

# Ruby advance

bundle gem hyper\_card\_builder

bob 2025/11/23

```
# use scaffolding
```

```
# initialize
▶ bundle gem hyper_card_builder --test=minitest --exe
Creating gem 'hyper_ca'▶ cat Gemfile
MIT License enabled in # frozen_string_literal: true
Code of conduct enabled
Changelog enabled in csource "https://rubygems.org"

Initializing git repo # Specify your gem's dependencies in hyper_card_builder.gemspec
  create  hyper_ca/gemspec
  create  hyper_ca
  create  hyper_ca/gem "irb"
  create  hyper_ca/gem "rake", "~> 13.0"
  create  hyper_ca
  create  hyper_ca/gem "minitest", "~> 5.16"
  create  hyper_ca
  create  hyper_ca▶ bundle update
Fetching gem metadata from https://rubygems.org...
Resolving dependencies...
Fetching date 3.5.0
Fetching erb 6.0.0
Fetching io-console 0.8.1
Fetching stringio 3.1.8
Fetching tsort 0.2.0
Fetching prettyprint 0.2.0
Fetching minitest 5.26.2
Installing erb 6.0.0 with native extensions
Installing io-console 0.8.1 with native extensions
Installing date 3.5.0 with native extensions
Installing stringio 3.1.8 with native extensions
Installing tsort 0.2.0
Installing prettyprint 0.2.0
Installing minitest 5.26.2
Fetching pp 0.6.3
Installing pp 0.6.3
Fetching reline 0.6.3
Installing reline 0.6.3
Fetching psych 5.2.6
Installing psych 5.2.6 with native extensions
Fetching rdoc 6.15.1
Installing rdoc 6.15.1
Fetching irb 1.15.3
Installing irb 1.15.3
Bundle updated!

Gem 'hyper_card_builder' is installed at /Users/alexander/.rbenv/versions/3.1.2/lib/ruby/gems/3.1.2/gems/hyper_card_builder-0.1.0
  https://bundler.io/guides/gems/hyper_card_builder.html

tree -C
.
├── bin
│   └── console
│       └── setup
├── CHANGELOG.md
├── CODE_OF_CONDUCT.md
└── exe
    └── hyper_card_builder
        ├── Gemfile
        ├── Gemfile.lock
        ├── hyper_card_builder
        │   ├── lib
        │   │   └── hyper_card_builder
        │   │       └── version.rlib
        │   └── LICENSE.txt
        ├── Rakefile
        ├── README.md
        └── sig
            └── hyper_card_builder
                └── test
                    ├── test_helper.rb
                    └── test_hyper_card_builder.rb

7 directories, 16 files
```

```
tree -C
.
+-- bin
|   +-- console
|   \-- setup
+-- CHANGELOG.md
+-- CODE_OF_CONDUCT.md
+-- exe
|   \-- hyper_card_builder
+-- Gemfile
+-- Gemfile.lock
+-- hyper_card_builder.gemspec
+-- lib
|   +-- hyper_card_builder
|       +-- version.rb
|       +-- hyper_card_builder.rb
+-- LICENSE.txt
+-- Rakefile
+-- README.md
+-- sig
|   +-- hyper_card_builder.rbs
+-- test
|   +-- test_helper.rb
|   \-- test_hyper_card_builder.rb
```

# # first step

# chat ➤ shell comms

➤ code edit

The image shows a developer's workspace with three main panes:

- Terminal (Top Left):** Displays shell commands and their outputs:
  - `bundle exec exe/hyper_card_builder`
  - `code .`
  - `bundle exec exe/hyper_card_builder`
  - Hello**
- Code Editor (Top Right):** Shows the file `hyper_card_builder.rb` with 18 changes (indicated by a blue circle). The code defines a `HyperCardBuilder` module with a `Error` class and prints "Hello".

```
hyper_card_builder.rb M X
lib > hyper_card_builder.rb
1 # frozen_string_literal: true
2
3 require_relative "hyper_card_builder/version"
4
5 module HyperCardBuilder
6   class Error < StandardError; end
7   # Your code goes here...
8 puts "Hello"
9
10 end
```
- File Explorer (Bottom Left):** Shows the project structure for `HYPERCARD_BUILDER`, including `bin`, `exe`, `lib` (containing `hyper_card_b...`), `sig`, `test`, `.gitignore`, and `CHANGELOG.md`.
- Terminal (Bottom Center):** Shows the output of running tests:

```
> code hyper_card_builder.gemspec
      File: hyper_card_builder.gemspec
1  # frozen_string_literal: true
2
3  require_relative "lib/hyper_card_builder/version"
36
37
38  spec.add_dependency "thor"
39
40  spec.add_development_dependency "minitest"
41  spec.add_development_dependency "minitest-reporters"
42  spec.add_development_dependency "minitest-hooks"
```

```
▶ rake test
Hello
Run options: --seed 178

# Running:

..
Finished in 0.000256s, 7812.4974 runs/s, 7812.4974 assertions/s.

2 runs, 2 assertions, 0 failures, 0 errors, 0 skips
```

# # colorful report

[# chat](#) ► shell comms

► code edit

```
▶ rake test
Hello
Run options: --seed 178

# Running:

..
Finished in 0.000256s, 7812.4974 runs/s, 7812.4974 assertions/s.

2 runs, 2 assertions, 0 failures, 0 errors, 0 skips
```

[# minitest](#)の出力をcolorfullに見やすくするように修正

GitHub Copilot: `minitest-reporters` を使ってカラフルな出力にできます。  
`test\_helper.rb` に以下を追加してください。

```
```ruby
# ...existing code...
require "minitest/reporters"
Minitest::Reporters.use! Minitest::Reporters::SpecReporter.new
# ...existing code...
```
```

これで `rake test` の出力がカラフルで見やすくなります。

```
▶ bundle exec rake test
Hello
Started with run options --seed 42050

TestHyperCardBuilder
  test_it_does_something_useful
  test_exe_outputs_hello
  test_that_it_has_a_version_number

Finished in 0.06135s
3 tests, 4 assertions, 0 failures, 0 errors, 0 skips
```

|      |         |
|------|---------|
| PASS | (0.00s) |
| PASS | (0.06s) |
| PASS | (0.00s) |

# # red, green, refactor

# chat ➤ shell comms

```
# bundle exec exe/hyper_card_builder  
helloで"Hello."と返るテストを作成。
```

```
▶ bundle exec rake test  
TestHyperCardBuilderTest  
  test_it_does_something_useful PASS (0.00s)  
...  
Finished in 0.12164s  
4 tests, 5 assertions,  
1 failures, 0 errors, 0 skips  
rake aborted!
```

# Thorを使ってcommand cliでhelloを受け取るように修正

```
▶ bundle exec rake test  
/Users/bob/.rbenv/versions/3.4.4/lib/  
ruby/3.4.0/bundled_gems.rb:82:in  
'Kernel.require': cannot load such file  
-- thor (LoadError)
```

```
▶ bat hyper_card_builder.gemspec  
36 ~ | spec.add_dependency "thor"
```

```
▶ bundle update  
Fetching gem metadata from https://rubygems.org...  
Resolving dependencies...  
Bundle updated!
```

# ThorのCLIが起動するように修正。

```
▶ bundle exec rake test  
Started with run options --seed 27872  
  
TestHyperCardBuilderTest  
  test_it_does_something_useful  PASS  
  test_that_it_has_a_version_number PASS  
  test_exe_hello_outputs_hello_dot PASS  
  
Finished in 0.06452s  
3 tests, 4 assertions, 0 failures, 0 errors, 0 skips
```

➤ code edit

```
▶ bat test/test_hyper_card_builder.rb  
1 | # frozen_string_literal: true  
2 |  
3 | require "test_helper"  
4 |  
5 | ~ class TestHyperCardBuilderTest < Minitest::Test  
6 | ~ | def test_exe_hello_outputs_hello_dot  
7 | ~ | | require "open3"  
8 | ~ | | output, status = Open3.capture2(  
9 | ~ | | "bundle exec exe/hyper_card_builder hello")  
10 | ~ | | assert_equal "Hello.\n", output  
11 | ~ | | assert status.success?  
end
```

```
▶ bat lib/hyper_card_builder.rb  
1 | # frozen_string_literal: true  
2 |  
3 | require_relative "hyper_card_builder/version"  
4 | + require "thor"  
5 |  
6 | module HyperCardBuilder  
7 | | class Error < StandardError; end  
8 | ~  
9 | ~ class CLI < Thor  
10 | | desc "hello", "Prints Hello."  
11 | | def hello  
12 | | | puts "Hello."  
13 | | end  
14 | ~ end  
15 | end
```

```
▶ bat exe/hyper_card_builder  
1 |#!/usr/bin/env ruby  
2 |  
3 | require "hyper_card_builder"  
4 | +  
5 | + HyperCardBuilder::CLI.start(ARGV)
```

# # puts\_sample\_yaml

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# hyper\_card\_builder puts\_hc\_arrayでhc\_array.yamlを出力するテストを作成。

▶ bundle exec rake test  
Started with run options --seed 72293  
TestHcArrayYaml  
Could not find command "puts\_hc\_array".

▶ bat test/test\_hc\_array\_yaml.rb  
1 | File: test/test\_hc\_array\_yaml.rb  
2 | # frozen\_string\_literal: true  
3 |  
4 | require "test\_helper"  
5 | require "yaml"  
6 | require "fileutils"

# Could not find command "puts\_hc\_array".

なので、hyper\_card\_builder.rbが

そのコマンドを受け付けるように修正

▶ bundle exec rake test  
Started with run options --seed 59575  
TestHcArrayYaml  
bundler: failed to load command:  
 exe/hyper\_card\_builder (exe/hyper\_card\_builder)  
/Users/bob/git\_hub/hyper\_card\_builder/lib/hyper\_card\_builder.rb:26:in 'block in  
HyperCardBuilder::CLI#puts\_hc\_array':  
 undefined method 'to\_yaml' for an instance of Hash (NoMethodError)

File.open("hc\_array.yaml", "w") { |f| f.write(hc\_array.to\_yaml) }

# ...を修正

▶ bundle exec rake test  
Started with run options --seed 33318

TestHyperCardBuilderTest  
 test\_that\_it\_has\_a\_version\_number  
 test\_it\_does\_something\_useful  
 test\_exe\_hello\_outputs\_hello\_dot

PASS (0.00s)  
PASS (0.00s)  
PASS (0.07s)

TestHcArrayYaml  
 test\_puts\_hc\_array\_outputs\_expected\_yaml

PASS (0.07s)

▶ bat lib/hyper\_card\_builder.rb  
16 ~ | desc "puts\_hc\_array", "Outputs hc\_array."  
17 ~ | def puts\_hc\_array  
18 ~ | hc\_array = {  
19 ~ | source\_file: "./linux\_basic.pdf",

▶ bat lib/hyper\_card\_builder.rb  
4 + | require "thor"  
5 + | require "yaml" # ← 追加

```
▶ bat test/test_hc_array_yaml.rb
1  # frozen_string_literal: true
2
3  require "test_helper"
4  require "yaml"
5  require "fileutils"
6
7  class TestHcArrayYaml < Minitest::Test
8    GENERATED_FILE = "hc_array.yaml"
9    EXPECTED_YAML = {
10      source_file: "./linux_basic.pdf",
11      target_dir: "./linux_basic",
12      toc: [
13        { no: nil, init: 1, fin: nil, head: "title" },
14        { no: "s0", init: 2, fin: nil, head: "commands" },
15        { no: "sf", init: 8, fin: 8, head: "summary" }
16      ]
17    }
18
19    def setup
20      FileUtils.rm_f(GENERATED_FILE)
21    end
22
23    def teardown
24      FileUtils.rm_f(GENERATED_FILE)
25    end
26
27    def test_puts_hc_array_outputs_expected_yaml
28      require "open3"
29      output, status = Open3.capture2("bundle exec exe/hyper_card_builder puts hc_array")
30      assert status.success?, "Command failed: #{output}"
31
32      assert File.exist?(GENERATED_FILE), "Expected #{GENERATED_FILE} to be generated"
33
34      actual_yaml = YAML.load_file(GENERATED_FILE)
35      assert_equal EXPECTED_YAML, actual_yaml
36    end
37  end
```

```
# def puts_hc_array
```

## # TestHcArrayYaml

```
▶ bat lib/hyper_card_builder.rb
16 ~   desc "puts_hc_array", "Outputs hc_array.yaml"
17 ~   def puts_hc_array
18     hc_array = {
19       source_file: "./linux_basic.pdf",
20       target_dir: "./linux_basic",
21       toc: [
22         { no: nil, init: 1, fin: nil, head: "title" },
23         { no: "s0", init: 2, fin: nil, head: "commands" },
24         { no: "sf", init: 8, fin: 8, head: "summary" }
25       ]
26     }
27     File.open("hc_array.yaml", "w") do |f|
28       f.write(hc_array.to_yaml)
29     end
30     puts "hc_array.yaml generated."
```

# # in test\_env

```
▶ bat test/test_hc_array_yaml.rb
1  # frozen_string_literal: true
2
3  require "test_helper"
4  require "yaml"
5  require "fileutils"
6
7  class TestHcArrayYaml <
8    GENERATED_FILE = "hc_
9    EXPECTED_YAML = {
10      source_file: "./linu
11      target_dir: "./linu
12      toc: [
13        { no: nil, init:
14        { no: "s0", init:
15        { no: "sf", init:
16      ]
17    }
18}
```

```
▶ bat lib/hyper_card_builder.rb
16 ~ |   desc "puts_hc_array", "Outputs hc_array.yaml"
17 ~ |   def puts_hc_array
18 ~ |     hc_array = {
19 ~ |       source_file: "./linux_basic.pdf",
20 ~ |       target_dir: "./linux_basic",
21 ~ |       toc: [
22 ~ |         { no: nil, init: 1, fin: nil, head: "title" },
23 ~ |         { no: "s0", init: 2, fin: nil, head: "commands" },
24 ~ |         { no: "sf", init: 8, fin: 8, head: "summary" }
25 ~ |       ]
26 ~ |     }
27 ~ |     File.open("hc_array.yaml", "w")
28 ~ |     { |f| f.write(hc_array.to_yaml) }
29 ~ |     puts "hc_array.yaml generated."
30 ~ |
31 ~ |
32 ~ |
33 ~ |
```

```
19  def setup
20    FileUtils.rm_f(GENERATED_FILE)
21  end
22
23  def teardown
24    FileUtils.rm_f(GENERATED_FILE)
25  end
26
27  def test_puts_hc_array_outputs_expected_yaml
28    require "open3"
29    output, status = Open3.capture2("bundle exec exe/hyper_card_builder puts hc_array")
30    assert status.success?, "Command failed: #{output}"
31
32    assert File.exist?(GENERATED_FILE), "Expected #{GENERATED_FILE} to be generated"
33
```

# # test\_split\_pdf\_wo\_pages

```
▶ ruby -Ilib:test test/test_split_pdf_wo_pages.rb
Started with run options --seed 58979

TestSplitPDFwoPages
qpdf: operation succeeded with warnings; resulting file may have some problems
"./linux_basic/title.pdf"
qpdf ./linux_basic.pdf --pages . 1-1 -- ./linux_basic/title.pdf
"./linux_basic/s0_commands.pdf"
qpdf ./linux_basic.pdf --pages . 2-2 -- ./linux_basic/s0_commands.pdf
"./linux_basic/sf_summary.pdf"
qpdf ./linux_basic.pdf --pages . 8-8 -- ./linux_basic/sf_summary.pdf
  test_split_linux_basic_pdf_by_yaml                                     PASS (0.10s)

Finished in 0.09615s
1 tests, 5 assertions, 0 failures, 0 errors, 0 skips
```