

---

Subject: Re: Displaying 3-D vector fields

Posted by [jim.blackwell](#) on Wed, 13 Nov 2002 15:06:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

"Rick Towler" <[rtowler@u.washington.edu](mailto:rtowler@u.washington.edu)> wrote in message  
news:<[aqrphe\\$26s0\\$1@nntp6.u.washington.edu](mailto:aqrphe$26s0$1@nntp6.u.washington.edu)>...

> "Jim" <[jim.blackwell@gsfc.nasa.gov](mailto:jim.blackwell@gsfc.nasa.gov)> wrote

>

>> Hey this is almost what I need. How would one draw more than 1 vector

>> at a time in the same window ? 3-D axes ?

>

> By following the steps I laid out in my original post.

>

> Say you want 100 vectors:

>

> ; create an object array to hold them

>

> vectors = OBJARR(100)

>

> ; create a 100 instances of my vector object

>

> for n=0, 99 do vectors[n] = OBJ\_NEW('vector')

>

> ; Add our vectors to a model

>

> vecModel = OBJ\_NEW('IDLgrModel')

> vecModel -> Add, vectors

>

>

> ; Now you have 100 vectors rooted at [0,0,0]

> ; with a magnitude of [0,0,1]. You probably want them

> ; to do something now...

>

> ; Use the SetProperty method to set each vectors

> ; magnitude and location. I assume you have 2

> ; arrays named "mag" and "loc" containing this

> ; data.

>

> for n=0, 99 do vectors[n] -> SetProperty, MAGNITUDE=mag[n,\*], \$

> LOCATION=loc[n,\*]

>

> ; Now take a look at what we have.

>

> xobjview, vecModel, /block

>

>

> ; we're done for now, clean up

>

> OBJ\_DESTROY, vecModel  
>  
>  
> If you wanted to animate the vectors you would set up a loop around the call  
> to the setproperty method where you would loop thru the time dimension of  
> your array (if the locations were fixed you wouldn't need to change that  
> property). The only problem with this is that you can't use XOBJVIEW to  
> view an animation. I would suggest working on some static views making sure  
> you understand what you are doing (using XOBJVIEW), then go over to David  
> Fanning's website ([www.dfanning.com](http://www.dfanning.com)) and take one of his object graphics  
> programs and hack the vector animation stuff into it (I suggest FSC\_SURFACE?  
> I think that might come with axes too).  
>  
> -Rick

Rick,

forgive me for being such a doofus, but shouldn't the mag and loc  
arrays be 3-D ? Would it be as simple as just adding this code to the  
existing code set for creating the vector object ?

Thanks

Jim Blackwell

---