RubyGems 3 & 4

The Package Manager of the Ruby Language

Hiroshi SHIBATA / GMO Pepabo, Inc.

2018.05.31 RubyKaigi 2018

self.introduce

```
=> {
  name: “SHIBATA Hiroshi”,
  nickname: “hsbt”,
  organizations: [“ruby”, “rubygems”, “asakusarb”,
“pepabo”, …],
  commit_bits: [“ruby”, “rake”, “rubygems”, “bundler”,
“rdoc”, “psych”,  “ruby-build”, “railsgirls”, “railsgirls-
jp”, …],
  sites: [“hsbt.org”, “ruby-lang.org”, “rubyci.org”,
“railsgirls.com”, “railsgirls.jp”],
}
```

ruby / ruby

Unwatch 1,258 | Unstar 14,388 | Fork 3,903

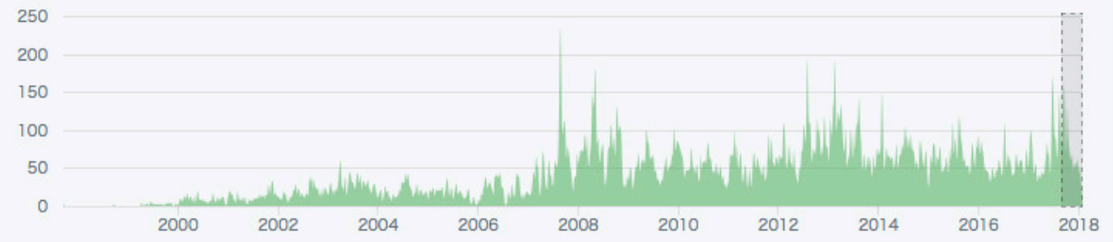
Code | Pull requests 146 | Insights | Settings

- Pulse
- **Contributors**
- Community
- Traffic
- Commits
- Code frequency
- Dependency graph
- Network
- Forks

Dec 25, 2017 – May 29, 2018

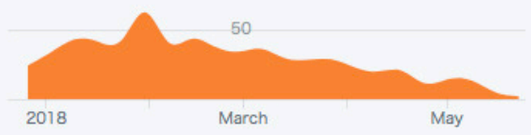
Contributions: **Commits**

Contributions to trunk, excluding merge commits





nobu #1
631 commits 8,405 ++ 4,740 --



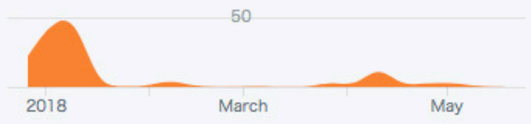


k0kubun #2
166 commits 5,344 ++ 1,412 --

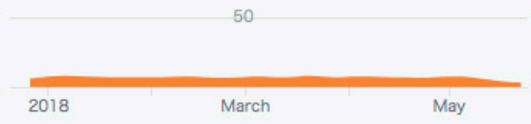




mame #3
155 commits 6,670 ++ 7,377 --

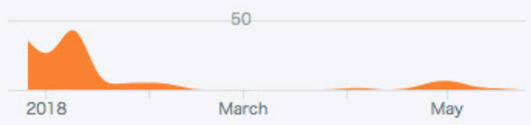


/:|} **matzbot** #4
150 commits 266 ++ 265 --



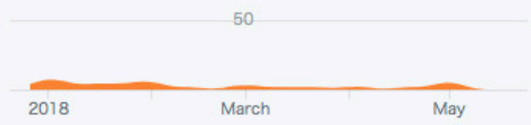


shyouhei #5
145 commits 9,654 ++ 9,399 --



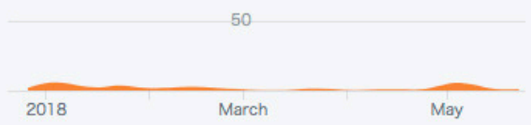


znz #6
61 commits 204 ++ 159 --





hsbt #7
45 commits 3,701 ++ 2,035 --



nurse #8
35 commits 589 ++ 524 --



asakusarb

foo category:bar/baz comment:foobar

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misc 1

000_Log 2

(no category) 5

README.md

Edit



About (English)

Asakusa.rb is probably the most active regional Rubyist group in Japan. We're having weekly meetup on every '''Ruby

RAILS GIRLS WORKSHOP in JAPAN

http://railsgirls.jp/

WORKSHOP
42 WAS HELD
(2012.09-2018.02)
650 GIRLS

WHAT'S RAILS GIRLS?

RAILS GIRLSとは？

2010年にヘルシンキ（フィンランド）で始まったイベントで
これまでに、全世界で約200回のワークショップが開催されており、
女性にテクノロジーを理解し、自分のアイデアを形にするための
ツールとコミュニティの場を提供することを目的としています。
日本国内では、2012年9月東京での開催から、2018年2月岡山開催で、
計42回ワークショップを開催し、650名を超える方が参加しています。




KYOTO 8 times


SAPPORO


TAKASAKI


OSAKA 4 times


TOYAMA

TOKYO 8 times


MATSUE 3 times


OKAYAMA 3 times


FUKUOKA


KOBE 3 times


NARA


NAGOYA 4 times


KITAKYUSHU

SHIOJIRI

Agenda

- RubyGems 2.7
- RubyGems 3.0
- RubyGems 4.0

RubyGems 2.7

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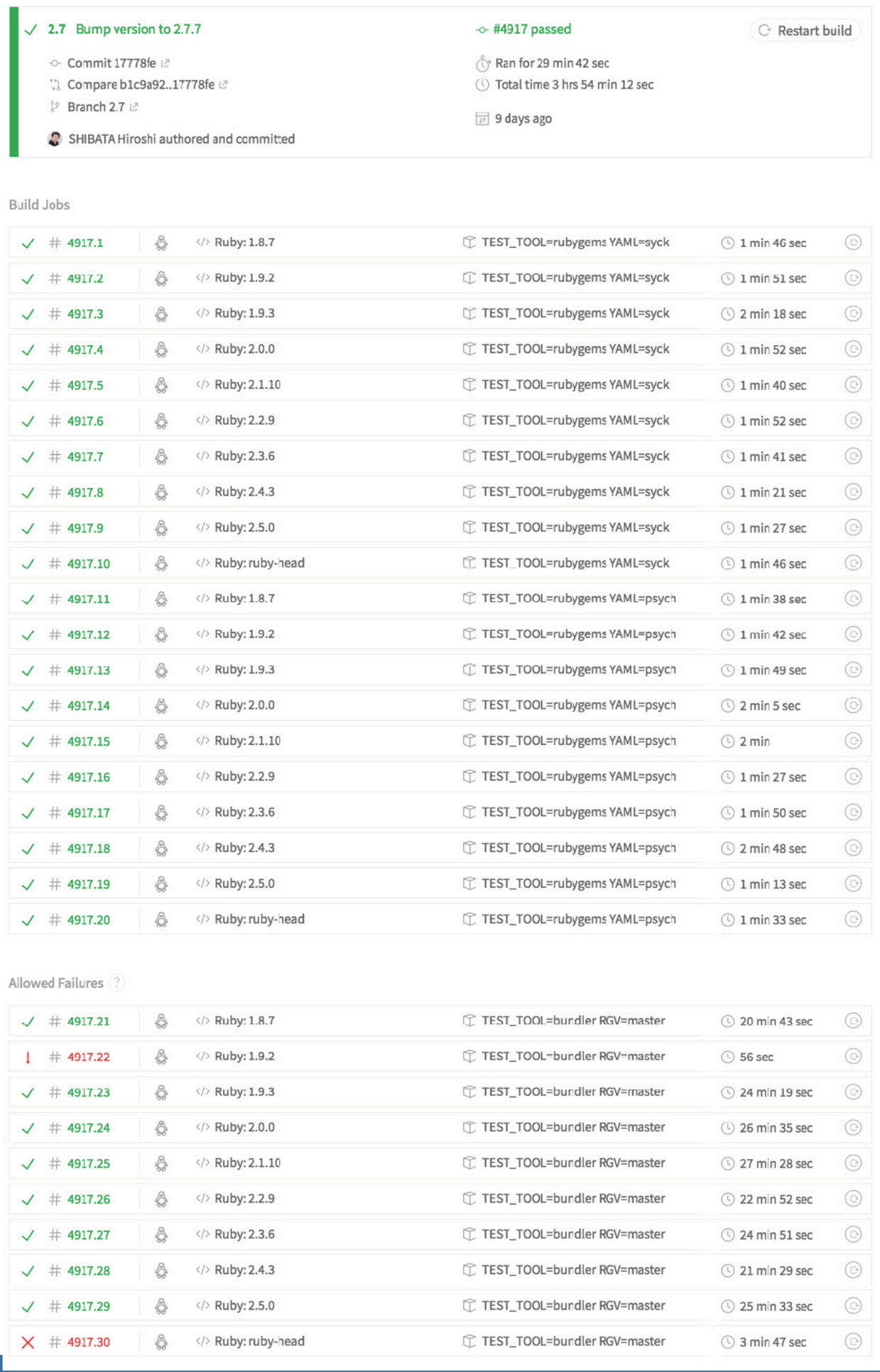
Current status of RubyGems 2.7

- The maintenance policy of RubyGems(RG) is different as Ruby's maintenance policy.
- RG 2.5 and 2.6 are only security maintenance and no longer release separate from Ruby.
- RG 2.7 has bug and security fixes.

Build matrix of RG

- Support Ruby 1.8 (!!1)
- Integration for Bundler
- Environment Issue of Travis CI



Ruby 1.8 in 2018

- **Surprisedly, RG 2.7 still supports Ruby 1.8.**

```
~/D/g/r/rubygems (2.7) > rg respond_to
test/rubygems/test_gem_request_set_gem_dependency_api.rb
630:    tf.close! if tf.respond_to? :close!

test/rubygems/test_gem_source.rb
60:    response.uri = URI('http://example') if response.respond_to? :uri

test/rubygems/test_gem_package.rb
755:    tf.close! if tf.respond_to? :close!

test/rubygems/test_gem_util.rb
45:    if File.respond_to?(:realpath)

test/rubygems/test_gem_installer.rb
58:  str = str.dup.force_encoding("BINARY") if str.respond_to? :force_encoding
65:if Gem.respond_to?(:activate_bin_path)
893:    skip unless "".respond_to?(:force_encoding)

test/rubygems/test_gem_specification.rb
2305:  s.required_rubygems_version = Gem::Requirement.new(\"> 0\".freeze) if s.respond_to? :required_ruby
2316:  if s.respond_to? :specification_version then

…snip
```

Bundler Integration(rubygems.rb)

- Bundler was located rubygems repository as git submodule

```
if USE_BUNDLER_FOR_GEMDEPS

  ENV["BUNDLE_GEMFILE"] ||= File.expand_path(path)
  require 'rubygems/user_interaction'
  Gem::DefaultUserInteraction.use_ui(ui) do
    require "bundler"
    @gemdeps = Bundler.setup
    Bundler.ui = nil
    @gemdeps.requested_specs.map(&:to_spec).sort_by(&:name)
  end

else

  rs = Gem::RequestSet.new
  @gemdeps = rs.load_gemdeps path

  rs.resolve_current.map do |s|
    s.full_spec.tap(&:activate)
  end

end
```

Bundler Integration(test_case.rb)

- Gem::TestCase already activates Bundler module.

```
if Gem::USE_BUNDLER_FOR_GEMDEPS
  require 'bundler'
end
require 'minitest/autorun'

require 'rubygems/deprecate'

require 'fileutils'
require 'pathname'
require 'pp'
require 'rubygems/package'
require 'shellwords'
require 'tmpdir'
require 'uri'
require 'zlib'
require 'benchmark' # stdlib
require 'rubygems/mock_gem_ui'

module Gem

  ##
  # Allows setting the gem path searcher.  This method is available when
  # requiring 'rubygems/test_case'
```

Installer of Rubygems

- update_rubygems/setup.rb, setup_command.rb
- Installer of RubyGems promote Bundler to default gems.

```
  def install_default_bundler_gem
    return unless Gem::USE_BUNDLER_FOR_GEMDEPS

    specs_dir = Gem::Specification.default_specifications_dir
    specs_dir = File.join(options[:destdir], specs_dir) unless Gem.win_platform?
    mkdir_p specs_dir

(snip…)

    bundler_bin_dir = bundler_spec.bin_dir
    bundler_bin_dir = File.join(options[:destdir], bundler_bin_dir) unless Gem.win_platform?
    mkdir_p bundler_bin_dir
    bundler_spec.executables.each do |e|
      cp File.join("bundler", bundler_spec.bindir, e), File.join(bundler_bin_dir, e)
    end
```

RG on Travis is hard way

- Why hard way to test RubyGems on Travis?
  - RVM upgrade RG and Bundler automatically.
  - The end-user maybe upgrade RG and Bundler.
- It caused `exe/bundle` issue.

```
./bin/bundle:104:in `load': cannot load such file -- /home/travis/.rvm/rubies/
ruby-2.4.2/lib/ruby/gems/2.4.0/gems/bundler-1.16.1/exe/bundle (LoadError)
   from ./bin/bundle:104:in `<main>'
```

- It was fixed by @BanzaiMan



Security

- RubyGems also have HackerOne.
  - 3 people handle vulnerability issues.
  - But We have no workflow about security release.
- RubyGems 2.7.6 was accidentally released.

Bug #14481

Edit Watch Copy Delete



Backport request for RubyGems 2.7.6

Added by hsbt (Hiroshi SHIBATA) 3 months ago. Updated 2 months ago.

Status:	Closed		
Priority:	Normal		
Assignee:	hsbt (Hiroshi SHIBATA)		
Target version:	-		
ruby -v:		**Backport:**	2.3: DONE, 2.4: DONE, 2.5: DONE
[ruby-core:85598]			

Description Quote

RubyGems 2.7.6 has been released. It contained the several vulnerability fixes.

http://blog.rubygems.org/2018/02/15/2.7.6-released.html

I created patches for all of the active branches of Ruby.

rubygems-276-for-ruby25.patch

This patch for upgrading RubyGems 2.7.3 to 2.7.6 and tiny changes for test-case. So, It includes following fixes:

- https://github.com/rubygems/rubygems/pull/2189
- https://github.com/rubygems/rubygems/pull/2194

The policy of RubyGems versioning

- Merge latest stable version into Ruby Core
- Ruby 2.6.0 will bundle RubyGems 3.0(TBD)
- Ruby 2.7 or 3.0 will bundle RubyGems 4.0(TBD)

Merge task for Ruby core

- `tool/sync_default_gems.rb rubygems`

```
puts "Sync #{$repositories[gem.to_sym]}"

case gem
when "rubygems"
  `rm -rf lib/rubygems* test/rubygems`
  `cp -r ../../rubygems/rubygems/lib/rubygems* ./lib`
  `cp -r ../../rubygems/rubygems/test/rubygems ./test`
```

- We lost commit logs of rubygems/rubygems :(
- Because we uses different directory structure and subversion.

Submodule for stdlib

It's available under the ruby-lang.org now!!!

https://git.ruby-lang.org

- **After git migration, We can use git submodule for ruby/spec, mspec, stdlibs contained rubygems.**
- **We easily support core and upstreams.**

RubyGems 3.0

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What's new in RubyGems3?

- Removed deprecated methods.
- Removed to support for < Ruby 2.2.
- Added warnings of deprecated methods.
- To use modern release toolchain.

Introduction of Gem::Deprecate

- How to use deprecate in your code.

```
require 'rubygems/deprecate'

module Gem
(snip)
  def self.gunzip(data)
    Gem::Util.gunzip data
  end

  class << self
    extend Gem::Deprecate
    deprecate :gunzip, "Gem::Util.gunzip", 2018, 12
  end

(snip)
```

- You can show deprecated warning to end-users.

```
NOTE: Gem.gunzip is deprecated; use Gem::Util.gunzip instead. It will be removed on or after 2018-12-01.
Gem.gunzip called from /Users/hsbt/.rbenv/versions/2.6.0-dev/lib/ruby/gems/2.6.0/gems/rubygems-mirror-1.2.0/
lib/rubygems/mirror.rb:37.
```

Deprecate methods of platform.

- We should care compatibility for new version of libraries.
- But rubygems is critical infrastructure in the Ruby ecosystem.
- I use akr/gem-codesearch and akr/all-ruby for investigating compatibility.

gem-codesearch

- rubygems/rubygems-mirror and akr/gem-codesearch
- We can search all of ruby code on rubygems.org with 80GB+ storage.

```
~/D/g/a/gem-codesearch (master) > gem i rubygems-mirror
~/D/g/a/gem-codesearch (master) > ulimit -n 8192; and env RUBYGEMS_MIRROR_ONLY_LATEST=true rake mirror
unpack; and find latest-gem -size +5M -not -name "*.rb" -delete; and rake index
```

```
function gemsearch
  csearch $argv | sed 's/^\/Users\/hsbt\/Documents\/github\.com\/akr\/gem-codesearch\/latest-gem\///g';
end
```

Demo

```
~ > gemsearch extension_build_error
rb2exe-0.3.0/bin/traveling-ruby-2.2.2/l32/lib/ruby/2.2.0/rubygems/installer.rb:
  def extension_build_error(build_dir, output, backtrace = nil) # :nodoc:
rb2exe-0.3.0/bin/traveling-ruby-2.2.2/l64/lib/ruby/2.2.0/rubygems/installer.rb:
  def extension_build_error(build_dir, output, backtrace = nil) # :nodoc:
rb2exe-0.3.0/bin/traveling-ruby-2.2.2/osx/lib/ruby/2.2.0/rubygems/installer.rb:
  def extension_build_error(build_dir, output, backtrace = nil) # :nodoc:
rb2exe-0.3.0/bin/traveling-ruby-2.2.2/win/lib/ruby/2.2.0/rubygems/installer.rb:
  def extension_build_error(build_dir, output, backtrace = nil) # :nodoc:
ruby-compiler-0.1.1/vendor/ruby/lib/rubygems/installer.rb:
  def extension_build_error(build_dir, output, backtrace = nil) # :nodoc:
rubygems-update-2.7.7/lib/rubygems/installer.rb:
  def extension_build_error(build_dir, output, backtrace = nil) # :nodoc:
rubygems-update-2.7.7/lib/rubygems/installer.rb:
  deprecate :extension_build_error, :none, 2018, 12
```

akr/all-ruby

- all-ruby provides the environment for all release versions of Ruby includes 0.59 to 2.6.0-preview1.
- It was Dockerized by shyouhei and hsbt.
- https://hub.docker.com/r/rubylang/all-ruby/

```
alias all-ruby "docker run --rm -t rubylang/all-ruby /all-ruby/all-ruby"
```

- We can try to code block on all of versions of Ruby

Demo

```
all-ruby -e "puts ‘foo'&.match?(/foo/)"
all-ruby -e "require 'tempfile'; p Tempfile.new.close!”
all-ruby -e "require 'io/console'; p IO.method_defined?(:noecho)”
all-ruby -e "require 'uri'; puts URI.const_defined?(:DEFAULT_PARSER)”
all-ruby -e "p [].respond_to? :flat_map"
```

ubygems.rb is no longer available

- `-rubygems` is cool option for Ruby 1.8
- But after Ruby 1.9, We no longer need -rubygems. Because Ruby 1.9 always require rubygems by prelude.
- If you needs to disable its prelude, You can use `--disable-rubygems`.
  - `ruby --disable-rubygems -rubygems` ???

Only support Ruby 2.2+

- We can use Keywords argument, Refinement, Other cool features in RubyGems now.
- Simple build matrix

Build Jobs

✓	# 4926.1	Ruby: 2.2.10	TEST_TOOL=rubygems YAML=psych	1 min 26 sec
✓	# 4926.2	Ruby: 2.3.7	TEST_TOOL=rubygems YAML=psych	1 min 50 sec
✓	# 4926.3	Ruby: 2.4.4	TEST_TOOL=rubygems YAML=psych	1 min 45 sec
✓	# 4926.4	Ruby: 2.5.1	TEST_TOOL=rubygems YAML=psych	1 min 34 sec
✓	# 4926.5	Ruby: ruby-head	TEST_TOOL=rubygems YAML=psych	1 min 20 sec
✓	# 4926.6	Ruby: 2.2.10	TEST_TOOL=bundler RGV=master	21 min 54 sec
✓	# 4926.7	Ruby: 2.3.7	TEST_TOOL=bundler RGV=master	22 min 30 sec
✓	# 4926.8	Ruby: 2.4.4	TEST_TOOL=bundler RGV=master	21 min 49 sec
✓	# 4926.9	Ruby: 2.5.1	TEST_TOOL=bundler RGV=master	24 min 9 sec

Allowed Failures

✗	# 4926.10	Ruby: ruby-head	TEST_TOOL=bundler RGV=master	3 min 1 sec

Remove deprecated code

- RG have a lot of workarounds for old Ruby.
  - RUBY_VERSION, respond_to?, defined?

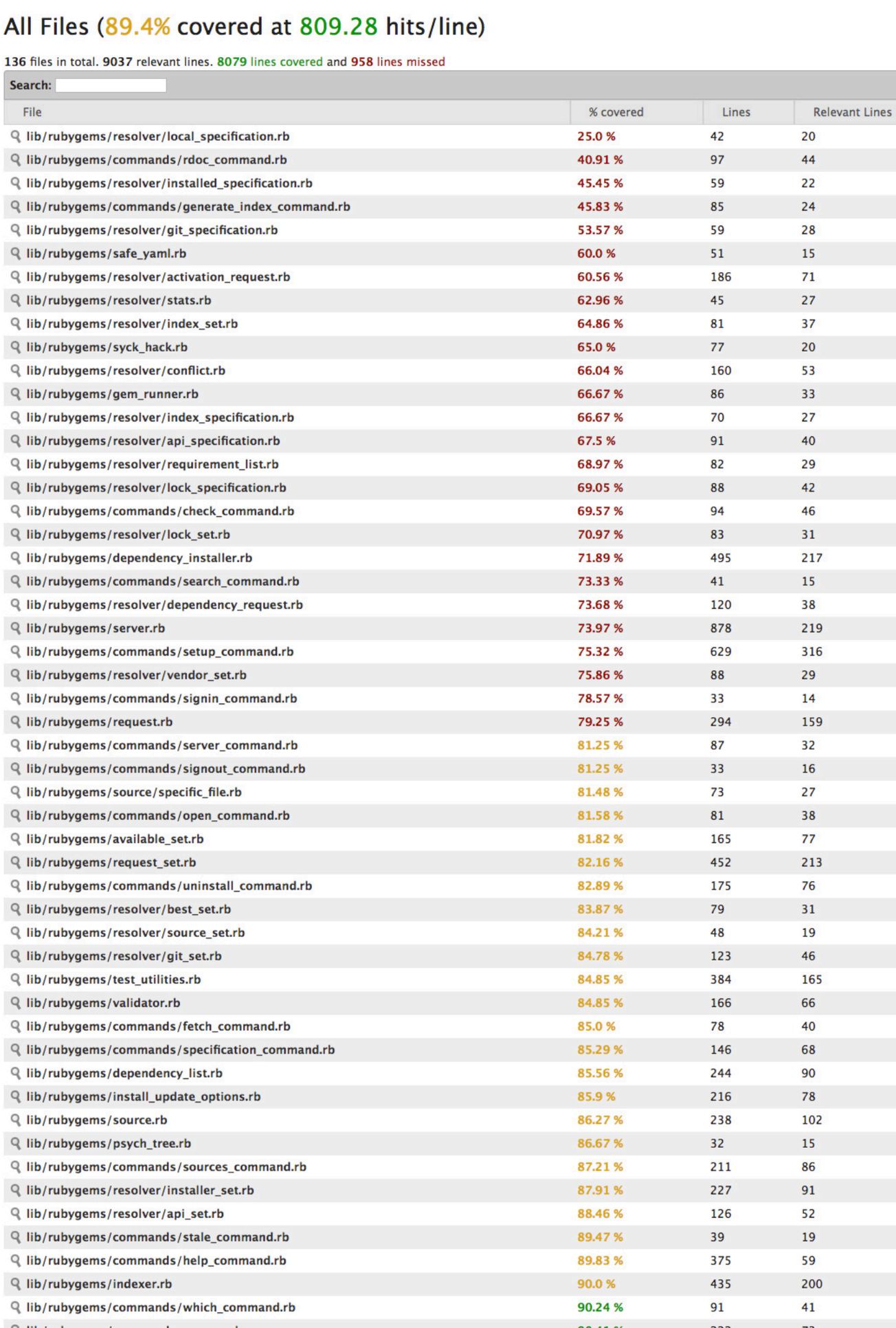
```
-        source_uri = URI.parse(URI.const_defined?(:DEFAULT_PARSER) ?
-                               URI::DEFAULT_PARSER.escape(source_uri.to_s) :
-                               URI.escape(source_uri.to_s))
+        source_uri = URI.parse(URI::DEFAULT_PARSER.escape(source_uri.to_s))
```

```
      if @init_pos == 0 then
-       raise Gem::Package::NonSeekableIO unless @io.respond_to? :rewind
        @io.rewind
      else
```

```
-  if [].respond_to? :flat_map
-    def pinned_requirement name # :nodoc:
-      requirement = Gem::Dependency.new name
-      specification = @set.sets.flat_map { |set|
-        set.find_all(requirement)
-      }.compact.first
+  def pinned_requirement name # :nodoc:
+    requirement = Gem::Dependency.new name
```

Code ceverage

- Generate test coverage with simplecov
- I found the needless code by coverage tool like rdoc workaround for old Ruby and delete it.



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Upgrade toolchain

- Removed hoe
  - This is same as rake, rdoc, psych
  - Added preparation task without Bundler

```
desc "Setup Rubygems dev environment"
task :setup => ["bundler:checkout"] do
  gemspec = Gem::Specification.load(File.expand_path("../rubygems-update.gemspec", __FILE__))

  gemspec.dependencies.each do |dep|
    sh "gem install '#{dep.name}:#{dep.requirement.to_s}'"
  end
end
```

rubygems-update.gemspec

- How works with `gem update —system`?
- lib/rubygems/commands/update_command.rb

```
  def execute
    if options[:system] then
      update_rubygems
      return
    end
  (snip)

  def update_rubygems
    check_update_arguments

    version, requirement = rubygems_target_version

    check_latest_rubygems version

    update_gem 'rubygems-update', version
(snip)

    install_rubygems version
  end
```

```
  def install_rubygems version # :nodoc:
    args = update_rubygems_arguments

    update_dir = File.join Gem.dir, 'gems', "rubygems-
update-#{version}"

    Dir.chdir update_dir do
      say "Installing RubyGems #{version}"

      # Make sure old rubygems isn't loaded
      old = ENV["RUBYOPT"]
      ENV.delete("RUBYOPT") if old
      installed = system Gem.ruby, 'setup.rb', *args
      say "RubyGems system software updated" if
installed
      ENV["RUBYOPT"] = old if old
    end
  end
```

pre-release rubygems-update.gem

- Usually, We should test gem with prerelease version before production release.
- But, rubygems couldn't do it.

```
diff --git lib/rubygems/specification.rb lib/rubygems/specification.rb
index 897ee85e97..29088372a6 100644
--- lib/rubygems/specification.rb
+++ lib/rubygems/specification.rb
@@ -2733,7 +2733,11 @@ class Gem::Specification < Gem::BasicSpecification

   def version= version
     @version = Gem::Version.create(version)
-    self.required_rubygems_version = '> 1.3.1' if @version.prerelease?
+    # skip to set required_ruby_version when pre-released rubygems.
+    # It caused to raise CircularDependencyError
+    if @version.prerelease? && @name.strip != "rubygems"
+      self.required_rubygems_version = '> 1.3.1'
+    end
     invalidate_memoized_attributes

     return @version
```

Dependency Resolver incompatible

- **RubyGems 2.x, 3.x uses Molinillo-0.5.7**

```
~/D/g/r/rubygems (master) > ls lib/rubygems/resolver/molinillo/lib/molinillo
delegates           dependency_graph.rb gem_metadata.rb     resolution.rb       state.rb
dependency_graph    errors.rb           modules             resolver.rb
```

- **Bundler 1.16.x also uses Molinillo-0.6.4**

```
~/D/g/b/bundler (master) > ls lib/bundler/vendor/molinillo/lib/molinillo
compatibility.rb    dependency_graph    errors.rb           modules             resolver.rb
delegates           dependency_graph.rb gem_metadata.rb     resolution.rb       state.rb
```

- **These are different versions and behavior of dependency resolver.**

RubyGems 3 or 4

- I try to upgrade Molinillo-0.6.x on RubyGems.
  - https://github.com/rubygems/rubygems/pull/2026
- And fix issues about resolver of RubyGems.

```
~/D/g/r/rubygems (molinillo-0-6-3) > env GEMSRC_SKIP=true rake test
Gem::Indexer tests are being skipped.  Install builder gem.
Run options: --seed 2600

# Running:

.................................................................................
.............................................E...................................
E..............................E..................E....E.....................F.........FF.F.F
FFF....F...F.....F...............................................................
.................................................................................
.................................................E...............................
................S.....................S.........................................
.................................................................................
```

- And integrate these files without vendorised.

RubyGems 4.0

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RubyGems 4

- It has non-compatible features.
  - Make enable as default for conservative option: https://github.com/rubygems/rubygems/pull/2233
  - Behaviour changes with default gems installer: https://github.com/rubygems/rubygems/pull/2166
  - Executables in bin folder conflict with their gem versions.: https://bugs.ruby-lang.org/issues/5060
  - Make ruby gem install to user-install by default: https://github.com/rubygems/rubygems/issues/1394

Make conservative option as default

- **We got the installation time when already installed gems.**

```
~ > gem i rails
     clone http://rubyonrails.org -> /Users/hsbt/Documents/rubyonrails.org
       git ls-remote http://rubyonrails.org
        hg identify http://rubyonrails.org
       svn info http://rubyonrails.org
     error Could not find version control system: http://rubyonrails.org
    exists /Users/hsbt/Documents/github.com/rails/rails
Successfully installed rails-5.2.0
1 gem installed
```

- **To use conservative is ignore re-install action.**

```
~ > gem i rails -conservative
~ >
```

Change behavior of default option

- I extract standard libraries to default/bundled gems. But It's only enabled after default gems installation.
- Example: csv in 2.4 vs 2.5

```
~ > irb
>> require 'csv'
=> true
>> CSV::VERSION
=> “2.4.8"
~ > gem i csv
Fetching: csv-1.0.2.gem (100%)
Successfully installed csv-1.0.2
1 gem installed
~ > irb
>> require 'csv'
=> true
>> CSV::VERSION
=> “2.4.8”
```

```
~ > irb
>> require 'csv'
=> true
>> CSV::VERSION
=> “2.4.8"
~ > gem update csv
Updating installed gems
Updating csv
Fetching: csv-1.0.2.gem (100%)
Successfully installed csv-1.0.2
Gems updated: csv
~ > irb
>> require 'csv'
=> true
>> CSV::VERSION
=> "1.0.2"
```

Gemification

- In RubyKaigi 2017
- Web+DB Press Vol.103



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Current behavior of default option

- `gem install --default` put gemspec into default gem directory.
- But it is not put and build the library files like .rb and native extensions.

```
~ > gem i csv --default
Fetching: csv-1.0.2.gem (100%)
Successfully installed csv-1.0.2 as a default gem
1 gem installed
~ > ls ~/.rbenv/versions/2.3.7/lib/ruby/gems/2.3.0/gems/csv-1.0.2/
~ >
```

- I hope to install completely library like csv-1.0.2 into the old Ruby versions.

Make `--user-install` as default

- Rubygems 4 will install the all gems to `~/.gem`
- Pros: Ruby in linux distribution has many of FAQ for gem installation for using `sudo`. This change resolve this issues.
- Cons: Ruby version manager like rbenv is not support it. And This is big incompatible feature.

Known Issue of rbenv

- Example by bundler

```
~ > gem i bundler --conservative --user-install
Fetching: bundler-1.16.2.gem (100%)
WARNING:  You don't have /Users/hsbt/.gem/ruby/2.3.0/bin in your PATH,
     gem executables will not run.
Successfully installed bundler-1.16.2
1 gem installed
~ > which -a bundle
/Users/hsbt/.rbenv/shims/bundle
~ > bundle -v
rbenv: bundle: command not found

The `bundle' command exists in these Ruby versions:
  2.0.0-p648
  2.1.10
  2.2.10
  2.4.4
  2.5.1
  2.6.0-dev
  jruby-9.1.17.0
  rbx-3.100
  truffleruby

~ > .gem/ruby/2.3.0/bin/bundle -v
Bundler version 1.16.2
```

The location of execution wrapper

- Ruby core put executable script directly under the bin directory.
- We often faced conflict error when upgrading rdoc.

```
~ > gem update rdoc
Updating installed gems
Updating rdoc
Fetching: rdoc-6.0.4.gem (100%)
rdoc's executable "rdoc" conflicts with /Users/hsbt/.rbenv/versions/2.3.7/bin/rdoc
Overwrite the executable? [yN]  y
rdoc's executable "ri" conflicts with /Users/hsbt/.rbenv/versions/2.3.7/bin/ri
Overwrite the executable? [yN]  y
Successfully installed rdoc-6.0.4
Gems updated: rdoc
```

- We completely lost original exe wrapper.

What's happened?

- **RubyGems generate wrapper script for executable script of gem**

```
#!/Users/hsbt/.rbenv/versions/2.3.7/bin/ruby
#
# This file was generated by RubyGems.
#
# The application 'rdoc' is installed as part of a
# this file is here to facilitate running it.
#

require 'rubygems'

version = ">= 0.a"

if ARGV.first
  str = ARGV.first
  str = str.dup.force_encoding("BINARY") if str.re
  if str =~ /\A_(.*)_\z/ and Gem::Version.correct?
    version = $1
    ARGV.shift
  end
end

load Gem.bin_path('rdoc', 'rdoc', version)
```

```
#!/Users/hsbt/.rbenv/versions/2.6.0-dev/bin/ruby
#
#  RDoc: Documentation tool for source code
#        (see lib/rdoc/rdoc.rb for more information
#
#  Copyright (c) 2003 Dave Thomas
#  Released under the same terms as Ruby

begin
  gem 'rdoc'
rescue NameError => e # --disable-gems
  raise unless e.name == :gem
rescue Gem::LoadError
end

require 'rdoc/rdoc'

begin
  r = RDoc::RDoc.new
  r.document ARGV
rescue Errno::ENOSPC
```

Store original bin file under `lib`?

- I will create a same file for executable wrappers of RubyGems.
- location(TBD): ruby/lib/exe?, ruby/exe?, ruby/???
- Installer: tool/rbinstall.rb on ruby/ruby repo did not use `Gem::Installer#generate_bin`. I need to use it on tool/rbinstall.rb.

Today's summary

- RubyGems 2.7
- RubyGems 3.0
- RubyGems 4.0



Hiroshi SHIBATA @hsbt

Executive Officer CPO(Chief Productivity Officer)
Director of Business Process Re-engineering Office
Director of Technical Division(New!!1)
at GMO Pepabo, Inc. @pepabo

https://www.hsbt.org

We are hiring!

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We are hiring!!1

- **Company Name: GMO Pepabo, Inc.**
- **Location: HQ Office: Shibuya, Tokyo. Fukuoka Office: Tenjin, Hakata.**





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資料を請求する

» 無料説明会 毎週開催中！

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すべてのカテゴリー ▼　素材をさがす　食べ物をさがす　ランキングからさがす







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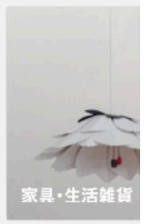

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新機能でクリエイターを応援

欲しいものは、作ればいい。

You can make and sell your own goods easily.

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Ruby is designed to make programmers happy.

Yukihiro Matz Matsumoto

もっとおもしろくできる

The fun is a business value.

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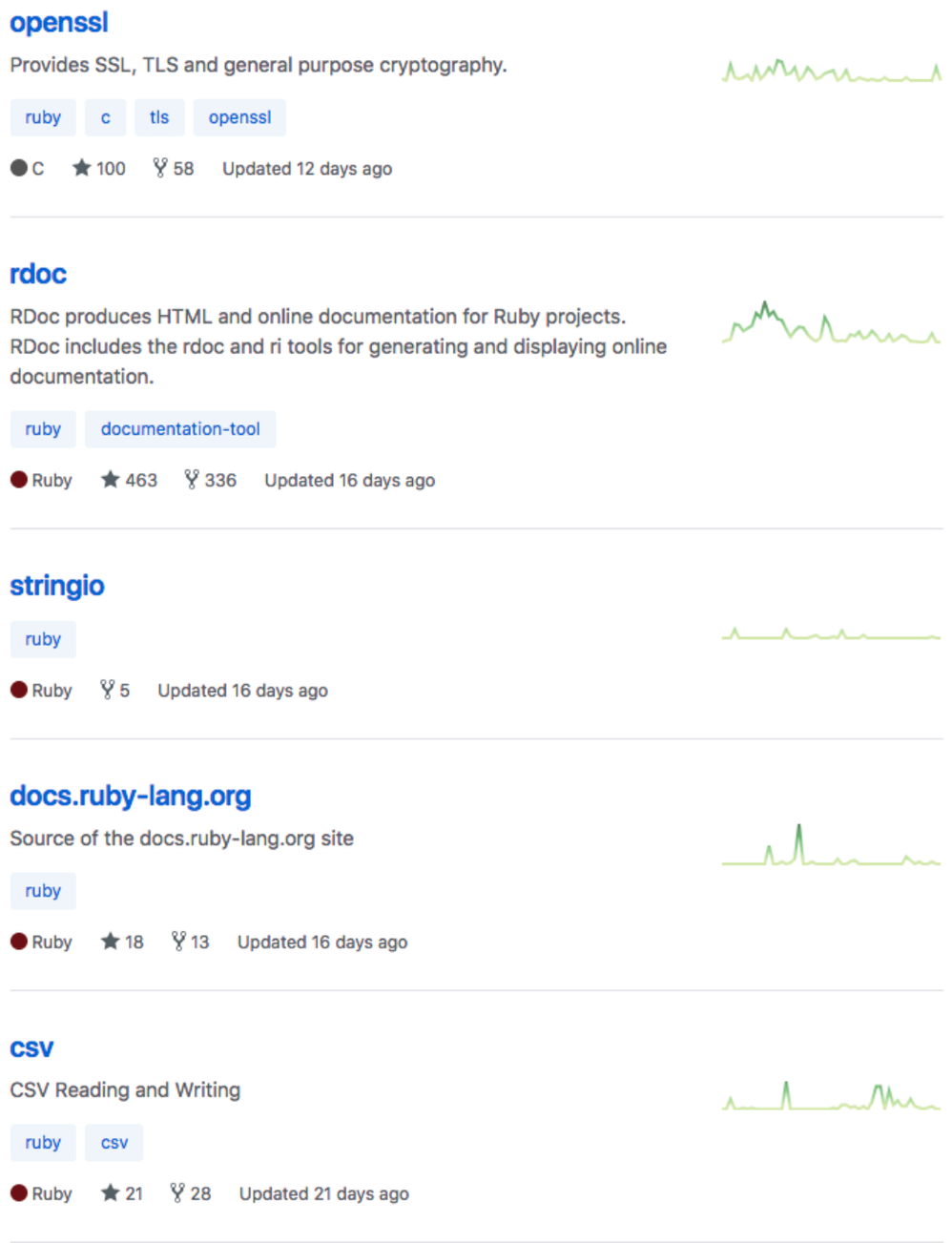
Appendix

Gemification

Gemfication again in 2018

We can keep commit logs under the ruby org of GitHub.

rubygems/rubygems and flori/json are out of controll by ruby core team (including me).



I wont contribute-able world

Our issues: Ruby and upstream have the different policies.

- ruby core only focused trunk version.
- Upstream repository support various versions like Ruby 2.4, 2.5.



Watson1978 commented on Mar 18 — Contributor

Hmm, CI has performed tests on Ruby 2.3.6.
Regexp#match? and String#match? were introduced at Ruby 2.4.0 :(

kou commented on Mar 31 — Member

How about using refinements?

```
unless String.method_defined?(:match?)
  module CSV
    module MatchP
      refine String do
        def match?(pattern)
          pattern === self
        end
      end
    end

    refine Regexp do
      def match?(string)
        self === string
      end
    end
  end

  using CSV::MatchP
end

# ...
```

If it doesn't any negative result on Ruby 2.3, 2.4, 2.5 and trunk, we can merge this safely.

Watson1978 added some commits on Mar 18

- Improve CSV performance ··· 76d8c11
- Add benchmark script d785c8e

Watson1978 commented on Apr 1 — Contributor

@kou I added workaround by your idea to solve Ruby 2.3 issue. Thank you.

Update upstream from core

- **Beckport upstream**

```
~/D/g/r/csv (master) > g rv
origin git@github.com:ruby/csv.git (fetch)
origin git@github.com:ruby/csv.git (push)
ruby-core git@github.com:ruby/ruby.git (fetch)
ruby-core git@github.com:ruby/ruby.git (push)
```

- **Make to work all versions of Ruby (used by Travis)**
- **Forward-port core**

```
commit 5c1941a9be56a979c27d740370b781882d344f79
Author: hsbt <hsbt@b2dd03c8-39d4-4d8f-98ff-823fe69b080e>
Date:   Wed May 9 04:39:16 2018 +0000

    Merge csv-1.0.2 from upstream.

    git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@63364 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

diff --git lib/csv.rb lib/csv.rb
```

Update core from upstream

- **Forward-port core**
- **Support test suite on Ruby core**

```
commit 10a495a08a8e39699007a97db16fbad33209db99
Author: hsbt <hsbt@b2dd03c8-39d4-4d8f-98ff-823fe69b080e>
Date:   Wed May 9 11:44:30 2018 +0000

    Use hard-coded file list instead of Dir.glob.

    git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@63377 b2dd03c8-39d4-4d8f-98ff-823fe69b080e
(snip)

-  spec.files         = Dir.glob("lib/**/*.rb")
-  spec.files         += ["README.md", "LICENSE.txt", "news.md"]
+  spec.files         = ["lib/csv.rb", "lib/csv/table.rb", "lib/csv/core_ext/string.rb", "lib/csv/core_ext
```

- **Backport upstream (infinity loop)**

git.ruby-lang.org

git.ruby-lang.org

It’s available under the ruby-lang.org now!!!

https://git.ruby-lang.org

- **It’s READONLY**
- **It’s built by cgit web interface,**
- **It’s integrated with redmine**
- **It’s still experimental status. I’m preparing to it now.**

index : ruby.git

The Ruby Programming Language

summary refs log tree commit diff

Branch	Commit message	Author
trunk	win32/configure.bat: stop when setup failed	nobu
ruby_2_4	merge revision(s) 60384: [Backport #13887]	nagachika
ruby_2_5	merge revision(s) 62606,62607: [Backport #14557]	naruse
ruby_2_2	merge revision(s) 62422,62436: [Backport #14481]	usa
ruby_2_3	merge revision(s) 62422,62436: [Backport #14481]	usa
ruby_2_1	* 2016-04-22	svn
ruby_2_0_0	merge revision(s): 53153 and 23405@ruby_1_9_1	usa
ruby_1_9_3	merge revision(s) 48402:	usa
ruby_1_9_2	bump patchlevel	hone
ruby_1_8_7	merge revision(s) 44717:	naruse
[...]		

Tag	Download	Author
v2_6_0_preview1	commit ce0e3fc1b1...	naruse
v2_5_0	commit 4e0a512972...	naruse
v2_3_6	commit 2551734626...	usa
v2_2_9	commit 72113d58cd...	usa
v2_4_3	commit a5ec07c73f...	nagachika
v2_5_0_rc1	commit c6f401b6b8...	naruse
v2_5_0_preview1	commit f11fbd79fd...	naruse
v2_2_8	commit f3c3c788aa...	usa
v2_3_5	commit e07613e27e...	usa
v2_4_2	commit 595af866bb...	nagachika
[...]		

Age	Commit message	Author
116 min.	win32/configure.bat: stop when setup failed HEAD trunk	nobu
3 hours	vm.c: refined error message	nobu
4 hours	* 2018-03-15	svn
4 hours	Unconditionally define `TRACE_INSN_P`	tenderlove
13 hours	configure.ac: basic libs	nobu
15 hours	test_weakmap.rb: fixing CI failures	nobu
24 hours	quote symbols	nobu
36 hours	* 2018-03-14	svn
36 hours	Fix typos [ci skip]	kazu
38 hours	test/ripper/test_lexer.rb: add test for r62743	k0kubun
[...]		

What's issues of migration of Git



Issue Tracker:

- **Redmine on Heroku couldn't use git repository.**



Strategy

- **How migrate git or github from svn (now resolved!)**

Toolchain:

- **Packaging script depends on Subversion repository and API.**

Where do we go from here?

1. We migrate a toolchain like package script to git from svn.
2. We will ship ruby package from git.ruby-lang.org.
3. We will accept write commit on git.ruby-lang.org.
4. We will accept to merge pull-request on GitHub and sync them to git.ruby-lang.org (final goal)