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Subject: Re: Displaying 3-D vector fields

Posted by [Mark Hadfield](#) on Thu, 14 Nov 2002 20:52:51 GMT

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"Jim" <jim.blackwell@gsfc.nasa.gov> wrote in message  
news:95167173.0211140903.5db20620@posting.google.com...

> Okay I get it now Thank God ! I seem to be running into a memory  
> problem in trying to display 18K vectors at a time though ? I don't  
> get any indication of this, but it bombs after some number less than  
> that number of vectors

As I understand this thread to date, you are displaying 18K vectors with an  
array of 18K vector objects. No??

If so, I'm not surprised you are running into memory problems. (If not, \*I\*  
am running into memory problems.) That approach won't work beyond 1000 or  
so, in my experience. On the other hand, representing 18K vectors with 18K  
line segments in an IDLgrPolyline is no big deal. (Though I must say viewing  
them on the screen might be!)

Creating an IDLgrPolyline object to display these vectors isn't all that  
hard, you just have to load an array specifying positions corresponding to  
the ends of each vector (the DATA property) and the connectivity array which  
tells the polyline which ones to connect (the POLYLINES property).

As Rick (I think) commented earlier, my IDL code library contains an object  
class (MGHgrBarbPlot) that does exactly this & hides the details. You just  
have to give it arrays defining the origin and displacement of each vector  
in 3D space. Unfortunately my library is off the air at the moment. (I  
really must do something about this.) Jim, why don't you email me & I can  
send you the code for the barb-plot object plus some examples.

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