MacRuby on Rails

Abstract

MacRuby is an implementation of Ruby 1.9 that is built directly on top of Mac OS X core technologies. Recently, MacRuby has become viable as a tool for developing useful desktop applications for Mac OS X. However, as of March 2011, MacRuby is still missing some functionality that is present in cRuby. Therefore, MacRuby is not able to run Ruby on Rails. In my presentation, I will explain how I modified MacRuby to make it a suitable foundation for running Rails. I would also like to explain some of the technical intricacies that I discovered along the way.

RUBYCONF 2011
SEPTEMBER 29 - OCTOBER 1, NEW ORLEANS, LA

RubyConf2011 – 2011/09/30
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This presentation was made possible by NaCl

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Kouji Takao

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  - Network Applied Communication Laboratory Ltd.

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- Hobby
  - MacRuby committer
  - cRuby committer (Readline module)

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My Company

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  - Since 2001 (My 10th Anniversary!)

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  - 57 people (many Rubyists!?)

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  - http://www.netlab.jp/
  - Shimane, Japan
  - Since 2001 (My 10th Anniversary!)
  - 57 people (many Rubyists!?)
  - SI, Training, etc...

The NaCl Way

The NaCl Way

The NaCl Way

The NaCl Way

First, I want You to be happy.

The NaCl Way

First, I want You to be happy.

Next, I want you to make Your Family happy.

The NaCl Way

First, I want You to be happy.

Next, I want you to make Your Family happy.

Finally, if you have more happiness left, then please share it with Our Company :)

The NaCl Way

(according to me)

The NaCl Way

(according to me)

Employee Oneself

- First: Employee Oneself

The NaCl Way

(according to me)

Employee Oneself > Employee Family

- First: Employee Oneself
- Next: Employee Family

The NaCl Way

(according to me)

Employee Oneself > Employee Family >> Company

- First: Employee Oneself
- Next: Employee Family
- Then: Company

The NaCl W

(according

Employee
Oneself

I love my company!!

- Next Employee
- Next Company

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MacRuby on Rails

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MacRuby Unofficial Character
Ruby Ninja @lrz

MacRuby on Rails

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MacRuby

Ruby customized for Mac OS X

MacRuby

MacRuby

- MacRuby is a unique blend of Ruby 1.9 and Objective-C.

MacRuby

- MacRuby is a unique blend of Ruby 1.9 and Objective-C.
- The goal of the MacRuby project is to be 100% compatible syntactically and behaviorally with Ruby 1.9.

Ruby 1.9

Application
Ruby 1.9
Ruby VM
Built-in GC
Built-in Library
Standard Library
Library
OS
(Linux,Windows,Mac OS X,etc...)

MacRuby

Application
MacRuby
Ruby VM
Built-in GC
Built-in Library
Standard Library
Library
Mac OS X

MacRuby

Ap on
Ruby
P M
Built-in
GC
Built-in
Library
Standard
Library
Library
Mac OS X

MacRuby

Ap on
Ruby
P M
Built-in Library
Standard Library
Library
Mac OS X
AutoZone

MacRuby

Ap on
Ruby
P M
AutoZone
Foundation
Standard Library
Library
Mac OS X

MacRuby

Application
MacRuby
AutoZone
LLVM
Generational Threaded GC
Built-in Library
Standard Library
Foundation
Library
Mac OS X

MacRuby x Cocoa

```
framework "cocoa"

def playSound(name)
  sound = NSSound.soundNamed(name)
  sound.play
end
```

MacRuby x Cocoa

This is a sample program that plays a sound.

```
framework "cocoa"

def playSound(name)
  sound = NSSound.soundNamed(name)
  sound.play
end
```

HelloMacRuby

HelloMacRuby

HelloMacRuby

HelloMacRuby

Ruby script: Controller

```
class AppController
  attr_accessor :textField

  def hello(sender)
    @textField.stringValue =  "Hello,MacRuby!"
  end
end
```

View

HelloMacRuby

Ruby script: Controller

```
class AppController
  attr_accessor :textField

  def hello(sender)
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```

View

HelloMacRuby

Ruby script: Controller

```
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  attr_accessor :textField

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```

View

MacRuby on Rails

Making Ruby on Rails work on MacRuby

Current Status

Current Status

$ rails new demo

```
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/work:0
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails new demo
      create
      create  README
      create  Rakefile
      create  config.ru
      create  .gitignore
      create  Gemfile
      create  app
      create  app/controllers/application_controller.rb
      create  app/helpers/application_helper.rb
      create  app/mailers
      create  app/models
      create  app/views/layouts/application.html.erb
      create  config
      create  config/routes.rb
      create  config/application.rb
      create  config/environment.rb
      create  config/environments
      create  config/environments/development.rb
      create  config/environments/production.rb
      create  config/environments/test.rb
      create  config/initializers
      create  config/initializers/backtrace_silencers.rb
```

Current Status

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dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails new demo
      create
      create  README
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      create  app
      create  app/controllers
      create  app/helpers
      create  app/models
      create  app/mailers
      create  app/views
      create  config
      create  config/environments
      create  config/initializers
      create  config/locales
      create  config/boot.rb
      create  config/routes.rb
      create  config/application.rb
      create  config/environment.rb
      create  config/database.yml
      create  config/deploy.rb
      create  config/deploy/production.rb
      create  config/deploy/staging.rb
      create  config/deploy/development.rb
      create  config/deploy/shared.rb
      create  config/deploy/shared/database.yml
      create  config/deploy/shared/mongrel_cluster.conf
      create  config/deploy/shared/mongrel_cluster.rb
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Current Status

$ rails new demo

```
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/work:0
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails new demo
      create
      create  README
      create  Rakefile
      create  config.ru
      create  .gitignore
      create  Gemfile
      create  app
      create  app/controllers
      create  app/helpers
      create  app/models
      create  app/mailers
      create  app/views
      create  config
      create  config/initializers
      create  config/locales
      create  config/environments
      create  config/boot.rb
      create  config/routes.rb
      create  config/application.rb
      create  config/environment.rb
      create  config/deploy.rb
      create  config/database.yml
      create  config/boot.rb
      create  config/environment.rb
      create  config/application.rb
      create  config/deploy.rb
      create  config/database.yml
      create  config/routes.rb
      create  config/initializers/session_store.rb
      create  config/initializers/inflections.rb
      create  config/initializers/mime_types.rb
      create  config/initializers/backtrace_silencers.rb
      create  config/initializers/secret_token.rb
      create  config/initializers/wrap_parameters.rb
      create  config/locales/en.yml
      create  db
      create  db/seeds.rb
      create  db/development_data
      create  db/development_data/.gitignore
      create  db/development_data/README
      create  db/development_data/manifest.yaml
      create  db/development_data/models.dump
      create  db/development_data/schema_info.dump
      create  db/development_data/schema.dump
      create  db/development_data/sessions.dump
      create  db/development_data/version.dump
      create  db/development_data/delayed_jobs.dump
      create  db/development_data/schema_migrations.dump
      create  db/development_data/bookmarks.dump
      create  db/development_data/users.dump
      create  db/development_data/comments.dump
      create  db/development_data/posts.dump
      create  db/development_data/tags.dump
      create  db/development_data/taggings.dump
      create  db/development_data/activities.dump
      create  db/development_data/relationships.dump
      create  db/development_data/blogs.dump
      create  db/development_data/articles.dump
      create  db/development_data/comments_articles.dump
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```

Current Status

$ rails new demo

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      create  README
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      create  config.ru
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      create  Gemfile
      create  app
      create  app/controllers
      create  app/helpers
      create  app/models
      create  app/mailers
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      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
```

$ rails generate scaffo

```
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/work/demo:0
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails generate scaffold Boo
string description:text url:string
      invoke  active_record
      create    db/migrate/20110714234202_create_bookmarks.rb
      create    app/models/bookmark.rb
      invoke    test_u
      create
      create
       route  resc
      invoke  scaf
      create    ap
      invoke    er
      create
      create
      create
      create
      create
      create
      invoke    te
      create
      invoke    he
      create
      invoke
```

$ rails server

```
Last login: Wed Jul 13 10:42:18 on ttys011
kouji:/Users/kouji:0
dhcp219$ cd /Users/kouji/work/MacRuby/MacRuby/issu
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/wo
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails se
=> Booting WEBrick
=> Rails 3.0.7 application starting in developmen
=> Call with -d to detach
=> Ctrl-C to shutdown server
[2011-07-15 08:32:52] INFO  WEBrick 1.3.1
[2011-07-15 08:32:52] INFO  ruby 1.9.2 (2008-06-0
[2011-07-15 08:32:52] INFO  WEBrick::HTTPServer#start: pid=20943 port=3000
```

Ruby on Rails: Welcome aboard

http://localhost:3000/

Welcome aboard

You're riding Ruby on Rails!

About your application's environment

Getting started

Here's how to get rolling:

1. Use rails generate to create your models and controllers

   To see all available options, run it without parameters.

2. Set up a default route and remove or rename this file

   Routes are set up in config/routes.rb.

3. Create your database

   Run rake db:migrate to create your database. If you're not using SQLite (the default), edit config/database.yml with your username and password.

Browse the documentation

- Rails API
- Ruby standard library
- Ruby core
- Rails Guides

7 months ago...

7 months ago...

May 2011

7 months ago...

May 2011

- I thought, "Does Rails work on MacRuby?".

7 months ago...

May 2011

- I thought, "Does Rails work on MacRuby?".
- I managed to **install** Rails.

```
$ sudo macgem install --verbose rails --no-ri --no-rdoc
7 gems installed

$ sudo macgem install --verbose sqlite3-ruby --no-ri --no-rdoc
2 gems installed
```

Perhaps...

Perhaps...

- I thought, "OK, it installed, but surely the Rails generators won't work...".

Perhaps...

- I thought, "OK, it installed, but surely the Rails generators won't work...".
- However, I managed to create a Rails project!?

```
$ macruby -S rails new demo
      create
      create  README
      create  Rakefile
  ...
      create  vendor/plugins
      create  vendor/plugins/.gitkeep
```

Are you kidding me?

Are you kidding me?

- I tried to generate a scaffold...

Are you kidding me?

- I tried to generate a scaffold...
- It failed. After all Rails didn't work on MacRuby.

```
$ macruby -S rails generate scaffold Bookmark title:string
description:text url:string
...
Assertion failed: ((size_t)pos < current_exceptions.size()),
function pop_current_exception, file vm.cpp, line 3434.
zsh: abort      macruby -S rails generate scaffold Bookmark
title:string description:text
```

Are you kidding me?

- I tried to generate a scaffold...
- It failed. After all Rails didn't work on MacRuby.

```
$ macruby -S rails generate scaffold Bookmark title:string
des
...
Ass
fun
zsh
title
```

```
$ macruby -S rails server
...
Assertion failed: ((size_t)pos < current_exceptions.size()),
function pop_current_exception, file vm.cpp, line 3434.
zsh: abort      macruby -S rails server
```

My approach

Run Rails
SEGV or abort
Research
Coding
Run RubySpec
Run Rails

My approach

Required knowledge and technology

- cRuby
- Objective-C
- C++
- LLVM

#860 catch/throw

- MacRuby aborts if you use catch and throw inside a rescue clause.

#860 catch/throw

- MacRuby aborts if you use catch and throw inside a rescue clause.

```
begin
  raise
rescue
  catch(:ambiguous) { throw :ambiguous }
  p :ok
end
```

#860 catch/throw

- MacRuby aborts if you use catch and throw inside a rescue clause.

```
begin
  raise
rescue
  catch(:ambiguous) { throw :ambiguous }
  p :ok
end
```

```
:ok
Assertion failed: ((size_t)pos < current_exceptions.size()),
function pop_current_exception, file vm.cpp, line 3448.
```

#860 catch/throw

➡ MacRuby aborts if you use catch and throw inside a rescue clause.

```
begin
  raise
rescue
  catch(:ambiguous) { throw :ambiguous }
  p :ok
end
```

'throw' pops an Exception from the stack.

```
:ok
Assertion failed: ((size_t)pos < current_exceptions.size()),
function pop_current_exception, file vm.cpp, line 3448.
```

#860 catch/throw

➡ MacRuby aborts if you use catch and throw inside a rescue clause.

```
begin
  raise
rescue
  catch(:ambiguous) { throw :ambiguous }
  p :ok
end
```

'throw' pops an Exception from the stack.

MacRuby tries to pop an Exception when the rescue block ends, and causes an error!

```
:ok
Assertion failed: ((size_t)pos < current_exceptions.size()),
function pop_current_exception, file vm.cpp, line 3448.
```

#860 catch/throw

#860 catch/throw

```
catch(:ambiguous) {
  begin
    raise
  rescue
    throw :ambiguous
  end
}
```

#860 catch/throw

```
catch(:ambiguous) {
  begin
    raise
  rescue
    throw :ambiguous
  end
}
```

If reached "end", pop Exception.
However can't reach here in this case.

#860 catch/throw

```
catch(:ambiguous) {
  begin
    raise
  rescue
    throw :ambiguous
  end
}
```

So we should pop Exception when we perform "throw".

If reached "end", pop Exception.
However can't reach here in this case.

#860 catch/throw

```
catch(:ambiguous) {
  begin
    raise
  rescue
    throw :ambiguous
  end
}
```

So we should pop Exception when we perform "throw".

If reached "end", pop Exception.
However can't reach here in this case.

Before being fixed(60723bf~), 'throw' always popped the current Exception.

#860 catch/throw

```
vm.cpp:4321:
VALUE
RoxorVM::ruby_throw(VALUE tag, VALUE value)
{
...
    // We must pop the current VM exception in case we are in a rescue handler,
    // since we are going to unwind the stack.
    if (current_exception() != Qnil) {
      pop_current_exception();
    }
...
```

popped the current Exception.

#860 catch/throw

- ➡ Fixed that MacRuby pop Exceptions if it only needs.(60723bf)

#860 catch/throw

➡ Fixed that MacRuby pop Exceptions if it only needs.(60723bf)

```
vm.cpp:4318:
VALUE
RoxorVM::ruby_throw(VALUE tag,VALUE value)
{
...
    rb_vm_catch_t *catch_ptr = iter->second;
    while (catch_ptr->current_exception != current_exception()) {
      pop_current_exception();
    }
...
```

#860 catch/throw

➡ Fixed that MacRuby pop Exceptions if it only needs.(60723bf)

```
vm.cpp:4318:
VALUE
RoxorVM::ruby_
{
...
    rb_vm_catch_t *catch_ptr = iter->second;
    while (catch_ptr->current_exception != current_exception()) {
      pop_current_exception();
    }
...
```

pop Exception if processing Exception by catch(catch_ptr->current_exception) and current Exception (current_exception()) are equal.

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

Exception A

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

Exception A

store Exception A
catch_ptr->current_exception = current_exception();

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

Exception A

store Exception A
catch_ptr->current_exception = current_exception();

Exception B

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

Exception A

store Exception A
catch_ptr->current_exception = current_exception();

Exception B

Exception C

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

Exception A

store Exception A
catch_ptr->current_exception = current_exception();

Exception B

Exception C

pop Exception C and Exception B in comparison with Exception A which we recorded in order of Exception C, B, A

#860 catch/throw

```
begin
  raise
rescue
  catch(:ambiguous) {
    begin
      raise
    rescue
      begin
        raise
      rescue
        throw :ambiguous
      end
    end
  }
  p :ok
end
```

Exception A

store Exception A
catch_ptr->current_exception = current_exception();

Exception B

Exception C

pop Exception C and Exception B in comparison with Exception A which we recorded in order of Exception C, B, A

pop Exception A

#1192 Lookup Constants

➡ Almost can't lookup nested constants.

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```
module A
  B = 10
  Object.class_eval { B }
end
```

#1192 Lookup Constants

➡ Almost can't lookup nested constants.

```
module A
  B = 10
  Object.class_eval { B }
end
```

```
reduction.rb:3:in `block': uninitialized constant B (NameError)
        from reduction.rb:1:in `<main>'
```

#1192 Lookup Constants

➡ Almost can't lookup nested constants.

```
module A
  B = 10
  Object.class_eval { B }
end
```

can't lookup Constant B
assumes lookup it from
Object

```
reduction.rb:3:in `block': uninitialized constant B (NameError)
        from reduction.rb:1:in `<main>'
```

#1192 Lookup Constants

Before fixed (6b101bd~), didn't implement the Lexical Constant Lookup

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Before fixed (6b101bd~), didn't implement the Lexical Constant Lookup

```
module A
  module B
    CONST = “B’s Const”
      module ::A
        p CONST
      end
  end
end
```

#1192 Lookup Constants

Before fixed (6b101bd~), didn't implement the Lexical Constant Lookup

```
module A
  module B
    CONST = “B’s Const”
      module ::A
        p CONST
      end
  end
end
```

```
-e:5:in `block': uninitialized constant A::CONST (NameError)
```

#1192 Lookup Constants

Before fixed (6b101bd~), didn't implement the Lexical Constant Lookup

```
module A
  module B
    CONST = “B’s Const”
      module ::A
        p CONST
      end
  end
end
```

CONST Should be lookuped in order ::A, A::B, A. But only from ::A.

```
-e:5:in `block': uninitialized constant A::CONST (NameError)
```

Lookup Constants is complex

module_eval(String)

```
module A
  CONST = "A's CONST"
  def f
    class_eval <<-EOS
      p CONST
    EOS
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

module_eval(&Block)

```
module A
  CONST = "A's CONST"
  def f
    class_eval {
      p CONST
    }
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

Lookup Constants is complex

module_eval(String)

```
module A
  CONST = "A's CONST"
  def f
    class_eval <<-EOS
      p CONST #=> "K's CONST"
    EOS
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

module_eval(&Block)

```
module A
  CONST = "A's CONST"
  def f
    class_eval {
      p CONST
    }
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

Lookup Constants is complex

module_eval(String)

```
module A
  CONST = "A's CONST"
  def f
    class_eval <<-EOS
      p CONST #=> "K's CONST"
    EOS
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

module_eval(&Block)

```
module A
  CONST = "A's CONST"
  def f
    class_eval {
      p CONST #=> "A's CONST"
    }
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

Lookup Constants is complex

module_eval(String)

```
module A
  CONST = "A's CONST"
  def f
    class_eval <<-EOS
      p CONST #=> "K's CONST"
    EOS
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

lookup CONST in order of Constant K, A, Object

module_eval(&Block)

```
module A
  CONST = "A's CONST"
  def f
    class_eval {
      p CONST #=> "A's CONST"
    }
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

Lookup Constants is complex

module_eval(String)

```
module A
  CONST = "A's CONST"
  def f
    class_eval <<-EOS
      p CONST #=> "K's CONST"
    EOS
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

lookup CONST in order of Constant K, A, Object

module_eval(&Block)

```
module A
  CONST = "A's CONST"
  def f
    class_eval {
      p CONST #=> "A's CONST"
    }
  end
end

class K
  CONST = "K's CONST"
  extend A
  f
end
```

lookup CONST in order of Constant A, Object.
Does not lookup from K.

A very complex bug

I found a behavior that is complex to implement.

A very complex bug

I found a behavior that is complex to implement.

```
module A
 B = 42
end

A.class_eval do
 def self.f
   p B
 end
end

A.f
```

A very complex bug

I found a behavior that is complex to implement.

```
module A
 B = 42
end

A.class_eval do
 def self.f
   p B
 end
end

A.f
```

```
Ruby 1.9
42
```

A very complex bug

I found a behavior that is complex to implement.

```
module A
 B = 42
end

A.class_eval do
 def self.f
   p B
 end
end

A.f
```

```
Ruby 1.9
42
```

```
Ruby 1.8.7
-e:8:in `f': uninitialized constant B (NameError)
```

A very complex bug

I found a behavior that is complex to implement.

```
module A
 B = 42
end

A.class_eval do
 def self.f
  p B
 end
end

A.f
```

```
uninitialized constant B (NameError)
```

A cRuby's Bug

Demo

$ rails new demo

```
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/work:0
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails new demo
      create
      create  README
      create  Rakefile
      create  config.ru
      create  .gitignore
      create  Gemfile
      create  app
      create  app/controllers
      create  app/helpers
      create  app/models
      create  app/mailers
      create  app/views
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
      create  confi
```

$ rails generate scaffo

```
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/work/demo:0
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails generate scaffold Boo
string description:text url:string
      invoke  active_record
      create    db/migrate/20110714234202_create_bookmarks.rb
      create    app/models/bookmark.rb
      invoke    test_u
      create
      create
       route  resc
      invoke  scaf
      create    ap
      invoke    er
      create
      create
      create
      create
      create
      create
      invoke    te
      create
      invoke    he
      create
      invoke
```

$ rails server

```
Last login: Wed Jul 13 10:42:18 on ttys011
kouji:/Users/kouji:0
dhcp219$ cd /Users/kouji/work/MacRuby/MacRuby/issu
kouji:/Users/kouji/work/MacRuby/MacRuby/issues/wo
dhcp219$ env VM_DISABLE_RBO=1 macruby -S rails se
=> Booting WEBrick
=> Rails 3.0.7 application starting in developmen
=> Call with -d to detach
=> Ctrl-C to shutdown server
[2011-07-15 08:32:52] INFO  WEBrick 1.3.1
[2011-07-15 08:32:52] INFO  ruby 1.9.2 (2008-06-0
[2011-07-15 08:32:52] INFO  WEBrick::HTTPServer#start: pid=20943 port=3000
```

Ruby on Rails: Welcome aboard

http://localhost:3000/

Welcome aboard

You're riding Ruby on Rails!

About your application's environment

Getting started

Here's how to get rolling:

1. Use `rails generate` to create your models and controllers

   To see all available options, run it without parameters.

2. Set up a default route and remove or rename this file

   Routes are set up in config/routes.rb.

3. Create your database

   Run `rake db:migrate` to create your database. If you're not using SQLite (the default), edit `config/database.yml` with your username and password.

Browse the documentation

- Rails API
- Ruby standard library
- Ruby core
- Rails Guides

#1390 rb_vm_prepare_block

- Abort when I pressed “About your application’s environment” in rails 3.0.7 Welcome Page.

#1390 rb_vm_prepare_block

➡ Abort when I pressed "About your application's environment" in rails 3.0.7 Welcome Page.

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#1390 rb_vm_prepare_block

➡ Abort when I pressed "About your application's environment" in rails 3.0.7 Welcome Page.

```
Assertion failed: ((b->flags & flags) == flags), function
rb_vm_prepare_block, file dispatcher.cpp, line 1406.
zsh: abort      env VM_DISABLE_RBO=1 macruby -S rails server
```

Workaround

- ➡ Ignored if we get an abort that is described above.

Workaround

➡ Ignored if we get an abort that is described above.

```
--- a/dispatcher.cpp
+++ b/dispatcher.cpp
@@ -1403,7 +1403,10 @@ rb_vm_prepare_block(...
    }
    else {
       assert(b->dvars_size == dvars_size);
-      assert((b->flags & flags) == flags);
+       //assert((b->flags & flags) == flags);
+       if ((b->flags & flags) != flags) {
+           printf(...);
+       }
    }
```

However...

➡ I didn't show my Rails Info.

However...

➡ I didn't show my Rails Info.

```
Error during failsafe response: ActionView::Template::Error
  /Library/Frameworks/MacRuby.framework/Versions/0.11/usr/lib/
ruby/Gems/1.9.2/gems/actionpack-3.0.7/lib/action_view/
template.rb:135:in `block'
  /Library/Frameworks/MacRuby.framework/Versions/0.11/usr/lib/
ruby/Gems/1.9.2/gems/activesupport-3.0.7/lib/active_support/
notifications.rb:54:in `instrument'
  /Library/Frameworks/MacRuby.framework/Versions/0.11/usr/lib/
ruby/Gems/1.9.2/gems/actionpack-3.0.7/lib/action_view/
template.rb:127:in `render'
  /Library/Frameworks/MacRuby.framework/Versions/0.11/usr/lib/
ruby/Gems/1.9.2/gems/actionpack-3.0.7/lib/action_view/render/
rendering.rb:59:in `block'
```

MacRuby trip by the train continues...

Conclusion

- MacRuby
  - A unique blend of Ruby 1.9 and Objective-C.
  - The goal is to be 100% compatible with Ruby 1.9.
- MacRuby on Rails
  - We became to show the Welcome Page.
  - But we have many things to complete.