
Subject: Re: Cartesian IDLgrSurface of [theta,phi] data to a sphere??

Posted by [Rick Towler](#) on Thu, 23 Aug 2001 20:23:09 GMT

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I picked up on this one a little late but this may be of some help.

I think David's idea will be the easiest way to go. I have played around wrapping an earth image texture onto an orb and using my camera object to rotate the orb. The advantage of using my camera object over IDL's trackball is that you can get the pitch, yaw and roll of the camera which you can convert into spherical coords. The trick is to get the image mapped correctly. Since it is a pain to map an image on the orb I let the orb generate my texcoords and just edit my image so it maps onto the orb correctly. This is sort of bass ackwards but it was easier than calculating the texcoords myself.

I actually started this as a demo for my camera object but I haven't finished it. The program linked below maps a texture onto an orb, then allows you to rotate the orb and returns Lat and Lon, sort of.... I never finished the conversion from IDL's angular measures to Lat/Lon (yes, it is a simple affair but I write these programs in my spare time and we know how that goes).

First pick up the example program and texture:

http://www.acoustics.washington.edu/rht/programs/camdemo_examine.zip

You will also need my camera and quaternion objects:

http://www.acoustics.washington.edu/rht/3d_animation.html

Hope this helps.

-Rick Towler

<tbowers0@yahoo.com> wrote in message
news:fd12a3f3.0108101333.39acd297@posting.google.com...
> david@dfanning.com (David Fanning) wrote in message
news:<MPG.15ddaa84739ac966989e61@news.frii.com>...

>>

>> I'm not sure I totally understand this problem, but

>> wouldn't it be easier (and help with the mapping)

>> if you put the data on the sphere as a texture map?
>> That way you could use the Texture_Coord keyword to
>> position the data anywhere you like.
>>
>> Cheers,
>>
>> David
>
> Thanks David. I've never done this and did think about it, but I was
> hoping to be able to retain the 'awareness' of my data so that i could
> possibly add code that would allow me to say, mouse over a grid point
> and the value would popup. I can get teh data *on* the spherical grid
> ok (see eg code from last post), I'm just not getting the idea of how
> to get it to orient correctly. I've spent literally hours rotating and
> transforming, but no go. I'm missing something and thought maybe
> someone had some advice on it. My next option is to texture map which
> is new to me so probably another can o' worms to get it mapped
> correctly. Many, many thanks for your advice and time.
>
> todd
