## Subject: error in a simple pro Posted by yychongzi on Wed, 12 Sep 2007 23:46:48 GMT View Forum Message <> Reply to Message

Hi, I am new to ENVI and IDL, but really interested and trying to learn.

Below is a simple pro file for reading ENVI image, but there is something wrong with the line 'for i=0, .....' Could anyone tell me why? Thanks a lot.

```
envi_select, title='choose image', fid=fid, dims=dims, pos=pos if(fid eq -1) then begin print, 'cancelled' return endif

envi_file_query, fid, fname = 'C:\ars\data\test'

num_cols = dims[2] - dims[1] + 1
num_rows = dims[4] - dims[3] + 1
num_bands = n_elements(pos)

image = fltarr(num_bands,num_cols,num_rows)

for i=0, num_bands -1 do image[i,*,*] = envi_get_data (fid=fid, dims=dims, pos = pos[i])

window, 11, xsize=num_cols, ysize=num_rows, title = fname tvscl, image[0,*,*]

print, num_cols
```

Subject: Re: error in a simple pro Posted by David Fanning on Thu, 13 Sep 2007 03:30:35 GMT View Forum Message <> Reply to Message

yychongzi@gmail.com writes:

- > Below is a simple pro file for reading ENVI image, but there is
- > something wrong with the line 'for i=0, .....' Could anyone tell me
- > why?

end

I am going to presume you are having trouble compiling this

file, with IDL reporting a syntax error. This sheds some light on a couple of things I have noticed from time to time, that I am certain is not how IDL used to work. (I would test it, but a couple of weeks ago, in an effort to get more work out of an old machine, I deleted all my old IDL versions.)

Here is what I think is happening. You don't have the file ENVI\_GET\_DATA on your IDL path. Thus, when you go to compile this file, this line causes a syntax error:

```
for I=0, num_bands -1 do image[I,*,*] = $
  envi_get_data (fid=fid, dims=dims, pos = pos[I])
```

The problem is this. IDL can't find ENVI\_GET\_DATA on your path, so it thinks ENVI\_GET\_DATA is a variable, not a function call. This then \*is\* the wrong IDL syntax for a variable, and IDL complains about it. Correctly, I think.

There are a couple of things you can do to get the file compiled.

- (1) Make sure the ENVI files are on your IDL path before you try to compile ENVI functions. This is a good idea, since even if the file compiles, it won't run unless this happens.
- (2) Add this line at the start of your program, so IDL knows it is a function:

```
FORWARD FUNCTION ENVI GET DATA
```

(3) Set the compiler option STRICTARR. (This is the best solution in my opinion, and should be done in \*all\* your IDL programs.)

```
COMPILE_OPT STRICTARR
```

Normally, you will see this written as this:

```
COMPILE OPT idl2
```

which is just a short-hand way of getting STRICTARR and DEFINT32 (long integers as the default, also a good thing).

Cheers.

## David

--

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.")

Posted by Mort Canty on Thu, 13 Sep 2007 09:10:13 GMT

Subject: Re: error in a simple pro

```
View Forum Message <> Reply to Message
yychongzi@gmail.com schrieb:
> Hi, I am new to ENVI and IDL, but really interested and trying to
> learn.
> Below is a simple pro file for reading ENVI image, but there is
> something wrong with the line 'for i=0, .....' Could anyone tell me
 why? Thanks a lot.
>
> pro readenvi
>
> envi select, title='choose image', fid=fid, dims=dims, pos=pos
> if(fid eq -1) then begin print, 'cancelled'
> return
 endif
>
> envi_file_query, fid, fname = 'C:\ars\data\test'
>
> num_cols = dims[2] - dims[1] + 1
> num_rows = dims[4] - dims[3] + 1
 num bands = n elements(pos)
>
>
 image = fltarr(num_bands,num_cols,num_rows)
>
for i=0, num_bands -1 do image[i,*,*] = envi_get_data (fid=fid,
> dims=dims, pos = pos[i])
> window, 11, xsize=num_cols, ysize=num_rows, title = fname
> tvscl, image[0,*,*]
> print, num cols
> end
```

by any chance forget the \$ in the first line of your FOR statement? The keyword FNAME in ENVI\_FILE\_QUERY is for output by the way, so you should write

ENVI\_FILE\_QUERY, fid, fname=fname

Cheers,

Mort

Subject: Re: error in a simple pro Posted by David Fanning on Thu, 13 Sep 2007 12:53:28 GMT View Forum Message <> Reply to Message

mort canty writes:

> Runs OK for me (it should, since it's one of my examples :-) ).

I \*thought\* that code was pretty polished for a newbie. :-)

Cheers,

David

--

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.")

Subject: Re: error in a simple pro Posted by yychongzi on Fri, 14 Sep 2007 00:56:10 GMT View Forum Message <> Reply to Message

I am surprised that Mort Canty replied to my question. Yes, the program is the first example in your book! And Dr. Fanning, I am reading your book too!

Problem not solved.

I put all the files (pro and ENVI data) on the IDL path, and added two lines:

COMPILE\_OPT idl2
FORWARD FUNCTION envi select, ENVI GET DATA, envi file query

The 'ENVI\_GET\_DATA' turned into different color, I guess IDL knows about it, but I got an error message:

Attempt to call undefined procedure/function: 'ENVI\_SELECT'. Actually when I tried to remove the for statement, I got the same message as above. If I removed the envi-select, then envi\_file\_query is the problem.

Fanning, thanks for pointing out the IDL path. I found IDL sometimes only runs the old file for me, that is the reason.

Mort, I did not forget the '\$', I wrote the statement into one line.

And 'fhame=fname ' won't work either.

Thanks a lot for your time to help a newbie ^\_^

Subject: Re: error in a simple pro Posted by yychongzi on Fri, 14 Sep 2007 04:13:26 GMT View Forum Message <> Reply to Message

It runs after adding the following tow lines:

```
envi, /restore_base_save_files
envi_init, /batch_mode
```

---

**Thanks** 

On Sep 13, 5:56 pm, yychon...@gmail.com wrote:

- > I am surprised that Mort Canty replied to my question. Yes, the
- > program is the first example in your book! And Dr. Fanning, I am
- > reading your book too!

>

- > Problem not solved.
- > I put all the files (pro and ENVI data) on the IDL path, and added two
- > lines:

>

- > COMPILE\_OPT idl2
- > FORWARD\_FUNCTION envi\_select, ENVI\_GET\_DATA, envi\_file\_query

>

- > The 'ENVI\_GET\_DATA' turned into different color, I guess IDL knows
- > about it, but I got an error message:
- > Attempt to call undefined procedure/function: 'ENVI\_SELECT'.
- > Actually when I tried to remove the for statement, I got the same

- > message as above. If I removed the envi-select, then envi\_file\_query
- > is the problem.

- > Fanning, thanks for pointing out the IDL path. I found IDL sometimes
- > only runs the old file for me, that is the reason.
- > Mort, I did not forget the '\$', I wrote the statement into one line.
- > And 'fhame=fname ' won't work either.

> Thanks a lot for your time to help a newbie ^\_^