Subject: Apple X11 Beta 0.3
Posted by Karl Schultz on Thu, 20 Mar 2003 15:50:33 GMT
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Apple recently released their new beta for X11.

Several IDL users have posted messages to the Apple X11 mailing list reporting some problems with image displays, probably in Direct Graphics. So, it may be wise to NOT install the 0.3 beta version. IDL users seem to be better off with 0.21. I'll be installing and testing 0.3 so I can officially report the problems to Apple.

0.3 is reported to fix a pretty obscure problem with TVRD that I don't think was reported by any IDL users outside of RSI.

0.3 also introduces 8-bit PseudoColor visual support, which I suspect is related to the problems that have been reported.

The IDLDE - Object Graphics problem will probably not be fixed by Apple in the near future. Apple's implementation of the fork() system call is different from that on other Unix systems and that is what is causing the difficulty with forking the IDLDE process and using GL for Object Graphics. For IDL 5.6, please continue to use the workarounds discussed in the newsgroup and in the tech tip on the RSI web site.

Thanks,
Karl

Subject: Re: Apple X11 Beta 0.3
Posted by MKatz843 on Mon, 24 Mar 2003 20:02:24 GMT
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I installed the X11 beta 0.3 on my home Mac.
I run OS X 10.2.4 on a 1.5 year old G4/867 desktop machine.
The previous X11 had been working extremely well for me.

Since last week, I've used the beta 0.3 with IDL for about 15-20 hours now and I haven't had any problems at all. I opted to keep all of my "configuration" files the same. (i.e. I didn't let the installer overwrite my config files.) Occasionally the 0.2x version would silently quit on me--poof--when it was in the background. So far, that has not happened once with 0.3.

I run graphic-instesive applications with both direct graphics and object graphics windows.

There's only one peculiarity I've found, and it's been around since

the first version of X11. If I have two graphics-only windows open,
and I try to move one of them with a click-and-drag, sometimes
the computer loses track of where I clicked. The mouse cursor ends up
one one side of the screen and the window on the other. They sill
move together, but far apart. Has anyone else seen this? It seems
to only happen WHILE a process is running. Not when everything is stopped.

M. Katz

Subject: Re: Apple X11 Beta 0.3
Posted by karl_schultz on Tue, 08 Apr 2003 14:30:15 GMT
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MKatz843@onebox.com (M. Katz) wrote in message
news:<4a097d6a.0303241202.55244ec6@posting.google.com>...
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> M. Katz

I can't completely explain why 0.3 is working in your case. I'm
assuming that you've removed any IDL configuration settings that may
have forced software rendering in Object Graphics. Some of the
discussion below may hint at some answers.

I did hear back from Apple about the problems that people are having
with 0.3. Apple added 8-bit PseudoColor visual support in 0.3. This

means that an X client can create windows that have either 8 or 24 bit depths. This gets really interesting when clients start creating windows of mixed depths in the same window heirarchy. Windows inherit attributes from their parent window and the mixed depths can cause all sorts of problems. Although many Unix workstation vendors have supported this for awhile now, Apple needs to work out some of the problems on their platform. There's more to it than just enabling the basic drawing code.

Some IDL apps will specifically ask for 8-bit windows, and these are the IDL apps that are most likely to have problems. The demo/demo_tour is one example. On 24-bit only X servers, the demo_tour would throw a message about not being able to get the 8-bit visual, but then keep going anyway. On the 0.3 beta, the message does not appear, but the crash occurs when the mixed depths are actually used.

I'm guessing that you may not see a crash if your Direct Graphics program stays with the default window visual type, or if your app uses only Object Graphics.

Apple is working on the problem, but no word yet on when a fix will be available.

Subject: Re: Apple X11 Beta 0.3
Posted by MKatz843 on Tue, 08 Apr 2003 20:43:48 GMT
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I now have IDL and X11.app beta 0.3 installed on 3 different Macs, all running flawlessly for my applications.

I use direct graphics interactively with windows created from the command line, and I can use tvrd() with no problems. I believe I have used /true to get 24-bit color from tvrd.

I also use object graphics from within widget_draw windows. I haven't had any problems whatsoever.

In case it helps, here's the contents of two files in my ~ directory.

This is the first four lines of my .Xdefaults file

idl.gr_visual: TrueColor
idl.gr_depth: 24
idl.retain: 1
idl.renderer: 1

My .xinitrc looks like this

xterm -sb -bg snow -rw -sl 500 -geometry 80x40+5+190 &
exec /usr/X11R6/bin/quartz-wm

For object graphics in widget_draw, I issue commands like this:

windowID = widget_draw(base, GRAPHICS_LEVEL=2, RETAIN=2,
UVALUE='window')

I think I started setting RETAIN=2 for compatability with a Linux system that I also use. On that system, if RETAIN isn't set properly, then the windows go black when they're hidden.

I hope your problems get resolved. If you'd like me to test a certain procedure that reliably crashes your IDL session, send along some instrcutions and I'll give it a go.

M. Katz

Subject: Re: Apple X11 Beta 0.3
Posted by karl_schultz on Wed, 09 Apr 2003 14:02:59 GMT
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"M. Katz" <MKatz843@onebox.com> wrote in message
news:4a097d6a.0304081243.70f54fae@posting.google.com...
>> I can't completely explain why 0.3 is working in your case. I'm
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> I use direct graphics interactively with windows created from the
> command line, and I can use tvrd() with no problems. I believe I have
> used /true to get 24-bit color from tvrd.

Probably because your windows are 24-bit. I tried to point out that the problem was with using/mixing 8-bit windows.

> I also use object graphics from within widget_draw windows. I haven't
> had any problems whatsoever.

Object Graphics is less likely to have the problem because it is a lot
harder to get OG to use an 8-bit visual when there are 24-bit ones
available.

>
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>
> idl.gr_visual: TrueColor
> idl.gr_depth: 24
> idl.retain: 1
> idl.renderer: 1

This last line will keep you from using OpenGL hardware acceleration on your
system.

>
>
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> exec /usr/X11R6/bin/quartz-wm
>
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> UVALUE='window')
>
> I think I started setting RETAIN=2 for compatability with a Linux
> system that I also use. On that system, if RETAIN isn't set properly,
> then the windows go black when they're hidden.

Probably because the X servers have differing backing store capabilities.
If you are adventurous, you might try playing with your XFree86 config files
to see if you can get backing store set up in such a way that RETAIN=2 is
not needed.

>
> I hope your problems get resolved. If you'd like me to test a certain
> procedure that reliably crashes your IDL session, send along some
> instrcutions and I'll give it a go.

Try running demo_tour (without any IDL Xdefaults settings).

Or, do something that uses a Direct Graphics 8-bit visual.

I think that the problems only occur when you start using the 8-bit PseudoColor X visual. Demo_tour does this. From what you are saying, it looks like you are happening to avoid that, and that's why you are running OK.

Using RETAIN=2 causes IDL to use X quite a bit differently, and that may be enough to avoid the bug.

There's also the possibility that your graphics card may be such that you are avoiding the buggy path in the server, but I think that is less likely.

Karl
