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Subject: Re: Vector legend with PARTVELVEC  
Posted by [wlandsman](#) on Fri, 03 May 2013 17:25:08 GMT  
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Perhaps I misunderstand, but if you just want to draw a single arrow for a legend, I would use `cgArrow.pro` (or `arrow.pro`), rather than `partvelvec`.

--Wayne

On Friday, May 3, 2013 12:43:11 PM UTC-4, Fabien wrote:

> Hey IDLers,  
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>  
> Maybe I haven't been searching hard enough but I did not find a way to  
> use PARTVELVEC to draw only one vector as a legend vector. I guess I  
> could do this myself by making my own partvelvec routine, but I thought  
> this would be something the community might already have done.  
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>  
>  
> It is not that trivial since partvelvec draws in DATA coordinates, while  
> the legend vector should be plotted outside the image. And the length of  
> the legend should correspond to that of the plot of course ;-). I think  
> this can only be done by modifying partvelvec so that it returns  
> "something" that can be used to plot a legend afterwards. Like:  
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>  
>  
> `cglImage, myImage`  
>  
> `partvelvec, vx, vy, px, py, /OVER, LEGEND_struct=legend ;output`  
>  
> `partvelvec_legend, legend, POSITION=poslegend, etc.`  
>  
>  
>  
> Anyways, if someone did this already and is willing to share I would be  
> very thankful. If not, I'm open to suggestions on how to do this the  
>

> right way ;)  
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>  
> Cheers,  
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>  
> Fab

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Subject: Re: Vector legend with PARTVELVEC  
Posted by [Sir Loin Steak](#) on Sat, 04 May 2013 22:26:39 GMT  
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On Friday, May 3, 2013 6:25:08 PM UTC+1, wlandsman wrote:

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>> Fab

No, I think he wants to plot vectors with partvelvec, and also plot a vector outside the plot range to use as a legend (so you know what wind speed etc. the vector lengths represent).

I wanted to do something similar myself but couldn't think how, so in the plot description I just wrote 'the length of largest vector represents wind speeds of ...'. Not ideal, but I was in a rush!

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Subject: Re: Vector legend with PARTVELVEC  
Posted by [Fabzi](#) on Sun, 05 May 2013 11:25:17 GMT  
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On 05/05/2013 12:26 AM, ljs15@fsmail.net wrote:  
> Perhaps I misunderstand, but if you just want to draw a single arrowfor  
> a legend, I would use cgArrow.pro (or arrow.pro), rather than partvelvec.

Yes, but the length of the arrow should correspond to the length of the arrows drawn by partyvelec. Typically, you have a windfield to plot on an image, and you now the (u,v) or your wind field and their (x,y) positions in /data coordinates. for example, if your wind speed ranges from 0 to 12. m.s-1, you might want to add a legend to your plot with an arrow showing the length of a wind arrow of 10 m.s-1.

Anyways, I'll think about a version of partvelvec which provides an

ouptut structure (in /NORMAL coordinates) of the longest arrow it has plotted and use cgArrow to draw the legend. This should be fine.

Thanks!

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