
Subject: Segmentation Fault

Posted by [enkpong](#) on Tue, 20 Jan 1998 08:00:00 GMT

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Hi,

I have a couple of questions about calling an external program in PV-Wave (v5.0). I don't know whether these questions have been answered before.

I have some application programs that were written in standard C. When I used LINKNLOAD to call these programs with a wrapper routine, I got SEGMENTATION FAULT occassionally. The result is -- the session crashed and returned to the operating system. Does anyone encounter this kind of error before ?? Is this error occurred in calling external programs only ?? Is there any way to avoid it ??

I haven't tried doing the same thing in IDL, but I would be very happy to listen to IDL's folks experience. Thank you !!

Regards,
KP.

--

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Subject: Re: segmentation fault

Posted by [davidf](#) on Sat, 04 Dec 1999 08:00:00 GMT

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Bill Gross (gross@chuma.cas.usf.edu) writes:

> I'm looking for some expert help....well...any kind of help !

Oh, well, if any kind of help will do, I can help. :-)

> I am running a procedure that I have written in IDL using the solaris
> x86 operating system...I continually make modifications to my method
> of analysis, so I frequently break out of the program to "RETALL" and
> begin again....
>

- > Unfortunately, after typing "RETALL", I now get the following message
- > from IDL..
- > temporary variables are still checked out-cleaning up...
- >
- > and then the OS gives a segmentation fault.
- >
- > I know I'm not running out of swap space, and a call to "TOP" shows
- > that I'm taking about 20 mb with my IDL application (have 128 mb in
- > system) and I've checked (and increased) the stack size and file
- > descriptor limits for the OS....
- >
- > Can anyone give me any hints on what I should look for next ??

Uh, well, I would look for a good book on program interface design. :-)

When your program calls a procedure or function, and that procedure or function needs some variables, it gets them. If you kill the program while you are two or three levels deep, you will leave those temporary variables dangling when you RETurn ALL the way back to the main level. So IDL tries to clean up after you. Hence, the message you get.

I often (too often!) see the message when I've crashed a program in an event handler, for example, since the event handler is called from within XMANAGER.

I'm not sure why you are getting a segmentation fault, however. You are probably going to have to ask the good folks at RSI about that. Normally, IDL just carries on after returning as if nothing had happened.

I would reconsider your program design, however, to allow better interactivity than just killing the darn thing and starting over. That seems just a tad retro to me. Kind of like the way I wrote FORTRAN programs in the late 1970's. How about a pop-up dialog that asked if you want to continue program execution at various stages of the analysis. Something you could turn off, for example, once you got the process figured out. Or maybe a slider attached to one of the parameters so you could interactively change the parameter value instead of having to start over.

> (Dave Fanning...I know you're lurking out there somewhere !)

I've never lurked on this newsgroup a day in my life. :-)

Cheers,

David

--

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Subject: Re: segmentation fault

Posted by [Marc Schellens](#) on Sun, 05 Dec 1999 08:00:00 GMT

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gross@chuma.cas.usf.edu wrote:

>

> Hello:

>

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>

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> that I'm taking about 20 mb with my IDL application (have 128 mb in
> system) and I've checked (and increased) the stack size and file
> descriptor limits for the OS....

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> Can anyone give me any hints on what I should look for next ??

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> (Dave Fanning...I know you're lurking out there somewhere !)

>

> Thanks,

>

> bill gross

We running here solaris on SPARC, but lately some applications crashed
also with segmentation fault. This happened when user opens too many
windows. So I thought it was a problem with X. No everything runs fine
again and the user can open much more windows than before :-)

Our system administrator changed something, but I do not know what since he did it for other purposes.

Message: IDL under solaris might crash when the system setup is not appropriate/incosistent/wrong.

So perhaps you should look for your problem in this direction.

:-) marc

Subject: Re: segmentation fault

Posted by [Bruce Bowler](#) on Mon, 06 Dec 1999 08:00:00 GMT

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Marc Schellens wrote:

>

> Our system administrator changed something, but I do not know what
> since he did it for other purposes.

Can you find out what he did?

Subject: Re: segmentation fault

Posted by [Marc Schellens](#) on Fri, 10 Dec 1999 08:00:00 GMT

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> Can you find out what he did?

I talked to him, but we could not find out and came to the conclusion, that only thing 'changed' was rebooting.

I am sure this is very helpful.

;-) marc

Subject: Re: segmentation fault

Posted by [R.Bauer](#) on Sun, 12 Dec 1999 08:00:00 GMT

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gross@chuma.cas.usf.edu wrote:

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> Unfortunately, after typing "RETALL", I now get the following message
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> and then the OS gives a segmentation fault.

We also have such a problem.

Since idl5.2 using ncdf_open and ncdf_close the same failure occurs with all of our IBM aix systems.

If I use ncdf_open /ncdf_close and a device or window command I got the segmentation fault core dump error.

Not always at the same "ii" but it never reaches 2000.

PRO ncdf_error

; one of the following three commands gives a segmentation fault

```
widget_control,default_font='-adobe-helvetica-medium-r-norma l--12-*-*-*60-*-*'
```

```
device,decomposed=0
```

```
window,0,xsize=100,ysize=100,color=256
```

```
FOR ii=0,2000 DO BEGIN
```

```
  PRINT,ii
```

```
  file_name = 'ncdf_error.nc'
```

```
  cdfid = NCDF_OPEN(file_name,/NOWRITE) ; OPEN the file
```

```
  NCDF_CLOSE,cdfid
```

```
ENDFOR
```

```
END
```

WinNT or Linux did not have this problem!

This failure is known since summer of this year by RSI, but it isn't resolved. It has a high priority I was told.

Somone of us tries using the netCDF 3.4 library instead of the build in 2.4 by call_external.

The same result - segmentation fault.

I don't know myself if it's a problem by the IBM C-Compiler or how IDL embeds external linked programs for aix.

R.Bauer
