Subject: Is there any trick to reduce the executable even further?
Posted by lectus on Tue, 12 Feb 2013 17:01:04 GMT
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Besides using MSVC++ optimized for size.

What else can be done?

Subject: Re: Is there any trick to reduce the executable even further?
Posted by dolik.rce on Tue, 12 Feb 2013 17:45:05 GMT
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lectus wrote on Tue, 12 February 2013 18:01Besides using MSVC++ optimized for size.

What else can be done?

Perhaps executable compression.

May I ask what is the reason why you need to reduce the size of executable? Also, what kind of executable? There sure will be different approach for simple console utility and for full-blown GUI app...

Best regards,
Honza

Subject: Re: Is there any trick to reduce the executable even further?
Posted by chickenk on Wed, 13 Feb 2013 16:25:39 GMT
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Using gcc, I would use the following:
CFLAGS = -Os -ffunction-sections -fdata-sections
CXXFLAGS = -Os -ffunction-sections -fdata-sections
LDFLAGS = -Os -Wl,--gc-sections
If you are creating ELF executables, you can also try superstrip:
http://www.skarnet.org/software/misc/superstrip.c

My 2 cents...
Lionel

Subject: Re: Is there any trick to reduce the executable even further?
Posted by Novo on Wed, 13 Feb 2013 18:42:29 GMT
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lectus wrote on Tue, 12 February 2013 12:01Besides using MSVC++ optimized for size.

What else can be done?

You can take a look at places where your code came from using this tool. (You will need to enable map file generation in VS for that). May be this will give you new optimization ideas.

Subject: Re: Is there any trick to reduce the executable even further?
Posted by lectus on Thu, 14 Feb 2013 14:17:06 GMT
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chickenk wrote on Wed, 13 February 2013 11:25Using gcc, I would use the following:
CFLAGS = -Os -ffunction-sections -fdata-sections
CXXFLAGS = -Os -ffunction-sections -fdata-sections
LDFLAGS = -Os -Wl,--gc-sections
If you are creating ELF executables, you can also try superstrip:
http://www.skarnet.org/software/misc/superstrip.c

My 2 cents...
Lionel

Interesting, but with -fdata-sections Mingw creates a BIGGER executable for me.

It adds an extra .data section in the executable.

Subject: Re: Is there any trick to reduce the executable even further?
Posted by lectus on Thu, 14 Feb 2013 14:44:37 GMT
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dolik.rce wrote on Tue, 12 February 2013 12:45lectus wrote on Tue, 12 February 2013 18:01Besides using MSVC++ optimized for size.

What else can be done?

Perhaps executable compression.

May I ask what is the reason why you need to reduce the size of executable? Also, what kind of executable? There sure will be different approach for simple console utility and for full-blown GUI app...

Best regards,
Honza

Yeah. I'm aware of UPX.

The reason is: I just like to deliver the best features in the smallest size possible. (btw... U++ is already great for that compared to other toolkits)

Subject: Re: Is there any trick to reduce the executable even further?
Posted by lectus on Thu, 14 Feb 2013 15:09:21 GMT
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My best results:
424kb with VC++ 2010, release, optimize for size, all static, packed with UPX

If I leave MVC++ 2010 runtime library as DLL I get: 359kb

Quite good if I'm distributing more than one application and the user has this package installed:
http://www.microsoft.com/en-us/download/details.aspx?id=5555

Subject: Re: Is there any trick to reduce the executable even further?
Posted by lectus on Thu, 14 Feb 2013 18:30:54 GMT
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Update:

Found this awesome tool: http://www.jrsoftware.org/striprlc.php

Got the size down from 1043968 to 956416 bytes without compression.

This tool removes the .reloc section that is absolutely useless in EXEs (useful only in DLLs).

Subject: Re: Is there any trick to reduce the executable even further?
Posted by Novo on Thu, 14 Feb 2013 18:53:57 GMT
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lectus wrote on Thu, 14 February 2013 13:30This tool removes the .reloc section that is absolutely useless in EXEs (useful only in DLLs).

If ASLR is enabled either directly by Windows or by a third party tool you can get into trouble.

Subject: Re: Is there any trick to reduce the executable even further?
Posted by lectus on Thu, 14 Feb 2013 19:04:12 GMT
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Novo wrote on Thu, 14 February 2013 13:53lectus wrote on Thu, 14 February 2013 13:30This tool removes the .reloc section that is absolutely useless in EXEs (useful only in DLLs).

If ASLR is enabled either directly by Windows or by a third party tool you can get into trouble.

It seems I'd need to link against ASLR for it to be an issue.

Subject: Re: Is there any trick to reduce the executable even further?
Posted by Novo on Thu, 14 Feb 2013 19:13:05 GMT
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lectus wrote on Thu, 14 February 2013 14:04Novo wrote on Thu, 14 February 2013 13:53lectus wrote on Thu, 14 February 2013 13:30This tool removes the .reloc section that is absolutely useless in EXEs (useful only in DLLs).

If ASLR is enabled either directly by Windows or by a third party tool you can get into trouble.

It seems I'd need to link against ASLR for it to be an issue.

IMHO, ASLR is a part of a loader, which is a part of Windows (this is not the case in Unix). You do not link against ASLR. Loader just loads your app at random address. You need to do something to your app to tell loader that you want to load it at random address (most likely this is a flag), but there are third party tools, and nobody knows what will happen after another Windows update.

Subject: Re: Is there any trick to reduce the executable even further?
Posted by Novo on Thu, 14 Feb 2013 19:16:48 GMT
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lectus wrote on Tue, 12 February 2013 12:01Besides using MSVC++ optimized for size.

What else can be done?

Use MSVC 9 (2008).
http://www.ultimatepp.org/forum/index.php?t=rview&goto=3 9093

Subject: Re: Is there any trick to reduce the executable even further?
Posted by nlneilson on Sat, 16 Feb 2013 20:54:17 GMT
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lectus: Just curious about your concern of size.

I was several years ago but optimizing code and error handling seems to concern me now and size is almost irrelevant.

I guess the 'app stores' have a size limit, is that it?