The story of language development

Inside of CRuby core team

GMOペパボ株式会社



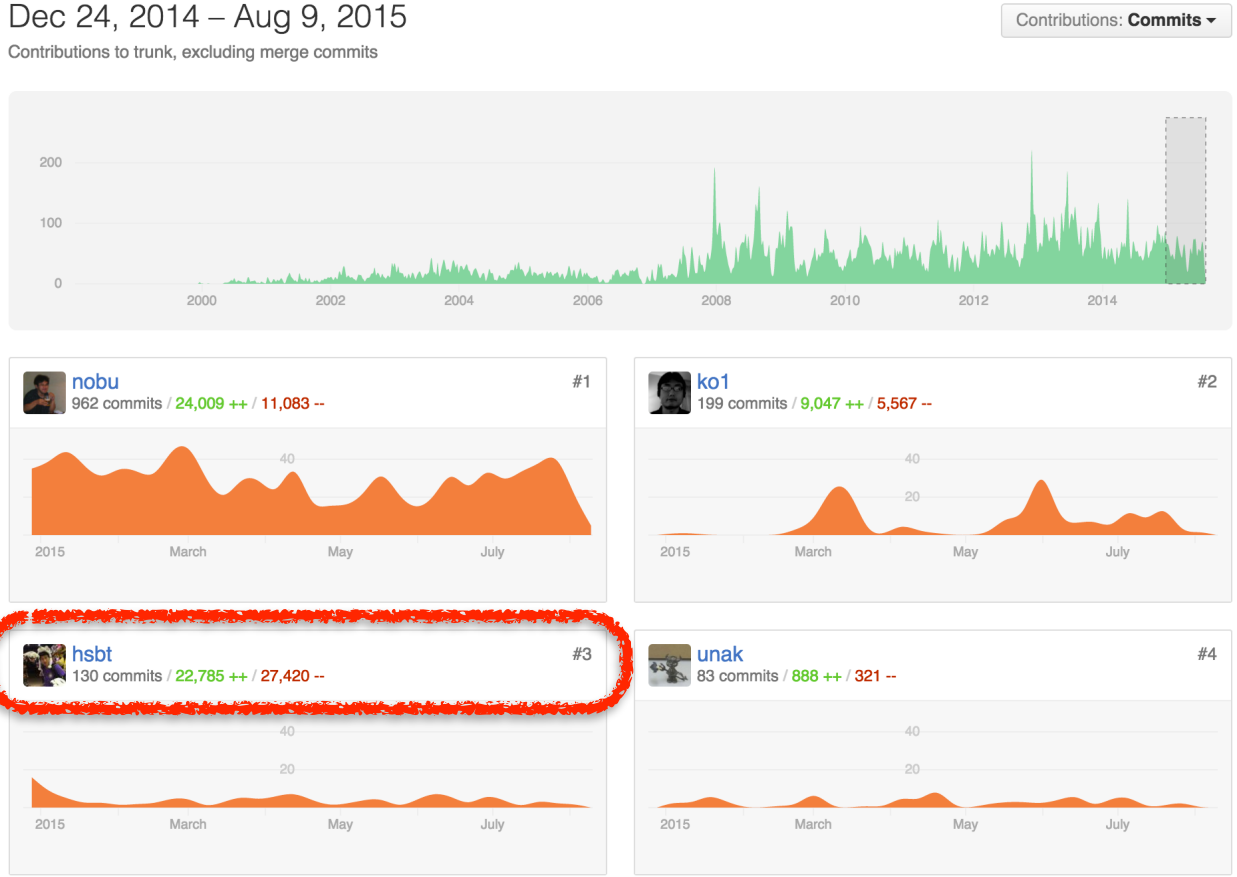
self.introduce



=>
{
  name: “SHIBATA Hiroshi”,
  nickname: “hsbt”,
  title: “Chief engineer at GMO Pepabo, Inc.”,
  commit_bits: [“ruby”, “rake”, “rubygems”, “rdoc”, “tdiary”, “hiki”, “railsgirls”, “railsgirls-jp”, “jenkins”],
  sites: [“ruby-lang.org”, “rubyci.com”, “railsgirls.com”, “railsgirls.jp”],
}

https://github.com/ruby/ruby

Me



I’m from Asakusa.rb

Asakusa.rb is one of the most active meet-ups in Tokyo, Japan.

@a_matsuda (Ruby/Rails committer, RubyKaigi organizer)
@kakutani (RubyKaigi organizer)
@ko1 (Ruby committer)
@takkanm (Ruby/Rails programmer)
@gunjisatoshi (Rubyist Magazine editor)
@hsbt (Me!)
…





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2015.08.04 講演・出演情報 GMOペパボ

「YAPC::Asia 2015」に登壇します

グローバルサイン認証サイト
SSL secured
クリックして確認
GlobalSign by GMO

株価情報

もっと
おもしろく
できる


Mobile
Factory


Wano
Cultivate your dream

スポンサー


ADWAYS


@type


SSRI


HDE
Liberation of Technology


epoch


KAIZEN PLATFORM


面白法人
カヤック


Qiita:Team


Catchball 21
Beyond All Imagination


Gunosy


Kyoto
University
Micro Computer Club


GMOペパボ株式会社


JIG-SAW


Seesaa


six apart


SHANON
for Successful Business.


Speee


diverse

Warning!!!

This presentation is no code

To be continued



Talk Information



Advanced technic for OS upgrading in 3 minutes Accepted

SHIBATA Hiroshi

github

63 ツイート | 14 Like | 0 +1 | イイネ! | 56 Bookmark

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Ruby

What’s ruby

“Ruby is… A dynamic, open source programming language with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to write.”

https://www.ruby-lang.org/en/

“簡単にいえばPerlのような手軽さで「楽しく」オブジェクト指向しようという言語”

https://www.ruby-lang.org/ja/about/

Basis of MRI and YARV

“ Throughout most of this book we’ll learn about the original, standard implementation of Ruby, known as Matz’s Ruby Interpreter (MRI) after Yukihiro Matsumoto, who invented Ruby in 1993.”

Ruby 1.8

Ruby Under a Microscope, p.4

“ With Ruby 1.9, Koichi Sasada and the Ruby core team introduced Yet Another Ruby Virtual Machine (YARV), which actually executes your Ruby code.”

Ruby 1.9

Ruby Under a Microscope, p.33

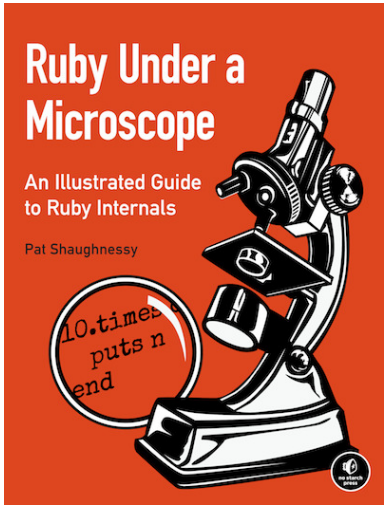
Variation of Ruby Interpreter

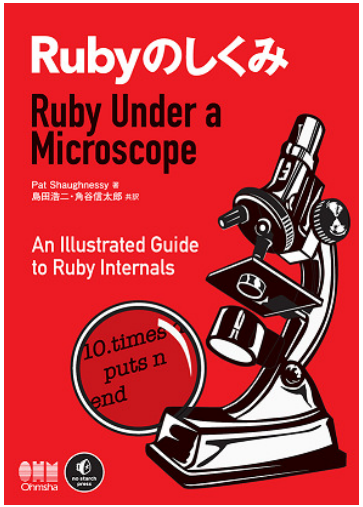
Implementation:

- Ruby(MRI, CRuby)
- JRuby
- Rubinius
- Opal

ISO/IEC 30170:2012:

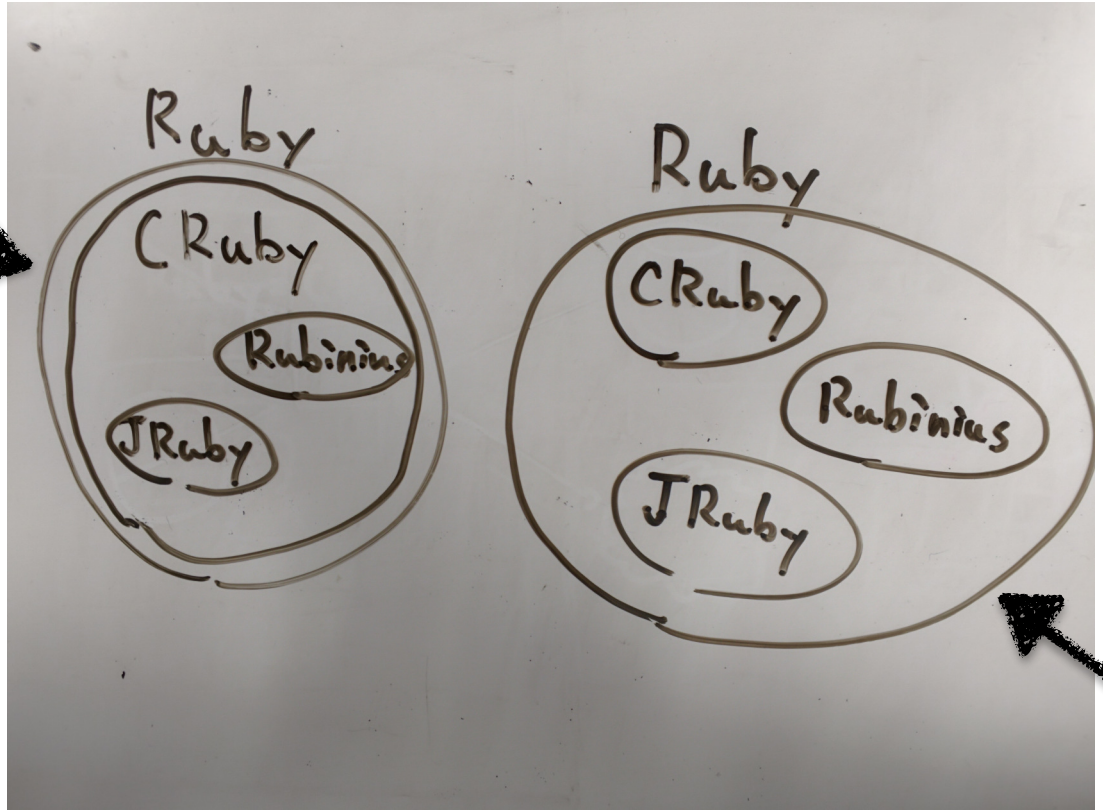
- CRuby
- mruby





Differences between CRuby and Others

It's CRuby's world



It's other Ruby's world

How to make Ruby in 2015

Requirements of Software development

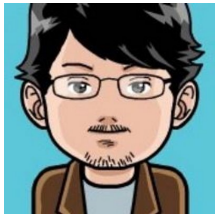
- People
- Dev Resources
- Issue tracking(feature, defects, etc)
- Release management

People

Ruby Committer

Team Heroku

- Matz(Director)
- ko1(YARV author)
- n0kada(Patch monster)





and others(total 87 people + 1 bot)

```
$ cat ~svn/.ssh/authorized_keys | awk '{print $5}' | sort | uniq | wc -l
88
```

Branch maintainer

trunk
  nurse: Release manager



2.2
  nagachika: Stable branch maintainer

2.1, 2.0.0
  unak: Old stable branch maintainer



Platform maintainer

Linux

- akr
- normal person
- n0kada

and others



BSD

- nurse



Solaris

- ngoto



Windows

- unak
- n0kada



OS X

- n0kada
- mrkn



Q&A

Q. What's "Ruby Core Team"?
A. I don't know. It's only called foreign Rubyists :)

Q. Is there territory of maintainer in Ruby?
A. Yes and No, Ruby committer can commit all of code in Ruby.

“With great power comes great responsibility.”

Uncle Ben, Spider-Man

Dev Resources

Ruby's development resources

- Personal development environments
  Windows, OS X, Linux, Solaris, AIX, BSD…

- Sponsored environments
  - NaCl: Virtual server and operations
  - Heroku: unlimited dyno and Addons
  - IIJ: Virtual server
  - Ruby association: budgets of build servers
  - GMO globalsign: SSL certificates

*.ruby-lang.org

www.ruby-lang.org

Official Website of Ruby language. It's hosted by Heroku.

svn.ruby-lang.org

Main repository of Ruby source. It's hosted by NaCl

bugs.ruby-lang.org

Official issue tracker of Ruby. It's hosted by Heroku

*.ruby-lang.org

ftp.ruby-lang.org

Site of distribute official package

docs.ruby-lang.org

Hosted document generated from RDoc and rubima project.

CDN

Our package distribution was supported by fastly.

cache.ruby-lang.org (It supports https)

Statistics of our CDN:

- USA: 52%, EU: 26%, Asia: 19%, Pacific: 3%
- Bandwidth: 2210.0 GB/month
- Requests: 682,616 req/month

What does mean “official”?

“official” means “Matz controllable”, I think.

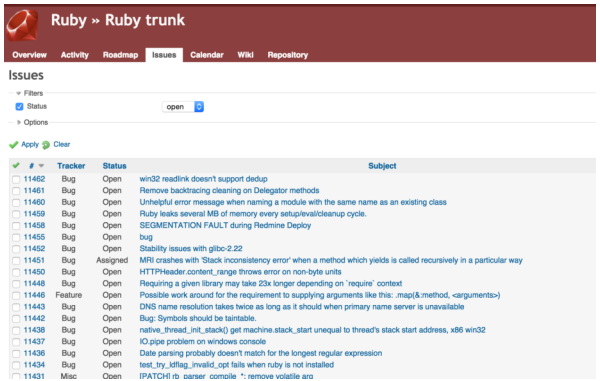
Example of un-controllable things

- rubygems.org
- ruby-doc.org
- bundler.io
- rvm/rbenv/chruby
- Rubyists :)

Feature request

Issue tracker

Our official tracker is “bugs.ruby-lang.org”



Mailing list integration

- https://github.com/ruby/redmine_*
- This behavior is same as github

Continuous Upgrade Ruby and Rails to latest version.

github

github.com/ruby/ruby is ok for some ruby commuters.

But matz is not available github. If you hope to ask new feature to Matz, You need to submit bugs.ruby-lang.org :bow:

Why Ruby does not use github???

- github is proprietary service
- ruby committers do not have problem with redmine

Tips of Feature request

see http://www.slideshare.net/hsbt/20140918-ruby-kaigi2014

1. We need to focus “Use case” than “function”.
2. We need to attach patch to feature request.
3. We need Matz approval. (It’s most important)

I think above requirements same as our working style like XP and scrum named agile development process.

Test

Test

You can easily run tests for official Ruby test suite.

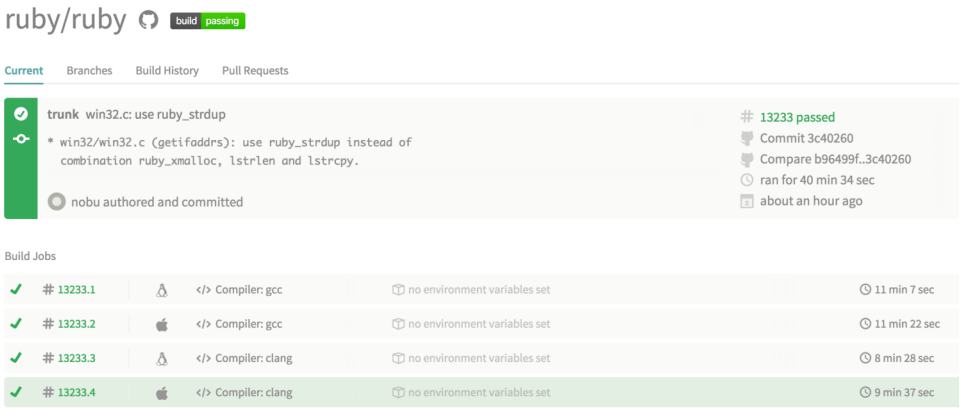
```
$ git clone https://github.com/ruby/ruby
$ autoconf && ./configure && make
$ make test
$ make test-all
$ make check TESTS="-j4"
```

RubySpec is alternative test suite focused to support other ruby implementation.

```
$ make update-rubyspec
$ make test-rubyspec
```

Windows & OS X

We offered special customized environment at Travis CI for OS X



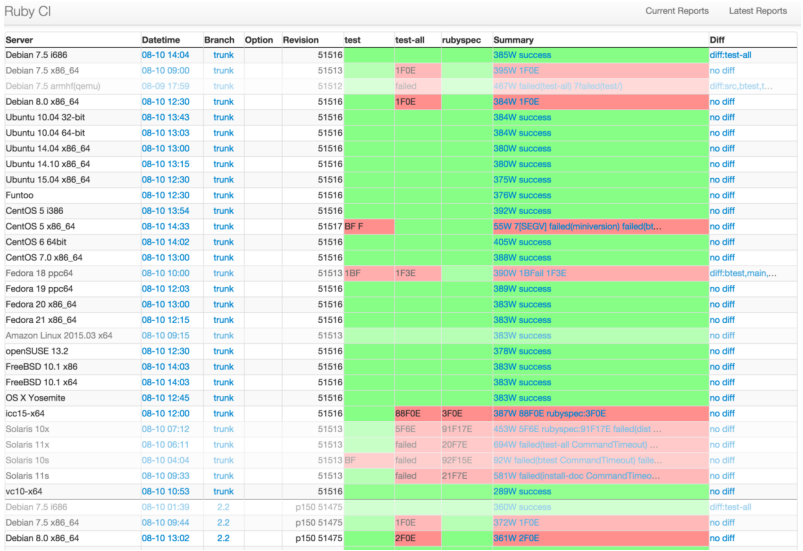
Microsoft supports our build environments for Windows.

Ruby CI

Ruby CI goal is entirely supports all of Ruby platform.

We can detect a lot of build fails using Ruby CI.

It has 2 or 3 versions every linux distribution and BSD, Windows, OS X, Solaris Environments.



Server	Datetime	Branch	Option	Revision	test	test-all	rubyspec	Summary	Diff
Debian 7.5 i686	08-10 14:04	trunk		51516				385W success	diff:test-all
Debian 7.5 x86_64	08-10 09:00	trunk		51513		1F0E		385W 1F0E	no diff
Debian 7.5 armhf(qemu)	08-09 17:59	trunk		51512		failed		467W failed(test-all) 7failed(test/)	diff:src_btest,t...
Debian 8.0 x86_64	08-10 12:30	trunk		51516		1F0E		384W 1F0E	no diff
Ubuntu 10.04 32-bit	08-10 13:43	trunk		51516				384W success	no diff
Ubuntu 10.04 64-bit	08-10 13:03	trunk		51516				384W success	no diff
Ubuntu 14.04 x86_64	08-10 13:00	trunk		51516				380W success	no diff
Ubuntu 14.10 x86_64	08-10 13:15	trunk		51516				380W success	no diff
Ubuntu 15.04 x86_64	08-10 12:30	trunk		51516				375W success	no diff
Funtoo	08-10 12:30	trunk		51516				376W success	no diff
CentOS 5 i386	08-10 13:54	trunk		51516				392W success	no diff
CentOS 5 x86_64	08-10 14:33	trunk		51517	BF F			55W 7[SEGV] failed(miniversion) failed(bt...	no diff
CentOS 6 64bit	08-10 14:02	trunk		51516				405W success	no diff
CentOS 7.0 x86_64	08-10 13:00	trunk		51516				388W success	no diff
Fedora 18 ppc64	08-10 10:00	trunk		51513	1BF	1F3E		390W 1BFail 1F3E	diff:btest,main,...
Fedora 19 ppc64	08-10 12:03	trunk		51516				389W success	no diff
Fedora 20 x86_64	08-10 13:00	trunk		51516				383W success	no diff
Fedora 21 x86_64	08-10 12:15	trunk		51516				383W success	no diff
Amazon Linux 2015.03 x64	08-10 09:15	trunk		51513				383W success	no diff
openSUSE 13.2	08-10 12:30	trunk		51516				378W success	no diff
FreeBSD 10.1 x86	08-10 14:03	trunk		51516				383W success	no diff
FreeBSD 10.1 x64	08-10 14:03	trunk		51516				383W success	no diff
OS X Yosemite	08-10 12:45	trunk		51516				383W success	no diff
icc15-x64	08-10 12:00	trunk		51516		88F0E	3F0E	387W 88F0E rubyspec:3F0E	no diff
Solaris 10x	08-10 07:12	trunk		51513		5F6E	91F17E	453W 5F6E rubyspec:91F17E failed(dist ...	no diff
Solaris 11x	08-10 06:11	trunk		51513		failed	20F7E	694W failed(test-all CommandTimeout) ...	no diff
Solaris 10s	08-10 04:04	trunk		51513	BF	failed	92F15E	92W failed(btest CommandTimeout) faile...	no diff
Solaris 11s	08-10 09:33	trunk		51513		failed	21F7E	581W failed(install-doc CommandTimeo...	no diff
vc10-x64	08-10 10:53	trunk		51516				289W success	no diff
Debian 7.5 i686	08-10 01:39	2.2		p150 51475				360W success	diff:test-all
Debian 7.5 x86_64	08-10 09:44	2.2		p150 51475		1F0E		372W 1F0E	no diff
Debian 8.0 x86_64	08-10 13:02	2.2		p150 51475		2F0E		361W 2F0E	no diff

http://rubyci.org

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Do submit your patch

1. Write code :)
2. Run tests
3. Open bugs.ruby-lang.org and create new account
4. Open https://bugs.ruby-lang.org/projects/ruby-trunk/issues/new
5. Attach your code and write description of your proposal
6. Press “submit”

Release

Version number and release cycle

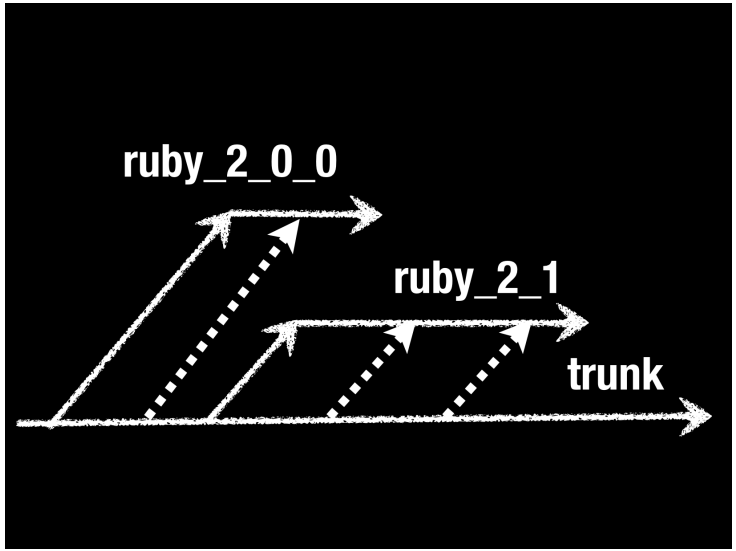
We plan to release every christmas.

- 2.1.0: 2013/12/25
- 2.2.0: 2014/12/25
- 2.3.0: 2015/12/25(TBD)

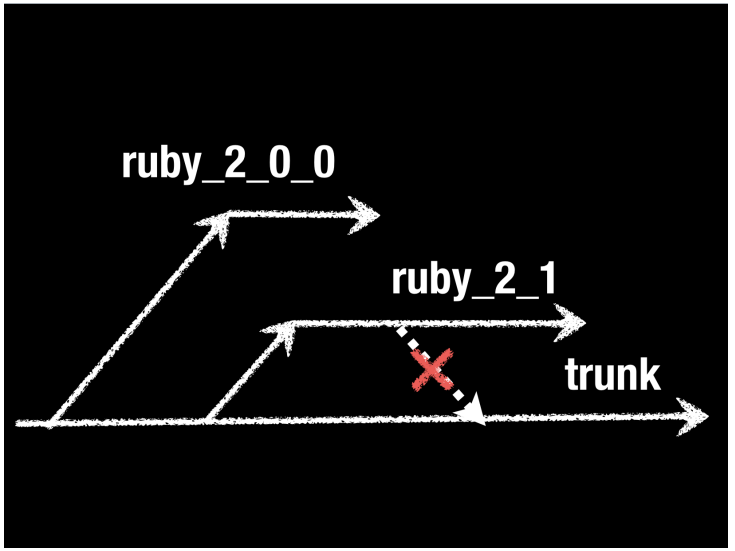
We was using patchlevel before Ruby 2.1 like 2.0.0-p645. But We could not plan to 2.0.1 and It confused to a lot of developers.

I proposed to change version model and It's accepted by Matz.

Our Branch model



We backport fixes to stable branch from trunk.



We do not merge fixes to trunk from stable branch

Ruby 2.3.0 status

We are working on the next version of Ruby, 2.3.0, now. However, the main feature is under “TBD” status. Some libraries will be omitted from stdlib such as rake, net-telnet, etc..

If you have any issue, please submit it to our issue tracker at http://bugs.ruby-lang.org

We hold the core developer meeting every months, and discuss various issues and ideas on Ruby. See https://bugs.ruby-lang.org/projects/ruby/wiki/#Developer-Meetings for details.

Developer Meeting

We hope to increase to transparency for Ruby development process.

One of our challenges is “Developer Meeting”. It’s open discussion time for feature and issue of Ruby every months.

[ruby-core:69550]: https://bugs.ruby-lang.org/projects/ruby/wiki/DevelopersMeeting20150728Japan

Release management

We will release new version of Ruby at “Release Day” by @narse

There is no exception to this rule.

- If we have incompletion issue or feature, we will revert it.
- If we don’t have enough discussion for some issue, we don’t merge or implement it into new version of ruby.
- If we found some regression, we need to fix it or revert to related code or issue.

Security release

We have “security@ruby-lang.org” for security report. We received buffer overflow, memory leak, escape string etc etc…

We hard to fix and release these security issue. so all of release maintainer are volunteer work.

Our release delayed by preparing new releases of stable and old stable version.

We should learn from OSS

I think “OSS is same as our working style than differences.”

We can learn following things(example):

- Write code
- Take care of development resources
- Focus Use-case
- Release management