

## Ruby master - Bug #7968

### Poor UDPSocket#send performance in ruby 2.0.0 on windows

02/26/2013 08:55 PM - cs96and (Alan Davies)

<b>Status:</b> Assigned	
<b>Priority:</b> Normal	
<b>Assignee:</b> cruby-windows	
<b>Target version:</b>	
<b>ruby -v:</b> ruby 2.0.0p0 (2013-02-24) [x64-mingw32]	<b>Backport:</b>
<b>Description</b>	
<p>I have noticed that the performance of UDPSocket#send on ruby 2.0.0 on windows is much poorer than that of 1.9.3 or 1.8.7. Running the attached script on 2.0.0 gives the following...</p> <pre>d:\scripts&gt;bash -c "ruby --version" ruby 2.0.0p0 (2013-02-24) [x64-mingw32]  d:\scripts&gt;bash -c "time ruby socketsendtest.rb"  real 0m2.572s user 0m0.000s sys 0m0.016s</pre> <p>However, running the same test with 1.9.3 is much faster...</p> <pre>d:\scripts&gt;pik 193  d:\scripts&gt;bash -c "ruby --version" ruby 1.9.3p374 (2013-01-15) [i386-mingw32]  d:\scripts&gt;bash -c "time ruby socketsendtest.rb"  real 0m0.993s user 0m0.015s sys 0m0.016s</pre> <p>Additionally, if I change the send call to a print (commented out in the script), then the performance is fine on 2.0.0...</p> <pre>d:\scripts&gt;pik 200  d:\scripts&gt;bash -c "ruby --version" ruby 2.0.0p0 (2013-02-24) [x64-mingw32]  d:\scripts&gt;bash -c "time ruby socketsendtest.rb"  real 0m0.907s user 0m0.000s sys 0m0.015s</pre> <p>What is send() doing that print() doesn't do that is causing the massive performance drop?</p> <p>Thanks Alan.</p>	

#### Associated revisions

Revision a5dfaca0 - 02/28/2013 10:25 PM - drbrain (Eric Hodel)

- lib/rubygems/ext/builder.rb: Fix incompatibilities when installing extensions. Patch by Nobu. [ruby-trunk - Bug #7968] [ruby-trunk - Bug #7971]
- lib/rubygems/ext/ext\_conf\_builder.rb: ditto.
- lib/rubygems/installer.rb: ditto.
- test/rubygems/test\_gem\_ext\_ext\_conf\_builder.rb: Test for the above.

- test/rubygems/test\_gem\_installer.rb: ditto.
- lib/rubygems/commands/sources\_command.rb: Prefer HTTPS over HTTP.
- lib/rubygems/defaults.rb: ditto
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git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@39542 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

**Revision 39542 - 02/28/2013 10:25 PM - drbrain (Eric Hodel)**

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## Revision 1ec03bfc - 03/17/2013 02:18 PM - nagachika (Tomoyuki Chikanaga)

merge revision(s) 39542,39545: [Backport #7991]

```
* lib/rubygems/ext/builder.rb: Fix incompatibilities when installing
  extensions. Patch by Nobu.
  [ruby-trunk - Bug #7968] [ruby-trunk - Bug #7971]
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* lib/rubygems/test_utilities.rb: ditto.
* test/rubygems/test_gem.rb: Test for the above.
* test/rubygems/test_gem_commands_sources_command.rb: ditto.
```

\* test/rubygems/test\_gem\_dependency\_resolver\_api\_set.rb: ditto.

\* test/rubygems/test\_gem\_remote\_fetcher.rb: ditto.

\* test/rubygems/test\_gem\_source.rb: ditto.

\* test/rubygems/test\_gem\_spec\_fetcher.rb: ditto.  
[ruby-trunk - Bug #7698] [ruby-trunk - Bug #7971]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby\_2\_0\_0@39786 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

## History

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### #1 - 03/01/2013 07:25 AM - drbrain (Eric Hodel)

- Status changed from Open to Closed

- % Done changed from 0 to 100

This issue was solved with changeset r39542.

Alan, thank you for reporting this issue.

Your contribution to Ruby is greatly appreciated.

May Ruby be with you.

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- lib/rubygems/ext/builder.rb: Fix incompatibilities when installing extensions. Patch by Nobu. [ruby-trunk - Bug #7968] [ruby-trunk - Bug #7971]
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### #2 - 03/02/2013 12:43 AM - nagachika (Tomoyuki Chikanaga)

- % Done changed from 100 to 0

- Status changed from Closed to Open

### #3 - 03/06/2013 02:02 AM - cs96and (Alan Davies)

I see the %Done went up to 100 and back down to zero. Is this fixed or not now?

Thanks

Alan.

### #4 - 03/06/2013 02:21 AM - nagachika (Tomoyuki Chikanaga)

Hello, Alan.

I re-open this ticket because it was accidentally closed by wrong commit message.  
This issue is not fixed yet.

BTW, in socketsendtest.rb UDPSocket#bind and #connect receive different port number. Is it right?  
On my environment, I've got an exception.

```
socketsendtest.rb:9:in `send': Connection refused - send(2) (Errno::ECONNREFUSED)
```

Thanks

**#5 - 03/10/2013 03:40 AM - cs96and (Alan Davies)**

The bind and connect can be different. The bind specifies what port you are sending from, and connect specifies the port you are sending to (the ip address can be a different box too). It runs fine for me with different ports, but you can make them the same if you want.

**#6 - 07/03/2013 11:41 PM - cs96and (Alan Davies)**

Any update on this?

Thanks  
Alan

**#7 - 07/08/2013 09:58 AM - luislavena (Luis Lavena)**

- Status changed from Open to Assigned
- Assignee changed from cruby-windows to usa (Usaku NAKAMURA)

Any suggestion about this?

**#8 - 01/15/2014 02:49 PM - cs96and (Alan Davies)**

This is still a problem in 2.0.0-p353 on windows. Is there any update?

Thanks  
Alan.

**#9 - 01/15/2014 02:55 PM - cs96and (Alan Davies)**

Issue [#7968](#) has been updated by Alan Davies.

This is still a problem in 2.0.0-p353 on windows. Is there any update?

Thanks  
Alan.

---

Bug [#7968](#): Poor UDPSocket#send performance in ruby 2.0.0 on windows  
<https://bugs.ruby-lang.org/issues/7968#change-44343>

- Author: Alan Davies
- Status: Assigned
- Priority: Normal
- Assignee: Usaku NAKAMURA
- Category: platform/windows
- Target version:
- ruby -v: ruby 2.0.0p0 (2013-02-24) [x64-mingw32]
- Backport: ----- I have noticed that the performance of UDPSocket#send on ruby 2.0.0 on windows is much poorer than that of 1.9.3 or 1.8.7. Running the attached script on 2.0.0 gives the following...

```
d:\scripts>bash -c "ruby --version"
ruby 2.0.0p0 (2013-02-24) [x64-mingw32]
```

```
d:\scripts>bash -c "time ruby socketsendtest.rb"
```

```
real 0m2.572s
user 0m0.000s
sys 0m0.016s
```

However, running the same test with 1.9.3 is much faster...

```
d:\scripts>pik 193
```

```
d:\scripts>bash -c "ruby --version"
ruby 1.9.3p374 (2013-01-15) [i386-mingw32]
```

```
d:\scripts>bash -c "time ruby socketstest.rb"
```

```
real 0m0.993s
user 0m0.015s
sys 0m0.016s
```

Additionally, if I change the send call to a print (commented out in the script), then the performance is fine on 2.0.0....

```
d:\scripts>pik 200
```

```
d:\scripts>bash -c "ruby --version"
ruby 2.0.0p0 (2013-02-24) [x64-mingw32]
```

```
d:\scripts>bash -c "time ruby socketstest.rb"
```

```
real 0m0.907s
user 0m0.000s
sys 0m0.015s
```

What is send() doing that print() doesn't do that is causing the massive performance drop?

Thanks  
Alan.

```
---Files-----
socketstest.rb (266 Bytes)
```

```
--
http://bugs.ruby-lang.org/
```

**#10 - 10/21/2017 04:18 PM - usa (Usaku NAKAMURA)**

- Assignee changed from usa (Usaku NAKAMURA) to cruby-windows

**#11 - 10/23/2017 12:23 AM - MSP-Greg (Greg L)**

I ran this up on Appveyor using all minor versions 1.9.3 thru trunk. The code loop is one of two:

```
100000.times { s.send(str, 0) }
100000.times { s.print(str) }
```

One set was run with str.length = 10, the other with str.length = 2000. String length didn't really affect test times...

When using send, 1.9.3 is fastest, 2.0.0 is slowest, others were in between. When using print, 1.9.3 thru 2.1.9 are faster by approx 2x compared to 2.2.6 thru trunk.

Anyway, not that well versed in all the uses of sockets, so I can't judge whether these time differences are 'real world' significant. Also, not a terribly scientific test...

```
10 Characters Send
0.56247 ruby 1.9.3p551 (2014-11-13) [i386-mingw32]
1.70312 ruby 2.0.0p648 (2015-12-16) [x64-mingw32]
1.00000 ruby 2.1.9p490 (2016-03-30 revision 54437) [x64-mingw32]
0.98534 ruby 2.2.6p396 (2016-11-15 revision 56800) [x64-mingw32]
0.93747 ruby 2.3.3p222 (2016-11-21 revision 56859) [x64-mingw32]
0.95312 ruby 2.4.1p111 (2017-03-22 revision 58053) [x64-mingw32]
0.90446 ruby 2.5.0dev (2017-10-23 trunk 60368) [x64-mingw32]
```

```
10 Characters Print
0.59375 ruby 1.9.3p551 (2014-11-13) [i386-mingw32]
0.46878 ruby 2.0.0p648 (2015-12-16) [x64-mingw32]
0.48440 ruby 2.1.9p490 (2016-03-30 revision 54437) [x64-mingw32]
1.01562 ruby 2.2.6p396 (2016-11-15 revision 56800) [x64-mingw32]
0.98440 ruby 2.3.3p222 (2016-11-21 revision 56859) [x64-mingw32]
1.01565 ruby 2.4.1p111 (2017-03-22 revision 58053) [x64-mingw32]
0.98707 ruby 2.5.0dev (2017-10-23 trunk 60368) [x64-mingw32]
```



#### 2000 Characters Send

```
0.56253 ruby 1.9.3p551 (2014-11-13) [i386-mingw32]
1.75003 ruby 2.0.0p648 (2015-12-16) [x64-mingw32]
1.03125 ruby 2.1.9p490 (2016-03-30 revision 54437) [x64-mingw32]
1.01565 ruby 2.2.6p396 (2016-11-15 revision 56800) [x64-mingw32]
1.03124 ruby 2.3.3p222 (2016-11-21 revision 56859) [x64-mingw32]
1.00002 ruby 2.4.1p111 (2017-03-22 revision 58053) [x64-mingw32]
0.95394 ruby 2.5.0dev (2017-10-23 trunk 60368) [x64-mingw32]
```

#### 2000 Characters Print

```
0.60941 ruby 1.9.3p551 (2014-11-13) [i386-mingw32]
0.50001 ruby 2.0.0p648 (2015-12-16) [x64-mingw32]
0.51566 ruby 2.1.9p490 (2016-03-30 revision 54437) [x64-mingw32]
1.03125 ruby 2.2.6p396 (2016-11-15 revision 56800) [x64-mingw32]
1.01562 ruby 2.3.3p222 (2016-11-21 revision 56859) [x64-mingw32]
1.04689 ruby 2.4.1p111 (2017-03-22 revision 58053) [x64-mingw32]
1.00382 ruby 2.5.0dev (2017-10-23 trunk 60368) [x64-mingw32]
```

#### Files

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socketsendtest.rb	266 Bytes	02/26/2013	cs96and (Alan Davies)
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