

Ruby master - Feature #8953

``str =~ /pattern/`` does not call `=~` method if (1) `str` is a String, (2) `/pattern/` is a Regexp literal

09/26/2013 04:05 PM - gfx (Goro FUJI)

Status:	Assigned
Priority:	Normal
Assignee:	matz (Yukihiro Matsumoto)
Target version:	
Description	
The expression <code>a =~ b</code> does not call the <code>=~</code> method in some cases. I think it is a bug that results from optimizations.	
See the following code for details:	
Code that does not work as expected (shows nothing):	
<pre>\$ ruby -e 's = "foo"; class << s; def =~ (rhs); raise "a"; end; end; s =~ /foo/' # does nothing</pre>	
Code that works as expected (raises errors):	
<pre>\$ ruby -e 's = "foo"; class << s; def =~ (rhs); raise "a"; end; end; s =~ /foo/' # call =~ as a method \$ ruby -e 's = "foo"; class << s; def =~ (rhs); raise "a"; end; end; s =~ -> { /foo/ }.call' # RHS is not a Regexp literal but a Regexp object \$ ruby -e 's = Objec.new; class << s; def =~ (rhs); raise "a"; end; end; s =~ /foo/' # LHS is not a String</pre>	

Associated revisions

Revision b18151cf - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- `insns.def (opt_regexpmatch1)`: check `Regexp# =~` is not defined before calling `rb_reg_match()`
- `test/ruby/test_regexp.rb`: add test
- `vm.c (ruby_vm_redefined_flag)`: change type to `short[]`
- `vm.c (vm_redefinition_check_flag)`: return `REGEXP_REDEFINED_OP_FLAG` if `klass == rb_cRegexp`
- `vm.c (vm_init_redefined_flag)`: setup BOP flag for `Regexp# =~`
- `vm_inshelper.h`: add `REGEXP_REDEFINED_OP_FLAG`

[ruby-core:57385] [Bug #8953]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@43050 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 43050 - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- `insns.def (opt_regexpmatch1)`: check `Regexp# =~` is not defined before calling `rb_reg_match()`
- `test/ruby/test_regexp.rb`: add test
- `vm.c (ruby_vm_redefined_flag)`: change type to `short[]`
- `vm.c (vm_redefinition_check_flag)`: return `REGEXP_REDEFINED_OP_FLAG` if `klass == rb_cRegexp`
- `vm.c (vm_init_redefined_flag)`: setup BOP flag for `Regexp# =~`

- vm_inshelper.h: add REGEXP_REDEFINED_OP_FLAG

[ruby-core:57385] [Bug #8953]

Revision 43050 - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- insns.def (opt_regexpmatch1): check Regexp#=~ is not defined before calling rb_reg_match()
- test/ruby/test_regexp.rb: add test
- vm.c (ruby_vm_redefined_flag): change type to short[]
- vm.c (vm_redefinition_check_flag): return REGEXP_REDEFINED_OP_FLAG if klass == rb_cRegexp
- vm.c (vm_init_redefined_flag): setup BOP flag for Regexp#=~
- vm_inshelper.h: add REGEXP_REDEFINED_OP_FLAG

[ruby-core:57385] [Bug #8953]

Revision 43050 - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- insns.def (opt_regexpmatch1): check Regexp#=~ is not defined before calling rb_reg_match()
- test/ruby/test_regexp.rb: add test
- vm.c (ruby_vm_redefined_flag): change type to short[]
- vm.c (vm_redefinition_check_flag): return REGEXP_REDEFINED_OP_FLAG if klass == rb_cRegexp
- vm.c (vm_init_redefined_flag): setup BOP flag for Regexp#=~
- vm_inshelper.h: add REGEXP_REDEFINED_OP_FLAG

[ruby-core:57385] [Bug #8953]

Revision 43050 - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- insns.def (opt_regexpmatch1): check Regexp#=~ is not defined before calling rb_reg_match()
- test/ruby/test_regexp.rb: add test
- vm.c (ruby_vm_redefined_flag): change type to short[]
- vm.c (vm_redefinition_check_flag): return REGEXP_REDEFINED_OP_FLAG if klass == rb_cRegexp
- vm.c (vm_init_redefined_flag): setup BOP flag for Regexp#=~
- vm_inshelper.h: add REGEXP_REDEFINED_OP_FLAG

[ruby-core:57385] [Bug #8953]

Revision 43050 - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- `insns.def (opt_regexpmatch1)`: check `Regexp#=~` is not defined before calling `rb_reg_match()`
- `test/ruby/test_regexp.rb`: add test
- `vm.c (ruby_vm_redefined_flag)`: change type to `short[]`
- `vm.c (vm_redefinition_check_flag)`: return `REGEXP_REDEFINED_OP_FLAG` if `klass == rb_cRegexp`
- `vm.c (vm_init_redefined_flag)`: setup BOP flag for `Regexp#=~`
- `vm_insnhelper.h`: add `REGEXP_REDEFINED_OP_FLAG`

[ruby-core:57385] [Bug #8953]

Revision 43050 - 09/26/2013 07:39 AM - charliesome (Charlie Somerville)

- `insns.def (opt_regexpmatch1)`: check `Regexp#=~` is not defined before calling `rb_reg_match()`
- `test/ruby/test_regexp.rb`: add test
- `vm.c (ruby_vm_redefined_flag)`: change type to `short[]`
- `vm.c (vm_redefinition_check_flag)`: return `REGEXP_REDEFINED_OP_FLAG` if `klass == rb_cRegexp`
- `vm.c (vm_init_redefined_flag)`: setup BOP flag for `Regexp#=~`
- `vm_insnhelper.h`: add `REGEXP_REDEFINED_OP_FLAG`

[ruby-core:57385] [Bug #8953]

Revision c4b4e77c - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- `insns.def (opt_regexpmatch2)`: Check `String#=~` hasn't overridden before calling `rb_reg_match()`.
- `test/ruby/test_string.rb`: Test for above.
- `vm.c (vm_init_redefined_flag)`: Add BOP flag for `String#=~`

[ruby-core:57385] [Bug #8953]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@43052 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 43052 - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- `insns.def (opt_regexpmatch2)`: Check `String#=~` hasn't overridden before calling `rb_reg_match()`.
- `test/ruby/test_string.rb`: Test for above.
- `vm.c (vm_init_redefined_flag)`: Add BOP flag for `String#=~`

[ruby-core:57385] [Bug #8953]

Revision 43052 - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- insns.def (opt_regexpmatch2): Check String#=~ hasn't overridden before calling rb_reg_match().
- test/ruby/test_string.rb: Test for above.
- vm.c (vm_init_redefined_flag): Add BOP flag for String#=~

[ruby-core:57385] [Bug #8953]

Revision 43052 - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- insns.def (opt_regexpmatch2): Check String#=~ hasn't overridden before calling rb_reg_match().
- test/ruby/test_string.rb: Test for above.
- vm.c (vm_init_redefined_flag): Add BOP flag for String#=~

[ruby-core:57385] [Bug #8953]

Revision 43052 - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- insns.def (opt_regexpmatch2): Check String#=~ hasn't overridden before calling rb_reg_match().
- test/ruby/test_string.rb: Test for above.
- vm.c (vm_init_redefined_flag): Add BOP flag for String#=~

[ruby-core:57385] [Bug #8953]

Revision 43052 - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- insns.def (opt_regexpmatch2): Check String#=~ hasn't overridden before calling rb_reg_match().
- test/ruby/test_string.rb: Test for above.
- vm.c (vm_init_redefined_flag): Add BOP flag for String#=~

[ruby-core:57385] [Bug #8953]

Revision 43052 - 09/26/2013 07:58 AM - sorah (Sorah Fukumori)

- insns.def (opt_regexpmatch2): Check String#=~ hasn't overridden before calling rb_reg_match().
- test/ruby/test_string.rb: Test for above.
- vm.c (vm_init_redefined_flag): Add BOP flag for String#=~

[ruby-core:57385] [Bug #8953]

History

#1 - 09/26/2013 04:20 PM - sorah (Sorah Fukumori)

hm...

```
ruby -e'class Regexp; def =~(o); true; end; end; p /a/ =~ "b" #=> nil
```

#2 - 09/26/2013 04:39 PM - charliesome (Charlie Somerville)

- Status changed from Open to Closed

- % Done changed from 0 to 100

This issue was solved with changeset r43050.
Goro, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

- `insns.def (opt_regexpmatch1)`: check `Regexp# =~` is not defined before calling `rb_reg_match()`
- `test/ruby/test_regexp.rb`: add test
- `vm.c (ruby_vm_redefined_flag)`: change type to `short[]`
- `vm.c (vm_redefinition_check_flag)`: return `REGEXP_REDEFINED_OP_FLAG` if `klass == rb_cRegexp`
- `vm.c (vm_init_redefined_flag)`: setup BOP flag for `Regexp# =~`
- `vm_inshelper.h`: add `REGEXP_REDEFINED_OP_FLAG`

[ruby-core:57385] [Bug [#8953](#)]

#3 - 09/26/2013 04:46 PM - sorah (Sorah Fukumori)

- Status changed from Closed to Open

- % Done changed from 100 to 50

The problem still exists for `opt_regexpmatch1`, right?

#4 - 09/26/2013 04:46 PM - sorah (Sorah Fukumori)

The problem still exists for `opt_regexpmatch1`, right?

`s/opt_regexpmatch1/opt_regexpmatch2/`

#5 - 09/26/2013 04:48 PM - charliesome (Charlie Somerville)

Ah you are right. Thanks for pointing that out sorah.

#6 - 09/26/2013 04:52 PM - sorah (Sorah Fukumori)

- Status changed from Open to Assigned

- Assignee set to sorah (Sorah Fukumori)

Testing my patch on my machine for `regexpmatch2`

#7 - 09/26/2013 04:58 PM - sorah (Sorah Fukumori)

- Status changed from Assigned to Closed

- % Done changed from 50 to 100

This issue was solved with changeset r43052.
Goro, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

- `insns.def (opt_regexpmatch2)`: Check `String# =~` hasn't overridden before calling `rb_reg_match()`.

- test/ruby/test_string.rb: Test for above.
- vm.c (vm_init_redefined_flag): Add BOP flag for String#=~

[ruby-core:57385] [Bug [#8953](#)]

#8 - 09/26/2013 04:59 PM - sorah (Sorah Fukumori)

- Backport changed from 1.9.3: UNKNOWN, 2.0.0: UNKNOWN to 1.9.3: UNKNOWN, 2.0.0: REQUIRED

Please backport r43050, 43052

#9 - 09/27/2013 12:59 AM - nagachika (Tomoyuki Chikanaga)

- Tracker changed from Bug to Backport
- Project changed from Ruby master to Backport200
- Status changed from Closed to Assigned
- Assignee changed from sorah (Sorah Fukumori) to nagachika (Tomoyuki Chikanaga)

#10 - 09/27/2013 01:13 AM - ko1 (Koichi Sasada)

I checked previous behavior.

versions/install-tags_v1_6_5_/bin/ruby
 versions/install-tags_v1_6_6_/bin/ruby
 versions/install-tags_v1_6_7_/bin/ruby
 versions/install-tags_v1_6_8_/bin/ruby
 versions/install-tags_v1_8_5_/bin/ruby
 versions/install-tags_v1_8_5_113_/bin/ruby
 versions/install-tags_v1_8_5_114_/bin/ruby
 versions/install-tags_v1_8_5_115_/bin/ruby
 versions/install-tags_v1_8_5_11_/bin/ruby
 versions/install-tags_v1_8_5_12_/bin/ruby
 versions/install-tags_v1_8_5_231_/bin/ruby
 versions/install-tags_v1_8_5_2_/bin/ruby
 versions/install-tags_v1_8_5_35_/bin/ruby
 versions/install-tags_v1_8_5_52_/bin/ruby
 versions/install-tags_v1_8_5_preview1_/bin/ruby
 versions/install-tags_v1_8_5_preview2_/bin/ruby
 versions/install-tags_v1_8_5_preview3_/bin/ruby
 versions/install-tags_v1_8_5_preview4_/bin/ruby
 versions/install-tags_v1_8_5_preview5_/bin/ruby
 versions/install-tags_v1_8_6_/bin/ruby
 versions/install-tags_v1_8_6_110_/bin/ruby
 versions/install-tags_v1_8_6_111_/bin/ruby
 versions/install-tags_v1_8_6_114_/bin/ruby
 versions/install-tags_v1_8_6_230_/bin/ruby
 versions/install-tags_v1_8_6_286_/bin/ruby
 versions/install-tags_v1_8_6_287_/bin/ruby
 versions/install-tags_v1_8_6_368_/bin/ruby
 versions/install-tags_v1_8_6_369_/bin/ruby
 versions/install-tags_v1_8_6_36_/bin/ruby
 versions/install-tags_v1_8_6_383_/bin/ruby
 versions/install-tags_v1_8_6_388_/bin/ruby
 versions/install-tags_v1_8_6_398_/bin/ruby
 versions/install-tags_v1_8_6_399_/bin/ruby
 versions/install-tags_v1_8_6_420_/bin/ruby
 versions/install-tags_v1_8_6_preview1_/bin/ruby
 versions/install-tags_v1_8_6_preview2_/bin/ruby
 versions/install-tags_v1_8_6_preview3_/bin/ruby
 versions/install-tags_v1_8_7_/bin/ruby
 versions/install-tags_v1_8_7_160_/bin/ruby
 versions/install-tags_v1_8_7_173_/bin/ruby
 versions/install-tags_v1_8_7_174_/bin/ruby
 versions/install-tags_v1_8_7_17_/bin/ruby
 versions/install-tags_v1_8_7_22_/bin/ruby
 versions/install-tags_v1_8_7_248_/bin/ruby
 versions/install-tags_v1_8_7_249_/bin/ruby
 versions/install-tags_v1_8_7_299_/bin/ruby
 versions/install-tags_v1_8_7_301_/bin/ruby
 versions/install-tags_v1_8_7_302_/bin/ruby
 versions/install-tags_v1_8_7_330_/bin/ruby

versions/install-tags_v1_8_7_334_/bin/ruby
versions/install-tags_v1_8_7_352_/bin/ruby
versions/install-tags_v1_8_7_357_/bin/ruby
versions/install-tags_v1_8_7_358_/bin/ruby
versions/install-tags_v1_8_7_369_/bin/ruby
versions/install-tags_v1_8_7_370_/bin/ruby
versions/install-tags_v1_8_7_371_/bin/ruby
versions/install-tags_v1_8_7_373_/bin/ruby
versions/install-tags_v1_8_7_374_/bin/ruby
versions/install-tags_v1_8_7_71_/bin/ruby
versions/install-tags_v1_8_7_72_/bin/ruby
versions/install-tags_v1_8_7_preview1_/bin/ruby
versions/install-tags_v1_8_7_preview2_/bin/ruby
versions/install-tags_v1_8_7_preview3_/bin/ruby
versions/install-tags_v1_8_7_preview4_/bin/ruby
versions/install-tags_v1_9_0_0_/bin/ruby
versions/install-tags_v1_9_0_1_/bin/ruby
versions/install-tags_v1_9_0_2_/bin/ruby
versions/install-tags_v1_9_0_3_/bin/ruby
versions/install-tags_v1_9_0_4_/bin/ruby
versions/install-tags_v1_9_0_5_/bin/ruby
versions/install-tags_v1_9_1_0_/bin/ruby
versions/install-tags_v1_9_1_126_/bin/ruby
versions/install-tags_v1_9_1_127_/bin/ruby
versions/install-tags_v1_9_1_128_/bin/ruby
versions/install-tags_v1_9_1_129_/bin/ruby
versions/install-tags_v1_9_1_243_/bin/ruby
versions/install-tags_v1_9_1_376_/bin/ruby
versions/install-tags_v1_9_1_378_/bin/ruby
versions/install-tags_v1_9_1_429_/bin/ruby
versions/install-tags_v1_9_1_430_/bin/ruby
versions/install-tags_v1_9_1_431_/bin/ruby
versions/install-tags_v1_9_1_preview1_/bin/ruby
versions/install-tags_v1_9_1_preview2_/bin/ruby
versions/install-tags_v1_9_1_rc1_/bin/ruby
versions/install-tags_v1_9_1_rc2_/bin/ruby
versions/install-tags_v1_9_2_0_/bin/ruby
versions/install-tags_v1_9_2_136_/bin/ruby
versions/install-tags_v1_9_2_180_/bin/ruby
versions/install-tags_v1_9_2_290_/bin/ruby
versions/install-tags_v1_9_2_318_/bin/ruby
versions/install-tags_v1_9_2_320_/bin/ruby
versions/install-tags_v1_9_2_preview1_/bin/ruby
versions/install-tags_v1_9_2_preview2_/bin/ruby
versions/install-tags_v1_9_2_preview3_/bin/ruby
versions/install-tags_v1_9_2_rc1_/bin/ruby
versions/install-tags_v1_9_2_rc2_/bin/ruby
versions/install-tags_v1_9_3_0_/bin/ruby
versions/install-tags_v1_9_3_125_/bin/ruby
versions/install-tags_v1_9_3_194_/bin/ruby
versions/install-tags_v1_9_3_195_/bin/ruby
versions/install-tags_v1_9_3_286_/bin/ruby
versions/install-tags_v1_9_3_327_/bin/ruby
versions/install-tags_v1_9_3_360_/bin/ruby
versions/install-tags_v1_9_3_362_/bin/ruby
versions/install-tags_v1_9_3_374_/bin/ruby
versions/install-tags_v1_9_3_385_/bin/ruby
versions/install-tags_v1_9_3_392_/bin/ruby
versions/install-tags_v1_9_3_429_/bin/ruby
versions/install-tags_v1_9_3_448_/bin/ruby
versions/install-tags_v1_9_3_preview1_/bin/ruby
versions/install-tags_v1_9_3_rc1_/bin/ruby
versions/install-tags_v2_0_0_0_/bin/ruby
versions/install-tags_v2_0_0_195_/bin/ruby
versions/install-tags_v2_0_0_247_/bin/ruby
versions/install-tags_v2_0_0_preview1_/bin/ruby
versions/install-tags_v2_0_0_preview2_/bin/ruby
versions/install-tags_v2_0_0_rc1_/bin/ruby
versions/install-tags_v2_0_0_rc2_/bin/ruby

And all of versions ignore the redefinition.
I implemented 1.9 VM as this behaviour because I think it is spec.

Could you ask matz?

#11 - 09/27/2013 01:23 AM - ko1 (Koichi Sasada)

(2013/09/27 1:13), ko1 (Koichi Sasada) wrote:

And all of versions ignore the redefinition.
I implemented 1.9 VM as this behaviour because I think it is spec.

Could you ask matz?

I have no objection about that.
However, please be more careful to change the behavior.
(this phrase is also for me, of course)

--
// SASADA Koichi at atdot dot net

#12 - 09/27/2013 01:53 AM - akr (Akira Tanaka)

2013/9/27 ko1 (Koichi Sasada) redmine@ruby-lang.org:

Issue [#8953](#) has been updated by ko1 (Koichi Sasada).

And all of versions ignore the redefinition.
I implemented 1.9 VM as this behaviour because I think it is spec.

I also think so.
The spec is one of the reason Ruby can assign named capture to local variable.

```
% ruby -e '/def(?.*)/ =~ "abcdefghi"; p var'  
"ghi"
```

--
Tanaka Akira

#13 - 09/28/2013 10:09 PM - nagachika (Tomoyuki Chikanaga)

- *Tracker changed from Backport to Feature*
- *Project changed from Backport200 to Ruby master*
- *Assignee changed from nagachika (Tomoyuki Chikanaga) to charliesome (Charlie Somerville)*

#14 - 10/01/2013 06:04 PM - ko1 (Koichi Sasada)

- *Category set to core*
- *Assignee changed from charliesome (Charlie Somerville) to matz (Yukihiro Matsumoto)*
- *Target version set to 2.1.0*

Could you check it?

#15 - 01/30/2014 06:17 AM - hsbt (Hiroshi SHIBATA)

- *Target version changed from 2.1.0 to 2.2.0*

#16 - 01/05/2018 09:00 PM - naruse (Yui NARUSE)

- *Target version deleted (2.2.0)*