# You’ve got a Sinatra on your Rails

@josevalim / Plataformatec

RAILS

## Railsnatra

# Hacking Rails for fun and profit

plataformatec

tecnologia e engenharia de software

Simple Form

devise

elixir

## Joined Rails Core in 2010

## Topics

## Topics

- Single-file Rails applications

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- Rack and the Rails router

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- Single-file Rails applications
- Rack and the Rails router
- Middleware stacks
- Rails rendering stack

## Single-file Rails apps

```ruby
# config.ru
require "sinatra/base"

class MyApp < Sinatra::Base
  get "/" do
    "Hello World!"
  end
end

run MyApp.new
```

## config.ru

```ruby
run lambda { |env|
  status  = 200
  headers = {
    "Content-Type" => "text/plain"
  }
  body    = ["Hello world"]
  [status, headers, body]
}
```

```
$ rackup
$ curl localhost:9292
Hello world
```

```ruby
H = { "Content-Type" => "text/plain" }

map "/hello" do
  run lambda { |env|
    [200, H, ["World"]]
  }
end

run lambda { |env|
  [200, H, ["Nothing here"]]
}
```

```
$ rackup
$ curl localhost:9292
Nothing here
$ curl localhost:9292/hello
World
```

```ruby
# config.ru
require "sinatra/base"

class MyApp < Sinatra::Base
  get "/" do
    "Hello World!"
  end
end

run MyApp.new
```

```ruby
# config.ru
require ::File.expand_path(
  '../config/environment', __FILE__
)

run Sample::Application
```

```ruby
# config.ru
require ::File.expand_path(
  '../config/environment', __FILE__
)

run Sample::Application

# config/environment.rb
require File.expand_path(
  '../application', __FILE__
)

Sample::Application.initialize!
```

```ruby
# config/application.rb
require File.expand_path(
  '../boot', __FILE__
)

module Sample
  class Application < Rails::Application
```

```ruby
# config/application.rb
require File.expand_path(
  '../boot', __FILE__
)

module Sample
  class Application < Rails::Application

# config/boot.rb
ENV['BUNDLE_GEMFILE'] ||=
  File.expand_path(
    '../../Gemfile', __FILE__
  )
require 'bundler/setup'
```

- config/boot.rb

- **config/boot.rb**

Setup the load path

- **config/boot.rb**

Setup the load path

- **config/application.rb**

- **config/boot.rb**

Setup the load path

- **config/application.rb**

Define the application

- **config/boot.rb**

  Setup the load path

- **config/application.rb**

  Define the application

- **config/environment.rb**

- **config/boot.rb**

  Setup the load path

- **config/application.rb**

  Define the application

- **config/environment.rb**

  Initialize the application

- **config/boot.rb**

  Setup the load path

- **config/application.rb**

  Define the application

- **config/environment.rb**

  Initialize the application

- **config.ru**

- **config/boot.rb**

  Setup the load path

- **config/application.rb**

  Define the application

- **config/environment.rb**

  Initialize the application

- **config.ru**

  Setup Rack

## ETOOMANYFILES?

```ruby
# Rakefile
require File.expand_path(
  '../config/application', __FILE__
)
Sample::Application.load_tasks
```

```ruby
# Rakefile
require File.expand_path(
  '../config/application', __FILE__
)
Sample::Application.load_tasks


# lib/tasks/my_tasks.rake
task :hello => :environment do
  # ...
end
```

## 1_config.ru

## Rack and the Rails router

```
root to: lambda { |env|
  [200, headers, ["Hello world"]]
}
```

```
root to: lambda { |env|
  [200, headers, ["Hello world"]]
}


get "/", to: lambda { |env|
  [200, headers, ["Hello world"]]
}
```

```ruby
get "/", to: "posts#index"
get "/", to: "posts#index"
```

```
get "/", to:
  PostsController.action(:index)
```

## 2_config.ru

- match (get, post, put, delete)

- **match (get, post, put, delete)**

Match on the full path

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Match on the full path

- **mount**

- **match (get, post, put, delete)**

Match on the full path

- **mount**

Match on the path prefix

| | PATH_INFO | SCRIPT_NAME |
|---|---|---|
| | | |
| | | |
| | | |

| | PATH_INFO | SCRIPT_NAME |
|---|---|---|
| Web server | /hello/world | |
| | | |
| | | |

| | PATH_INFO | SCRIPT_NAME |
|---|---|---|
| Web server | /hello/world | |
| Rails router | /hello/world | |
| | | |

| | PATH_INFO | SCRIPT_NAME |
|---|---|---|
| **Web server** | /hello/world | |
| **Rails router** | /hello/world | |
| **Endpoint** | /world | /hello |

## Rack and the Rails Router

## Rack and the Rails Router

- The Rack API

## Rack and the Rails Router

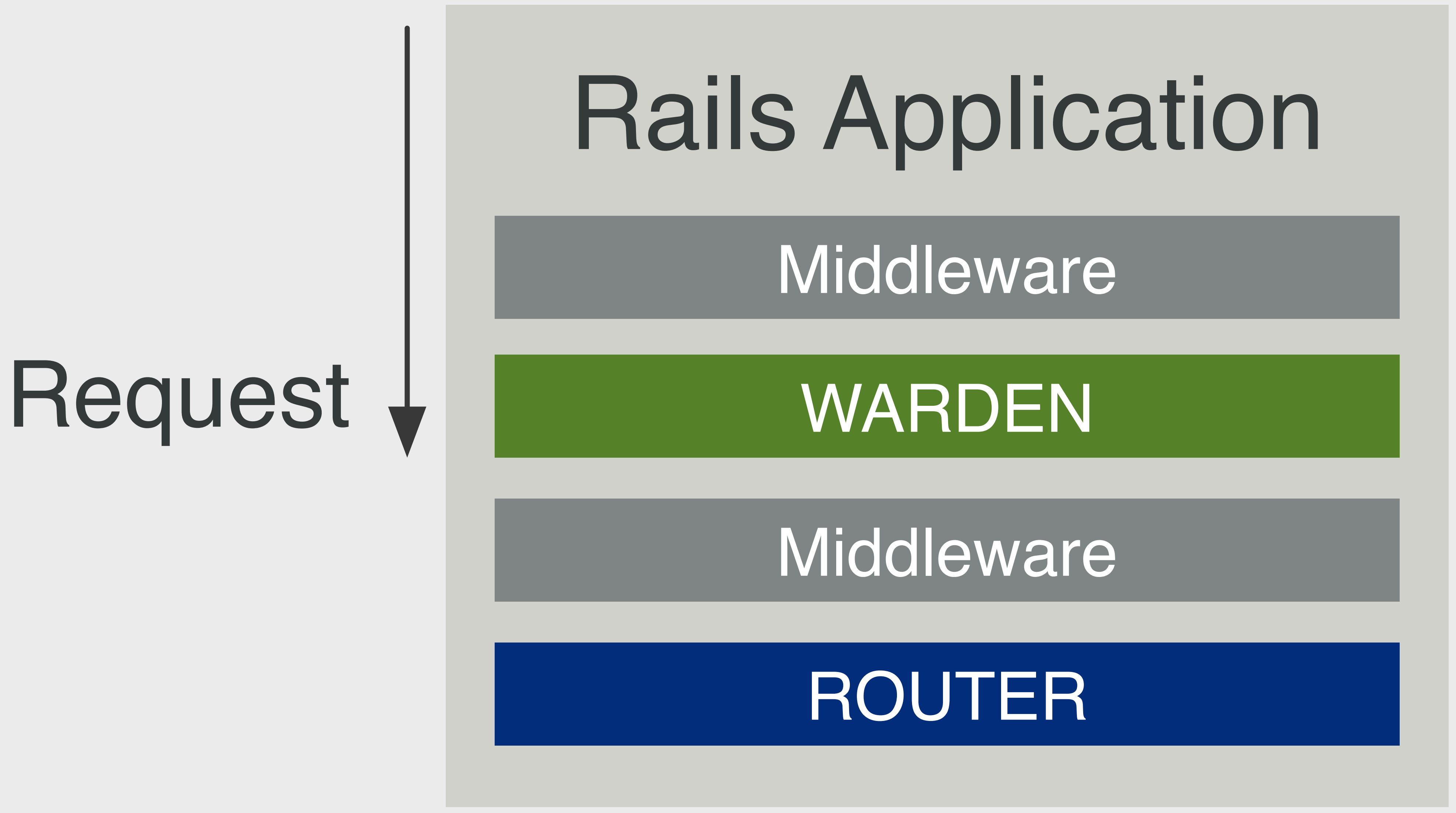
- The Rack API
- PostsController.action(:index)

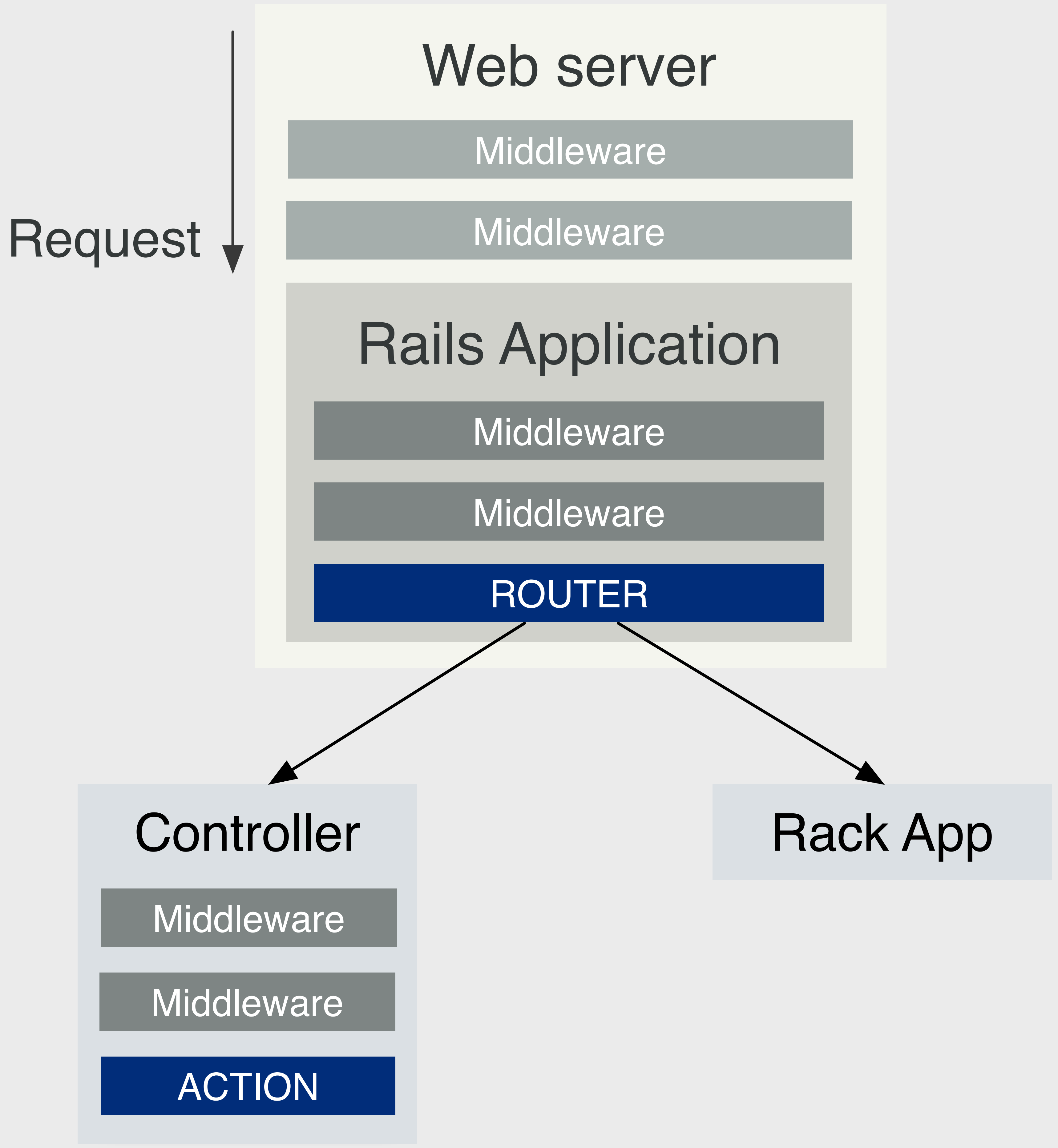
## Rack and the Rails Router

- The Rack API
- PostsController.action(:index)
- match vs. mount

## Middleware stacks

```ruby
config.middleware.use Warden
config.middleware.use Warden
```




Request
Web server
Middleware
Middleware
Rails Application
Middleware
Middleware
ROUTER
Controller
Middleware
Middleware
ACTION
Rack App

## 2_config.ru++

## Things we got for free

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- Middleware

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- Middleware
- Before/after action hooks

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- Middleware
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- Streaming

## Things we got for free

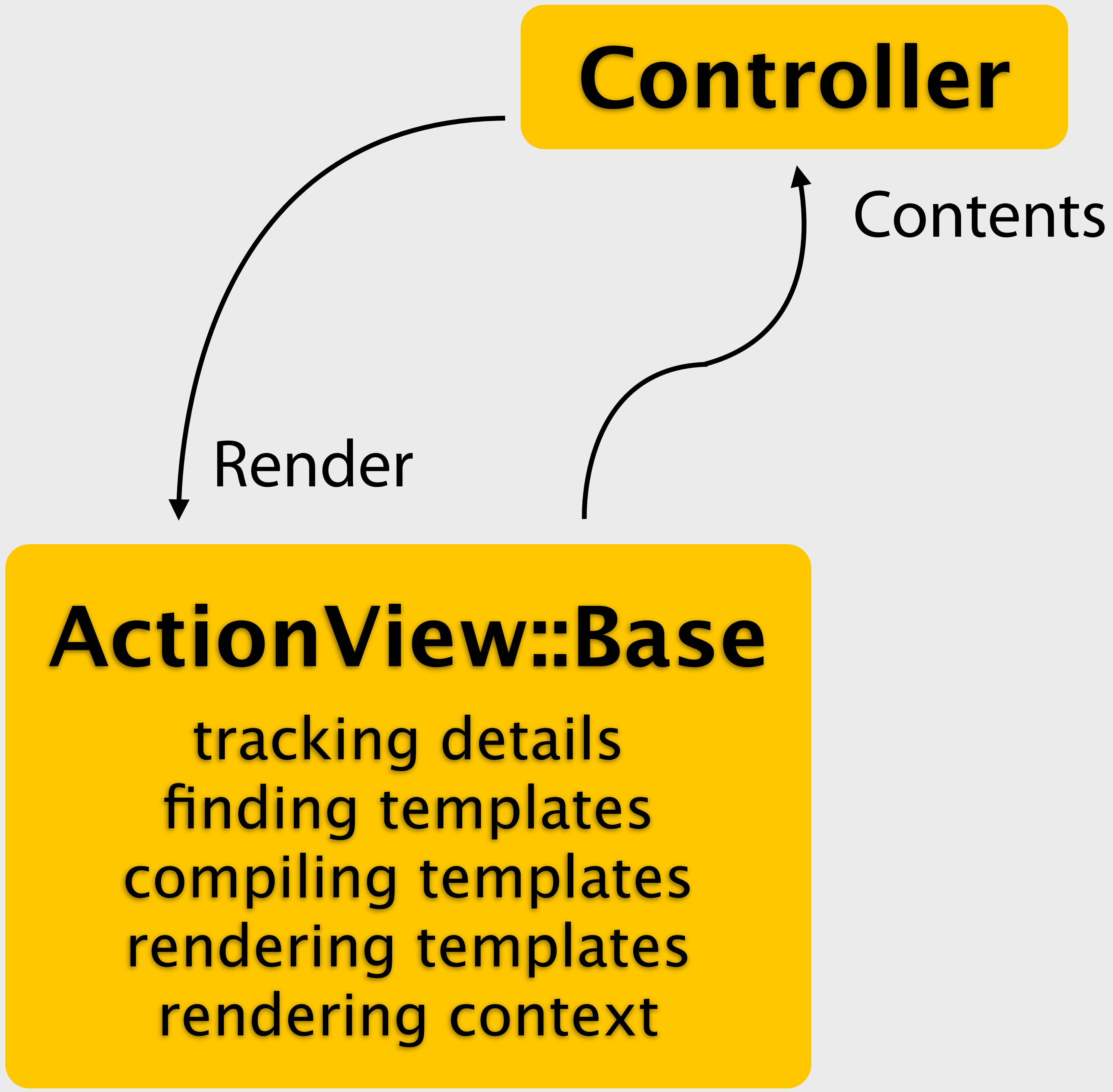
- Middleware
- Before/after action hooks
- Streaming
- Layouts & render

## Rendering stack

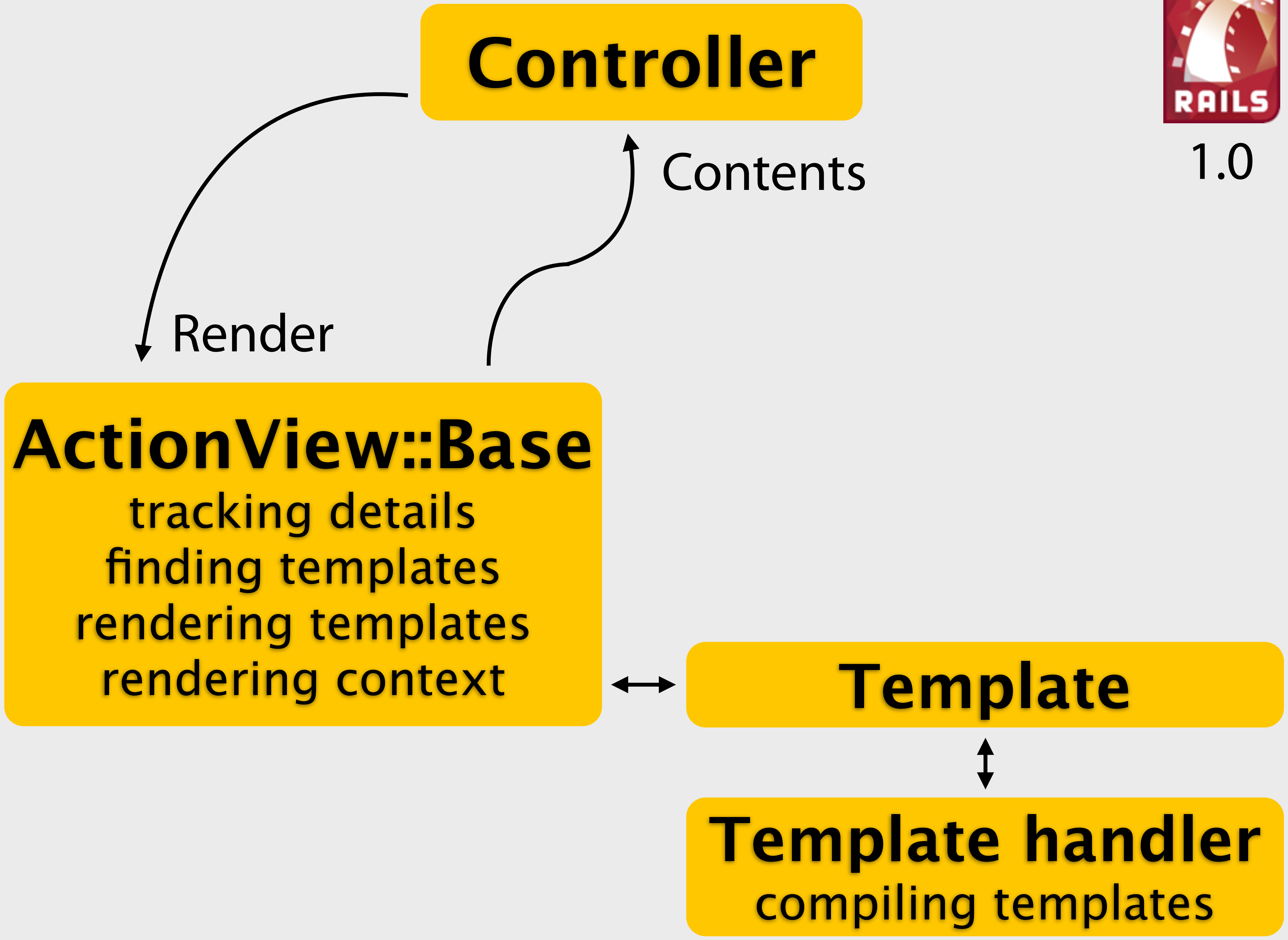
```ruby
class MyApp < Sinatra::Base
  def hello
    "Hello World!"
  end
end

# Template
Title is <%= hello %>
```

0.x

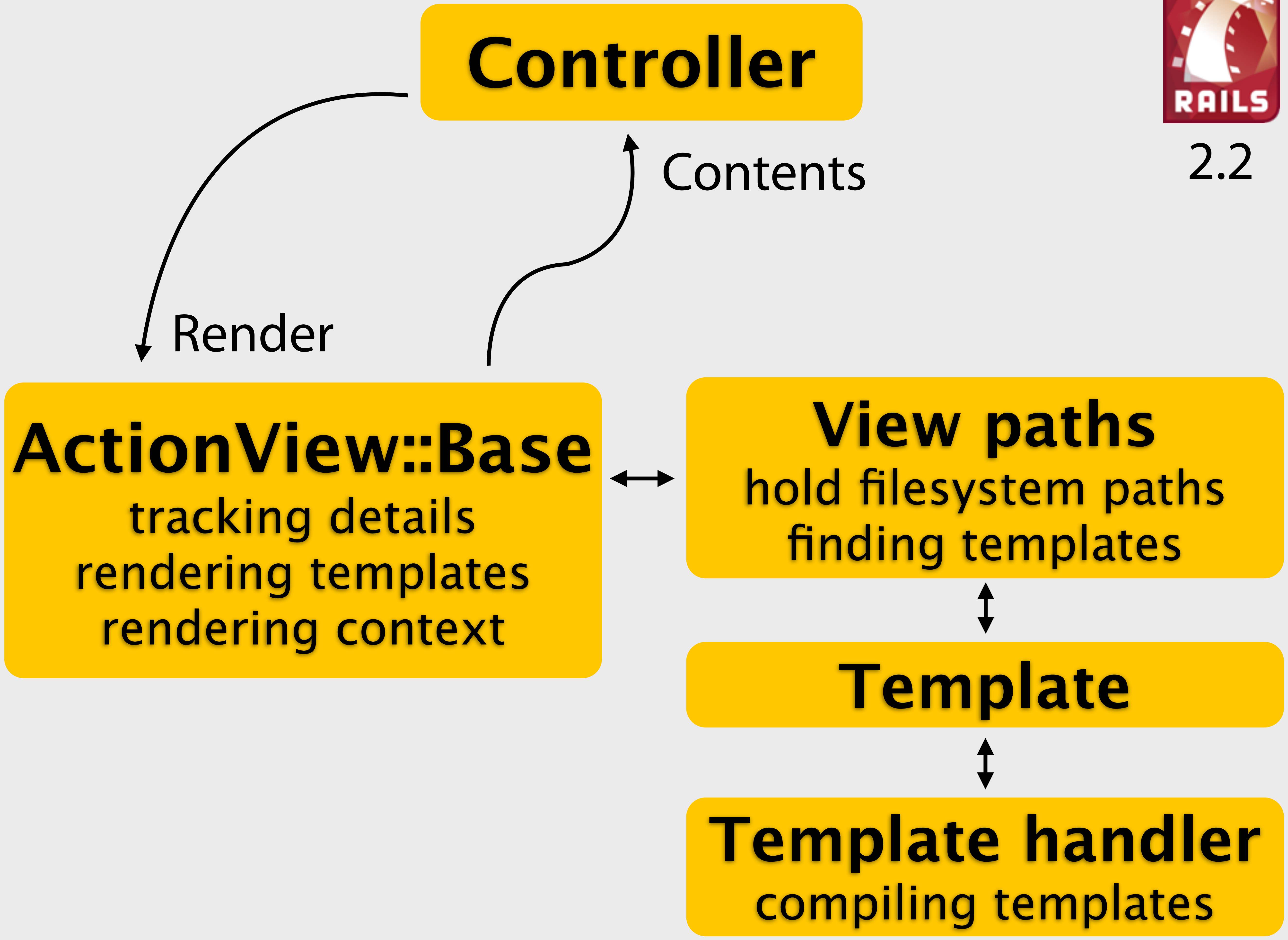

Controller
Contents
Render
ActionView::Base
tracking details
finding templates
compiling templates
rendering templates
rendering context

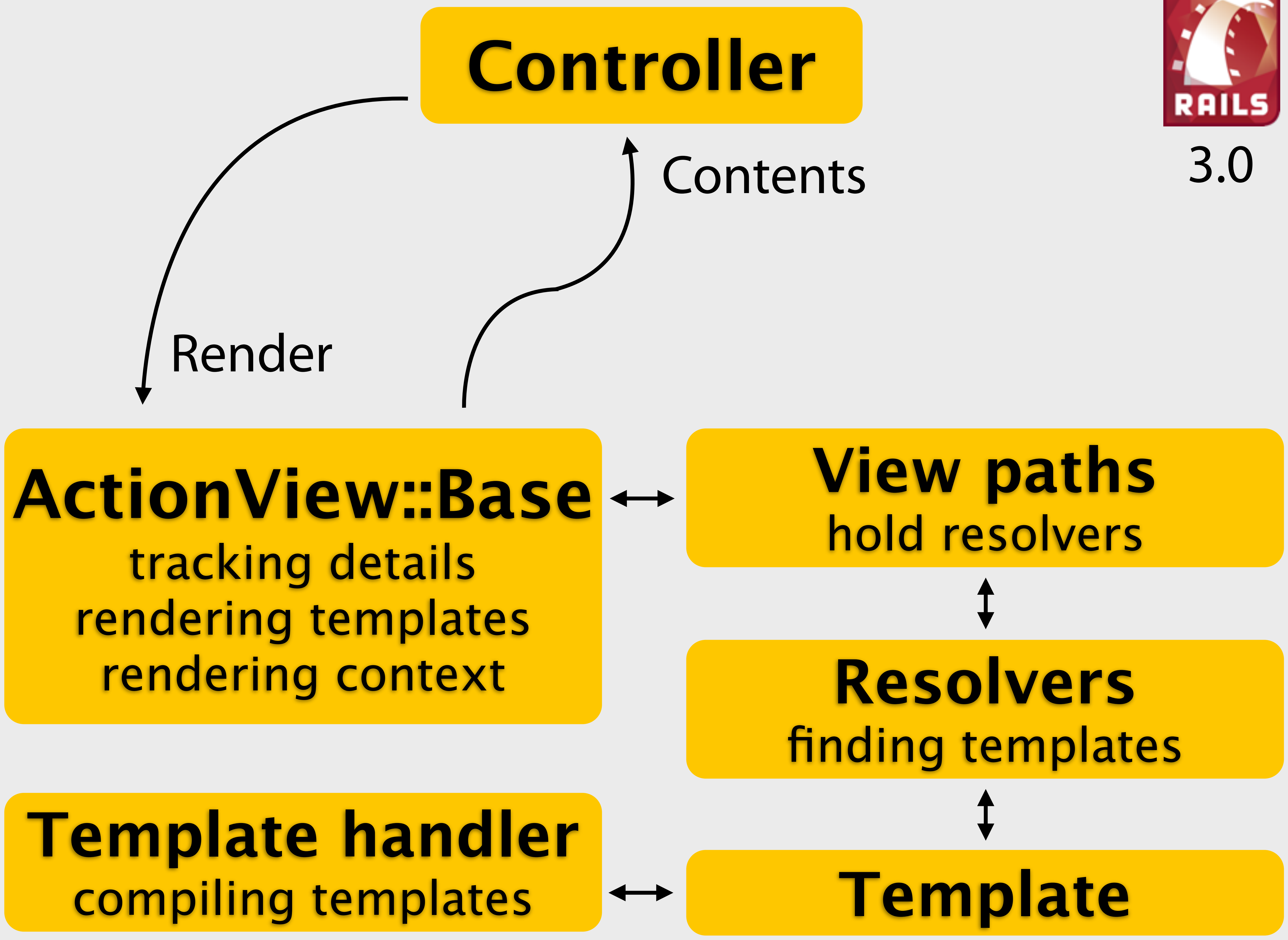
1.0


Controller
Contents
Render
ActionView::Base
tracking details
finding templates
rendering templates
rendering context
Template
Template handler
compiling templates

builder, erb, haml...

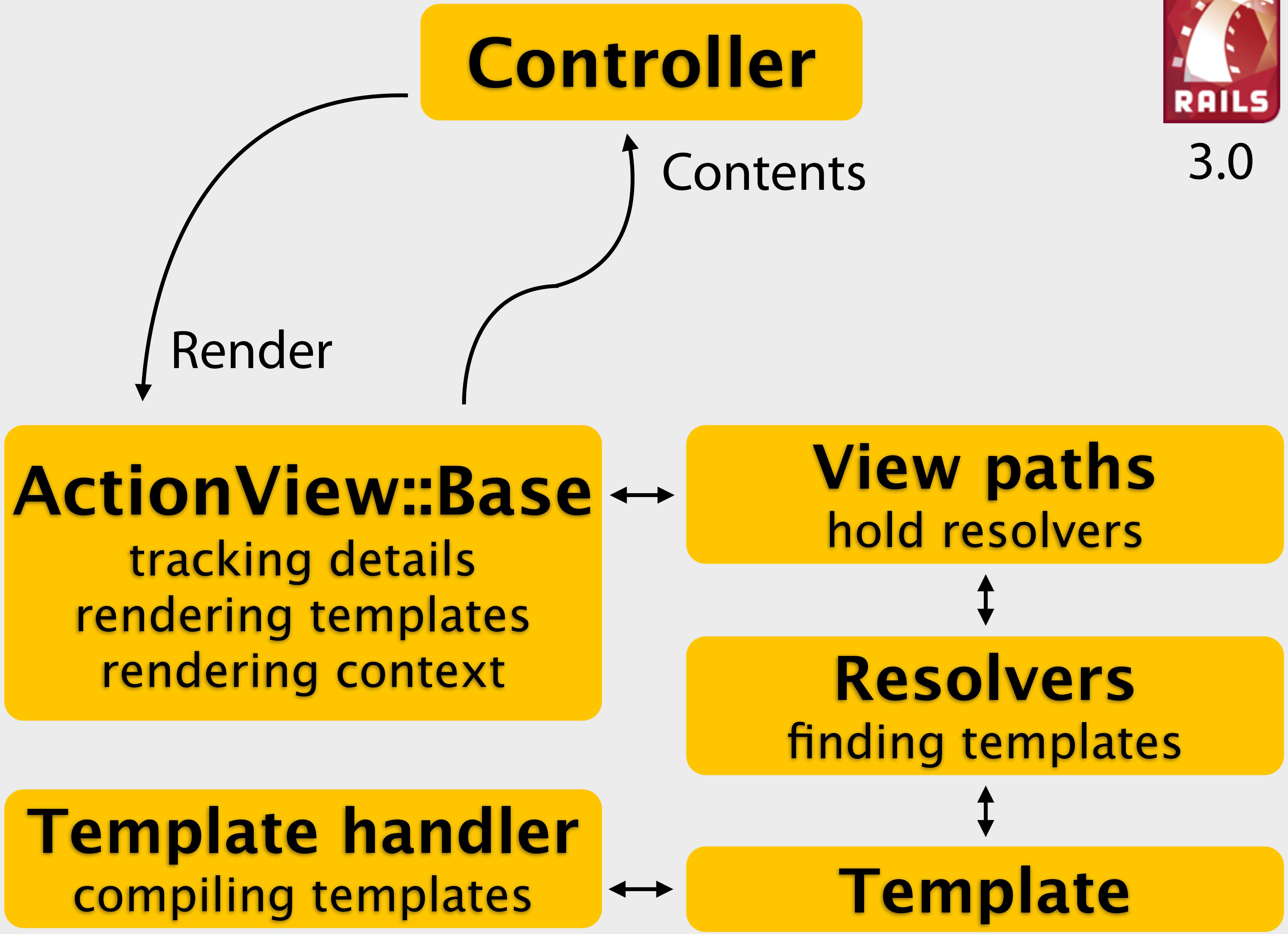
2.2

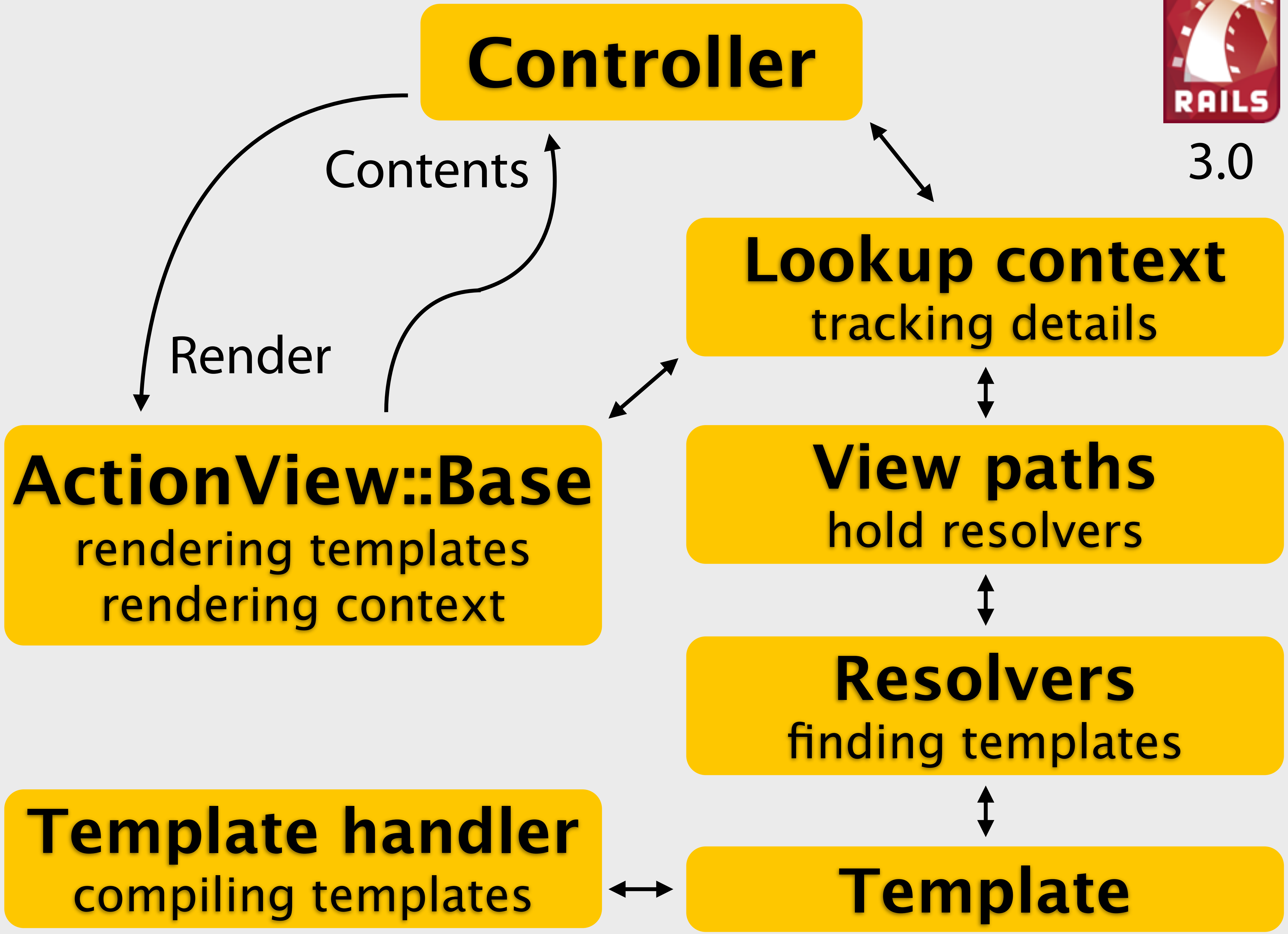

Controller
Contents
Render
ActionView::Base
tracking details
rendering templates
rendering context
View paths
hold filesystem paths
finding templates
Template
Template handler
compiling templates


Controller
Contents
3.0
Render
ActionView::Base
tracking details
rendering templates
rendering context
View paths
hold resolvers
Resolvers
finding templates
Template handler
compiling templates
Template

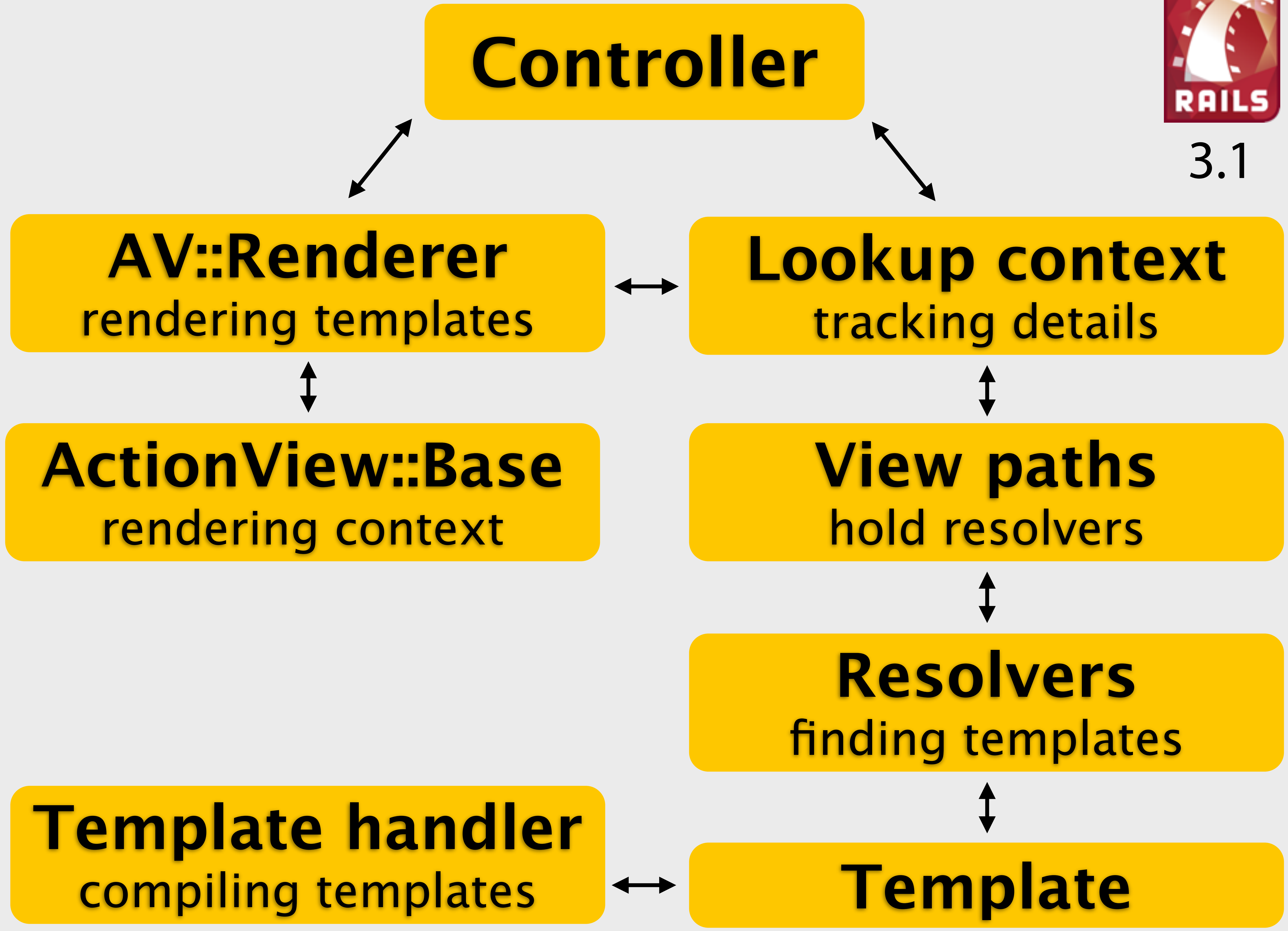
Templates no longer need to be in the filesystem, they can be anywhere (including the database)

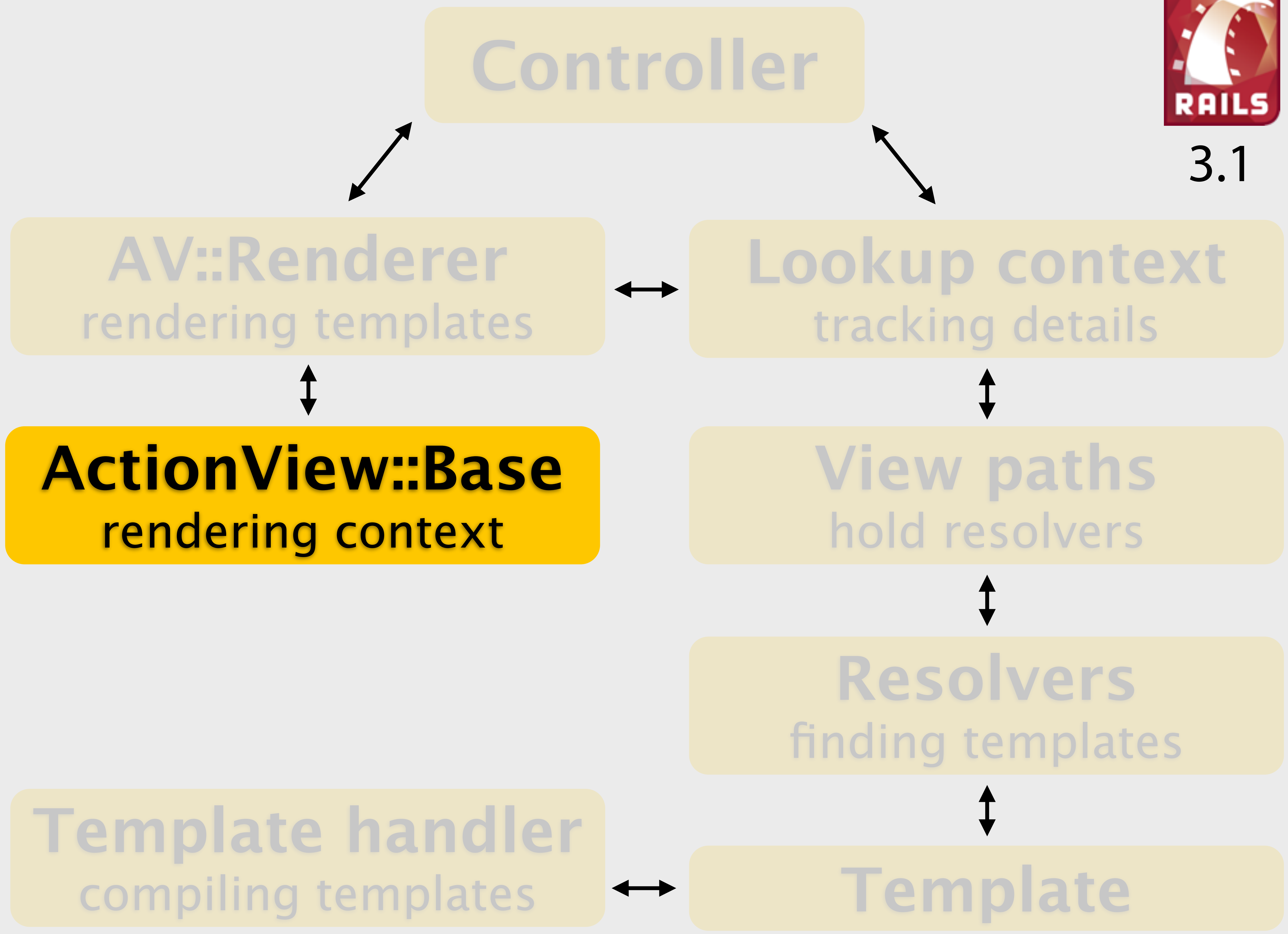
3.0


Controller
Contents
Render
ActionView::Base
tracking details
rendering templates
rendering context
View paths
hold resolvers
Resolvers
finding templates
Template handler
compiling templates
Template


Controller
3.0
Contents
Render
Lookup context
tracking details
ActionView::Base
rendering templates
rendering context
View paths
hold resolvers
Resolvers
finding templates
Template handler
compiling templates
Template

3.1


Controller
AV::Renderer
rendering templates
Lookup context
tracking details
ActionView::Base
rendering context
View paths
hold resolvers
Resolvers
finding templates
Template handler
compiling templates
Template



Controller
AV::Renderer
rendering templates
Lookup context
tracking details
ActionView::Base
rendering context
View paths
hold resolvers
Resolvers
finding templates
Template handler
compiling templates
Template
RAILS
3.1

## 3_config.ru

## To sum up

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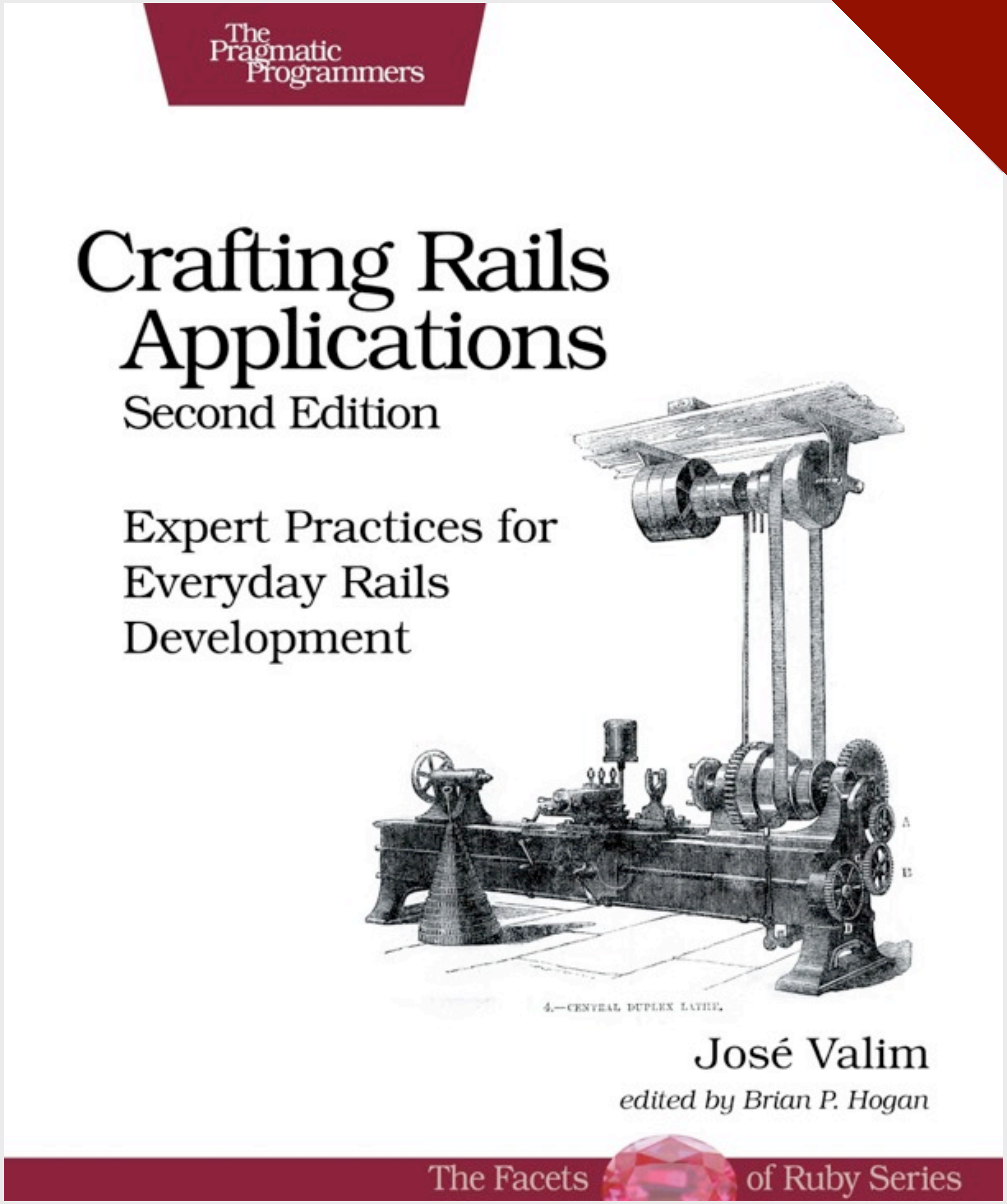

The Pragmatic Programmers

Crafting Rails Applications

Second Edition

Expert Practices for Everyday Rails Development

4.—CENTRAL DUPLEX LATHE.

José Valim

*edited by Brian P. Hogan*

The Facets of Ruby Series

1st May

# Thank you!

@josevalim / Plataformatec