

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

[[Dr. Martin Schultz Max-Planck-Institut fuer Meteorologie [[
[[Bundesstr. 55, 20146 Hamburg [[
[[phone: +49 40 41173-308 [[
[[fax: +49 40 41173-298 [[
[[martin.schultz@dkrz.de [[

Page 1 of 10 ---- Generated from [comp.lang.idl-pvwave](#) archive

> As an aside, I recently found another problem in terms of backward
> compability (I am
> sure something similar was already mentioned in this newsgroup, but this
> was the first
> time I had this problem):
> I tried to write a routine that takes advantage of the new StrMatch
> and StRegex
> functions in 5.3. In order to ensure backward compatibility, I enclosed
> these function calls
> with
> IF !Version.Release GE 5.3 THEN BEGIN
> ENDIF
>
> However, a colleague tells me: no chance! The program will report a
> syntax error when run in
> IDL 5.2! So, the problem is that IDL looks for a function of this name
> during compile stage
> and doesn't care if it will ever be used.
...

There is a way to do this without defining an external function, by
using FORWARD_FUNCTION properly:

```
FORWARD_FUNCTION strege, strmatch
IF !Version.Release GE 5.3 THEN BEGIN
    foo = strege(bar)
    sm = strmatch(eg)
ENDIF
```

This will make sure that IDL will always recognize strmatch & strege
as functions during the compilation stage, and there will be no syntax
errors in any IDL version. It is harmless in IDL 5.3. If you really
want the warning message, then by all means go ahead and make your own
strmatch definitions et al.

Have fun,
Craig

--

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

Subject: Re: David: for your book ?
Posted by [davidf](#) on Tue, 15 Aug 2000 07:00:00 GMT

Martin Schultz (martin.schultz@dkrz.de) writes:

> So, the problem is that IDL looks for a function of this name
> during compile stage and doesn't care if it will ever be used.

Yes. I thought I was going crazy recently, because I don't remember IDL ever complaining about not being able to find a function until run-time. But clearly it is looking for this functions during compile time.

As you suggest, this makes it awfully hard to write version-independent code. Perhaps it is done as an impetus to upgrade to the latest version of IDL. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

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

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: David: for your book ?

Posted by [Martin Schultz](#) on Tue, 15 Aug 2000 07:00:00 GMT

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

Craig Markwardt wrote:

>

> Martin Schultz <martin.schultz@dkrz.de> writes:

>> Hi,

>>

>> Testing IDL's capabilities is always dangerous: you might get more
>> than you ask for!

>>

>> What would you expect to get out of the following:

>>

>> test = ['dir1/', 'directory2/', 'another_directory/']

>> print,strmid(test,0,strlen(test)-1)

>

> Hmm, I got an error message!

>

> IDL> test = ['dir1/', 'directory2/', 'another_directory/']

```

> IDL> print, strmid(test, 0, strlen(test)-1)
> % STRMID: Expression must be a scalar in this context: <LONG    Array>.
> % Execution halted at: $MAIN$
>
> IDL> print, !version
> { alpha OSF unix 5.2 Oct 30 1998}
>
> Is this something new in IDL 5.3?
>

```

Apparently so! What I get as a result is a 3x3 matrix containing in the first column all directory names truncated to a length of 4, in the second column 10, and in the third column StrLen(test[2]-1). But I am glad you point this out.

As an aside, I recently found another problem in terms of backward compatibility (I am sure something similar was already mentioned in this newsgroup, but this was the first time I had this problem):

I tried to write a routine that takes advantage of the new StrMatch and StRegex functions in 5.3. In order to ensure backward compatibility, I enclosed these function calls with

```

IF !Version.Release GE 5.3 THEN BEGIN
ENDIF

```

However, a colleague tells me: no chance! The program will report a syntax error when run in IDL 5.2! So, the problem is that IDL looks for a function of this name during compile stage and doesn't care if it will ever be used. Only help is to write two little dummy functions named strexex.pro and strmatch.pro which do nothing but print a warning message. And so I did. Works nicely, and you don't even have to test for the release number because these two functions are internal in 5.3 and hence they are discovered before anything on disk can be found.

Just a little bedtime story ;-)

Cheers,
Martin

--

```

[[ Dr. Martin Schultz  Max-Planck-Institut fuer Meteorologie  [[
[[      Bundesstr. 55, 20146 Hamburg      [[
[[      phone: +49 40 41173-308      [[
[[      fax: +49 40 41173-298      [[
[[ martin.schultz@dkrz.de      [[
[[

```

Subject: Re: David: for your book ?

Posted by [Craig Markwardt](#) on Tue, 15 Aug 2000 07:00:00 GMT

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

Martin Schultz <martin.schultz@dkrz.de> writes:

```

> Hi,
>
> Testing IDL's capabilities is always dangerous: you might get more
> than you ask for!
>
> What would you expect to get out of the following:
>
> test = [ 'dir1/', 'directory2/', 'another_directory/' ]
> print, strmid(test, 0, strlen(test)-1)

```

Hmm, I got an error message!

```

IDL> test = [ 'dir1/', 'directory2/', 'another_directory/' ]
IDL> print, strmid(test, 0, strlen(test)-1)
% STRMID: Expression must be a scalar in this context: <LONG      Array[3]>.
% Execution halted at: $MAIN$

```

```

IDL> print, !version
{ alpha OSF unix 5.2 Oct 30 1998}

```

Is this something new in IDL 5.3?

Craig

--

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

Subject: Re: David: for your book ?

Posted by [landsman](#) on Wed, 16 Aug 2000 07:00:00 GMT

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

In article <399937D2.8C0A52A2@dkrz.de>,

Martin Schultz <martin.schultz@dkrz.de> wrote:

```
>
> What would you expect to get out of the following:
>
> test = [ 'dir1/', 'directory2/', 'another_directory/' ]
> print, strmid(test, 0, strlen(test)-1)
>
> ??
>
> Well, I at least had expected to get the directory names without the
> trailing '/'.
> But, no!
> help, strmid(test, 0, strlen(test)-1)
> reveals that the result is a 3x3 array!!
```

When IDL added vector capabilities to STRMID in V5.3, they allowed for both (1) the extraction of multiple substrings from each element of a string, and (2) having the first character position and substring length differ for each element of a string array. Unfortunately, adding all this power has made the syntax awkward. According to the documentation

"If First_Character or Length is an array, the size of their first dimension determines how many substrings are extracted from each element of <expression>"

So the solution is to REFORM the string length (or position) array to two dimensions:

```
IDL> test = [ 'dir1/', 'directory2/', 'another_directory/' ]
IDL> print, strmid(test, 0, reform( strlen(test)-1, 1, 3 ) )
==> dir1 directory2 another_directory
```

By reforming the string length array into a 1 x 3 size, STRMID now knows to extract only 1 substring from each element of test.

A simple program to extract a string array up to a specified character using the vector capabilities of STRMID is available at

<http://idlastro.gsfc.nasa.gov/ftp/v53/gettok.pro>

--Wayne Landsman

landsman@mpb.gsfc.nasa.gov

Sent via Deja.com <http://www.deja.com/>

Before you buy.

Subject: Re: David: for your book ?
Posted by [davidf](#) on Wed, 16 Aug 2000 07:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

Martin Schultz (martin.schultz@dkrz.de) writes:

> BTW: any one out there who is still using earlier versions (prior to
> 5.2)?

Jeeze Louise, man! Have you checked with your systems administrator?
You are about to have a denial of service attack from all the
e-mail about to pile up in your account! :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: David: for your book ?
Posted by [Martin Schultz](#) on Wed, 16 Aug 2000 07:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

Craig Markwardt wrote:

>
> Martin Schultz <martin.schultz@dkrz.de> writes:
>> As an aside, I recently found another problem in terms of backward
>> compability (I am
>> sure something similar was already mentioned in this newsgroup, but this
>> was the first
>> time I had this problem):
>> I tried to write a routine that takes advantage of the new StrMatch
>> and StRegex
>> functions in 5.3. In order to ensure backward compatibility, I enclosed
>> these function calls
>> with
>> IF !Version.Release GE 5.3 THEN BEGIN
>> ENDIF

```
>>
>> However, a colleague tells me: no chance! The program will report a
>> syntax error when run in
>> IDL 5.2! So, the problem is that IDL looks for a function of this name
>> during compile stage
>> and doesn't care if it will ever be used.
> ...
>
> There is a way to do this without defining an external function, by
> using FORWARD_FUNCTION properly:
>
> FORWARD_FUNCTION strege, strmatch
> IF !Version.Release GE 5.3 THEN BEGIN
>   foo = strege(bar)
>   sm = strmatch(eg)
> ENDIF
>
> This will make sure that IDL will always recognize strmatch & strege
> as functions during the compilation stage, and there will be no syntax
> errors in any IDL version. It is harmless in IDL 5.3. If you really
> want the warning message, then by all means go ahead and make your own
> strmatch definitions et al.
>
> Have fun,
> Craig
```

Thanks, Craig.

I didn't believe that this would cure it (I had thought it would just change the error message), but you are right, it works. So, maybe some people can still live with IDL 5.2 after all.

BTW: any one out there who is still using earlier versions (prior to 5.2)?

Maybe I shouldn't ask because I fear this will swamp the newsgroup -- so please

reply only by email, subject "old idl", content '!version = ' then I will

collect these messages for a while and report a summary later (after a week

or two). I assure you that these messages will be kept strictly confidential and

will be deleted after processing the version information.

Cheers,
Martin

--

```

[[ Dr. Martin Schultz  Max-Planck-Institut fuer Meteorologie  [[
[[      Bundesstr. 55, 20146 Hamburg      [[
[[      phone: +49 40 41173-308      [[
[[      fax:  +49 40 41173-298      [[
[[ martin.schultz@dkrz.de      [[
[[

```

Subject: Re: David: for your book ?
Posted by [R.Bauer](#) on Wed, 16 Aug 2000 07:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

Craig Markwardt wrote:

```

>
> Martin Schultz <martin.schultz@dkrz.de> writes:
>> As an aside, I recently found another problem in terms of backward
>> compability (I am
>> sure something similar was already mentioned in this newsgroup, but this
>> was the first
>> time I had this problem):
>>   I tried to write a routine that takes advantage of the new StrMatch
>> and StRegex
>> functions in 5.3. In order to ensure backward compatibility, I enclosed
>> these function calls
>> with
>>   IF !Version.Release GE 5.3 THEN BEGIN
>>   ENDIF
>>
>> However, a colleague tells me: no chance! The program will report a
>> syntax error when run in
>> IDL 5.2! So, the problem is that IDL looks for a function of this name
>> during compile stage
>> and doesn't care if it will ever be used.
> ...
>
> There is a way to do this without defining an external function, by
> using FORWARD_FUNCTION properly:
>
> FORWARD_FUNCTION strege, strmatch
> IF !Version.Release GE 5.3 THEN BEGIN
>   foo = strege(bar)
>   sm = strmatch(eg)

```

> ENDIF
>
> This will make sure that IDL will always recognize strmatch & strexex
> as functions during the compilation stage, and there will be no syntax
> errors in any IDL version. It is harmless in IDL 5.3. If you really
> want the warning message, then by all means go ahead and make your own
> strmatch definitions et al.
>
> Have fun,
> Craig
>
> --

Don't write it yourself

Take the strmatch routine from the deutsch library
<http://www.astro.washington.edu/deutsch/idl/htmlhelp/slibrary24.html>

Reimar
