
Subject: Re: Oceans

Posted by [Ken Mankoff](#) on Fri, 08 Apr 2005 17:50:49 GMT

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On Wed, 6 Apr 2005, Rick Towler wrote:

> Ken Mankoff wrote:

>> Hi Group,

>>

>> I have just been handed a project to image modern and paleo-ocean

>> bathymetry, 3D temperature, and 3D salinity. On a 2 week deadline.

>>

>> I can contour the bathymetry quite easily, and produce

>> small-multiple images of the data in X,Y, and Z without a

>> problem. That'll probably take a day. Now I have 2 weeks minus a

>> day to do the rest.

>>

>> I don't have a whole lot of 3D experience in IDL and am wondering

>> if anyone can provide a suggestion or code base that could help

>> with this project.

>>

>> I know Rick Towler does some similar work, and I have a feeling

>> the Thunderstorm Demo would be a good place to start too. If

>> anyone has any other advice I'd love to hear it.

>

> First thing I would do is order that new graphics card. :) The

> best "gaming" card you can afford (Geforce 6600GT or 6800GT are

> nice options). Really. You can burn up a lot of polys rendering

> large surfaces. But maybe you're set...

Ha! I've been given 2 weeks. Not 2 weeks and a graphics card :).

My main dev system is a Dual 2.5 G5. Works well there. Right now I'm on a 1 GHZ G4 PowerBook which is the system that this will be running on. So thats that. If it needs to look good then I'll pregenerate a movie, or the audience can just wait a few seconds.

The great news is I just converted my data into the format that the thunderstorm demo reads, and it works perfectly. It took about 20 minutes to complete the project. OK, not quite, I still have to go in and re-label the axes, and the UI could use some re-arranging, but somehow I think I'll meet the deadline now. It is times like this that I truly LOVE IDL. Not like those times when I am trying to get high quality fonts or do anything graphically fancy in Direct Graphics.

As for the rest of your long (and useful) post. Thank you. It looks

like lots of good information, and I'll be exploring it and asking for more help when I figure out exactly what is wanted beyond what the thunderstorm demo provides. I know already, for example, that we need the ability to inject data / modify points. That might be more important than fly-through interactivity.

> Here's the URL. Yes, I am embarrassed that the pages are broken
> in Firefox/Moz but some day, s-o-m-e d-a-y, I will fix them...
>
> <http://www.acoustics.washington.edu/~towler/IDLviz.html>

FYI, it looks fine in my FireFox (OS X 1.0.2 i think). And safari.
Not sure what the problem is.

I have downloaded your demos, but I cannot run them. They crash on line 374 in rhtgrcamera__define.pro on the PLANES=planes keyword.

```
; Calculate viewing frustum vertices.  
self.frustum = RHTgrCamera_ComputeFrustum(self.zclip, self.fov, $  
    self.eye[2], PLANES=planes)  
self.frustPlanes = planes
```

-k.
