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Subject: Re: Apply a shapefile to raster images in IDL

Posted by [lbuset](#) on Thu, 07 Oct 2004 12:08:27 GMT

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Hi Jenny,

If your images are all of the same size I think that you can solve your problem simply by using ENVI.

- 1: Open one of your images and load it in a display
- 2: Convert your shapefile to an ENVI vector file (EVF) by clicking  
> Vector > Open Vector File > Shapefile
- 3: Load your vector on the display where you have loaded your image (In the "available vectors list" select the vector, then click on "load" and then on "Display# (your\_display)")
- 4: In the "Vector Parameters" window that appears, select "File > Export active layer to ROI"
- 5: Select "basic tools > masking > build mask" and select your display
- 6: Select "Options > Import ROIS", then select the ROI you created from your vector and click on "OK". Next, choose a name for the mask file that you want to create and click on "Apply". Now, in the "available bands list" you should see a new image, which has value 0 outside the vector and 1 inside it.
- 7: Now, you can use this "0-1" image as a mask for your image. Go to Basic tools > apply mask. Select one of the images that you want to mask, then click on "Select mask band" and select the mask image. Click on "OK".

If you have many images and you don't want to repeat n-times the last step you can use an IDL procedure that automatically opens the images and apply the mask on each one.

I think that something like this should work: it's a simple modification of the example program that you can find on the ENVI User's guide.

```
pro multiple_mask
```

```
; Select input files (Select all your images)
```

```
files_list = dialog_pickfile(/READ,title='Select input$  
files',/multiple_files)
```

```
; Select the mask File
```

```
mask_file = dialog_pickfile(/read, title = 'Select Mask File')  
envi_open_file, mask_file, r_fid=m_fid
```

```

; Count the number of files

num_files = N_elements (files_list)

for count = 0, num_files-1 do begin

; Selects the n- file. Output file name is
"input_file_name"+"-masked"

in_file = files_list [count]
out_file =files_list [count]+'-masked'
envi_open_file, in_file, r_fid=fid
if (fid eq -1 or m_fid eq -1) then return

; get some useful information and set the output filename.
envi_file_query, fid, ns=ns, nl=nl, nb=nb, bname=bname

; Set the keyword parameters
dims = [-1l, 0, ns-1, 0, nl-1]
pos = lindgen(nb)
m_pos = [0]

; Call the 'doit' to apply the mask

envi_mask_apply_doit, fid=fid, pos=pos, dims=dims,m_fid=m_fid,$
m_pos=m_pos, value=0, out_name=out_file, in_memory=0, $
r_fid=r_fid

endfor

end

```

I hadn't fully tested it, but it should work.

Hope this helps,

Lorenzo

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