

## Backport193 - Backport #6127

### IO#ioctl range error in 1.9.3

03/10/2012 06:33 AM - dlampa (Donovan Lampa)

<b>Status:</b>	Closed	
<b>Priority:</b>	Normal	
<b>Assignee:</b>	naruse (Yui NARUSE)	
<b>Description</b>		
<p>In 32-bit implementations of 1.9.3 passing an (apparently) unsigned value (BIOCIMMEDIATE = 0x80044270) to ioctl throws range error:</p> <pre>ruby-1.9.3-p125 :001 &gt; a,b = IO.pipe =&gt; [#, #] ruby-1.9.3-p125 :002 &gt; a.ioctl(0x80044270, "x01") RangeError: bignum too big to convert into long' from (irb):2:inioclt' from (irb):2 from /Users/dlampa/.rvm/rubies/ruby-1.9.3-p125/bin/irb:16:in `` ruby-1.9.3-p125 :001 &gt; 0x80044270.class =&gt; Bignum</pre> <p>When in 32-bit 1.9.1 and 1.9.2 it does not:</p> <pre>ruby-1.9.1-p243 :001 &gt; a,b = IO.pipe =&gt; [#IO:0x202fecf, #IO:0x202fec4] ruby-1.9.1-p243 :002 &gt; a.ioctl(0x80044270, "x01") Errno::ENOTTY: Inappropriate ioctl for device from (irb):2:in ioctl' from (irb):2 from /Users/dlampa/.rvm/rubies/ruby-1.9.1-p243/bin/irb:16:in' ruby-1.9.1-p243 :001 &gt; 0x80044270.class =&gt; Bignum</pre> <p>OS is [x86_64-darwin10.8.0] however ruby was compiled as 32-bit through rvm using: rvm_archflags="-arch i386" CFLAGS="-arch i386" LDFLAGS="-arch i386" rvm install [ruby-version] --patch osx-arch-fix</p> <p>The patch is installed in ~/.rvm/patches/ruby/1.9.3/ and is as follows:</p> <pre>--- a/Makefile.in    2010-11-11 15:54:26.000000000 -0600 +++ b/Makefile.in    2010-11-11 15:55:24.000000000 -0600 @@ -55,7 +55,7 @@ XLDLFLAGS = @XLDLFLAGS@ \$(EXTLDFLAGS) EXTLIBS = LIBS = @LIBS@ \$(EXTLIBS) MISSING = @LIBOBS@ @ALLOCA@ -LDSHARED = @LIBRUBY_LDSHARED@ +LDSHARED = @LIBRUBY_LDSHARED@ \$(LDFLAGS) DLDFLAGS = @LIBRUBY_DLDFLAGS@ \$(EXTLDFLAGS) @ARCH_FLAG@ SOLIBS = @SOLIBS@ MAINLIBS = @MAINLIBS@</pre> <p>this issue appears to be related (<a href="http://bugs.ruby-lang.org/issues/5429">http://bugs.ruby-lang.org/issues/5429</a>), but I don't speak Japanese.</p>		
<b>Related issues:</b>		
Related to Ruby trunk - Bug #5429: 64FreeBSDioctl311	Closed	10/10/2011
Has duplicate Ruby trunk - Bug #7144: [mingw] 1.9.3 backport r37138 breaks build	Closed	10/12/2012

#### Associated revisions

##### Revision cf7a5afa - 10/11/2012 06:47 AM - naruse (Yui NARUSE)

merge revision(s) 33711,33713,33714,33715,33716,33717,33718,33719,33720,33721,33724,33727,33728,33752,33753: [Backport #6127]

```
* io.c (ioctl_req_t): Type of req argument of ioctl() depend on platform.
Moreover almost all linux ioctl can't be represented by 32bit integer
(i.e. MSB is 1). We need wrap ioctl argument type.
```

```
[Bug #5429] [ruby-dev:44589]
* io.c (struct ioctl_arg): ditto.
* io.c (rb_ioctl): ditto.
* test/ruby/test_io.rb (test_ioctl_linux): add a testcase for ioctl
* backporting patch is created by Donovan Lampa.
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby\_1\_9\_3@37138 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

#### Revision 37138 - 10/11/2012 06:47 AM - naruse (Yui NARUSE)

merge revision(s) 33711,33713,33714,33715,33716,33717,33718,33719,33720,33721,33724,33727,33728,33752,33753: [Backport #6127]

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#### Revision 30f6e3a9 - 10/12/2012 04:31 AM - usa (Usaku NAKAMURA)

- io.c (rb\_cloexec\_fcntl\_dupfd): get rid of compile error on windows. reported by Donovan Lampa at [ruby-core:43152] [Backport #6127], based on a patch by Hiroshi Shiroasaki at [ruby-core:47917].

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby\_1\_9\_3@37150 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

#### Revision 37150 - 10/12/2012 04:31 AM - usa (Usaku NAKAMURA)

- io.c (rb\_cloexec\_fcntl\_dupfd): get rid of compile error on windows. reported by Donovan Lampa at [ruby-core:43152] [Backport #6127], based on a patch by Hiroshi Shiroasaki at [ruby-core:47917].

## History

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### #1 - 03/11/2012 05:50 PM - ko1 (Koichi Sasada)

- Assignee set to naruse (Yui NARUSE)

### #2 - 03/11/2012 06:15 PM - nobu (Nobuyoshi Nakada)

- Tracker changed from Bug to Backport

- Project changed from Ruby trunk to Backport193

### #3 - 03/11/2012 06:28 PM - naruse (Yui NARUSE)

This is fixed on trunk with commits 33711,33713,33714,33715,33716,33717,33718,33719,33720,33721,33724,33727,33728,33752,33753.  
But can't apply as is.  
Anyone can apply it?

### #4 - 03/17/2012 12:16 AM - dlampa (Donovan Lampa)

Any updates on this? Has it been applied or is there a scheduled date for application?

### #5 - 04/15/2012 03:02 AM - naruse (Yui NARUSE)

- Status changed from Open to Feedback

### #6 - 06/01/2012 11:41 PM - dlampa (Donovan Lampa)

Apologies for the hiatus also apologies if I've misunderstood the meaning of the Feedback status.

1.9.3-p194 doesn't seem to have addressed this:

```
ruby-1.9.3-p194 :002 > a,b = IO.pipe
=> [#,#]
ruby-1.9.3-p194 :003 > a.ioctl(0x80044270, "\x01")
RangeError: bignum too big to convert into long'
from (irb):3:inioclt'
from (irb):3
from /Users/dlampa/.rvm/rubies/ruby-1.9.3-p194/bin/irb:16:in ``
ruby-1.9.3-p194 :003 > 0x80044270.class
=> Bignum
```

## #7 - 06/02/2012 04:08 PM - naruse (Yui NARUSE)

dlampa (Donovan Lampa) wrote:

Apologies for the hiatus also apologies if I've misunderstood the meaning of the Feedback status.

In general, "Feedback" means that an action of other than assignee is required.  
In this ticket, I need a patch for backport which covers r33711, r33713-r33721, r33724, r33727, r33728, r33752, and r33753.

## #8 - 10/10/2012 11:20 PM - dlampa (Donovan Lampa)

- File *ruby-io-c.patch* added

For those that are interested, I've taken the liberty of putting a patch together for this issue (attached).

The patch is confirmed to work and address the issue as it exists in 1.9.3-p194.

Thanks to Naruse for providing all the relevant commits for this issue.

## #9 - 10/11/2012 03:47 PM - naruse (Yui NARUSE)

- Status changed from *Feedback* to *Closed*

- % Done changed from 0 to 100

This issue was solved with changeset [r37138](#).  
Donovan, thank you for reporting this issue.  
Your contribution to Ruby is greatly appreciated.  
May Ruby be with you.

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merge revision(s) 33711,33713,33714,33715,33716,33717,33718,33719,33720,33721,33724,33727,33728,33752,33753: [Backport [#6127](#)]

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* test/ruby/test_io.rb (test_ioctl_linux): add a testcase for ioctl
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## #10 - 10/12/2012 10:15 AM - h.shirosaki (Hiroshi Shirosaki)

I have a build error of ruby\_1\_9\_3 branch at r37146 with mingw.  
It seems due to [r37138](#).

```
compiling ../io.c
../io.c: In function 'rb_cloexec_fcntl_dupfd':
../io.c:213:21: error: 'F_DUPFD' undeclared (first use in this function)
../io.c:213:21: note: each undeclared identifier is reported only once for each function it appears in
../io.c: In function 'rb_io_each_byte':
../io.c:3081:15: warning: variable 'e' set but not used [-Wunused-but-set-variable]
../io.c: In function 'rb_io_advise':
../io.c:7892:16: warning: variable 'l' set but not used [-Wunused-but-set-variable]
../io.c:7892:11: warning: variable 'off' set but not used [-Wunused-but-set-variable]
../io.c: At top level:
../io.c:1575:14: warning: 'nogvl_fsycn' defined but not used [-Wunused-function]
make: *** [io.o] Error 1
```

Here is a patch.

## Index: io.c

```
--- io.c (revision 37146)
+++ io.c (working copy)
@@ -209,8 +209,10 @@
 else {
   ret = fcntl(fd, F_DUPFD, minfd);
 }
+#elif defined(F_DUPFD)
```

- `ret = fcntl(fd, F_DUPFD, minfd); #else`
- `ret = fcntl(fd, F_DUPFD, minfd);`
- `ret = -1; #endif if (ret == -1) return -1; rb_maygvl_fd_fix_cloexec(ret);`

## Files

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<code>ruby-io-c.patch</code>	10.3 KB	10/10/2012	dlampa (Donovan Lampa)
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