Subject: Re: Converting distance to degrees
Posted by Ashley Berg on Thu, 16 Jun 2011 17:49:34 GMT
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Thanks for replying. I understand what you mean. It is 1-km resolution data. While this dataset is square in the kilometer sense, in the degree sense it is not. If I were to convert each point to a lat/lon point, all rows would still have the same number of data points and be 1-km apart, but on a map, the top row would span across more longitude lines than the bottom row.

Using the radius of the Earth at each latitude in kilometers and using the fact that it's 360 degrees around a latitude circle, I can calculate how many kilometers divide into a degree at each latitude. However, since the number of kilometers in a degree will not be an integer number, I'm not sure if I can turn a 1-km resolution grid into a degree grid after all.

On Jun 16, 7:32 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> In article
> < 33651085-7428-4309-a843-8d4a6bb9f...@e17g2000prj.googlegroup s.com >,
> Ashley Berg <ashley.b...@gmail.com> wrote:
>
>> I have an ASCII grid of 1-km data values across the conterminous US,
>> 4629 cols x 2931 rows. I was wondering if there is some kind of
>> routine in IDL that will convert kilometers to degrees? I need to
>> convert the 1-km data to a 0.5x0.5 degree grid.
>
> Since the Earth is a sphere (approximately), it is
> not possible to have a regular 1 km grid over any large area
> of the Earth's surface.
>
> You probably need to check with the data set's creator
> to find out what kind of grid it really is.
>
> Ken Bowman