What would Jesus Developer do?

Using developer approach in digital analytics practice

Lukáš Čech @cataLuc



Male human (36) Internet (20) Etnetera (12) Analytics (9) Father (4) MC Organizer (3) Double father (2)

*) as of 8.9.2018



Why should I bother?

✓ Because you want to spend less time → coding & debugging & swearing & crying ✓ Because you want to spend more time → designing measurement & analyzing

Today's Digital Analytics

Trial #1: CasperJS scraping Google Query "top analytics blogs" ~ 20 hours wasted

Trial #2: Analysis of Web Analytics Facebook group: Everyone ♥ Simo Ahava! Search or jump to..

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-



Simo Ahava sahava

 Follow
 Automated functional testing for Google Tag Manager's Data Layer

 Block or report user
 JavaScript ★ 49 ¥ 15

 @ 8-bit-sheep
 Finland
 simo.s.ahava@gmail.com
 https://www.simoahava.com

 ga-cl
 Python ★ 13 ¥ 2

Popular repositories		
spam-filter-tool	eec-gtm	
Spam Filter Insertion Tool	DOM scraping scripts for tracking content with Enhanced Ecommerce with Google Tag Manager	
⊖ JavaScript 🔺 106 😵 28	<mark>●</mark> JavaScript ★ 55 😵 12	
gtm-datalayer-test	content	
Automated functional testing for Google Tag Manager's Data	Advanced Content Tracking by Justin Cutroni for GTM	

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cl	ga-validator-apps-script
	Google Analytics Custom Dimension validator built in Apps Script
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153 contributions in 2018

Overview



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Repositories 43

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Overview

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Lukáš Čech

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Etnetera Activate a.s.
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Organizations

8



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≡ gtm-editor





Results of such approach

Glued-together copy-pasted code Week idea of code inner workings Poor quality of untested solutions Unhappy clients / analysts

Applicable Development Practices

#1 Local development

Applicable Development Practices

Pains of the standard approach

One becomes Copy-pastafarian You always need to be online The measured application needs to work

Predisposition of local development

NodeJS/NPM Build Tools / Task Runners

Advantages of the local development

Using IDE (Integrated Development Environment)
 Static code analysis (ESLint)
 Auto-complete, navigation, GIT, terminal
 Ability to work offline

#2 Version control

Applicable Development Practices

Pains of the standard approach

It is hard to localize issues Both in code and in time It is hard to rollback in case of issues

Advantages of the version control

Complete history of changes Addressable issues (author of changes)

Example

Oh look! It has so many colors!

#3 Modular programming

Applicable Development Practices

Pains of the standard approach

It is hard to localize the cause of issues Different parts of code affect each other Trying to re-use parts of code is hell

Predisposition of Modular programming

Code organization conventions Build Tools / Task Runners Deployment Process

Advantages of Modular programming

Re-usable code analytics concepts Variables, Triggers, Tags Enabler for TDD (Test Driven Development) Enabler for systematic refactoring



There is variety of Build Tools, Task Runners, JS Testing Frameworks and tools.

- 8 In Activate we use Gulp for build automation
- 8 We explore Mocha + Chai for Unit Tests
- 8 We also use CasperJS for End-to-end functional testing

Example

How this could go wrong...

#4 API-based approach

And now for something completely different...

When you go totally nuts, you can have...

Single codebase for multiple properties

Automatically generated documentation

Example

Live online demo – wish me luck!



Keep calm, write better code

and follow <a>@cataLuc