CROZ DevCon 2013

CoffeeScript

...a little language that compiles into JavaScript

CROZ 6.7.2013. / **@MiroslavResetar**

0:00 CC

ThoughtWorks®

TECHNOLOGY RADAR 5/2013

BRENDAN EICH

- Tvorac JavaScripta (Netscape 2.0, 11/95)

  I had to be done in ten days or something worse than JS would have happened

- 11/96 - ECMAScript započinje standardizaciju
- 1999 - ECMAScript 3 (klasični JS, IE8)
- 2011 - **ECMAScript 5** (IE9+, JSON, 'use strict')
- 201x - **ES.Next** (Harmony, ECMAScript 6))
- ES6 će preuzeti neke od koncepata CoffeScripta

JEREMY ASHKENAS

- Uz CoffeeScript tvorac **Backbone.js** i **Underscore** frameworka. Trenutno zaposlen @NYTimes i **DocumentCloud**
- Badnjak 2009 - CoffeScript 0.1.0, kompajler napisan u Ruby-u
- 21. 2. 2010 - CoffeScript 0.5.0, kompajler pisan u CS-u
- Badnjak 2010 - CoffeScript 1.0.0
- 5. 3. 2013 - CoffeScript 1.6.1, source maps!

COFFESCRIPT: `IT'S JUST JAVASCRIPT´

Expose the good parts of JavaScript in a simple way.

Compiles one-to-one into the equivalent JS.

Compiled output is readable and pretty-printed, will work in every JavaScript runtime.

Transcompiler *- source-to-source compiler translates between programming languages*

A ŠTO FALI JS-U?

Uvijek vidljiva globalna varijabla

Opasna uporaba operatora ==

```
typeof a !== "undefined"
&& a !== null
```

CoffeScript onemogućava zagađenje globalnog scope-a

CoffeScript će automatski konvertirati u === i !===

existential op. ?, false unless a variable is undefined or null

```
if carrots? && broccoli?
alert 'this is healthy'
```

COFFESCRIPT POPRAVLJA JS SINTAKSU

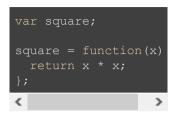CoffeScript sintaksa je inspirirana **Ruby-em** i Pythonom.

- Ne koristi

```
;
```

  i

```
}
```

- *Syntactical whitespace* - kao i Python
- Opcionalne zagrade kod poziva metoda
- Great function syntax

CILJ: KRAĆI I LAKO ČITLJIV KOD

- **JavaScript**

```
var square;

square = function(x)
  return x * x;
};
```

- CoffeScript

```
square = (x) -> x * x
```

SYNTACTIC SUGAR

- Ne obavezan

```
return
```

- **Default arguments**

```
square = (n=1) ->
    alert(n * n)
square()
```

- **Splats**

```
gpaScoreAverage = (scores...) ->
    total = scores.reduce (a, b) -> a + b
    total / scores.length
```

- **Comprehensions**

```
eat = (food) -> alert "I like #{food}"
eat food for food in ['toast', 'cheese', 'wi
```

KLASE

```
class Animal
  constructor: (@name) ->

  move: (meters) ->
    alert @name + " moved #{meters}m."

class Snake extends Animal
  move: ->
    alert "Slithering..."
    super 5

class Horse extends Animal
  move: ->
    alert "Galloping..."
    super 45

sam = new Snake "Sammy the Python"
tom = new Horse "Tommy the Palomino"

sam.move()
tom.move()
```

Pokreni

OUT IN THE WILD

Dropbox je prabacio sav JS u CS u tjedan dana.

- 3 inženjera 23k linije koda u tjedan dana
- Alati: **js2coffee**, **jasmine** i **selenium**
- Smanjenje koda za 21%
- Sada pišu sav novi kod u CS-u

Rails-i 3.1 koriste **CoffeScript kao default**.

LOŠE STRANE/PROBLEMI

- Debugging
  - Do sada kroz debugging JS-a
  - Trajno rješenje: **Source maps**
- Tooling suport

Miroslav Rešetar
@MiroslavResetar

Follow

Installing #cofeescript in #eclipse. 2 stops operation,1st install EMF bit.ly/10K3DIG 2nd use this file bit.ly/10K3G77

2:07 PM - 30 May 2013

2 FAVORITES

- Rješenje: IntelliJ IDEA nudi full **CS support** (uključujući debugging)
- **Maven CS compiler**

BESPLATNO OBRAZOVANJE

- Starting point **coffeescript.org**
- Dobar **getting started** na developerWorksima
- **Besplatne JavaScript knjige**
    - **The Little Book on CoffeScript**
    - **Testing with CoffeeScript**
- Videos @ **code school**

REFERENCE

- JS logo - **http://ocpsoft.org**
- ThoughtWorks - **Technology Radar**
- Jeremy Ashkenas: **CoffeeScript as a JS/Next**
- Dropbox: **dives into cs**

KORIŠTENI ALATI ZA OVU PREZENTACIJU

- **Reveal.Js**
- **Animate.Css**
- CROZDevCon logo - **http://supalogo.com/**
- I žličica **CoffeeScript-a**