

## Ruby master - Feature #17127

### Some TrueClass methods are faster if implemented in Ruby

08/20/2020 02:03 PM - S\_H\_ (Shun Hiraoka)

<b>Status:</b>	Open																					
<b>Priority:</b>	Normal																					
<b>Assignee:</b>																						
<b>Target version:</b>																						
<b>Description</b>																						
Some TrueClass methods are faster if implemented in Ruby code.																						
like this.																						
<pre>class TrueClass   def to_s     "true".freeze   end   alias_method :inspect, :to_s    def  (bool)     true   end end</pre>																						
<b>benchmark file:</b>																						
<pre>benchmark:   to_s:       true.to_s   inspect:       true.inspect   or:       true   false loop_count: 1000000</pre>																						
<b>benchmark result:</b>																						
<pre>sh@MyComputer:~/rubydev/build\$ make benchmark/trueclass.yml -e COMPARE_RUBY=~/.rbenv/shims/ruby -e   BENCH_RUBY=../install/bin/ruby # Iteration per second (i/s)</pre> <table border="1"><thead><tr><th></th><th>compare-ruby</th><th>built-ruby</th></tr></thead><tbody><tr><td> to_s</td><td>66.001M</td><td>91.927M</td></tr><tr><td> </td><td>-</td><td>1.39x</td></tr><tr><td> inspect</td><td>70.464M</td><td>97.220M</td></tr><tr><td> </td><td>-</td><td>1.38x</td></tr><tr><td> or</td><td>61.434M</td><td>86.484M</td></tr><tr><td> </td><td>-</td><td>1.41x</td></tr></tbody></table>			compare-ruby	built-ruby	to_s	66.001M	91.927M		-	1.39x	inspect	70.464M	97.220M		-	1.38x	or	61.434M	86.484M		-	1.41x
	compare-ruby	built-ruby																				
to_s	66.001M	91.927M																				
	-	1.39x																				
inspect	70.464M	97.220M																				
	-	1.38x																				
or	61.434M	86.484M																				
	-	1.41x																				
COMPARE_RUBY is ruby 2.8.0dev (2020-08-20T04:24:55Z master 6509652c13) [x86_64-linux]. BENCH_RUBY is ahead of ruby 2.8.0dev (2020-08-20T04:24:55Z master 6509652c13) [x86_64-linux].																						
Probably, inline method cache was able to speed up these methods.																						
<b>pull request:</b> <a href="https://github.com/ruby/ruby/pull/3435">https://github.com/ruby/ruby/pull/3435</a>																						

### History

#1 - 08/20/2020 02:06 PM - S\_H\_ (Shun Hiraoka)

- Description updated

## #2 - 08/20/2020 03:58 PM - sawa (Tsuyoshi Sawada)

- Description updated

- Subject changed from *Some TrueClass methods is faster if implemented in Ruby* to *Some TrueClass methods are faster if implemented in Ruby*

## #3 - 08/21/2020 06:37 PM - k0kubun (Takashi Kokubun)

off topic: If you write an entire ticket in English, I think you should post your ticket to ruby-core to attract more audiences instead of ruby-dev, which has been for tickets written in Japanese.

## #4 - 08/24/2020 02:34 PM - S\_H\_ (Shun Hiraoka)

k0kubun (Takashi Kokubun) wrote in [#note-3](#):

off topic: If you write an entire ticket in English, I think you should post your ticket to ruby-core to attract more audiences instead of ruby-dev, which has been for tickets written in Japanese.

Thanks!

## #5 - 08/26/2020 09:05 AM - S\_H\_ (Shun Hiraoka)

these method able to speeding up implemented by Ruby code.

- TrueClass#^
- TrueClass#&

benchmark:

```
benchmark:
  to_s: |
    true.to_s
  inspect: |
    true.inspect
  or: |
    true | false
  xor: |
    true ^ false
  and: |
    true & false
loop_count: 1000000
```

result:

```
sh@MyComputer:~/rubydev/build$ make benchmark/trueclass.yml -e COMPARE_RUBY=~/.rbenv/shims/ruby -e BENCH_RUBY=
../install/bin/ruby
# Iteration per second (i/s)
```

	compare-ruby	built-ruby
to_s	63.991M	93.655M
	-	1.46x
inspect	83.655M	96.044M
	-	1.15x
or	38.138M	77.149M
	-	2.02x
xor	61.388M	76.603M
	-	1.25x
and	59.928M	71.783M
	-	1.20x

COMPARE\_RUBY is ruby 2.8.0dev (2020-08-26T05:28:05Z master 72cb9bc55f) [x86\_64-linux]. BENCH\_RUBY is patched ruby.

## #6 - 11/05/2020 07:11 AM - S\_H\_ (Shun Hiraoka)

recreate PR for merge .rb files

<https://github.com/ruby/ruby/pull/3737>