
Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [David Fanning](#) on Thu, 15 Aug 2002 16:20:31 GMT
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Kolbjorn Bekkelund (kobe@rocketrange.no) writes:

```
> When running one of my IDL routines from inside an IDL session I get:
>
> IDL> .run calc_quality_dual_online_auto
> % Compiled module: $MAIN$.
> % Compiled module: LOADCT.
> % Compiled module: FILEPATH.
> % LOADCT: Loading table Purple-Red + Stripes
> % Loaded DLM: PNG
>
> If I try to run the same thing from the Linux command line like:
>
> /usr/local/idl /data/ozon/eval/calc_quality_dual_online_auto.pro I get:
>
> [ozon@ozonpc eval]$ /usr/local/bin/autorun_idl_ozon_combined
> IDL Version 5.4 (linux x86). (c) 2000, Research Systems, Inc.
> Installation number: 83192.
> Licensed for use by: Aloma-Linux
>
> % Compiled module: LOADCT.
> % Compiled module: FILEPATH.
> % LOADCT: Loading table Purple-Red + Stripes
> % Attempt to subscript FILNAM with I is out of range.
> % Execution halted at: $MAIN$
> % Attempt to subscript FILNAM with I is out of range.
> % Execution halted at: $MAIN$
> % READF: Variable is undefined: RESF.
> % Execution halted at: $MAIN$
> % READF: Variable is undefined: RESF.
> % Execution halted at: $MAIN$
> % Attempt to subscript ITIM with I is out of range.
> % Execution halted at: $MAIN$
> % Attempt to subscript ITIM with I is out of range.
> % Execution halted at: $MAIN$
>
> + more errors until the end of the routine.
>
> What is it that can make a diff. here since it works wonderful from
> inside IDL. This is both in idlde and the idl command line.
```

I can't quite tell from the "autorun_idl" bit whether you are running a run-time version of IDL or not. But these errors are look very much like the kinds of errors

you would get if you were throwing up a blocking widget to get input from the user. In run-time versions of IDL you can't block the IDL command line (there is no command line *to* block!), so return variables that are suppose to have valid data in them, don't.

That's my first guess. You could test it by printing out the index I. My guess is that it is -1.

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

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: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Thu, 15 Aug 2002 17:40:35 GMT
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Thu, 15 Aug 2002 18:17:11 GMT
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [David Fanning](#) on Thu, 15 Aug 2002 18:20:32 GMT
[View Forum Message](#) <> [Reply to Message](#)

Kolbjorn Bekkelund (kobe@rocketrange.no) writes:

- > Hi again, David.
- >
- > I've checked the value of i and it starts at 0 and grows up to number of
- > files contained in the ozon-online. No -1 !!
- >
- > What's strange is that the program runs without any hitches from within
- > IDL, but if ran as part of a script with 'idl pro-name.pro' it craches.

> I've included the start of the code below. The rest, not included, is just the plotting
> stuff. maybe you can see something ?

Well, I'm perplexed. This code didn't generate those errors unless no files were found in the location you were looking for them. :-)

Why don't you set a breakpoint and step through your code, examining things as you go. That's the best way to discover these kinds of errors.

Cheers,

David

--

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Subject: Re: Attempt to subscript FILNAM with I is out of range....

Posted by [David Fanning](#) on Thu, 15 Aug 2002 18:44:34 GMT

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

Kolbjorn Bekkelund (kobe@rocketrange.no) writes:

> I'm following up my own last post since I found that one cannot use FOR
> statements in batch mode like in normal .run. You have to place all the
> FOR stuff (until the ENDFOR) on one line using \$ and &. This because the
> batch mode use of IDL is looking for an END statement on each line after
> the BEGIN. If it doesn't find it you get a syntax error.
>
> BUT:
> How do I split the below FOR ENDFOR using \$ and &, and still make
> it work ????

Kolbjorn,

You **really** don't want to do this!

You have written the code as a procedure. Why not just use it as a procedure? (Put the name of the procedure in your batch file.) What am I missing!?

David

--

David W. Fanning, Ph.D.
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Thu, 15 Aug 2002 19:09:04 GMT
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [David Fanning](#) on Thu, 15 Aug 2002 19:30:21 GMT
[View Forum Message](#) <> [Reply to Message](#)

Kolbjorn Bekkelund (kobe@rocketrange.no) writes:

> As I said; When running FOR statements in batch mode the IDL help said
> that I had to connect all lines after BEGIN until ENDFOR to one line. I
> did this by using & \$ after each line in the original FOR statement.
>
> I ended up with this:

Oh, dear! You must be a scientist instead of an IDL
purist. But I can hear shutters all over IDL-dom. :-)

Cheers,

David

--

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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [David Fanning](#) on Thu, 15 Aug 2002 19:43:07 GMT
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David Fanning (david@dfanning.com) writes:

> Oh, dear! You must be a scientist instead of an IDL
> purist. But I can hear shutters all over IDL-dom. :-)

My God, people, do I have to explain everything to you!
No one could possibly hear shudders, but windows slamming
means... Oh, never mind. I'm going back to writing my
new book, "Programming the Way Our Grandfathers Did:
Writing the Elegant Batch File". :-(

Cheers,

David

--

David W. Fanning, Ph.D.
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Thu, 15 Aug 2002 19:47:40 GMT
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Pavel A. Romashkin](#) on Thu, 15 Aug 2002 19:49:45 GMT
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David Fanning wrote:

>
> Oh, dear! You must be a scientist instead of an IDL
> purist. But I can hear shutters all over IDL-dom. :-)

Me with you, stuttering :-)
I am just hoping that you had the pleasure of improving your smart
OWidget today :-)
Pavel

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [David Fanning](#) on Thu, 15 Aug 2002 20:06:56 GMT

Kolbjorn Bekkelund (kobe@rocketrange.no) writes:

- > I'm not a scientist, nor an IDL purist :-)
- > I'm only a systems engineer at an observatory, trying my best to make our
- > daily work a bit more flexible. I've got a feeling that my solution to
- > the problem offended your professional IDL skills ?

No, no. Not at all. I've always been firmly
in the "whatever works" camp. :-)

- > I'm pretty new to IDL, that's for sure, but I'll try to improve and learn
- > as I walk withn the help of good guys like you :-)

I'm pretty sure that as long as you keep a sense
of humor about things, you will learn quickly.
Anyway, we need more arctic guys. And I expect
typing all those damn "& \$" characters will warm
your hands up during those long, cold winters. :-)

Cheers,

David

--

David W. Fanning, Ph.D.
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Subject: Re: Attempt to subscript FILNAM with I is out of range....

Posted by [Craig Markwardt](#) on Thu, 15 Aug 2002 21:14:28 GMT

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Kolbjorn Bekkelund <kobe@rocketrange.no> writes:

- > I'm following up my own last post since I found that one cannot use FOR
- > statements in batch mode like in normal .run. You have to place all the
- > FOR stuff (until the ENDFOR) on one line using \$ and &. This because the
- > batch mode use of IDL is looking for an END statement on each line after
- > the BEGIN. If it doesn't find it you get a syntax error.

As David was saying, probably the *last* thing you want to do is put
all sorts of \$ and &'s throughtout your file. It makes it pretty
incomprehensible.

First of all, IDL code which is run from the command line like you are

doing, "idl myfile.pro", is read directly into the command line interpreter. Procedure definitions are not allowed, and multi-line code blocks are not allowed, as you have found out.

The first easiest solution is to make a separate file called run_myfile.pro, which contains the lonely statement:

```
.run myfile.pro  
exit
```

and then use "idl run_myfile.pro". Since run_myfile.pro is fed to the IDL command interpreter, the .RUN directive will work. Why you don't want to call it as a procedure, well that's up to you.

Good luck,
Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Timm Weitkamp](#) on Fri, 16 Aug 2002 08:05:11 GMT
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Kolbjorn,

Following Craig's suggestion is definitely the easiest (and cleanest) way, but I think his script "run_myfile.pro" should be extended by one line that will make all the difference:

```
.run myfile.pro ; compile the routine(s) contained in myfile.pro  
myfile        ; run procedure myfile (if that's what is in myfile.pro)  
exit          ; quit IDL
```

Don't let yourself confuse by the fact that file naming conventions in IDL are such that the ".pro" extension is used for both batch scripts and files containing procedures and/or functions, or by the fact that the .RUN statement only *compiles* the routines in its argument file, but does *not run* them. This is why the additional 2nd line in the batch file above is needed, which must have seemed too obvious to Craig so he didn't mention it.

Cheers,
Timm

On 15.08.02 at 16:14 -0500, Craig Markwardt wrote:

> [...]
>
> The first easiest solution is to make a separate file called
> run_myfile.pro, which contains the lonely statement:
>
> .run myfile.pro
> exit
>
> and then use "idl run_myfile.pro". Since run_myfile.pro is fed to the
> IDL command interpreter, the .RUN directive will work. Why you don't
> want to call it as a procedure, well that's up to you.
>
> Good luck,
> Craig

--

Timm Weitkamp E-mail: timmm.weitkamp@psi.ch
Paul Scherrer Institut (PSI) <http://people.web.psi.ch/weitkamp>
CH-5232 Villigen, Switzerland

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [R.Bauer](#) on Fri, 16 Aug 2002 09:08:42 GMT
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Kolbjorn Bekkelund wrote:

> Hi again, David.
>
> As I said; When running FOR statements in batch mode the IDL help said
> that I had to connect all lines after BEGIN until ENDFOR to one line. I
> did this by using & \$ after each line in the original FOR statement.
>
> I ended up with this:

Dear Kolbjorn

I was believing that's in idl5.5 the "& \$" isn't any more necessary.
Am I wrong? Or did you use idl 5.4 ?

One more comment to your code. you should use [] for arrays
and () for functions. itim(i) is an array.
If you always use only () you can get in a conflict if sometimes
a variable is named like a function.

Labels as Label1: are very bad program style in my eyes and the code could be very hard to understand.

Did you have thought about an idl runtime version of your program, Bevaue it looks like a procedure with one input parameter but this isn't used it's overwritten by the findfile function.

I believe more you have an older version because findfile is replaced by file_search in idl5.5.

These steps are required

```
.compile batch_calc_quality_dual_online_auto
resolve_all
save,file='batch_calc_quality_dual_online_auto.sav',/routine s,/compress
```

Now you can execute in a cron job the runtime routine

```
idl -rt="./batch_calc_quality_dual_online_auto.sav"
```

If you do so you can work together with your development license while this job is running.

regards

Reimar

```
>
> PRO BATCH_CALC_QUALITY_DUAL_ONLINE_AUTO, filnam
> device, decomposed = 0
> loadct, 23
>
> fil_dir = ""
> fil_dir = '/data/ozon/dialdata/ozon-online/*'
> filnam = findfile(fil_dir)
> iff = N_ELEMENTS(filnam)
>
> dummy = ""
> idat = intarr(3) & idat0 = 0 & dat = fltarr(2) & idat1 = lonarr(4)
> ref308 = fltarr(iff) & ref353 = fltarr(iff) & itim = fltarr(iff)
> back308 = fltarr(iff) & back353 = fltarr(iff) & dz = fltarr(iff)
> hr = 0 & min = 0 & stim = 0. & etim = 0.
> hr='00'
```

```

> min='00'
> stim = hr + min/60.
> hr='24'
> min='00'
> etim = hr + min/60.
> IF etim LT stim THEN etim = etim + 24.
>
> FOR i = 0, iff-1 DO BEGIN & $
>   openr, resf, filnam(i), /get_lun & $
>   filnavn=STRMID(filnam(i), 32,5) & $
>   FOR j = 0, 5 DO readf, resf, dummy & $
>   readf,resf,format = '(a36,i2,1x,i2,1x,i2)',dummy,idat & $
>   itim(i) = idat(0) + (idat(1) + idat(2)/60.)/60. & $
>   IF itim(i) LT itim(0) THEN itim(i) = itim(i) + 24. & $
>   IF itim(i) LT stim OR itim(i) GT etim THEN GOTO, label1 & $
>
>   readf, resf, dummy & $
>   readf, resf, format = '(a24,i6)', dummy, ishot & $
>   FOR j = 0, 5 DO readf, resf, dummy & $
>   iback = 0 & $
>   WHILE NOT eof(resf) DO BEGIN & $
>     readf,resf,idat0,dat,idat1 & $
>     IF dat(1) EQ 19.993 THEN BEGIN & $
>       dz(i) = dat(0)/1000. & $
>       ref308(i) = idat1(0)/dz(i) & $
>       ref353(i) = idat1(2)/dz(i) & $
>     ENDIF & $
>     IF dat(1) GE 85. AND dat(1) LT 87. THEN BEGIN & $
>       back308(i) = back308(i) + idat1(0)/dz(i) & $
>       back353(i) = back353(i) + idat1(2)/dz(i) & $
>       iback = iback + 1 & $
>     ENDIF & $
>   ENDWHILE & $
>   back308(i) = (back308(i)/iback)/ishot & $
>   back353(i) = (back353(i)/iback)/ishot & $
>
>   ref308(i) = (ref308(i)/ishot)-back308(i) & $
>   ref353(i) = (ref353(i)/ishot)-back353(i) & $
> Label1: & $
>   free_lun, resf & $
> ENDFOR          ; i
>
>
> Now I can run 'idl batch_calc_quality_dual_online_auto.pro' and get my
> plots via a cron-job in Linux.
>
> Thanks for bearing over with me :-)
>

```

> Kolbjorn
>
> On Thu, 15 Aug 2002 18:44:34 +0000, David Fanning wrote:
>
>> Kolbjorn Bekkelund (kobe@rocketrange.no) writes:
>>
>>> I'm following up my own last post since I found that one cannot use FOR
>>> statements in batch mode like in normal .run. You have to place all the
>>> FOR stuff (until the ENDFOR) on one line using \$ and &. This because
>>> the batch mode use of IDL is looking for an END statement on each line
>>> after the BEGIN. If it doesn't find it you get a syntax error.
>>>
>>> BUT:
>>> How do I split the below FOR ENDFOR using \$ and &, and still make
>>> it work ????

>>
>> Kolbjorn,
>>
>> You *really* don't want to do this!
>>
>> You have written the code as a procedure. Why not just use it as a
>> procedure? (Put the name of the procedure in your batch file.) What am I
>> missing!?

>>
>> David
>
>

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Fri, 16 Aug 2002 12:57:56 GMT
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Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Fri, 16 Aug 2002 16:19:37 GMT
[View Forum Message](#) <> [Reply to Message](#)

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [R.Bauer](#) on Fri, 16 Aug 2002 17:15:09 GMT
[View Forum Message](#) <> [Reply to Message](#)

Kolbjorn Bekkelund wrote:

```
> On Fri, 16 Aug 2002 09:08:42 +0000, Reimar Bauer wrote:
>
>
>> Dear Kolbjorn
>>
>> I was believing that's in idl5.5 the "& $" isn't any more necessary. Am
>> I wrong? Or did you use idl 5.4 ?
>
> You're right !
> I'm using 5.4.
>
>>
>> One more comment to your code. you should use [] for arrays and () for
>> functions. itim(i) is an array. If you always use only () you can get in
>> a conflict if sometimes a variable is named like a function.
>
> I'll try to clean it after the functionality is ok. The base of the
> program is remains after some older guys working here earlier. They
> preferred the "manual" way. I'm trying to automate this old program, and
> it works 95 %, but I've got a new problem that I found today when I had
> the system running past midnight. The plot timescale is supposed to be a
> result of the old manual inout of start- and stop time. ie: if I enter 22
> 00 and 03 00, the
> timescale is 22-03.
```

Dear Kolbjorn

this is a more general problem with the handling of time series data.
I speak from a general problem because there might be an easy fix of
this but then you have always later on to do more fixes too.
For example if you like to do some interpolations or comparisons etc.

My suggestion is to use as we do julian seconds for the time.
Julian seconds is based on 2000-01-01 00:00:00 UTC.
It was defined by Ray Sterner
(<http://fermi.jhuapl.edu/s1r/idl/s1rlib/time/time.html>)
and he and we too have a lot of routines for this time format.
(http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/idl_work_libraries.htm)

The idea of this is all timeseries data are stored continuously.
The advantages are plenty described by Ray.
(http://fermi.jhuapl.edu/s1r/idl/s1rlib/time/time_series.html)

This is a small example for a plot

you need the package `setup_time_axis` and `string2js` from our library.

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/setup_time_axis.tar.gz

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/jsstring2.tar.gz

or as idl 5.5 binary

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/dbase/download/setup_time_axis.sav

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/js2string.sav

(Remember a idl compiled file with the extension `sav` is automaticly loaded the first time it is used. This is the same behaviour as for idl sources (`.pro`). They run on each idl platform with the same idl version)

Please have a look for further routines and licensing at

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

Only for my interest, which kind of format is the data you have is it NASA Ames ?

pro test

```
x=dindgen(30)*3600.0+string2js(/now)
y=sin(findgen(30)/10.)
```

```
tf='DD-MM!CHH:MM'
```

```
setup_time_axis, x, XRANGE = xrange, XSTYLE = xstyle, $
    XTITLE = 'time UTC', $
    XTICKS = xticks, XMINOR = xminor,$
    XTICKV = xtickv, XTICKNAME = tickname, $
    TIMEFORMAT = tf, TIMESTEP = ts, NO_DATE = nod
```

```
help,xrange,yrange
```

```
help,xtickname
```

```
help,xtickv
```

```
plot,x,y,XRANGE = xrange, XSTYLE = xstyle, XTITLE = 'time UTC', $
XTICKS = xticks, XMINOR = xminor, XTICKV = xtickv, XTICKNAME = tickname
```

```
end
```

In the description of `js2time` which is included into the package are the several time formats descibed.

best regards

Reimar

```
> With my way of doing it, setting the inputs to fixed 00-24 I get a nice
> timescale of 24 hours, but all files occurring after 24 is not plotted. I
> would really like some help getting that set up right. Any ideas ?
>
> A system where the plot is moving the timescale to the left as soon as it
> hits the upper time limit would be nice. At least I would like to get rid
> of the stupid way is't done now.
>
>> Labels as Label1: are very bad program style in my eyes and the code
>> could be very hard to understand.
>
> As I said above- I'll certainly clean the code in the end !!
> Runtime license is not an option. Economics you see. We've got two server
> licenses soon, so I'll survive.
>
> I've included the whole code below for you to see.
>
> =====
>
> PRO BATCH_CALC_QUALITY_DUAL_ONLINE_AUTO, filnam
> device, decomposed = 0
> loadct, 23
>
>   fil_dir = "
>   fil_dir = '/data/ozon/dialdata/ozon-online/*'
>   filnam = findfile(fil_dir)
>   iff = N_ELEMENTS(filnam)
>
>   dummy = "
>   idat = intarr(3) & idat0 = 0 & dat = fltarr(2) & idat1 = lonarr(4)
>   ref308 = fltarr(iff) & ref353 = fltarr(iff) & itim = fltarr(iff)
>   back308 = fltarr(iff) & back353 = fltarr(iff) & dz = fltarr(iff)
>   hr = 0 & min = 0 & stim = 0. & etim = 0.
>   hr='00'
>   min='00'
>   stim = hr + min/60.
>   hr='24'
>   min='00'
>   etim = hr + min/60.
>   IF etim LT stim THEN etim = etim + 24.
```

```

>
> FOR i = 0, iff-1 DO BEGIN & $
>   openr, resf, filnam(i), /get_lun & $
>   filnavn=STRMID(filnam(i), 32,5) & $
>   FOR j = 0, 5 DO readf, resf, dummy & $
>   readf,resf,format = '(a36,i2,1x,i2,1x,i2)',dummy,idat & $
>   itim(i) = idat(0) + (idat(1) + idat(2)/60.)/60. & $
>   IF itim(i) LT itim(0) THEN itim(i) = itim(i) + 24. & $
>   IF itim(i) LT stim OR itim(i) GT etim THEN GOTO, label1 & $
>
>   readf, resf, dummy & $
>   readf, resf, format = '(a24,i6)', dummy, ishot & $
>   FOR j = 0, 5 DO readf, resf, dummy & $
>   iback = 0 & $
>   WHILE NOT eof(resf) DO BEGIN & $
>     readf,resf,idat0,dat,idat1 & $
>     IF dat(1) EQ 19.993 THEN BEGIN & $
>       dz(i) = dat(0)/1000. & $
>       ref308(i) = idat1(0)/dz(i) & $
>       ref353(i) = idat1(2)/dz(i) & $
>     ENDIF & $
>     IF dat(1) GE 85. AND dat(1) LT 87. THEN BEGIN & $
>       back308(i) = back308(i) + idat1(0)/dz(i) & $
>       back353(i) = back353(i) + idat1(2)/dz(i) & $
>       iback = iback + 1 & $
>     ENDIF & $
>   ENDWHILE & $
>   back308(i) = (back308(i)/iback)/ishot & $
>   back353(i) = (back353(i)/iback)/ishot & $
>
>   ref308(i) = (ref308(i)/ishot)-back308(i) & $
>   ref353(i) = (ref353(i)/ishot)-back353(i) & $
> Label1: & $
>   free_lun, resf & $
> ENDFOR          ; i
>
> dato= systime()
>
> !p.multi = [0,1,2]
>
> window, 0, xsize=800, ysize=600, title='ALOMAR Ozone Lidar Combined
> Signal/Background Count'
> usersym, [ -1, 0, 1, -1 ], [ 1, -1, 1, 1 ], color=166, /fill
> ; filled downward triangle
> plot_io, itim, ref308, psym = 8, color=119, yrange = [0.001, 200.],
> yticklen=1, ygridstyle=2, ystyle = 1, xstyle = 1, $
> xrange = [stim,etim],xtitle = 'Time printed [UT]: '+ dato +", title =
> 'Signal at 19.993 km ' + filnavn

```

```

> axis, yaxis = 0, color=119, yrange = [0.001, 200.], ystyle = 1, $
> xrange = [stim,etim],ytitle = 'normalized countrate [cts/km.shot]'
> usersym, [ -1, 0, 1, -1 ], [ -1, 1, -1, -1 ], color=217, /fill
> ; filled upward triangle
> oplot,itim,ref353,psym = 8
>
> ;xyouts, 460, 450, 'Green: 308 nm', /device
> ;xyouts, 460, 460, 'Yellow: 353 nm', /device
>
> usersym, [ -1, 0, 1, -1 ], [ -1, 1, -1, -1 ], color=217, /fill
> ; filled upward triangle
> plot_io, itim, back353, psym = 8, color=119, yrange = [1e-5,
> 100],yticklen=1, ygridstyle=2, ystyle = 1, xstyle = 1, $
> xrange = [stim,etim],xtitle = 'Time printed [UT]: '+ dato +', title =
> 'Background on ' + filnavn + ', 85 - 87 km', $ ytitle = 'normalized
> countrates [cts/km.shot]'
>
> usersym, [ -1, 0, 1, -1 ], [ 1, -1, 1, 1 ], color=166, /fill
> ; filled downward triangle
> oplot,itim,back308,psym = 8
>
> ;xyouts, 460, 450, 'Green: 308 nm', /device
> ;xyouts, 460, 460, 'Yellow: 353 nm', /device
>
> write_png, '/data/ozon/plots/latest-combined.png', tvrd(/true)
>
> close,/all
> exit, status=45
> END
>
> =====
>
>
> Best regards,
> Kolbjorn
>

```

--

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: Attempt to subscript FILNAM with I is out of range....

On Fri, 16 Aug 2002 01:05:11 -0700, Timm Weitkamp wrote:

```
> Kolbjorn,
>
> Following Craig's suggestion is definitely the easiest (and cleanest)
> way, but I think his script "run_myfile.pro" should be extended by one
> line that will make all the difference:
>
> .run myfile.pro ; compile the routine(s) contained in myfile.pro
> myfile ; run procedure myfile (if that's what is in
> myfile.pro) exit ; quit IDL
>
> Don't let yourself confuse by the fact that file naming conventions in
> IDL are such that the ".pro" extension is used for both batch scripts
> and files containing procedures and/or functions, or by the fact that
> the .RUN statement only *compiles* the routines in its argument file,
> but does *not run* them. This is why the additional 2nd line in the
> batch file above is needed, which must have seemed too obvious to Craig
> so he didn't mention it.
```

Or he meant for myfile.pro to contain a MAIN-level routine, i.e. one like:

```
do_some_stuff
for i=0,1000 do begin
  do_something_else
endfor
end
```

This doesn't have the batch file no-multi-line-block restriction, and only differs from a real procedure in that no routine definition is included (but notice the mandatory closing END statement), and, obviously, no arguments are allowed. When you ".run" a main level routine, it compiles and runs at the same time. In fact it is re-compiled each time -- one advantage to MAIN-level routines is you don't have to compile then run for each change:

```
IDL> .run myplot
```

```
<change some plot parameters>
```

```
IDL> .run myplot ; new plot
```

They're good for one-off scripts like plotting sequences.

The only good uses of batch files I can think of:

1. Including small definitions, especially common blocks:

```
pro my_pro
  @my_common_block
end
```

in my_common_block:

```
common my_common_block,blarh,foo,test
```

Why is this a nice way to include common blocks? If it's used throughout many different files, redefining it becomes an awful chore. But if it's just included from a single file, all changes (e.g. adding a variable) occur in one place. And no, using the abbreviated form:

```
common my_common_block
```

doesn't always work. For this to succeed you need one point of entrance where the common block can be defined... not always practical.

2. Because they're the default for scripts mentioned on the command line (though SAVE files can also be used, as was demonstrated). Not really an advantage, just a necessity.

JD

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Craig Markwardt](#) on Sat, 17 Aug 2002 00:07:58 GMT
[View Forum Message](#) <> [Reply to Message](#)

Timm Weitkamp <timmm.weitkamp@psi.ch> writes:

```
> Kolbjorn,
>
> Following Craig's suggestion is definitely the easiest (and cleanest) way,
> but I think his script "run_myfile.pro" should be extended by one line
> that will make all the difference:
>
> .run myfile.pro ; compile the routine(s) contained in myfile.pro
> myfile          ; run procedure myfile (if that's what is in myfile.pro)
> exit            ; quit IDL
```

Right, I missed that "PRO" at the top of his file.

Of course, because he was running the file like an "@" script, the PRO statement was ignored, and the rest of the commands were simply

executed.

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: Attempt to subscript FILNAM with I is out of range....
Posted by [Kolbjorn Bekkelund](#) on Sat, 17 Aug 2002 04:58:14 GMT
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