
Subject: linux 64

Posted by [R.Bauer](#) on Tue, 27 Sep 2005 06:51:59 GMT

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Dear all

that's more a system diagnostics question. Probably someone else has solved the same and could give hints.

We have a bunch of AMD 64 bit linux machines and in 64 bit idl they all work .

One of the machine shows a memory fault if the 32 bit version with idl -32 is called. There are some hints that it could depend on something missing in glibc because if on this machine many times netCDF files are readed we got a Bus error message or

*** glibc detected *** malloc(): memory corruption: 0x0000000000b39180
*** too.

I thinks it's a problem on the machine and not an idl one. But where to start?

cheers
Reimar

--
Reimar Bauer

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a IDL library at ForschungsZentrum Juelich

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

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Subject: Re: linux 64

Posted by [Robert Barnett](#) on Sun, 02 Oct 2005 08:34:11 GMT

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Hello,

Most Linux applications are compiled from source, thus you will find that most Linux distributions have everything compiled as 64 bit

binaries. If you want to run 32-bit binaries then you have to install the 32-bit compatibility packages. Under fedora, you can install the 32-bit and 64-bit packages in parallel. However, this makes for a very messy system. I don't think that fedora/redhat has really sorted out how to effectively maintain 32bit and 64bit packages correctly. There are quite a few entries in fedora's bugzilla on this issue.

If you really require 32-bit then I would recommend asking RSI for a list of all dependant rpm packages so you can install just the required 32 bit dependancies. You will need to tinker with yum or redhat-update to install from both the i386 and x86_64 repositories.

If it's just for testing and debugging, then an idea might be to install 32 bit linux on another partition as a 'failsafe' sandbox. Or maybe you could run 32-bit linux from CD and then mount and su in as yourself. For both solutions you need to mount /home on the original partition.

On another note about IDL on Fedora Core 4. Has anyone found that object graphics do not work using hardware rendering? Xorg is supposed emulate 3d graphics even if the 3d graphics driver is not active/installed.

Cheers,
Robbie

Reimar Bauer wrote:

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> --
> Reimar Bauer
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> -----
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> =====

Subject: Re: linux 64
Posted by [Rick Towler](#) on Mon, 03 Oct 2005 21:54:35 GMT
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Hi Reimar,

this smells like a hardware issue and I'll venture a guess that it is RAM. The embedded memory controller in the Opteron/Athlon64 chips are very sensitive to RAM issues and I have run into a number of weird and difficult to diagnose problems that end up being RAM.

As with any suspected RAM problem I would start by running MemTest86 but I have learned that you can run this for days on an Athlon64/Opteron machine with a "bad" stick of RAM and it will not necessarily find a fault.

I would swap the RAM from a known working A64/OPT machine and test it. I'll wager a pint it solves your problems :) And if that does solve your problem and if that bad stick of RAM is not under warranty I would stick it in an Intel machine. Chances are it will work fine.

-Rick

Reimar Bauer wrote:

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Subject: Re: linux 64

Posted by [Karl\[1\]](#) on Tue, 04 Oct 2005 04:08:10 GMT

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Regarding IDL on FC4: I just tried IDL 6.2 on FC 4. I installed FC 4 on a 32-bit machine and used yum to update everything. I noticed that there were a lot of updates for Xorg and GL support as well as a kernel update. I didn't try IDL before the update, so I don't know if it would have failed before the update.

I also installed the compat-libstdc++-33 rpm so that the C++-based libs would load.

Object Graphics seems to be OK, but slow, as expected. That is because I have not yet made any attempt to install vendor drivers for the Radeon 800 card. The Xorg server is using the fallback software renderer.

This can be seen by running glxinfo:
OpenGL vendor string: Mesa project: www.mesa3d.org
OpenGL renderer string: Mesa GLX Indirect
OpenGL version string: 1.2 (1.5 Mesa 6.2.1)

(Note that IDL uses Mesa on the client side for software rendering while Xorg uses it for both client-side GLX support and server-side rendering.)

I still need to try to install the vendor h/w accel support if ATI has drivers out for this distro, but my point is that you might try getting the latest FC4 update if you have not already.

Also, I think that some of the newer Xorg releases are now starting to include hardware drivers for some of the more common chipsets with the intent of giving you h/w accel out of the box. It could be that updating FC4 may address the problem you are seeing.

Karl

Subject: Re: linux 64

Posted by [Karl Schultz](#) on Wed, 05 Oct 2005 17:35:43 GMT

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On Mon, 03 Oct 2005 21:08:10 -0700, Karl wrote:

> I still need to try to install the vendor h/w accel support if ATI has
> drivers out for this distro, but my point is that you might try getting
> the latest FC4 update if you have not already.

Just a quick follow-up. I found a RPM for the ATI driver and installed that instead of using the fglrx driver from ATI. This RPM worked perfectly after I installed it. glxgears runs at 7000+ fps and IDL looks really nice. (ATI Radeon X800, IDL 6.2, Fedora Core 4).

The driver is mentioned at <http://www.fedorafaq.org/#radeon>. All I had to do is add the livna.org repository to yum and then install it with yum.

Karl
