
Subject: How to use Envi GLT when there are NaNs in the lat/lon files?

Posted by envi35@yahoo.ca on Thu, 08 May 2008 17:10:01 GMT

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Hi, I'm trying to georeference an image covering a very large area - pixels in the ocean were given as NaN. This image was projected, but I was not able to set up its projection in Envi based on the available parameters. However, there are lat/lon files for all of the grid points in the image. So I thought I could use GLT to register the image myself. Then there are NaNs in the lat/lon files same as in the image file. Does anybody have experience of applying GLT from lat/lon with missing values? Is this possible?

Thanks for any advice,

Jenny

Subject: Re: How to use Envi GLT when there are NaNs in the lat/lon files?

Posted by [wita](#) on Tue, 13 May 2008 10:55:51 GMT

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On May 8, 7:10 pm, Jenny <env...@yahoo.ca> wrote:

> Hi, I'm trying to georeference an image covering a very large area -
> pixels in the ocean were given as NaN. This image was projected, but I
> was not able to set up its projection in Envi based on the available
> parameters. However, there are lat/lon files for all of the grid
> points in the image. So I thought I could use GLT to register the
> image myself. Then there are NaNs in the lat/lon files same as in the
> image file. Does anybody have experience of applying GLT from lat/lon
> with missing values? Is this possible?
>
> Thanks for any advice,
>
> Jenny

Jenny,

I've never tried to use the GLT in ENVI but my guess is that you need to filter out the NaN in all three images and write them to a new ENVI image.

These images can then be used as input to the GLT module.

In pseudo code:

```
image = envi_get_data('imagefile')
lat = envi_get_data('latitudefile')
lon = envi_get_data('longitudefile')
; Asssuming NaN values are on the same locations in all files
index = Where(Finite(image) EQ 1, c)
IF c GT 1 THEN BEGIN
  nimage = image[index]
  nlat = lat[index]
  nlon = lon[index]
ENDIF
writeu, nmimage
writeu, nlat
writeu, nlon
envi_setup_head, nimage, nb=1, nr=1, nc=N_Elements(image)
envi_setup_head, nlat, nb=1, nr=1, nc=N_Elements(image)
envi_setup_head, nlon, nb=1, nr=1, nc=N_Elements(image)
```

Then use the nimage, nlon and nlat images as input to the GLT module as described in the ENVI manual.
ENVI's GLT module will then put the data on the right place based on the corresponding lat/lon values.

Allard
