
Subject: Re: read/writing tiff files
Posted by [R.Bauer](#) on Sat, 28 Jun 2003 11:28:19 GMT
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Alexandra Panton wrote:

> ok, this is probably a really simple question but having decided that
> having 500+ images to process I needed to do some idl programming !
> What i want to do is really simple - but as with all things and
> computers simple rapidly progresses to the impossible :)
>
> Here's what I want to do:
> I have a directory on my computer with all my images, - tiff files in,
> I want to read them into an array - I can do this bit, apply my
> processing steps (having trouble with that!), then write the output as
> a tiff or jpg file.
>
> I have managed to do this to a fashion but it writes blank files -
> very useful!
>
> my code so far...

Dear Alexandra,

there are a lot of tips available at Davids page
www.dfanning.com

Here in short how I would do this:

```
stuff = 'f:\ftp_web_root\Recent\hawaii\GOES_9\all'
file=file_search(stuff,'*.tif',COUNT=n)
for i=0L,n-1 do begin
  result=query_image(file[i],info)
  print,info.dimensions
  help,info,/str
  img=read_image(files[i],red,green,blue)
  img=(330-(0.5*img))
  write_image,'d:\goes\hawaii\changed_'+files[i],'TIFF',red,green,blue
endfor
```

You should have a look at the info structure of the query function.
I don't know in which way your images are color coded. I would suggest to
read the tips on Davids page regarding color problems too.

best regards

Reimar

--

Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg-i/>

=====

a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

Subject: Re: read/writing tiff files
Posted by [R.Bauer](#) on Sat, 28 Jun 2003 11:32:46 GMT
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Reimar Bauer wrote:

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> for i=0L,n-1 do begin
> result=query_image(file[i],info)
> print,info.dimensions
> help,info,/str
> img=read_image(files[i],red,green,blue)
> img=(330-(0.5*img))

```
> write_image,'d:\goes\hawaii\changed_'+files[i],'TIFF',red,gr een,blue
> endfor
```

typing bug, this always happens if you don't compile yourself such an example

```
write_image,'d:\goes\hawaii\changed_'+file[i],'TIFF',red,gre en,blue
```

Reimar

```
>
> You should have a look at the info structure of the query function.
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> read the tips on Davids page regarding color problems too.
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> Reimar
>
```

--

Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg-i/>

=====

a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

Subject: Re: read/writing tiff files
Posted by [David Fanning](#) on Sat, 28 Jun 2003 14:26:20 GMT
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Alexandra Panton writes:

```
> my code so far...
>
> stuff = ('f:\ftp_web_root\Recent\hawaii\GOES_9\all')
> store = ('d:\goes\hawaii')
>
> cd, stuff
> ...
>   outname=input+'bt' ;output file name;
> cd, store
> openw,1, outname ;opens a file with outname filename;
> write_tiff,input ;writes a tiff file of input array
> close,1
> free_lun,1
```

```
> x=x+1 ;loops round to next image;
> endwhile
> end
>
> When i run this it stops at the openw command with a type conversion
> error: Unable to convert given STRING to Byte.
```

When you get the error message, you should read it carefully to see what line the error occurs on. Then you go to that line in the program and stare at it for a period of time that is inversely proportional to the time you have been working with IDL (or sometimes, in rare cases, or if you are under a tight deadline, a hell of a lot longer).

In your case, you will probably be looking at this line:

```
outname=input+'bt' ;output file name;
```

What's wrong with it? Hard to say on the surface. The code looks good, no quotes missing or anything. Everything's spelled OK. But what are you trying to do? Create an output filename, right? A string. Are your arguments strings? Well, don't know. Let's see.

```
IDL> Help, input
INPUT      BYTE      = Array[360, 360]
```

A byte array!? That's not what I thought input was!

Uh, huh. And that's the problem. In fact, now the error message makes some sense. You are trying to add apples and oranges and the computer is telling you it doesn't know how to do that.

You probably meant something like this:

```
outname = files[x] + 'bl'
```

Or, perhaps something more sophisticated, like this:

```
name = StrSplit(files[x], '.', /Extract)
outname = name[0] + 'bl.' + name[1]
Print, files[x], outname
picture123.tif  picture123bl.tif
```

OK, fix that, then recompile and run it again.

What!? Another error! Oh, oh. This is too much like

work. No wonder I don't write programs for a living.
This kind of stuff drives me crazy!!!

What the hell is the matter with that WRITE_TIFF line!?
I copied that from Mike's program and *his* works!

Oh, wait a minute. Maybe I copied that from his
program that didn't work. :-(

In any case, I would turn this (which surely won't work):

```
cd, store
openw,1, outname ;opens a file with outname filename;
write_tiff,input ;writes a tiff file of input array
close,1
free_lun,1
```

Into this:

```
cd, store
write_tiff, outname, input
```

Then we might get somewhere! :-)

Cheers,

David

--

David W. Fanning, Ph.D.
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Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: read/writing tiff files
Posted by [alex_panton](#) on Sat, 28 Jun 2003 21:17:49 GMT
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thanks for all your advice, literally straight after i posted though i
managed to get it to work.. typical!

cheers

alex

David Fanning <david@dfanning.com> wrote in message

```

news:<MPG.19675378bd56891a989693@news.frii.com>...
> Alexandra Panton writes:
>
>> my code so far...
>>
>> stuff = ('f:\ftp_web_root\Recent\hawaii\GOES_9\all')
>> store = ('d:\goes\hawaii')
>>
>> cd, stuff
>> ...
>>     outname=input+'bt' ;output file name;
>> cd, store
>> openw,1, outname ;opens a file with outname filename;
>> write_tiff,input ;writes a tiff file of input array
>> close,1
>> free_lun,1
>> x=x+1 ;loops round to next image;
>> endwhile
>> end
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> to see what line the error occurs on. Then you go to that
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> is inversely proportional to the time you have been working
> with IDL (or sometimes, in rare cases, or if you are under
> a tight deadline, a hell of a lot longer).
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> code looks good, no quotes missing or anything. Everything's
> spelled OK. But what are you trying to do? Create an output
> filename, right? A string. Are your arguments strings? Well,
> don't know. Let's see.
>
> IDL> Help, input
> INPUT      BYTE      = Array[360, 360]
>
> A byte array!? That's not what I thought input was!
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> Uh, huh. And that's the problem. In fact, now the
> error message makes some sense. You are trying to
> add apples and oranges and the computer is telling you

```

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> You probably meant something like this:
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> outname = files[x] + 'bl'
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> Or, perhaps something more sophisticated, like this:
>
> name = StrSplit(files[x], '.', /Extract)
> outname = name[0] + 'bl.' + name[1]
> Print, files[x], outname
> picture123.tif picture123bl.tif
>
> OK, fix that, then recompile and run it again.
>
> What!? Another error! Oh, oh. This is too much like
> work. No wonder I don't write programs for a living.
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> Oh, wait a minute. Maybe I copied that from his
> program that didn't work. :-(
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>
> Into this:
>
> cd, store
> write_tiff, outname, input
>
> *Then* we might get somewhere! :-)
>
> Cheers,
>
> David
