

AST

or

Abstract Syntax Tree



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JS



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.CSS{
CastShow;

FEMUG
RJ

ISTÓS
SISTEMAS • APP • SITES



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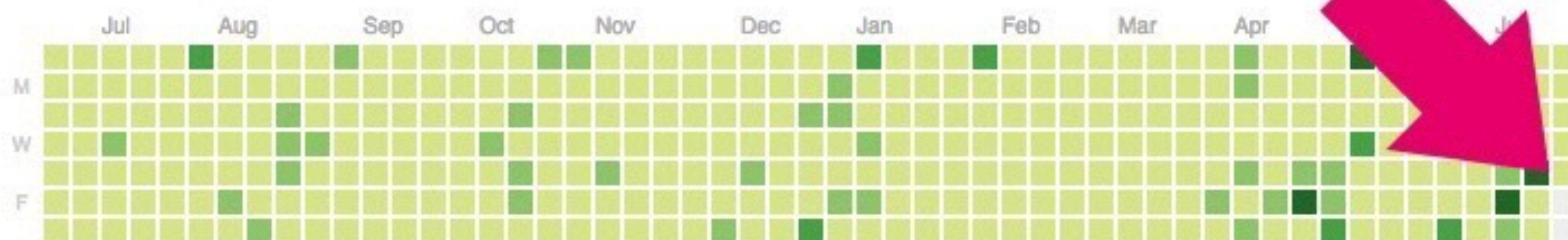
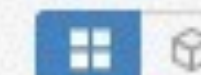
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- awesome-flexbox** 409 ★
 A curated list of CSS Flexible Box Layout Module or only Flexbox.
- open-source-checklist** 117 ★
 A guide to help you remember important things when creating an open source project ;D

1,295 contributions in the last year

Contribution settings ▾



Summary of pull requests, issues opened, and commits. [Learn how we count contributions.](#)

Less More

Limpo a 1 dia!

Não !

Não é sexualmente transmissível

Representação **Abstrata** da **estrutura** sintática



giflike.com

Lek, Para que serve isso?

Faz o meio de campo
entre o parser
e os paranaauês

??????????

Exemplo prático!

E se eu quises
formatar meu CSS com
Javascript?

Antes

```
/*comment*/  
.TEST_CLASS:hover{ background-image: url('../bg.jpg') ; }
```

Depois

```
/* comment */  
.test-class:hover {  
    background-image: url("../bg.jpg") ;  
}
```


RegExp?

```
function pacificateSyntax(styleshet) {  
  styleshet = styleshet.replace(/\s/g, "")  
    .toLowerCase()  
    .replace(/\'/g, "\"")  
    .replace(/_/g, "-")  
    .replace(/\{/g, " {\n")  
    .replace(/\//g, " \/\n\n")  
    .replace(/\*/g, " *\n\n")  
    .replace(/;/g, ";\n")  
    .replace(/:/g, ":\n")  
    .replace(/\[:] (.* [\{])/g, ":\n$1")  
    .replace(/\}/g, "}\n\n");  
  
  return styleshet;  
}
```


Imaginem **fazer** isso
com o **JS**?



BABEL



Hora do **AST**
Brilhar ;)

Como um Parser funciona?

Parser em nodejs

```
$ npm install css
```

```
var css = require('css');  
var obj = css.parse('body { font-size: 12px; }', options);  
css.stringify(obj, options);
```

http://iamdustan.com/reworkcss_ast_explorer/

```
1 /**
2  * Paste some code here and explore the synt
3  * created by https://github.com/reworkcss/c
4  */
5
6 * {
7   -moz-box-sizing: border-box;
8   box-sizing: border-box;
9 }
10
11 body {
12   background: red;
13   font-size: 18px;
14 }
15
16 p {
17   color: purple !important;
18 }
19
20 @media screen and (min-width: 600px) {
21   body {
22     background: green;
23     font-size: 21px;
24   }
25 }
```

Tree

JSON

```
1 {
2   "type": "stylesheet",
3   "stylesheet": {
4     "rules": [
5       {
6         "type": "comment",
7         "comment": "*\n * Paste some code here
8         "position": {
9           "start": {
10             "line": 1,
11             "column": 1
12           },
13           "end": {
14             "line": 4,
15             "column": 4
16           }
17         },
18       },
19       {
20         "type": "rule",
21         "selectors": [
22           "*"
23         ],
24         "declarations": [
25           {
26             "type": "declaration",
27             "property": "-moz-box-sizing"
```


Lembra?

Faz o meio de campo
entre o parser
e os paranaauês


Lek, mas e os paranauês?

Retorna um OBJ mano,
você pode usar
apenas javascript
para ser feliz =D

```
6 function pacificator() {  
7  
8   this.pacificate = function(path) {  
9     var stylesheet = fs.readFileSync(path, 'utf8');  
10  
11     // get AST  
12     var ast = css.parse(stylesheet);  
13  
14     // rules  
15     var rules = ast.stylesheet.rules;  
16  
17     // rules iteration  
18     rules.forEach(pacificateRules)  
19  
20     function pacificateRules(rule) {  
21  
22       // selectors pacificate  
23       console.log(rule.selectors);  
24       rule.selectors = [  
25         rule.selector.join(",\n")  
26         .toLowerCase()  
27         .replace(/_/g, "-") // Change all _ to -  
28       ];  
29  
30       // declarations  
31       var declarations = rule.declarations;  
32
```




Que **mané** CSS,
eu **quero criar** meu próprio
JSHint!



Lek, Calm down.

JS

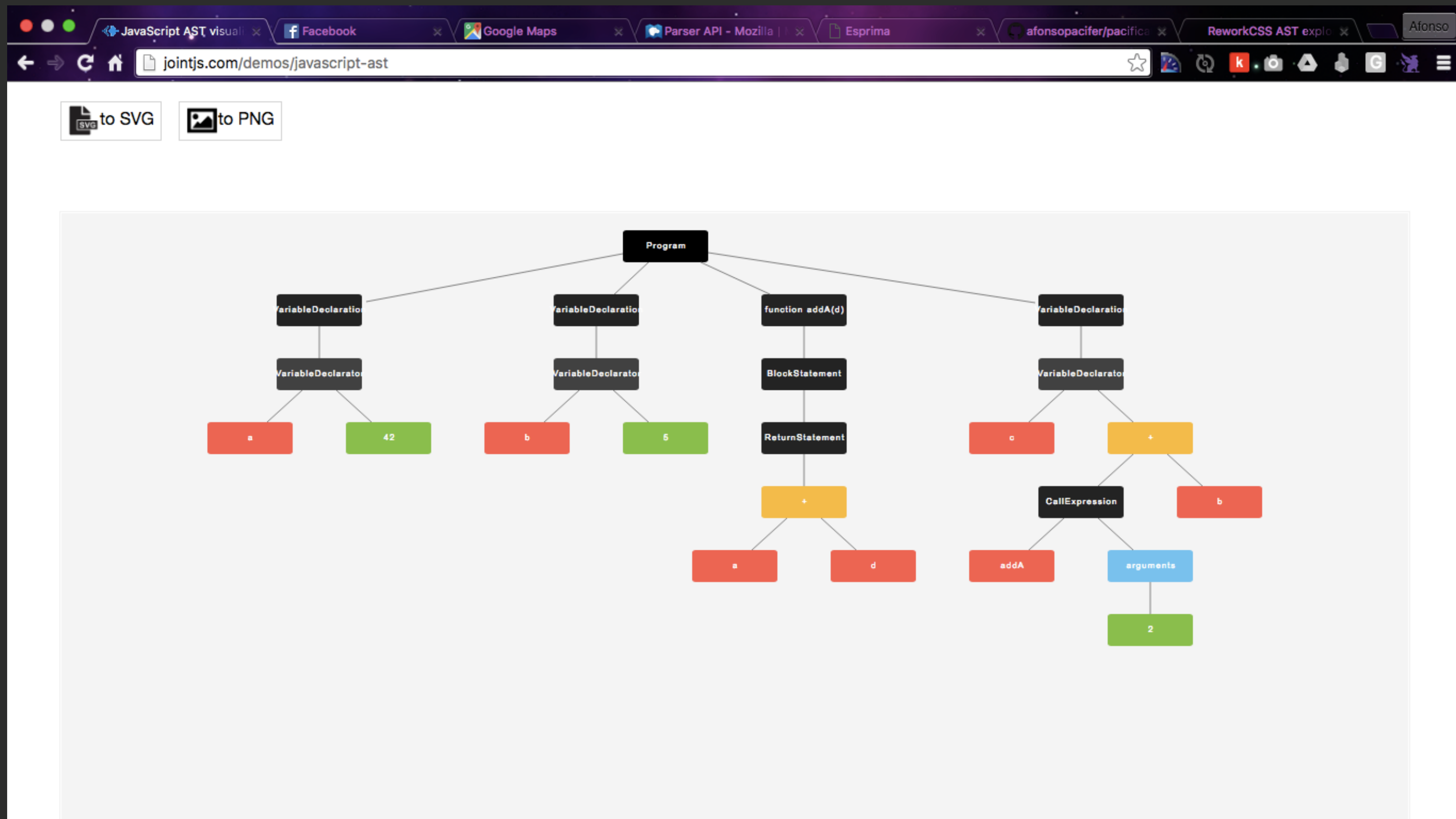
Existem **vários** parsers para **JS**

Parser API

Existem **vários** padrões de **AST**

esprima.org

http://iamdustan.com/reworkcss_ast_explorer/



O que dá para **fazer** com isso?

Analisar o código

Minificar

Lint

Refatorar

Transpilers

Criem **suas** próprias
ferramentas!

PacificatorJS

```
$ npm install -g pacificator
```

```
$ pacificator style.css
```

Sou um mero
Evangelista CSS
Imagina o que
vocês podem **criar**!

Thanks :)

afonsopacifer.com

Nos vemos lá :)

