Subject: IDLgrPlot and Widget event
Posted by Laurens on Fri, 25 May 2007 15:16:03 GMT
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Hi All,

After much irritation from not being able to write a universal class for drawing every kind of curve, (as usual) David's suggestion to me a few months ago did the trick;

All measures are normalized to 0->1 so Axis, Curve/Plot and Symbols, all are scaled to that 0-> scale; the curve draws fine.

Now, I am catching the MOTION event from the mouse cursor; I want to have something like a crosshair to accentuate the position of the mouse cursor (see link for example img).
Catching the event and drawing the polylines almost goed well, except for the fact that I don't seem to be able to position the lines at the right place. I guess this has to do since the event.x delivers me the pixel-position on the widget, say 98. But 98 is a bit tough to fit onto a scale of 0->1.

So the actual question: how do I get from an event.x or event.y to a position in my normalized plot?

Code I now have:

```
 ============================================================ ==
*xAxis->GetProperty, CRange=xrange
*yAxis->GetProperty, CRange=yrange

self.View->GetProperty, VIEWPLANE_RECT = viewplane

position = [0.20, 0.15, 0.925, 0.925]

xs = Normalize(xrange, Position=[position[0], position[2]])
ys = Normalize(yrange, Position=[position[1], position[3]])

; Scale the plot data and axes into 0->1.

*(xLine)->SetProperty, XCoord_Conv=xs
*(yLine)->SetProperty, YCoord_Conv=ys

fraction = 1 ; ??? <-- how to get something useful here...

scaledX = mean( event.x )
scaledY = mean( fraction * event.y )
```

; Plot lines
*(xLine)->SetProperty, Color=self->Get("Ccrosshair"), Thick=1,
DATA=[[scaledX, yrange[0], 0], [scaledX, yrange[1], 0]]

*(yLine)->SetProperty, Color=self->Get("Ccrosshair"), Thick=1,
DATA=[[xrange[0], scaledY, 0], [xrange[1], scaledY, 0]]
 ========== ====

Look at the img to get my point:
http://sophorus.mine.nu/idlgrplot_cursorpos.jpg

If someone with a fresh mind has any suggestions: please...

Thanks a bunch..

Laurens

Subject: Re: IDLgrPlot and Widget event
Posted by David Fanning on Fri, 25 May 2007 16:03:20 GMT
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Laurens writes:

> After much irritation from not being able to write a universal class for
> drawing every kind of curve, (as usual) David's suggestion to me a few
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>
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> a scale of 0->1.
>
> So the actual question: how do I get from an event.x or event.y to a
> position in my normalized plot?

Unless I am missing something terribly obvious, don't you
just divide the point by the size of the window in pixels
to get the normalized location?

```
  dims = oWindow -> GetDimensions()
  xNormal = event.x / Float(dims[0])
  yNormal = event.y / Float(dims[1])
```

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: IDLgrPlot and Widget event
Posted by Laurens on Sat, 26 May 2007 14:12:58 GMT
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David Fanning wrote:
> Laurens writes:
>
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>> drawing every kind of curve, (as usual) David's suggestion to me a few
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>>
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>> position in my normalized plot?
>
> Unless I am missing something terribly obvious, don't you
> just divide the point by the size of the window in pixels
> to get the normalized location?
>
>   dims = oWindow -> GetDimensions()
>   xNormal = event.x / Float(dims[0])
>   yNormal = event.y / Float(dims[1])
>

> Cheers,
>
> David

grrrr, You're not the one who is missing the obvious :) Though it's not an exact match to what I need (there seems to be some difference in y-direction, but I guess that's because the curve is smaller than the viewplane...
Anyhow; thanks mate ;)

Cheers, Laurens
