

## Analyzing data using Vernier DataQuest® (Tutorial F2)

[http://www.atomiclearning.com/k12/en/movie/85870/play\\_window?type=Tutorial&sid=2410](http://www.atomiclearning.com/k12/en/movie/85870/play_window?type=Tutorial&sid=2410)

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The Vernier DataQuest application has numerous tools for analyzing data that you've collected. I'll collect some

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data by first pressing the Home key, and then selecting the Vernier DataQuest icon at the bottom. This inserts

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the application into a new document. I'm using the Easy Temp Temperature sensor, so I'll plug it into my handheld's

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mini USB port. I'm currently in Meter View, the Meter tab is selected on the left side, and I see a read out from

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my connected sensor over to the right. Before I begin collecting data, I'll use the prediction tool to draw a prediction

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of the data that I'm going to collect. To do this, I'll first need to select the Graph view by moving the pointer

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to the Graph view icon on the left side, and pressing the click key to select it. I'll then press the Menu key, choose

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Analyze, Draw Prediction, followed by Draw. That gives me a pencil tool that I can use to draw my prediction. I'll

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move the tool to the lower left corner, and press the click key to add a point. Next I'll use the touchpad to draw

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a line towards the upper right corner. I'm predicting the temperature data I'm collecting will increase over time.

# TI-Nspire™ Handheld Script

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I'll then press the click key again, to add a second point.  
Next I'll press the Esc key, to remove the pencil tool.

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To begin data collection, I'll use the Touchpad to highlight  
the Start Data Collection icon in the lower left corner.

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It looks like a little Play button. Now I'll press the  
click key, and this will begin taking measurements and

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adding data points. Once I'm done collecting data, I can  
just press the click key again. I can see that the data

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was successfully captured. And now I can compare the collected  
data to the prediction that I drew. In Graph view, I can

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start analyzing the data I've collected. I'll press the  
Menu key, and then select Analyze. The next menu shows

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us a list of tools we can use to analyze our data. I'll  
choose Statistics. In the dialog box that opens up I can

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see information about the temperature data I collected,  
including the minimum, maximum, and mean temperature. Once

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I've viewed this information, I can press Enter to close  
the dialog box. I can always view that information again

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at any time right in the Graph View, by moving the pointer  
over to the left side and pressing the Click key to open

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Stats. Then, I can use the down arrow to scroll and see  
all of that information. I'll press the Menu key again,

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choose Analyze, and this time, choose Curve Fit, I want a linear regression, so I'll choose Linear. In the dialog

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box that opens up, I can view the information. Once I've viewed this, I can press the Enter key to close the dialog

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box. I can always view the regression information again at any time in the Graph View, by moving the pointer over

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to the left side and pressing the Click key to open Fit Linear. Sometimes there might data that you'd like to omit.

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This may occur at the beginning or end of your data run. You have the option to strike data inside or outside a

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defined region. First I'll define a region by moving into the graph, and pressing and holding the click key for a

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little longer than a second. Then I can drag across the touchpad to create my region, and press the click key again

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to define it. Now I'll press Ctrl, and then Menu, choose Strike Data, and for my example, I'll choose Outside Selected

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Region. The data outside the region is then omitted. I can see this more clearly by changing to Table view, I'll

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move the pointer to the icon toward the upper left corner, and press the click key. In Table view, we can now see

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the data points crossed out. These points are no longer considered in the analysis.

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