
Subject: Re: Hard crashes with device,/retain=2 ??
Posted by [Karl Schultz](#) on Wed, 26 Mar 2003 16:43:50 GMT
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"Big Bird" <condor@biosys.net> wrote in message
news:df160b8f.0303252001.2c26459a@posting.google.com...
> Nigel Wade <nmw@ion.le.ac.uk> wrote in message
news:<b5en3i\$j8l\$1@south.jnrs.ja.net>...
> {quoting myself in full for coherence -- and correcting some horrible
> typos in the process:}
>
>> Big Bird wrote:
>>
>>> For some reason the default retain=1 stopped working for me a while
>>> ago -- I never had to care about backing store but somewhere during
>>> the upgrade from 5.3 to 5.5 or there around I lost the ability to
>>> obscure windows. This was when I got a new computer (P4-2.8 if it
makes
>>> a difference, running RedHat8.0 with whatever version of XF86 is the
>>> default, so the problem might well have to do with X and not IDL).
>>>
>>> No problem I thought and added the line "device,retain=2" to my
>>> startup file. Over the next week or two I experienced hard crashes on
>>> my box -- about once a day. I've been noodling around unixoid systems
>>> for a decade now and I've NEVER had to hit a reset button - until now.
>>> At some point I started suspecting it might have to do with the
>>> ominous warnings in the IDL help that retain=2 should only be used for
>>> really important windows and I took the line out of my startup file.
>>> Lo, I haven't had any of those crashes since.
>>>
>>> Coincidence? Possibly -- so I figured I'd ask around if others have
>>> experienced similar strangenesses around retain=2 or if this is maybe
>>> even a well-known problem with 5.5 or something. (Yes, I have
>>> installed the patch for those color-bands ...) Or if there's just
>>> something funny with my box.
>>
>> That sounds like a video card driver issue to me.
>>
>> What's the video card? (It's not an NVidia, using their drivers, by any
>> chance is it?).
>
> By any chance it is indeed some generic Nvidia GF4 (whatever Dell
> ships with their 8250) and it does indeed use the latest detonator
> (4191? Something like that) drivers.
>
> Your response makes me hopeful that this might be a well-known
> problem?

This almost certainly is a problem with the X server and/or its drivers. The X server runs in its own process and theoretically it should be impossible for any client program, IDL or something else, to crash the X server. But X servers have their bugs and so do the drivers. You are working with some relatively new hardware and software, so there can easily be some problems, even though the entire Linux/X picture has improved quite a bit over the past couple of years.

Also, changing IDL's RETAIN setting affects how IDL uses the X server a great deal, which in turn determines what code paths get executed in the X server as IDL runs. This may explain why you have problems with one RETAIN setting and not another. For example, the server may be having trouble copying the "backing store" pixmap to your window.

What to do? Here are a few ideas:

- Make sure you have all the possible patches/upgrades for the X server itself.
- (More important) Make sure you have the latest drivers for your video card. It looks like you have already done this. I have had some rather astounding results by just upgrading drivers. nVidia is known for their driver stability and I've often been pleasantly surprised by the results people get after they update their drivers. This may sound like an ISV cop-out, but it is true.
- Carefully read the driver release notes and documentation. See if there are any settings in the XFree86 config file that you can play with to try some experiments. For example, there may be a setting to turn off the usage of hardware accelerators on the card. This would let you test the server in "software" mode, which may bypass some bug or problem in the vendor driver code. (For example, set the "driver" field to "vga" in the Device section.) You may not want to run in this mode all the time, but it would at least let you isolate some causes.
- Along the same lines, look for an option that would turn on server backing store. The reason why you switched from RETAIN=1 to RETAIN=2 is because your new X server no longer did its own backing store. You might be able to turn on an option to restore this behavior, letting you use RETAIN=1 again. Another way to try doing this is to provide the -wm option when you start the X server, which forces backing store on when the window is mapped. (You may have to set your runlevel to 3 and start the server with startx or xinit to try this). You should be able to turn on WhenMapped in the ServerOptions section of the XF86Config-4 config file, but I can't tell from the docs if you can do that.

Hope this helps,
Karl
