
Subject: Re: Silent errors in run-time

Posted by [K. Bowman](#) on Tue, 11 Oct 2005 14:23:40 GMT

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In article <1129035538.813436.242790@g43g2000cwa.googlegroups.com>, otto.hyvarinen@fmi.fi wrote:

> I have a bunch of IDL scripts I want to run with cron in Linux. I have
> compiled and saved them, and now run them with 'idl
> -rt="something.sav".
>
> All is well, except when there is an error, IDL wants to open a window
> with the error message. That is not what I want. I would like to either
> put those messages to stderr or suppress them altogether (I don't
> actually care what happens. If a script fails, it fails.). Is there
> some extra command line option, or something I can use?
>
> regards,

You need to "redirect output". Syntax varies slightly depending on which shell you are running.

In csh (and tcsh) I do something like this

```
idl >>& my_idl_log
```

to append both standard output and standard error to the file my_idl_log.

Ken Bowman

Subject: Re: Silent errors in run-time

Posted by [otto.hyvarinen](#) on Wed, 12 Oct 2005 07:25:10 GMT

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> You need to "redirect output". Syntax varies slightly depending on which shell
> you are running. In csh (and tcsh) I do something like this
> idl >>& my_idl_log

Unfortunately this doesn't help, because IDL opens a `_window_`, that needs to be clicked at. I can redirect my stdout and stderr where ever I want, but it doesn't make any difference. It is an IDL problem, not a shell script problem, I sincerely believe.

regards,
Otto Hyvärinen

Subject: Re: Silent errors in run-time

Posted by [Rick Towler](#) on Wed, 12 Oct 2005 16:28:52 GMT

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otto.hyvarinen@fmi.fi wrote:

>> You need to "redirect output". Syntax varies slightly depending on which shell

>> you are running. In csh (and tcsh) I do something like this

>> idl >>& my_idl_log

>

>

> Unfortunately this doesn't help, because IDL opens a `_window_`, that

> needs to be clicked at. I can redirect my stdout and stderr where ever

> I want, but it doesn't make any difference. It is an IDL problem, not a

> shell script problem, I sincerely believe.

I thought you could simply turn off error reporting altogether but I must be thinking of MATLAB since I can't find any reference to this in the docs.

But you could insert a CATCH statement somewhere to handle the error, maybe write some info to a file, then stop execution. All without IDL reporting an error. You would also have to set `!EXCEPT=0` to suppress reporting of math errors (which CATCH doesn't catch). You may want to structure it so you can easily report errors when you are debugging.

```
pro test_error
```

```
debug=0
```

```
if (debug) then begin
```

```
  theError=0
```

```
  catch, theError
```

```
  if (theError ne 0) then begin
```

```
    catch, /cancel
```

```
    goto, theEnd
```

```
  endif
```

```
endif
```

```
openr, lun, 'c:\nofile', /get_lun
```

```
theEnd:
```

```
end
```

-Rick

Subject: Re: Silent errors in run-time
Posted by [K. Bowman](#) on Wed, 12 Oct 2005 19:01:03 GMT
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In article <1129101910.515866.264760@g47g2000cwa.googlegroups.com>, otto.hyvarinen@fmi.fi wrote:

```
>> You need to "redirect output". Syntax varies slightly depending on which
>> shell
>> you are running. In csh (and tcsh) I do something like this
>> idl >>& my idl log
>
> Unfortunately this doesn't help, because IDL opens a window, that
> needs to be clicked at. I can redirect my stdout and stderr where ever
> I want, but it doesn't make any difference. It is an IDL problem, not a
> shell script problem, I sincerely believe.
>
> regards,
```

I assume you mean a **graphics** window. IDL won't open a graphics window unless your program asks it to. If you want to run in batch mode, you need to make sure that your program doesn't issue any graphics commands. Check your startup file for stray graphics commands or DEVICE calls.

There are a number of other workarounds, such as:

1. set the graphics device to PS
2. set the graphics device to Z
3. use the xvfb program to provide a virtual X-windows device
4. use the IDLgrBuffer for object graphics.

You can search the archives of this newsgroup for more on these options.

Cheers, Ken Bowman

Subject: Re: Silent errors in run-time
Posted by [Rick Towler](#) on Wed, 12 Oct 2005 19:26:53 GMT
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Kenneth Bowman wrote:

```
> In article <1129101910.515866.264760@g47g2000cwa.googlegroups.com>,
> otto.hyvarinen@fmi.fi wrote:
>
>
>>> You need to "redirect output". Syntax varies slightly depending on which
>>> shell
```

>>> you are running. In csh (and tcsh) I do something like this
>>> idl >>& my idl log
>>
>> Unfortunately this doesn't help, because IDL opens a window, that
>> needs to be clicked at. I can redirect my stdout and stderr where ever
>> I want, but it doesn't make any difference. It is an IDL problem, not a
>> shell script problem, I sincerely believe.
>>
>> regards,
>> Otto Hyvärinen
>
>
> I assume you mean a *graphics* window.

Well, he says "needs to be clicked at" which makes me think he is talking about a dialog box. Possibly a component of his application reports errors via `DIALOG_MESSAGE` and in this case the application is probably already CATCHing errors so my approach wouldn't work.

If the issue is a dialog box, you will need to modify your code such that they aren't displayed. Either by commenting the calls or by replacing them with a non-gui equivalent. You may want to look at David Fanning's `ERROR_MESSAGE` function.

-Rick

Subject: Re: Silent errors in run-time
Posted by [K. Bowman](#) on Wed, 12 Oct 2005 21:09:38 GMT
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In article <dijp5c\$3ui\$1@news.nems.noaa.gov>,
Rick Towler <rick.towler@nomail.noaa.gov> wrote:

> Well, he says "needs to be clicked at" which makes me think he is
> talking about a dialog box. Possibly a component of his application
> reports errors via `DIALOG_MESSAGE` and in this case the application is
> probably already CATCHing errors so my approach wouldn't work.
>
> If the issue is a dialog box, you will need to modify your code such
> that they aren't displayed. Either by commenting the calls or by
> replacing them with a non-gui equivalent. You may want to look at David
> Fanning's `ERROR_MESSAGE` function.
>
> -Rick

Well, `DIALOG_MESSAGE` does open a graphics window (containing widgets), but that may be quibbling. I guess the point is that IDL is not opening the window of

its own volition, but due to something explicit in the user's program.

Cheers, Ken

Subject: Re: Silent errors in run-time
Posted by [otto.hyvarinen](#) on Thu, 13 Oct 2005 10:09:12 GMT
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Thank you for your answers, I didn't get the solution I was looking for, but at least I discovered a work-around.

This time I try to be more clear: If I have a program like

```
pro test
openr,1,"nofile"
close,1
end
```

and run it interactively. I get:

```
IDL> .compile test
% Compiled module: TEST.
IDL> test
% OPENR: Error opening file. Unit: 1, File: nofile
  No such file or directory
% Execution halted at: TEST          2 /home/hyvarine/test.pro
%           $MAIN$
IDL>
```

No supprises here.

If I compile it and then run it like this

```
IDL> .compile test
% Compiled module: TEST.
IDL> resolve_all
% Compiled module: RESOLVE_ALL.
% Compiled module: PATH_SEP.
% Compiled module: UNIQ.
IDL> save,/routines,filename='test.sav'
IDL>
[hyvarine@rokka somedir]$ idl -rt="test.sav"
```

I will get a dialog box (by `DIALOG_MESSAGE`, I think) saying "The following error was encountered: OPENR: Error opening file. Unit: 1, File: nofile Please consult the supplier of the application.". My problem was how to get rid of this box and get the error messages back

to stderr (or stdout). No one seems to know that. But at least now I know how to change my program to

```
pro test2
catch, theError
if (theError ne 0) then begin
    catch, /cancel
    goto, theEnd
endif
openr,1,"nofile"
theEnd:
close,1
end
```

and this way get rid of the message for all. This is enough for me.

regards,
Otto Hyvärinen

Subject: Re: Silent errors in run-time
Posted by [K. Bowman](#) on Thu, 13 Oct 2005 12:30:00 GMT
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In article <1129198152.558737.98510@g44g2000cwa.googlegroups.com>, otto.hyvarinen@fmi.fi wrote:

```
> Thank you for your answers, I didn't get the solution I was looking
> for, but at least I discovered a work-around.
>
> This time I try to be more clear: If I have a program like
>
> pro test
> openr,1,"nofile"
> close,1
> end
>
> and run it interactively. I get:
>
> IDL> .compile test
> % Compiled module: TEST.
> IDL> test
> % OPENR: Error opening file. Unit: 1, File: nofile
>   No such file or directory
> % Execution halted at: TEST          2 /home/hyvarine/test.pro
> %                $MAIN$
> IDL>
>
```

```
> No surprises here.
>
> If I compile it and then run it like this
>
> IDL> .compile test
> % Compiled module: TEST.
> IDL> resolve all
> % Compiled module: RESOLVE ALL.
> % Compiled module: PATH SEP.
> % Compiled module: UNIQ.
> IDL> save,/routines,filename='test.sav'
> IDL>
> [hyvarine@rokka somedir]$ idl -rt="test.sav"
```

Ah, so the runtime license sends error messages through `DIALOG_MESSAGE`, which makes sense when there is no command line. Since you have a full license, can you run it using that, or do you need to use the runtime license?

Such as,

```
idl -e "TEST" >& idl.log
```

Ken Bowman

Subject: Re: Silent errors in run-time
Posted by [Craig Markwardt](#) on Tue, 18 Oct 2005 23:13:36 GMT
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otto.hyvarinen@fmi.fi writes:

```
>> You need to "redirect output". Syntax varies slightly depending on which shell
>> you are running. In csh (and tcsh) I do something like this
>> idl >>& my_idl_log
>
> Unfortunately this doesn't help, because IDL opens a _window_, that
> needs to be clicked at. I can redirect my stdout and stderr where ever
> I want, but it doesn't make any difference. It is an IDL problem, not a
> shell script problem, I sincerely believe.
```

I'm coming into this a bit late, but here's a suggestion. If you don't use graphics, why not do "unsetenv DISPLAY". IDL won't put up a window if it doesn't know that a windowing system exists.

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
