Automate till you die

by @cataLuc



Lukáš Čech (in numbers)



Male human (37) Internet (22) Etnetera (13) Analytics (10) Father (5) MeasureCamp (5) Double father (3)





Saturday the7th of September, 2019

Prague



Slide notes:

- Analytics projects in Etnetera since ~ 2009
- At that time
 - no TMS > just individual .js files
 - o copy-pasted a shared code
 - hard to manage
 - unable to do upgrades
- Many issues
 - Not able to deliver bugfixes at scale
 - Not really able to test individual functional modules
 - Hard to manage consistent code guidelines

Until 2013: copy-pasted shared code



Automation is the technology by which a process or procedure is performed with minimal human assistance.

The Year of 2014

- → International Year of Crystallography
- → International Year of Family Farming
- → International Year of Small Island Developing States
- → International Year of Solidarity with the Palestinian People











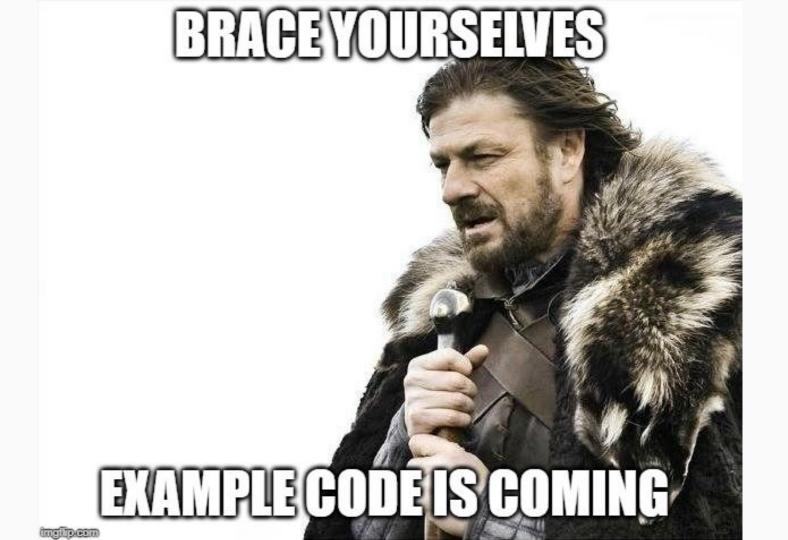


2014: we started to automate stuff



Slide notes:

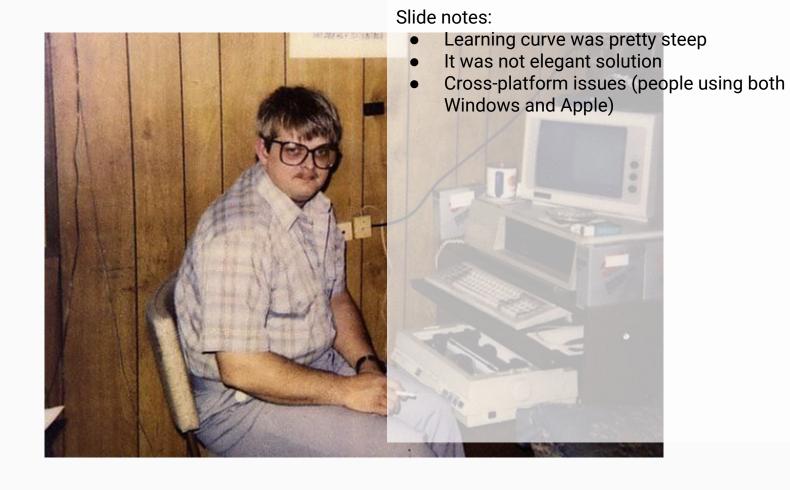
- Early stage of code bundling automation
- First steps with Version Control Systems (SVN)
- So we started with Shell Scripting
 - cat, sed, ...
 - YUI compressor (minification > performance)
 - versioning particular deployments



```
NOW=`date "+%d.%m.%Y %H:%M:%S"`
mkdir -p "build/${VERSION}/"
mkdir temp
echo "// ${VERSION} ${NOW}" > temp/version.js
#Replace version identification
sed -e "s/{{VERSION}}/${VERSION}/" < "src/s code config.js" > "temp/s code config.js"
#Minify
java -jar yuicompressor-2.4.8.jar src/dom-ready.js -o temp/dom-ready.js
java -jar yuicompressor-2.4.8.jar src/array-indexof.js -o temp/array-indexof.js
java -jar yuicompressor-2.4.8.jar src/measure-interface.js -o temp/measure-interface.js
java -jar yuicompressor-2.4.8.jar temp/s code config.js -o temp/s code config.js
java -jar yuicompressor-2.4.8.jar src/config.js -o temp/config.js
java -jar yuicompressor-2.4.8.jar src/measure-sitecatalyst.js -o temp/measure-sitecatalyst.js
java -jar yuicompressor-2.4.8.jar src/measure-googleanalytics.js -o temp/measure-googleanalytics.js
java -jar yuicompressor-2.4.8.jar src/measure-adform.js -o temp/measure-adform.js
java -jar yuicompressor-2.4.8.jar src/measure-adwords.js -o temp/measure-adwords.js
java -jar yuicompressor-2.4.8.jar src/measure-sklik.js -o temp/measure-sklik.js
java -jar yuicompressor-2.4.8.jar src/measure-facebook.js -o temp/measure-facebook.js
#Header block
cat temp/version.js src/dom-ready.js src/array-indexof.js src/measure-interface.js > temp/header-block.js
#Footer block
(cat temp/s code config.js; echo; cat src/s code plugins.js; echo; cat src/s code.js; echo; cat temp/measure-sitecatalyst.js; echo; cat temp/measure-googleanalytics.js; echo; cat
temp/measure-adform.js; echo; cat temp/measure-adwords.js; echo; cat temp/measure-sklik.js; echo; cat temp/measure-facebook.js; echo; cat src/measure-ready.js) > temp/footer-block.js
#Connect the parts
(cat temp/header-block.js; echo; cat temp/config.js; echo; cat temp/footer-block.js) > "build/${VERSION}/measure.js"
```

#!/bin/sh LIBRARY=H 27 4

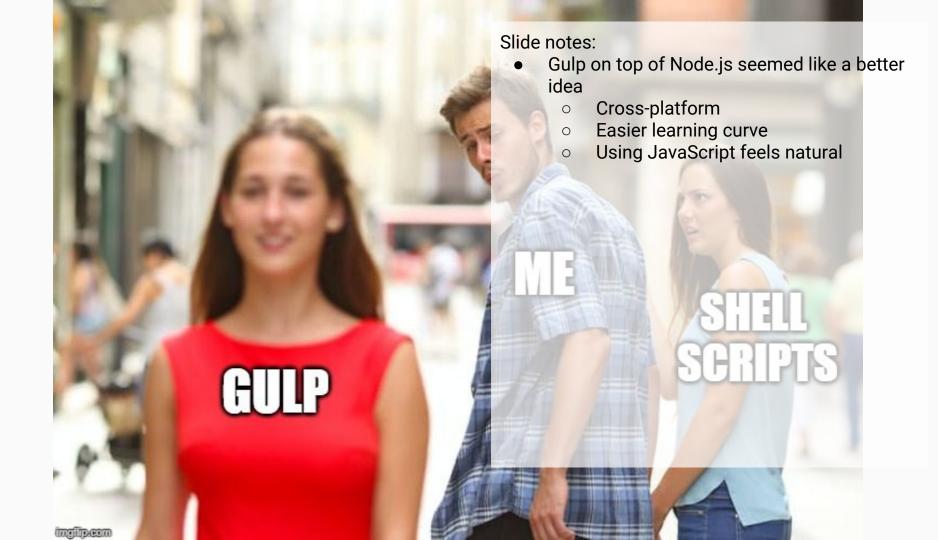
rm -R temp



The Year of 2016

- → International Year of Pulses (luštěniny)
- → International Year of Global Understanding





How to start with **Gulp**

```
npm init
```

```
npm install gulp-cli -g
npm install gulp -D
npm install gulp-uglify -D
npm install gulp-concat -D
```

npx -p touch nodetouch gulpfile.js

Example gulpfile.js

```
const { src, dest } = require('gulp');
const concat = require('gulp-concat');
const uglify = require('gulp-uglify');
exports.default = (cb) => {
 return src('src/**/*.js')
  .pipe(concat('measure.js'))
  .pipe(uglify())
  .pipe(dest('build/'));
```

```
const { src, dest } = require('gulp');
#!/bin/sh
                                                                                                                         const concat = require('gulp-concat');
I IBRARY=H 27 4
NOW=`date "+%d.%m.%Y %H:%M:%S"`
                                                                                                                         const uglify = require('gulp-uglify');
                                                                                                                        const inject = require('gulp-inject-string');
mkdir -p "build/${VERSION}/"
                                                                                                                         const dateformat = require('dateformat');
                                                                                                                         const VERSION = "2.0":
mkdir temp
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                                                                                                                         const NOW = dateformat(new Date(), 'dd.mm.yyyy HH:MM:ss');
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                                                                                                                           .pipe(inject.prepend('//' + VERSION + ' (' + NOW + ')\n'))
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```

.pipe(dest('build/' + VERSION));

Slide notes:

I think that is is obvious

```
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mkdir -p "build/${VERSION}/"
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java -jar yuicompressor-2.4.8.jar temp/s_code_config.js -o temp/s_code_config.js
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java -jar yuicompressor-2.4.8.jar src/measure-adform.js -o temp/measure-adform.js
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const concat = require('gulp-concat');
const uglify = require('gulp-uglify');
const inject = require('gulp-inject-string');
const dateformat = require('dateformat');
const VERSION = "2.0";
const NOW = dateformat(new Date(), 'dd.mm.yyyy HH:MM:ss');
exports.default = (cb) => {
    return src('src/**/*.js')
    .pipe(concat('measure.js'))
    .pipe(uglify())
    .pipe(inject.prepend('//' + VERSION + ' (' + NOW + ')\n'))
    .pipe(dest('build/' + VERSION));
}
```

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Slide notes:

Isn't it?

I IBRARY=H 27 4

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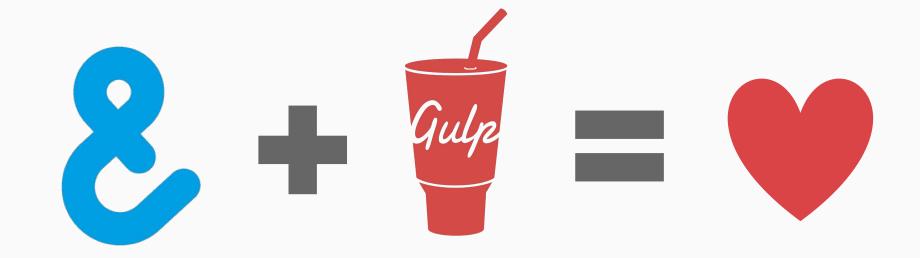
repend('//' + VERSION + ' (' + NOW + ')\n'))

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Slide notes:

It is! Now we feel much cooler:)

rm -R temp



... with this we can level up our game

- ... write modular code
- ... automate builds and code optimization
- ... automate Unit Testing
- ... release management and deployment



Pro tip:

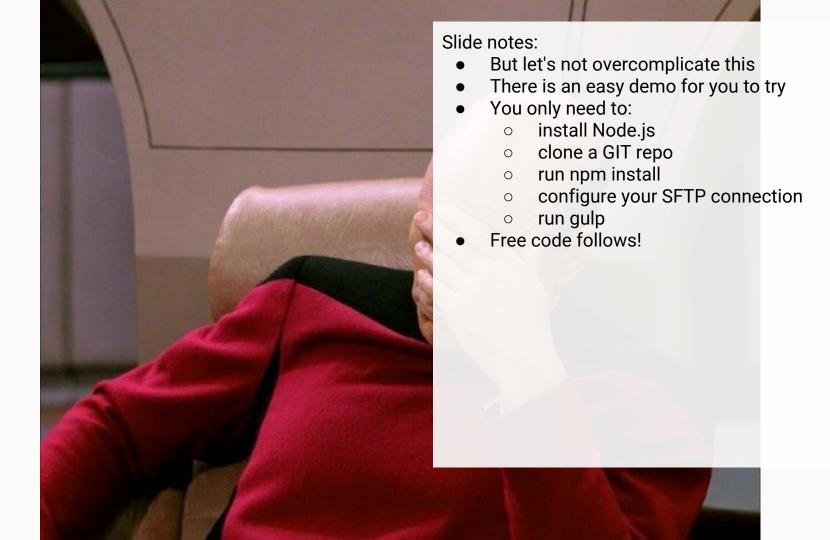
Streamlined **Adobe DTM** (it works similarly for Abode Launch) deployment for **Self-hosting** by:

- Download .zip files from PROD / STAGE
- Unpack those files
- Replace host: {http: "...", https: "..."}
- Clone the files for various Environments
- Generate deployment instructions
- Re-pack the bundle for deployment

Slide notes: LIKE GIT SO I PU

- You can upload to GTM via API
- You can run tests during the process
- You can notify into Slack channel
- You can really do crazy stuff like Building everythig when you push a tag into your GitHub repository
 - extract version IDs from GIT
 - or only allowing pushes if Unit Test pass

THAT PUSHES



https://s.417.cz/gulp

This will help you with a quick start



Etnetera Activate is hiring!

https://s.417.cz/analyticsJob