
Subject: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [MarioIncandenza](#) on Wed, 16 Apr 2014 19:46:53 GMT

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Hello IDL wizards,

A quick search revealed that

> David Fanning said:

> Ugh, I *hate* MESSAGE

Clearly MESSAGE is a bad habit, but I used it for a long time, and so it's tough to weed out. The trouble is that when I run code interactively, which is most frequent, it works pretty much exactly how I want it to.

However, when the code is compiled and run non-interactively, the behavior of MESSAGE changes. Specifically, instead of printing to STDOUT or STDERR, it invokes DIALOG_MESSAGE. There is no acknowledgement in the IDL help of this behavior.

I can suppress this behavior, for code with no graphical output, by using 'unset DISPLAY' before running IDL. But that trick doesn't work for routines that make graphics.

Is there some other trick to get MESSAGE to behave? MESSAGE has lots of keyword options, but none appear to be related. Again, there is no acknowledgement in the help of the DIALOG_MESSAGE behavior.

--Edward H.

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [David Fanning](#) on Wed, 16 Apr 2014 19:52:45 GMT

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Edward Hyer writes:

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>> David Fanning said:

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>

> Clearly MESSAGE is a bad habit, but I used it for a long time, and so it's tough to weed out. The trouble is that when I run code interactively, which is most frequent, it works pretty much exactly how I want it to.

My goodness! I must have been having a bad day. I use MESSAGE all the time! Love it! :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [John Correia](#) on Wed, 16 Apr 2014 20:09:59 GMT

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On 04/16/2014 03:52 PM, David Fanning wrote:

> Edward Hyer writes:

>

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>>> David Fanning said: Ugh, I *hate* MESSAGE

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>> how I want it to.

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> My goodness! I must have been having a bad day. I use MESSAGE all

> the time! Love it! :-)

>

> Cheers,

>

> David

>

Yes, about 3.5 times per program :-)

```
~/idl/coyote $ grep -i 'message,' ~/idl/coyote/*.pro | wc -l
1294
```

```
~/idl/coyote $ ls -l ~/idl/coyote/*.pro | wc -l
372
```

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [David Fanning](#) on Wed, 16 Apr 2014 20:29:21 GMT

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John Correia writes:

```
> Yes, about 3.5 times per program :-)
>
> ~/idl/coyote $ grep -i 'message,' ~/idl/coyote/*.pro | wc -l
> 1294
>
> ~/idl/coyote $ ls -l ~/idl/coyote/*.pro | wc -l
> 372
```

A Haiku poem for you:

Daily newsgroup postings
reveal deep contradictions.
Coyote at work.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [Michael Galloy](#) on Wed, 16 Apr 2014 23:41:19 GMT

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On 4/16/14, 1:46 PM, Edward Hyer wrote:

```
> Hello IDL wizards,
>
> A quick search revealed that
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>> David Fanning said: Ugh, I *hate* MESSAGE
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> for routines that make graphics.
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> Is there some other trick to get MESSAGE to behave? MESSAGE has lots
> of keyword options, but none appear to be related. Again, there is no
> acknowledgement in the help of the DIALOG_MESSAGE behavior.
>
> --Edward H.
>

I did not know this. Some investigation reveals that "message,
/informational" does just output to stdout, but without /INFORMATIONAL,
it goes to MESSAGE_DIALOG.

Although, I'm wondering why this matters to you, though? If you have
output from MESSAGE coming up, you have errors in your code. Surely, you
want to crash cleanly with an error message that you can see and fix
your bug, right?

Mike

--

Michael Galloy

www.michaelgalloy.com

Modern IDL: A Guide to IDL Programming (<http://modernidl.idldev.com>)

Research Mathematician

Tech-X Corporation

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be
suppressed?

Posted by [Mariolncandenza](#) on Thu, 17 Apr 2014 01:23:43 GMT

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On Wednesday, April 16, 2014 4:41:19 PM UTC-7, Mike Galloy wrote:

> Although, I'm wondering why this matters to you, though? If you have
> output from MESSAGE coming up, you have errors in your code. Surely, you
> want to crash cleanly with an error message that you can see and fix
> your bug, right?

Yes. I want the program to halt, with an error message printed to STDERR, which I have directed
into the output file, so that I can see the error message in context. What I do not want is a popup
window that (by some magic) it is not even possible to copy/paste the error message off of, so you
have to copy it by hand. I often have to hand off the code to other people to test, and the
un-copyable error popup is very unhelpful.

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [chris_torrence@NOSPAM](#) on Thu, 17 Apr 2014 20:23:24 GMT

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On Wednesday, April 16, 2014 7:23:43 PM UTC-6, Edward Hyer wrote:

>
> Yes. I want the program to halt, with an error message printed to STDERR, which I have directed into the output file, so that I can see the error message in context. What I do not want is a popup window that (by some magic) it is not even possible to copy/paste the error message off of, so you have to copy it by hand. I often have to hand off the code to other people to test, and the un-copyable error popup is very unhelpful.

Which platform is this on? And how are you running it non-interactively?

-Chris

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [Mariolncandenza](#) on Thu, 17 Apr 2014 22:57:37 GMT

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On Thursday, April 17, 2014 1:23:24 PM UTC-7, Chris Torrence wrote:

> Which platform is this on? And how are you running it non-interactively?

Linux. The DIALOG_MESSAGE behavior happens with either -rt or -vm.

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [Mariolncandenza](#) on Mon, 21 Apr 2014 19:05:57 GMT

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On Thursday, April 17, 2014 3:57:37 PM UTC-7, Edward Hyer wrote:

> On Thursday, April 17, 2014 1:23:24 PM UTC-7, Chris Torrence wrote:

>
>> Which platform is this on? And how are you running it non-interactively?

>
>
>

> Linux. The DIALOG_MESSAGE behavior happens with either -rt or -vm.

If you're wondering why this matters: when the dialog with the message pops up, indicating a terminal error, the job does not end. The IDL job continues, including holding onto the license when run with -rt, until the "OK" button in the error dialog is manually clicked.

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [chris_torrence@NOSPAM](#) on Mon, 21 Apr 2014 22:25:59 GMT

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On Monday, April 21, 2014 1:05:57 PM UTC-6, Edward Hyer wrote:

> On Thursday, April 17, 2014 3:57:37 PM UTC-7, Edward Hyer wrote:

>

>> On Thursday, April 17, 2014 1:23:24 PM UTC-7, Chris Torrence wrote:

>

>>

>

>>> Which platform is this on? And how are you running it non-interactively?

>

>>

>

>>

>

>>

>

>> Linux. The DIALOG_MESSAGE behavior happens with either -rt or -vm.

>

>

>

> If you're wondering why this matters: when the dialog with the message pops up, indicating a terminal error, the job does not end. The IDL job continues, including holding onto the license when run with -rt, until the "OK" button in the error dialog is manually clicked.

Okay, I've tracked this down to "idlrtmain.sav", which controls "rt" and "vm" mode. Inside it has the following code block:

```
CATCH, Err
if(Err ne 0)then begin
    catch, /cancel
    error_msg = !error_state.msg

    ; on unix we may not have a display (an error condition
    ; in vm mode, not runtime mode) try to prevent an additional
    ; error about dialog_message when reporting the initial error.
    ; just check to see if the display is unset (an incomplete test)
    ; rather than using a DEVICE call (which would need another
    ; catch block).
    if (!VERSION.OS_FAMILY eq 'unix' && $
        strlen(getenv('DISPLAY')) eq 0) then begin
        MESSAGE, error_msg
    endif else begin
        result = DIALOG_MESSAGE(error_msg)
    endelse
    return
```

endif

So, as you discovered, if your DISPLAY is not set then you are fine - the output will get directed to the terminal.

As a workaround, you can simply disable the DISPLAY environment variable from within IDL, and then re-enable it. Something like:

```
mydisp = GETENV('DISPLAY')
SETENV, 'DISPLAY='
MESSAGE, 'bad error'
SETENV, 'DISPLAY=' + mydisp
```

You could even put this into a catch block so all of your errors would funnel through it.

In the meantime, I'll take a look at modifying this code (or ripping it out) for IDL 8.3.1.

Cheers,
Chris
ExelisVIS

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [Mariolncandenza](#) on Tue, 22 Apr 2014 17:07:10 GMT

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On Monday, April 21, 2014 3:25:59 PM UTC-7, Chris Torrence wrote:

> Okay, I've tracked this down

1) At this point, we should take a breath and think about what users might want. I expect that people developing pure GUI apps might rely on the DIALOG_MESSAGE() behavior. There just needs to be a way to suppress it.

2) A CATCH block might solve my immediate issue. Can I have a single CATCH block that will affect all of my subroutines, or do I need to copy the catch block into each subroutine?

Thanks for hunting this down!!

--Edward H.

Subject: Re: MESSAGE (used in VM) invokes DIALOG_MESSAGE: Can this be suppressed?

Posted by [chris_torrence@NOSPAM](#) on Tue, 22 Apr 2014 17:44:32 GMT

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On Tuesday, April 22, 2014 11:07:10 AM UTC-6, Edward Hyer wrote:

> On Monday, April 21, 2014 3:25:59 PM UTC-7, Chris Torrence wrote:

>

>> Okay, I've tracked this down

>

>

>

> 1) At this point, we should take a breath and think about what users might want. I expect that people developing pure GUI apps might rely on the `DIALOG_MESSAGE()` behavior. There just needs to be a way to suppress it.

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> 2) A `CATCH` block might solve my immediate issue. Can I have a single `CATCH` block that will affect all of my subroutines, or do I need to copy the catch block into each subroutine?

>

>

>

> Thanks for hunting this down!!

>

>

>

> --Edward H.

Hi Edward,

You just need to have a catch block at the top-most level of your program. For example, if everything starts out in a single routine, then you can just put the single catch there (and make sure every subroutine has `on_error,2`). However, if you have a widget app with event handlers, then each event handler needs to have its own catch.

-Chris
