
Subject: Re: Land Mask data set available? (in lat and lon)

Posted by [Kelly Dean](#) on Fri, 08 Feb 2002 19:24:39 GMT

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Try the 1km Global Land Cover Characteristics Database from USGS (usgs2_0g.img.gz). Water bodies (including lakes) have the byte value of 16, but this should be easy to convert to the desired 1's and 0's.

http://edcdaac.usgs.gov/glcc/globdoc2_0.html

It is easy to compute the navigation --

```
lin = ( 89.99583333333334 - lat ) / 0.008333333333333
ele = ( -179.99583333333334 - lon ) / 0.008333333333333
```

GTOPO30 is a good source for land/sea mask, but remember, these are 33 separate tiles. With 6 tiles covering your region of interest. However, I do recall there is one separate tile covering Antarctic in a different projection. The Global Land Cover Database is one big binary file.

Kelly Dean
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Robert Stockwell wrote:

```
> Greetings All,
> I was just about to assimilate the land mask info
> into IDL, but for my purposes I need the land mask
> as a function of lat and lon (so as to branch my
> algorithm on whether or not a data point falls on land),
> rather than merely an image.
>
> Thus I want to have something like
> landmask = int(nx,ny)
> lon = float(nx,ny)
> lat = float(nx,ny)
>
> that I can crunch into an array for my lat, lon sampling
> and then directly compare my data with the landmask value.
> (a simple water = 0, land = 1 mask is fine for me)
>
> I am interested in the southern hemisphere
> (frinstance 40S to 80 south), and 1/2 degree by 1/2 degree
> or better.
>
> Does someone have that in IDL?
> (or rather, a data format that can be easily digested
```

> into IDL)
>
> Cheers,
> bob stockwell
>
> PS
>
> I am about to use the land=sea mask data from:
> http://edcdaac.usgs.gov/1KM/land_sea_mask.html
> that i found snooping through google. It looks like
> I'll have to grab their image which appears to be in
> a km by km sampling, and calculate the inverse transform
> from their map projection into lat and lon (ugh).
>
> Or perhaps I can use the map commands i IDL and
> create an image, grab the image, convert from pixels to
> lat and lon.
>
> I am hoping there is an easier way, or at least a
> "already done" way
