

# MadgeTech 4 Software User Guide:

## Getting to Know the Software:

Here is a starting screenshot of the MadgeTech 4 software. As you can see in the figure, there are three main tabs in the top left. In the bottom left are the different data logger channels. Also in the bottom left are the options for displaying thermocouple data or internal temperature data (see Figure 2).

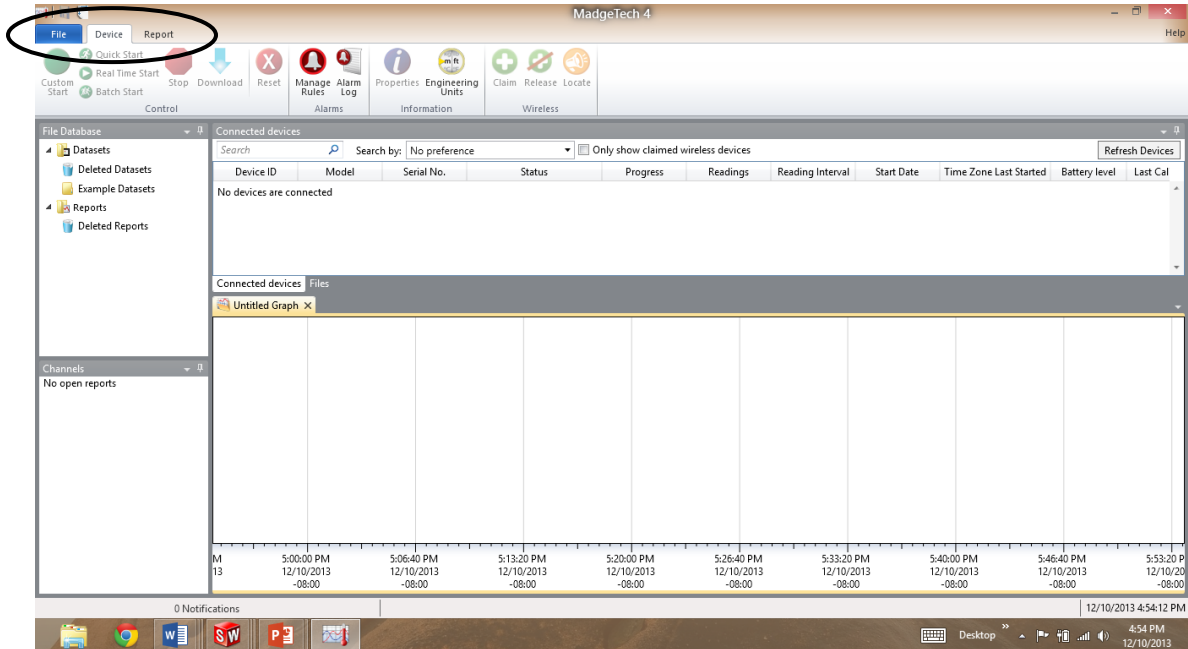


Figure 1. General starting view of MadgeTech 4 software. Circle at top are the three tab options.

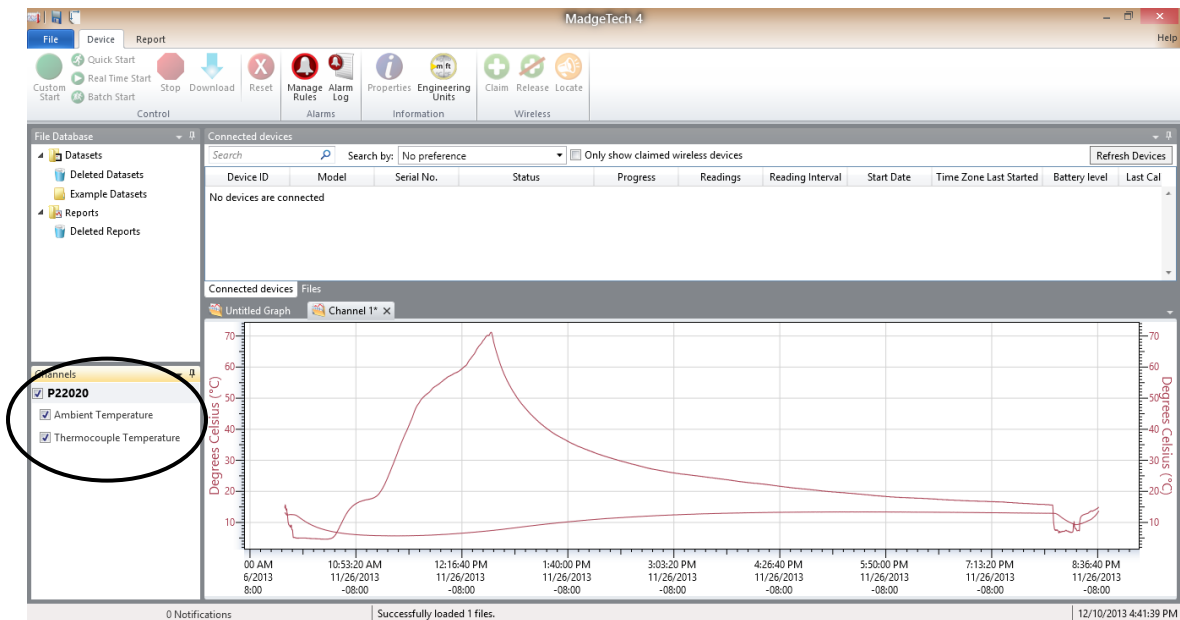


Figure 2. Click the check boxes to view or not view the internal temperature or the thermocouple measured data.

The "File" tab is where one can save and load.

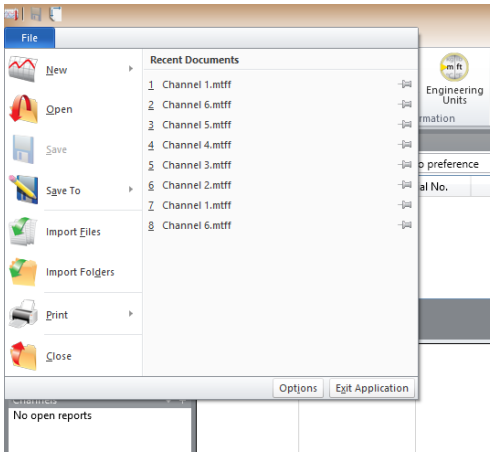


Figure 3. Screenshot of “File” tab options.

The “Device” tab, shown in Figure 1, has the start button, stop button, and download button.



Figure 4. Screen shot of the “Device” tab features.

The “Report” tab, shown in Figure 2, has the generate plot button, the generate table button, and export to excel button.

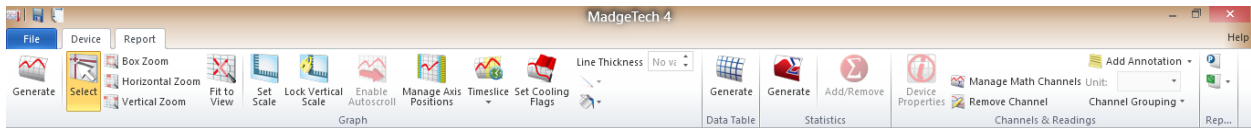


Figure 5. Screen shot of the “Report” tab features.

## How to do a data logger batch start:

**What is a batch start?** A batch start is when you want to start multiple data loggers at the same time with the same settings.

**Step 1:** Open up the MadgeTech 4 data logger software.

**Step 2:** Plug in a single data logger using the provided cable (see figure 6). One end goes into the USB port on your computer and the other end into the data logger.



Figure 6. MadgeTech connector cable.

**Step 3:** Click the “Batch Start” button under the device tab (see Figure 7).

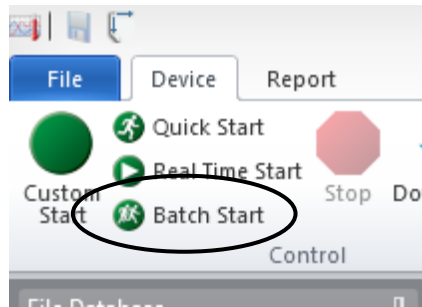


Figure 7. Showing “Batch Start” button

**Step 4:** Configure batch Start settings including start and stop time as well as read rate.

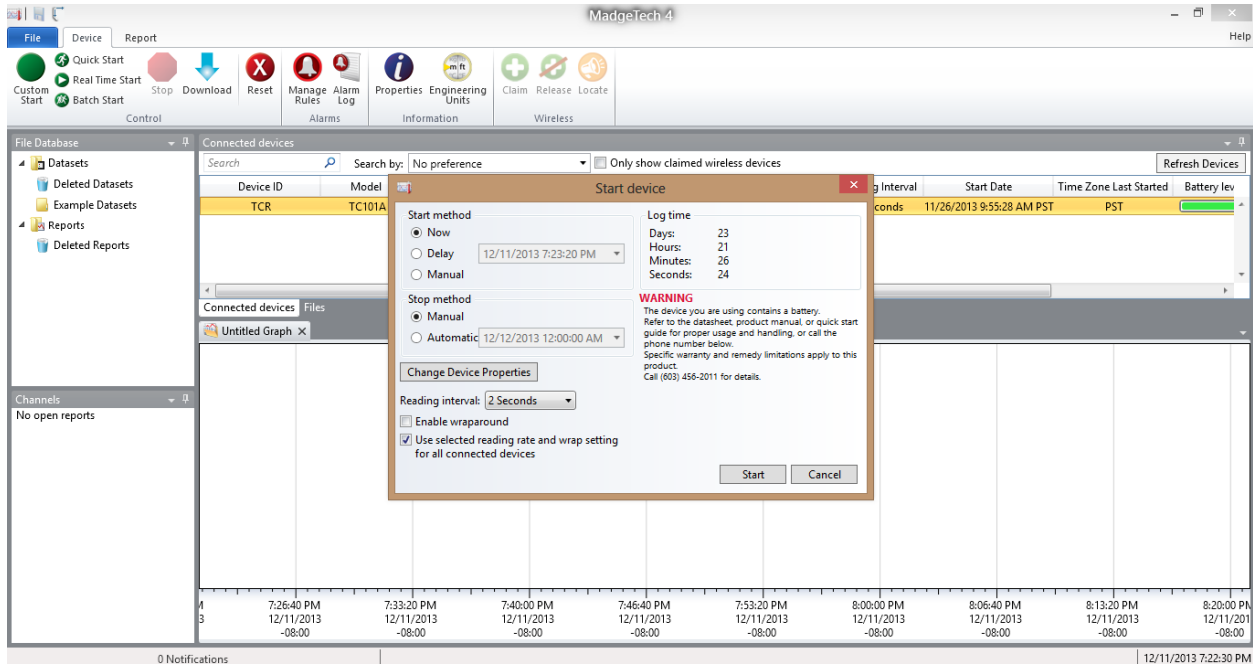


Figure 8. Batch start settings menu.

**Step 5:** From the batch start settings window you can click the “Change Device Properties” (see Figure 9) to get the advanced options for the data logger settings such as change thermocouple type as well as set thermal triggers to start the data loggers (see Figure 10). You can change the device ID in the “Change Device Properties” under the general tab (see Figure 11),

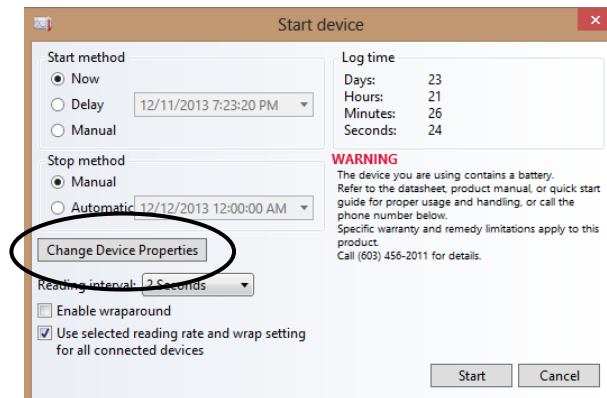


Figure 9. The “Change Device Properties” button.

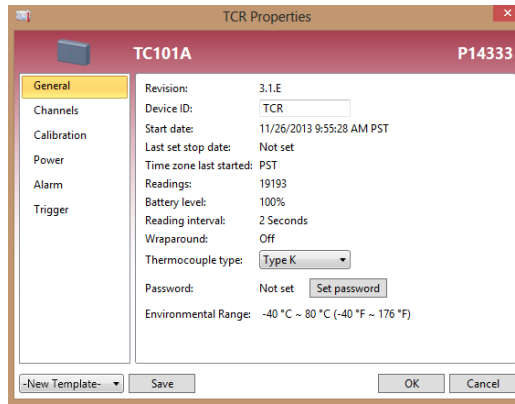


Figure 10. The “Change Device Properties” pop-up menu.

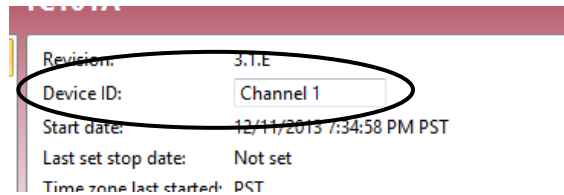


Figure 11. Change Device ID.

**Step 6:** You will then need to plug each data logger in. Wait for the screen to display “Starting” wait for a few second for the program to configure the setting and start the data logger. When the data logger is done, the screen will say “Started” (see Figure 12). When this happens the data logger can be unplugged and the next can be plugged in. Repeat this for all the data loggers you will be using. Once all the data loggers are started click “Stop and close” and they are now ready to go.

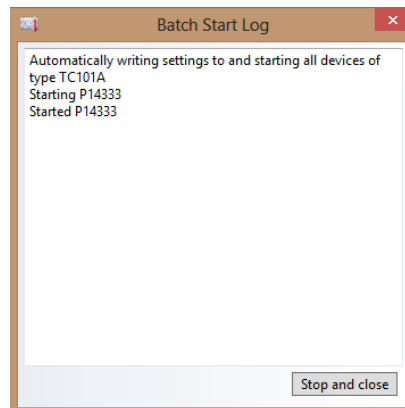


Figure 12. Batch Starting log showing the started device.

## How to download the data from the data loggers:

**Step 1:** Turn on the MadgeTech 4 software.

**Step 2:** Plug the data logger you want to download the data from using the provided cable (see Figure 6 above).

**Step 3:** On the “Device” tab click the “Stop” button shown in Figure 13.

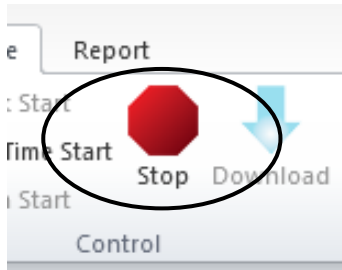


Figure 13. Showing "Stop" button.

**Step 4:** Also, on the "Device" tab click the "Download" button shown in Figure 14.

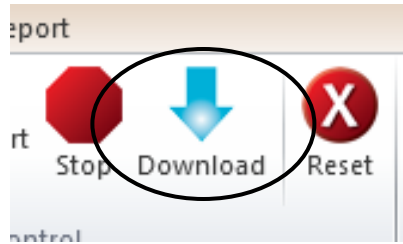


Figure 14. Showing "Download" button.

## Accessing data and exporting to Excel:

**Step 1:** Click the device you want the data from on the list under "Connected Devices" (see Figure 15). The graph will then display in the graph lower right (see Figure 16). You can also change between already open graphs using the graph tabs at the top of the graph (see Figure 17).

Device ID	Model	Serial No.	Status	Progress	Readings	Reading Interval	Start Date	Time Zone	Last Started	Battery lev
TCR	TC101A	P14333	Stopped		142	2 Seconds	12/11/2013 7:34:58 PM PST	PST		

Figure 15. List of "Connected Devices." Can click on channel you are interested in to display data.

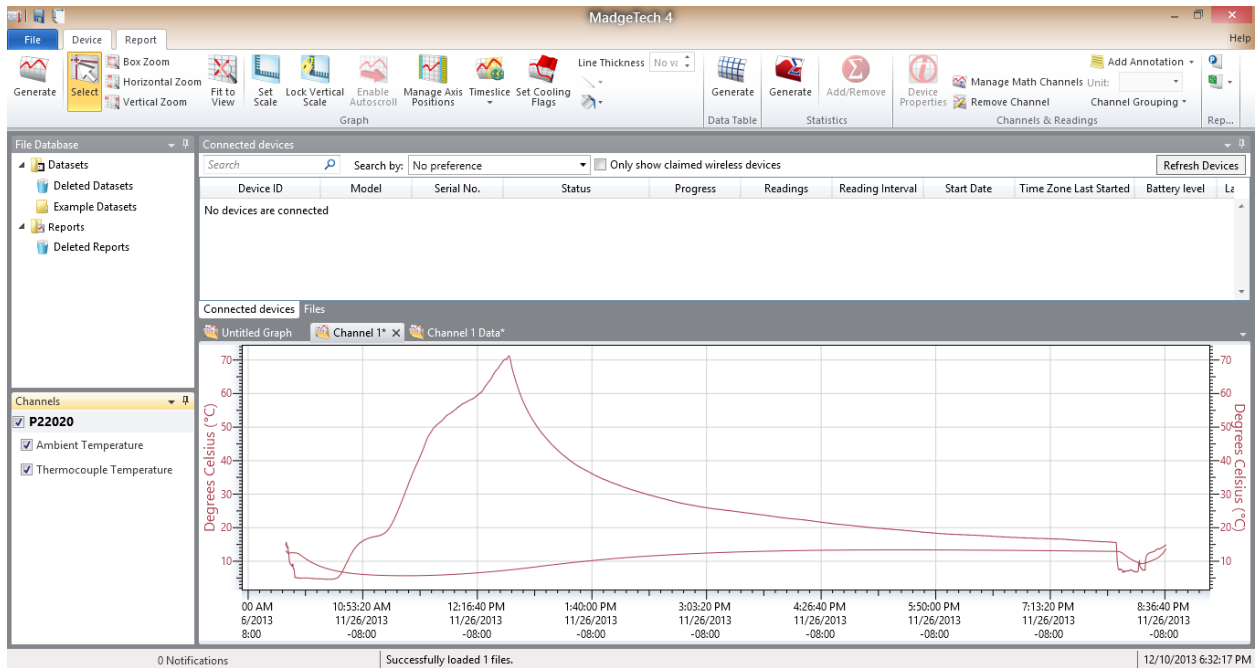


Figure 16. Showing view of graphs.

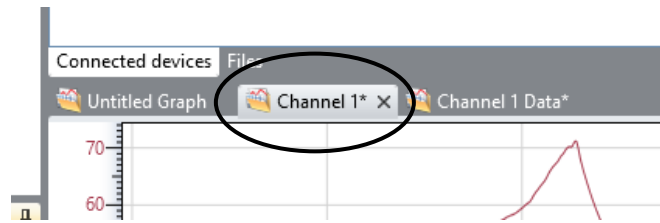


Figure 17. Tabs to switch between open graphs.

**Step 2:** You can click the checkboxes to display the internal temperatures and/or the thermocouple graphs that you want to view under the “Channels” pane (see Figure 18).

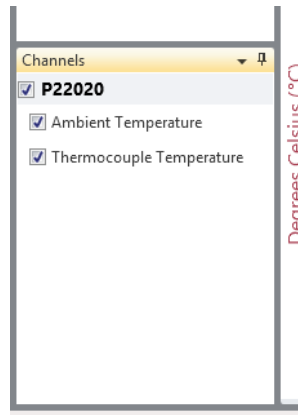


Figure 18. Check boxes to display internal temperatures and/or thermocouple temperatures on the graph.

**Step 3:** Under the “Report” tab, you can generate a data table in the MadgeTech interface using the “Generate” button (see Figure 19). Generating a data table in MadgeTech will result in a look like Figure 20.

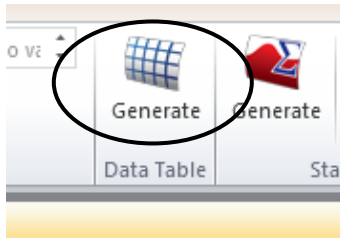


Figure 19. Generate data table button.

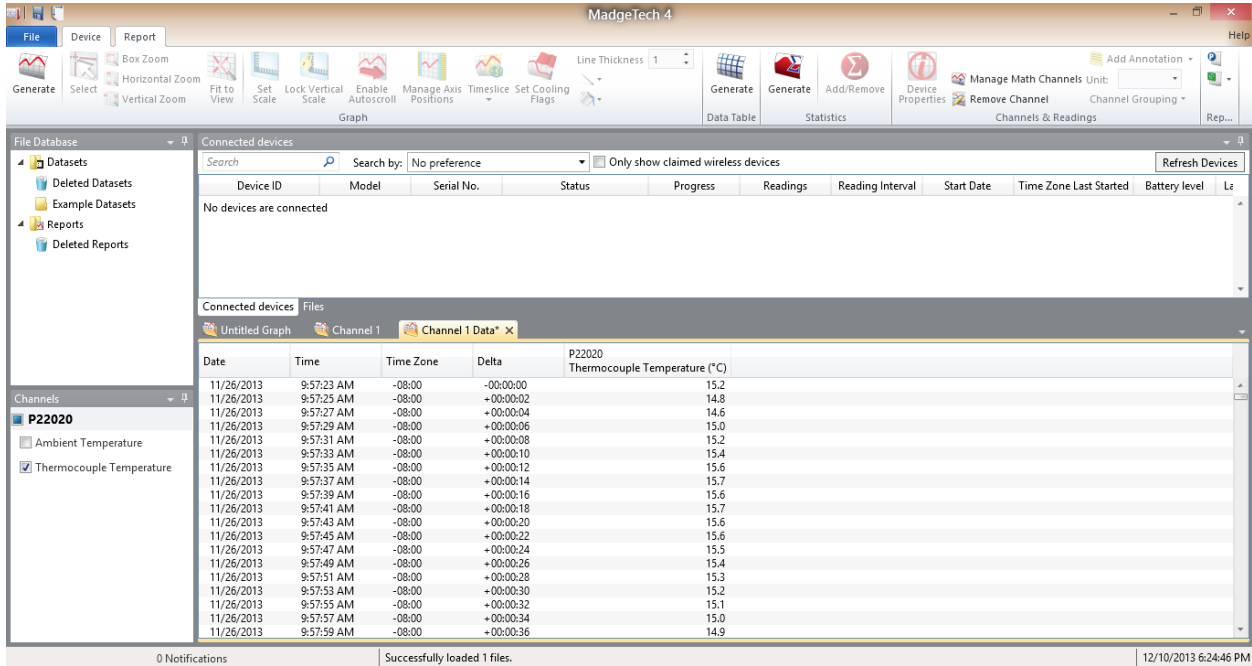


Figure 20. Screenshot of MadgeTech interface with a data table.

**Step 4:** The alternative to Step 3 is to export the data to Excel. In the “Report” tab, you can click the Excel icon on the far right top of the screen to export to Excel (see Figure 21). This will result in the data being sent to an Excel file as seen in Figure 22.

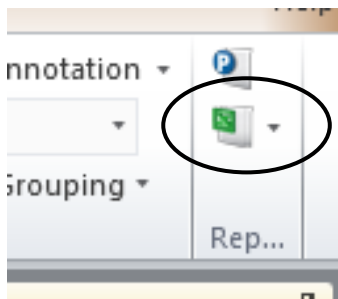


Figure 21. Export to Excel button.

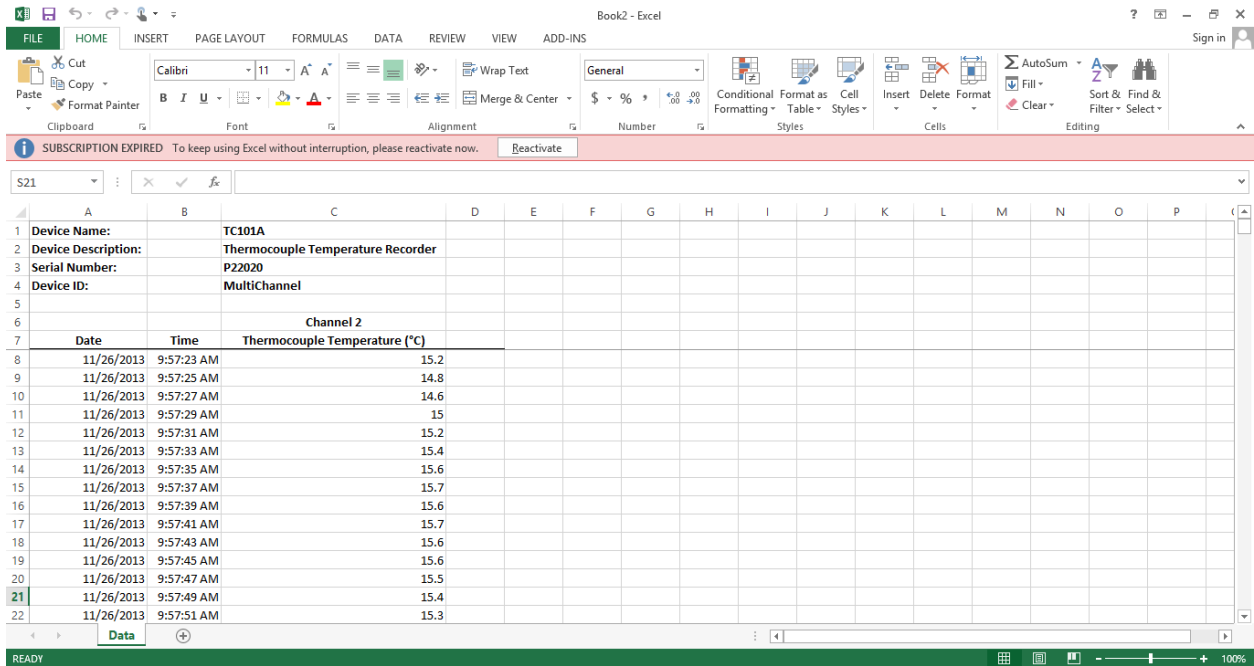


Figure 22. View of data exported to Excel.