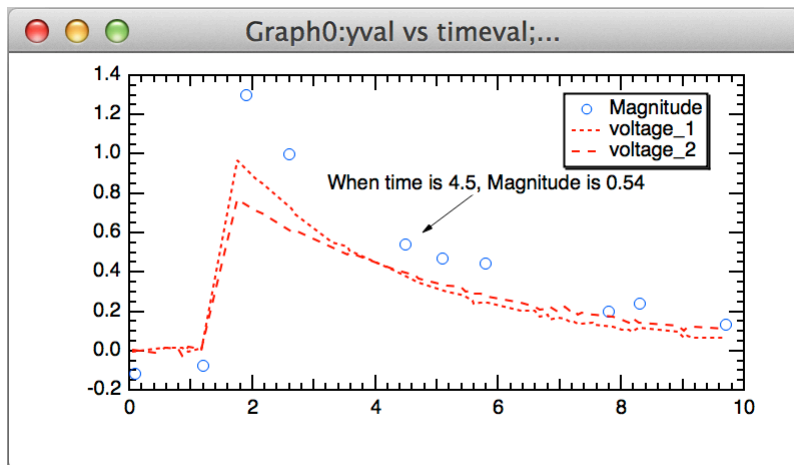8.   **Choose dashed line #2 from the Line Style pop-up menu.**

9.   **Select voltage_2 in the list of traces.**

10.   **Choose dashed line #3 from the Line Style pop-up menu.**

11.   **Click Do It.**

The graph should now look like this:

Offsetting a Trace

1.   **Position the cursor directly over the voltage_2 trace.**

The voltage_2 trace has the longer dash pattern.

2.   **Click and hold the mouse button for about 1 second.**

An XY readout appears in the lower-left corner of the graph and the trace will now move with the mouse.

3.   **With the mouse button still down, press Shift while dragging the trace up about 1 cm and release.**

The Shift key constrains movement to vertical or horizontal.

You have added an offset to the trace. If desired, you could add a tag to the trace indicating that it has been offset and by how much. This trace offset does not affect the underlying wave data.

Unoffsetting a Trace

4.   **Choose the Edit→Undo Trace Drag menu item.**

You can undo many of the interactive operations on Igor windows.

5.   **Choose Edit→Redo Trace Drag.**

The following steps show how to remove an offset after it is no longer undoable.

6.   **Double-click the voltage_2 trace.**

The Modify Trace Appearance dialog appears with voltage_2 selected. (If voltage_2 is not selected, select it.) The Offset checkbox is checked.

7.   **Click the Offset checkbox.**

This turns offset off for the selected trace and the offset controls in the dialog are hidden.

8.   **Click Do It.**

The voltage_2 trace is returned to its original position.

Drawing in a Graph

1.   **If necessary, click Graph0 to bring it to the front.**

2. **Choose the Graph→Show Tools menu item or press Command-T (*Macintosh*) or Ctrl+T (*Windows*).**

   A tool palette is added to the graph. The second icon from the top ( ) is selected indicating that the graph is in drawing mode as opposed to normal (or "operate") mode.

3. **Click the top icon ( ) to go into normal mode.**

   Normal mode is for interacting with graph objects such as traces, axes and annotations. Drawing mode is for drawing lines, rectangles, polygons and so on.

4. **Click the second icon to return to drawing mode.**
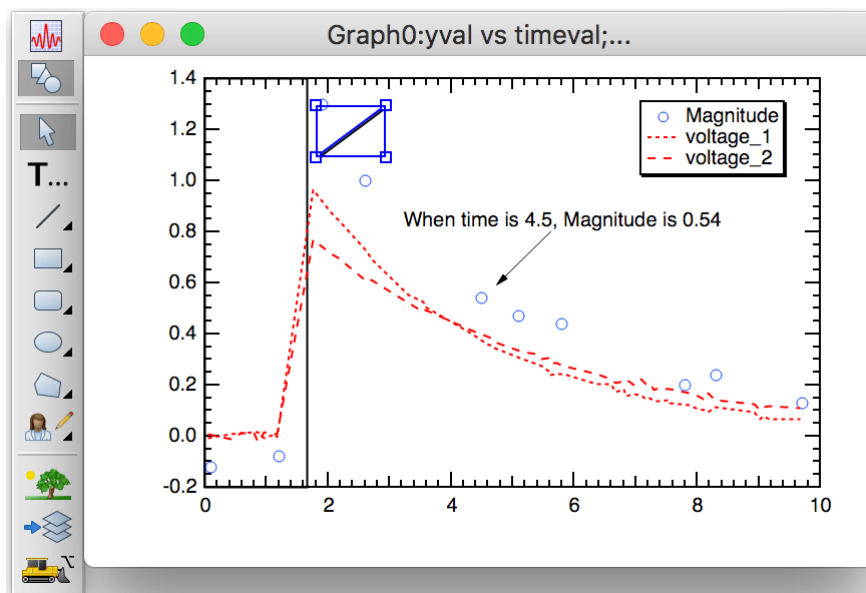
5. **Click the drawing layer icon .**

   A pop-up menu showing the available drawing layers and their relationship to the graph layers appears. The items in the menu are listed in back-to-front order.

6. **Choose UserBack from the menu.**

   We will be drawing behind the axes, traces and all other graph elements.

7. **Click the rectangle tool and drag out a rectangle starting at the upper-left corner of the plot area (y= 1.4, x=0 on the axes) and ending at the bottom of the plot area and about 1.5 cm in width (y= -0.2, x= 1.6).**

8. **Click the line tool and draw a diagonal line as shown, starting at the left, near the peak of the top trace, and ending at the right:**

9. **Click the drawing environment icon ( ) and choose At Start from the Line Arrow item.**

10. **Click the Text tool icon T... .**

11. **Click just to the right of the line you just drew.**

    The Create Text dialog appears.

12. **Type "Precharge".**

13. **From the Anchor pop-up menu, choose Left Center.**

14. **Click Do It.**