
Subject: can i read multiple files?

Posted by [zircola](#) on Tue, 19 Sep 2006 00:46:19 GMT

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hi..i am relatively new to idl. i got to this newsgroup through dfanning website..now i was thinking if i can read multiple files at the same time in one procedure. can this be done in idl?
thanks

Subject: Re: can i read multiple files?

Posted by [Braedley](#) on Tue, 19 Sep 2006 12:08:26 GMT

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zircola wrote:

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> dfanning website..now i was thinking if i can read multiple files at
> the same time in one procedure. can this be done in idl?
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An addendum to David's post, setting the multiple keyword in dialog_pickfile will return a string array of all the selected files, then it's just a matter of for looping through the array and opening each one, such as:

```
files=dialog_pickfile(/multi, filter=filter, path=path, title=title)
n_files=n_elements(files)
for i=0, n_files-1 do begin
    ;Read the file. In this case, we'll say it's one line of ASCII
    openr, lun, /get_lun, files[i]
    readf, lun, data
    data=fix(data)
    free_lun, lun
    ;Perform the remainder of the analysis for this data
endfor
```

It's probably not a good idea to load every file into a variable at once unless each file is small and uniform, as that can quickly take up memory.

Subject: Re: can i read multiple files?

Posted by [zircola](#) on Wed, 20 Sep 2006 03:18:40 GMT

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thanks david and braedley...works great...this group is really amazing...

Subject: Re: can i read multiple files?

Posted by [zircola](#) on Wed, 20 Sep 2006 03:38:51 GMT

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it is fine, but i wanted to do it automatically not that i have to select the file individually. I want to read the file do the action and again read another file do the same action and read another file and do the same action and so on in the same procedure. My files are in same format and same data attributes but different data set. How can this be done?

Subject: Re: can i read multiple files?

Posted by [David Fanning](#) on Wed, 20 Sep 2006 04:22:30 GMT

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zircola writes:

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> format and same data attributes but different data set. How can this be
> done?

I'm not sure what you are after here. Do you want FILE_SEARCH instead of DIALOG_PICKFILE? Otherwise, it seems your question has pretty much been answered.

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: can i read multiple files?

Posted by [Braedley](#) on Thu, 21 Sep 2006 18:31:41 GMT

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zircola wrote:

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> select the file individually. I want to read the file do the action and
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> format and same data attributes but different data set. How can this be
> done?

My appologies if this caused confusion. Dialog_Pickfile should be used when the you want the user to select a file (or directory) to open. If there is a need to get the user to open more than one file, then include the multiple keyword. If instead you don't want the user to have any choice in the matter, you can either hard code the files into the code (in your case, in the form of an array) or use file_search like David suggested to find files in a directory that match a certain criterion. In either case, you'll still probably use a loop to keep your code more flexible.

I only suggested using dialog_pickfile because often use it during development stages so I can test many different data files without changing the program. It's only after I've added a shell program to do batch processing (once I know the main program is working) that I stop making calls to dialog_pickfile.

Subject: Re: can i read multiple files?

Posted by [Paul Van Delst\[1\]](#) on Thu, 21 Sep 2006 19:53:44 GMT

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Braedley wrote:

> zircola wrote:

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>> select the file individually. I want to read the file do the action and
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> have any choice in the matter, you can either hard code the files into
> the code (in your case, in the form of an array) or use file_search
> like David suggested to find files in a directory that match a certain
> criterion. In either case, you'll still probably use a loop to keep
> your code more flexible.

Or you could generate your filenames on the fly if they follow some sort of pattern (like file001.dat, file002.dat, etc...)e.g.:

for i=1, 100 do begin

 filename=string(i,format='("file",i3.3,".dat")')

```
....  
    open filename, read, write, etc...  
....  
endfor
```

paulv

--

Paul van Delst Ride lots.
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Subject: Re: can i read multiple files?
Posted by [zircola](#) on Fri, 22 Sep 2006 01:05:12 GMT
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Thanks every one, i am learning a lot, i tried all of them. using file search i put all the files in the array but didn't know how to invoke it with for loop, i tried like this

```
file_array=file_search('filepath', '*.dat', count=num_file)  
for i=0,num_file-1 do begin  
file=file_array(i)
```

```
openr, lun, /get_lun, file
```

```
    (read file here)  
free_lun, lun  
    (do all the stuffs like plotting etc here)
```

```
endfor
```

is this how i use the file stored in the array?

for the similar named files, the one suggested by paul works
great,..thanks
i just hope my question is not so stupid

Subject: Re: can i read multiple files?
Posted by [David Fanning](#) on Fri, 22 Sep 2006 02:46:14 GMT
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zircola writes:

```

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>
> file_array=file_search('filepath', '*.dat', count=num_file)
> for i=0,num_file-1 do begin
>   file=file_array(i)
>
>   openr, lun, /get_lun, file
>
>   (read file here)
>   free_lun, lun
>   (do all the stuffs like plotting etc here)
>
> endfor
>
> is this how i use the file stored in the array?
>
> for the similar named files, the one suggested by paul works
> great,..thanks
> i just hope my question is not so stupid

```

Humm. Questions are rarely stupid. I think the problem here is that we are assuming you know a bit more about this than I suspect you do. Most of the people who come to IDL come having written some kind of computer program before. I get the impression you have not. If this is so, I would HIGHLY recommend Ken Bowman's book An Introduction to Programming with IDL. It's great for teaching you what a FOR loop is, etc.

You have mostly the right idea here, but I don't think you have really tried this code out. For example, this code is not likely to work:

```
file_array=file_search('filepath', '*.dat', count=num_file)
```

To see if it worked you could test how many files you found:

```
IDL> Print, num_file
```

Or, you could see how big your file_array variable is:

```
IDL> Help, file_array
```

The reason it doesn't work is that 'filepath' is not likely to be the path to YOUR files. Your path is going to look more like "C:\RSI\ZIRCOLA\DATA" or

"/usr/zircola/data", or something. We can't help you with this because you haven't told us anything about what machine you are running IDL on, etc. The syntax 'filepath' is what we refer to as "pseudo code". We mean you will have to replace that with what is right for YOUR situation. As a beginning user, it is often difficult to tell pseudo code from real code.

Then, if you put all your plotting stuff inside the loop, you are going to have some trouble because your plots will appear and disappear so fast you won't be able to enjoy them. You will end up looking at just the LAST plot. So, typically, you will do all your file reading, and THEN you will plot your graphics.

I suggest you maybe start with one file, and see if you can read that and plot it. Once you have that under your belt you can extend it to more than a single file. This way you will know which part of your code works and which part still has problems.

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: can i read multiple files?

Posted by [zircola](#) on Mon, 25 Sep 2006 07:07:41 GMT

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Thanks David. :)
