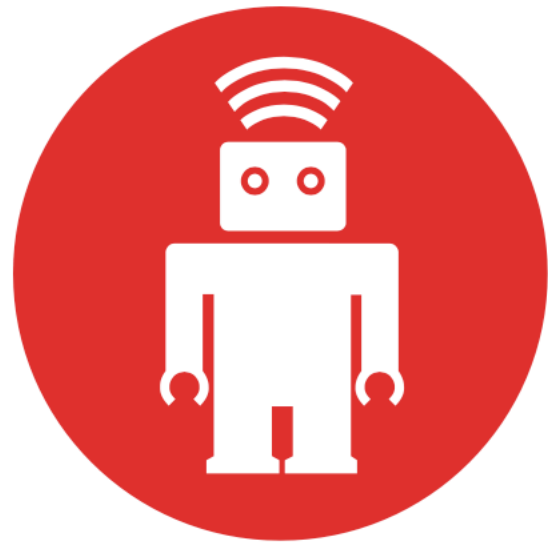


solargraph-rails in 2022~~23~~

Fritz Meissner

@fritzmeissner
@iftheshoefritz
iftheshoefritz.com



thoughtbot

What is solargraph?

- A gem
- ... that starts up a server
- ... which knows about your code
- ... that Ruby editors can ask for help

What can Solargraph do?
(intellisense)

Intellisense ~ member list

```
self.  
bundled? (filename) (Method)  
catalog (bench) (Method)  
clip (cursor) => SourceMap::Clip (Method)  
clip_at (filename, position) => SourceMap::Clip (Method)  
cursor_at (filename, position) => Source::Cursor (Method)  
document (path) => Array<YARD::CodeObjects::Base> (Method)  
document_symbols (filename) => Array<Pin::Symbol> (Method)  
get_class_variable_pins (namespace) => Array<Solargraph::Pin:  
get_complex_type_methods (type, context = '', internal = fals  
get_constants (namespace, *contexts) => Array<Solargraph::Pin  
end  
  
# @return [Environ]  
def implicit  
  @implicit ||= Environ.new  
end  
  
# @param filename [String]  
# @param position [Position, Array(Integer, Integer)]  
# @return [Source::Cursor]  
def cursor_at filename, position  
  position = Position.normalize(position)  
  raise FileNotFoundError, "File not found: #{filename}" u  
  source_map_hash[filename].cursor_at(position)  
end
```

Intellisense ~ chaining

```
scope :named_masters [name]
```

```
end
```

```
def required
```

```
  @required ||= Set.new
```

```
Trailing whitespace detected
```

```
  s
```

```
end
```

```
# @return [Environ]
```

```
def implicit
```

```
  @implicit ||= Environ.new
```

```
end
```

Intellisense ~ autocomplete

```
    store_name = master[name]
  end

  def required
    @required ||= Set.new
  end

  # @return [Environ]
  def implicit
    @implicit ||= Environ.new
  end
end
```

Intellisense ~ docs

```
@required ||= Set.new
end

# @return [Environ]
def implicit
  @implicit ||= Environ.new
end

# @param filename [String]
# @param position [Position, Array(Integer)]
# @return [Source::Cursor]
def cursor_at filename, position
  position = Position.normalize(position)
```

```

  Solargraph::Environ.new
  (requires: [], domains: [], pins: []) =^ Solargraph::Environ

Params:
• requires [Array<String>]
• domains [Array<String>]
• pins [Array<Pin::Base>]

Visibility: public

Class#new
(*args) =^ Solargraph::Environ
Calls allocate to create a new object of
```

Intellisense ~ references

```
def cursor_at filename, position  
/lib/solargraph/api_map.rb
```

```
# @return [Environ]  
def implicit  
  @implicit ||= Environ.new  
end  
  
# @param filename [String]  
# @param position [Position, Array(Integer, Integer)]  
# @return [Source::Cursor]  
def cursor_at filename, position  
  position = Position.normalize(position)  
  raise FileNotFound, "File not found: #{filename}" unless  
    source_map_hash[filename].cursor_at(position)  
end  
  
# Get a clip by filename and position.  
#  
# @param filename [String]  
# @param position [Position, Array(Integer, Integer)]
```

3 references

```
/lib/solargraph/api_map.rb 2  
94 def cursor_at filename, position  
107 SourceMap::Clip.new(self, cursor_at(filename, position))  
/lib/solargraph/library.rb 1
```

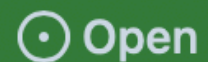
Solargraph gave me
that (no solargraph-rails)

What is solargraph-rails?

- Another gem
- ... which defines a plugin **for solargraph**
- ... that knows a bit more about Rails

[https://github.com/castwide/
solargraph/issues/87](https://github.com/castwide/solargraph/issues/87)

Rails support #87



philevans opened this issue on 17 Sep 2018 · 104 comments

Why is Rails difficult?

```
# == Schema Information
```

```
#
```

```
# Table name: my_books
```

```
#
```

```
# id      :integer      not null, primary key
```

```
# author  :string
```

```
# name    :string
```

```
# created_at :datetime    not null
```

```
# updated_at :datetime    not null
```

```
#
```

```
class MyBook < ApplicationRecord
```

```
  def my_method
```

```
    "you are reading" + name
```

```
  end
```

```
  ...
```

```
end
```

???



```
# == Schema Information
```

```
#
```

```
# Table name: my_books
```

```
#
```

```
# id      :integer      not null, primary key
```

```
# author  :string
```

```
# name    :string
```

```
# created_at :datetime    not null
```

```
# updated_at :datetime    not null
```

```
#
```

```
class MyBook < ApplicationRecord
```

```
  belongs_to :author, class_name: "Person"
```

???

```
  ...
```

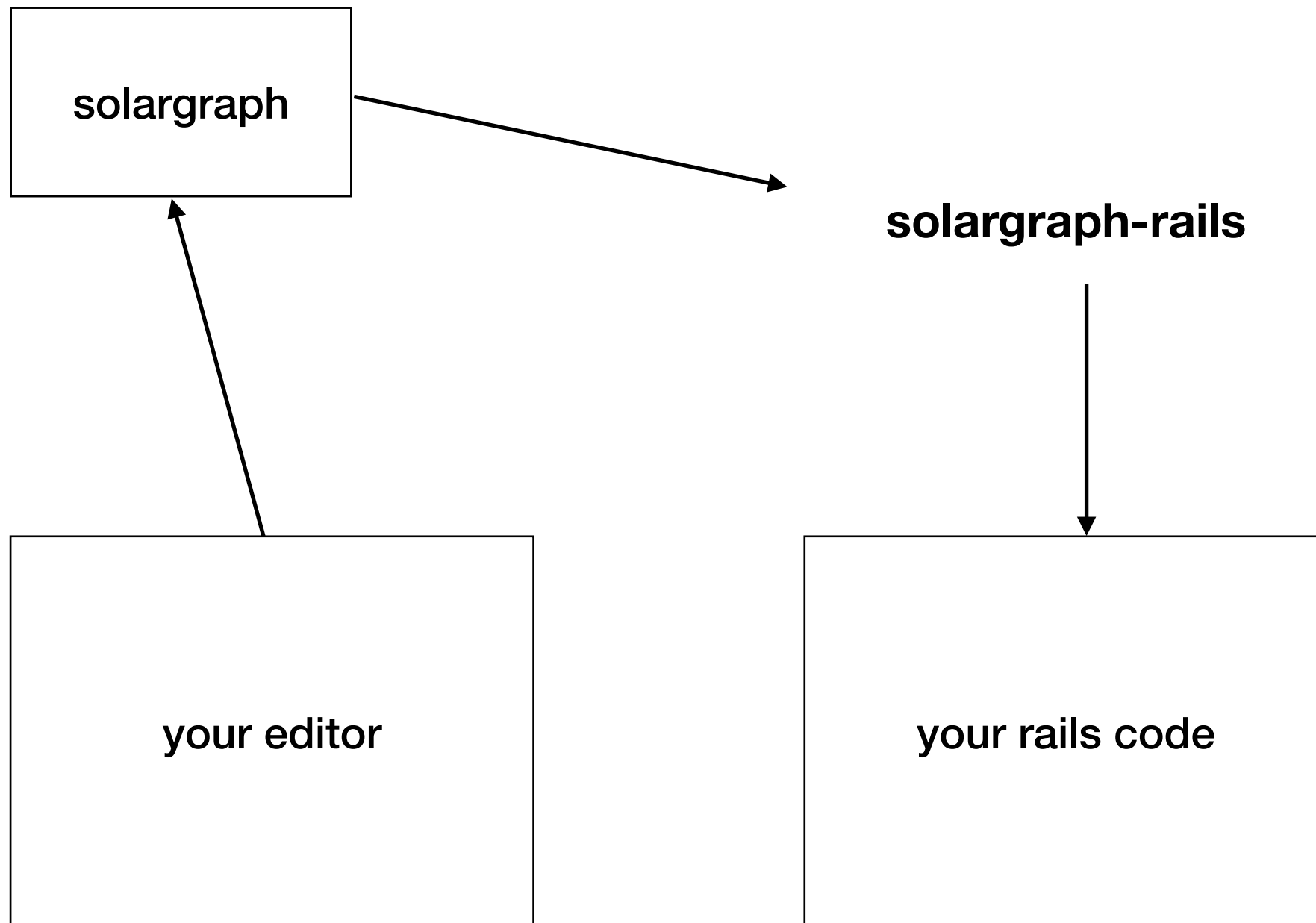
```
end
```

Demo

How it works: sort of static analysis

- Parse the code
- ... don't actually run Rails
- use Rails conventions (e.g. `schema.rb`)
- use structured docs (e.g. YARD)

Visualisation



How 2022 started



2022: solargraph-ARC merge

- "competitor" from alisnic
- same goals ~ merge

Features from ARC

- mature parsing
- schema.rb !
- finders, routes, etc
- thanks alisnic!

New maintenance load

Merge solargraph-arc #29

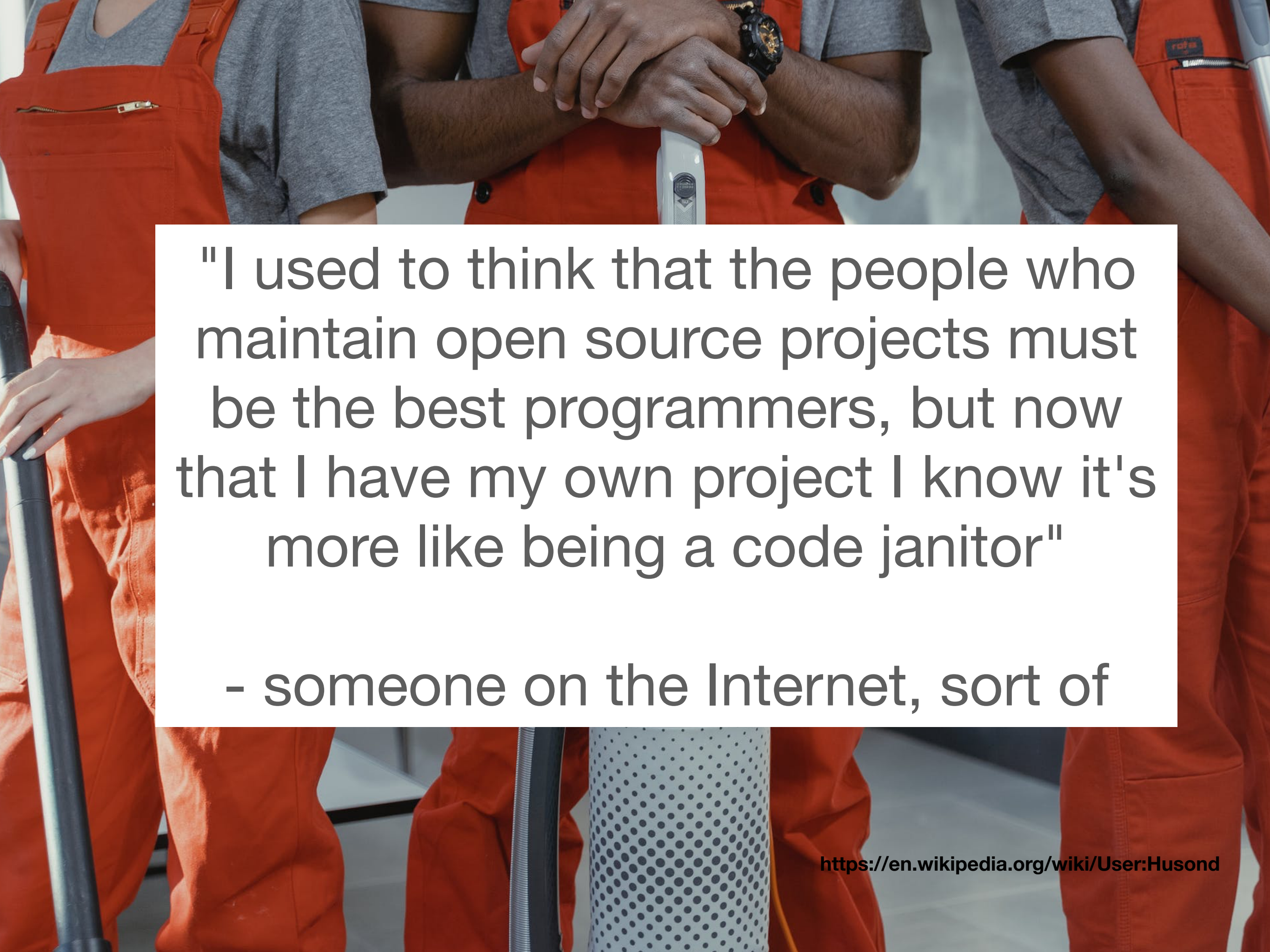
[Merged](#) iftheshoefritz merged 13 commits into `iftheshoefritz:main` from `alisnic:merge-arc` on Mar 14, 2022

[Conversation](#) 18 [Commits](#) 13 [Checks](#) 0 [Files changed](#) 104

[Edit](#) [Code](#)

+24,202 -1,421

+24,202 -1,421



"I used to think that the people who maintain open source projects must be the best programmers, but now that I have my own project I know it's more like being a code janitor"

- someone on the Internet, sort of

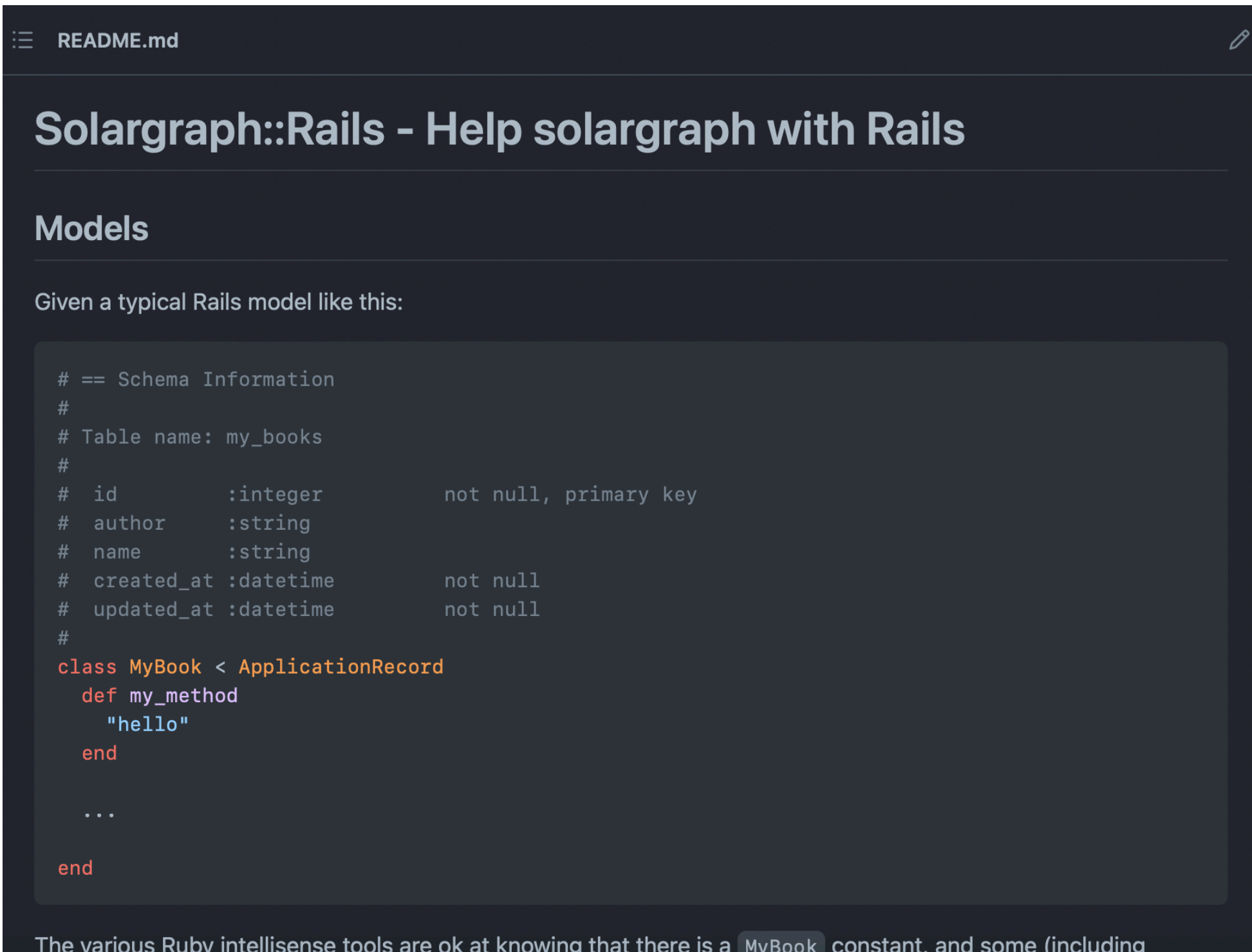
Code janitor: the mess

- continuous solargraph improvements
- solargraph-rails PRs from smart people
- editor weirdness
- new versions of Ruby
- new versions of Rails
- 24k lines of solargraph-rails code I didn't write

Code janitor: new issues

- it did this before ...
- I think?

Code janitor: README



```
README.md

Solargraph::Rails - Help solargraph with Rails

Models

Given a typical Rails model like this:

# == Schema Information
#
# Table name: my_books
#
#  id      :integer      not null, primary key
#  author  :string
#  name    :string
#  created_at :datetime    not null
#  updated_at :datetime    not null
#
class MyBook < ApplicationRecord
  def my_method
    "hello"
  end

  ...

end

The various Ruby intellisense tools are ok at knowing that there is a MyBook constant, and some (including
```

Code janitor: oh, that was broken? And it works now?

- binary, timestamp, citext support
- scopes

Code janitor: Version pinning

Can the solargraph dependency be upgraded to 0.47.x? #48

✓ Closed

vassyz opened this issue on Nov 2, 2022 · 1 comment

"The dependabot PR keeps switching between upgrading solargraph-rails ... and solargraph ... and downgrading solargraph-rails"



Code janitor: Version pinning

Can the solargraph dependency be upgraded to 0.47.x? #48

✓ Closed

vassyz opened this issue on Nov 2, 2022 · 1 comment

"The code relies heavily on solargraph internals, and we cannot just yolo bump. To be more confident we need to spend more time in testing infra"





<https://en.wikipedia.org/wiki/User:Husond>

Code janitor: CI

✓ Split CI jobs for more granular control #81

Summary

Jobs

✓ test (2.7, 0.44.3)

✓ test (2.7, 0.45.0)

✓ test (2.7, 0.46.0)

✓ test (2.7, 0.47.2)

✓ test (3.0, 0.44.3)

✓ test (3.0, 0.45.0)

✓ test (3.0, 0.46.0)

✓ test (3.0, 0.47.2)

test (2.7, 0.44.3)
succeeded on Dec 2, 2022 in 1m 21s

> ✓ Set up job

> ✓ Run actions/checkout@v2

> ✓ Cache RVM

> ✓ Test

> ✓ Post Cache RVM

> ✓ Post Run actions/checkout@v2

> ✓ Complete job

Code janitor: Remote Tests

- debugging missing dependencies remotely
- M1/MacOS locally vs GitHub actions on Intel/Ubuntu

Code janitor: CI startup penalty

- fast suite with startup delay
- introduce version variables for parallel runs
- record more errors before failure

Recap: 2022 Achievements

- New issues
- README
- Tests
- Bug fixes I didn't write



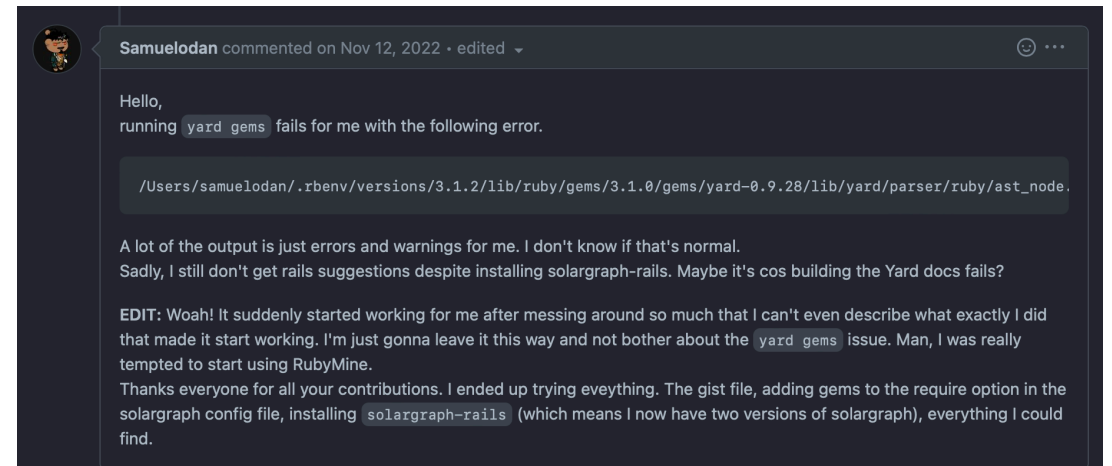
[https://commons.wikimedia.org/w/index.php?title=File:Geikie_Plateau_Glacier_\(8657045345\).jpg](https://commons.wikimedia.org/w/index.php?title=File:Geikie_Plateau_Glacier_(8657045345).jpg)

Weirdly, the users are
still here

... and it's still good
experience for me

2023: ease of use

"... fails for me ..."



EDIT: Woah! It suddenly started working for me after messing around so much that I can't even describe what exactly I did"

2023: less YARD, more solargraph

- People.where vs
People.my_scope.where
- Solargraph is getting smarter
- Co-incidentally easier testing

2023: less pointy hair (on average)

- join me?



Thanks! Questions?

