
Subject: Re: Irregular Satellite data plotting

Posted by [Craig Markwardt](#) on Fri, 05 Dec 2008 02:09:58 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Dec 4, 8:22 pm, greer.katel...@gmail.com wrote:

> I have some satellite temperature measurements that are taken at
> regular latitude intervals but irregular longitude intervals.
> Eventually, I will interpolate everything, but first I would like to
> make a plot with a square indicating the location of the measurement
> (longitude and latitude) that is colored to indicate the relative
> temperature. Does anyone know how to do this? It seems simple to me
> in concept, but have been unable to come up with a solution. (I keep
> getting advice about how to do this in matlab with pcolor, but I need
> to stay in idl with this one) Thanks in advance for any advice you
> might have!

I'm sure that something like this,

```
for i = 0, n_points-1 do begin
    oplot, [lon[i]], [lat[i]], psym=6, color=(temp[i]-MINTEMP)/
(MAXTEMP-MINTEMP)*255
endfor
```

will be a good place to start. You will have to play around with how
the color is calculated.

Craig

P.S. David, I used [] array notation against my better judgement.

Subject: Re: Irregular Satellite data plotting

Posted by [David Fanning](#) on Fri, 05 Dec 2008 02:21:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

Craig Markwardt writes:

> P.S. David, I used [] array notation against my better judgement.

And I noticed that *immediately*. ;-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: Irregular Satellite data plotting
Posted by [MarioIncandenza](#) on Fri, 05 Dec 2008 18:24:25 GMT
[View Forum Message](#) <> [Reply to Message](#)

Katie,

OPlot bizarrely doesn't allow this, but fortunately someone stepped up and wrote the OLOTS routine that will get the job done:

http://groups.google.com/group/comp.lang.idl-pvwave/browse_thread/thread/e11a9c983151e0f3/2bbaddec12f5b8d5?hl=en&lnk=gst&q=oplots#2bbaddec12f5b8d5

If you don't like the selection of symbols available natively, there is also SYMCAT, which will give you just about anything:
<http://www.dfanning.com/programs/symcat.pro>

So you'd end up with

OLOTS,lons,lats,psym=SYMCAT(15),color=BYTSCL(temperature)

A little dickering with the SYMSIZE and THICK keywords, and you can probably get what you want.

--Edward H.

Subject: Re: Irregular Satellite data plotting
Posted by [Chris\[6\]](#) on Fri, 05 Dec 2008 21:47:41 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Dec 5, 8:24 am, Ed Hyer <ejh...@gmail.com> wrote:

> Katie,
>
> OPlot bizarrely doesn't allow this, but fortunately someone stepped up
> and wrote the OLOTS routine that will get the job
done:[http://groups.google.com/group/comp.lang.idl-pvwave/browse_thread/thr...](http://groups.google.com/group/comp.lang.idl-pvwave/browse_thread/thread/e11a9c983151e0f3/2bbaddec12f5b8d5?hl=en&lnk=gst&q=oplots#2bbaddec12f5b8d5)
>
> If you don't like the selection of symbols available natively, there
> is also SYMCAT, which will give you just about
anything:<http://www.dfanning.com/programs/symcat.pro>
>
> So you'd end up with
>
> OLOTS,lons,lats,psym=SYMCAT(15),color=BYTSCL(temperature)
>
> A little dickering with the SYMSIZE and THICK keywords, and you can
> probably get what you want.
>

> --Edward H.

I have been working on something similar, but for astronomical purposes. You may find this code useful:

<http://www.ifa.hawaii.edu/users/beaumont/code/raw/smoothmap.pro>

It creates a smoothed map from a set of measurements on a spherical surface. The code is still being refined, but has been behaving for me lately.

Chris

Subject: Re: Irregular Satellite data plotting
Posted by [Chris\[6\]](#) on Fri, 05 Dec 2008 21:53:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

> I have been working on something similar, but for astronomical
> purposes. You may find this code useful:
>
> <http://www.ifa.hawaii.edu/users/beaumont/code/raw/smoothmap.pro>
>

I should mention that, since I use it for astronomy purposes, it outputs files in the FITS image format. Also, it uses routines from the IDL astronomy user's library

chris
