
Subject: Re: equal lat long grid
Posted by [greg michael](#) on Fri, 07 Apr 2006 20:37:30 GMT
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For each of your 241x721 map cells, you're checking every one of your 2 million points to see if it belongs - this is about $2e5 \times 2e6 = 4e11$ operations. Suppose you did it the other way around - for each of your points you decide which cell it belongs to - then you have only $2e6$ operations - should be of the order of 100,000 times faster, shouldn't it?

regards,
Greg

Subject: Re: equal lat long grid
Posted by [peter.albert@gmx.de](#) on Mon, 10 Apr 2006 06:51:29 GMT
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Hi Pawan,

I once wrote `lonlat2reg()` which can be found here:
<http://wew.met.fu-berlin.de/idl/lonlat2reg.pro>

Input can be any arrays or vectors with (irregular) longitude / latitude and data information. Output is a structure with the number of irregular data points in each regular grid box, their sum, squared sum and average, standard deviation and the lon / lat values of the grid center. The target regular grid is defined via keywords. You choose the lower left corner, the size of each grid and the number of grid boxes. N.b. the lower left corner is the lower left corner, not the center of the lower leftmost grid box.

And yes, it uses histogram and reverse indices!

Cheers,

Peter

Subject: Re: equal lat long grid
Posted by [glaciologist](#) on Mon, 10 Apr 2006 18:56:37 GMT
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try using MS2GT and the EASE grid...
http://nsidc.org/data/modis/ms2gt/tutorial_1.html#gpdfile

Subject: Re: equal lat long grid
Posted by [Pawan](#) on Thu, 27 Apr 2006 15:10:56 GMT
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Thanks, Peter ...I will try and let you know about my experience....For time being I used an Fortran code which take less than 1 mint to performe gridding.

Pawan

Subject: Re: equal lat long grid
Posted by [Pawan](#) on Fri, 28 Apr 2006 18:45:30 GMT
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Hi Peter,

I am running this program on IDL_6.0 on Linux machine and it gives me error on the following location. IDL does not recognize indgen_array.

```
glon = indgen_array(nlon, nlat, /lon) * dlon + lon0[0] + dlon / 2.  
glat = indgen_array(nlon, nlat, /lat) * dlat + lat0[0] + dlat / 2.
```

I was wondering is this just indgen or some other thing you want to do here ?

```
glon = indgen(nlon, nlat) * dlon + lon0[0] + dlon / 2.  
glat = indgen(nlon, nlat) * dlat + lat0[0] + dlat / 2.
```

Thanks,
Pawan
