Subject: Re: OpenGL + Linux crashes
Posted by Karl Schultz on Mon, 15 Mar 2004 15:50:17 GMT
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"JD Smith" <jdsmith@as.arizona.edu> wrote in message
news:pan.2004.03.11.01.22.05.612878@as.arizona.edu...
>
> On Tue, 09 Mar 2004 13:27:32 -0700, Karl Schultz wrote:
>
>>
>> "Michael Wallace" <mwallace.removethismunge@swri.edu.invalid> wrote in
>> message news:104s3g1s2kg8vf1@corp.supernews.com...
>>>> when attempting to use any of IDL's OpenGL 3D stuff (like the Demo ->
>>>> Itools, for example), you might try the following:
>>>>
>>>> setenv MESA_NO_ASM 1
>>>>
>>>> which disables some specific ASM code in the Mesa library which was
>>>> causing these types of crashes for me. I use an ATI Radeon 7500 +
>>>> XFree86 4.3.0's radeon drivers. With this fix in place, it seems
>>>> stable, and is definitely much faster than software rendering. Give
a
>>>> a try.
>>>
>>> This is awesome! I also have a Fedora box with an ATI Radeon 7500 and
>>> it works great. I'm just curious what assembly language optimizations
>>> are conflicting with IDL's OpenGL stuff. Oh, well. At least it works
>>> better than using software rendering everywhere.
>>
>> On recent Linux/XFree86 installations, there are actually two instances
of
>> the Mesa library in play when you run IDL. One is the Mesa that is
linked
>> directly to IDL that IDL uses to perform software rendering and really
isn't
>> involved any further in this discussion. The other instance is over in
the
>> X server where it implements OpenGL (via GLX) in software if there is no
>> hardware acceleration support. For systems with the hardware and
software
>> support for hardware acceleration, Mesa still serves as the OpenGL
>> implemention and it uses various driver modules to interface with the
>> specific hardware.
>
> <snip>
>
> Thanks Karl:
>

> It's great to know someone at RSI is staying on top of these issues.
> Not only do we get an IDL which works with standard drivers, but the
> 3D support in XFree86 gets improved too! Keep up the good work.

I installed Fedora Core 1 (FC1) on a system with a Radeon 9700 and IDL worked OK right out of the box. But the XFree86 log (in /var/log) said that the X server disabled DRI because the support wasn't there (yet). The word "yet" encourages me a great deal, but it would be nice to get this card flying now. glxgears ran at about 1000 fps but I had it running at over 3000 fps with ATI drivers on rh8. So, I grab the XFree86 4.3 9000-series "fglrx" drivers from the ATI website. They install with no trouble and there is no sign of the FPE problem, probably because ATI used a different code base. glxgears is back to 3000+ and IDL runs so fast that I nearly missed seeing the objworld demo in the demo tour because I blinked for too long. As Ferris once said, "I highly recommend picking one up, if you have the means".

Then I scrounge a Radeon 7000 and am able to reproduce the FPE problem. I'm back to using the stock FC1 drivers at this point. I've been digging into the problem since, but haven't nailed it yet. I did learn that two other applications are experiencing the same problem. I'm fairly convinced that the problem is related to signal handling.

Karl