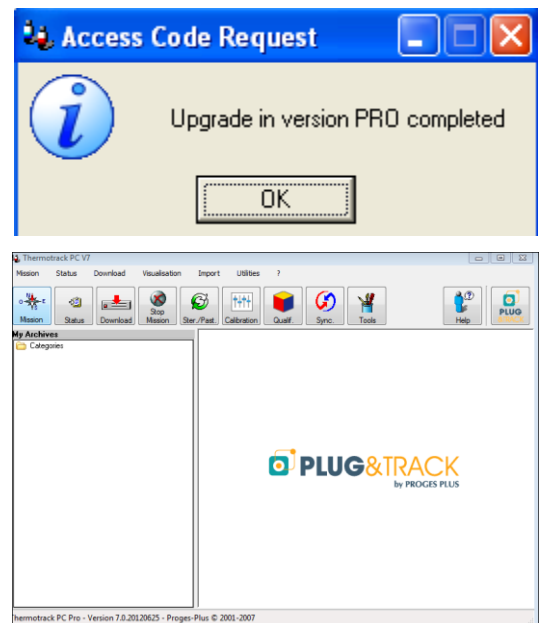
- Enter your access code. It has been sent with your adapter. Then press « OK ».
- The full version access code is associated to your reader . Enter this code and click “OK”.
- If you don't have received any code, print the access code request form by clicking « Print » and fax it to the number indicated on the form. You will receive an access code.



*The adapter you have received is the software licence key. You will not be able to use the software without this reader. Be careful not to lose your reader. If you lose it, it will be impossible to give you another access code.*

*You can thus install Thermotrack PC software on several PCs. You will just have to plug the reader on the PC you want to use.*

- The full version is now activated
- You are now ready to use Thermotrack PC.
- First, read the help manual that you can open by clicking the Help icon situated on the right of the screen, or at any time with the F1 key.



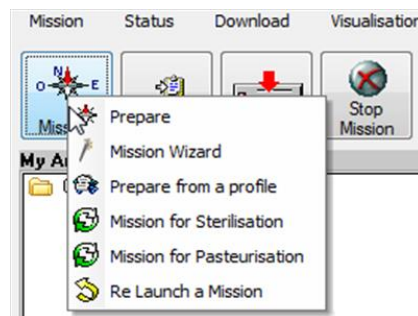


## 2 How to mission a Button :

Prepare a mission means program a Button for the next data collection.

3 methods are possible :

- Direct missionning
- Relaunching an existing mission
- Missionning using profiles



The parameters vary according to the type of Button. That is why you first have to place the Thermo Button on the reader for a direct missionning.'

### 2.1 Direct missionning :

Click « Mission », and then « Prepare ».

#### 2.1.1 Tab 'General':

- Start if Alarm (not with 21G model): The button can start logging only once the high or low temperature threshold you specify is reached. This option can be used also with the start delay.

**Warning, your Button must not be in alarm mode at the time you mission it or when the start delay is finished.**

- Start delay: You can prepare a mission 45 days in advance (99 days for 22 L ant T) Use the arrows or choose a date using the calendar. You can also click the calendar to select the date of mission start.
- Start at : You can chose the date and time for the mission start.
- Resolution : It can be 0.5°C or 0.1°C depending the models. A higher resolution will affect the number of measurement the button can log and the time before the memory on the button is full. These two values are automatically calculated when you change the resolution.
- Sample rate : Choose the frequency used for each measurement. Use the arrow on the right side to increase or decrease the value. This also affects the duration of the mission.
- Synchro on PC Clock : You can adjust the clock of the Button with your PC clock.
- Memory rollover : The button can log from 2048 to 8192 measurements depending on the model. When the memory is full, you have two possibilities:
  - You stop the button by answering No and in that case, you will keep all data.

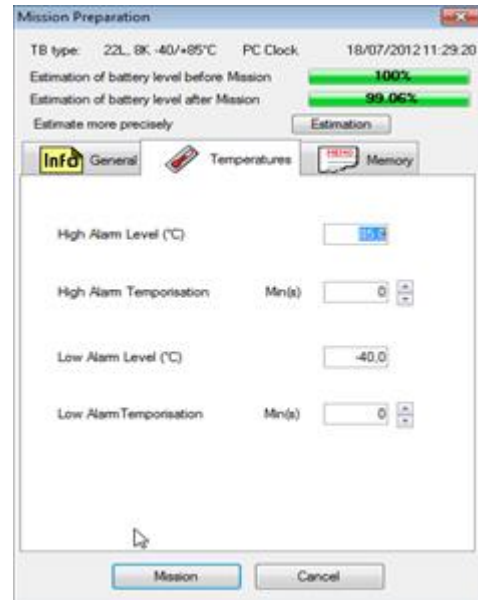


- You allow the rollover by answering Yes and in that case the next point will overwrite the first one and so on. You will then keep a time window corresponding which duration is function of the sample rate and resolution chosen before (see table 'Mission duration')

### 2.1.2 Tab « Temperatures » :

You can specify high and low temperature thresholds. In case the temperature exceeds these thresholds, an alarm will be logged. Directly enter these values here.

You can also specify a temporization for these alarms. If you enter a temporization, an alarm will be logged only when the temperature exceeds both the thresholds and the duration of the temporization. Enter the value with the keypad or use the arrow. These temporizations are multiple of the sample rate.



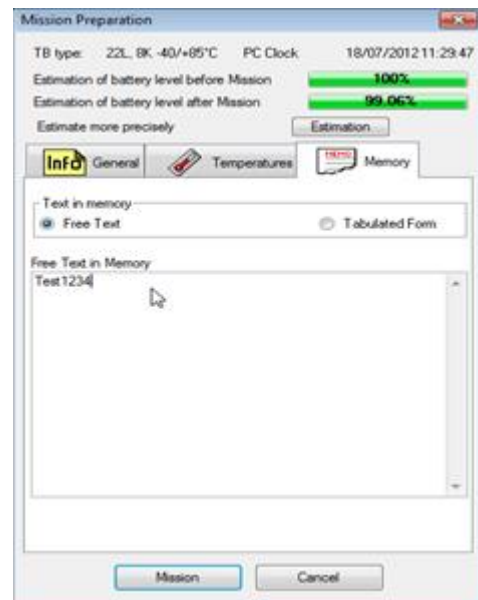
### 2.1.3 Tab « Memory »

The button has a memory in which you can store information you want to assign to the mission. This information will be displayed when reading the button. It can be a lot number, a vehicle ID, etc.

*The information you enter in this tab can also be used to create automatic archive names when reading the button (See paragraph 4.2)*

You can enter this information either in « free text » or using a « tabulated form »

- Free text : Enter the information directly
- Tabulated form : you have two columns: Variable and « value ». Example: column Variable = Vehicle and column Value = Renault  
Only the first line will be taken into consideration when creating automatic archive name (See paragraph 4.2).



### 2.1.4 Mission :

Press the « Mission » button to save the parameters and. Thermo Track will summarize the information before you go further. Press OK. The new mission is now set

Warning : If you change one single parameter and click « Mission », all the values contained in the Button memory will be definitely erased. If you want to keep these values, “Download” and “Archive” first..

## 2.2 Relaunch a mission :

You can relaunch the mission of a Button. In this case, you don't have to enter all the mission parameters again. Click right the Mission icon and choose “Relaunch mission”.

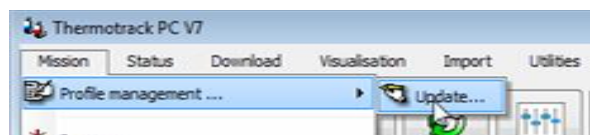
## 2.3 Mission using a profile

You create a mission profile to keep the parameters and mission your Thermo Buttons quickly and easily. You have to create your different profiles beforehand.

When your profile is created, just click right the « Mission » icon and choose « Prepare from a profile ». Then, choose a profile in the list; and just click the arrow to copy the profile parameters..

### 2.3.1 Create a new profile :

Click the button ‘New ‘and enter a profile name, an author and a comment.



In the menu « Mission » → « Profile management » → « create » click on « New ». Enter a name for the profile, and optionally an author and a comment.

Then choose the Type of Button, which this profile will use (21G, 22L, 22T,). This will activate some function specific to some buttons.

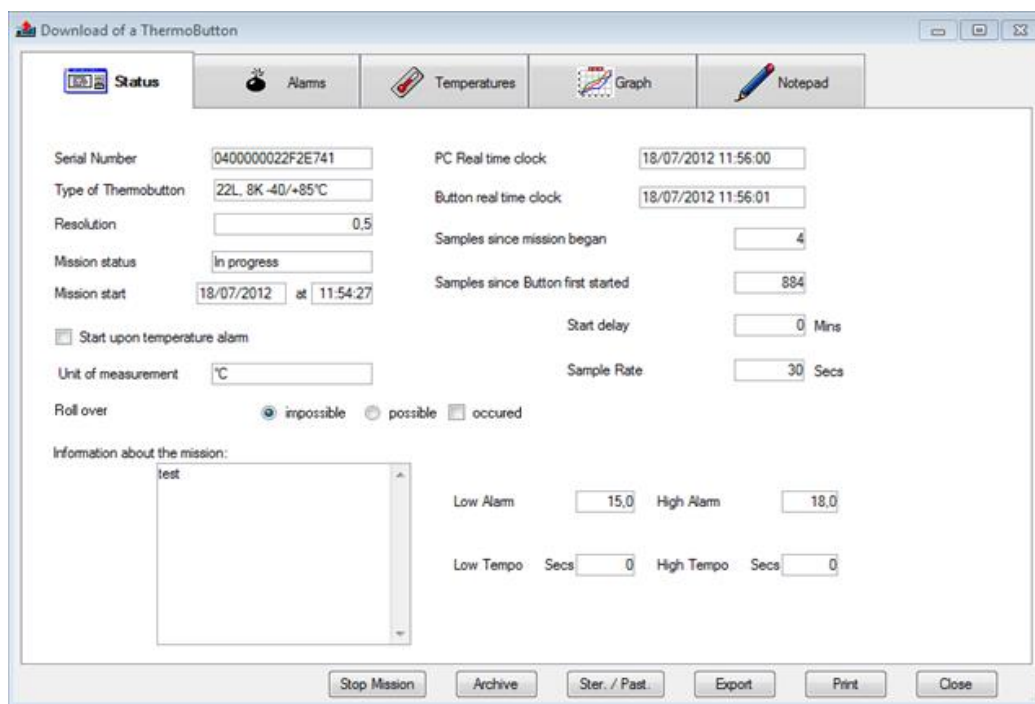
In each of the three tabs, enter the values (start conditions, sample rate, thresholds, etc). Then, click “Save”

### 3 Download

Press the « Download button » and place a button on the reader. You get :

- tabs : Status, Alarms, Temperatures, Graph and Note Pad
- action buttons : « Sterilization / Pasteurization », « Stop mission », « Archive », « Export », « Print » et « Close »

#### 3.1 Status

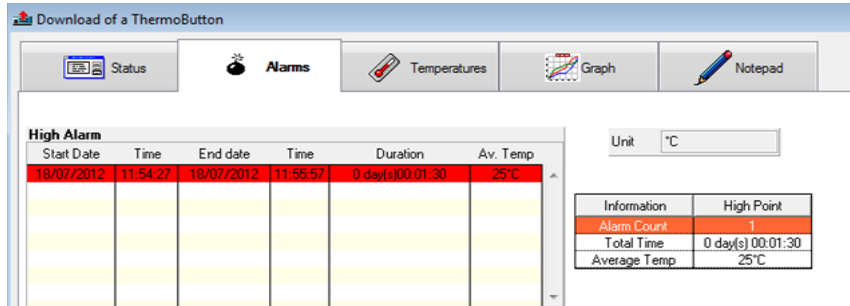


Thermotrack displays the following elements :

- Button serial number
- Button Type
- Resolution
- Mission status: In progress, stopped, waiting for alarms.
- Date and time of mission start
- Start of mission if alarm occurs. This box will stay checked when the button will have started logging to remember that you had specified a “start if alarm”.
- Roll over (Enabled or not, occurred or not)
- Real time clock of the PC and of the button
- Samples since mission started
- Samples since the button was first started. This value shows the life span of the battery
- Start delay (remaining time)
- Sample rate
- High and low thresholds with temporizations
- Information about the mission (stored in the free memory of the button)



## 3.2 Alarms



Start Date	Time	End date	Time	Duration	Av. Temp
18/07/2012	11:54:27	18/07/2012	11:55:57	0 day(s)00:01:30	25°C

Information	High Point
Alarm Count	1
Total Time	0 day(s) 00:01:30
Average Temp	25°C

This window indicates if the alarm and temporization thresholds you have entered have been exceeded.

Each alarm has a start and a end which constitute a period. A Button can store 12 high and low alarm periods..

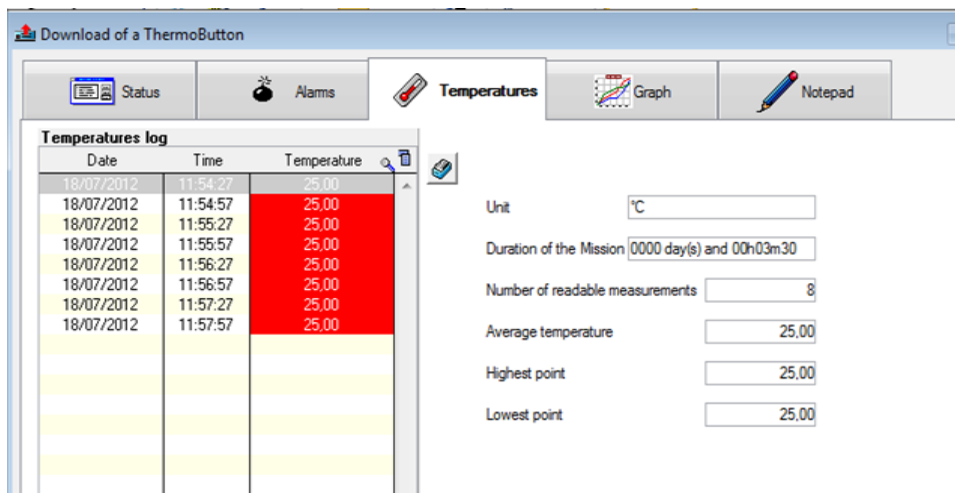
For each period, you will see the total time and the average temperature of the period. Thermotrack also calculates the total time for all alarms.

The Red or Blue alarms correspond to the values that exceed the alarm and the temporization thresholds.

The Orange alarms correspond to the values that exceed the temperature thresholds but NOT the temporization thresholds.

If you have enabled roll-over (see chapter “Mission”), some periods might show the average temperature as N/A (Not available), because the values corresponding to these periods have been progressively erased. In fact, when the rollover occurs, the Button keep the alarms flags but loses the values associated to this period.

## 3.3 Temperatures :



Date	Time	Temperature
18/07/2012	11:54:27	25,00
18/07/2012	11:54:57	25,00
18/07/2012	11:55:27	25,00
18/07/2012	11:55:57	25,00
18/07/2012	11:56:27	25,00
18/07/2012	11:56:57	25,00
18/07/2012	11:57:27	25,00
18/07/2012	11:57:57	25,00

Unit	°C
Duration of the Mission	0000 day(s) and 00h03m30
Number of readable measurements	8
Average temperature	25,00
Highest point	25,00
Lowest point	25,00

This tab gives you the temperatures log (2048 to 8192 last values in case of roll over)

- Red lines correspond to temperature above the high threshold
- Blue lines correspond to temperatures below the low threshold.

Clicking the column headers will sort values accordingly.



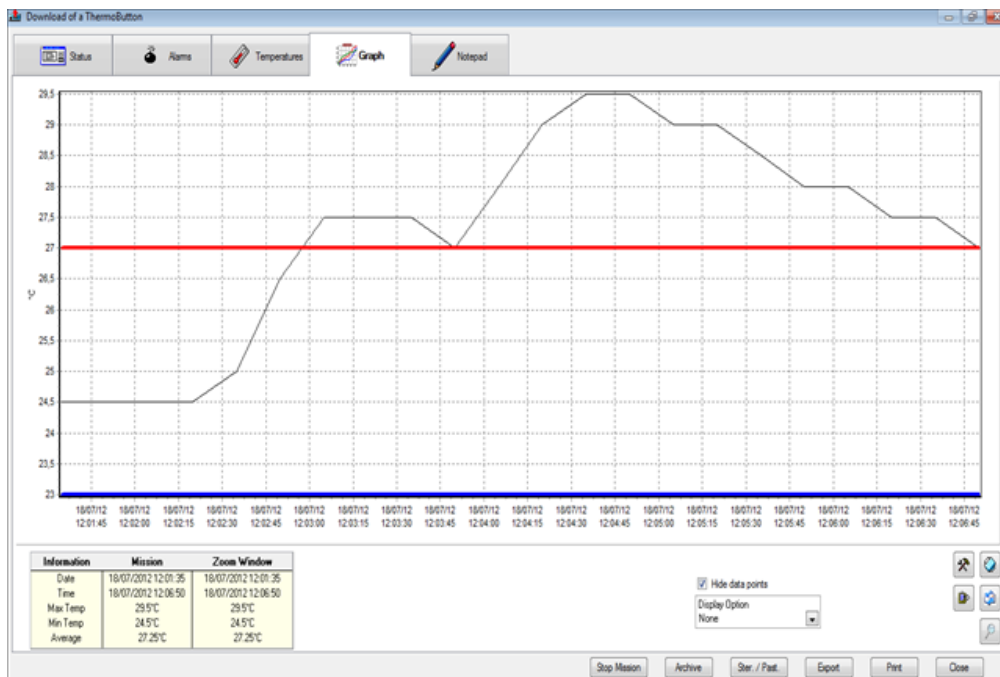
Clicking the **lens** opens a search box where you can type a date or a value. Thermo Track will display the first date/time corresponding.

The right button will sort the list chronologically.

On the right side of this window, you will find the numbers of data displayed, the average, the minimum and the maximum temperature.

### 3.4 Graph

The graph is automatically drawn when entering this tab.



#### 3.4.1 « Information » table :

This table summarizes the mission and the zoom window, giving the start and the end date, the average, the high and the low value.

Information	Static	Zoom Window
Start	03/07/2013 00:00:01	03/07/2013 00:00:01
End	03/07/2013 07:59:01	03/07/2013 07:59:01
Max Temp	30°C	30°C
Min Temp	22°C	22°C
Average	23.67°C	23.67°C

#### 3.4.2 Date selection

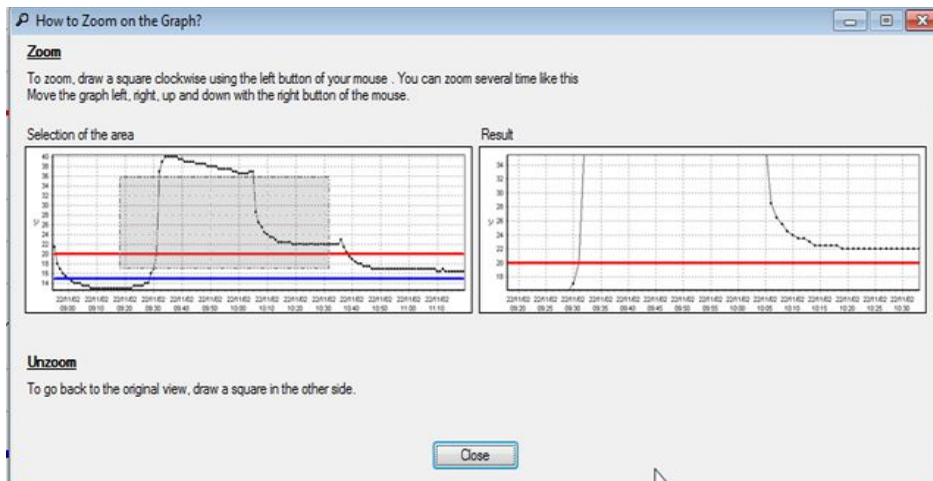
You can select a specific précised period by entering the start and end dates and time in the Zoom Window section. This option will also adjust the list of values and the list of alarms

Just enter the dates and time, then press the icon to update

<u>Information</u>	<u>Static</u>	<u>Zoom Window</u>
Start	26/04/2013 11:50	27/04/2013 08:00
End	27/04/2013 21:57	27/07/2013 12:00
Max Temp	26.7°C	26.7°C
Min Temp	17.6°C	17.6°C
Av. Temp.	21.29°C	21.29°C

You also can save this selection as a new Archive

### 3.4.3 Zoom on the graph :



You can select a part of the graph and zoom on a period using the mouse. Just select a start point in the high and left corner, press mouse and go to the right and down corner. The graph and the scales are then adjusted to this period.

This option will not adjust the list of temperature and the list of alarms. You cannot save this selection as a new archive.

### 3.4.4 Display options :

You can add labels on the graph showing the value, the date or both.

### 3.4.5 Display data points :

You can choose to display or not the data points on clicking this button. It might be easier to read if you have a high number of values.

## 3.5 Note Pad :

The note pad is a convenient tool to create and attach a report to the mission. You can enter here text, tables and images.

You can paste the alarm table (copy it with the right click first) or a copy of the graph (using the insert button). You can resize the graph if needed and print your report.

*Practical : If you archive data, your report will be automatically saved with them. You will be able to amend or to correct your report when you reopen it..*

### 3.6 Archive

You can archive the temperature data.

When you read a Button, click « Archive » and enter the Archive name (requested) and the Author name and a comment (both are optional).

Select the folder in which you want to place the archive, or created a new one using the right click. Then

*Read the options for automatic archives in the paragraph 4.2 Archive*

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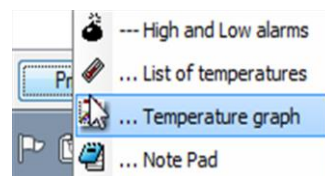
### 3.7 Export :

You can export the temperature log into Excel by clicking this button.

### 3.8 Print :

You can print:

- The alarm listing
- The temperatures list
- The graph
- The notepad



When you have chosen the report to print, a preview is displayed.

Now you can:

- Export the report into Word
- Send it by email (send an image)
- Send by email (using a PDF)
- Create a PDF copy



You can add your logo and address in the footers of each report, see paragraph 4.3 Customized footers

### 3.9 Sterilization / Pasteurization

Thermo Track can calculate these values for you. Just click the « Ster. / Past » button.

Now select the process to test:

- Pasteurization: the default values are 70 for T and 10 for z
- Sterilization: The default values are 121 for T and 12 for z
- Manual: This option allows you to enter T and z

You also can choose selection criteria (temperature above X or between X and Y)

According these parameters, different periods are displayed, showing the start and end date, the duration and the calculated value

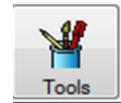
There is another mean to check if the sterilization or pasteurization process has been reached is to use the “Ster. / Past” in the main menu.

- First mission a button using the Sterilization or Pasteurization mission profile where you have entered the sample rate, the temporization and the high alarm threshold (Mission/Sterilization/Pasteurization configuration).
- By checking your button after the sterilization or pasteurization process, use the « Ster. / Past.” Icon and a window will appear, indicating if the process has succeeded of failed. Close the window or press the button to operate a complete download on the button.



## 4 Tools Menu (Customisations)

The icon « Tools » gives you several customization options to save time.

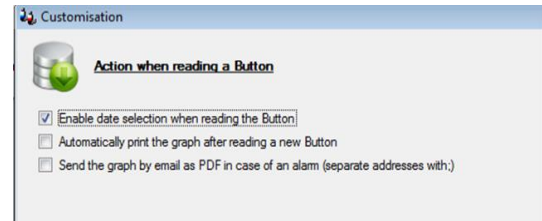


### 4.1 Action when downloading a Button

When downloading a Button, you can have these automatic functions :

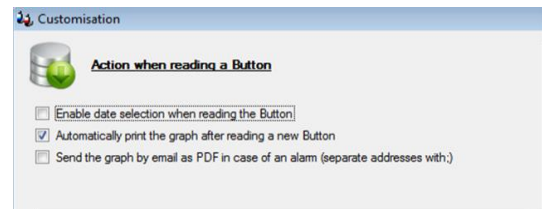
#### 4.1.1 Select date when reading a Button :

If you tick the box, you will be able to choose the period you want to see when reading a Button. The data registered before and after this period will not be taken into account.



#### 4.1.2 Print the graph automatically

If you tick this box, the graph will be printed in the printer by default, as soon as you read the button and close the window.



#### 4.1.3 Send the graph the graph by email in case of alarms

If you tick this box, the graph will be send in PDF by email if some temperature alarms are registered.

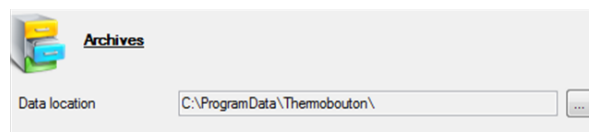
When you tick this box, you can enter the email addresses of the recipient(s) (put a ; between the addresses).



## 4.2 Archive

### 4.2.1 Data location

By default, the data are stored in C:\Documents and Settings \All Users\Thermobouton in Windows XP or in C → Utilisateurs → All Users → Thermobouton dans Windows Vista et 7



You can store the data in another place, either on your PC or on a server. First, you have to create the folder where you want to store the data in and then use this function to select this folder.

Warning: If you or another user have already stored data in this folder, a message informs you that the archives situated on the old folder will not be moved. Indeed this could create conflicts between the different data.

Choose the disk and the directory where you want to archive the data. Confirm by «OK ».

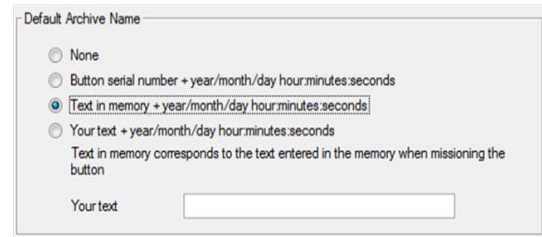


#### 4.2.2 Default archive name

You can create automatic archive names in order to keep the same semantics.

Thermotrack can create files names directly :

- With the Serial number of the Button,
- With a text entered in the memory of the Button when missioning it
- With a text you choose



Default Archive Name

None  
 Button serial number + year/month/day hour:minutes:seconds  
 Text in memory + year/month/day hour:minutes:seconds  
 Your text + year/month/day hour:minutes:seconds

Text in memory corresponds to the text entered in the memory when missioning the button

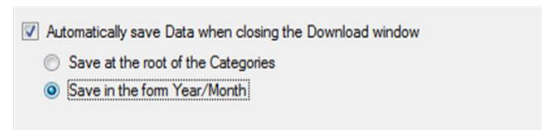
Your text

In each case, the date will be added, in the form yyyy/mm/dd so that the archives are sorted chronologically.

#### 4.2.3 Automatically save data when closing the download window

You can save data automatically and sort your archives in 2 different ways:

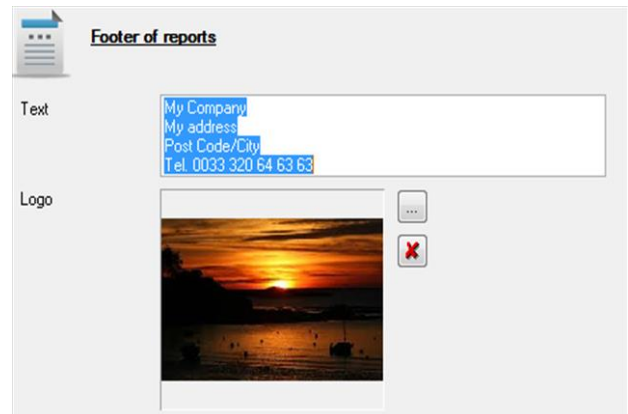
- Save at the root of the Categories
- Save in the form Year/Month : In this case, Thermotrack will automatically create a file per year and a sub-file per month and the values will be archived in the corresponding sub-file.



Automatically save Data when closing the Download window  
 Save at the root of the Categories  
 Save in the form Year/Month

#### 4.3 Customized footers

You can add your logo and address on the footer of your reports, graphs, lists...




Footer of reports

Text

Logo

#### 4.4 Automatic data export

You can automatically create a text file with all the values so that they can be used by another software (Lab management software, quality management software, ERP...)



Export of Data

Automatic export of data in a text file

File

First, create a test file (.TXT) in the location you choose with your Windows browser, then select the location for this file in ThermoTrack PC.

The software that will use this data will have to empty the file to avoid getting a too big file .

The created file will contain the following information, separated by ;

- Serial number of the Button (16 alphanumerical characters)
- Unit (°C or H%)
- Low alarm level (6 characters max.)
- High alarm level (6 characters max.)
- Registered value (6 characters max.)
- Status (1 character : N = Normal, B=Low alarm, H = High alarm)
- Button internal Identification (free text entered in the memory of the Button when missing it)

## 5 Superimposition of the graph :

To superimpose several missions on the same graph, use menu " Visualization" then "Superimposition»

Choose a first record in the list of your archives.

Place your mouse on this archive, keep pressing the button and move the file to «List of mission to superimpose"

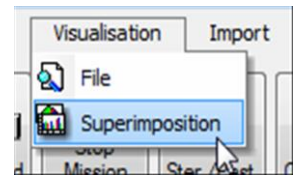
Do the same for the other missions.

The result of the superposition is displayed directly in the graph.

It essential to have the same alarm thresholds, otherwise the display of these thresholds will be incoherent.

You can modify the parameters of the graph from the corresponding icon. You can for instance:

- Modify the colour of a serie « Edit », « Serie », « Colour »
- Delete a serie : « Edit » « Delete »



## 6 Utilities

### 6.1 Choose language :

Even if you have installed Thermo Track in a language, you can change it at any time. Select "Language" in menu "Utilities" and choose the language you want to use. Thermo Track will stop, then restart in the language you have chosen.

### 6.2 Communication :

This menu enables you to setup the communication port used (series or parallel) as well as the type of adapter installed.

### 6.3 Data location :

See paragraph 4.2.1 Archive

### 6.4 Maintenance

#### 6.4.1 Optimiseur :

The « Optimiseur » is a tool which will re-index the database if you have a lot of archives.

- Use the function 5 « Réviser totalement ou plusieurs fichiers avec compression des mémos »
- Press « Next » or « Suivant »
- Indicate the directory where the files are located by clicking the 3 points situated in the right side of the screen. (see paragraph 4.2.1 Data location)
- All the files contained in this directory should be in the list
- Press « Next » or « Suivant »
- Choose the box "Effectuer une sauvegarde des fichiers d'origine" and click on OK
- Print the treatment report
- Close the application and restart Thermotrack.
- Test Thermotrack

#### 6.4.2 Debug Mode

The debug mode might be used to track actions made by Thermo Track. Use this option only when requested by the maintenance staff.

#### 6.4.3 Reboot Button :

This function enables to reboot a Thermo Button in case of technical problems.

Warning: If you reboot a Button, all the data stored in this Button will be lost.

#### 6.4.4 Remote help via Internet :

This function connects you directly to the remote help web site. In case of technical problem, the maintenance staff will be able to carry out a remote maintenance.

You can access this web site only if you have an Internet access on your computer.

Use this option only when requested by the maintenance staff and when you have been given an access code.

#### 6.4.5 Reintegrate Temp Tech

If you saw an error message when the integration of the data contained in the Temp Tec R, you can reintegrate the data with this menu.

#### 6.4.6 Mission counter

This menu enables to know how many times you have missioned each Button

#### 6.4.7 Mission statistics

This function enables to know more precisely how many missions you have carried out with each Thermo Button and show the number of values registered, the minimum and maximum temperature and the average of each mission.

An « Excel » icon enables to create a file ready to be send to us if necessary.

### 6.5 Access rights :

You can activate access rights for more security. First, you have to « Activate passwords », then enter your users and give then a login and a password.

Then, you can enter the users and their password

The users will have to enter their login and password to open Thermo Track

### 6.6 Battery level :

This function enables to:

- Make an estimation of the Button consumption. Enter the type of Button, the resolution, the sample rate and the average temperature to get the consumption. You can also check the life span of the Button if it is always mission with the same parameters.
- Read the battery level of a Button

This information are just estimations and are not guaranteed.

### 6.7 Printer configuration :

Select this option if you want to change the printer or modify its parameters.

### 6.8 Upgrade to full version :

When installing Thermo Track, the program starts in demo version.

To upgrade to full version, use menu «Utilities" then " Upgrade to full version".

The access code for full version is provided with the reader. Enter this code and click "OK".

If the code is not provided, print the report using the button «Print» and fax it with the indicated number. You will receive your access code by return.



*The adapter provided is the key licence of the software. You cannot use Thermo Track without this adapter. Therefore, please don't lose it. If you lose it, it will not be possible to give you another access code.*

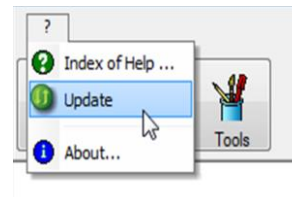
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This also means you can install Thermo Track PC PRO on several PCs. But you will have to plug the reader on the PC you want to use.

## 7 Upgrade ThermoTrack PC :

You can download and install the last updates of Thermo Track PC (?/Update).

You have to have an Internet access to install the updates.



## 8 Calibration :

The calibration module is an optional and payable module of Thermotrack PC.

The calibration module of Thermotrack PC enables you to correct the temperature data of the following models of Thermo buttons: 21G, H, Z, 22L 22T, 22E. This section explains you how to use this module.

### 8.1 License :

The calibration module is subject to the purchase of an additional license. Please, get closer to your distributor to know the trading terms.

The module is installed with your software Thermotrack. Simply activate the license.

Enter the access code that corresponds to this module is to your USB Reader. The code is different from the Thermotrack PC code.

### 8.2 Operation

#### 8.1.1 8.2.1 New calibration :

Press "New" to add the calibration parameters of a new button.

Place a Button on the reader, then press the lens icon to read its serial number. The software will also recognize the type of Button. Then choose the type of correction you want to make.

##### 8.1.1.1 Quadratic

The system will use a 4th degree polynomial correction. In that case, you will need 3 calibration points. This method is more accurate and will also calibrate outside the first and the last point

##### 8.1.1.2 Linear:

The correction will be linear between each calibration point. There will not be any calibration outside this first and the last point. You need minimum 2 points and you can enter 5 points maximum.

##### 8.1.1.3 Calibration date / validity date:

By default, the calibration date is the current day. The default validity is 360 days.

The module lets you know the end of validity of the certificate. 30 days before validity, you see a message each time you read the Button that reminds you to renew the certificate.

##### 8.1.1.4 Integration of manufacturer accuracy

You can Apply manufacturer accuracy. This means, the calibration will also take into consideration the accuracy given for the button and will add it to the correction. If your calibration certificate has been done the proper way, you don't need this option.

Except particular cases, we advise you to keep this value to "No".

##### 8.1.1.5 Entering of the values:

Enter the values mentioned in your calibration certificate

- Standard values (those measured by the standard probe)
- Measured values (by the Thermo Button).
- Uncertainty

If you wish, you can enter the name of the controller or a comment.

Press the “Save” Button and place the Button on the reader so that Thermotrack PC records the data inside.

The calibration values are now integrated into the button memory.

All readings will now be corrected in accordance with these values

### 8.1.2 To import a calibration:

If a calibration has been made in another PC using a different data base, you can import the calibration into your data base by importing from the calibrated button. Use the “Import” button, place the button on the reader. Check that the parameters are OK and press the “Save” button.

### 8.1.3 Modification of a calibration:

Press the “Modify” button.

This function allows you to change the calibration data. Once you have adjusted the values, you will need to place the button on the USB Reader for data transfer.

Choose the button you want to modify, either by selecting it in the list or by using the lens and plugging a Button on the reader.

Modify the fields you need to and press the “Save” button.

## 9 Mapping

The Mapping module enables to check if your equipment are stable and homogeneous and to edit reports in conformity with the NFX15-140 standard, that defines the test criteria for the conformity of the climate chambers (warehouses, cold rooms, fridges, steam cabinets, cool boxes...).

### 9.1 License

The calibration module is subject to the purchase of an additional license. Please, get closer to your distributor to know the trading terms.

The module is installed with your software Thermotrack. Simply activate the license.

Enter the access code that corresponds to this module is to your USB Reader. The code is different from the Thermotrack PC code.

### 9.2 To create a new Mapping

- Click the button « New » in the upper part on the right.
- Then appears the window in which you enter information specific to the qualification (Name, Author, procedure) and also to the buttons to program (Number, Resolution, Sample rate, setting value, Upper and Lower Limit). The tolerance limits (upper and lower limits) should not be exceeded to achieve compliance.
- All the Thermo Buttons of your characterization will be missioned according to these parameters. The upper and lower limits must not be exceeded to have compliant chambers.
- The date of the characterization is automatically the date of the day.
- Once the fields are completed, click "Save".

### 9.3 Programming of the Thermo Buttons

You can then program your Thermo Buttons for the characterization.

- You can then mission your Buttons for the characterization.
- The Characterization Module enables to mission your Buttons (until 30 per characterization) by setting them up the same way and giving them a data or a name (Top, Bottom, Middle...), according to their position in your chamber.
- Enter the name corresponding to the position of the Thermo Button in the Chamber
- Click on « Mission » to set up the Thermo Button, according to the parameters entered previously.
- Click on « New Button » to set up the remaining of your Thermo Buttons used for this characterization, one after the other.
- Once all Buttons are missioned, click « OK »; Then, click « Close ».
- Your new qualification appears now in the list of pending characterizations.
- You can find all the details of your qualification at the bottom of the screen by clicking the line corresponding to your characterization.
- Then place your Thermo Buttons in your chamber to control, and check that you have placed each Button in the location corresponding to the name you have given to it (upper left hand corner...).
- Your Thermo Buttons will record the temperature in the different points of your chamber.



## 9.4 Reading of the Thermo Buttons

- To know if the temperatures of your chamber are stable and homogeneous, you have to read the data recorded by the different Thermo Buttons.
- Click then on « Download », the third button at upper right hand corner of the main page, to read the data of your Thermo Buttons and to get the results of your characterization.
- Place the Thermo Buttons one after the other on the reader, until the last Thermo Button.
- All the buttons are read and archived automatically one after the other. A first graph enables to superimpose all the graphs so that you can check when the temperatures of the different buttons are stable.
- Then click « Validate ».

## 9.5 Assessment and Test Report

You obtain a complete report indicating if the conclusion is « Passed » or « Failed ».

This graph presents the averages of the loggers with the limits. You can find these values in the tab “Results Table”.

You will also find the graph where the graphs of the different loggers are superimposed (tab « Superimposition »).

The Characterization module automatically calculates (tabs « sensors Values, Data »)

- The averages, mini and maxi of each logger
- the air temperature
- the homogeneity of the environment
- the maximum homogeneity
- the maximum stability
- The error toward setting

The tab « Info Calibration » enables you to know if your Thermo Buttons have been calibrated and to know the validity of the calibration certificate.

The « Notes Pad » enables to create a personalized report.

You can obtain the detail of a Thermo Button by clicking on its name in the table situated on the upper right hand corner of the Characterization details.

The test report is completely customisable :

It can be sent to Word. It can also be converted in PDF Acrobat format.

Click « Print » to obtain the complete report.

You can customize this report by adding you address and your logo in the footer of the page using the menu « Utilities, Customisation, Reports» in Thermo Track.

All the characterizations are saved in the data base of Thermo Track. So, it is possible to find the results at any time.