
Subject: Re: subset an image by coordinates

Posted by [Jeremy Bailin](#) on Mon, 21 Sep 2009 02:27:39 GMT

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On Sep 20, 1:00 pm, "Alvaro Paredes L." <alvaropared...@gmail.com> wrote:

> On 20 sep, 10:24, Robert <robert.m...@gmail.com> wrote:

>

>

>

>

>

>> On Sep 20, 8:12 am, Jeremy Bailin <astroco...@gmail.com> wrote:

>

>>> On Sep 19, 11:14 pm, "Alvaro Paredes L." <alvaropared...@gmail.com>

>>> wrote:

>

>>>> Hi all

>

>>>> I was searching on the web, but i didn't find an answer to my problem.

>>>> I need to make a subset on an image using

>

>>>> coordinates, but i can't find a way to do it. I see this method

>

>>>> http://groups.google.es/group/comp.lang.idl-pvwave/browse_frm/thread/...

>>>> and this other (very

>

>>>> similar) <http://www.mombu.com/programming/IDL/t-subset-an-image-by-roi-in-IDL-...>,

>>>> but don't use

>

>>>> coordinates, use an evf file.

>

>>>> IDL/ENVI has a widget that use only two coordinates to cut (upper-left

>>>> and lower-right coordinate), but it isn't

>

>>>> fully automatically.

>

>>>> Is there any function to cut the image with set coordinates and save

>>>> it in a new file?

>

>>>> I really hope you can help me... I'm not a programmer and this

>>>> sometimes it's very hard

>

>>>> Thanks!

>

>>>> Alvaro

>

>>> Do you mean like:

```

>
>>> newimage = oldimage[x0:x1,y0:y1]
>
>>> ?
>
>>> -Jeremy.
>
>> If the original author is looking to subset by map coordinates, he
>> needs to use the procedure
>
>> ENVI_CONVERT_FILE_COORDINATES, FID, XF, YF, XMap, YMap
>
>> to convert the corners of his image in map coordinates to file
>> coordinates. Once he has the proper file coordinates, he can subset
>> the image. If you give us a little more specifics of what you are
>> trying to do, we can probably provide more information.
>
>> r
>
> Thanks for the quick help. I have an image with degrees coordinates
> and with the function that Robert suggested
> (ENVI_CONVERT_FILE_COORDINATES) i can transform coord to pixel value
> without problems (as the script i show below). But i try to do that
> Jeremy suggest, but i don't know if is it properly working
> (image=img_file[XF,YF]??)
>
> forward_function ENVI_CONVERT_FILE_COORDINATES
> pro SUBSET
> envi, /restore_base_save_files
> envi_batch_init,log_file='batch.txt'
>
> ; define the image to be opened
> img_file='F:\IMAGE\NDVI-HDF\try\NDVI_2008_03_02.img'
> envi_open_file,img_file,r_fid=fid
> print, 'fid=',fid
>
> ; define coordinates to make the subset
> YMap=[-32.6030694, -32.9797194]
> XMap=[-71.0580916, -70.5006694]
>
> ENVI_CONVERT_FILE_COORDINATES, FID, XF, YF, XMap, YMap
>
> ; rounds the pixel value to its closest integer.
> XF=ROUND(XF)
> YF=ROUND(YF)
>
> ; verify the conversion
> print, 'X pixel ',XF

```

```
> print, 'Y pixel ', YF
>
> ;making the subset??????
> image=img_file[XF,YF]
>
> ; Exit Envi
> envi_batch_exit
> end
>
> Finally, and maybe this is a basic question, how i save this "subset"
> in a .img file?
>
> Thanks!
>
> Alvaro
```

Note the colons in my example. :-)= Instead of

```
image=img_file[XF,YF]
```

you probably want:

```
image=img_file[XF[0]:XF[1], YF[0]:YF[1]]
```

-Jeremy.
