

Fundamentals of HTML5

Second Edition

Introduction

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pluralsight 
hardcore developer training

What is HTML5?

Related Technologies

W3C HTML5 Specification

Initial WHATWG HTML5 Specification

What is HTML5?

New
Markup

+

JavaScript
APIs

=



New Elements

article

aside

audio

bdi

canvas

datalist

details

embed

figcaption

figure

footer

header

main

math

mark

meter

nav

output

progress

section

source

summary

svg

time

track

video

wbr

article



```
<article></article>
```

aside



```
<aside></aside>
```

audio
source
track



```
<video>  
  <source src="vid.mp4">  
  <source src="vid.ogv">  
  <source src="vid.webm">  
  <track  
    kind="subtitles"  
    label="English Subtitles"  
    src="en.vtt"  
    srclang="en">  
</video>
```

bdi



```
<bdi>||D</bdi>
```


canvas



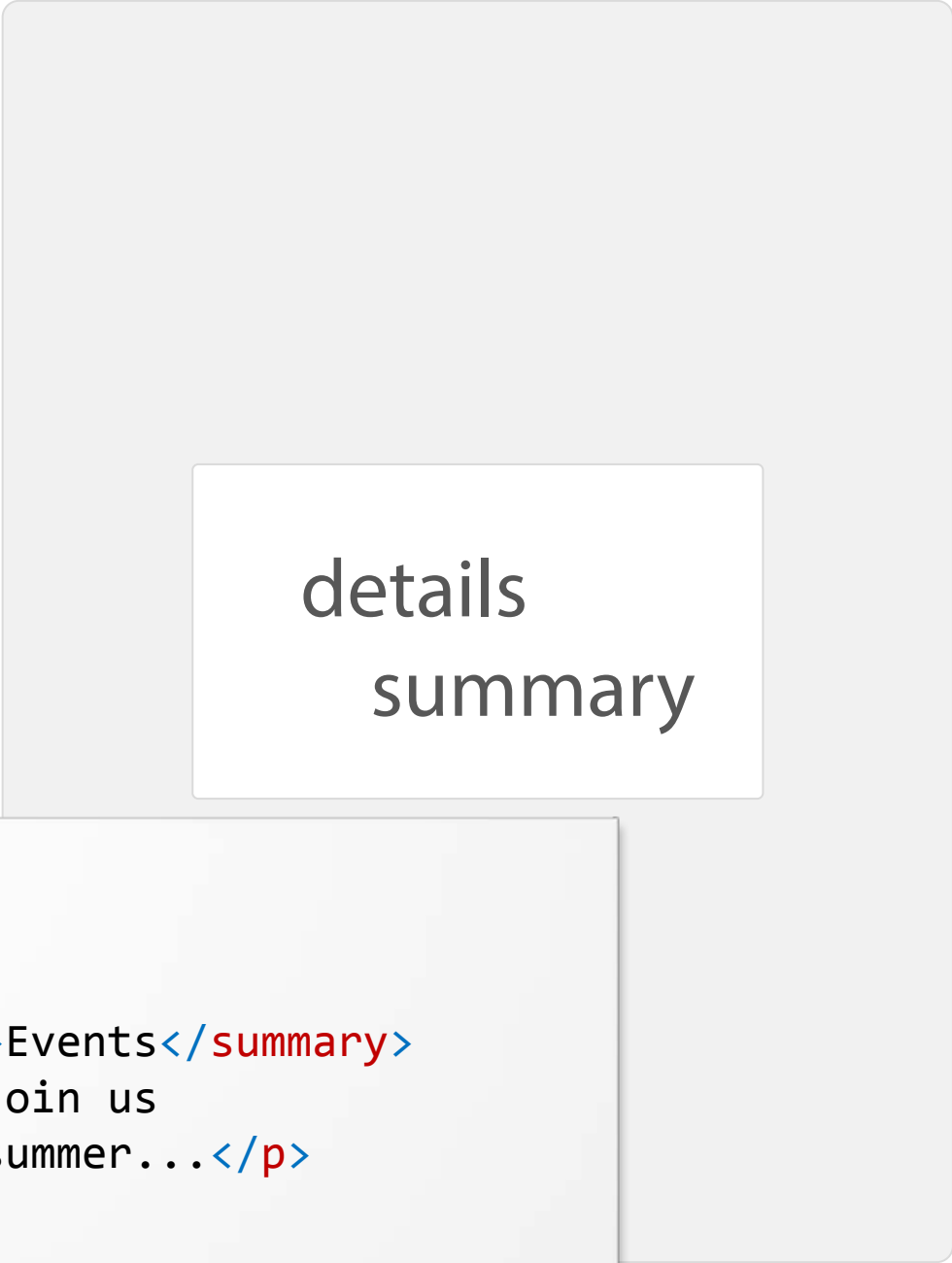
```
<canvas></canvas>
```



The diagram illustrates the relationship between HTML code and its visual representation. A large light gray rectangle represents the browser's view of the code. Overlaid on the bottom-left is a smaller, semi-transparent light gray rectangle representing a code editor. Inside the code editor, HTML code is displayed with syntax highlighting: opening and closing tags are in red, and attribute values are in blue. To the left of the code editor, a dark gray code symbol (</>) is visible. A white rectangular box with the text 'datalist' is positioned over the code editor, with a line extending from it to the <datalist id="colors"> tag in the code, highlighting its role in defining the list of options for the text input.

datalist

```
<input
  type="text"
  list="colors">
<datalist id="colors">
  <option src="Blue">
  <option src="White">
</datalist>
```



details
summary



```
<details>  
  <summary>Events</summary>  
  <p>Come join us  
    this summer...</p>  
</details>
```

embed



```
<embed  
  src="intro.swf">
```

figure
figcaption



```
<figure>  
    
</figure>  
<figcaption>  
  Screenshot of Menu  
</figcaption>
```

header



```
<header></header>  
<footer></footer>
```

main



```
<main></main>
```



math



```
<math>  
  <!-- MathML elements -->  
</math>
```


mark



```
<mark>
```

```
  this text is often highlighted
```

```
</mark>
```

meter



```
<meter  
  min="0"  
  max="100"  
  value="70">70 out of 100</meter>
```



nav



```
<nav></nav>
```

output



```
<output></output>
```

progress



```
<progress  
  value="50"  
  max="0"></progress>
```



section



```
<section></section>
```

time



```
<time
  datetime="2013-07-08T13:25:23-8:00"
  pubdate>
  July 7th, 2013
</time>
```

wbr



reallybig<wbr>word

New Elements

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bdi

canvas

datalist

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meter

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summary

svg

time

track

video

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New JavaScript APIs

New JavaScript APIs

Canvas



Featured in this course.

New JavaScript APIs

Canvas

Contacts

New JavaScript APIs

Canvas

Contacts

File API

New JavaScript APIs

Canvas

Contacts

File API

Forms



Featured in this course.

New JavaScript APIs

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New

Can

Cont

File

For

Geolo

Can I use... Support tables x

caniuse.com/#search=indexeddb

Can I use...

Compatibility tables for support of HTML5, CSS3, SVG and more in desktop and mobile browsers.

Search: indexeddb

1 result found

Index

Tables

Import stats

FAQ

Resources

Embed

Compatibility tables

Browser comparison

Show options

Supported

Not supported

Partially supported

Support unknown

IndexedDB - Working Draft

Method of storing data client-side, allows indexed database queries. Previously known as WebSimpleDB API.

*Usage stats:

Global

Support: 57.71%

Partial support: 2.8%

Total: 60.51%

Show all versions

	IE	Firefox	Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	BlackBerry Browser
								2.1	
								2.2	
						3.2		2.3	
						4.0-4.1		3.0	
						4.2-4.3		4.0	
	8.0					5.0-5.1		4.1	7.0
Current	10.0	21.0	26.0	5.1	15.0	6.0-6.1	5.0-7.0	4.2	10.0 webkit
Near future	11.0	23.0	28.0	7.0		7.0			
Farther future		24.0	29.0						

Notes

Known issues (1)

Resources (5)

Feedback

Edit on GitHub

Partial support in BB10 refers to an outdated specification being implemented. Code targeting the current state of the specification might not work.

New JavaScript APIs

Canvas

IndexedDB

Contacts

Media Capture

File API

Forms

Geolocation

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Microdata



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Messaging

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HTML5 Line of Business Apps with Bootstrap, MVC4 and Web API

HTML5 Ad

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<http://pluralsight.com/courses/html5-line-of-business-applications>

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New JavaScript APIs

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IndexedDB

Selection

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Featured in this course.

New JavaScript APIs

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IndexedDB

Selection

Contacts

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Server-Sent Events

File API

Microdata

Forms

Messaging

Geolocation

Offline Web Applications

New JavaScript APIs

Canvas

IndexedDB

Selection

Contacts

Media Capture

Server-Sent Events

File API

Microdata

Web Notifications

Forms

Messaging

Geolocation

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New JavaScript APIs

Canvas

IndexedDB

Selection

Contacts

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Web Sockets



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Web Storage

New JavaScript APIs

Canvas

IndexedDB

Selection

Contacts

Media Capture

Server-Sent Events

File API

Microdata

Web Notifications



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Offline Web Applications

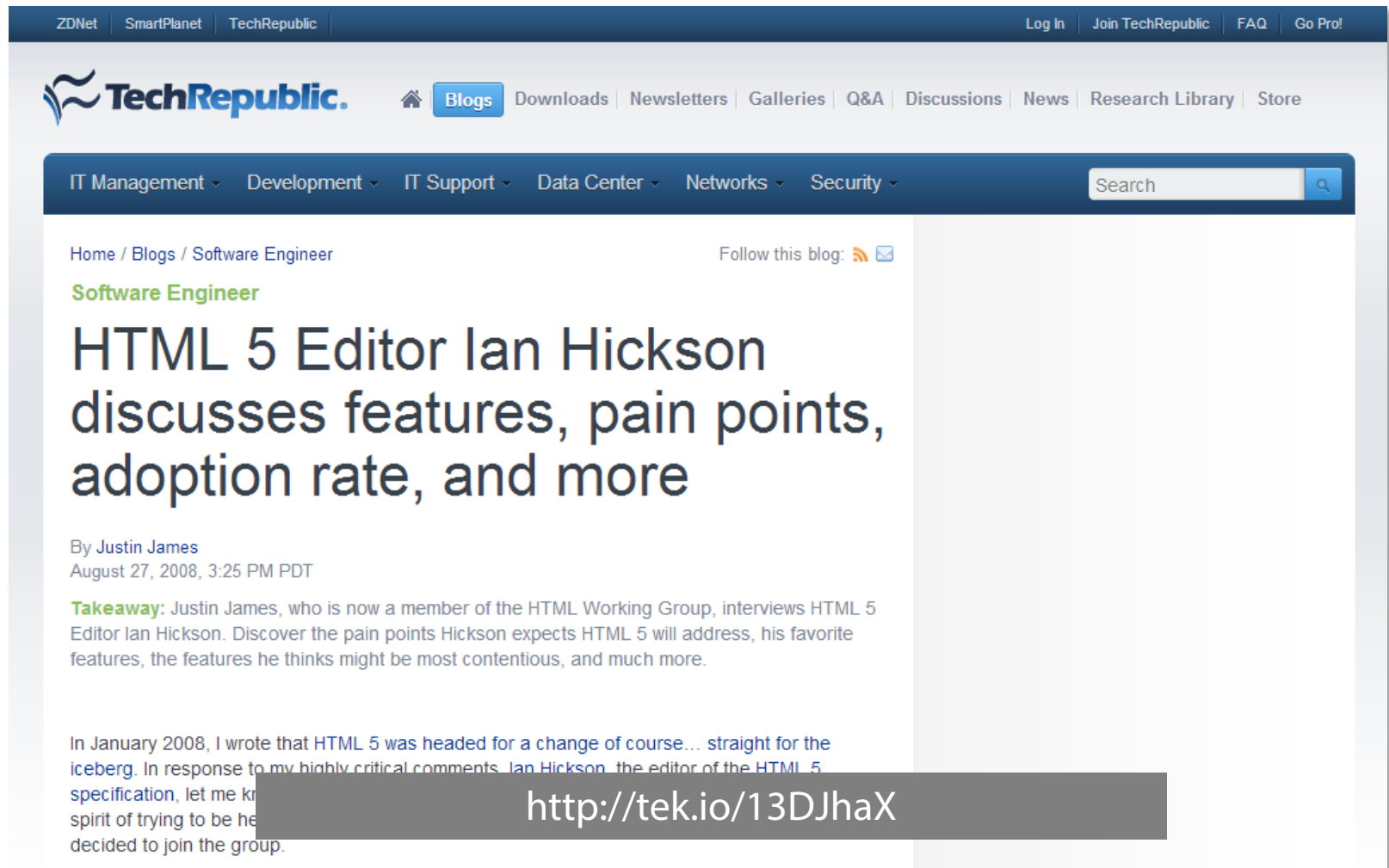
Web Storage

Web Workers

XMLHttpRequest Level 2



When is HTML5 'done'?

When is HTML5 'done'?



The screenshot shows the TechRepublic website interface. At the top, there's a navigation bar with links for ZDNet, SmartPlanet, TechRepublic, Log In, Join TechRepublic, FAQ, and Go Pro!. Below this is the TechRepublic logo and a secondary navigation bar with links for Blogs, Downloads, Newsletters, Galleries, Q&A, Discussions, News, Research Library, and Store. A third navigation bar lists various IT categories: IT Management, Development, IT Support, Data Center, Networks, and Security, along with a search bar. The main content area displays a blog post by Justin James, dated August 27, 2008, at 3:25 PM PDT. The post is titled 'HTML 5 Editor Ian Hickson discusses features, pain points, adoption rate, and more'. A 'Takeaway' section summarizes the post, mentioning that Justin James interviews Ian Hickson, a member of the HTML Working Group. The post text begins with 'In January 2008, I wrote that HTML 5 was headed for a change of course... straight for the iceberg. In response to my highly critical comments, Ian Hickson, the editor of the HTML 5 specification, let me know his perspective and the spirit of trying to be helpful. He decided to join the group.'

Home / Blogs / Software Engineer

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Software Engineer

HTML 5 Editor Ian Hickson discusses features, pain points, adoption rate, and more

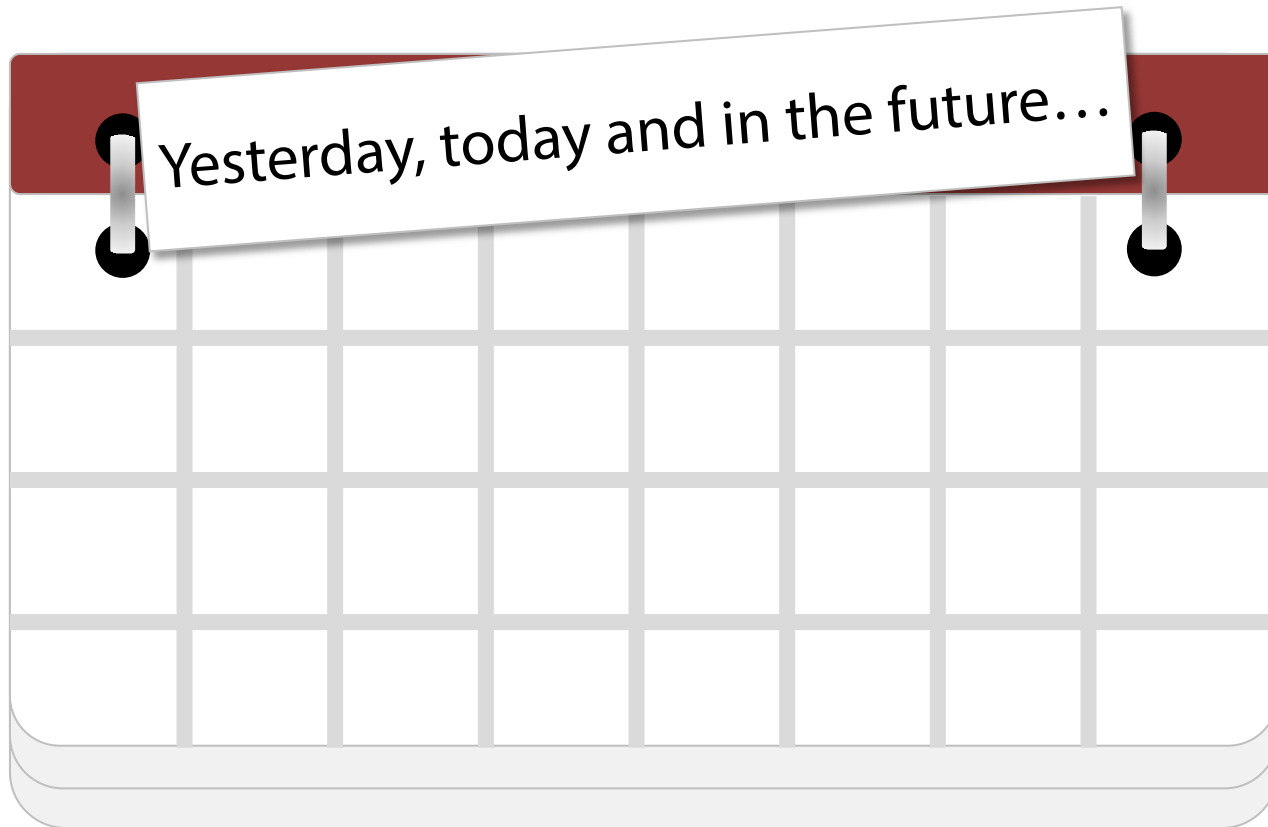
By Justin James
August 27, 2008, 3:25 PM PDT

Takeaway: Justin James, who is now a member of the HTML Working Group, interviews HTML 5 Editor Ian Hickson. Discover the pain points Hickson expects HTML 5 will address, his favorite features, the features he thinks might be most contentious, and much more.

In January 2008, I wrote that HTML 5 was headed for a change of course... straight for the iceberg. In response to my highly critical comments, Ian Hickson, the editor of the HTML 5 specification, let me know his perspective and the spirit of trying to be helpful. He decided to join the group.

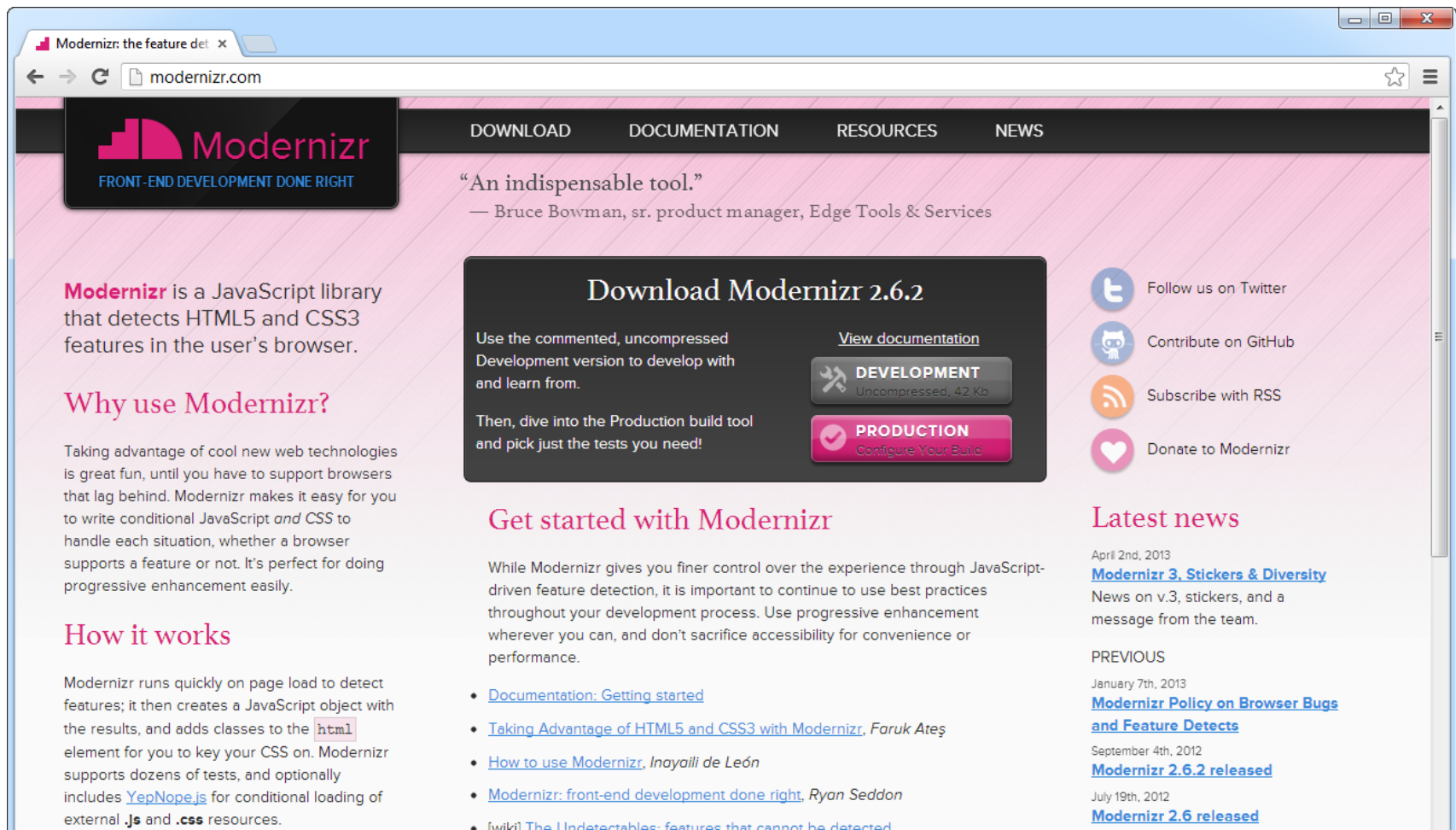
<http://tek.io/13DJhaX>

When is HTML5 'done'?



Markup

Detecting HTML5



The screenshot shows the Modernizr website in a browser window. The browser's address bar displays 'modernizr.com'. The website has a dark header with the Modernizr logo and navigation links: 'DOWNLOAD', 'DOCUMENTATION', 'RESOURCES', and 'NEWS'. The main content area has a pink background with diagonal lines. On the left, there's a section titled 'Modernizr' with the tagline 'FRONT-END DEVELOPMENT DONE RIGHT'. Below this, it explains that Modernizr is a JavaScript library for detecting HTML5 and CSS3 features. A 'Why use Modernizr?' section follows, highlighting its use for progressive enhancement. The 'How it works' section describes how it runs on page load to detect features and add classes to the HTML element. In the center, a dark box promotes 'Download Modernizr 2.6.2', offering both a 'DEVELOPMENT' version (commented, uncompressed) and a 'PRODUCTION' build tool. To the right of this box, there are social media links for Twitter, GitHub, RSS, and a donation link. Below the download box, a 'Get started with Modernizr' section provides a brief overview and a list of links to documentation and other resources. Finally, a 'Latest news' section lists recent updates, including the release of Modernizr 3 and Modernizr 2.6.2.

Modernizr: the feature detector

modernizr.com

Modernizr
FRONT-END DEVELOPMENT DONE RIGHT

DOWNLOAD DOCUMENTATION RESOURCES NEWS

Modernizr is a JavaScript library that detects HTML5 and CSS3 features in the user's browser.

Why use Modernizr?

Taking advantage of cool new web technologies is great fun, until you have to support browsers that lag behind. Modernizr makes it easy for you to write conditional JavaScript and CSS to handle each situation, whether a browser supports a feature or not. It's perfect for doing progressive enhancement easily.

How it works

Modernizr runs quickly on page load to detect features; it then creates a JavaScript object with the results, and adds classes to the `html` element for you to key your CSS on. Modernizr supports dozens of tests, and optionally includes [YepNope.js](#) for conditional loading of external `.js` and `.css` resources.

Download Modernizr 2.6.2

Use the commented, uncompressed Development version to develop with and learn from. [View documentation](#)

DEVELOPMENT
Uncompressed, 42 Kb

Then, dive into the Production build tool and pick just the tests you need!

PRODUCTION
Configure Your Build

Get started with Modernizr

While Modernizr gives you finer control over the experience through JavaScript-driven feature detection, it is important to continue to use best practices throughout your development process. Use progressive enhancement wherever you can, and don't sacrifice accessibility for convenience or performance.

- [Documentation: Getting started](#)
- [Taking Advantage of HTML5 and CSS3 with Modernizr](#), Faruk Ateş
- [How to use Modernizr](#), Inayaili de León
- [Modernizr: front-end development done right](#), Ryan Seddon
- [\[wiki\] The Undetectables: features that cannot be detected](#)

Latest news

April 2nd, 2013
[Modernizr 3, Stickers & Diversity](#)
News on v.3, stickers, and a message from the team.

PREVIOUS

January 7th, 2013
[Modernizr Policy on Browser Bugs and Feature Detects](#)

September 4th, 2012
[Modernizr 2.6.2 released](#)

July 19th, 2012
[Modernizr 2.6 released](#)

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Summary

HTML



Next Up....

Selection

Assign CSS class to all even DIVs.

div 1

div 2

div 3

div 4

div 5

div 6