
Subject: Unable to allocate memory: to make array for panchromatic file

Posted by [phamlien24](#) on Thu, 31 Jul 2014 07:40:55 GMT

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I would like to create a file image from panchromatic image with the new image = the panchromatic *0.05678345/0.2846000 in IDL. However, the result has error:

% Unable to allocate memory: to make array.

Not enough space

% Execution halted at: Q_RAD_SIXSIN_GEN_P_221936 35

This is my code:

```
PRO q_rad_sixsin_gen_p_221936
ENVI, /RESTORE_BASE_SAVE_FILES
  ENVI_BATCH_INIT, LOG_FILE='batch.txt'

input_dir = 'D:\BA34\Panchromatic\BA34_pan_221936_10oct25'
input_dir_name_lenght=STRLEN(input_dir)
imagelist=FILE_SEARCH('D:\BA34\Panchromatic\BA34_pan_221936_
10oct25\*.tif',COUNT=count)

COMPILE_OPT IDL2
FORWARD_FUNCTION ENVI_GET_DATA, ENVI_GET_MAP_INFO

FOR h=0, count-1 Do Begin
  path_filename=imagelist[h]

K_pan= 0.05678345

Pan_Width= 0.2846000

  envi_open_file, imagelist[h], r_fid=fid,NO_REALIZE=1
  ENVI_FILE_QUERY,fid,DIMS=dims,NS=ns,NL=nl,sname=sname
  map_info=envi_get_map_info(fid=fid)
  filenamelength=STRLEN(sname)
  outname=STRMID(sname,0,filenamelength-4)
  dims=[-1L, 0, ns-1, 0, nl-1]
  pan  = ENVI_GET_DATA(FID=fid,dims=dims,pos=0)
  br=fltarr(ns,1,nl)
  br = (pan *(K_pan))/(Pan_Width))*0.1
  envi_write_envi_file, br, map_info=map_info, out_name=outname+'_rad.dat', r_fid=fid,
interleave=1
  envi_file_mng, id=fid, /remove

ENDFOR
END
```

Thanks so much for your help.

Lien

Subject: Re: Unable to allocate memory: to make array for panchromatic file
Posted by [Fabzi](#) on Thu, 31 Jul 2014 08:07:03 GMT
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Hi,

On 31.07.2014 09:40, phamlien24@gmail.com wrote:

> % Unable to allocate memory: to make array.

> Not enough space

try to "clean" your code.

Avoid declaring too many variables and either reassign the ones that are not used anymore and pollute your memory or make use of temporary()

For example, this is bad:

```
IDL> ones = fltarr(5000,5000) + 1
```

```
IDL> twos = ones + 1
```

After these two statements you'll have two large arrays in memory even if "ones" is not needed anymore. Two alternatives:

; Reassign

```
IDL> twos = fltarr(5000,5000) + 1
```

```
IDL> twos = twos + 1
```

; Temporary

```
IDL> ones = fltarr(5000,5000) + 1
```

```
IDL> twos = temporary(ones) + 1
```

To take an example of your code:

```
br=fltarr(ns,1,nl)
```

```
br = (pan *(K_pan)/(Pan_Width))*0.1
```

The first assignment is useless and memory expensive. Since IDL is dynamically typed, there is absolutely no need to declare the variable "br" since it will be overwritten on the next line.

Cheers,

Fabien

Subject: Re: Unable to allocate memory: to make array for panchromatic file

Posted by [phamlien24](#) on Thu, 31 Jul 2014 08:27:29 GMT

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Thanks for your advice, Fabien. After deleting the code: `br=fltarr(ns,1,nl)`. I can run IDL. However, the another problem occur. The resulting file have many bands such as : band 1, band 10, band 100, band 1000... It should be just only one band.

I don't know what I am wrong in the code.

Thanks for your consideration.

Lien

Subject: Re: Unable to allocate memory: to make array for panchromatic file

Posted by [phamlien24](#) on Thu, 31 Jul 2014 08:47:46 GMT

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On Thursday, 31 July 2014 19:40:55 UTC+12, phaml...@gmail.com wrote:

> I would like to create a file image from panchromatic image with the new image = the panchromatic *0.05678345/0.2846000 in IDL. However, the result has error:

>

> % Unable to allocate memory: to make array.

>

> Not enough space

>

> % Execution halted at: Q_RAD_SIXSIN_GEN_P_221936 35

>

>

>

> This is my code:

>

>

>

> PRO q_rad_sixsin_gen_p_221936

>

> ENVI, /RESTORE_BASE_SAVE_FILES

>

> ENVI_BATCH_INIT, LOG_FILE='batch.txt'

>

>

>

> input_dir = 'D:\BA34\Panchromatic\BA34_pan_221936_10oct25'

>

> input_dir_name_lenght=STRLEN(input_dir)

>

> imagelist=FILE_SEARCH('D:\BA34\Panchromatic\BA34_pan_221936_

```

10oct25\*.tif',COUNT=count)
>
>
>
> COMPILE_OPT IDL2
>
> FORWARD_FUNCTION ENVI_GET_DATA, ENVI_GET_MAP_INFO
>
>
>
> FOR h=0, count-1 Do Begin
>
>     path_filename=imagelist[h]
>
>
>
>
>
> K_pan= 0.05678345
>
>
>
> Pan_Width= 0.2846000
>
>
>
>     envi_open_file, imagelist[h], r_fid=fid,NO_REALIZE=1
>
>     ENVI_FILE_QUERY,fid,DIMS=dims,NS=ns,NL=nl,sname=sname
>
>     map_info=envi_get_map_info(fid=fid)
>
>     filenamelength=STRLEN(sname)
>
>     outname=STRMID(sname,0,filenamelength-4)
>
>     dims=[-1L, 0, ns-1, 0, nl-1]
>
>     pan   = ENVI_GET_DATA(FID=fid,dims=dims,pos=0)
>
>     br=fltarr(ns,1,nl)
>
>     br = (pan *(K_pan))/(Pan_Width))*0.1
>
>     envi_write_envi_file, br, map_info=map_info, out_name=outname+'_rad.dat', r_fid=fid,
interleave=1
>
>     envi_file_mng, id=fid, /remove

```

>
>
>
>
>
> ENDFOR
>
> END
>
>
>
> Thanks so much for your help.
>
>
>
> Lien

Thanks so much for your help, Fabien.

Subject: Re: Unable to allocate memory: to make array for panchromatic file
Posted by [Josh Sixsmith](#) on Thu, 31 Jul 2014 11:26:52 GMT
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Also, seeing as you are making use of the ENVI routines, why don't use the 'MATH_DOIT' routine to create your panchromatic array? It'll tile the array thereby using even less memory.

Josh
