Subject: Re: Divide the world into hexagons
Posted by MarioIncandenza on Mon, 18 Oct 2010 17:33:57 GMT
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Thanks Ken!

Looks like there's some relevant code out there in MATLAB:

http://people.sc.fsu.edu/~jburkardt/m_src/sphere_grid/sphere _grid.html

But still a lot of work to turn that into even a rudimentary Earth coordinate system.

What I am actually hoping to get out of this is a cheap way to bin observations into equal-size areas across the globe. This does not require a full geoid or other complications.

--Edward H.

On Oct 18, 9:02 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> In article
> < 3493fa57-c263-4cdb-a375-8f06146cd...@42g2000prt.googlegroups .com >,
> Ed Hyer <ejh...@gmail.com> wrote:
>
>> I recall reading a paper some time back where the rectangular lat/lon
>> grid was replaced with a hexagonal grid, whose polygons did not change
>> size with distance from the poles. Does anyone know where there might
>> be some code to create these grids? Not thinking specifically of
>> graphics, although any routine that could generate the graphical part
>> could also do the part I'm interested in.
>
>> Any leads welcome,
>
>> --Edward H.
>
> There are a number of global meteorological models that use a
> grid based on an icosahedron, which has 20 faces, each face is an
> identical equilateral triangle.
>
> Try googling "icosahedral atmospheric model", e.g.,
>
> http://www.wrfportal.org/CIRA-Magazine-GIMTool.pdf
>
> Note that the resulting grid is not perfectly uniform. Most cells
> are hexagons. Some cells near the vertices of the original
> icosahedron are pentagons. Also, it is not possible to make the
> hexagons complete regular, but they are close.
>

> Ken Bowman