
Subject: Save file creation rules of the road
Posted by [Rob\[2\]](#) on Thu, 18 Feb 2010 11:30:28 GMT
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Dear save file gurus,

I'm trying to create a distributable IDL save file via IDLDE > Project > "Build Project". A save file was created without error -- some initial complaints were issued, then automatically resolved. I then restored this save file in a new IDL cli session. All expected functions and procedures were listed, via "restore, /verbose" and "help"; see below. However, an attempt to run one of the restored procedures yielded the annoying "Variable is undefined: SPIDR_ASCII_GET_META.... EXCEPTION..." I've experienced this before and the hack I employed wasn't pretty. It involved compiling (via .compile) all functions and procedures I thought I needed and creating a save file somewhat manually, then a sacrificial lamb and a kabuki dance. Thus, I suppose I've never really learned how to create a proper save file with just the functionality I need. Can someone point me in the right direction?

Debug follows:

Noting the below "help" after restore in new session, you can see for yourself that "SPIDR_ASCII_GET_META" is defined:

Compiled Procedures:

```
$MAIN$ BAR_PLOT CALDAT CHECK_INIT DOC_LIBRARY  
LEGEND LOADCT LOGGER LOG_DEBUG LOG_ERROR  
LOG_FATAL LOG_INFO LOG_WARN MG_OPEN_URL  
NGDC_BOILER PRINT_LOG_MESSAGE RESOLVE_ALL  
SPIDR_CLIENT SPIDR_CRIB SPIDR_CRIB_IONO_7_DAYS  
SPIDR_CRIB_IONO_EVENT SPIDR_CRIB_SENSOR_FUSION
```

Compiled Functions:

```
FGDC_TO_SIMPLE_STRUCT FILEPATH IS_STRUCT  
IS_STRUCTURE JDAY_TO_TIME_8601  
JDAY_TO_TIME_ARRAY JDAY_TO_UNIX_TIME JULDAY  
LABEL_DATE MEAN MM MOMENT  
SPIDR_ASCII_GET_META  
SPIDR_ASCII_TO_STRUCTURE SPIDR_GET_DATA  
SPIDR_GET_METADATA  
STDDEV STRSPLIT TEST_SPIDR_ASCII_TO_STRUCTURE  
TEST_SPIDR_GET_DATA TEST_SPIDR_GET_METADATA  
TIME_8601_TO_ARRAY TIME_ARRAY_TO_8601 UNIQ
```

```
IDL> print, TEST_SPIDR_ASCII_TO_STRUCTURE()
```

```
% Variable is undefined: SPIDR_ASCII_GET_META.  
% Execution halted at: SPIDR_ASCII_TO_STRUCTURE  
%           TEST_SPIDR_ASCII_TO_STRUCTURE  
%           $MAIN$
```

Subject: Re: SAVE

Posted by [pgrigis](#) on Thu, 13 May 2010 20:53:28 GMT

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On May 13, 4:05 pm, fgg <fabioquimaraesgoncal...@gmail.com> wrote:

```
> Hi there,  
>  
> I'm running a procedure that has lines in it such as:  
>  
> (Scope_VarFetch('data', LEVEL=1, /ENTER)) = 1
```

Isn't there an international convention, signed in Geneva, against using such cruel practices in computer programming code? I'd be very very careful with that...

Ciao,
Paolo

```
>  
> ... that are used to save variables to the main IDL level. I'd like to  
> add a line at the end of this procedure to make it save all variables  
> that were created in a *.sav file. Something like this:  
>  
> save, /variables, filename= '/Users/xxx/Desktop/example.sav'  
>  
> ... but it's not working. I'm getting in the *.sav file all other  
> variables defined in the procedure, but the ones created using  
> Scope_VarFetch. Any suggestions?  
>  
> PS: if I run the procedure first (without the save line in it) and  
> then type the save line at the IDL prompt I get exactly what I want.  
> Just wanted to know if it's possible to automate this process.  
>  
> Thank you!
```

Subject: Re: SAVE

Posted by [David Fanning](#) on Thu, 13 May 2010 20:57:15 GMT

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Paolo writes:

- > Isn't there an international convention, signed in
- > Geneva, against using such cruel practices in computer
- > programming code? I'd be very very careful with that...

Yeah, people have been arrested for aiding and abetting when they have spelled out how to do things like this! :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: SAVE

Posted by [fgg](#) on Thu, 13 May 2010 21:21:27 GMT

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-
- > Isn't there an international convention, signed in
 - > Geneva, against using such cruel practices in computer
 - > programming code? I'd be very very careful with that...

>

> Ciao,

> Paolo

>

Is there? Cool... but I'm still waiting for the part where you provide an acceptable alternative. Isn't that the idea?

Subject: Re: SAVE

Posted by [David Fanning](#) on Thu, 13 May 2010 21:25:14 GMT

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fgg writes:

- > Is there? Cool... but I'm still waiting for the part where you provide
- > an acceptable alternative. Isn't that the idea?

It occurs to me that if you can write the variables to the main IDL level, you ought to be able to write them to a SAVE file. :-)

If they have disappeared on you when you moved them to the main level, save them before you do that.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: SAVE

Posted by [Aram Panasenco](#) on Thu, 13 May 2010 21:29:58 GMT

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fgg wrote:

> Hi there,
>
> I'm running a procedure that has lines in it such as:
>
> (Scope_VarFetch('data', LEVEL=1, /ENTER)) = 1
>
> ... that are used to save variables to the main IDL level. I'd like to
> add a line at the end of this procedure to make it save all variables
> that were created in a *.sav file. Something like this:
>
> save, /variables, filename= '/Users/xxx/Desktop/example.sav'
>
> ... but it's not working. I'm getting in the *.sav file all other
> variables defined in the procedure, but the ones created using
> Scope_VarFetch. Any suggestions?
>
> PS: if I run the procedure first (without the save line in it) and
> then type the save line at the IDL prompt I get exactly what I want.
> Just wanted to know if it's possible to automate this process.
>
> Thank you!

Hello fgg,

scope_varfetch is a highly dangerous routine that you should only use if there is absolutely no other alternative to implementing something crucial (and there almost always is). Seeing as you are new, we can't give you advice on how to use scope_varfetch because it will make your program harder to write, more prone to errors, and, most importantly, using scope_varfetch can interfere with other IDL programs, making your program unusable (by you and others). Instead, can you tell us in more detail what exactly you are trying to do so that we can show you a better way to accomplish it. What tasks does your procedure aim to do?

~Aram Panasenco

Subject: Re: SAVE

Posted by [Gray](#) on Fri, 14 May 2010 00:41:11 GMT

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On May 13, 5:21 pm, fgg <fabioquimaraesgoncal...@gmail.com> wrote:

>> Isn't there an international convention, signed in
>> Geneva, against using such cruel practices in computer
>> programming code? I'd be very very careful with that...
>
>> Ciao,
>> Paolo
>
> Is there? Cool... but I'm still waiting for the part where you provide
> an acceptable alternative. Isn't that the idea?

Why don't you just SAVE your variables, then RESTORE them at the main level?

Subject: Re: SAVE

Posted by [Aram Panasenco](#) on Fri, 14 May 2010 00:43:23 GMT

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fgg wrote:

>> Isn't there an international convention, signed in
>> Geneva, against using such cruel practices in computer
>> programming code? I'd be very very careful with that...
>>
>> Ciao,
>> Paolo
>>
>
> Is there? Cool... but I'm still waiting for the part where you provide

> an acceptable alternative. Isn't that the idea?

If I had to guess what you are trying to do, I'd say that you want to save all variables in the current IDL session to a save file. That is done rather simply:

```
save, /ALL, filename='.../.sav'
```

~Aram Panasenco

Subject: Re: SAVE

Posted by [pgrigis](#) on Fri, 14 May 2010 13:53:55 GMT

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On May 13, 5:21 pm, fgg <fabioquimaraesgoncal...@gmail.com> wrote:

>> Isn't there an international convention, signed in
>> Geneva, against using such cruel practices in computer
>> programming code? I'd be very very careful with that...

>

>> Ciao,

>> Paolo

>

> Is there? Cool... but I'm still waiting for the part where you provide
> an acceptable alternative. Isn't that the idea?

The acceptable alternative of using `scope_varfetch` to move data up and down the hierarchy of your programs is to use the arguments and keywords of your routines.

And regarding your original question, I did not quite understand what you were trying to accomplish - so I am sorry I could not offer any useful advice there.

Ciao,
Paolo

Subject: Re: SAVE

Posted by [fgg](#) on Fri, 14 May 2010 20:22:02 GMT

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Thanks a lot for the constructive comments! I was using `SCOPE_VARFETCH` simply to export the variables to the main level... but I'm now convinced that this is not a good practice. One of the suggestions I got was to include parameters in my procedure, define the variables within the procedure, and then call it specifying the parameters

similarly on the command line. Something like this:

```
pro xxx, a=a, b=b, c=c
```

This would add the variables of interest (a, b, and c) in main just like `SCOPE_VARFETCH` does. I guess that's the usual way of doing this and I would probably not end in jail =)... so, here we go.

Thanks again,
Fabio
