**Ruby Programming**

***Knowledge Acquisition and Deep Dive***

Brian Abbott, March 21st, 2015

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# Overview

Tasks to Perform

* Read “The Ruby Programming Language” book by Flanagan and Matz
* Study the Ruby Standard Library
* Read the book “Metaprogramming Ruby” by Paola Perrotta

# Ruby Virtual Machines Overview and Major Architectural Outlines

The current set of Ruby Virtual Machines or Interpreters on the market are:

* HotRuby
* IronRuby
* JRuby
* MagLev
* Mruby
* Parrot Cardinal VM
* Rubinus
* Ruby 1.9 (YARV)
* Ruby MRI
* RubyJS
* XRuby

## HotRuby

### HotRuby Description

HotRuby is **Ruby on JavaScript and Flash**. HotRuby runs Ruby source code on a web browser and Flash. HotRuby runs opcode, compiled by YARV(Yet Another Ruby VM) on Ruby. HotRuby is Ruby VM.  
  
Most of the grammars are implemented. However, exceptions are not implemented. Most of the build-in functions and build-in classes are not implemented.

***Note: this project currently appears to be abandoned.***

### Hot Ruby Projects

|  |  |
| --- | --- |
| Project Name | Description |
| Hotruby source on Google Code | The bulk of the HotRuby source code is currently hosted on Google Code while that site is still online. The HotRuby Project itself does not have any other associated projects that are a part of it. |

### HotRuby Codebase outline and notes on Architecture

### Interesting Aspects or Attributes of HotRuby

### Examples of Running HotRuby

## IronRuby

IronRuby is an excellent addition to the .NET Framework, providing Ruby developers with the power of the .NET framework. Existing .NET developers can also use IronRuby as a fast and expressive scripting language for embedding, testing, or writing a new application from scratch.

The CLR is a great platform for creating programming languages, and the DLR makes it all the better for dynamic languages. Also, the .NET framework (base class library, presentation foundation, Silverlight, etc.) gives developers an amazing amount of functionality and power.

### IronRuby Projects

The following projects are hosted on the IronLanguages site on Github at the following location. <https://github.com/IronLanguages/>. This contains both Ruby and Python implementations but, this list on represents the projects that are either common or, specific to Ruby.

|  |  |
| --- | --- |
| Project Name | Description |
| dlr | The Dynamic Language Runtime enables language developers to more easily create dynamic languages for the .NET platform. In addition to being a pluggable back-end for dynamic language compilers, the DLR provides language interop for dynamic operations on objects. The DLR has common hosting APIs for using dynamic languages as libraries or for scripting in your .NET applications. |
| ironruby-contrib | This project consists of open-source projects related to IronRuby. |
| ironruby-tags | RubySpec tags for IronRuby project  <http://ironruby.net> |
| ironruby.net | IronRuby website. |
| main | Implementations of Python and Ruby programming languages for .NET Framework that are built on top of the Dynamic Language Runtime. |
| mspec | RSpec-syntax compatible framework for RubySpecs |
| rubyspec | RSpec-style specification for the Ruby programming language |

## JRuby

### JRuby Projects

|  |  |
| --- | --- |
| Project Name | Description |
| activerecord-jdbc-adapter | ActiveRecord-JDBC-Adapter (AR-JDBC) is a database adapter for Rails' \*ActiveRecord\* component that can be used with JRuby. It allows use of virtually any JDBC-compliant database with your JRuby on Rails application. |
| bench9000 | We hope to provide a range of benchmarking tools for Ruby implementers that is suited to a range of different use cases. A common set of benchmarks is coupled with a harness that provides multiple commands.  Questions that we aim to answer include 'have my last few commits affected performance?', 'how much faster is this implementation of Ruby compared to this one?', 'how long does this implementation take to warm up compared to this one?'. We also include functionality for graphing results.  We focus on macro benchmarks (at least a screen-full of code and hopefully much more) and kernels isolated from production code. We also focus primarily on peak temporal performance (how fast it runs when it's warmed up), but we do include measurements of how long warmup takes.  We include common synthetic benchmarks as well as benchmarks taken from unmodified off-the-shelf gems in use in production today.  Another focus is being gentle on early implementations of Ruby. Benchmarks are run in a subprocess with minimal language requirements for the harness.  Detailed notes on the methodology we have used can be found in the final section of this document. |
| blog.jruby.org | This is the site and data for blog.jruby.org |
| bytelist | Byte array based container |
| collateral | JRuby Collateral:   * Logos * Stickers * Shirts * Etc |
| dbm | DBM extension for JRuby |
| gitosis-admin | Git Keysets. |
| heroku-buildpack-jruby | A Heroku buildpack to fast and easy use JRuby on Heroku. |
| image\_voodoo | ImageVoodoo is an Image manipulation library with a ImageScience-compatible API for JRuby. |
| jay | Jay repo we use for JRuby |
| jay-yydebug | Debug symbols, etc for Jay. |
| jcodings | Java-based codings helper classes for Joni and JRuby |
| joda-timezones | This project provides a simple mechanism for downloading and building a jar containing timezone data compile for and usable by the joda-time library. |
| joni | Java port of Oniguruma regexp library. |
| jruby | JRuby VM - A Java implementation of the Ruby language. |
| jruby-cdc | A 1.8.5 compatible Ruby interpreter written in 100% pure Java |
| jruby-cext | **jruby-cext: CRuby extension support for JRuby**  This library provides a CRuby compatible C extension API for JRuby, via Java's JNI subsystem. |
| jruby-dashboard | A JRuby Dashboard created using Dashing, a dashboard framework, hosted at: <http://shopify.github.io/dashing/>. |
| jruby-debug | **ruby-debug-base for JRuby**  **(j)ruby-debug-base** provides the fast debugger extension for JRuby interpreter. It is the same as ruby-debug-base native C extension from ruby-debug project, but for JRuby. |
| jruby-demos | This is a collection of demos given at recent conferences. I hope to expand this collection with additional demos for future events. |
| jruby-launcher | JRuby Native Launcher. |
| jruby-lint | See how ready your Ruby code is to run on JRuby.  JRuby-Lint is a simple tool that allows you to check your project code  and configuration for common gotchas and issues that might make it  difficult to run your code on JRuby. |
| jruby-openssl | [JRuby-OpenSSL](https://github.com/jruby/jruby-openssl) is an add-on gem for  [JRuby](http://jruby.org) that emulates the Ruby OpenSSL native library.  Under the hood uses the [Bouncy Castle Crypto APIs](http://www.bouncycastle.org/). |
| jruby-parser | JRuby once had a parser which kept track of all sorts of extra information when it built it's Abstract Syntax Tree (AST). Stuff like character offsets where a particular element started or ended. The impact of this extra information was a more than noticeable amount of memory and a bit of a perf impact. At the time we decided to discontinue having this sort of parser in JRuby we created JRubyParser.  JRubyParser.java is just the Java code which is slowly evolving into everything a Ruby IDE project could want. Ability to know where source elements are; whether a syntax is correct; source re-writing....  Netbeans and Eclipse are two users of JRubyParser. We have a vested interest in making parsing Ruby a convenient and simple task for Java programmers. |
| jruby-rack | JRuby-Rack is a lightweight adapter for the Java Servlet environment that allows  any (Ruby) Rack-based application to run unmodified in a Java Servlet container.  JRuby-Rack supports Rails as well as any Rack-compatible Ruby web framework. |
| jruby-readline | readline extension for JRuby |
| jruby-visualizer | The ```jruby\_visualizer``` gem takes as input Ruby code and visualizes artifacts of JRuby's compiler/interpreter tool chain.  This includes   * the Abstract Syntax Tree (AST) * the Intermediate Representation (IR) * the execution of compiler passes on IR * a visualization for the Control Flow Graphs (CFGs) on JRuby Scopes |
| jruby-workshop | Course material for JRuby workshop at RubyConf AU 2013 |
| jruby.github.com | This repository contains the content for http://www.jruby.org/ as  [Jekyll][]-generated site. |
| jruby.github.io | This repository contains the content for http://www.jruby.org/ as  [Jekyll][]-generated site. |
| jrubyhub | JRubyHub is a Rails 3 application that showcases JRuby and Java  technologies mixed with Rails.  We're planning to run a live instance of JRubyHub on the  http://jruby.org site eventually. Currently we're in heavy development  mode. |
| openssl | OpenSSL provides SSL, TLS and general purpose cryptography. It wraps the OpenSSL library. |
| perfer | Perfer - A benchmark tool for all rubies! |
| pushing-pixels-benchmarks | Graphical benchmarking framework. |
| rails | Rails is a web-application framework that includes everything needed to create database-backed web applications according to the Model-View-Controller (MVC) pattern. |
| rubybench | A benchmark suite for all rubies! |
| rubygems | RubyGems is a package management framework for Ruby. |
| using\_jruby | This repository holds the code examples from the book "Using JRuby"  by Charles O Nutter, Nick Sieger, Thomas Enebo, Ola Bini, and Ian  Dees, published by the Pragmatic Programmers. |
| warbler | Warbler is a gem to make a Java jar or war file out of any Ruby, Rails or Rack  application. Warbler provides a minimal, flexible, Ruby-like way to bundle up  all of your application files for deployment to a Java environment.  Warbler provides a sane set of out-of-the box defaults that should allow most  Ruby applications to assemble and Just Work. |
| yecht | Yecht is a Syck port, a YAML 1.0 processor for Ruby |

## MagLev

MagLev is a fast, stable, 64-bit [open source](https://github.com/MagLev/maglev/blob/master/Licenses/README.txt) implementation of the Ruby programming language and libraries built on top of VMware’s GemStone/S 3.1 Virtual Machine.

The MagLev VM takes full advantage of GemStone/S JIT to native code performance, distributed shared cache, fully ACID transactions, and enterprise class NoSQL data management capabilities to provide a robust and durable programming platform. It can transparently manage a much larger amount (terabytes) of data and code than will fit in memory. There are no restrictions on what types of objects, classes, blocks, threads or continuations that can be stored and executed.

MagLev 1.0.0 was released on October 31, 2011.

### MagLev Projects on Github

|  |  |
| --- | --- |
| Project Name | Description |
| 007 | This repo contains two ancient versions of GemStone/S code that implement the 007 benchmark described in the 1983 SIGMOD paper ‘The 007 Benchmark’ by Michael J. Carey, David J. DeWitt & Jeffrey F. Naughton, Computer Sciences Department, University of Wisconsin-Madison. Implementations for other systems are available at ftp://ftp.cs.wisc.edu//oo7  We're providing this repo because some of you have expressed interest in porting 007 to MagLev Ruby. This code hasn't been run in quite a while. It may not even run in GemStone/S 3.1. But at least it's better than starting from scratch. |
| bcrypt-ruby | **bcrypt-ruby**  An easy way to keep your users' passwords secure.  \* <http://bcrypt-ruby.rubyforge.org/>  \* <http://github.com/codahale/bcrypt-ruby/tree/master>  **Why you should use `bcrypt()`**  If you store user passwords in the clear, then an attacker who steals a copy of your database has a giant list of emails and passwords. Some of your users will only have one password -- for their email account, for their banking account, for your application. A simple hack could escalate into massive identity theft.  It's your responsibility as a web developer to make your web application secure -- blaming your users for not being security experts is not a professional response to risk.  `bcrypt()` allows you to easily harden your application against these kinds of attacks.  *\*Note\**: JRuby versions of bcrypt-ruby `<= 2.1.3` had a [security vulnerability] that was fixed in `>= 2.1.4`. If you used a vulnerable version to hash passwords with international characters in them, you will need to  re-hash those passwords. This vulernability only affected the JRuby gem. |
| builder | Build scripts and integration with Hudson build system. |
| discount | DISCOUNT is a implementation of John Gruber's Markdown markup  language. It implements, as far as I can tell, all of the language as described in <http://daringfireball.net/projects/markdown/syntax>  and passes the Markdown test suite at  <http://daringfireball.net/projects/downloads/MarkdownTest_1.0.zip> |
| eventmachine | EventMachine is an event-driven I/O and lightweight concurrency library for Ruby. It provides event-driven I/O using the [Reactor pattern](http://en.wikipedia.org/wiki/Reactor\_pattern),  much like JBoss Netty, Apache MINA, Python's Twisted, Node.js, libevent and libev.  EventMachine is designed to simultaneously meet two key needs:  \* Extremely high scalability, performance and stability for the most demanding production environments.  \* An API that eliminates the complexities of high-performance threaded network programming, allowing engineers to concentrate on their application logic.  This unique combination makes EventMachine a premier choice for designers of critical networked applications, including Web servers and proxies, email and IM production systems, authentication/authorization  processors, and many more. |
| gemstone-scripts | Rake scripts and ruby files to support installation and management of several GemStone server instances.  The original project is at <http://github.com/ottobehrens/gemstone-scripts> |
| json | JSON implementation for Ruby |
| linenoise | A minimal, zero-config, BSD licensed, readline replacement. |
| liquid | Liquid is a template engine which was written with very specific requirements:  \* It has to have beautiful and simple markup. Template engines which don't produce good looking markup are no fun to use.  \* It needs to be non evaling and secure. Liquid templates are made so that users can edit them. You don't want to run code on your server which your users wrote.  \* It has to be stateless. Compile and render steps have to be seperate so that the expensive parsing and compiling can be done once and later on you can just render it passing in a hash with local variables and objects. |
| maglev | MagLev VM |
| maglev-topaz-scripts | MagLev Topaz Scripts  These directories contain topaz scripts that do useful stuff. They can be invoked using rake -- i.e.  rake maglev:input\_file[src/topaz/filename] |
| maglev.github.com | MagLev site on Github. |
| mspec | MSpec is a specialized framework that is syntax-compatible with RSpec for basic things like +describe+, +it+ blocks and +before+, +after+ actions. MSpec contains additional features that assist in writing the RubySpecs used by multiple Ruby implementations. |
| nio4r | nio4r: New IO for Ruby.  nio4r provides an abstract, cross-platform stateful I/O selector API for Ruby. I/O selectors are the heart of "reactor"-based event loops, and monitor multiple I/O objects for various types of readiness, e.g. ready for reading or writing. |
| nokogirii | Nokogiri (é‹¸) is an HTML, XML, SAX, and Reader parser. Among Nokogiri's many features is the ability to search documents via XPath or CSS3 selectors.  XML is like violence - if it doesnâ€™t solve your problems, you are not using enough of it. |
| rdiscount | Discount Markdown Processor for Ruby  Discount is an implementation of John Gruber's Markdown markup language in C. It implements all of the language described in the markdown syntax document and passes the Markdown 1.0 test suite. |
| retwis-rb | **MagLev Retwis-RB**  An example Twitter application using MagLev as the database. This example is forked from Daniel Lucraft's repository. |
| rubyspec | **RubySpec**  RubySpec is a project to write a complete, executable specification for the Ruby programming language. The specs describe Ruby language syntax as well as the core and standard library classes. |
| rvm | RVM is the Ruby Version Manager (rvm). It manages Ruby interpreter environments and switching between them. |
| seashell | Capistrano deployment recipes for seaside platforms |
| tesla |  |
| webtools | WebTools Example - a demo for what a unified Ruby mirror API can offer you  The WebTools Sinatra application allows you to explore a Ruby  application's Classes, Modules, Methods, Constants, and Ancestors in a web browser, as well as run and debug code, or explore VM statistics and other info. |

## Mruby

### Mruby Projects

|  |  |
| --- | --- |
| Project Name | Description |
| mruby | mruby is the lightweight implementation of the Ruby language complying to (part of) the [ISO standard][ISO-standard]. Its syntax is Ruby 1.9 compatible.  mruby can be linked and embedded within your application. We provide the interpreter program "mruby" and the interactive mruby shell "mirb" as examples. You can also compile Ruby programs into compiled byte code using the mruby compiler "mrbc". All those tools reside in the "bin" directory. "mrbc" is also able to generate compiled byte code in a C source file, see the "mrbtest"  program under the "test" directory for an example. |

## Rubinus

### Rubinus Projects

|  |  |
| --- | --- |
| Project Name | Description |
| atom-rubinius-terminal | Opens a terminal tab or pane within Atom that is configured to run Rubinius.  The main objective is to provide the simplest way to try Rubinius by providing direct access to an isolated install of Rubinius that does not interfere with a system Ruby or another Ruby switcher.  Another objective is creating better integration between the terminal and the editor without re-implementing terminal features in the editor or editor features in the terminal. |
| bundler-canary | This repository contains a Gemfile to assist troubleshooting issues with  Bundler and RubySL. |
| chruby | Changes the current Ruby. |
| collateral | Rubinius Collateral  - Logos  - Stickers  - Shirts  - Etc |
| daedalus-core | Daedalus is an extraction from the Rubinius build system. Very few of the  features have been implemented at this point. It is very very alpha. |
| ffi | Ruby-FFI is a ruby extension for programmatically loading dynamic  libraries, binding functions within them, and calling those functions  from Ruby code. Moreover, a Ruby-FFI extension works without changes  on Ruby and JRuby. Discover why should you write your next extension  using Ruby-FFI [here](http://wiki.github.com/ffi/ffi/why-use-ffi). |
| ffi2 | Provides a foreign function interface for MRI that utilizes XAPI for Ruby  implementations with modern garbage collection and concurrency facilities. |
| ffi2-generators | Utilities for generating constants, types, and structs for FFI. |
| heroku-canary-1 | A repository to help verify that Rubinius is working correctly on Heroku. |
| heroku-canary-2 | A repository to help verify that Rubinius is working correctly on Heroku. |
| heroku-rbx-puma-rails-app | # How to Use Rubinius and Puma on Heroku |
| hiredis-rb | Ruby extension that wraps [hiredis](http://github.com/antirez/hiredis). Both  the synchronous connection API and a separate protocol reader are supported.  It is primarily intended to speed up parsing multi bulk replies. |
| homebrew-apps | These are [Homebrew](http://brew.sh/) formula that provide useful  Rubinius-related packages (including Rubinius) that aren't acceptable to  Homebrew. [They have  reasons] |
| hpricot | Hpricot is a fast, flexible HTML parser written in C. It's designed to be very  accommodating (like Tanaka Akira's HTree) and to have a very helpful library  (like some JavaScript libs -- JQuery, Prototype -- give you.) The XPath and CSS  parser, in fact, is based on John Resig's JQuery.  Also, Hpricot can be handy for reading broken XML files, since many of the same  techniques can be used. If a quote is missing, Hpricot tries to figure it out.  If tags overlap, Hpricot works on sorting them out. You know, that sort of  thing. |
| influxdb-grafana | Docker container for using InfluxDB + Grafana to consume Rubinius Metrics StatsD output. |
| melbourne | Rubinius Melbourne parser.  **\*\*The repo is deprecated\*\*** and will be replaced with melbourne18, melbourne19, and melbourne20 very soon. |
| nokogiri | Nokogiri (é‹¸) is an HTML, XML, SAX, and Reader parser. Among Nokogiri's  many features is the ability to search documents via XPath or CSS3 selectors.  XML is like violence - if it doesnâ€™t solve your problems, you are not using  enough of it. |
| oniguruma | This repository is an import of Oniguruma 5.9.2 with modifications made in MRI  1.9.2 to support transcoding and modifications made in Rubinius to support  generational GC-friendly allocation.  The Oniguruma project website is <http://www.geocities.jp/kosako3/oniguruma/> |
| rapa | The Array#pack and String#unpack methods are essentially maps from one data  representation to another where the transform is controlled by a simple  regular language. These methods are used extensively in Ruby code to implement  marshalling and encoding.  All Ruby implementations have ad hoc, hand coded versions of these methods.  In contrast, this project uses Ragel to describe the language of directives  that controls how the transformations are performed. The transformations are  then coded in small snippits (Ragel actions). The grammar of directives is  language agnostic while the actions are coded in the implementation's target  language. In this way, the logic of the directives is shared across all  implementations. |
| rb-fsevent | rb-fsevent  Very simple & usable Mac OSX FSEvents API  - RubyCocoa not required!  - Signals are working (really)  - Tested on MRI 1.8.7 & 1.9.2, JRuby 1.6.3  - Tested on 10.6 & 10.7 (though 10.5 should work just as well)  - Tested with XCode 3.2.6, 4.0.2, 4.1, 4.2b5 |
| rbxday | **\#rbxday website**  [rbxday.rubini.us](http://rbxday.rubini.us) |
| rubinius | **The Rubinius Language Platform**  Rubinius is a modern language platform that supports a number of programming languages.  Rubinius includes a bytecode virtual machine, generational garbage collector, and just-in-time (JIT) native machine code compiler. Rubinius provides concurrency support via native OS threads with no global interpreter lock.  Rubinius runs on Mac OS X and many Unix/Linux operating systems. Microsoft Windows is not yet supported. |
| rubinius-actor | Rubinius-Actor  ==============  An implementation of the Actor concurrency model, from the Rubinius project.  Depends on Rubinius's core API class "Channel", built into Rubinius and  available for JRuby via the rubinius-core-api gem. |
| rubinius-ast | {An Abstract Syntax Tree for Ruby |
| rubinius-benchmark | This is a dump of the `benchmark/` directory that was in the Rubinius repository. |
| rubinius-book | The Rubinius Book |
| rubinius-bridge | Rubinius::Bridge |
| rubinius-compiler | Rubinius::Compiler |
| rubinius-core-api | This is an attempt to provide some of Rubinius's additional core classes on  other implementations.  Rubinius has all the normal Ruby classes, but to support implementing them  mostly in Ruby, they have added a number of other support classes. This  library hopes to implement those additional support classes for other Ruby  implementations, so they their utility can be shared across implementations. |
| rubinius-coverage | Rubinius coverage tool. |
| rubinius-debugger | Rubinius debugger. |
| rubinius-docs |  |
| rubinius-instructions | The Rubinius virtual machine instructions are defined using a special  structure that is then used to generate documentation and implementations for  the bytecode interpreter and JIT compiler. |
| rubinius-ir |  |
| rubinius-languages | This repository is a community project to write tutorials and exercises to  help people interested in writing their own programming language on the  Rubinius language platform. |
| rubinius-melbourne | Rubinius Ruby Parser - Ruby parser extracted from MRI. |
| rubinius-processor | Converts Melbourne parse tree into an AST. |
| rubinius-profiler | Rubinius profiler. |
| rubinius-report | A launcher to simplify reporting crashes and profiling. |
| rubinius-status | Heads up status report of in-progress features  http://status.rubini.us |
| rubinius-toolset | Rubinius::ToolSets provides a registry for code tools.  The goal of ToolSets is to provide a mechanism for sharing as much as possible  between the Rubinius build tools (e.g. the parser, the AST, tools to operate  on bytecode) and custom build tools for specific tasks or for other languages  targeting Rubinius. |
| rubinius-x | \*\*A Ruby platform for composition and collaboration.\*\*  The internet has caused a fundamental change in general computing, yet many  programming languages are solidly centered in the Windows 3.0 era,  providing their equivalent to the Windows for Workgroups add-on to enable  networking. Unfortunately, Ruby is one of those languages. |
| rubinius.github.io | The following is an alphabetical list of projects that leverage the excellent  technology found in Rubinius, from the bytecode interpreter to the JIT  compiler to the various tools written in Ruby, like the bytecode compiler.  If your project uses Rubinius, please submit a patch to add it to our list! |
| ruby-build | ruby-build is an [rbenv](https://github.com/sstephenson/rbenv) plugin  that provides an `rbenv install` command to compile and install  different versions of Ruby on UNIX-like systems.  You can also use ruby-build without rbenv in environments where you  need precise control over Ruby version installation. |
| ruby-hl7 | A simple way to parse and create HL7 2.x messages with Ruby. |
| ruby-oci8 | **Ruby interface for Oracle using OCI8 API** - ruby-oci8 is a ruby interface for Oracle using OCI8 API. It is available with Oracle8, Oracle8i, Oracle9i, Oracle10g and Oracle Instant Client. |
| rugged | Rugged is a Ruby binding to the libgit2 linkable library |
| simple-rails-bench |  |
| system-timer | System Timer, a timer based on underlying `SIGALRM` system timers, is a  solution to Ruby processes which hang beyond the time limit when accessing  external resources. This is useful when `timeout.rb`, which, on M.R.I 1.8,  relies on green threads, does not work consistently. |
| test-unit-canary | **Test::Unit Canary**  To check if Rubinius + Bundler is able to require Test::Unit files from the  rubysl-test-unit gem, clone this repository, select Rubinius in your favorite  Ruby switcher, and run the following: |
| travis-canary | Checks that the Travis Rubinius labels are working and that RVM is installing  the correct version. |
| xapi | Provides an extension API for MRI that enables better performance and is safe  on Ruby implementations with modern garbage collection and concurrency  facilities. |
| yajl-ruby | **YAJL C Bindings for Ruby**  This gem is a C binding to the excellent YAJL JSON parsing and generation library.  You can read more info at the project's website http://lloyd.github.com/yajl or check out its code at http://github.com/lloyd/yajl. |

## Ruby

Ruby YARV is the current Production Ruby Virtual Machine that is produced by Matz and, considered the current Reference Architecture for Ruby.

### Ruby Source Projects on Github

The ruby site is available at [www.github.com/ruby](http://www.github.com/ruby).

|  |  |
| --- | --- |
| Project Name | Description |
| bugs.ruby-lang.org | Ruby Bug Tracking System. Consists of the following:   * Redmine Project Tracking System Rails Application |
| curses | Ruby Binding to Curses text library. Used to be included in the Ruby Standard Library. |
| docs.ruby-lang.org | The Ruby Class Library Documentation Presenter. Appears to get it’s information from RDoc or something similar. |
| heroku-buildpack-bugs-ruby-lang | Heroku buildpack for Ruby, Rack, and Rails apps. |
| heroku-buildpack-www-ruby-lang |  |
| mspec | MSpec is a specialized framework that is syntax-compatible with RSpec for basic things like 'describe', 'it' blocks and 'before', 'after' actions. MSpec contains additional features that assist in writing the RubySpecs used by multiple Ruby implementations.  MSpec attempts to use the simplest Ruby language features so that beginning Ruby implementations can run the Ruby specs. |
| openssl | OpenSSL provides SSL, TLS and general purpose cryptography. It wraps the OpenSSL library. |
| rack-jekyll | Transforms a Jekyll app into a Rack application  - Can run it with rackup and shotgun, unicorn, and more.  - Can run rack-jekyll with any modified jekyll  - Can deploy rack-jekyll on Heroku, EC2, Slicehost, Rackspace Cloud, Dedicated server, VPS, etc.. |
| rake | Ruby’s version of make – complete implementation. |
| redmine\_link\_to\_root | Redmine Plugin  This plugin makes the header title linked to the root of site when it is not associated with any particular project.  This plugin is developed for http://bugs.ruby-lang.org |
| redmine\_mailing\_list\_integration | Redmine Plugin  This plugin integrates mailing lists with Redmine.  \* Transports issue*\_add, issue\_*edit mails to the correct mailing list.  \* Adds a hyperlink to the corresponding message into issue page |
| redmine\_mailing\_list\_integration\_imap\_supplement | Redmine Plugin  Redmine Mailing List Integration IMAP Supplement plugin  This plugin adds a IMAP support for Redmine Mailing List Integration plugin |
| redmine\_rd\_formatter | Redmine Plugin  This is a redmine plugin for supporting RD as a wiki format.  RD(Ruby Document Format) is Ruby's POD. It is a lightweight markup language, which was commonly used in Ruby-related documents. Some of experienced Ruby programmers still love it.  See [http://en.wikipedia.org/wiki/Ruby*\_Document\_*format](http://en.wikipedia.org/wiki/Ruby_Document_format)  for more details. |
| redmine\_ruby\_lang\_mailing\_list\_customization | Redmine Plugin  This is an enhancement for RedmineMailingListIntegration plugin. It adds some ruby-lang.org specific features  This plugin is worth for only bugs.ruby-lang.org |
| redmine\_s3 | **Redmine Plugin**  This Redmine plugin stores file attachments on Amazon S3 rather than on the local filesystem. This is a fork from the original gem at <http://github.com/tigrish/redmine_s3> and the difference is that this one supports Redmine 2. |
| redmine\_vote | **Redmine Plugin**  Redmine vote Plugin. Its style is similar to stackoverflow. You can vote for each message with a positive or negative point. When you install this plugin votes table is created internally. This plugin shows the sum of points the message using internal table. If you want to know the reaction of message in Redmine forum, this plugin helps you. And also if you want more functions of the plugin, you can add the issue on github freely. Thanks. |
| rubyspec | RubySpec is an executable specification for the Ruby programming language. The  specs describe Ruby language syntax as well as the core and standard library  classes. See http://rubyspec.org for more information.  The RubySpec files are written using RSpec-compatible syntax. MSpec is a  purpose-built framework for running RubySpec. For more information, see the  <http://github.com/rubyspec/mspec> project. |
| ruby | Source of the Ruby Interpreter/VM  Ruby is the interpreted scripting language for quick and easy object-oriented programming. It has many features to process text files and to do system management tasks (as in Perl). It is simple, straight-forward, and extensible. |
| rurema-search | A Web search interface for Ruby reference manual in Japanese |
| www.ruby-lang.org | This is the Jekyll source of the <http://www.ruby-lang.org> website. |

## RubyJS

## RubyMotion

## XRuby

### XRuby Description as offered by XRuby Site XRuby is the first Ruby to Java compiler which compiles Ruby source code (.rb) to Java bytecode (.class). The parser is implemented in ANTLR, and we use ASM to emit java bytecode.

The current stable version is 0.3.3, released on Mar. 24, 2008. It is able to pass all tests in samples/test.rb and most unit tests in test/ruby/ - a decent test suite that comes with ruby installation. In most benchmark tests, XRuby runs faster than Ruby 1.8.5.

Right now we are working hard to make more ruby libraries work under XRuby (Test::Unit is supported now, while Ruby On Rails is not). We always welcome contributors.

# Ruby Standard Library Models and Notes

The purpose of this section is to outline the Ruby Standard Libraries that were distributed with each corresponding VM release.

## Ruby Standard Library – 2.2.0

## Ruby Standard Library – 2.1

## Ruby Standard Library – 2.0

## Ruby Standard Library – 1.9.3

## Ruby Standard Library – 1.9.2

# Open Source Ruby Projects – Core, Utilities, and Tools

## Bundler

## RVM

## Ruby Concurrency

## Pry Debugger

debugger-pry

pry

pry.github.com

pry\_core

pry-autopilot

pry-bond

pry-bot

pry-coolline

pry-developer\_tools

pry-doc

pry-exception\_explorer

pry-fix

pry-git

pry-rails

pry-stack\_explorer

ruby

# Open Source Ruby Projects – Web Application Development, and Platforms

This section is intended to capture some of the major Ruby Platforms, Frameworks, or APIs available in the Open Source Community.

## Ruby on Rails

Ruby on Rails is perhaps the largest and most widely adopted application framework within the Domain of the Ruby Programming Language. The gems, descriptions of them and other characteristics will be captured in the sections below. The Primary Ruby on Rails Gems that make up the core Ruby on Rails Project are:

* actionmailer
* actionpack
* actionview
* activejob
* activemodel
* activerecord
* activesupport
* bundler
* railties
* sprockets-rails

The total collection of gems that are part of the Rails project are presented in the sections below.

### account\_location gem

NOTICE: official repository moved to https://github.com/bbommarito/account\_location

<https://github.com/rails/account_location.git>

|  |
| --- |
| Account Location  ================  Account location is a set of protected methods that supports the account-key-as-subdomain  way of identifying the current scope. These methods allow you to easily produce URLs that  match this style and to get the current account key from the subdomain.  The methods are: account\_url, account\_host, and account\_domain.  Example:  class ApplicationController < ActionController::Base  include AccountLocation  before\_filter :find\_account    protected  def find\_account  @account = Account.find\_by\_username(account\_subdomain)  end  end  class AccountController < ApplicationController  def new  @new\_account = Account.create(params[:new\_account])  redirect\_to :host => account\_host(@new\_account.username), :controller => "weblog"  end    def authenticate  session[account\_domain] = :authenticated  redirect\_to :controller => "weblog"  end    protected  def authenticated?  session[account\_domain] == :authenticated  end  end    # The view:    Your domain: <%= account\_url %>  By default, all the methods will query for @account.username as the account key, but you can specialize that by overwriting default\_account\_subdomain. You can of course also pass it in as the first argument to all the methods. |

### actionform gem

Set your models free from the accepts\_nested\_attributes\_for helper. Action Form provides an object-oriented approach to represent your forms by building a form object, rather than relying on Active Record internals for doing this. Form objects provide an API to describe the models involved in the form, their attributes and validations. A form object deals with create/update actions of nested objects in a more seamless way.

The provided description of the action-form gem is: “Create nested forms with ease”. An alternative layer to accepts\_nested\_attributes\_for by using Form Models.

Forked from m-Peter/activeform

#### Examples of using action-form

**Defining Forms**

Consider an example where you want to create/update a conference that can have many speakers which can present a single presentation with one form submission. You start by defining a form to represent the root model, Conference:

|  |
| --- |
| class ConferenceForm < ActionForm::Base  self.main\_model = :conference  attributes :name, :city  validates :name, :city, presence: true  end |

Your form object has to subclass ActionForm::Base in order to gain the necessary API. When defining the form, you have to specify the main\_model the form represents with the following line:

self.main\_model = :conference

To add fields to the form, use the attributes or attribute class method. The form can also define validation rules for the model it represents.

For the presence validation rule there is a short inline syntax:

class ConferenceForm < ActionForm::Base

attributes :name, :city, required: true

end

#### actionform Dependencies

rails

#### actionform files and notable architectural elements

Files contained within the Action-Form Gem:

* lib
  + action\_form/
    - base.rb
    - form\_collection.rb
    - form\_definition.rb
    - form\_helpers.rb
    - form.rb
    - too\_many\_records.rb
    - version.rb
    - view\_helpers.rb
  + rails
    - generators
      * form
        + templates

form.rb

* + - * + form\_generator.rb
        + form\_install\_generator.rb
  + tasks
    - action\_form\_tasks.rake
  + action\_form.rb

##### ./lib/action\_form/base.rb Classes and Components

The following sections capture the class definitions and their attributes of the base.rb file

###### ActionForm::Base Class Definition

###### Define Model Callbacks

* :save
* only:
* [:after]

###### after\_save callbacks

* :update\_form\_models

###### delegates:

:persisted?

:to\_model

:to\_key

:to\_param

:to\_partial\_path

to: :model

###### Read-only attributes

:model

:form

##### ./lib/action\_form/form\_collection.rb Classes and Components

###### ActionForm::FormCollection Class

Public Methods

* **initialize(assoc\_name, parent, proc, options)**
* **update\_models**
* **submit(params)**
* **get\_model(assoc\_name)**
* **valid?**
* **represents?(assoc\_name)**
* **models**
* **each(&block)**

**initialize(assoc\_name, parent, proc, options)**

Basic property initializer

**update\_models**

Calls fetch\_models

**submit(params)**

Calls create\_or\_update\_record or create\_or\_assign\_record, submitting the params collection.

**get\_model(assoc\_name)**

**I**nstantiates a new Form object with the FormCollection instances association\_name property.

**valid?**

Calls aggregate\_form\_errors and returns weather the errors collection is empty or not.

**represents?(assoc\_name)**

Returns the value of the compare between the parameter to the method with the class association\_field’s.

**Models**

Returns the forms property

**each(&block)**

**I**terates the forms properties each method and calls the block on them.

Private Methods

* REJECT\_ALL\_BLANK\_PROC
* UNASSIGNABLE\_KEYS
* call\_reject\_if(attributes) -
* assign\_to\_or\_mark\_for\_destruction(form, attributes)
* existing\_record?(attributes)
* update\_record(attributes)
* create\_record(attributes)
* create\_or\_update\_record(attributes)
* create\_or\_assign\_record(key, attributes)
* has\_destroy\_flag?(attributes)
* assign\_forms
* dynamic\_key?(i)
* aggregate\_form\_errors
* fetch\_models
* initialize\_models
* collect\_errors\_from(model)
* check\_record\_limit!(limit, attributes\_collection)
* find\_form\_by\_model\_id(id)
* remove\_form(form)
* create\_form

**REJECT\_ALL\_BLANK\_PROC** – A proc definition to who have been marked for destroy or, have the value as “\_blank”.

**UNASSIGNABLE\_KEYS** – a value of id and \_destroy using w%()

**call\_reject\_if(attributes)**

Calls the REJECT\_ALL\_BLANK proc passing the attributes parameter.

**assign\_to\_or\_mark\_for\_destruction(form, attributes)**

Calls the submit method or and then calls form.delete if the destroy flag is present on the attributes.

**existing\_record?(attributes)**

Returns true if the attributes[:id] is present.

**update\_record(attributes)**

Finds the form by model-id and then calls assign\_to\_or\_mark\_for\_destruction.

**create\_record(attributes)**

Calls create\_form and then submit on the new form object with the attributes passed to the submit call.

**create\_or\_update\_record(attributes)**

First checks to see if the record is existing and calls update\_record if it is. Otherwise, create\_record is called.

**create\_or\_assign\_record(key, attributes)**

if dynamic-key is true, we call create\_record. Otherwise, we call forms.delete if call\_reject\_if(attributes) returns true and then, in the same else block, we call forms[i].submit, creating the form object.

**has\_destroy\_flag?(attributes)**

checks that the attributes[‘\_destroy’] key contains the value of “1”

**assign\_forms**

if the parent is persisted, we call fetch\_models. Otherwise, we call initialize\_models.

**dynamic\_key?(i)**

checks that the key, converted to an integer with .to\_i is of a greater value then the forms.size (meaning the key represents an additional field, having been added to the original forms collection)

**aggregate\_form\_errors**

calls valid? On the form object and then calls collect\_errors\_from on that form element.

**fetch\_models**

calls association\_name on the parent to populate an associated\_records list and then iterates on those, creating a new form object for each record found.

**initialize\_models**

for each record object, instantiate a new form object and populate it into the forms collection.

**collect\_errors\_from(model)**

grabs the errors on each attribute and adds them to an errors collection.

**check\_record\_limit!(limit, attributes\_collection)**

Checks if attributes\_collection’s size is greater then the limit property and raises if it is.

**find\_form\_by\_model\_id(id)**

Calls select on the forms collection with a block performing a find by id.

**remove\_form(form)**

Calls forms.delete for the passed form.

**create\_form**

Instantiates a new form object and adds it to the forms collection.

##### ./lib/action\_form/form\_definition.rb Classes and Components

###### ActionForm::FormDefinition Class

###### Attribute Accessors

* :assoc\_name
* :proc
* :parent
* :records

Public Methods

**initialize(assoc\_name, block, options={})**

Simple properties initializer

**to\_form**

If the macro for the form is has\_one or belongs\_to, to\_form creates a new Form object. If the macro type is has\_many, we instantiate a FormCollection object.

Private Methods

**association\_reflection**

retries the association-collection from the parent through the reflect\_on\_association call with @assoc\_name as the parameter.

##### ./lib/action\_form/form\_helpers.rb Classes and Components

###### ActionForm::FormHelpers Class Definition

Fields

**ATTRIBUTES\_KEY\_REGEXP**

Contains a reg-ex value for fields that contain “\_attributes”.

Public Methods

* submit(params)
* valid?
* nested\_params?(value)
* find\_association\_name\_in(key)
* fill\_association\_with\_attributes(association, attributes)
* find\_form\_by\_assoc\_name(assoc\_name)
* aggregate\_form\_errors
* collect\_errors\_from(validatable\_object)

**submit(params)**

For each paremeter, if the parameter value is a nested parameter, we call fill\_assocation\_with\_attributes() otherwise, we call send to assign the value through that fields setter.

**valid?**

Calls valid? On model, then calls collect\_errors\_from on the model object and then aggregate\_form\_errors.

**nested\_params?(value)**

Checks if value is a Hash object.

**find\_association\_name\_in(key)**

Calls match on the ATTRIBUTES\_KEY\_REGEXP, passing the key to regex.

**fill\_association\_with\_attributes(association, attributes)**

Calls find\_association\_name\_in to retrieve the association-name and then again calls find\_form\_by\_assoc\_name with the association\_name as the parameter and finally calls submit on the form, passing the attributes.

**find\_form\_by\_assoc\_name(assoc\_name)**

Calls the select finder function on the forms collection, passing a block that calls the represents? method on the form object, passing the association\_name to the represents call.

**aggregate\_form\_errors**

Calls valid? on the form object and then collect\_errors\_from on the form.

**collect\_errors\_from(validatable\_object)**

if the validatable\_object has an association\_name, we call the attribute method on association\_name, otherwise, we call attribute.

##### ./lib/action\_form/form.rb Classes and Components

###### ActionForm::Form Class Definition

Class Variables

**REJECT\_ALL\_BLANK\_PROC**

Proc to determine if the key value is either marked destroy or if the value is blank.

Defined Delegates

* *:id*
* *:\_destroy*
* *:persisted?*
* *to*: *:model*

Attribute Readers Defined:

* *:association\_name*
* *:parent*
* *:model*
* *:forms*
* *:proc*

Public Methods

* initialize(assoc\_name, parent, proc, model=nil)
* class
* association(name, options={}, &block)
* attributes(\*arguments)
* method\_missing(method\_sym, \*arguments, &block)
* update\_models
* REJECT\_ALL\_BLANK\_PROC
* call\_reject\_if(attributes)
* params\_for\_current\_scope(attributes)
* submit(params)
* get\_model(assoc\_name)
* delete
* represents?(assoc\_name)

**initialize(assoc\_name, parent, proc, model=nil)**

Simple Properties initializer, then calling enable\_autosave and instance\_eval.

**class**

returns model.class – the class of the model file.

**association(name, options={}, &block)**

creates an association but creating the attributes getter and setter.

**attributes(\*arguments)**

calls the attribute delegate for each attribute in the collection.

**method\_missing(method\_sym, \*arguments, &block)**

Looks for validates in the method\_sym argument and, calls that method on the arguments list, along with the block to method\_missing.

**update\_models**

Calls the name of the association on the parent object.

**call\_reject\_if(attributes)**

Calls REJECT\_ALL\_BLANK\_PROC.call passing it the attributes parameter.

**params\_for\_current\_scope(attributes)**

Removes Hash objects from the attributes collection.

**submit(params)**

calls build\_<association\_name> if the parameters don’t have a Hash and the reflection information states that the property type is a belong\_to.

**get\_model(assoc\_name)**

Does a get\_model for the association – finds the form by the association, then calls get\_model on the form.

**delete**

model.mark\_for\_destruction

**represents?(assoc\_name)**

Association\_name == the assoc\_name parameter.

Private Methods

* enable\_autosave
* association\_reflection
* build\_model
* fetch\_or\_initialize\_model
* assign\_model

**enable\_autosave**

Sets the autosave property on the model to true.

**association\_reflection**

Calls reflect\_on\_association, passing it association\_name

**build\_model**

When the macro value is :belongs\_to, calls parent.send with the association-name to return the association instance. If the association\_name is not a callable property on the parent, it creates a new association\_name instance using the association\_reflection.klass property value. If the value is has\_one, it calls fetch\_or\_initialize. If the value is has\_many it calls build on the parent’s association\_name property.

**fetch\_or\_initialize\_model**

If the parent property value has the association property, it calls parent.send association\_name otherwise, it calls association\_name.build.

**assign\_model**

Calls build\_model if the model has not already been created.

##### ./lib/action\_form/too\_many\_records.rb Classes and Components

###### ActionForm::TooManyRecords Class Definition

This is a simple exception class that extends from RuntimeError.

##### ./lib/action\_form/version.rb Classes and Components

###### ActionForm:: Module Definition

**VERSION Property**

Contains the current version of ActionForm.

##### ./lib/action\_form/view\_helpers.rb Classes and Components

###### ActionForm::ViewHelpers Class Definition

Public Methods

* link\_to\_remove\_association
* render\_association
* link\_to\_add\_association
* create\_object
* get\_partial\_path

**link\_to\_remove\_association(name, f, html\_options={})**

If the field is existing, we grab the hidden\_field :destroy and append the link name to it. Otherwise, we just create the link using link\_to and append the html\_options with the # in front of it.

**render\_association(association, f, new\_object, render\_options={}, custom\_partial=nil)**

Creates the association by first deciding which method to use, which could be one of :semantic\_fields\_for, :simple\_fields\_for, :fields\_for. Then calls the resolved method\_name, passing it the method\_name, the association and the new\_object. And then passes the block a call to render.

**link\_to\_add\_association(name, f, association, html\_options={})**

Uses render\_options and partial from the html\_options parameter to populate the data-assocation-insertion-template field parameter. It does this by calling CGI.escapeHTML and passing the call to render\_association to that. Finally, it calls link\_to.

**create\_object(f, association)**

calls form.object.get\_model() on the association.

**get\_partial\_path(partial, association)**

returns partial if partial is not nil otherwise, calls association.singularlize and appends \_fields to the return value.

### actionpack-action\_caching gem

Action caching for Action Pack (removed from core in Rails 4.0

#### Examples of using

#### actionpack-action\_caching dependencies

#### actionpack-action\_caching files and notable architectural elements

##### ./lib/action\_controller/caching/actions.rb Classes and Components

###### ActionController::Caching::Actions Class Definition

##### ./lib/action\_controller/action\_caching.rb Classes and Components

##### ./lib/actionpack/action\_caching/railtie.rb Classes and Components

##### ./lib/actionpack/action\_caching.rb Classes and Components

### actionpack-page\_caching gem

Static page caching for Action Pack (removed from core in Rails 4.0)

Action caching for Action Pack (removed from core in Rails 4.0).

### actionpack-xml\_parser gem

XML parameters parser for Action Pack (removed from core in Rails 4.0)

### activejob gem

Declare job classes that can be run by a variety of queueing backends

### activemodel-globalid gem

Serializing models to a single string makes it easy to pass references around

### activerecord-deprecated\_finders gem

### activerecord-session\_store gem

Active Record's Session Store extracted from Rails

### activeresource gem

Connects business objects and REST web services

### activesupport-json\_encoder gem

### acts\_as\_list gem

NOTICE: official repository moved to https://github.com/swanandp/acts\_as\_list

### acts\_as\_nested\_set gem

NOTICE: official repository moved to https://github.com/bbommarito/acts\_as\_nested\_set

### acts\_as\_tree gem

NOTICE: official repository moved to https://github.com/amerine/acts\_as\_tree

### arel gem

forked from brynary/arel - A Relational Algebra

### asset\_server gem

NOTICE: official repository moved to https://github.com/andhapp/asset\_server

### atom\_feed\_helper gem

NOTICE: official repository moved to https://github.com/TrevorBramble/atom\_feed\_helper

### auto\_complete gem

NOTICE: official repository moved to https://github.com/david-kerins/auto\_complete

### cache\_digests gem

### coffee-rails gem

forked from spastorino/coffee-rails

### commands gem

Run Rake/Rails commands through the console

### conductor gem

forked from NewRosies/conductor - Conductor is a Rails engine that lets you do through a web UI what you'd normally do with the rails shell command.

### continuous\_builder gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### country\_select gem

NOTICE: official repository moved to https://github.com/stefanpenner/country\_select

### deadlock\_retry gem

NOTICE: official repository moved to https://github.com/heaps/deadlock\_retry

### docrails gem

Rails branch for quick doc fixes, please DO NOT OPEN PULL REQUESTS IN HERE

### dynamic\_form gem

NOTICE: official repository moved to https://github.com/joelmoss/dynamic\_form

### etagger gem

Declare what goes in to your ETags: asset versions, account ID, etc.

### exception\_notification gem

NOTICE: official repository moved to https://github.com/smartinez87/exception\_notification

### execjs gem

Run JavaScript code from Ruby

### fcgi\_handler gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### globalid gem

Identify app models with a URI

### gsoc2013 gem

Project website and wiki for Ruby on Rails proposals to Google Summer of Code 2013

### gsoc2014 gem

Project website and wiki for Ruby on Rails proposals to Google Summer of Code 2014

### hide\_action gem

NOTICE: official repository moved to https://github.com/sikachu/hide\_action

### http\_authentication gem

NOTICE: official repository moved to https://github.com/dshimy/http\_authentication

### in\_place\_editing gem

NOTICE: official repository moved to https://github.com/amerine/in\_place\_editing

### irs\_process\_scripts gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core. The extracted inspector, reaper, and spawner scripts from script/process/\*

### iso-3166-country-select gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### javascript\_test gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### jbuilder gem

Create JSON structures via a Builder-style DSL

### journey gem

A router for rails

### jquery-rails gem A gem to automate using jQuery with Rails

### jquery-ujs gem Ruby on Rails unobtrusive scripting adapter for jQuery

### localization gem

NOTICE: official repository moved to https://github.com/malev/localization

### open\_id\_authentication gem

NOTICE: official repository moved to https://github.com/Velir/open\_id\_authentication

### pjax\_rails gem

PJAX integration for Rails

### protected\_attributes gem

Protect attributes from mass-assignment in ActiveRecord models.

### prototype\_legacy\_helper gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### prototype-rails gem

Add RJS, Prototype, and Scriptaculous helpers to Rails 3.1+ apps

### prototype-ujs gem

Abstract common routing resource concerns to cut down on duplication.

### rails gem

Ruby on Rails -

rails.github.com

Versions:

4.2.1 - March 19, 2015 (1.41 MB)

4.2.1.rc4 - March 12, 2015 (1.41 MB)

4.2.1.rc3 - March 2, 2015 (1.41 MB)

4.2.1.rc2 - February 25, 2015 (1.41 MB)

4.2.1.rc1 - February 20, 2015 (1.41 MB)

Show all versions (249 total)

Runtime Dependencies:

actionmailer = 4.2.1 actionpack = 4.2.1 actionview = 4.2.1 activejob = 4.2.1 activemodel = 4.2.1 activerecord = 4.2.1 activesupport = 4.2.1 bundler < 2.0, >= 1.3.0 railties = 4.2.1 sprockets-rails >= 0

### rails\_upgrade gem

forked from jm/rails\_upgrade - Plugin to run checks on your Rails 2.x/3.x to check for obvious upgrade points on the path to 3.0

### rails\_xss gem

forked from NZKoz/rails\_xss - A plugin for rails 2.3 apps which switches the default to escape by default

### rails-deprecated\_sanitizer gem

forked from kaspth/rails-deprecated\_sanitizer - Deprecated sanitizer API extracted from Action View.

### rails-dev-box gem

A virtual machine for Ruby on Rails core development

### rails-docs-server gem

### rails-dom-testing gem

Extracting DomAssertions and SelectorAssertions from ActionView.

### rails-html-sanitizer gem

### rails-observers gem

Rails observer (removed from core in Rails 4.0)

### rails-perftest gem

Benchmark and profile your Rails apps

### record\_tag\_helper gem

ActionView Record Tag Helpers

### render\_component gem

NOTICE: official repository moved to https://github.com/malev/render\_component. Components allow you to call other actions for their rendered response while executing another action

### request\_profiler gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core. Request profiler based on integration test scripts

### routing\_concerns gem

Abstract common routing resource concerns to cut down on duplication.

### ruby-coffee-script gem

Ruby CoffeeScript Compiler

### sass-rails gem

Ruby on Rails stylesheet engine for Sass

### scaffolding gem

NOTICE: official repository moved to https://github.com/KeysetTS/scaffolding

### scriptaculous\_slider gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### spring gem

Rails application preloader

### sprockets gem

### sprockets-rails gem

Sprockets Rails integration

### sqlite2\_adapter gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### ssl\_requirement gem

NOTICE: official repository moved to https://github.com/retr0h/ssl\_requirement

### strong\_parameters gem

Taint and required checking for Action Pack and enforcement in Active Model

### token\_generator gem

NOTICE: official repository moved to https://github.com/bbommarito/token\_generator

### turbolinks gem

Rack-based asset packaging system

### tzinfo\_timezone gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### tztime gem

WARNING: this repo is not maintained anymore, if you want to maintain it, please send an mail to rails-core

### upload\_progress gem

NOTICE: official repository moved to https://github.com/rishav/upload\_progress

### verification gem

NOTICE: official repository moved to https://github.com/sikachu/verification

### web-console gem

forked from gsamokovarov/web-console - Rails Console on the Browser.

### weblog gem

Turbolinks makes following links in your web application faster (use with Rails Asset Pipeline)

Ruby on Rails is a full-stack web framework optimized for programmer happiness and sustainable productivity. It encourages beautiful code by favoring convention over configuration.

## Sinatra

## Rack

### [rack](https://github.com/rack/rack) gem

A modular Ruby webserver interface

### [rack-contrib](https://github.com/rack/rack-contrib) gem

Contributed Rack Middleware and Utilities

### [multifail](https://github.com/rack/multifail) gem

The Morbidly Obese Multipart Test Suite

### [rack.github.com](https://github.com/rack/rack.github.com)

## Camping (microframework)

## Padrino

## Merb

# Ruby Development Tools (IDE’s, Editors, etc)

## Ruby IDE’s

### RubyMine IDE

### NetBeans IDE

## Ruby Application Performance Monitoring Solutions

## Ruby Code Coverage Tools

# Ruby Resources

## Books on Ruby, Related Platform Frameworks, or Ruby Centric Techniques

# Questions and Follow-up Items