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Subject: Re: Obtain Pixel values in ENVI and report those to IDL

Posted by [Jean H.](#) on Thu, 04 Dec 2008 14:39:35 GMT

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david.b.valdez@gmail.com wrote:

> I need to obtain pixel values interactively, via my cursor in an ENVI  
> displayed image and report those out to IDL so I can read them into  
> the REGION\_GROW routine. This may seem simple but I can't figure it  
> out.  
>  
> Thanks for your help.  
> Dave

Hi Dave,

ok, since no specialist have answered, here is a try.

First, I doubt you are doing the right program "combination"... I believe you should either do everything within IDL (open an image, select the pixel, grow your region), or within Envi, by calling an IDL function... but transferring data back and forth is likely going to be a pain.

For the first option, well, the degree of complexity depends on what is your data and your goal...

```
;Open your image
openr, unit,image, /get_lun
readu, unit, img
close, unit & free_lun, unit
```

```
;display it
tvimage, img
```

```
;select a pixel
cursor,x,y
```

```
;grow your region and else!
```

-----

For the second option, read in Envi help under menu/item user values. It tells you how to integrate an IDL program in Envi.

Your program would, I guess, be like

```
;select a pixel
cursor,x,y
```

```
;grow your region and else!
```

Hope this helps!  
Jean

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Subject: Re: Obtain Pixel values in ENVI and report those to IDL  
Posted by [David Fanning](#) on Thu, 04 Dec 2008 15:20:26 GMT  
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Jean H. writes:

```
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> close, unit & free_lun, unit
>
> ;display it
> tvimage, img
>
> ;select a pixel
> cursor,x,y
>
> ;grow your region and else!
```

I doubt very much this is going to work, except in a very narrow set of circumstances. To grow the region, you are going to have to know the value of the image at a particular location. In general, you can't obtain that kind of information from an image display (which, by necessity, is scaled into the range of 0 to 255 and usually rebinned to fit into a display window).

You could, for example, get the value of your image at a particular location in the image by using a program such as IMGWIN:

<http://www.dfanning.com/catalyst/imgwin.html>

To do this absolutely accurately, you would have to display

the image full size:

```
IDL> ImgWin, image, /FULL_RESOLUTION
```

I really have no idea how to do this kind of thing in ENVI, but the idea for IMGWIN was stolen from ENVI, so I presume a similar thing is possible. :-)

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: Obtain Pixel values in ENVI and report those to IDL  
Posted by [Jean H.](#) on Thu, 04 Dec 2008 15:33:16 GMT

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> I doubt very much this is going to work, except in a very  
> narrow set of circumstances. To grow the region, you are  
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> location. In general, you can't obtain that kind of information  
> from an image display (which, by necessity, is scaled into  
> the range of 0 to 255 and usually rebinned to fit into a  
> display window).

oops, you are right, I forgot to query the data...

in Envi, use ENVI\_GET\_DATA()

Jean

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Subject: Re: Obtain Pixel values in ENVI and report those to IDL  
Posted by [jeffnetles4870](#) on Thu, 04 Dec 2008 18:27:37 GMT

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On Dec 3, 4:33 pm, david.b.val...@gmail.com wrote:

> I need to obtain pixel values interactively, via my cursor in an ENVI  
> displayed image and report those out to IDL so I can read them into  
> the REGION\_GROW routine. This may seem simple but I can't figure it  
> out.  
>

> Thanks for your help.  
> Dave

You could also use one of two options if you want to stick to using ENVI displays:

If you want to have a routine that just gets the current coordinates under the cursor, then operate on those coordinates only, then you should probably use `DISP_GET_LOCATION`.

If you want a routine that continuously updates as the cursor is moved around in the image display, then you will probably want to set up a "user defined move" or "user defined motion" routine (i always forget the difference between the two). See ENVI documentation for those, they require a preference setting to work.

Jeff

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