
Subject: routine in ENVI to pass from EVF to ROI????

Posted by [txominhermos](#) on Thu, 03 Aug 2006 07:20:42 GMT

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Hello mates,

I am trying but I am not able to find the ENVI routine to program the conversion from EVT to ROI (or the one to pass from SHP to EVF to ROI).

Does it exist? or it is not possible to do it by programming.

Thanks for your attention.

txo

Subject: Re: routine in ENVI to pass from EVF to ROI????

Posted by [txominhermos](#) on Fri, 04 Aug 2006 09:37:58 GMT

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> If you just want a rectangle area that includes all the ROIs, why not
> just read the coordinates of vertexes and get the maximum and minimum
> values?

YES, I want a rectangle, but I just can get the pixel addresses (
roi_addresses = ENVI_GET_ROI(roi_id)), and I cannot use

image(roi_addresses)= 1

and then extract the array_indices, to get the coordinates, because I
am working with 40000X35000 pixels images, so the computer does not
have enough memory.

Do u know how to get the coordinates and then do the subset using just
the envi routines as ENVI_WRITE_ENVI_FILE or to an external file (like
tiff) ???

Subject: Re: routine in ENVI to pass from EVF to ROI????
Posted by [David Streutker](#) on Fri, 04 Aug 2006 15:50:11 GMT
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Once you have the vector of roi_addresses, you can use ARRAY_INDICES to convert the addresses to 2-dimensional coordinates. Then find the MIN and MAX of the x and y coordinates.

If you have read the original file already, just use
ENVI_WRITE_ENVI_FILE, Data[xMin:xMax,yMin:yMax] ...

If you don't have enough memory to read in the original file, I *think* you can use MOSAIC_DOIT to clip the original. MOSAIC_DOIT is meant for use with multiple files, but I believe it will work with a single one, and you can use the x0 and y0 keywords to effectively subset the image.

-David

Subject: Re: routine in ENVI to pass from EVF to ROI????
Posted by [txominhermos](#) on Mon, 07 Aug 2006 06:45:55 GMT
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Thanks for your reply David,
but I don't know how to use ARRAY_INDICES with an image load via ENVI_OPEN_FILE. As you know the arguments required are Array and Index, but I do not have the array in memory (because it is too big).

I have got the indices from:

```
FOR j=0,nb-1 DO BEGIN
    roi_data = ENVI_GET_ROI_DATA( roi_id, fid=fid, pos = [j])
    ENVI_GET_ROI_INFORMATION, roi_id, ns=ns, nl=nl
    roi_addresses = ENVI_GET_ROI(roi_id)          ; Get the
"position" of the pixels in the ROI
ENDFOR
```

So, the main problem -in this moment- is how to transform pixel addresses into pixel coordinates with an image load via ENVI_OPEN_FILE and without memory to store that image.

-txomin

David Streutker ha escrito:

> Once you have the vector of roi_addresses, you can use ARRAY_INDICES to
> convert the addresses to 2-dimensional coordinates. Then find the MIN
> and MAX of the x and y coordinates.
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> use with multiple files, but I believe it will work with a single one,
> and you can use the x0 and y0 keywords to effectively subset the image.
>
> -David

Subject: Re: routine in ENVI to pass from EVF to ROI????
Posted by [David Streutker](#) on Mon, 07 Aug 2006 15:43:42 GMT
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Once the file is opened with ENVI_OPEN_FILE, use ENVI_FILE_QUERY with the DIMS keyword to get the dimensions (lines and samples).

ARRAY_INDICES also has a DIMENSIONS keyword so that you don't need the entire array, just the dimensions of it.

-David

Subject: Re: routine in ENVI to pass from EVF to ROI????
Posted by [txominhermos](#) on Tue, 08 Aug 2006 08:56:19 GMT
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Thanks for all David, your help has been great :)

I have seen in internet that the DIMENSIONS keyword has been added in the version 6.0. I do have the ENVI 4.0 with IDL 6.0.1 and I cannot use that keyword, but at least I know where I can find the solution.

-Txomin

David Streutker ha escrito:

> Once the file is opened with ENVI_OPEN_FILE, use ENVI_FILE_QUERY with
> the DIMS keyword to get the dimensions (lines and samples).
>
> ARRAY_INDICES also has a DIMENSIONS keyword so that you don't need the
> entire array, just the dimensions of it.
>
> -David

Subject: Re: routine in ENVI to pass from EVF to ROI????
Posted by [txominhermos](#) on Tue, 08 Aug 2006 09:15:48 GMT
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well, i have found the code of the function in internet :)

thanks again!

txominhermos@gmail.com ha escrito:

> Thanks for all David, your help has been great :)
>
> I have seen in internet that the DIMENSIONS keyword has been added in
> the version 6.0. I do have the ENVI 4.0 with IDL 6.0.1 and I cannot use
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>
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>
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