
Subject: Re: diferent results in program and envi
Posted by [Jeff N.](#) on Wed, 01 Aug 2007 15:04:57 GMT
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On Aug 1, 4:58 am, "skymaxw...@gmail.com" <skymaxw...@gmail.com> wrote:

```
> Hello. I have some images and some GCP for each. I georeferenced some
> of them by ENVI.
> now i want to do this by program. But my results are different. Why ?
> Here is fragment of my source code
>
> .....
> .....
> ...
> pts0=[[geo_points[0,0],geo_points[1,0],0.0,0.0],$
>        [geo_points[0,1],geo_points[1,1],ns-1,0.0],$
>        [geo_points[0,2],geo_points[1,2],0.0,nl-1],$
>        [geo_points[0,3],geo_points[1,3],ns-1,nl-1],$
>        print,'pts0'
>        print,pts0
>
> ;units=ENVI_TRANSLATE_PROJECTION_UNITS('Degrees')
> proj=ENVI_PROJ_CREATE(/GEOGRAPHIC)
> pixel_size=[0.00011710,0.00009006]
> ;proj=ENVI_PROJ_CREATE(/UTM,ZONE=UTM_Zone,DATUM='WGS-84')
>
> ENVI_DOIT,'ENVI_REGISTER_DOIT',$
>         W_FID=fid,$
>         W_POS=pos,$
>         W_DIMS=dims,$
>         METHOD=5,$
>         PIXEL_SIZE=pixel_size,$
>         PTS=pts0,$
>         PROJ=proj,$
>         R_FID=r_fid,$
>         OUT_NAME='D:\pts0',$
>         OUT_BNAME='my transform'
> .....
> .....
>
> and another question how define pixel size by my program?
>
> Thanks
```

How are the results different? How do you know which answer is the right one? (in other words: what if you're doing it wrong by hand?) And aren't you defining a pixel size in the code you just posted? Or are you asking how to calculate it I guess?

Jeff

Subject: Re: diferent results in program and envi
Posted by skymaxwell@gmail.com on Wed, 01 Aug 2007 15:44:15 GMT
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for example, for one image i have

in ENVI - resulting image size 13888 x 8884
in my program - 18057 x 6833

i think that in ENVI image more correct, it's more detailed as
original non georeferenced image

Second question, yes you are right
i define pixel size in my program from ENVI GUI
how get pixel size WITHOUT ENVI GUI ?

Subject: Re: diferent results in program and envi
Posted by skymaxwell@gmail.com on Wed, 01 Aug 2007 18:09:45 GMT
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first question is closed ;)
now it's works

second question about getting pixel size in program still active :(

> Second question, yes you are right
> i define pixel size in my program from ENVI GUI
> how get pixel size WITHOUT ENVI GUI ?

Subject: Re: diferent results in program and envi
Posted by [Jean H.](#) on Wed, 01 Aug 2007 19:24:36 GMT
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skymaxwell@gmail.com wrote:

> first question is closed ;)
> now it's works
>
> second question about getting pixel size in program still active :(
>
>
>
>> Second question, yes you are right
>> i define pixel size in my program from ENVI GUI
>> how get pixel size WITHOUT ENVI GUI ?

Well, if your image is georeferenced, you can do
 $\text{pixSizeX} = (\text{max}(\text{coord X}) - \text{min}(\text{coord X})) / \text{nb of Pixels in the X direction}$

...if your image is not georeferenced, you would have to find it by other means... the best one is probably the metadata of your image / sensor! ... otherwise, to ESTIMATE it, you would need to identify two features on your image and you would have to know their exact coordinate or at least the distance between the 2 features. ... then you need to find the number of pixels in the X and Y direction between the two features... make sure to consider fractions of pixels! ... and you apply the same idea as if your image was georeferenced..

Hope that helps!

Jean

Subject: Re: diferent results in program and envi
Posted by [Jeff N.](#) on Wed, 01 Aug 2007 20:05:30 GMT
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On Aug 1, 2:09 pm, "skymaxw...@gmail.com" <skymaxw...@gmail.com> wrote:

> first question is closed ;)
> now it's works
>
> second question about getting pixel size in program still active :(
>
>> Second question, yes you are right
>> i define pixel size in my program from ENVI GUI
>> how get pixel size WITHOUT ENVI GUI ?

I've clearly missed something fundamental here, b/c I really just don't get how you're able to come up with a value for a pixel size if you're using the ENVI GUI, but you can't come up with that value if you're writing a program. So I'm going to bow out of this one and let smarter people than me jump in :)

Jeff
