



# Getting the Most out of Safari Integrated Developer Tools

**Joseph Pecoraro**

Safari on iPhone OS and WebKit Engineer

HTML5

CSS3

JavaScript



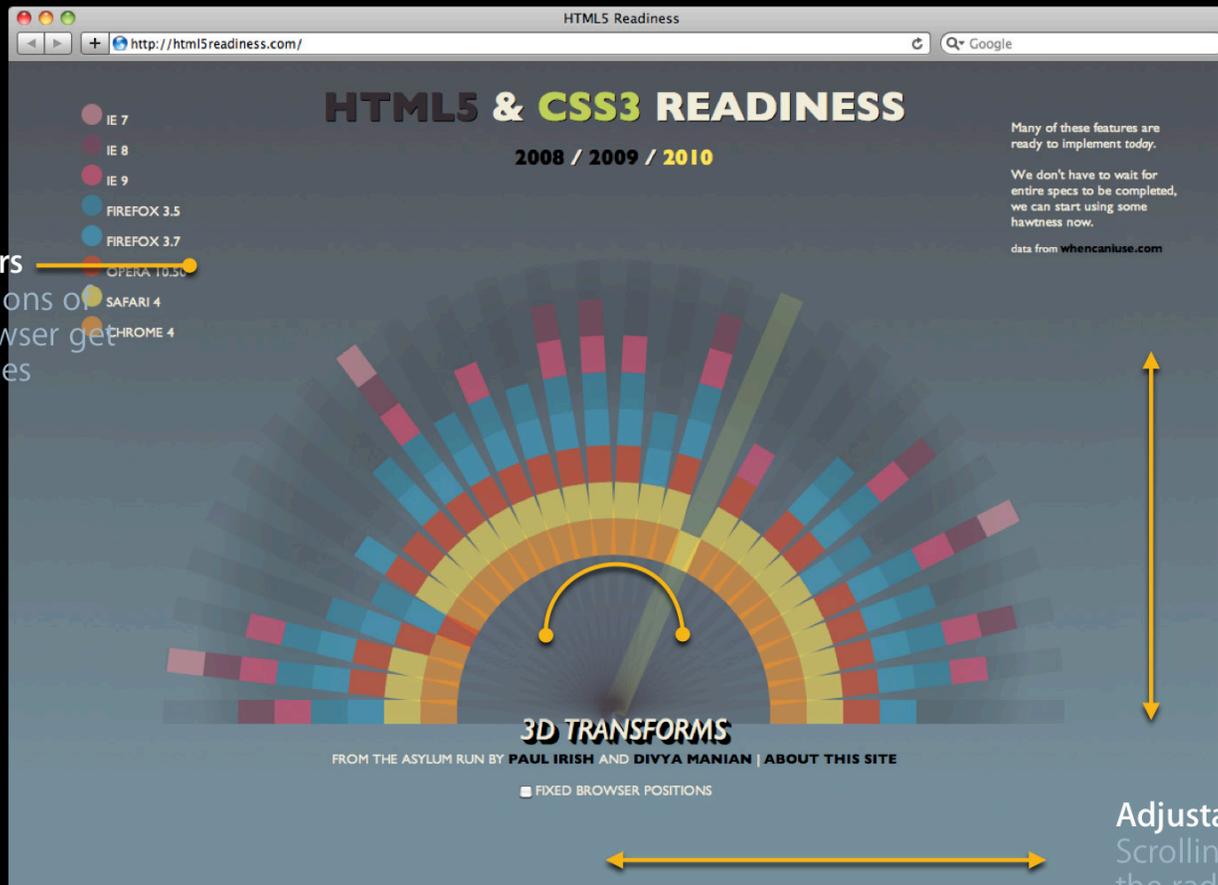


# What You'll Learn

- Explore and develop web content
- Debugging JavaScript
- Improve page load times

# Explore and Develop Web Content

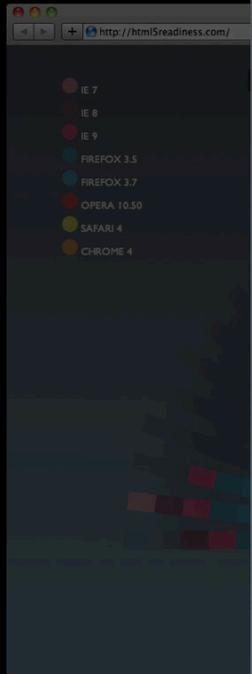




### Browser Colors

Different versions of the same browser get different shades

Adjustable Scrolling scales the radius!



IE 7

IE 8

IE 9

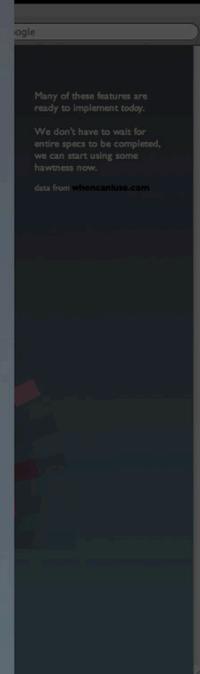
FIREFOX 3.5

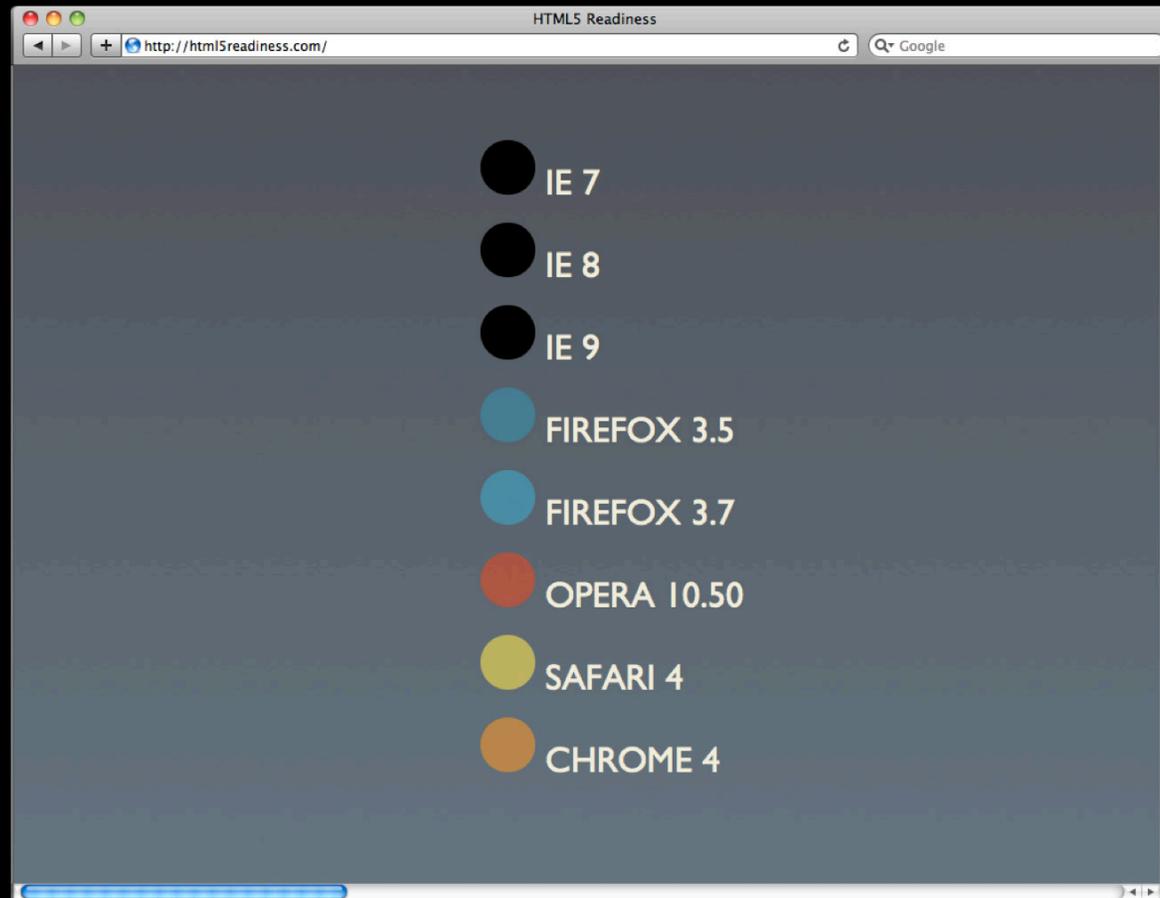
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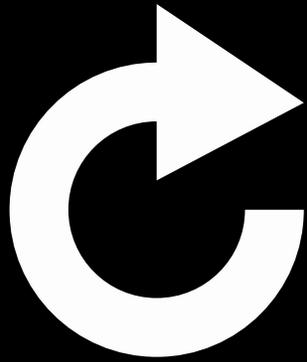
OPERA 10.50

SAFARI 4

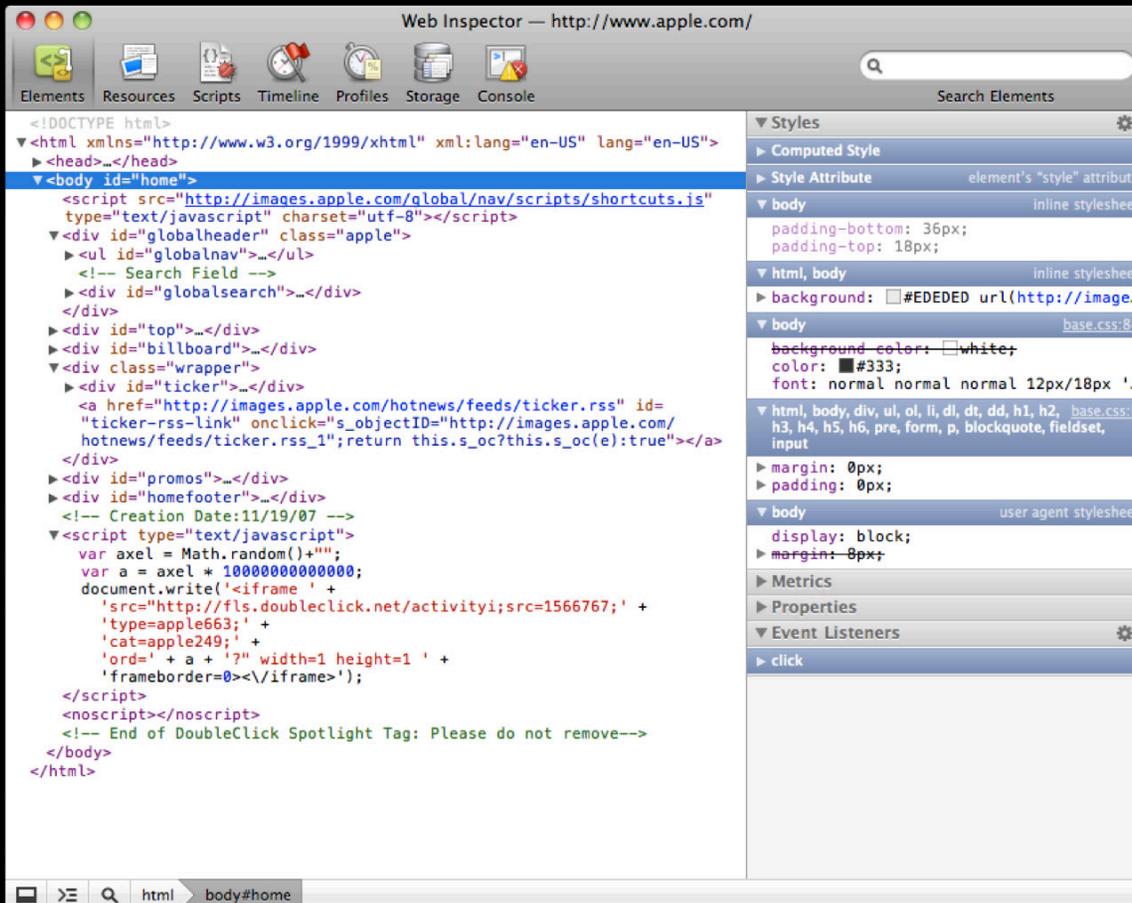
CHROME 4







# Web Inspector



Demo

# Explore and Develop Web Content

- How did they do that?
  - Inspect the DOM and CSS
  - Contextual information
- Interact with the page
  - Edit the DOM and CSS
  - JavaScript Console

# Debugging JavaScript

**Brian Weinstein**  
Safari and WebKit Engineer

# Debugging JavaScript

## Categories of errors

- Parse errors
- Runtime errors

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# Debugging JavaScript

## Parse errors

- Mismatched quotes

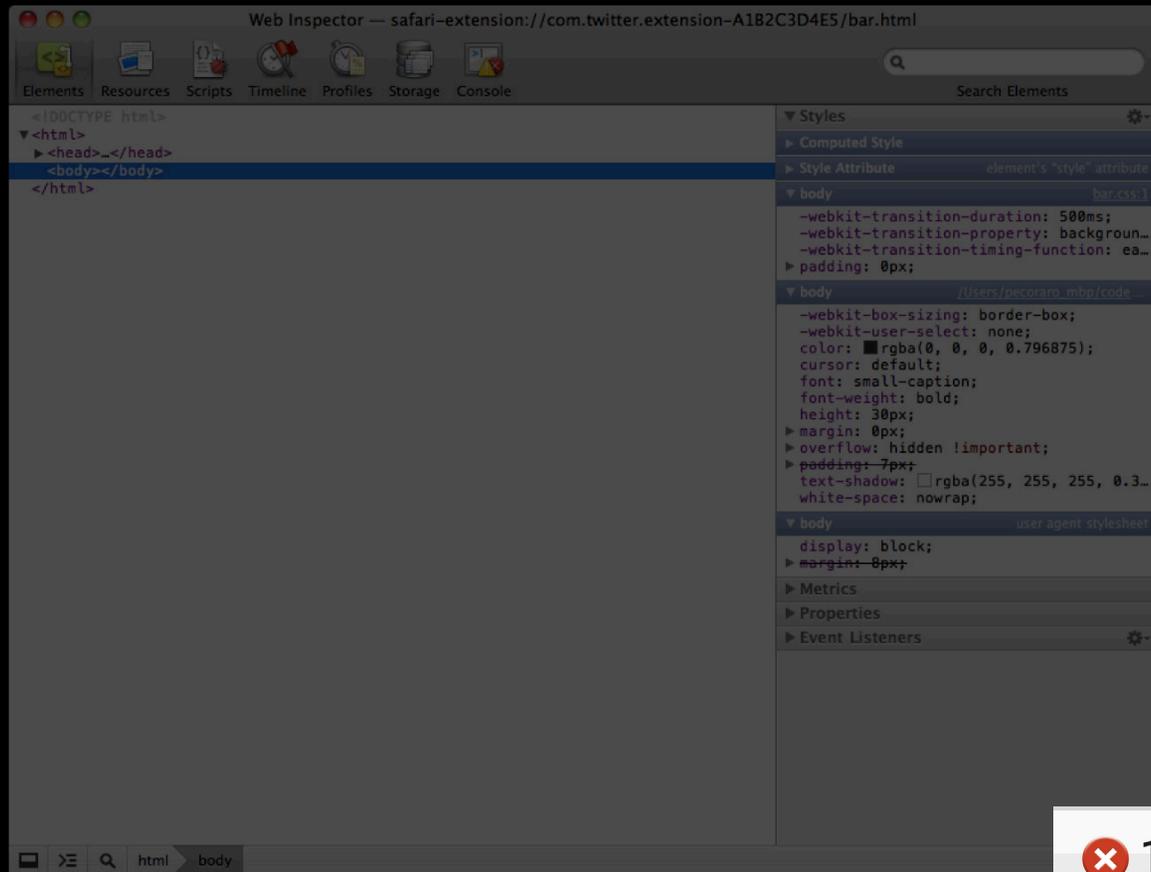
```
alert("Someone said "Hello, HTML5!" today.");
```

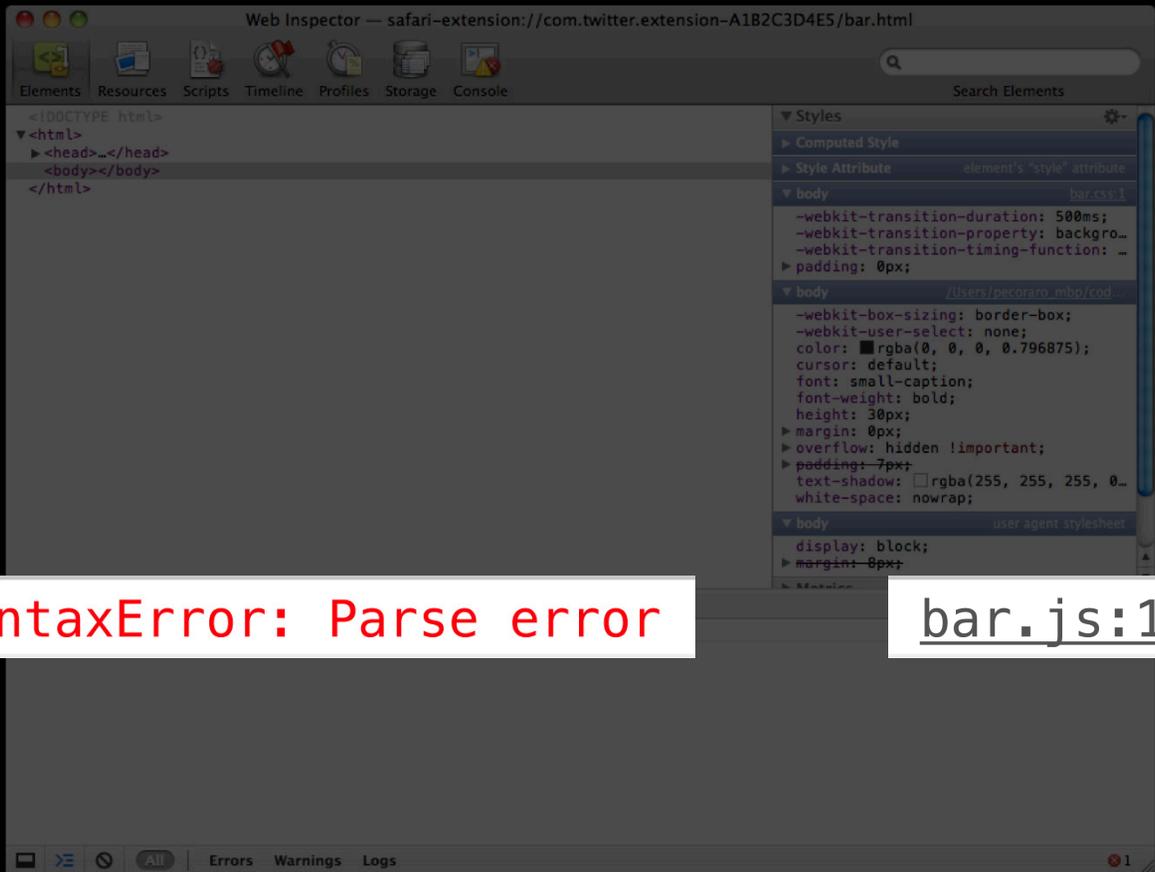
- Missing commas

```
var obj = { foo: 1 bar: 2 }
```

- Unbalanced tokens

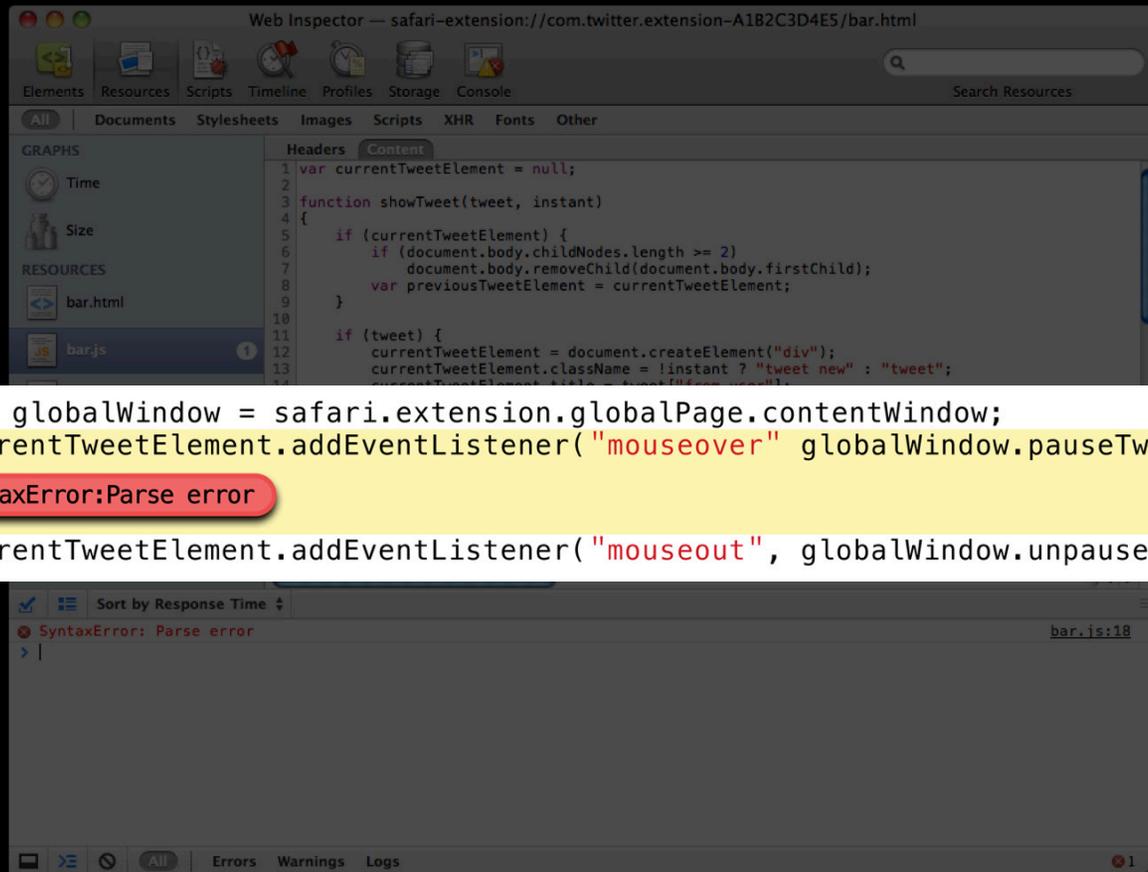
```
console.log(obj.toString());
```





 **SyntaxError: Parse error**

bar.js:18



# Debugging JavaScript

## Categories of errors

- Parse errors
- Runtime errors

# Debugging JavaScript

## Categories of errors

- Parse errors
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# Debugging JavaScript

## Runtime errors

- Undefined/null property

```
document.nonexistent.bar = 2;
```

- Explicit exceptions

```
throw "Oh no, something went wrong.";
```

- Other errors

```
document.appendChild(document.createTextNode("Web Inspector"));
```

Demo

# Debugging JavaScript

- Finding and fixing parse errors
- Debugging runtime errors
  - Breaking on exceptions
  - Debugging state popover
  - Timeline panel

# Improve Page Load Time

**Joseph Pecoraro**

Safari on iPhone OS and WebKit Engineer

# Improve Page Load Time

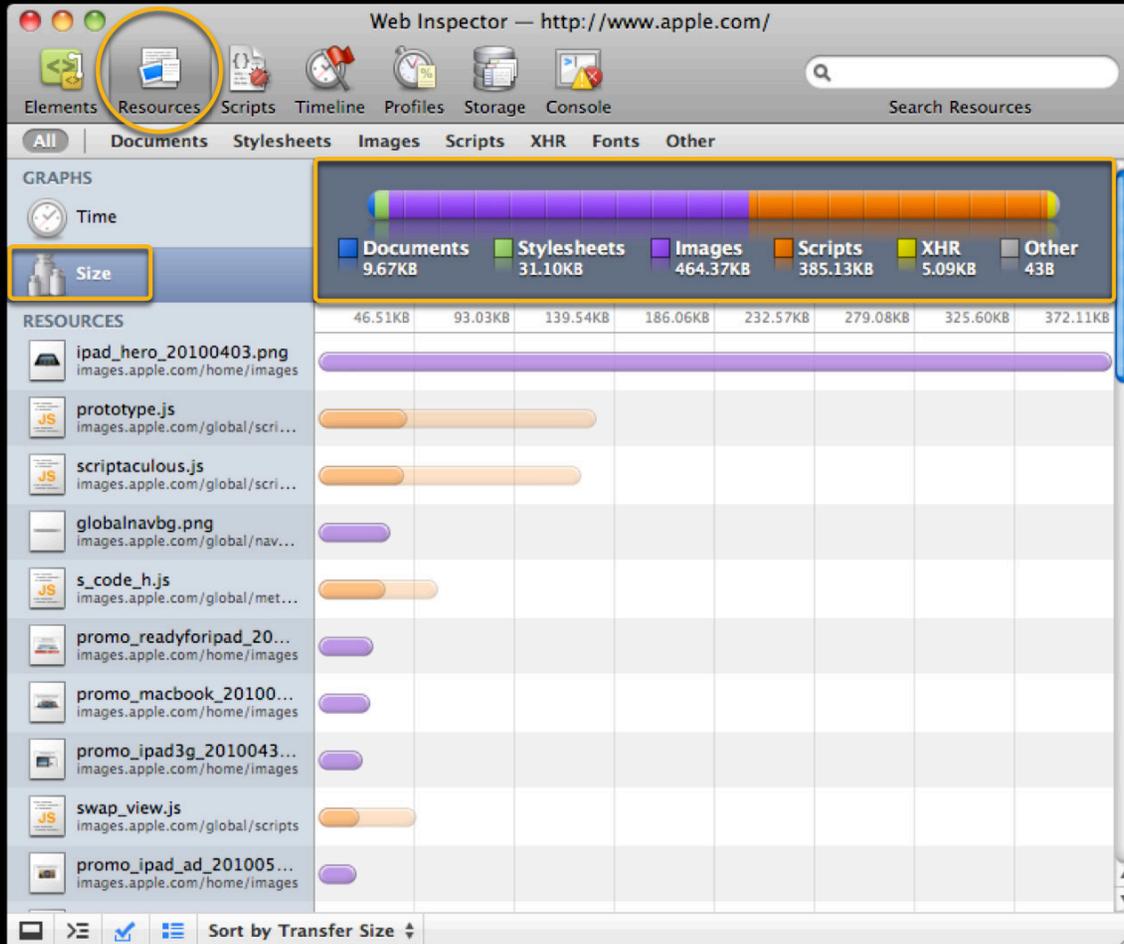
## Resource loading problems

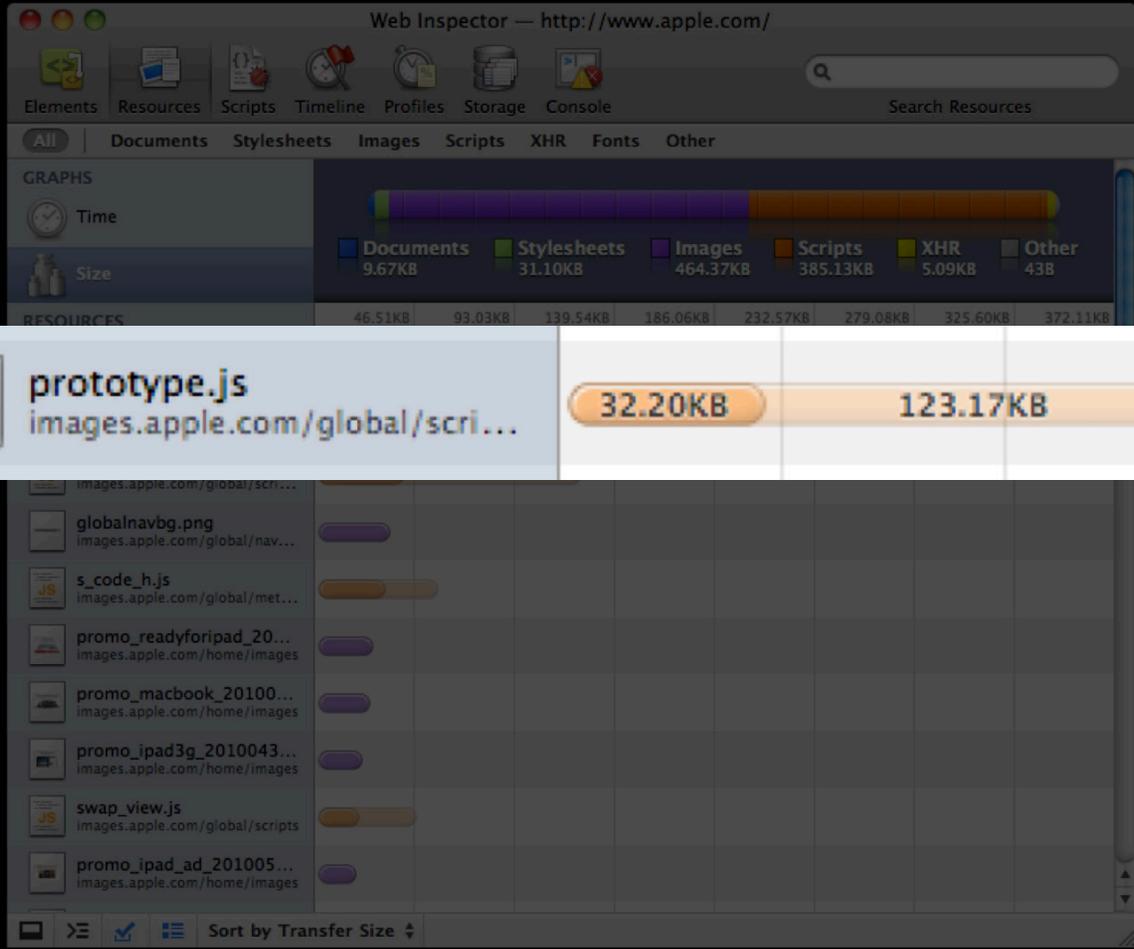
- Large resources
- Large number of resources
- Sequential dependencies
- Non-responsive interface

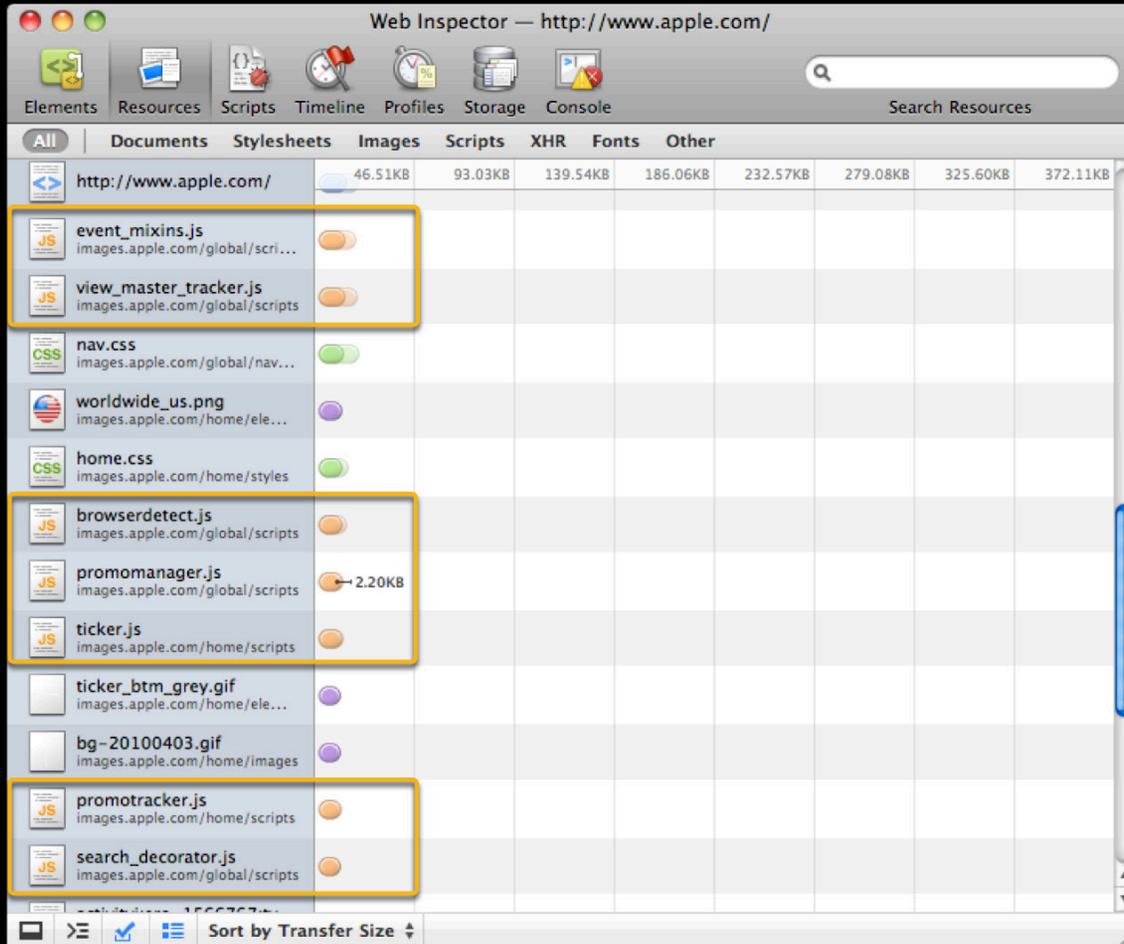
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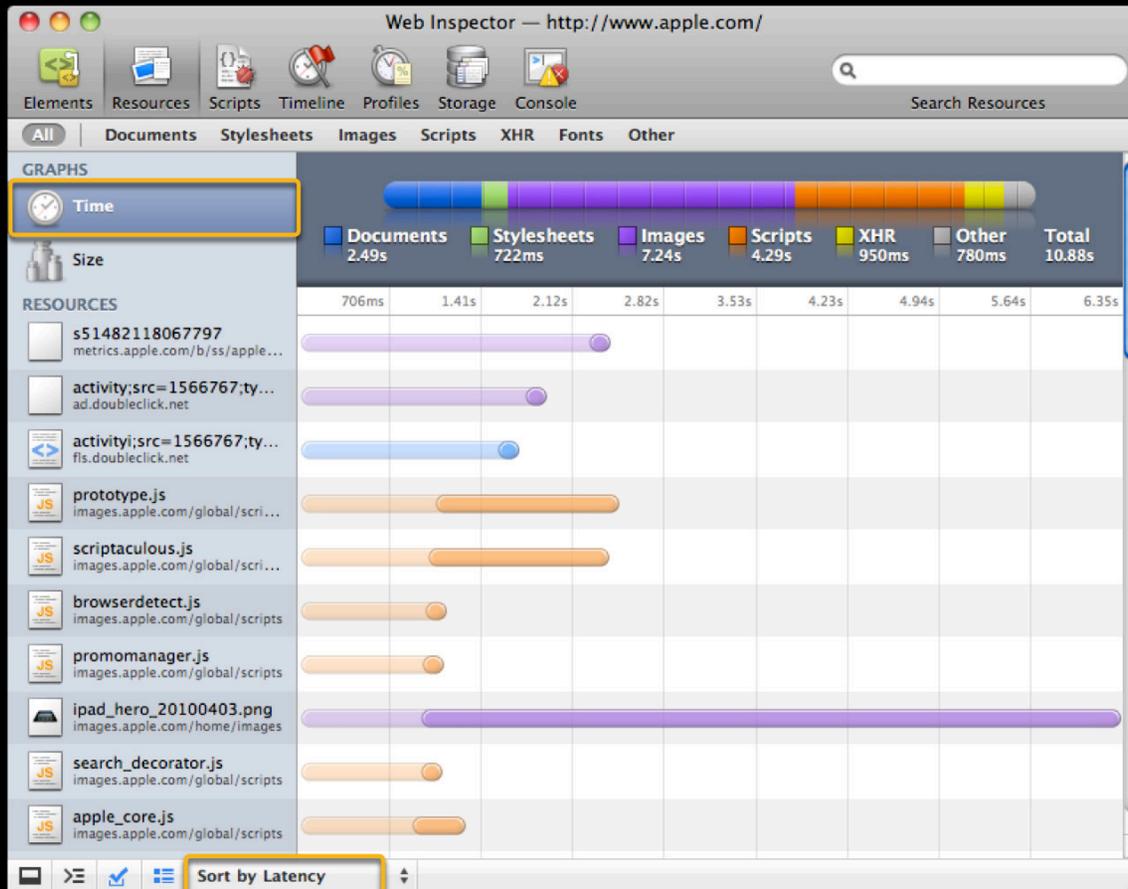
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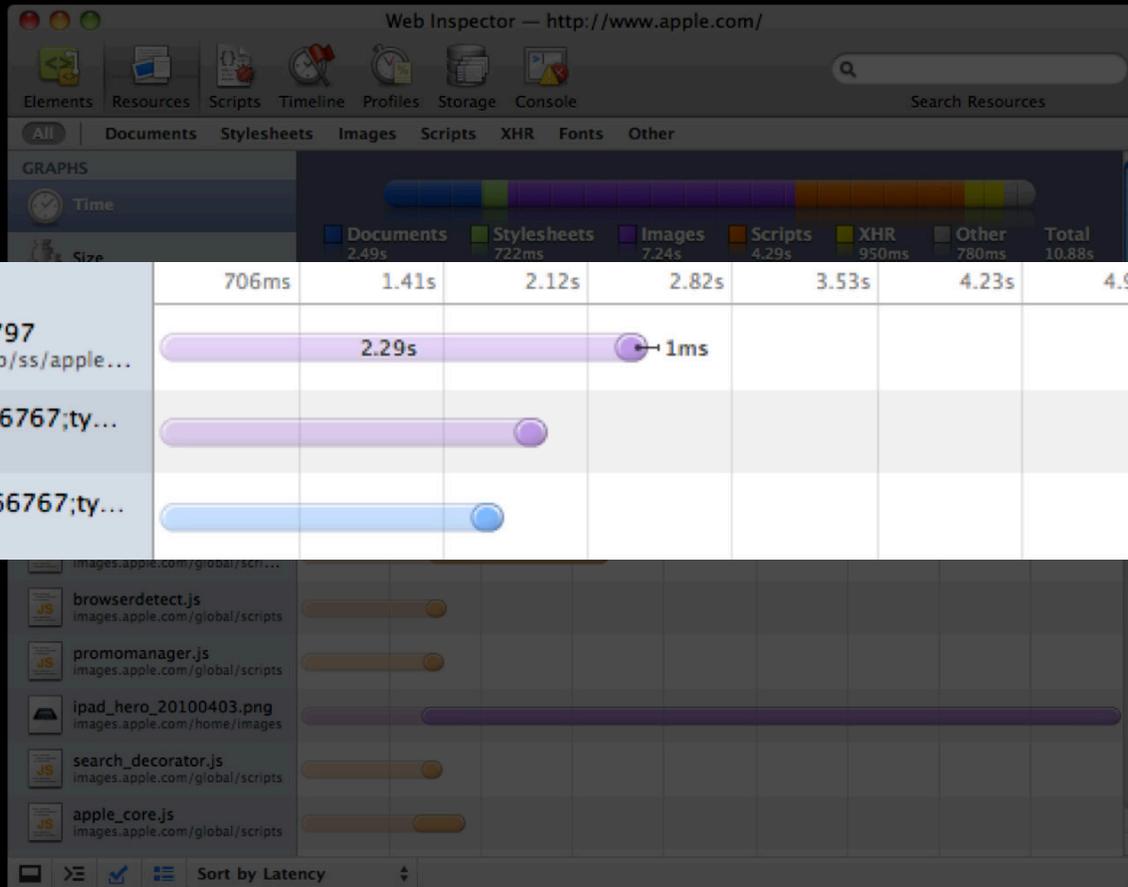
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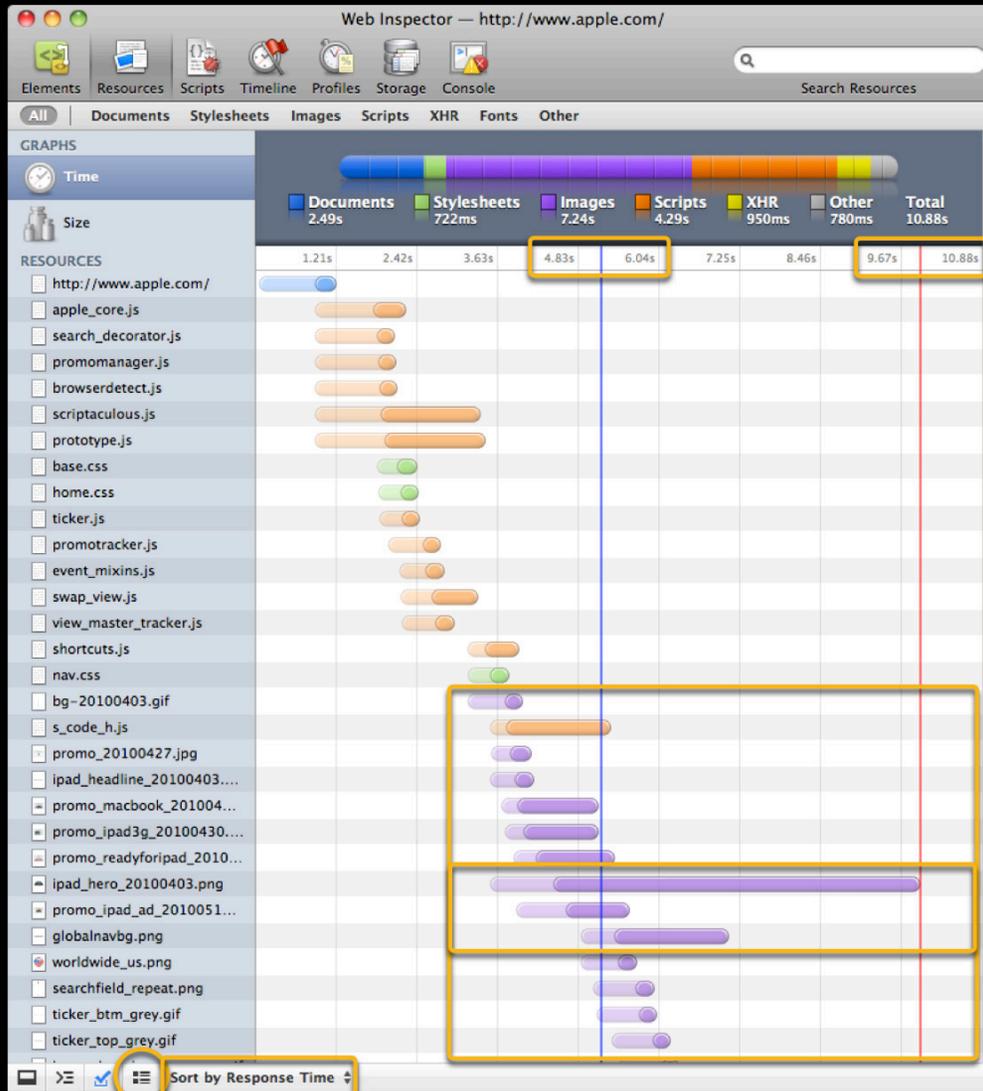
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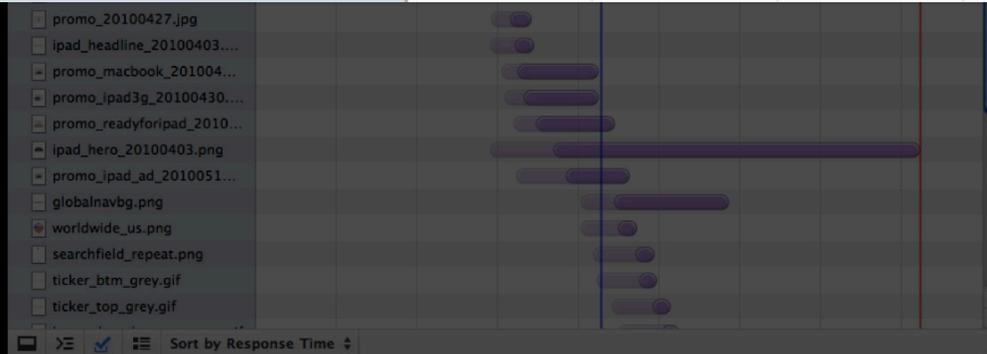
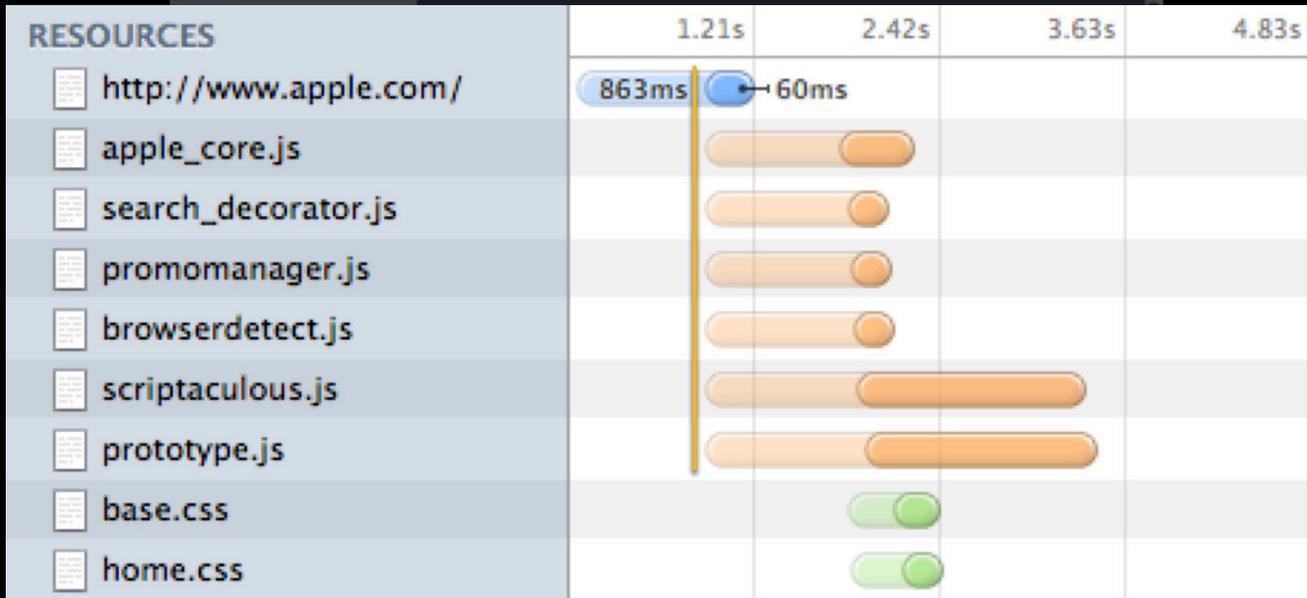
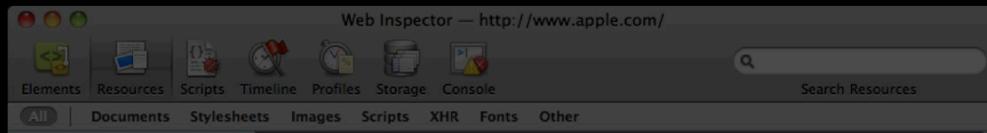
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# Summary

- Learn from the web
- Reduce development time
- Improve load time on all platforms

# More Information

## Vicki Murley

Safari Technologies Evangelist

[vicki@apple.com](mailto:vicki@apple.com)

## Documentation

Safari Dev Center

<http://developer.apple.com/safari/>

## WebKit

WebKit Open Source Project

<http://webkit.org/>

## Apple Developer Forums

<http://devforums.apple.com>

# Related Sessions

Creating Extensions for Safari, Part 1

Marina  
Wednesday 9:00AM

Creating Extensions for Safari, Part 2

Marina  
Wednesday 10:15AM

Using HTML5 Offline Storage

Marina  
Thursday 2:00PM

# Labs

Safari Extensions Lab

Internet & Web Lab A  
Wednesday 2:00PM

Safari Extensions Lab

Internet & Web Lab A  
Thursday 2:00PM

HTML5 Offline Storage Lab

Internet & Web Lab B  
Thursday 4:30PM

Safari Open Lab

Internet & Web Lab A  
Friday 9:00AM

Q&A



