
Subject: Re: Anyone link GSL into IDL?

Posted by [Allan Whiteford](#) on Fri, 04 Apr 2008 14:16:32 GMT

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Brian Larsen wrote:

> In the realm of crazy TLAs has anyone ever linked the GNU scientific
> library (GSL) into IDL. This is probably a case where I need to use a
> DLM. Before I expend a bunch of effort reinventing the wheel I just
> want to make sure that others have not done this.

>

>

>

> Cheers,

>

> Brian

>

> -----

> Brian Larsen

> Boston University

> Center for Space Physics

Brian,

Even if they had, it would probably[1] be in violation of the GPL to
distribute such code.

GSL is GPL and opposed to LGPL. This broadly means[2] you can't
distribute a derivative work which links IDL and GSL.

See the "licensing" section here:

<http://www.gnu.org/software/gsl/>

where the GPL has been explicitly chosen over the LGPL.

See also:

<http://www.gnu.org/licenses/why-not-lgpl.html>

<http://www.gnu.org/licenses/gpl-faq.html#IfLibraryIsGPL>

<http://www.gnu.org/licenses/gpl-faq.html#GPLInProprietarySystem>

<http://www.gnu.org/licenses/gpl-faq.html#MoneyGuzzlerInc>

You can, of course, link IDL and GSL but then you're not allowed[2] to
distribute that work.

Of course, IANAL, and this is just my understanding of things. I am also not advocating anything in particular - just pointing out the situation as I see it.

Thanks,

Allan

[1] You can get non-GPL versions of GSL but I'll work on the assumption you're talking about the free version you can just download.

[2] i.e. is the general understanding of what the GPL means.

Subject: Re: Anyone link GSL into IDL?

Posted by [Foldy Lajos](#) on Fri, 04 Apr 2008 14:43:39 GMT

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On Fri, 4 Apr 2008, Allan Whiteford wrote:

> Brian Larsen wrote:

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>> Brian Larsen

>> Boston University

>> Center for Space Physics

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> Brian,

>

> Even if they had, it would probably[1] be in violation of the GPL to
> distribute such code.

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There is an FFTW3 DLM on the ITTVIS website. FFTW3 is GPL and ITTVIS distributes this DLM (binary only). So, is ITTVIS violating GPL?

Actually, IDL is not linked against the DLM, IDL is a standalone executable. The user links in (loads) the DLM at run-time using the

DLM hook provided by IDL. Is this the same as build-time linking?

I am working on the DLM support for FL and my example program is FFTW3. I plan to release the DLM source under GPL. Is this enough? What is your opinion?

thanks,
lajos

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> Allan

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> [1] You can get non-GPL versions of GSL but I'll work on the assumption
> you're talking about the free version you can just download.

>

> [2] i.e. is the general understanding of what the GPL means.

>

Subject: Re: Anyone link GSL into IDL?

Posted by [Allan Whiteford](#) on Fri, 04 Apr 2008 15:25:40 GMT

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Lajos,

Fiç½LDY Lajos wrote:

>
> On Fri, 4 Apr 2008, Allan Whiteford wrote:
>
>>
>> Brian,
>>
>> Even if they had, it would probably[1] be in violation of the GPL to
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>>
>
> There is an FFTW3 DLM on the ITTVIS website. FFTW3 is GPL and ITTVIS
> distributes this DLM (binary only). So, is ITTVIS violating GPL?
>

Once again, IANAL. I note that you can buy a non-GPL version of FFTW3, maybe ITTVIS did this in which case discussions are academic.

The whole argument comes down to the difference between linking code and aggregating code and exactly how two pieces of code communicate. It has been discussed ad-nauseum by thousands of people and I'm not really in a position to give a more informed opinion than anyone else. Debian legal discussions are a good place to look for technical discussions rather than just flamewars.

The FSF and GPL seem to draw the line somewhere between a SO/DLM/DLL approach and using a fork and exec. My understanding is that if you have a GPL library then you couldn't distribute a program which links against it (either statically or dynamically) without that program becoming GPL.

See this:

<http://www.gnu.org/licenses/gpl-faq.html#IfLibraryIsGPL>

which seems fairly definitive and this:

<http://www.gnu.org/licenses/gpl-faq.html#GPLPluginsInNF>

which is coming from the opposite point of view but would still suggest that a non-free main program can't have a GPL plug-in without special permission from the plug-in author. I think plug-in could be considered to mean something called via linkimage, call_external in the context of IDL.

- > Actually, IDL is not linked against the DLM, IDL is a standalone
- > executable. The user links in (loads) the DLM at run-time using the
- > DLM hook provided by IDL. Is this the same as build-time linking?
- >

I think the FSF and GPL don't see a difference (see last link above).

It might be worth looking into the organisation of the Linux HAL - but that's a GPL main program with proprietary plug-ins rather than the other way around.

- > I am working on the DLM support for FL and my example program is FFTW3.
- > I plan to release the DLM source under GPL. Is this enough? What is your
- > opinion?

Some people would certainly assert that that would make all of FL GPL but that's not to say they'd be right (although I think within open source software circles they will be in the majority).

My personal opinion and understanding of the GPL would be that this would be a violation but I'm not an expert on these things by any stretch of the imagination.

I would be very cautious about releasing a FFTW3 plug-in for FL.

You can always write to the FSF for advice and/or contact the FFTW3 people to see if they'll make an exception for FL.

Thanks,

Allan

Subject: Re: Anyone link GSL into IDL?

Posted by [Brian Larsen](#) on Fri, 04 Apr 2008 15:44:40 GMT

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Arg, this is a can of worms that I did not mean to open, I do disagree in your interpretation however but that is neither here nor there. I guess I will begin wheel reinventing as I can (and will) link together whatever I want for myself :)

Cheers,

Brian

Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Anyone link GSL into IDL?
Posted by [Allan Whiteford](#) on Fri, 04 Apr 2008 15:54:12 GMT
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Brian Larsen wrote:

> Arg, this is a can of worms that I did not mean to open, I do disagree
> in your interpretation however but that is neither here nor there. I
> guess I will begin wheel reinventing as I can (and will) link together
> whatever I want for myself :)
>
>
> Cheers,
>
> Brian
>
> -----
> Brian Larsen
> Boston University
> Center for Space Physics

Brian,

I think what we probably agree on is that this newsgroup is far too friendly to go down this particular road and it's a topic best left to other fora.

GDL (argh! another TLA!) has lots of hooks to GSL which might be a nice place to start looking at how to implement things - perhaps not overly helpful since it has completely different internals but worth a glance.

Good luck.

Thanks,

Allan

Subject: Re: Anyone link GSL into IDL?
Posted by [Foldy Lajos](#) on Fri, 04 Apr 2008 16:02:22 GMT
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On Fri, 4 Apr 2008, Allan Whiteford wrote:

>> I am working on the DLM support for FL and my example program is FFTW3.
>> I plan to release the DLM source under GPL. Is this enough? What is your
>> opinion?

>
> Some people would certainly assert that that would make all of FL GPL but
> that's not to say they'd be right (although I think within open source
> software circles they will be in the majority).
>

Now I see why GPL is called viral: a few dozen lines long interface can infect a 200,000 lines program :-)

> My personal opinion and understanding of the GPL would be that this would be
> a violation but I'm not an expert on these things by any stretch of the
> imagination.
>
> I would be very cautious about releasing a FFTW3 plug-in for FL.
>

OK, to be on the safe side. I will drop FFTW3, it was meant as a useful example program only. I will choose an other library with a more friendly licence. And probably FL users will write their own FFTW3 DLM, they can not infect FL :-)

> You can always write to the FSF for advice and/or contact the FFTW3 people to
> see if they'll make an exception for FL.
>

The FSF advice would be to release FL under GPL. And after reading the FFTW pages I think the chance of obtaining an exception is exactly 0%. So, I will not use FFTW.

thanks,
lajos

> Thanks,
>
> Allan
>

Subject: Re: Anyone link GSL into IDL?
Posted by [Brian Larsen](#) on Fri, 04 Apr 2008 16:08:26 GMT
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> I think what we probably agree on is that this newsgroup is far too

> friendly to go down this particular road and it's a topic best left to
> other fora.
>

Allan,

that I agree with 100 fold

Cheers,

Brian

Brian Larsen
Boston University
Center for Space Physics
<http://people.bu.edu/balarsen/Home/IDL/IDL.html>

Subject: Re: Anyone link GSL into IDL?
Posted by [Robbie](#) on Sat, 05 Apr 2008 03:48:21 GMT
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Hi there,

I think that the only thing which is questionable is that you would distributing GPL software which refers to `idl_export.h`, which is not open source.

If Bwian made his source for a GSL DLM available under GPL, then there is nothing anyone could or would do about it.

The purpose of GPL is to stop another party repackaging it as a binary product, for example ITT might package it as another pricey add on. The downside of GPL is that you loose the right to distribute derivative works under anything but a GPL license. It's a simple trade off.

I'd say go for it mate.

Robbie
