

cucumber-documentation

Table of Contents

Summary	1
Features	6
After Hooks	6
Background	6
Scenario Outline: Retrieve the status of a scenario as a symbol	6
Scenario Outline: Retrieve the status of a scenario as a symbol	7
Scenario Outline: Retrieve the status of a scenario as a symbol	8
Scenario: Check the failed status of a scenario in a hook	9
Scenario: Make a scenario fail from an After hook	10
Scenario: After hooks are executed in reverse order of definition	11
Alle bruker ikke UTF-8	12
Scenario: Dette bør gå bra	12
Around hooks	13
Scenario: A single Around hook	13
Scenario: Multiple Around hooks	15
Scenario: Mixing Around, Before, and After hooks	16
Scenario: Around hooks with tags	18
Scenario: Around hooks with scenario outlines	20
Scenario: Around Hooks and the Custom World	21
Background	23
Background	23
Scenario: run a specific scenario with a background	29
Scenario: run a feature with a background that passes	30
Scenario: run a feature with scenario outlines that has a background that passes	31
Scenario: run a feature with scenario outlines that has a background that passes	32
Scenario: run a feature with a background that fails	33
Scenario: run a feature with scenario outlines that has a background that fails	34
Scenario: run a feature with a background that is pending	35
Scenario: background passes with first scenario but fails with second	36
Scenario: background passes with first outline scenario but fails with second	37
Scenario: background passes with first outline scenario but fails with second (--expand)	38
Scenario: background with multiline args	39
Before Hook	41
Scenario: Examine names of scenario and feature	41
Scenario: Examine names of scenario outline and feature	42
Choosing the language from the feature file header	44
Scenario: LOLCAT	44
Cucumber --work-in-progress switch	45

Background	45
Background: A passing and a pending feature	45
Scenario: Pass with Failing Scenarios	46
Scenario: Pass with Undefined Scenarios	47
Scenario: Pass with Undefined Scenarios	48
Scenario: Fail with Passing Scenarios	49
Scenario: Fail with Passing Scenario Outline	50
Custom Formatter	51
Background	51
Scenario: Use the new API	52
Scenario: Use the legacy API.....	53
Scenario: Use both	54
Custom filter	55
Scenario: Add a custom filter via AfterConfiguration hook	55
Debug formatter	56
Background	57
Scenario: title	57
Doc strings	58
Scenario: Plain text Docstring	59
Scenario: DocString with interesting content type	60
Dry Run	61
Scenario: With a failing step	61
Scenario: In strict mode.....	62
Scenario: In strict mode with an undefined step	63
ERB configuration	64
Background	64
Scenario: ERB is used in the wire file which references an environment variable that is not set	65
Scenario: ERB is used in the wire file which references an environment variable	66
Exception in After Block	66
Background	67
Scenario: Handle Exception in standard scenario step and carry on	67
Scenario: Handle Exception in scenario outline table row and carry on	68
Scenario: Handle Exception using the progress format	70
Exception in AfterStep Block	71
Background	71
Scenario: Handle Exception in standard scenario step and carry on	72
Scenario: Handle Exception in scenario outline table row and carry on	73
Exception in Before Block	75
Background	75
Scenario: Handle Exception in standard scenario step and carry on	76
Scenario: Handle Exception in Before hook for Scenario with Background	77

Scenario: Handle Exception using the progress format	78
Exceptions in Around Hooks	79
Scenario: Exception before the test case is run	80
Scenario: Exception after the test case is run	82
Excluding ruby and feature files from runs	84
Scenario: exclude ruby files	84
Scenario: my own formatter	85
Getting started	86
Scenario: Run Cucumber in an empty directory	86
Scenario: Accidentally run Cucumber in a folder with Ruby files in it.	87
HTML output formatter	88
Background	88
Scenario: an scenario outline, one undefined step, one random example, expand flag on ...	90
Scenario Outline: an scenario outline, one pending step	90
Scenario Outline: an scenario outline, one pending step	90
Scenario Outline: an scenario outline, one pending step	91
Scenario Outline: an scenario outline, one pending step	92
Scenario: when using a profile the html shouldn't include 'Using the default profile...'	93
Scenario: a feature with a failing background step	94
Handle unexpected response	95
Background	95
Scenario: Unexpected response	96
Hooks execute in defined order	96
Background	97
Scenario: Around hooks cover background steps	98
Scenario: All hooks execute in expected order	98
Invoke message	99
Background	99
Scenario: Invoke a step definition which is pending	100
Scenario: Invoke a step definition which passes	101
Scenario: Invoke a step definition which fails	102
Scenario: Invoke a step definition which takes string arguments (and passes)	103
Scenario: Invoke a step definition which takes regular and table arguments (and passes) ..	104
Scenario: Invoke a scenario outline step	105
JSON output formatter	106
Background	107
Scenario: one feature, one passing scenario, one failing scenario	109
Scenario: one feature, one passing scenario, one failing scenario with prettyfied json	112
Scenario: DocString	114
Scenario: embedding screenshot	116
Scenario: scenario outline	117

Scenario: print from step definition.....	119
Scenario: scenario outline expanded.....	121
Scenario: embedding data directly.....	123
Scenario: handle output from hooks	125
JUnit output formatter	127
Background	127
Scenario: one feature, one passing scenario, one failing scenario	128
Scenario: one feature in a subdirectory, one passing scenario, one failing scenario	130
Scenario: pending and undefined steps are reported as skipped.....	131
Scenario: pending and undefined steps with strict option should fail	132
Scenario: run all features	135
Scenario: show correct error message if no --out is passed	135
Scenario: strict mode, one feature, one scenario outline, four examples: one passing, one failing, one pending, one undefined	136
Scenario: strict mode with --expand option, one feature, one scenario outline, four examples: one passing, one failing, one pending, one undefined	138
Language help	140
Scenario: Get help for Portuguese language	140
Scenario: List languages	141
List step defs as json.	142
Background	142
Scenario: Two Ruby step definitions, in the same file	142
Scenario: Non-default directory structure	143
Loading the steps users expect.	144
Nested Steps	145
Background	145
Scenario: Use #steps to call several steps at once	146
Scenario: Use #step to call a single step.....	147
Scenario: Use #steps to call a table	147
Scenario: Use #steps to call a multi-line string	148
Scenario: Backtrace doesn't skip nested steps.....	149
Scenario: Undefined nested step.....	150
Nested Steps in I18n	152
Background	152
Scenario: Use #steps to call several steps at once	153
Nested Steps with either table or doc string	154
Background	154
Scenario: Use #step with table.....	154
Scenario: Use #step with docstring.....	155
Scenario: Use #step with docstring and content-type	156
One line step definitions.	157

Scenario: Call a method in World directly from a step def	157
Scenario: Call a method on an actor in the World directly from a step def	158
Scenario: Using options directly gets a deprecation warning	160
Scenario: Changing the output format	160
Scenario: feature directories read from configuration	161
Pretty formatter - Printing messages	162
Background	162
Scenario: Delayed messages feature	164
Scenario: Non-delayed messages feature (progress formatter)	167
Pretty output formatter	167
Background	167
Scenario: an scenario outline, one undefined step, one random example, expand flag on ...	168
Scenario: when using a profile the output should include 'Using the default profile...'	168
Scenario: Hook output should be printed before hook exception	168
Profiles	170
Background	170
Background: Basic App	170
Scenario: Explicitly defining a profile to run	171
Scenario: Explicitly defining a profile defined in an ERB formatted file	172
Scenario: Defining multiple profiles to run	172
Scenario: Arguments passed in but no profile specified	173
Scenario: Trying to use a missing profile	173
Scenario Outline: Disabling the default profile	174
Scenario Outline: Disabling the default profile	174
Scenario: Overriding the profile's features to run	175
Scenario: Overriding the profile's formatter	175
Scenario Outline: Showing profiles when listing failing scenarios	176
Scenario Outline: Showing profiles when listing failing scenarios	176
Progress output formatter	177
Background	177
Scenario: an scenario outline, one undefined step, one random example, expand flag on ...	177
Scenario: when using a profile the output should include 'Using the default profile...'	178
Rake task	178
Background	179
Scenario: rake task with a defined profile	179
Scenario: rake task without a profile	180
Scenario: rake task with a defined profile and cucumber_opts	181
Scenario: respect requires	182
Scenario: feature files with spaces	184
Raketask	184
Background	185

Scenario: Passing feature	186
Scenario: Failing feature	186
Randomize	186
Background	187
Scenario: Run scenarios in order	187
Scenario: Run scenarios randomized	187
Requiring extra step files	188
Rerun formatter	189
Background	190
Scenario: Exit code is zero	190
Scenario: Exit code is zero in the dry-run mode	191
Scenario: Exit code is not zero, regular scenario	192
Scenario: Exit code is not zero, scenario outlines	193
Scenario: Exit code is not zero, failing background	194
Scenario: Exit code is not zero, failing background with scenario outline	195
Scenario: Exit code is not zero, scenario outlines with expand	196
Run Cli::Main with existing Runtime	197
Scenario: Run a single feature	197
Background	199
Scenario: Matching Feature names	199
Scenario: Matching Scenario names	200
Scenario: Matching Scenario Outline names	201
Scenario: Matching Example block names	201
Run specific scenarios	202
Background	202
Scenario: Two scenarios, run just one of them	202
Scenario: Use @-notation to specify a file containing feature file list	203
Scenario: Specify order of scenarios	204
Running multiple formatters	205
Background	205
Scenario: Multiple formatters and outputs	206
Scenario: Two formatters to stdout	207
Scenario: Two formatters to stdout when using a profile	208
Scenario outlines	208
Background	209
Scenario: Run scenario outline with filtering on outline name	210
Scenario: Run scenario outline steps only	211
Scenario: Run single failing scenario outline table row	212
Scenario: Run all with progress formatter	213
Scenario outlines --expand option	214
Set up a default load path	216

Scenario: ./lib is included in the \$LOAD_PATH	216
Showing differences to expected output.	217
Scenario: Run single failing scenario with default diff enabled	217
Skip Scenario	219
Scenario: With a passing step	219
Scenario: Use legacy API from a hook	220
Snippets	221
Scenario: Snippet for undefined step with a pystring	221
Scenario: Snippet for undefined step with a step table	223
Snippets message	223
Background	223
Scenario: Wire server returns snippets for a step that didn't match	224
State	225
Scenario: Set an ivar in one scenario, use it in the next step	226
Step matches message	226
Background	227
Scenario: Dry run finds no step match	227
Scenario: Dry run finds a step match	228
Scenario: Step matches returns details about the remote step definition	229
Strict mode	229
Background	229
Scenario: Fail with --strict due to undefined step	230
Scenario: Fail with --strict due to pending step	230
Scenario: Succeed with --strict	231
Table diffing	232
Scenario: Extra row	232
Tag logic	233
Background	234
Scenario: ANDing tags	234
Scenario: ORing tags	235
Scenario: Negative tags	236
Scenario: Run with limited tag count, blowing it on scenario	237
Scenario: Run with limited tag count, blowing it via feature inheritance	237
Scenario: Run with limited tag count using negative tag, blowing it via a tag that is not run	238
Scenario: Limiting with tags which do not exist in the features	238
Tagged hooks	239
Background	239
Scenario: omit tagged hook	240
Scenario: omit tagged hook	241
Scenario: Omit example hook	242
Transforms	242

Background	242
Scenario: Basic Transform	243
Scenario: Re-use Transform's Regular Expression	244
Unicode in tables	245
Usage formatter	246
Background	246
Scenario: Run with --format usage	247
Scenario: Run with --expand --format usage	248
Scenario: Run with --format stepdefs	249
Using descriptions to give features context	250
Background	250
Scenario: Everything with a description	251
Scenario: Use some *	253
Wire protocol table diffing	254
Background	254
Scenario: Invoke a step definition tries to diff the table and fails	254
Scenario: Invoke a step definition tries to diff the table and passes	255
Scenario: Invoke a step definition which successfully diffs a table but then fails	256
Scenario: Invoke a step definition which asks for an immediate diff that fails	257
Wire protocol tags	258
Background	258
Scenario: Run a scenario	259
Scenario: Run a scenario outline example	260
Wire protocol timeouts	262
Background	262
Scenario: Try to talk to a server that's not there	262
Scenario: Invoke a step definition that takes longer than its timeout	263

Summary

Scenarios			Steps							Features: 68	
Passed	Failed	Total	Passed	Failed	Skipped	Pending	Undefined	Missing	Total	Duration	Status
After Hooks											
12	0	12	30	0	0	0	0	0	30	084ms	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											
22	0	22	144	0	0	0	0	0	144	03s064ms	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											
10	0	10	31	0	0	0	0	0	31	03s151ms	passed
Custom Formatter											
6	0	6	15	0	0	0	0	0	15	027ms	passed
Custom filter											
1	0	1	4	0	0	0	0	0	4	009ms	passed
Debug formatter											
2	0	2	5	0	0	0	0	0	5	008ms	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											
4	0	4	11	0	0	0	0	0	11	143ms	passed
Exception in After Block											
6	0	6	18	0	0	0	0	0	18	01s243ms	passed
Exception in AfterStep Block											
4	0	4	12	0	0	0	0	0	12	047ms	passed

Scenarios				Steps						Features: 68	
Exception in Before Block											
6	0	6	15	0	0	0	0	0	15	651ms	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
HTML output formatter											
14	0	14	53	0	0	0	0	0	53	166ms	passed
Handle unexpected response											
2	0	2	5	0	0	0	0	0	5	071ms	passed
Hooks execute in defined order											
4	0	4	12	0	0	0	0	0	12	01s 217ms	passed
Invoke message											
12	0	12	37	0	0	0	0	0	37	02s 210ms	passed
JSON output formatter											
18	0	18	102	0	0	0	0	0	102	05s 007ms	passed
JUnit output formatter											
16	0	16	73	0	0	0	0	0	73	05s 387ms	passed
Language help											
2	0	2	4	0	0	0	0	0	4	014ms	passed
List step defs as json											
4	0	4	8	0	0	0	0	0	8	01s 223ms	passed
Loading the steps users expect											
1	0	1	4	0	0	0	0	0	4	007ms	passed
Nested Steps											
12	0	12	33	0	0	0	0	0	33	683ms	passed
Nested Steps in I18n											
2	0	2	5	0	0	0	0	0	5	014ms	passed
Nested Steps with either table or doc string											

Scenarios			Steps							Features: 68	
6	0	6	15	0	0	0	0	0	15	033ms	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											
4	0	4	13	0	0	0	0	0	13	549ms	passed
Pretty output formatter											
6	0	6	15	0	0	0	0	0	15	054ms	passed
Profiles											
22	0	22	77	0	0	0	0	0	77	127ms	passed
Progress output formatter											
4	0	4	8	0	0	0	0	0	8	022ms	passed
Rake task											
10	0	10	27	0	0	0	0	0	27	05s 848ms	passed
Raketask											
4	0	4	11	0	0	0	0	0	11	03s 824ms	passed
Randomize											
4	0	4	9	0	0	0	0	0	9	713ms	passed
Requiring extra step files											
1	0	1	4	0	0	0	0	0	4	012ms	passed
Rerun formatter											
14	0	14	30	0	0	0	0	0	30	097ms	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]											
8	0	8	20	0	0	0	0	0	20	050ms	passed
Run specific scenarios											
6	0	6	13	0	0	0	0	0	13	026ms	passed
Running multiple formatters											
6	0	6	12	0	0	0	0	0	12	01s 830ms	passed
Scenario outlines											
8	0	8	16	0	0	0	0	0	16	02s 431ms	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											
2	0	2	7	0	0	0	0	0	7	914ms	passed
State											
1	0	1	4	0	0	0	0	0	4	015ms	passed
Step matches message											
6	0	6	16	0	0	0	0	0	16	112ms	passed
Strict mode											
6	0	6	14	0	0	0	0	0	14	046ms	passed
Table diffing											
1	0	1	4	0	0	0	0	0	4	016ms	passed
Tag logic											
14	0	14	21	0	0	0	0	0	21	051ms	passed
Tagged hooks											
7	0	7	20	0	0	0	0	0	20	054ms	passed
Transforms											
4	0	4	10	0	0	0	0	0	10	023ms	passed
Unicode in tables											
1	0	1	3	0	0	0	0	0	3	606ms	passed
Usage formatter											
6	0	6	12	0	0	0	0	0	12	060ms	passed
Using descriptions to give features context											
2	0	2	5	0	0	0	0	0	5	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	
8	0	8	21	0	0	0	0	0	21	02s 723ms	passed
Wire protocol tags											
4	0	4	12	0	0	0	0	0	12	304ms	passed
Wire protocol timeouts											
4	0	4	11	0	0	0	0	0	11	928ms	passed
Totals											
364	0	364	1204	0	0	0	0	0	1204	51s 856ms	

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.

Background

Given

the standard step definitions 🍷 (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 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.

Background

Given

a file named "features/passing_background.feature" with: 🍌 (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
```

And

a file named "features/scenario_outline_passing_background.feature" with: 🍌 (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

And

a file named "features/background_tagged_before_on_outline.feature" with: 🍌 (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

And

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

Feature: Failing background sample

Background:

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

And

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

Feature: Failing background with scenario outlines sample

Background:

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

And

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

Feature: Pending background sample

Background:

Given this step is pending

Scenario: pending background

Then I should have '10' cukes

Scenario: another pending background

Then I should have '10' cukes

And

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

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

Then I should have '10' global cukes

And

a file named "features/failing_background_after_success_outline.feature" with: 🍌
(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:

	count	
	10	

Scenario Outline: failing background

Then I should have '<count>' global cukes

Examples:

	count	
	10	

And

a file named "features/multiline_args_background.feature" with: 🍌 (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

"""

And

the standard step definitions 🍌 (000ms)

And

a file named "features/step_definitions/cuke_steps.rb" with: 🍌 (000ms)

```
Given /^'(.+) ' cukes$/ do |cukes| x=1
  raise "We already have #{@cukes} cukes!" if @cukes
  @cukes = cukes
end

Given /^'(.+) ' global cukes$/ do |cukes| x=1
  $scenario_runs ||= 0
  raise 'FAIL' if $scenario_runs >= 1
  $cukes = cukes
  $scenario_runs += 1
end

Then /^I should have '(.+) ' global cukes$/ do |cukes| x=1
  expect($cukes).to eq cukes
end

Then /^I should have '(.+) ' cukes$/ do |cukes| x=1
  expect(@cukes).to eq cukes
end

Before('@background_tagged_before_on_outline') do
  @cukes = '888'
end

After('@background_tagged_before_on_outline') do
  expect(@cukes).to eq '888'
end
```

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

Background

Background: A passing and a pending feature

tags: @spawn

Given

the standard step definitions 🍌 (000ms)

And

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

```
Feature: WIP
  @failing
  Scenario: Failing
    Given this step raises an error

  @undefined
  Scenario: Undefined
    Given this step is undefined

  @pending
  Scenario: Pending
    Given this step is pending

  @passing
  Scenario: Passing
    Given this step passes
```

And

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

```
Feature: Not WIP
  Scenario Outline: Passing
    Given this step <what>

    Examples:
      | what      |
      | passes   |
```

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 Formatter

Background

Given

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

Feature: I'll use my own
Scenario: Just print me
Given this step passes

And

the standard step definitions 📄 (000ms)

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
```

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)

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.

Background

Given

the standard step definitions 🍌 (000ms)

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

Background

tags: @wire

Given

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

```
Feature: High strung
  Scenario: Wired
    Given we're all wired
```

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

Background

Given

the standard step definitions 🍷 (000ms)

And

a file named "features/step_definitions/naughty_steps.rb" with: 🍷 (000ms)

```
Given /^this step does something naughty$/ do x=1
  @naughty = true
end
```

And

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

```
class NaughtyScenarioException < Exception; end
After do
  if @naughty
    raise NaughtyScenarioException.new("This scenario has been very very
naughty")
  end
end
```

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

Background

Given

the standard step definitions 🍌 (000ms)

And

a file named "features/step_definitions/naughty_steps.rb" with: 🍌 (000ms)

```
Given /^this step does something naughty$/ do x=1
  @naughty = true
end
```

And

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

```
class NaughtyStepException < Exception; end
AfterStep do
  if @naughty
    raise NaughtyStepException.new("This step has been very very naughty")
  end
end
```

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

Background

Given

the standard step definitions 🍷 (000ms)

And

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

```
class SomeSetupException < Exception; end
class BadStepException < Exception; end
Before do
  raise SomeSetupException.new("I cannot even start this scenario")
end
```

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
```

HTML output formatter

Background

Given

the standard step definitions 🍌 (000ms)

And

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

Feature:

Scenario Outline:

Given this step is undefined

Examples:

|foo|

|bar|

And

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

Feature: Outline

Scenario Outline: Will it blend?

Given this step is pending

And other step

When I do something with <example>

Then I should see something

Examples:

| example |

| one |

| two |

| three |

And

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

Feature: Feature with failing background step

Background:

Given this step fails

Scenario:

When I do something

Then I should see something

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')
```

Handle unexpected response

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

Background

tags: @wire

Given

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

```
Feature: High strung
  Scenario: Wired
    Given we're all wired
```

And

a file named "features/step_definitions/some_remote_place.wire" with: 🍌 (000ms)

```
host: localhost
port: 54321
```

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

Background

tags: @spawn

Given

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

```
Given /^background step$/ do; $EventOrder.push(:background_step) end
Given /^scenario step$/ do; $EventOrder.push(:scenario_step) end
```

And

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

```
$EventOrder = []
Around('@around') do |scenario, block|
  $EventOrder.push :around_begin
  block.call
  $EventOrder.push :around_end
end
Before('@before') do
  $EventOrder.push :before
end
After('@after') do |scenario|
  $EventOrder.push :after
end
at_exit {
  puts "Event order: #{$EventOrder.join(' ')}"
}
```

And

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

```
@around
Feature: Around hooks cover background steps
  Background:
    Given background step
  Scenario:
    Given scenario step
```

And

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

```
@around
@before
@after
Feature: All hooks execute in expected order
  Background:
    Given background step
  Scenario:
    Given scenario step
```

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
```

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 `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`

Background

tags: @wire

Given

a file named "features/wired.feature" with: 📌 (000ms)

```
Feature: High strung
  Scenario: Wired
    Given we're all wired
```

And

a file named "features/step_definitions/some_remote_place.wire" with: 📌 (000ms)

```
host: localhost
port: 54321
```

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

Background

Given

the standard step definitions 🍌 (000ms)

And

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

```
@a
Feature: One passing scenario, one failing scenario

  @b
  Scenario: Passing
    Given this step passes

  @c
  Scenario: Failing
    Given this step fails
```

And

a file named "features/step_definitions/json_steps.rb" with: 🍌 (000ms)

```
Given /^I embed a screenshot/ do
  File.open("screenshot.png", "w") { |file| file << "foo" }
  embed "screenshot.png", "image/png"
end

Given /^I print from step definition/ do
  puts "from step definition"
end

Given /^I embed data directly/ do
  data = "YWJj"
  embed data, "mime-type;base64"
end
```

And

a file named "features/embed.feature" with: 📄 (000ms)

Feature: A screenshot feature

Scenario:

Given I embed a screenshot

And

a file named "features/outline.feature" with: 📄 (000ms)

Feature: An outline feature

Scenario Outline: outline

Given this step <status>

Examples: examples1

| status |

| passes |

| fails |

Examples: examples2

| status |

| passes |

And

a file named "features/print_from_step_definition.feature" with: 📄 (000ms)

Feature: A print from step definition feature

Scenario:

Given I print from step definition

And I print from step definition

And

a file named "features/print_from_step_definition.feature" with: 📌 (000ms)

Feature: A print from step definition feature

Scenario:

Given I print from step definition

And I print from step definition

And

a file named "features/embed_data_directly.feature" with: 📌 (000ms)

Feature: An embed data directly feature

Scenario:

Given I embed data directly

Scenario Outline:

Given I embed data directly

Examples:

	dummy	
	1	
	2	

And

a file named "features/out_scenario_out_scenario_outline.feature" with: 📌 (000ms)

Feature:

Scenario:

Given this step passes

Scenario Outline:

Given this step <status>

Examples:

	status	
	passes	

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

Background

tags: @spawn

Given

the standard step definitions 🍌 (000ms)

And

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

Feature: One passing scenario, one failing scenario

Scenario: Passing

Given this step passes

Scenario: Failing

Given this step fails

And

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

Feature: Subdirectory - One passing scenario, one failing scenario

Scenario: Passing

Given this step passes

Scenario: Failing

Given this step fails

And

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

Feature: Pending step

Scenario: Pending

Given this step is pending

Scenario: Undefined

Given this step is undefined

And

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

Feature: Pending step

Scenario: Pending

Given this step is pending

Scenario: Undefined

Given this step is undefined

And

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

Feature: Scenario outlines

Scenario Outline: Using scenario outlines

Given this step <type>

Examples:

type	
passes	
fails	
is pending	
is undefined	

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",  
"Característica"  
| background      | "Contexto", "Cenário de Fundo", "Cenario de  
Fundo", "Fundo"  
| scenario        | "Cenário", "Cenario"  
|  
| scenario_outline | "Esquema do Cenário", "Esquema do Cenario",  
"Delineação 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

Background

tags: @spawn

Given

a directory named "features" 🍌 (000ms)

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

Background

Given

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

```
Given two turtles
```

And

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

```
Given /a turtle/ do
  puts "turtle!"
end
```

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

Background

Given

a scenario with a step that looks like this in japanese: 🇯🇵 (000ms)

```
前提 two turtles
```

And

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

```
# -*- coding: utf-8 -*-  
前提 /a turtle/ do  
  puts "turtle!"  
end
```

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

Background

Given

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

```
Given two turtles
```

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.

Background

Given

the standard step definitions 🍌 (000ms)

And

a file named "features/step_definitions/puts_steps.rb" with: 🍌 (000ms)

```
Given /^I use puts with text "(.*)"/ do |ann|
  puts(ann)
end

Given /^I use multiple putss$/ do
  puts("Multiple")
  puts("Announce","Me")
end

Given /^I use message (.+) in line (.+) (?:with result (.+))$/ do |ann,
line, result|
  puts("Last message") if line == "3"
  puts("Line: #{line}: #{ann}")
  fail if result =~ /fail/i
end

Given /^I use puts and step fails$/ do
  puts("Announce with fail")
  fail
end

Given /^I puts the world$/ do
  puts(self)
end
```

And

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

Feature:

Scenario:

Given I use puts with text "Ann"
And this step passes

Scenario:

Given I use multiple putss
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
And this step passes

Scenario Outline:

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

Examples:

line	ann	result
1	anno1	fail
2	anno2	pass

And

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

Feature: puts_world

Scenario: puts_world

Given I puts the world

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	

(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

Background

Given

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

```
Feature:

  Scenario Outline:
    Given this step is undefined

  Examples:
    |foo|
    |bar|
```


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>

Background

Background: Basic App

Given

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

```
Feature: Sample
  Scenario: this is a test
    Given this step raises an error
```

And

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

And

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

And

the following profiles are defined: 🍌 (000ms)

```
default: features/sample.feature --require features/support/env.rb -v
super: features/sample.feature --require features/support/super_env.rb -v
```

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

Background

Given

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

Feature:

Scenario Outline:

Given this step is undefined

Examples:

|foo|

|bar|

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

Background

tags: @spawn

And

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

Feature: Sample

Scenario: Wanted

Given I want to run this

Scenario: Unwanted

Given I don't want this ran

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

Background

tags: @spawn

Given

the standard step definitions 🍌 (000ms)

Given

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

Feature: Sample

Scenario: Passing

Given this step passes

Scenario: Failing

Given this step raises an error

Given

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

```
require 'cucumber/rake/task'

SAMPLE_FEATURE_FILE = 'features/passing_and_failing.feature'

Cucumber::Rake::Task.new(:pass) do |t|
  t.cucumber_opts = "#{SAMPLE_FEATURE_FILE}:3"
end

Cucumber::Rake::Task.new(:fail) do |t|
  t.cucumber_opts = "#{SAMPLE_FEATURE_FILE}:6"
end
```

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.

Background

Given

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

Feature: Bad practice

Scenario: Set state

Given I set some state

Scenario: Depend on state

When I depend on the state

And

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

```
Given(/^I set some state$/) do
  $global_state = "set"
end
```

```
Given(/^I depend on the state$/) do
  raise "I expect the state to be set!" unless $global_state == "set"
end
```

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.

Background

Given

the standard step definitions 🍷 (000ms)

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.

Background

Given

a file named "features/first.feature" with: 📄 (000ms)

```
Feature: first feature
  Scenario: foo first
    Given missing
  Scenario: bar first
    Given missing
```

Given

a file named "features/second.feature" with: 📄 (000ms)

```
Feature: second
  Scenario: foo second
    Given missing
  Scenario: bar second
    Given missing
```

Given

a file named "features/outline.feature" with: 📄 (000ms)

```
Feature: outline
  Scenario Outline: baz outline
    Given outline step <name>
```

Examples: quux example

	name	
	a	
	b	

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.

Background

Given

the standard step definitions 🍌 (000ms)

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)

Background

tags: @spawn

Given

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

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.

Background

tags: @spawn

Given

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

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	

Examples:Only passing

state	other_state	
passing	passing	

And

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

```
Given(/^passing without a table$/) { }  
Given(/^failing without a table$/) { raise RuntimeError }
```

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(/^a pystring$/) do |string|
  pending # Write code here that turns the phrase above into concrete
actions
end

When(/^a simple when step$/) do
  pending # Write code here that turns the phrase above into concrete
actions
end

When(/^another when step$/) do
  pending # Write code here that turns the phrase above into concrete
actions
end

Then(/^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.

Background

tags: @wire

Given

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

```
Feature: High strung
  Scenario: Wired
    Given we're all wired
```

And

a file named "features/step_definitions/some_remote_place.wire" with: 🍌 (000ms)

```
host: localhost
port: 54321
```

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.

Background

tags: @wire

Given

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

```
Feature: High strung
  Scenario: Wired
    Given we're all wired
```

And

a file named "features/step_definitions/some_remote_place.wire" with: 🍌 (000ms)

```
host: localhost
port: 54321
```

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.

Background

Given

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

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

And

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

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

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

Background

Given

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

```
@feature
Feature: Sample

  @one @three
  Scenario: Example
    Given passing

  @one
  Scenario: Another Example
    Given passing

  @three
  Scenario: Yet another Example
    Given passing

  @ignore
  Scenario: And yet another Example
```

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

Background

Given

the standard step definitions 🍌 (000ms)

And

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

```
Before('~@no-boom') do
  raise 'boom'
end
```

And

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

```
Feature: With and without hooks
  Scenario: using hook
    Given this step passes

    @no-boom
    Scenario: omitting hook
      Given this step passes

  Scenario Outline: omitting hook on specified examples
    Given this step passes

    Examples:
    | Value      |
    | Irrelevant |

    @no-boom
    Examples:
    | Value      |
    | Also Irrelevant |
```

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.

Background

Let's just create a simple feature for testing out Transforms. We also have a Person class that we need to be able to build.

Given

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

```
Feature:  
  Scenario:  
    Given a Person aged 15 with blonde hair
```

And

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

```
class Person  
  attr_accessor :age  
  
  def to_s  
    "I am #{age} years old"  
  end  
end
```

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

Background

Given

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

```
Feature: F
  Background: A
    Given A
  Scenario: B
    Given B
  Scenario Outline: CA
    Given <x>
    And B
  Examples:
    |x|
    |C|
    |A|
  Scenario: AC
    Given A
    Given C
```

And

a file named "features/step_definitions/steps.rb" with: 📄 (000ms)

```
Given(/A/) { }
Given(/B/) { }
Given(/C/) { }
Given(/D/) { }
```

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.

Background

Given

the standard step definitions 🍌 (000ms)

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

Background

tags: @wire

Given

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

```
Feature: Hello
  Scenario: Wired
    Given we're all wired
```

And

a file named "features/step_definitions/some_remote_place.wire" with: 🍌 (000ms)

```
host: localhost
port: 54321
```

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

Background

tags: @wire

And

a file named "features/step_definitions/some_remote_place.wire" with: 🍌 (000ms)

```
host: localhost  
port: 54321
```

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.

Background

tags: @wire

And

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

```
Feature: Telegraphy
  Scenario: Wired
    Given we're all wired
```

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)