
Subject: subset an image by roi in idl

Posted by [gis_learner](#) on Mon, 25 Sep 2006 14:55:38 GMT

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Dear All,

I am a new comer to IDL world. Moreover I am not that good at coding.
Thus I need your advices,

I want to subset images via the same roi. Images are updated every 10
minutes or so.

I walked through the previous answers. And they worked fine, how ever
the subseted image is as big as the first one.

I will paste the code that I combined from web.
Any help is appreciated

Best REgards

```
pro sbst_ia_v2
envi, /restore_base_save_files
envi_batch_init, log_file='batch.txt'

; define the image to be opened
; pixel size is a function of selevted file
img_file= 'C:\RS\IDL61\products\ENVI41\data\can_tmr.img'
envi_open_file,image_file, r_fid=fid
;print,'r_fid=',r_fid,'fid=',fid
print,'fid=',fid

name='C:\RS\IDL61\subset_via_roi\roi1.roi'
envi_restore_rois,name
roi_ids = envi_get_roi_ids(fid=r_fid)
roi_addr=envi_get_roi(roi_ids)

print, 'ROI: ', name, n_elements(roi_addr)
; check the roi element number
;print,'name=',name, ' roi_ids=',roi_ids

;for j=0,0 Do begin
roi_data=envi_get_roi_data(roi_ids,fid=fid,pos=[0])
; print, 'roi_data'
;print, roi_data
envi_get_roi_information,roi_ids,ns=ns,nl=nl
print, 'ns= ',ns, '**nl=',nl
roi_adresses=envi_get_roi(roi_ids)
```

```
out_data = intarr(ns,nl)
out_data [roi_adresses]=roi_data
;print, roi_adresses
; define the area to map out
;yz_data=out_data[195:362,88:173]
envi_write_envi_file,
out_data,ns=ns,nl=nl,out_name='out_name',map_info=map_info
;endfor
;envi_batch_exit
```

end

Subject: Re: subset an image by roi in idl
Posted by peter.eddy@shaw.ca on Fri, 29 Sep 2006 15:45:20 GMT
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Keep in mind the code above was written by a self taught user, but it does the trick.

Subject: Re: subset an image by roi in idl
Posted by [Jean H.](#) on Fri, 29 Sep 2006 17:34:22 GMT
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```
> ;Prepare the subset dimensions
> dims[0]=-1L
> dims[1]=min(xf)-1
> dims[2]=max(xf)-1
> dims[3]=min(yf)-1
> dims[4]=max(yf)-1
```

Do not do the -1 here.

Envi_convert_file_coordinates already returns the pixel locations starting at 0 and therefore doing -1 induces a shift of 1 pixel in the subseted image.

This method only returns rectangular subset. You might want to mask the pixels outside of your polygon.

Jean H.

Subject: Re: subset an image by roi in idl
Posted by peter.eddy@shaw.ca on Tue, 03 Oct 2006 15:00:32 GMT
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Thanks for your comments/ correction Jean.
This 0,0 / 1,1 difference between IDL and ENVI causes me endless
confusion.
