Living Documentation

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Scenario: Invoke a step definition that takes longer than its timeout

Summary

Scenarios			Steps								Features: 68		
Passed	Failed	Total	Passed	Failed	Skippe d	Pendin g	Undefi ned	Missin g	Total	Durati on	Status		
					After	Hooks							
6	0	6	24	0	0	0	0	0	24	081ms	passed		
				A11	e bruker	ikke U1	F-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	03s 758ms	passed		
					Backg	round							
11	0	11	23	0	0	0	0	0	23	03s 037ms	passed		
					Before	e Hook							
2	0	2	8	0	0	0	0	0	8	045ms	passed		
		C	hoosing	the lang	uage fro	m the fe	ature fi	ile heade	PT				
1	0	1	3	0	0	0	0	0	3	011ms	passed		
			C	ucumber	work-i	n-progre	ess switc	:h					
5	0	5	16	0	0	0	0	0	16	03s 144ms	passed		
					Custom	filter							
1	0	1	4	0	0	0	0	0	4	009ms	passed		
					Custom F	ormatter	•						
3	0	3	9	0	0	0	0	0	9	026ms	passed		
					Debug fo	ormatter							
1	0	1	4	0	0	0	0	0	4	007ms	passed		
					Doc st	trings							
2	0	2	8	0	0	0	0	0	8	021ms	passed		
						Run							
3	0	3	11	0	0	0	0	0	11	046ms	passed		
					RB conf								
2	0	2	9	0	0	0	0	0	9	142ms	passed		
					ption in								
3	0	3	9	0	0	0	0	0	9	01s 240ms	passed		
				Except	ion in A	fterStep	Block						
2	0	2	6	0	0	0	0	0	6	045ms	passed		

Scenarios			Steps								Features: 68		
				Excep	otion in	Before	Block						
3	0	3	9	0	0	0	0	0	9	648ms	passed		
				Excep	tions in	Around	Hooks						
2	0	2	10	0	0	0	0	0	10	021ms	passed		
			Exclu	iding rub	y and fe	ature f	iles from	runs					
1	0	1	11	0	0	0	0	0	11	008ms	passed		
		Forma	tter-AP	I:-Step-1	file-pat	h-and-li	ne-numbe	r-(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		
				Handl	e unexpe	cted re	sponse						
1	0	1	3	0	0	0	0	0	3	070ms	passed		
				Hooks e	xecute i	n defin	ed order						
2	0	2	4	0	0	0	0	0	4	01s 214ms	passed		
				HTM	1L outpu	t format	ter						
7	0	7	25	0	0	0	0	0	25	161ms	passed		
					Invoke	message							
6	0	6	25	0	0	0	0	0	25	02s 205ms	passed		
				JSC	ON outpu	t format	ter						
9	0	9	21	0	0	0	0	0	21	04s 983ms	passed		
				JUn	it outpu	it forma	tter						
8	0	8	25	0	0	0	0	0	25	05s 367ms	passed		
					Langua	ge help							
2	0	2	4	0	0	0	0	0	4	014ms	passed		
				Lis	t step o	lefs as	json						
2	0	2	6	0	0	0	0	0	6	01s 223ms	passed		
				Loading	the ste	ps user	s expect						
1	0	1	4	0	0	0	0	0	4	007ms	passed		
					Nested	l Steps							
6	0	6	21	0	0	0	0	0	21	680ms	passed		
				Ne	sted Ste	eps in I	18n						
1	0	1	3	0	0	0	0	0	3	014ms	passed		
			Nested	Steps w	ith eith	ner tabl	e or doc	string					

5	Scenario	S	Steps							Featu	res: 68
3	0	3	12	0	0	0	0	0	12	032ms	passed
				One 1	line ste	p defini	tions				
2	0	2	8	0	0	0	0	0	8	017ms	passed
				Post-Co	onfigura [.]	tion-Hoo	k-[.pdf				
3	0	3	11	0	0	0	0	0	11	640ms	passed
			Pr	etty for	matter -	Printi	ng messag	jes			
2	0	2	5	0	0	0	0	0	5	547ms	passed
				Pre	tty outp	ut forma	tter				
3	0	3	12	0	0	0	0	0	12	052ms	passed
					Prof	iles					
11	0	11	33	0	0	0	0	0	33	121ms	passed
				Progi	ress out	put form	atter				
2	0	2	6	0	0	0	0	0	6	021ms	passed
					Rake	task					
5	0	5	22	0	0	0	0	0	22	05s 846ms	passed
					Rake	task					
2	0	2	5	0	0	0	0	0	5	03s 821ms	passed
					Rando	omize					
2	0	2	5	0	0	0	0	0	5	713ms	passed
				Requi	ring ext	ra step	files				
1	0	1	4	0	0	0	0	0	4	012ms	passed
					Rerun fo	ormatter					
7	0	7	23	0	0	0	0	0	23	095ms	passed
			Ri	un Cli::/	Main with	h existi	ng Runti	me			
1	0	1	5	0	0	0	0	0	5	615ms	passed
		[Ru	ın-featu	re-elemen	nts-matcl	hing-a-n	ame-with	name/	/-n]		
4	0	4	8	0	0	0	0	0	8	048ms	passed
				Run	specifi	c scena	rios				
3	0	3	10	0	0	0	0	0	10	025ms	passed
					ng multi	ple form	atters				
3	0	3	9	0	0	0	0	0	9	01s 829ms	passed
				9	Scenario	outline	!S				
4	0	4	8	0	0	0	0	0	8	02s 428ms	passed

Scenarios			Steps								Features: 68	
			S	cenario	outline	sexpa	nd optio	n				
1	0	1	4	0	0	0	0	0	4	013ms	passed	
				Set u	ıp a defa	ult load	d path					
1	0	1	4	0	0	0	0	0	4	010ms	passed	
			Shov	ving dif	ferences	to expe	ected out	put				
1	0	1	4	0	0	0	0	0	4	023ms	passed	
					Skip S	cenario						
2	0	2	10	0	0	0	0	0	10	023ms	passed	
					Snip	pets						
2	0	2	6	0	0	0	0	0	6	017ms	passed	
					Snippets	message	9					
1	0	1	5	0	0	0	0	0	5	913ms	passed	
					St	ate						
1	0	1	4	0	0	0	0	0	4	015ms	passed	
				St	ep match	nes messa	age					
3	0	3	10	0	0	0	0	0	10	110ms	passed	
					Stric	t mode						
3	0	3	8	0	0	0	0	0	8	044ms	passed	
					Table	diffing						
1	0	1	4	0	0	0	0	0	4	016ms	passed	
					Tag	logic						
7	0	7	14	0	0	0	0	0	14	050ms	passed	
					Tagged	l hooks						
3	0	3	6	0	0	0	0	0	6	041ms	passed	
					Trans	forms						
2	0	2	6	0	0	0	0	0	6	022ms	passed	
					Unicode	in table	S					
1	0	1	3	0	0	0	0	0	3	606ms	passed	
					Usage f	ormatter						
3	0	3	6	0	0	0	0	0	6	059ms	passed	
			Using	descrip	tions to	give fe	atures c	ontext				
1	0	1	4	0	0	0	0	0	4	022ms	passed	
			[Using-st	tar-nota	ation-ins	tead-of	-Given/Wh	en/Then]			
1	0	1	5	0	0	0	0	0	5	012ms	passed	
				Wire	protocol	table d	iffing					

S	cenario	S	Steps								Features: 68			
4	0	4	13	0	0	0	0	0	13	02s 720ms	passed			
Wire protocol tags														
2	0	2	10	0	0	0	0	0	10	302ms	passed			
				Wir	e protoc	ol timeo	uts							
2	0	2	9	0	0	0	0	0	9	927ms	passed			
					Tot	als								
203	0	203	671	0	0	0	0	0	671	51s 694ms				

Features

After Hooks

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

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

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

Scenario Outline: Retreive the status of a scenario as a symbol

```
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: Retreive 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: Retreive the status of a scenario as a symbol

```
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
  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 d (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: ๗ (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 d (011ms)
Then
  it should fail with: ๗ (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
  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: d (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

```
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: ๗ (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 << '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

```
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'</pre>
    block.call
    $hooks called << 'Around'</pre>
    $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'</pre>
  end
  After do |scenario|
    $hooks called ||= []
    $hooks_called << 'After'</pre>
    expect($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
```

Scenario: Around hooks with tags

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

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
```

```
Around('@one') do |scenario, block|
  $hooks_called ||= []
  $hooks called << 'one'</pre>
  block.call
end
Around('@one,@two') do |scenario, block|
  $hooks_called ||= []
  $hooks called << 'one or two'</pre>
  block.call
end
Around('@one', '@two') do |scenario, block|
  $hooks called ||= []
  $hooks_called << 'one and two'</pre>
  block.call
end
Around('@two') do |scenario, block|
  $hooks_called ||= []
  $hooks_called << 'two'</pre>
  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

Then

it should pass with: d (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: ๗ (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 d (607ms)
Then
```

Scenario: Around Hooks and the Custom World

tags: @spawn,@spawn

```
Given
  a file named "features/step_definitions/steps.rb" with: ๗ (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)
And
  a file named "features/support/hooks.rb" with: ๗ (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 d (608ms)
Then
  it should pass d (000ms)
```

Background

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

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

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

Scenario: run a specific scenario with a background

Scenario: run a feature with a background that passes

```
When
    Irun 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 d (012ms)
Then
  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

```
When
  I run cucumber -q features/failing_background.feature d (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

```
When
  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 d (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

```
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

```
When
  I run cucumber -q features/failing_background_after_success_outline.feature d (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)

```
When
  (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 multline args

```
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

Irun cucumber -q features/multiline_args_background.feature d (025ms)

Then

it should pass with exactly: ๗ (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</pre>
    names << scenario.name.split("\n").first</pre>
    if(names.size == 2)
      raise "NAMES:\n" + names.join("\n") + "\n"
    end
  end
When
  I run cucumber d (028ms)
Then
   the output should contain: d (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</pre>
    names << scenario.scenario_outline.name.split("\n").first</pre>
    names << scenario.name.split("\n").first</pre>
    if(names.size == 3)
      raise "NAMES:\n" + names.join("\n") + "\n"
  end
When
  I run cucumber d (015ms)
Then
  the output should contain: d (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
  Then
  it should pass with: ★ (000ms)
 # language: en-lol
 OH HAI: STUFFING
   B4: HUNGRY
     I CAN HAZ EMPTY BELLY
   MISHUN: CUKES
     DEN KTHXBAI
 1 scenario (1 undefined)
 2 steps (2 undefined)
```

Cucumber --work-in-progress switch

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

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

Scenario: Pass with Failing Scenarios

```
When
  I run cucumber -q -w -t @failing features/wip.feature d (606ms)
Then
  the stderr should not contain anything do (000ms)
Then
  it should pass with: d (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: d (000ms)
  The --wip switch was used, so the failures were expected. All is good.
```

Scenario: Pass with Undefined Scenarios

Scenario: Pass with Undefined Scenarios

```
When
  I run cucumber -q -w -t @pending features/wip.feature d (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: d (000ms)
  The --wip switch was used, so the failures were expected. All is good.
```

Scenario: Fail with Passing Scenarios

```
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

```
When
  I run cucumber -q -w features/passing_outline.feature d (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: d (000ms)
  The --wip switch was used, so I didn't expect anything to pass. These scenarios
  passed:
  (::) passed scenarios (::)
  features/passing_outline.feature:7:in 'Scenario Outline: Passing, Examples (#1)'
```

Custom filter

Scenario: Add a custom filter via AfterConfiguration hook

```
Given
   a file named "features/test.feature" with: • (000ms)
  Feature:
    Scenario:
      Given my special step
And
   a file named "features/support/my_filter.rb" with: ★ (000ms)
  require 'cucumber/core/filter'
  MakeAnythingPass = Cucumber::Core::Filter.new do
    def test_case(test_case)
      activated_steps = test_case.test_steps.map do |test_step|
        test_step.with_action { }
      end
      test_case.with_steps(activated_steps).describe_to receiver
    end
  end
  AfterConfiguration do |config|
    config.filters << MakeAnythingPass.new</pre>
  end
When
  I run cucumber --strict d (009ms)
Then
  it should pass d (000ms)
```

Custom Formatter

Scenario: Use the new API

```
Given
  a file named "features/support/custom_formatter.rb" with: ๗ (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 d (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)
        0io = 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: 1 (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
      def scenario_name(keyword, name, file_colon_line, source_indent)
        @io.puts " #{name.upcase}"
      end
   end
 end
When
  I run cucumber features/f.feature --format MyCustom::MixedFormatter ⋅ (007ms)
Then
  it should pass with exactly: ★ (000ms)
 I'LL USE MY OWN
    JUST PRINT ME
```

Debug formatter

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

Scenario: title

```
Given
  a file named "features/test.feature" with: • (000ms)
 Feature:
    Scenario:
      Given this step passes
When
  I run cucumber -f debug d (007ms)
Then
  the stderr should not contain anything do (000ms)
Then
  it should pass with: ๗ (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:
 0ne
 Two
 Three
 11 11 11
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)
 0ne
 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)
```

# **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 de (000ms)
When
 I run cucumber --dry-run d (020ms)
Then
 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 de (000ms)
When
 I run cucumber --dry-run --strict d (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 i (009ms)
Then
 it should fail with: d (000ms)
 Feature: test
 Scenario:
 # features/test.feature:2
 Given this step is undefined # features/test.feature:3
 Undefined step: "this step is undefined" (Cucumber::Undefined)
 features/test.feature:3:in 'Given this step is undefined'
 1 scenario (1 undefined)
 1 step (1 undefined)
```

# **ERB** configuration

As a developer on server with multiple users
I want to be able to configure which port my wire server runs on
So that I can avoid port conflicts

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

tags: @wire,@wire

```
a file named "features/step_definitions/server.wire" with: d (000ms)

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

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

When
I run cucumber --dry-run --no-snippets -f progress d (073ms)

Then
it should pass with: d (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
 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 d (061ms)
Then
 it should pass with: ★ (001ms)
 U
 1 scenario (1 undefined)
 1 step (1 undefined)
```

# **Exception in After Block**

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

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

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

tags: @spawn

```
Given
 a file named "features/naughty_step_in_scenario.feature" with: •• (000ms)
 Feature: Sample
 Scenario: Naughty Step
 Given this step does something naughty
 Scenario: Success
 Given this step passes
When
 I run cucumber features d (604ms)
Then
 it should fail with: d (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 **d** (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: ๗ (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 d (026ms)
Then
 it should fail with: ๗ (000ms)
 .F.
 Failing Scenarios:
 cucumber features/naughty_step_in_scenario.feature:3 # Scenario: Naughty Step
 2 scenarios (1 failed, 1 passed)
 2 steps (2 passed)
```

# **Exception in AfterStep Block**

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

As a developer

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

Scenario: Handle Exception in standard scenario step and carry on

```
Given
 a file named "features/naughty_step_in_scenario.feature" with: •• (000ms)
 Feature: Sample
 Scenario: Naughty Step
 Given this step does something naughty
 Scenario: Success
 Given this step passes
When
 I run cucumber features d (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

```
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 **d** (022ms)

#### Then

it should fail with: d (000ms)

```
Feature: Sample
 Scenario Outline: Naughty Step #
features/naughty_step_in_scenario_outline.feature:3
 Given this step <Might Work> #
features/naughty_step_in_scenario_outline.feature:4
 Examples:
 | Might Work
 passes
 | does something naughty |
 This step has been very very naughty (NaughtyStepException)
 ./features/support/env.rb:4:in `AfterStep'
 features/naughty_step_in_scenario_outline.feature:9:in 'Given this step
does something naughty'
 features/naughty_step_in_scenario_outline.feature:4:in `Given this step
<Might Work>'
 passes
 Scenario: Success
 # features/naughty_step_in_scenario_outline.feature:12
 Given this step passes # features/step_definitions/steps.rb:1
Failing Scenarios:
cucumber features/naughty_step_in_scenario_outline.feature:9 # Scenario Outline:
Naughty Step, Examples (#2)
4 scenarios (1 failed, 3 passed)
4 steps (4 passed)
```

# **Exception in Before Block**

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

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

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

tags: @spawn

```
Given
 a file named "features/naughty_step_in_scenario.feature" with: ๗ (000ms)
 Feature: Sample
 Scenario: Run a good step
 Given this step passes
When
 I run cucumber features d (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: d (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

```
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 de (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
 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 de (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: d (000ms)
 Feature:
 Scenario:
 Given this step passes
When
 I run cucumber -q d (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"

d (000ms)
And
 an empty file named "features/step_definitions/foof.rb" 🏚 (000ms)
And
 And
 an empty file named "features/support/require_me.rb"

d (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 do (000ms)
And
 "features/support/dont_require_me.rb" should not be required do (000ms)
And
 "features/step_definitions/foof.rb" should not be required do (000ms)
And
 "features/step_definitions/fooz.rb" should not be required d (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

a file named "features/f.feature" with: d (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: ๗ (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 i (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.

```
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)
```

# Handle unexpected response

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

# Scenario: Unexpected response

```
tags: @wire,@wire
```

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

When
I run cucumber -f pretty (068ms)

Then
the output should contain: (000ms)

undefined method `handle_yikes'
```

# Hooks execute in defined order

## Scenario: Around hooks cover background steps

tags: @spawn,@spawn

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

Then
the output should contain: → (000ms)

Event order: around_begin background_step scenario_step around_end
```

### Scenario: All hooks execute in expected order

tags: @spawn,@spawn

# HTML output formatter

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

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

# Scenario Outline: an scenario outline, one pending step

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

# Scenario Outline: an scenario outline, one pending step

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

# Invoke message

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

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

The wire server will normally reply one of the following:

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

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

### Scenario: Invoke a step definition which is pending

tags: @wire,@wire,@spawn

```
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
 Then
 the stderr should not contain anything d (000ms)
And
 it should fail with: de (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.

```
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: ம் (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
 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
 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 d (146ms)
Then
 the stderr should not contain anything do (000ms)
And
 it should pass with: ๗ (000ms)
 1 scenario (1 passed)
 1 step (1 passed)
And
 the wire server should have received the following messages: • (000ms)
```

# JSON output formatter

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

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

tags: @spawn

When
76

### Then

```
{
 "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
 }
]
 }
]
 }
1
```

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

```
When 78
```

### 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
 }
]
 }
]
 }
1
```

# Scenario: DocString

```
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: ๗ (000ms)

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

### When

Irun cucumber --format json features/doc\_string.feature **d** (605ms)

### Then

```
[
 {
 "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

### When

I run cucumber -b --format json features/embed.feature **i** (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"
 }
],
 "location": "features/step_definitions/json_steps.rb:1"
 },
 "result": {
 "status": "passed",
 "duration": 1
 }
 1
 }
]
 }
]
```

### Scenario: scenario outline

```
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
 }
 }
 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
 }
 }
]
 }
 1
 }
]
```

## Scenario: print from step definition

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

```
{
 "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

```
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
 }
 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
 }
 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

```
When
 I run cucumber -b --format json -x features/embed_data_directly.feature d (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
 }
 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"
 }
],
 "location": "features/step_definitions/json_steps.rb:10"
 },
 "result": {
 "status": "passed",
 "duration": 1
 }
```

# Scenario: handle output from hooks

```
Given
 a file named "features/step_definitions/output_steps.rb" with: d (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 de (001ms)
```

# JUnit output formatter

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

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

```
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:
 11>
 <![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 scena	ario, one failing
scenario		

```
When
 I
 cucumber
 --format
 junit
 tmp/
 run
 --out
 features/some_subdirectory/one_passing_one_failing.feature --require features 🔞
Then
 it should fail with: d (000ms)
And
 the junit output file "tmp/TEST-features-some_subdirectory-one_passing_one_failing.xml"
 should contain: d (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:
 11>
 <![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'll>
 </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
 <?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

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

Then
 it should fail with: → (000ms)
```

the junit output file "tmp/TEST-features-pending.xml" should contain: ๗ (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

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

tags: @spawn,@spawn

```
When
 Irun 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

```
When

I run cucumber --strict --format junit --out tmp/ features/scenario_outline.feature

(707ms)
```

```
it should fail with: (000ms)
```

#### And

the junit output file "tmp/TEST-features-scenario\_outline.xml" should contain: ๗ (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

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

Then
 it should fail with exactly: → (000ms)
```

the junit output file "tmp/TEST-features-scenario\_outline.xml" should contain: ๗ (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:
11>
 <![CDATA[(RuntimeError)
./features/step_definitions/steps.rb:4:in `/^this step fails$/'
features/scenario_outline.feature:9:in 'Given this step fails'
features/scenario_outline.feature:4:in 'Given this step <type>']]>
 </failure>
 <system-out>
 <![CDATA[]]>
 </system-out>
 <system-err>
 <![CDATA[]]>
 </system-err>
</testcase>
<testcase classname="Scenario outlines" name="Using scenario outlines (outline
example : | is pending |)" time="0.05">
 <failure message="pending Using scenario outlines (outline example : | is
pending |)" type="pending">
 <![CDATA[Scenario Outline: Using scenario outlines
Example row: | is pending |
Message:
11>
 <![CDATA[TODO (Cucumber::Pending)
./features/step_definitions/steps.rb:3:in \'/^this step is pending$/'
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 i (007ms)
Then
 it should pass with: ★ (000ms)
 | "Funcionalidade", "Característica", "Caracteristica"
 feature
 | background | "Contexto", "Cenário de Fundo", "Cenario de Fundo",
 "Fundo"
 | "Cenário", "Cenario"
 scenario
 | scenario_outline | "Esquema do Cenário", "Esquema do Cenario", "Delinea
 ção do Cenário", "Delineacao do Cenario" |
 | "Exemplos", "Cenários", "Cenarios"
 examples
 | "* ", "Dado ", "Dada ", "Dados ", "Dadas "
 given
 | "* ", "Quando "
 when
 | "* ", "Então ", "Entao "
 then
 | "* ", "E "
 and
 | "* ", "Mas "
 but
 given (code) | "Dado", "Dada", "Dados", "Dadas"
 | when (code) | "Quando"
 then (code)
 | "Então", "Entao"
 1 "E"
 and (code)
 | but (code)
 | "Mas"
```

### Scenario: List languages

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

```
When
I run cucumber --i18n help i (006ms)

Then
cucumber lists all the supported languages i (001ms)
```

# List step defs as json

In order to build tools on top of Cucumber
As a tool developer
I want to be able to query a features directory for all the step definitions it contains

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

tags: @spawn,@spawn

```
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

```
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: ம் (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: ๗ (000ms)
 Given(/^not found in subdirectory$/) { }
When
 I run cucumber -q features/nesting/test.feature d (006ms)
Then
 it should pass with: d (000ms)
 Feature: Feature in Subdirectory
 Scenario: A step not in the subdirectory
 Given not found in subdirectory
 1 scenario (1 passed)
 1 step (1 passed)
```

# **Nested Steps**

Scenario: Use #steps to call several steps at once

```
Given

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

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

When
I run the feature with the progress formatter ♠ (012ms)

Then
the output should contain: ♠ (000ms)

turtle!

turtle!
```

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

```
Given

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

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

When
I run the feature with the progress formatter ♠ (007ms)

Then
the output should contain: ♠ (000ms)

turtle!
turtle!
```

# Scenario: Use #steps to call a table

```
Given
 a step definition that looks like this: 🌢 (000ms)
 Given /turtles:/ do |table|
 table.hashes.each do |row|
 puts row[:name]
 end
 end
And
 a step definition that looks like this: 🌢 (000ms)
 Given /two turtles/ do
 steps %{
 Given turtles:
 name
 Sturm
 | Liouville |
 }
 end
When
 I run the feature with the progress formatter d (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: d (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 de (607ms)
Then
 it should fail with: d (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 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

Irun cucumber -q features/call\_undefined\_step\_from\_step\_def.feature **d** (032ms)

#### Then

it should fail with exactly: **★** (000ms)

```
Feature: Calling undefined step
 Scenario: Call directly
 Given a step that calls an undefined step
 Undefined dynamic step: "this does not exist"
(Cucumber::UndefinedDynamicStep)
 ./features/step_definitions/steps.rb:2:in \\/\a step that calls an undefined
step$/'
 features/call_undefined_step_from_step_def.feature:4:in 'Given a step that
calls an undefined step'
 Scenario: Call via another
 Given a step that calls a step that calls an undefined step
 Undefined dynamic step: "this does not exist"
(Cucumber::UndefinedDynamicStep)
 ./features/step_definitions/steps.rb:2:in `/^a step that calls an undefined
step$/'
 ./features/step_definitions/steps.rb:6:in `/^a step that calls a step that
calls an undefined step$/'
 features/call_undefined_step_from_step_def.feature:7:in `Given a step that
calls a step that calls an undefined step'
Failing Scenarios:
cucumber features/call_undefined_step_from_step_def.feature:3
cucumber features/call_undefined_step_from_step_def.feature:6
2 scenarios (2 failed)
2 steps (2 failed)
```

# **Nested Steps in I18n**

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

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

When
I run the feature with the progress formatter • (013ms)

Then
the output should contain: • (000ms)

turtle!
turtle!
```

# Nested Steps with either table or doc string

Scenario: Use #step with table

```
Given
 a step definition that looks like this: • (000ms)
 Given /turtles:/ do |table|
 table.hashes.each do |row|
 puts row[:name]
 end
 end
And
 a step definition that looks like this: • (000ms)
 Given /two turtles/ do
 step %{turtles:}, table(%{
 name
 Sturm
 | Liouville |
 })
 end
When
 I run the feature with the progress formatter d (010ms)
Then
 the output should contain: 🏚 (000ms)
 Sturm
 Liouville
```

Scenario: Use #step with docstring

```
Given
a step definition that looks like this: down (000ms)

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

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

Given /turtles:/ down | text | puts text end

When
I run the feature with the progress formatter down (009ms)

Then
the output should contain: down (002ms)
```

# 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)
```

# 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
 module Driver
 def do action
 @done = true
 end
 def assert_done
 expect(@done).to be true
 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
 Then
 it should pass d (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
 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
 Then
 it should pass de (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)
```

# Scenario: Changing the output format

```
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)
```

#### Scenario: feature directories read from configuration

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

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

When
 I run cucumber features ♠ (006ms)

Then
 the stderr should not contain anything ♠ (000ms)

And
 the output should contain: ♠ (000ms)

AfterConfiguration hook read feature directories: features
```

# **Pretty formatter - Printing messages**

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

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

### Scenario: Delayed messages feature

```
tags: @spawn
```

```
When

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

Then

the stderr should not contain anything ♣ (000ms)

And

the output should contain: ♣ (000ms)
```

```
Feature:
 Scenario:
 Given I use puts with text "Ann"
 Ann
 And this step passes
 Scenario:
 Given I use multiple putss
 Multiple
 Announce
 Me
 And this step passes
 Scenario Outline:
 Given I use message <ann> in line <line>
 Examples:
 | line | ann
 | 1
 anno1 |
 | 2
 anno2 |
 | 3
 anno3 |
 Scenario:
 Given I use puts and step fails
 Announce with fail
 (RuntimeError)
 ./features/step_definitions/puts_steps.rb:18:in \\^I use puts and step
fails$/'
 features/f.feature:21:in 'Given I use puts and step fails'
 And this step passes
 Scenario Outline:
 Given I use message <ann> in line <line> with result <result>
 Examples:
 | line | ann
 | result |
 (RuntimeError)
 ./features/step_definitions/puts_steps.rb:13:in \'/^I use message (.+) in
line (.+) (?:with result (.+))$/'
 features/f.feature:29:in 'Given I use message anno1 in line 1 with result
fail'
 features/f.feature:25:in 'Given I use message <ann> in line line> with
result <result>'
 | 2
 | anno2 | pass | Line: 2: anno2
```

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

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

Then
 the output should contain: ★ (000ms)

Ann
 ...
Multiple
 Announce

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

# **Pretty output formatter**

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

```
When

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

Then

it should pass ♠ (000ms)
```

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

```
And
 a file named "cucumber.yml" with: ┪ (000ms)
 default: -r features
When
 I run cucumber --profile default --format pretty d (018ms)
Then
 it should pass d (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 de (000ms)
 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 d (015ms)
Then
 the stderr should not contain anything do (000ms)
Then
 it should fail with: 1 (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)
```

# **Profiles**

1 step (1 passed)

In order to save time and prevent carpal tunnel syndrome

Cucumber users can save and reuse commonly used cucumber flags in a 'cucumber.yml' file.

These named arguments are called profiles and the yml file should be in the root of your project.

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

For more information about profiles please see the wiki:

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

#### Scenario: Explicitly defining a profile to run

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

Then
the output should contain: • (000ms)

Using the super profile...

And
exactly these files should be loaded: features/support/super_env.rb • (000ms)
```

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

```
the following profiles are defined: de
```

### 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

# Scenario: Trying to use a missing profile

```
When
 Irun 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.

```
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)
```

### Scenario Outline: Showing profiles when listing failing scenarios

```
Given
 the standard step definitions ♣ (000ms)

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

Then
 it should fail with: ♣ (000ms)

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

### Scenario Outline: Showing profiles when listing failing scenarios

```
Given
the standard step definitions ♣ (000ms)

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

Then
it should fail with: ♠ (000ms)

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

# **Progress output formatter**

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

```
When

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

Then

it should pass ♠ (000ms)
```

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

```
And
a file named "cucumber.yml" with: ♠ (000ms)

default: -r features

When
I run cucumber --profile default --format progress ♠ (012ms)

Then
it should pass ♠ (000ms)

And
the output should contain: ♠ (000ms)

Using the default profile...
```

# Rake task

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

# Scenario: rake task with a defined profile

```
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

```
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

```
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 d (01s 207ms)
Then
 Feature: Sample
 Scenario: Wanted
 Given I want to run this
 1 scenario (1 undefined)
 1 step (1 undefined)
```

### Scenario: respect requires

```
Given
 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: d (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 d (01s 106ms)
Then
 it should pass de (000ms)
And
 the output should not contain: d (000ms)
 * features/support/dont_require_me.rb
```

### Scenario: feature files with spaces

```
Given
 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: ๗ (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 pases

### Scenario: Passing feature

#### 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 randmon run that exposes dependencies between your tests, you can reproduce that run by using the seed that's printed at the end of the test run.

#### Scenario: Run scenarios in order

#### Scenario: Run scenarios randomized

tags: @spawn

# 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
 Irun cucumber -q -r tmp/extras.rb features/test.feature d (011ms)
Then
 Feature: Sample
 Scenario: Sample
 Given found in extra file
 1 scenario (1 passed)
 1 step (1 passed)
```

# **Rerun formatter**

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

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

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

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

```
cucumber \'cat .cucumber.rerun\'
```

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

#### Scenario: Exit code is zero

```
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
 Feature: All good
 Scenario:
 Given this step passes
When
 I run cucumber -f rerun --dry-run i (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
 Irun cucumber -f rerun --strict i (016ms)
Then
 it should fail with exactly: 1 (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)
```

Scenario: Exit code is not zero, failing background

```
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
Irun 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: ๗ (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 ம்
 (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 them passes the runtime to Cli::Main to run it.

### Scenario: Run a single feature

```
Given
 the standard step definitions de (000ms)
Given
 a file named "features/success.feature" with: • (000ms)
 Feature:
 Scenario:
 Given this step passes
When
 require 'cucumber'
 runtime = Cucumber::Runtime.new
 runtime.load_programming_language('rb')
 Cucumber::Cli::Main.new([]).execute!(runtime)
Then
 it should pass de (000ms)
And
 the output should contain: d (005ms)
 Given this step passes
```

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

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

### **Scenario: Matching Feature names**

```
When
 Irun 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 d (011ms)

Then
it should pass with: d (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

#### Scenario: Matching Example block names

# Run specific scenarios

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

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

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

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

```
Given
 a file named "features/test.feature" with: •• (000ms)
 Feature:
 Scenario: Miss
 Given this step is undefined
 Scenario: Hit
 Given this step passes
When
 I run cucumber features/test.feature:7 --format pretty --quiet d (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 ๗ (006ms)
Then
 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)
```

# **Running multiple formatters**

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

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

### Scenario: Multiple formatters and outputs

```
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 d (606ms)
Then
 the stderr should not contain anything do (006ms)
Then
 the file "progress.txt" should contain: ๗ (000ms)
 UUUUU
 1 scenario (1 undefined)
 5 steps (5 undefined)
And
 the file "pretty.txt" should contain: ๗ (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

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

Then
 it should fail with: ♠ (000ms)

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

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

tags: @spawn,@spawn

```
Given
 the following profiles are defined: ♠ (000ms)

default: -q

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

Then
 it should fail with: ♠ (000ms)

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

### Scenario outlines

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

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

The way this works is via placeholders. Placeholders must be contained within < > in the Scenario Outline's steps - see the examples below.

**IMPORTANT:** Your step definitions will never have to match a placeholder. They will need to match the values that will replace the placeholder.

### Scenario: Run scenario outline with filtering on outline name

```
When
 I run cucumber -q features/outline_sample.feature d (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

```
When
 I run cucumber -q features/outline_sample.feature:7 ★ (607ms)
Then
 it should fail with: d (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

```
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

```
Irun 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 d (013ms) Then the stderr should not contain anything do (000ms) And it should pass with: d (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

```
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: ๗ (000ms)
 Feature: Failing expectation
 Scenario: Failing expectation
 Given failing expectation
And
 a file named "features/step_definitions/steps.rb" with: ★ (000ms)
 Given /^failing expectation$/ do x=1
 expect('this').to eq 'that'
 end
When
 I run cucumber -q features/failing_expectation.feature d (022ms)
Then
 it should fail with: (000ms)
 Feature: Failing expectation
 Scenario: Failing expectation
 Given failing expectation
 expected: "that"
 got: "this"
 (compared using ==)
 (RSpec::Expectations::ExpectationNotMetError)
 ./features/step_definitions/steps.rb:2:in `/^failing expectation$/'
 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: d (000ms)
 Feature: test
 Scenario: test
 Given this step says to skip
 And this step passes
And
 the standard step definitions de (000ms)
And
 a file named "features/step_definitions/skippy.rb" with: ★ (000ms)
 Given /skip/ do
 skip_this_scenario
 end
When
 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 de (000ms)
And
 a file named "features/support/hook.rb" with: 🌢 (000ms)
 Before do |scenario|
 scenario.skip_invoke!
 end
When
 I run cucumber -q d (011ms)
Then
 it should pass with: d (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 i (009ms)
Then
 the output should contain: d (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.

### 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 d (908ms)
Then
 the stderr should not contain anything do (000ms)
And
 it should pass with: d (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: d (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
 Then /flag should be true/ do
 expect(@flag).to be_truthy
 Then /flag should be nil/ do
 expect(@flag).to be_nil
 end
When
 Then
 it should pass d (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 if it needs to be invoked. The identifier can be any string value and is simply used for the wire server's own reference.
- \* args any argument values as captured by the wire end's own regular expression (or other argument matching) process.

#### Scenario: Dry run finds no step match

tags: @wire,@wire

```
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)
```

#### 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.

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

When
I run cucumber -f stepdefs --dry-run (015ms)

Then
it should pass with: (000ms)

-
we.* # MyApp.MyClass:123
1 scenario (1 skipped)
1 step (1 skipped)
And
the stderr should not contain anything (000ms)
```

### Strict mode

Using the --strict flag will cause cucumber to fail unless all the step definitions have been defined.

### Scenario: Fail with --strict due to undefined step

```
When
 Irun cucumber -q features/missing.feature --strict (016ms)

Then
 it should fail with: (000ms)

Feature: 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

```
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

```
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: ๗ (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: d (000ms)
```

```
Feature: Tables
 Scenario: Extra row # features/tables.feature:2
 Then the table should be: # features/step_definitions/steps.rb:1
 | x | y |
 | a | b |
 Tables were not identical:
 | x | y |
 | (-) a | (-) b |
 | (+) a | (+) c |
 (Cucumber::MultilineArgument::DataTable::Different)
 ./features/step_definitions/steps.rb:2:in `/the table should be:/'
 features/tables.feature:3:in 'Then the table should be:'
Failing Scenarios:
cucumber features/tables.feature:2 # Scenario: Extra row
1 scenario (1 failed)
1 step (1 failed)
0m0.012s
```

### Tag logic

In order to conveniently run subsets of features
As a Cuker
I want to select features using logical AND/OR of tags

Scenario: ANDing tags

## **Scenario: ORing tags**

```
When
 I run cucumber -q -t @one,@three features/test.feature d (010ms)
Then
 it should pass with: ★ (000ms)
 Ofeature
 Feature: Sample
 @one @three
 Scenario: Example
 Given passing
 Scenario: Another Example
 Given passing
 @three
 Scenario: Yet another Example
 Given passing
 3 scenarios (3 undefined)
 3 steps (3 undefined)
```

## Scenario: Negative tags

## Scenario: Run with limited tag count, blowing it on scenario

```
When
 Irun 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

## 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).

# **Tagged hooks**

Scenario: omit tagged hook

```
Irun 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 id (013ms)
Then
 it should fail with exactly: d (000ms)
 Feature: With and without hooks
 Scenario Outline: omitting hook on specified examples # features/f.feature:9
 # features/f.feature:10
 Given this step passes
 Examples:
 | Value
 boom (RuntimeError)
 ./features/support/hooks.rb:2:in 'Before'
 | Irrelevant |
 Failing Scenarios:
 cucumber features/f.feature:14 # Scenario Outline: omitting hook on specified
 examples, Examples (#1)
 1 scenario (1 failed)
 1 step (1 skipped)
 0m0.012s
```

## **Transforms**

If you see certain phrases repeated over and over in your step definitions, you can use transforms to factor out that duplication, and make your step definitions simpler.

#### Scenario: Basic Transform

This is the most basic way to use a transform. Notice that the regular expression is pretty much duplicated.

```
And

a file named "features/step_definitions/steps.rb" with: d (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 d (009ms)

Then
it should pass d (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: d (000ms)
 Feature: Featuring unicode
 Scenario: table with unicode
 Given passing
 | Brüno | abc |
 | Bruno | æøå |
When
 I run cucumber -q --dry-run features/unicode.feature d (605ms)
Then
 it should pass with: d (000ms)
 Feature: Featuring unicode
 Scenario: table with unicode
 Given passing
 | Brüno | abc |
 | Bruno | æøå |
 1 scenario (1 undefined)
 1 step (1 undefined)
```

# **Usage formatter**

In order to see where step definitions are used Developers should be able to see a list of step definitions and their use

## Scenario: Run with --format usage

```
When
 I run cucumber -f usage --dry-run

d (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
 # 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 d (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
 # 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
 # features/step_definitions/steps.rb:4
 NOT MATCHED BY ANY STEPS
 4 scenarios (4 skipped)
 11 steps (11 skipped)
```

## Scenario: Run with --format stepdefs

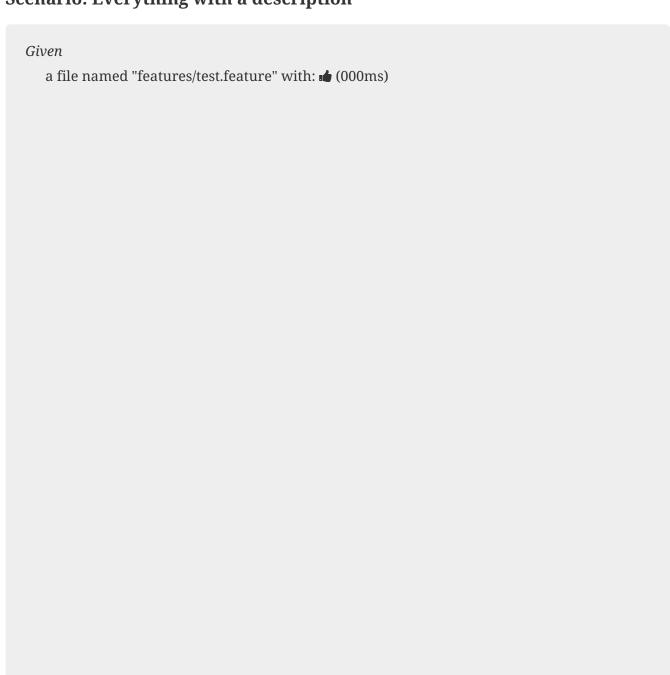
# Using descriptions to give features context

When writing your feature files its very helpful to use description text at the beginning of the feature file, to write a preamble to the feature describing clearly exactly what the feature does.

You can also write descriptions attached to individual scenarios - see the examples below for how this can be used.

It's possible to have your descriptions run over more than one line, and you can have blank lines too. As long as you don't start a line with a Given, When, Then, Background:, Scenario: or similar, you're fine: otherwise Gherkin will start to pay attention.

## Scenario: Everything with a description



```
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
 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

#### Then

the stderr should not contain anything d (000ms)

#### Then

it should pass with exactly: ๗ (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
 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: d (000ms)
 Feature: Star-notation feature
 Scenario: S
 * I have some cukes
When
 I run cucumber features/f.feature de (010ms)
Then
 the stderr should not contain anything d (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: d (000ms)
 You can implement step definitions for undefined steps with these snippets:
 Given(/^I have some cukes$/) do
 pending # Write code here that turns the phrase above into concrete actions
 end
```

# Wire protocol table diffing

In order to use the amazing functionality in the Cucumber table object As a wire server

I want to be able to ask for a table diff during a step definition invocation

## Scenario: Invoke a step definition tries to diff the table and fails

tags: @wire,@wire,@spawn

```
Given
 there is a wire server running on port 54321 which understands the following protocol:
 (001ms)
When
 I run cucumber -f progress --backtrace ★ (807ms)
Then
 the stderr should not contain anything do (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

```
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 d (808ms)
And
 it should fail with exactly: ★ (001ms)
 F
 (::) failed steps (::)
 Tables were not identical:
 | (-) a | (+) b |
 (Cucumber::MultilineArgument::DataTable::Different)
 features/wired.feature:3:in 'Given we're all wired'
 Failing Scenarios:
 cucumber features/wired.feature:2 # Scenario: Wired
 1 scenario (1 failed)
 1 step (1 failed)
 0m0.012s
```

# Wire protocol tags

In order to use Before and After hooks in a wire server, we send tags with the scenario in the begin\_scenario and end\_scenario messages

#### Scenario: Run a scenario

tags: @wire,@wire

```
Given
 a file named "features/wired.feature" with: • (000ms)
 @foo @bar
 Feature: Wired
 @baz
 Scenario: Everybody's Wired
 Given we're all wired
And
 there is a wire server running on port 54321 which understands the following protocol:
 (002ms)
When
 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 d (147ms)
Then
 the stderr should not contain anything d (001ms)
And
 it should pass with: ๗ (001ms)
 @foo @bar
 Feature: Wired
 @baz
 Scenario Outline: Everybody's Wired
 Given we're all <something>
 Examples:
 | something |
 l wired
 1 scenario (1 passed)
 1 step (1 passed)
```

# Wire protocol timeouts

We don't want Cucumber to hang forever on a wire server that's not even there, but equally we need to give the user the flexibility to allow step definitions to take a while to execute, if that's what they need.

## Scenario: Try to talk to a server that's not there

tags: @wire,@wire

```
Given

a file named "features/step_definitions/some_remote_place.wire" with: d (001ms)

host: localhost
port: 54321

When

I run cucumber -f progress d (012ms)

Then
the stderr should contain: d (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
 host: localhost
 port: 54321
 timeout:
 invoke: 0.1
And
 And
 the wire server takes 0.2 seconds to respond to the invoke message d (002ms)
When
 I run cucumber -f pretty d (908ms)
Then
 the stderr should not contain anything do (000ms)
And
 it should fail with: 1 (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)