

ASTs

O poder em suas mãos...

inloco

Maíra Bello

Recife.

9 anos trabalhando com Web Development.

inloco

Mãe de Joaquim.



Joaquim Bello

2 anos.

Lindo.

Fofo.

Amor da mamãe.





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> 60M
de smartphones no Brasil



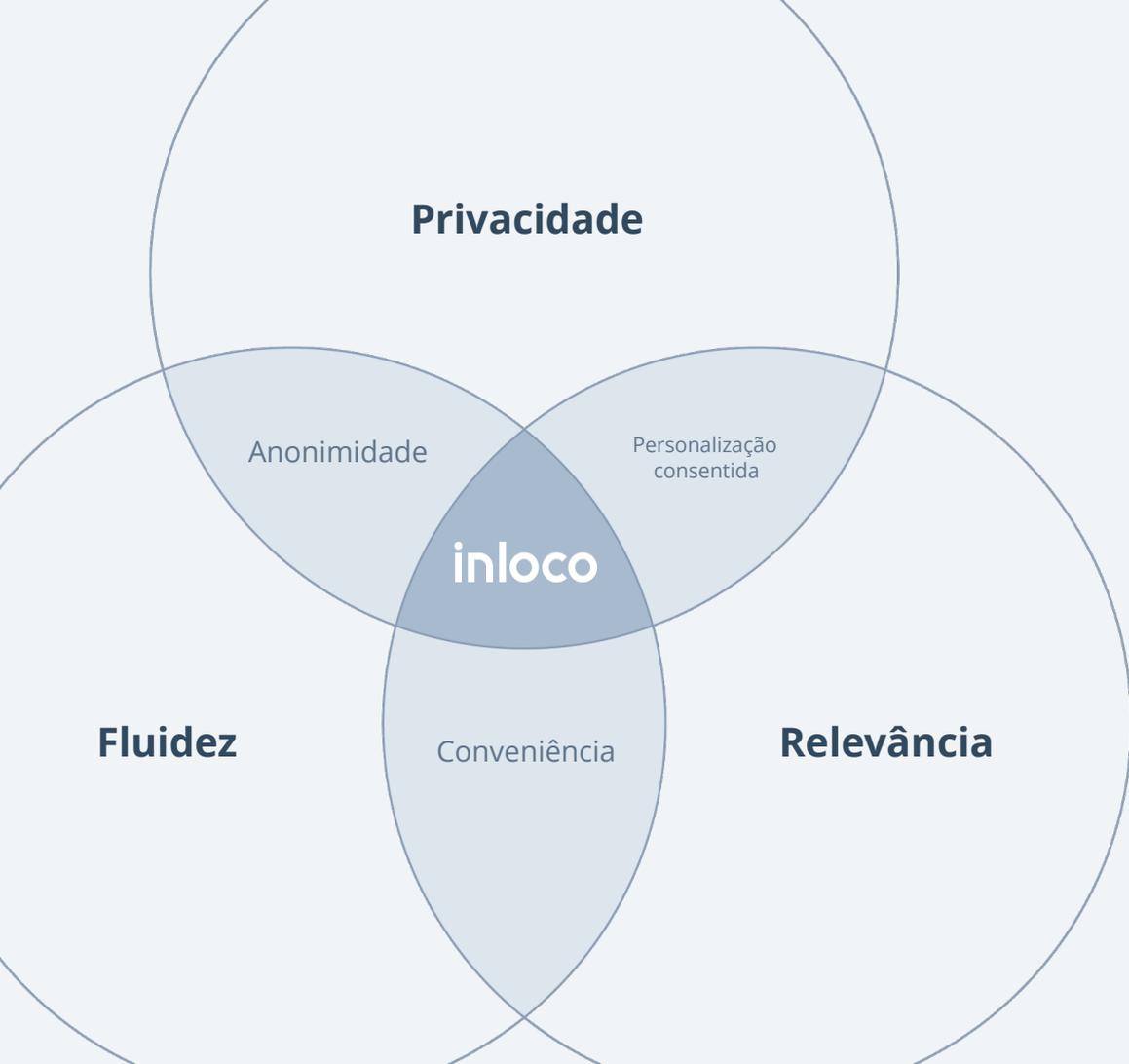
> 16TB
de dados processados
diariamente



> 28M
de lugares mapeados

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Nosso propósito

Entregar conveniência para as pessoas garantindo sua privacidade.



História



O ano é 2015 *(ou 2 a.j.)*

```
import Baby from './Baby'  
  
class Joaquim extends Baby {  
  }  
  
export default Joaquim
```

```
const { age, name } = baby
```

```
`Hello ${name}`
```

```
const isTheCutestBaby = (baby) => baby.name === 'Joaquim'
```



O ano é 2015 *(ou 2 a.j.)*

6T05



O ano é 2015 *(ou 2 a.j.)*

BABEL





"Precisamos de uma build para variáveis globais."

```
export default MyComponent
```



```
window.MyComponent = MyComponent
```



Como essas ferramentas transformam ES6 para ES5?

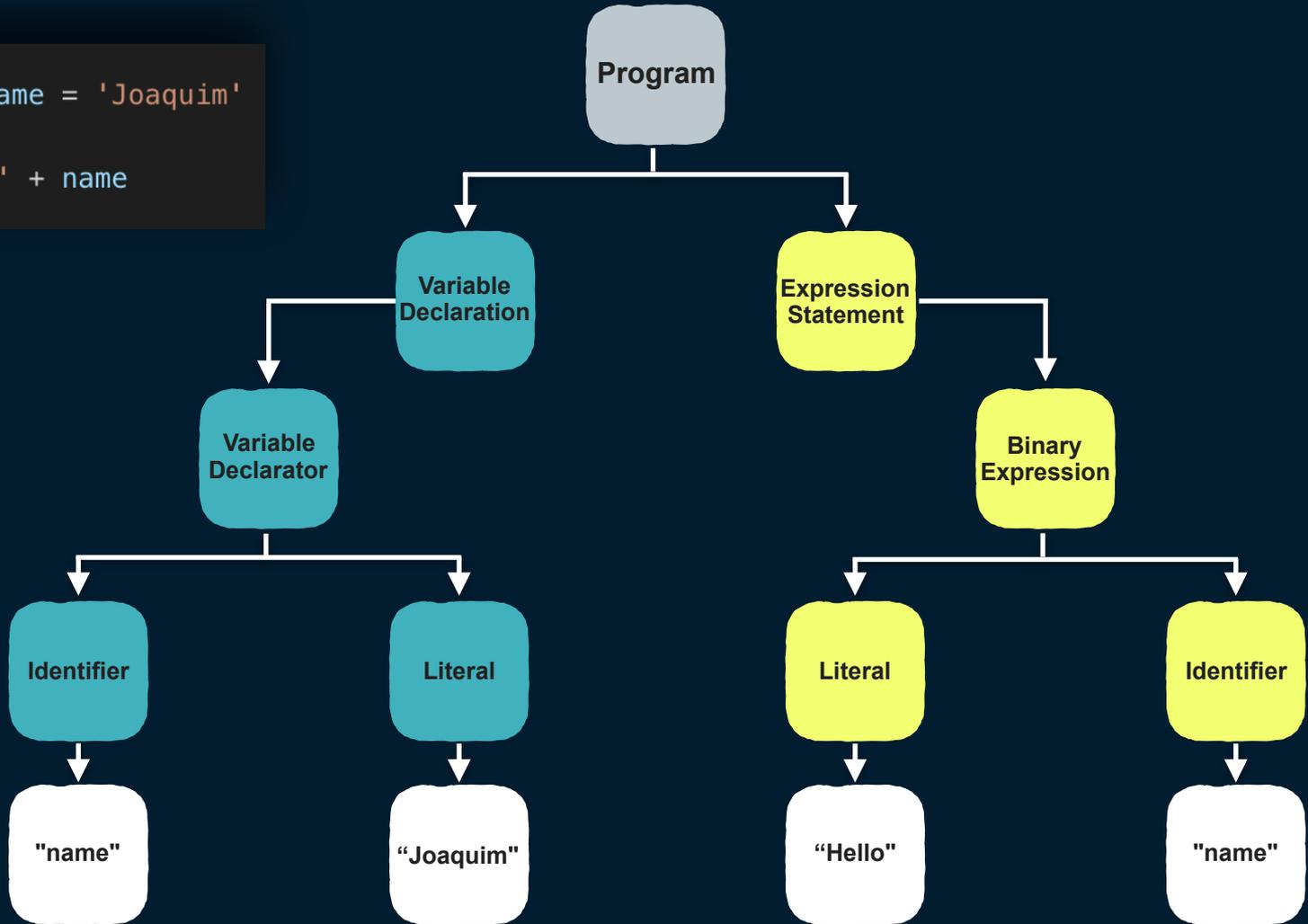


Abstract Syntax Trees



```
const name = 'Joaquim'  
  
'Hello ' + name
```

```
const name = 'Joaquim'  
'Hello ' + name
```



AST Explorer

astexplorer.net

ASTs

Compilers

Syntax Highlighting

Typed JS

Autocomplete

Code mods

ASTs

Lint

Formatting

Code coverage

Code compression

Import CSS/SVG/etc

JSX

ES6 to ES5



TypeScript



jscodeshift

BABEL



Visual Studio Code

ASTs: para quê?

1.

Entender

2.

Contribuir

3.

Extender

4.

Criar

"Precisamos de uma build para variáveis globais."

```
export default MyComponent
```



```
window.MyComponent = MyComponent
```



Tomorrow's JavaScript module syntax today <http://esnext.github.io/es6-module-tr...>

404 commits 5 branches 31 releases 28 contributors View license

Branch: master Create new file Upload files Find File Clone or download

eventualbuddha Merge pull request #200 from Rich-Harris/patch-1

Latest commit f3f55fd on Oct 19, 2015

bin	Fix the usage message for bad options.	5 years ago
lib	fixes #129 by enhancing the generation of any	5 years ago
test	Ensure exporting a namespace import object works.	5 years ago
.editorconfig	Remove editorconfig option WebStorm doesn't like.	5 years ago
.gitignore	Re-write the module transpiler with support for bindings.	5 years ago
.jshintrc	Add JSHint	6 years ago
.travis.yml	fix travis-ci	6 years ago
AUTHORS	Prepare for release.	7 years ago
CHANGELOG.md	Update changelog for next release.	5 years ago
LICENSE	Re-write the module transpiler with support for bindings.	5 years ago
README.md	remove mention of (also deprecated) Esperanto	4 years ago
TRANSITION.md	Update the CHANGELOG, TRANSITION, and README files.	5 years ago
package.json	v0.10.0	5 years ago

Conceitos



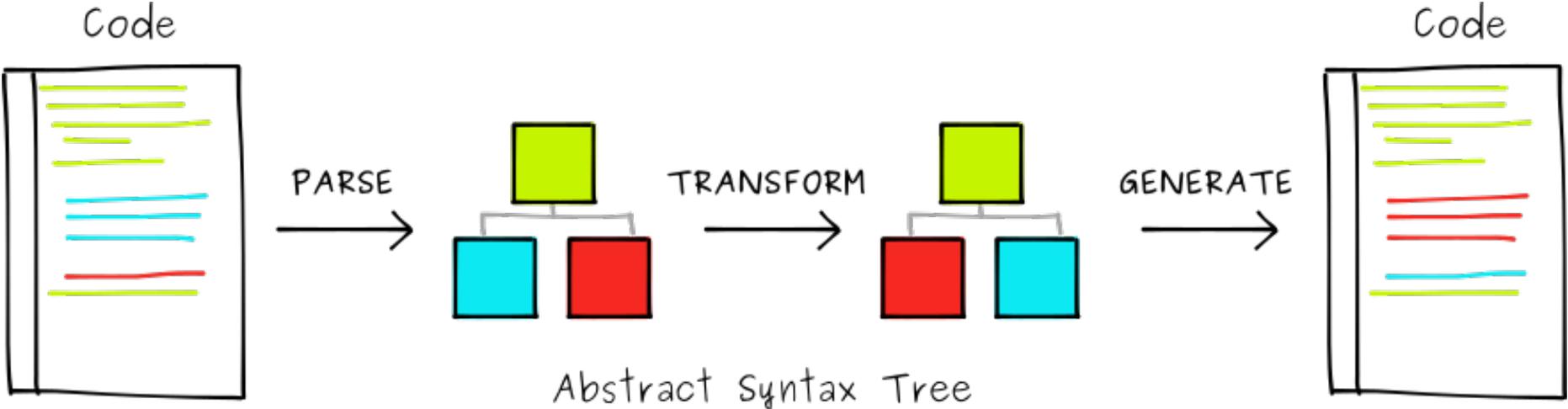
Visitor Pattern

```
export default function (babel) {
  const { types: t } = babel

  return {
    visitor: {
      ExportDefaultDeclaration(path) {
        const newNode = t.assignmentExpression(
          '=',
          t.memberExpression(
            t.identifier('window'),
            path.node.declaration
          ),
          path.node.declaration
        )

        path.replaceWith(newNode)
      }
    }
  }
}
```

AST Steps



AST Steps

1.

Parse

@babel/parser

acorn

recast

2.

Traverse



3.

Transform



4.

Generate

jscodeshift



**O poder
em suas mãos**



ASTs: para quê?

1.

Entender

2.

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Criar

Entender

- [babel](#)
- [eslint](#)

Cont

- [babel](#)

jridgewell / babel-plugin-transform-incremental-dom

Watch 8 Unstar 143 Fork 13

Code Issues 5 Pull requests 0 Actions Projects 0 Security Insights

Contributions: Commits

Jul 5, 2015 – Oct 10, 2019

Contributions to master, excluding merge commits

Contributor	Rank	Total Commits	Green Commits	Red Commits
jridgewell	#1	337	30,447	14,541
jamiebuilds	#2	10	263	36
mairatma	#3	9	221	68
zandaqo	#4	1	38	4

Contributor #1: jridgewell, 337 commits (30,447 ++, 14,541 --)

Contributor #2: jamiebuilds, 10 commits (263 ++, 36 --)

Contributor #3: mairatma, 9 commits (221 ++, 68 --)

Contributor #4: zandaqo, 1 commit (38 ++, 4 --)

Extender

- Transformar exports em variáveis globais (**babel-globals-module-formatter**).
- Alias pra importar do bower (**babel-plugin-import-alias-bower**).
- Integrar com a closure library da Google (**babel-plugin-closure-module**).
- Registrar componentes automaticamente após definição da classe (**babel-plugin-metal-register-components**).

github.com/mairatma

Criar

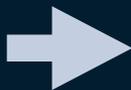
- Gerar um componente para cada closure (aka soy) template (**soyparser**).

O ano é 2017 *(ou 1 d.j.)*



“Precisamos transformar definições de tipos GraphQL em CRUD APIs automaticamente.”

```
type Baby {  
  id: ID!  
  name: Name  
  birthDate: Date  
}
```



```
type Query {  
  baby(id: ID!): Baby  
  babies: [Baby!]!  
}  
  
type Mutation {  
  createBaby(name: Name, birthDate: Date): Baby!  
  updateBaby(id: ID!, name: Name, birthDate: Date): Baby!  
  deleteBaby(id: ID!): Boolean  
}
```



“Precisamos permitir que definições de tipos GraphQL, espalhadas em diferentes repositórios, se estendam e se comuniquem.

```
type Hospital {  
  id: ID!  
  babies: [Baby!]! @use("baby-graphql")  
}  
  
type Baby @extendFrom("baby-graphql") {  
  hospital: Hospital  
}
```



Criar

- Gerar um componente para cada closure (aka soy) template (**soyparser**).
- Automações a partir de schemas GraphQL (CRUD api, schema stitching, etc).



GRAPHCOOL Framework



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