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Subject: Drawing vector fields with New Graphics

Posted by [Gordon Farquharson](#) on Mon, 01 Jul 2013 21:34:09 GMT

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Is there a way to plot (using New Graphics) two different vector fields on the same set of axes such that the vector fields have the same scaling?

Below is a minimal working program. What I want (and sort of expect) is that the v2 vectors be proportionally scaled with respect to the v1 vectors. What I get is that the v2 vectors appear larger than the v1 vectors, even though they are clearly smaller.

PRO test\_vector

```
x = [0.,1.,2.]
```

```
y = [0.,0.,0.]
```

```
vx = [1.,1.,1.]
```

```
vy = [1.,1.,1.]
```

```
v1 = vector(vx, vy, x, y, $  
            XTITLE='X', YTITLE='Y', $  
            X RANGE=[0.,4.], Y RANGE=[0.,4.])
```

```
v1.arrow_thick = 2  
v1.length_scale = 2
```

```
stop
```

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

```
v2 = vector(vx, vy, x, y, $  
            /OVERPLOT)
```

```
v2.arrow_thick = 2  
v2.length_scale = 2
```

END

Gordon

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