

## Ruby trunk - Bug #13111

### Degraded performance for delegated methods through Forwardable module

01/07/2017 04:30 AM - gonzedge (Edgar Gonzalez)

<b>Status:</b>	Closed		
<b>Priority:</b>	Normal		
<b>Assignee:</b>			
<b>Target version:</b>			
<b>ruby -v:</b>	2.4.0	<b>Backport:</b>	2.2: UNKNOWN, 2.3: UNKNOWN, 2.4: DONE

#### Description

After upgrading to Ruby 2.4.0 on my local machine while developing some changes on this gem: <https://github.com/gonzedge/rambling-trie>, there was a noticeable performance degradation with any delegated methods through Forwardable. I have a few benchmarks in place and, without changing any other code, had a ~25% increase in the time it took to execute.

If you look at the benchmarks on <https://github.com/gonzedge/rambling-trie/blob/master/reports/0.9.2/benchmark> and <https://github.com/gonzedge/rambling-trie/blob/master/reports/0.9.3/benchmark>, you'll notice that the first benchmark (for `Rambling::Trie.create`) goes from 8.97 seconds to 11.19 seconds. These benchmarks are generated by running `rake performance:benchmark:all`.

#### Associated revisions

##### Revision 7ed75492 - 03/12/2017 02:57 PM - naruse (Yui NARUSE)

merge revision(s) 57255,57256,57257: [Backport #13111]

forwardable.rb: use defined?

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* lib/forwardable.rb (_delegator_method): use defined? operator
instead of binding and calling unbound Kernel#respond_to?. a
remedy for an performance bottleneck.
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forwardable.rb: fix branches

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* lib/forwardable.rb (instance_delegate, single_delegate): fix
inverted branches.
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git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby\_2\_4@57913 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

##### Revision 57913 - 03/12/2017 02:57 PM - naruse (Yui NARUSE)

merge revision(s) 57255,57256,57257: [Backport #13111]

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#### History

##### #1 - 01/07/2017 04:39 AM - gonzedge (Edgar Gonzalez)

**Update:**

I talked to @Yuki Nishijima and he pointed out that it is an issue with an UnboundMethod instance being created on every delegated call here: <https://github.com/ruby/ruby/blob/2283d14cc9fe278dfde02bdf8d84ce50cfe16f/lib/forwardable.rb#L207> (thanks, Yuki!)

Also, I saw that the issue has been fixed on the trunk branch in revisions 57255, 57256 & 57257 (thanks, @Nobuyoshi Nakada!).

So, I'm inclined to ask: Will this fix be ported back to Ruby 2.4? Either way, how soon would a new version with the fix be released?

**#2 - 01/19/2017 02:40 PM - shyouhei (Shyouhei Urabe)**

- Backport changed from 2.2: UNKNOWN, 2.3: UNKNOWN, 2.4: UNKNOWN to 2.2: UNKNOWN, 2.3: UNKNOWN, 2.4: REQUIRED

- Status changed from Open to Closed

Let me close (closed issues are inspected by branch mentors to backport-ability). I guess this is a subject to backport.

**#3 - 03/12/2017 02:57 PM - naruse (Yui NARUSE)**

- Backport changed from 2.2: UNKNOWN, 2.3: UNKNOWN, 2.4: REQUIRED to 2.2: UNKNOWN, 2.3: UNKNOWN, 2.4: DONE

ruby\_2\_4 r57913 merged revision(s) 57255,57256,57257.