




SproutCore

**Faster Load Times
with
Deferred Evaluation**



Documents
492ms

Stylesheets
63ms

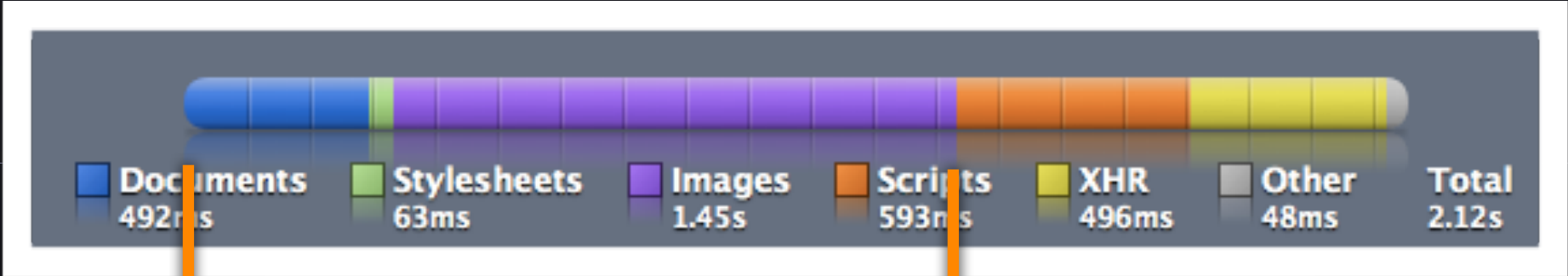
Images
1.45s

Scripts
593ms

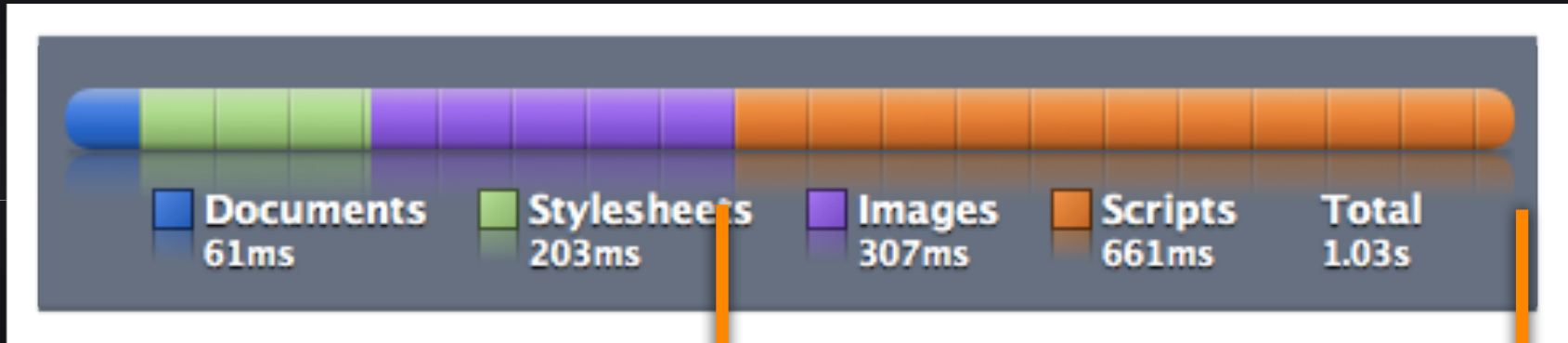
XHR
496ms

Other
48ms

Total
2.12s

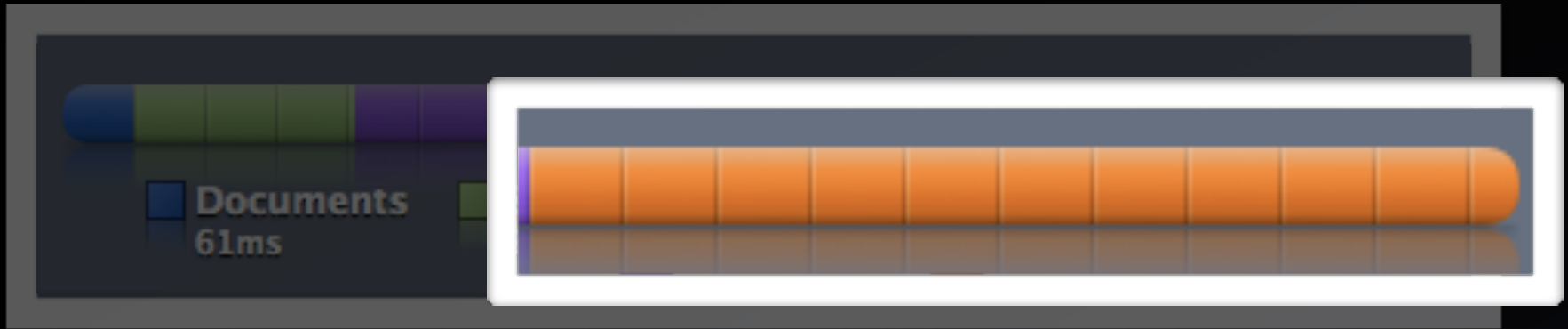


> 50%

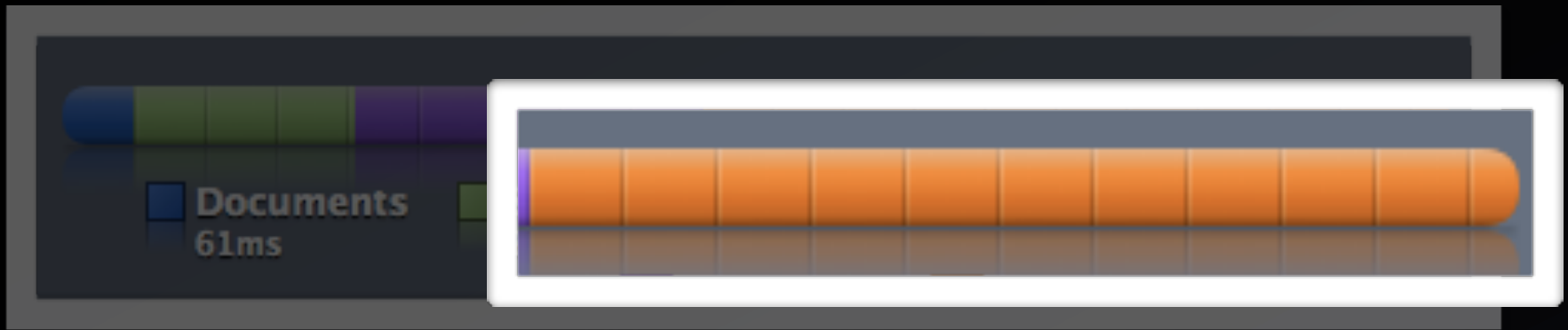


> 50%

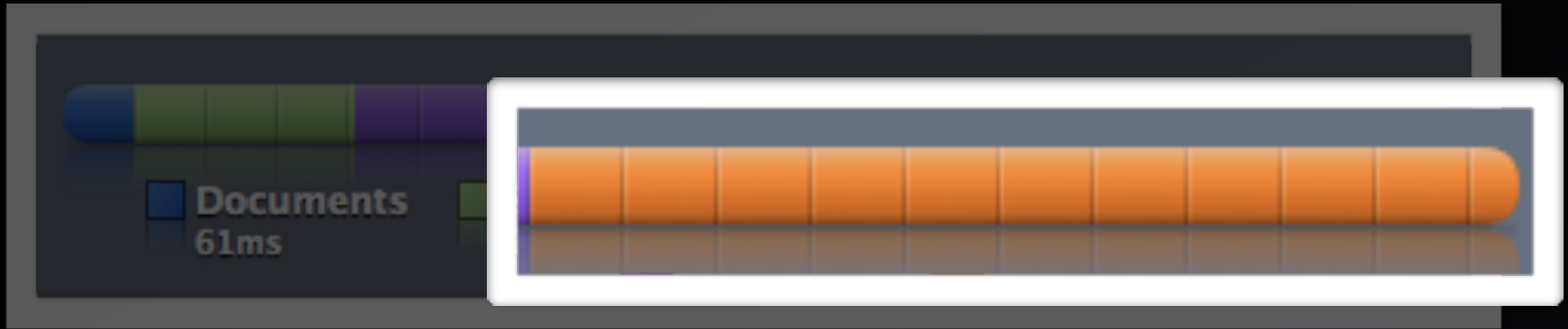
**How can we load
JavaScript without
blocking the browser?**



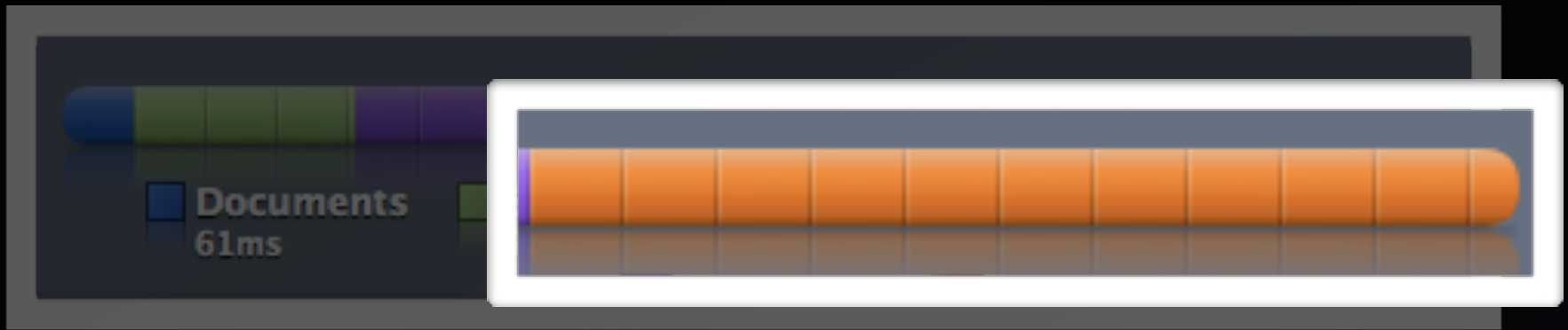
- Download
- Parse
- Execute



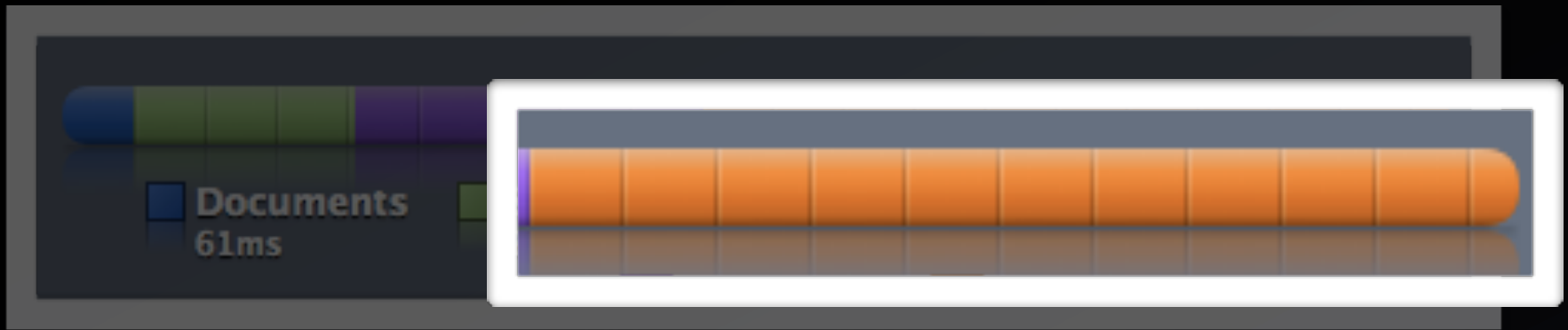
- Download ← Takes the longest
- Parse
- Execute



- Download ← Takes the longest
- Parse ← Blocks the browser
- Execute ←



- Download ← Takes the longest
- Parse ← Blocks the browser
- Execute ← May not be needed!



- Download ← Takes the longest

-
- Parse ← Blocks the browser

- Execute ←

May not be needed!

baseline.js

```
1 // Downloads, parses, and executes~  
2 ~  
3 SC.Object = function() {~  
4   this.init();~  
5 };~  
6 ~  
7 SC.Object.prototype = {~  
8   init: function() {}~  
9 };~  
10 |
```

Line: 10 Column: 1

JavaScript

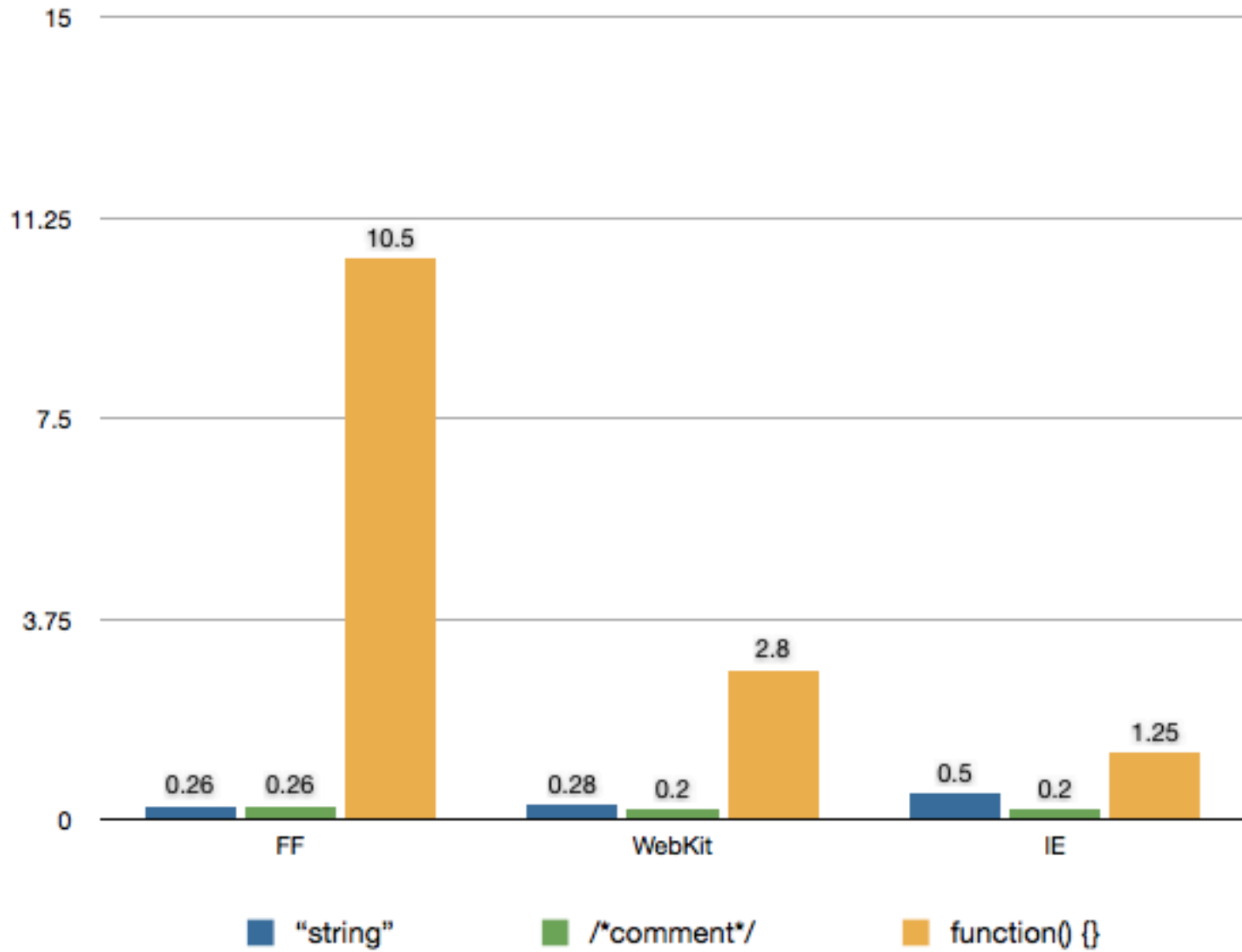
Soft Tabs: 2 init

```
1 // Downloads, parses, and executes~
2 ~
3 var factory = function() {~
4   SC.Object = function() {~
5     this.init();~
6   };~
7   ~
8   SC.Object.prototype = {~
9     init: function() {~
10    };~
11  });~
12  ~
13  // .. LATER ..~
14  ~
15  factory();~
16
```

```
1 // Downloads, parses, and executes~
2 ~
3 /*~
4   SC.Object = function() {~
5     this.init();~
6   };~
7   ~
8   SC.Object.prototype = {~
9     init: function() {}~
10  };~
11 */~
12 ~
13 // .. LATER ..~
14 ~
15 var string = iframeBody.match(/\/\/*(.*)\*\/\//);~
16 eval(string);~
17
```

```
1 // Downloads, parses, and executes~
2 ~
3 var factory = "(function() {\n \n
4   SC.Object = function() {\n \n
5     this.init();\n \n
6   };\n \n
7   ~
8   SC.Object.prototype = {\n \n
9     init: function() {\n \n
10    };\n \n
11  });\n";~
12 |
13 // .. LATER ..~
14 ~
15 eval(factory);~
16 ~
17
```

eval() time for code as:



"string"

/*comment*/

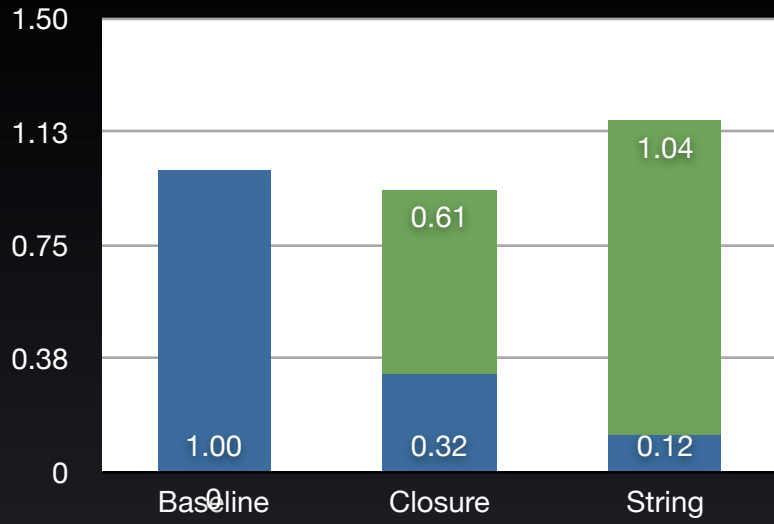
function() {}

FF

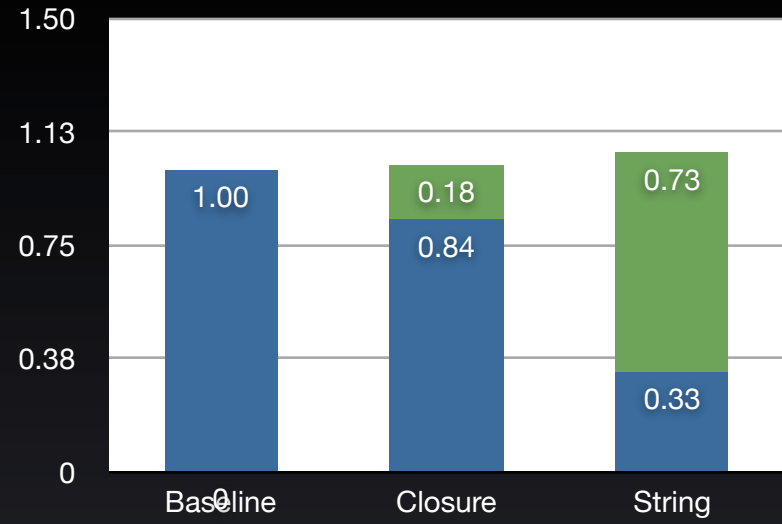
WebKit

IE

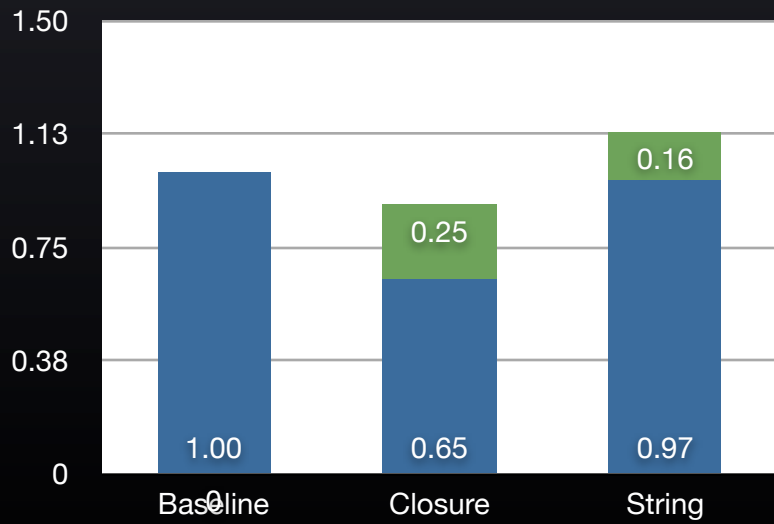
WebKit



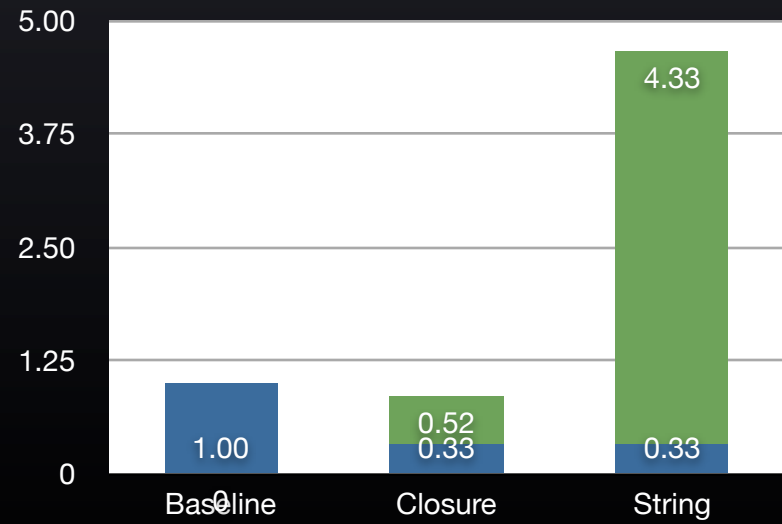
Firefox



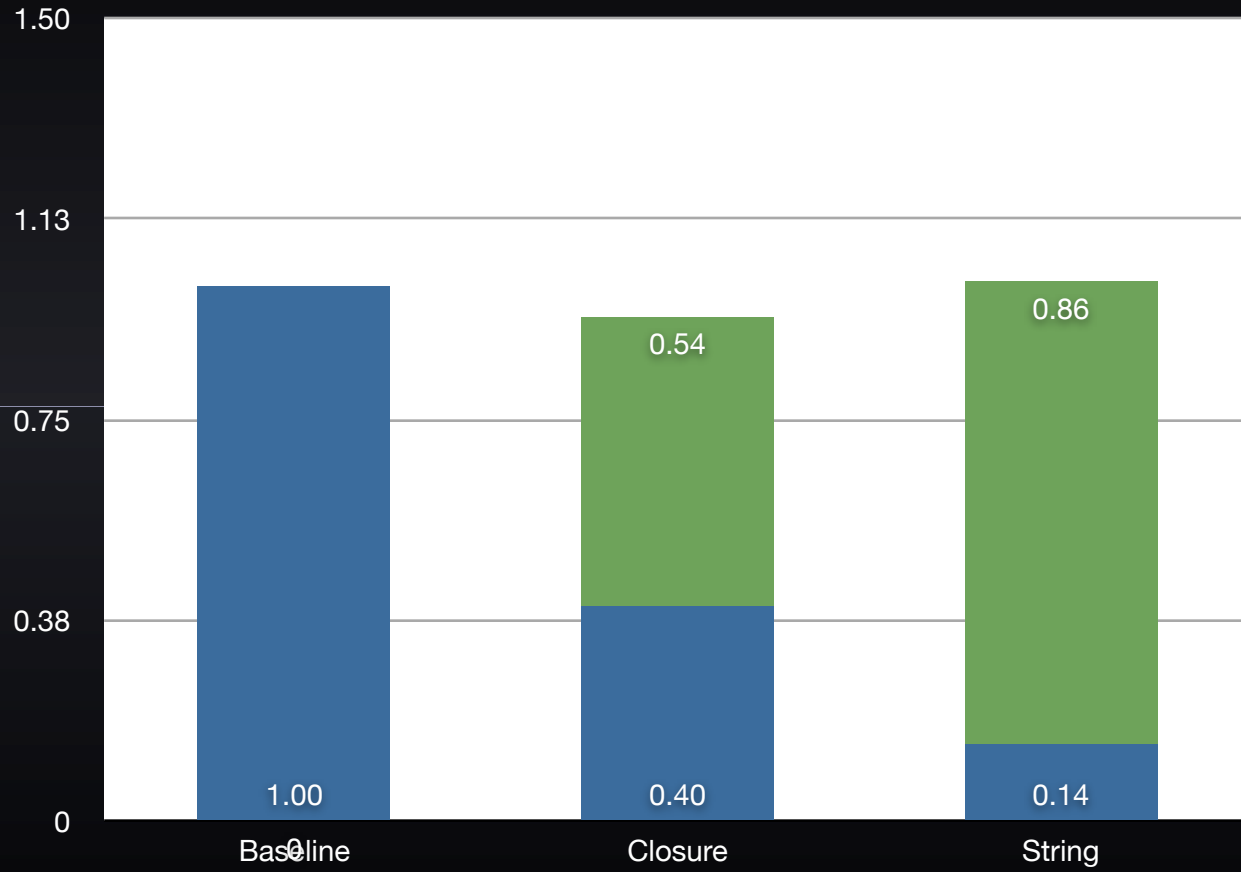
IE8



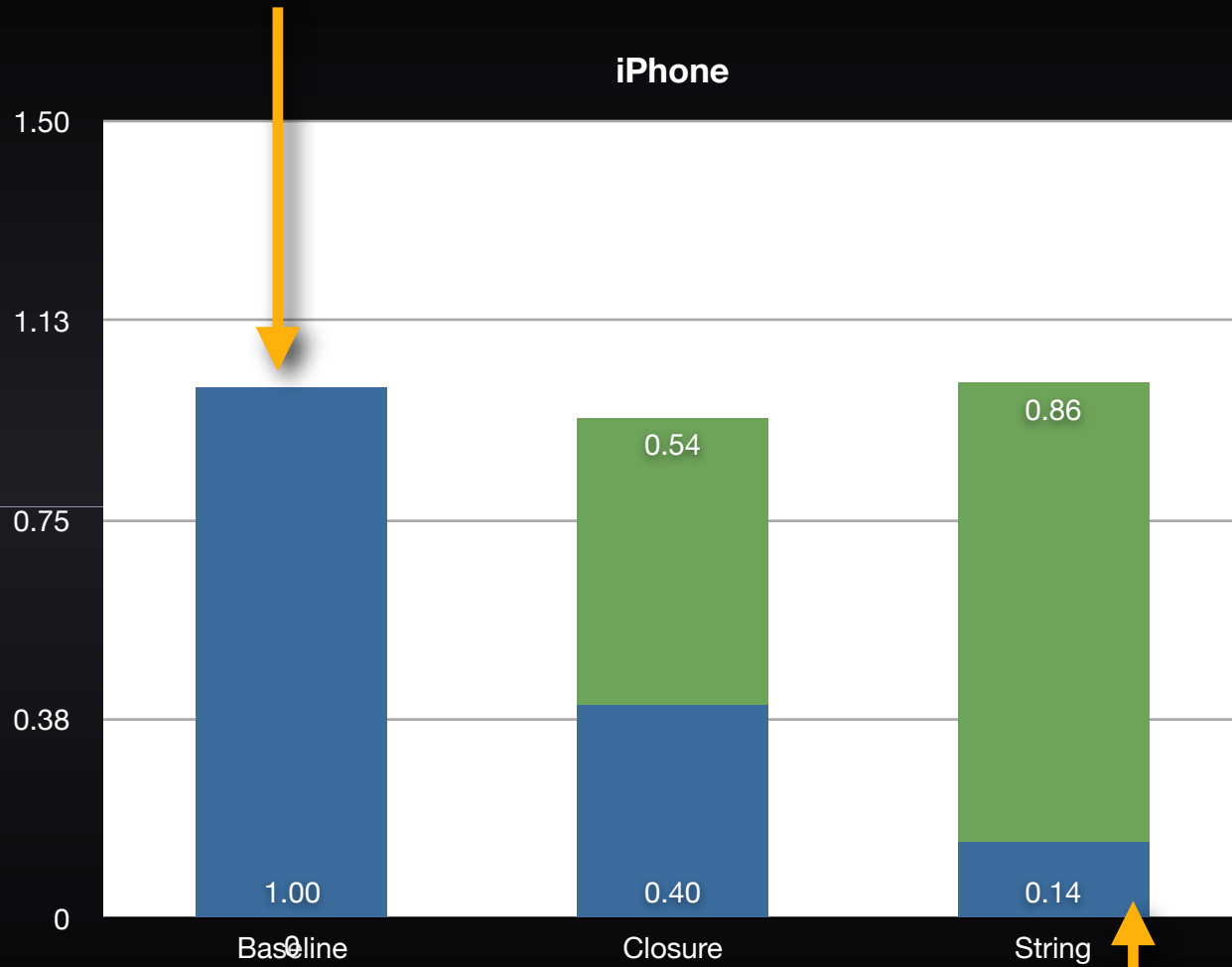
Chrome



iPhone



1,556 msec



226 msec

Demo

Use Deferred Evaluation...

Use Deferred Evaluation...

- to load a lot of JavaScript you may or may not actually need
- in the background without pausing the browser
- on the iPhone
- NOT if most of your users are IE

Thanks!

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