
Subject: NETCDF Read

Posted by [Gompie](#) on Fri, 25 Jul 2014 20:49:25 GMT

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Hi,

I have 100 netcdf files that I wish to read in a loop. So I do the following.

```
OPTFILES=file_search('MARK*.nc')
```

```
a=read_netcdf_all(optfiles(0))
```

```
a= REPLICATE(A, n_elements(OPTFILES))
```

```
endlimit0=n_elements(OPTFILES) -1
```

```
for index = 0, endlimit0 Do Begin
```

```
    a(index)=read_netcdf_all(optfiles(index))
```

```
endfor
```

```
END
```

But I get the error

Array dimensions must be greater than 0.

% Execution halted at: READ_NETCDF_ALL

Interestingly the optfiles array gets corrupted.

When I try using read_netCDF function instead of read_netcdf_all I get a similar error message.

Any help.

Glan Plon

PS: These functions are here...

http://www.lakotemp.net/~lakotemp/home/dataF/read_netcdf_all.pro

http://download.hao.ucar.edu/pub/stans/timed/util/read_netcdf.pro

Subject: Re: NETCDF Read

Posted by [David Fanning](#) on Fri, 25 Jul 2014 20:53:56 GMT

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Gompie writes:

> I have 100 netcdf files that I wish to read in a loop. So I do the following.

>

```
> OPTFILES=file_search('MARK*.nc')
>
> a=read_netcdf_all(optfiles(0))
> a= REPLICATE(A, n_elements(OPTFILES))
>
> endlimit0=n_elements(OPTFILES) -1
>
> for index = 0, endlimit0 Do Begin
>
>   a(index)=read_netcdf_all(optfiles(index))
>
>
> endfor
>
> END
>
> But I get the error
> Array dimensions must be greater than 0.
> % Execution halted at: READ_NETCDF_ALL
>
> Interestingly the optfiles array gets corrupted.
>
> When I try using read_netCDF function instead of read_netcdf_all I get a similar error message.
>
> Any help.
```

Put the program in debug mode. (Set the internal debug_mode variable to 1.) Recompile and re-run the program. Then tell us what happens.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Seper ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: NETCDF Read

Posted by [Gompie](#) on Sun, 27 Jul 2014 01:46:19 GMT

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Hi David,

When I give debug_mode=1 in read_netcdf.pro program. I get

Array dimension for base structure = 1

```
Indx Lvl -- 0 1 ID 2 3--< 0 1 CT 2 3 > NAME
 0 0 0 0 0 0 0 0 0 0 0 hhmmss
 1 0 0 0 0 0 1 0 0 0 0 timedif
 2 0 0 0 0 0 2 0 0 0 0 Time
 3 0 0 0 0 0 3 0 0 0 0 Latitude
 4 0 0 0 0 0 4 0 0 0 0 Longitude
 5 0 0 0 0 0 5 0 0 0 0 sat_lat
 6 0 0 0 0 0 6 0 0 0 0 sat_lon
 7 0 0 0 0 0 7 0 0 0 0 geo_zen
 8 0 0 0 0 0 8 0 0 0 0 satzen
 9 0 0 0 0 0 9 0 0 0 0 solzen
10 0 0 0 0 0 10 0 0 0 0 geo_azi
11 0 0 0 0 0 11 0 0 0 0 satazi
12 0 0 0 0 0 12 0 0 0 0 solazi
13 0 0 0 0 0 13 0 0 0 0 scanang
14 0 0 0 0 0 14 0 0 0 0 geo_scanang
15 0 0 0 0 0 15 0 0 0 0 geo_scanangle_ns
16 0 0 0 0 0 16 0 0 0 0 env_mean
17 0 0 0 0 0 17 0 0 0 0 env_stdv
18 0 0 0 0 0 18 0 0 0 0 fov_mean
19 0 0 0 0 0 19 0 0 0 0 fov_stdv
20 0 0 0 0 0 20 0 0 0 0 iasi_cnv
21 0 0 0 0 0 21 0 0 0 0 iasi_mmg
22 0 0 0 0 0 22 0 0 0 0 iasi_compen
23 0 0 0 0 0 23 0 0 0 0 iasi_nocompen
24 0 0 0 0 0 24 0 0 0 0 Leo_Rad
25 0 0 0 0 0 25 0 0 0 0 env_mean_over
26 0 0 0 0 0 26 0 0 0 0 env_stdv_over
27 0 0 0 0 0 27 0 0 0 0 fov_mean_over
28 0 0 0 0 0 28 0 0 0 0 fov_stdv_over
29 0 0 0 0 0 29 0 0 0 0 Geo_Rad
```

Check out var_inq and dim_name, dim_size...

Also when I give the exact filename both the reads work perfectly. However when I store filenames in optfiles as

optfiles=file_search(MARK*.nc) and read it as a=read_netcdf_all(optfiles(0)) or read_netcdf,optfiles(0),data,attributes,satus... errors happen.

GlanPlon

Subject: Re: NETCDF Read
Posted by [David Fanning](#) on Sun, 27 Jul 2014 12:39:05 GMT
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Gompie writes:

> Also when I give the exact filename both the reads work perfectly. However when I store filenames in optfiles as

>

> optfiles=file_search(MARK*.nc) and read it as a=read_netcdf_all(optfiles(0)) or read_netcdf(optfiles(0),data,attributes,satus... errors happen.

Any error messages you would like to share with us?

Cheers,

David

--

David Fanning, Ph.D.

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Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: NETCDF Read
Posted by [Gompie](#) on Sun, 27 Jul 2014 14:46:05 GMT
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Thanks David,

The error message is

Compiled module: \$MAIN\$.

% Array dimensions must be greater than 0.

% Execution halted at: READ_NETCDF 412

/net/o033l/home/mark/matchup/WITHIN_AVHRR/MIRS/read_netcdf.p ro

% \$MAIN\$ 7

/net/o033l/home/mark/matchup/WITHIN_AVHRR/MIRS/test2.pro

the optfiles array also gets null.

Glan

Subject: Re: NETCDF Read
Posted by [David Fanning](#) on Sun, 27 Jul 2014 15:33:51 GMT
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Gompie writes:

```
> The error message is
>
> Compiled module: $MAIN$.
> % Array dimensions must be greater than 0.
> % Execution halted at: READ_NETCDF      412
/net/o033l/home/mark/matchup/WITHIN_AVHRR/MIRS/read_netcdf.p ro
> %
$MAIN$      7
/net/o033l/home/mark/matchup/WITHIN_AVHRR/MIRS/test2.pro
>
> the optfiles array also gets null.
```

Well, I would put a breakpoint at line 412 and try to figure out which of those variables that the code thinks is an array is not. (The HELP command will be helpful here.) Once I had identified the suspect variable, I would do a backward search for it and try to find out where it was defined. Once I found THAT, I would try to figure out why it is being defined incorrectly. :-)

Cheers,

David

--

David Fanning, Ph.D.

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Seppure ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: NETCDF Read

Posted by [David Fanning](#) on Sun, 27 Jul 2014 15:41:05 GMT

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David Fanning writes:

```
> Well, I would put a breakpoint at line 412 and try to figure out which
> of those variables that the code thinks is an array is not. (The HELP
> command will be helpful here.) Once I had identified the suspect
> variable, I would do a backward search for it and try to find out where
> it was defined. Once I found THAT, I would try to figure out why it is
> being defined incorrectly. :-)
```

I should point out that I suspect you are simply not passing the file names you *think* you are passing. A breakpoint to check the file name the program thinks it is working on would be a good check, too.

Check it when the program works. Then check it again with the file name

passing that doesn't work.

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: NETCDF Read

Posted by [David Fanning](#) on Sun, 27 Jul 2014 15:43:21 GMT

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David Fanning writes:

- > I should point out that I suspect you are simply not passing the file
- > names you *think* you are passing. A breakpoint to check the file name
- > the program thinks it is working on would be a good check, too.
- >
- > Check it when the program works. Then check it again with the file name
- > passing that doesn't work.

Depending upon which version of IDL you are using, the problem could be as simple as the fact you aren't using square bracket subsetting of arrays. You should be. This can get you into a world of hurt in IDL 8.x.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: NETCDF Read

Posted by [Gompie](#) on Sun, 27 Jul 2014 16:02:55 GMT

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Hi David,

You are right. The filename is not passed into the program when I use file_search and store my files in the array.

I use idl8.3. Any solution.

Subject: Re: NETCDF Read

Posted by [David Fanning](#) on Sun, 27 Jul 2014 16:06:44 GMT

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Gompie writes:

- > You are right. The filename is not passed into the program when I use file_search and store my files in the array.
- > I use idl8.3. Any solution.

Figure out how to use File_Search, I would guess. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: NETCDF Read

Posted by [Gompie](#) on Sun, 27 Jul 2014 16:13:04 GMT

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Hi David,

Here is another result. My input files were symbolic links to files elsewhere.

The netcdf read does not work if I give full file pathname or names of symbolic links.

I copied the files in my local directory where I am running the idl and it works even with the file_search arrays.

Glanplon

Subject: Re: NETCDF Read

Posted by [SonicKenking](#) on Mon, 28 Jul 2014 04:09:46 GMT

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On Monday, July 28, 2014 2:13:04 AM UTC+10, Gompie wrote:

- > Hi David,
- >
- > Here is another result. My input files were symbolic links to files elsewhere.
- >
- > The netcdf read does not work if I give full file pathname or names of symbolic links.

>
> I copied the files in my local directory where I am running the idl and it works even with the
file_search arrays.
>
> Glanplon

Try FILE_READLINK to get the path associated to your symbolic links and pass the result to
netcdf reading routines.

```
actual_path = FILE_READLINK(symbolic_link)
```

Subject: Re: NETCDF Read
Posted by [Gompie](#) on Wed, 30 Jul 2014 17:53:34 GMT
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Thanks SonicKenking,
Your idea works perfectly.-:) Have a nice day.
GlanPlon
