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Some Information for Multi-Channel Temperature Reading Using NI-USB 6008/6009

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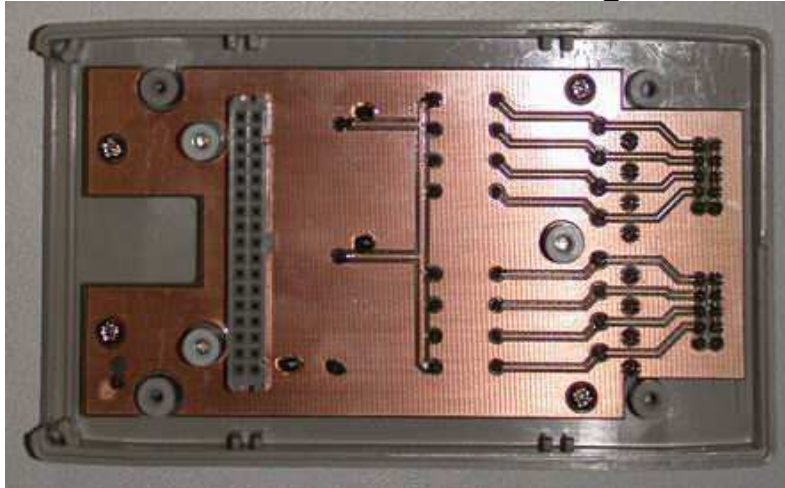
One USB-Temp box is able to read 8 channels → 2 modules

- 2 boxes are needed for the 4 module test program*
- 6 boxes are needs for a full stave/super-module program*

NB: For more than one box simultaneous readout the software will need to be adapted

Hardware for Temperature Reading (Module Program)

Mezzanine board & box – Design & Made by UniGe



NI USB 6009 - OEM



Plugged-in



Assembled with



Individual wire connection (Up to 8 channels) &
2 x 4 pairs for flat cable connection

**NB: Protection box and mezzanine
provided by UniGe**

Few instructions to start the temperature reading with NI 6008/9 devices

Step 1

To do only once!

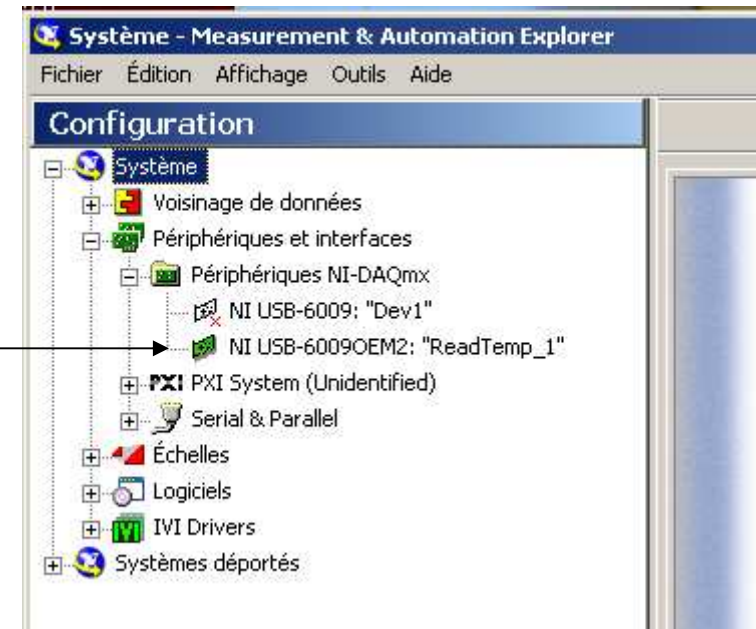


Start this program

Step 2

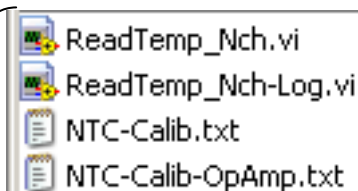
To do only once!

Right click on the detected device under this tree
&
Rename the device "Dev." → "ReadTemp_1"



Step 3

You need to have the following 4 files to start



Start this program

Read temperature logging application using NI6008/6009

Some instructions and help about the settings

**Temperature log for multi-channels (1-8 ch)
Using NI 6008/9**

Settings

Panel to fill before "START"

NI hardware type:
- Prototype kit (UniGe)
- NI connectivity kit (white box)

Alarm panel (optional)

Select the desired channels & corresponding names

Output filename that will be written in the application directory

Panel can be modified while running

Record time

Sensitivity threshold [°C] to store data

Time interval

START

END

Progress

Temp [°C]

Ch Enable

Ch Name

Ch1 ☒ **Ch1** KEK Hybrid

Ch2 ☒ **Ch2**

Ch6 ☐ **Ch6**

Ch7 ☐ **Ch7**

Ch8 ☐ **Ch8**

NI600x Type
Prototyping Kit (Custom)

Output FileName
Data.txt

Enable Alarm

Threshold [°C] 18

RecordTime [h]

Wait [s] 1

Sensitivity [°C] 0.05

Temp [°C]

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

Read temperature logging application using NI6008/6009

Some information when running

Alarm blinking only if selected!

