Living in the ES6 Future

TODAY

What is ES6?


ECMAScript
=
JavaScript

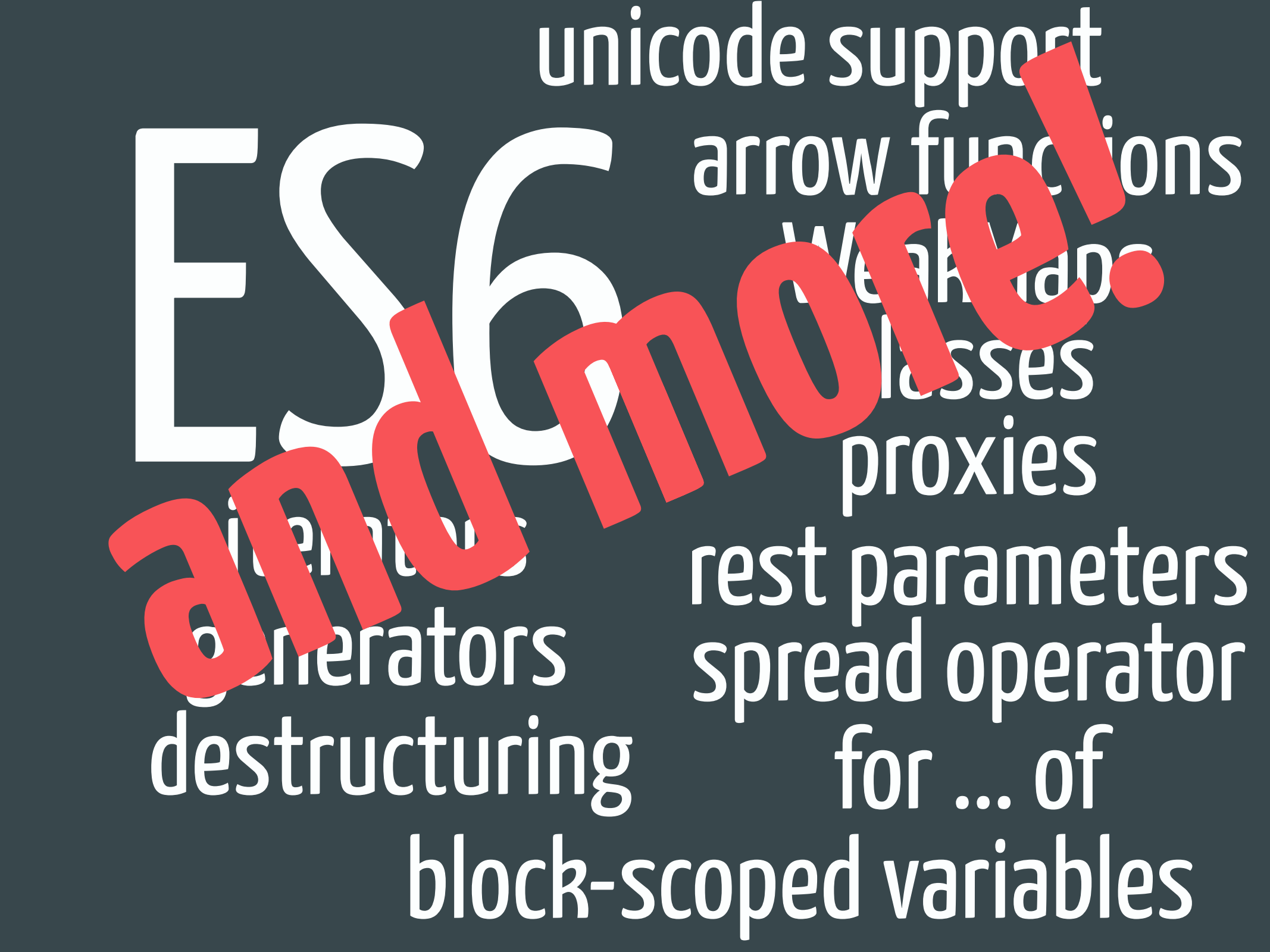
ES5

Array.forEach

Function.bind

Object.create

Object.defineProperty


unicode support
arrow functions
Weakmaps
classes
proxies
rest parameters
spread operator
for ... of
block-scoped variables
destructuring
ES6
and more!

What does all that MEAN?

14.2 Arrow Function Definitions

Syntax

ArrowFunction :

ArrowParameters => *ConciseBody*

ArrowFunctionNoIn :

ArrowParameters => *ConciseBodyNoIn*

ArrowParameters :

BindingIdentifier

CoverParenthesisedExpressionAndArrowParameterList

ConciseBody :

[lookahead ∉ {{}] *AssignmentExpression*

{ *FunctionBody* }

ES6 is Nigh

ES6 The Awesome Parts

ES6 The Refined Parts

The Subtleties of ES6

The Future of JavaScript

rest parameters

```
function log(level) {
  var args =
    [].slice.call(arguments,1);

}
```

rest parameters

```
function log(level, ...args) {

}
```

default parameters

```
function log(message, prefix) {
  prefix = prefix || "> ";
  console.log(prefix + message);
}
```

default parameters

```
function log(message, prefix) {
  if (prefix === undefined) {
    prefix = "> ";
  }
  console.log(prefix + message);
}
```

default parameters

```
function log(message, prefix = "> ") {
  console.log(prefix + message);
}
```

block-scoped vars

```
console.log(i);
if (false) {
  var i = 10;
}
```

block-scoped vars

```
var i;
console.log(i);
if (false) {
  i = 10;
}
```

block-scoped vars

```
console.log(i); // ReferenceError:
if (false) {    // i is not defined
  let i = 10;
}
```

block-scoped vars

```
if (false) {
  let i = 10;
}
console.log(i); // ReferenceError:
                // i is not defined
```

block-scoped vars

```
for (let i = 0; i < 10; i++) {
  // do something
}
console.log(i);  // ReferenceError:
                 // i is not defined
```

arrow functions

```
[1, 2, 3].map(function(i) {
  return i * i;
});
```

arrow functions

```
[1, 2, 3].map(i => i * i);
```

arrow functions

```
{
    i: 1,
    printWithDelay: function() {
      setTimeout(function() {
        console.log(this.i);
      }, 100);
    }
}
```

arrow functions

```
{
    i: 1,
    printWithDelay: function() {
      var self = this;
      setTimeout(function() {
        console.log(self.i);
      }, 100);
    }
}
```

arrow functions

```
{
    i: 1,
    printWithDelay: function() {
      setTimeout(function() {
        console.log(this.i);
      }.bind(this), 100);
    }
}
```

arrow functions

```
{
    i: 1,
    printWithDelay: function() {
      setTimeout(_.bind(function() {
        console.log(this.i);
      }, this), 100);
    }
}
```

arrow functions

```
{
  i: 1,
  printWithDelay: function() {
    setTimeout( () => {
      console.log(this.i);
    }, 100);
  }
}
```

improved literals

```
return {
    name: name,
    age: age,
    height: height
};
```

improved literals

```
return { name, age, height };
```

improved literals

```
{
    doAThing: function() {
      // ...
    },

    doAnotherThing: function() {
      // ...
    }
}
```

improved literals

```
{
    doAThing() {
      // ...
    },

    doAnotherThing() {
      // ...
    }
}
```

classes

```
class Demo {
  constructor() {
    this.i = 1;
  }

  print() {
    console.log(this.i);
  }
}
```

classes

```
class Parent {
  //
}

class Child extends Parent {
  constructor(name) {
    super();
    this.name = name;
  }
}
```

Much, much more

```
let { top, left } = e.getClientRect();

function* gen() { yield 1; yield 2; }

for (i of gen()) { log(i); }

[ for (let i of [1, 2, 3]) i * i ];

var sq = ( for (let i of [1, 2, 3]) i * i );

for (let i of sq) { log(i); }
```

I have software

to ship to

REAL USERS

Coming Soon(er)

node.js

FirefoxOS

browser plugins

Windows 8

What are my options?

What can we use today?

kangax.github.io/es5-compat-table/es6/

If we have

CoffeeScript --> JavaScript
IcedCoffeeScript --> JavaScript
TypedScript --> JavaScript
ClojureScript --> JavaScript

Why not?

JavaScript --> JavaScript

Why not?

JavaScript.next

-->

JavaScript.now

Traceur

JavaScript --> JavaScript
...written in JavaScript

Demo Time

WAIT!

what about modules?

square/es6-module-transpiler

```
import { foo, bar } from "foobar";

function fooTheBar() {
    return foo + bar;
}

export default = fooTheBar;
```

ES6 all the things?

Thanks!

@JeremyMorrell

http://rathercurio.us

http://github.com/jmorrell