

A Practical Start with TypeScript

PREPARING TO WRITE AN APPLICATION



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About This Course



4 modules



Prerequisites:
Programming basics



Vending machine
demo



Module Overview



What is TypeScript?

Understanding and installing
the compiler

Editor choices

Installing and configuring
Visual Studio Code

Using tsc command line arguments

Applying source maps

Debugging

Referencing other TypeScript Files



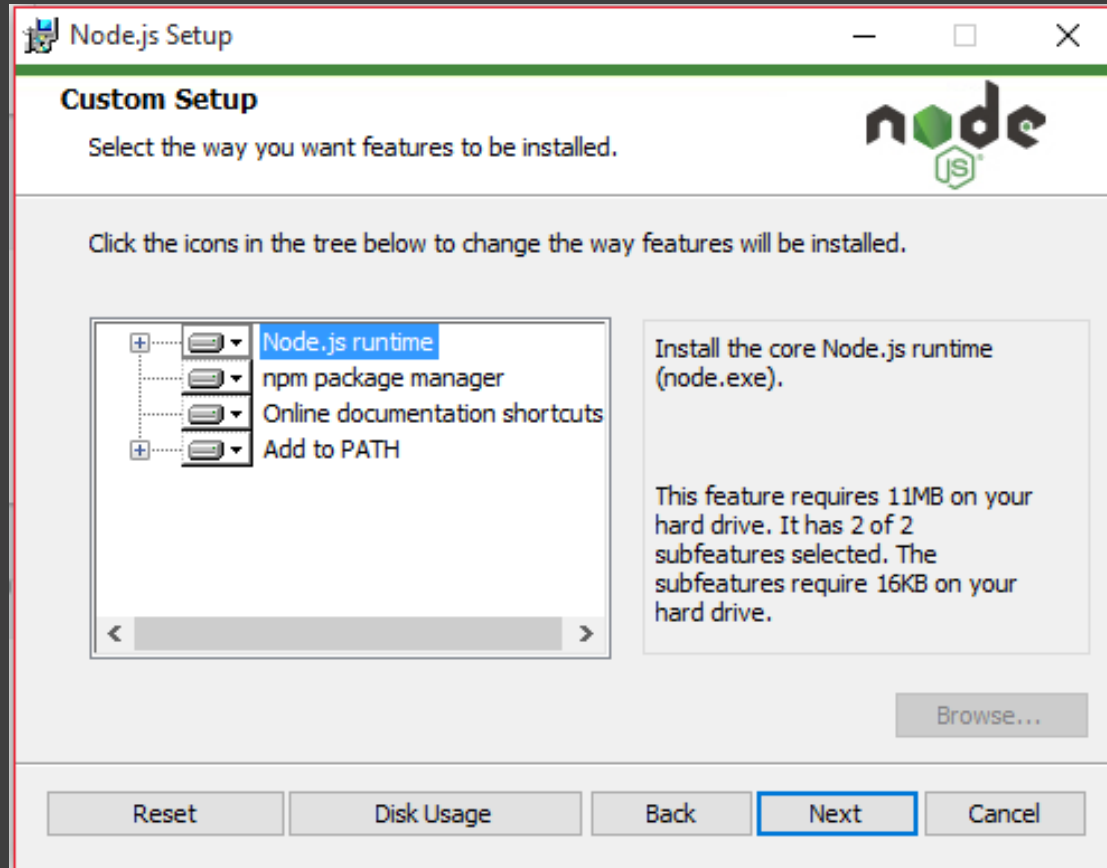
The TypeScript Compiler





<http://nodejs.org>





Editors

**Visual Studio
Code**

Visual Studio

WebStorm

Sublime Text

Atom



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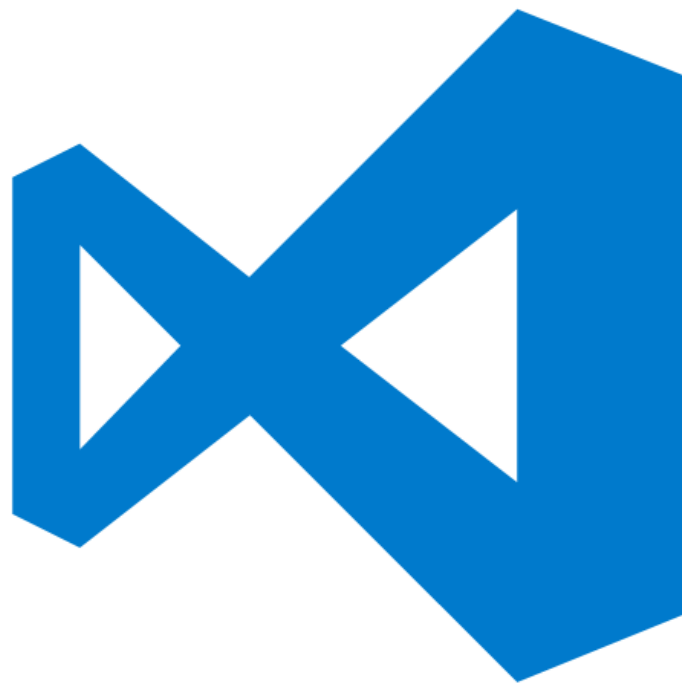
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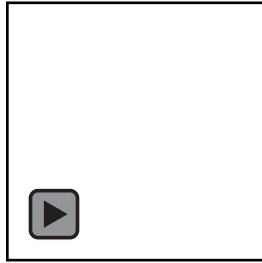




<http://code.visualstudio.com>



Visual Studio Code Course



Visual Studio Code

by John Papa



Targets

ES5

The javascript version supported in all current browsers

ES6/ES2015

The upcoming new standard

ES3

Older browsers



OutFile and OutDir

Outfile combines multiple TypeScript files to one JavaScript file

For browser projects: reference only one JavaScript file in HTML

OutDir will create one JavaScript file per TypeScript file and place them in the specified directory



Source Maps

```
class vendingMachine {  
}
```

```
var machine = new vendingMachine();
```



```
var vendingMachine = (function () {  
    function vendingMachine() {  
    }  
    return vendingMachine;  
})();
```



```
var machine = new vendingMachine();
```



Referencing other TypeScript Files

When using outFile it assures that the compiled TypeScript files appear in the right order in the JavaScript file

Helps your editor with Intellisense



TypeScript

Open source

Maintained by Microsoft

Transpiles to a configurable JavaScript version

Uses ES6/ES7 syntax if possible

Adds typing



Benefits of a Typed Language

Mistakes are detected up front

Less bugs

Autocomplete/intellisense

Makes endless type checking unnecessary

Bottom line: it saves you a lot of time



Summary



How to set up a development environment

Project structure

Bootstrapping

Debugging

What TypeScript is

