
Subject: Re: IDL - Extracting data from within boundary defined by shapefile
Posted by [David Fanning](#) on Tue, 30 Nov 2010 14:36:32 GMT

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katie writes:

- > When I run this, I get the error, "IDLANROI::CONTAINSPOINTS: Number of
- > LON does not match number of LAT."
- >
- > The terms lon and lat are the longitudes and latitudes associated with
- > the soil moisture for the entire globe. There are 64 lat's and 128
- > lon's. So yes, they do not match, but I'm not sure what else I should
- > be using in the ContainsPoints function.

You actually have 64*128 points that you want to check,
so you have to make that many lats and lons:

```
latpts = Rebin(Reform(lat, 1, 64), 128, 64)
lonpts = Rebin(lon, 128, 64)
```

- >
- > Another possible conflict I see here is that the longitudes within x
- > are negative (for being West), but the longitudes of my soil moisture
- > data are 0 to 360. Although, when I used MAP_SET to plot my soil
- > moisture data, and plot the mrp shapefile (using David Fanning's
- > DRAWSHAPES function) on top of it, it came out fine.
- >
- > Any suggestions for the lat/lon confusion here?

They should be consistent, although some mapping routines,
not all, will recognize the problem and do the conversion for
you. But here is an article that describes how to covert
longitude coordinates that are in 0 to 360 to -180 to 180.
It is not as straightforward as I might appear at first
glance. :-)

http://www.dfanning.com/map_tips/lonconvert.html

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
