touchfoil™ Configuration Guide

Product ref	AXX, BXX
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Intended Audience	Customers

Document History

Date	Version	Author	Description
20/12/2017	1	J.P.	Initial Document Release
04/12/2017	2	A.M.	Additional troubleshooting cases

Contents

1. INTRODUCTION

This document describes the features and functionality of the touchfoil Configuration software (currently only compatible with Windows OS) which is used to test and setup a touchfoil sensor. The steps described below apply to touchfoils using the PCB controller boards shown below (AXX, BXX).

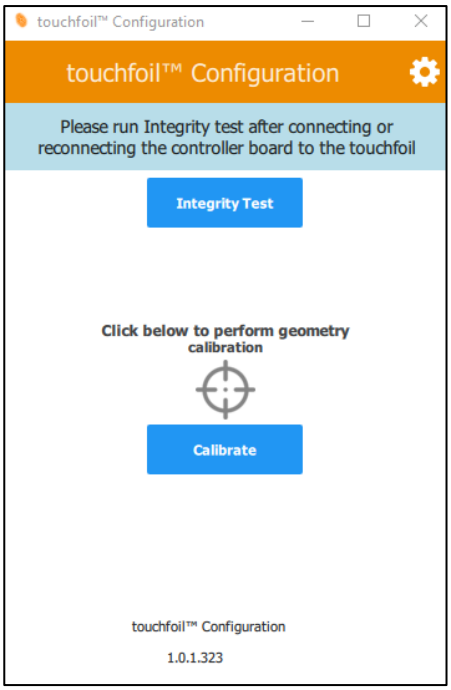
AXX controller board

BXX controller board

2. INITIATE TOUCHFOIL™ CONFIGURATION SOFTWARE

When the touchfoil Configuration software is initiated it will retrieve data from the controller to determine the board type and base firmware information.

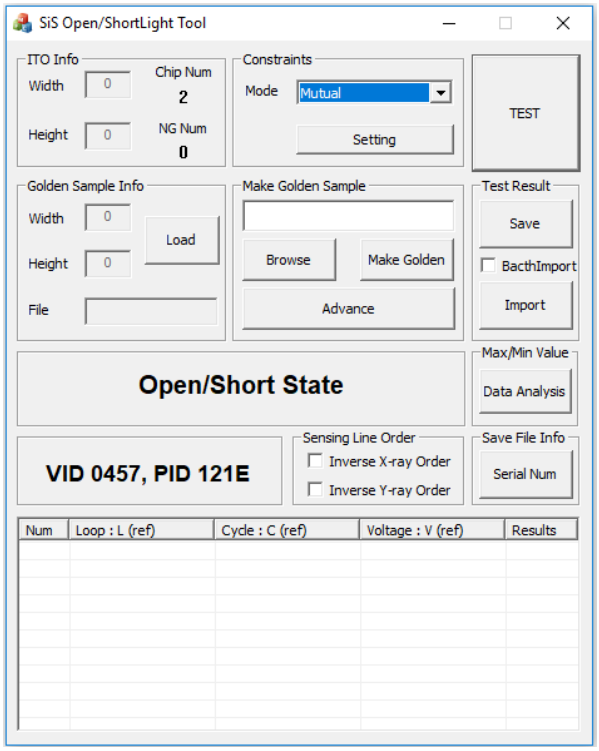
Once the initiation is complete the touchfoil Configuration software main screen will appear allowing the integrator to perform the integrity test and the calibration routine.



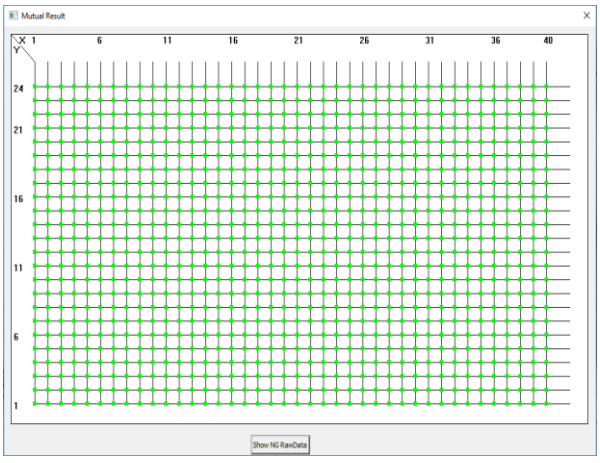
3. INTEGRITY TEST

We recommend an integrity test be carried out through the integration stages (pre-lamination, post-lamination, post-integration) to ensure functionality of the touchfoil's sensing channels.

Clicking on the "Integrity Test" button a separate stand-alone application is launched ("SiS Open/ShortLight Tool"). Click "TEST" in the top right corner to execute the integrity test.



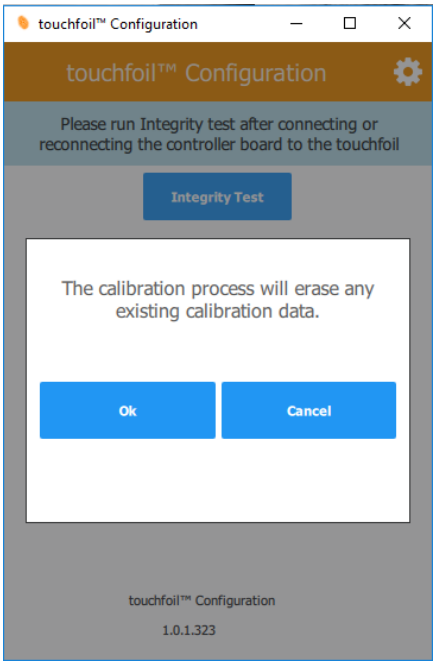
A new screen will appear showing a visual representation of the results of the "Mutual" test on the channels intersections (nodes) in the touchfoil. The results are colour coded as follows:
Green node: **PASS**
Purple node: **FAIL**



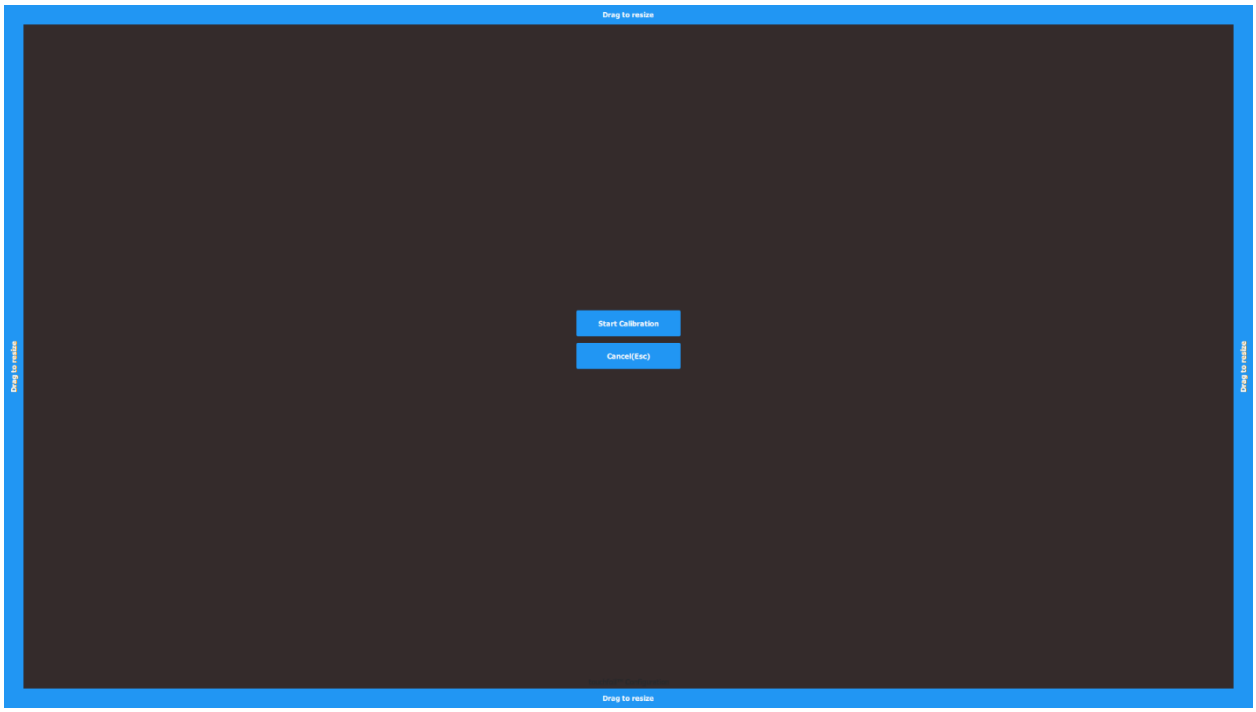
In the event of a FAIL test please proceed to the Troubleshooting section at the end of this document.

4. CALIBRATION

Clicking on the “Calibrate” button of the main screen of the touchfoil configuration it will present a warning pop up window, to prevent the user from accidently erasing the calibration data. Press OK to proceed to a new calibration.



Click the “Start Calibration” button to proceed with the calibration



Tap each of the nine targets appearing in turn to complete the calibration. The data will then be saved to the controller board.

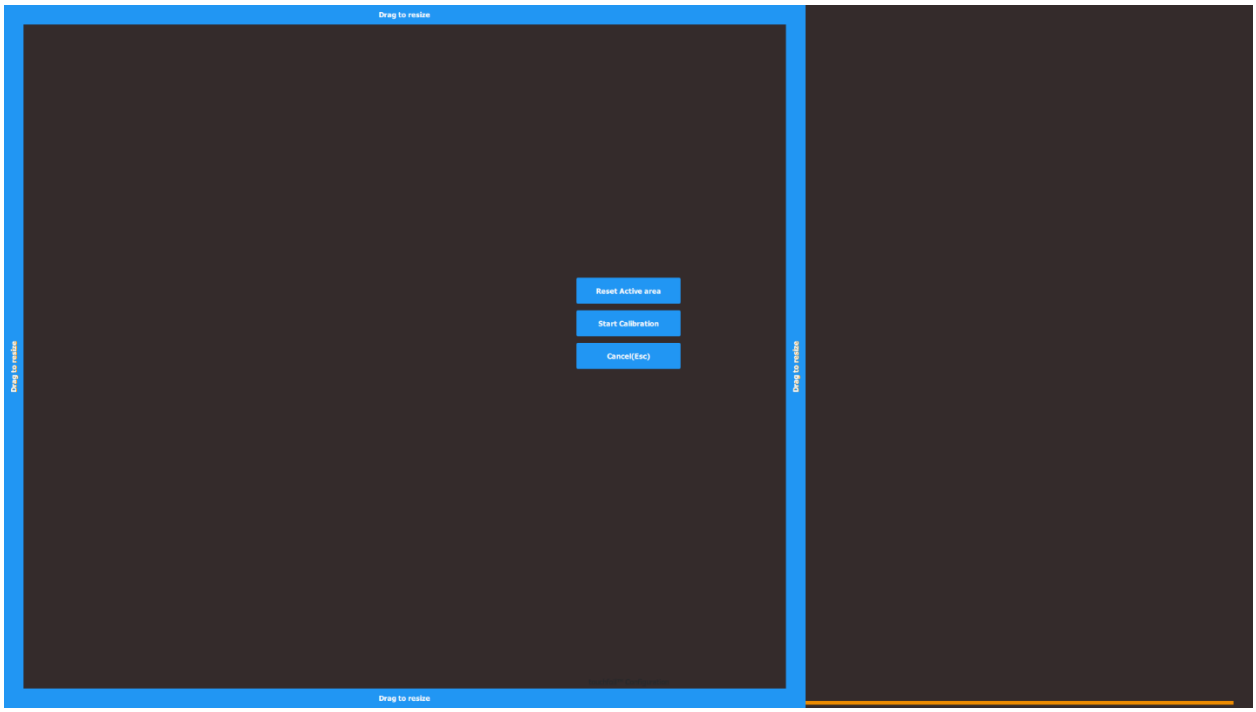
Note: If the display is set to any other orientation than landscape the application will automatically switch to landscape for the calibration process and then back to portrait once the calibration is completed.

5. SMALL TOUCHFOIL CALIBRATION

Should the touchfoil be integrated with a larger LCD display (or in front of a larger projection) the targets in the calibration screen might appear outside of the touchfoil area making calibration impossible.

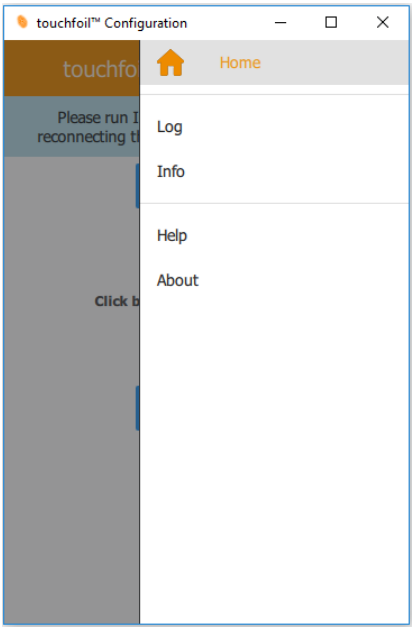
In this case the calibration area can manually be resized by moving the thick blue borders to match the desired position. When these are set, click on the Start Calibration button to start the calibration process. The targets will appear within the predefined area.

Reset Active area: resets to default
Start Calibration: starts calibration once the modified calibration area is set
Cancel (esc): exits the calibration routine and returns to the application's main screen (Keyboard Esc button can also be used)

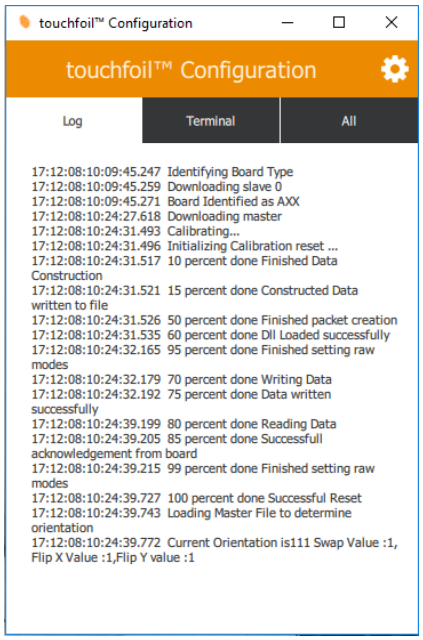


6. OPTIONS

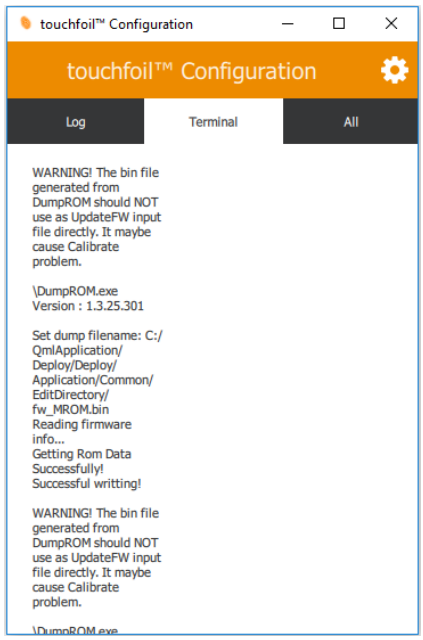
The options sections contain logs and information related to the controller boards as well as the OS to which the touchfoil is connected to.



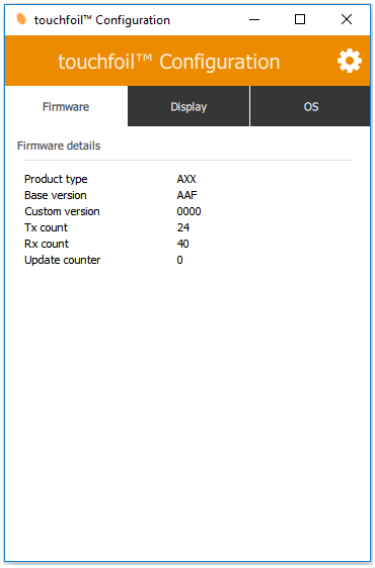
Options



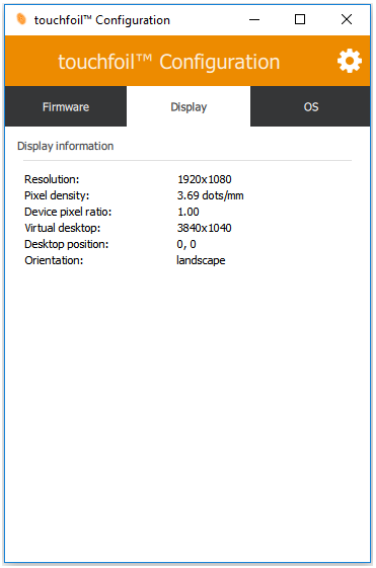
Log



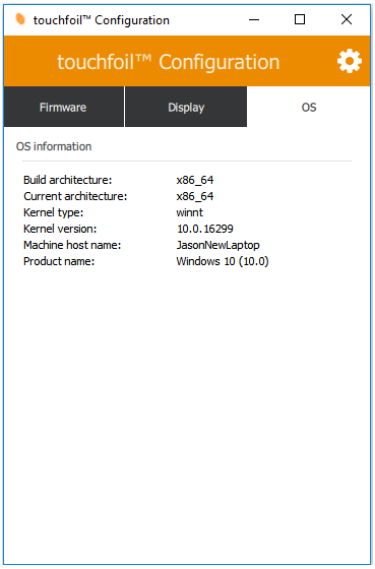
Terminal



Firmware



Display



OS

The “Log” will display a time log of data produced since the controller board is connected and the touchfoil Configuration software has been initiated.

The “Terminal” windows contains command prompt information useful for troubleshooting.

In the “Firmware” tab there are information about the product type, the base firmware (originally shipped before any modification), the custom version (customer specific), the Tx and Rx counts (number of channels in each axis) and the update counter (this counts the number of modifications made to the base firmware if any).

The “Display” tab contains display information retrieved from the PC by the touchfoil Configuration software.

The “OS” tab contains the PC’s system information retrieved by the touchfoil Configuration software.

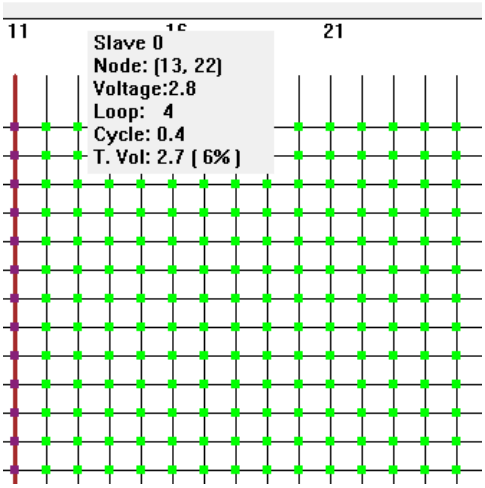
7. TROUBLESHOOTING

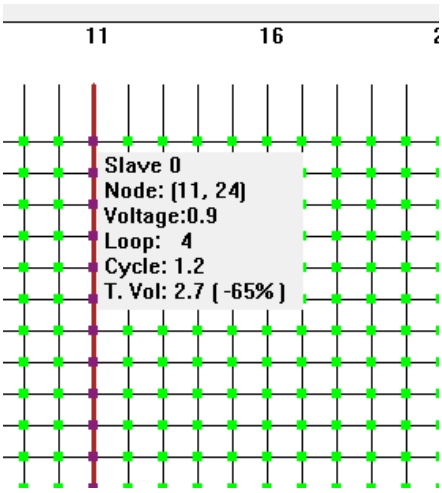
7.1. Unsuccessful Integrity test result

If the integrity test result is a “FAIL” please try the following corrective actions:

- Disconnect the controller board from the touchfoil and clean the golden contacts (pins) carefully with alcohol based solution (e.g. isopropyl alcohol IPA)
- Refit the controller board to the touchfoil making sure it’s inserted correctly to the controller board clips and properly aligned
- Swap the controller board for another of the same type to rule out a defect of the clip component on the controller board
- Contact Visualplanet support at support@visualplanet.biz

Additional information provided by the “SiS Open/ShortLight Tool” on top of the coloured coded visual representation of the sensor might also help identify the issue. These can be found by hovering the mouse curser over the individual nodes as shown in the screenshots below.





Slave 0 = which chip on the controller board controls that section

Node: (13, 22) = the intersection wires i.e. “X” axis 13 “Y” axis 22

Voltage: 2.7 = the voltage received from the RX channel (receive signal)

Loop: 4 = the amount of cycles during the charge time it takes to reach the target voltage

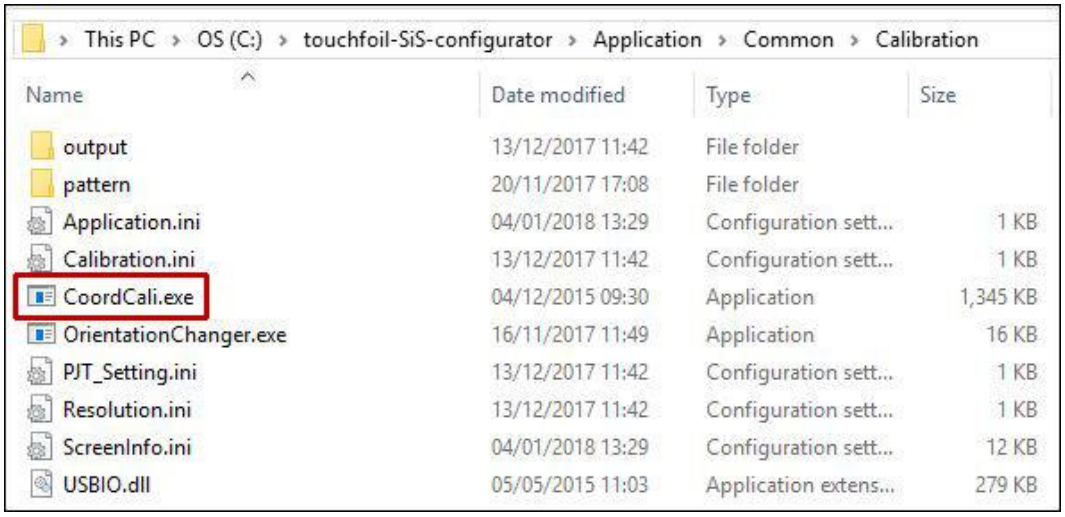
Cycle: 0.4 = the time each Loop took for the charge time

T.Vol: 2.7 (6%) = Target voltage

7.2. Calibration fails

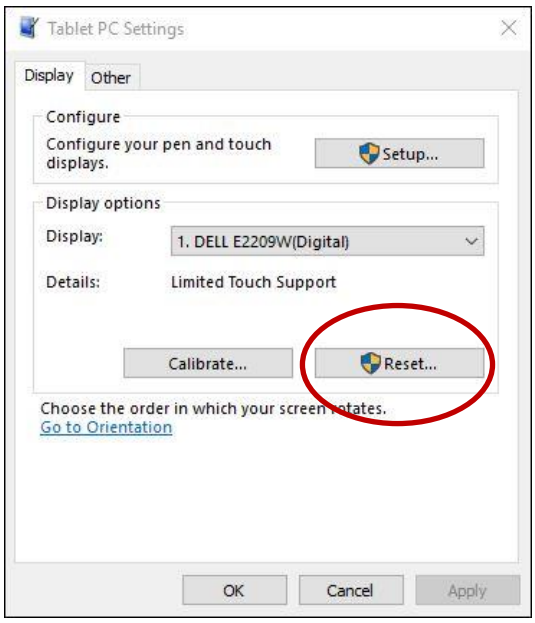
7.2.1. CoordCali might be missing

If the calibration completed successfully but the results of the touch accuracy are poor please navigate to *C:\..\touchfoil-SiS-configurator\Application\Common\Calibration* directory and ensure the file CoordCali.exe is present in the folder and has not been quarantined or deleted by the anti-virus.



7.2.2. Multiple calibration data present in the system

Ensure the OS does not have any other calibration data which might interfere. In Windows systems these can be found under *Control Panel/Tablet PC Settings/Display options*. If present Reset the PC's data.



7.2.3. Multiple (extended) displays present in OS

More than one display (in extended mode) will increase the virtual desktop from the single display resolution (e.g. 1920x1080) to the combined resolution of both display (3840x1080) and the calibration process will not scale correctly. Please connect only the display to be used with the touchfoil or use “Duplicate” mode (under Display Setting in Windows systems).

7.2.4. Calibration targets are not touchable

If the calibration targets to not respond to the touch try the following corrective actions:

- Terminate and re-initiate the touchfoil Configuration Software
- Unplug / re-plug the USB cable
- Run the Integrity test tool to ensure the touchfoil connectivity and sensing channels integrity (e.g. if there is physical damage the sensing channels covering the calibration target’s area might not function correctly)

7.3. touchfoil Configuration Software fails to initiate

The touchfoil Configuration Software is currently Windows compatible. In order to run successfully it requires the C++ Redistributable 2013 and C++ Redistributable 2017 to be present (installed) on the PC.

The C++ Redistributable 2013 can be downloaded from the official Microsoft web site:
https://www.microsoft.com/en-gb/download/details.aspx?id=40784

The C++ Redistributable 2017 can be downloaded from:
https://support.microsoft.com/en-gb/help/2977003/the-latest-supported-visual-c-downloads

or the links below:
32bit: https://bit.ly/2vGMB9f
64bit: https://bit.ly/2vJbKQN

System errors reporting missing DLLs (e.g. MSVCP120, MSVCP140) indicate missing dependences should the redistributables are not present.