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Subject: Re: Plotting Vectors with Coyote Graphics Programs  
Posted by [David Fanning](#) on Mon, 24 Mar 2014 19:34:11 GMT  
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David Fanning writes:

> I've written a new vector plotting program, cgVelocityVectors, today  
in  
> the manner of the NASA Astronomy Library routine PartVelVec. I had a  
> couple of objectives in mind. First, I wanted an easier way to make a  
> vector length key so users could easily match the length of a vector to  
> its magnitude. Second, I wanted to add a couple of features to the  
> program to make the vectors more attractive. For example, I wanted to be  
> able to draw vectors with solid arrow heads.

As sometimes happens, I don't realize I have written a program All Wrong  
until I actually try to use the program or write an article about it.  
This time I was trying to use the program when I got that sinking  
feeling in the pit of my stomach.

In any case, cgVelocityVectors has been completely revamped this morning  
to answer the call in two completely different test cases. It seems to  
be working the way I expect it to work now. But, naturally, I leave it  
up to you to test thoroughly. :-)

While I was frantically fooling around with it, Matt Argall asked if I  
could add an ORDERED keyword, so that if you are selecting a fraction of  
the original vectors to plot, it would take an ordered selection of  
vectors, rather than a random selection of vectors. I have complied with  
his request in this new version.

You can find the updated version here. (Note that other programs have  
also changed in the Coyote Library (e.g., a new Range keyword in  
SetDefaultValue) that is used in cgVelocityVectors, so if you didn't  
update your Coyote Library this morning, you should get the entire  
library.)

<http://www.idlcoyote.com/programs/cgvelocityvectors.pro>

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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