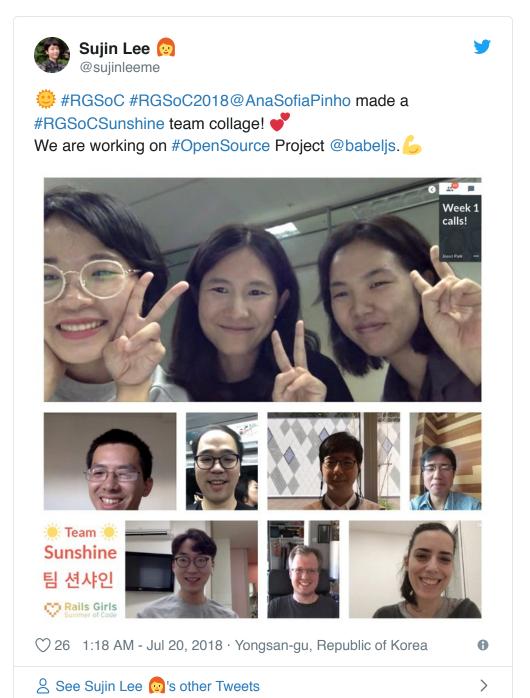
Lightening Talk | Frontend Conference Fukuoka 2018

RAILS GIRLS SUMMER OF CODE 3 MONTHS JOURNEY OF CONTRIBUTING TO BABEL.JS

Sujin Lee @sujinleeme

RAILS GIRLS SUMMER OF CODE (#RGSOC)

- Award-winning global fellowship program aimed at bringing more diversity into Open Source. (only 11% of OSS contributors identify as women)
- Contribute to an overall of 67 Open Source projects such as Babel, Bundler, Rails, Discourse, Tessel, NextCloud and more.
- Make a team with OSS maintainers/mentors, RGSoC supervisor local coaches and students working together.
- Get more info from https://railsgirlssummerofcode.org/



TEAM SUNSHINE 🔅

More Read: https://sujinlee.me/rgsoc-prologue/

• Members : Gyujin Cho, Sujin Lee

• Supervisor : <u>Ana Sofia Pinho</u>

• Mentors: <u>Henry Zhu</u>, <u>Brian Ng</u>, <u>Logan Smyth</u>

• Local Coaches: <u>Byungjune Yoon</u>, <u>Hyeonsu Lee</u>, <u>Seongjun Kim</u>, <u>Dohyung Ahn</u>

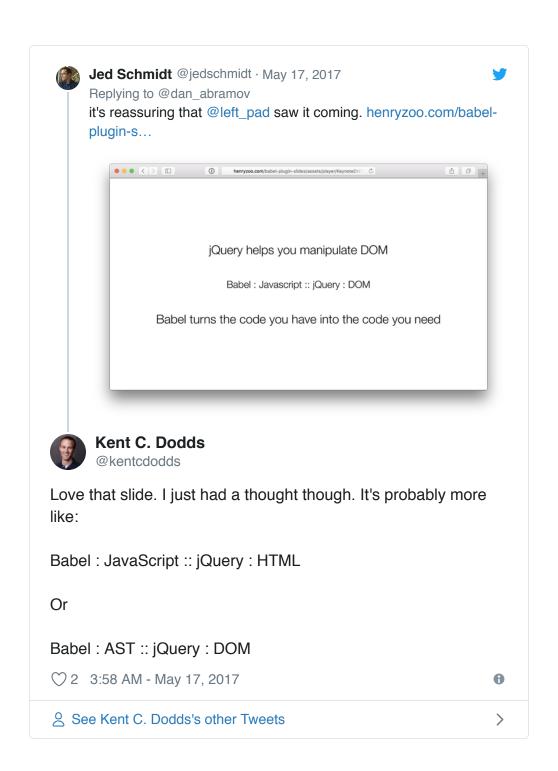
WHAT IS



https://babeljs.io/

"A JavaScript compiler a toolchain that is mainly used to convert ES 2015+ code into a backwards compatible version of JavaScript in current and older browsers or environments". - Babel Website

"A compiler, an open source project community, part of the JavaScript community." - Henry Zhu



BABEL AS A COMPILER

babel-generator & prettier babylon **JSX transform** Transformer(s) Parser Generator $\mathsf{Code} \to \mathsf{AST}$ $\mathsf{AST} \to \mathsf{AST}$ $AST \rightarrow Code$ (Plugins/Presets) String(input.js) ASTs(JSON) String(output.js)
 { "type": h("br") "JSXElement", }



- Diagram A excerpt from Henry Zhu's Keynote 'So how does babel even work'
- Henry Zhu So how does Babel even work?
- <u>Babel Handbook</u>

WHAT'S GOOD FOR BABEL CONTRIBUTION?

- A open-sourced JavaScript compiler that tech leading companies and countless others adopt to ship software for the web.
- A great position to be an educational tool for programmers so they can continue to learn how JavaScript works.
- The warmth of welcome to Babel open source community.
- Learn many other concepts such as ASTs, compilers, language specification, and more.



READ BABEL ROAD MAP

- Hook into CodeSandBox
- Better Debuggability
- Better REPL
- <u>ASTExplorer</u>
- Compiled Output Stats

REPL, 'A PLAYGROUND FOR BABEL'

https://babeljs.io/repl

```
BABEL 6.x
                                                                                     Docs Setup Try it out Blog Q Search
                                                                                                                                          Donate Team GitHub
                                                                                                       1 "use strict";
Line Wrap
                                     class HelloWorld extends react.Component
                                       constructor() {
Minify
Prettify
                                          this.greeting = "hello!";
                                                                                                      6 return obj && obj.__esModule ? obj : { default: obj };
File Size
                                        sayHello() {
 Source Type
                                          console.log(this.greeting);
                                                                                                      9 function _instanceof(left, right) {
                                                                                                     10 if (
11 right != null &&
                                        render() {
                                                                                                     12 typeof Symbol !== "undefined" &&
13 right[Symbol.hasInstance]
 v PRESETS
                                            <Title>
                                            {this.greeting}
es2015
                                            </Title>
                                                                                                           return right[Symbol.hasInstance](left);
                                                                                                     16 } else {
                                                                                                     return left instanceof right;
18 }
stage-0
                                                                                                     22 if (typeof Symbol === "function" && typeof Symbol.iterato
23 _typeof = function _typeof(obj) {
flow
                                                                                                          _typeof = function _typeof(obj) {
   return obj &&
  NOTES NOT PRESENT 7.0.0-BETA.35
                                                                                                               typeof Symbol === "function" &&
obj.constructor === Symbol &&
                                                                                                               obj !== Symbol.prototype
? "symbol"
                                                                                                                : typeof obj;
                                                                                                           };
                                                                                      273 Bytes
                                                                                                                                                           3.1 kB
                                                                                                          return _typeof(obj);
```

- Integrated in the official documentation website built with <u>Docusaurus</u>
- Using pure react.js(flow): https://github.com/babel/website/tree/master/js/repl

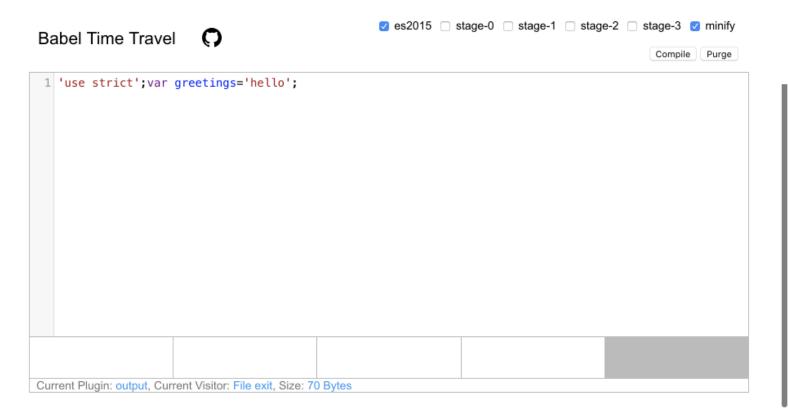
OUR WORKS FOR REPL

- Show a different view of complied code: AST, output code, and time travel.
- Learning existing codebase of references: <u>ASTExplorer</u>, <u>Redux Devtools</u>, <u>CodeSandbox</u> and JSON tree view libraries.
- Some UI Improvements

BABEL-TIME-TRAVEL

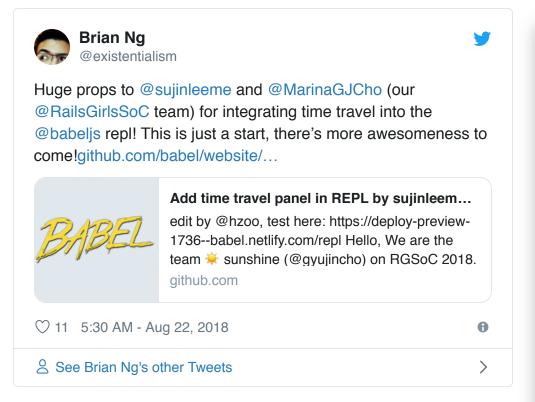
https://github.com/babel/babel-time-travel

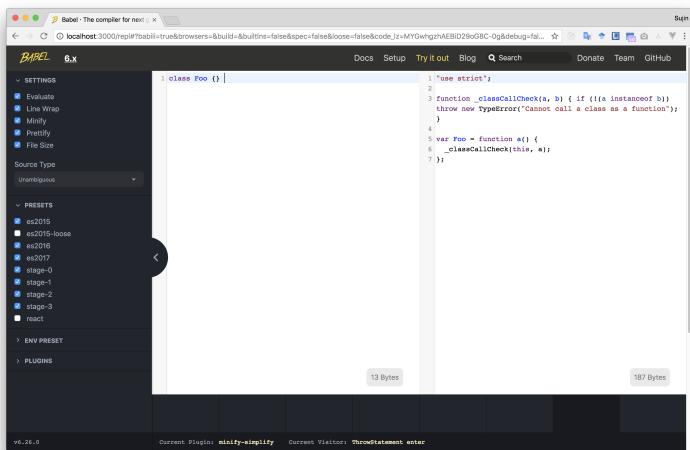
Empower to be able to make changes, even small ones!



- Time travel slides through babel transformations one by one created by Boopathi Rajaa
- Change babili to minify in available presets (#3)
- Show the size in bytes of the code (#4)

> The first PR: Time Travel

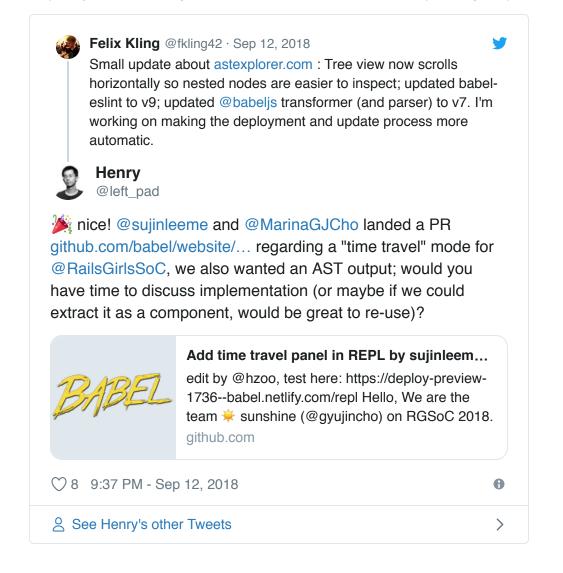




Now, AST Panel is ready to merge!

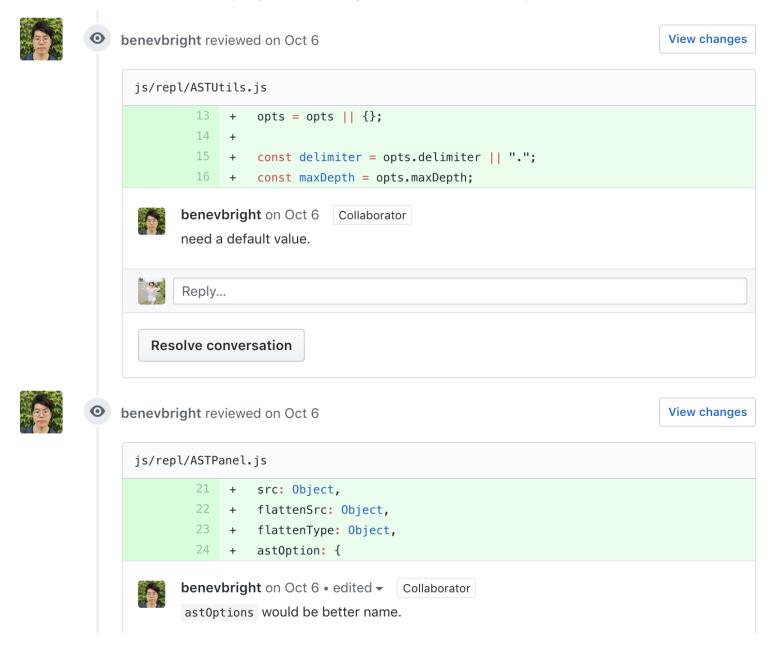
integrate **ASTExplorer** into Repl

https://github.com/sujinleeme/babel-website/blob/ASTOptions/js/repl/ASTPanel.js

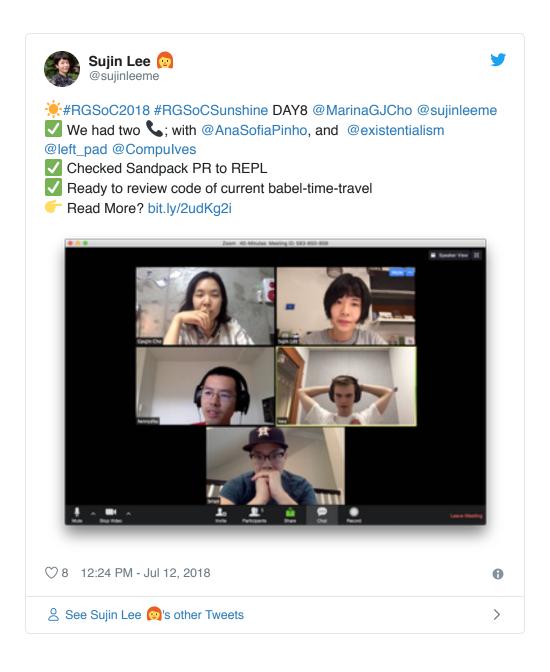


Code reviews by local coaches

http://github.com/sujinleeme/babel-website/pull/1



One challenge: A team from 6 different time zones



THEN, HOW TO GET INVOLVED IN OSS?

巨人の肩の上にのる

If I have seen further, it is by standing upon the shoulders of giants. - Isaac Newton



• How to contribute Open Source

ありがとうございました

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Sujin Lee @sujinleeme