

Using the Conductivity Probe in the Lab

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MGP 7/25/25

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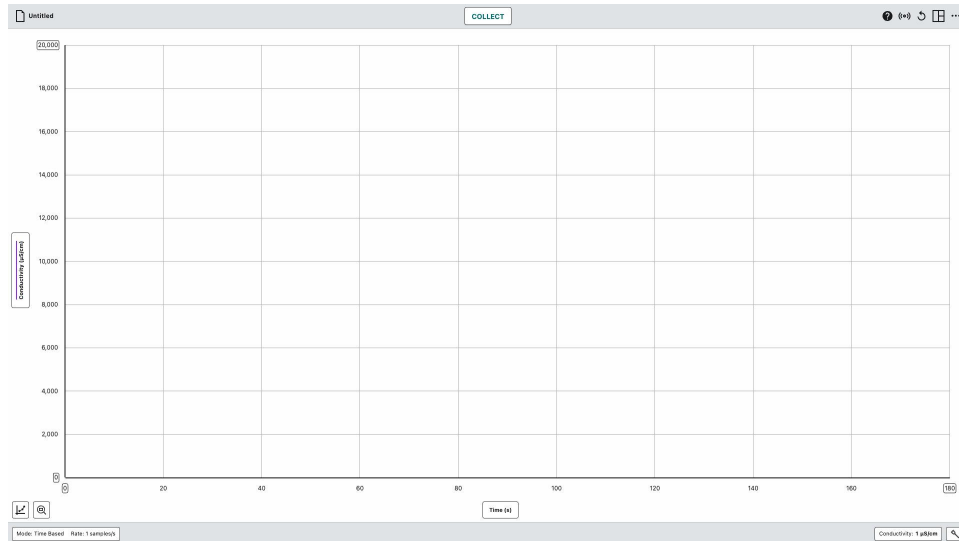
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Open the data acquisition program on your PC

1. Search for “Vernier Graphical Analysis” in the search bar of Windows.

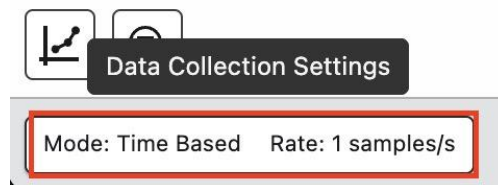
Plug the Conductivity Meter into the PC

1. Set the Conductivity Meter to the desired sensitivity by using the toggle switch
 - a. Typically you will use the 0-20000 μS setting
2. Connect the Conductivity Meter to the Go!Link cable
3. Connect the Go!Link cable to the computer and Vernier Graphical Analysis will automatically recognize the device
 - a. If it does not select the “Sensor Data Collection” option from the default menu
4. If successful a window will pop up like the one below

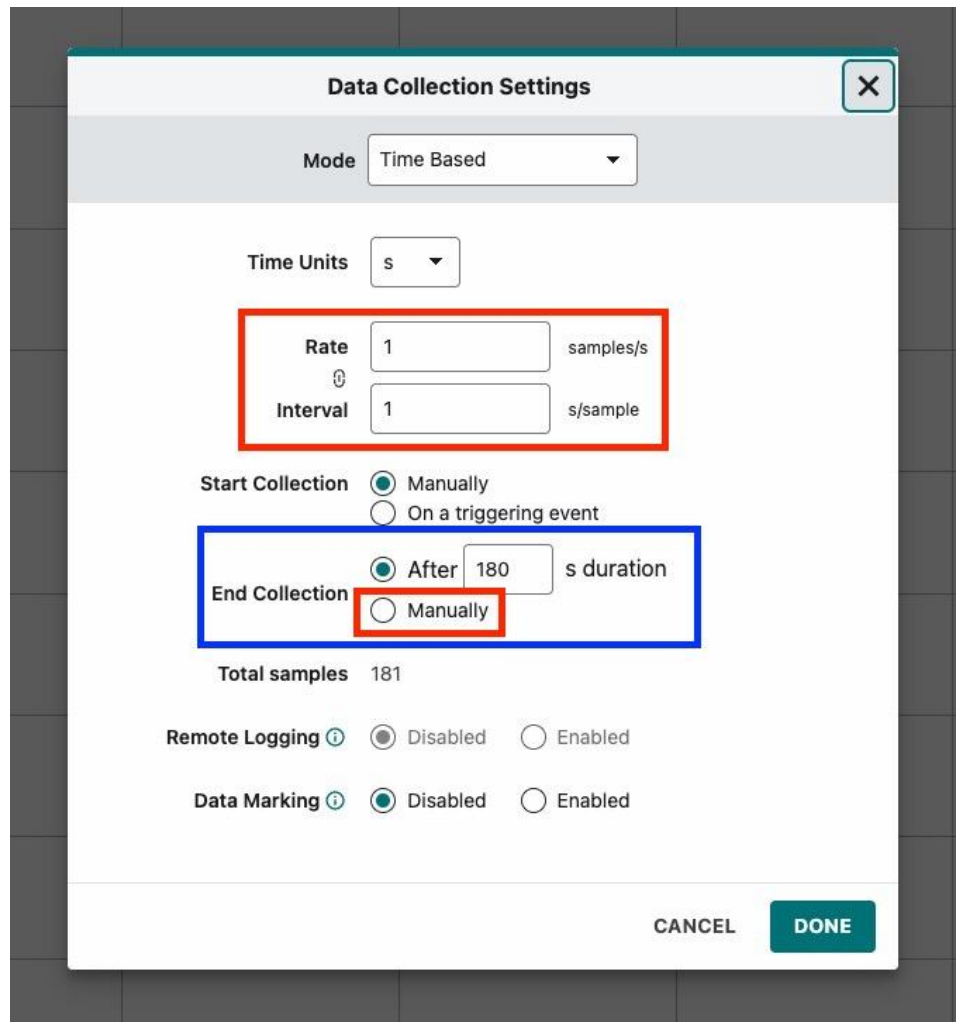


Program the Desired Data Collection Settings

1. Open the Data Collection Settings Panel by clicking on the Mode box located bottom left shown below



- This will open the Data Collection Settings Panel shown below



The image shows a 'Data Collection Settings' dialog box. At the top, there is a 'Mode' dropdown set to 'Time Based'. Below it, 'Time Units' is set to 's'. A red box highlights the 'Rate' and 'Interval' fields, both set to '1'. The 'Rate' is labeled 'samples/s' and the 'Interval' is labeled 's/sample'. Under 'Start Collection', the 'Manually' radio button is selected. A blue box highlights the 'End Collection' section, which has two options: 'After 180 s duration' (selected) and 'Manually' (highlighted with a red box). Below this, 'Total samples' is displayed as '181'. At the bottom, there are 'Remote Logging' and 'Data Marking' sections, both with 'Disabled' selected. 'CANCEL' and 'DONE' buttons are at the bottom right.

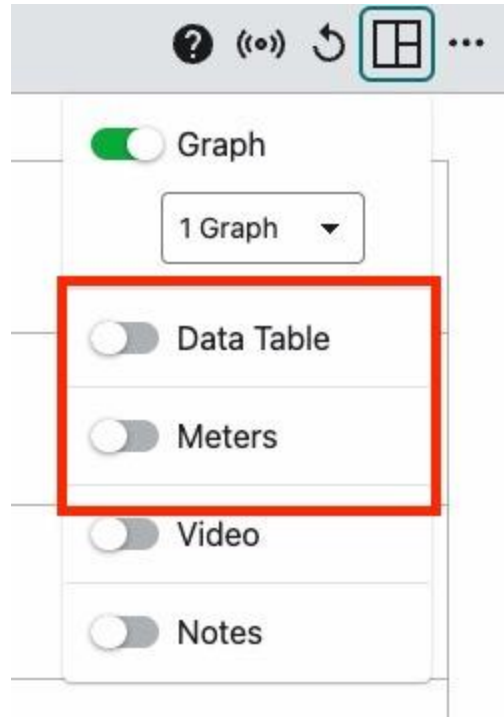
- Set the Rate to 1 sample/s
- Check the radio button for End Collection Manually or set the total time in seconds for the experiment
- Select the "Done" button to Save changes

Adjust your views

- Select the View Options Icon in the top right of the screen shown below



- Select Data Table and Meter in the View Options Menu shown below



Running an Experiment

1. Once you have programmed your settings and adjusted your views, you are ready to run your experiment.
2. When you are ready, Select the “Collect” button located at the top of the application.
3. The program will automatically stop after it reaches the total number of points set in the data collection setting or you can stop the experiment at any time by hitting the “Stop” button which replaces the “Collect” button
 - a. NOTE: In Time Based Mode each time you select Collect you will create a new data set

Exporting/Saving Data

After completing an experiment, you can save and export it as a CSV to be analyzed elsewhere

Using Cut, Copy, and Paste Tools

Select Cells

- Click or tap a single cell.
- To select a range of cells, click-and-drag or touch-and-drag.
- To select a single row, click or tap a row number.
- To select a range of rows, click-and-drag or touch-and-drag along the row numbers.
- To select a single column, click or tap a column header.
- To select a range of columns, click-and-drag or touch-and-drag across the column headers.
- To select a single data set, click or tap a data set header.
- To select a range of data sets, click-and-drag or touch-and-drag across the data set headers.

Copy to Clipboard

- Windows®: Right-click and select Copy (or Ctrl-C)
- macOS®: Command-C (⌘-C)

Cut (and Copy to Clipboard)

- Windows: Right-click and select Cut (or Ctrl-X)
- macOS: Command-X (⌘-X)

Paste from the Clipboard

- Windows: Right-click and select Paste (or Ctrl-V)
- macOS: Command-V (⌘-V)

Saving

- Click or tap  and choose Save to save your Vernier Graphical Analysis file as a gamble file

Exporting Graph Image

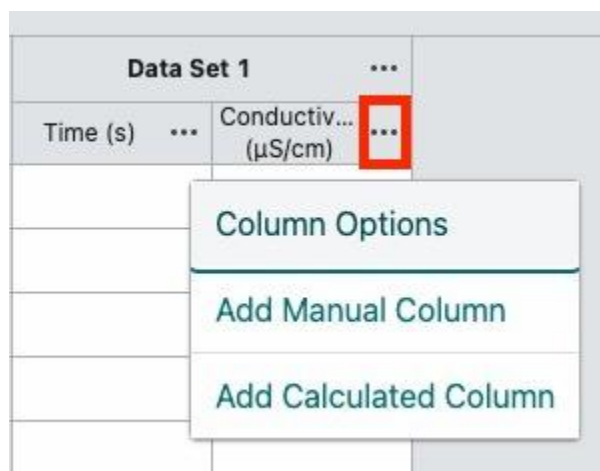
1. Click or tap  and choose Export to export your Spectral Analysis graph as an image file (.png)
2. Make any adjustments to line shading, label size, and graph shape, then click or tap SAVE PNG

Exporting CSV File

1. Before exporting as a CSV file, make sure to save as a gamble file in the event of a crash during data export.
2. Click or tap  and choose Export to export your Spectral Analysis graph as an image file (.png)
3. Select the appropriate decimal format for your data, then click or tap SAVE CSV to save the file.

Creating a Calculated Column for a Calibration Curve

1. Select the ellipses next to your data column then select “Add Calculated Column” as shown below



2. This brings up the Add Calculated Column Dialog Box shown below
3. Make sure to
 - a. Name your column
 - b. Add the Desired Units
 - c. Select the precision of column
4. Select the “Insert Expression” button. This brings up an additional dialog box with preset expressions. If you see the expression you want, select that option. Otherwise select “Custom Expression”
 - a. When using a custom expression you have to put the name of the column in quotes to reference it, e.g. 3*"Conductivity"+2

Quick Tips

1. Double click anywhere on the plot to automatically scale the window to the data
2. Click and drag to select a portion of the data you wish to analyze or annotate

Advanced Settings

1. Review the Vernier Graphical Analysis user manual posted ([here](#)) and on our website for further abilities and tools