My Own Devices

TAS-K 601

Users Manual

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Getting Started

Step 1: Setup the TAS.

1) Unpack the TAS device and the power supply.
2) Plug the thermocouples into the yellow thermocouple jacks on the back of the device.
3) Connect the power supply and verify the display on the front of the device lights up.

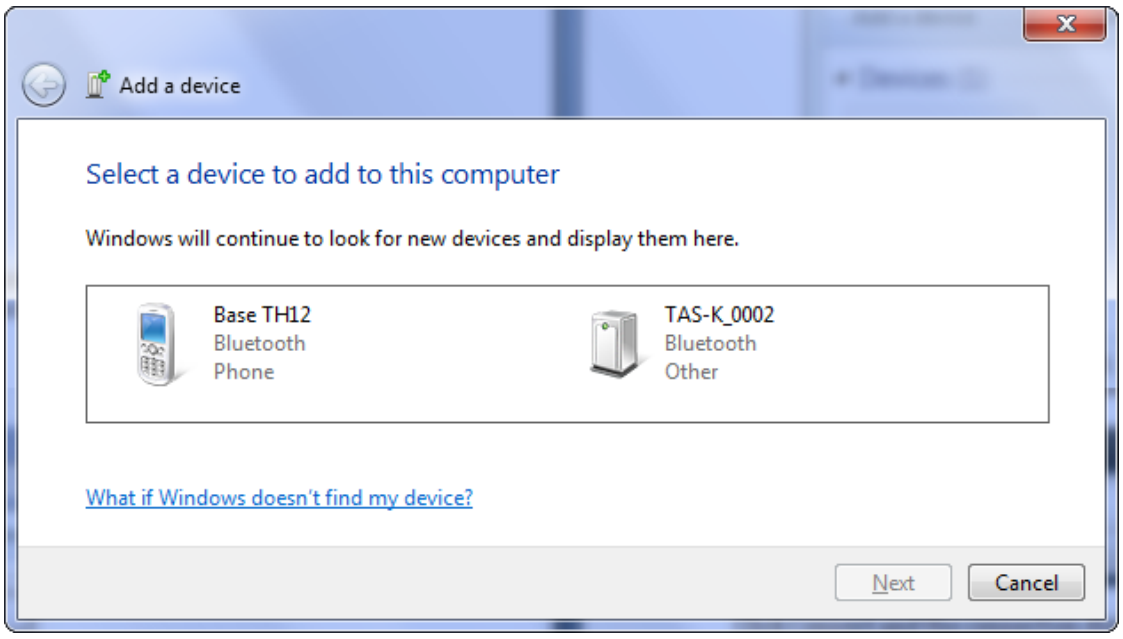
Step 2: Setup the software

1) Unpack the TAS Control Station Software and if needed the Bluetooth Adaptor
2) Install the Bluetooth drivers from the Bluetooth adaptor software
3) Connect the Bluetooth adaptor
4) Add the device to the Bluetooth device

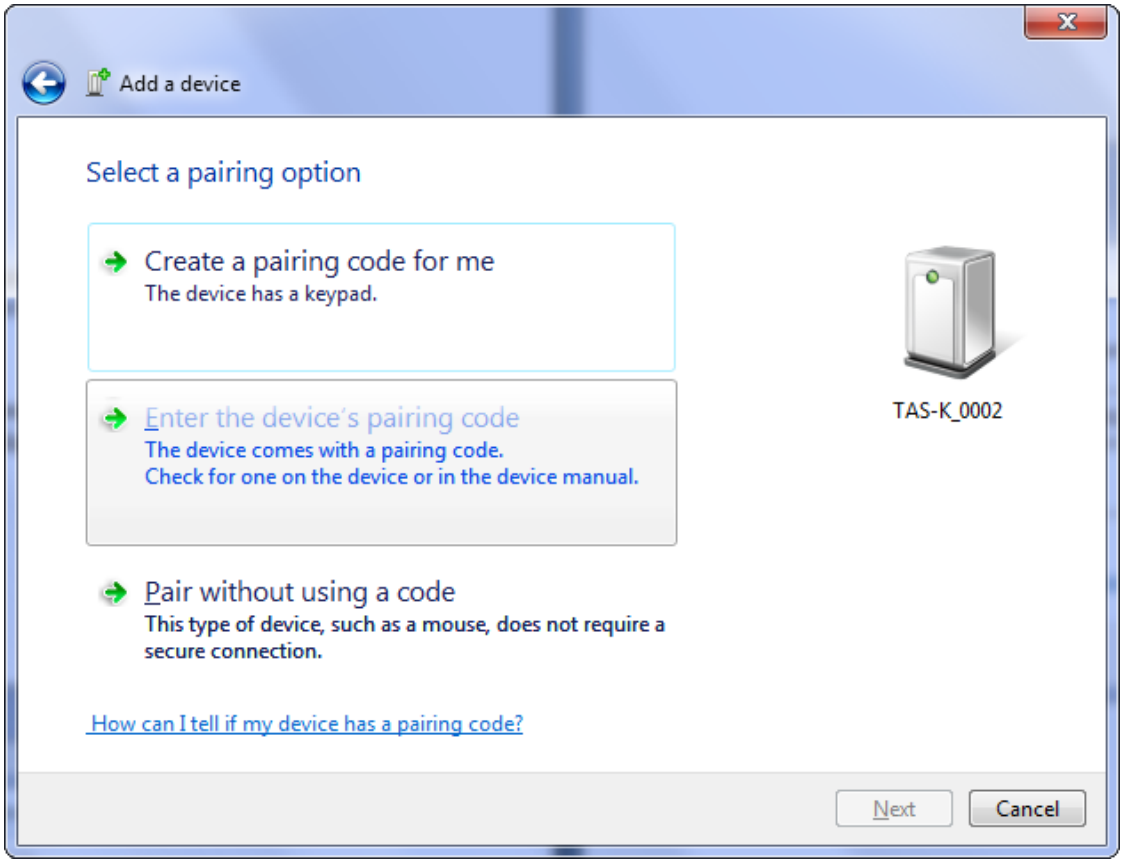
For Windows 7

a. Power on the TAS-K 601
b. Open the Bluetooth Devices dialog
c. Click on add a device

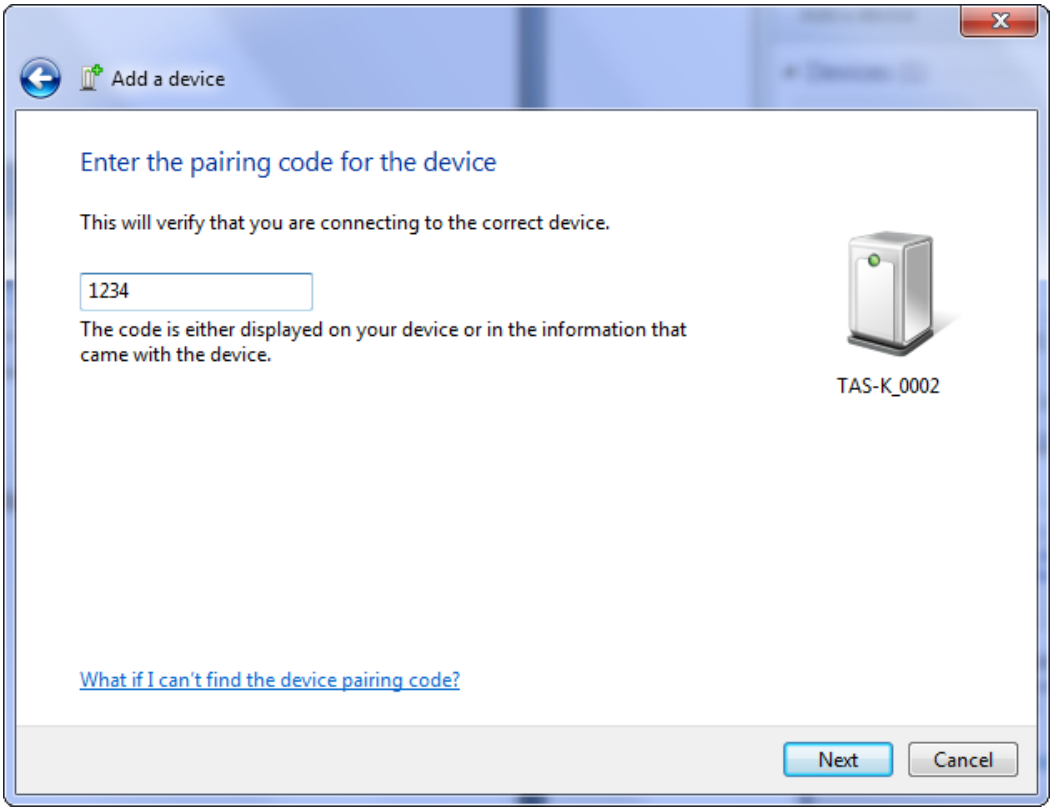
d. Windows will search for the TAS which will be identified by TAS-K_ and the device Serial Number



e. Double click on the device to add (TAS-K_0002 in this example) and then select "Enter the device's pairing code"



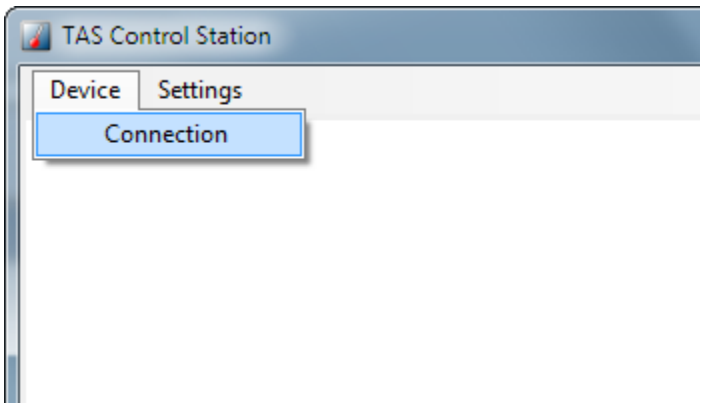
f. The pin code for the device is 1234. Enter the numbers and click next. Windows should add the drivers and setup the connection automatically



5) Install the TAS Control Station Software
6) Launch the TAS Control Station Software

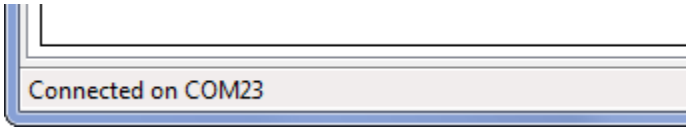
Connecting & Disconnecting

Connections are managed through the device menu.

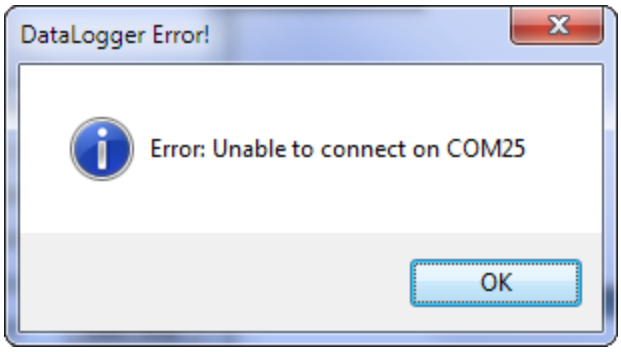


Connecting - open the connection dialog and select the appropriate port (Note: that some Bluetooth adaptors create two ports when they are installed. Typically the lower of the two ports created is the sending port which should be selected).

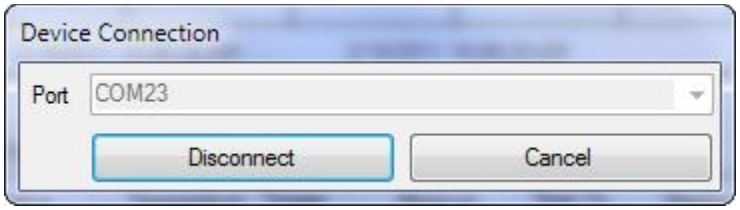
Click Connect and the connection dialog will attempt to connect to the device. If the device is able to connect the dialog will close and a connected status will be displayed in the status bar at the bottom of the TAS Control Station window. Once connected, the data tables and graph will begin displaying data from the device.



If the connection is not successful, after a few seconds an error message box will appear indicating that a connection was not made. The connection dialog will remain open to allow for selecting another port.



Disconnecting – open the connections dialog. The port selection will be disabled leaving only the buttons to disconnect or cancel. Select disconnect and the device will be disconnected.



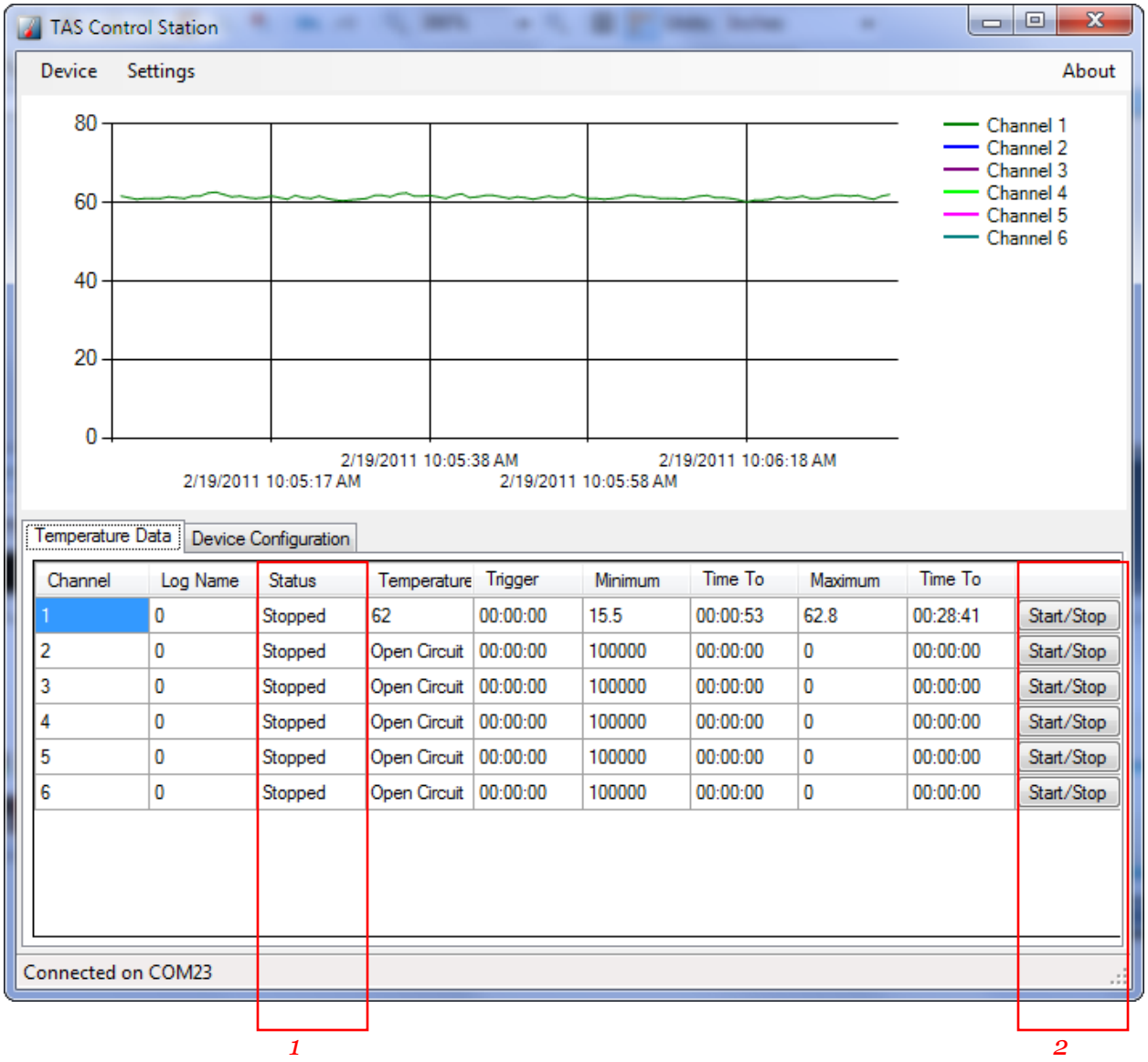
Once disconnected the status bar will be updated to indicate that it is disconnected.

Sampling

Sampling can be started two ways, via the TAS Control Software interface and via the TAS device. It can only be stopped via the TAS Control Software.

Sampling via the TAS Control Software

The Status column[1] of the Temperature Data display indicates if a particular channel is logging or if it is Stopped. To start or stop sampling via the TAS Control Software click the Start/Stop button[2] located on the right side of the screen. This will send a start or stop command to the TAS, create and begin filling a log file if appropriate, and update the display.



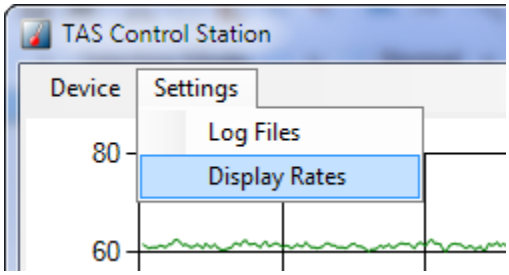
Sampling via the TAS device

To start sampling via the TAS select the channel that is to be sampled using the Select button on the TAS faceplate. Press the Reset button. The display should now say Reset? Press the Reset

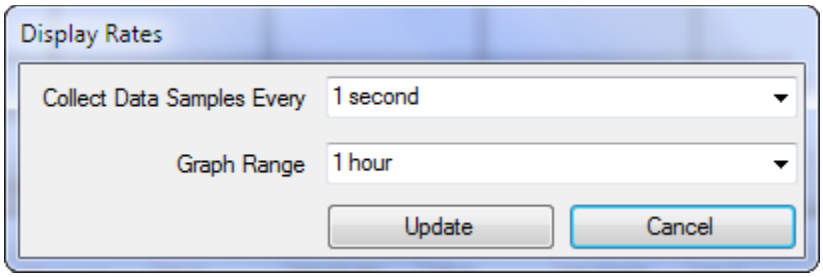
button a second time to reset the channel. Pressing Select will cancel the operation. Once Reset has been pressed a second time the channel will display Initializing. At this time the TAS has recognized the reset and will begin logging. The TAS Control Software Status column should now say Logging for the selected channel and a log file should have been created.

Sample and Display Rates

TAS Control Station will sample a device at a regular basis and display a set window of data on the graph. This is setup per software instance (not per device instance) and must be setup before connecting to the device. To access the configuration dialog, select the Display Rates under the settings menu.



There are two things that can be configured in the Display Rates dialog, the data collection rate and the graph range.



The data collection rate is used to determine how frequently to update the data on the screen and how frequently to log the data in the channel data log file (see log files for more information) and how much data shows up on the graph.

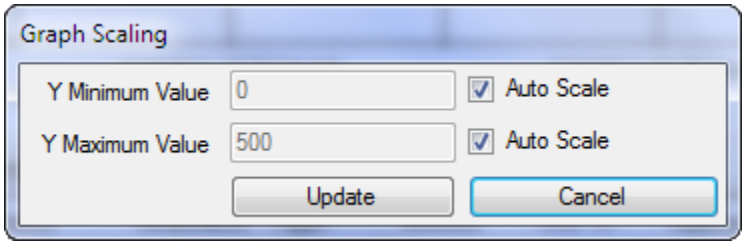
The graph range is a value to indicate how much information should be displayed on the graph. The faster the sample rate and the longer the graph range the more memory that will be utilized by the application to manage the data *(Note: if the machine is running slow or runs out of virtual memory, increase the sample rate or decrease the graph range)*.

Once the appropriate display rates are set, click Update to make them the settings used by the program. Settings are retained for future use once they are set.

Graphs

The X-axis range of the graph is controlled by the display rates (see sampling for more information). By default the Y-axis is scaled automatically with the data. However, this can be configured at any time to select different scaling.

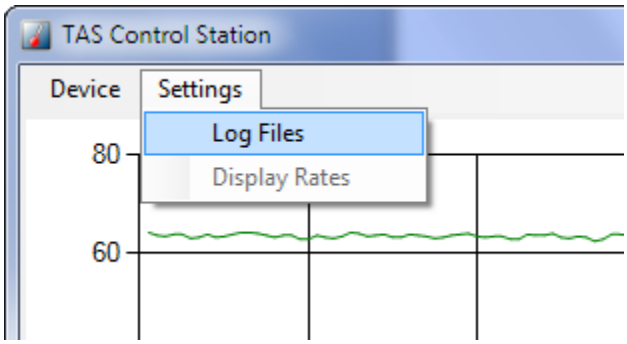
To change the Y-axis scaling on the graph, simply click on the graph and the Graph Scaling dialog will appear.



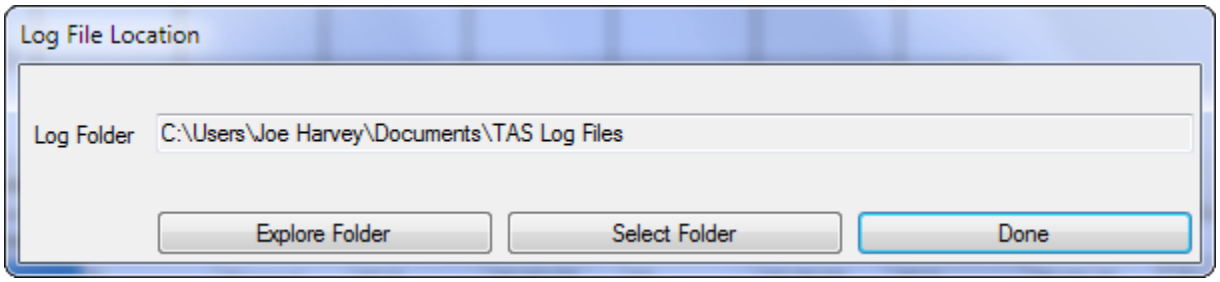
If the auto scale box is checked, the values cannot be manually changed, as the software will determine them automatically. Un-checking the Auto Scale will allow for a min or max axis value to be typed in. Once those values are correct, click Update and the graph will now use those axis values for scaling.

Log Files

TAS Control Station will sample a device at a regular basis and store those samples in a log file for later reference/analysis. This is setup per software instance (not per device instance) and must be setup before connecting to the device. Once a device is connected, the path and link to the folder can be viewed, however it cannot be changed. To access the configuration dialog, select the Log Files under the settings menu.



If the dialog is opened while not connected to a TAS device the dialog will have the select folder option available, otherwise the select folder button will be disabled.

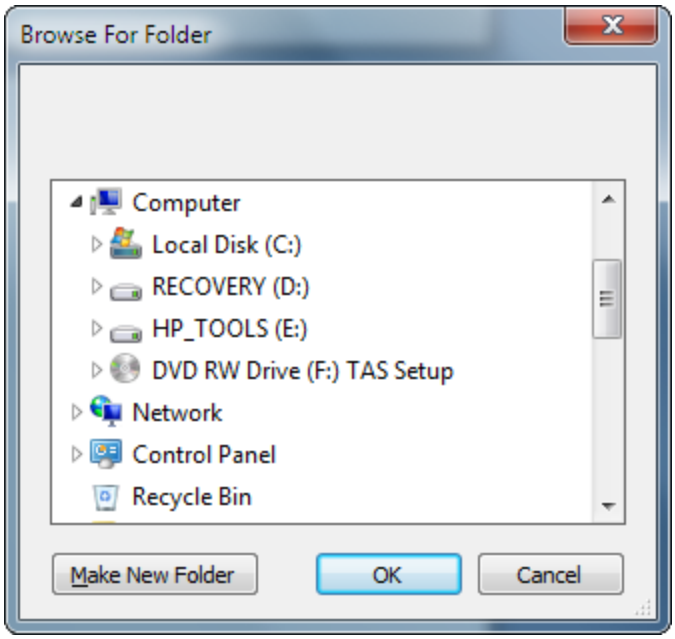


TAS Log file names are generated automatically based on the sample name, date, and time. The files are placed in the selected folder. The folder will be used and remembered by the software from use to use, it should be noted that the folder permissions apply and thus one folder may be accessible by a user that another may not be able to access.

Done will update the system folder, if applicable, and close the dialog.

Clicking on Explore Folder will launch the Windows Explorer view of the Log Folder for quick access

To change the folder location click on the select folder button and the Folder Browser launches.

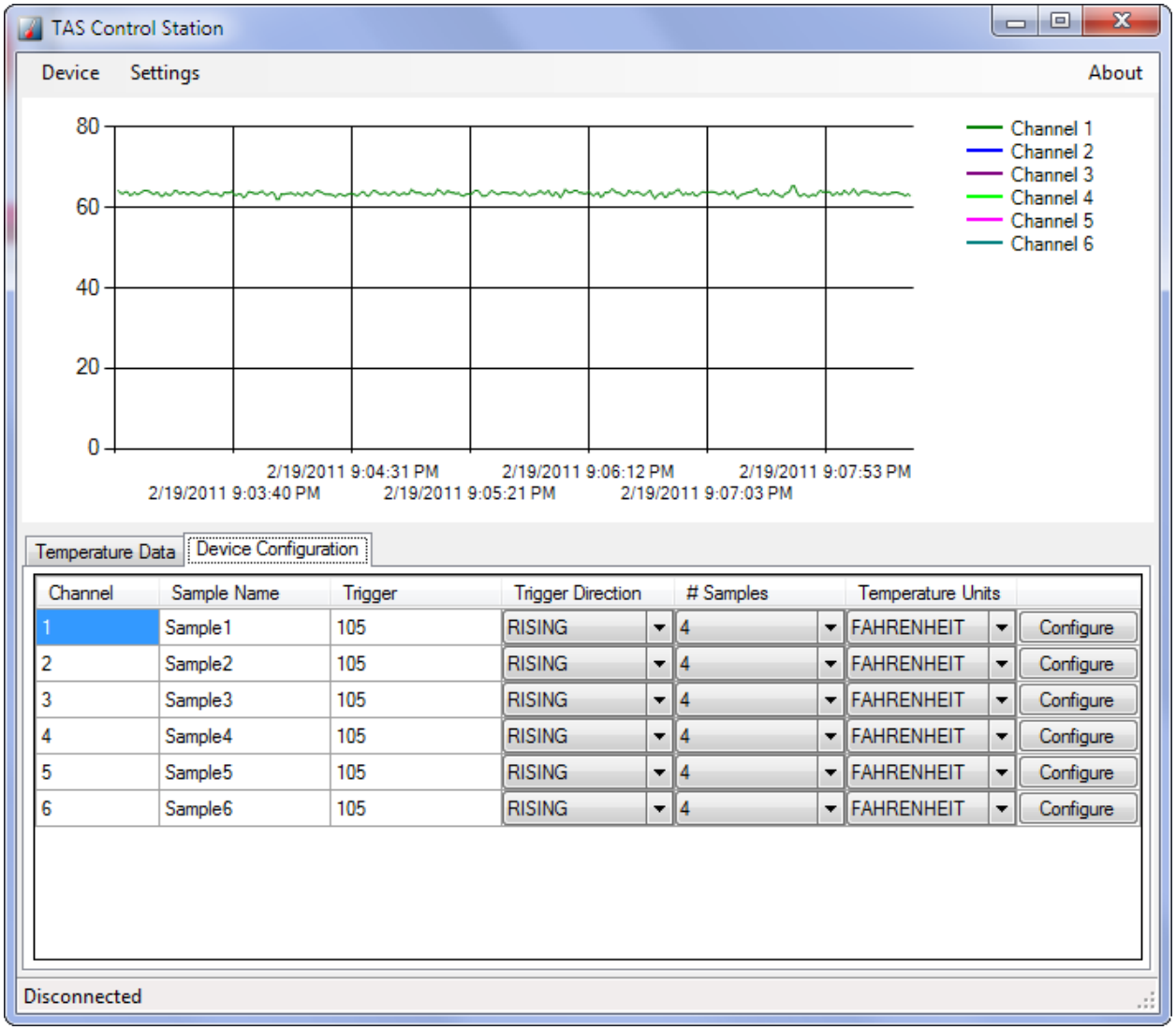


Navigate to the appropriate folder and select OK to select it.

Application Note: Log files can potentially get large and be numerous, thus disk space may become a concern. Opening the log file folder and clearing out any old log files that are not needed is highly recommended on a regular basis.

Device Configuration

The device configuration settings can be accessed via the Device Configuration tab on the main screen. Settings on this screen can be changed but cannot be applied if a channel is actively logging and a warning will be displayed. If this happens either wait to apply the changes later or stop the channel logging and apply the changes.

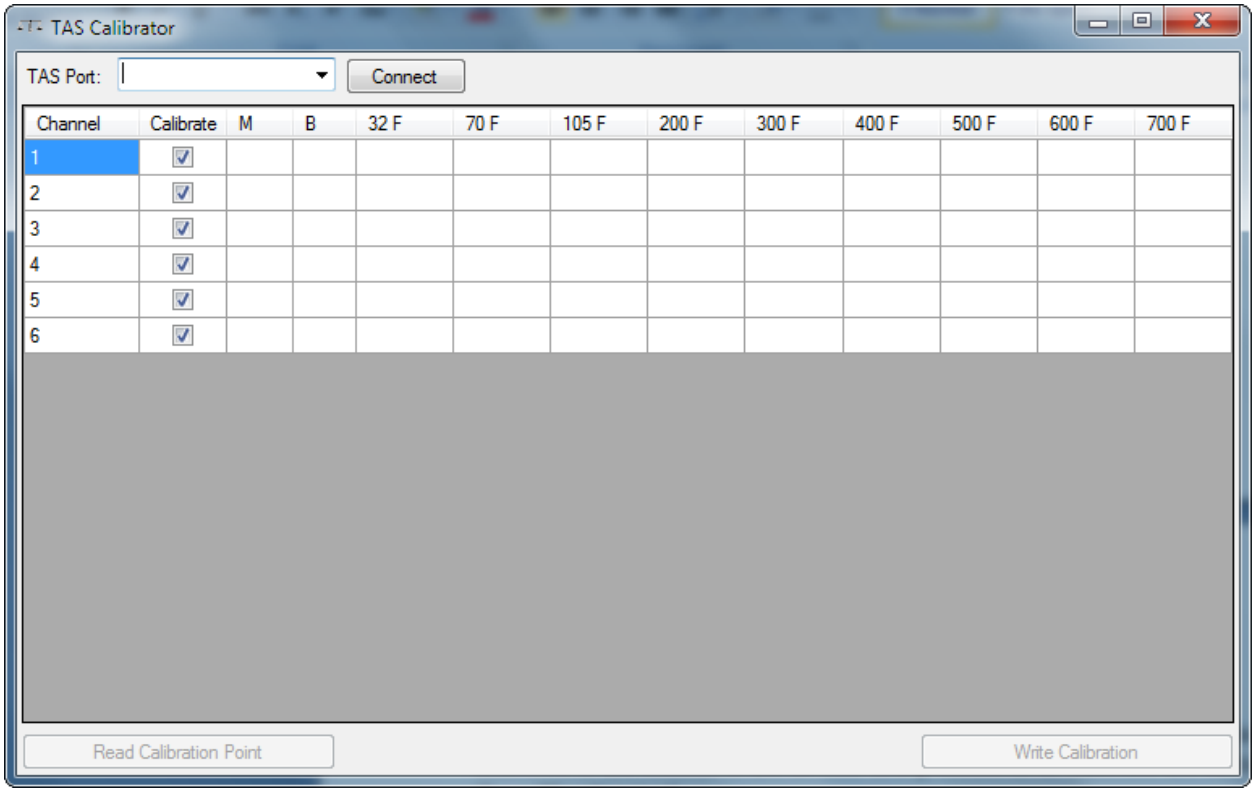


The sample name is a text description of the sample being tested. Trigger is the temperature at which to trigger in whatever temperature units the channel is configured to use. Trigger direction is to indicate if the device should trigger when the temperature rises above or falls below the trigger temperature. # Samples indicates how many samples should be applied to the filter in order to reduce noise or provide a smoother transition in temperature changes. # Samples is a moving average filter based on the rate of 1 sample per second.

Calibration

The TAS device comes pre-calibrated. The calibration as was set by the factory is printed and attached to the bottom of the device. It is possible to re-calibrate the device if necessary using the calibration tool.

To open the Calibrator, select the TAS Calibrator from the Start Menu.



The TAS Calibration screen allows for each channel to be independently calibrated over 9 configured points based on an un-calibrated curve.

Select the TAS port from the pull down dialog and click Connect to open a connection to the device.

8 Steps to calibrate a device

1) Uncheck the Calibrate box for each channel that should not be calibrated.
2) Click on the appropriate grid box for the channel/temperature point to be calibrated.
3) Click the Read Calibration Point button at the bottom left corner of the screen.
4) Wait for the calibration data point to be read and the M&B parameters to update.
5) Repeat Step 3 until all channels that are to be calibrated have been sampled.
6) Click on Write Calibration to write the calibration parameters to the device.

Warning: Changes are not applied until Write Calibration has been initiated. Closing the application before clicking Write Calibration will result in all calibration samples being discarded.

If the default factory calibration is desired, the numbers from the calibration certificate can be typed into the M and B parameter fields then Write Calibration to store them back into the device.

Troubleshooting

The connection dialog does not list my ports or says "No System Ports".

This indicates that the port is not connected or that the driver is not working properly. Check your settings in Windows or try another port.

Windows cannot find my Bluetooth adaptor.

Sometimes windows cannot create the Bluetooth port without a serial port available in the system. If this problem is a common issue, consider plugging a USB to serial adaptor in and rebooting your system.

The device will not power on.

You may have blown the internal fuses. The device takes a 5x20mm 2A fuse. For help in replacing the fuse, contact technical support via the information below.

Windows gives me an error that it is running low on virtual memory

See the section on Sampling and Display Rates. Increasing the sample rate or decreasing the graph range will reduce the memory used by the application.

The COM ports that are listed are not correct, or my COM port is missing.

This is a limitation of Windows and the Bluetooth Serial Driver. Open the Bluetooth device which was setup in the Getting Started Section and change the Port name from the auto settings to a known value like COM25.

Technical Support

The technical support information can be obtained from
http://www.myowndevices.us/support.html

or by e-mailing Support@myowndevices.us