
Subject: Re: idl syntax validation

Posted by [David Fanning](#) on Wed, 11 Oct 2006 20:45:58 GMT

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Dometz writes:

- > Is there way to validate idl syntax? So, something like the .compile
- > command on the command line but which only checks if the syntax is
- > valid and then exits and reports the errors.

This still that spy thing you are working on? :-)

Cheers,

David

P.S. I think you are thinking about some other language.
IDL is pretty, uh, free-form.

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: idl syntax validation

Posted by [JD Smith](#) on Wed, 11 Oct 2006 21:21:18 GMT

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On Wed, 11 Oct 2006 13:41:12 -0700, Dometz wrote:

- > Hi,
- >
- > Is there way to validate idl syntax? So, something like the .compile
- > command on the command line but which only checks if the syntax is
- > valid and then exits and reports the errors.

```
catch,err
if err ne 0 then begin
    print,'caught compile error for ',routine
    catch,/cancel
endif else resolve_routine,routine,/EITHER
```

JD

Subject: Re: idl syntax validation

Posted by [Dominic Metzger](#) on Wed, 11 Oct 2006 22:11:05 GMT

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I guess I wasn't clear enough... I mean something that I can run in a bash script to test if a .pro file has valid syntax.

something like:

```
echo '.compile foo.pro' | idl
```

and then checking if there are any syntax error messages and if there are act accordingly.

But is there a better way than using .compile for this?

dometz

JD Smith wrote:

> On Wed, 11 Oct 2006 13:41:12 -0700, Dometz wrote:

>

>> Hi,

>>

>> Is there way to validate idl syntax? So, something like the .compile

>> command on the command line but which only checks if the syntax is

>> valid and then exits and reports the errors.

>

```
> catch,err
```

```
> if err ne 0 then begin
```

```
>   print,'caught compile error for ',routine
```

```
>   catch,/cancel
```

```
> endif else resolve_routine,routine,/EITHER
```

>

> JD

Subject: Re: idl syntax validation

Posted by [JD Smith](#) on Thu, 12 Oct 2006 01:29:38 GMT

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On Wed, 11 Oct 2006 15:11:05 -0700, Dometz wrote:

> I guess I wasn't clear enough... I mean something that I can run in a

> bash script to test if a .pro file has valid syntax.

>

> something like:

```
> echo '.compile foo.pro' | idl
```

> and then checking if there are any syntax error messages and if there

> are act accordingly.

>
> But is there a better way than using .compile for this?

I guess I didn't do all your homework for you ;). You could use this idea to write a function called check_syntax, ala:

```
function check_syntax,routine
  catch,err
  if err ne 0 then return,err
  resolve_routine,routine,/EITHER,/COMPILE_FULL_FILE
  return,0
end
```

Then a batch file which uses this function, like do_check.pro:

```
=====
status=check_syntax((command_line_args())[0])
if status ne 0 then print,!ERROR_STATE.MSG
exit,STATUS=status
=====
```

then call, from your shell script:

```
idl -arg routine do_check.pro
```

and check the exit status. You might need to monkey IDL_PATH to ensure it attempts to compile the correct version of the routine, like:

```
idl -IDL_PATH "$(pwd):+./other/libs:<IDL_DEFAULT>" -arg routine do_check.pro
```

JD

Subject: Re: idl syntax validation

Posted by [Dominic Metzger](#) on Fri, 13 Oct 2006 23:58:16 GMT

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Hi JD,

Thanks you for your help... it works pretty well, but I still get some errors that I am not able to catch... well, I am able to catch them but it prints an error message. How can I get rid of that error message / meaning that it wont print any error message?

```
IDL> validate_routine, ["valid"]
```

```
1
```

```
IDL> validate_routine, ["foo"]
```

```
read_png()
^
% Syntax error.
  At: /home/dometz/test_cases/idl/foo.pro, Line 8
    0
IDL> exit
```

```
function validate_syntax, ROUTINE
  COMPILE_OPT HIDDEN
  CATCH, ERROR
  IF (ERROR NE 0) THEN RETURN, 0
  RESOLVE_ROUTINE, ROUTINE, /EITHER, /COMPILE_FULL_FILE
  RETURN, 1
END

pro FOO
  read_png()
END
```

any ideas?

dometz

JD Smith wrote:

```
> On Wed, 11 Oct 2006 15:11:05 -0700, Dometz wrote:
>
>> I guess I wasn't clear enough... I mean something that I can run in a
>> bash script to test if a .pro file has valid syntax.
>>
>> something like:
>> echo '.compile foo.pro' | idl
>> and then checking if there are any syntax error messages and if there
>> are act accordingly.
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>> But is there a better way than using .compile for this?
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> I guess I didn't do all your homework for you ;). You could use this
> idea to write a function called check_syntax, ala:
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> function check_syntax,routine
>   catch,err
>   if err ne 0 then return,err
>   resolve_routine,routine,/EITHER,/COMPILE_FULL_FILE
>   return,0
```

```
> end
>
> Then a batch file which uses this function, like do_check.pro:
>
> ;=====
> status=check_syntax((command_line_args())[0])
> if status ne 0 then print,!ERROR_STATE.MSG
> exit,STATUS=status
> ;=====
>
> then call, from your shell script:
>
> idl -arg routine do_check.pro
>
> and check the exit status. You might need to monkey IDL_PATH to ensure
> it attempts to compile the correct version of the routine, like:
>
> idl -IDL_PATH "$ (pwd):+ /other/libs:<IDL_DEFAULT>" -arg routine do_check.pro
>
> JD
```

Subject: Re: idl syntax validation

Posted by [David Fanning](#) on Sat, 14 Oct 2006 00:08:25 GMT

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Dometz writes:

```
> Thanks you for your help... it works pretty well, but I still get some
> errors that I am not able to catch... well, I am able to catch them but
> it prints an error message. How can I get rid of that error message /
> meaning that it wont print any error message?
>
> IDL> validate_routine, ["valid"]
>      1
> IDL> validate_routine, ["foo"]
>
> read_png()
> ^
> % Syntax error.
> At: /home/dometz/test_cases/idl/foo.pro, Line 8
>      0
> IDL> exit
>
>
> function validate_syntax, ROUTINE
>      COMPILE_OPT HIDDEN
>      CATCH, ERROR
```

```
> IF (ERROR NE 0) THEN RETURN, 0
> RESOLVE_ROUTINE, ROUTINE, /EITHER, /COMPILE_FULL_FILE
> RETURN, 1
> END
>
> pro FOO
>   read_png()
> END
>
>
> any ideas?
```

I have an obvious one: use the correct IDL syntax for READ_PNG.
That should help. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: idl syntax validation

Posted by [Dominic\[1\]](#) on Sat, 14 Oct 2006 00:33:35 GMT

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Hahahaha, yeah, that would help... but then what would I use my fancy
function for?

Any ideas on how to suppress this error message?

dometz

David Fanning wrote:

> Dometz writes:

>

>> Thanks you for your help... it works pretty well, but I still get some
>> errors that I am not able to catch... well, I am able to catch them but
>> it prints an error message. How can I get rid of that error message /
>> meaning that it wont print any error message?

>>

>> IDL> validate_routine, ["valid"]

>> 1

>> IDL> validate_routine, ["foo"]

```
>>
>> read_png()
>> ^
>> % Syntax error.
>> At: /home/dometz/test_cases/idl/foo.pro, Line 8
>> 0
>> IDL> exit
>>
>>
>> function validate_syntax, ROUTINE
>>     COMPILE_OPT HIDDEN
>>     CATCH, ERROR
>>     IF (ERROR NE 0) THEN RETURN, 0
>>     RESOLVE_ROUTINE, ROUTINE, /EITHER, /COMPILE_FULL_FILE
>>     RETURN, 1
>> END
>>
>> pro FOO
>>     read_png()
>> END
>>
>>
>> any ideas?
>
> I have an obvious one: use the correct IDL syntax for READ_PNG.
> That should help. :-)
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
```

Subject: Re: idl syntax validation
Posted by [David Fanning](#) on Sat, 14 Oct 2006 00:58:36 GMT
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Dominic writes:

```
> Hahahaha, yeah, that would help... but then what would I use my fancy
> function for?
>
> Any ideas on how to suppress this error message?
```

!QUIET = 1

Suppresses the hell out of them! :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: idl syntax validation

Posted by [Michael Galloy](#) on Sat, 14 Oct 2006 01:16:06 GMT

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The below routines have to be in separate files, named
validate_syntax.pro and validate_syntax_helper.pro. Then

```
IDL> print, validate_syntax('foo')
```

```
0
```

```
IDL> print, validate_syntax('validate_syntax')
```

```
1
```

My "normal" trick of using EXECUTE(..., 1) didn't work, so I had to up
the ante to the IDL_IDLBridge.

Mike

--

www.michaelgalloy.com

```
function validate_syntax, routineName
```

```
  compile_opt strictarr, hidden
```

```
  catch, error
```

```
  if (error ne 0) then return, 0
```

```
  o = obj_new('IDL_IDLBridge')
```

```
  cmd = 'result = validate_syntax_helper("'" + routineName + "'')
```

```
  o->execute, cmd
```

```
  result = o->getVar('result')
```

```
  obj_destroy, o
```

```
  return, result
```

```
end
```

```
function validate_syntax_helper, routineName
  compile_opt strictarr, hidden

  catch, error
  if (error ne 0) then return, 0

  resolve_routine, routineName, /either, /compile_full_file
  return, 1
end
```

Dometz wrote:

```
> Hi JD,
>
> Thanks you for your help... it works pretty well, but I still get some
> errors that I am not able to catch... well, I am able to catch them but
> it prints an error message. How can I get rid of that error message /
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>
> IDL> validate_routine, ["valid"]
>    1
> IDL> validate_routine, ["foo"]
>
> read_png()
> ^
> % Syntax error.
> At: /home/dometz/test_cases/idl/foo.pro, Line 8
>    0
> IDL> exit
>
>
> function validate_syntax, ROUTINE
>   COMPILE_OPT HIDDEN
>   CATCH, ERROR
>   IF (ERROR NE 0) THEN RETURN, 0
>   RESOLVE_ROUTINE, ROUTINE, /EITHER, /COMPILE_FULL_FILE
>   RETURN, 1
> END
>
> pro FOO
>   read_png()
> END
>
>
> any ideas?
>
> dometz
```

>
>
>
> JD Smith wrote:
>> On Wed, 11 Oct 2006 15:11:05 -0700, Dometz wrote:
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>>> I guess I wasn't clear enough... I mean something that I can run in a
>>> bash script to test if a .pro file has valid syntax.
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>>
>> Then a batch file which uses this function, like do_check.pro:
>>
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```
>> status=check_syntax((command_line_args())[0])
>> if status ne 0 then print,!ERROR_STATE.MSG
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>> ;=====
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>>
>> then call, from your shell script:
>>
>> idl -arg routine do_check.pro
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>> and check the exit status. You might need to monkey IDL_PATH to ensure
>> it attempts to compile the correct version of the routine, like:
>>
>> idl -IDL_PATH "\$(pwd):+/other/libs:<IDL_DEFAULT>" -arg routine do_check.pro
>>
>> JD
>

Subject: Re: idl syntax validation

Posted by [Michael Galloy](#) on Sun, 15 Oct 2006 17:00:21 GMT

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Michael Galloy wrote:

```
> The below routines have to be in separate files, named
> validate_syntax.pro and validate_syntax_helper.pro. Then
>
> IDL> print, validate_syntax('foo')
>      0
> IDL> print, validate_syntax('validate_syntax')
>      1
>
> My "normal" trick of using EXECUTE(..., 1) didn't work, so I had to up
> the ante to the IDL_IDLBridge.
>
> Mike
```

Also, you'll want to rework this a bit since you don't want to start a new IDL_IDLBridge for each routine check if you are checking a lot of routines.

One last caveat, you can't check VALIDATE_SYNTAX_HELPER (well, you can, but compiling a routine while executing that routine is an error, VALIDATE_SYNTAX_HELPER will return 0 when checking itself).

Mike

--

www.michaelgalloy.com
