Subject: Re: Divide the world into hexagons
Posted by Kenneth P. Bowman on Mon, 18 Oct 2010 16:02:31 GMT
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In article
<3493fa57-c263-4cdb-a375-8f06146cd67c@42g2000prt.googlegroups.com>,
 Ed Hyer <ejhyer@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