Subject: Feature request: Add LZMA SDK to U++
Posted by lectus on Sun, 11 Nov 2012 11:20:15 GMT

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Hi!
It would be useful to have 7zip's LZMA SDK in U++, maybe with an easy layer like:

7zFile f("test.7z");
f.Add("file1.txt","this is some data");
f.Add("file2.txt","more data");
f.Close();

LZMA SDK is available at: http://www.7-zip.org/sdk.html

License is public domain.

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by mirek on Wed, 14 Nov 2012 06:55:58 GMT

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Filed as http://www.ultimatepp.org/redmine/issues/354

Any takers?

Mirek

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by mirek on Mon, 03 Dec 2012 13:01:53 GMT

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Looks like LZMA is based on this:

http://tukaani.org/xz/

which appears to be public domain. Perhaps we should implement that instead?

Mirek

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by Tom1 on Mon, 03 Dec 2012 13:34:18 GMT

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Mirek,

It's the other way around: The XZ Utils is based on LZMA SDK which is in public domain and originally part of 7-zip. XZ Utils is just another project using LZMA SDK.

Best regards,

Tom

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by mirek on Mon, 03 Dec 2012 14:23:18 GMT
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OK, thanks for clarification.

plugin/LZMA would be definitely great. Best if served in the same interface as Zlib.

Mirek

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by dolik.rce on Wed, 05 Dec 2012 15:00:23 GMT
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Hi,

I looked at the lzma-sdk and think I can manage this, so I took the ticket.

mirek wrote on Mon, 03 December 2012 15:23plugin/LZMA would be definitely great. Best if served in the same interface as Zlib.

Just for clarification, by zlib interface you mean Zlib class or the (G)ZCompress/(G)ZDecompress functions, or both? I was also looking at bz2 and zip plugins, and they are each different... Bz2 is just Compress/Decompress functions, while zip is a class, but not very similar to Zlib. I guess some unification would be a good idea

Honza

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by mirek on Fri, 07 Dec 2012 19:16:20 GMT
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dolik.rce wrote on Wed, 05 December 2012 10:00Hi,

I looked at the lzma-sdk and think I can manage this, so I took the ticket.

mirek wrote on Mon, 03 December 2012 15:23plugin/LZMA would be definitely great. Best if served in the same interface as Zlib.

Just for clarification, by zlib interface you mean Zlib class or the (G)ZCompress/(G)ZDecompress functions, or both? I was also looking at bz2 and zip plugins, and they are each different... Bz2 is just Compress/Decompress functions, while zip is a class, but not very similar to Zlib. I guess some unification would be a good idea

Honza

plugin/zip is somewhat different as it deals with .zip file format rather than compression (which is provided by zlib).

bz2 should have the same interface as zlib (but does not yet).

Mirek

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by omari on Sun, 09 Dec 2012 21:07:12 GMT
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Hi all,

in the attached, a set of functions LzmaCompress/LzmaDecompress and a test package (lzma algorithm support).

I think the rest is:
- 7z file format management.
- lzma2 algorithm support

Best regards,
Omari

```
File Attachments
1) Lzma.7z, downloaded 401 times
```

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by dolik.rce on Mon, 10 Dec 2012 18:41:41 GMT
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Hi Omari,

You came up with pretty much the same code as me The only difference is that you included some unnecessary files, some of which are windows only so I can't even compile your package. You only need a few of them: Types.h, LzFind.{c,h}, LzHash.h,LzmaDec.{c,h} and LzmaEnc.{c,h}. That stuff is easy.

Implementing the nice zlib-like interface is harder. I can do it for decompression, but compression interface of lzma lacks the push data variant that is necessary for Put() interface we want. So far I couldn't come up with an elegant way to compress data incrementally.

Honza

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by omari on Tue, 11 Dec 2012 11:19:53 GMT
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Hi Honza,

you are right, i have tested on Win32 only, and i have noticed that Thread.{c,h} is windows only.

the files Lzma2Dec.{c,h} and Lzma2Enc.{c,h} are needed for 7z file format, (Lzma2Compress/Lzma2Deompress).

regards,
Omari

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by dolik.rce on Tue, 11 Dec 2012 12:54:06 GMT
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omari wrote on Tue, 11 December 2012 12:19the files Lzma2Dec.{c,h} and Lzma2Enc.{c,h} are needed for 7z file format, (Lzma2Compress/Lzma2Deompress).
Sure, but your pacakge wasn't using them at all, so that is why I called them unnecessary

BTW: I finished the decompression part of the Lzma class, today I hope to get the compression working as well. It'll have to be pretty low-level, basically reimplementing some of the lzma internal functions, but I see no better way to allow the desired level of user control. I'll publish the code as soon the compression is ready and the code gets first round of cleaning up, hopefully in next couple of days.

Best regards,
Honza

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by lectus on Tue, 22 Jan 2013 21:55:32 GMT
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Any progress in this?

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by dolik.rce on Wed, 23 Jan 2013 06:05:42 GMT
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lectus wrote on Tue, 22 January 2013 22:55Any progress in this?
Hi lectus,

Sorry for the delay... I've been quite busy lately. The code is working, but there is some nasty bug that only happens in release mode and I was not yet able to figure out why

I'll publish the code tonight, perhaps if more people look at it, someone will figure out what's wrong

Thanks for patience,

Honza

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by dolik.rce on Wed, 23 Jan 2013 17:40:37 GMT
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Hi,

I just committed the work I've done so far into sandbox. Short example showing how simple it is to work with the new Lzma class is available as well.

It would be IMHO quite usable, if there wasn't this nasty bug I mentioned earlier that causes it to crash when compiled in Optimal mode :-/ Any help with that will be greatly appreciated...

Best reagards,
Honza

Subject: Re: Feature request: Add LZMA SDK to U++
Posted by dolik.rce on Thu, 24 Jan 2013 17:39:35 GMT
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I have good news and bad news...

Good news is that the crash in optimal mode is now fixed and it works as supposed. The silly me forgot that ASSERTs are not present in production code...

Bad news is that I found another bug. Sometimes, one more null byte is added to the decompressed data. I'm not sure yet how it is possible, but I will try to solve it ASAP.

Honza