Subject: Re: Button_events and data

Posted by David L. Windt on Wed, 25 Feb 1998 08:00:00 GMT

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<P>Bernard Puc wrote:

<BLOCKQUOTE TYPE=CITE>Hello,

<P> I'm looking for pointers on how to do the following: I have a line

plot in a draw widget. I want to click the pointer on the plot and have

a vertical line drawn at the nearest datapoint to the mouseclick.

 widget_draw returns the cursor location in device coordinates and I

need to translate that into dataspace coordinates.

 Going one step further, ideally, I'd like to have a vertical line

follow the cursor around the draw widget at all times, jumping from

datapoint to datapoint. I suspect someone has already written such a

thing...

<P>Any help appreciated.

<P>-Bernard Puc

puc@gsfc.nasa.gov</BLOCKQUOTE>

Assuming you're plotting X vs Y, and have captured a draw widget event

called EVENT...

<P>You can use CONVERT_COORD to first convert the draw widget event to
data coordinates:

<P>CC=CONVERT_COORD(EVENT.X,EVENT.Y,/DEVICE,/TO_DATA)

<P>You might then try my VALUE_TO_INDEX function to get the x data index

corresponding to the x value closest to the widget event (i.e., the

mouse click):

<P>X_INDEX=VALUE_TO_INDEX(X,CC(0))

<P>and then plot the vertical line using PLOTS:

<P>PLOTS,[0,0]+X(X_INDEX),!Y.CRANGE

- <P>To have a vertical line that follows the mouse around will require
-
a bit more work, but it could make use of the same methods as above.
- <P>VALUE_TO_INDEX, as well as all my other thrilling idl programs can be
found at <A</p>

HREF="http://www.bell-labs.com/user/windt/idl">www.bell-labs.com/user/windt/idl. In particular, you might

-
also be interested in TRACK_PLOT it doesn't draw lines, but it
-
provides live X and Y values in a text widget as you move the mouse
-
over an x,y plot. It might make a reasonable starting point for
-
doing what you want to do with vertical lines.
- <P>David Windt
-
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