
Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [R.Bauer](#) on Thu, 20 Nov 2003 01:55:53 GMT
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Paul Hein wrote:

> Has any one yet tried out Fedora Core 1 (RedHat 10's new name) Linux
> with IDL? I was wondering if it worked. What is RSI going to do with
> their Linux versions? Are they going to switch to testing with another
> linux distribution, or test with the expensive RedHat Enterprise
> versions, or with the new Fedora versions? I am thinking of upgrading
> from RedHat 7.3 and RedHat somewhat dropping support for the free
> versions have me wondering what I should do?
> Paul

Dear Paul,

SuSE 9.0 works, In the past we have used idl on several other suse Versions.
Why should RedHat much differ from suSE in this case.

Reimar

--

Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg-i/>

=====

a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Mirko Vukovic](#) on Thu, 20 Nov 2003 03:29:57 GMT
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Paul Hein wrote:

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> Paul
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It works for me on Debian Woody distribution on my 180MHz box. It

installed without a hitch.

I am trying to see what is the minimal hardware config for IDL these days.

Mirko

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [R.Bauer](#) on Thu, 20 Nov 2003 08:24:48 GMT
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Mirko Vukovic wrote:

> Paul Hein wrote:

>

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>> with IDL? I was wondering if it worked. What is RSI going to do with
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> I am trying to see what is the minimal hardware config for IDL these days.

>

> Mirko

>

I am interested in this too please do a posting afterwards.

Reimar

--

Reimar Bauer

Institut fuer Stratosphaerische Chemie (ICG-I)
Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de

a IDL library at Forschungszentrum Juelich

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

=====

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Paul Hein](#) on Thu, 20 Nov 2003 18:04:18 GMT
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An "Informed source at RSI" emailed me and this is what he said:

It's a good question. We're trying to figure that out ourselves...
I can tell some things right now:

- 1) We may test with RedHat Enterprise, but we don't want to make it our standard reference platform. As you say, it's expensive. To my mind, you might as well run Solaris for that kind of \$\$\$.
- 2) Fedora is a possibility, but it remains to be seen if it will be as solid as Red Hat was, and we're waiting along with everyone else to see.
- 3) For a couple of days, I thought that Suse might be the answer, but then they got bought, and there are even more questions about their future than there are for RedHat/Fedora...
- 4) Debian is a possibility, but they are very slow to issue updates, and their installation process is painful. I know both of these are changing, but change takes time, and who knows....

RedHat served an important purpose in the Linux community, even for those who run other distributions. By establishing a solid least common denominator, they brought order to that world. Pity they couldn't keep doing it...

So, it's up in the air right now. Fortunately, there's no huge rush to decide, and we can wait a bit to see how things shake out. Our next release will probably be based on one of the already existing RedHats, maybe even staying at RedHat 7.1 (it seems solid, and we've had little or no compatability issues with other distros). Beyond that, we'll watch events unfold, and try to pick the best one...

Please feel free to share this information with the newsgroup. The opinions of the IDL Linux community are very important in figuring out what we should do...

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Paul Hein](#) on Thu, 20 Nov 2003 18:16:16 GMT
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Checking the rpm's, I find
RH 7.3 glibc-2.2.5-43.i386.rpm
RH 8 glibc-2.3.2-4.80.6.i386.rpm

RH 9 glibc-2.3.2-27.9.i386.rpm
FC 1 glibc-2.3.2-101.i386.rpm

So that looks good, glibc-2.3.2 is used for RH 8, 9 and Fedora Core 1.
The installation booklet says, "IDL 6.0 was built with Linux 2.4 kernel
with glibc 2.2 using Red Hat Linux." Glibc 2.3.2 works and hopefully
2.3.2-101 will work too.
Paul

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Ben Panter](#) on Thu, 20 Nov 2003 18:34:08 GMT
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Paul Hein wrote:

> 4) Debian is a possibility, but they are very slow to issue
> updates, and their installation process is painful. I know
> both of these are changing, but change takes time, and who
> knows....
<snip>
> Please feel free to share this information with the newsgroup. The
> opinions of the IDL Linux community are very important in figuring
> out what we should do...

We've just gone through the "no more redhat - argh!" debate here at the
Royal Observatory. At a guess we have 200 or so centrally managed linux
boxes, running all manner of astronomical gubbins. Most machines are
currently at RH 7.2 (fully patched as far as possible and behind a
firewall). The decision was made to go for Debian as it is "easier for
central management" - read the IT folk who make our networking work.

I've just moved to mandrake for my personal machine, as installing
Debian was exceptionally non trivial for a user rather than a guru.

I guess the gist of this is that you may need separate "standards" for
the sitewide type installs (performed by people for whom linux installs
are bread and butter) and the lone machiners who want to use idl rather
than play with linux making linux work

Ben

--

Ben Panter, Edinburgh
My name (no spaces)@bigfoot which is a com.

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [JD Smith](#) on Thu, 20 Nov 2003 19:10:42 GMT
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On Thu, 20 Nov 2003 11:16:16 -0700, Paul Hein wrote:

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- > RH 7.3 glibc-2.2.5-43.i386.rpm
- > RH 8 glibc-2.3.2-4.80.6.i386.rpm
- > RH 9 glibc-2.3.2-27.9.i386.rpm
- > FC 1 glibc-2.3.2-101.i386.rpm
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- > So that looks good, glibc-2.3.2 is used for RH 8, 9 and Fedora Core 1.
- > The installation booklet says, "IDL 6.0 was built with Linux 2.4 kernel
- > with glibc 2.2 using Red Hat Linux." Glibc 2.3.2 works and hopefully
- > 2.3.2-101 will work too.

The reality is IDL has little exposure to Linux distribution internals -- it's fairly self-contained. It does link to glibc, which is certainly a point of exposure to the distribution, and the loader/linker libs, which are very stable (by definition). It uses gcc in a minor way with MAKE_DLM, but otherwise has little reliance on the actual flavor of Linux it is being run on. I'd recommend that RSI just defines the basic standards, e.g. glibc>2.3.2, gcc> 2.9.x, ELF-binary format support, etc., and compiles a list of distributions which meet those standards. It should be a fairly large list. The support issues might be more problematic, but I think this is the correct way forward. The Linux Standard Base project might also be interesting: <http://www.linuxbase.org/>.

JD

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [George N. White III](#) on Fri, 21 Nov 2003 17:50:00 GMT
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On Thu, 20 Nov 2003, JD Smith wrote:

- > The reality is IDL has little exposure to Linux distribution internals
- > -- it's fairly self-contained.

Some IDL apps use the X-server, which in my experience has been the biggest source of instability, mainly because new systems tend to come with hardware that is too new for the software to be fully debugged, but I gather that some cheap 2nd party boards using name-brand chips cheat on certain specs to cut costs and are simply not up to demanding applications.

- > It does link to glibc, which is
- > certainly a point of exposure to the distribution, and the
- > loader/linker libs, which are very stable (by definition). It uses
- > gcc in a minor way with MAKE_DLM, but otherwise has little reliance on
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- > ELF-binary format support, etc., and compiles a list of distributions
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- > support issues might be more problematic, but I think this is the
- > correct way forward. The Linux Standard Base project might also be
- > interesting: <http://www.linuxbase.org/>.

Within a given distro, not all video hardware has robust X servers.
Would the support issues be reduced if, in addition to the above
basic standards, RSI compiled a list of support graphics hardware
and X servers?

If companies like RSI find it too hard to support all linux versions
that satisfy certain basic standards, then it is time for the academic
community to organize a distribution targetted at the needs of
science and specifically tuned to serve as a platform for IDL, matlab,
commercial compilers, data aquisition hardware, etc. This could be
handled by contracting with a commercial vendor under the guidance of
a working group with reps from the above vendors and the user community.
I can envision the day when such a linux distro is part of your society
membership (and included on the DVD that contains the monthly newsletter).

It would be much simpler if we all went out and purchased Apple machines.

--

George N. White III <aa056@chebucto.ns.ca>
Head of St. Margarets Bay, Nova Scotia, Canada

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Mirko Vukovic](#) on Sun, 23 Nov 2003 16:41:44 GMT
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Reimar Bauer wrote:

> Mirko Vukovic wrote:

>

>> Paul Hein wrote:

>>

>>> Has any one yet tried out Fedora Core 1 (RedHat 10's new name) Linux
>>> with IDL? I was wondering if it worked. What is RSI going to do
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>>> Enterprise versions, or with the new Fedora versions? I am thinking
>>> of upgrading from RedHat 7.3 and RedHat somewhat dropping support for
>>> the free versions have me wondering what I should do?
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>> It works for me on Debian Woody distribution on my 180MHz box. It
>> installed without a hitch.
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>> I am trying to see what is the minimal hardware config for IDL these
>> days.
>>
>> Mirko
>>
>
> I am interested in this too please do a posting afterwards.
>
> Reimar
>
>

Reimar,

what exactly did you have in mind? My message was intended as a bit of
a joke, as my installation is probably one of the least powerfull on the
planet.

But do you need some performance specs for it or something else (like
overall ease of use and IDL speed and responsiveness)?

Mirko

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Paul Hein](#) on Mon, 24 Nov 2003 21:44:35 GMT
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I installed Fedora on my home PC and put IDL on it (no license) and
tried to run idldemo programs. Not all the programs work under RedHat
7.3 but I knew a couple of them did. I tried the 3D object one and
another. Unfortunately I got some floating point error messages. I
also tried a simple x-y line plot and that worked. So it looks that IDL
6.0 under Fedora is some what crippled and does not work for more
complicated stuff. This was by no means a complete test so how well IDL
works and what does not work is still a question. It looks like I can
not upgrade to Fedora and have all of IDL working.
Paul

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [David Fanning](#) on Mon, 24 Nov 2003 22:06:53 GMT
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Paul Hein writes:

> Unfortunately I got some floating point error messages.

Alas, this appears to be standard operating procedure,
as least with respect to translating Matlab code.
Floating underflow and overflow messages are driving
me batty. :-(

Maybe it's time for Craig to give another tutorial
on how to avoid this kind of thing, especially in
convolutions and matrix multiplications. I don't
think setting !EXCEPT=0 is the way the professionals
do it. :-(

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Craig Markwardt](#) on Mon, 24 Nov 2003 22:38:14 GMT
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David Fanning <david@dfanning.com> writes:

>

> Maybe it's time for Craig to give another tutorial
> on how to avoid this kind of thing, especially in
> convolutions and matrix multiplications. I don't
> think setting !EXCEPT=0 is the way the professionals
> do it. :-(

Example?

Craig

--

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Paul Hein](#) on Mon, 24 Nov 2003 23:06:21 GMT
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David Fanning wrote:

> Paul Hein writes:

>
>
>

>> Unfortunately I got some floating point error messages.

>>
>>

>
> Alas, this appears to be standard operating procedure,
> as least with respect to translating Matlab code.
> Floating underflow and overflow messages are driving
> me batty. :-)

>
>

Sorry! I was not clear at all. With Fedora, the demo program crashed
with a floating point error that the terminal window recorded. The 2
programs, Object World and 3D
Geometry Demo, (I think those were the ones) crashed on start up leaving a
floating point error message. They did not crash the idldemo program.

Paul

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [David Fanning](#) on Tue, 25 Nov 2003 00:08:12 GMT
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Craig Markwardt writes:

> Example?

Well, now it won't do it, of course. But I've
been fixing things all day. Let me get back to
you on this... :-)

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
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Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [Karl Schultz](#) on Tue, 25 Nov 2003 15:45:54 GMT
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"Paul Hein" <hein@olympic.atmos.colostate.edu> wrote in message
news:3fc28eef@news.ColoState.EDU...

> David Fanning wrote:

>

>> Paul Hein writes:

>>

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> with a floating point error that the terminal window recorded. The 2

> programs, Object World and 3D

> Geometry Demo, (I think those were the ones) crashed on start up leaving a

> floating point error message. They did not crash the idldemo program.

Perhaps it would help if you could post the actual text of the error
messages. That might make it possible to figure out if IDL or some other
component in the system is issuing the message.

As already mentioned in this thread, another potential source of instability
is the X11 server. I've got no idea at the moment how good the X11 code is
in Fedora. I know that the Redhat folks did put a lot of effort into X11,
including the packaging and configuration to support hardware-accelerated
OpenGL for a pretty good range of hardware. The hardware-accelerated OpenGL
stuff can be pretty touchy at times, so it wouldn't be too unlikely for it
to be part of the problem.

Try running some other OpenGL client programs. The most likely one you'll find in your distro is glxgears. Also look for a game like tuxracer. If glxgears throws errors or crashes, then the problem lies in your OpenGL support. You might consider changing your XF86config file to avoid using the hardware driver, or get an updated hardware driver from your video card vendor. It is not always trivial to do this update because it sometimes involves building a kernel driver. But the bigger card vendors like nVidia and ATI provide pretty good support in this area.

If you don't want to mess with your X server configuration, you can try disabling hardware-accelerated OpenGL graphics in IDL. One way to do this is to put "idl.renderer: 1" in your X resources.

There is a lot more information in the RSI Tech Tip at:

<http://www.rsinc.com/services/techtip.asp?ttid=3524>

Hope this helps,
Karl

Subject: Re: IDL 6.0 on Fedora Core 1 Linux
Posted by [R.Bauer](#) on Tue, 25 Nov 2003 21:51:16 GMT
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Mirko Vukovic wrote:

> Reimar Bauer wrote:

>

>> Mirko Vukovic wrote:

>>

>>> Paul Hein wrote:

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> planet.
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> But do you need some performance specs for it or something else (like
> overall ease of use and IDL speed and responsiveness)?
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> Mirko
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Dear Mirko,

I am woking at the moment on idl in a UML. The UML could be used with different setups. One is to use it without X-SERVER and doing all in the Z-Buffer or using redirection of the display to a different machine.

The reason for this is. I like to call idl by a wiki prozessor and this protects the apache server to be killed. Otherwise a mistake like `file_delete,file_search()` will clean the whole box.

If the UML in this way is killed it is easy to restore because its only one file to restore.

By always much memory I have not thought about the real necessary memory which idl needs to run.

Reimar
