

USB2XX

Frequently Asked Questions



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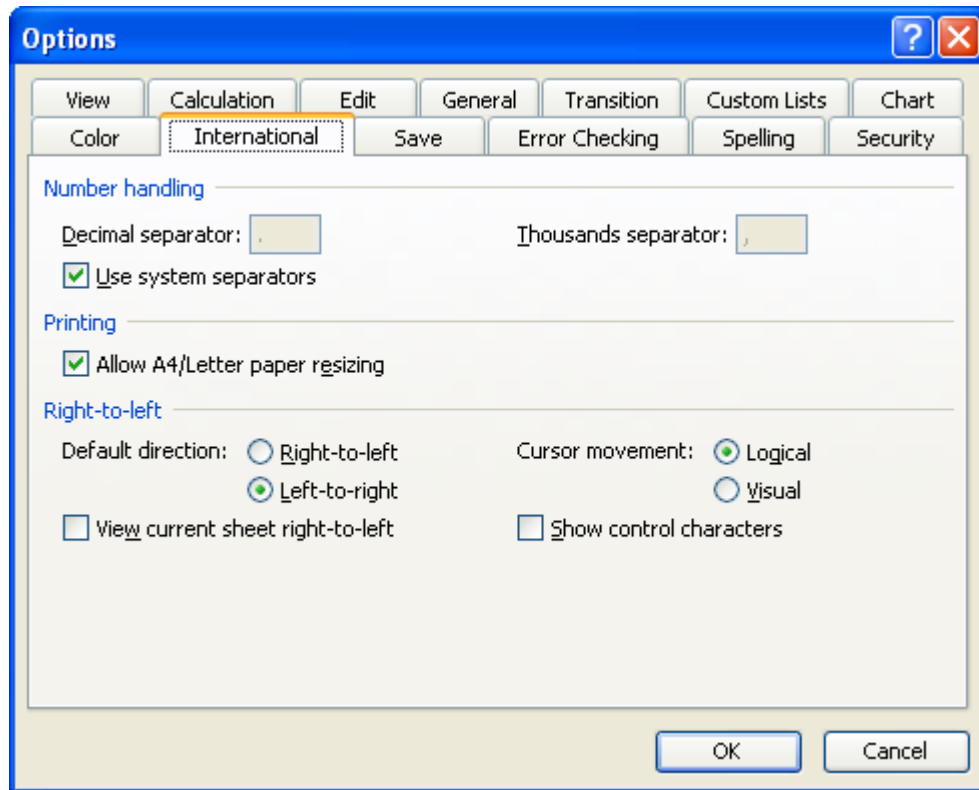
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1. **Why is my data not graphing? My Excel file displays the data in the format 1.000,00 instead of 1,000.00 and I do not get a graph in my excel output files.**
The SensIT USB Software is designed to work in the English language operating system. Using an operating system in another language, usually from another country, may affect the graphing feature of the software.
 - a. A work around for this situation is as follows:
 - i. Close the SensIT USB Software
 - ii. Open Microsoft Excel
 - iii. Go to Tools
 - iv. Click on Options
 - v. Select the 'International' tab
 - vi. Deselect the 'Use system separators'
 - vii. Specify the 'Decimal separator' as a period (.) and the 'Thousands separator' as a comma (,)

Note: Remember to change this setting back after using the USB software so other applications are not affected.



2. How can I find the difference in time between the samples taken from my data logging test?

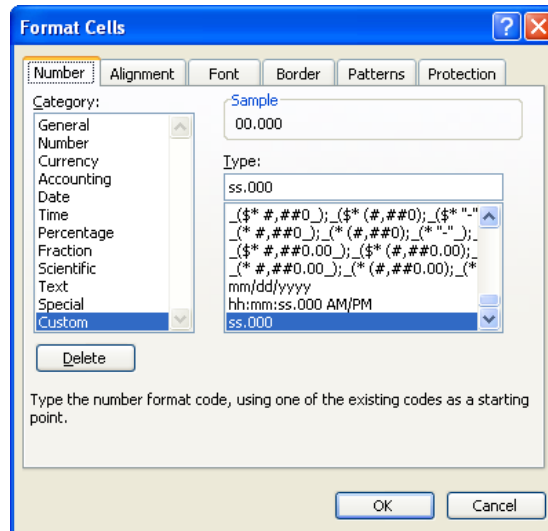
A useful formula to find the time difference between samples is H2-\$H\$2 (assuming that time is in column H). It can then be copied to the remaining cells in the column.

Sample Number	Number of Samples	ADC Value	Tracking Value	Peak Value	Valley Value	Date	Time	
2	0	1	-439181	-26.181	0	-26.181	04/04/2011 01:46:25.329 PM	12:00:00.000 AM
3	1	1	-440903	-26.284	0	-26.284	04/04/2011 01:46:25.376 PM	12:00:00.047 AM
4	2	1	-440903	-26.284	0	-26.284	04/04/2011 01:46:25.376 PM	12:00:00.047 AM
5	3	1	-442194	-26.361	0	-26.361	04/04/2011 01:46:25.376 PM	12:00:00.047 AM
6	4	1	-437459	-26.078	0	-26.361	04/04/2011 01:46:25.376 PM	12:00:00.047 AM
7	5	1	-441764	-26.335	0	-26.361	04/04/2011 01:46:25.376 PM	12:00:00.047 AM

3. How can I format the time in my Excel data log file to show seconds and milliseconds?

The time recorded in the Excel file from the SensIT USB Software is in a custom format: hh:mm:ss.000 AM/PM. You can change the format of the cells by doing the following:

- a. Highlight the desired cells to be changed
- b. Right click and select 'Format Cells...'
- c. Select Custom under the Category
- d. Change the formatting in the 'Type' box to seconds and milliseconds by manually entering ss.000



	A	B	C	D	E	F	G	H	I
1	Sample Number	Number of Samples	ADC Value	Tracking Value	Peak Value	Valley Value	Date	Time	
2	0	1	-439181	-26.181	0	-26.181	04/04/2011	01:46:25.329 PM	00.000
3	1	1	-440903	-26.284	0	-26.284	04/04/2011	01:46:25.376 PM	00.047
4	2	1	-440903	-26.284	0	-26.284	04/04/2011	01:46:25.376 PM	00.047
5	3	1	-442194	-26.361	0	-26.361	04/04/2011	01:46:25.376 PM	00.047
6	4	1	-437459	-26.078	0	-26.361	04/04/2011	01:46:25.376 PM	00.047
7	5	1	-441764	-26.335	0	-26.361	04/04/2011	01:46:25.376 PM	00.047

4. How can I use the USB device with LabVIEW?

You can get a LabVIEW 7.1 example and DLL file from the USB support section of our website. When using the DLL files they must be in the same directory as the VI files.

5. How can I calculate the engineering units using the commands in the DLL?

$$\text{Reading in Engineering Units} = \left(\frac{\text{Normal_Data_Request} - \text{Get_Offset_Value} - \text{Tare}}{\text{Get_Fullscale_Value} - \text{Get_Offset_Value}} \right) * (\text{Get_Fullscale_Load} * 10^{(-\text{Get_Decimal_Value})})$$

- a. Tare is used to Zero the Reading when no load is applied to the sensor
 - i. Tare = (Normal_Data_Request) – (Get_Offset_Value)
 - ii. If you do not want to use a Tare Function then just set Tare = 0
- b. Capacity is defined on the sensor’s datasheet. For a more accurate value, refer to the equation below. This is the value stored on the USB device.
 - i. Capacity = (Get_Fullscale_Load) x 10^(-Get_Decimal_Value)

6. How can I get ASCII output from the USB device?

- a. Open HyperTerminal
- b. Select the appropriate COM port and press OK
- c. Select the following settings and press OK
 - i. Bits per second: any
 - 1. Note: select a higher bps value in order to capture higher speeds from the USB device
 - ii. Data bits: 8
 - iii. Parity: None
 - iv. Stop bits: 1
 - v. Flow control: None

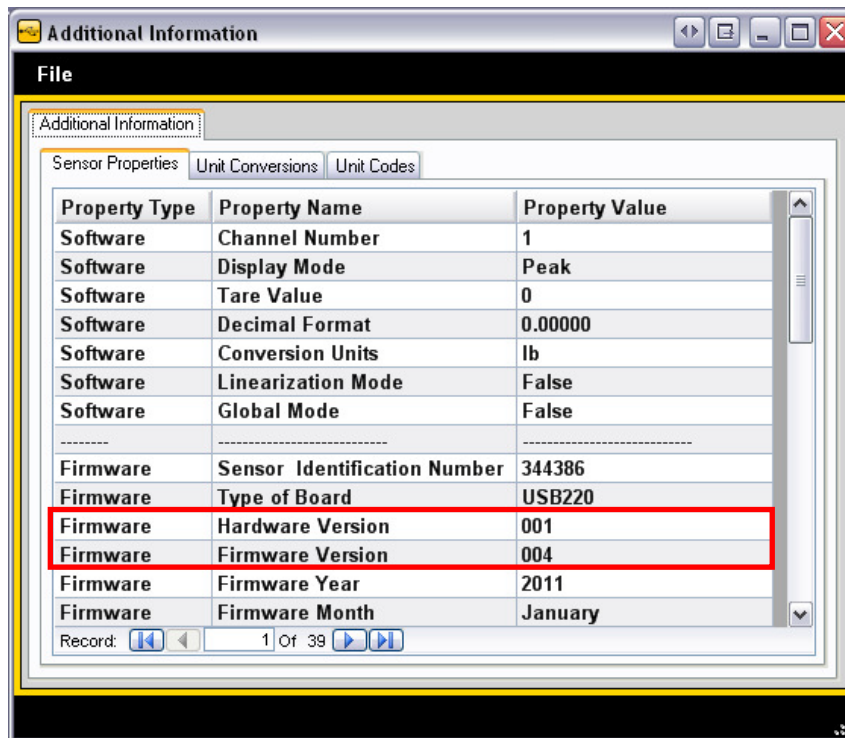
7. How is my USB device calibrated?

A FUTEK **system** calibration (with load cell) includes a 5 point calibration and engineering units stored in the USB device. As a result, the Scale Method cannot be used.

A FUTEK **standard** calibration (with high precision reference) results in a 2 mV/V calibration and engineering units in mV/V stored in the USB device. A mV/V calibration can be used with the Scale Method.

8. Is my USB device capable of fast data request or streaming ASCII output?

Any version of the hardware can be loaded with the latest version of the firmware. A USB device loaded with firmware version 4 or higher is capable of fast data request and streaming ASCII output. To check what hardware and firmware version you have, go to Help and click on Additional Information. If you would like a firmware upgrade, please contact FUTEK and request for an RMA.



The screenshot shows a window titled "Additional Information" with a menu bar containing "File". Below the menu bar are three tabs: "Sensor Properties", "Unit Conversions", and "Unit Codes". The "Sensor Properties" tab is active, displaying a table with the following data:

Property Type	Property Name	Property Value
Software	Channel Number	1
Software	Display Mode	Peak
Software	Tare Value	0
Software	Decimal Format	0.00000
Software	Conversion Units	lb
Software	Linearization Mode	False
Software	Global Mode	False

Firmware	Sensor Identification Number	344386
Firmware	Type of Board	USB220
Firmware	Hardware Version	001
Firmware	Firmware Version	004
Firmware	Firmware Year	2011
Firmware	Firmware Month	January

At the bottom of the table, there is a "Record:" label followed by navigation icons and the text "1 Of 39".