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Subject: libpng on linux

Posted by [forlano](#) on Mon, 05 Jun 2017 19:53:00 GMT

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Hello,

if I have understood the libpng coming with U++ is the version 1.2.57 (shared library 12.0).

Some users of my program are reporting that it no longer works. One told me that the new libpng currently available is the shared library 16.0 and the version 12.0 is no longer available in the main repository (for example in Ubuntu).

The question is: can I solve my problem putting the source code of the new libpng16 within the folder

/upp/uppsrc/plugin/png/lib and compile it?

Are there problems with the current plugin for this library?

Thank you,  
Luigi

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Subject: Re: libpng on linux

Posted by [dolik.rce](#) on Tue, 06 Jun 2017 04:45:25 GMT

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Hi Luigi,

forlano wrote on Mon, 05 June 2017 21:53The question is: can I solve my problem putting the source code of the new libpng16 within the folder

/upp/uppsrc/plugin/png/lib and compile it?

Are there problems with the current plugin for this library?

Short answer: No, upgrading the plugin won't help.

Long answer: plugin/png is only used on windows. On other platforms it is linked against the libpng installed in the system. So if you want to support clients with newer libpng, you need to upgrade the system on which you build your binaries.

Alternatively, you can use flag `STATIC_PNG`. This will force the plugin/png to use the contained sources and link them statically. So it will use the older version (1.2.57), but there will be no runtime dependence on libpng and the binary should run anywhere, regardless of the version of libpng the client has installed.

Best regards,  
Honza

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Subject: Re: libpng on linux

Posted by [forlano](#) on Tue, 06 Jun 2017 16:08:09 GMT

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dolik.rce wrote on Tue, 06 June 2017 06:45

Alternatively, you can use flag `STATIC_PNG`. This will force the plugin/png to use the contained sources and link them statically. So it will use the older version (1.2.57), but there will be no runtime dependence on libpng and the binary should run anywhere, regardless of the version of libpng the client has installed.

Hi Honza,

thanks for the answer.

The flag option is fine and perhaps the best.

I just wonder if it must be set in the header field of theide (where I have already GUI NOGTK flags) or via the package organize and where exactly.

Thanks again,

Luigi

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Subject: Re: libpng on linux

Posted by [dolik.rce](#) on Tue, 06 Jun 2017 16:41:43 GMT

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forlano wrote on Tue, 06 June 2017 18:08The flag option is fine and perhaps the best.

I just wonder if it must be set in the header field of theide (where I have already GUI NOGTK flags) or via the package organize and where exactly.

Yes, you can just put it in the "mainconfig" (not sure what the official name is, this is just how it is called in .upp files ), together with GUI and NOGTK flags.

Honza

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Subject: Re: libpng on linux

Posted by [forlano](#) on Wed, 07 Jun 2017 16:10:35 GMT

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dolik.rce wrote on Tue, 06 June 2017 18:41

Yes, you can just put it in the "mainconfig" (not sure what the official name is, this is just how it is called in .upp files ), together with GUI and NOGTK flags.

Honza

Hi Honza,

The experiment failed. STATIC\_PNG missed to link statically libpng12.

I tried to install libpng16 and compile theide via makefile. Unfortunately the makefile complained for the missing libpng12.

Is there something to try?

Luigi

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Subject: Re: libpng on linux  
Posted by [dolik.rce](#) on Thu, 15 Jun 2017 19:41:07 GMT  
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Hi Luigi,

Sorry for late reply, I didn't have time to test it until today.

forlano wrote on Wed, 07 June 2017 18:10The experiment failed. STATIC\_PNG missed to link statically libpng12.

How did you test this? I just tried to compile simple app with STATIC\_PNG and it seems to work. There is no -lpng in the linker command and `readelf -d my_test_app | grep NEEDED` doesn't show libpng at all. Also, `objdump -x my_test_app` shows the png symbols in the executable. The only confusing thing is the output of `ldd my_test_app`, which still lists libpng, but I assume it is actually pulled in indirectly by another dependency. Have you actually tried to run the executable on some newer system?

forlano wrote on Wed, 07 June 2017 18:10I tried to install libpng16 and compile theide via makefile. Unfortunately the makefile complained for the missing libpng12. Not sure about that... If I remember correctly, the makefile should not mention specific version of the library, just "png". I use archlinux where libpng16 is the only version available and I actually never had a problem with it.

I'm afraid I don't have any more ideas how to solve your problem for now (if the problem still holds).

Best regards,  
Honza

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Subject: Re: libpng on linux  
Posted by [forlano](#) on Thu, 15 Jun 2017 20:10:06 GMT  
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dolik.rce wrote on Thu, 15 June 2017 21:41Hi Luigi,

Sorry for late reply, I didn't have time to test it until today.

Hi Honza,

no prob and thanks again for your precious support.

At moment one of my user gave me a script wrapper that load the provided libpng12 in case it is absent on the system.

I tested it simply adding STATIC\_PNG flag in the main configuration (together GUI and NO\_GTK flags). Perhaps something else should be done. The compiled program didn't work on a system without libpng12.

Perhaps you can post the whole test package you have used so that I can see all relevant flags and setting you have set. I think is very important to be able to add statically a lib in case something occur in future with some other library.

Luigi

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Subject: Re: libpng on linux  
Posted by [mdelfede](#) on Fri, 03 Nov 2017 11:34:11 GMT  
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Same problem here... app built on Ubuntu16.04 LTS doesn't run on newest 17 version. I did a text search for STATIC\_PNG in whole UPP tree, no traces of it, so the reported solution must be wrong.

I tried to remove png lib from plugins/png package and add it as static lib, but I got just errors.

Is there a way to force static linking of PNG library ?

I remember I did it with ssl library as above, and it worked. With PNG no way up to now.

Ciao

Massimo

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Subject: Re: libpng on linux  
Posted by [mirek](#) on Fri, 03 Nov 2017 17:41:56 GMT  
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mdelfede wrote on Fri, 03 November 2017 12:34 Same problem here... app built on Ubuntu16.04 LTS doesn't run on newest 17 version.

I did a text search for STATIC\_PNG in whole UPP tree, no traces of it, so the reported solution must be wrong.

I tried to remove png lib from plugins/png package and add it as static lib, but I got just errors.

Is there a way to force static linking of PNG library ?

I remember I did it with ssl library as above, and it worked. With PNG no way up to now.

Ciao

Massimo

Well, but that is general nature of linux, is it not? You cannot expect that binary built with different distro/version will work out of box.

(That said, personally I would probably prefer static linking of png too...)

Mirek

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Subject: Re: libpng on linux

Posted by [Klugier](#) on Sat, 04 Nov 2017 12:29:28 GMT

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Hello,

Did anyone try Snappy or any other universal Linux packages? I believe this will resolve the dependency problem and allow to run your application on multiple distribution. Probably the cost of that solution is the final application size.

Snappy - <https://www.ubuntu.com/desktop/snappy>

Sincerely,  
Klugier

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Subject: Re: libpng on linux

Posted by [mdelfede](#) on Sat, 04 Nov 2017 14:28:52 GMT

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mirek wrote on Fri, 03 November 2017 18:41

Well, but that is general nature of linux, is it not? You cannot expect that binary built with different distro/version will work out of box.

(That said, personally I would probably prefer static linking of png too...)

Mirek

Yep, but the weird stuff is that libpng is the only library that brings problems, up to now.

Do you think it's possible to have it statically linked in some way ? Or... what about replacing with the source that is inside the png plugin, which is used for windows ?

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Subject: Re: libpng on linux

Posted by [mirek](#) on Sat, 04 Nov 2017 19:56:53 GMT

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mdelfede wrote on Sat, 04 November 2017 15:28mirek wrote on Fri, 03 November 2017 18:41  
Well, but that is general nature of linux, is it not? You cannot expect that binary built with different distro/version will work out of box.

(That said, personally I would probably prefer static linking of png too...)

Mirek

Yep, but the weird stuff is that libpng is the only library that brings problems, up to now.

That is just accidental.

Mirek

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