

А вы тестируете CSS?

Нет? Тогда мы идём к вам!

О себе



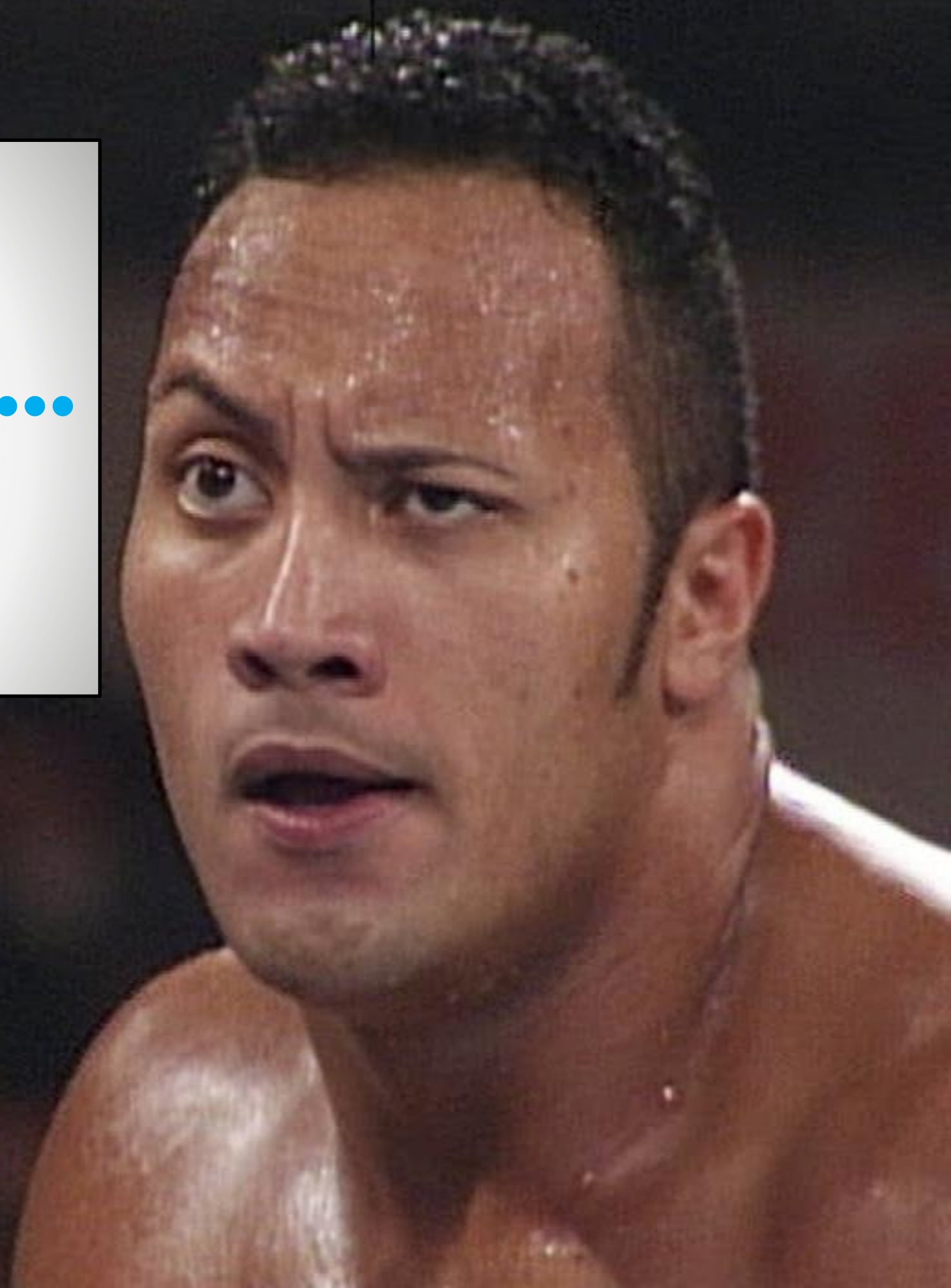
- разработка ПО
- frontend
- автоматизированное тестирование



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**Тестирование...
CSS?**



Проблемы

1. Дефекты в продуктивной среде
2. Растущий объем работы
3. Дублирование работы



И что делать?



AUTOMATE



ALL THE THINGS!

Синтаксис

**Стандарты
Разработки**

**Тестирование
нового
функционала**

**Регрессионное
тестирование**

Регрессионное тестирование

Сравнение
изображений

PhantomCSS

Backstop

Gemini

CSSCritic

Others

Сравнение
DOM

GhostStory

Hardy

Снимок DOM

Feature: Website layout test

As a user I want visual consistency on the `http://csste.st/` website

Scenario: Content layout

Given I visit "`http://csste.st/`"

Then "`section > p`" should have "`color`" of "`rgb(68, 68, 68)`"



Сравнение изображений

BackstopJS

- простая и быстрая установка
- интеграция в процесс сборки / CI
- простой и понятный интерфейс
- активно развивается
- наглядный отчет по результатам тестирования

- богатая конфигурация, покрывающая разные потребности
- поддержка тестирования SPA
- поблочное тестирование
- возможность использования в разных средах

Установка

1. `npm install --save-dev backstop`

2. `package.json`

```
...  
"scripts": {  
  "genconf": "backstop genConfig",  
  "ref": "backstop reference",  
  "test": "backstop test",  
  "report": "backstop openReport"  
},  
...
```

3. `npm run genconf (backstop genConfig)`

Установка

4. backstop.json

- id
- viewports *
- scenarios *
- paths
- casperFlags
- engine (phantomjs / slimerjs)
- report (browser | CI)
- debug

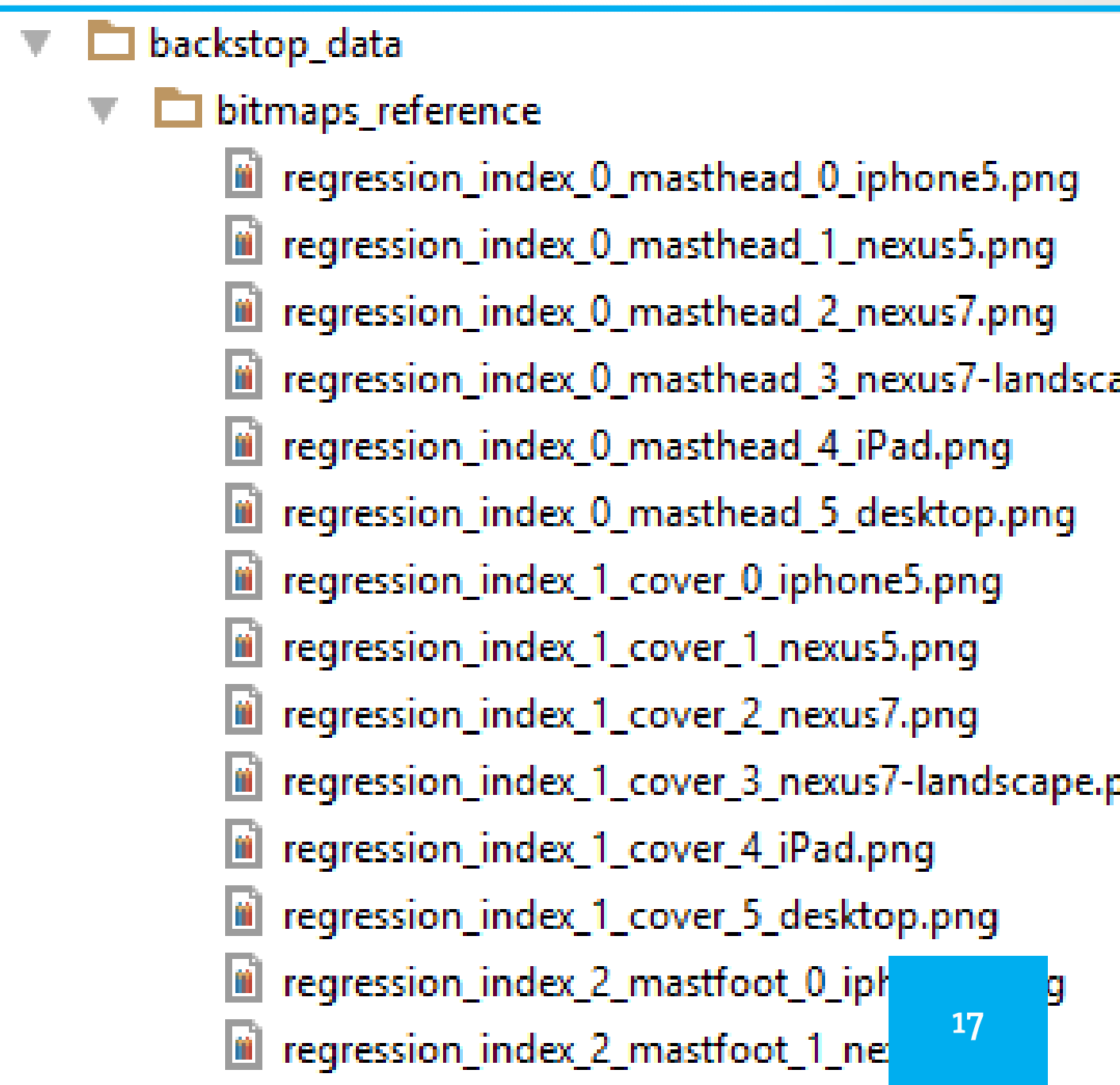
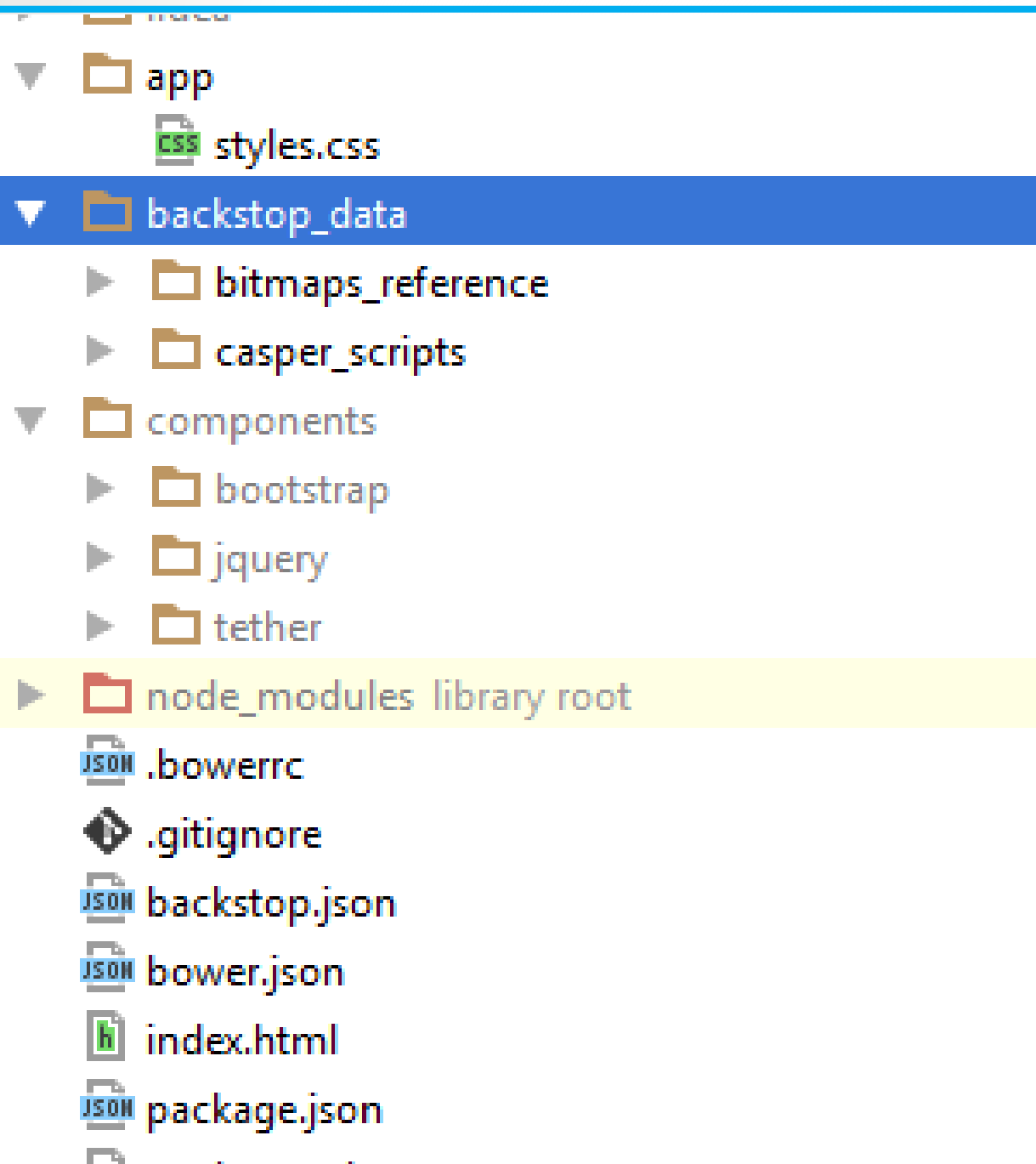
```

{
  "id": "regression",
  "viewports": [
    { "name": "iphone5", "width": 320, "height": 568 }
  ],
  "scenarios": [{
    "label": "index",
    "url": "index.html",
    "selectors": [
      ".masthead",
      ".cover"
    ],
    "misMatchThreshold" : 0.5,
  }],
  "paths": {
    "bitmaps_reference": "path/to/ref/images",
    ...
  },
  "engine": "phantomjs",
  "report": [ "CI", "browser" ]
}

```

Установка

5. npm run ref (backstop reference)

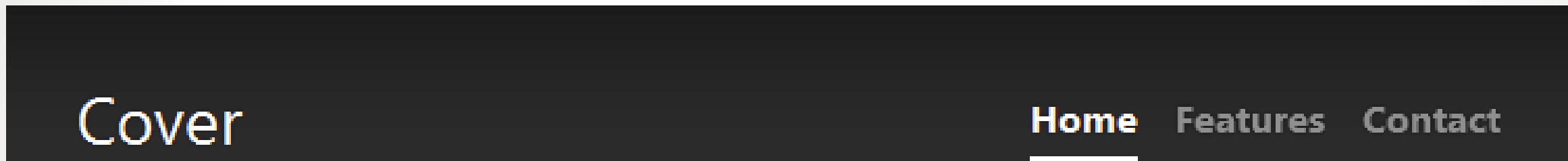


CSS Testing.

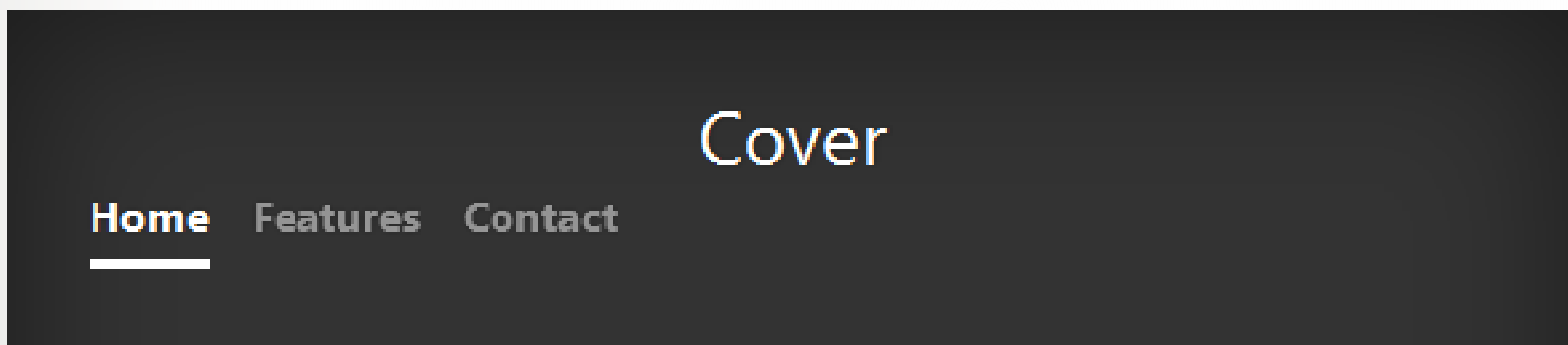
CSS doesn't suck. You're just doing it wrong. -- Doug Crockford

Эталонные изображения

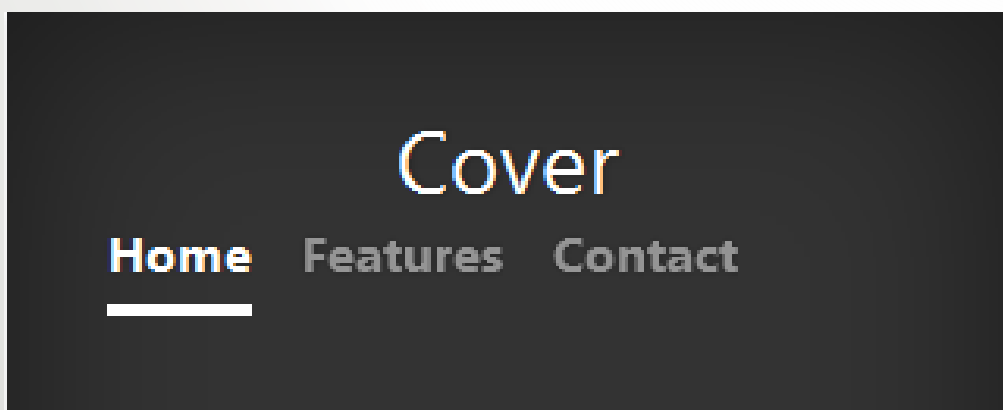
Desktop (1300 x 800)



Nexus 7 (600 x 960)



iPhone 5 (320 x 568)





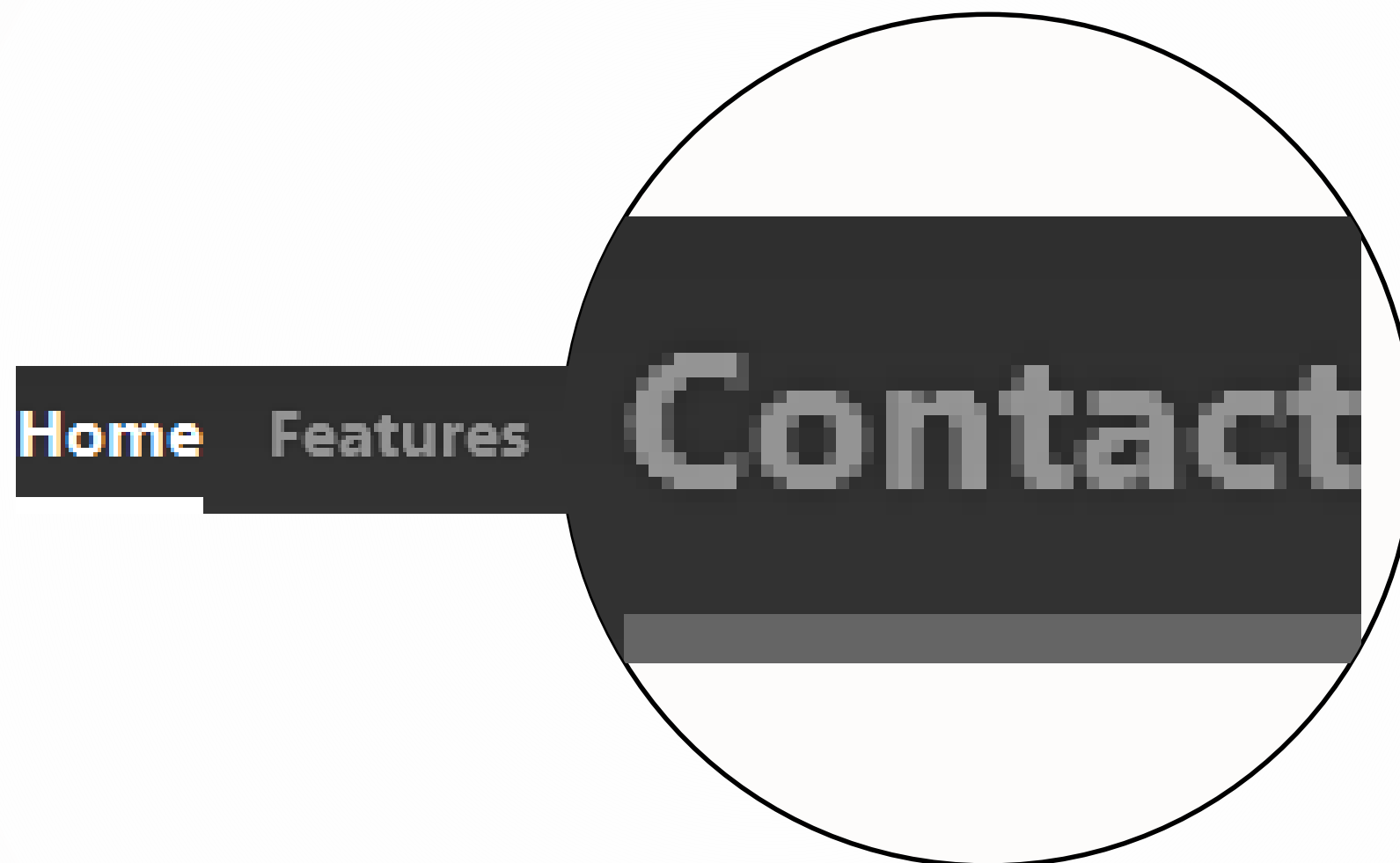
Поддержка простых пользовательских действий

1. backstop.json

```
{  
  "label": "index-hover-nav",  
  ...  
  "onReadyScript": "index-hover-nav.onready.js"  
}
```

2. backstop_data/casper_scripts/index-hover- nav.onready.js

```
casper.waitForVisible(selector, func)  
+ casper.mouse.move(selector)
```





Тестирование

npm run test (backstop test)

```
compare | OK: index regression_index_1_cover_5_desktop.png
compare | OK: index regression_index_2_mastfoot_5_desktop.png
compare | OK: index regression_index_1_cover_4_iPad.png
compare | OK: index regression_index_2_mastfoot_4_iPad.png
compare | OK: index regression_index_4_site-wrapper_0_iphone5.png
compare | OK: index regression_index_4_site-wrapper_1_nexus5.png
compare | OK: index regression_index_4_site-wrapper_2_nexus7.png
compare | OK: index regression_index_4_site-wrapper_3_nexus7-landscape.png
compare | OK: index regression_index_4_site-wrapper_4_iPad.png
compare | OK: index regression_index_4_site-wrapper_5_desktop.png
report  |
        Test completed...
report  | 36 Passed
report  | 0 Failed
```

BackstopJS Report

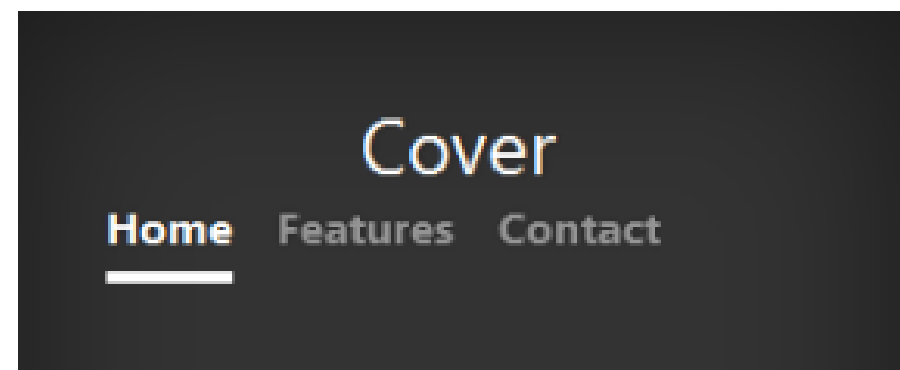
Passed 36 Failed 0 1.07s

Expand Summary List Copy failed tests to clipboard

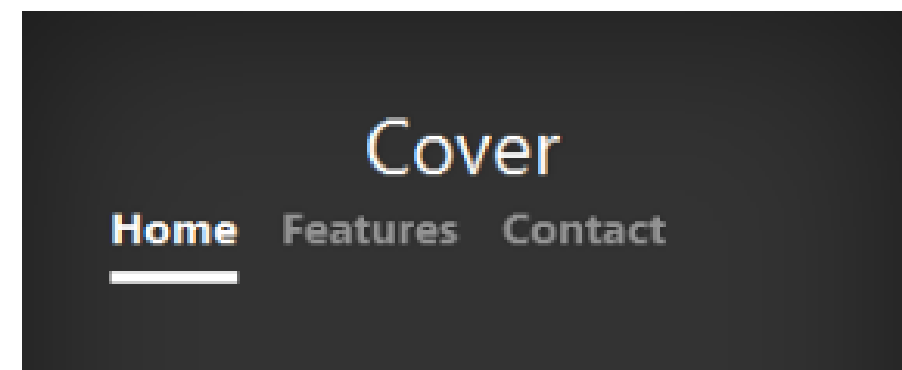
status filter passed ▾

index - .masthead Show diff regression_index_0_masthead_0_iphone5.png

Reference



Test

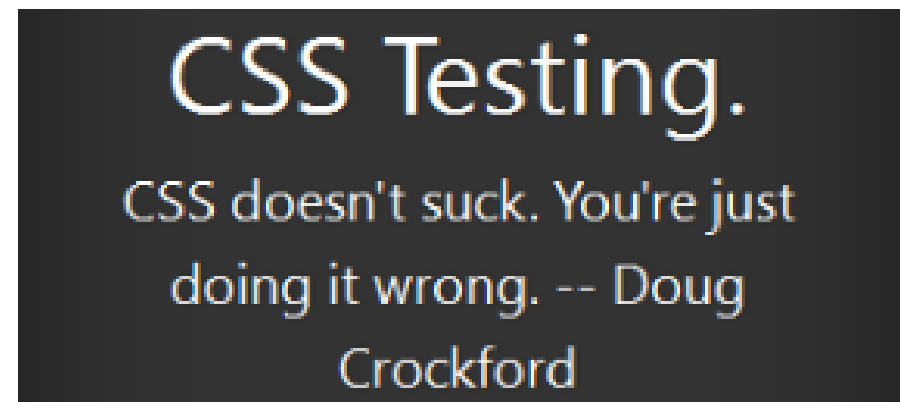


Report

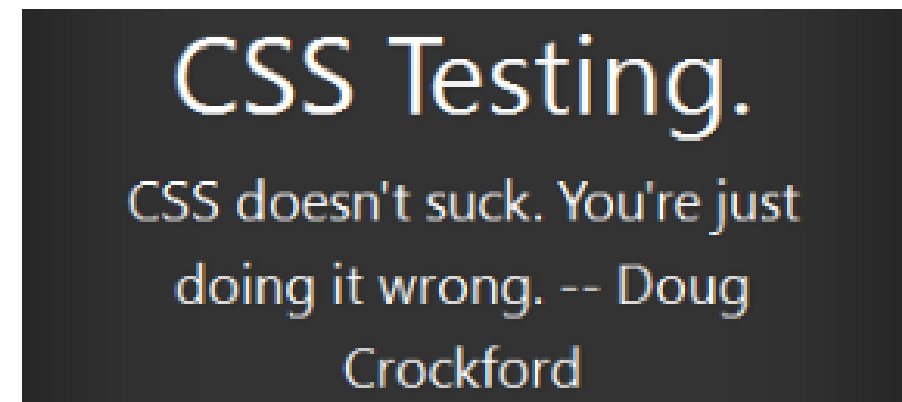
● passed
Report: {
 "isSameDimensions": true,
 "misMatchPercentage": "0.00"
}
Threshold: 1

index - .cover Show diff regression_index_1_cover_0_iphone5.png

Reference



Test



Report

● passed
Report: {
 "isSameDimensions": true,
 "misMatchPercentage": "0.00"
}
Threshold: 1



Рефакторинг





passed

failed



BackstopJS Report

Passed 27 Failed 9 2.04s

Expand Summary List Copy failed tests to clipboard

status filter failed

index - .cover Show diff regression_index_1_cover_0_iphone5

Reference	Test	Diff	Report
			<div><div>failed</div><div>Report: { "isSameDimensions": false, "dimensionDifference": { "width": 0, "height": -124 }, "misMatchPercentage": "7.81" } Threshold: 1</div></div>

index - .site-wrapper Show diff regression_index_4_site-wrapper_0_iphone5

Reference	Test	Diff	Report
			<div><div>failed</div><div>Report: { "isSameDimensions": false, "dimensionDifference": { "width": 0, "height": -124 }, "misMatchPercentage": "7.81" } Threshold: 1</div></div>

BackstopJS Report

Passed 36 Failed 0 1.21s

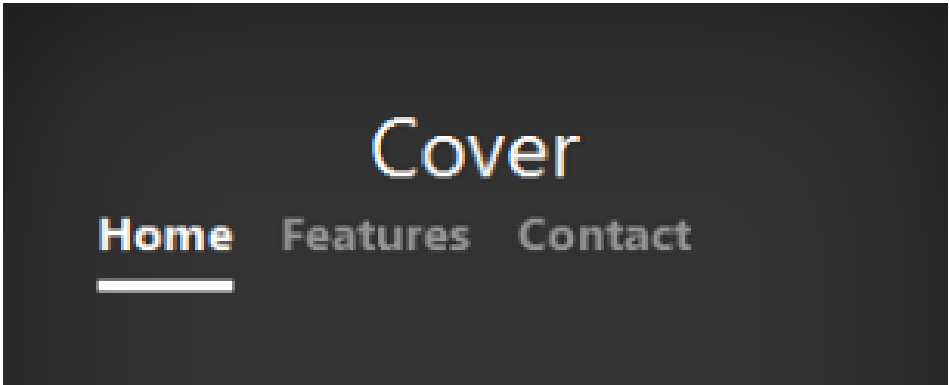
[Expand Summary List](#) [Copy failed tests to clipboard](#)

status filter passed

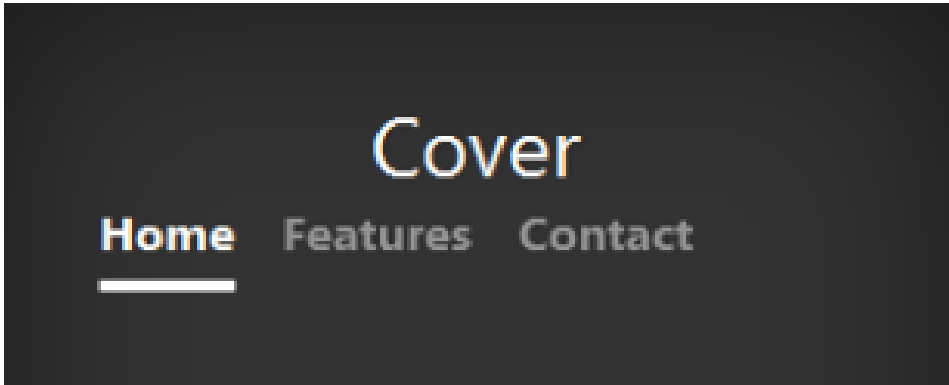
index - .masthead [Show diff](#)

regression_index_0_masthead_0_ip

Reference



Test



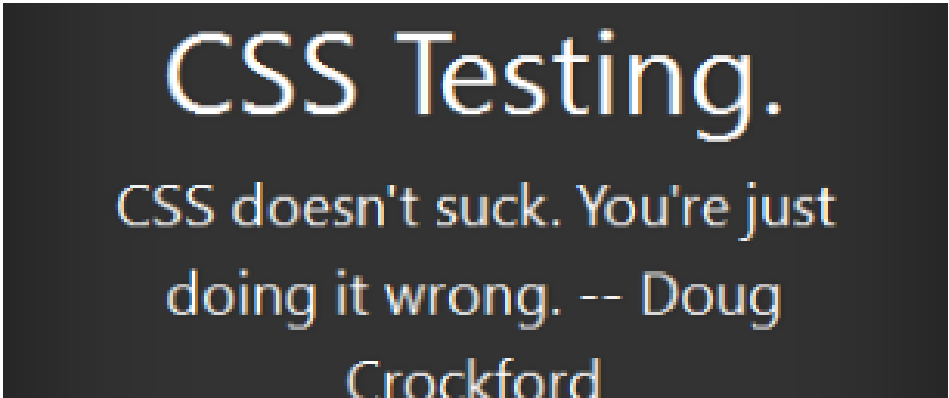
Report

● *passed*
Report: {
 "isSameDimensions": true,
 "misMatchPercentage": "0.00"
}
Threshold: 1

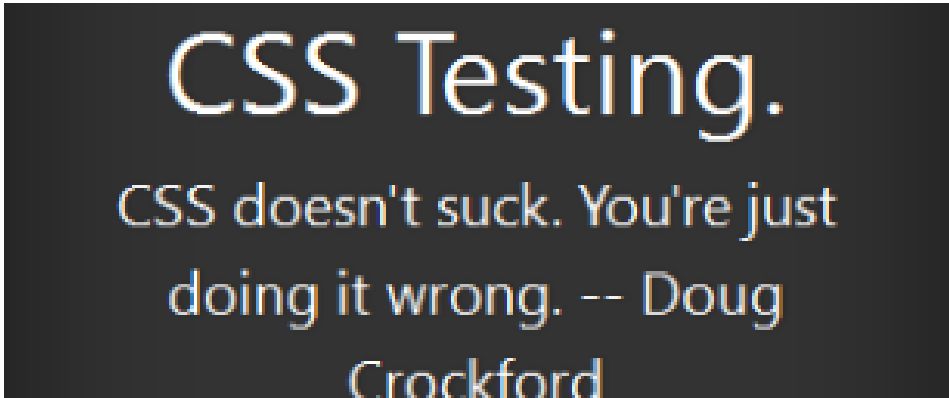
index - .cover [Show diff](#)

regression_index_1_cover_0_ip

Reference

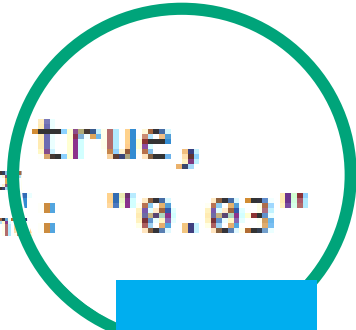


Test



Report

● *passed*
Report: {
 "isSameDimensions": true,
 "misMatchPercentage": "0.03"
}
Threshold: 1





Continuous Integration

1. gulpfile.js

```
gulp.task('test', function () {  
  return backstop('test', {  
    config: './backstop.json'  
  });  
});
```
2. gulp test
3. npm run report (backstop openReport)

...

```
report |  
      Test completed...  
report | 30 Passed  
report | 0 Failed  
  
report | Writing junit Report  
report | Writing browser report  
report | junit report written to: backstop_data\ci_report\xunit.xml  
report | Browser reported copied  
report | Copied configuration to: E:\projects\play-with-backstop\backstop_data\html_r  
COMMAND | Executing core for `openReport`  
openReport | Opening report.  
  COMMAND | Command `openReport` successfully executed  
  COMMAND | Command `report` successfully executed  
  COMMAND | Command `test` successfully executed  
[10:53:47] Finished 'test' after 17 s
```





CHUCK APPROVED



Да пребудет с тобой сила

— Что дальше?

1. Поддержка более сложных действий пользователя
2. Кроссбраузерная проверка
3. Проверка на реальных устройствах
4. Тестирование нового функционала

Спасибо!

<https://github.com/tohasan/play-with-backstop>