In Control of HTML5

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I WAKE UP SCREAMING

STEVE FISHER
GEEK LOVE

A NOVEL

KATHERINE DUNN
What’s so great about HTML5?

- New elements and attributes reflect the semantics we’ve been using with existing Web standards-compliant code
- Better facilitates coding Web Applications by building-in functionality we’ve been adding-on with JavaScript for years
- Makes browsers more consistent in their implementations, allowing developers to move ever closer to code-once-run-everywhere
Can I use HTML 5 now?
Do I have to?
Can I use HTML 5 now?
YES!
“HTML5 is still a draft.”

http://www.w3.org/html5/html4-differences/
Do I have to?
NO!
Fakin’ HTML5
<!DOCTYPE html>
<meta charset="UTF-8">
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html lang="en" xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-type" content="text/html;charset=UTF-8" />
<title>Template</title>
</head>
<body>
<h1>XHTML 1.0 Strict Template</h1>
<p>A file for getting started with XHTML.</p>
<div><a href="http://validator.w3.org/check?uri=referer"><img src="http://www.w3.org/Icons/valid-xhtml10" alt="Valid XHTML 1.0 Strict" height="31" width="88" /></a></div>
</body>
</html>
<!DOCTYPE html>
<html lang="en" xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-type" content="text/html;charset=UTF-8" />
<title>Template</title>
</head>
<body>

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<head>
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<html lang="en" xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta charset="UTF-8">
<title>Template</title>
</head>
<body>

<h1>XHTML5 1.0 Strict Template</h1>

<p>A file for getting started with XHTML5.</p>

<div><a href="http://validator.w3.org/check?uri=referer"><img src="http://www.w3.org/html/logo/badge/html5-badge-h-solo.png" width="63" height="64" alt="Valid HTML5" /></a></div>

</body>
</html>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Template</title>
</head>
<body>

<h1>HTML5 Template</h1>

<p>A file for getting started with HTML5.</p>

<div><a href="http://validator.w3.org/check?uri=referer"><img src="http://www.w3.org/html/logo/badge/html5-badge-h-solo.png" width="63" height="64" alt="Valid HTML5" /></a></div>

</body>
</html>
Remove these elements...

- basefont
- big
- center
- font
- strike
- tt
- u
- frame
- frameset
-noframes

- acronym
  not included because it has created a lot of confusion; use abbr for abbreviations

- applet
  obsoleted in favor of object

- isindex
  can be replaced by form controls

- dir
  obsoleted in favor of ul

- noscript
  from XML syntax only
...and these attributes

- align
- alink, link, text, vlink
- background, bgcolor
- border, cellpadding, cellspacing
- clear
- frameborder, marginheight, marginwidth, scrolling
- hspace, vspace
- nowrap, height, width
- type
- valign
- longdesc
- scope
3.6. Absent Attributes

Some attributes from HTML4 are no longer allowed in HTML5. The specification defines how user agents should process them in legacy documents, but authors must not use them and they will not validate.

HTML5 has advice on what you can use instead.

- `rev` and `charset` attributes on `link` and `a`.
- `shape` and `coords` attributes on `a`.
- `longdesc` attribute on `img` and `iframe`.
- `target` attribute on `link`.
- `noreferrer` attribute on `a`.
- `profile` attribute on `head`.
- `version` attribute on `html`.
- `name` attribute on `img` (use `id` instead).
- `scheme` attribute on `meta`.
- `archive`, `classid`, `codebase`, `codetype`, `declare` and `standby` attributes on `object`.
- `valuetype` and `type` attributes on `param`.
- `axis` and `abbr` attributes on `td` and `th`.
- `scope` attribute on `td`.

In addition, HTML5 has none of the presentational attributes that were in HTML4 as their functions are better handled by CSS:

- `align` attribute on `caption`, `iframe`, `img`, `input`, `object`, `legend`, `table`, `hr`, `div`, `h1`, `h2`, `h3`, `h4`, `h5`, `h6`, `p`, `col`, `colgroup`, `tbody`, `td`, `tfoot`, `th`, `thead` and `tr`.
- `alink`, `link`, `vlink`, `text` and `vlink` attributes on `body`.
- `background` attribute on `body`.
- `bgcolor` attribute on `table`, `tr`, `td`, `th` and `body`.
- `border` attribute on `table` and `object`.
- `cellpadding` and `cellspacing` attributes on `table`.
- `char` and `charoff` attributes on `col`, `colgroup`, `tbody`, `td`, `tfoot`, `th`, `thead` and `tr`.
- `clear` attribute on `bdi`.
- `compact` attribute on `ol`, `menu`, `ol` and `ul`.
- `frame` attribute on `table`.
- `frameborder` attribute on `iframe`.
- `height` attribute on `td` and `tr`.
- `hspace` and `vspace` attributes on `img` and `object`.
- `marginheight` and `marginwidth` attributes on `iframe`.
- `noresize` attribute on `hr`.
- `nowrap` attribute on `td` and `th`.
- `rules` attribute on `table`.
- `scrolling` attribute on `iframe`.
- `size` attribute on `hr`.
- `type` attribute on `li`, `ol` and `ul`.
- `valign` attribute on `col`, `colgroup`, `tbody`, `td`, `tfoot`, `th`, `thead` and `tr`.
- `width` attribute on `hr`, `table`, `td`, `th`, `col`, `colgroup` and `pre`.

[http://www.w3.org/html5/html4-differences/]
3.3. Changed Elements

These elements have slightly modified meanings in HTML5 to better reflect how they are used on the Web or to make them more useful:

- The `a` element without an `href` attribute now represents a placeholder for where a link otherwise might have been placed. It can also contain flow content rather than being restricted to phrase content.
- The `address` element is now scoped by the new concept of sectioning.
- The `b` element now represents a span of text to be stylistically offset from the normal prose without conveying any extra importance, such as keywords in a document abstract, product names in a review, or other spans of text whose typical typographic presentation is emphasized.
- The `cite` element now solely represents the title of a work (e.g., a book, a paper, an essay, a poem, a score, a song, a movie, a TV show, a game, a sculpture, a painting, a theatre production, a play, an opera, a musical, an exhibit, a legal case, a mathematical formula, etc.), as in the example in HTML4 where it is used to mark up the name of a person is no longer considered to be a legal or equitable attribution.
- The `hr` element now represents a paragraph-level thematic break.
- The `i` element now represents a span of text in an alternate voice or mood, or other similar designation, a technical term, an idiomatic phrase from another language, a thought, an attribution, a typographic presentation is italicized. Usage varies widely by language.
- For the `label` element the browser should no longer move focus from the label to the control when the underlying platform user interface.
- The `menu` element is redefined to be useful for toolbars and context menus.
- The `q` element now represents contents that are no longer accurate or no longer relevant.
- The `small` element now represents small print (for side comments and legal print).
- The `strong` element now represents importance rather than strong emphasis.
- The `thead` element no longer allows the `object` element as child.

3.4. Changed attributes

The `type` attribute on `script` and `style` is no longer required if the scripting language is ECMAScript and the styling language is CSS respectively. The following attributes are allowed but authors are discouraged from using them and instead strongly encouraged to use an alternative solution:

- The `border` attribute on `img`. It is required to have the value "0" when present. Authors can use CSS instead.
- The `language` attribute on `script`. It is required to have the value "javascript" (case-insensitive) when present and cannot conflict with the `type` attribute. Authors can simply omit it as it has no useful function.
- The `name` attribute on `a`. Authors can use the `id` attribute instead.
- The `summary` attribute on `table`. The HTML5 draft defines several alternative solutions.

Also note that some elements, like `b` and `i`, now have new meanings.

http://www.w3.org/html5/html4-differences/
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>HTML5 Template</title>
</head>
<body>

<h1>HTML5 Template</h1>

<p>A file for getting started with HTML5.</p>

<div><a href="http://validator.w3.org/check?uri=referer"><img src="http://www.w3.org/html/logo/badge/html5-badge-hsolo.png" width="63" height="64" alt="Valid HTML5" /></a></div>

</body>
</html>
HTML 5
Makin’ HTML5
New elements in HTML5

- article
- aside
- audio
- bdi
- canvas
- command
- datalist
- details
- embed
- figcaption
- figure
- footer
- header
- hgroup
- keygen
- mark
- meter
- nav
- output
- progress
- rp, rt, ruby
- section
- source
- summary
- time
- track
- video
- wbr
New elements in HTML5

- article
- aside
- audio
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- command
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- embed
- figcaption
- figure
- footer
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- hgroup
- keygen
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- meter
- nav
- output
- progress
- rp, rt, ruby
- section
- source
- summary
- time
- track
- video
- wbr
Today’s markup

<div id="header">

<div id="nav">

<div id="content">

<div id="footer">

</div>

</div>

</div>

</div>
But wait!

There’s more!
Extra HTML5-ified!

- `<header>`
- `<nav>`
- `<section>`
  - `or`
  - `<article>`
    - `or`
    - `<aside>`
      - `or`
      - `<div>`
- `<footer>`
Extra HTML5-ified!

<header>
<nav>
<section>
<article>
<aside>
<div>
<footer>

html5doctor.com

</footer>
</div>
</aside>
</article>
<section>
</section>
<nav>
<header>
</header>
</nav>
</section>
</article>
</nav>
</header>
<!DOCTYPE html>
<html lang="en">
<head>
</head>
<body>
<header/>
<h1>/</h1>
<section/>
<p>/</p>
<section/>
<footer/>
<a href="http://validator.w3.org/check?uri=referer">Text - Empty Text Node</a>
</footer/>
</body>
</html>
<html lang="en">
  <head></head>
  <body>
    <header/>
    <h1></h1>
    <section/>
    <footer/>
    <a href="http://validator.w3.org/check?uri=referer">Text - Empty Text Node</a>
  </body>
</html>
JavaScript HTML5 Shiv

```html
<head>
  <!--[if lt IE 9]>
  <script src="http://html5shiv.googlecode.com/svn/trunk/html5.js">
  </script>
  <![endif]-->
</head>

- Or, if you need feature detection anyway, use Modernizer http://www.modernizr.com/
As the spec changes, you’ll have to adjust these rules – until browsers have some default CSS for these elements!
```html
<!DOCTYPE html>
<html lang="en">
<head>
  <link rel="stylesheet" href="html5_template.html">
</head>
<body>
  <header>
    <hi>
    <section>
      <p>
        a[href="http://validator.w3.org/check?uri=referer"]
        <br>Text - Empty Text Node
      </p>
    </section>
  </header>
</body>
</html>
```
# New elements in HTML5

- article
- aside
- audio
- bdi
- canvas
- command
- datalist
- details
- embed
- figcaption
- figure
- footer
- header
- hgroup
- keygen
- mark
- meter
- nav
- output
- progress
- rp, rt, ruby
- section
- source
- summary
- time
- track
- video
- wbr
FORMATS
<audio src="filename.ext" autoplay controls>
</audio>
New elements in HTML5

- article
- aside
- audio
- bdi
- canvas
- command
- datalist
- details
- embed
- figcaption
- figure
- footer
- header
- hgroup
- keygen
- mark
- meter
- nav
- output
- progress
- rp, rt, ruby
- section
- source
- summary
- time
- track
- video
- wbr
# New input types in HTML5

- date
- datetime
- datetime-local
- month
- week
- time
- color
- email
- number
- range
- search
- tel
- url
# New form attributes in HTML5

- accept
- complete
- autofocus
- formaction
- formenctype
- formmethod
- formnovalidate
- formtarget
- list
- min/max
- multiple
- novalidate
- pattern
- placeholder
- required
- step
New form attributes in HTML5

- accept
- autocomplete
- **autofocus**
- formaction
- formenctype
- formmethod
- formnovalidate
- formtarget
- list

- min/max
- multiple
- novalidate
- pattern
- placeholder
- required
- step
<input type="search" name="q" autofocus>
<input type="search" name="q" autofocus placeholder="Search">
<input type="email" name="email" required>
<input type="password"
name="pwd"
pattern="[A-Z0-9]{8}"/>
<table>
<thead>
<tr>
<th>Hidden</th>
<th>Text, Search, URL, Telephone</th>
<th>E-mail</th>
<th>Password</th>
<th>Date and Time, Date, Month, Week, Time</th>
<th>Local Date and Time, Number</th>
<th>Range</th>
<th>Color</th>
<th>Checkbox, Radio Button</th>
<th>File Upload</th>
<th>Submit Button</th>
<th>Image Button</th>
<th>Reset Button, Button</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
Backwards compatibility

Date selector in Opera

Regular text input in IE
Detect features and provide fallback option with Modernizr
http://www.modernizr.com

```html
<head>
  <script src="modernizr.js"></script>
</head>
<body>
  <script>
    if (!Modernizr.input.autofocus){
      $("#fieldname").focus();
    }
  </script>
</body>
```
Frequently Asked Questions

Many answers can be found at:

- http://www.w3.org/TR/html5/
- http://www.w3.org/TR/html5-diff/
- http://www.w3.org/TR/html-markup/
- http://www.html5doctor.com/
- http://www.diveintohtml5.org/
In Control of HTML5

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