

Redcar

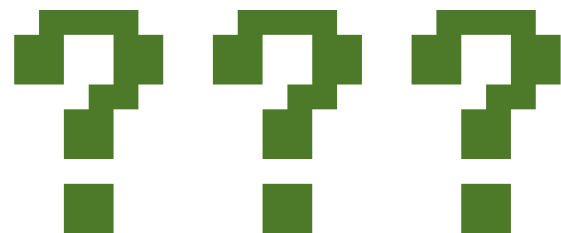
Hack your editor in Ruby

danlucraft

Demo

< 1.0

```
$ sudo gem install redcar  
$ redcar install
```



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Cohere

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Small core
Few concepts



Everything is a buffer
Turtles (Lisp) all the way down



Regular expressions everywhere
Declarative extensions

Cohere

3 concepts

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Debug Plug-in Registry

Thread [main] (Running)

- Activator.start(BundleContext) line: 55
- BundleContextImpl.run() line: 782
- AccessController.doPrivileged(PrivilegedExceptionRunnable) line: 104
- BundleContextImpl.startActivator(BundleActivator) line: 754
- BundleContextImpl.start() line: 754
- BundleHost.startWorker(int) line: 352
- BundleHost(AbstractBundle).start(int) line: 280
- SecureAction.start(Bundle, int) line: 408

Variables

Name	Value
this	Activator (id=60)
context	BundleContextImpl (id=60)
activator	Activator (id=60)
bundle	BundleHost (id=60)
bundleEvent	CopyOnWriteArrayList (id=60)
bundleEventSync	null
contextLock	Object (id=184)
framework	Framework (id=1)
frameworkEvent	null

Session View

Name	Value
session	SessionImpl (id=1)
adapterList	Class<T> [7] (id=1)
adapterToFactoryMap	HashMap<K,V> (id=1)
advice	InternalAdvice [3] (id=1)
applicableAdvices	HashMap<K,V> (id=1)
aspectByClass	HashMap<K,V> (id=1)
configuration	SessionConfiguration (id=1)
currentExecutionContext	ThreadLocal<T> (id=1)
executionListeners	ArrayList<E> (id=1)

*TeltowCarModel.model_diagram

*Activator.java

```
51 Customer customer = (Customer) getObjectAspect();
52 customer.setFirstName("Max");
53 customer.setLastName("muster");
54
55 Vehicle vehicle = (Vehicle) getObjectAspect();
56 vehicle.setRegistrationNumber("HAL-LX 88");
57
58 PersonRole role = (PersonRole) getObjectAspect();
59 role.setCustomer(customer);
60 role.setVehicle(vehicle);
61
62 try { getHibernateAspect().commit(); }
63
64
65 }
```

ExecutionContextImpl.class

Constraints

Name	Declared Type
customer	Customer
customer	Customer
constraints	
firstNameCardinalityConstraint	Cardinality: 1
lastNameCardinalityConstraint	Cardinality: 1
addressesCardinalityConstraint	Cardinality: 0..*
customerIdCardinalityConstraint	Cardinality: 0..1
fullNameCardinalityConstraint	Cardinality: 1
phoneNumbersCardinalityConstraint	Cardinality: 0..*
titleCardinalityConstraint	Cardinality: 1
memoCardinalityConstraint	Cardinality: 0..1

violated titleCardinalityConstraint
Type: Cardinality Constraint
Should be: 1

Trace View

- Action Name: Commit
- Action Name: CheckValidity
- Action Name: CheckConstraints
- Action Name: CheckConstraints
- Action Name: IgnoreMandatoryIdViolations

TeltowCarModelConfiguration

- Commit
 - BEFORE
 - CheckValidity
 - ComputePersistentDerivedPropertyValues
 - GenerateSequentialId
 - NESTED
 - AFTER
 - ClearOppositeCache
 - RefreshViews
 - RefreshEditors

INFO: foreign keys: {}

```

timber
├── lib
│   └── timber
│       ├── aggregate_report.rb
│       ├── file_stream.rb
│       ├── grouping.rb
│       ├── remote_executor.rb
│       ├── remote_log_parser.rb
│       ├── stats.rb
│       └── table.rb
├── timber.rb
├── pkg
├── Rakefile
├── README
└── spec
    ├── fixtures
    ├── spec_helper.rb
    └── timber
        ├── aggregate_report_spec.rb
        ├── file_stream_spec.rb
        ├── grouping_spec.rb
        ├── remote_executor_spec.rb
        └── remote_log_parser_spec.rb

```

```

remote_log_parser_spec.rb — timber
* spec_helper.rb * remote_executor_spec.rb * remote_log_parser_spec.rb

24 it "should let you grep the original log files" do
25   @remote_log_parser.grep("Completed")
26   @remote_log_parser.file_stream.length.should == 4
27 end
28
29 it "should let you limit the grep" do
30   @remote_log_parser.grep("Completed", :limit => 2)
31   @remote_log_parser.file_stream.length.should == 2
32 end
33
34 it "should let you grep the generated files" do
35   @remote_log_parser.grep("Random")
36   @remote_log_parser.grep("ian")
37   @remote_log_parser.file_stream.length.should == 0
38 end
39
40 it "should let y
41   @remote_log_pa
42   @remote_log_pa
43   @remote_log_pa
44 end
45
46 it "should clean
47   @remote_log_pa
48   @remote_log_pa
49   Dir[working_di
50 end
51 end
52
53 describe "logfile
54   it "should let y
55     @remote_log_pa
56     @remote_log_pa
57   end
58 end
59

```

RSpec results

RSpec Code Examples

Timber::RemoteLogParser

- should respond to server
- should fetch a file list on demand
- should not be happy with mixed file types

Timber::RemoteLogParser logfile grepping

- should let you grep the original log files
- should let you limit the grep
- should let you grep the generated files

should let you grep zipped files

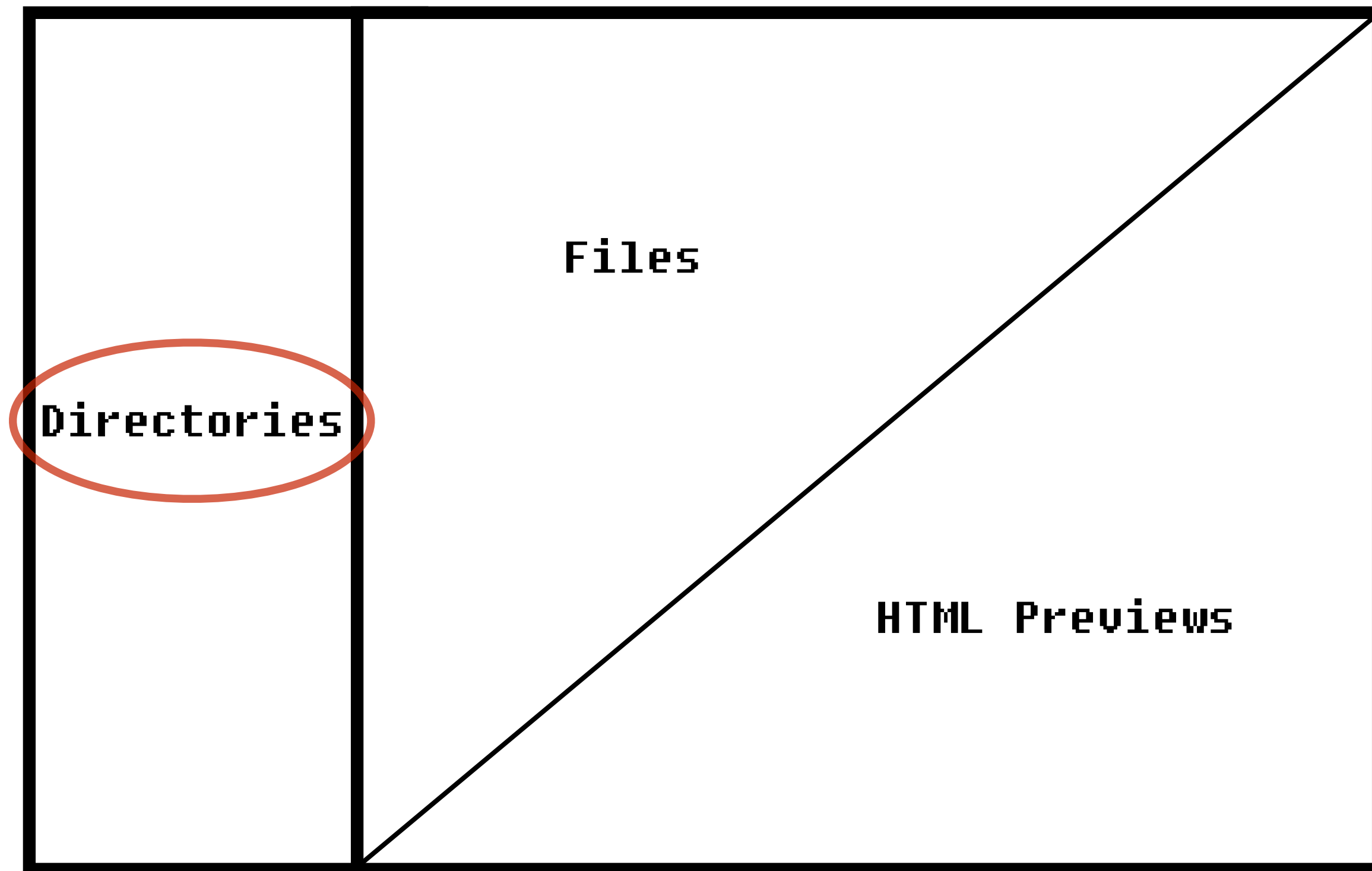
expected: 2,
got: 1 (using ==)

/Users/danlucraft/Songkick/timber/spec/timber/remote_log_parser_spec.rb
</tmp/textmate-command-76226.rb>:3

```

41 @remote_log_parser = Timber::RemoteLogParser.new("localhost")
42 @remote_log_parser.grep("saleandro")
43 @remote_log_parser.file_stream.length.should == 2

```



redcar/

bin

doc

lib

plugins

application

application_swt

auto_completer

auto_indenter

auto_pairer

clipboard-viewer

comment

connection_manager

core

declarations

document_search

edit_view

features

lib

edit_view

edit_view.rb

spec

plugin.rb

edit_view_swt

lib

edit_view_swt

edit_view_swt.rb

spec

vendor

plugin.rb

encryption

execute_current_tab

file_parser

help

html_view

redcar/

redcar/

Bundles

Runnables

Web Bookmarks

Java

Java 6 Javadoc

SWT Javadoc

Redcar

API docs

JavaMateView Javadoc

Ruby

1.8.7 Docs

1.9 Docs

Rails 2.2 Docs

Rails 3 Docs

redcar/

redcar/

Bundles

Runnables

Custom Command

rake

task

rubyrake

app_bundle

build

ci

clean_textmate

clobber

clobber_package

cucumber

cucumber_ci

default

gem

package

pkg

pkg/redcar-0.3.8

pkg/redcar-0.3.8.gem

redcar/runnables

redcar/sample

release

repackage

run_ci

specs

specs_ci

yard

ruby

Directories

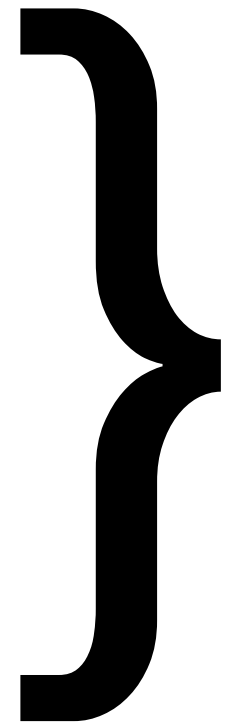
Rake tasks

Class outline views

Test output

Todo lists

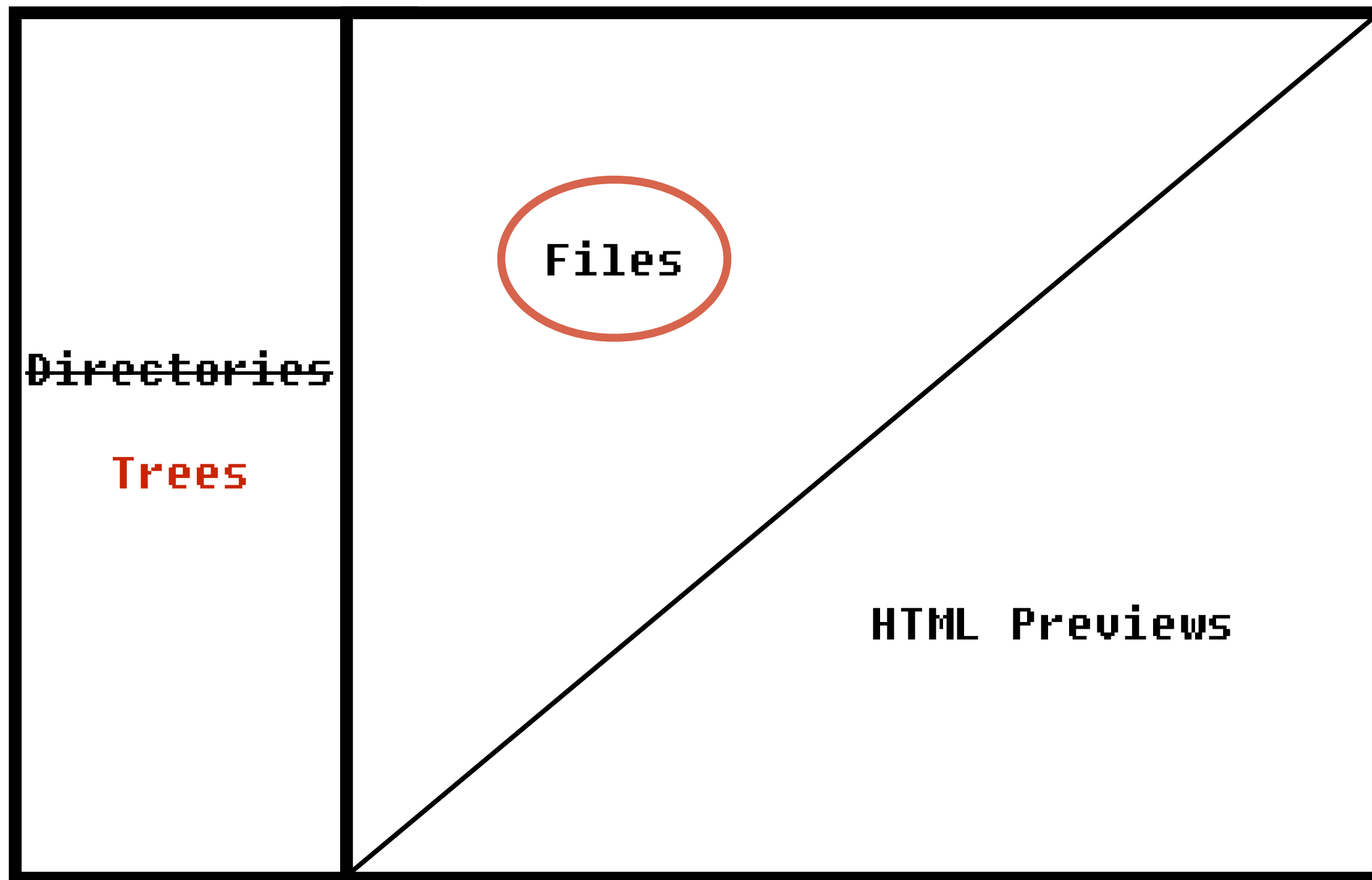
Compiler errors



Trees

```
class MyTree
  def title  # “String”
  def top    # [Note, ..]

  class Node
    def icon      # :symbol
    def text      # “String”
    def children  # [Node,..]
    def leaf?     # true/false
  end
end
```



recent_directories.rb ✕

```
1 module Redcar
2   class Project
3     # Purpose of this class is to have a menu that shows the 5 most recent opened directories
4     # This way users can quickly go to directories they have recently opened, or use frequently
5     class RecentDirectories
6       MAX_LENGTH = 10
7
8       # Create menus for recent directories
9       def self.storage
10         @storage ||= begin
11           storage = Plugin::Storage.new('recent_directories')
12           storage.set_default('list', [])
13           storage
```

Ruby REPL ✕

```
1 # Ruby REPL
2
3 >> 1+2
4 => 3
5 >> |
```


Files

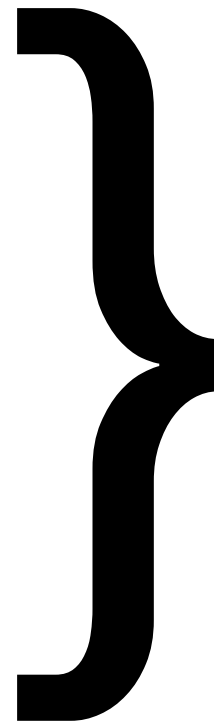
Repl

Commit entries

Blog posts

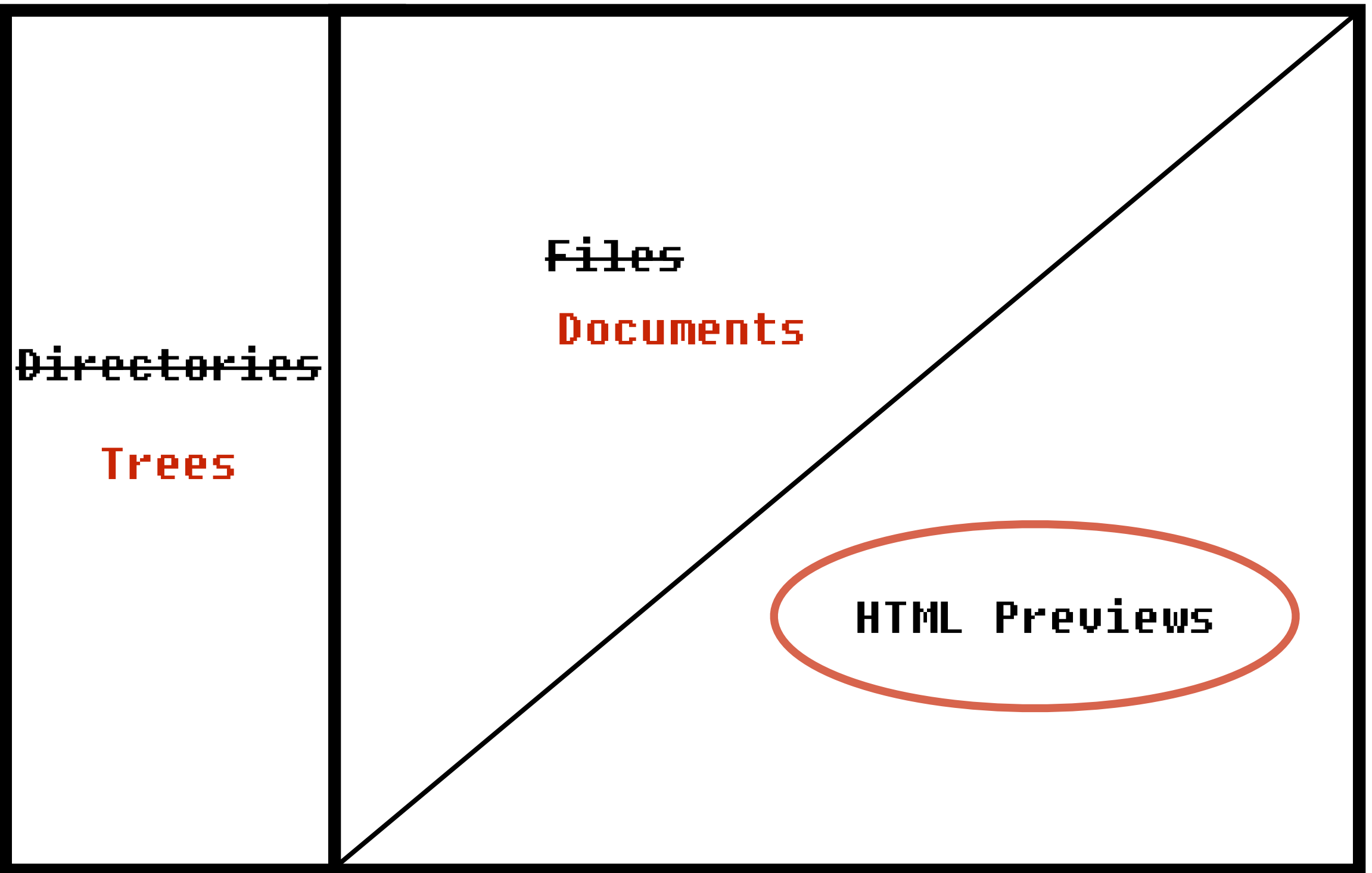
Notes

Diffs



Documents

```
class MyDocument
  def title # "String"
  def read  # "String"
  def commit(content)
end
```



Directories

Trees

Files

Documents

HTML Previews

Search Term

FilterListDialog



Match case



With context

Search for complete words only

v /Users/danlucraft/Redcar/redcar/plugins/edit_view/lib/edit_view/select_theme_dialog.rb

```
1 module Redcar
2   class EditView
3     class SelectThemeDialog < FilterListDialog
4
5       def initialize
```

Task Manager

[Refresh](#)

Pending

Enqueued

Description

In Process

Started

Description

Completed

Completed	Description	Duration
04:16:48	/Users/danlucraft/Redcar/redcar: refresh index	0.015
04:16:48	/Users/danlucraft/Redcar/redcar: reparse files for declarations	0.546

HTML previews

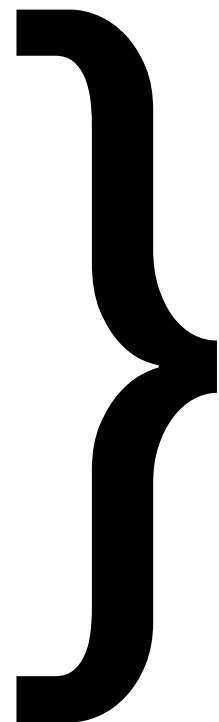
RDocs

Search

Command output

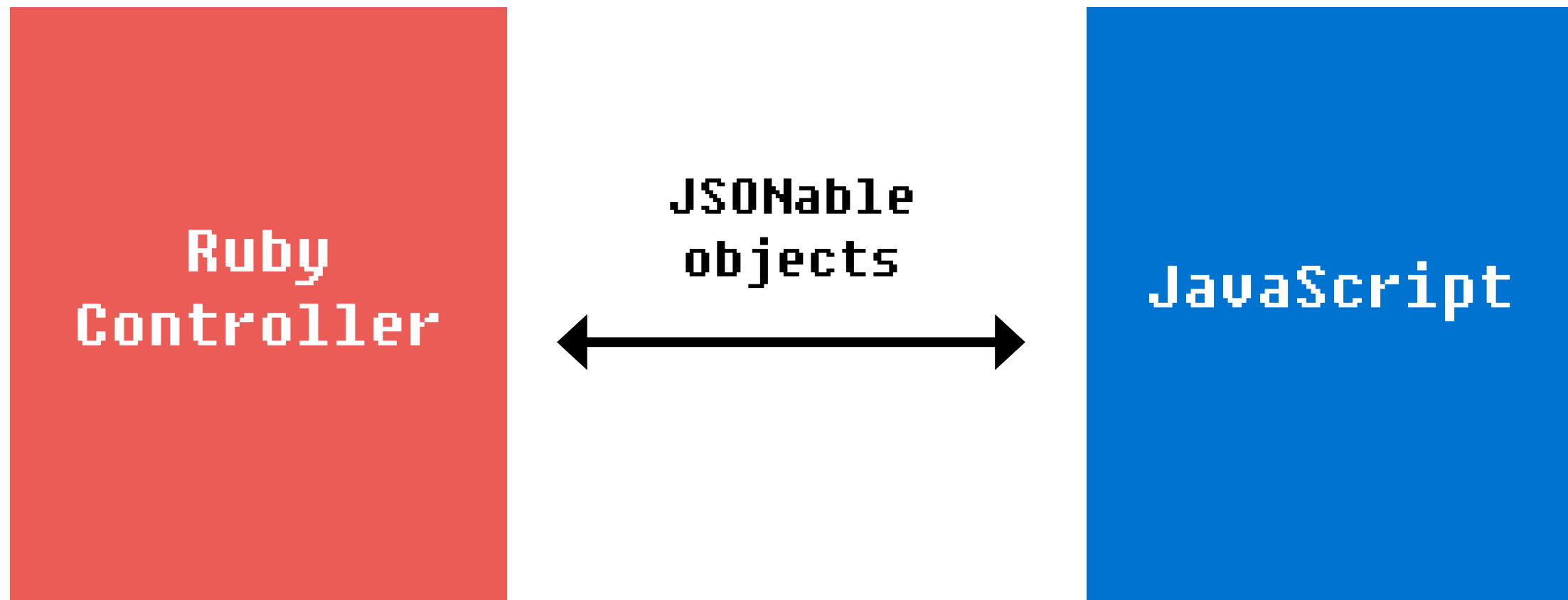
Debugger

Test output



WebViews

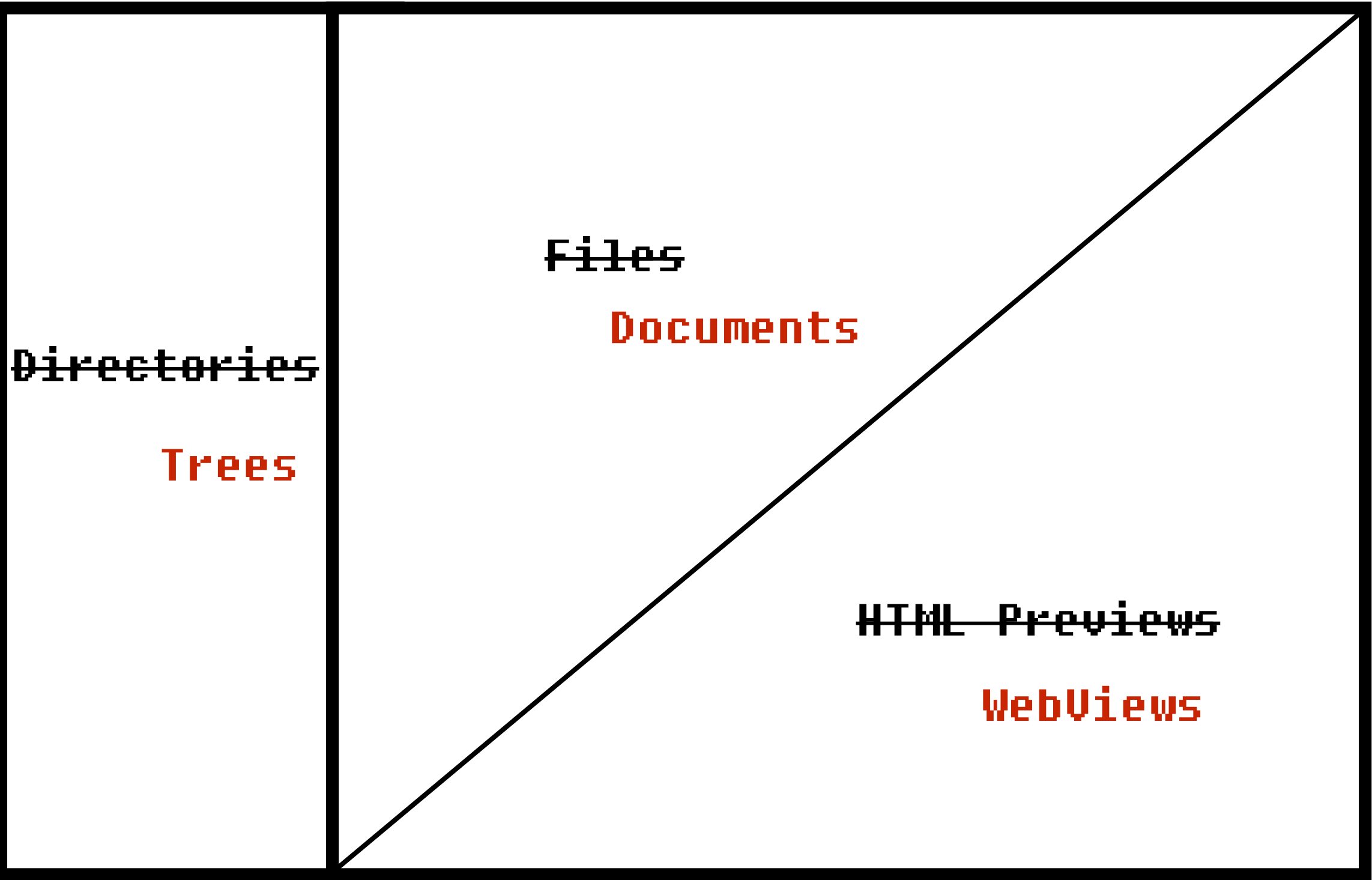
WebView



```
class SearchController
  def index    # “String”

  def do_search(query)
end
```

```
$(".search").clicked(function() {  
    Controller.searchNotes("rubyconf");  
});
```

**Common
Organising
Metaphor**

**Editing
Interactions**

**Complex, Attractive or
Custom Interactions**

Cohere

3 concepts

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Cohere

3 concepts

everything is a plugin

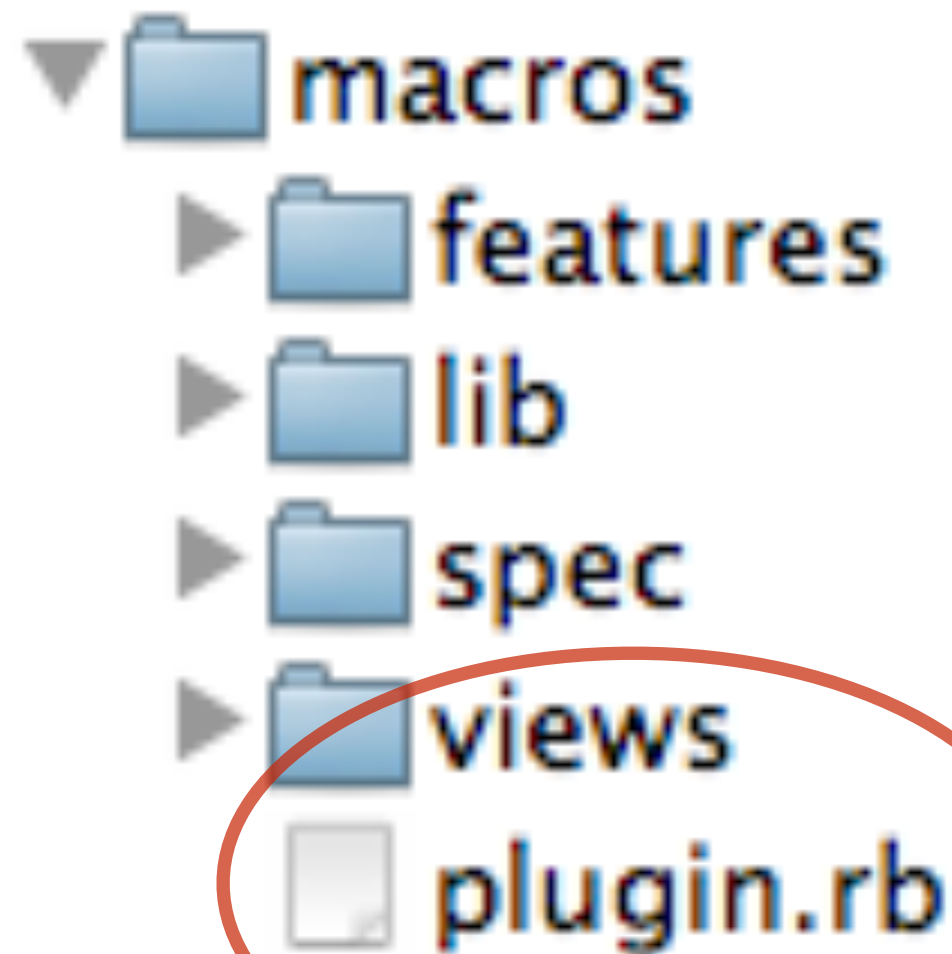
???

???

???

- ▶ application
- ▶ application_swt
- ▶ auto_completer
- ▶ auto_indenter
- ▶ auto_pairer
- ▶ clipboard-viewer
- ▶ comment
- ▶ connection_manager
- ▶ core
- ▶ declarations
- ▶ document_search
- ▶ edit_view
- ▶ edit_view_swt
- ▶ encryption
- ▶ execute_current_tab
- ▶ file_parser
- ▶ help
- ▶ html_view
- ▶ line_tools
- ▶ macros
- ▶ my_plugin
- ▶ open_default_app
- ▶ outline_view
- ▶ outline_view_swt
- ▶ pair_highlighter
- ▶ plugin_manager_ui

- ▶ auto_indenter
- ▶ auto_pairer
- ▶ clipboard-viewer
- ▶ comment
- ▶ connection_manager
- ▶ core
- ▶ declarations
- ▶ document_search
- ▶ edit_view
- ▶ edit_view_swt
- ▶ encryption
- ▶ execute_current_tab
- ▶ file_parser
- ▶ help
- ▶ html_view
- ▶ line_tools
- ▶ macros
- ▶ my_plugin
- ▶ open_default_app
- ▶ outline_view
- ▶ outline_view_swt
- ▶ pair_highlighter
- ▶ plugin_manager_ui
- ▶ project
- ▶ project_search
- ▶ redcar
- ▶ redcar_debug
- ▶ repl
- ▶ ruby



```
Plugin.define do
  name      "macros"
  version   "1.0"
  file      "lib", "macros"
  object    "Redcar::Macros"
  dependencies "application", ">0",
                    "edit_view", ">0"
end
```

Feature: Automatically insert paired characters

Scenario: Inserts quote marks

When I open a new edit tab

And I type "\"

Then the contents should be "\"<c>\""

Scenario: Inserts parentheses

When I open a new edit tab

And I type "("

Then the contents should be "(<c>)"

Scenario: Delete start character (quotes)

When I open a new edit tab

And I type "\"

And I backspace

Then the contents should be ""

Cohere

3 concepts

everything is a plugin

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Cohere

3 concepts

everything is a plugin

Wicked APIs

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Coherence

3 concepts

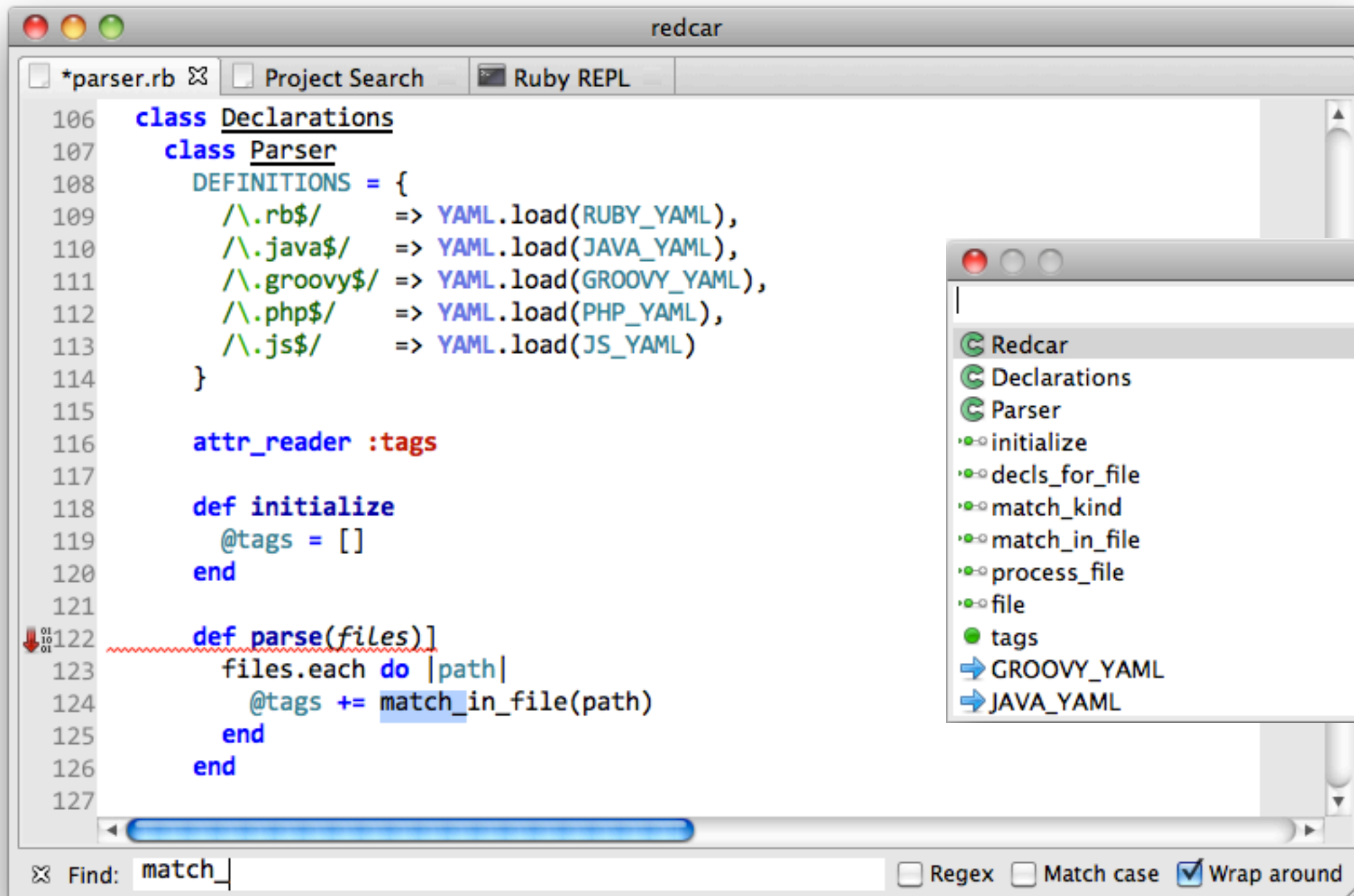
everything is a plugin

Wicked APIs

Document APIs

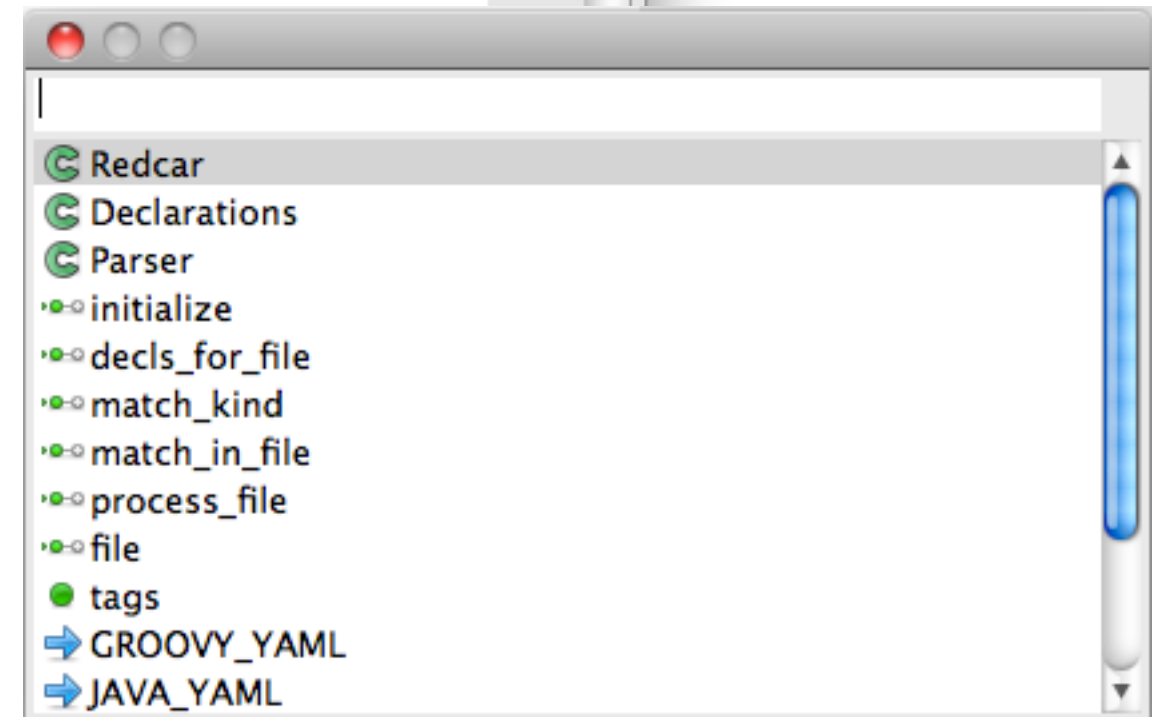
???

Document APIs

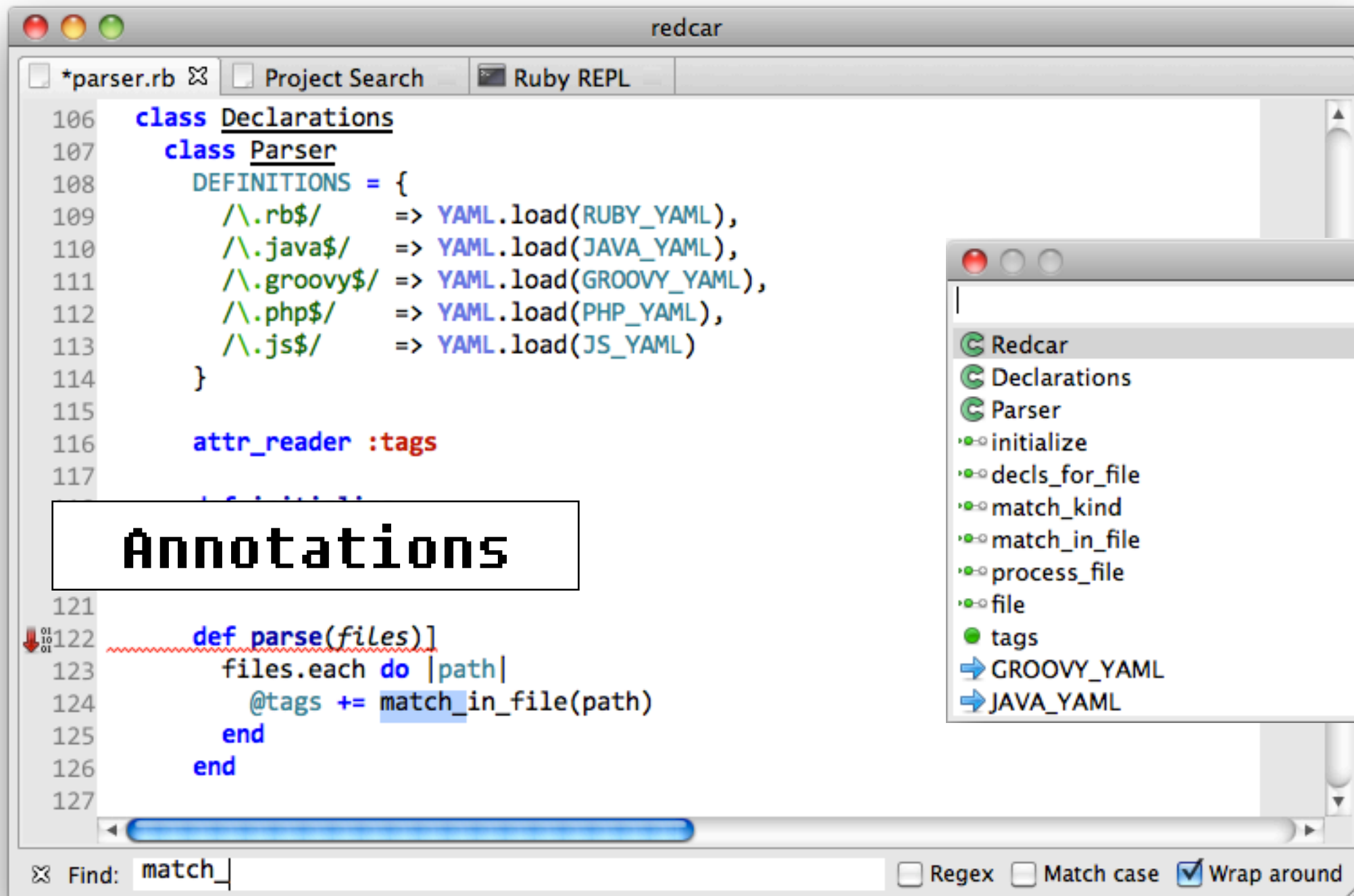


```
106 class Declarations
107   class Parser
108     DEFINITIONS = {
109       /\.rb$/ => YAML.load(RUBY_YAML),
110       /\.java$/ => YAML.load(JAVA_YAML),
111       /\.groovy$/ => YAML.load(GROOVY_YAML),
112       /\.php$/ => YAML.load(PHP_YAML),
113       /\.js$/ => YAML.load(JS_YAML)
114     }
115
116     attr_reader :tags
117
118     def initialize
119       @tags = []
120     end
121
122     def parse(files)
123       files.each do |path|
124         @tags += match_in_file(path)
125       end
126     end
127   end
end
```

Find: match_ ☐ Regex ☐ Match case ☒ Wrap around



Document APIs

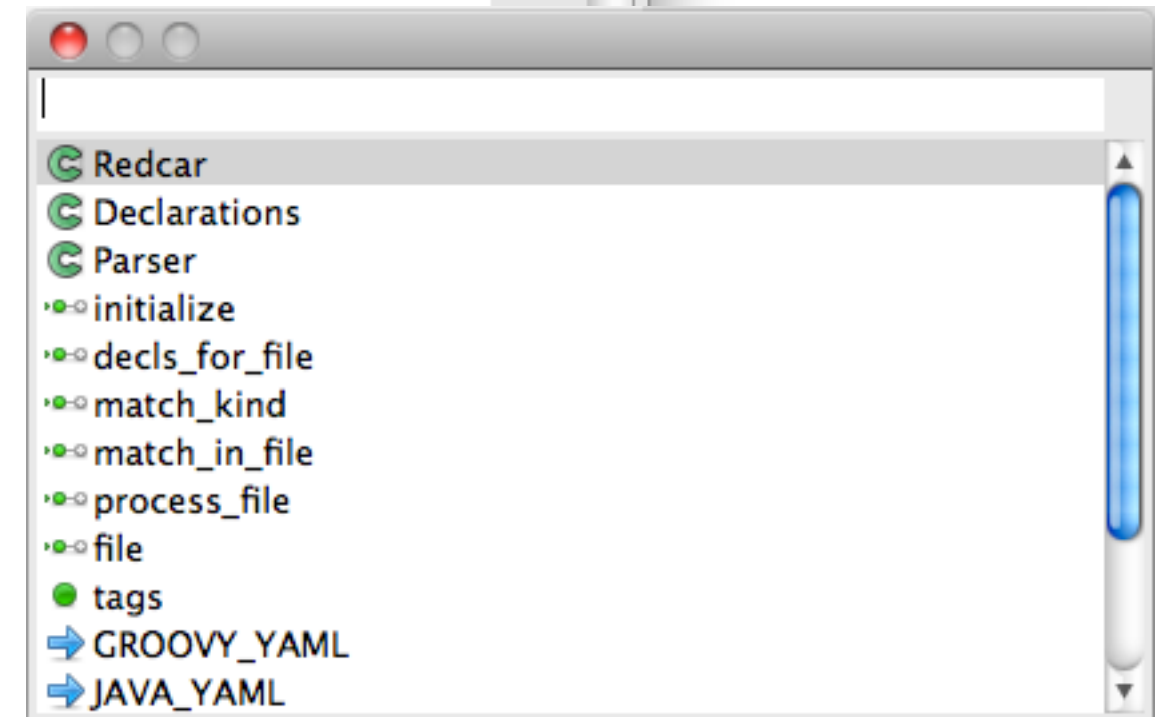


redcar

*parser.rb Project Search Ruby REPL

```
106 class Declarations
107   class Parser
108     DEFINITIONS = {
109       /\.rb$/ => YAML.load(RUBY_YAML),
110       /\.java$/ => YAML.load(JAVA_YAML),
111       /\.groovy$/ => YAML.load(GROOVY_YAML),
112       /\.php$/ => YAML.load(PHP_YAML),
113       /\.js$/ => YAML.load(JS_YAML)
114     }
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116     attr_reader :tags
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118     def initialize
119       @tags = {}
120     end
121
122     def parse(files)
123       files.each do |path|
124         @tags += match_in_file(path)
125       end
126     end
127   end
end
```

Find: match_ ☐ Regex ☐ Match case ☒ Wrap around

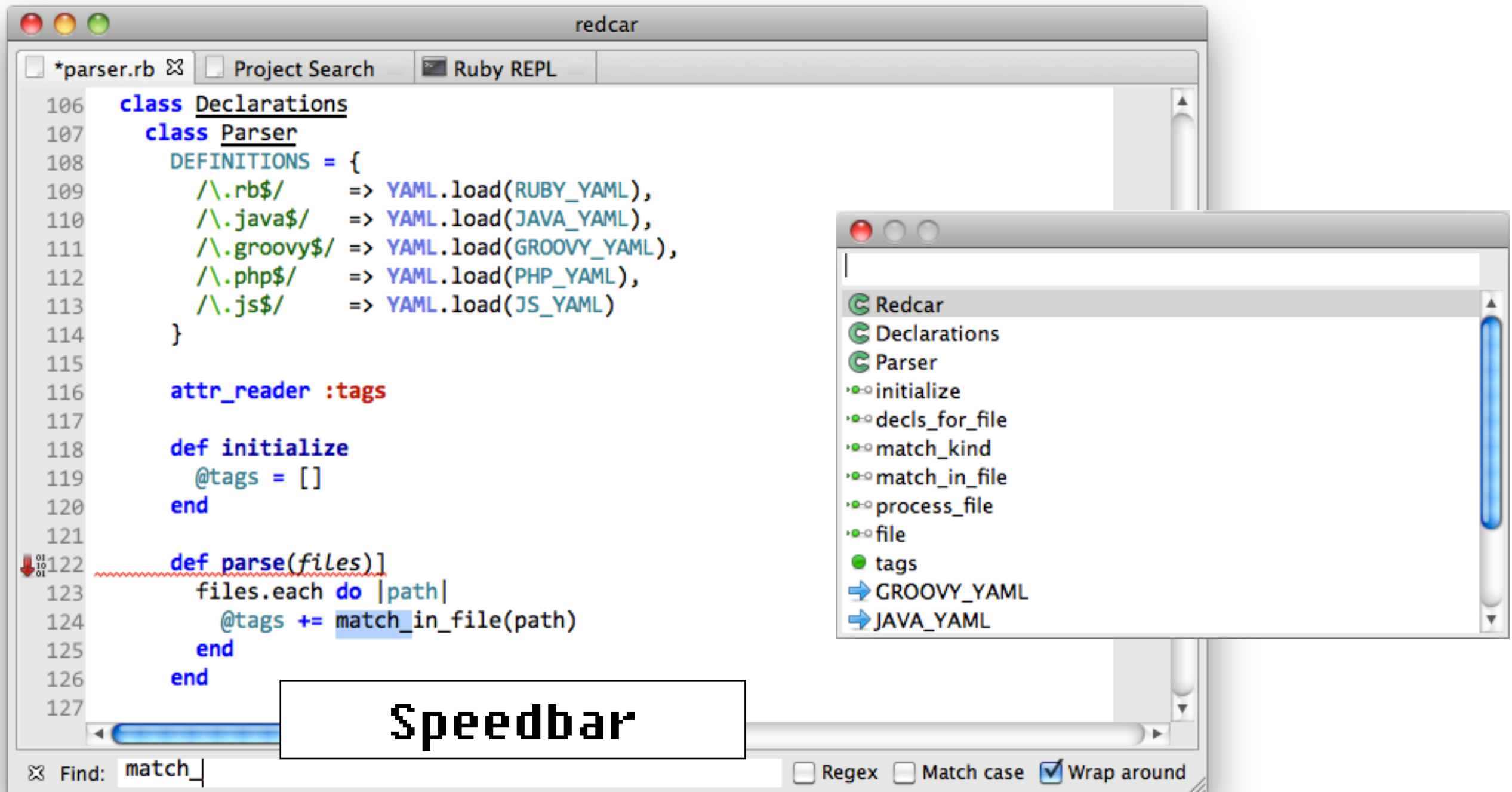


Annotations

```
1 # Ruby REPL
2
3 >> ev = Redcar::EditView.focussed_edit_view
4 ev.add_annotation_type(:test, "joystick", [255, 0, 0])
5 ev.add_annotation(:test, 4, "Hello", 0, 10)
```

```
1 # Ruby REPL
2
3 >> ev = Redcar::EditView.focussed_edit_view
4 ev.add_annotation_type(:test, "joystick", [255, 0, 0])
5  ev.add_annotation(:test, 4, "Hello", 0, 10)
6 => #<#<Class:01xf6f0b9>:0x95b22>
7 >>
```

Document APIs





Goto line:

Go

```
class GotoLineSpeedbar < Redcar::Speedbar
  label :goto_label, "Goto line:"

  textbox :line

  button :go, "Go", "Return" do
    ...
  end

end

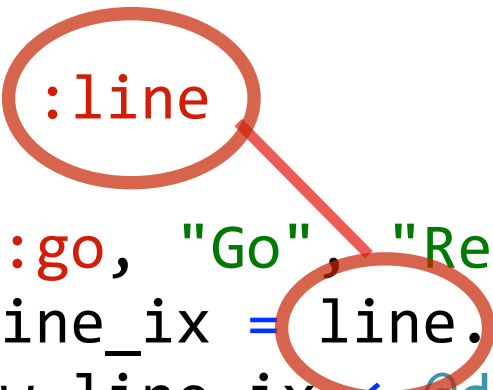
def initialize(doc, win)
  @doc, @win = doc, win
end
end
```

```
class GotoLineSpeedbar < Redcar::Speedbar
  label :goto_label, "Goto line:"

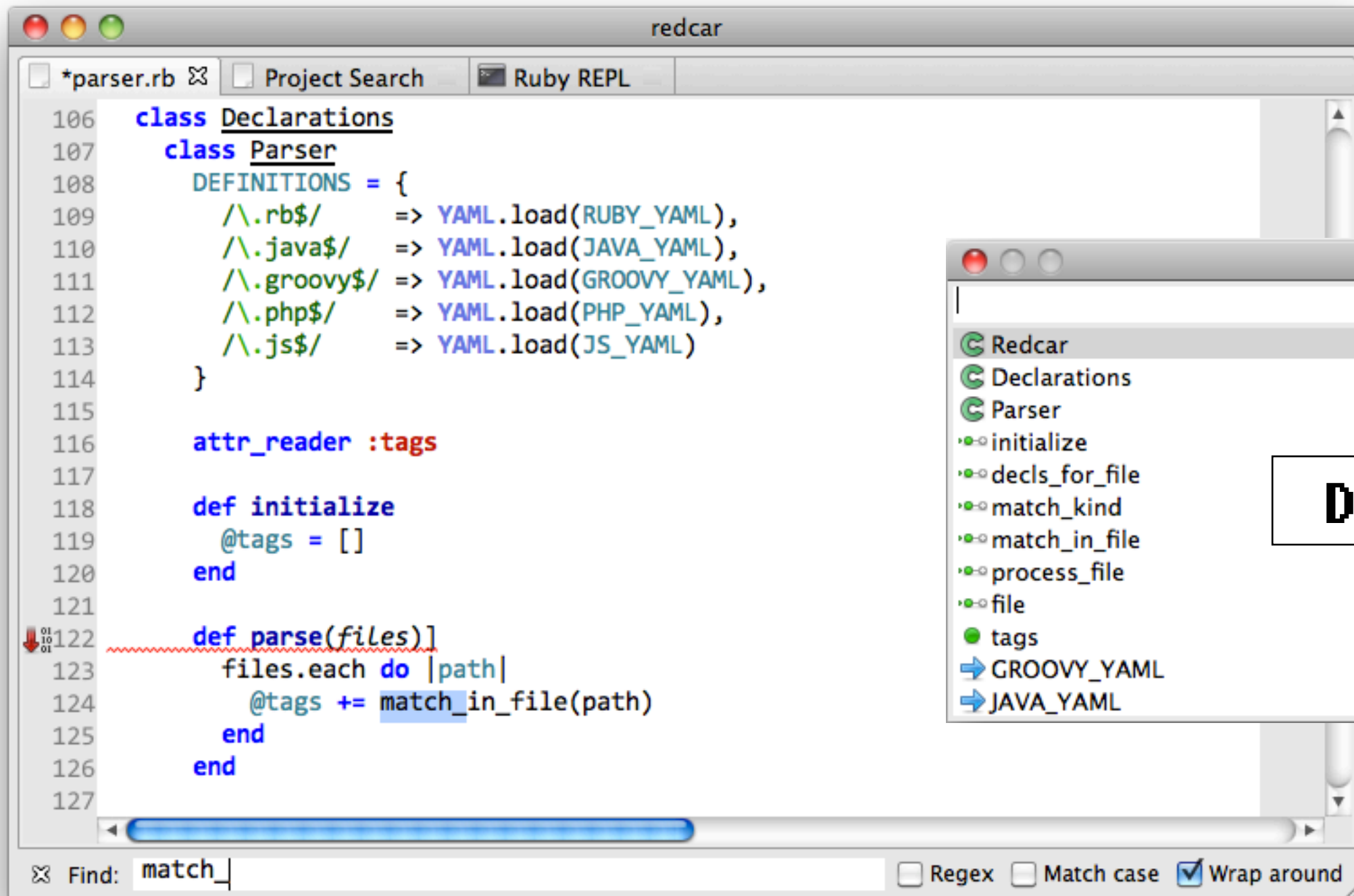
  textbox :line

  button :go, "Go", "Return" do
    new_line_ix = line.value.to_i - 1
    if new_line_ix < @doc.line_count and new_line_ix >= 0
      @doc.cursor_offset = @doc.offset_at_line(new_line_ix)
      @doc.scroll_to_line(new_line_ix)
      @win.close_speedbar
    end
  end
end

def initialize(doc, win)
  @doc, @win = doc, win
end
end
```

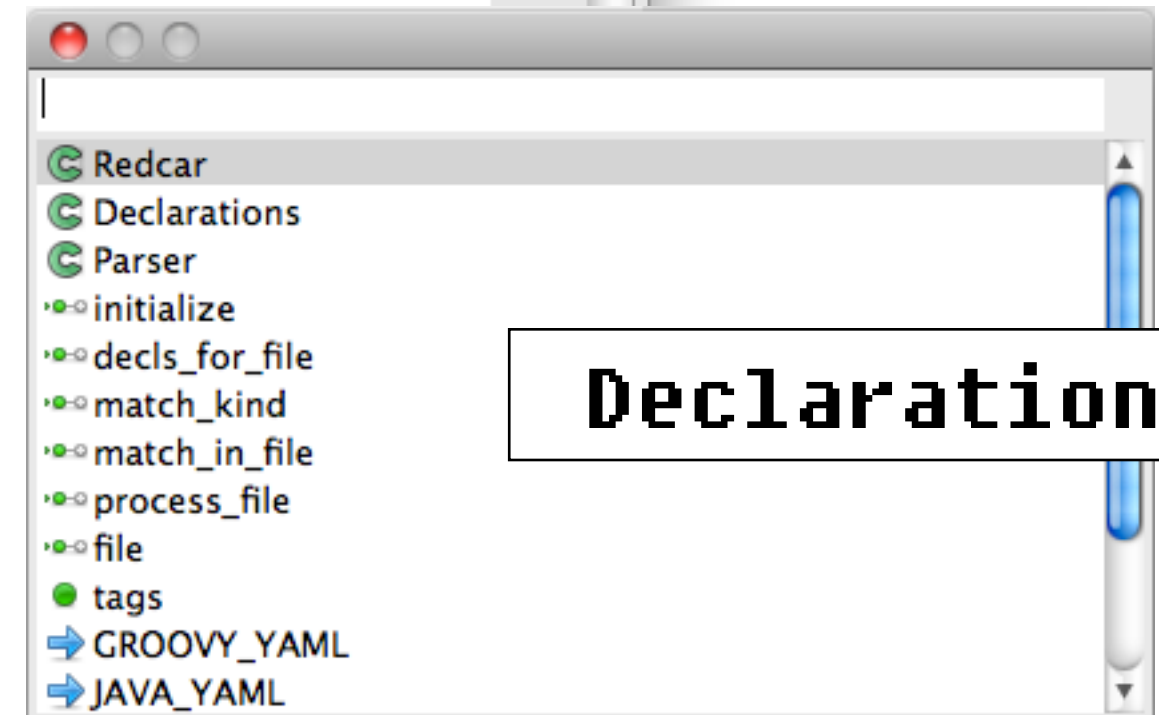


Document APIs



```
106 class Declarations
107   class Parser
108     DEFINITIONS = {
109       /\.rb$/ => YAML.load(RUBY_YAML),
110       /\.java$/ => YAML.load(JAVA_YAML),
111       /\.groovy$/ => YAML.load(GROOVY_YAML),
112       /\.php$/ => YAML.load(PHP_YAML),
113       /\.js$/ => YAML.load(JS_YAML)
114     }
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116     attr_reader :tags
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118     def initialize
119       @tags = []
120     end
121
122     def parse(files)
123       files.each do |path|
124         @tags += match_in_file(path)
125       end
126     end
127   end
end
```

Find: match_ ☐ Regex ☐ Match case ☒ Wrap around



Declarations

RUBY_YAML=<<-YAML

- regex: "^[^#]*(class|module)\\s+(?:\\w*::)*(\\w+)(?:\$|\\s|<)"
capture: 2
type: id
kind: class
- regex: "^[^#]*def (self\\.)?(\\w+[?!=]?)(\\.(.*\\.))?(\\s|\\;)+"
capture: 2
type: id
kind: method
- regex: "^[^#]*attr(_reader|_accessor|_writer)(.*)\$"
capture: 2
type: id-list
kind: attribute
- ...

```
class Redcar  
  def self.app  
    ...
```

```
>> edit_view.declarations  
=> [  
  #<Declaration:class Redcar:redcar.rb:0>,  
  #<Declaration:method app:redcar.rb:2>,  
  ...  
]
```

Declarations in file

```
>> project.find_declaration(:class => "Redcar")  
=> [#<Declaration:class Redcar:redcar.rb:0>]
```

File of declaration

Disclaimer: not built this yet!

Cohere

3 concepts

everything is a plugin

Wicked APIs

Document APIs

???

Cohere

3 concepts

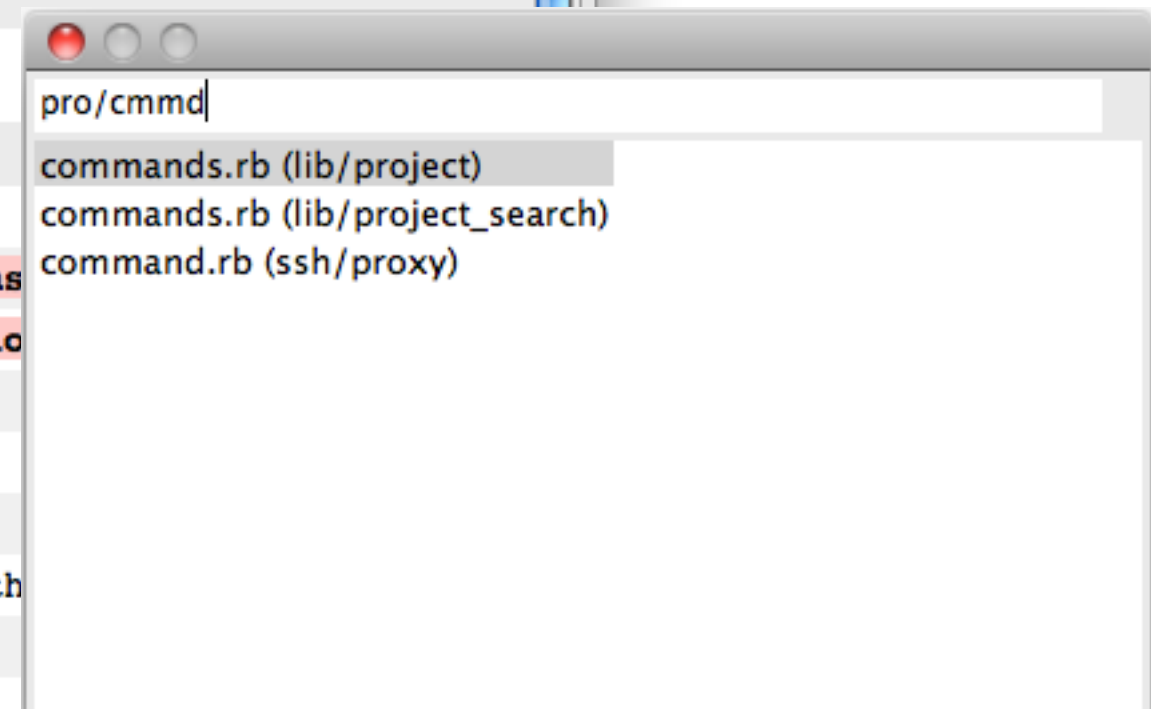
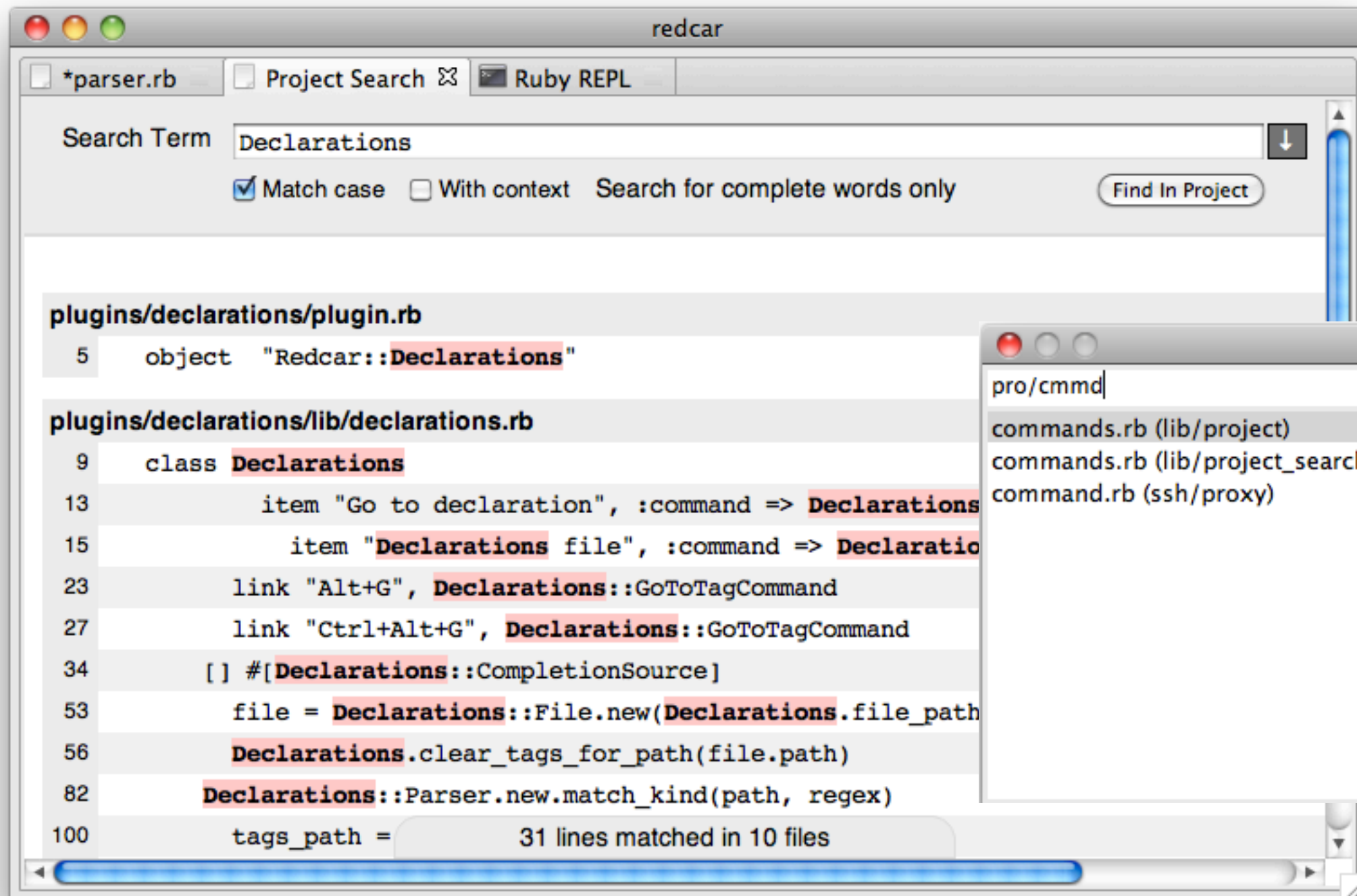
everything is a plugin

Wicked APIs

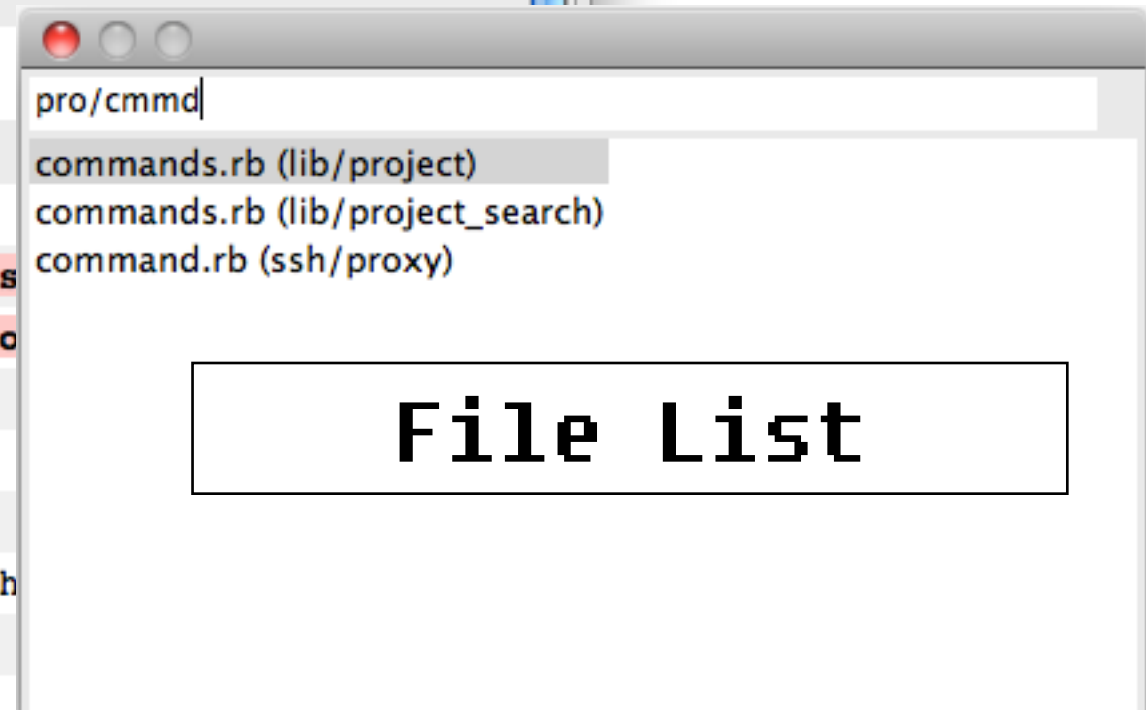
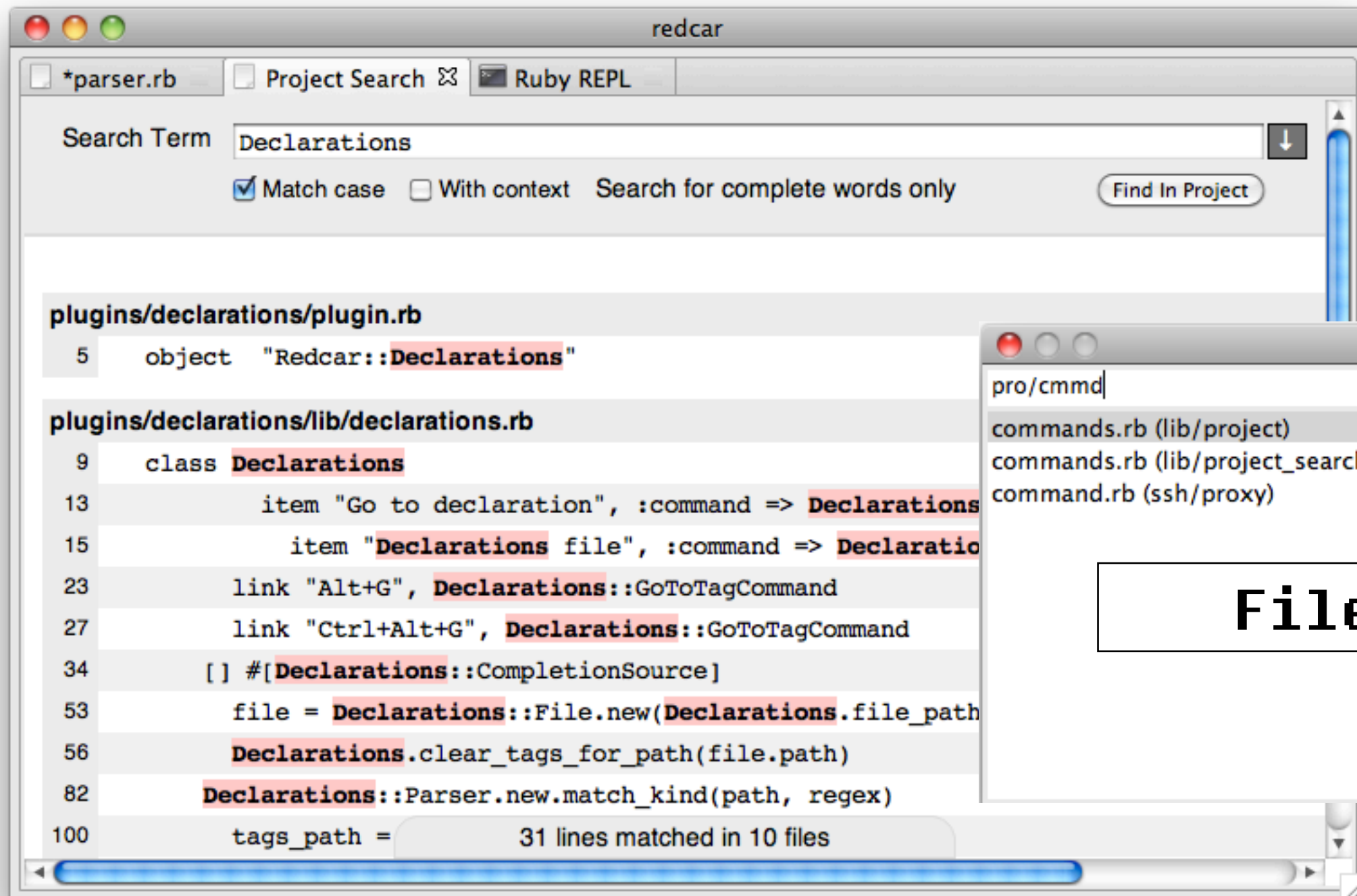
Document APIs

Project APIs

Project APIs



Project APIs



```
>> file_list = project.file_list  
=> #<FileList for “/Users/danlucraft/redcar”: 4962 files>
```

Knows about your files

```
>> file_list.contains?("/Users/danlucraft/redcar/README.md")  
=> Tue Feb 22 13:57:58 +0000 2011
```

Modification time

```
>> File.exist?("/Users/danlucraft/redcar/.git/config")  
=> true  
>> file_list.contains?("/Users/danlucraft/redcar/.git/config")  
=> nil
```

Handles user-ignored files and dirs for you

```
>> file_list.changed_since(Time.now - 5*60*60).length  
=> 14
```

Tells you what's changed

Project Refresh Tasks

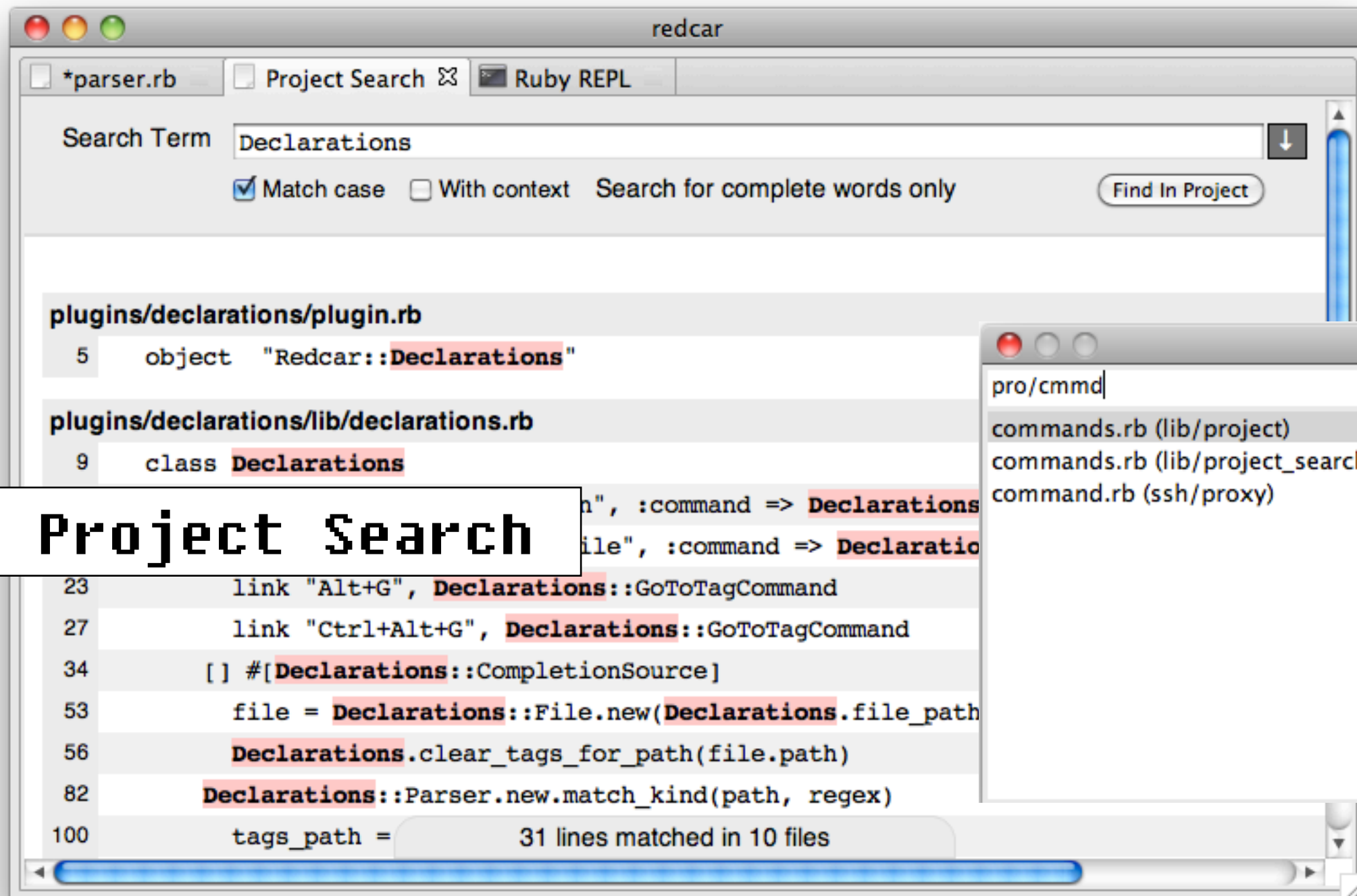
```
class MyProjectRefresh < Task

  def initialize(project)
    file_list      = project.file_list
    @changed_files = file_list.changed_since(last_update_time)
  end

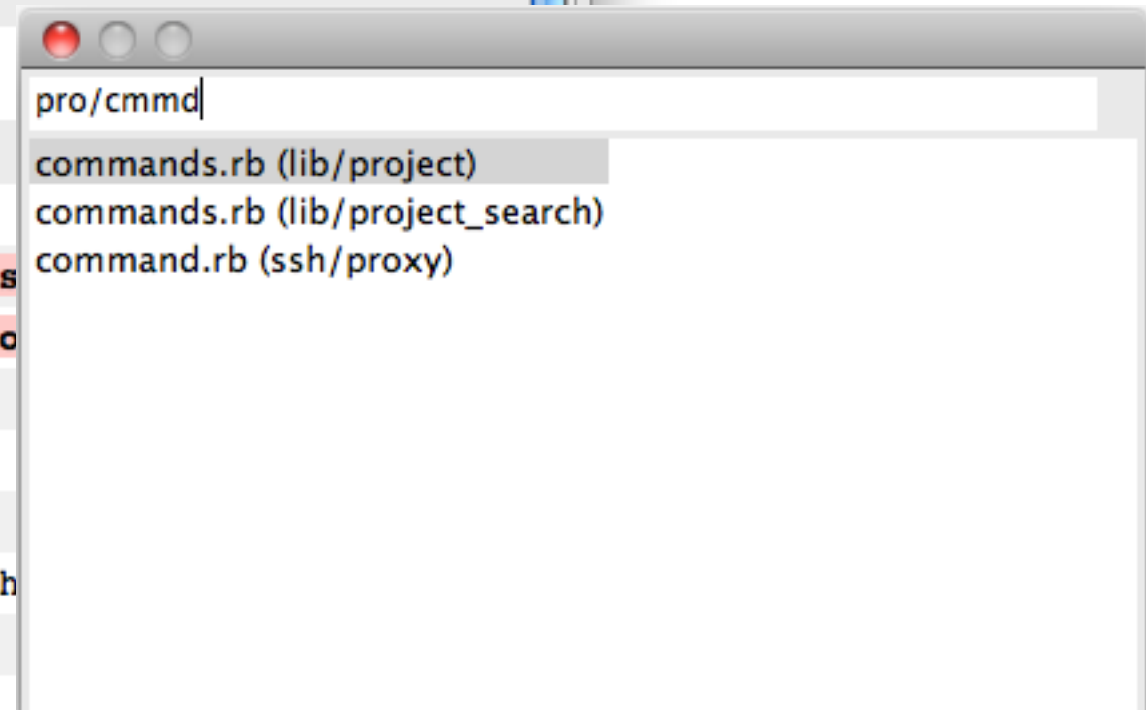
  def description
    "update whatever for #{@project.path}"
  end

  def execute
    @changed_files.each do
      # something...
    end
  end
end
```

Project APIs



Project Search



Uses a ProjectRefreshTask to update a Lucene index

```
>> search = project.search("Declarations")  
=> #<ProjectSearch::WordSearch ~/redcar ...>
```

An unevaluated search object

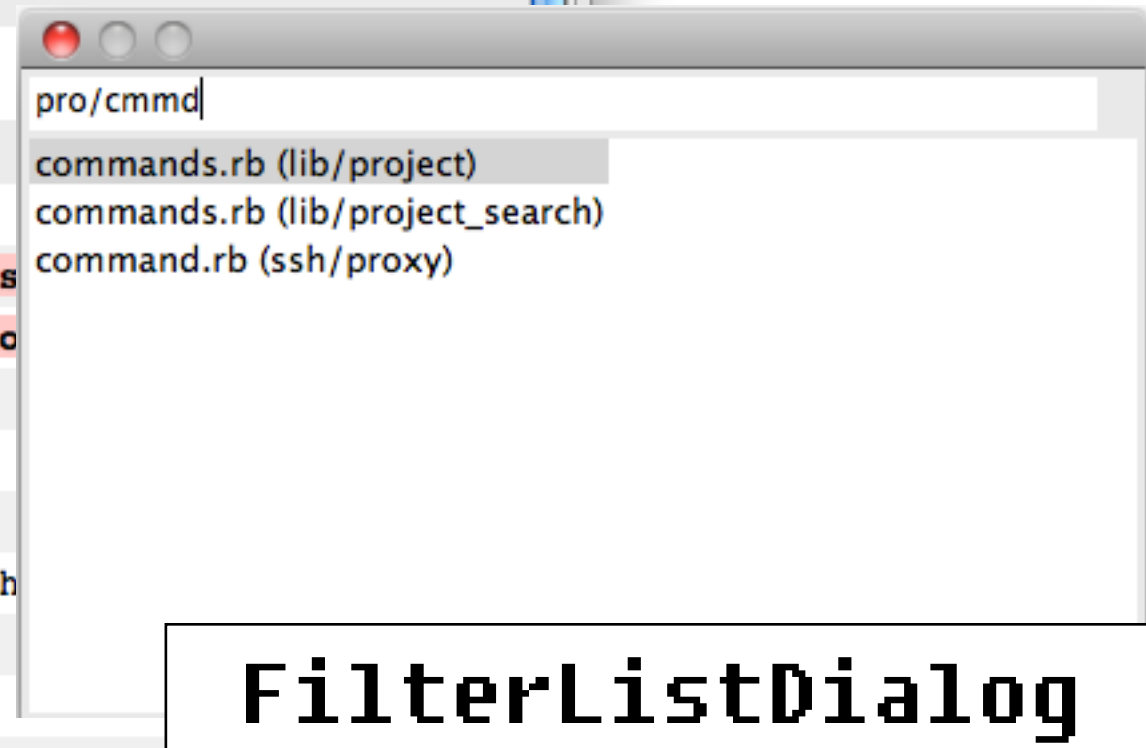
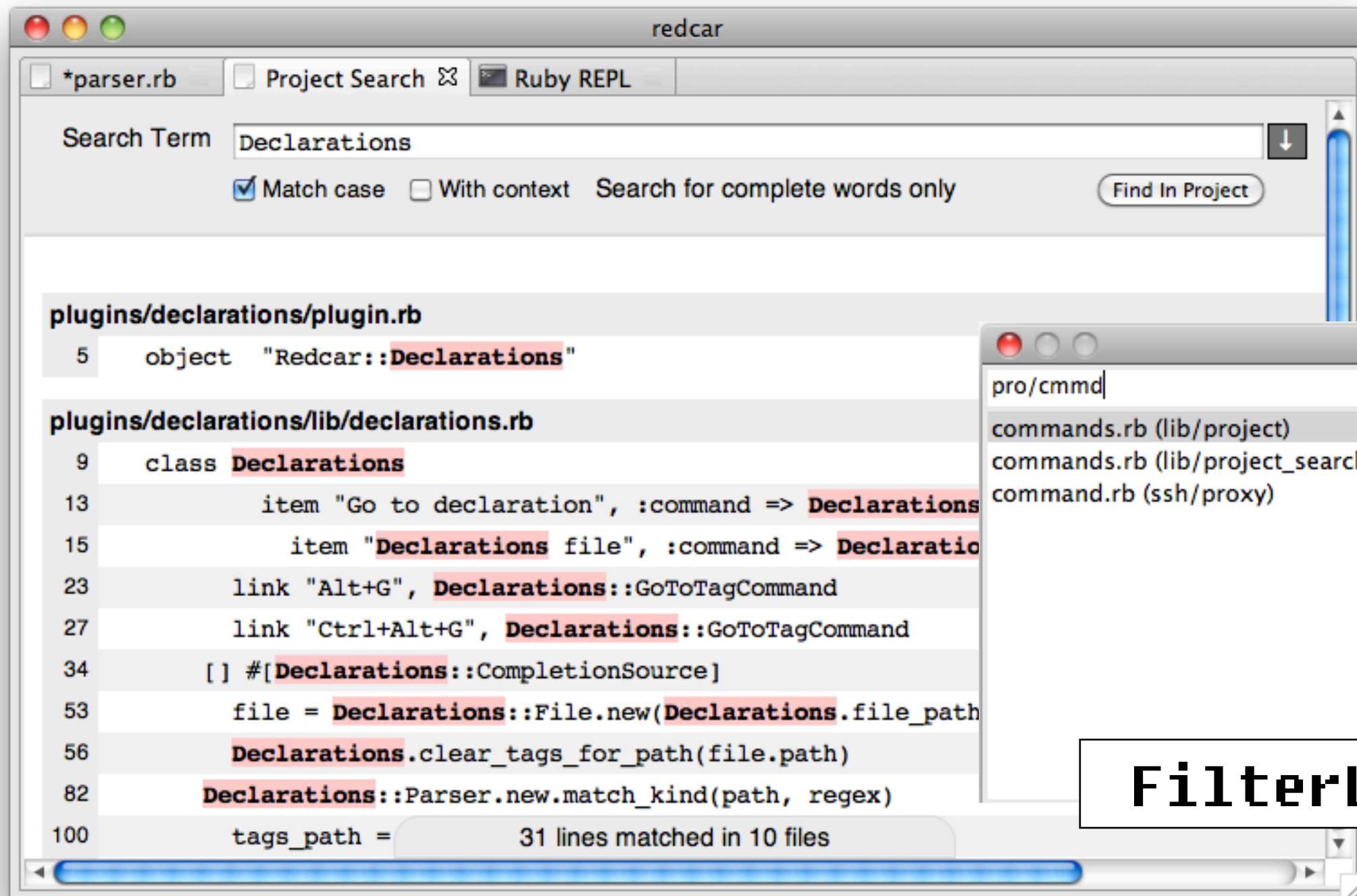
```
>> search.results  
=> [#<Hit ~/redcar/plugins/declarations/plugin.rb:1>, ...]
```

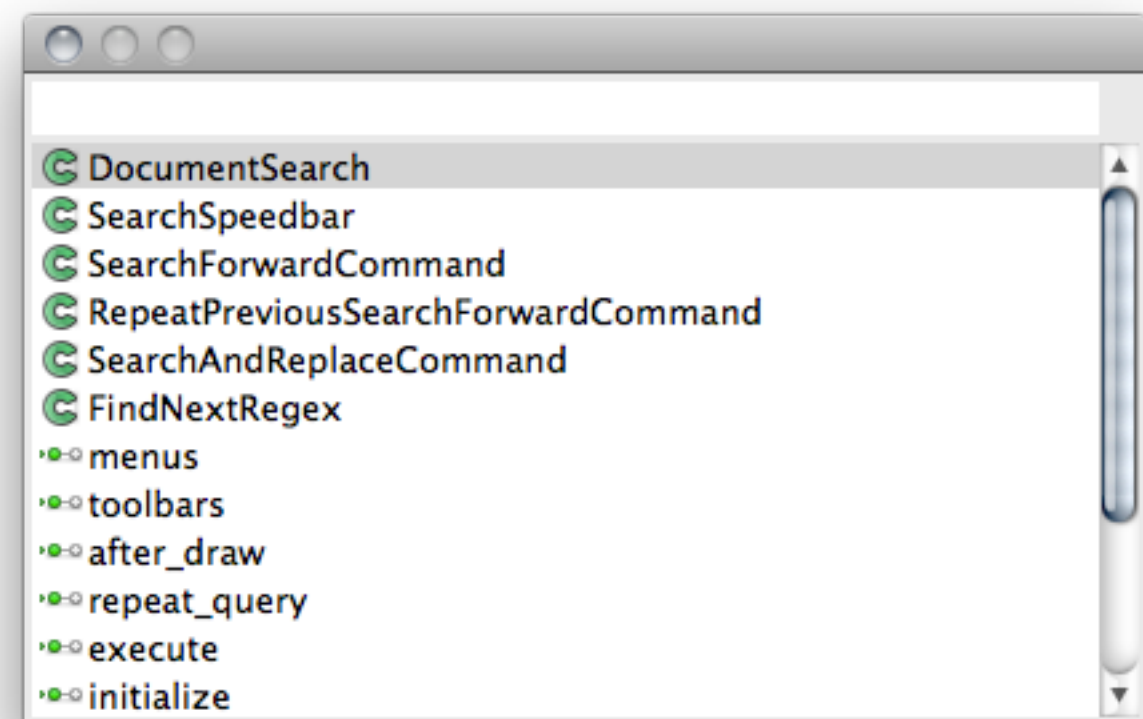
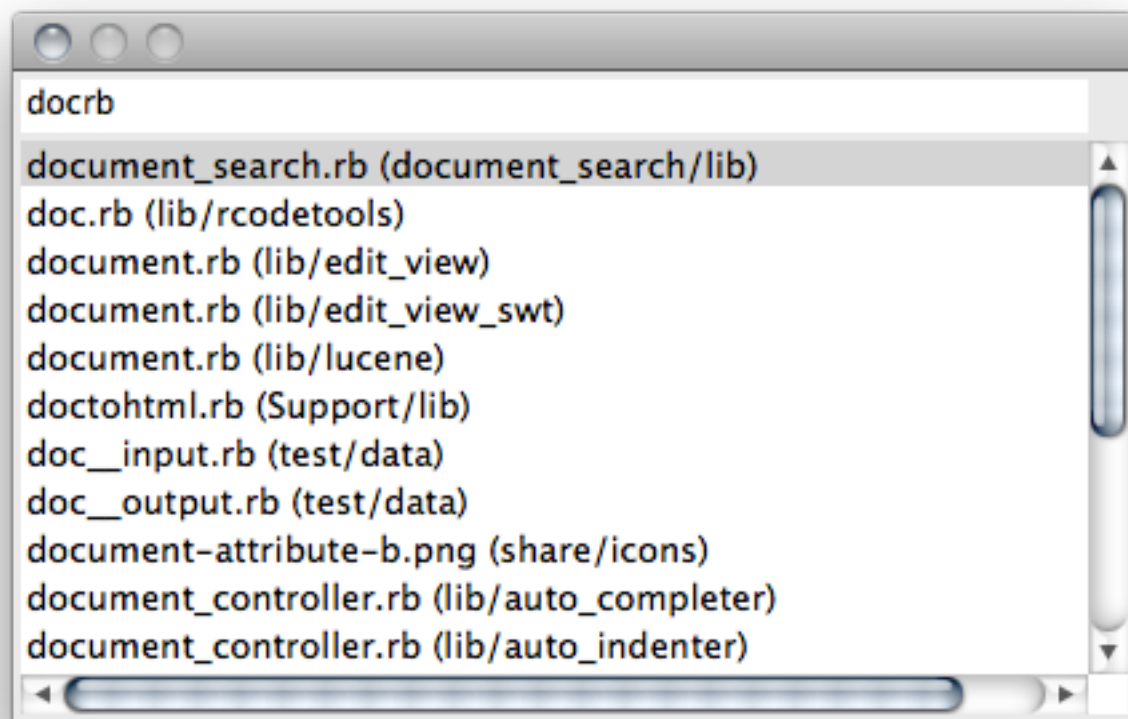
Hits contain file and line

```
>> search  
=> #<ProjectSearch::WordSearch ~/redcar 41 hits>
```

Search now contains results

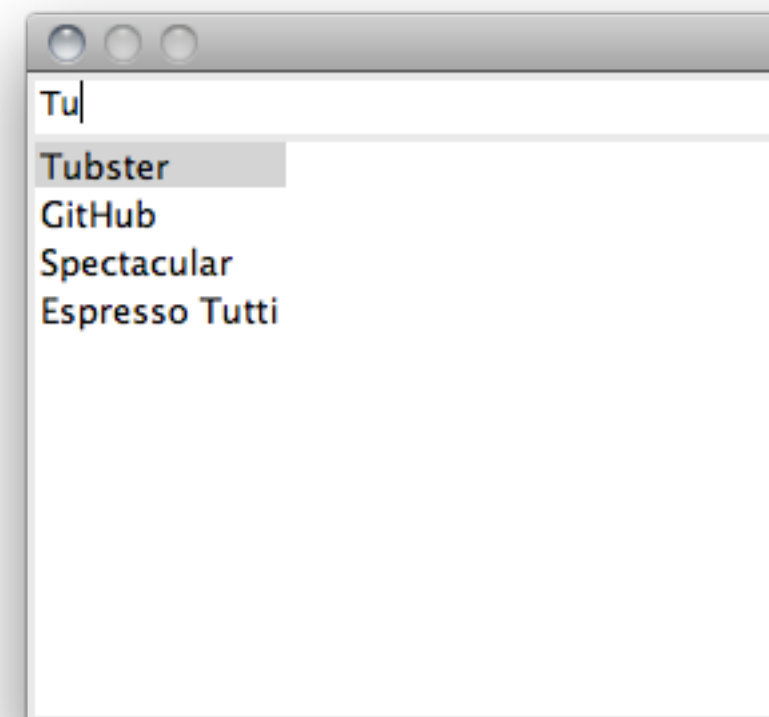
Project APIs





```
class MyList < Redcar::FilterListDialog
  def update_list(filter)
  def selected(text, index)

    def filter_and_rank_by(list, filter)
  end
```



Cohere

3 concepts

everything is a plugin

Wicked APIs

Document APIs

Project APIs

The Red Dirt Notetaking Plugin

Wish me luck

Contributors and Contributing



Delisa Mason



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Tim Felgentreff



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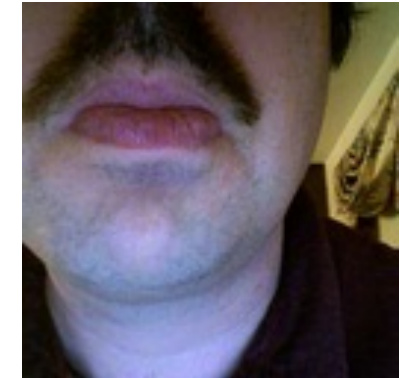
Alex Lourie



Matt Scharley



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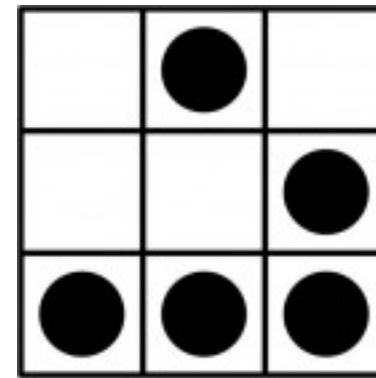
Chris Nelson



Christopher Wade



Charles Nutter



Benedikt Müller

**plus > 35 other
contributors**

Contributor Checklist

- ✓ Don't work in secret
- ✓ Write tests
- ✓ Use github
- ✓ Work on a branch

Opportunities

- **Bookmarks**
- **Ruby debugger**
- **A cross process REPL?**

0.12 Restorable sessions... and your code?

0.11 Fast project search, user-definable keys

0.10 New look, Mirah syntax, better find and replace

0.9 Margin & word wrapping, JavaScript syntax

0.8 Ruby syntax checks, commenting

0.7 Macros, vertical tabs, Subversion integration

0.6 Toolbar, line editing, Groovy REPL

0.5 Context menu, splash screen

0.4 Bracket highlighting, outline view, Git integration

Redcar

Hack your editor in Ruby

danlucraft