GMOペパボ

What's new In RubyGems3

The Package Manager of the Ruby Language

Hiroshi SHIBATA / GMO Pepabo, Inc.

2019.3.22 Railsdm 2019

self.introduce



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Technical Director
at GMO Pepabo, Inc. @pepabo

https://www.hsbt.org

self.introduce

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

asakusarb

foo category:bar/baz comment:foobar

README

Imports 426

meetup 389

hanami 1

misc 1

000_Log 2

(no category) 5

README.md

Edit



About (English)

2019-02-19

エンジニア専門職およびエンジニアリングマネージャー職の年俸を一律200万円アップしました

pepabo

ツイート いいね！ 413 シェア B!ブックマーク 366 Pocket 3

こんにちは、取締役CTOのあんちぽちゃんです。「タイトルがすべて」という感じのエントリですが、少しお付き合いください。

本取り組みの背景

2018年5月25日付けの「これからのペパボのエンジニアについて（2018年編）」というエントリにある通り、これからのペパボのエンジニアとして、こういう方向で是非やっていってほしいと社内で語った内容を、このブログでも共有しました。その最後には、こう書かれていました。

> ……ってな感じで、制度のアップデートに際しての僕の思いを述べました。アップデートの内容は、大きくは職位の定義を上記の考えに基づく内容にあらためたということと、エンジニアの給与についても上昇する方向で見直しをかけたということの2点になります。

最新記事

2019-03-18
Rails 4, 5, 6における Security Fix について

2019-03-07
Rails Girls Tokyo 11th にコーチ参加してきました

2019-03-04
ロリポップに対してインシデント訓練を行いました

2019-02-20
DroidKaigi 2019 に行ってきました！

2019-02-19
エンジニア専門職およびエンジニアリングマネージャー職の年俸を一律200万円アップしました

2019-02-15
私の好きなデザインは…
ThinkDESIGN #2 レポート

貸与マシン

Web サービスを営む企業に限らず、IT 業界に属する会社に入社してきになるのは、個人に貸与されるマシンだと思います。ペパボでは、入社前のアンケートでスペックをヒヤリングしたのちマシンを手配して、当日デスクの上にセットアップ済みのマシンを用意して貸与を開始しています。Windows なら パナソニック製の Let's note、macOS なら現在発売しているモデルのうち最新モデルからカスタマイズして選択可能です。なお、納品期日が間に合わない場合や、事業部の予算や業務内容によっては入社手続きの際に調整が入る場合もあります。

貸与マシンの更新

入社時に貸与されたマシンは原則として2年周期で更新を行なっています。このタイミングでスペックの変更や重量が軽いモデルへの変更、または利用の継続などの選択ができます。 スペックは初回の貸与時と同様に自由に変更できますが、調達上の制限でカスタマイズできる価格の上限があるため、「SSD を 2TB にしてGPUも最高スペックにして〜」というような選択は現在はできません。しかし、搭載しているメモリーを 32GB にしたり、SSD を 1TB にしたりと、おおよそハイスペックと呼べるくらいのカスタマイズは可能です。

2018年のペパボの社内の OS の利用割合としては Windows:macOS = 1:3 くらいの割合でした。エンジニア以外の職種でも macOS が多数となっています。

Windows・macOS 以外の OS

2018 年は上記のような利用形態に加えて、Dell の XPS13 も取り扱いを開始し、このモデルについては Linux をインストールして開発に利用することも可能にしました。現在、Ubuntu や Gentoo をインストールして利用しているエンジニアがいます。

ディレクター (4)
ペパボのフロントエンドスタンダード (4)
Rails (4) GitHub (4)
インターンシップ (4)
カラーミーショップ (4)
インフラ (4) conference (4)
pbtech (3) インタビュー (3)
30days Album (3) YAPC (3)
技術基盤 (3) Android (3)
JUGEM (3) builderscon (3)
mruby (3) Design Scramble (2)
デザイナー交流会 (2)
プロダクトマネジメント (2)
メンタリング (2) ThinkDESIGN
security (2)
カラーミーリピート (2)
ethereum (2) blockchain (2)
ペパボ (2) ロリポップ (2)
productivity (2) グーペ (2)
動画 (2) ペパボのデザイン思考

Agenda

- The RubyGems team
- RubyGems
- RubyGems 3
- RubyGems 4
- Bundler
- RubyGems Bundler Integration

1.

The RubyGem team

Who are RubyGems Team member?

	Colby Swandale colby-swandale	2FA ✓	Public ▾	Owner	Dev
	Eric Hodel drbrain	2FA ✓	Public ▾	Owner	alumni
	David Radcliffe dwradcliffe	2FA ✓	Public ▾	Owner	SRE
	Evan Phoenix evanphx	2FA ✓	Public ▾	Owner	alumni
	SHIBATA Hiroshi hsbt	2FA ✓	Public ▾	Owner	Dev
	André Arko indirect	2FA ✓	Public ▾	Owner	Dev
	Nick Quaranto qrush	2FA ✓	Public ▾	Owner	alumni
	Samuel Giddins segiddins	2FA ✓	Public ▾	Owner	Dev

Pulse
Contributors
Community
Traffic
Commits
Code frequency
Dependency graph
Alerts
Network
Forks

Oct 24, 2017 – Oct 24, 2018

Contributions: Commits

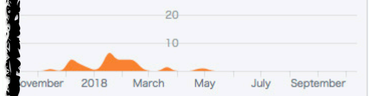
Contributions to master, excluding merge commits



#1 **hsbt**
202 commits 1,790 ++ 2,299 --



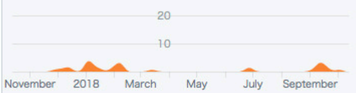
#2 **bundlerbot**
43 commits 538 ++ 334 --



#3 **bronzdoc**
34 commits 714 ++ 118 --



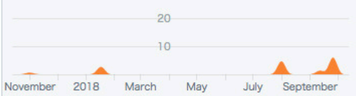
#4 **colby-swandale**
29 commits 732 ++ 671 --



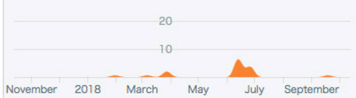
#5 **segiddins**
26 commits 256 ++ 64 --



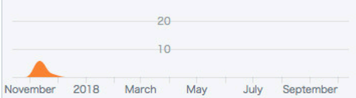
#6 **duckinator**
23 commits 155 ++ 176 --



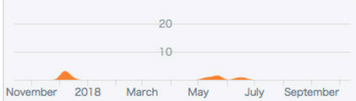
#7 **deivid-rodriguez**
22 commits 319 ++ 209 --



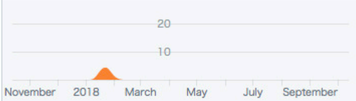
#8 **olleolleolle**
14 commits 806 ++ 652 --



#9 **MSP-Greg**
12 commits 330 ++ 184 --



#10 **claudijd**
10 commits 281 ++ 12 --



Specific roles

Release Manager

@hsbt: Master branch as 3.1, 3.0 and 2.7

Security Handler

@hsbt: HackerOne and Private Repository

Fulltime Commiter

@deivid-rodriguez: Supported by RubyTogether

3.

RubyGems

What’s rubygems?

- The package manager of Ruby libraries.
- `gem install “rails:~>5.2”`
- You can install specified version of Ruby libraries that called `Gem`. RubyGems handles global environment on your box.
- You could specify `gem ‘rails’, ‘~> 5.2”` syntax without its dependency in your code.

The policy of RubyGems versioning

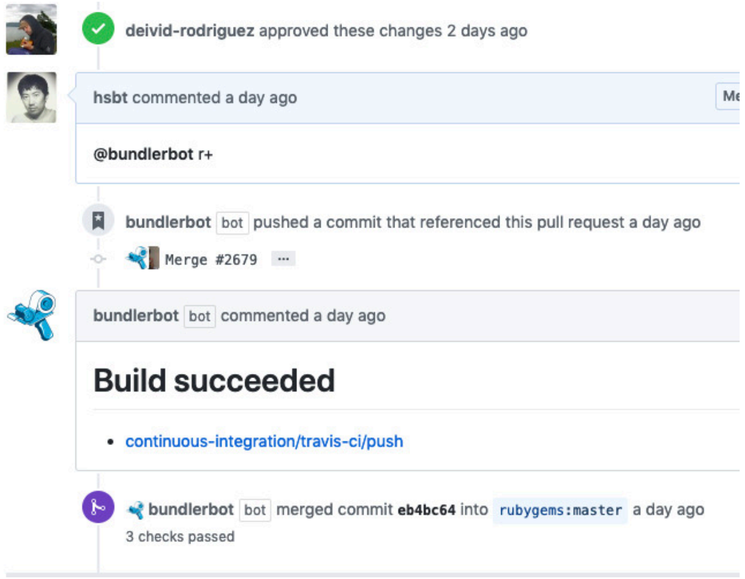
- The RubyGems accepts SemVer like versioning Policy.
- Merge latest stable version into Ruby Core
  - Ruby 2.6.0 bundled RubyGems 3.0
  - Ruby 2.7.0 will bundle RubyGems 3.1 or 4.0(TBD)
  - Ruby 3.0 will bundle RubyGems ???

Security release of RubyGems

- RubyGems also have HackerOne.
  - 3 people handle vulnerability issues and will release RubyGems by SemVer Policy like “2.7.7” from “2.7.6”
- On the other hand, The Ruby core team will back port only vulnerability fixes by independent version like “2.6.5.1”, not “2.7.7”

How develop RubyGems?

- The canonical repository is https://github.com/rubygems/rubygems.
- https://github.com/rubygems/rubygems.org is rubygems.org. It's not client software.
- We use Pull-Request and merge bot named `@bundlerbot`



5.

RubyGems 3

RubyGems 3 has been released

- I released RubyGems 3 at 19 Dec 2018
  - https://blog.rubygems.org/2018/12/19/3.0.0-released.html
- It says 5 major updates.
  - S3 source. Pull request #1690 by Aditya Prakash.
  - Download gems with threads. Pull request #1898 by André Arko.
  - Update to SPDX license list 3.0. Pull request #2152 by Mike Linksvayer.
  - [GSoC] Multi-factor feature for RubyGems. Pull request #2369 by Qiu Chaofan.
  - Use bundler 1.17.2. Pull request #2521 by SHIBATA Hiroshi.

Where come from the changelog?

- We use the changelog generator from commit logs.
  - https://github.com/rubygems/rubygems/blob/master/util/update_changelog.rb
  - It picked by @bundlerbot messages.
  - Because the changelog is not structured text.

- Remove PID from gem index directory. Pull request #2155 by SHIBATA Hiroshi.
- Nil guard on `Gem::Specification`. Pull request #2164 by SHIBATA Hiroshi.
- Skip broken test with macOS platform. Pull request #2167 by SHIBATA Hiroshi.
- Support option for `--destdir` with upgrade installer. Pull request #2169 by SHIBATA Hiroshi.
- To use constant instead of hard-coded version. Pull request #2171 by SHIBATA Hiroshi.
- Add Rake task to install dev dependencies. Pull request #2173 by Ellen Marie Dash.
- Add new sections to the README and explaination of what RubyGems is. Pull request #2174 by Colby Swandale.
- Prefer to use `Numeric#zero?` instead of `== 0`. Pull request #2176 by SHIBATA Hiroshi.
- Ignore perfomance test of version regexp pattern. Pull request #2179 by SHIBATA Hiroshi.
- Ignore .DS_Store files in the update_manifest task. Pull request #2199 by Colby Swandale.
- Allow building gems without having to be in the gem folder . Pull request #2204 by Colby Swandale.
- Added coverage ability used by simplecov. Pull request #2207 by SHIBATA Hiroshi.
- Improve invalid proxy error message. Pull request #2217 by Luis Sagastume.
- Simplify home directory detection and platform condition. Pull request #2218 by SHIBATA Hiroshi.
- Permission options. Pull request #2219 by Nobuyoshi Nakada.
- Improve gemspec and package task. Pull request #2220 by SHIBATA Hiroshi.
- Prefer to use util_spec in `Gem::TestCase`. Pull request #2227 by SHIBATA Hiroshi.
- [Requirement] Treat requirements with == versions as equal. Pull request #2230 by Samuel Giddins.
- Add a note for the non-semantically versioned case. Pull request #2242 by David

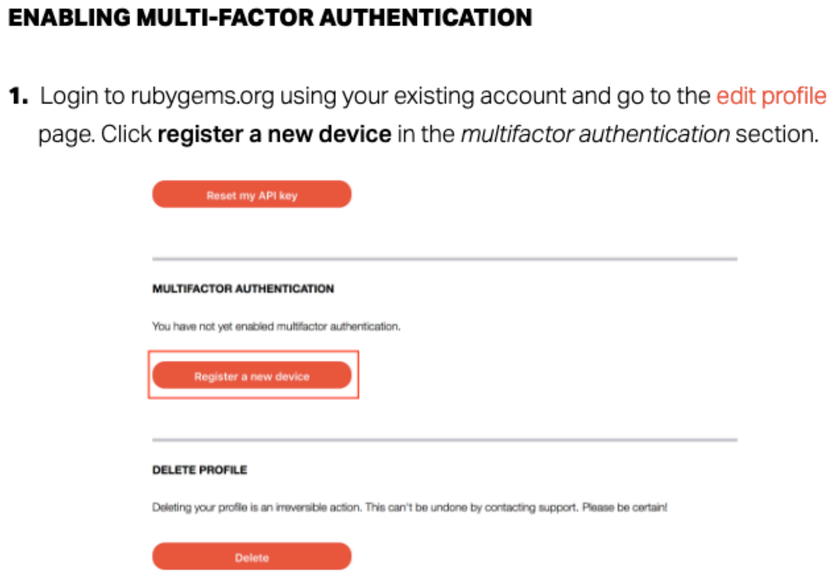
changelog.introduce

Download gems with threads

- https://github.com/rubygems/rubygems/pull/1898
- It introduced `concurrent_downloads` option at `.gemrc`. The default value is 8.
- It makes 8 times faster with `gem install`.

Multi-factor feature for RubyGems

- https://github.com/rubygems/rubygems/pull/2369
- It introduced the multi-factor authentication for gem management by CLI like `gem push`
- https://guides.rubygems.org/setting-up-multifactor-authentication/



Use File.open instead of open

- https://github.com/rubygems/rubygems/pull/2142
- Related with https://nvd.nist.gov/vuln/detail/CVE-2017-17405
- Given the pipe operator `|`, the attacker can execute a malicious code.

Added coverage ability used by simplecov

- https://github.com/rubygems/rubygems/pull/2207

```
~/D/g/r/rubygems (master) > rake test
Run options: --seed 2662

# Running:

.....................................................................................................
......
(snip)
.....................................................................S.....................................
.....................................

Finished in 72.010573s, 29.0513 runs/s, 90.0423 assertions/s.

2092 runs, 6484 assertions, 0 failures, 0 errors, 1 skips

You have skipped tests. Run with --verbose for details.
Coverage report generated for Unit Tests to /Users/hsbt/Documents/github.com/rubygems/rubygems/coverage. 8219 /
9194 LOC (89.4%) covered.
```

Support SOURCE_DATE_EPOCH

- https://github.com/rubygems/rubygems/pull/2278
- It makes gem spec reproducible.
  - https://reproducible-builds.org/specs/source-date-epoch/
- I'm not familiar with it…

Add alias command ‘i’ for ‘install’

- https://github.com/rubygems/rubygems/pull/2308
- https://github.com/rubygems/rubygems/pull/2023 introduces `gem info` command. It avoid to use `gem i`.

```
% gem i bundler
ERROR:  While executing gem ... (Gem::CommandLineError)
    Ambiguous command i matches [info, install]
```

Uninstall with versions

- https://github.com/rubygems/rubygems/pull/2466

```
% gem i bundler:1.17.3
% gem uninstall bundler:1.17.3
```

- Now, RubyGems supports above options for `gem uninstall`

Cleanup Code-base

- Removed deprecated methods.
- Removed to support for < Ruby 2.2.
- Removed Syck support.
- Added warnings of deprecated methods.
- Removed deprecated options.
  - [CAUTION] `--ri` and `--rdoc` options

Added Rubocop

```
AllCops:
  DisabledByDefault: true
  Exclude:
    - 'bundler/**/*'
    - 'lib/rubygems/resolver/molinillo/**/*'
    - 'pkg/**/*'
  TargetRubyVersion: 2.3

Layout/AccessModifierIndentation:
  Enabled: true

Layout/BlockAlignment:
  Enabled: true

Layout/CaseIndentation:
  Enabled: true

Layout/ClosingParenthesisIndentation:
  Enabled: true

Layout/CommentIndentation:
  Enabled: true

Layout/ElseAlignment:
  Enabled: true

MultilineIfThen:
  Enabled: true
```

Update Bundler Version Finder

- BundlerVersionFinder was introduced at RubyGems 2.7
- It ability is the version detection by RubyGems with Gemfile.lock strictly. Ex. 1.17.3 matches only 1.17.3
- We update it condition. Now, 1.17.3 matches 1.x.y, 2.0.3 also matches 2.x.y.

4.

RubyGems 4

What's new in RubyGems4?

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

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
~ >
```

Make `--user-install` as default

- Rubygems 4 will install the all gems to under the `~/.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.

5.

Bundler

What’s bundler?

- The vendoring tool of Ruby.
- RubyGems couldn’t care dependency of Ruby libraries and isolate version managing with ruby process.
- Bundler can do them with `Gemfile`

```
# frozen_string_literal: true

source "https://rubygems.org"

git_source(:github) { |repo| "https://github.com/#{repo}.git" }

gemspec

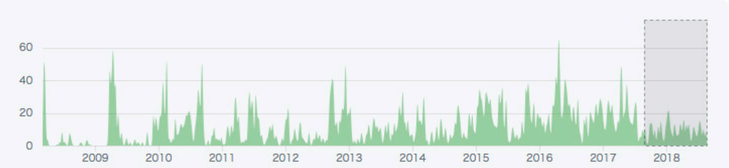
# We need a newish Rake since Active Job sets its test tasks' descriptions.
gem "rake", ">= 11.1"
```

Pulse
Contributors
Community
Traffic
Commits
Code frequency
Dependency graph
Alerts
Network
Forks

Oct 24, 2017 – Oct 24, 2018

Contributions: Commits

Contributions to master, excluding merge commits



#1 **bundlerbot**
103 commits 1,919 ++ 565 --



#2 **agrim123**
71 commits 2,076 ++ 949 --



#3 **segiddins**
57 commits 1,162 ++ 453 --



#4 **colby-swandale**
41 commits 454 ++ 139 --



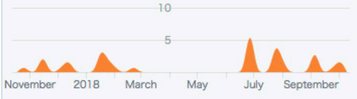
#5 **deivid-rodriguez**
40 commits 371 ++ 207 --



#6 **hsbt**
38 commits 512 ++ 408 --



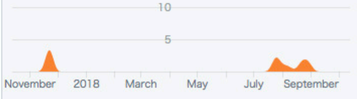
#7 **indirect**
37 commits 550 ++ 289 --



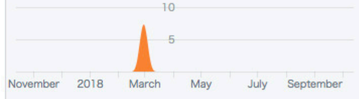
#8 **saveriomiroddi**
15 commits 182 ++ 113 --



#9 **eregon**
14 commits 87 ++ 21 --



#10 **nesaulov**
11 commits 46 ++ 11 --



What’s new in Bundler 2?

- We released 1.17.x and 2.0.x at last year.
- We disabled the incompatible features like renaming `gems.rb` from `Gemfile`
- They no longer support under the Ruby 2.2.

6.

RubyGems Bundler Integration

RubyGems/Bundler integration

- We are working to integrate RubyGems and Bundler.
- I’m working it because Bundler 2 was released.
- RubyGems 3&4 drop to support under the Ruby 2.2. Because Bundler 1.x still supports Ruby 1.8 and 1.9.

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
```

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.

Duplicates the certificates

- RubyGems and Bundler stored the duplicated certificates in your box.

```
~/D/g/r/rubygems (master) > fd . lib/rubygems/ssl_certs/
lib/rubygems/ssl_certs/index.rubygems.org
lib/rubygems/ssl_certs/index.rubygems.org/GlobalSignRootCA.pem
lib/rubygems/ssl_certs/rubygems.global.ssl.fastly.net
lib/rubygems/ssl_certs/rubygems.global.ssl.fastly.net/DigiCertHighAssuranceEVRootCA.pem
lib/rubygems/ssl_certs/rubygems.org
lib/rubygems/ssl_certs/rubygems.org/AddTrustExternalCARoot.pem
~/D/g/r/rubygems (master) > fd . bundler/lib/bundler/ssl_certs/
bundler/lib/bundler/ssl_certs/index.rubygems.org
bundler/lib/bundler/ssl_certs/index.rubygems.org/GlobalSignRootCA.pem
bundler/lib/bundler/ssl_certs/rubygems.global.ssl.fastly.net
bundler/lib/bundler/ssl_certs/rubygems.global.ssl.fastly.net/DigiCertHighAssuranceEVRootCA.pem
bundler/lib/bundler/ssl_certs/rubygems.org
bundler/lib/bundler/ssl_certs/rubygems.org/AddTrustExternalCARoot.pem
```

RubyGems/Bundler integration

- We will move the canonical repository of bundler to rubygems org or rubygems/rubygems(TBD).
- I have a plan to integrate code-base and command-line interface. Ex. `gem install` fallback to `bundle install` with no arguments. (TBD)
- After RubyKaigi 2019, the rubygems/bundler team member will discuss about this merger consideration in Fukuoka.







