

---

Subject: Processing about 10,000 tif files

Posted by [livingwater000](#) on Tue, 19 May 2015 21:07:38 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Dear Gurus,

I have RGB images in tif format and want to do simple arithmetic calculations.

A big obstacle to me is number of files to be processed, about 10,000 images.

Name of the image files has sequential id such as img\_1.tif, img\_2.tif, ....., img\_10000.tif.

And I have a text file containing image names, coefficients, and offsets.

I think reading the text file as an array with three columns and lines matching number of files seems to be successful.

I've tried to read image files with `dialog_pickfile`, but I've learned that the function limits byte length and can't seem to go beyond more than 2,000 files or so.

And I've tried to read image files with `file_search`, but it didn't do calculation in sequential order.

Would you give some suggestion how to read image files in order, so that following calculation should be in order from 1 to 10,000?

Or a way to do calculation with image name corresponding lines in the text file?

Thanks in advance,

Kim

---

---

Subject: Re: Processing about 10,000 tif files

Posted by [Helder Marchetto](#) on Tue, 19 May 2015 22:03:21 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Tuesday, May 19, 2015 at 11:07:39 PM UTC+2, livingw...@gmail.com wrote:

> Dear Gurus,

>

> I have RGB images in tif format and want to do simple arithmetic calculations.

> A big obstacle to me is number of files to be processed, about 10,000 images.

> Name of the image files has sequential id such as img\_1.tif, img\_2.tif, ....., img\_10000.tif.

> And I have a text file containing image names, coefficients, and offsets.

> I think reading the text file as an array with three columns and lines matching number of files seems to be successful.

>

> I've tried to read image files with `dialog_pickfile`, but I've learned that the function limits byte length and can't seem to go beyond more than 2,000 files or so.

> And I've tried to read image files with `file_search`, but it didn't do calculation in sequential order.

>

> Would you give some suggestion how to read image files in order, so that following calculation should be in order from 1 to 10,000?

> Or a way to do calculation with image name corresponding lines in the text file?

>

> Thanks in advance,

> Kim

I've been there before and I see two ways out of this:

- 1) construct the file array with something like 'img\_'+strtrim(indgen(10000)+1,2)+' .tif'
- 2) use file\_search and then sort the file array to have the order you wish
- 3) read the text file sequentially and process sequentially

Option 2) is not easy because the files don't have a format like img\_00001.tif, otherwise sorting would be easier.

Hope it helps.

Helder

---

Subject: Re: Processing about 10,000 tif files

Posted by [Helder Marchetto](#) on Tue, 19 May 2015 22:12:52 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Wednesday, May 20, 2015 at 12:03:23 AM UTC+2, Helder wrote:

> On Tuesday, May 19, 2015 at 11:07:39 PM UTC+2, livingw...@gmail.com wrote:

>> Dear Gurus,

>>

>> I have RGB images in tif format and want to do simple arithmetic calculations.

>> A big obstacle to me is number of files to be processed, about 10,000 images.

>> Name of the image files has sequential id such as img\_1.tif, img\_2.tif, ....., img\_10000.tif.

>> And I have a text file containing image names, coefficients, and offsets.

>> I think reading the text file as an array with three columns and lines matching number of files seems to be successful.

>>

>> I've tried to read image files with dialog\_pickfile, but I've learned that the function limits byte length and can't seem to go beyond more than 2,000 files or so.

>> And I've tried to read image files with file\_search, but it didn't do calculation in sequential order.

>>

>> Would you give some suggestion how to read image files in order, so that following calculation should be in order from 1 to 10,000?

>> Or a way to do calculation with image name corresponding lines in the text file?

>>

>> Thanks in advance,

>> Kim

>

> I've been there before and I see two ways out of this:

- > 1) construct the file array with something like 'img\_'+strtrim(indgen(10000)+1,2)+' .tif'
- > 2) use file\_search and then sort the file array to have the order you wish
- > 3) read the text file sequentially and process sequentially

>

> Option 2) is not easy because the files don't have a format like img\_00001.tif, otherwise sorting would be easier.

>  
> Hope it helps.  
> Helder

Brilliant... two ways out in three points. Don't drink and type.  
Helder

---

---

Subject: Re: Processing about 10,000 tif files  
Posted by [livingwater000](#) on Wed, 20 May 2015 01:01:43 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Tuesday, May 19, 2015 at 6:12:53 PM UTC-4, Helder wrote:  
> On Wednesday, May 20, 2015 at 12:03:23 AM UTC+2, Helder wrote:  
>> On Tuesday, May 19, 2015 at 11:07:39 PM UTC+2, livingw...@gmail.com wrote:  
>>> Dear Gurus,  
>>>  
>>> I have RGB images in tif format and want to do simple arithmetic calculations.  
>>> A big obstacle to me is number of files to be processed, about 10,000 images.  
>>> Name of the image files has sequential id such as img\_1.tif, img\_2.tif, ....., img\_10000.tif.  
>>> And I have a text file containing image names, coefficients, and offsets.  
>>> I think reading the text file as an array with three columns and lines matching number of files seems to be successful.  
>>>  
>>> I've tried to read image files with `dialog_pickfile`, but I've learned that the function limits byte length and can't seem to go beyond more than 2,000 files or so.  
>>> And I've tried to read image files with `file_search`, but it didn't do calculation in sequential order.  
>>>  
>>> Would you give some suggestion how to read image files in order, so that following calculation should be in order from 1 to 10,000?  
>>> Or a way to do calculation with image name corresponding lines in the text file?  
>>>  
>>> Thanks in advance,  
>>> Kim  
>>  
>> I've been there before and I see two ways out of this:  
>> 1) construct the file array with something like `'img_'+strtrim(indgen(10000)+1,2)+'.tif'`  
>> 2) use `file_search` and then sort the file array to have the order you wish  
>> 3) read the text file sequentially and process sequentially  
>>  
>> Option 2) is not easy because the files don't have a format like `img_00001.tif`, otherwise sorting would be easier.  
>>  
>> Hope it helps.  
>> Helder  
>  
> Brilliant... two ways out in three points. Don't drink and type.

> Helder

Thanks much. will try it shortly and update.

Kim

---

---

Subject: Re: Processing about 10,000 tif files  
Posted by [andrewcool777](#) on Mon, 25 May 2015 01:23:11 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Wednesday, 20 May 2015 06:37:39 UTC+9:30, livingw...@gmail.com wrote:

> Dear Gurus,  
>  
> I have RGB images in tif format and want to do simple arithmetic calculations.  
> A big obstacle to me is number of files to be processed, about 10,000 images.  
> Name of the image files has sequential id such as img\_1.tif, img\_2.tif, ....., img\_10000.tif.  
> And I have a text file containing image names, coefficients, and offsets.  
> I think reading the text file as an array with three columns and lines matching number of files seems to be successful.  
>  
> I've tried to read image files with `dialog_pickfile`, but I've learned that the function limits byte length and can't seem to go beyond more than 2,000 files or so.  
> And I've tried to read image files with `file_search`, but it didn't do calculation in sequential order.  
>  
> Would you give some suggestion how to read image files in order, so that following calculation should be in order from 1 to 10,000?  
> Or a way to do calculation with image name corresponding lines in the text file?  
>  
> Thanks in advance,  
> Kim

How about just rename the files `img_00001.tif` to `img_09999.tif`? Solve many problems in a very few lines of code.

And while you're at it, insert some useful coefficients and offsets into the filenames too.

Andrew

---

---

Subject: Re: Processing about 10,000 tif files  
Posted by [cgguido](#) on Wed, 27 May 2015 02:05:12 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Sunday, May 24, 2015 at 8:23:14 PM UTC-5, andrew...@gmail.com wrote:

>  
> How about just rename the files `img_00001.tif` to `img_09999.tif`? Solve many problems in a very

few lines of code.

>  
> And while you're at it, insert some useful coefficients and offsets into the filenames too.  
>  
> Andrew

Code below will rename all files so that they can be found in order:

```
f=file_search('img_*.tif', count=n)
max=20000                                ;<--- this should be larger than your max
nzeros = ceil(alog10(max)) > 0
myformat = '(i0'+strcompress(nzeros, /re)+)'
```

  

```
for i=0L,n-1 do print, f[i], '-> ', 'img_'+string((strsplit(file_basename(f[i], '.tif'), '_ ', /ex))[1], format =
myformat)+'.tif'
```

If you like the above, run it like so:

```
for i=0L,n-1 do file_move, f[i], 'img_'+string((strsplit(file_basename(f[i], '.tif'), '_ ', /ex))[1], format =
myformat)+'.tif'
```

G

---