

# Putting Ruby to Work

Ruby Fundamentals



# Overview

- Organizing source code
- Installing and managing third party libraries
- Testing
- Debugging
- Packaging and deploying your software
- Where to look for more information

# Organizing Source Code

- Methods, classes, modules
- Files and directories

```
module DeepSpace
  class Spaceship
  end

  class Probe
  end
end
```



```
project_deep_space
- bin
- doc
- lib
  - deep_space
    - spaceship.rb
    - probe.rb
  - deep_space.rb
- test
- init.rb
```

# Reassembling the Source

```
require absolute_path
```

```
__dir__
```

```
require "#{__dir__}/deep_space/spaceship"
```

```
require 'json'
```

```
$LOAD_PATHS
```

```
require_relative 'deep_space/spaceship'
```

# Gems

- Libraries are called gems

➤ `gem`

- `gem` command is part of RubyGems framework
- [rubygems.org](https://rubygems.org)

# Managing Dependencies

- Bundler

➤ `gem install bundler`

`# Gemfile`

`source 'https://rubygems.org'`

`gem 'pg', '0.13.2'`

`gem 'haml', '3.1.6'`

➤ `bundle install`

# Testing

- Test Driven Development (TDD)
- Behavior Driven Development (BDD)

# TDD with RSpec

➤ `gem install rspec`

```
describe Spaceship, "#name" do
  it "returns the name" do
    ship = Spaceship.new("Serenity")
    ship.name.should eq("Serenity")
  end
end
```

- `rspec.info`



# BDD with Cucumber

➤ `gem install cucumber`

**Scenario:** Try to launch more probes than the available number  
Given I have 2 probes  
And I launch 2 probes  
When I launch 1 probe  
Then I should be informed it isn't possible

```
Given /I launch (\d+) probe(?:s*)/ do |n|  
  n.to_i.times { @ship.launch_probe }  
end
```

- [cukes.info](http://cukes.info)

# Debugging

# Packaging

- Source control + Bundler
- Package as a gem

# Resources

- [rubydoc.info](http://rubydoc.info) – standard library and gems documentation
- [rubygems.org](http://rubygems.org) – everything about gems
- [ruby-lang.org](http://ruby-lang.org)
- [ruby-toolbox.com](http://ruby-toolbox.com), [rspec.info](http://rspec.info), [cukes.info](http://cukes.info)

# Summary

- Organizing code
- Third party libraries
- Testing and debugging tools
- Packaging and distributing code