Analyzing Captured Datalogger Data

There are a number of tools built into the graph window to allow the analysis of captured data.



Values

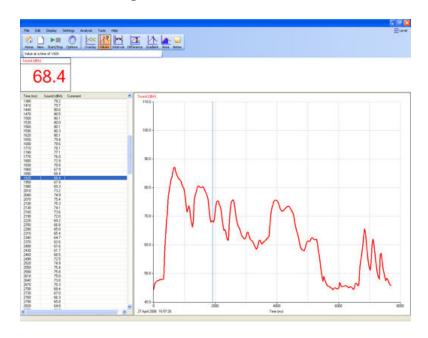


Select the **Values** icon and move the mouse pointer into the graph area. A cursor will appear which can be moved around the graph using the mouse.

Position the cursor at the point where information from the data is needed. The corresponding value will be shown in the data value box and highlighted in the table. The information box will indicate the time of the selected data point.

If the X-axis is a sensor, the cross hair cursor lines indicate what the value from the sensors would be if they crossed at the cursor point.

Click on the Values icon again to deselect.



Interval



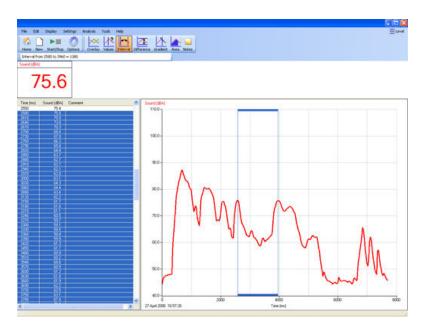
Select the **Interval** icon. Click on the first point on the graph, hold down and drag the mouse to the second point.

A box will be drawn around the section of graph and highlighted in the table.

The time of the first point, the time at the second point and the interval between them will be displayed just above the information box.

Click on the Interval icon again to deselect.

Click in the title area, just above the graph to deselect any selected readings.



Difference



Select the **Difference** icon. Click on the first reading to be used in the comparison, to give a fixed cursor at that point (shows as a brown or black line in the graph and table).

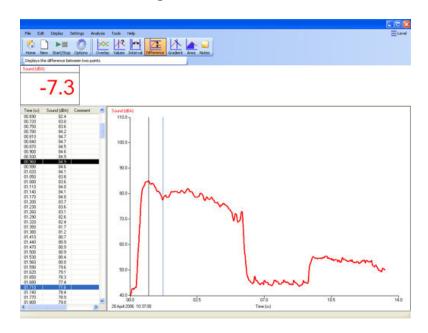
Note: Alternatively click on the first reading and then select the Difference icon.

Click on a second reading.

The values in the data boxes will show the difference between the data at the two points.

While Difference is still selected it is possible to repeatedly select a second reading to compare with the first.

Click on the Difference icon again to deselect.



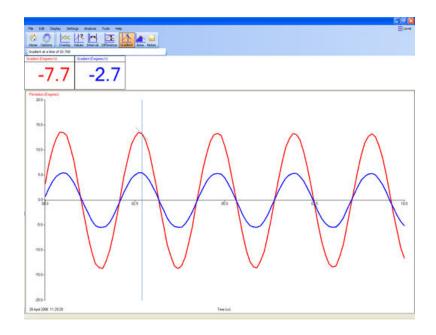
Gradient



This feature calculates the rate of change of data in the vicinity of the cursor. When the graph line is horizontal the gradient is zero and values are not changing. A positive gradient shows that values are increasing - the larger the gradient, the faster the change.

Click on the **Gradient** icon and a vertical cursor with a small line will appear to indicate the slope of the graph for whichever data channel is currently selected on the Y-axis. The gradient value for all data channels will be shown in the data value boxes.

Click on the Gradient icon again to deselect.



Area

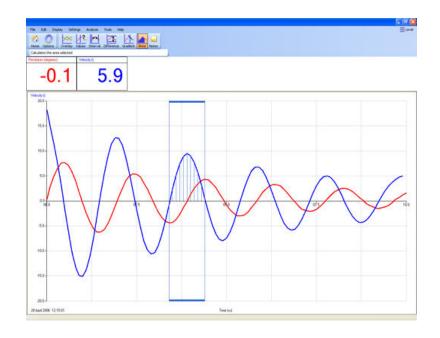


This feature is used to calculate and display the area under a chosen section of the graph.

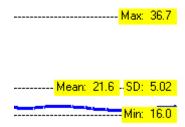
The calculation for area is performed on the data from all channels. The units correspond to the product of the Y and X-axis.

Click on the **Area** icon. Click on the first reading, hold down and drag the mouse across the appropriate section of the graph. Shading lines will mark the section under the graph for whichever data channel is currently selected on the Y-axis. The values for area will be shown in the data value boxes.

Click on the Area icon again to deselect. Click in the area above the graph to deselect any selected readings.



Show Statistics



Show Statistics calculates and displays statistical information about the data collected from the data channel currently selected on the Y-Axis.

Select the appropriate data channel on the Y-Axis. Select **Show Statistics** from the **Analysis** menu.

- Max (Maximum) the highest value reading
- Mean the arithmetic mean
- SD (standard deviation) the scatter of a series of measurements about their mean value
- Min (Minimum) the lowest value reading

If only a part of the original graph is selected (e.g. by using "Use selection") then the statistics will be calculated using the data from only the selected part of the graph.

To switch statistics off, deselect Show Statistics from the Analysis menu.