Subject: Re: lat/lon from orb object
Posted by Jeffrey R. Hall on Thu, 19 Aug 2004 21:16:50 GMT
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Or, suppose I limit rotation to a single axis. How do I
determine how many degrees of rotation occured after
rotating it via the trackball object?

Thanks,

Jeff

Jeffrey R. Hall wrote:
>
> I have an orb object with a map of the world that rotates
> with the trackball object. How do I determine the lat/lon
> at the center of the orb after rotation?
>
> I searched the archive and haven't found the answer.
>
> Thanks,
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> Jeff
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Subject: Re: lat/lon from orb object
Posted by Rick Towler on Thu, 19 Aug 2004 22:11:25 GMT
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Well I suppose you could do something fancy with the transform that is
returned by the trackball (I would start with the matrix and quaternion
FAQ easily found by googling) or I would drop the trackball and use my
camera object. And lucky day, I have a demo program with a map of the
world which "rotates" using the camera (the camera actually rotates
about the orb). It even prints out your approximate lat/lon.
Understand that I put *zero* thought into the whole lat/lon thing so
you'll probably want to use it as an example of what not to do. At any
rate, you'll easily be able to get a lat/lon relative to the orb.
Calculating a lat/lon relative to your texture takes a bit more work.

Since the sysadmin (me) hasn't gotten around to configuring apache to
export our public_html directories the code isn't currently online. I
can email it to you if you desire.

-Rick

Jeffrey R. Hall wrote:

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Subject: Re: lat/lon from orb object
Posted by Jeffrey R. Hall on Fri, 20 Aug 2004 00:12:53 GMT
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Yes, please! Currently my program uses idlexrotator to rotate in data coordinates and the trackball to rotate in screen coords. This gets messy quickly if the two are used w/o resetting, as you might imagine. Moving the camera might work out better so I would like to see what you've done with that.

I thought about deciphering the transform. The JPL SPICE toolkit (icy version for IDL) has some stuff for euler angles and so that might be one way to go. It would hinder cross-platform portability due to the extra installation requirements for SPICE so I'd prefer a pure IDL solution.

Thanks,

Jeff

Rick Towler wrote:
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