Subject: Re: Drawing vector fields with New Graphics
Posted by Gordon Farquharson on Tue, 02 Jul 2013 19:08:37 GMT
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On Tuesday, July 2, 2013 11:15:00 AM UTC-7, Phillip Bitzer wrote:
> On Tuesday, July 2, 2013 12:54:36 PM UTC-5, Gordon Farquharson wrote:
> Chacun a son gout, ...

I have no idea how to pronounce it, but I like it :-)

> Not exactly what I was thinking. Defining v1 sets the "units" of the length_scale. You then set the "unit" to be 2 tics with v1.length_scale=2
>
> If instead of dividing the vx, vy by the magnitude, instead try
>
> v2.length_scale = 2/vmag
>
> I think this is what you're looking for....at least for this example.

Perfect! It works. Thanks very much for the suggestion. For reference (for others), here is the updated program.

```
PRO test_vector

   x = [0.,1.,2.]
   y = [0.,0.,0.]
   vx = [1.,1.,1.]
   vy = [1.,1.,1.]

   vmag = mean(sqrt(vx^2 + vy^2))

   v1 = vector(vx, vy, x, y, $
            XTITLE='X', YTITLE='Y', $
            XRANGE=[-1.,4.], YRANGE=[-1.,4.])

   v1.arrow_thick = 2
   v1.length_scale = 2

   x = [1.,2.]
   y = [1.,1.]
   vx = [-0.5,-0.5]
   vy = [-0.5,-0.5]

   v2 = vector(vx, vy, x, y, $
            /OVERPLOT, XRANGE=[-1.,4.], YRANGE=[-1.,4.])

   v2.arrow_thick = 2
   v2.length_scale = 2. / vmag
```

END

Thanks for the help.

(Maybe Mark or Chris could still comment on whether vector could be improved to provide a more intuitive interface.)

Gordon
