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Subject: Re: idl 6.3 bus error during tv  
Posted by [David Fanning](#) on Thu, 03 Jan 2008 18:30:06 GMT  
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Don Woodra writes:

> I have very recently "upgraded" from an old mac G4 (OS-X 10.3.9) to an  
> old hand-me-down dual mac G5 with OS-X 10.5.1 (Leopard Darwin kernel  
> version 9.1.0). Now the tv command causes IDL to bus error.

Here is where you should start with sorting this well-known problem out:

<http://www.dfanning.com/tips/maccrash.html>

Cheers,

David

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Subject: Re: idl 6.3 bus error during tv  
Posted by [don.woodraska](#) on Fri, 04 Jan 2008 01:32:50 GMT  
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On Jan 3, 11:30 am, David Fanning <da...@dfanning.com> wrote:

>  
> Here is where you should start with sorting this well-known problem  
> out:  
>  
> <http://www.dfanning.com/tips/maccrash.html>  
>  
> Cheers,  
>  
> David

Thank you for collecting this information in a nice easy-to-read format, but unfortunately, this does not fix my problem. The PLOT command works. XYOUTS works, too. I can create windows with no problems. It's only the TV procedures that cause a bus error that rudely dumps me back to my unix shell.

I may be wrong here, but I think that if the DISPLAY variable was not correct, then I wouldn't be able to create any windows in IDL at all (but I can). Perhaps I'm mistaken about this.

This problem seems to be isolated to TV and TVSCL commands only. Below is a snippet from another session that shows the !D structure, a

successful plot command, the device info, and the tv-induced bus error.

With a new IDL session the TV command does create a new window (#0) so it seems to successfully connect and send windows to the localhost. Then IDL pauses, while the CPU usage goes up to 100 % on one CPU, then finally it dumps me back to the shell.

FYI, I can successfully ssh to my linux box (IDL 6.3) and run the same commands and send the windows back to my mac just fine.

I guess I have no choice but to upgrade if I want my TVSCL back.

Thanks,  
Don

```
IDL> help,id,/str
```

```
** Structure !DEVICE, 17 tags, length=84, data length=84:
```

NAME	STRING	'X'
X_SIZE	LONG	640
Y_SIZE	LONG	512
X_VSIZE	LONG	640
Y_VSIZE	LONG	512
X_CH_SIZE	LONG	6
Y_CH_SIZE	LONG	9
X_PX_CM	FLOAT	40.0000
Y_PX_CM	FLOAT	40.0000
N_COLORS	LONG	256
TABLE_SIZE	LONG	256
FILL_DIST	LONG	1
WINDOW	LONG	-1
UNIT	LONG	0
FLAGS	LONG	328124
ORIGIN	LONG	Array[2]
ZOOM	LONG	Array[2]

```
IDL> plot,findgen(10)
```

```
IDL> help,id.name
```

```
<Expression>  STRING  = 'X'
```

```
IDL> help,/device
```

```
Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X  
Z
```

```
Current graphics device: X
```

```
Server: X11.0, The X.Org Foundation, Release 70200000
```

```
Display Depth, Size: 24 bits, (1280,1003)
```

```
Visual Class: TrueColor (4)
```

```
Bits Per RGB: 8 (8/8/8)
```

```
Physical Color Map Entries (Emulated / Actual): 256 / 256
```

```
Colormap: Shared, 16777216 colors. Translation table: Bypassed
```

Graphics pixels: Decomposed, Dither Method: Ordered  
Write Mask: 16777215 (decimal) fffff (hex)  
Graphics Function: 3 (copy)  
Current Font: <default>, Current TrueType Font: <default>  
Default Backing Store: Pixmap.  
Window Status: -----  
id typ( x, y, backing store) id typ( x, y,  
backing store)  
0: Win( 640, 501, Pixmap)  
IDL> xyouts,.5,.5,'Center'  
IDL> window,3  
IDL> tv,dist(128)  
% Compiled module: DIST.  
Bus error

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Subject: Re: idl 6.3 bus error during tv  
Posted by [Michael Galloy](#) on Fri, 04 Jan 2008 02:42:23 GMT  
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On Jan 3, 6:32 pm, don.woodra...@gmail.com wrote:

> Thank you for collecting this information in a nice easy-to-read  
> format, but unfortunately, this does not fix my problem. The PLOT  
> command works. XYOUTS works, too. I can create windows with no  
> problems. It's only the TV procedures that cause a bus error that  
> rudely dumps me back to my unix shell.

So widget programs work for you? Not just starting a widget app, but  
interacting with it? This was my problem when I upgraded to Leopard  
with IDL 6.4. Upgrading to IDL 6.4.1 (or IDL 7.0) fixed it.

> I may be wrong here, but I think that if the DISPLAY variable was not  
> correct, then I wouldn't be able to create any windows in IDL at all  
> (but I can). Perhaps I'm mistaken about this.

With Leopard, you can supposedly not set the DISPLAY variable and  
everything will be OK. With the updates at <http://trac.macosforge.org/projects/xquartz>,  
things are working for me. I'm not sure you're going to get IDL 6.3  
working with Leopard, but you'll want the X11 updates in any case.

Mike

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Tech-X Corporation  
Software Developer II

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Subject: Re: idl 6.3 bus error during tv  
Posted by [don.woodraska](#) on Fri, 04 Jan 2008 18:06:39 GMT  
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First off, thank you to Mike and David for your help and interest in this peculiar problem. I appreciate your efforts in trying to help out, and I know it's hard to diagnose someone else's problem.

> So widget programs work for you? Not just starting a widget app, but  
> interacting with it? This was my problem when I upgraded to Leopard  
> with IDL 6.4. Upgrading to IDL 6.4.1 (or IDL 7.0) fixed it.

Yep, widgets work just fine. I am able to run the `idlbridge_demo.pro` and click on buttons, use pulldown menus, and everything works great. As far as I can tell I have a completely function windowing system except for TV and TVSCL. If you can think of anything else, I'd be happy to give it a try.

I am able to reproduce the problem David describes on his website (a bus error) when DISPLAY is not set correctly. I used (tcsh)

```
unsetenv DISPLAY
```

which makes the DISPLAY variable undefined. I then ran IDL and got a bus error when trying to open window with plot. No window appeared, just a bus error. This is different than my original problem.

When I setenv DISPLAY to the correct value (like localhost:0.0), PLOT works fine. I've tried several values that all work like 127.0.0.1, and my actual IP address as well. (I have localhost defined in the /etc/hosts file as 127.0.0.1)

My problem still persists. If I start a new session and execute TV, it creates the empty window (filled with black nothingness), then it hangs up and gives the bus error.

Mike, thank you for the advice on updating IDL versions and providing the X11 updates link. These seem to be the only thing left to try. I'm a command line dinosaur, so I have to first overcome my (irrational and unfounded) fear of eclipse.

Best Regards and thanks again,  
Don

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