## Cursor Data Logging Tool

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This is a utility for transferring ("logging") measurements made with the cursors to waves of your choice. Begin with a graph of the waves you want to measure. From the Analysis menu, choose Log Cursor Info. This creates a table and a panel, and puts a button called "Log" on the

graph. If they were not already, the cursors are placed on the graph and the ShowInfo area of the graph is activated. You can drag the cursors by hand, use the ShowInfo arrows, or the fields on the panel to change the cursor position on the graph. The panel also has a button to swap the cursors.

Lo	g Cursor Valu	es			<u>- 0 ×</u>
Cursor A O 🕀 Cursor B O 🕀 Swap					
Use Cursor B Absolute Value					
$\mathbf{x} \in \mathbf{X}$	None	▼ DeltaX	None 💌	Avg.	None 💌
Y	None	▼ DeltaY	None 💌	SD	None 💌
Point	None	<ul> <li>Delta Point</li> </ul>	None 💌	SEM	None 💌
Wave Name None 💌					

Using the panel you can select which waves you want to log the measurements to. There are 10 things that can be logged, with a wave selecting popup for each one. These popups let you choose "None" for no logging, "New" to create a new wave, or any other wave of the appropriate type. Waves with names beginning with "Log" are listed first, and this is given as the default for new wave names, but you may use any name. Waves you select are placed on the table so you can check the output as you go.

Those first column log information about the A cursor (the round one). These are the X value, Y value, point value, and the name of the wave. However, you may choose to log the data from the B cursor with the checkbox above this column. The waves selected in the second column log information about the difference ("delta") between cursor A and B (i.e. the value will be the B value – the A value). However, you may choose to always log the absolute value with the checkbox above this column. If the cursors are on different waves the data are from the waves each cursor is on. This contrasts with the behavior of the logging parameters in the third column, which measure the statistics of the wave the A cursor is on between the cursors. (The wave being measured can be taken from the B cursor if the Use Cursor B checkbox is on.) If the B cursor is on a different wave, its point value will be used for the measurement. In most cases this *will not* be what you want, so for these measurements you will likely want to be sure that both cursors are on the same wave.

When you have the logging waves set and the cursors where you want them, you simply press the "Log" button on the graph to transfer the measurements to the waves. Now you can quickly move the cursors and measure repeatedly. If you would like to change the logging waves you can do this at any time. Any time you try to log data to waves of different length, the shorter waves are filled in so that all logged data from a particular setting goes in the same row in all the waves. Once you have logged data, a button "Erase Last" appears on the panel. This lets you erase the last logged value. There is only the ability to undo once, and it is lost once you make any settings changes. Of course you can always delete values from the waves on the table by hand.

## Known issues:

- Is not aware of multiple instances of the same wave on a graph, or of data folders.
- If you try to select a wave that is already in use for logging another parameter you won't be allowed to use it (good) but the popup will indicate that wave anyway.