



# Practical TypeScript 2 Migration

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GOOD MORNING!

# It's Survey Time

- Who here uses JavaScript?
- Who here uses Babel?
- Who here uses CoffeeScript?
- Who here uses TypeScript v1?
- Who here uses native ES6+?

# It's Survey Time

- Who here uses Node.js?
- Who here uses Electron?
- What JavaScript frameworks do people use?
- What Text Editors/IDEs do people use?
- What Desktop OS do you use?
- What Server OS do you use?
- Who does mobile development with JavaScript?

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**Namely** 

# Practical TypeScript 2 Migration

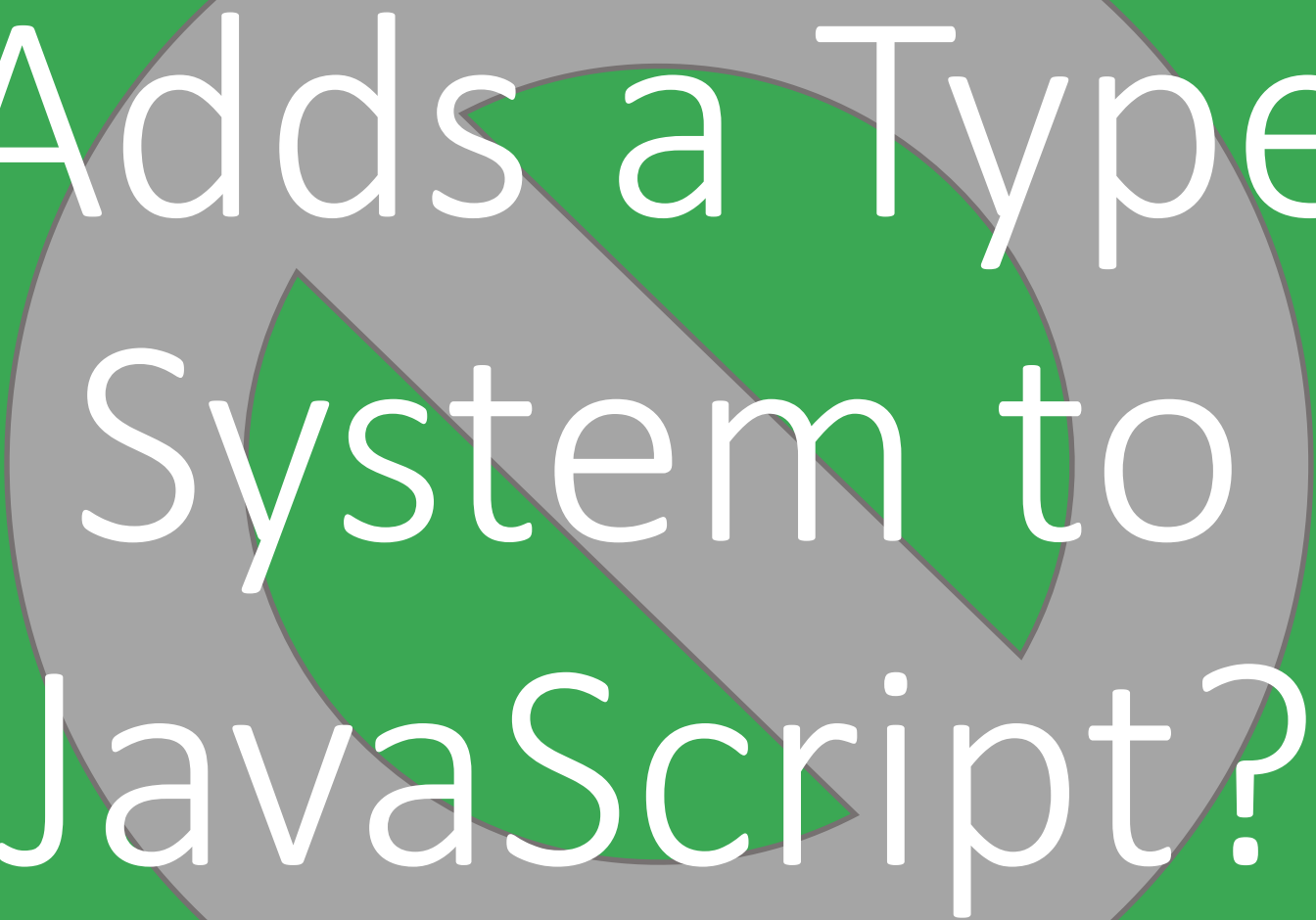
# TypeScript

TypeScript is  
JavaScript that's  
refactorable



You can write JavaScript fast, but  
you can't refactor JavaScript at  
the speed that you write it.

-Erich Gamma



Adds a Type  
System to  
JavaScript?

# Illuminates JavaScript's Type System

# Make Better Use of JavaScript's Type System

TypeScript  
Goes  
With You

Refactorable  
Make better use of the  
JS type system  
Goes with you

# Practical TypeScript 2 Migration

# New In TypeScript “2”

- 1.5: Significant ES6 support
- 1.6: JSX
- 1.7: async/await
- 1.8: --allowJs
- 2.0: @types, Non-nullable types, control flow analysis
- 2.1: down-level async
- 2.2: `object` type
- 2.3: --strict, down-level generators
- 2.4: type check JS files with // @ts-check
- 2.5: improved refactorings



# Best of TypeScript “2”

Good ES6+ Support

JSX Support

Migration “Slider Bar”

@types/\* on npm

# Good ES6 Support

- Const and let
- Template strings
- Rest and spread
- Destructuring objects and arrays
- Object literal shorthand
- Classes
- modules

# Good ES6 Support

## TypeScript loader in Babel 7

# JSX Support

React.createClass

extends React.Component

```
const sayer = say => <div>{say}</div>;
```

checking and refactoring of props

No need for prop-types

# Migration Slider Bar

Weak type checking => Strict type checking

--noImplicitAny

--strictNullChecks

Checking JS => Fully TypeScript

--allowJs

--checkJs

# @types on npm

[github.com/DefinitelyTyped](https://github.com/DefinitelyTyped)

[npmjs.com @types](https://npmjs.com/@types) namespace

Turned off NuGet publishing of types

tsd is dead

# Practical TypeScript 2 Migration

# Practical Migration



# Three Roads

- Big Bang
- Inside Out
- TypeScript as a linter

# General Recommendations

- Time-box it.
- Source Control your TS files (only)
- Use CI to enforce consistent version
- Use tsconfig.json for dev productivity

Demo

# Thank You!

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