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:

- > 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

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:

- > 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
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- > 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?

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
- > 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?

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:

- >> 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
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- > 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.

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. CIMSS @ NOAA/NCEP/EMC Ph: (301)763-8000 x7748

Eddy Merckx

Fax:(301)763-8545

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:

- > 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

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. :)