Subject: Oceans
Posted by Ken Mankoff on Wed, 06 Apr 2005 16:10:38 GMT
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Hi Group,

I have just been handed a project to image modern and paleo-ocean bathymetry, 3D temperature, and 3D salinity. On a 2 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.

Thanks,

-k.

Subject: Re: Oceans
Posted by Rick Towler on Fri, 08 Apr 2005 23:34:13 GMT
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Ken Mankoff wrote:
>
> On Wed, 6 Apr 2005, Rick Towler wrote:

>
> 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

Did you recompile the .dlm and is it finding the .dlm?

-Rick

Subject: Re: Oceans
Posted by Ken Mankoff on Sat, 09 Apr 2005 00:22:44 GMT
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On Fri, 8 Apr 2005, Rick Towler wrote:
> Ken Mankoff wrote:
>> On Wed, 6 Apr 2005, Rick Towler wrote:
>>
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>>
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>> self.frustum = RHTgrCamera_ComputeFrustum(self.zclip, self.fov, $
>> self.eye[2], PLANES=planes)
>> self.frustPlanes = planes
>
> Did you recompile the .dlm and is it finding the .dlm?

Yeah the first thing I did was go to the dlm/rhtgrCamera and dlm/rhtgrAABB directories and type "make". A .so and .o file were produced in each dir. I put them somewhere common (../ a.k.a the dlm/ directory). I pointed the env variable to it, and !DLM_PATH looked correct inside IDL also.

-k.

Subject: Re: Oceans
Posted by Rick Towler on Mon, 11 Apr 2005 16:27:32 GMT
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Ken Mankoff wrote:
>
> On Fri, 8 Apr 2005, Rick Towler wrote:
>
>> Ken Mankoff wrote:
>>
>>> On Wed, 6 Apr 2005, Rick Towler wrote:
>>>
>>> I have downloaded your demos, but I cannot run them. They crash on
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>>

>>
>> Did you recompile the .dlm and is it finding the .dlm?
>
>
> Yeah the first thing I did was go to the dlm/rhtgrCamera and
> dlm/rhtgrAABB directories and type "make". A .so and .o file were
> produced in each dir. I put them somewhere common (../ a.k.a the dlm/
> directory). I pointed the env variable to it, and !DLM_PATH looked
> correct inside IDL also.

The build looks o.k., and the error you are getting is more of a DLM_PATH problem so I would start there.

Since you aren't seeing "% Loaded DLM: RHTGRCAMERA." when the application compiles and you aren't seeing any "Unable to load DLM" type errors I would guess IDL just can't find the .so/.dlm. What happens if you simply try to compile the IDL code? If IDL didn't find the .dlm you should get a syntax error on every line where a dlm function is referenced.

FWIW, I always install DLMs in one of two ways: I usually put them in $IDL_DIR/bin/bin.x86 (would that be bin.darwin for you?) The lazy man's approach which sidesteps the whole path issue. When I distribute .sav files for the VM, I put the DLMs in the same directory as the .sav file.

If you move .dlm/.so files you either have to restart IDL or use the DLM_REGISTER function to force IDL to update it's lookup tables. You can also use the DLM_LOAD function to determine if IDL can find the dlm:

```
IDL> dlm_load,'rhtgrcamera'
% Loaded DLM: RHTGRCAMERA.
```

On subsequent calls in the current session, or when a DLM is already loaded, you won't see the "% Loaded DLM:" output.

I don't know why your IDL_DLM_PATH doesn't seem to be working... Are the .dlm and .so files both in that directory?

-r

Subject: Re: Oceans
Posted by Ken Mankoff on Mon, 11 Apr 2005 17:41:21 GMT
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On Mon, 11 Apr 2005, Rick Towler wrote:
>
> I don't know why your IDL_DLM_PATH doesn't seem to be working...
> Are the .dlm and .so files both in that directory?

>

Problem solved: I didn't have the .dlm files accessible, only the
.so files. The RHTgrCamera object works as advertised.

-k.

Subject: Re: Oceans
Posted by Ken Mankoff on Thu, 05 May 2005 22:50:23 GMT
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On Thu, 5 May 2005, naics wrote:
> One more thing though, how did you access the "storm25.sav" file.
> Did you just enter:
>
> restore, demo_filepath('storm25.sav',&
> SUBDIR=['examples','demo','demodata'])
>
> into the command line. I tried that but nothing happened.

What does your 'nothing' mean? If I type that, I get an error
message (% Syntax error.). If I replace the & with a $ so that the
syntax is correct, I get messages that some procedures are compiled
(DEMO_FILEPATH,FILEPATH,PATH_SEP).

Beyond that, you are correct, nothing visible happens. But if you
type "help" you will see that you now have some new variables:
P,T,U,V, and W as described in my previous email.

You could also find the stormtrack demo file, and open it up, and
see how it restores the data. You're going to need to do that anyway
to replace the restore statement so your data is loaded.

-k.

Subject: Re: Oceans
Posted by naics on Fri, 06 May 2005 04:11:31 GMT
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I see now. Thanks for you help
