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Subject: Re: fits\_help issues again/still

Posted by [David Fanning](#) on Thu, 23 Jul 2009 20:41:28 GMT

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Barbara writes:

> I am trying to split fits files into headers and images. however, when  
> i try to fits\_help, the file, it goes into an error. it wasn't doing  
> this about 10 minutes ago and now it is. My astrolib is in the path,  
> but it's having an error at line 62 of fits\_help.pro. Help!

You really have to give us more clues. We only  
appear to be clairvoyant. :-)

For example, it would help a great deal to know  
what the error is.

Cheers,

David

--

David Fanning, Ph.D.

Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))

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

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Subject: Re: fits\_help issues again/still

Posted by [Barbara](#) on Thu, 23 Jul 2009 20:43:47 GMT

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On Jul 23, 1:41 pm, David Fanning <n...@dfanning.com> wrote:

> Barbara writes:

>> I am trying to split fits files into headers and images. however, when  
>> i try to fits\_help, the file, it goes into an error. it wasn't doing  
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>

> David

>

> --  
> David Fanning, Ph.D.  
> Coyote's Guide to IDL Programming (www.dfanning.com)  
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

this is what it tells me:

```
% FITS_OPEN: ERROR: OPENR: Error opening file. Unit: 100
      File: C:\Documents and Settings\kerri_2\Desktop
\medvar_IDL_
      stuff\spec6sep080079.a.fits
% Expression must be a structure in this context: FCB.
% Execution halted at: FITS_HELP      62 C:\Documents and
  Settings\kerri_2\Desktop\Course_Files\astrolib\pro\fits
\fits_help.pro
%      $MAIN$
```

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Subject: Re: fits\_help issues again/still  
Posted by [David Fanning](#) on Thu, 23 Jul 2009 21:00:56 GMT  
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Barbara writes:

> this is what it tells me:  
>  
> % FITS\_OPEN: ERROR: OPENR: Error opening file. Unit: 100  
> File: C:\Documents and Settings\kerri\_2\Desktop  
> \medvar\_IDL\_  
> stuff\spec6sep080079.a.fits  
> % Expression must be a structure in this context: FCB.  
> % Execution halted at: FITS\_HELP 62 C:\Documents and  
> Settings\kerri\_2\Desktop\Course\_Files\astrolib\pro\fits  
> \fits\_help.pro  
> % \$MAIN\$

Well, I would say the most likely explanation is that whatever you passed to FITS\_HELP wasn't what it was expecting. Was it the name of a FITS file? Or was it an IDL structure variable? You can use the "HELP, variable" syntax to find out what it was. If it is a structure, set the /STRUCTURE keyword to the HELP command so you can see what fields it has in it. Is there a field named "extname"?

Cheers,

David

--

David Fanning, Ph.D.  
Coyote's Guide to IDL Programming (www.dfanning.com)  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: fits\_help issues again/still  
Posted by [Barbara](#) on Thu, 23 Jul 2009 21:07:43 GMT  
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On Jul 23, 2:00 pm, David Fanning <n...@dfanning.com> wrote:  
> Barbara writes:  
>> this is what it tells me:  
>  
>> % FITS\_OPEN: ERROR: OPENR: Error opening file. Unit: 100  
>> File: C:\Documents and Settings\kerri\_2\Desktop  
>> \medvar\_IDL\_  
>> stuff\spec6sep080079.a.fits  
>> % Expression must be a structure in this context: FCB.  
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> has in it. Is there a field named "extname"?  
>  
> Cheers,  
>  
> David  
> --  
> David Fanning, Ph.D.  
> Coyote's Guide to IDL Programming (www.dfanning.com)  
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

my variable is a string. What is so confusing is it was all working 10 min ago! and I even tried to use the file I was working on before that it had worked on, and it's not. I have no idea what ext name is. I wasn't using my variable (cause for some reason that never works) so I was using the actual file name, copied directly from the folder it's in.

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Subject: Re: fits\_help issues again/still  
Posted by [Barbara](#) on Thu, 23 Jul 2009 21:18:59 GMT  
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On Jul 23, 2:07 pm, Barbara <med...@susqu.edu> wrote:

> On Jul 23, 2:00 pm, David Fanning <n...@dfanning.com> wrote:

>

>

>

>> Barbara writes:

>>> this is what it tells me:

>

>>> % FITS\_OPEN: ERROR: OPENR: Error opening file. Unit: 100

>>> File: C:\Documents and Settings\kerri\_2\Desktop

>>> \medvar\_IDL\_

>>> stuff\spec6sep080079.a.fits

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>>> % Execution halted at: FITS\_HELP 62 C:\Documents and

>>> Settings\kerri\_2\Desktop\Course\_Files\astrolib\pro\fits

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>>> % \$MAIN\$

>

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> wasn't using my variable (cause for some reason that never works) so I

> was using the actual file name, copied directly from the folder it's

> in.

ok... I moved the file into my default library and it works. However,  
I'm trying to work on a lot of fits, that are all in a folder to make  
my life easier and more organized. Should i make that my default  
library then? and move the library that is currently my default to

just another library? Having it as a folder inside the current default library also causes issues

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Subject: Re: fits\_help issues again/still

Posted by [David Fanning](#) on Thu, 23 Jul 2009 21:22:48 GMT

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Barbara writes:

> my variable is a string. What is so confusing is it was all working 10  
> min ago! and I even tried to use the file I was working on before that  
> it had worked on, and it's not. I have no idea what ext name is. I  
> wasn't using my variable (cause for some reason that never works) so I  
> was using the actual file name, copied directly from the folder it's  
> in.

Humm. I hope you are not one of those people who thinks programming is easy, or that it "always makes sense".

Here is something to try. Type "RETALL" (this stands for RETurn ALL the way back to the main IDL level). This might get you back on track. It could be that when you crashed your program you got stuck inside the program. That will certainly confuse you.

Here is a piece of advice. Well over 95% of programming errors are caused by the programmer. An untold number of these are caused by the programmer \*thinking\* he or she knows what is going on, but not realizing they are making bogus assumptions.

So, when something goes wrong (and it does about every 10 minutes or so, on average, for most programmers) take a couple of deep breaths and start questioning your assumptions. Then test a few of them. Have a look around. Maybe just gaze out the window at the mountains (if you have any) for a couple of minutes to settle yourself. Sometimes I do my best debugging when I go for a short walk in the park across the street. Then step through your code to see if what you THINK you are doing is really what you are doing. 9 times out of 10 it is not, and you have found that bug.

Now, on to the next one! :-)

Cheers,

David

--

David Fanning, Ph.D.

Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))

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

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Subject: Re: fits\_help issues again/still

Posted by [David Fanning](#) on Thu, 23 Jul 2009 21:43:47 GMT

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Barbara writes:

> ok... I moved the file into my default library and it works. However,  
> I'm trying to work on a lot of fits, that are all in a folder to make  
> my life easier and more organized. Should i make that my default  
> library then? and move the library that is currently my default to  
> just another library? Having it as a folder inside the current default  
> library also causes issues

No, no, no. Goodness, no. :-)

Stay organized. Lumping things all together in one folder will make your workspace look like my wife's desk. You don't want that! :-)

Just be sure you are clear on what a "relative" filename is, and what an "absolute" filename is. It is probably always best to use absolute filenames, if you are not sure exactly where you are.

And, are you \*sure\* you have your IDL path problems worked out? If you set your path properly, you won't have to be worrying so much about where things are. They will be found when they are needed.

Have you considered a good book about IDL programming. :-)

Cheers,

David

--

David Fanning, Ph.D.

Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))

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

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Subject: Re: fits\_help issues again/still  
Posted by [penteado](#) on Thu, 23 Jul 2009 22:13:13 GMT  
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On Jul 23, 6:00 pm, David Fanning <n...@dfanning.com> wrote:  
> Barbara writes:  
>> this is what it tells me:  
>  
>> % FITS\_OPEN: ERROR: OPENR: Error opening file. Unit: 100  
>> File: C:\Documents and Settings\kerri\_2\Desktop  
>> \medvar\_IDL\_  
>> stuff\spec6sep080079.a.fits  
>> % Expression must be a structure in this context: FCB.  
>> % Execution halted at: FITS\_HELP 62 C:\Documents and  
>> Settings\kerri\_2\Desktop\Course\_Files\astrolib\pro\fits  
>> \fits\_help.pro  
>> % \$MAIN\$  
>

That indicates that the error in line 62 is only a consequence of the first error (not being able to open the file). That is the source of the problem. What it is trying to open is C:\Documents and Settings\kerri\_2\Desktop\medvar\_IDL\_stuff\spec6sep080079.a.fits

Which may not be where the file is, as David mentioned, if a relative filename was used. Some program you used might have changed your current directory, and it also might have happened when a file was opened in the editor, if the preference "change directory on file open" is enabled.

Besides returning to the main level, as David suggested, in that sort of situation (something worked 10 minutes before) sometimes it is useful to reset the IDL session (.reset\_session, or .full\_reset\_session), which is almost equivalent to exiting and restarting IDL.

---

Subject: Re: fits\_help issues again/still  
Posted by [penteado](#) on Thu, 23 Jul 2009 22:22:46 GMT  
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> of situation (something worked 10 minutes before) sometimes it is  
> useful to reset the IDL session (.reset\_session,  
> or .full\_reset\_session), which is almost equivalent to exiting and  
> restarting IDL.

I should also have said, that when resetting or restarting IDL helps, it is not because of some unknown esoteric reason. There are many possible reasons for that, such as not being at the main level, as David said, or the presence of variables used as arguments that make some routine use them instead of some default, which happens when the variables are undefined in the beginning of the session.

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