

Ruby trunk - Bug #1296

[trunk/22981] 64-bit issues on trunk in ext/zlib

03/17/2009 12:01 AM - roberto (Olivier Robert)

Status:	Closed	
Priority:	Normal	
Assignee:	nobu (Nobuyoshi Nakada)	
Target version:	2.0.0	
ruby -v:	ruby 1.9.2dev (2009-03-16) [i386-darwin9.6.0]	Backport:

Description

=begin

I've configured Ruby to be compiled in 64-bit mode under OS X 10.5.6 with gcc 4.2. I get the following warnings in ext/zlib which are a bit worrying.

```
gcc-4.2 -I. -I../ext/include/i386-darwin9.6.0 -I../include -I../ext/zlib -DRUBY_EXTCONF_H="extconf.h"
-D_XOPEN_SOURCE -D_DARWIN_C_SOURCE -fno-common -O -pipe -m64 -D_FILE_OFFSET_BITS=64 -O3 -g -Wall
-Wno-unused-parameter -Wno-parentheses -Wno-missing-field-initializers -Wshorten-64-to-32 -Wpointer-arith -Wwrite-strings -o
zlib.o -c ../ext/zlib/zlib.c
```

```
../ext/zlib/zlib.c: In function 'do_checksum':
../ext/zlib/zlib.c:300: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'zstream_expand_buffer':
../ext/zlib/zlib.c:457: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'zstream_shift_buffer':
../ext/zlib/zlib.c:550: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'zstream_passthrough_input':
../ext/zlib/zlib.c:631: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'zstream_run':
../ext/zlib/zlib.c:707: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'zstream_sync':
../ext/zlib/zlib.c:766: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c:770: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'deflate_run':
../ext/zlib/zlib.c:1167: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'do_deflate':
../ext/zlib/zlib.c:1226: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'rb_deflate_set_dictionary':
../ext/zlib/zlib.c:1353: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'inflate_run':
../ext/zlib/zlib.c:1413: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'do_inflate':
../ext/zlib/zlib.c:1467: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'rb_inflate_inflate':
../ext/zlib/zlib.c:1499: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'rb_inflate_addstr':
../ext/zlib/zlib.c:1532: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'rb_inflate_sync':
../ext/zlib/zlib.c:1560: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'rb_inflate_set_dictionary':
../ext/zlib/zlib.c:1602: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'gzfile_read_raw_ensure':
../ext/zlib/zlib.c:1838: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c:1839: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c:1841: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'gzfile_read_raw_until_zero':
../ext/zlib/zlib.c:1859: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'gzfile_make_header':
../ext/zlib/zlib.c:1923: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c:1926: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c:1930: warning: implicit conversion shortens 64-bit value into a 32-bit value
../ext/zlib/zlib.c: In function 'gzfile_make_footer':
../ext/zlib/zlib.c:1944: warning: implicit conversion shortens 64-bit value into a 32-bit value
```

```
../../../../ext/zlib/zlib.c: In function 'gzfile_read_header':
../../../../ext/zlib/zlib.c:1998: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c:2001: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c:2008: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c:2015: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c: In function 'gzfile_read_more':
../../../../ext/zlib/zlib.c:2078: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c: In function 'gzfile_calc_crc':
../../../../ext/zlib/zlib.c:2089: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c:2093: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c: In function 'gzfile_getc':
../../../../ext/zlib/zlib.c:2235: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c: In function 'rb_gzwriter_write':
../../../../ext/zlib/zlib.c:2817: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c: In function 'rb_gzreader_ungetc':
../../../../ext/zlib/zlib.c:3147: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c: In function 'gzreader_gets':
../../../../ext/zlib/zlib.c:3246: warning: implicit conversion shortens 64-bit value into a 32-bit value
../../../../ext/zlib/zlib.c:3272: warning: implicit conversion shortens 64-bit value into a 32-bit value
cc -dynamic -bundle -undefined suppress -flat_namespace -o ../../.ext/i386-darwin9.6.0/zlib.bundle zlib.o -L. -L../.. -L. -m64
-L/usr/local/lib -lz -lpthread -ldl -lobjc
=end
```

History

#1 - 07/16/2009 06:08 PM - yugui (Yuki Sonoda)

- Assignee set to nobu (Nobuyoshi Nakada)
- Target version changed from 1.9.1 to 1.9.2

=begin

=end

#2 - 05/30/2010 03:04 AM - mame (Yusuke Endoh)

- Status changed from Open to Feedback

=begin

Hi,

Is this still reproduced?

I can't confirm as I don't have os x. Could anyone confirm?

--

Yusuke Endoh mame@tsg.ne.jp

=end

#3 - 05/30/2010 05:05 AM - Eregon (Benoit Daloze)

=begin

Hi,

On 29 May 2010 20:06, Yusuke Endoh redmine@ruby-lang.org wrote:

Hi,

Is this still reproduced?

I can't confirm as I don't have os x. Could anyone confirm?

--

Yusuke Endoh mame@tsg.ne.jp

If I understand well this 'bug', it is about the C warnings: 'warning: implicit conversion shortens 64-bit value into a 32-bit value' in 64-bit.

Well, actually there are hundreds of them:

```
$ cat make.log | grep 'warning: implicit conversion shortens 64-bit value into a 32-bit value' | wc -l #=> 375
```

Here is by file:

```
$ cat make.log | grep 'warning: implicit conversion shortens 64-bit  
value into a 32-bit value' | ruby -e  
'ARGF.read.lines.with_object(Hash.new(0)) {|l,h| h[l.split(":")[0]] +=  
1 }.each {|f,w| puts f+": #{w}"}'
```

```
regcomp.c: 18  
regexec.c: 19  
regparse.c: 19  
./enc/emacs_mule.c: 1  
./enc/euc_jp.c: 2  
./enc/shift_jis.c: 1  
./enc/utf_16le.c: 1  
./enc/utf_32be.c: 1  
./enc/utf_32le.c: 1  
dbm.c: 1  
cfunc.c: 1  
cptr.c: 2  
generator.c: 28  
nkf-utf8/nkf.c: 1  
ossl.c: 2  
ossl_asn1.c: 25  
ossl_bio.c: 1  
ossl_bn.c: 4  
ossl_cipher.c: 3  
ossl_hmac.c: 3  
ossl_ns_spki.c: 4  
ossl_ocsp.c: 8  
ossl_pkcs12.c: 2  
ossl_pkcs5.c: 2  
ossl_pkcs7.c: 2  
ossl_pkey.c: 1  
ossl_pkey_dh.c: 4  
ossl_pkey_dsa.c: 5  
ossl_pkey_ec.c: 4  
ossl_pkey_rsa.c: 8  
ossl_rand.c: 3  
ossl_ssl.c: 6  
ossl_x509attr.c: 4  
ossl_x509cert.c: 2  
ossl_x509ext.c: 3  
ossl_x509name.c: 4  
ossl_x509req.c: 2  
ossl_x509store.c: 4  
_sdbm.c: 4  
init.c: 9  
strscan.c: 3  
bytecode.re: 2  
emitter.c: 2  
implicit.re: 5  
syck.c: 1  
token.re: 15  
tcltklib.c: 85  
tkutil.c: 15  
zlib.c: 32
```

It would indeed be nice to not have these warnings, but I suppose it is not so easy to solve.

Regards,
B.D.

=end

#4 - 05/30/2010 06:29 AM - mame (Yusuke Endoh)

- Priority changed from Normal to 3

- Target version changed from 1.9.2 to 2.0.0

=begin

Hi,

Thank you, Benoit.

2010/5/30 Benoit Daloze eregontp@gmail.com:

Well, actually there are hundreds of them:
\$ cat make.log | grep 'warning: implicit conversion shortens 64-bit
value into a 32-bit value' | wc -l #=> 375

Umm... I wonder why OP reported only about zlib's warnings.

And I remembered you had posted recent make.log in ticket [#3255](#):
<https://gist.github.com/c8034f83cc9afbf79e6b>

I glanced over a part of zlib, and I guess nearly all warnings are false positive. Some struct fields of zlib are int types, and RSTRING_LEN(buf), which returns long type, is assigned to the field. But the `buf` seems to be created based on int-typed length. So the warnings are benign.

Of course some may be malignant. If anyone realizes actual issue, please let us know.

It would indeed be nice to not have these warnings, but I suppose it is not so easy to solve.

Agreed.

To fix them, tons of casts will be needed. I'm afraid if it may enbug another issue. Thus, at least in 1.9.2 release, we won't fix these warnings unless actual issue is reported.

Thanks again!

--

Yusuke Endoh mame@tsg.ne.jp
=end

#5 - 05/30/2010 06:39 AM - Eregon (Benoit Daloze)

=begin

On 29 May 2010 23:30, Yusuke Endoh redmine@ruby-lang.org wrote:

Thank you, Benoit.

Yusuke Endoh mame@tsg.ne.jp

You are very welcome :)

Happy to help Ruby !

B.D.

=end

#6 - 06/11/2011 02:23 PM - ko1 (Koichi Sasada)

Can we close this issue?

#7 - 06/12/2011 10:06 AM - drbrain (Eric Hodel)

- Status changed from Feedback to Closed

I no longer see these warnings on gcc 4.2.1 on OS X 10.6.