
Subject: Re: Variable is undefined: Actually a function
Posted by [penteado](#) on Wed, 06 Jul 2011 23:22:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 6, 5:17 pm, Maegereg <maege...@uchicago.edu> wrote:

- > Still working on the same project as when I last posted an inquiry (the
- > relevant detail would be that I did not write this code). I'm getting
- > the following error at runtime:
- >
- > % Variable is undefined: CALCULATE_DECAY_RATE.
- > % Execution halted at: PHYSIOLOGY::MTT
- > % ESTIMATE_AIF_MRTM 283 ~/Developer/DCE-MRI
- > ABC/MRTM/estimate_aif_mrtm.pro
- > % ANALYZE_ROI_DATA_EVENT 582 ~/Developer/DCE-MRI
- > ABC/ANALYSIS/analyze_roi_data.pro
- > % WIDGET_PROCESS_EVENTS
- > % \$MAIN\$
- >
- > I've checked through PHYSIOLOGY::MTT, and it does call the function
- > CALCULATE DECAY RATE. The function is defined in
- > calculate_decay_rate.pro, is the last function in that file, and the
- > file is in ~/Developer/DCE-MRI ABC/OTHER_AIF/Bayesian, which is a
- > subfolder of the project directory (~/Developer/DCE-MRI ABC/). I've also
- > tried adding a forward function declaration to PHYSIOLOGY::MTT to no
- > avail. As you might expect, manually compiling calculate_decay_rate.pro,
- > and then manually compiling Physiology__Define.pro before running the
- > project will make the error go away, but whenever I do a full build on
- > the project the error returns. I've checked the project build order, and
- > calculate_decay_rate.pro should be built before Physiology__Define.pro.
- > Any help would be greatly appreciated.

If ESTIMATE_AIF_MRTM makes no use of () for array indexing, a
'compile_opt strictarr' in it would solve the problem.

Subject: Re: Variable is undefined: Actually a function
Posted by [David Fanning](#) on Thu, 07 Jul 2011 03:15:35 GMT
[View Forum Message](#) <> [Reply to Message](#)

Maegereg writes:

- >
- > Still working on the same project as when I last posted an inquiry (the
- > relevant detail would be that I did not write this code). I'm getting
- > the following error at runtime:
- >
- > % Variable is undefined: CALCULATE_DECAY_RATE.
- > % Execution halted at: PHYSIOLOGY::MTT

```

> %          ESTIMATE_AIF_MRTM 283 ~/Developer/DCE-MRI
> ABC/MRTM/estimate_aif_mrtm.pro
> %          ANALYZE_ROI_DATA_EVENT 582 ~/Developer/DCE-MRI
> ABC/ANALYSIS/analyze_roi_data.pro
> %          WIDGET_PROCESS_EVENTS
> %          $MAIN$
>
> I've checked through PHYSIOLOGY::MTT, and it does call the function
> CALCULATE DECAY RATE. The function is defined in
> calculate_decay_rate.pro, is the last function in that file, and the
> file is in ~/Developer/DCE-MRI ABC/OTHER_AIF/Bayesian, which is a
> subfolder of the project directory (~/Developer/DCE-MRI ABC/). I've also
> tried adding a forward function declaration to PHYSIOLOGY::MTT to no
> avail. As you might expect, manually compiling calculate_decay_rate.pro,
> and then manually compiling Physiology__Define.pro before running the
> project will make the error go away, but whenever I do a full build on
> the project the error returns. I've checked the project build order, and
> calculate_decay_rate.pro should be built before Physiology__Define.pro.
> Any help would be greatly appreciated.

```

I don't have time to investigate right now, but I think I ran into a problem this week compiling a function that had a hyphen in a directory in its path. I notice your path has a hyphen, too. You could try putting this program in a directory on your IDL path that didn't have a hyphen in its name and see if that fixes the problem.

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: Variable is undefined: Actually a function
 Posted by [Maegereg](#) on Thu, 07 Jul 2011 15:41:41 GMT
[View Forum Message](#) <> [Reply to Message](#)

David Fanning wrote:

```

> Maegereg writes:
>
>> ...
> I don't have time to investigate right now, but I think I ran
> into a problem this week compiling a function that had a

```

> hyphen in a directory in its path. I notice your
> path has a hyphen, too. You could try putting this
> program in a directory on your IDL path that didn't have
> a hyphen in its name and see if that fixes the problem.

>
> Cheers,

>
> David

>
The function's already got a compile_opt strictarr, and removing the
hyphen doesn't seem to help. The folder with the hyphen is the main
project directory, so I doubt it would have much effect

Subject: Re: Variable is undefined: Actually a function
Posted by [Michael Galloy](#) on Thu, 07 Jul 2011 15:52:32 GMT
[View Forum Message](#) <> [Reply to Message](#)

On 7/7/11 9:41 AM, Maegereg wrote:

> David Fanning wrote:

>> Maegereg writes:

>>

>>> ...

>> I don't have time to investigate right now, but I think I ran
>> into a problem this week compiling a function that had a
>> hyphen in a directory in its path. I notice your
>> path has a hyphen, too. You could try putting this
>> program in a directory on your IDL path that didn't have
>> a hyphen in its name and see if that fixes the problem.

>>
>> Cheers,

>>
>> David

>>
> The function's already got a compile_opt strictarr, and removing the
> hyphen doesn't seem to help. The folder with the hyphen is the main
> project directory, so I doubt it would have much effect

So PHYSIOLOGY::MTT has a "compile_opt strictarr"? Could we see
PHYSIOLOGY::MTT?

Mike

--

Michael Galloy

www.michaelgalloy.com

Modern IDL, A Guide to Learning IDL: <http://modernidl.idldev.com>

Research Mathematician

Tech-X Corporation

Subject: Re: Variable is undefined: Actually a function
Posted by [Maegereg](#) on Thu, 07 Jul 2011 19:32:49 GMT
[View Forum Message](#) <> [Reply to Message](#)

Michael Galloy wrote:

> So PHYSIOLOGY::MTT has a "compile_opt strictarr"? Could we see
> PHYSIOLOGY::MTT?
>
> Mike

```
function Physiology::MTT, realCO=realCO, brainRatio=brainRatio,
liverRatio=liverRatio, kidneyRatio=kidneyRatio, slowRatio=slowRatio
compile_opt strictarr
Forward_Function CALCULATE_DECAY_RATE
if(N_Elements(realCO) EQ 0) then realCO=self.CO
standardBV=5000.0d0
standardCO=6500.0d0
heartBV=(800.0+100.0)/standardBV*self.BV
heartMTT=heartBV/realCO
brainBV=(80.0+20.0+37.0+63.0)/standardBV*self.BV; plus a little more 40.0d0
if(N_Elements(brainRatio) EQ 0) then brainRatio=975.0d0/standardCO
brainBF=realCO*brainRatio
brainMTT=brainBV/brainBF
aortaBV=(800.0+200.0)/standardBV*self.BV
aortaBF=(4810.0/standardCO)*realCO
aortaMTT=aortaBV/aortaBF
liverBV=(120.0d0+42.5)/standardBV*self.BV
if(N_Elements(liverRatio) EQ 0) then liverRatio=1885.0d0/standardCO
liverBF=liverRatio*realCO
liverMTT=liverBV/liverBF

aorta2BV=(400.0d0)/standardBV*self.BV assumed number
aorta2BF=(2935.0/standardCO)*realCO
aorta2MTT=aorta2BV/aorta2BF

kidneyBV=(120.0d0+54)/standardBV*self.BV
if(N_Elements(kidneyRatio) EQ 0) then kidneyRatio=1430.0d0/standardCO
kidneyBF=kidneyRatio*realCO
kidneyMTT=kidneyBV/kidneyBF

slowBV=2200.0d0/standardBV*self.BV
if(N_Elements(slowRatio) EQ 0) then slowRatio=1820.0d0/standardCO
slowBF=slowRatio*realCO
slowMTT=slowBV/slowBF
slowRate=CALCULATE_DECAY_RATE(slowBF*0.55d0, self.Vf, self.Vs, slowMTT)

return, [slowRate, (heartMTT+brainMTT), heartMTT+aortaMTT+aorta2MTT,
kidneyMTT]
end
```

Subject: Re: Variable is undefined: Actually a function
Posted by [Michael Galloy](#) on Thu, 07 Jul 2011 19:44:08 GMT
[View Forum Message](#) <> [Reply to Message](#)

On 7/7/11 1:32 PM, Maegereg wrote:

```
> Michael Galloy wrote:
>> So PHYSIOLOGY::MTT has a "compile_opt strictarr"? Could we see
>> PHYSIOLOGY::MTT?
>>
>> Mike
>
> function Physiology::MTT, realCO=realCO, brainRatio=brainRatio,
> liverRatio=liverRatio, kidneyRatio=kidneyRatio, slowRatio=slowRatio
> compile_opt strictarr
> Forward_Function CALCULATE_DECAY_RATE
> if(N_Elements(realCO) EQ 0) then realCO=self.CO
> standardBV=5000.0d0
> standardCO=6500.0d0
> heartBV=(800.0+100.0)/standardBV*self.BV
> heartMTT=heartBV/realCO
> brainBV=(80.0+20.0+37.0+63.0)/standardBV*self.BV; plus a little more 40.0d0
> if(N_Elements(brainRatio) EQ 0) then brainRatio=975.0d0/standardCO
> brainBF=realCO*brainRatio
> brainMTT=brainBV/brainBF
> aortaBV=(800.0+200.0)/standardBV*self.BV
> aortaBF=(4810.0/standardCO)*realCO
> aortaMTT=aortaBV/aortaBF
> liverBV=(120.0d0+42.5)/standardBV*self.BV
> if(N_Elements(liverRatio) EQ 0) then liverRatio=1885.0d0/standardCO
> liverBF=liverRatio*realCO
> liverMTT=liverBV/liverBF
>
> aorta2BV=(400.0d0)/standardBV*self.BV assumed number
> aorta2BF=(2935.0/standardCO)*realCO
> aorta2MTT=aorta2BV/aorta2BF
>
> kidneyBV=(120.0d0+54)/standardBV*self.BV
> if(N_Elements(kidneyRatio) EQ 0) then kidneyRatio=1430.0d0/standardCO
> kidneyBF=kidneyRatio*realCO
> kidneyMTT=kidneyBV/kidneyBF
>
> slowBV=2200.0d0/standardBV*self.BV
> if(N_Elements(slowRatio) EQ 0) then slowRatio=1820.0d0/standardCO
> slowBF=slowRatio*realCO
> slowMTT=slowBV/slowBF
> slowRate=CALCULATE_DECAY_RATE(slowBF*0.55d0, self.Vf, self.Vs, slowMTT)
>
> return, [slowRate, (heartMTT+brainMTT), heartMTT+aortaMTT+aorta2MTT,
> kidneyMTT]
```

> end

This is a wild guess, but something you should check: is the filename `calculate_decay_rate.pro` actually all lowercase? You had mentioned `Physiology__Define.pro` (with initial caps), so I'm wondering. By the way, it is good practice to make all `.pro` filenames completely lowercase, there are strange problems not unlike this that can arise.

Mike

--

Michael Galloy

www.michaelgalloy.com

Modern IDL, A Guide to Learning IDL: <http://modernidl.idldev.com>

Research Mathematician

Tech-X Corporation

Subject: Re: Variable is undefined: Actually a function
Posted by [Maegereg](#) on Thu, 07 Jul 2011 20:23:19 GMT
[View Forum Message](#) <> [Reply to Message](#)

Michael Galloy wrote:

> This is a wild guess, but something you should check: is the filename
> `calculate_decay_rate.pro` actually all lowercase? You had mentioned
> `Physiology__Define.pro` (with initial caps), so I'm wondering. By the
> way, it is good practice to make all `.pro` filenames completely
> lowercase, there are strange problems not unlike this that can arise.
>
> Mike

Yep. I think I actually changed that at some point in an attempt to fix the problem, and it didn't work.

Subject: Re: Variable is undefined: Actually a function
Posted by [penteado](#) on Fri, 08 Jul 2011 00:09:03 GMT
[View Forum Message](#) <> [Reply to Message](#)

Is the right file found with

```
print,file_which('calculate_decay_rate.pro')  
print,file_which('calculate_decay_rate.pro',/include_current_dir)
```

?

Also, what happens if you do

resolve_routine,'calculate_decay_rate',/is_function

?

On Jul 7, 4:32 pm, Maegereg <maege...@uchicago.edu> wrote:

```
> function Physiology::MTT, realCO=realCO, brainRatio=brainRatio,  
> liverRatio=liverRatio, kidneyRatio=kidneyRatio, slowRatio=slowRatio  
> compile_opt strictarr  
> Forward_Function CALCULATE_DECAY_RATE  
> if(N_Elements(realCO) EQ 0) then realCO=self.CO  
> standardBV=5000.0d0  
> standardCO=6500.0d0  
> heartBV=(800.0+100.0)/standardBV*self.BV  
> heartMTT=heartBV/realCO  
> brainBV=(80.0+20.0+37.0+63.0)/standardBV*self.BV; plus a little more 40.0d0  
> if(N_Elements(brainRatio) EQ 0) then brainRatio=975.0d0/standardCO  
> brainBF=realCO*brainRatio  
> brainMTT=brainBV/brainBF  
> aortaBV=(800.0+200.0)/standardBV*self.BV  
> aortaBF=(4810.0/standardCO)*realCO  
> aortaMTT=aortaBV/aortaBF  
> liverBV=(120.0d0+42.5)/standardBV*self.BV  
> if(N_Elements(liverRatio) EQ 0) then liverRatio=1885.0d0/standardCO  
> liverBF=liverRatio*realCO  
> liverMTT=liverBV/liverBF  
>  
> aorta2BV=(400.0d0)/standardBV*self.BV assumed number  
> aorta2BF=(2935.0/standardCO)*realCO  
> aorta2MTT=aorta2BV/aorta2BF  
>  
> kidneyBV=(120.0d0+54)/standardBV*self.BV  
> if(N_Elements(kidneyRatio) EQ 0) then kidneyRatio=1430.0d0/standardCO  
> kidneyBF=kidneyRatio*realCO  
> kidneyMTT=kidneyBV/kidneyBF  
>  
> slowBV=2200.0d0/standardBV*self.BV  
> if(N_Elements(slowRatio) EQ 0) then slowRatio=1820.0d0/standardCO  
> slowBF=slowRatio*realCO  
> slowMTT=slowBV/slowBF  
> slowRate=CALCULATE_DECAY_RATE(slowBF*0.55d0, self.Vf, self.Vs, slowMTT)  
>  
> return, [slowRate, (heartMTT+brainMTT), heartMTT+aortaMTT+aorta2MTT,  
> kidneyMTT]  
> end
```
