TypeScript
Application-scale JavaScript
Application scale JavaScript development is hard.
TypeScript: A language for application scale JavaScript development.
TypeScript: A typed superset of JavaScript that compiles to plain JavaScript.
Any browser. Any host. Any OS.
Open Source.
TypeScript Ecosystem

“TypeScript is quite a good piece of work for Visual Studio users, and smartly aligned with ES6.”

- Brendan Eich

Frameworks
Definitely Typed has 150+ community curated library typings
Over 90% of top 20 JavaScript frameworks covered

Tools
Rich IDEs: Visual Studio, WebStorm, Cloud9, Brackets
Text Editors: SublimeText, vi, Emacs, JSBin
Build Integration: ASP.NET, node.js, compile-in-client, Ruby, grunt

Process
Active Open Source development on CodePlex
Thousands of discussion posts and tracked issues
TypeScript

An Open Source language for application scale JavaScript development.

Starts with JavaScript
All JavaScript code is TypeScript code, simply copy and paste
All JavaScript libraries work with TypeScript

Optional Static Types, Classes, Modules
Enable scalable application development and excellent tooling
Zero cost: Static types completely disappear at run-time

Ends with JavaScript
Compiles to idiomatic JavaScript
 Runs in any browser or host, on any OS
Demo: TypeScript in Action
Type System

TypeScript’s static compile-time type system accurately models the dynamic run-time type system of JavaScript

Type inference and structural typing
In practice very few type annotations are necessary

Generics
Enables more accurate expression of flow of types

Works with existing JavaScript libraries
Declaration files can be written and maintained separately

Types enable tooling
Provide verification and assistance, but not hard guarantees
Classes and Modules

TypeScript’s *static* compile-time type system accurately models the *dynamic* run-time type system of JavaScript

Scalable application structuring
Classes, Modules, Interfaces enable clear contracts between components

Aligned with emerging standards
Class, Module, Lambda syntax aligns with ECMAScript 6 proposals

Supports popular module systems
CommonJS and AMD modules in any ECMAScript 3 environment
TypeScript 0.9

This release represents the largest update to TypeScript to date, bringing significant changes to the language, compiler and tools.

Language
Generic classes, interfaces, and methods
Overloading on constants
Enum types
‘export =’
Function/class/module merging
Methods in object literals

Compiler
Incremental parser
Pull-model type checker
Scaling to 100K+ line projects
TypeScript Adoption

Adobe

zud.io
The Azure Cloud storage toolkit
http://typescriptlang.org