

cucumber-documentation

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# Summary

Scenarios			Steps							Features: 68	
Passed	Failed	Total	Passed	Failed	Skipped	Pending	Undefined	Missing	Total	Duration	Status
After Hooks											
6	0	6	24	0	0	0	0	0	24	081ms	passed
Alle bruker ikke UTF-8											
1	0	1	2	0	0	0	0	0	2	000ms	passed
Around hooks											
6	0	6	30	0	0	0	0	0	30	03s758ms	passed
Background											
11	0	11	23	0	0	0	0	0	23	03s037ms	passed
Before Hook											
2	0	2	8	0	0	0	0	0	8	045ms	passed
Choosing the language from the feature file header											
1	0	1	3	0	0	0	0	0	3	011ms	passed
Cucumber --work-in-progress switch											
5	0	5	16	0	0	0	0	0	16	03s144ms	passed
Custom filter											
1	0	1	4	0	0	0	0	0	4	009ms	passed
Custom Formatter											
3	0	3	9	0	0	0	0	0	9	026ms	passed
Debug formatter											
1	0	1	4	0	0	0	0	0	4	007ms	passed
Doc strings											
2	0	2	8	0	0	0	0	0	8	021ms	passed
Dry Run											
3	0	3	11	0	0	0	0	0	11	046ms	passed
ERB configuration											
2	0	2	9	0	0	0	0	0	9	142ms	passed
Exception in After Block											
3	0	3	9	0	0	0	0	0	9	01s240ms	passed
Exception in AfterStep Block											
2	0	2	6	0	0	0	0	0	6	045ms	passed

Scenarios				Steps						Features: 68	
Exception in Before Block											
3	0	3	9	0	0	0	0	0	9	648ms	passed
Exceptions in Around Hooks											
2	0	2	10	0	0	0	0	0	10	021ms	passed
Excluding ruby and feature files from runs											
1	0	1	11	0	0	0	0	0	11	008ms	passed
Formatter-API:-Step-file-path-and-line-number-(Issue-.pdf											
1	0	1	5	0	0	0	0	0	5	007ms	passed
Getting started											
2	0	2	8	0	0	0	0	0	8	616ms	passed
Handle unexpected response											
1	0	1	3	0	0	0	0	0	3	070ms	passed
Hooks execute in defined order											
2	0	2	4	0	0	0	0	0	4	01s 214ms	passed
HTML output formatter											
7	0	7	25	0	0	0	0	0	25	161ms	passed
Invoke message											
6	0	6	25	0	0	0	0	0	25	02s 205ms	passed
JSON output formatter											
9	0	9	21	0	0	0	0	0	21	04s 983ms	passed
JUnit output formatter											
8	0	8	25	0	0	0	0	0	25	05s 367ms	passed
Language help											
2	0	2	4	0	0	0	0	0	4	014ms	passed
List step defs as json											
2	0	2	6	0	0	0	0	0	6	01s 223ms	passed
Loading the steps users expect											
1	0	1	4	0	0	0	0	0	4	007ms	passed
Nested Steps											
6	0	6	21	0	0	0	0	0	21	680ms	passed
Nested Steps in I18n											
1	0	1	3	0	0	0	0	0	3	014ms	passed
Nested Steps with either table or doc string											

Scenarios			Steps							Features: 68	
3	0	3	12	0	0	0	0	0	12	032ms	passed
One line step definitions											
2	0	2	8	0	0	0	0	0	8	017ms	passed
Post-Configuration-Hook-[.pdf											
3	0	3	11	0	0	0	0	0	11	640ms	passed
Pretty formatter - Printing messages											
2	0	2	5	0	0	0	0	0	5	547ms	passed
Pretty output formatter											
3	0	3	12	0	0	0	0	0	12	052ms	passed
Profiles											
11	0	11	33	0	0	0	0	0	33	121ms	passed
Progress output formatter											
2	0	2	6	0	0	0	0	0	6	021ms	passed
Rake task											
5	0	5	22	0	0	0	0	0	22	05s 846ms	passed
Raketask											
2	0	2	5	0	0	0	0	0	5	03s 821ms	passed
Randomize											
2	0	2	5	0	0	0	0	0	5	713ms	passed
Requiring extra step files											
1	0	1	4	0	0	0	0	0	4	012ms	passed
Rerun formatter											
7	0	7	23	0	0	0	0	0	23	095ms	passed
Run Cli::Main with existing Runtime											
1	0	1	5	0	0	0	0	0	5	615ms	passed
[Run-feature-elements-matching-a-name-with---name/-n]											
4	0	4	8	0	0	0	0	0	8	048ms	passed
Run specific scenarios											
3	0	3	10	0	0	0	0	0	10	025ms	passed
Running multiple formatters											
3	0	3	9	0	0	0	0	0	9	01s 829ms	passed
Scenario outlines											
4	0	4	8	0	0	0	0	0	8	02s 428ms	passed

Scenarios			Steps							Features: 68	
Scenario outlines --expand option											
1	0	1	4	0	0	0	0	0	4	013ms	passed
Set up a default load path											
1	0	1	4	0	0	0	0	0	4	010ms	passed
Showing differences to expected output											
1	0	1	4	0	0	0	0	0	4	023ms	passed
Skip Scenario											
2	0	2	10	0	0	0	0	0	10	023ms	passed
Snippets											
2	0	2	6	0	0	0	0	0	6	017ms	passed
Snippets message											
1	0	1	5	0	0	0	0	0	5	913ms	passed
State											
1	0	1	4	0	0	0	0	0	4	015ms	passed
Step matches message											
3	0	3	10	0	0	0	0	0	10	110ms	passed
Strict mode											
3	0	3	8	0	0	0	0	0	8	044ms	passed
Table diffing											
1	0	1	4	0	0	0	0	0	4	016ms	passed
Tag logic											
7	0	7	14	0	0	0	0	0	14	050ms	passed
Tagged hooks											
3	0	3	6	0	0	0	0	0	6	041ms	passed
Transforms											
2	0	2	6	0	0	0	0	0	6	022ms	passed
Unicode in tables											
1	0	1	3	0	0	0	0	0	3	606ms	passed
Usage formatter											
3	0	3	6	0	0	0	0	0	6	059ms	passed
Using descriptions to give features context											
1	0	1	4	0	0	0	0	0	4	022ms	passed
[Using-star-notation-instead-of-Given/When/Then]											
1	0	1	5	0	0	0	0	0	5	012ms	passed
Wire protocol table diffing											

Scenarios			Steps							Features: 68	
4	0	4	13	0	0	0	0	0	13	02s 720ms	passed
Wire protocol tags											
2	0	2	10	0	0	0	0	0	10	302ms	passed
Wire protocol timeouts											
2	0	2	9	0	0	0	0	0	9	927ms	passed
Totals											
203	0	203	671	0	0	0	0	0	671	51s 694ms	

# Features

## After Hooks

After hooks can be used to clean up any state you've altered during your scenario, or to check the status of the scenario and act accordingly.

You can ask a scenario whether it has failed, for example.

Mind you, even if it hasn't failed yet, you can still make the scenario fail if your After hook throws an error.

## Scenario Outline: Retrieve the status of a scenario as a symbol

*Given*

a file named "features/support/debug\_hook.rb" with: 🍌 (000ms)

```
After do |scenario|
  puts scenario.status.inspect
end
```

*And*

a file named "features/result.feature" with: 🍌 (000ms)

```
Feature:
  Scenario:
    Given this step passes
```

*When*

I run `cucumber -f progress` 🍌 (015ms)

*Then*

the output should contain "passed" 🍌 (000ms)

## Scenario Outline: Retrieve the status of a scenario as a symbol

*Given*

a file named "features/support/debug\_hook.rb" with: 🍌 (000ms)

```
After do |scenario|  
  puts scenario.status.inspect  
end
```

*And*

a file named "features/result.feature" with: 🍌 (000ms)

```
Feature:  
  Scenario:  
    Given this step fails
```

*When*

I run `cucumber -f progress` 🍌 (015ms)

*Then*

the output should contain "failed" 🍌 (000ms)

## Scenario Outline: Retrieve the status of a scenario as a symbol

*Given*

a file named "features/support/debug\_hook.rb" with: 🍌 (000ms)

```
After do |scenario|  
  puts scenario.status.inspect  
end
```

*And*

a file named "features/result.feature" with: 🍌 (000ms)

```
Feature:  
  Scenario:  
    Given this step is pending
```

*When*

I run `cucumber -f progress` 🍌 (013ms)

*Then*

the output should contain "pending" 🍌 (000ms)

## Scenario: Check the failed status of a scenario in a hook

### Given

a file named "features/support/debug\_hook.rb" with: 🍌 (000ms)

```
After do |scenario|
  if scenario.failed?
    puts "eek"
  end
end
```

### And

a file named "features/fail.feature" with: 🍌 (000ms)

```
Feature:
  Scenario:
    Given this step fails
```

### When

I run `cucumber -f progress` 🍌 (012ms)

### Then

the output should contain: 🍌 (000ms)

```
eek
```

## Scenario: Make a scenario fail from an After hook



*Given*

a file named "features/support/bad\_hook.rb" with: 🍌 (000ms)

```
After do
  fail 'yikes'
end
```

*And*

a file named "features/pass.feature" with: 🍌 (000ms)

```
Feature:
  Scenario:
    Given this step passes
```

*When*

I run `cucumber -f pretty` 🍌 (011ms)

*Then*

it should fail with: 🍌 (000ms)

```
Scenario:                # features/pass.feature:2
  Given this step passes # features/step_definitions/steps.rb:1
    yikes (RuntimeError)
    ./features/support/bad_hook.rb:2:in `After'
```

**Scenario: After hooks are executed in reverse order of definition**

### Given

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```
After do
  puts "First"
end
```

```
After do
  puts "Second"
end
```

### And

a file named "features/pass.feature" with: 🍌 (000ms)

```
Feature:
  Scenario:
    Given this step passes
```

### When

I run `cucumber -f progress` 🍌 (007ms)

### Then

the output should contain: 🍌 (000ms)

Second

First

## Alle bruker ikke UTF-8

### Scenario: Dette bør gå bra

#### Når

jeg drikker en "øl" 🍌 (000ms)

#### Så

skal de andre si "skål" 🍌 (000ms)

## Around hooks

In order to support transactional scenarios for database libraries that provide only a block syntax for transactions, Cucumber should permit definition of Around hooks.

## **Scenario: A single Around hook**

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /^the hook is called$/ do
  expect($hook_called).to be true
end
```

*And*

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```
Around do |scenario, block|
  $hook_called = true
  block.call
end
```

*And*

a file named "features/f.feature" with: 🍌 (000ms)

```
Feature: Around hooks
  Scenario: using hook
    Then the hook is called
```

*When*

I run `cucumber features/f.feature` 🍌 (605ms)

*Then*

it should pass with: 🍌 (001ms)

```
Feature: Around hooks

  Scenario: using hook      # features/f.feature:2
    Then the hook is called # features/step_definitions/steps.rb:1

1 scenario (1 passed)
1 step (1 passed)
```

## Scenario: Multiple Around hooks

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (001ms)

```
Then /^the hooks are called in the correct order$/ do
  expect($hooks_called).to eq ['A', 'B', 'C']
end
```

*And*

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```
Around do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'A'
  block.call
end
```

```
Around do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'B'
  block.call
end
```

```
Around do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'C'
  block.call
end
```

*And*

a file named "features/f.feature" with: 🍌 (000ms)

```
Feature: Around hooks
  Scenario: using multiple hooks
    Then the hooks are called in the correct order
```

*When*

I run `cucumber features/f.feature` 🍌 (607ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: Around hooks

```
Scenario: using multiple hooks # features/f.feature:2
  Then the hooks are called in the correct order #
features/step_definitions/steps.rb:1
```

```
1 scenario (1 passed)
1 step (1 passed)
```

## Scenario: Mixing Around, Before, and After hooks

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /^the Around hook is called around Before and After hooks$/ do
  expect($hooks_called).to eq ['Around', 'Before']
end
```

*And*

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```
Around do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'Around'
  block.call
  $hooks_called << 'Around'
  $hooks_called.should == ['Around', 'Before', 'After', 'Around'] #TODO: Find out
  why this fails using the new rspec expect syntax.
end
```

```
Before do |scenario|
  $hooks_called ||= []
  $hooks_called << 'Before'
end
```

```
After do |scenario|
  $hooks_called ||= []
  $hooks_called << 'After'
  expect($hooks_called).to eq ['Around', 'Before', 'After']
end
```

*And*

a file named "features/f.feature" with: 🍌 (000ms)

Feature: Around hooks

Scenario: Mixing Around, Before, and After hooks

Then the Around hook is called around Before and After hooks

*When*

I run `cucumber features/f.feature` 🍌 (607ms)

*Then*

it should pass with: 🍌 (001ms)

Feature: Around hooks

Scenario: Mixing Around, Before, and After hooks #  
features/f.feature:2

Then the Around hook is called around Before and After hooks #  
features/step\_definitions/steps.rb:1

1 scenario (1 passed)

1 step (1 passed)

## Scenario: Around hooks with tags

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /^the Around hooks with matching tags are called$/ do
  expect($hooks_called).to eq ['one', 'one or two']
end
```

*And*

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```

Around('@one') do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'one'
  block.call
end

Around('@one,@two') do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'one or two'
  block.call
end

Around('@one', '@two') do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'one and two'
  block.call
end

Around('@two') do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'two'
  block.call
end

```

*And*

a file named "features/f.feature" with: 🍌 (000ms)

```

Feature: Around hooks
  @one
  Scenario: Around hooks with tags
    Then the Around hooks with matching tags are called

```

*When*

I run `cucumber -q -t @one features/f.feature` 🍌 (708ms)

*Then*

it should pass with: 🍌 (000ms)

```

Feature: Around hooks

  @one
  Scenario: Around hooks with tags
    Then the Around hooks with matching tags are called

1 scenario (1 passed)
1 step (1 passed)

```



## Scenario: Around hooks with scenario outlines

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /^the hook is called$/ do
  expect($hook_called).to be true
end
```

*And*

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```
Around do |scenario, block|
  $hook_called = true
  block.call
end
```

*And*

a file named "features/f.feature" with: 🍌 (000ms)

```
Feature: Around hooks with scenario outlines
  Scenario Outline: using hook
    Then the hook is called
```

Examples:

	Number	
	one	
	two	

*When*

I run `cucumber features/f.feature` 🍌 (607ms)

*Then*

it should pass with: 🍌 (001ms)

Feature: Around hooks with scenario outlines

Scenario Outline: using hook # features/f.feature:2  
Then the hook is called # features/f.feature:3

Examples:

	Number	
	one	
	two	

2 scenarios (2 passed)

2 steps (2 passed)

## Scenario: Around Hooks and the Custom World

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /^the world should be available in the hook$/ do
  $previous_world = self
  expect($hook_world).to eq(self)
end

Then /^what$/ do
  expect($hook_world).not_to eq($previous_world)
end
```

*And*

a file named "features/support/hooks.rb" with: 🍌 (000ms)

```
Around do |scenario, block|
  $hook_world = self
  block.call
end
```

*And*

a file named "features/f.feature" with: 🍌 (000ms)

```
Feature: Around hooks
  Scenario: using hook
    Then the world should be available in the hook

  Scenario: using the same hook
    Then what
```

*When*

I run `cucumber features/f.feature` 🍌 (608ms)

*Then*

it should pass 🍌 (000ms)

## Background

Often you find that several scenarios in the same feature start with a common context.

Cucumber provides a mechanism for this, by providing a **Background** keyword where you can specify steps that should be run before each scenario in the feature. Typically these will be **Given** steps, but you can use any steps that you need to.

**Hint:** if you find that some of the scenarios don't fit the background, consider splitting them into a separate feature.

## Scenario: run a specific scenario with a background

*When*

I run `cucumber -q features/passing_background.feature:9` 🍌 (013ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: Passing background sample

Background:

Given '10' cukes

Scenario: another passing background

Then I should have '10' cukes

1 scenario (1 passed)

2 steps (2 passed)

## Scenario: run a feature with a background that passes

*When*

I run `cucumber -q features/passing_background.feature` 🍌 (014ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: Passing background sample

Background:

Given '10' cukes

Scenario: passing background

Then I should have '10' cukes

Scenario: another passing background

Then I should have '10' cukes

2 scenarios (2 passed)

4 steps (4 passed)

**Scenario: run a feature with scenario outlines that has a background that passes**

*When*

I run `cucumber -q features/scenario_outline_passing_background.feature` 🍌 (012ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: Passing background with scenario outlines sample

Background:

Given '10' cukes

Scenario Outline: passing background

Then I should have '<count>' cukes

Examples:

	count	
	10	

Scenario Outline: another passing background

Then I should have '<count>' cukes

Examples:

	count	
	10	

2 scenarios (2 passed)

4 steps (4 passed)

**Scenario: run a feature with scenario outlines that has a background that passes**

*When*

I run `cucumber -q features/background_tagged_before_on_outline.feature` 🍌 (009ms)

*Then*

it should pass with exactly: 🍌 (000ms)

```
@background_tagged_before_on_outline
Feature: Background tagged Before on Outline
```

```
Background:
```

```
  Given this step passes
```

```
Scenario Outline: passing background
```

```
  Then I should have '<count>' cukes
```

```
Examples:
```

```
  | count |
  | 888   |
```

```
1 scenario (1 passed)
```

```
2 steps (2 passed)
```

## Scenario: run a feature with a background that fails

tags: @spawn

*When*

I run `cucumber -q features/failing_background.feature` 🍌 (505ms)

*Then*

it should fail with exactly: 🍌 (001ms)

Feature: Failing background sample

Background:

Given this step raises an error

error (RuntimeError)

`./features/step_definitions/steps.rb:2:in '/^this step raises an error$/'`

`features/failing_background.feature:4:in 'Given this step raises an error'`

And '10' cukes

Scenario: failing background

Then I should have '10' cukes

Scenario: another failing background

Then I should have '10' cukes

Failing Scenarios:

`cucumber features/failing_background.feature:7`

`cucumber features/failing_background.feature:10`

2 scenarios (2 failed)

6 steps (2 failed, 4 skipped)

**Scenario: run a feature with scenario outlines that has a background that fails**

tags: @spawn



When

I run `cucumber -q features/scenario_outline_failing_background.feature` 🍌 (605ms)

Then

it should fail with exactly: 🍌 (001ms)

Feature: Failing background with scenario outlines sample

Background:

Given this step raises an error

error (RuntimeError)

`./features/step_definitions/steps.rb:2:in '/^this step raises an error$/'`

`features/scenario_outline_failing_background.feature:4:in 'Given this step raises an error'`

Scenario Outline: failing background

Then I should have '<count>' cukes

Examples:

	count	
	10	

Scenario Outline: another failing background

Then I should have '<count>' cukes

Examples:

	count	
	10	

Failing Scenarios:

`cucumber features/scenario_outline_failing_background.feature:10`

`cucumber features/scenario_outline_failing_background.feature:16`

2 scenarios (2 failed)

4 steps (2 failed, 2 skipped)

**Scenario: run a feature with a background that is pending**

*When*

I run `cucumber -q features/pending_background.feature` 🍌 (024ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: Pending background sample

Background:

Given this step is pending

TODO (Cucumber::Pending)

`./features/step_definitions/steps.rb:3:in '/^this step is pending$/'`

`features/pending_background.feature:4:in 'Given this step is pending'`

Scenario: pending background

Then I should have '10' cukes

Scenario: another pending background

Then I should have '10' cukes

2 scenarios (2 pending)

4 steps (2 skipped, 2 pending)

**Scenario: background passes with first scenario but fails with second**

tags: @spawn

*When*

I run `cucumber -q features/failing_background_after_success.feature` 🍌 (605ms)

*Then*

it should fail with exactly: 🍌 (001ms)

Feature: Failing background after previously successful background sample

Background:

Given this step passes

And '10' global cukes

Scenario: passing background

Then I should have '10' global cukes

Scenario: failing background

And '10' global cukes

FAIL (RuntimeError)

./features/step\_definitions/cuke\_steps.rb:8:in `/^'(.)' global cukes\$/'

features/failing\_background\_after\_success.feature:5:in `And '10' global cukes'

Then I should have '10' global cukes

Failing Scenarios:

cucumber features/failing\_background\_after\_success.feature:10

2 scenarios (1 failed, 1 passed)

6 steps (1 failed, 1 skipped, 4 passed)

**Scenario: background passes with first outline scenario but fails with second**

tags: @spawn

When

I run `cucumber -q features/failing_background_after_success_outline.feature` 🍌 (605ms)

Then

it should fail with exactly: 🍌 (001ms)

Feature: Failing background after previously successful background sample

Background:

Given this step passes

And '10' global cukes

Scenario Outline: passing background

Then I should have '<count>' global cukes

Examples:

count
10

Scenario Outline: failing background

Then I should have '<count>' global cukes

Examples:

count
10

FAIL (RuntimeError)

./features/step\_definitions/cuke\_steps.rb:8:in `/^'(.+)' global cukes\$/'

features/failing\_background\_after\_success\_outline.feature:5:in `And '10'

global cukes'

Failing Scenarios:

cucumber features/failing\_background\_after\_success\_outline.feature:19

2 scenarios (1 failed, 1 passed)

6 steps (1 failed, 1 skipped, 4 passed)

**Scenario: background passes with first outline scenario but fails with second (--expand)**

tags: @spawn

### When

I run `cucumber -x -q features/failing_background_after_success_outline.feature` 🍌 (606ms)

### Then

it should fail with exactly: 🍌 (000ms)

Feature: Failing background after previously successful background sample

Background:

Given this step passes

And '10' global cukes

Scenario Outline: passing background

Then I should have '<count>' global cukes

Examples:

Scenario: | 10 |

Then I should have '10' global cukes

Scenario Outline: failing background

Then I should have '<count>' global cukes

Examples:

Scenario: | 10 |

And '10' global cukes

FAIL (RuntimeError)

./features/step\_definitions/cuke\_steps.rb:8:in '/^(.+)' global cukes\$/'

features/failing\_background\_after\_success\_outline.feature:5:in 'And '10'

global cukes'

Then I should have '10' global cukes

Failing Scenarios:

cucumber features/failing\_background\_after\_success\_outline.feature:19

2 scenarios (1 failed, 1 passed)

6 steps (1 failed, 1 skipped, 4 passed)

## Scenario: background with multiline args

### Given

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Given /^table$/ do |table| x=1
  @table = table
end

Given /^multiline string$/ do |string| x=1
  @multiline = string
end

Then /^the table should be$/ do |table| x=1
  expect(@table.raw).to eq table.raw
end

Then /^the multiline string should be$/ do |string| x=1
  expect(@multiline).to eq string
end
```

*When*

I run `cucumber -q features/multiline_args_background.feature` 🍌 (025ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: Passing background with multiline args

Background:

Given table

	a		b	
--	---	--	---	--

	c		d	
--	---	--	---	--

And multiline string

"""

I'm a cucumber and I'm okay.

I sleep all night and I test all day

"""

Scenario: passing background

Then the table should be

	a		b	
--	---	--	---	--

	c		d	
--	---	--	---	--

Then the multiline string should be

"""

I'm a cucumber and I'm okay.

I sleep all night and I test all day

"""

Scenario: another passing background

Then the table should be

	a		b	
--	---	--	---	--

	c		d	
--	---	--	---	--

Then the multiline string should be

"""

I'm a cucumber and I'm okay.

I sleep all night and I test all day

"""

2 scenarios (2 passed)

8 steps (8 passed)

## Before Hook

### Scenario: Examine names of scenario and feature

### *Given*

a file named "features/foo.feature" with: 🍌 (000ms)

Feature: Feature name

Scenario: Scenario name  
Given a step

### *And*

a file named "features/support/hook.rb" with: 🍌 (000ms)

```
names = []  
Before do |scenario|  
  expect(scenario).to_not respond_to(:scenario_outline)  
  names << scenario.feature.name.split("\n").first  
  names << scenario.name.split("\n").first  
  if(names.size == 2)  
    raise "NAMES:\n" + names.join("\n") + "\n"  
  end  
end
```

### *When*

I run **cucumber** 🍌 (028ms)

### *Then*

the output should contain: 🍌 (000ms)

NAMES:  
Feature name  
Scenario name

## **Scenario: Examine names of scenario outline and feature**



### Given

a file named "features/foo.feature" with: 🍌 (000ms)

```
Feature: Feature name
```

```
Scenario Outline: Scenario Outline name
```

```
Given a <placeholder>
```

```
Examples: Examples Table name
```

```
| <placeholder> |  
| step          |
```

### And

a file named "features/support/hook.rb" with: 🍌 (000ms)

```
names = []  
Before do |scenario|  
  names << scenario.scenario_outline.feature.name.split("\n").first  
  names << scenario.scenario_outline.name.split("\n").first  
  names << scenario.name.split("\n").first  
  if(names.size == 3)  
    raise "NAMES:\n" + names.join("\n") + "\n"  
  end  
end
```

### When

I run **cucumber** 🍌 (015ms)

### Then

the output should contain: 🍌 (000ms)

```
NAMES:  
Feature name  
Scenario Outline name, Examples Table name (#1)  
Scenario Outline name, Examples Table name (#1)
```

## Choosing the language from the feature file header

In order to simplify command line and settings in IDEs, Cucumber picks up the parser language from a **# language** comment at the beginning of any feature file. See the examples below for the exact syntax.

## Scenario: LOLCAT

### Given

a file named "features/lolcat.feature" with: 🍌 (000ms)

```
# language: en-lol
OH HAI: STUFFING
B4: HUNGRY
  I CAN HAZ EMPTY BELLY
MISHUN: CUKES
  DEN KTHXBAI
```

### When

I run `cucumber -i features/lolcat.feature -q` 🍌 (010ms)

### Then

it should pass with: 🍌 (000ms)

```
# language: en-lol
OH HAI: STUFFING

B4: HUNGRY
  I CAN HAZ EMPTY BELLY

MISHUN: CUKES
  DEN KTHXBAI

1 scenario (1 undefined)
2 steps (2 undefined)
```

## Cucumber --work-in-progress switch

In order to ensure that feature scenarios do not pass until they are expected to  
Developers should be able to run cucumber in a mode that

- will fail if any scenario passes completely
- will not fail otherwise

## Scenario: Pass with Failing Scenarios

tags: @spawn,@spawn

*When*

I run `cucumber -q -w -t @failing features/wip.feature` 🍌 (606ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: WIP

@failing

Scenario: Failing

Given this step raises an error

error (RuntimeError)

./features/step\_definitions/steps.rb:2:in `/^this step raises an error\$/'

features/wip.feature:4:in `Given this step raises an error'

Failing Scenarios:

cucumber features/wip.feature:3

1 scenario (1 failed)

1 step (1 failed)

*And*

the output should contain: 🍌 (000ms)

The --wip switch was used, so the failures were expected. All is good.

## Scenario: Pass with Undefined Scenarios

tags: @spawn,@spawn

*When*

I run `cucumber -q -w -t @undefined features/wip.feature` 🍌 (608ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: WIP

@undefined

Scenario: Undefined

Given this step is undefined

1 scenario (1 undefined)

1 step (1 undefined)

*And*

the output should contain: 🍌 (000ms)

The --wip switch was used, so the failures were expected. All is good.

## Scenario: Pass with Undefined Scenarios

tags: @spawn,@spawn

*When*

I run `cucumber -q -w -t @pending features/wip.feature` 🍌 (606ms)

*Then*

it should pass with: 🍌 (001ms)

Feature: WIP

@pending

Scenario: Pending

Given this step is pending

TODO (Cucumber::Pending)

./features/step\_definitions/steps.rb:3:in `/^this step is pending\$/'

features/wip.feature:12:in `Given this step is pending'

1 scenario (1 pending)

1 step (1 pending)

*And*

the output should contain: 🍌 (000ms)

The --wip switch was used, so the failures were expected. All is good.

## Scenario: Fail with Passing Scenarios

tags: @spawn,@spawn

*When*

I run `cucumber -q -w -t @passing features/wip.feature` 🍌 (607ms)

*Then*

it should fail with: 🍌 (000ms)

Feature: WIP

@passing

Scenario: Passing

Given this step passes

1 scenario (1 passed)

1 step (1 passed)

*And*

the output should contain: 🍌 (000ms)

The --wip switch was used, so I didn't expect anything to pass. These scenarios passed:

(::) passed scenarios (::)

features/wip.feature:15:in 'Scenario: Passing'

## Scenario: Fail with Passing Scenario Outline

tags: @spawn,@spawn

*When*

I run `cucumber -q -w features/passing_outline.feature` 🍌 (707ms)

*Then*

it should fail with: 🍌 (001ms)

Feature: Not WIP

Scenario Outline: Passing

Given this step <what>

Examples:

what
passes

1 scenario (1 passed)

1 step (1 passed)

*And*

the output should contain: 🍌 (000ms)

The --wip switch was used, so I didn't expect anything to pass. These scenarios passed:

(::) passed scenarios (::)

features/passing\_outline.feature:7:in `Scenario Outline: Passing, Examples (#1)'

## Custom filter

**Scenario: Add a custom filter via AfterConfiguration hook**

*Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature:

Scenario:

Given my special step

*And*

a file named "features/support/my\_filter.rb" with: 🍌 (000ms)

```
require 'cucumber/core/filter'
```

```
MakeAnythingPass = Cucumber::Core::Filter.new do
```

```
  def test_case(test_case)
```

```
    activated_steps = test_case.test_steps.map do |test_step|
```

```
      test_step.with_action { }
```

```
    end
```

```
    test_case.with_steps(activated_steps).describe_to receiver
```

```
  end
```

```
end
```

```
AfterConfiguration do |config|
```

```
  config.filters << MakeAnythingPass.new
```

```
end
```

*When*

I run `cucumber --strict` 🍌 (009ms)

*Then*

it should pass 🍌 (000ms)

## Custom Formatter

### Scenario: Use the new API



### Given

a file named "features/support/custom\_formatter.rb" with: 🍌 (000ms)

```
module MyCustom
  class Formatter
    def initialize(runtime, io, options)
      @io = io
    end

    def before_test_case(test_case)
      feature = test_case.source.first
      scenario = test_case.source.last
      @io.puts feature.short_name.upcase
      @io.puts "  #{scenario.name.upcase}"
    end
  end
end
```

### When

I run `cucumber features/f.feature --format MyCustom::Formatter` 🍌 (009ms)

### Then

it should pass with exactly: 🍌 (000ms)

```
I'LL USE MY OWN
JUST PRINT ME
```

## Scenario: Use the legacy API

*Given*

a file named "features/support/custom\_legacy\_formatter.rb" with: 🍌 (000ms)

```
module MyCustom
  class LegacyFormatter
    def initialize(runtime, io, options)
      @io = io
    end

    def before_feature(feature)
      @io.puts feature.short_name.upcase
    end

    def scenario_name(keyword, name, file_colon_line, source_indent)
      @io.puts "  #{name.upcase}"
    end
  end
end
```

*When*

I run `cucumber features/f.feature --format MyCustom::LegacyFormatter` 🍌 (008ms)

*Then*

it should pass with exactly: 🍌 (000ms)

```
I'LL USE MY OWN
JUST PRINT ME
```

## Scenario: Use both

You can use a specific shim to opt-in to both APIs at once.

### Given

a file named "features/support/custom\_mixed\_formatter.rb" with: 🍌 (000ms)

```
module MyCustom
  class MixedFormatter

    def initialize(runtime, io, options)
      @io = io
    end

    def before_test_case(test_case)
      feature = test_case.source.first
      @io.puts feature.short_name.upcase
    end

    def scenario_name(keyword, name, file_colon_line, source_indent)
      @io.puts "  #{name.upcase}"
    end
  end
end
```

### When

I run `cucumber features/f.feature --format MyCustom::MixedFormatter` 🍌 (007ms)

### Then

it should pass with exactly: 🍌 (000ms)

```
I'LL USE MY OWN
JUST PRINT ME
```

## Debug formatter

In order to help you easily visualise the listener API, you can use the `debug` formatter that prints the calls to the listener as a feature is run.

### Scenario: title

### Given

a file named "features/test.feature" with: 🍌 (000ms)

Feature:

Scenario:

Given this step passes

### When

I run `cucumber -f debug` 🍌 (007ms)

### Then

the stderr should not contain anything 🍌 (000ms)

### Then

it should pass with: 🍌 (000ms)

```
before_test_case
before_features
before_feature
before_tags
after_tags
feature_name
before_test_step
after_test_step
before_test_step
before_feature_element
before_tags
after_tags
scenario_name
before_steps
before_step
before_step_result
step_name
after_step_result
after_step
after_test_step
after_steps
after_feature_element
after_test_case
after_feature
after_features
done
```

# Doc strings

If you need to specify information in a scenario that won't fit on a single line, you can use a DocString.

A DocString follows a step, and starts and ends with three double quotes, like this:

```
When I ask to reset my password +
Then I should receive an email with: +
  """ +
  Dear bozo, +
  +
  Please click this link to reset your password +
  """ +
`` +
+
It's possible to annotate the DocString with the type of content it contains.
This is used by +
formatting tools like http://relishapp.com which will render the contents of the
DocString +
appropriately. You specify the content type after the triple quote, like this: +
+
``gherkin +
Given there is some Ruby code: +
  """ruby +
  puts "hello world" +
  """ +
`` +
+
You can read the content type from the argument passed into your step definition,
as shown +
in the example below.
```

## Scenario: Plain text Docstring

*Given*

a scenario with a step that looks like this: 🍌 (000ms)

```
Given I have a lot to say:
```

```
    ""
```

```
    One
```

```
    Two
```

```
    Three
```

```
    ""
```

*And*

a step definition that looks like this: 🍌 (000ms)

```
Given /say/ do |text|
```

```
  puts text
```

```
end
```

*When*

I run the feature with the progress formatter 🍌 (010ms)

*Then*

the output should contain: 🍌 (000ms)

```
One
```

```
Two
```

```
Three
```

## Scenario: DocString with interesting content type

### *Given*

a scenario with a step that looks like this: 🍌 (000ms)

Given I have some code for you:

```
""ruby
# hello
""
```

### *And*

a step definition that looks like this: 🍌 (000ms)

```
Given /code/ do |text|
  puts text.content_type
end
```

### *When*

I run the feature with the progress formatter 🍌 (008ms)

### *Then*

the output should contain: 🍌 (000ms)

```
ruby
```

## Dry Run

Dry run gives you a way to quickly scan your features without actually running them.

- Invokes formatters without executing the steps.
- This also omits the loading of your support/env.rb file if it exists.

## Scenario: With a failing step

*Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature: test

Scenario:

Given this step fails

*And*

the standard step definitions 🍌 (000ms)

*When*

I run `cucumber --dry-run` 🍌 (020ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: test

Scenario: # features/test.feature:2

Given this step fails # features/step\_definitions/steps.rb:4

1 scenario (1 skipped)

1 step (1 skipped)

## Scenario: In strict mode



*Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature: test

Scenario:

Given this step fails

*And*

the standard step definitions 🍌 (000ms)

*When*

I run `cucumber --dry-run --strict` 🍌 (013ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: test

Scenario: # features/test.feature:2

Given this step fails # features/step\_definitions/steps.rb:4

1 scenario (1 skipped)

1 step (1 skipped)

## Scenario: In strict mode with an undefined step

### Given

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature: test
```

```
Scenario:
```

```
  Given this step is undefined
```

### When

I run `cucumber --dry-run --strict` 🍌 (009ms)

### Then

it should fail with: 🍌 (000ms)

```
Feature: test
```

```
Scenario:                                     # features/test.feature:2
```

```
  Given this step is undefined # features/test.feature:3
```

```
    Undefined step: "this step is undefined" (Cucumber::Undefined)
```

```
    features/test.feature:3:in `Given this step is undefined'
```

```
1 scenario (1 undefined)
```

```
1 step (1 undefined)
```

## ERB configuration

As a developer on server with multiple users

I want to be able to configure which port my wire server runs on

So that I can avoid port conflicts

**Scenario: ERB is used in the wire file which references an environment variable that is not set**

tags: @wire,@wire

*Given*

a file named "features/step\_definitions/server.wire" with: 🍌 (000ms)

```
host: localhost
port: <%= ENV['PORT'] || 12345 %>
```

*And*

there is a wire server running on port 12345 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber --dry-run --no-snippets -f progress` 🍌 (073ms)

*Then*

it should pass with: 🍌 (000ms)

```
U

1 scenario (1 undefined)
1 step (1 undefined)
```

**Scenario: ERB is used in the wire file which references an environment variable**

tags: @wire,@wire

*Given*

I have environment variable PORT set to "16816" 🍌 (000ms)

*And*

a file named "features/step\_definitions/server.wire" with: 🍌 (000ms)

```
host: localhost
port: <%= ENV['PORT'] || 12345 %>
```

*And*

there is a wire server running on port 16816 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber --dry-run --no-snippets -f progress` 🍌 (061ms)

*Then*

it should pass with: 🍌 (001ms)

```
U

1 scenario (1 undefined)
1 step (1 undefined)
```

## Exception in After Block

In order to use custom assertions at the end of each scenario

As a developer

I want exceptions raised in After blocks to be handled gracefully and reported by the formatters

### Scenario: Handle Exception in standard scenario step and carry on

tags: @spawn

### Given

a file named "features/naughty\_step\_in\_scenario.feature" with: 🍌 (000ms)

Feature: Sample

Scenario: Naughty Step

Given this step does something naughty

Scenario: Success

Given this step passes

### When

I run `cucumber features` 🍌 (604ms)

### Then

it should fail with: 🍌 (000ms)

Feature: Sample

```
Scenario: Naughty Step #
features/naughty_step_in_scenario.feature:3
  Given this step does something naughty #
features/step_definitions/naughty_steps.rb:1
    This scenario has been very very naughty (NaughtyScenarioException)
    ./features/support/env.rb:4:in `After'
```

```
Scenario: Success # features/naughty_step_in_scenario.feature:6
  Given this step passes # features/step_definitions/steps.rb:1
```

Failing Scenarios:

```
cucumber features/naughty_step_in_scenario.feature:3 # Scenario: Naughty Step
```

2 scenarios (1 failed, 1 passed)

2 steps (2 passed)

## Scenario: Handle Exception in scenario outline table row and carry on

tags: @spawn

### Given

a file named "features/naughty\_step\_in\_scenario\_outline.feature" with: 🍌 (000ms)

Feature: Sample

Scenario Outline: Naughty Step  
Given this step <Might Work>

Examples:

Might Work	
passes	
does something naughty	
passes	

Scenario: Success  
Given this step passes

### When

I run `cucumber features -q` 🍌 (606ms)

### Then

it should fail with: 🍌 (000ms)

Feature: Sample

Scenario Outline: Naughty Step  
Given this step <Might Work>

Examples:

Might Work	
passes	
does something naughty	

This scenario has been very very naughty (NaughtyScenarioException)

./features/support/env.rb:4:in 'After'

passes	
--------	--

Scenario: Success  
Given this step passes

Failing Scenarios:

cucumber features/naughty\_step\_in\_scenario\_outline.feature:9

4 scenarios (1 failed, 3 passed)

4 steps (4 passed)

## Scenario: Handle Exception using the progress format

### Given

a file named "features/naughty\_step\_in\_scenario.feature" with: 🍌 (000ms)

Feature: Sample

Scenario: Naughty Step

Given this step does something naughty

Scenario: Success

Given this step passes

### When

I run `cucumber features --format progress` 🍌 (026ms)

### Then

it should fail with: 🍌 (000ms)

.F.

Failing Scenarios:

cucumber features/naughty\_step\_in\_scenario.feature:3 # Scenario: Naughty Step

2 scenarios (1 failed, 1 passed)

2 steps (2 passed)

## Exception in AfterStep Block

In order to use custom assertions at the end of each step

As a developer

I want exceptions raised in AfterStep blocks to be handled gracefully and reported by the formatters

## Scenario: Handle Exception in standard scenario step and carry on

### Given

a file named "features/naughty\_step\_in\_scenario.feature" with: 🍌 (000ms)

Feature: Sample

Scenario: Naughty Step

Given this step does something naughty

Scenario: Success

Given this step passes

### When

I run `cucumber features` 🍌 (021ms)

### Then

it should fail with: 🍌 (000ms)

Feature: Sample

```
Scenario: Naughty Step #
features/naughty_step_in_scenario.feature:3
  Given this step does something naughty #
features/step_definitions/naughty_steps.rb:1
    This step has been very very naughty (NaughtyStepException)
    ./features/support/env.rb:4:in `AfterStep'
    features/naughty_step_in_scenario.feature:4:in `Given this step does
something naughty'
```

```
Scenario: Success # features/naughty_step_in_scenario.feature:6
```

```
  Given this step passes # features/step_definitions/steps.rb:1
```

Failing Scenarios:

```
cucumber features/naughty_step_in_scenario.feature:3 # Scenario: Naughty Step
```

2 scenarios (1 failed, 1 passed)

2 steps (2 passed)

## Scenario: Handle Exception in scenario outline table row and carry on

### Given

a file named "features/naughty\_step\_in\_scenario\_outline.feature" with: 🍌 (000ms)



Feature: Sample

Scenario Outline: Naughty Step  
Given this step <Might Work>

Examples:

Might Work	
passes	
does something naughty	
passes	

Scenario: Success  
Given this step passes

*When*

I run `cucumber features` 🍌 (022ms)

*Then*

it should fail with: 🍌 (000ms)

Feature: Sample

Scenario Outline: Naughty Step #  
features/naughty\_step\_in\_scenario\_outline.feature:3  
Given this step <Might Work> #  
features/naughty\_step\_in\_scenario\_outline.feature:4

Examples:

Might Work	
passes	
does something naughty	

This step has been very very naughty (NaughtyStepException)  
./features/support/env.rb:4:in `AfterStep'  
features/naughty\_step\_in\_scenario\_outline.feature:9:in `Given this step  
does something naughty'  
features/naughty\_step\_in\_scenario\_outline.feature:4:in `Given this step  
<Might Work>'  
| passes |

Scenario: Success # features/naughty\_step\_in\_scenario\_outline.feature:12  
Given this step passes # features/step\_definitions/steps.rb:1

Failing Scenarios:

cucumber features/naughty\_step\_in\_scenario\_outline.feature:9 # Scenario Outline:  
Naughty Step, Examples (#2)

4 scenarios (1 failed, 3 passed)  
4 steps (4 passed)

# Exception in Before Block

In order to know with confidence that my before blocks have run OK

As a developer

I want exceptions raised in Before blocks to be handled gracefully and reported by the formatters

## Scenario: Handle Exception in standard scenario step and carry on

tags: @spawn

*Given*

a file named "features/naughty\_step\_in\_scenario.feature" with: 🍌 (000ms)

Feature: Sample

Scenario: Run a good step

Given this step passes

*When*

I run `cucumber features` 🍌 (605ms)

*Then*

it should fail with: 🍌 (001ms)

Feature: Sample

Scenario: Run a good step # features/naughty\_step\_in\_scenario.feature:3

I cannot even start this scenario (SomeSetupException)

./features/support/env.rb:4:in `Before'

Given this step passes # features/step\_definitions/steps.rb:1

Failing Scenarios:

cucumber features/naughty\_step\_in\_scenario.feature:3 # Scenario: Run a good step

1 scenario (1 failed)

1 step (1 skipped)

## Scenario: Handle Exception in Before hook for Scenario with Background

### Given

a file named "features/naughty\_step\_in\_before.feature" with: 🍌 (000ms)

Feature: Sample

Background:

Given this step passes

Scenario: Run a good step

Given this step passes

### When

I run `cucumber features` 🍌 (023ms)

### Then

it should fail with exactly: 🍌 (000ms)

Feature: Sample

Background: # features/naughty\_step\_in\_before.feature:3

I cannot even start this scenario (SomeSetupException)

./features/support/env.rb:4:in `Before'

Given this step passes # features/step\_definitions/steps.rb:1

Scenario: Run a good step # features/naughty\_step\_in\_before.feature:6

Given this step passes # features/step\_definitions/steps.rb:1

Failing Scenarios:

cucumber features/naughty\_step\_in\_before.feature:6 # Scenario: Run a good step

1 scenario (1 failed)

2 steps (2 skipped)

0m0.012s

## Scenario: Handle Exception using the progress format

### Given

a file named "features/naughty\_step\_in\_scenario.feature" with: 🍌 (000ms)

Feature: Sample

Scenario: Run a good step  
Given this step passes

### When

I run `cucumber features --format progress` 🍌 (016ms)

### Then

it should fail with: 🍌 (000ms)

F-

Failing Scenarios:

`cucumber features/naughty_step_in_scenario.feature:3 # Scenario: Run a good step`

1 scenario (1 failed)

1 step (1 skipped)

## Exceptions in Around Hooks

Around hooks are awkward beasts to handle internally.

Right now, if there's an error in your Around hook before you call `block.call`, we won't even print the steps for the scenario.

This is because that `block.call` invokes all the logic that would tell Cucumber's UI about the steps in your scenario. If we never reach that code, we'll never be told about them.

There's another scenario to consider, where the exception occurs after the steps have been run. How would we want to report in that case?

### Scenario: Exception before the test case is run

*Given*

the standard step definitions 🍌 (000ms)

*And*

a file named "features/support/env.rb" with: 🍌 (000ms)

```
Around do |scenario, block|  
  fail "this should be reported"  
  block.call  
end
```

*And*

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature:  
  Scenario:  
    Given this step passes
```

*When*

I run `cucumber -q` 🍌 (010ms)

*Then*

it should fail with exactly: 🍌 (000ms)

```
Feature:  
  
  Scenario:  
    this should be reported (RuntimeError)  
    ./features/support/env.rb:2:in `Around'  
  
Failing Scenarios:  
cucumber features/test.feature:2  
  
1 scenario (1 failed)  
0 steps
```

## Scenario: Exception after the test case is run

*Given*

the standard step definitions 🍌 (000ms)

*And*

a file named "features/support/env.rb" with: 🍌 (000ms)

```
Around do |scenario, block|  
  block.call  
  fail "this should be reported"  
end
```

*And*

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature:  
  Scenario:  
    Given this step passes
```

*When*

I run `cucumber -q` 🍌 (009ms)

*Then*

it should fail with exactly: 🍌 (000ms)

```
Feature:  
  
  Scenario:  
    Given this step passes  
      this should be reported (RuntimeError)  
      ./features/support/env.rb:3:in `Around'  
  
Failing Scenarios:  
cucumber features/test.feature:2  
  
1 scenario (1 failed)  
1 step (1 passed)
```

## Excluding ruby and feature files from runs

Developers are able to easily exclude files from cucumber runs

This is a nice feature to have in conjunction with profiles, so you can exclude certain environment files from certain runs.

## Scenario: exclude ruby files

*Given*

an empty file named "features/support/dont\_require\_me.rb" 🍌 (000ms)

*And*

an empty file named "features/step\_definitions/fooz.rb" 🍌 (000ms)

*And*

an empty file named "features/step\_definitions/foof.rb" 🍌 (000ms)

*And*

an empty file named "features/step\_definitions/foot.rb" 🍌 (000ms)

*And*

an empty file named "features/support/require\_me.rb" 🍌 (000ms)

*When*

I run `cucumber features -q --verbose --exclude features/support/dont --exclude foo[zf]`  
🍌 (007ms)

*Then*

"features/support/require\_me.rb" should be required 🍌 (000ms)

*And*

"features/step\_definitions/foot.rb" should be required 🍌 (000ms)

*And*

"features/support/dont\_require\_me.rb" should not be required 🍌 (000ms)

*And*

"features/step\_definitions/foof.rb" should not be required 🍌 (000ms)

*And*

"features/step\_definitions/fooz.rb" should not be required 🍌 (000ms)

[[Formatter-API:-Step-file-path-and-line-number-(Issue-#179), Formatter API: Step file path and line number (Issue #179)]] == **Formatter API: Step file path and line number (Issue #179)**

To all reporter to understand location of current executing step let's fetch this information from `step/step_invocation` and pass to reporters

## Scenario: my own formatter

*Given*

a file named "features/f.feature" with: 🍌 (000ms)

```
Feature: I'll use my own
  because I'm worth it
Scenario: just print step current line and feature file name
  Given step at line 4
  Given step at line 5
```

*And*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Given(/^step at line (.*)$/) { |line| }
```

*And*

a file named "features/support/jb/formatter.rb" with: 🍌 (000ms)

```
module Jb
  class Formatter
    def initialize(runtime, io, options)
      @io = io
    end

    def before_step_result(keyword, step_match, multiline_arg, status, exception,
      source_indent, background, file_colon_line)
      @io.puts "step result event: #{file_colon_line}"
    end

    def step_name(keyword, step_match, status, source_indent, background,
      file_colon_line)
      @io.puts "step name event: #{file_colon_line}"
    end
  end
end
```

*When*

I run `cucumber features/f.feature --format Jb::Formatter` 🍌 (006ms)

*Then*

it should pass with exactly: 🍌 (000ms)

```
step result event: features/f.feature:4
step name event: features/f.feature:4
step result event: features/f.feature:5
step name event: features/f.feature:5
```



# Getting started

To get started, just open a command prompt in an empty directory and run `cucumber`. You'll be prompted for what to do next.

## Scenario: Run Cucumber in an empty directory

tags: @spawn

*Given*

a directory without standard Cucumber project directory structure 🍌 (000ms)

*When*

I run `cucumber` 🍌 (605ms)

*Then*

it should fail with: 🍌 (001ms)

No such file or directory - features. You can use ``cucumber --init`` to get started.

## Scenario: Accidentally run Cucumber in a folder with Ruby files in it.

*Given*

a directory without standard Cucumber project directory structure 🍌 (000ms)

*And*

a file named "should\_not\_load.rb" with: 🍌 (000ms)

```
puts 'this will not be shown'
```

*When*

I run `cucumber` 🍌 (007ms)

*Then*

the exit status should be 2 🍌 (000ms)

*And*

the output should not contain: 🍌 (000ms)

```
this will not be shown
```

## Handle unexpected response

When the server sends us back a message we don't understand, this is how Cucumber will behave.

### Scenario: Unexpected response

tags: @wire,@wire

*Given*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber -f pretty` 🍌 (068ms)

*Then*

the output should contain: 🍌 (000ms)

```
undefined method `handle_yikes'
```

# Hooks execute in defined order

## Scenario: Around hooks cover background steps

tags: @spawn,@spawn

*When*

I run `cucumber -o /dev/null features/around_hook_covers_background.feature` 🍌 (606ms)

*Then*

the output should contain: 🍌 (000ms)

Event order: around\_begin background\_step scenario\_step around\_end

## Scenario: All hooks execute in expected order

tags: @spawn,@spawn

*When*

I run `cucumber -o /dev/null features/all_hook_order.feature` 🍌 (606ms)

*Then*

the output should contain: 🍌 (000ms)

Event order: around\_begin before background\_step scenario\_step after around\_end

# HTML output formatter

## Scenario: an scenario outline, one undefined step, one random example, expand flag on

*When*

I run ``cucumber features/scenario_outline_with_undefined_steps.feature --format html --expand`` 🍌 (020ms)

*Then*

it should pass 🍌 (003ms)

## Scenario Outline: an scenario outline, one pending step

*When*

I run `cucumber features/scenario_outline_with_pending_step.feature --format html --expand` 🍌 (025ms)

*Then*

it should pass 🍌 (003ms)

*And*

the output should contain: 🍌 (004ms)

```
makeYellow('scenario_1')
```

*And*

the output should not contain: 🍌 (004ms)

```
makeRed('scenario_1')
```

## Scenario Outline: an scenario outline, one pending step

*When*

I run ``cucumber features/scenario_outline_with_pending_step.feature --format html `` 🍌 (019ms)

*Then*

it should pass 🍌 (002ms)

*And*

the output should contain: 🍌 (003ms)

```
makeYellow('scenario_1')
```

*And*

the output should not contain: 🍌 (004ms)

```
makeRed('scenario_1')
```

## Scenario Outline: an scenario outline, one pending step

*When*

I run `cucumber features/scenario_outline_with_undefined_steps.feature --format html --expand` 🍷 (007ms)

*Then*

it should pass 🍷 (002ms)

*And*

the output should contain: 🍷 (003ms)

```
makeYellow('scenario_1')
```

*And*

the output should not contain: 🍷 (003ms)

```
makeRed('scenario_1')
```

## Scenario Outline: an scenario outline, one pending step

*When*

I run ``cucumber features/scenario_outline_with_undefined_steps.feature --format html`` 🍷 (009ms)

*Then*

it should pass 🍷 (002ms)

*And*

the output should contain: 🍷 (003ms)

```
makeYellow('scenario_1')
```

*And*

the output should not contain: 🍷 (003ms)

```
makeRed('scenario_1')
```

## Scenario: when using a profile the html shouldn't include 'Using the default profile...'

*And*

a file named "cucumber.yml" with: 🍌 (000ms)

```
default: -r features
```

*When*

I run `cucumber features/scenario_outline_with_undefined_steps.feature --profile default --format html` 🍌 (009ms)

*Then*

it should pass 🍌 (002ms)

*And*

the output should not contain: 🍌 (003ms)

```
Using the default profile...
```

## Scenario: a feature with a failing background step

*When*

I run `cucumber features/failing_background_step.feature --format html` 🍌 (010ms)

*Then*

the output should not contain: 🍌 (003ms)

```
makeRed('scenario_0')
```

*And*

the output should contain: 🍌 (003ms)

```
makeRed('background_0')
```

## Invoke message

Assuming a StepMatch was returned for a given step name, when it's time to invoke that step definition, Cucumber will send an invoke message.

The invoke message contains the ID of the step definition, as returned by the wire server in response to the the step\_matches call, along with the arguments that were parsed from the step name during the same step\_matches call.

The wire server will normally reply one of the following:

- \* **success**
- \* **fail**
- \* **pending** - optionally takes a message argument

This isn't quite the whole story: see also table\_diffing.feature

## Scenario: Invoke a step definition which is pending

tags: @wire,@wire,@spawn

### Given

there is a wire server running on port 54321 which understands the following protocol: 🍌 (001ms)

### When

I run **cucumber -f pretty -q** 🍌 (806ms)

### And

it should pass with: 🍌 (001ms)

Feature: High strung

Scenario: Wired

Given we're all wired

I'll do it later (Cucumber::Pending)

features/wired.feature:3:in 'Given we're all wired'

1 scenario (1 pending)

1 step (1 pending)

## Scenario: Invoke a step definition which passes

tags: @wire,@wire

#### *Given*

there is a wire server running on port 54321 which understands the following protocol: 🍌  
(002ms)

#### *When*

I run `cucumber -f progress` 🍌 (140ms)

#### *And*

it should pass with: 🍌 (000ms)

.

1 scenario (1 passed)

1 step (1 passed)

## Scenario: Invoke a step definition which fails

tags: @wire,@wire,@spawn

If an invoked step definition fails, it can return details of the exception in the reply to invoke. This causes a `Cucumber::WireSupport::WireException` to be raised.

Valid arguments are:

- `message` (mandatory)
- `exception`
- `backtrace`

See the specs for `Cucumber::WireSupport::WireException` for more details



#### Given

there is a wire server running on port 54321 which understands the following protocol: 🍌  
(002ms)

#### When

I run `cucumber -f progress` 🍌 (808ms)

#### Then

the stderr should not contain anything 🍌 (000ms)

#### And

it should fail with: 🍌 (001ms)

F

(::) failed steps (::)

The wires are down (Some.Foreign.ExceptionType from localhost:54321)  
features/wired.feature:3:in 'Given we're all wired'

Failing Scenarios:

cucumber features/wired.feature:2 # Scenario: Wired

1 scenario (1 failed)

1 step (1 failed)

## Scenario: Invoke a step definition which takes string arguments (and passes)

tags: @wire,@wire

If the step definition at the end of the wire captures arguments, these are communicated back to Cucumber in the `step_matches` message.

Cucumber expects these `StepArguments` to be returned in the `StepMatch`. The keys have the following meanings:

- `val` - the value of the string captured for that argument from the step name passed in `step_matches`
- `pos` - the position within the step name that the argument was matched (used for formatter highlighting)

The argument values are then sent back by Cucumber in the `invoke` message.

#### Given

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

#### When

I run `cucumber -f progress` 🍌 (141ms)

#### Then

the stderr should not contain anything 🍌 (000ms)

#### And

it should pass with: 🍌 (000ms)

.

1 scenario (1 passed)

1 step (1 passed)

### Scenario: Invoke a step definition which takes regular and table arguments (and passes)

tags: @wire,@wire

If the step has a multiline table argument, it will be passed with the invoke message as an array of array of strings.

In this scenario our step definition takes two arguments - one captures the "we're" and the other takes the table.

*Given*

a file named "features/wired\_on\_tables.feature" with: 🍌 (000ms)

Feature: High strung

Scenario: Wired and more

Given we're all:

	wired	
	high	
	happy	

*And*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber -f progress features/wired_on_tables.feature` 🍌 (139ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

it should pass with: 🍌 (001ms)

.

1 scenario (1 passed)

1 step (1 passed)

## Scenario: Invoke a scenario outline step

tags: @wire,@wire

*Given*

a file named "features/wired\_in\_an\_outline.feature" with: 🍌 (000ms)

Feature:

Scenario Outline:

Given we're all <arg>

Examples:

arg
wired

*And*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber -f progress features/wired_in_an_outline.feature` 🍌 (146ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

it should pass with: 🍌 (000ms)

.

1 scenario (1 passed)

1 step (1 passed)

*And*

the wire server should have received the following messages: 🍌 (000ms)

## JSON output formatter

In order to simplify processing of Cucumber features and results  
Developers should be able to consume features as JSON

**Scenario: one feature, one passing scenario, one failing scenario**

tags: @spawn

*When*

I run `cucumber --format json features/one_passing_one_failing.feature` 🍌 (605ms)

Then

it should fail with JSON: 🍌 (001ms)

```
[
  {
    "uri": "features/one_passing_one_failing.feature",
    "keyword": "Feature",
    "id": "one-passing-scenario,-one-failing-scenario",
    "name": "One passing scenario, one failing scenario",
    "line": 2,
    "description": "",
    "tags": [
      {
        "name": "@a",
        "line": 1
      }
    ],
    "elements": [
      {
        "keyword": "Scenario",
        "id": "one-passing-scenario,-one-failing-scenario;passing",
        "name": "Passing",
        "line": 5,
        "description": "",
        "tags": [
          {
            "name": "@a",
            "line": 1
          },
          {
            "name": "@b",
            "line": 4
          }
        ],
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "this step passes",
            "line": 6,
            "match": {
              "location": "features/step_definitions/steps.rb:1"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ]
  }
]
```

```

    ]
  },
  {
    "keyword": "Scenario",
    "id": "one-passing-scenario,-one-failing-scenario;failing",
    "name": "Failing",
    "line": 9,
    "description": "",
    "tags": [
      {
        "name": "@a",
        "line": 1
      },
      {
        "name": "@c",
        "line": 8
      }
    ],
    "type": "scenario",
    "steps": [
      {
        "keyword": "Given ",
        "name": "this step fails",
        "line": 10,
        "match": {
          "location": "features/step_definitions/steps.rb:4"
        },
        "result": {
          "status": "failed",
          "error_message": "(RuntimeError)\n./features/step_definitions/steps.rb:4:in `^this step fails$/'\nfeatures/one_passing_one_failing.feature:10:in `Given this step fails'",
          "duration": 1
        }
      }
    ]
  }
]

```

## Scenario: one feature, one passing scenario, one failing scenario with prettyfied json

tags: @spawn

*When*

I run `cucumber --format json_pretty features/one_passing_one_failing.feature` 🍌 (505ms)

Then

it should fail with JSON: 🍌 (002ms)

```
[
  {
    "uri": "features/one_passing_one_failing.feature",
    "keyword": "Feature",
    "id": "one-passing-scenario,-one-failing-scenario",
    "name": "One passing scenario, one failing scenario",
    "line": 2,
    "description": "",
    "tags": [
      {
        "name": "@a",
        "line": 1
      }
    ],
    "elements": [
      {
        "keyword": "Scenario",
        "id": "one-passing-scenario,-one-failing-scenario;passing",
        "name": "Passing",
        "line": 5,
        "description": "",
        "tags": [
          {
            "name": "@a",
            "line": 1
          },
          {
            "name": "@b",
            "line": 4
          }
        ],
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "this step passes",
            "line": 6,
            "match": {
              "location": "features/step_definitions/steps.rb:1"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ]
  }
]
```

```

    ]
  },
  {
    "keyword": "Scenario",
    "id": "one-passing-scenario,-one-failing-scenario;failing",
    "name": "Failing",
    "line": 9,
    "description": "",
    "tags": [
      {
        "name": "@a",
        "line": 1
      },
      {
        "name": "@c",
        "line": 8
      }
    ],
    "type": "scenario",
    "steps": [
      {
        "keyword": "Given ",
        "name": "this step fails",
        "line": 10,
        "match": {
          "location": "features/step_definitions/steps.rb:4"
        },
        "result": {
          "status": "failed",
          "error_message": "(RuntimeError)\n./features/step_definitions/steps.rb:4:in `/^this step fails$/'\nfeatures/one_passing_one_failing.feature:10:in `Given this step fails'",
          "duration": 1
        }
      }
    ]
  }
]

```

## Scenario: DocString

tags: @spawn

*Given*

a file named "features/doc\_string.feature" with: 🍌 (000ms)



Feature: A DocString feature

Scenario:

```
Then I should fail with
  """
  a string
  """
```

*And*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /I should fail with/ do |s|
  raise RuntimeError, s
end
```

*When*

I run `cucumber --format json features/doc_string.feature` 🍌 (605ms)

*Then*

it should fail with JSON: 🍌 (001ms)

```
[
  {
    "id": "a-docstring-feature",
    "uri": "features/doc_string.feature",
    "keyword": "Feature",
    "name": "A DocString feature",
    "line": 1,
    "description": "",
    "elements": [
      {
        "id": "a-docstring-feature;",
        "keyword": "Scenario",
        "name": "",
        "line": 3,
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Then ",
            "name": "I should fail with",
            "line": 4,
            "doc_string": {
              "content_type": "",
              "value": "a string",
              "line": 5
            },
            "match": {
              "location": "features/step_definitions/steps.rb:1"
            },
            "result": {
              "status": "failed",
              "error_message": "a string
(RuntimeError)\n./features/step_definitions/steps.rb:2:in `/I should fail
with/'\nfeatures/doc_string.feature:4:in `Then I should fail with'",
              "duration": 1
            }
          }
        ]
      }
    ]
  }
]
```

## Scenario: embedding screenshot

tags: @spawn

*When*

I run `cucumber -b --format json features/embed.feature` 🍌 (606ms)

*Then*

it should pass with JSON: 🍌 (001ms)

```
[
  {
    "uri": "features/embed.feature",
    "id": "a-screenshot-feature",
    "keyword": "Feature",
    "name": "A screenshot feature",
    "line": 1,
    "description": "",
    "elements": [
      {
        "id": "a-screenshot-feature;",
        "keyword": "Scenario",
        "name": "",
        "line": 3,
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "I embed a screenshot",
            "line": 4,
            "embeddings": [
              {
                "mime_type": "image/png",
                "data": "Zm9v"
              }
            ],
            "match": {
              "location": "features/step_definitions/json_steps.rb:1"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ]
  }
]
```

## Scenario: scenario outline

tags: @spawn

*When*

I run `cucumber --format json features/outline.feature` 🍌 (606ms)

*Then*

it should fail with JSON: 🍌 (002ms)

```
[
  {
    "uri": "features/outline.feature",
    "id": "an-outline-feature",
    "keyword": "Feature",
    "name": "An outline feature",
    "line": 1,
    "description": "",
    "elements": [
      {
        "id": "an-outline-feature;outline;examples1;2",
        "keyword": "Scenario Outline",
        "name": "outline",
        "description": "",
        "line": 8,
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "this step passes",
            "line": 8,
            "match": {
              "location": "features/step_definitions/steps.rb:1"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ],
  },
  {
    "id": "an-outline-feature;outline;examples1;3",
    "keyword": "Scenario Outline",
    "name": "outline",
    "description": "",
    "line": 9,
    "type": "scenario",
    "steps": [
```

```

    {
      "keyword": "Given ",
      "name": "this step fails",
      "line": 9,
      "match": {
        "location": "features/step_definitions/steps.rb:4"
      },
      "result": {
        "status": "failed",
        "error_message": "
(RuntimeError)\n./features/step_definitions/steps.rb:4:in `/^this step
fails$/'\nfeatures/outline.feature:9:in `Given this step
fails'\nfeatures/outline.feature:4:in `Given this step <status>'",
        "duration": 1
      }
    }
  ]
},
{
  "id": "an-outline-feature;outline;examples2;2",
  "keyword": "Scenario Outline",
  "name": "outline",
  "description": "",
  "line": 13,
  "type": "scenario",
  "steps": [
    {
      "keyword": "Given ",
      "name": "this step passes",
      "line": 13,
      "match": {
        "location": "features/step_definitions/steps.rb:1"
      },
      "result": {
        "status": "passed",
        "duration": 1
      }
    }
  ]
}
]
}
]

```

## Scenario: print from step definition

When

I run `cucumber --format json features/print_from_step_definition.feature` 🍌 (013ms)

Then

it should pass with JSON: 🍷 (000ms)

```
[
  {
    "uri": "features/print_from_step_definition.feature",
    "id": "a-print-from-step-definition-feature",
    "keyword": "Feature",
    "name": "A print from step definition feature",
    "line": 1,
    "description": "",
    "elements": [
      {
        "id": "a-print-from-step-definition-feature;",
        "keyword": "Scenario",
        "name": "",
        "line": 3,
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "I print from step definition",
            "line": 4,
            "output": [
              "from step definition"
            ],
            "match": {
              "location": "features/step_definitions/json_steps.rb:6"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          },
          {
            "keyword": "And ",
            "name": "I print from step definition",
            "line": 5,
            "output": [
              "from step definition"
            ],
            "match": {
              "location": "features/step_definitions/json_steps.rb:6"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ]
  }
]
```

```

    ]
  }
]

```

## Scenario: scenario outline expanded

tags: @spawn

*When*

I run `cucumber --expand --format json features/outline.feature` 🍌 (707ms)

*Then*

it should fail with JSON: 🍌 (002ms)

```

[
  {
    "uri": "features/outline.feature",
    "id": "an-outline-feature",
    "keyword": "Feature",
    "name": "An outline feature",
    "line": 1,
    "description": "",
    "elements": [
      {
        "id": "an-outline-feature;outline;examples1;2",
        "keyword": "Scenario Outline",
        "name": "outline",
        "line": 8,
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "this step passes",
            "line": 8,
            "match": {
              "location": "features/step_definitions/steps.rb:1"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ]
  },
  {

```

```

    "id": "an-outline-feature;outline;examples1;3",
    "keyword": "Scenario Outline",
    "name": "outline",
    "line": 9,
    "description": "",
    "type": "scenario",
    "steps": [
      {
        "keyword": "Given ",
        "name": "this step fails",
        "line": 9,
        "match": {
          "location": "features/step_definitions/steps.rb:4"
        },
        "result": {
          "status": "failed",
          "error_message" : "
(RuntimeError)\n./features/step_definitions/steps.rb:4:in `/^this step
fails$/'\nfeatures/outline.feature:9:in `Given this step
fails'\nfeatures/outline.feature:4:in `Given this step <status>'",
          "duration": 1
        }
      }
    ],
  },
  {
    "id": "an-outline-feature;outline;examples2;2",
    "keyword": "Scenario Outline",
    "name": "outline",
    "line": 13,
    "description": "",
    "type": "scenario",
    "steps": [
      {
        "keyword": "Given ",
        "name": "this step passes",
        "line": 13,
        "match": {
          "location": "features/step_definitions/steps.rb:1"
        },
        "result": {
          "status": "passed",
          "duration": 1
        }
      }
    ]
  }
]
}
]
}
]

```



## Scenario: embedding data directly

tags: @spawn

*When*

I run `cucumber -b --format json -x features/embed_data_directly.feature` 🍷 (607ms)

*Then*

it should pass with JSON: 🍷 (002ms)

```
[
  {
    "uri": "features/embed_data_directly.feature",
    "id": "an-embed-data-directly-feature",
    "keyword": "Feature",
    "name": "An embed data directly feature",
    "line": 1,
    "description": "",
    "elements": [
      {
        "id": "an-embed-data-directly-feature;",
        "keyword": "Scenario",
        "name": "",
        "line": 3,
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Given ",
            "name": "I embed data directly",
            "line": 4,
            "embeddings": [
              {
                "mime_type": "mime-type",
                "data": "YWJj"
              }
            ],
            "match": {
              "location": "features/step_definitions/json_steps.rb:10"
            },
            "result": {
              "status": "passed",
              "duration": 1
            }
          }
        ]
      }
    ],
    {
      "keyword": "Scenario Outline",
```

```

"name": "",
"line": 11,
"description": "",
"id": "an-embed-data-directly-feature;;;2",
"type": "scenario",
"steps": [
  {
    "keyword": "Given ",
    "name": "I embed data directly",
    "line": 11,
    "embeddings": [
      {
        "mime_type": "mime-type",
        "data": "YWJj"
      }
    ],
    "match": {
      "location": "features/step_definitions/json_steps.rb:10"
    },
    "result": {
      "status": "passed",
      "duration": 1
    }
  }
],
},
{
  "keyword": "Scenario Outline",
  "name": "",
  "line": 12,
  "description": "",
  "id": "an-embed-data-directly-feature;;;3",
  "type": "scenario",
  "steps": [
    {
      "keyword": "Given ",
      "name": "I embed data directly",
      "line": 12,
      "embeddings": [
        {
          "mime_type": "mime-type",
          "data": "YWJj"
        }
      ],
      "match": {
        "location": "features/step_definitions/json_steps.rb:10"
      },
      "result": {
        "status": "passed",
        "duration": 1
      }
    }
  ]
}

```

```
]
  }
  ]
  }
  ]
  }
```

## Scenario: handle output from hooks

tags: @spawn

### Given

a file named "features/step\_definitions/output\_steps.rb" with: 🍌 (000ms)

```
Before do
  puts "Before hook 1"
  embed "src", "mime_type", "label"
end
```

```
Before do
  puts "Before hook 2"
  embed "src", "mime_type", "label"
end
```

```
AfterStep do
  puts "AfterStep hook 1"
  embed "src", "mime_type", "label"
end
```

```
AfterStep do
  puts "AfterStep hook 2"
  embed "src", "mime_type", "label"
end
```

```
After do
  puts "After hook 1"
  embed "src", "mime_type", "label"
end
```

```
After do
  puts "After hook 2"
  embed "src", "mime_type", "label"
end
```

### When

I run `cucumber --format json features/out_scenario_out_scenario_outline.feature` 🍌  
(707ms)

### Then

it should pass 🍌 (001ms)

## JUnit output formatter

In order for developers to create test reports with ant  
Cucumber should be able to output JUnit xml files

**Scenario: one feature, one passing scenario, one failing scenario**

tags: @spawn,@spawn

*When*

I run `cucumber --format junit --out tmp/ features/one_passing_one_failing.feature` 🍌  
(706ms)

*Then*

it should fail with: 🍌 (001ms)

*And*

the junit output file "tmp/TEST-features-one\_passing\_one\_failing.xml" should contain: 🍌  
(000ms)

```
<?xml version="1.0" encoding="UTF-8"?>
<testsuite failures="1" errors="0" skipped="0" tests="2" time="0.05" name="One
passing scenario, one failing scenario">
<testcase classname="One passing scenario, one failing scenario" name="Passing"
time="0.05">
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
<testcase classname="One passing scenario, one failing scenario" name="Failing"
time="0.05">
  <failure message="failed Failing" type="failed">
    <![CDATA[Scenario: Failing
```

Given this step fails

Message:

```
]]>
```

```
  <![CDATA[ (RuntimeError)
./features/step_definitions/steps.rb:4:in `/^this step fails$/'
features/one_passing_one_failing.feature:7:in `Given this step fails']]>
</failure>
<system-out>
  <![CDATA[]]>
</system-out>
<system-err>
  <![CDATA[]]>
</system-err>
</testcase>
</testsuite>
```

**Scenario: one feature in a subdirectory, one passing scenario, one failing scenario**

tags: @spawn,@spawn

*When*

```
I      run      cucumber      --format      junit      --out      tmp/  
features/some_subdirectory/one_passing_one_failing.feature  --require  features  🍌  
(607ms)
```

*Then*

it should fail with: 🍌 (000ms)

*And*

the junit output file "tmp/TEST-features-some\_subdirectory-one\_passing\_one\_failing.xml"  
should contain: 🍌 (000ms)

```
<?xml version="1.0" encoding="UTF-8"?>  
<testsuite failures="1" errors="0" skipped="0" tests="2" time="0.05"  
name="Subdirectory - One passing scenario, one failing scenario">  
<testcase classname="Subdirectory - One passing scenario, one failing scenario"  
name="Passing" time="0.05">  
  <system-out>  
    <![CDATA[]]>  
  </system-out>  
  <system-err>  
    <![CDATA[]]>  
  </system-err>  
</testcase>  
<testcase classname="Subdirectory - One passing scenario, one failing scenario"  
name="Failing" time="0.05">  
  <failure message="failed Failing" type="failed">  
    <![CDATA[Scenario: Failing
```

Given this step fails

Message:

```
]]>  
  <![CDATA[ (RuntimeError)  
./features/step_definitions/steps.rb:4:in `/^this step fails$/'  
features/some_subdirectory/one_passing_one_failing.feature:7:in `Given this step  
fails' ]]>  
</failure>  
<system-out>  
  <![CDATA[]]>  
</system-out>  
<system-err>  
  <![CDATA[]]>  
</system-err>  
</testcase>  
</testsuite>
```



## Scenario: pending and undefined steps are reported as skipped

tags: @spawn,@spawn

*When*

I run `cucumber --format junit --out tmp/ features/pending.feature` 🍌 (606ms)

*Then*

it should pass with: 🍌 (001ms)

*And*

the junit output file "tmp/TEST-features-pending.xml" should contain: 🍌 (000ms)

```
<?xml version="1.0" encoding="UTF-8"?>
<testsuite failures="0" errors="0" skipped="2" tests="2" time="0.05"
name="Pending step">
<testcase classname="Pending step" name="Pending" time="0.05">
  <skipped/>
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
<testcase classname="Pending step" name="Undefined" time="0.05">
  <skipped/>
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
</testsuite>
```

## Scenario: pending and undefined steps with strict option should fail

tags: @spawn,@spawn

*When*

I run `cucumber --format junit --out tmp/ features/pending.feature --strict` 🍌 (706ms)

*Then*

it should fail with: 🍌 (000ms)

And

the junit output file "tmp/TEST-features-pending.xml" should contain: 📌 (000ms)

```
<?xml version="1.0" encoding="UTF-8"?>
<testsuite failures="2" errors="0" skipped="0" tests="2" time="0.05"
name="Pending step">
<testcase classname="Pending step" name="Pending" time="0.05">
  <failure message="pending Pending" type="pending">
    <![CDATA[Scenario: Pending
```

Given this step is pending

Message:

```
]]>
  <![CDATA[TODO (Cucumber::Pending)
./features/step_definitions/steps.rb:3:in `/^this step is pending$/'
features/pending.feature:4:in `Given this step is pending']]>
</failure>
<system-out>
  <![CDATA[]]>
</system-out>
<system-err>
  <![CDATA[]]>
</system-err>
</testcase>
<testcase classname="Pending step" name="Undefined" time="0.05">
  <failure message="undefined Undefined" type="undefined">
    <![CDATA[Scenario: Undefined
```

Given this step is undefined

Message:

```
]]>
  <![CDATA[Undefined step: "this step is undefined"
(Cucumber::Core::Test::Result::Undefined)
features/pending.feature:7:in `Given this step is undefined']]>
</failure>
<system-out>
  <![CDATA[]]>
</system-out>
<system-err>
  <![CDATA[]]>
</system-err>
</testcase>
</testsuite>
```

## Scenario: run all features

tags: @spawn,@spawn

*When*

I run `cucumber --format junit --out tmp/ features` 🍴 (707ms)

*Then*

it should fail with: 🍴 (001ms)

*And*

a file named "tmp/TEST-features-one\_passing\_one\_failing.xml" should exist 🍴 (000ms)

*And*

a file named "tmp/TEST-features-pending.xml" should exist 🍴 (000ms)

## Scenario: show correct error message if no --out is passed

tags: @spawn,@spawn

*When*

I run `cucumber --format junit features` 🍴 (607ms)

*Then*

the stderr should not contain: 🍴 (000ms)

```
can't convert .* into String \(TypeError\)
```

*And*

the stderr should contain: 🍴 (000ms)

```
You *must* specify --out DIR for the junit formatter
```

## Scenario: strict mode, one feature, one scenario outline, four examples: one passing, one failing, one pending, one undefined

tags: @spawn,@spawn

*When*

I run `cucumber --strict --format junit --out tmp/ features/scenario_outline.feature` 🍴 (707ms)

Then

it should fail with: 📌 (000ms)

And

the junit output file "tmp/TEST-features-scenario\_outline.xml" should contain: 📌 (000ms)

```
<?xml version="1.0" encoding="UTF-8"?>
<testsuite failures="3" errors="0" skipped="0" tests="4" time="0.05"
name="Scenario outlines">
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | passes |)" time="0.05">
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | fails |)" time="0.05">
  <failure message="failed Using scenario outlines (outline example : | fails |)"
type="failed">
    <![CDATA[Scenario Outline: Using scenario outlines
```

Example row: | fails |

Message:

```
]]>
  <![CDATA[ (RuntimeError)
./features/step_definitions/steps.rb:4:in `/^this step fails$/'
features/scenario_outline.feature:9:in `Given this step fails'
features/scenario_outline.feature:4:in `Given this step <type>']]]>
</failure>
```

```
<system-out>
  <![CDATA[]]>
</system-out>
<system-err>
  <![CDATA[]]>
</system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | is pending |)" time="0.05">
  <failure message="pending Using scenario outlines (outline example : | is
pending |)" type="pending">
    <![CDATA[Scenario Outline: Using scenario outlines
```

Example row: | is pending |

Message:

```
]]>
```

```

<![CDATA[TODO (Cucumber::Pending)
./features/step_definitions/steps.rb:3:in `/^this step is pending$/'
features/scenario_outline.feature:10:in `Given this step is pending'
features/scenario_outline.feature:4:in `Given this step <type>']]]>
</failure>
<system-out>
  <![CDATA[]]>
</system-out>
<system-err>
  <![CDATA[]]>
</system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | is undefined |)" time="0.05">
  <failure message="undefined Using scenario outlines (outline example : | is
undefined |)" type="undefined">
    <![CDATA[Scenario Outline: Using scenario outlines

Example row: | is undefined |

Message:
]]>
    <![CDATA[Undefined step: "this step is undefined"
(Cucumber::Core::Test::Result::Undefined)
features/scenario_outline.feature:11:in `Given this step is undefined'
features/scenario_outline.feature:4:in `Given this step <type>']]]>
  </failure>
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
</testsuite>

```

## Scenario: strict mode with --expand option, one feature, one scenario outline, four examples: one passing, one failing, one pending, one undefined

tags: @spawn,@spawn

*When*

I run `cucumber --strict --expand --format junit --out tmp/features/scenario_outline.feature` 🍌 (706ms)

*Then*

it should fail with exactly: 🍌 (000ms)

And

the junit output file "tmp/TEST-features-scenario\_outline.xml" should contain: 🍌 (000ms)

```
<?xml version="1.0" encoding="UTF-8"?>
<testsuite failures="3" errors="0" skipped="0" tests="4" time="0.05"
name="Scenario outlines">
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | passes |)" time="0.05">
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | fails |)" time="0.05">
  <failure message="failed Using scenario outlines (outline example : | fails |)"
type="failed">
    <![CDATA[Scenario Outline: Using scenario outlines

Example row: | fails |

Message:
]]>
    <![CDATA[ (RuntimeError)
./features/step_definitions/steps.rb:4:in `/^this step fails$/
features/scenario_outline.feature:9:in `Given this step fails'
features/scenario_outline.feature:4:in `Given this step <type>']]]>
  </failure>
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | is pending |)" time="0.05">
  <failure message="pending Using scenario outlines (outline example : | is
pending |)" type="pending">
    <![CDATA[Scenario Outline: Using scenario outlines

Example row: | is pending |

Message:
]]>
    <![CDATA[TODO (Cucumber::Pending)
./features/step_definitions/steps.rb:3:in `/^this step is pending$/
features/scenario_outline.feature:10:in `Given this step is pending'
```

```

features/scenario_outline.feature:4:in `Given this step <type>']]>
  </failure>
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | is undefined |)" time="0.05">
  <failure message="undefined Using scenario outlines (outline example : | is
undefined |)" type="undefined">
    <![CDATA[Scenario Outline: Using scenario outlines

Example row: | is undefined |

Message:
]]>
    <![CDATA[Undefined step: "this step is undefined"
(Cucumber::Core::Test::Result::Undefined)
features/scenario_outline.feature:11:in `Given this step is undefined'
features/scenario_outline.feature:4:in `Given this step <type>']]>
  </failure>
  <system-out>
    <![CDATA[]]>
  </system-out>
  <system-err>
    <![CDATA[]]>
  </system-err>
</testcase>
</testsuite>

```

## Language help

It's possible to ask cucumber which keywords are used for any particular language by running:

```
cucumber --i18n <language code> help
```

This will print a table showing all the different words we use for that language, to allow you to easily write features in any language you choose.

## Scenario: Get help for Portuguese language

tags: @needs-many-fonts,@needs-many-fonts

*When*

I run `cucumber --i18n pt help` 🍌 (007ms)

*Then*

it should pass with: 🍌 (000ms)

```
| feature          | "Funcionalidade", "Característica", "Caracteristica"
|
| background      | "Contexto", "Cenário de Fundo", "Cenario de Fundo",
"Fundo"
|
| scenario        | "Cenário", "Cenario"
|
| scenario_outline | "Esquema do Cenário", "Esquema do Cenario", "Delinea
ção do Cenário", "Delineacao do Cenario"
|
| examples        | "Exemplos", "Cenários", "Cenarios"
|
| given           | "* ", "Dado ", "Dada ", "Dados ", "Dadas "
|
| when            | "* ", "Quando "
|
| then            | "* ", "Então ", "Entao "
|
| and             | "* ", "E "
|
| but             | "* ", "Mas "
|
| given (code)    | "Dado", "Dada", "Dados", "Dadas"
|
| when (code)     | "Quando"
|
| then (code)     | "Então", "Entao"
|
| and (code)      | "E"
|
| but (code)      | "Mas"
|
```

## Scenario: List languages

tags: @needs-many-fonts,@needs-many-fonts



*When*

I run `cucumber --i18n help` 🍌 (006ms)

*Then*

cucumber lists all the supported languages 🍌 (001ms)

## List step defs as json

In order to build tools on top of Cucumber

As a tool developer

I want to be able to query a features directory for all the step definitions it contains

### Scenario: Two Ruby step definitions, in the same file

tags: @spawn,@spawn

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Given(/foo/i) { }  
Given(/b.r/xm) { }
```

*When*

I run the following Ruby code: 🍌 (610ms)

```
require 'cucumber'  
puts Cucumber::StepDefinitions.new.to_json
```

*Then*

it should pass with JSON: 🍌 (000ms)

```
[  
  {"source": "foo", "flags": "i"},  
  {"source": "b.r", "flags": "mx"}  
]
```

### Scenario: Non-default directory structure

tags: @spawn,@spawn

### Given

a file named "my\_weird/place/steps.rb" with: 🍌 (000ms)

```
Given(/foo/) { }  
Given(/b.r/x) { }
```

### When

I run the following Ruby code: 🍌 (608ms)

```
require 'cucumber'  
puts Cucumber::StepDefinitions.new(:autoload_code_paths => ['my_weird']).to_json
```

### Then

it should pass with JSON: 🍌 (001ms)

```
[  
  {"source": "foo", "flags": ""},  
  {"source": "b.r", "flags": "x"}  
]
```

## Loading the steps users expect

### As a User

In order to run features in subdirectories without having to pass extra options

I want cucumber to load all step files

### Given

a file named "features/nesting/test.feature" with: 🍌 (000ms)

```
Feature: Feature in Subdirectory
  Scenario: A step not in the subdirectory
    Given not found in subdirectory
```

### And

a file named "features/step\_definitions/steps\_no\_in\_subdirectory.rb" with: 🍌 (000ms)

```
Given(/^not found in subdirectory$/) { }
```

### When

I run `cucumber -q features/nesting/test.feature` 🍌 (006ms)

### Then

it should pass with: 🍌 (000ms)

```
Feature: Feature in Subdirectory

  Scenario: A step not in the subdirectory
    Given not found in subdirectory

1 scenario (1 passed)
1 step (1 passed)
```

## Nested Steps

**Scenario: Use #steps to call several steps at once**

### Given

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  steps %{
    Given a turtle
    And a turtle
  }
end
```

### When

I run the feature with the progress formatter 🍌 (012ms)

### Then

the output should contain: 🍌 (000ms)

```
turtle!

turtle!
```

## Scenario: Use #step to call a single step

### Given

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  step "a turtle"
  step "a turtle"
end
```

### When

I run the feature with the progress formatter 🍌 (007ms)

### Then

the output should contain: 🍌 (000ms)

```
turtle!

turtle!
```

## Scenario: Use #steps to call a table

### Given

a step definition that looks like this: 🍌 (000ms)

```
Given /turtles:/ do |table|
  table.hashes.each do |row|
    puts row[:name]
  end
end
```

### And

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  steps %{
    Given turtles:
      | name      |
      | Sturm     |
      | Liouville |
  }
end
```

### When

I run the feature with the progress formatter 🍌 (008ms)

### Then

the output should contain: 🍌 (000ms)

Sturm

Liouville

## Scenario: Use #steps to call a multi-line string

*Given*

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  steps %Q{
    Given turtles:
      ""
      Sturm
      Liouville
      ""
  }
end
```

*And*

a step definition that looks like this: 🍌 (000ms)

```
Given /turtles:/ do |string|
  puts string
end
```

*When*

I run the feature with the progress formatter 🍌 (007ms)

*Then*

the output should contain: 🍌 (000ms)

```
Sturm
Liouville
```

## Scenario: Backtrace doesn't skip nested steps

tags: @spawn

### Given

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  step "I have a couple turtles"
end

When(/I have a couple turtles/) { raise 'error' }
```

### When

I run the feature with the progress formatter 🍌 (607ms)

### Then

it should fail with: 🍌 (001ms)

```
error (RuntimeError)
./features/step_definitions/steps2.rb:5:in `/I have a couple turtles/'
./features/step_definitions/steps2.rb:2:in `/two turtles/'
features/test_feature_1.feature:3:in `Given two turtles'

Failing Scenarios:
cucumber features/test_feature_1.feature:2 # Scenario: Test Scenario 1

1 scenario (1 failed)
1 step (1 failed)
```

## Scenario: Undefined nested step

### Given

a file named "features/call\_undefined\_step\_from\_step\_def.feature" with: 🍌 (000ms)

```
Feature: Calling undefined step

  Scenario: Call directly
    Given a step that calls an undefined step

  Scenario: Call via another
    Given a step that calls a step that calls an undefined step
```

### And

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Given /^a step that calls an undefined step$/ do
  step 'this does not exist'
end

Given /^a step that calls a step that calls an undefined step$/ do
  step 'a step that calls an undefined step'
end
```

*When*

I run `cucumber -q features/call_undefined_step_from_step_def.feature` 🍷 (032ms)

*Then*

it should fail with exactly: 🍷 (000ms)

Feature: Calling undefined step

Scenario: Call directly

Given a step that calls an undefined step

Undefined dynamic step: "this does not exist"

(Cucumber::UndefinedDynamicStep)

./features/step\_definitions/steps.rb:2:in `/^a step that calls an undefined step\$/'

features/call\_undefined\_step\_from\_step\_def.feature:4:in `Given a step that calls an undefined step'

Scenario: Call via another

Given a step that calls a step that calls an undefined step

Undefined dynamic step: "this does not exist"

(Cucumber::UndefinedDynamicStep)

./features/step\_definitions/steps.rb:2:in `/^a step that calls an undefined step\$/'

./features/step\_definitions/steps.rb:6:in `/^a step that calls a step that calls an undefined step\$/'

features/call\_undefined\_step\_from\_step\_def.feature:7:in `Given a step that calls a step that calls an undefined step'

Failing Scenarios:

cucumber features/call\_undefined\_step\_from\_step\_def.feature:3

cucumber features/call\_undefined\_step\_from\_step\_def.feature:6

2 scenarios (2 failed)

2 steps (2 failed)

## Nested Steps in I18n



## Scenario: Use #steps to call several steps at once

### Given

a step definition that looks like this: 🍌 (000ms)

```
# -*- coding: utf-8 -*-  
前提 /two turtles/ do  
  steps %{  
    前提 a turtle  
    かつ a turtle  
  }  
end
```

### When

I run the feature with the progress formatter 🍌 (013ms)

### Then

the output should contain: 🍌 (000ms)

```
turtle!  
  
turtle!
```

## Nested Steps with either table or doc string

### Scenario: Use #step with table

*Given*

a step definition that looks like this: 🍌 (000ms)

```
Given /turtles:/ do |table|
  table.hashes.each do |row|
    puts row[:name]
  end
end
```

*And*

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  step %{turtles:}, table(%{
    | name      |
    | Sturm     |
    | Liouville |
  })
end
```

*When*

I run the feature with the progress formatter 🍌 (010ms)

*Then*

the output should contain: 🍌 (000ms)

```
Sturm

Liouville
```

## Scenario: Use #step with docstring

*Given*

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  step %{turtles:}, "Sturm and Lioville"
end
```

*And*

a step definition that looks like this: 🍌 (000ms)

```
Given /turtles:/ do |text|
  puts text
end
```

*When*

I run the feature with the progress formatter 🍌 (009ms)

*Then*

the output should contain: 🍌 (002ms)

```
Sturm and Lioville
```

## Scenario: Use #step with docstring and content-type

*Given*

a step definition that looks like this: 🍌 (000ms)

```
Given /two turtles/ do
  step %{turtles:}, doc_string('Sturm and Lioville','math')
end
```

*And*

a step definition that looks like this: 🍌 (000ms)

```
Given /turtles:/ do |text|
  puts text.content_type
end
```

*When*

I run the feature with the progress formatter 🍌 (008ms)

*Then*

the output should contain: 🍌 (000ms)

```
math
```

## One line step definitions

Everybody knows you can do step definitions in Cucumber  
but did you know you can do this?

**Scenario: Call a method in World directly from a step def**

### Given

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
module Driver
  def do_action
    @done = true
  end

  def assert_done
    expect(@done).to be true
  end
end
World(Driver)

When /I do the action/, :do_action
Then /The action should be done/, :assert_done
```

### And

a file named "features/action.feature" with: 🍌 (000ms)

```
Feature:
  Scenario:
    When I do the action
    Then the action should be done
```

### When

I run **cucumber** 🍌 (008ms)

### Then

it should pass 🍌 (000ms)

**Scenario: Call a method on an actor in the World directly from a step def**

*Given*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
class Thing
  def do_action
    @done = true
  end

  def assert_done
    expect(@done).to be true
  end
end

module Driver
  def thing
    @thing ||= Thing.new
  end
end
World(Driver)

When /I do the action to the thing/, :do_action, :on => lambda { thing }
Then /The thing should be done/, :assert_done, :on => lambda { thing }
```

*And*

a file named "features/action.feature" with: 🍌 (000ms)

```
Feature:
  Scenario:
    When I do the action to the thing
    Then the thing should be done
```

*When*

I run **cucumber** 🍌 (008ms)

*Then*

it should pass 🍌 (000ms)

[[Post-Configuration-Hook-[#423], Post Configuration Hook [#423]]] === **Post Configuration Hook [#423]**

In order to extend Cucumber

As a developer

I want to manipulate the Cucumber configuration after it has been created

## Scenario: Using options directly gets a deprecation warning

tags: @spawn,@wip-jruby

*Given*

a file named "features/support/env.rb" with: 🍌 (000ms)

```
AfterConfiguration do |config|
  config.options[:blah]
end
```

*When*

I run **cucumber features** 🍌 (605ms)

*Then*

the stderr should contain: 🍌 (000ms)

Deprecated

## Scenario: Changing the output format

*Given*

a file named "features/support/env.rb" with: 🍌 (000ms)

```
AfterConfiguration do |config|
  config.formats << ['html', config.out_stream]
end
```

*When*

I run **cucumber features** 🍌 (016ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

the output should contain: 🍌 (008ms)

html

## Scenario: feature directories read from configuration

*Given*

a file named "features/support/env.rb" with: 🍌 (000ms)

```
AfterConfiguration do |config|
  config.out_stream << "AfterConfiguration hook read feature directories:
#{config.feature_dirs.join(', ')}"
end
```

*When*

I run `cucumber features` 🍌 (006ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

the output should contain: 🍌 (000ms)

```
AfterConfiguration hook read feature directories: features
```

## Pretty formatter - Printing messages

When you want to print to Cucumber's output, just call `puts` from a step definition. Cucumber will grab the output and print it via the formatter that you're using.

Your message will be printed out after the step has run.

## Scenario: Delayed messages feature

tags: @spawn

*When*

I run `cucumber --quiet --format pretty features/f.feature` 🍌 (505ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

the output should contain: 🍌 (000ms)



Feature:

Scenario:

Given I use puts with text "Ann"

Ann

And this step passes

Scenario:

Given I use multiple putss

Multiple

Announce

Me

And this step passes

Scenario Outline:

Given I use message <ann> in line <line>

Examples:

line	ann	
1	anno1	
2	anno2	
3	anno3	

Scenario:

Given I use puts and step fails

Announce with fail

(RuntimeError)

./features/step\_definitions/puts\_steps.rb:18:in `/^I use puts and step fails\$/'

features/f.feature:21:in `Given I use puts and step fails'

And this step passes

Scenario Outline:

Given I use message <ann> in line <line> with result <result>

Examples:

line	ann	result
1	anno1	fail

Line: 1: anno1  
(RuntimeError)

./features/step\_definitions/puts\_steps.rb:13:in `/^I use message (.+) in line (.+) (?::with result (.+))\$/'

features/f.feature:29:in `Given I use message anno1 in line 1 with result fail'

features/f.feature:25:in `Given I use message <ann> in line <line> with result <result>'

2	anno2	pass
---	-------	------

Line: 2: anno2

## Scenario: Non-delayed messages feature (progress formatter)

*When*

I run `cucumber --format progress features/f.feature` 🍌 (040ms)

*Then*

the output should contain: 🍌 (000ms)

```
Ann
..
Multiple

Announce

Me
..UUU
Announce with fail
F-
Line: 1: anno1
F
Line: 2: anno2
.
```

## Pretty output formatter

**Scenario: an scenario outline, one undefined step, one random example, expand flag on**

*When*

I run ``cucumber features/scenario_outline_with_undefined_steps.feature --format pretty --expand`` 🍌 (017ms)

*Then*

it should pass 🍌 (000ms)

**Scenario: when using a profile the output should include 'Using the default profile...'**

*And*

a file named "cucumber.yml" with: 🍌 (000ms)

```
default: -r features
```

*When*

I run `cucumber --profile default --format pretty` 🍌 (018ms)

*Then*

it should pass 🍌 (000ms)

*And*

the output should contain: 🍌 (000ms)

```
Using the default profile...
```

## Scenario: Hook output should be printed before hook exception

*Given*

the standard step definitions 🍌 (000ms)

*And*

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature:  
  Scenario:  
    Given this step passes
```

*And*

a file named "features/step\_definitions/output\_steps.rb" with: 🍌 (000ms)

```
Before do
  puts "Before hook"
end

AfterStep do
  puts "AfterStep hook"
end

After do
  puts "After hook"
  raise "error"
end
```

*When*

I run `cucumber -q -f pretty features/test.feature` 🍌 (015ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*Then*

it should fail with: 🍌 (000ms)

Feature:

Scenario:

Before hook

Given this step passes

AfterStep hook

After hook

error (RuntimeError)

./features/step\_definitions/output\_steps.rb:11:in `After'

Failing Scenarios:

cucumber features/test.feature:2

1 scenario (1 failed)

1 step (1 passed)

## Profiles

In order to save time and prevent carpal tunnel syndrome  
Cucumber users can save and reuse commonly used cucumber flags in a 'cucumber.yml' file.  
These named arguments are called profiles and the yml file should be in the root of your project.

Any cucumber argument is valid in a profile. To see all the available flags type 'cucumber --help'

For more information about profiles please see the wiki:

<http://wiki.github.com/cucumber/cucumber/cucumber.yml>

## Scenario: Explicitly defining a profile to run

*When*

I run `cucumber features/sample.feature --profile super` 🍌 (014ms)

*Then*

the output should contain: 🍌 (000ms)

Using the super profile...

*And*

exactly these files should be loaded: features/support/super\_env.rb 🍌 (000ms)

## Scenario: Explicitly defining a profile defined in an ERB formatted file

*Given*

the following profiles are defined: 🍌 (000ms)

```
<% requires = "--require features/support/super_env.rb" %>
super: <%= "features/sample.feature #{requires} -v" %>
```

*When*

I run `cucumber features/sample.feature --profile super` 🍌 (013ms)

*Then*

the output should contain: 🍌 (000ms)

Using the super profile...

*And*

exactly these files should be loaded: features/support/super\_env.rb 🍌 (000ms)

## Scenario: Defining multiple profiles to run

*When*

I run `cucumber features/sample.feature --profile default --profile super` 🍌 (013ms)

*Then*

the output should contain: 🍌 (000ms)

Using the default and super profiles...

*And*

exactly these files should be loaded: features/support/env.rb,  
features/support/super\_env.rb 🍌 (000ms)

## Scenario: Arguments passed in but no profile specified

*When*

I run `cucumber -v` 🍌 (009ms)

*Then*

the default profile should be used 🍌 (000ms)

*And*

exactly these files should be loaded: features/support/env.rb 🍌 (000ms)

## Scenario: Trying to use a missing profile

*When*

I run `cucumber -p foo` 🍌 (004ms)

*Then*

the stderr should contain: 🍌 (000ms)

Could not find profile: 'foo'

Defined profiles in cucumber.yml:

- \* default
- \* super

## Scenario Outline: Disabling the default profile

*When*

I run `cucumber -v features/ -P` 🍌 (006ms)

*Then*

the output should contain: 🍌 (000ms)

Disabling profiles...

*And*

exactly these files should be loaded: features/support/env.rb,  
features/support/super\_env.rb 🍌 (000ms)

## Scenario Outline: Disabling the default profile

*When*

I run `cucumber -v features/ --no-profile` 🍌 (006ms)

*Then*

the output should contain: 🍌 (000ms)

Disabling profiles...

*And*

exactly these files should be loaded: features/support/env.rb,  
features/support/super\_env.rb 🍌 (000ms)

## Scenario: Overriding the profile's features to run

*Given*

a file named "features/another.feature" with: 🍌 (000ms)

Feature: Just this one should be ran

*When*

I run `cucumber -p default features/another.feature` 🍌 (007ms)

*Then*

exactly these features should be ran: features/another.feature 🍌 (000ms)

## Scenario: Overriding the profile's formatter

You will most likely want to define a formatter in your default formatter. However, you often want to run your features with a different formatter yet still use the other the other arguments in the profile. Cucumber will allow you to do this by giving precedence to the formatter specified on the command line and override the one in the profile.

*Given*

the following profiles are defined: 🍌 (000ms)

```
default: features/sample.feature --require features/support/env.rb -v --format
profile
```

*When*

I run `cucumber features --format pretty` 🍌 (008ms)

*Then*

the output should contain: 🍌 (000ms)

```
Feature: Sample
```

## Scenario Outline: Showing profiles when listing failing scenarios

*Given*

the standard step definitions 🍌 (000ms)

*When*

I run `cucumber -q -p super -p default -f pretty features/sample.feature --require features/step_definitions/steps.rb` 🍌 (015ms)

*Then*

it should fail with: 🍌 (000ms)

```
cucumber -p super features/sample.feature:2
```

## Scenario Outline: Showing profiles when listing failing scenarios



*Given*

the standard step definitions 🍌 (000ms)

*When*

I run `cucumber -q -p super -p default -f progress features/sample.feature --require features/step_definitions/steps.rb` 🍌 (016ms)

*Then*

it should fail with: 🍌 (000ms)

```
cucumber -p super features/sample.feature:2
```

## Progress output formatter

**Scenario: an scenario outline, one undefined step, one random example, expand flag on**

*When*

I run ``cucumber features/scenario_outline_with_undefined_steps.feature --format progress --expand`` 🍌 (009ms)

*Then*

it should pass 🍌 (000ms)

**Scenario: when using a profile the output should include 'Using the default profile...'**

*And*

a file named "cucumber.yml" with: 🍌 (000ms)

```
default: -r features
```

*When*

I run `cucumber --profile default --format progress` 🍌 (012ms)

*Then*

it should pass 🍌 (000ms)

*And*

the output should contain: 🍌 (000ms)

```
Using the default profile...
```

## Rake task

In order to ease the development process  
As a developer and CI server administrator  
Cucumber features should be executable via Rake

### Scenario: rake task with a defined profile

tags: @spawn,@spawn

*Given*

the following profile is defined: 🍌 (000ms)

```
foo: --quiet --no-color features/missing_step_definitions.feature:3
```

*And*

a file named "Rakefile" with: 🍌 (000ms)

```
require 'cucumber/rake/task'

Cucumber::Rake::Task.new do |t|
  t.profile = "foo"
end
```

*When*

I run `rake cucumber` 🍌 (01s 206ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: Sample

Scenario: Wanted

Given I want to run this

1 scenario (1 undefined)

1 step (1 undefined)

## Scenario: rake task without a profile

tags: @spawn,@spawn

### Given

a file named "Rakefile" with: 🍌 (000ms)

```
require 'cucumber/rake/task'

Cucumber::Rake::Task.new do |t|
  t.cucumber_opts = %w{--quiet --no-color}
end
```

### When

I run `rake cucumber` 🍌 (01s 207ms)

### Then

it should pass with: 🍌 (000ms)

```
Feature: Sample

  Scenario: Wanted
    Given I want to run this

  Scenario: Unwanted
    Given I don't want this ran

2 scenarios (2 undefined)
2 steps (2 undefined)
```

## Scenario: rake task with a defined profile and cucumber\_opts

tags: @spawn,@spawn

*Given*

the following profile is defined: 🍌 (000ms)

```
bar: ['features/missing_step_definitions.feature:3']
```

*And*

a file named "Rakefile" with: 🍌 (000ms)

```
require 'cucumber/rake/task'

Cucumber::Rake::Task.new do |t|
  t.profile = "bar"
  t.cucumber_opts = %w{--quiet --no-color}
end
```

*When*

I run `rake cucumber` 🍌 (01s 207ms)

*Then*

it should pass with: 🍌 (000ms)

```
Feature: Sample
```

```
  Scenario: Wanted
```

```
    Given I want to run this
```

```
1 scenario (1 undefined)
```

```
1 step (1 undefined)
```

## Scenario: respect requires

tags: @spawn,@spawn

*Given*

an empty file named "features/support/env.rb" 🍌 (000ms)

*And*

an empty file named "features/support/dont\_require\_me.rb" 🍌 (000ms)

*And*

the following profile is defined: 🍌 (000ms)

```
no_bomb: features/missing_step_definitions.feature:3 --require
features/support/env.rb --verbose
```

*And*

a file named "Rakefile" with: 🍌 (000ms)

```
require 'cucumber/rake/task'

Cucumber::Rake::Task.new do |t|
  t.profile = "no_bomb"
  t.cucumber_opts = %w{--quiet --no-color}
end
```

*When*

I run `rake cucumber` 🍌 (01s 106ms)

*Then*

it should pass 🍌 (000ms)

*And*

the output should not contain: 🍌 (000ms)

```
* features/support/dont_require_me.rb
```

## Scenario: feature files with spaces

tags: @spawn,@spawn

### Given

a file named "features/spaces are nasty.feature" with: 🍌 (000ms)

Feature: The futures green

Scenario: Orange

Given this is missing

### And

a file named "Rakefile" with: 🍌 (000ms)

```
require 'cucumber/rake/task'
```

```
Cucumber::Rake::Task.new do |t|  
  t.cucumber_opts = %w{--quiet --no-color}  
end
```

### When

I run `rake cucumber` 🍌 (01s 108ms)

### Then

it should pass with: 🍌 (001ms)

Feature: The futures green

Scenario: Orange

Given this is missing

## Raketask

In order to use cucumber's rake task

As a Cuker

I do not want to see rake's backtraces when it fails

Also I want to get zero exit status code on failures

And non-zero exit status code when it passes

### Scenario: Passing feature

tags: @spawn,@spawn

*When*

I run `bundle exec rake pass` 🍏 (01s 608ms)

*Then*

the exit status should be 0 🍏 (000ms)

## Scenario: Failing feature

tags: @spawn,@spawn

*When*

I run `bundle exec rake fail` 🍏 (02s 210ms)

*Then*

the exit status should be 1 🍏 (000ms)

*But*

the output should not contain "rake aborted!" 🍏 (000ms)

## Randomize

Use the `--order random` switch to run scenarios in random order.

This is especially helpful for detecting situations where you have state leaking between scenarios, which can cause flickering or fragile tests.

If you do find a random run that exposes dependencies between your tests, you can reproduce that run by using the seed that's printed at the end of the test run.

## Scenario: Run scenarios in order

*When*

I run `cucumber` 🍏 (006ms)

*Then*

it should pass 🍏 (000ms)

## Scenario: Run scenarios randomized

tags: @spawn



*When*

I run `cucumber --order random:41515` 🍴 (705ms)

*Then*

it should fail 🍴 (000ms)

*And*

the stdout should contain: 🍴 (000ms)

Randomized with seed 41515

## Requiring extra step files

Cucumber allows you to require extra files using the `-r` option.

### Given

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature: Sample
  Scenario: Sample
    Given found in extra file
```

### And

a file named "tmp/extras.rb" with: 🍌 (000ms)

```
Given(/^found in extra file$/) { }
```

### When

I run `cucumber -q -r tmp/extras.rb features/test.feature` 🍌 (011ms)

### Then

it should pass with: 🍌 (000ms)

```
Feature: Sample

  Scenario: Sample
    Given found in extra file

1 scenario (1 passed)
1 step (1 passed)
```

## Rerun formatter

The rerun formatter writes an output that's perfect for passing to Cucumber when you want to rerun only the scenarios that prevented the exit code to be zero.

You can save off the rerun output to a file by using it like this:

```
cucumber -f rerun --out .cucumber.rerun
```

Now you can pass that file's content to Cucumber to tell it which scenarios to run:

```
cucumber \"cat .cucumber.rerun\"
```

This is useful when debugging in a large suite of features.

## Scenario: Exit code is zero

*Given*

a file named "features/mixed.feature" with: 🍌 (000ms)

Feature: Mixed

Scenario:

Given this step is undefined

Scenario:

Given this step is pending

Scenario:

Given this step passes

*When*

I run `cucumber -f rerun` 🍌 (013ms)

*Then*

it should pass with exactly: 🍌 (000ms)

## Scenario: Exit code is zero in the dry-run mode

### Given

a file named "features/mixed.feature" with: 🍌 (000ms)

Feature: Mixed

Scenario:

Given this step fails

Scenario:

Given this step is undefined

Scenario:

Given this step is pending

Scenario:

Given this step passes

### And

a file named "features/all\_good.feature" with: 🍌 (000ms)

Feature: All good

Scenario:

Given this step passes

### When

I run `cucumber -f rerun --dry-run` 🍌 (016ms)

### Then

it should pass with exactly: 🍌 (000ms)

## Scenario: Exit code is not zero, regular scenario

### Given

a file named "features/mixed.feature" with: 🍌 (000ms)

Feature: Mixed

Scenario:

Given this step fails

Scenario:

Given this step is undefined

Scenario:

Given this step is pending

Scenario:

Given this step passes

### And

a file named "features/all\_good.feature" with: 🍌 (000ms)

Feature: All good

Scenario:

Given this step passes

### When

I run `cucumber -f rerun --strict` 🍌 (016ms)

### Then

it should fail with exactly: 🍌 (000ms)

features/mixed.feature:3:6:9

## Scenario: Exit code is not zero, scenario outlines

For details see <https://github.com/cucumber/cucumber/issues/57>

### Given

a file named "features/one\_passing\_one\_failing.feature" with: 🍌 (000ms)

Feature: One passing example, one failing example

Scenario Outline:

Given this step <status>

Examples:

	status	
	passes	
	fails	

### When

I run `cucumber -f rerun` 🍌 (010ms)

### Then

it should fail with: 🍌 (000ms)

features/one\_passing\_one\_failing.feature:9

## Scenario: Exit code is not zero, failing background

*Given*

a file named "features/failing\_background.feature" with: 🍌 (000ms)

Feature: Failing background sample

Background:

Given this step fails

Scenario: failing background

Then this step passes

Scenario: another failing background

Then this step passes

*When*

I run `cucumber -f rerun` 🍌 (012ms)

*Then*

it should fail with: 🍌 (000ms)

features/failing\_background.feature:6:9

**Scenario: Exit code is not zero, failing background with scenario outline**

### Given

a file named "features/failing\_background\_outline.feature" with: 🍌 (000ms)

Feature: Failing background sample with scenario outline

Background:

Given this step fails

Scenario Outline:

Then this step <status>

Examples:

	status	
	passes	
	passes	

### When

I run `cucumber features/failing_background_outline.feature -r features -f rerun` 🍌  
(011ms)

### Then

it should fail with: 🍌 (000ms)

features/failing\_background\_outline.feature:11:12

## Scenario: Exit code is not zero, scenario outlines with expand

For details see <https://github.com/cucumber/cucumber/issues/503>



### Given

a file named "features/one\_passing\_one\_failing.feature" with: 🍌 (000ms)

Feature: One passing example, one failing example

Scenario Outline:

Given this step <status>

Examples:

	status	
	passes	
	fails	

### When

I run `cucumber --expand -f rerun` 🍌 (012ms)

### Then

it should fail with: 🍌 (000ms)

features/one\_passing\_one\_failing.feature:9

## Run Cli::Main with existing Runtime

This is the API that Spork uses. It creates an existing runtime then calls `load_programming_language('rb')` on it to load the RbDsl. When the process forks, Spork then passes the runtime to `Cli::Main` to run it.

### Scenario: Run a single feature

tags: @spawn,@spawn

*Given*

the standard step definitions 🍌 (000ms)

*Given*

a file named "features/success.feature" with: 🍌 (000ms)

```
Feature:  
  Scenario:  
    Given this step passes
```

*When*

I run the following Ruby code: 🍌 (607ms)

```
require 'cucumber'  
runtime = Cucumber::Runtime.new  
runtime.load_programming_language('rb')  
Cucumber::Cli::Main.new([]).execute!(runtime)
```

*Then*

it should pass 🍌 (000ms)

*And*

the output should contain: 🍌 (005ms)

```
Given this step passes
```

[[Run-feature-elements-matching-a-name-with---name/-n, Run feature elements matching a name with --name/-n]] == **Run feature elements matching a name with --name/-n**

The **--name NAME** option runs only scenarios which match a certain name. The NAME can be a substring of the names of Features, Scenarios, Scenario Outlines or Example blocks.

## Scenario: Matching Feature names

*When*

I run `cucumber -q --name feature` 🍌 (012ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: first feature

Scenario: foo first  
Given missing

Scenario: bar first  
Given missing

2 scenarios (2 undefined)  
2 steps (2 undefined)

## Scenario: Matching Scenario names

*When*

I run `cucumber -q --name foo` 🍌 (011ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: first feature

Scenario: foo first  
Given missing

Feature: second

Scenario: foo second  
Given missing

2 scenarios (2 undefined)  
2 steps (2 undefined)

## Scenario: Matching Scenario Outline names

*When*

I run `cucumber -q --name baz` 🍌 (012ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: outline

Scenario Outline: baz outline

Given outline step <name>

Examples: quux example

	name	
	a	
	b	

2 scenarios (2 undefined)

2 steps (2 undefined)

## Scenario: Matching Example block names

*When*

I run `cucumber -q --name quux` 🍌 (010ms)

*Then*

it should pass with: 🍌 (000ms)

Feature: outline

Scenario Outline: baz outline

Given outline step <name>

Examples: quux example

	name	
	a	
	b	

2 scenarios (2 undefined)

2 steps (2 undefined)

## Run specific scenarios

You can choose to run a specific scenario using the file:line format, or you can pass in a file with a list of scenarios using @-notation.

The line number can fall anywhere within the body of a scenario, including steps, tags, comments, description, data tables or doc strings.

For scenario outlines, if the line hits one example row, just that one will be run. Otherwise all examples in the table or outline will be run.

## Scenario: Two scenarios, run just one of them

*Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature:

Scenario: Miss

Given this step is undefined

Scenario: Hit

Given this step passes

*When*

I run `cucumber features/test.feature:7 --format pretty --quiet` 🍌 (008ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature:

Scenario: Hit

Given this step passes

1 scenario (1 passed)

1 step (1 passed)

## Scenario: Use @-notation to specify a file containing feature file list

### Given

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature: Sample
  Scenario: Passing
    Given this step passes
```

### And

a file named "list-of-features.txt" with: 🍌 (000ms)

```
features/test.feature:2
```

### When

I run `cucumber -q @list-of-features.txt` 🍌 (006ms)

### Then

it should pass with: 🍌 (000ms)

```
Feature: Sample

  Scenario: Passing
    Given this step passes

1 scenario (1 passed)
1 step (1 passed)
```

## Scenario: Specify order of scenarios

### *Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature:

Scenario:

Given this step passes

Scenario:

Given this step fails

### *When*

I run `cucumber features/test.feature:5 features/test.feature:3 -f progress` 🍌 (009ms)

### *Then*

it should fail with: 🍌 (000ms)

F.

## Running multiple formatters

When running cucumber, you are able to using multiple different formatters and redirect the output to text files.

Two formatters cannot both print to the same file (or to STDOUT)

### Scenario: Multiple formatters and outputs

tags: @spawn,@spawn

*When*

I run `cucumber --no-color --format progress --out progress.txt --format pretty --out pretty.txt --no-source --dry-run --no-snippets features/test.feature` 🍌 (606ms)

*Then*

the stderr should not contain anything 🍌 (006ms)

*Then*

the file "progress.txt" should contain: 🍌 (000ms)

```
UUUUU
```

```
1 scenario (1 undefined)
5 steps (5 undefined)
```

*And*

the file "pretty.txt" should contain: 🍌 (000ms)

```
Feature: Lots of undefined
```

```
Scenario: Implement me
  Given it snows in Sahara
  Given it's 40 degrees in Norway
  And it's 40 degrees in Norway
  When I stop procrastinating
  And there is world peace
```

```
1 scenario (1 undefined)
5 steps (5 undefined)
```

## Scenario: Two formatters to stdout

tags: @spawn,@spawn

*When*

I run `cucumber -f progress -f pretty features/test.feature` 🍌 (607ms)

*Then*

it should fail with: 🍌 (000ms)

```
All but one formatter must use --out, only one can print to each stream (or
STDOUT) (RuntimeError)
```



## Scenario: Two formatters to stdout when using a profile

tags: @spawn,@spawn

### Given

the following profiles are defined: 🍌 (000ms)

```
default: -q
```

### When

I run `cucumber -f progress -f pretty features/test.feature` 🍌 (606ms)

### Then

it should fail with: 🍌 (000ms)

```
All but one formatter must use --out, only one can print to each stream (or
STDOUT) (RuntimeError)
```

## Scenario outlines

Copying and pasting scenarios to use different values quickly becomes tedious and repetitive. Scenario outlines allow us to more concisely express these examples through the use of a template with placeholders, using Scenario Outline, Examples with tables and < > delimited parameters.

The Scenario Outline steps provide a template which is never directly run. A Scenario Outline is run once for each row in the Examples section beneath it (not counting the first row).

The way this works is via placeholders. Placeholders must be contained within < > in the Scenario Outline's steps - see the examples below.

**IMPORTANT:** Your step definitions will never have to match a placeholder. They will need to match the values that will replace the placeholder.

## Scenario: Run scenario outline with filtering on outline name

tags: @spawn,@spawn

When

I run `cucumber -q features/outline_sample.feature` 🍌 (706ms)

Then

it should fail with: 🍌 (001ms)

Feature: Outline Sample

Scenario: I have no steps

Scenario Outline: Test state

Given <state> without a table

Given <other\_state> without a table

Examples: Rainbow colours

state	other_state	
missing	passing	
passing	passing	
failing	passing	

RuntimeError (RuntimeError)

./features/step\_definitions/steps.rb:2:in `/^failing without a table\$/'

features/outline\_sample.feature:12:in `Given failing without a table'

features/outline\_sample.feature:6:in `Given <state> without a table'

Examples: Only passing

state	other_state	
passing	passing	

Failing Scenarios:

cucumber features/outline\_sample.feature:12

5 scenarios (1 failed, 1 undefined, 3 passed)

8 steps (1 failed, 2 skipped, 1 undefined, 4 passed)

## Scenario: Run scenario outline steps only

tags: @spawn,@spawn

When

I run `cucumber -q features/outline_sample.feature:7` 🍌 (607ms)

Then

it should fail with: 🍌 (000ms)

Feature: Outline Sample

Scenario Outline: Test state

Given <state> without a table

Given <other\_state> without a table

Examples: Rainbow colours

state	other_state	
missing	passing	
passing	passing	
failing	passing	

RuntimeError (RuntimeError)

./features/step\_definitions/steps.rb:2:in `/^failing without a table\$/'

features/outline\_sample.feature:12:in `Given failing without a table'

features/outline\_sample.feature:6:in `Given <state> without a table'

Examples: Only passing

state	other_state	
passing	passing	

Failing Scenarios:

cucumber features/outline\_sample.feature:12

4 scenarios (1 failed, 1 undefined, 2 passed)

8 steps (1 failed, 2 skipped, 1 undefined, 4 passed)

## Scenario: Run single failing scenario outline table row

tags: @spawn,@spawn

*When*

I run `cucumber -q features/outline_sample.feature:12` 🍌 (504ms)

*Then*

it should fail with: 🍌 (001ms)

Feature: Outline Sample

Scenario Outline: Test state

Given <state> without a table

Given <other\_state> without a table

Examples: Rainbow colours

state	other_state	
-------	-------------	--

failing	passing	
---------	---------	--

RuntimeError (RuntimeError)

./features/step\_definitions/steps.rb:2:in `/^failing without a table\$/'

features/outline\_sample.feature:12:in `Given failing without a table'

features/outline\_sample.feature:6:in `Given <state> without a table'

Failing Scenarios:

cucumber features/outline\_sample.feature:12

1 scenario (1 failed)

2 steps (1 failed, 1 skipped)

## Scenario: Run all with progress formatter

tags: @spawn,@spawn

*When*

I run `cucumber -q --format progress features/outline_sample.feature` 🍌 (606ms)

*Then*

it should fail with exactly: 🍌 (000ms)

```
U-..F-..
```

```
(::) failed steps (::)
```

```
RuntimeError (RuntimeError)
```

```
./features/step_definitions/steps.rb:2:in `/^failing without a table$/'
```

```
features/outline_sample.feature:12:in `Given failing without a table'
```

```
features/outline_sample.feature:6:in `Given <state> without a table'
```

```
Failing Scenarios:
```

```
cucumber features/outline_sample.feature:12
```

```
5 scenarios (1 failed, 1 undefined, 3 passed)
```

```
8 steps (1 failed, 2 skipped, 1 undefined, 4 passed)
```

## Scenario outlines `--expand` option

In order to make it easier to write certain editor plugins and also for some people to understand scenarios, Cucumber will expand examples in outlines if you add the `--expand` option when running them.

### Given

a file named "features/test.feature" with: 🍌 (000ms)

#### Feature:

##### Scenario Outline:

Given the secret code is <code>

When I guess <guess>

Then I am <verdict>

##### Examples:

code	guess	verdict
blue	blue	right
red	blue	wrong

### When

I run `cucumber -i -q --expand` 🍌 (013ms)

### Then

the stderr should not contain anything 🍌 (000ms)

### And

it should pass with: 🍌 (000ms)

#### Feature:

##### Scenario Outline:

Given the secret code is <code>

When I guess <guess>

Then I am <verdict>

##### Examples:

Scenario: | blue | blue | right |  
Given the secret code is blue  
When I guess blue  
Then I am right

Scenario: | red | blue | wrong |  
Given the secret code is red  
When I guess blue  
Then I am wrong

2 scenarios (2 undefined)

6 steps (6 undefined)

## Set up a default load path

When you're developing a gem, it's convenient if your project's `lib` directory is already in the load path. Cucumber does this for you.

### Scenario: `./lib` is included in the `$LOAD_PATH`

*Given*

a file named "features/support/env.rb" with: 🍌 (000ms)

```
require 'something'
```

*And*

a file named "lib/something.rb" with: 🍌 (000ms)

```
class Something  
end
```

*When*

I run `cucumber` 🍌 (009ms)

*Then*

it should pass 🍌 (000ms)

## Showing differences to expected output

Cucumber will helpfully show you the expectation error that your testing library gives you, in the context of the failing scenario.

When using RSpec, for example, this will show the difference between the expected and the actual output.

### Scenario: Run single failing scenario with default diff enabled

### Given

a file named "features/failing\_expectation.feature" with: 🍌 (000ms)

Feature: Failing expectation

Scenario: Failing expectation  
Given failing expectation

### And

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Given /^failing expectation$/ do x=1
  expect('this').to eq 'that'
end
```

### When

I run `cucumber -q features/failing_expectation.feature` 🍌 (022ms)

### Then

it should fail with: 🍌 (000ms)

Feature: Failing expectation

Scenario: Failing expectation  
Given failing expectation

expected: "that"  
got: "this"

(compared using ==)

(RSpec::Expectations::ExpectationNotMetError)

./features/step\_definitions/steps.rb:2:in `/^failing expectation\$/'  
features/failing\_expectation.feature:4:in `Given failing expectation'

Failing Scenarios:

cucumber features/failing\_expectation.feature:3

1 scenario (1 failed)

1 step (1 failed)

## Skip Scenario



## Scenario: With a passing step

*Given*

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature: test
  Scenario: test
    Given this step says to skip
    And this step passes
```

*And*

the standard step definitions 🍌 (000ms)

*And*

a file named "features/step\_definitions/skippy.rb" with: 🍌 (000ms)

```
Given /skip/ do
  skip_this_scenario
end
```

*When*

I run `cucumber -q` 🍌 (011ms)

*Then*

it should pass with exactly: 🍌 (000ms)

```
Feature: test

  Scenario: test
    Given this step says to skip
    And this step passes

1 scenario (1 skipped)
2 steps (2 skipped)
```

## Scenario: Use legacy API from a hook

*Given*

a file named "features/test.feature" with: 🍌 (000ms)

```
Feature: test
  Scenario: test
    Given this step passes
    And this step passes
```

*And*

the standard step definitions 🍌 (000ms)

*And*

a file named "features/support/hook.rb" with: 🍌 (000ms)

```
Before do |scenario|
  scenario.skip_invoke!
end
```

*When*

I run `cucumber -q` 🍌 (011ms)

*Then*

it should pass with: 🍌 (000ms)

```
Feature: test

  Scenario: test
    Given this step passes
    And this step passes

1 scenario (1 skipped)
2 steps (2 skipped)
```

## Snippets

Cucumber helpfully prints out any undefined step definitions as a code snippet suggestion, which you can then paste into a step definitions file of your choosing.

### Scenario: Snippet for undefined step with a pystring

### Given

a file named "features/undefined\_steps.feature" with: 🍌 (000ms)

```
Feature:
Scenario: pystring
  Given a pystring
    """
    example with <html> entities
    """
  When a simple when step
  And another when step
  Then a simple then step
```

### When

I run `cucumber features/undefined_steps.feature -s` 🍌 (009ms)

### Then

the output should contain: 🍌 (000ms)

```
Given(/^\s*pystring$/) do |string|
  pending # Write code here that turns the phrase above into concrete actions
end

When(/^\s*a simple when step$/) do
  pending # Write code here that turns the phrase above into concrete actions
end

When(/^\s*another when step$/) do
  pending # Write code here that turns the phrase above into concrete actions
end

Then(/^\s*a simple then step$/) do
  pending # Write code here that turns the phrase above into concrete actions
end
```

## Scenario: Snippet for undefined step with a step table

### Given

a file named "features/undefined\_steps.feature" with: 🍌 (000ms)

```
Feature:  
Scenario: table  
  Given a table  
    | table |  
    |example|
```

### When

I run `cucumber features/undefined_steps.feature -s` 🍌 (007ms)

### Then

the output should contain: 🍌 (000ms)

```
Given(/^a table$/) do |table|  
  # table is a Cucumber::Core::Ast::DataTable  
  pending # Write code here that turns the phrase above into concrete actions  
end
```

## Snippets message

If a step doesn't match, Cucumber will ask the wire server to return a snippet of code for a step definition.

### Scenario: Wire server returns snippets for a step that didn't match

tags: @wire,@wire,@spawn

### Given

there is a wire server running on port 54321 which understands the following protocol: 🍌  
(002ms)

### When

I run `cucumber -f pretty` 🍌 (908ms)

### Then

the stderr should not contain anything 🍌 (000ms)

### And

it should pass with: 🍌 (001ms)

Feature: High strung

Scenario: Wired # features/wired.feature:2

Given we're all wired # features/wired.feature:3

1 scenario (1 undefined)

1 step (1 undefined)

### And

the output should contain: 🍌 (000ms)

You can implement step definitions for undefined steps with these snippets:

```
foo()  
  bar;  
baz
```

## State

You can pass state between step by setting instance variables,  
but those instance variables will be gone when the next scenario runs.

### Scenario: Set an ivar in one scenario, use it in the next step

### *Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature:

Scenario:

Given I have set @flag = true

Then @flag should be true

Scenario:

Then @flag should be nil

### *And*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Given /set @flag/ do
  @flag = true
end
Then /flag should be true/ do
  expect(@flag).to be_truthy
end
Then /flag should be nil/ do
  expect(@flag).to be_nil
end
```

### *When*

I run **cucumber** 🍌 (014ms)

### *Then*

it should pass 🍌 (000ms)

## Step matches message

When the features have been parsed, Cucumber will send a `step_matches` message to ask the wire server if it can match a step name. This happens for each of the steps in each of the features.

The wire server replies with an array of `StepMatch` objects.

When each `StepMatch` is returned, it contains the following data:

- \* `id` - identifier for the step definition to be used later when it needs to be invoked. The identifier can be any string value and is simply used for the wire server's own reference.
- \* `args` - any argument values as captured by the wire end's own regular expression (or other argument matching) process.

## Scenario: Dry run finds no step match

tags: @wire,@wire

### Given

there is a wire server running on port 54321 which understands the following protocol: 🍷 (002ms)

### When

I run `cucumber --dry-run --no-snippets -f progress` 🍷 (061ms)

### And

it should pass with: 🍷 (000ms)

U

1 scenario (1 undefined)

1 step (1 undefined)

## Scenario: Dry run finds a step match

tags: @wire,@wire

#### *Given*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

#### *When*

I run `cucumber --dry-run -f progress` 🍌 (024ms)

#### *And*

it should pass with: 🍌 (000ms)

```
-  
  
1 scenario (1 skipped)  
1 step (1 skipped)
```

## Scenario: Step matches returns details about the remote step definition

tags: @wire,@wire

Optionally, the StepMatch can also contain a source reference, and a native regexp string which will be used by some formatters.

#### *Given*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (001ms)

#### *When*

I run `cucumber -f stepdefs --dry-run` 🍌 (015ms)

#### *Then*

it should pass with: 🍌 (000ms)

```
-  
  
we.* # MyApp.MyClass:123  
  
1 scenario (1 skipped)  
1 step (1 skipped)
```

#### *And*

the stderr should not contain anything 🍌 (000ms)



## Strict mode

Using the `--strict` flag will cause cucumber to fail unless all the step definitions have been defined.

### Scenario: Fail with `--strict` due to undefined step

*When*

I run `cucumber -q features/missing.feature --strict` 🍌 (016ms)

*Then*

it should fail with: 🍌 (000ms)

Feature: Missing

Scenario: Missing

Given this step passes

Undefined step: "this step passes" (Cucumber::Undefined)  
features/missing.feature:3:in `Given this step passes'

1 scenario (1 undefined)

1 step (1 undefined)

### Scenario: Fail with `--strict` due to pending step

*Given*

the standard step definitions 🍌 (000ms)

*When*

I run `cucumber -q features/pending.feature --strict` 🍌 (015ms)

*Then*

it should fail with: 🍌 (000ms)

```
Feature: Pending
```

```
  Scenario: Pending
```

```
    Given this step is pending
```

```
      TODO (Cucumber::Pending)
```

```
      ./features/step_definitions/steps.rb:3:in `/^this step is pending$/'
```

```
      features/pending.feature:3:in `Given this step is pending'
```

```
1 scenario (1 pending)
```

```
1 step (1 pending)
```

## Scenario: Succeed with --strict

*Given*

the standard step definitions 🍌 (000ms)

*When*

I run `cucumber -q features/missing.feature --strict` 🍌 (010ms)

*Then*

it should pass with: 🍌 (000ms)

```
Feature: Missing
```

```
  Scenario: Missing
```

```
    Given this step passes
```

```
1 scenario (1 passed)
```

```
1 step (1 passed)
```

## Table diffing

To allow you to more easily compare data in tables, you are able to easily diff a table with expected data and see the diff in your output.

## Scenario: Extra row

*Given*

a file named "features/tables.feature" with: 🍌 (000ms)

```
Feature: Tables
  Scenario: Extra row
    Then the table should be:
      | x | y |
      | a | b |
```

*And*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Then /the table should be:/ do |expected| x=1
  expected.diff!(table(%{
    | x | y |
    | a | c |
  }))
end
```

*When*

I run `cucumber features/tables.feature` 🍌 (015ms)

*Then*

it should fail with exactly: 🍌 (000ms)

Feature: Tables

```
Scenario: Extra row          # features/tables.feature:2
  Then the table should be: # features/step_definitions/steps.rb:1
    | x | y |
    | a | b |
    Tables were not identical:

        |      x |      y |
        | (-) a | (-) b |
        | (+) a | (+) c |
    (Cucumber::MultilineArgument::DataTable::Different)
    ./features/step_definitions/steps.rb:2:in `/the table should be:/'
    features/tables.feature:3:in `Then the table should be:'
```

Failing Scenarios:

```
cucumber features/tables.feature:2 # Scenario: Extra row
```

```
1 scenario (1 failed)
```

```
1 step (1 failed)
```

```
0m0.012s
```

## Tag logic

In order to conveniently run subsets of features

As a Cuker

I want to select features using logical AND/OR of tags

### Scenario: ANDing tags

*When*

I run `cucumber -q -t @one -t @three features/test.feature` 🍌 (008ms)

*Then*

it should pass with: 🍌 (000ms)

```
@feature
Feature: Sample

  @one @three
  Scenario: Example
    Given passing

1 scenario (1 undefined)
1 step (1 undefined)
```

## Scenario: ORing tags

*When*

I run `cucumber -q -t @one,@three features/test.feature` 🍌 (010ms)

*Then*

it should pass with: 🍌 (000ms)

```
@feature
Feature: Sample

  @one @three
  Scenario: Example
    Given passing

  @one
  Scenario: Another Example
    Given passing

  @three
  Scenario: Yet another Example
    Given passing

3 scenarios (3 undefined)
3 steps (3 undefined)
```

## Scenario: Negative tags

*When*

I run `cucumber -q -t ~@three features/test.feature` 🍌 (008ms)

*Then*

it should pass with: 🍌 (000ms)

```
@feature
Feature: Sample

  @one
  Scenario: Another Example
    Given passing

  @ignore
  Scenario: And yet another Example

2 scenarios (1 undefined, 1 passed)
1 step (1 undefined)
```

## Scenario: Run with limited tag count, blowing it on scenario

*When*

I run `cucumber -q --no-source --tags @one:1 features/test.feature` 🍌 (005ms)

*Then*

it fails before running features with: 🍌 (000ms)

```
@one occurred 2 times, but the limit was set to 1
features/test.feature:5
features/test.feature:9
```

## Scenario: Run with limited tag count, blowing it via feature inheritance

*When*

I run `cucumber -q --no-source --tags @feature:1 features/test.feature` 🍌 (005ms)

*Then*

it fails before running features with: 🍌 (000ms)

```
@feature occurred 4 times, but the limit was set to 1
features/test.feature:5
features/test.feature:9
features/test.feature:13
features/test.feature:17
```

## Scenario: Run with limited tag count using negative tag, blowing it via a tag that is not run

*When*

I run `cucumber -q --no-source --tags ~@one:1 features/test.feature` 🍌 (004ms)

*Then*

it fails before running features with: 🍌 (000ms)

```
@one occurred 2 times, but the limit was set to 1
```

## Scenario: Limiting with tags which do not exist in the features

Originally added to check [Lighthouse bug #464](<https://rspec.lighthouseapp.com/projects/16211/tickets/464>).

*When*

I run `cucumber -q -t @i_dont_exist features/test.feature` 🍌 (004ms)

*Then*

it should pass 🍌 (000ms)

## Tagged hooks

### Scenario: omit tagged hook

*When*

I run `cucumber features/f.feature:2` 🍷 (016ms)

*Then*

it should fail with exactly: 🍷 (000ms)

Feature: With and without hooks

```
Scenario: using hook      # features/f.feature:2
boom (RuntimeError)
./features/support/hooks.rb:2:in `Before'
  Given this step passes # features/step_definitions/steps.rb:1
```

Failing Scenarios:

cucumber features/f.feature:2 # Scenario: using hook

1 scenario (1 failed)

1 step (1 skipped)

0m0.012s

## Scenario: omit tagged hook

*When*

I run `cucumber features/f.feature:6` 🍷 (010ms)

*Then*

it should pass with exactly: 🍷 (000ms)

Feature: With and without hooks

```
@no-boom
Scenario: omitting hook  # features/f.feature:6
  Given this step passes # features/step_definitions/steps.rb:1
```

1 scenario (1 passed)

1 step (1 passed)

0m0.012s

## Scenario: Omit example hook



*When*

I run `cucumber features/f.feature:12` 🍌 (013ms)

*Then*

it should fail with exactly: 🍌 (000ms)

Feature: With and without hooks

Scenario Outline: omitting hook on specified examples # features/f.feature:9  
Given this step passes # features/f.feature:10

Examples:

Value	
boom (RuntimeError)	
./features/support/hooks.rb:2:in 'Before'	
Irrelevant	

Failing Scenarios:

cucumber features/f.feature:14 # Scenario Outline: omitting hook on specified examples, Examples (#1)

1 scenario (1 failed)

1 step (1 skipped)

0m0.012s

## Transforms

If you see certain phrases repeated over and over in your step definitions, you can use transforms to factor out that duplication, and make your step definitions simpler.

### Scenario: Basic Transform

This is the most basic way to use a transform. Notice that the regular expression is pretty much duplicated.

*And*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
Transform(/a Person aged (\d+)/) do |age|
  person = Person.new
  person.age = age.to_i
  person
end

Given /^(a Person aged \d+) with blonde hair$/ do |person|
  expect(person.age).to eq 15
end
```

*When*

I run `cucumber features/foo.feature` 🍌 (009ms)

*Then*

it should pass 🍌 (000ms)

## Scenario: Re-use Transform's Regular Expression

If you keep a reference to the transform, you can use it in your regular expressions to avoid repeating the regular expression.

*And*

a file named "features/step\_definitions/steps.rb" with: 🍌 (000ms)

```
A_PERSON = Transform(/a Person aged (\d+)/) do |age|
  person = Person.new
  person.age = age.to_i
  person
end

Given /^(#{A_PERSON}) with blonde hair$/ do |person|
  expect(person.age).to eq 15
end
```

*When*

I run `cucumber features/foo.feature` 🍌 (012ms)

*Then*

it should pass 🍌 (000ms)

# Unicode in tables

You are free to use unicode in your tables: we've taken care to ensure that the tables are properly aligned so that your output is as readable as possible.

tags: @spawn,@spawn

## Given

a file named "features/unicode.feature" with: 🍌 (000ms)

Feature: Featuring unicode

Scenario: table with unicode

Given passing

	Brüno		abc	
	Bruno		æøå	

## When

I run `cucumber -q --dry-run features/unicode.feature` 🍌 (605ms)

## Then

it should pass with: 🍌 (000ms)

Feature: Featuring unicode

Scenario: table with unicode

Given passing

	Brüno		abc	
	Bruno		æøå	

1 scenario (1 undefined)

1 step (1 undefined)

# Usage formatter

In order to see where step definitions are used  
Developers should be able to see a list of step definitions and their use

## Scenario: Run with --format usage

*When*

I run `cucumber -f usage --dry-run` 🍌 (015ms)

*Then*

it should pass with exactly: 🍌 (000ms)

```
-----  
  
/A/      # features/step_definitions/steps.rb:1  
  Given A # features/f.feature:3  
  Given A # features/f.feature:12  
  Given A # features/f.feature:14  
/B/      # features/step_definitions/steps.rb:2  
  Given B # features/f.feature:5  
  And B   # features/f.feature:11  
  And B   # features/f.feature:12  
/C/      # features/step_definitions/steps.rb:3  
  Given C # features/f.feature:11  
  Given C # features/f.feature:15  
/D/      # features/step_definitions/steps.rb:4  
  NOT MATCHED BY ANY STEPS  
  
4 scenarios (4 skipped)  
11 steps (11 skipped)
```

## Scenario: Run with --expand --format usage

When

I run `cucumber -x -f usage --dry-run` 🍌 (018ms)

Then

it should pass with exactly: 🍌 (000ms)

```
-----  
  
/A/      # features/step_definitions/steps.rb:1  
  Given A # features/f.feature:3  
  Given A # features/f.feature:12  
  Given A # features/f.feature:14  
/B/      # features/step_definitions/steps.rb:2  
  Given B # features/f.feature:5  
  And B   # features/f.feature:11  
  And B   # features/f.feature:12  
/C/      # features/step_definitions/steps.rb:3  
  Given C # features/f.feature:11  
  Given C # features/f.feature:15  
/D/      # features/step_definitions/steps.rb:4  
  NOT MATCHED BY ANY STEPS  
  
4 scenarios (4 skipped)  
11 steps (11 skipped)
```

## Scenario: Run with `--format stepdefs`

When

I run `cucumber -f stepdefs --dry-run` 🍌 (024ms)

Then

it should pass with exactly: 🍌 (000ms)

```
-----  
  
/A/  # features/step_definitions/steps.rb:1  
/B/  # features/step_definitions/steps.rb:2  
/C/  # features/step_definitions/steps.rb:3  
/D/  # features/step_definitions/steps.rb:4  
  NOT MATCHED BY ANY STEPS  
  
4 scenarios (4 skipped)  
11 steps (11 skipped)
```

# Using descriptions to give features context

When writing your feature files its very helpful to use description text at the beginning of the feature file, to write a preamble to the feature describing clearly exactly what the feature does.

You can also write descriptions attached to individual scenarios - see the examples below for how this can be used.

It's possible to have your descriptions run over more than one line, and you can have blank lines too. As long as you don't start a line with a Given, When, Then, Background:, Scenario: or similar, you're fine: otherwise Gherkin will start to pay attention.

## Scenario: Everything with a description

*Given*

a file named "features/test.feature" with: 🍌 (000ms)

Feature: descriptions everywhere

We can put a useful description here of the feature, which can span multiple lines.

Background:

We can also put in descriptions showing what the background is doing.

Given this step passes

Scenario: I'm a scenario with a description

You can also put descriptions in front of individual scenarios.

Given this step passes

Scenario Outline: I'm a scenario outline with a description

Scenario outlines can have descriptions.

Given this step <state>

Examples: Examples

Specific examples for an outline are allowed to have descriptions, too.

	state	
	passes	

*When*

I run `cucumber -q` 🍌 (021ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*Then*

it should pass with exactly: 🍌 (000ms)

Feature: descriptions everywhere

We can put a useful description here of the feature, which can span multiple lines.

Background:

We can also put in descriptions showing what the background is doing.

Given this step passes

Scenario: I'm a scenario with a description

You can also put descriptions in front of individual scenarios.

Given this step passes

Scenario Outline: I'm a scenario outline with a description

Scenario outlines can have descriptions.

Given this step <state>

Examples: Examples

Specific examples for an outline are allowed to have descriptions, too.

state	
passes	

2 scenarios (2 passed)

4 steps (4 passed)

[[Using-star-notation-instead-of-Given/When/Then, Using star notation instead of Given/When/Then]] === **Using star notation instead of Given/When/Then**

Cucumber supports the star notation when writing features: instead of using Given/When/Then, you can simply use a star rather like you would use a bullet point.

When you run the feature for the first time, you still get a nice message showing you the code snippet you need to use to implement the step.

**Scenario: Use some \***



### Given

a file named "features/f.feature" with: 🍌 (000ms)

Feature: Star-notation feature

Scenario: S

\* I have some cukes

### When

I run `cucumber features/f.feature` 🍌 (010ms)

### Then

the stderr should not contain anything 🍌 (000ms)

### And

it should pass with: 🍌 (000ms)

Feature: Star-notation feature

Scenario: S # features/f.feature:2

\* I have some cukes # features/f.feature:3

1 scenario (1 undefined)

1 step (1 undefined)

### And

it should pass with: 🍌 (000ms)

You can implement step definitions for undefined steps with these snippets:

```
Given(/^I have some cukes$/) do
```

```
  pending # Write code here that turns the phrase above into concrete actions
end
```

## Wire protocol table diffing

In order to use the amazing functionality in the Cucumber table object

As a wire server

I want to be able to ask for a table diff during a step definition invocation

### Scenario: Invoke a step definition tries to diff the table and fails

tags: @wire,@wire,@spawn

*Given*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (001ms)

*When*

I run `cucumber -f progress --backtrace` 🍌 (807ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

it should fail with: 🍌 (001ms)

F

(::) failed steps (::)

Not same (DifferentException from localhost:54321)

a.cs:12

b.cs:34

features/wired.feature:3:in 'Given we're all wired'

Failing Scenarios:

cucumber features/wired.feature:2 # Scenario: Wired

1 scenario (1 failed)

1 step (1 failed)

**Scenario: Invoke a step definition tries to diff the table and passes**

tags: @wire,@wire

#### Given

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

#### When

I run `cucumber -f progress` 🍌 (181ms)

#### Then

it should pass with: 🍌 (001ms)

.

1 scenario (1 passed)

1 step (1 passed)

## Scenario: Invoke a step definition which successfully diffs a table but then fails

tags: @wire,@wire,@spawn

#### Given

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

#### When

I run `cucumber -f progress` 🍌 (908ms)

#### Then

it should fail with: 🍌 (001ms)

F

(::) failed steps (::)

I wanted things to be different for us (Cucumber::WireSupport::WireException)  
features/wired.feature:3:in 'Given we're all wired'

Failing Scenarios:

cucumber features/wired.feature:2 # Scenario: Wired

1 scenario (1 failed)

1 step (1 failed)

## Scenario: Invoke a step definition which asks for an immediate diff that fails

tags: @wire,@wire,@spawn

### Given

there is a wire server running on port 54321 which understands the following protocol: 🍷 (002ms)

### When

I run `cucumber -f progress` 🍷 (808ms)

### And

it should fail with exactly: 🍷 (001ms)

F

(::) failed steps (::)

Tables were not identical:

```
| (-) a | (+) b |  
(Cucumber::MultilineArgument::DataTable::Different)  
features/wired.feature:3:in 'Given we're all wired'
```

Failing Scenarios:

```
cucumber features/wired.feature:2 # Scenario: Wired
```

1 scenario (1 failed)

1 step (1 failed)

0m0.012s

## Wire protocol tags

In order to use Before and After hooks in a wire server, we send tags with the scenario in the `begin_scenario` and `end_scenario` messages

## Scenario: Run a scenario

tags: @wire,@wire

*Given*

a file named "features/wired.feature" with: 🍌 (000ms)

```
@foo @bar
```

```
Feature: Wired
```

```
@baz
```

```
Scenario: Everybody's Wired
```

```
Given we're all wired
```

*And*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber -f pretty -q` 🍌 (145ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

it should pass with: 🍌 (000ms)

```
@foo @bar
```

```
Feature: Wired
```

```
@baz
```

```
Scenario: Everybody's Wired
```

```
Given we're all wired
```

```
1 scenario (1 passed)
```

```
1 step (1 passed)
```

## Scenario: Run a scenario outline example

tags: @wire,@wire

*Given*

a file named "features/wired.feature" with: 🍌 (000ms)

```
@foo @bar
Feature: Wired

@baz
Scenario Outline: Everybody's Wired
  Given we're all <something>

Examples:
  | something |
  | wired    |
```

*And*

there is a wire server running on port 54321 which understands the following protocol: 🍌 (002ms)

*When*

I run `cucumber -f pretty -q` 🍌 (147ms)

*Then*

the stderr should not contain anything 🍌 (001ms)

*And*

it should pass with: 🍌 (001ms)

```
@foo @bar
Feature: Wired

@baz
Scenario Outline: Everybody's Wired
  Given we're all <something>

Examples:
  | something |
  | wired    |

1 scenario (1 passed)
1 step (1 passed)
```

## Wire protocol timeouts

We don't want Cucumber to hang forever on a wire server that's not even there, but equally we need to give the user the flexibility to allow step definitions to take a while to execute, if that's what they need.

## Scenario: Try to talk to a server that's not there

tags: @wire,@wire

### Given

a file named "features/step\_definitions/some\_remote\_place.wire" with: 🍌 (001ms)

```
host: localhost  
port: 54321
```

### When

I run `cucumber -f progress` 🍌 (012ms)

### Then

the stderr should contain: 🍌 (000ms)

```
Unable to contact the wire server at localhost:54321
```

## Scenario: Invoke a step definition that takes longer than its timeout

tags: @wire,@wire,@spawn

*Given*

a file named "features/step\_definitions/some\_remote\_place.wire" with: 🍌 (000ms)

```
host: localhost
port: 54321
timeout:
  invoke: 0.1
```

*And*

there is a wire server on port 54321 which understands the following protocol: 🍌 (000ms)

*And*

the wire server takes 0.2 seconds to respond to the invoke message 🍌 (002ms)

*When*

I run `cucumber -f pretty` 🍌 (908ms)

*Then*

the stderr should not contain anything 🍌 (000ms)

*And*

it should fail with: 🍌 (001ms)

Feature: Telegraphy

```
Scenario: Wired          # features/wired.feature:2
  Given we're all wired # Unknown
    Timed out calling wire server with message 'invoke' (Timeout::Error)
    features/wired.feature:3:in 'Given we're all wired'
```

Failing Scenarios:

```
cucumber features/wired.feature:2 # Scenario: Wired
```

```
1 scenario (1 failed)
```

```
1 step (1 failed)
```