

Mini-SAOZ Instrument

Ozone and NO₂ column observations
by zenith sky UV-visible spectrometry

Part 3 Laptop Installation Handbook

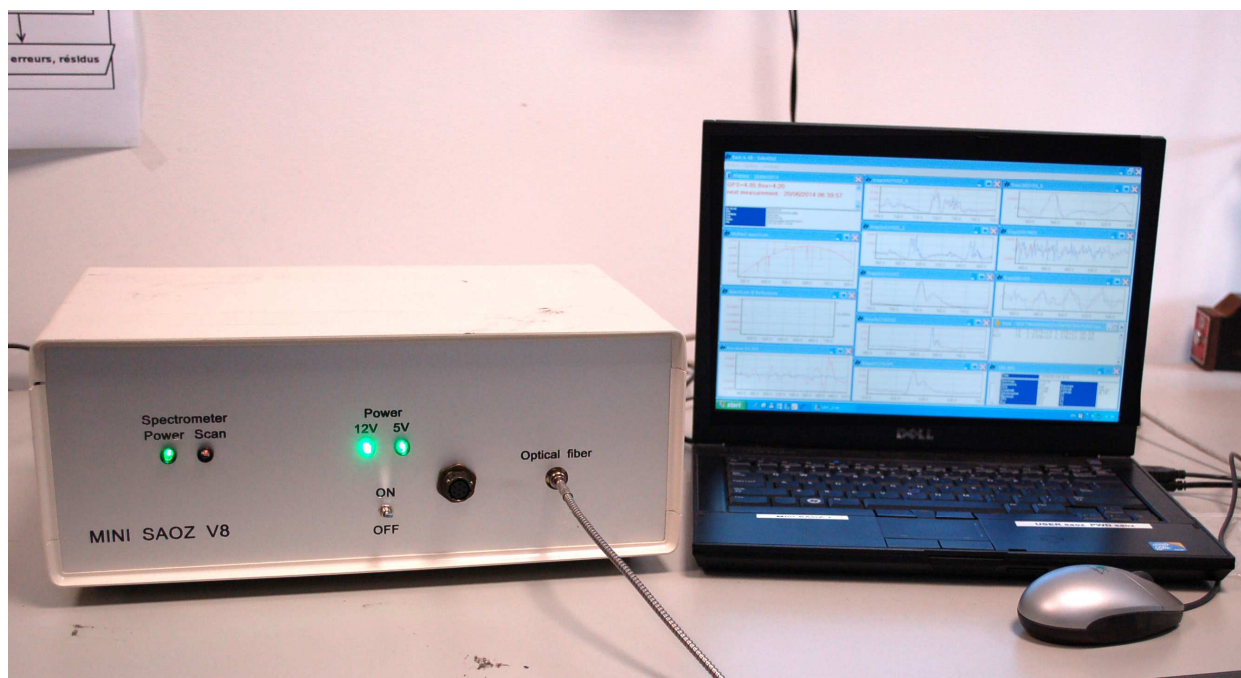
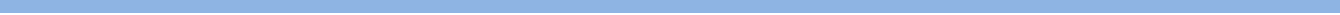


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APPENDIX 4

Setting up a new PC DELL with Windows 10

A4-1 First boot

At the first start of the PC, several questions are asked to configure the system.



Fig. Start01

The answers are the following:

- Country or region: **United Kingdom**
- Time and currency: **English (United Kingdom)**
- Keyboard layout: **United states-international**
- User name: **saoz**
- Computer name: **saoz**

(Fig. Start02)



Fig. Start02

- Type a password: **saoz**
- Retype a password: **saoz**
- Type a password hint: **instrument name**
- Time zone: **choose your local time**
- License terms → **Accept all and click on Next**
- Protect setup → **Use recommended settings**
- ...
- Choose an internet Access (Network connection)

When installing Windows 10, the questions may be repeated three times:

- Type a password: **saoz**
- Retype a password: **saoz**
- Type a password hint: **instrument name**

After Windows 10 installation it is necessary to do all the updates of the system and all the updates of the computer.

A4-2 Update of the system

After the first start, search for system upgrades.

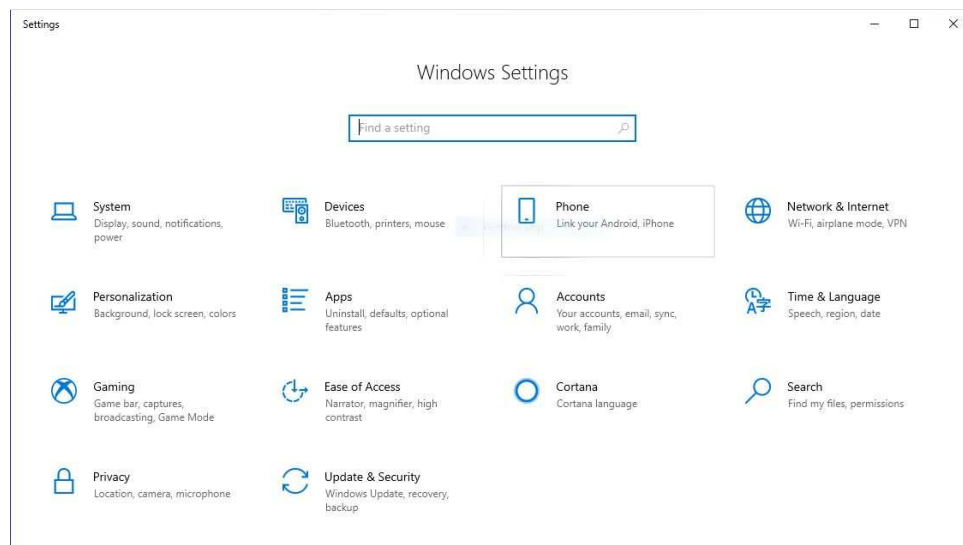


Fig. Start03

- Choose Update and Security
- Click on “Check for updates”
- Download and Install

(Fig. Start04)

(Fig. Start04)

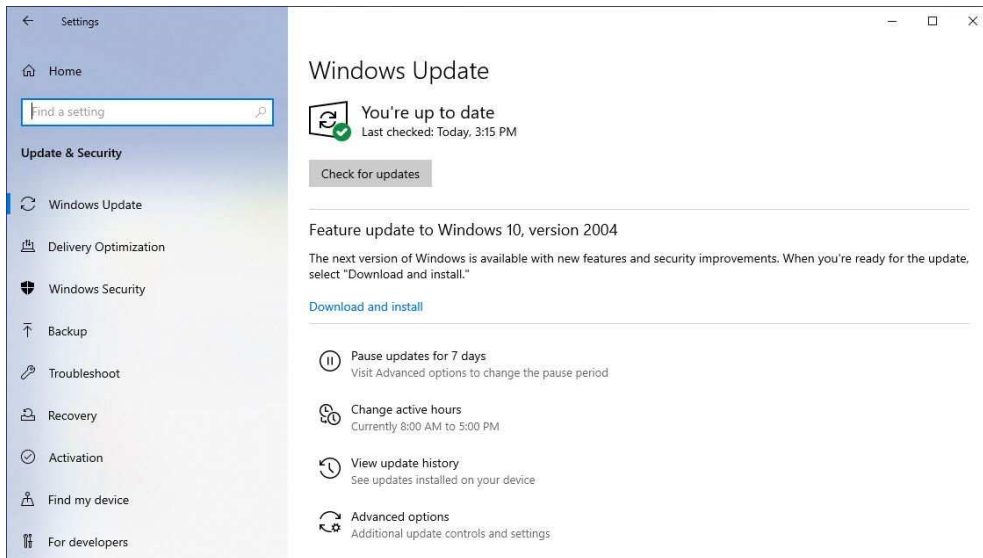


Fig. Start04

A4-3 Update of the computer

Search for computer upgrades (here a dell computer)

(Fig. Start05)

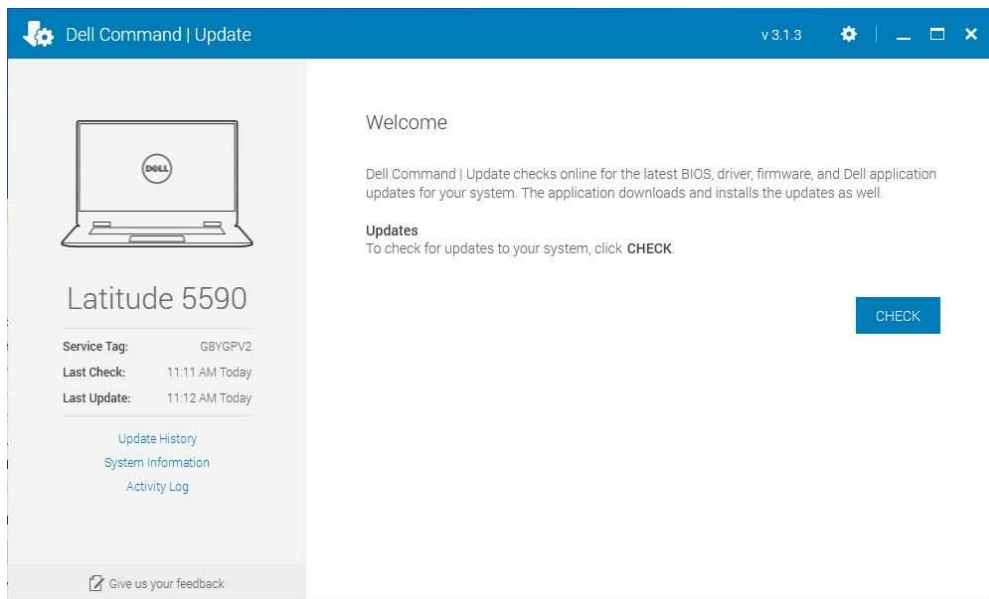


Fig. Start05

Computer upgrades done

(Fig. Start06)

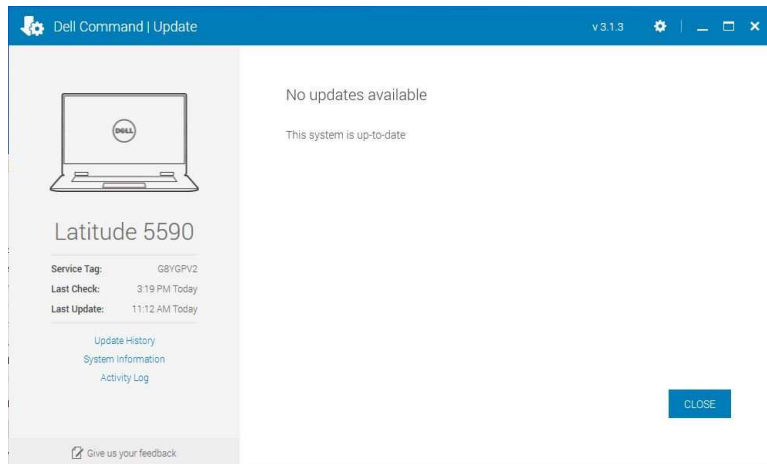


Fig. Start06

A4-4 Settings and Advanced settings modifications

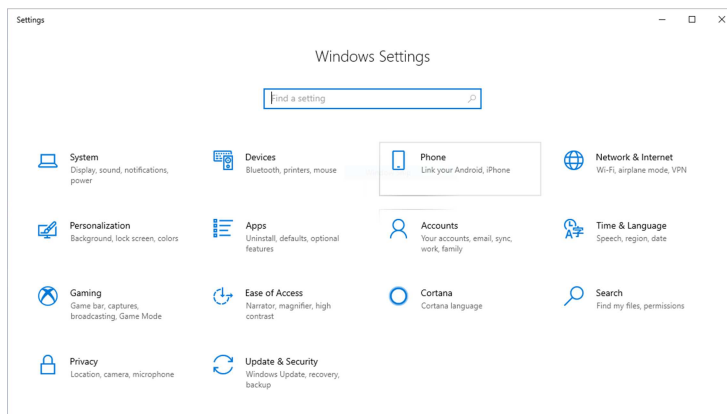


Fig. Start07

- Look for **User Account Control Settings**

(Fig. Start08)

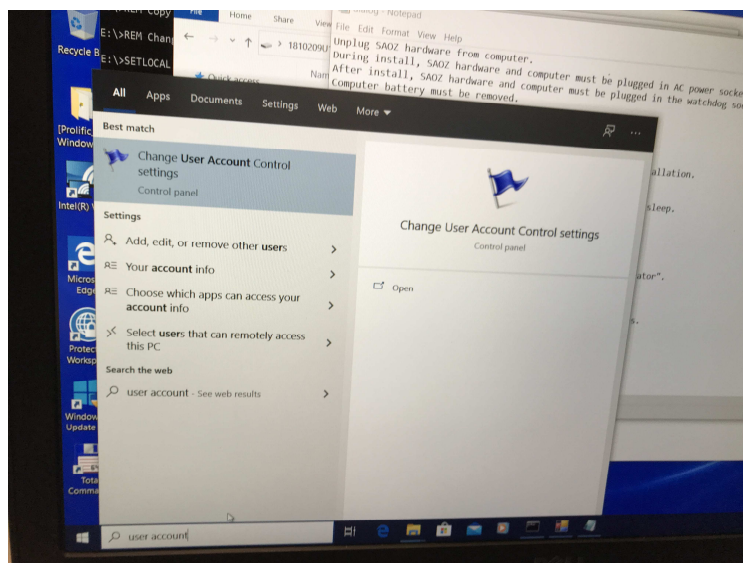


Fig. Start08

- Change User account notification
- Move the cursor towards *never notify* and click on *OK* (Fig. Start09) and click on *Yes* to make the changes in the next window

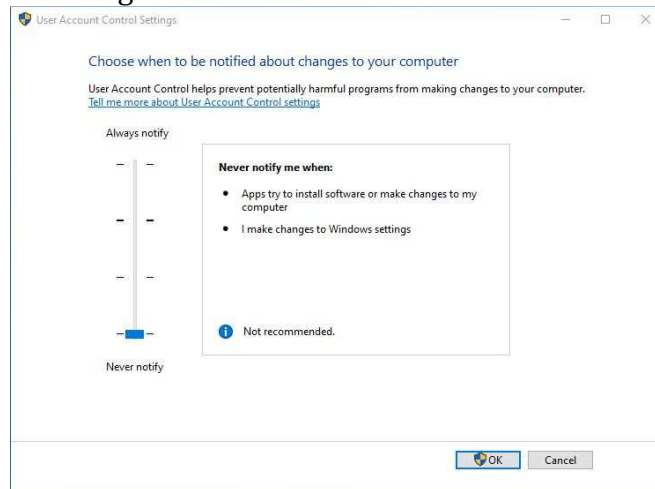


Fig. Start09

- Look for *Advanced Power settings*
-

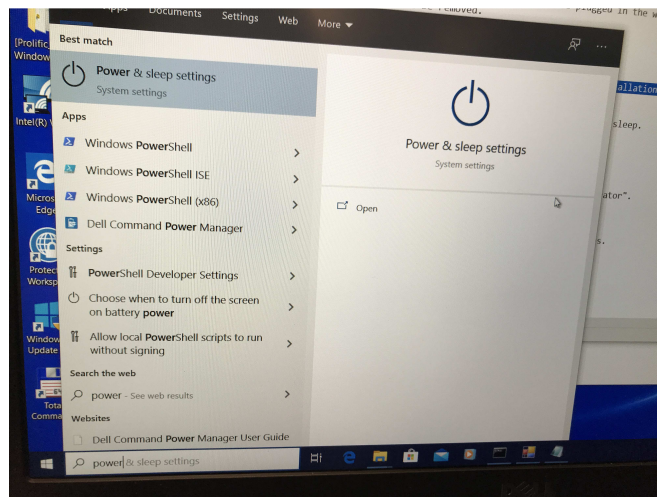


Fig. Start10

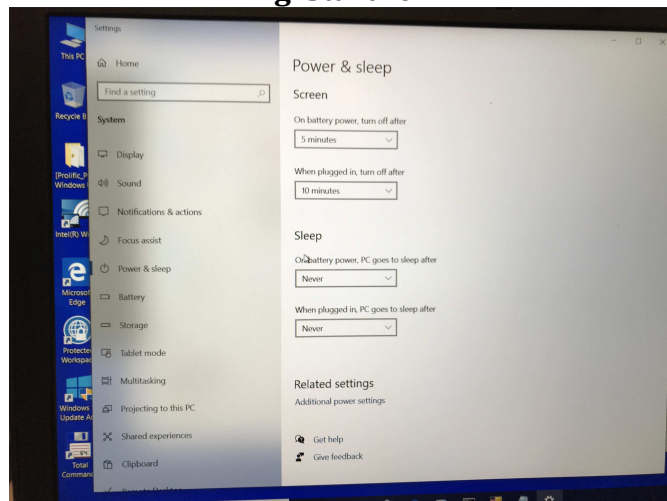


Fig. Start11

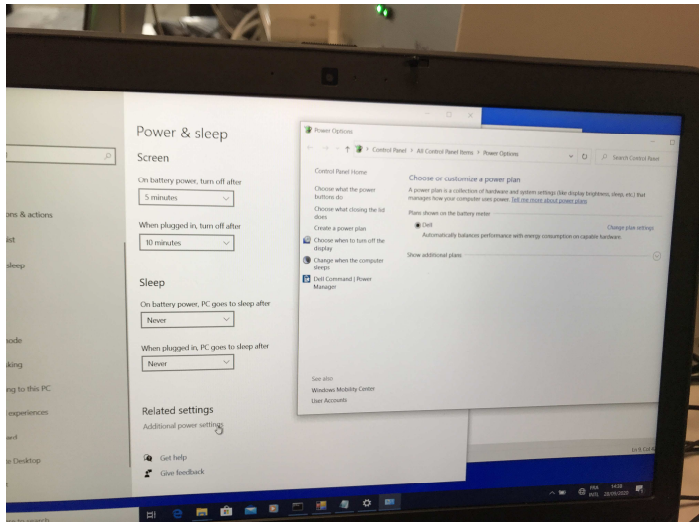


Fig. Start12

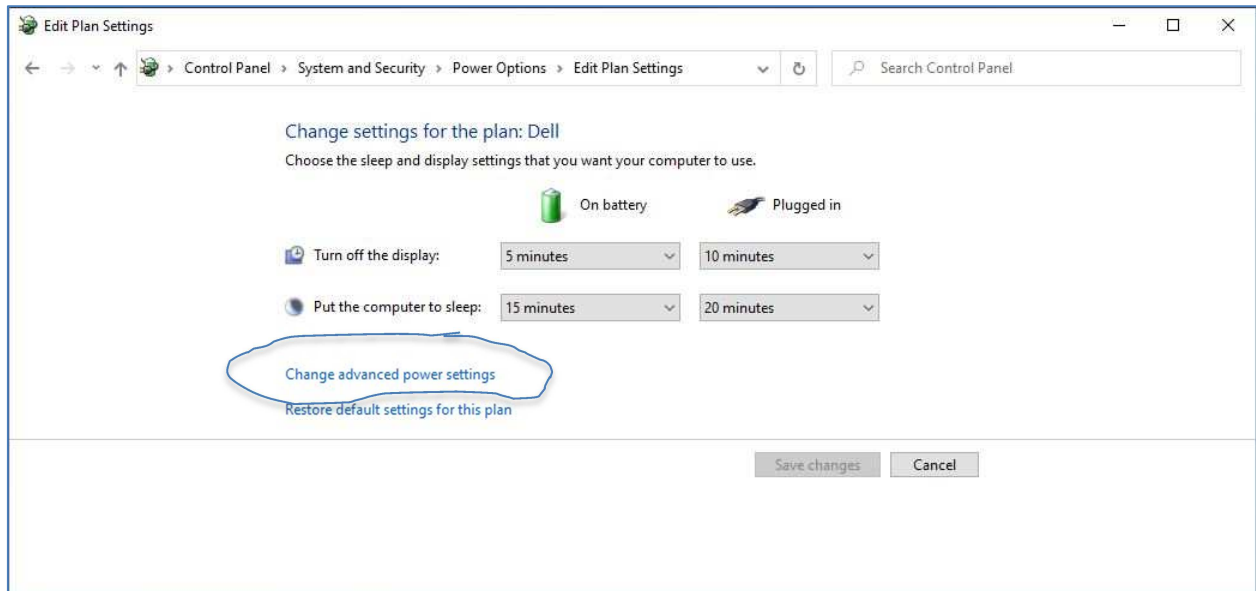


Fig. Start13

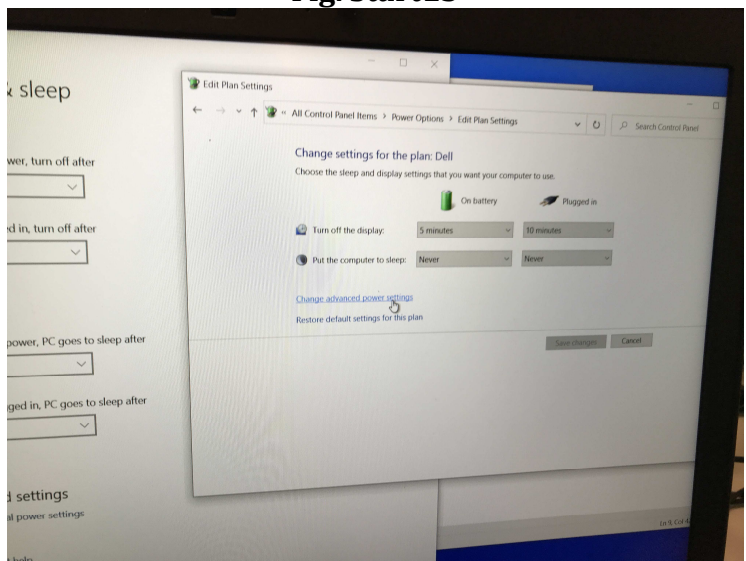


Fig. Start14

- Hard disk
 - Turn off hard disk after
 - Plugged in *Never* enter 0 for Never

(Fig. Start15)

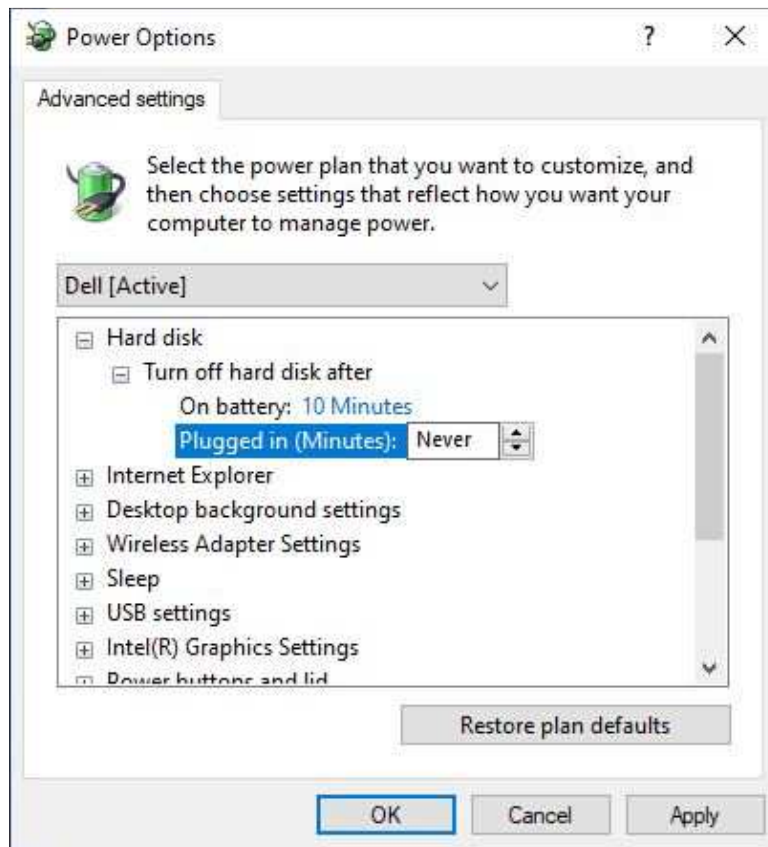


Fig. Start15

- USB Settings
 - USB selective suspend setting
 - Plugged in *Disabled* select tab Disabled

(Fig. Start16)

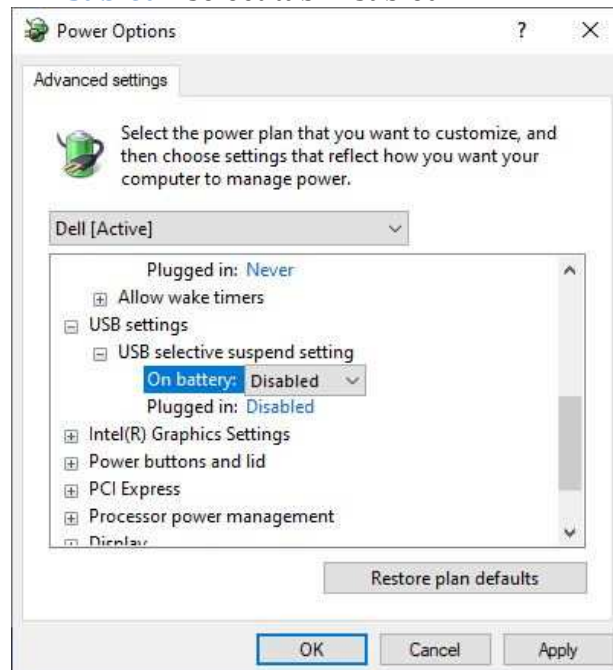


Fig. Start16

- Display Settings
 - Plugged in *Never*

(Fig. Start17)

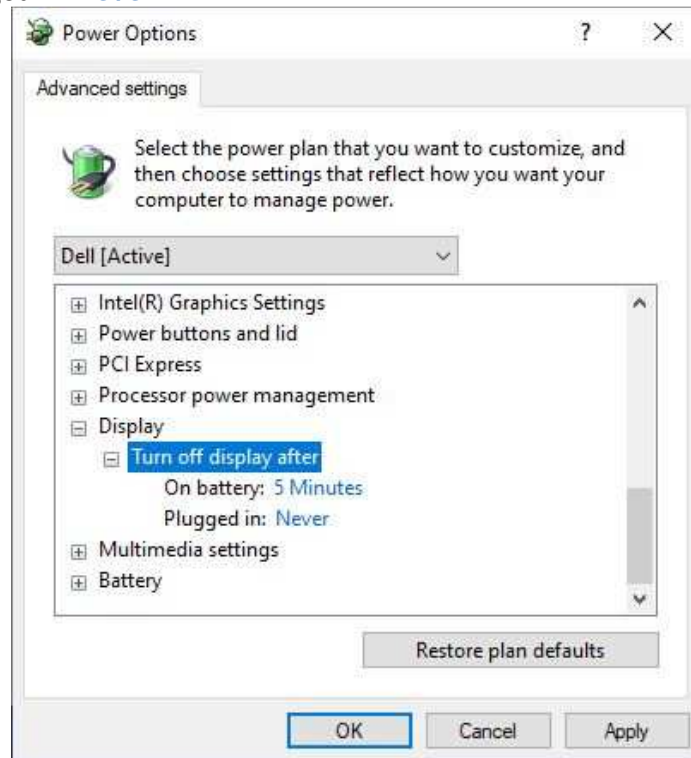


Fig. Start17

- Look for Device Manager

(Fig. Start18)

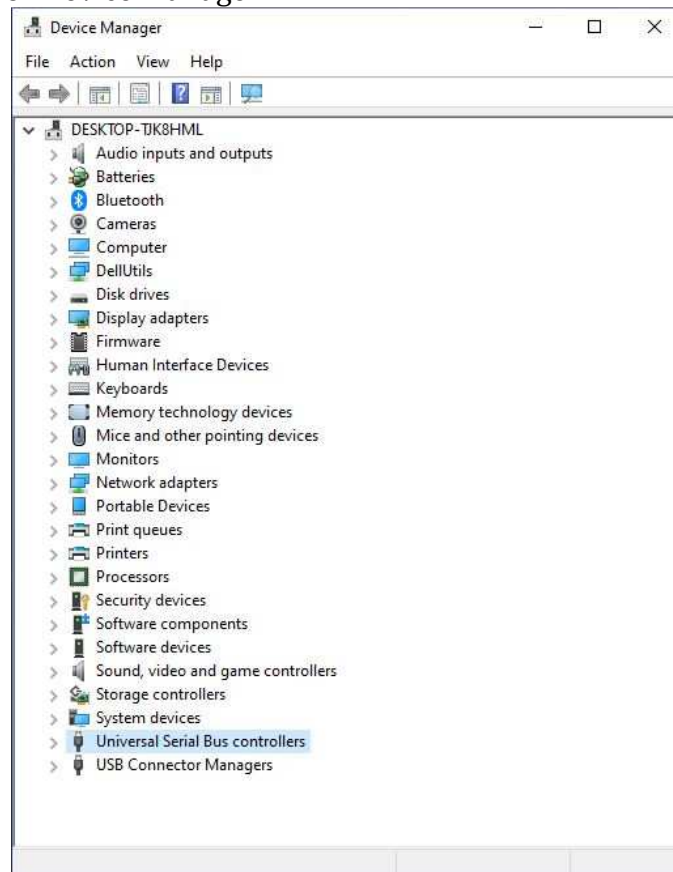


Fig. Start18

- USB Mass storage properties:
Untick “Allow computer to turn off ...”

(Fig. Start19)



Fig. Start19

Finally: It is important to uninstall all antivirus software installed by the system.

A4-5 Modify the BIOS

Reboot the PC to change the BIOS. Press key **F2** during the reboot on DELL laptop. This operation is necessary to enable automatic reboot of the PC after a power failure and recovery of the power:

- Bios power management/AC Behaviour: Wake on AC.
- Click *on Apply* and Exit
- The laptop may restart to complete the installation

(Fig. Start20)

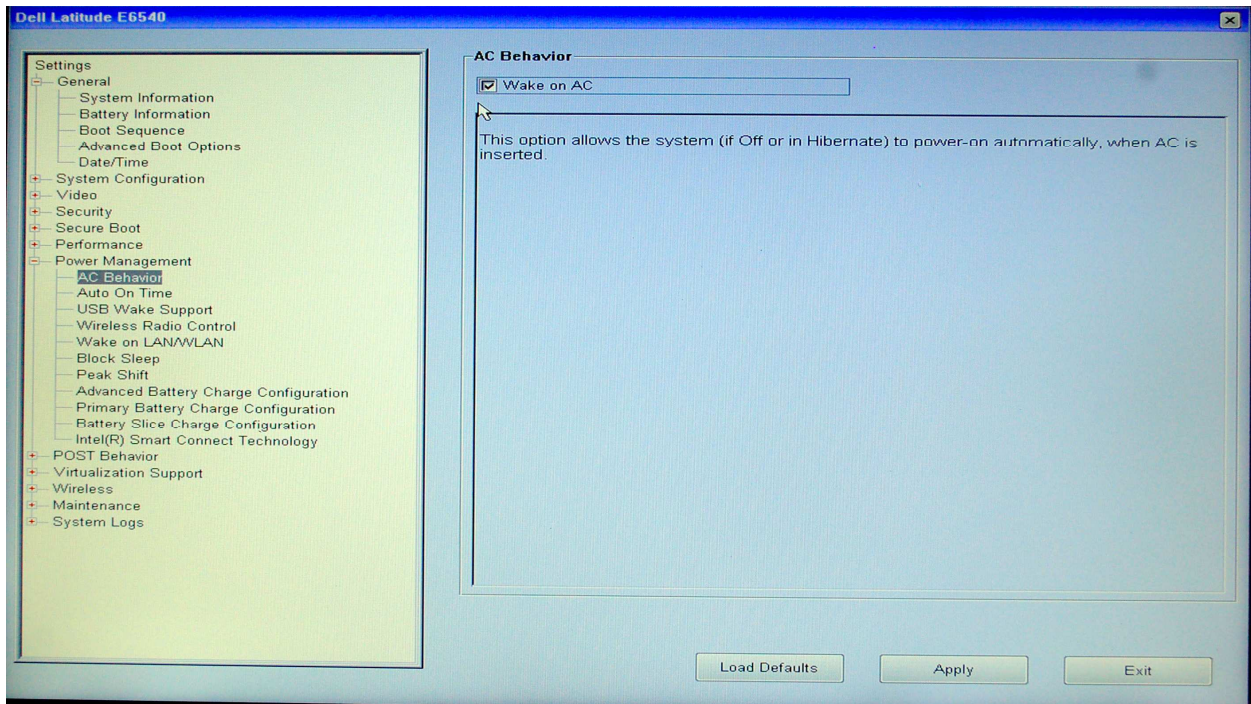


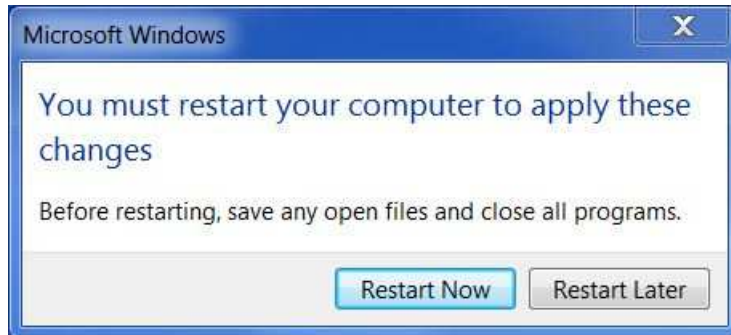
Fig. Start20

APPENDIX 5

Re-install Mini-SAOZ on a new PC

Before installing SAOZ software read APPENDIX 4 carefully.

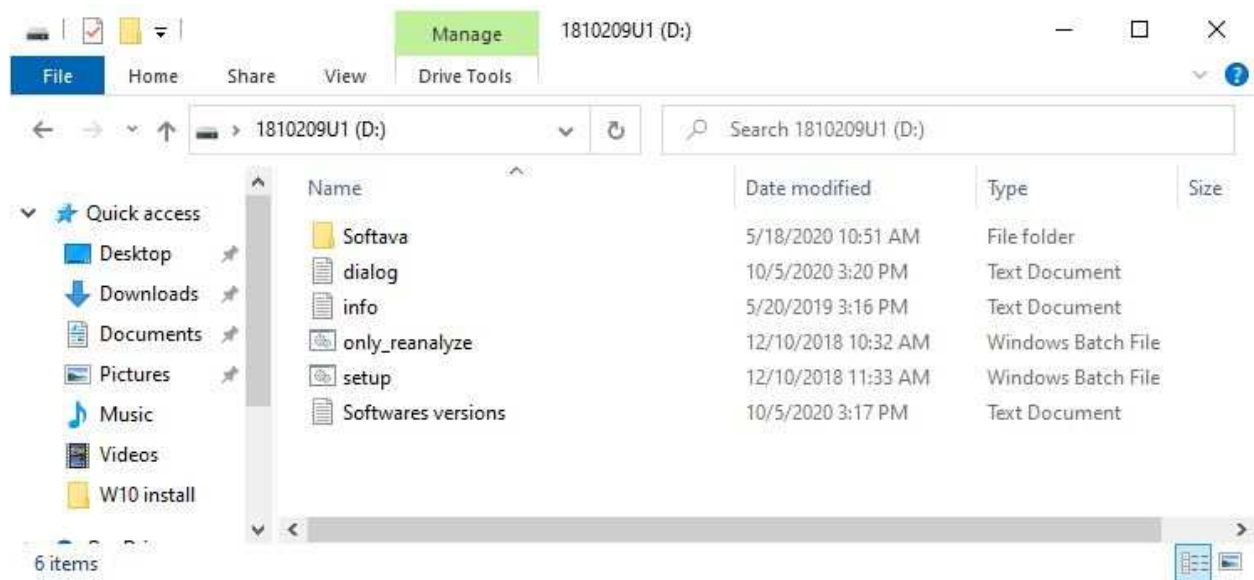
The message on the screen (cf. A5-00) can appear at any time during the installation. It is important to answer Restart LATER



A5-00: Answer Restart LATER

A5-1 Standard Installation

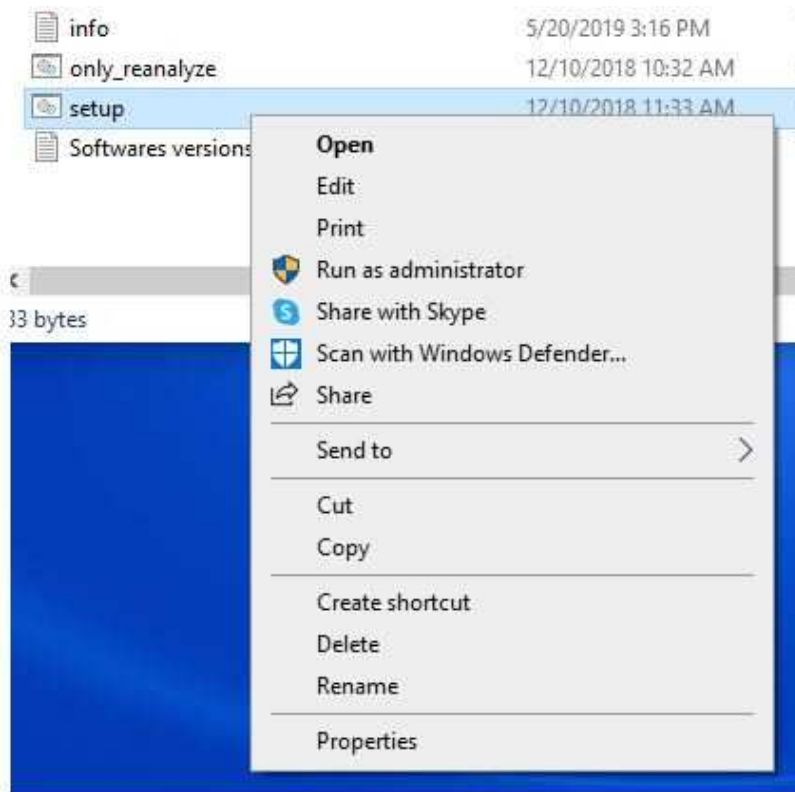
Insert the USB key with the name of the spectrometer (here 1810209U1)



A5-000: USB key files

There are six items on the Key.

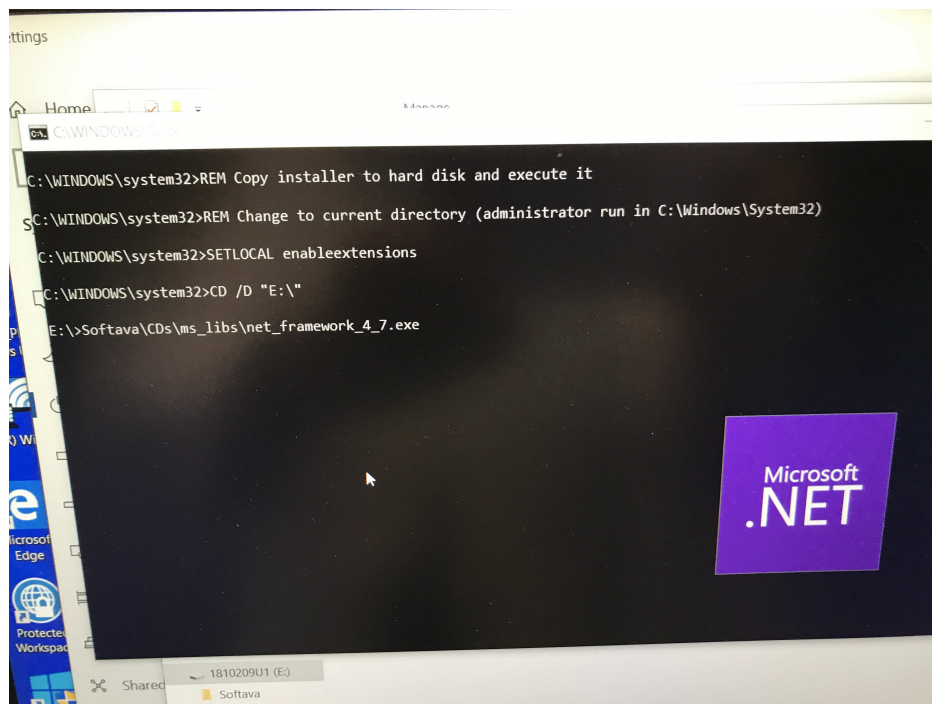
- **Run setup.bat** on the USB key **Run as administrator** very important (A5-001) St



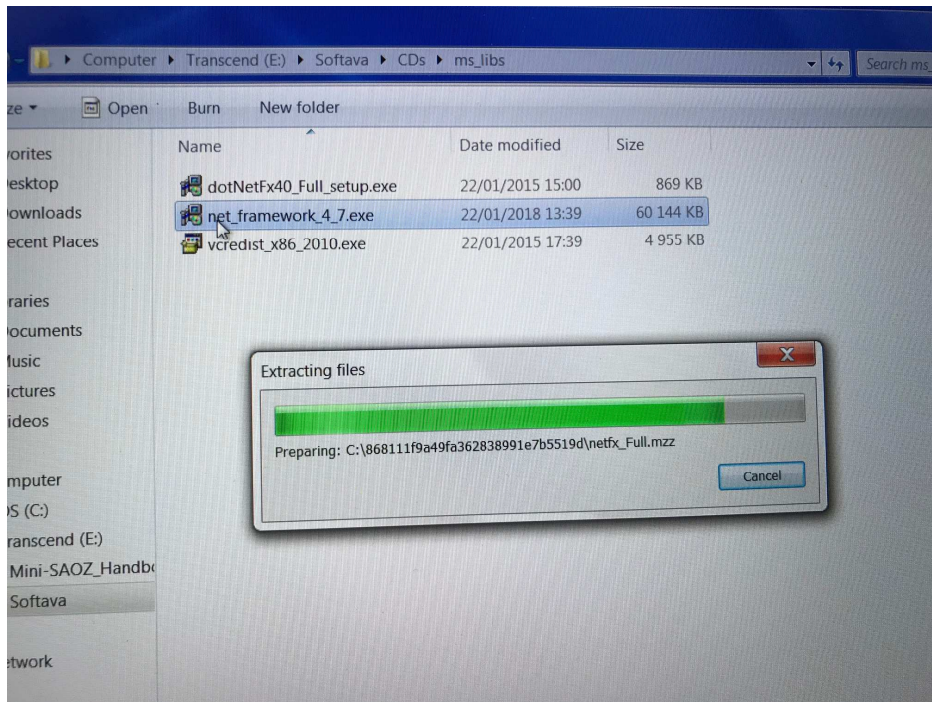
A5-001: Run setup.bat on the USB key - Run as administrator

A5.1.1 NET_framework_4_7 installation:

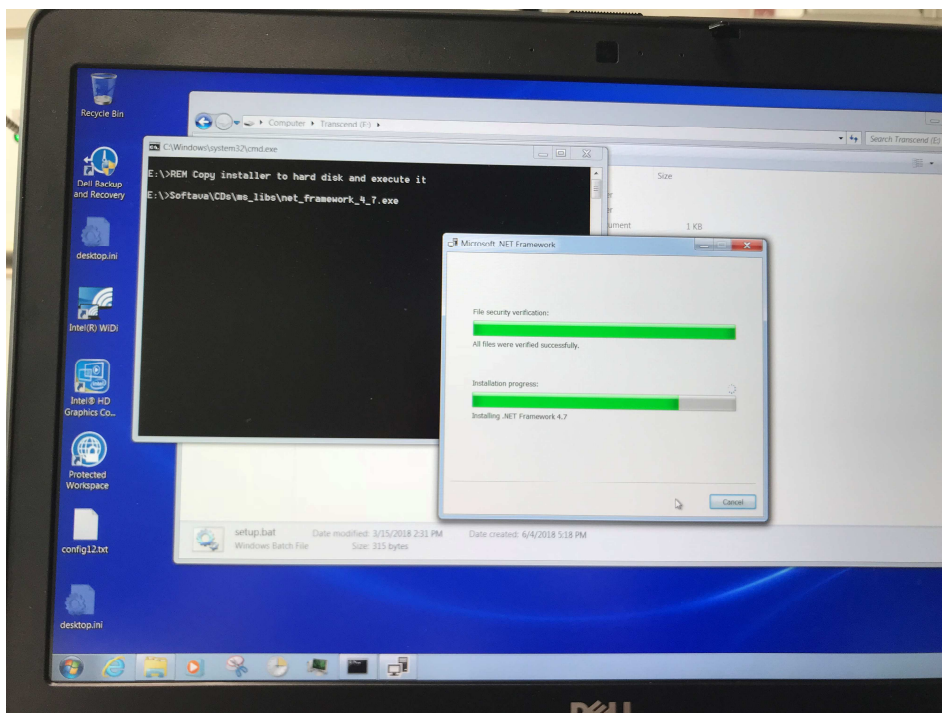
The first step after launching “setup.bat” is “NET_framework_4_7.exe”



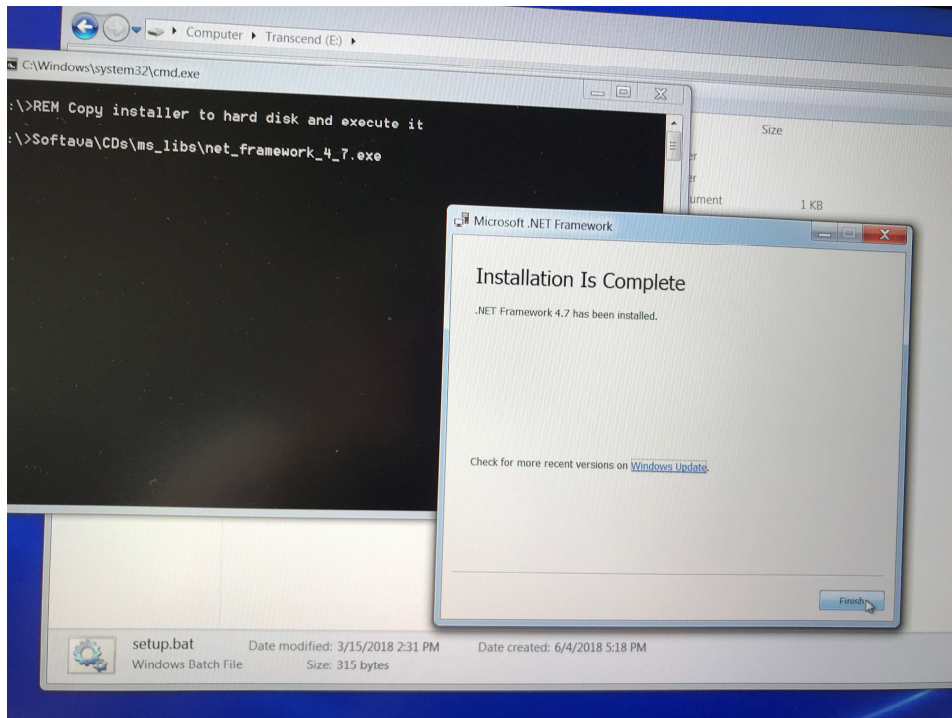
A5-001a: NET_framework_4_7 installation



A5-001b: "Preparing installation of .NET Framework_4_7"

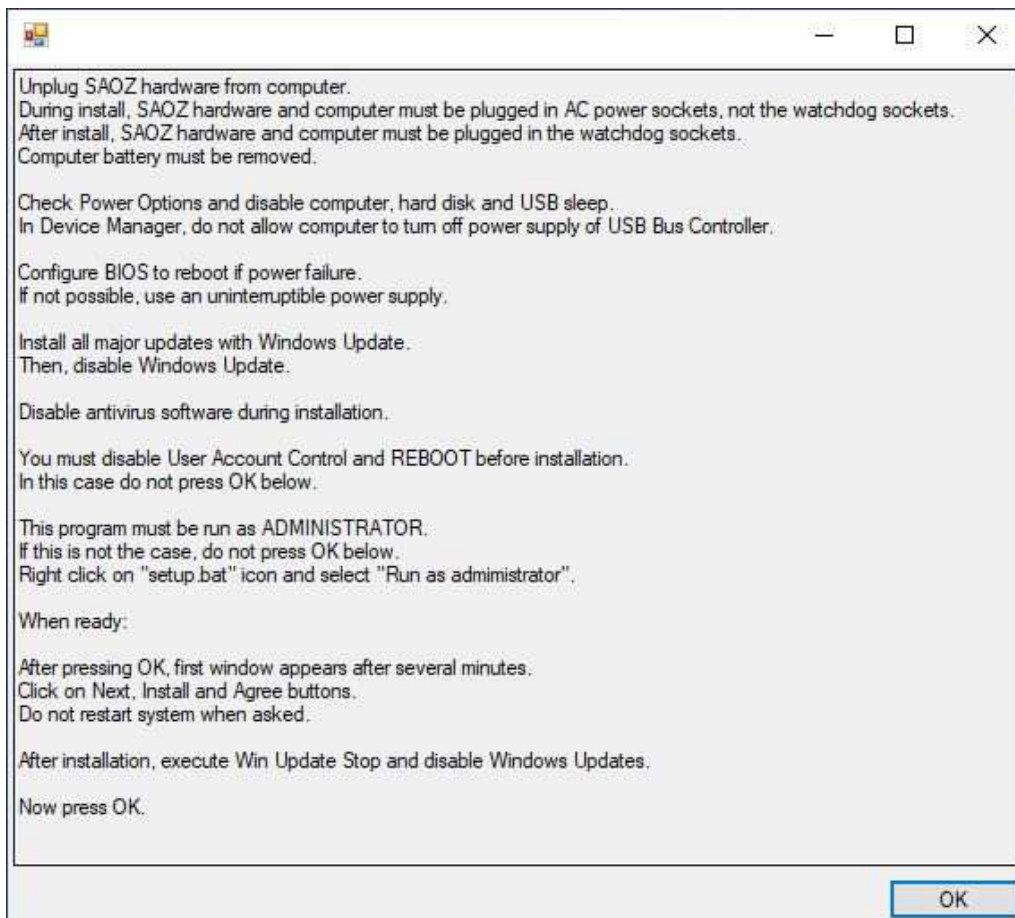


A5-001c: "Installing .NET Framework_4_7"



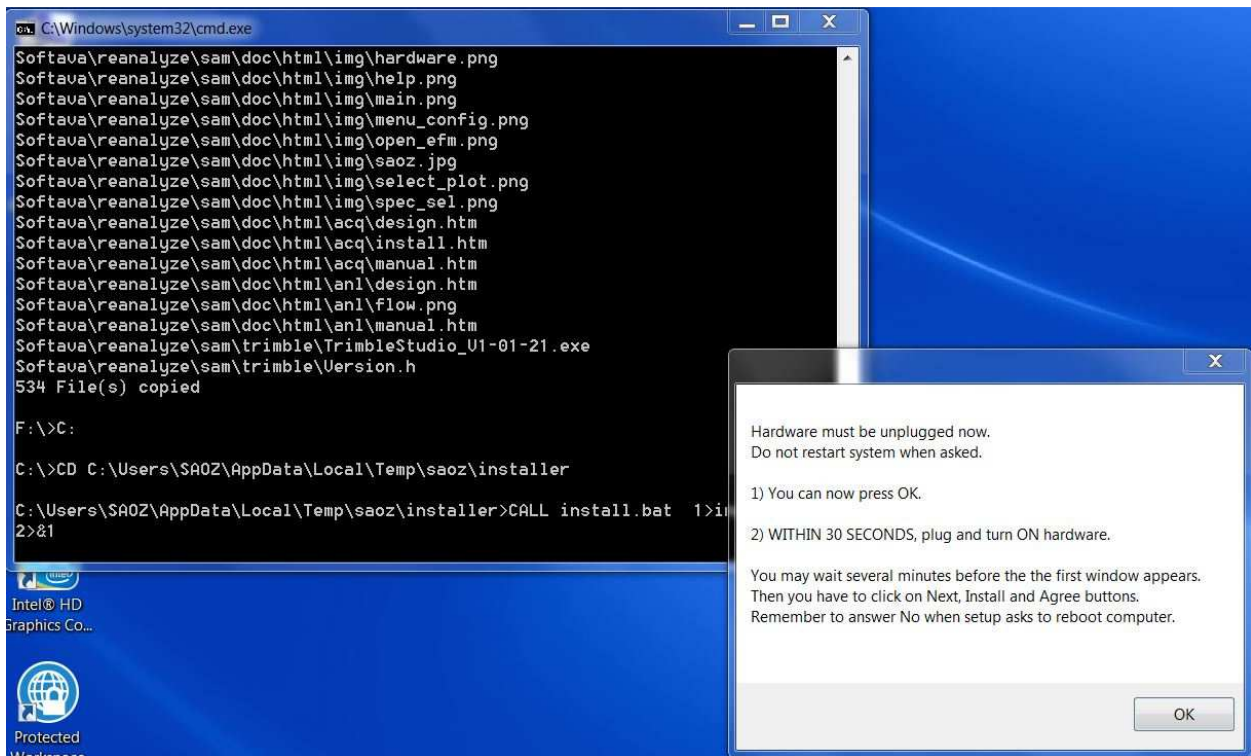
A5-001d: Last Message, Click Finish

A5.1.2 Mini-SAOZ hardware installation:

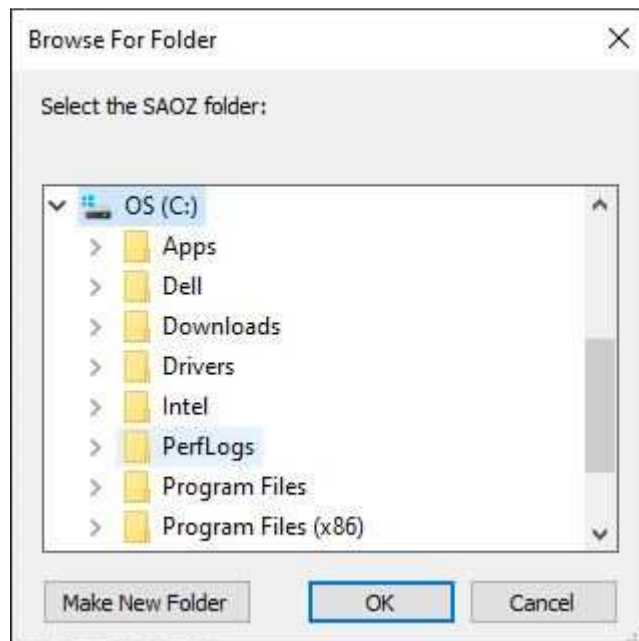


A5-002: **Read carefully the Message**, Click OK

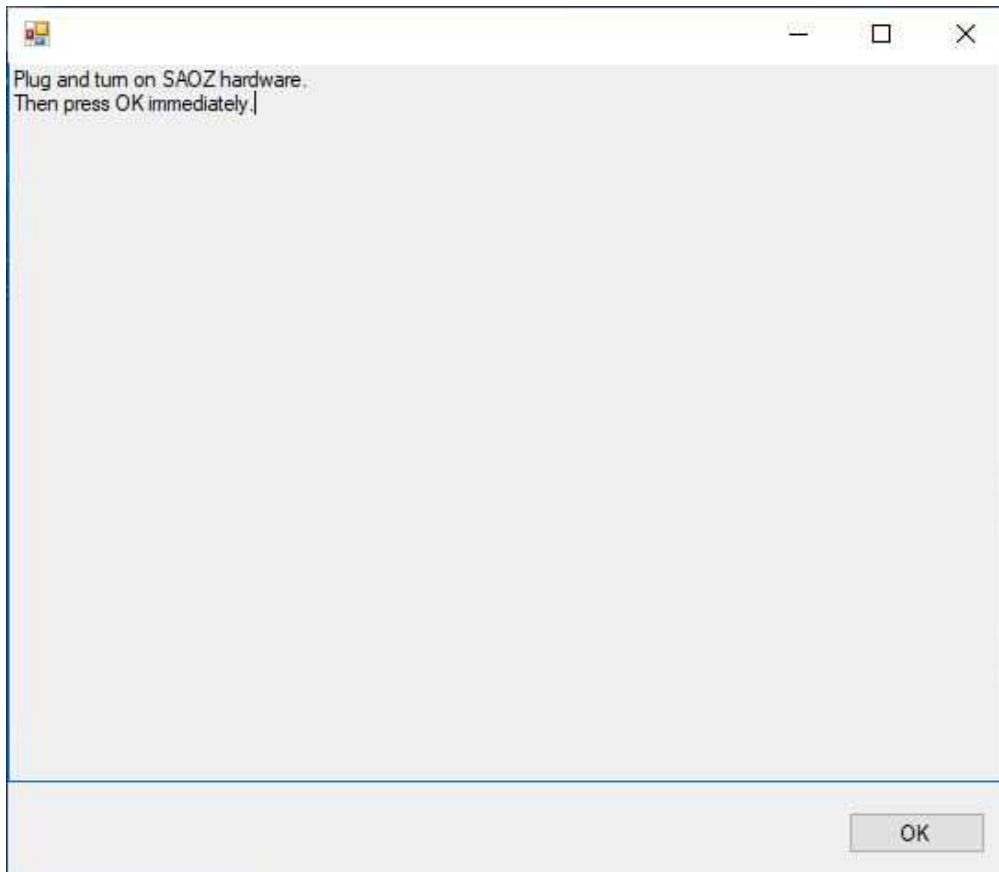
Unplug the instrument and click “OK”



A5-003: Second stop, new alert. See the next figure for action.



A5-004: Select a folder to install, choose C:



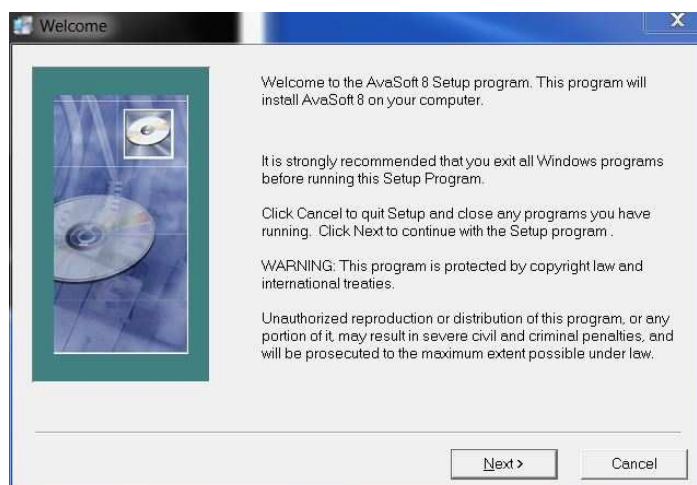
A5-005: Alert message. At this step the hardware must be unplugged.

Then you have only 30 sec to:

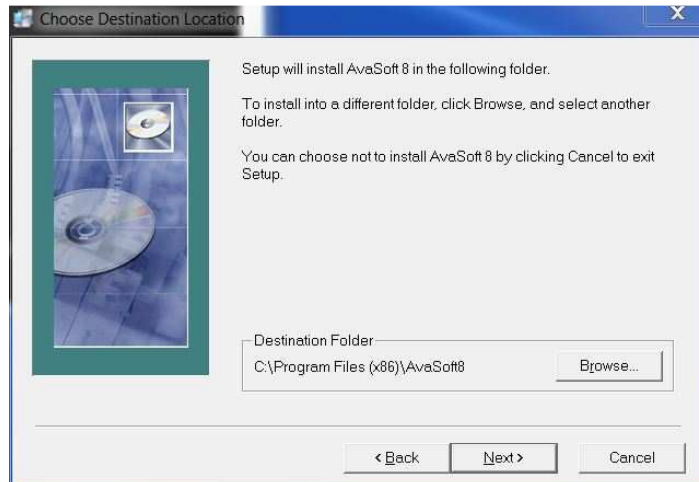
- Connect the mini-SAOZ box with USB cable
- And Switch ON Mini-SAOZ box

Plug first and then switch ON Mini-SAOZ box as the program is looking automatically for GPS port, and will configure automatically the config.acq file.

A5.1.3 Avantes installation:



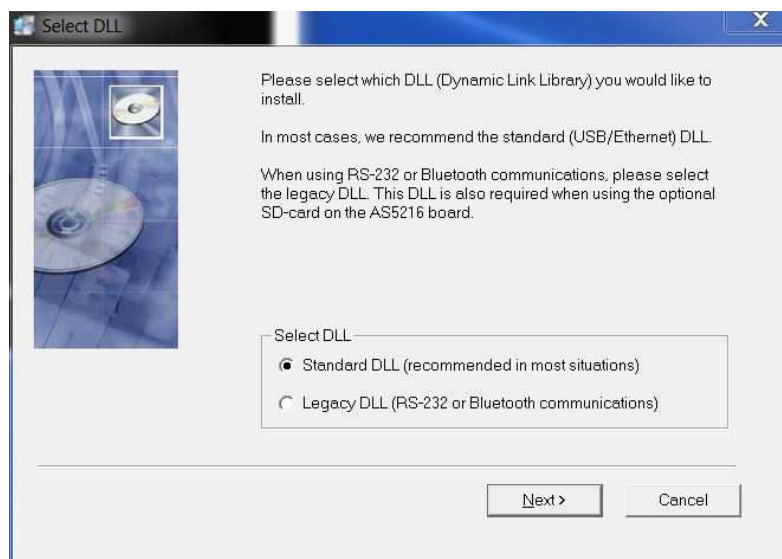
A5-006: Installation of Avantes version 8 software, Click on next



A5-007: Click on Next



A5-008: Click on Next to continue



A5-009: Click on Next to continue (Standard DLL)



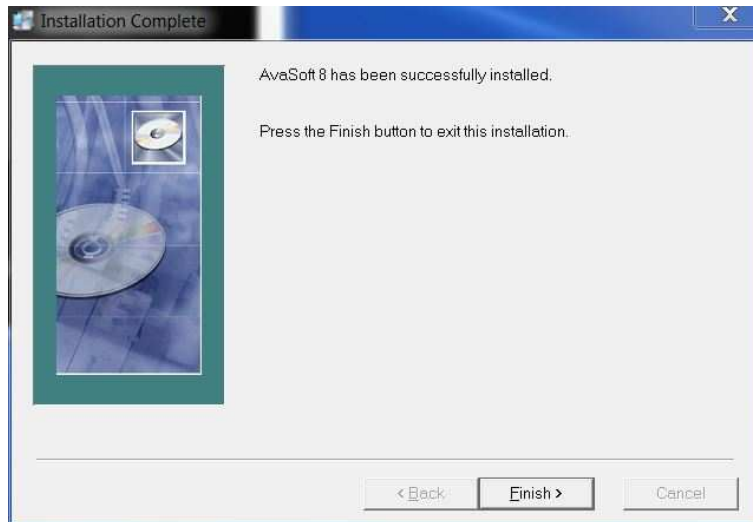
A5-010: Click on Next to continue



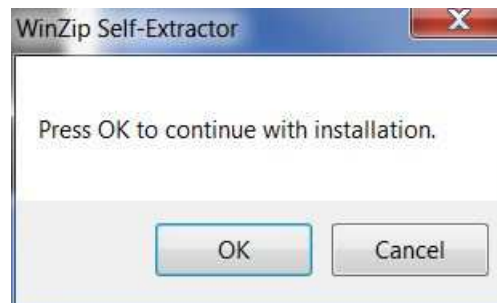
A5-010a: Click on Install



A5-011: Click on Finish



A5-012: Click on Finish



A5-013: Click on OK

A5.1.4 MCC Daq installation:



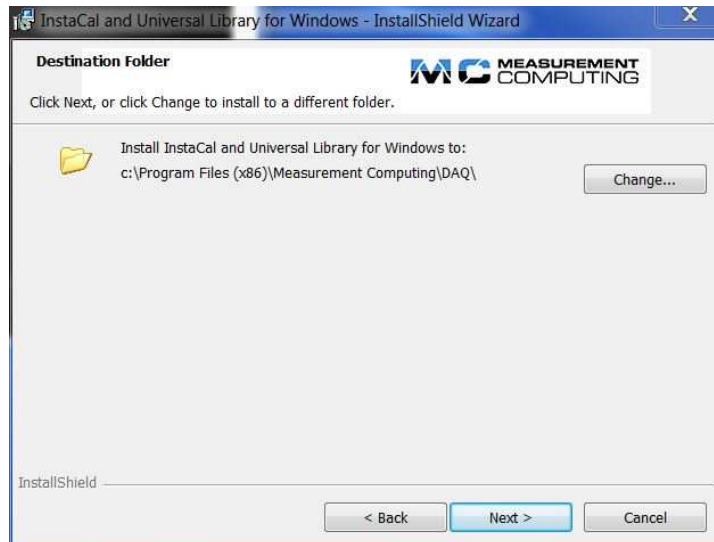
A5-014: Click on Setup



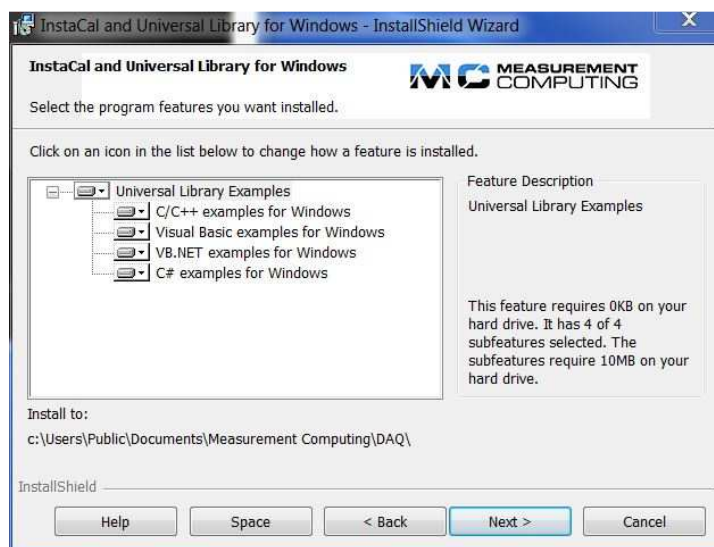
A5-015: Click on Install



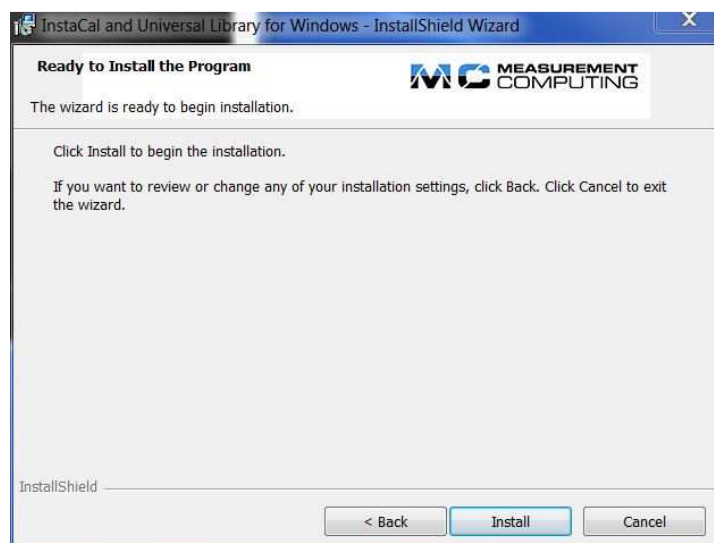
A5-016: Click on Next



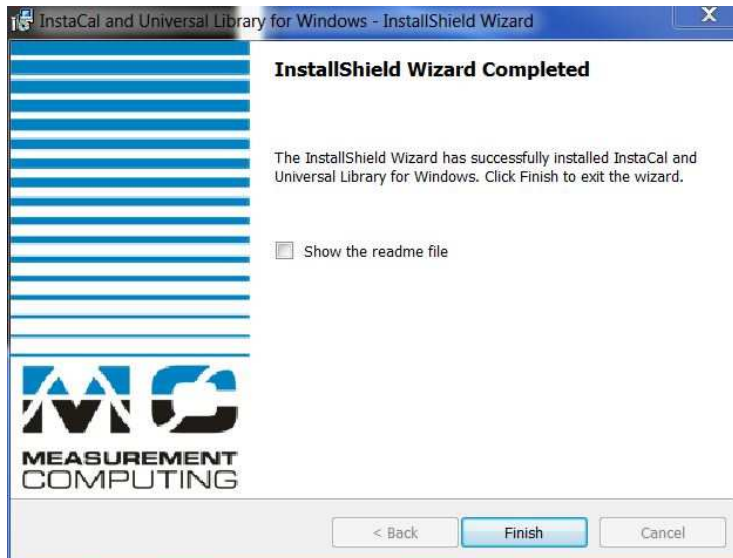
A5-017: Click on Next



A5-018: Click on Next



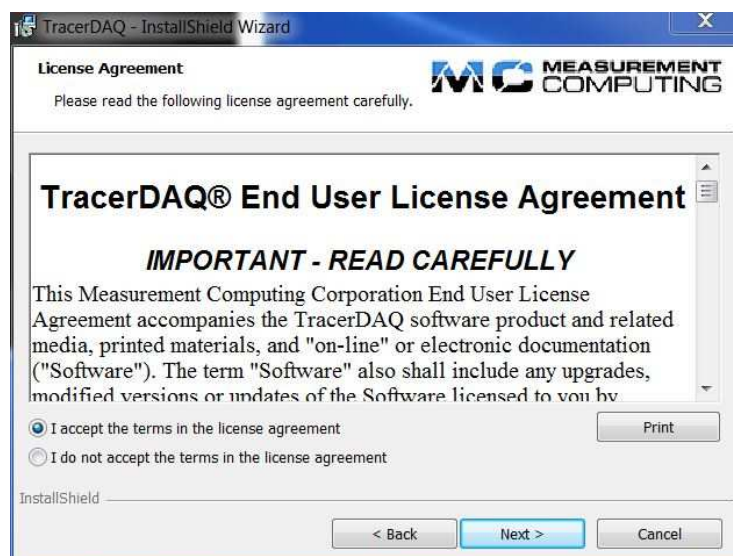
A5-019: Click on Install



A5-020: Click on Finish

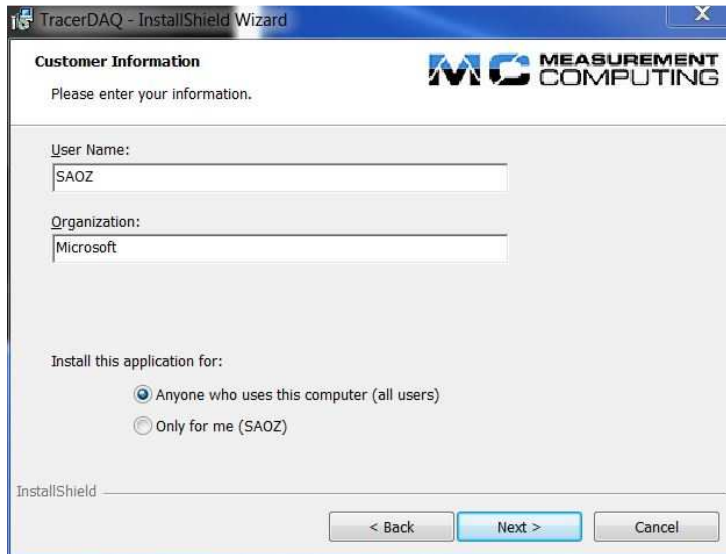


A5-021: Click on Next

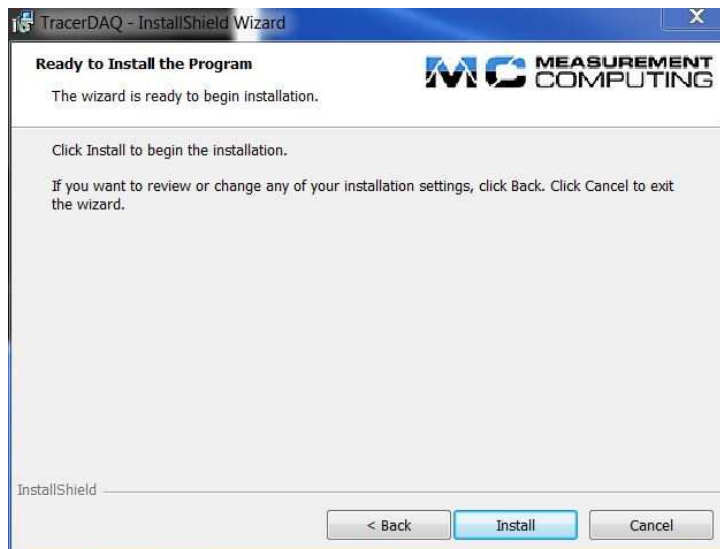


A5-022: Click on "I accept the terms in the licence agreement"

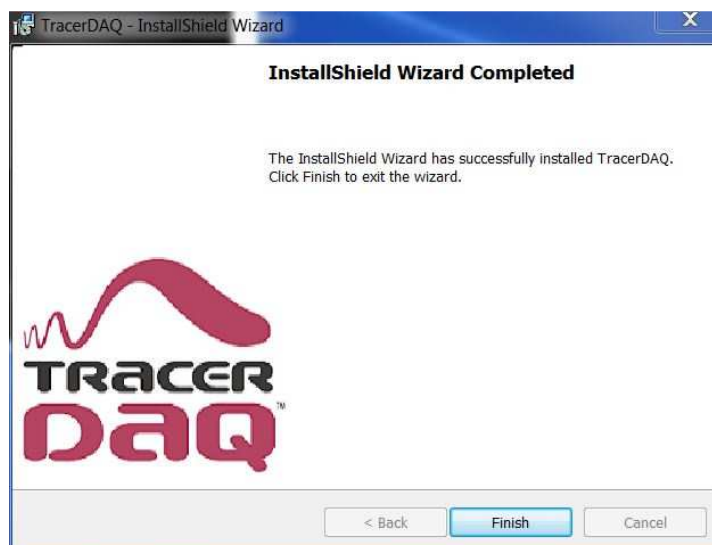
Click on Next



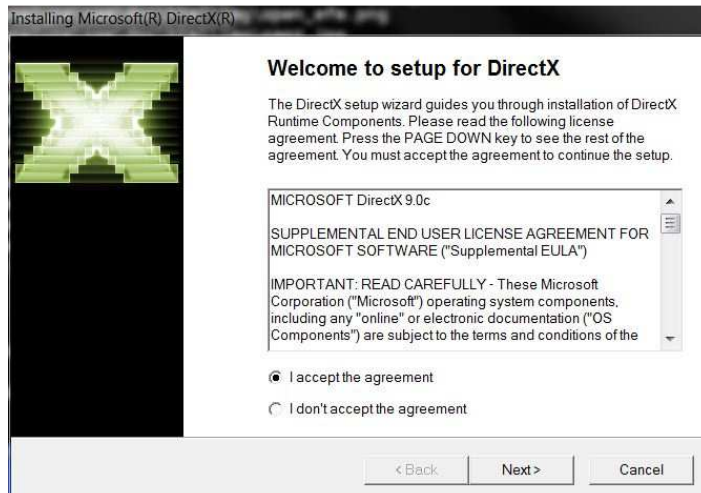
A5-023: Click on Next



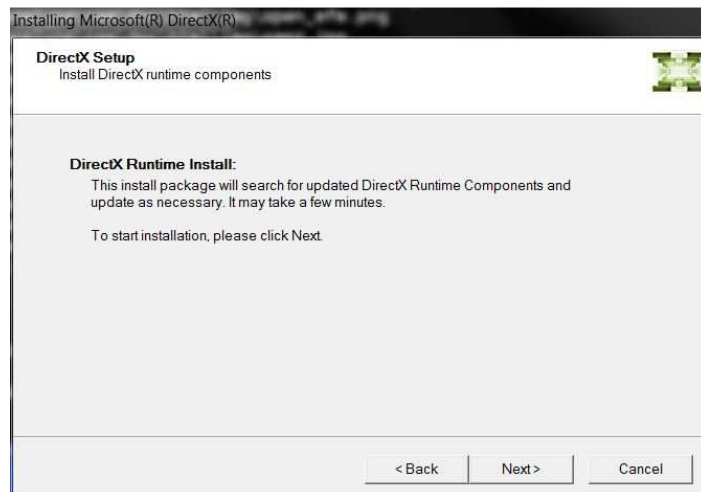
A5-024: Click on Install



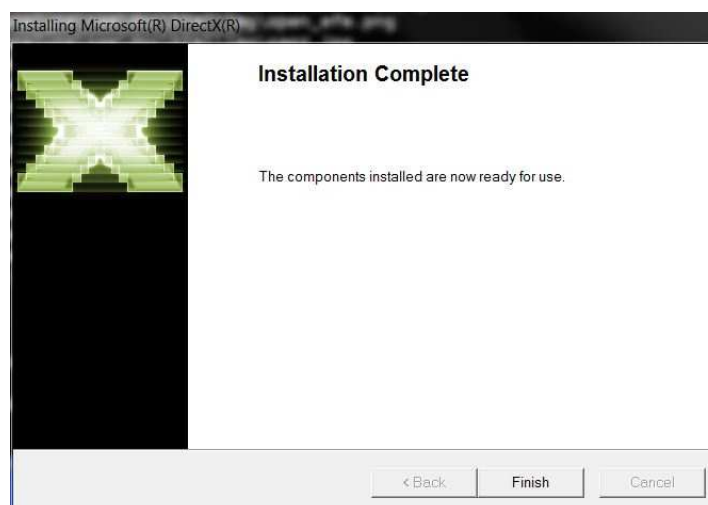
A5-025: Click on Finish



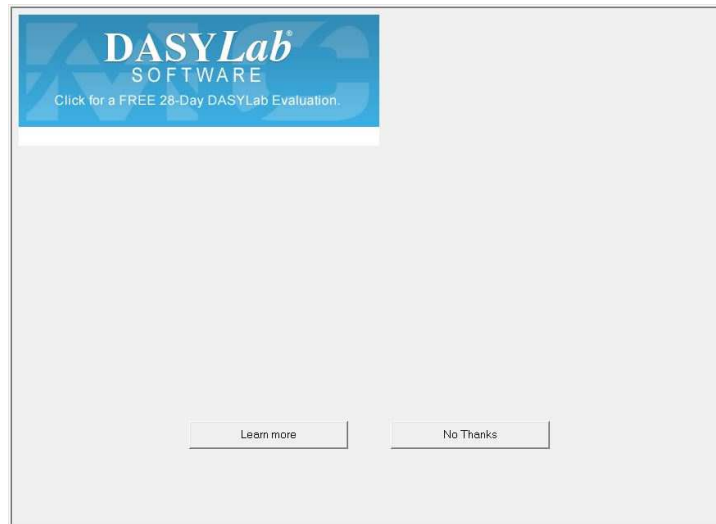
A5-026: Choose I accept the agreement and Click on Next



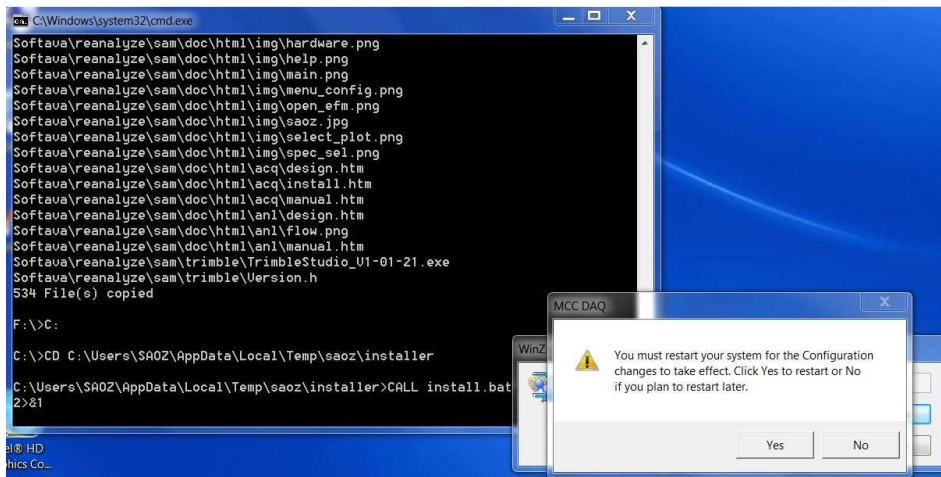
A5-027: Click on Next



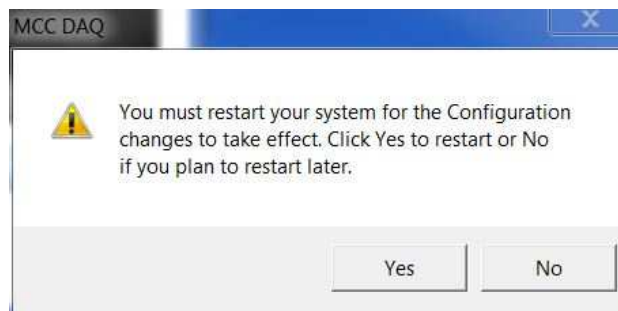
A5-028: Click on Finish



A5-029: Click on No Thanks



A5-030: two windows - see next figure AP-031 for action

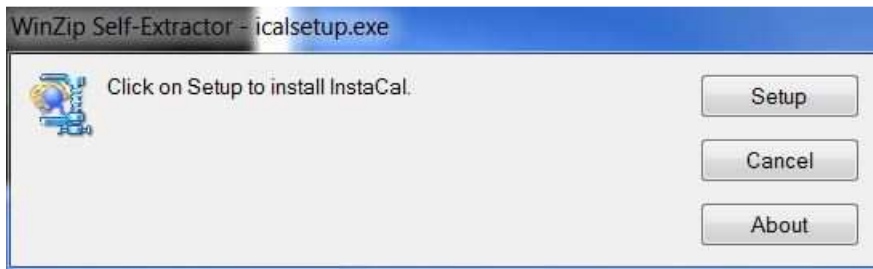


A5-031: **Click on NO (---- NO REBOOT -----)**



A5-032: Click on OK

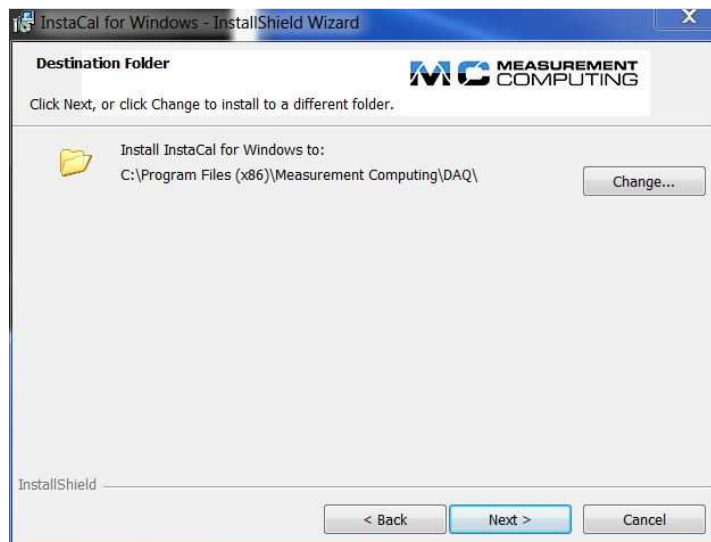
A5.1.3 Ical installation:



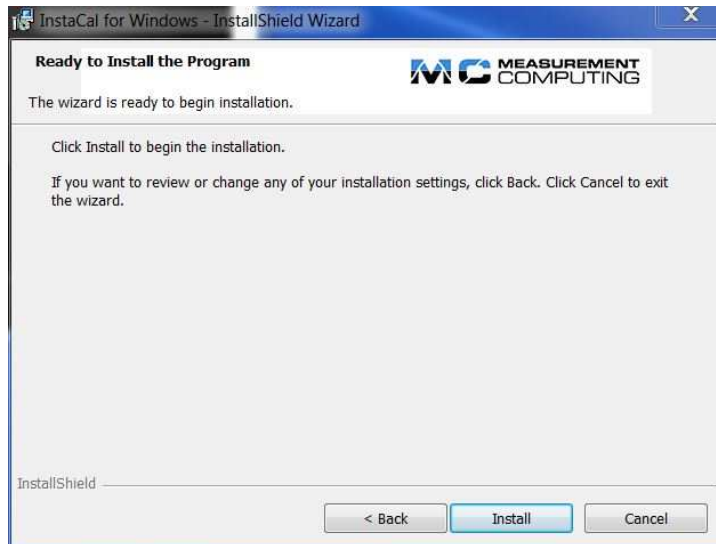
A5-033: Click on Setup



A5-034: Click on Next



A5-035: Click on Next



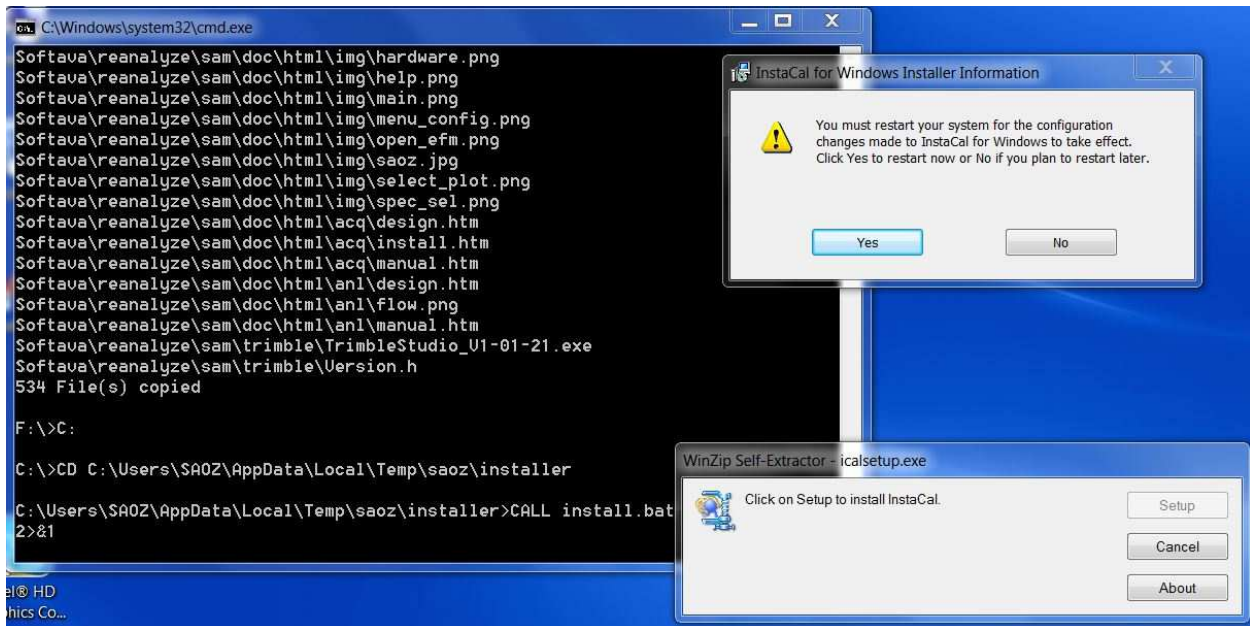
A5-036: Click on Install



A5-037: Click on Install



A5-038: Click on Finish



A5-039 two windows - see the next figure A5-040 for action

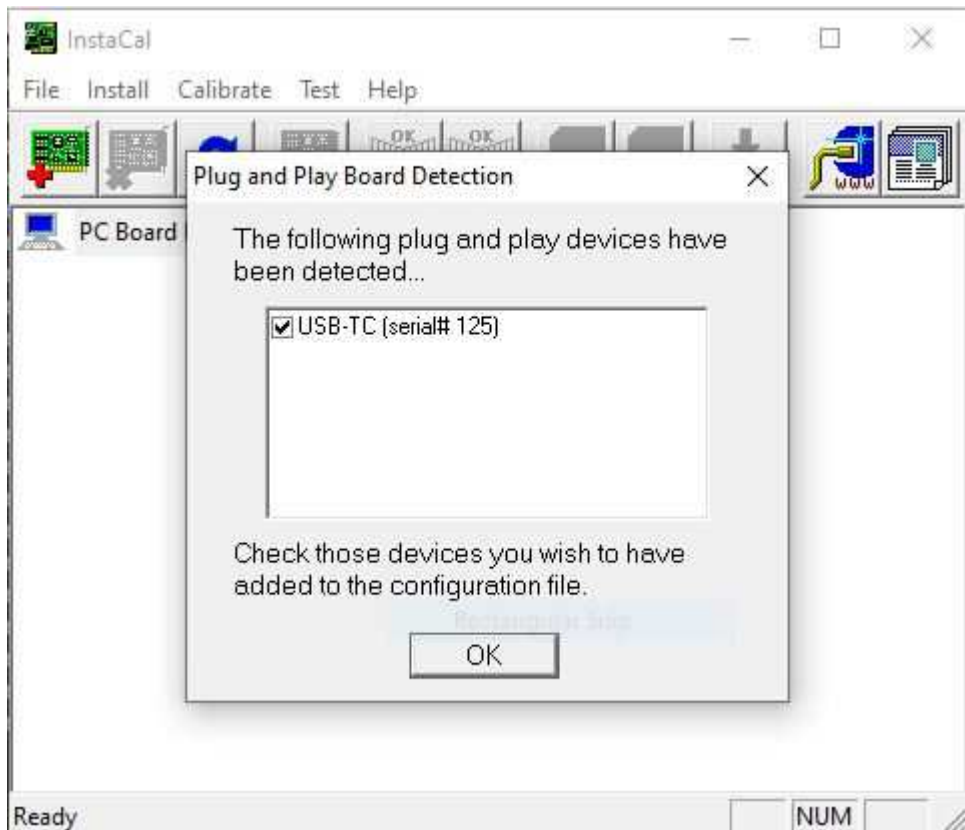


A5-040: **Click on NO (---- NO REBOOT ----)**

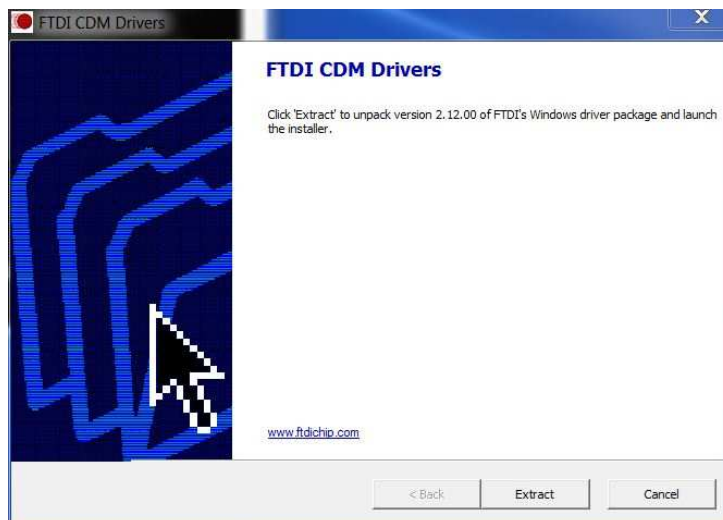
A5.1.4 USB-TC installation:



A5-041: Click on OK (SELECT : Board#0-USB-TC (serial# 125))



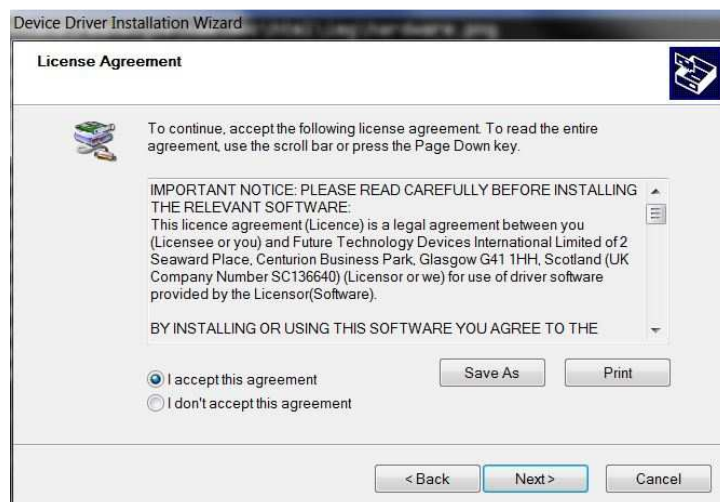
A5-042: Check that the “Board# 0 – USB-TC (serial# 125)” is selected
Select menu file and exit to close window



A5-043: Click on Extract



A5-044: Click on Next



A5-045: Click on I accept this agreement

Click on Next

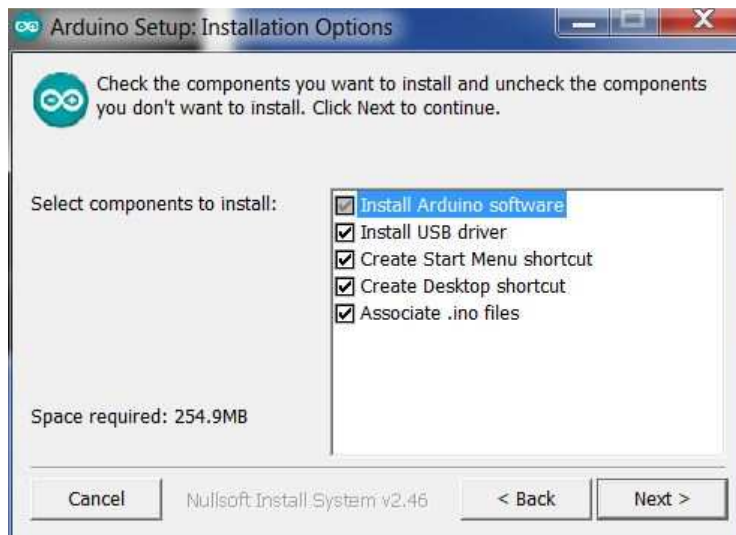


A5-046: Click on Finish

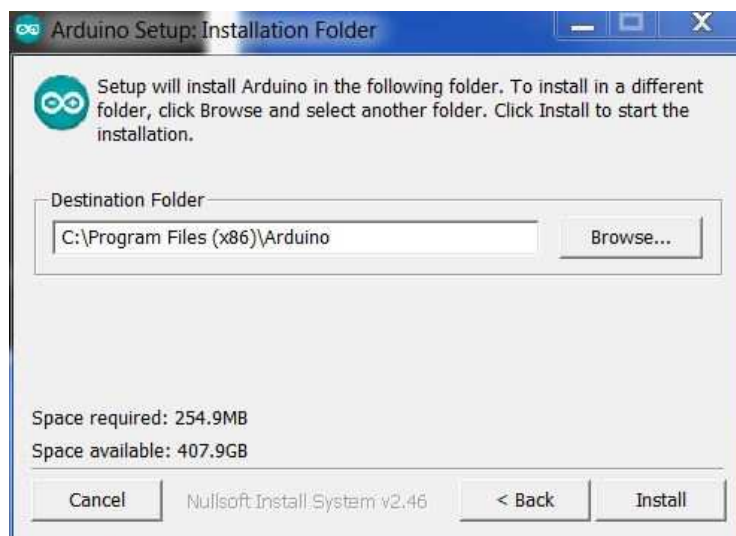
A5.1.5 Arduino installation:



A5-047: Click on I Agree



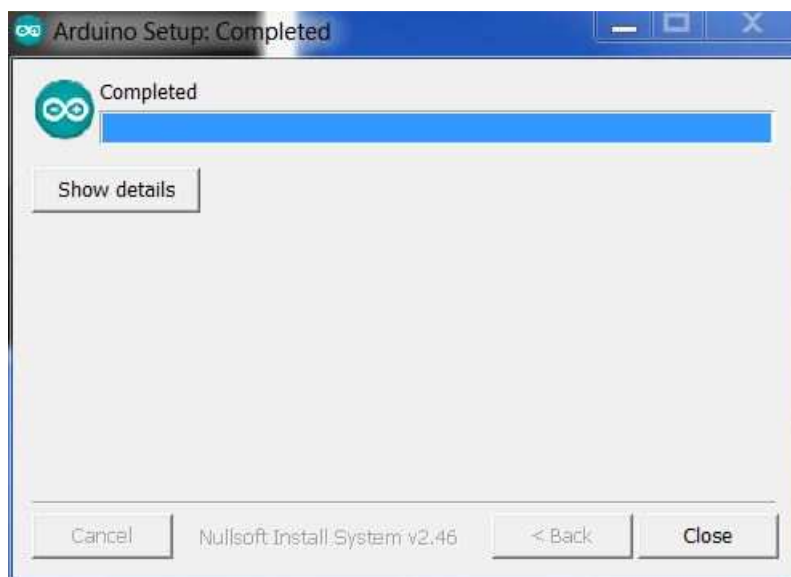
A5-048: Click on Next



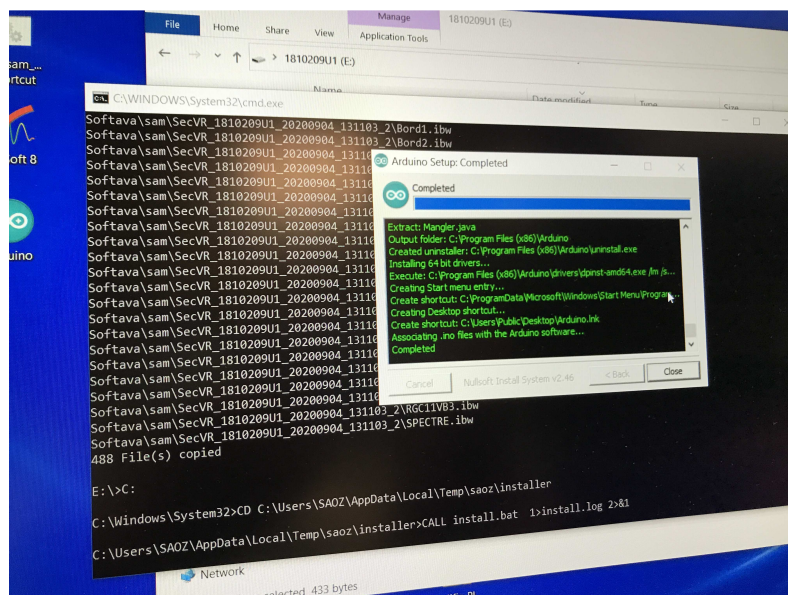
049: Click on Install



A5-050: Click on Install

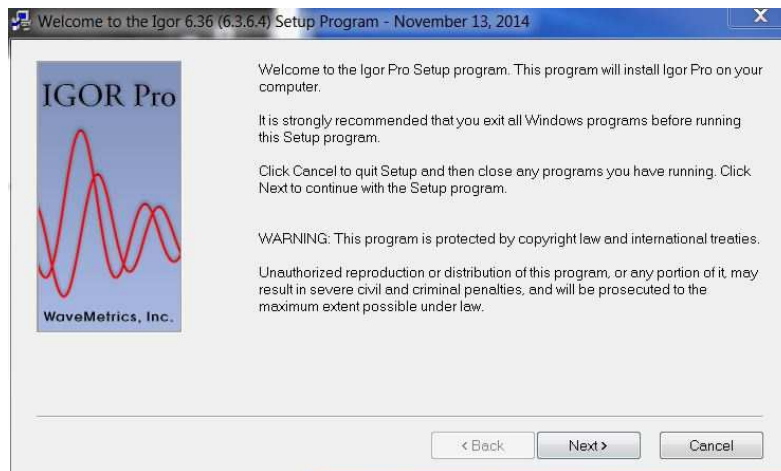


A5-051: Click on Close

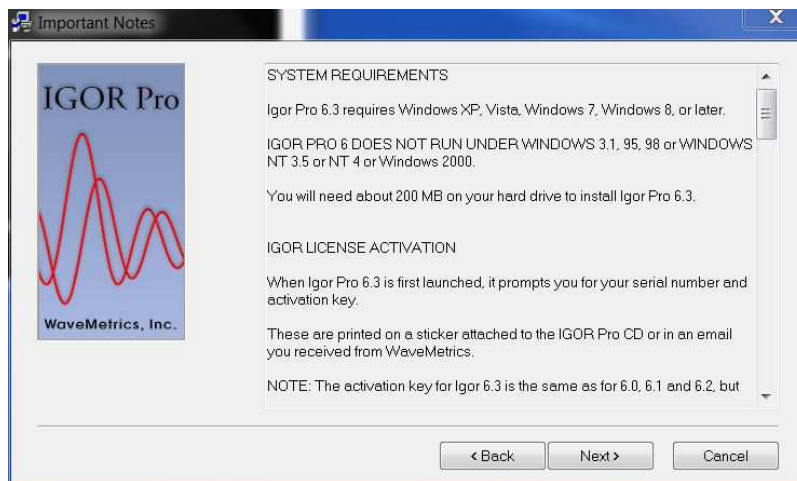


A5-051a: Arduino installed

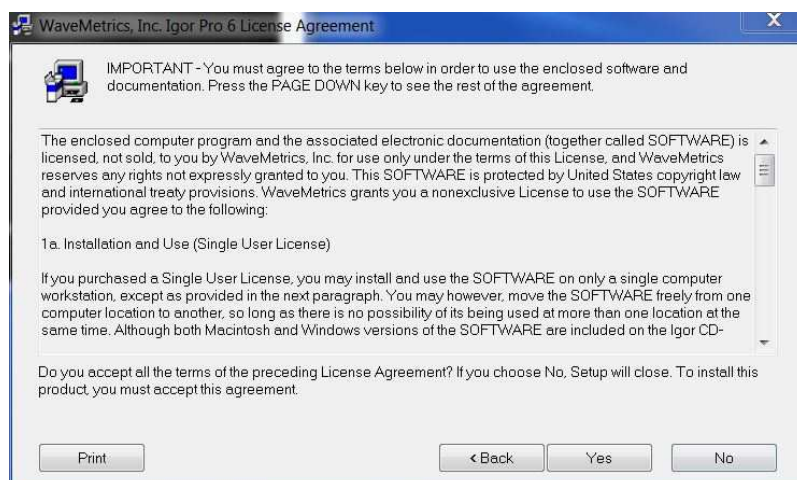
A5.1.6 IGOR Pro installation:



A5-052: Click on Next (Start Igor installation)



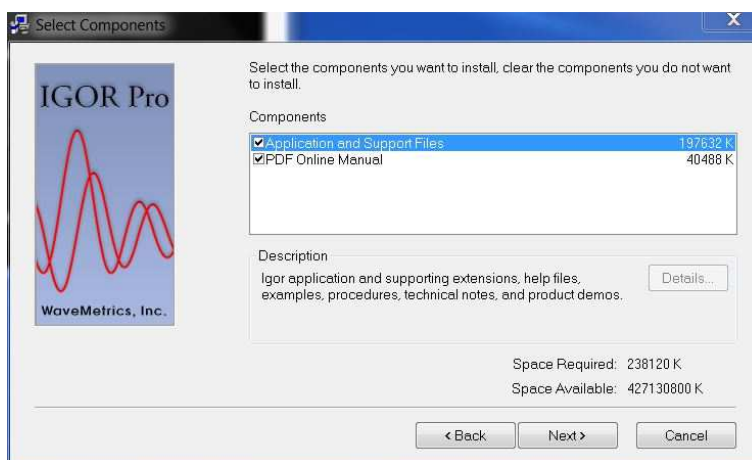
A5-053: Click on Next



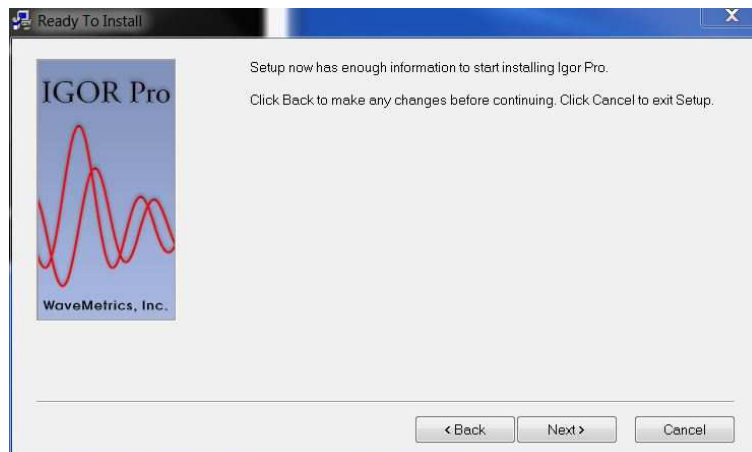
A5-054: Click on Yes



A5-055: Click on Next



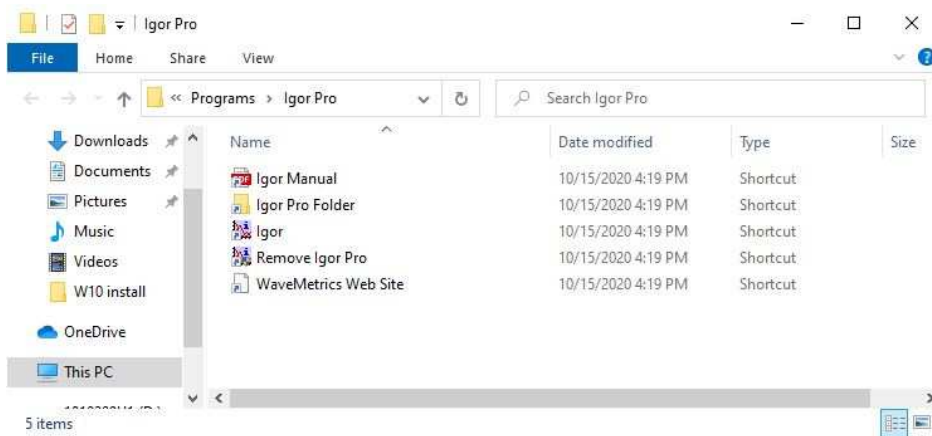
A5-056: Click on Next



A5-057: Click on Next



A5-058: Click on Close



A5-059: Igor installed

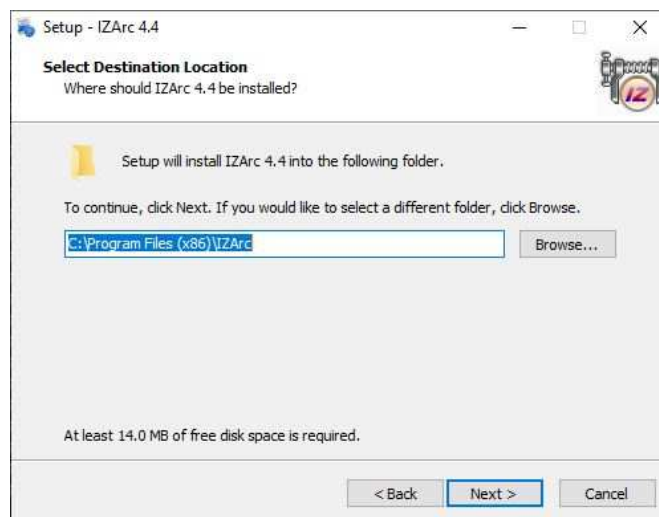
A5.1.7 IZARC installation:



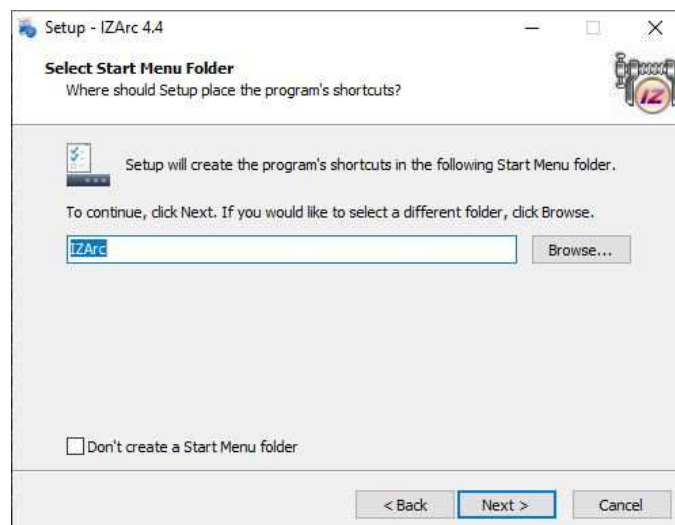
A5-060: Click on Next (IZArc4.4)



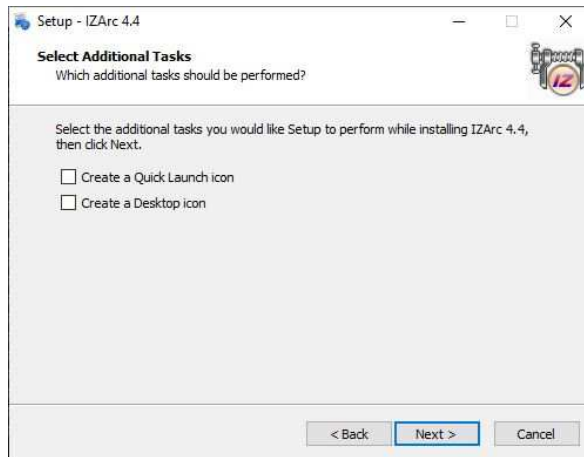
A5-061: Click on I accept the agreement
Click on Next



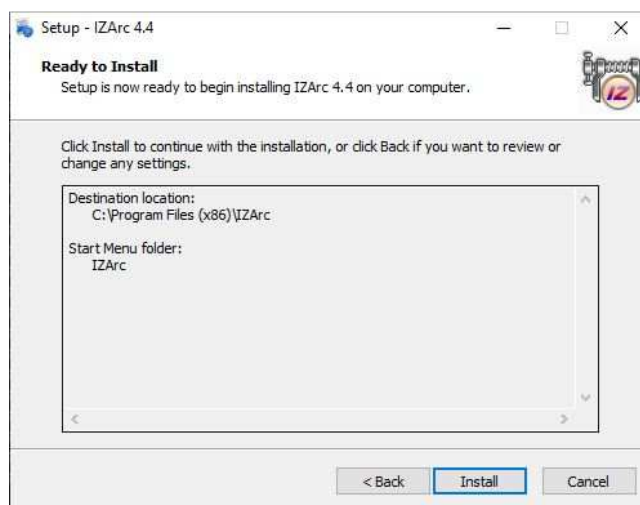
A5-062: Click on Next



A5-063: Click on Next



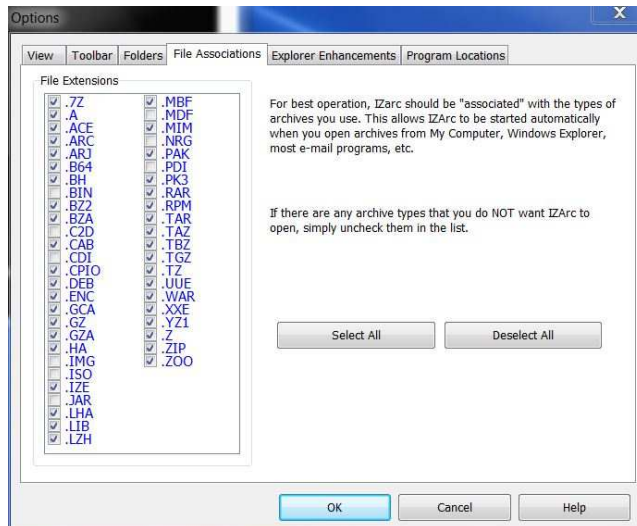
A5-064: Click on Next



A5-065: Click on Install



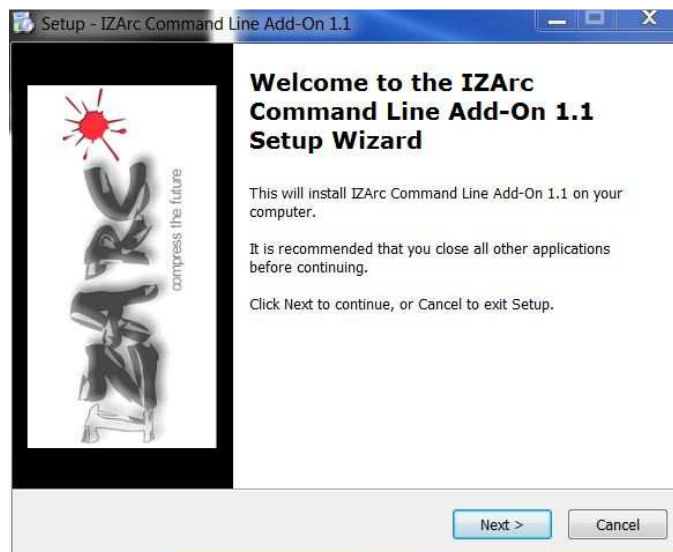
A5-066: Choose English and Click OK



A5-067: Click on OK



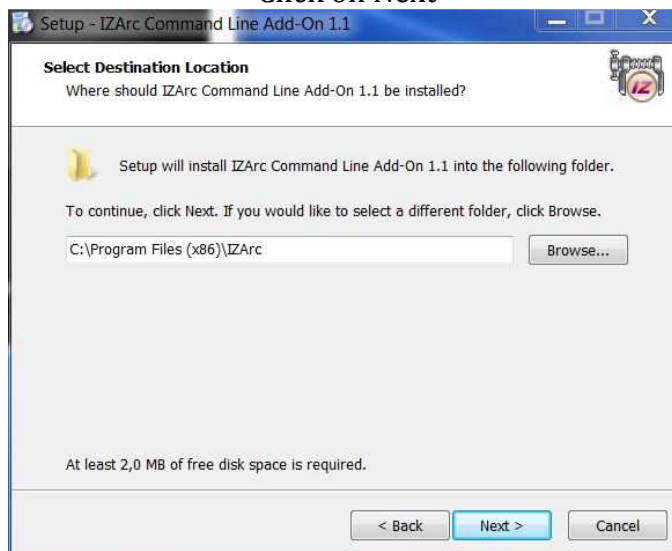
A5-069: Untick View What's New
Click on Finish



A5-070: Click on Next



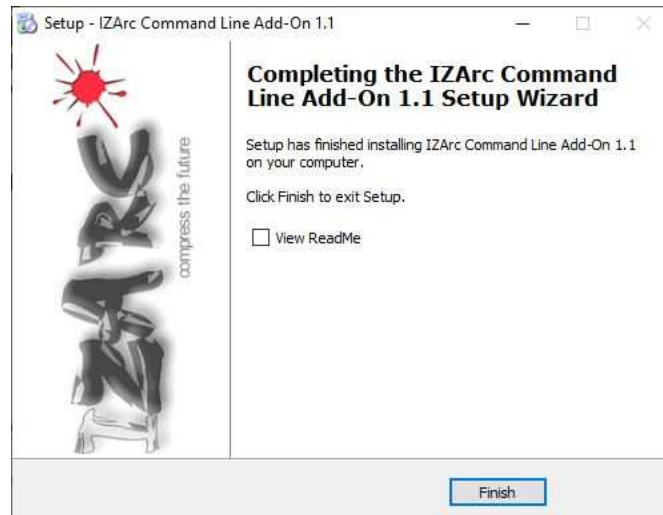
A5-071: Click on I accept the agreement
Click on Next



A5-072 Click on Next

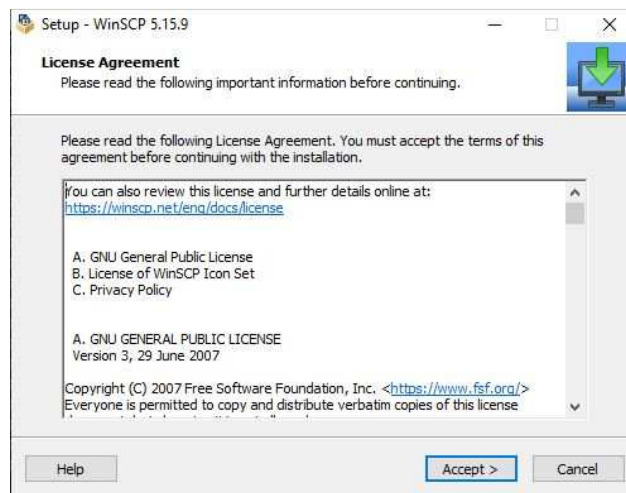


A5-073: Click on Install

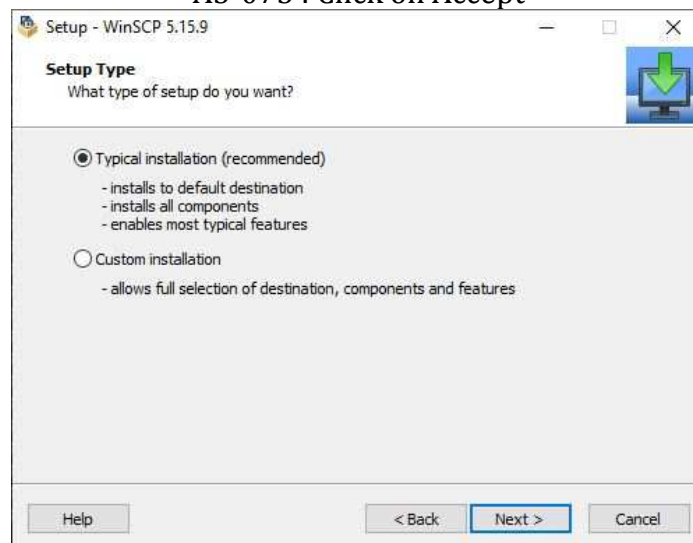


A5-074: Untick View Readme
Click on Finish

A5.1.8 WinSCP installation



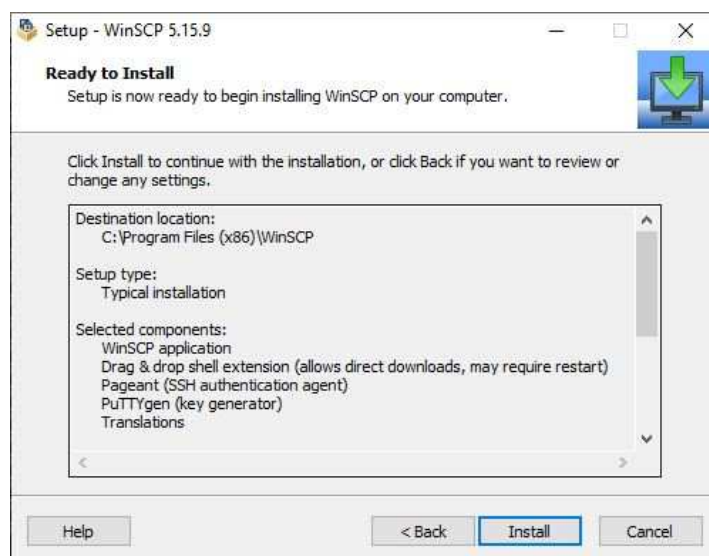
A5-075 : Click on Accept



A5-076: Click on Next



A5-077: Click on Next



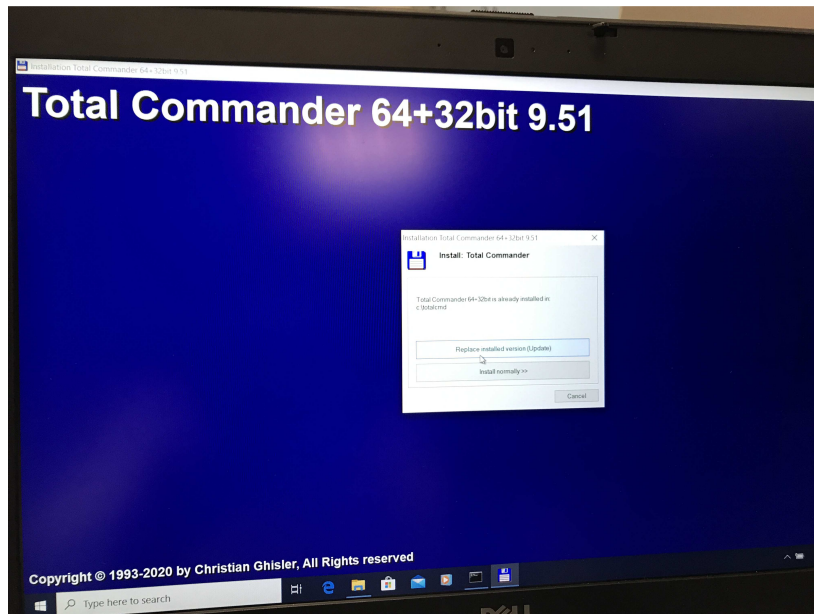
A5-078: Click on Install



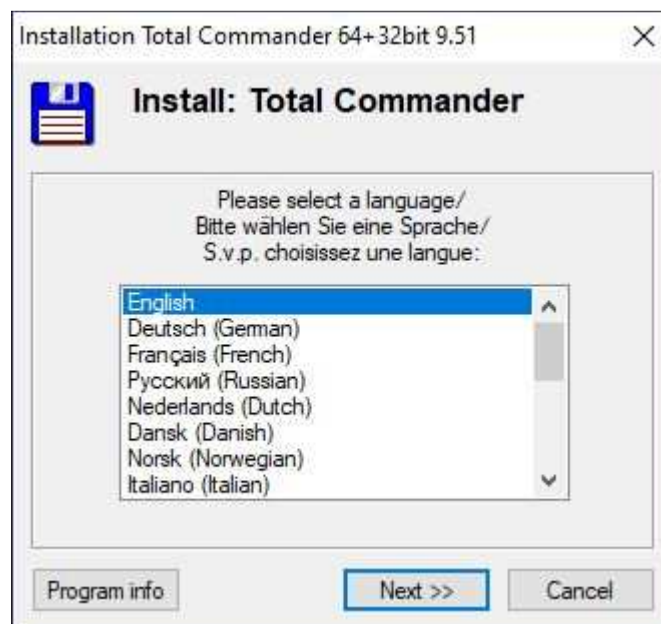
A5-078: Untick Launch WinSCP
Click on Finish

A5.1.9 Total Commander installation

This installer will install the 64 bits and the 32bits version.



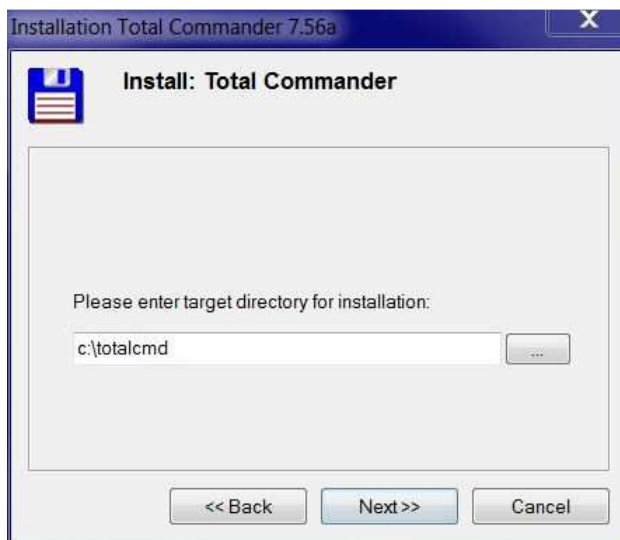
A5-079: Click on Next



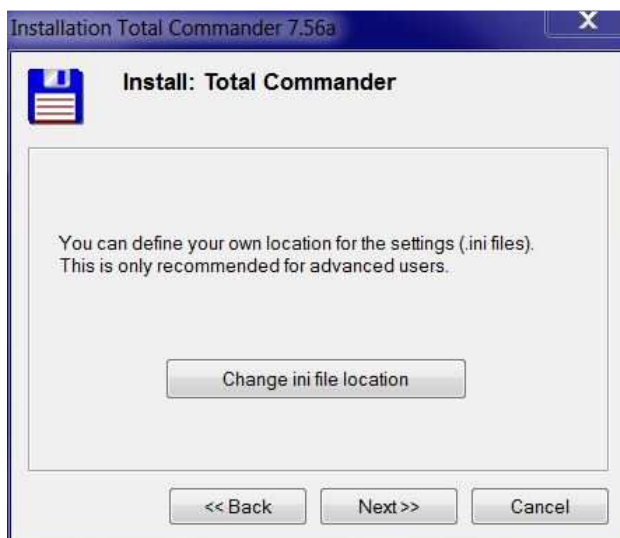
A5-080: Click on Next



A5-081: Click on Next



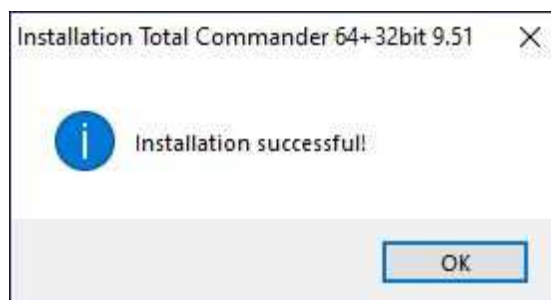
A5-082: Click on Next



A5-083: Click on Next



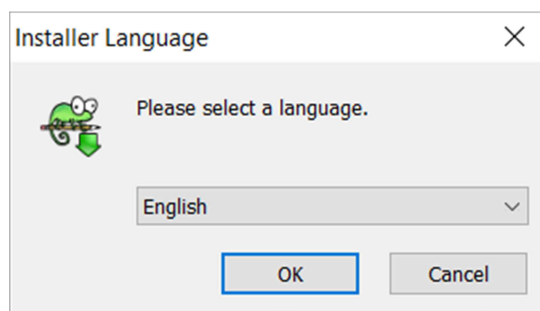
A5-084: Click on All Users
Click on Next



A5-085: Click on OK

A5.1.10 Notepad++ installation

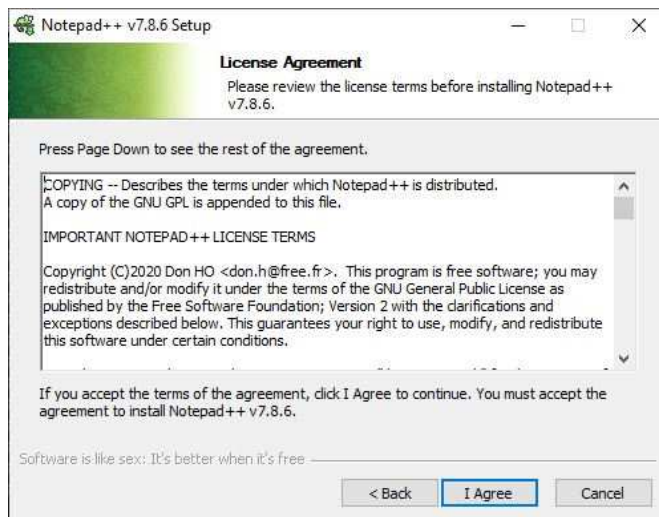
The software install NPP.7.8.6 version.



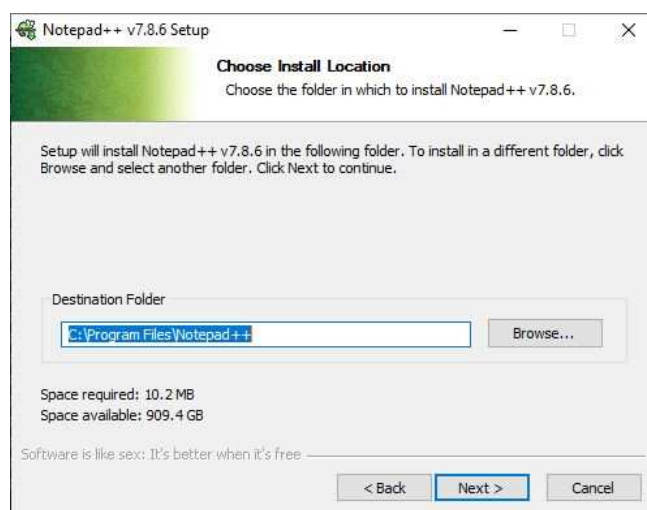
A5-086: select language



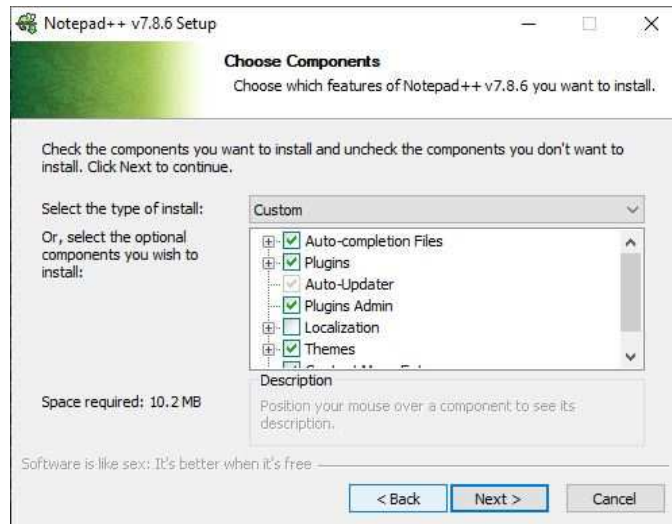
A5-087: Click on next



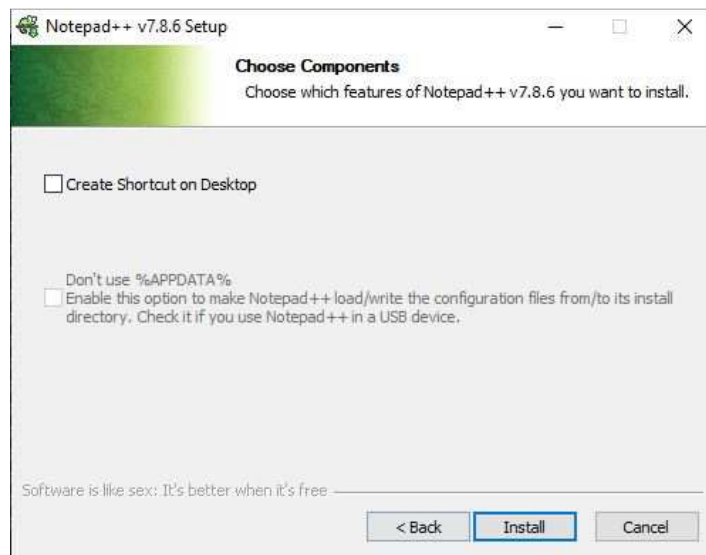
A5-088: Click on I Agree



A5-089: Click on next



A5-090: Click on next

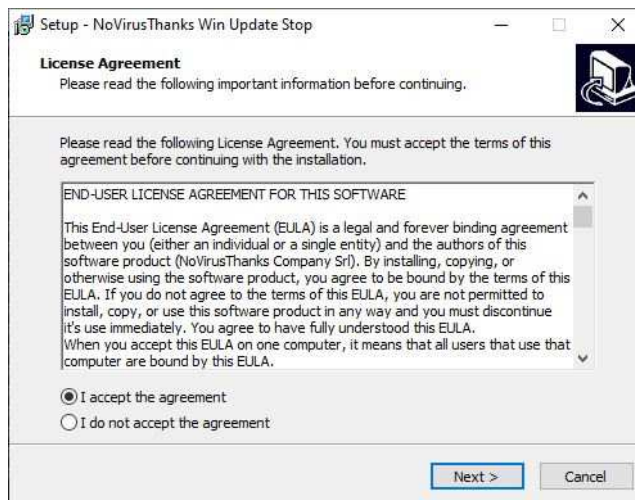


A5-091: Click on "Install"

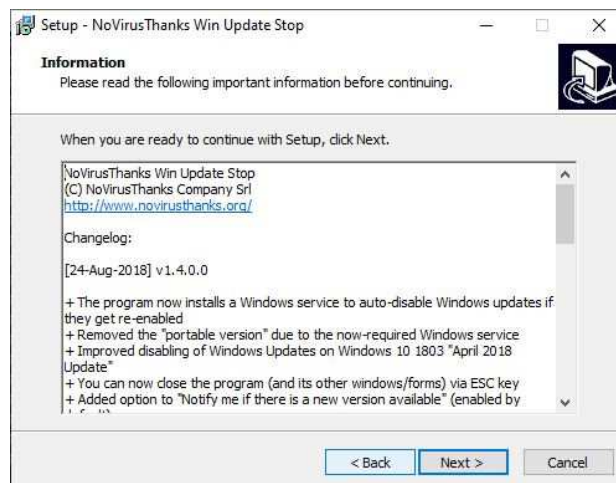


A5-092: Click on "Finish"

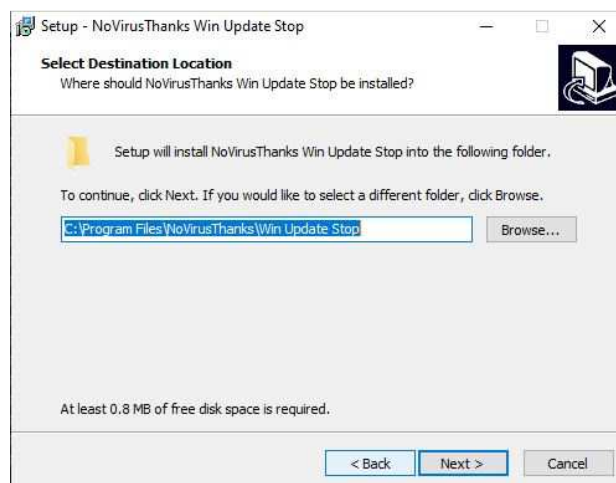
A5.1.11 NoVirusThanks Win Update



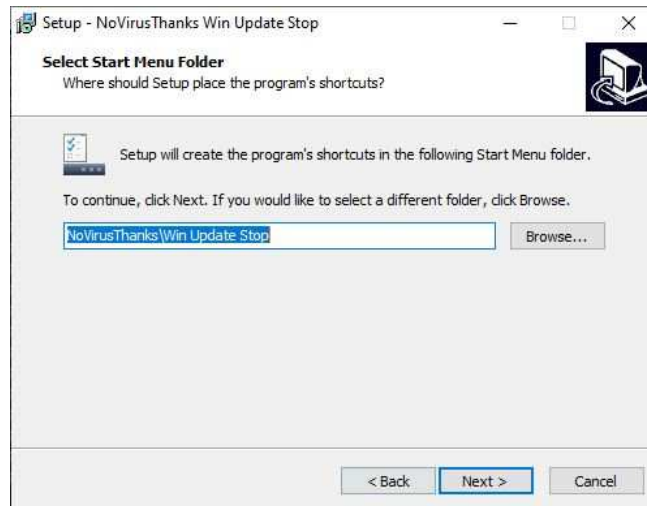
A5-093: Tick I accept the agreement
Click on Next



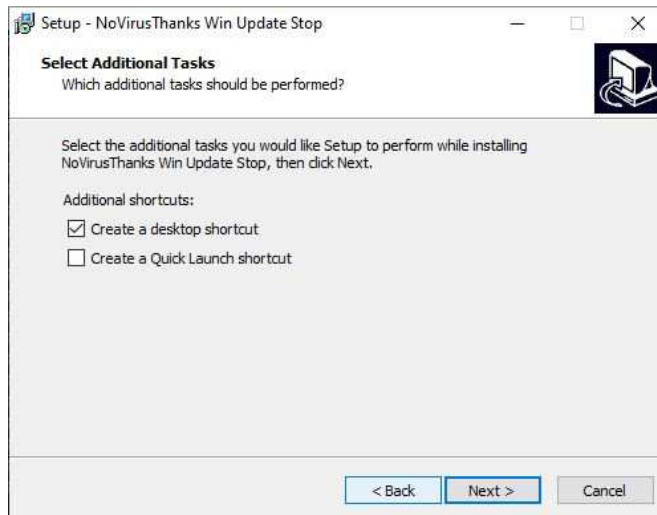
A5-094: Click on Next



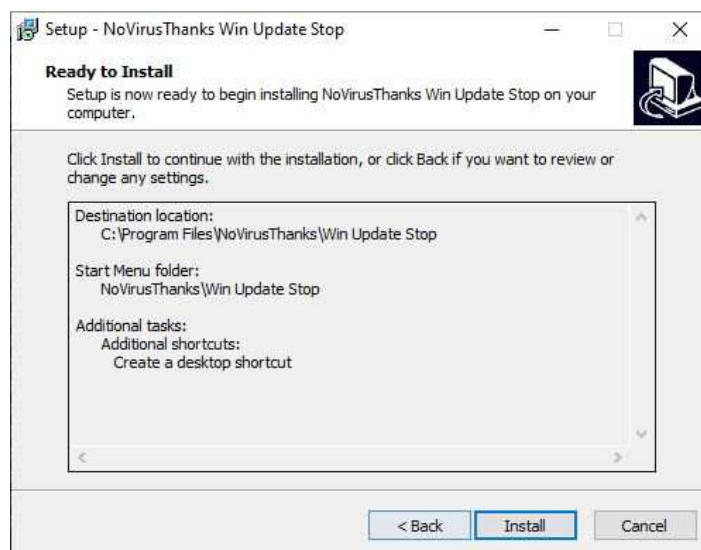
A5-095: Click on Next



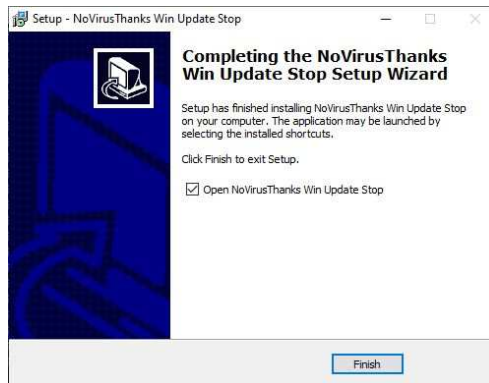
A5-096: Click on Next



A5-097: Create a desktop shortcut and Click on Next



A5-098: Click on Install



A5-099: Click on Finish

A5-2 Laptop Automatic Reboot

At this stage, the installation is almost finished.

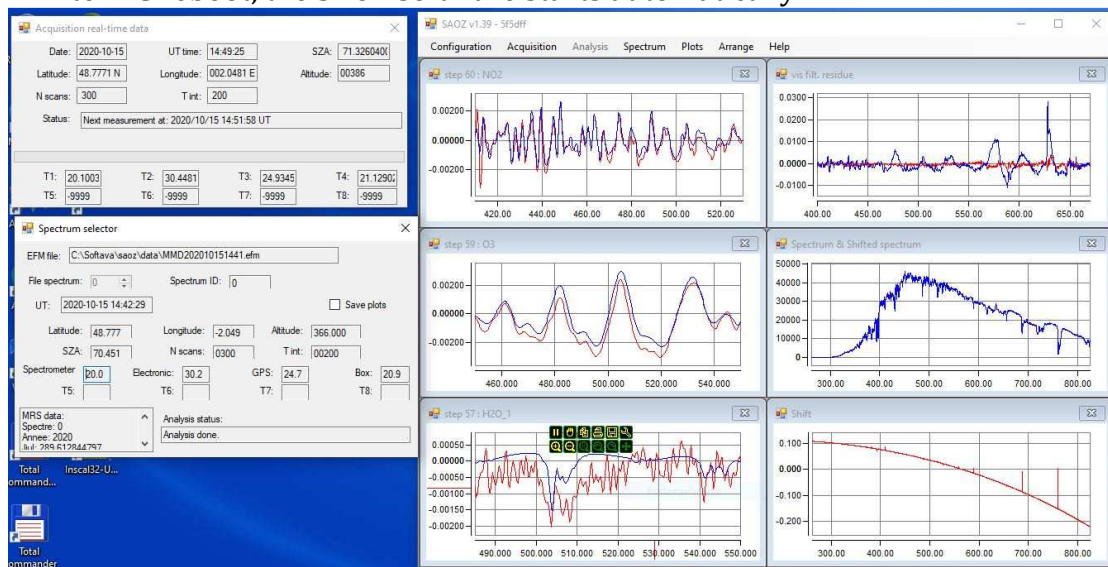
- All the software aliases are on the desktop and specially the SAOZ link
- Scheduled tasks are installed;
- PC Reboot automatically.

The PC will reboot and the SAOZ software will start automatically.

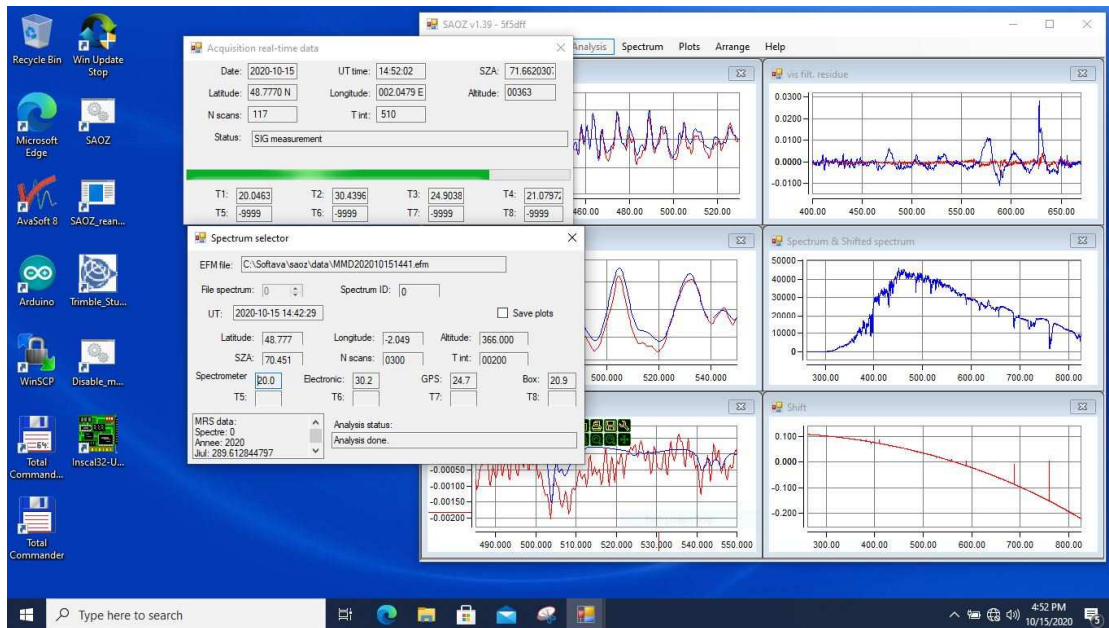
If the PC does not reboot automatically (wait for few minutes) it means that there has been a problem during the installation:

- It will be necessary to reboot the PC (Windows Menu/ Restart)
- If still a problem, it will be necessary to restart the installation.

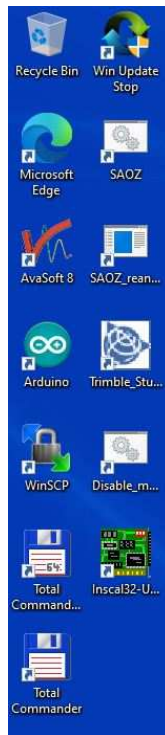
After PC reboot, the SAOZ software starts automatically.



A5-100: SAOZ screen

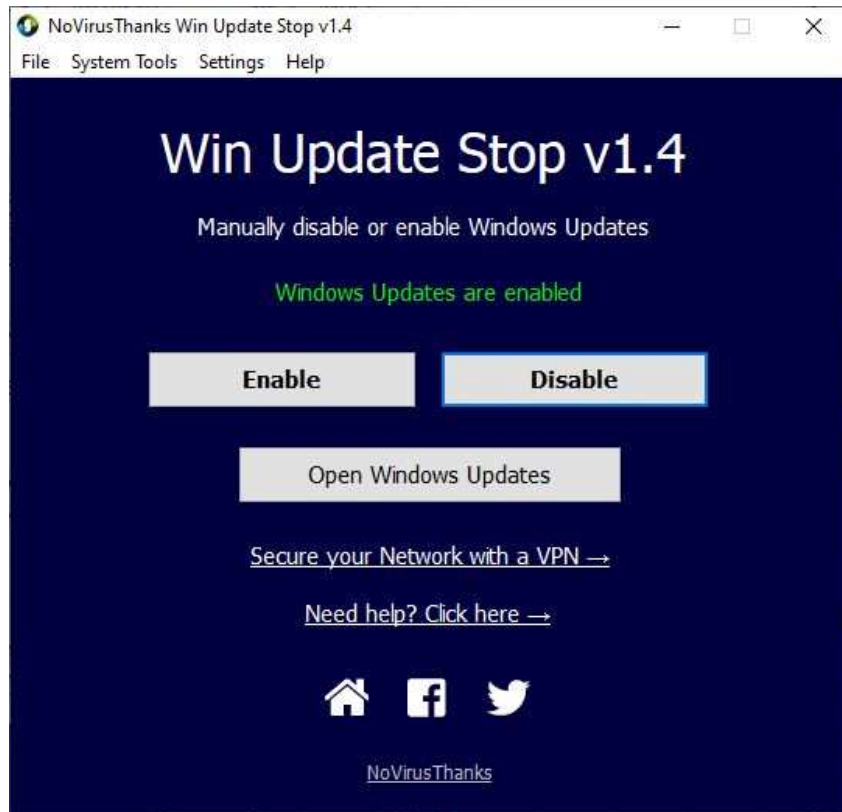


A5-101: Move Acquisition Window and Spectrum selector to see the aliases



A5-102: Aliases on the desktop

Launch the Alias “WinUpdateStop”



A5-103: Select "Disable"



A5-104: Select "Disable"
Close the window or File menu / Exit

A5-3 IGOR Final installation

This installation can only be done after a proper REBOOT of the laptop and the automatic start of SAOZ software.

There is a pre-requisite for the proper functioning of IGOR: Registration and printer selection.

A5.3.1 IGOR Registration

Run IGOR for the first time:

- Menu Start
- Select “all programs”
- Click on “Igor Pro” to open the folder
- Click on Igor to run it for the first time and be able to do the required modifications.

At the first performance of Igor, information is required to activate the software license:

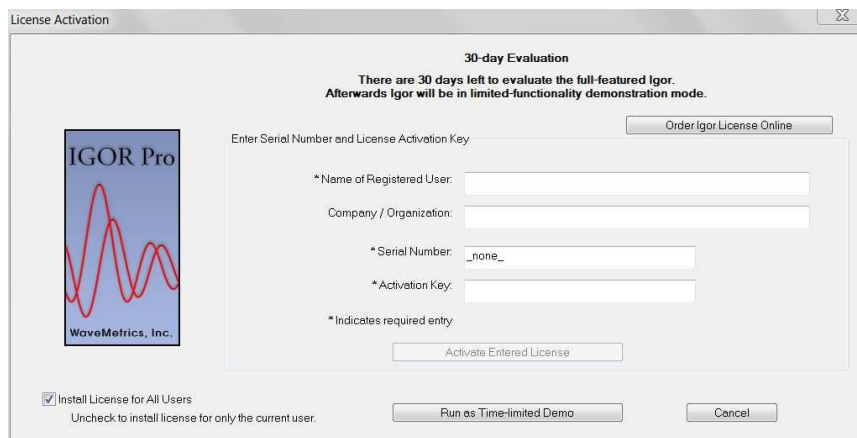


Fig. A5-105: Igor first installation

This information is in the text file `..\Softava\CDs\Wavemetrics\Serial Number`

- *Name of Registered User
- Company/Organization
- *Serial Number
- *Activation Key

The “Serial Number” file can be edited with Notepad

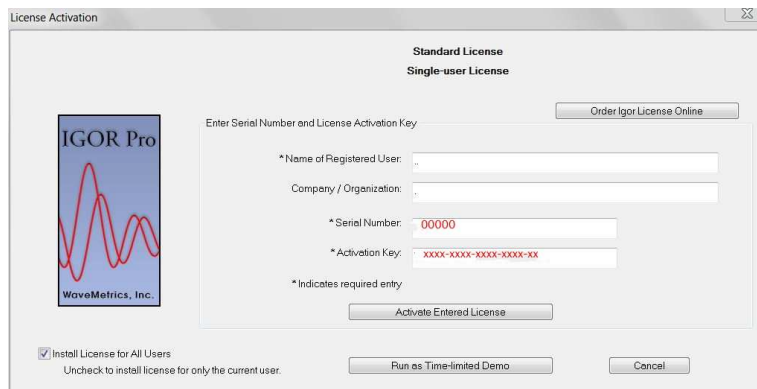


Fig. A5.106. Enter serial number and Activation Key and Click on “Activate Entered License”

Insert the required values and then make a click *on « activate Entered Licence »*



Fig. A5.107. Igor serial number: Click on Install license



Fig. A5.108. Igor successfully installed Click on Skip

Exit the software via the menu *File* and *Exit*

A5.3.2 Printer Setup

For a correct presentation of the "Layouts" in Igor, it is necessary to have a default printer set in A4 format.

Choose Virtual Printer “Microsoft XPS Document Writer” that comes with the system:

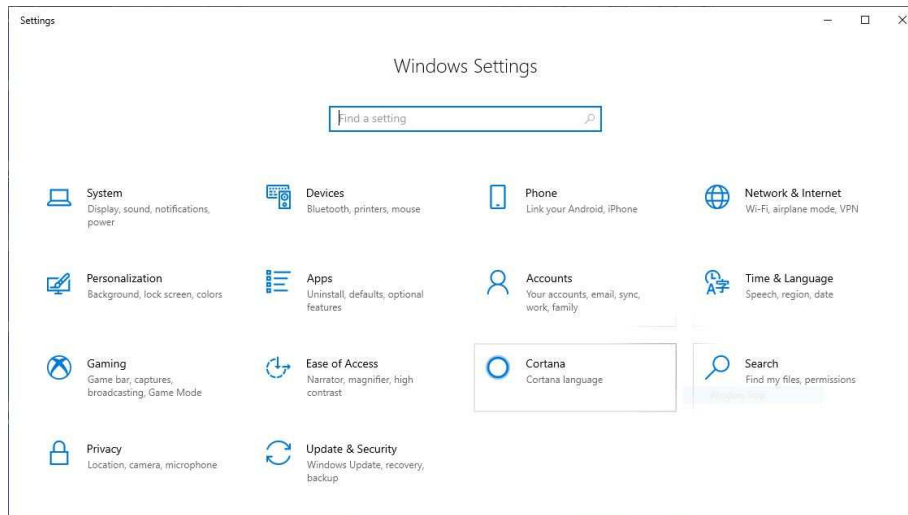


Fig. A5.108. In the start menu select: Settings

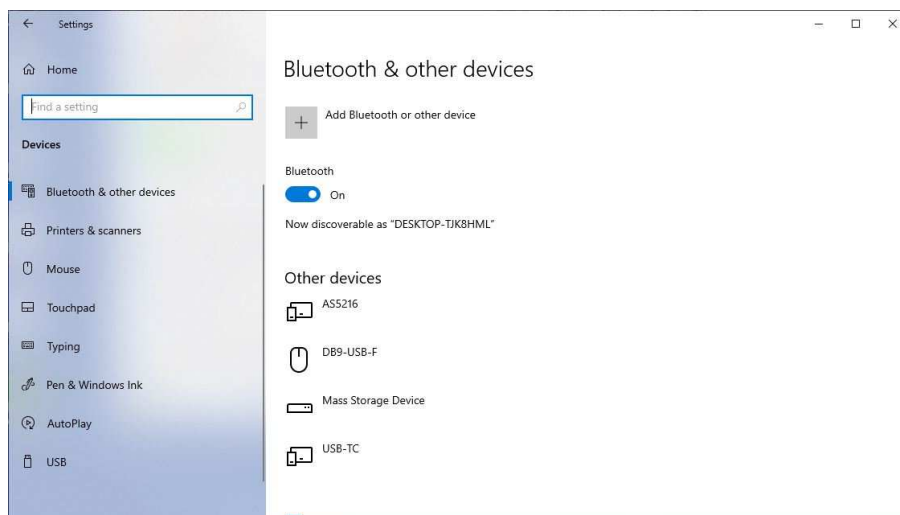


Fig. A5.109 Select: Devices

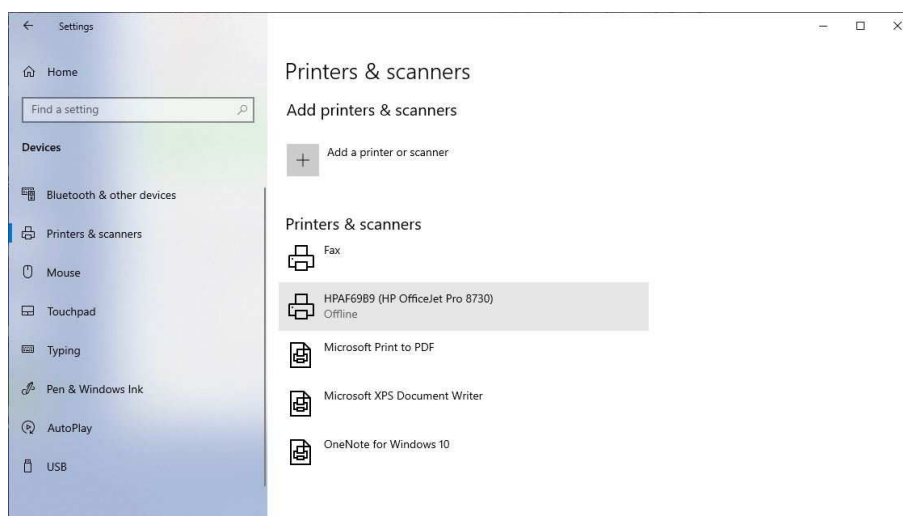


Fig. A5.110 Select: Printers and Scanners

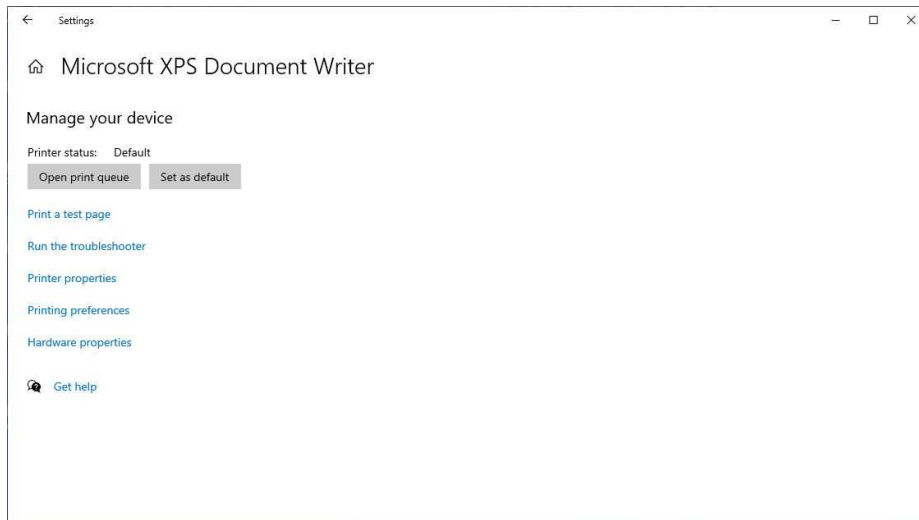


Fig. A5.111 Select: Microsoft XPS Document Writer

Click on Manage

Set as default

- Select « Printing preferences »
- Click on « Advanced »
- Select A4 for « Paper Size: »
- Click on « OK »
- Click on « Apply »
- Click on « OK »

The virtual printer "**Microsoft XPS Document Writer**" becomes the default printer in A4 format.

A5-4 Total commander Final installation

Change the editor of Total commander to use the "New Notepad"

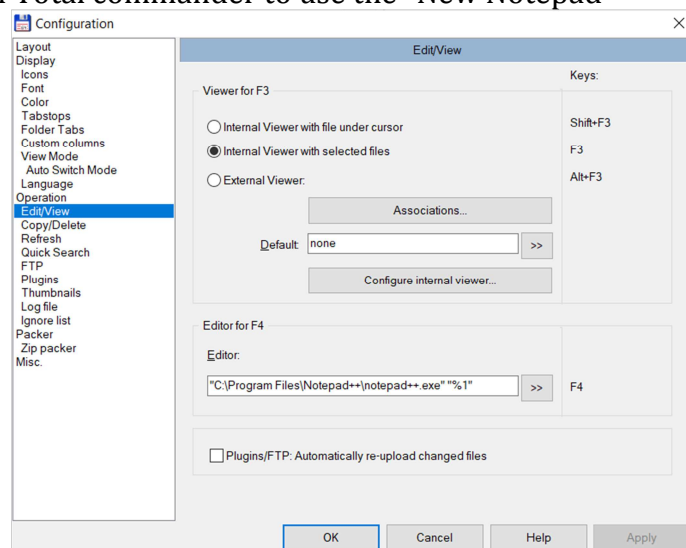


Fig. A5.112. New editor in total commander

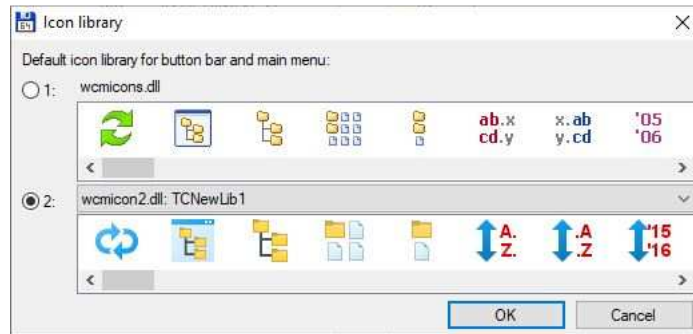


Fig. A5.113. Change the Icon Library

A5-5 Final Check

SAOZ Real-Time program final check

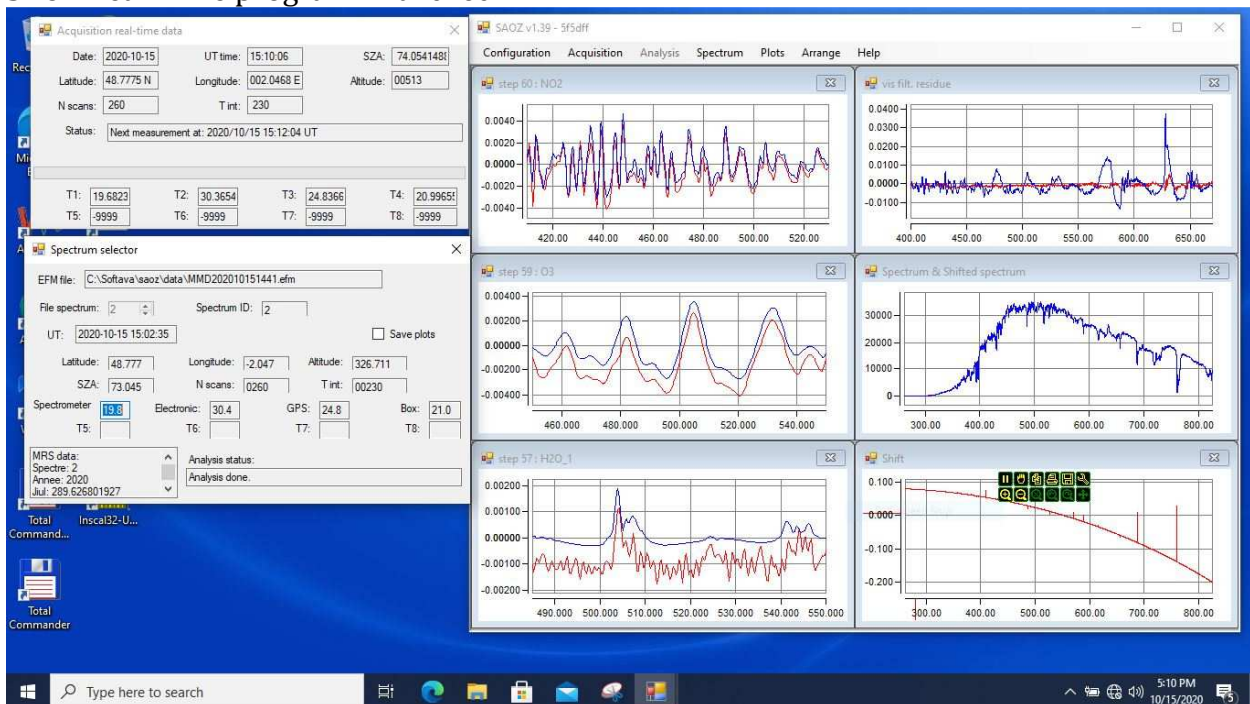


Fig. A5.114. SAOZ Real-Time program final check

If everything looks correct one can check in the SAOZ »Acquisition real-time data» window that:

- Time in UT OK
- PC local time OK
- Location OK
- Temperatures T1 to T4 OK

The installation is finished and OK.

The scheduler will launch the scheduled tasks around midnight.

A5-6 Troubleshooting

A5.6.1 Scheduler

If the scheduled tasks are not created, it could be because the PC has not been correctly installed.

It is needed to have a username **“saoz”**

And a Password **“saoz”**

A5.6.2 Autologon

In case of problems because the PC is asking for a password on reboot, it is necessary to add autologon.

Use regedit on cmd line

Go to

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon]

right click on “winlogon” to add a new string value

add Three string values and modify values as follows

"AutoAdminLogon"="1"

"DefaultUserName"="saoz"

"DefaultPassword"="saoz"