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Subject: Re: Direction of Wind Vectors: A bug?

Posted by [David Fanning](#) on Wed, 18 Feb 2015 19:44:14 GMT

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wlandsman writes:

>  
> On Wednesday, February 18, 2015 at 1:32:50 PM UTC-5, David Fanning wrote:  
>  
>> So, here is my question. Are both of these programs "right"? If not, why  
>> not? And, which would convey the "true wind direction" more convincingly  
>> on a plot?  
>  
> I'd vote for the partvelvec.pro approach where the angle -- like everything else on the map -- is  
distorted by the unequal projections.  
>  
> However, in a similar case I chose the opposite approach -- in my tvcircle.pro I have the  
comment  
>  
> "TVCIRCLE always draws a circle --- even when in data coordinates and the X and Y data  
scales are unequal. (The X data scale is used to define the circle radius.) If this is not the  
behavior  
> you want, then use TVELLIPSE instead."  
>  
>  
> In any case, the behavior of the program should be documented (which partvelvec.pro currently  
isn't), and perhaps a keyword could be added to let the user choose which approach he wants.

I'm having a hard time wrapping my head around whether both approaches  
are "right", or are they both "wrong." Or, maybe there is some other  
combination. It would be easier (and maybe the right approach) to draw a  
"stream line" instead of a vector. Then, at least you could visually see  
the distortion.

In any case, I can't quite see where I would introduce the actions of  
the proposed keyword. And, then, adding a real map projection is just...  
Whew! I need another bottle of Tylenol. :-(

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

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