
Subject: Re: ENVI header files in IDL

Posted by [David Fanning](#) on Wed, 27 Feb 2008 15:39:11 GMT

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Raghu writes:

- > In IDL, i'm using filesearch function to read through files of certain
- > types.
- > Since an envi file has no specific extension, i'm not able to figure
- > out how to sort out the files.
- > Here's an example:
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- > Say i have 2 images in ENVI format. It would look like IMAGE1,
- > IMAGE1.hdr, IMAGE2, IMAGE2.hdr.
- > As you can see, its only the header file which has the extension. When
- > i use the filesearch(image*), i am not
- > able to ignore the header files. These header files are not to be
- > processed.
- >
- > Any ideas of how to choose only the images and not the header files,
- > as in this case ?
- > I guess i could convert the files to IMG so that they have an
- > extension, but there must be an easier way.

Are you feeling confident this morning? Charged up?
If so, you may want to try to wrap your head around
regular expressions. Here is where I would go for a
start:

<http://www.ittvis.com/codebank/search.asp?FID=311>

This points you to Mike Galloy's excellent article on
the subject. I've been studying the damn things for years
without making the slightest bit of progress, but maybe
you will have more luck.

Failing that, I think a WHERE statement to locate the
parts of the file search array you want to keep
(or eliminate) wouldn't be totally out of place. :-)

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: ENVI header files in IDL

Posted by [Bob\[3\]](#) on Wed, 27 Feb 2008 17:29:07 GMT

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On Feb 27, 10:39 am, David Fanning <n...@dfanning.com> wrote:

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> 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.")- Hide quoted text -
- >
- > - Show quoted text -

Or, if you know you only have at max image0 thru image9:

```
result = FILE_SEARCH('image?')
```

Or if your known max is image99:

```
result = FILE_SEARCH('{image?,image??}')
```

(that is if you're not feeling up to regular expressions)

Subject: Re: ENVI header files in IDL

Posted by [Jean H.](#) on Wed, 27 Feb 2008 17:36:33 GMT

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Raghu wrote:

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- > Thanks,
- >
- > Raghu

Hi,

you can do a filesearch on the headers only

```
filesToOpen = filesearch('image*.hdr') --> all that start with 'image'
```

and ends with '.hdr')
then remove the last 4 characters from the strings. Test if the file exists. If yes, open it. If not, try to add the common extensions (.dat, then .img etc). Of course, sort the order of the extensions (nothing, .dat etc) so that most images to process have the first extension (or lack of extension).

here is a slightly different code that I use. The user select a file. If there is no extension in that file, it is open. Otherwise, the code looks for the file with the possible extensions.

```
fileToOpen = dialog_pickFile(path = searchFolder, GET_PATH =  
searchFolder, /must_exist, title = title)
```

```
;  
;If the user selected a .hdr, remove the extension and find the correct  
one.
```

```
if (STRLOWCASE(strmid(fileToOpen,3, /REVERSE_OFFSET)) eq '.hdr') or  
(STRLOWCASE(strmid(fileToOpen,3, /REVERSE_OFFSET)) eq '.aux') then begin  
fileToOpen= strmid(fileToOpen, 0,strlen(fileToOpen)-4)
```

```
extensionNotFound = 1B  
currentExtension = 0  
tmpFileToOpen = fileToOpen  
commonExtensions = ['.dat', '.img']  
while extensionNotFound and currentExtension lt  
n_elements(commonExtensions) do begin  
if FILE_TEST(tmpFileToOpen) eq 0 then begin  
tmpFileToOpen = fileToOpen + commonExtensions[currentExtension]  
currentExtension +=1  
endif else begin  
extensionNotFound = 0B  
fileToOpen = tmpFileToOpen  
endelse  
endwhile  
  
endif
```

Jean

Subject: Re: ENVI header files in IDL
Posted by [raghuram](#) on Tue, 11 Mar 2008 02:30:59 GMT
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On Feb 27, 10:36 am, Jean H <jghas...@DELTHIS.ucalgary.ANDTHIS.ca>
wrote:

```

> Raghu wrote:
>> Hi,
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commonExtensions[currentExtension]
>         currentExtension +=1
>     endif else begin
>         extensionNotFound = 0B
>         fileToOpen = tmpFileToOpen
>     endelse
> endwhile
>
> endif
>
> Jean- Hide quoted text -
>
> - Show quoted text -
```

Hi,

I got a very simple answer to my question from James Jones on the ITTVIS usergroup.

Here it is:

```
images=FILE_SEARCH('*[^\.{hdr}]', /QUOTE)
```

In this case, the file_search function ignores the hdr files and reads in only whats left.

Credit to James Jones for this.

Thanks,
Raghu
