Subject: Re: PARTVELVEC procedure not overplotting despite setting over keyword, Trouble with OPLOT

Posted by David Fanning on Thu, 28 Jul 2011 13:17:35 GMT

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jakemccord writes:

> This is my first post on this message board so I will try and be as
> succinct as possible. In essence, I have been trying to plot vector
> arrows (using the partvelvec procedure) ontop of a previously plotted
> flux distribution to help visualize the direction of a gradient. One
> uncertainty I have is the coordinate system Partvelvec expects. One
> individual I have communicated with believes that the program utilizes
> "the data coordinate system of the positions you pass into
> Partvelvec." Is this correct? I have been inclined to use normalized
> coordinates after seeing a null plot spanning from 0 to 1 on the x and
> y axes. I realize that if the positions I define in my argument do not
> match up with the previously established positions, i.e. on the flux
> distribution, then that could be particularly problematic in getting
> the result I want. Apart from this, or perhaps because of this, my
> setting the overplot keyword seemed to have no effect. Just to throw
> in a few lines of interest from my code:
>
> Partvelvec,grad_intensity_x,grad_intensity_y, xarrow, yarrow, $
> color = 'white', /over, length = 0.1.
>
> While this is somewhat vague I have taken care to verify that the
> above arguments are adequately defined.
>
> Also, just to try my luck in plotting something ontop of the
> aforementioned flux distribution I have overplotted a couple asterisks
> upon normalizing my data, calling:
>
> pointx = [0.25, 0.75] & pointy = [0.25, 0.75]
> OPLOT, pointx, pointy, color = 190, linestyle=0, $
> SYMSIZE=10.0, PSYM=2
>
> PLOTS, pointx, pointy, color=190, linestyle=0, $
> SYMSIZE-10.0, PSYM=2, /NORMAL
>
> PLOTS seemed to work better than OPLOT as OPLOT only partially
> displayed an asterisk in the lower left window ontop of my color bar.
> Any ideas why?

Probably because you plot range is not what you think
it is. Why don't you try printing the plotting range of
your plot (!X.CRange and !Y.CRange) before you try to
draw your vectors.

Print, 'X Range: ', !X.CRange
Print, 'Y Range: ', !Y.CRange

Do those ranges correspond at all to the locations you
are trying to plot?

Print, Min(xarrow), Max(xarrow)
Print, Min(yarrow), Max(yarrow)

Cheers,

David

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

Subject: Re: PARTVELVEC procedure not overplotting despite setting over
keyword, Trouble with OPLOT
Posted by wlandsman on Fri, 29 Jul 2011 12:49:36 GMT
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Note that PARTVELVEC from the Astronomy Library uses Coyote graphics procedures.   One
can sometimes run into problems with symbols not appearing when mixing OPLOT/PLOTS with
Coyote graphics because of the background color, and one should use CGPLOT,/OVER and
CGPLOTS instead.   I don't think this is your problem (since you specifically set a color) but it is
something to keep in mind.

--Wayne