

WARUM

TYPESCRIPT?

JOSHY CYRIAC

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FINEBRAIN.COM



UMFRAGE

ANFANG



TYPESCRIPT

LÖSUNGEN

FÜR 2

JS PROBLEME

PROBLEM

EINS

“article.js”

```
module.exports =  
function extract(data, topic)  
{ ... }
```

```
var article=require('article');
```

```
var item = require('item');
```

```
article.extract(data, 'news');
```

```
item.extract(data, 12);
```

PROBLEM

ZWEI

function extract(

data,

topic

) { ... }

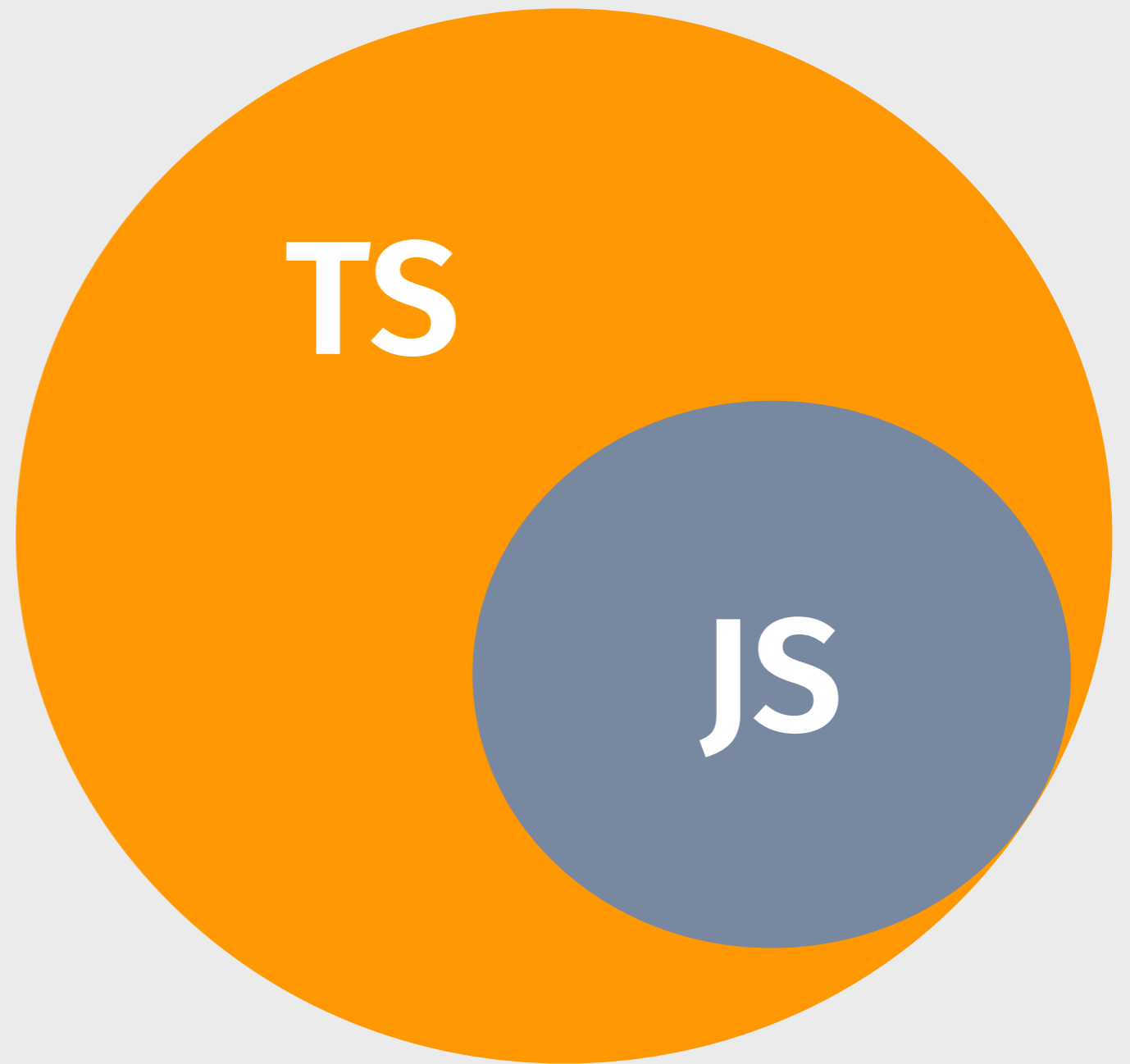


TypeScript

**“Any browser.
Any host.
Any OS.
Open Source.”**

–from typescriptlang.org

TS is a
TYPED
superset
of JS



TS Files



TS Compiler



JS Files



PROBLEM

EINS

“article.js”

```
module.exports =  
function extract(data, topic)  
{ ... }
```

OPTIONAL

TYPE

SYSTEM

“basic.ts”

```
var answer: number = 4;  
var n: number[] = [1, 2, 3];  
var city: string = “Berlin”;  
enum Color {  
  Red, Green, Blue  
};
```

“basic.js”

var answer = 4;

var n = [1, 2, 3];

var city = “Berlin”;

var Color;

(function (Color) { ... })

“func.ts”

```
var foo: any;
```

```
var foos: any[];
```

```
function log(msg): void { ... }
```

```
var fAdd:
```

```
(x: number, y: number) => number;
```

“func.js”

var foo;

var foos;

function log(msg) { ... }

var fAdd;

FIND REFERENCE

`src/services/extractor.ts`

`function extract(data: Article[], topic: string)`

`src/services/storer.ts`

`ArticleExtractor.extract(data, defaultTopic)`

PROBLEM

ZWEI

function extract(

data,

topic

) { ... }

INTERFACES


```
interface Article {  
  _id: string;  
  url: string;  
  date?: Date;  
  title: string;  
  text: string;  
}
```

```
function extract(  
  data: Article[],  
  topic: string) {  
  ...  
}
```

`extract(articles, "bar");` ✓

`extract("foo", "bar");` ✗
^^^^^

Argument of type "string" is not assignable to parameter of type Article[]

MORE STUFF

Modules

Generics

Default parameters

Type Inference

Intersection Types

Union Types

Classes

Optional parameters

INTEGRATING

3RD PARTY

LIBS / FRAMEWORKS

DefinitelyTyped



borisyankov / **DefinitelyTyped**

Watch 308

★ Star

The repository for high quality TypeScript type definitions. <http://definitelytyped.org/>

12,553 commits

8 branches

0 releases

1,225 contributors



Branch: master ▾

DefinitelyTyped / +



Merge pull request #5673 from errorx666/jqueryui-buttonoptions ...



borisyankov authored a day ago

latest commit 7a3ca1f0b8

⚠ Sorry, we had to truncate this directory to 1,000 files. 194 entries were omitted from the list.

DataStream.js	adding the type definitions for the DataStream.js library	4 months ago
FileSaver	remove unused .tsparams	6 months ago
Finch	cleaned-up headers	a year ago
Headroom	add definitions for Headroom	10 months ago
JSONStream	added definition for JSONStream	a year ago
PayPal-Cordova-Plugin	Added definitions for the PayPal mobile SDK Cordova plugin	a month ago
_debugger	feat(node) _debugger API	2 months ago

EDITOR

SUPPORT

 ATOM

 eclipse

 WebStorm

 Visual Studio



MIGRATION

```
> npm install -g typescript
```

```
> mv *.js *.ts
```

```
> tsc -w -m commonjs
```

```
server.ts
```

SUMMARY

PRO

Optional **TYPE SYSTEM**

Compiles to plain JS

ES5/(ES6) **compatible**

CONTRA

Compile

Step

LINKS

typescriptlang.org

<http://basarat.gitbooks.io/typescript/>