

CSS

adam@honestbuildings.com

History

1993

In fact, it has been a constant source of delight for me over the past year to get to continually tell hordes (literally) of people who want to -- strap yourselves in, here it comes -- control what their documents look like in ways that would be trivial in TeX, Microsoft Word, and every other common text processing environment: "Sorry, you're screwed."

1994 - Beta of Mozilla (NN) announced

1995 - WWW conf debates *declarative* vs. *programmatic* approaches

1996 - IE3 supports CSS-1

1997 - NN + Opera follow IE's lead

...

NOW - W3C Develops CSS Standards

<https://drafts.csswg.org/css2>

Recall: CSS is Amazing

<https://pattle.github.io/simpsons-in-css/>

<http://cssdeck.com/labs/dancing-robot-with-reflection>

<http://codepen.io/anon/pen/gnqlc>

Recall: Rendering

1. **Parse** HTML to create a DOM tree
Parse CSS to create a CSS model
2. **Combine** Structure (DOM) and styling (CSS) into a combined **render tree**
(render tree contains ONLY the nodes required to render the page)
3. **Compute** the display geometry of each node
4. **Paint** the screen

How Does CSS Work?

1. **Load** media-appropriate CSS
2. **Apply** selectors to the document model
setting CSS properties on each node in a tree
tree is implementation-dependent (could be similar to DOM but a few diffs)
3. **Execute** the render according to the Visual Formatting Model
<https://drafts.csswg.org/css2/visuren.html>

The **Visual Formatting Model** is a set of rules defining how **blocks** are laid out.

Understanding the CSS **block model** and the **properties** you can use to control the layout and formatting of blocks is the **key** to understanding CSS.

The Block Model

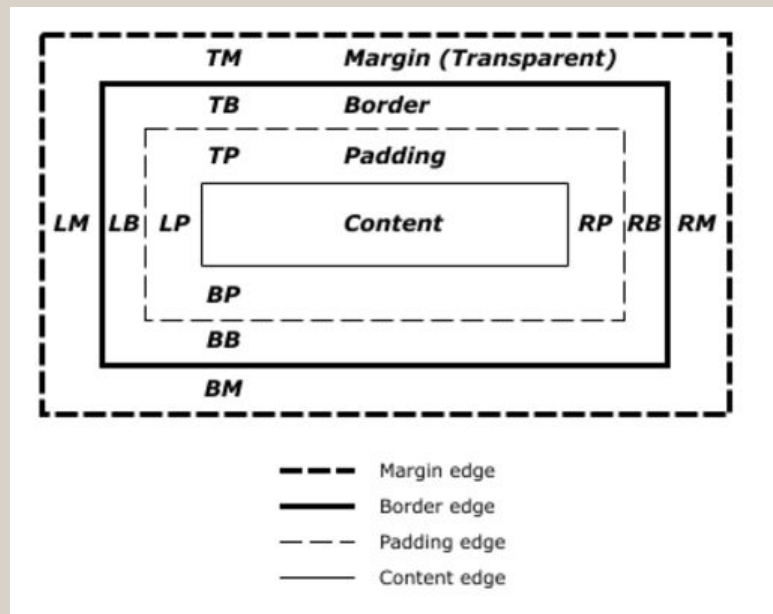
All layers of the 'onion' can be independently controlled

Content is a function of actual content (images, text, HTML)

Padding, Border and Margin are properties you can set!

Children DOM Nodes see the **Content** box as the 'containing box'

<http://jsfiddle.net/3xzLge0b/>



The “Display” Property

The most important CSS property

Determines the “type of block” which directly affects layout

- **none** - element and all DOM-descendants treated as if they do not exist
- **block** - you can set width, height, and all onion layers
- **inline** - you cannot set width or margins
- **inline-block** - ?

Let's Code

Float, Clear & Layout

<http://jsfiddle.net/oy7c4gcd/>

LESS

<http://jsfiddle.net/r11u3qon/>

CSS Strategies

- Use a Grid System [[link](#)]
- Modularize CSS by using LESS or SASS
- Stand on the shoulders of Giants
 - ◆ <http://foundation.zurb.com/> - a comprehensive CSS fwork
 - ◆ <http://bourbon.io/> - a SASS mixin library
 - ◆ <http://gumbyframework.com/docs/ui-kit/#!/> - CSS fwork