

CSS

CSS FUNDAMENTALS

GETTING STARTED

Context



IN A ROCKET

Learn front-end development at rocket speed.

PAST

PRESENT

FUTURE



PAST

PRESENT

FUTURE



+



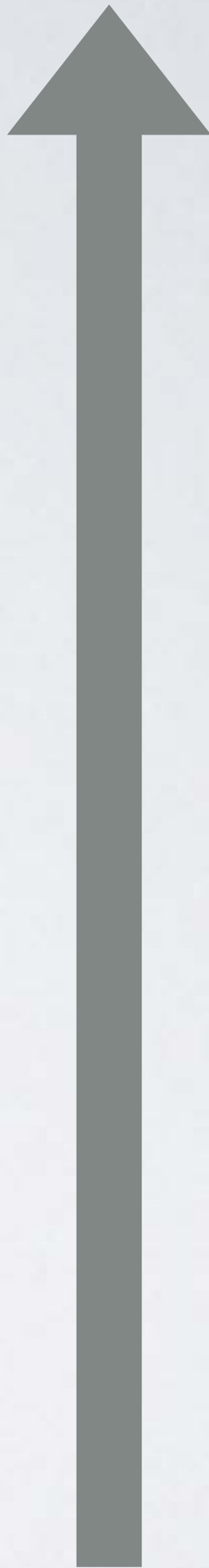


+



MATURITY OF SPECIFICATIONS BY STATUS CODE

SPSD	SUPERSEDED RECOMMENDATION
REC	RECOMMENDATION
PR	PROPOSED RECOMMENDATION
CRD	CANDIDATE RECOMMENDATION DRAFT
CR	CANDIDATE RECOMMENDATION
WD	WORKING DRAFT
FPWD	FIRST PUBLIC WORKING DRAFT



MATURITY OF SPECIFICATIONS BY STATUS CODE

EXAMPLE

CSS Backgrounds and Borders Module Level 3



W3C Candidate Recommendation Draft, 26 July 2021

This version:

<https://www.w3.org/TR/2021/CRD-css-backgrounds-3-20210726/>

Latest published version:

<https://www.w3.org/TR/css-backgrounds-3/>

Editor's Draft:

<https://drafts.csswg.org/css-backgrounds/>

Previous Versions:

<https://www.w3.org/TR/2020/CR-css-backgrounds-3-20201222/>

<https://www.w3.org/TR/2017/CR-css-backgrounds-3-20171017/>

<https://www.w3.org/TR/2014/CR-css3-background-20140909/>

Implementation Report:

https://test.csswg.org/harness/results/css-backgrounds-3_dev/grouped/

Test Suite:

<http://test.csswg.org/suites/css3-background/nightly-unstable/>

Issue Tracking:

[CSSWG Issues Repository](#)

Editors:

[Bert Bos](#) (W3C)

[Elika J. Etemad / fantasai](#) (Invited Expert)

[Brad Kemper](#) (Invited Expert)

Suggest an Edit for this Spec:

[GitHub Editor](#)

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SOURCE: [CSS Backgrounds and Borders Module Level 3](#) by W3C.

- ♦ Box properties
- ♦ Cascade
- ♦ Color + background
- ♦ CSS syntax
- ♦ Font properties
- ♦ Pseudo-classes
- ♦ Text properties

CSS 1

CSS Level 1

RECOMMENDATION

DEC 1996

CSS 2

CSS Level 2

RECOMMENDATION

MAY 1998

CSS 1 + CSS 2 +

- ♦ Box model
- ♦ Generated content
- ♦ Media types
- ♦ Paged media
- ♦ Selectors
- ♦ Tables
- ♦ Visual effects

CSS 2.1

CSS Level 2
Revision 1

RECOMMENDATION

JUN 2011



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STANDARDS WERE OFTEN IGNORED

SITE OPTIMIZED FOR:



etc.

BROWSERS REQUIRED MANUAL UPDATES



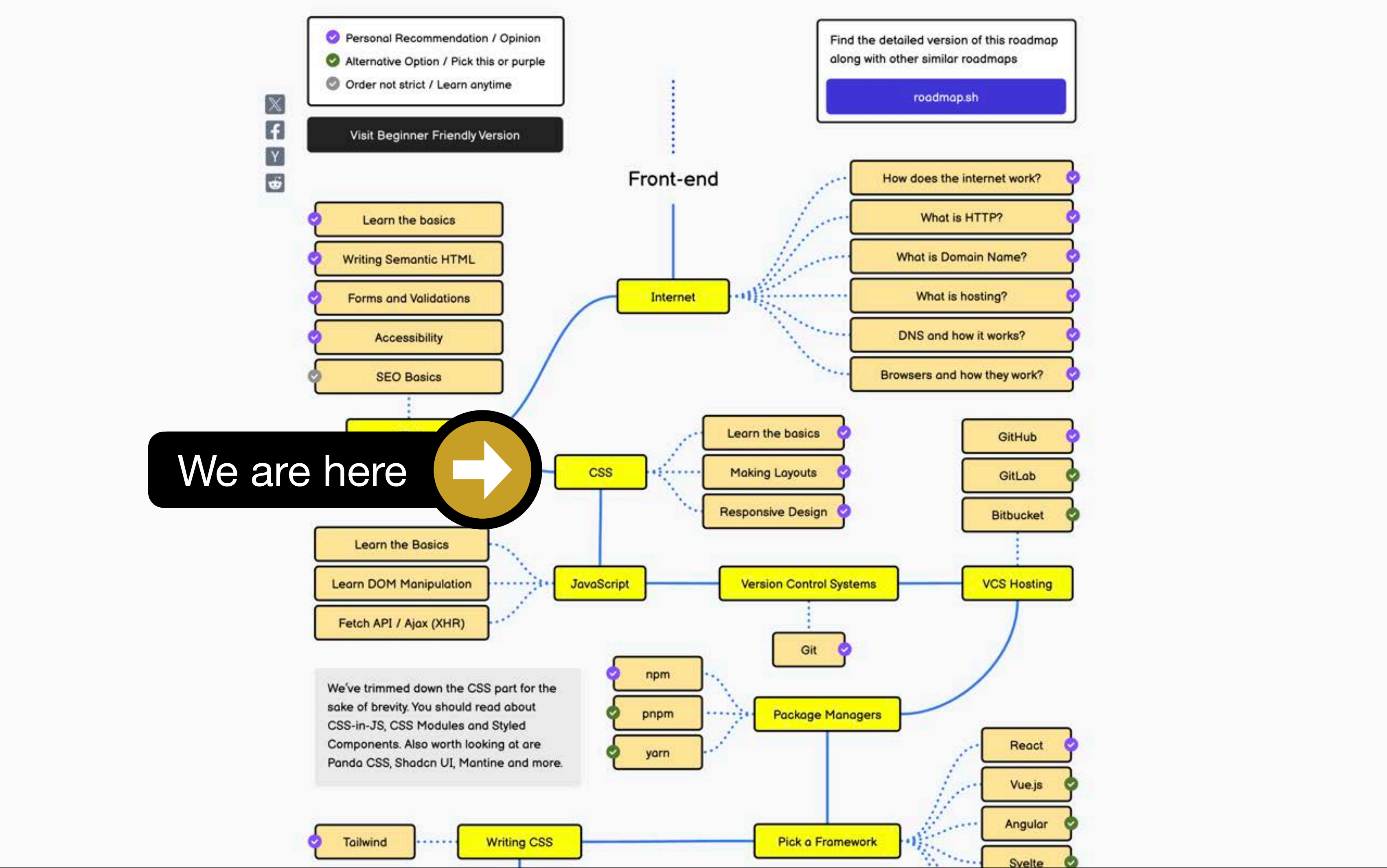
Nostalgia mode on ;-)

PAST

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FRONT-END DEVELOPER ROADMAP



SOURCE: [Front-end developer roadmap by Kamran Ahmed.](#)



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CSS3

CSS4

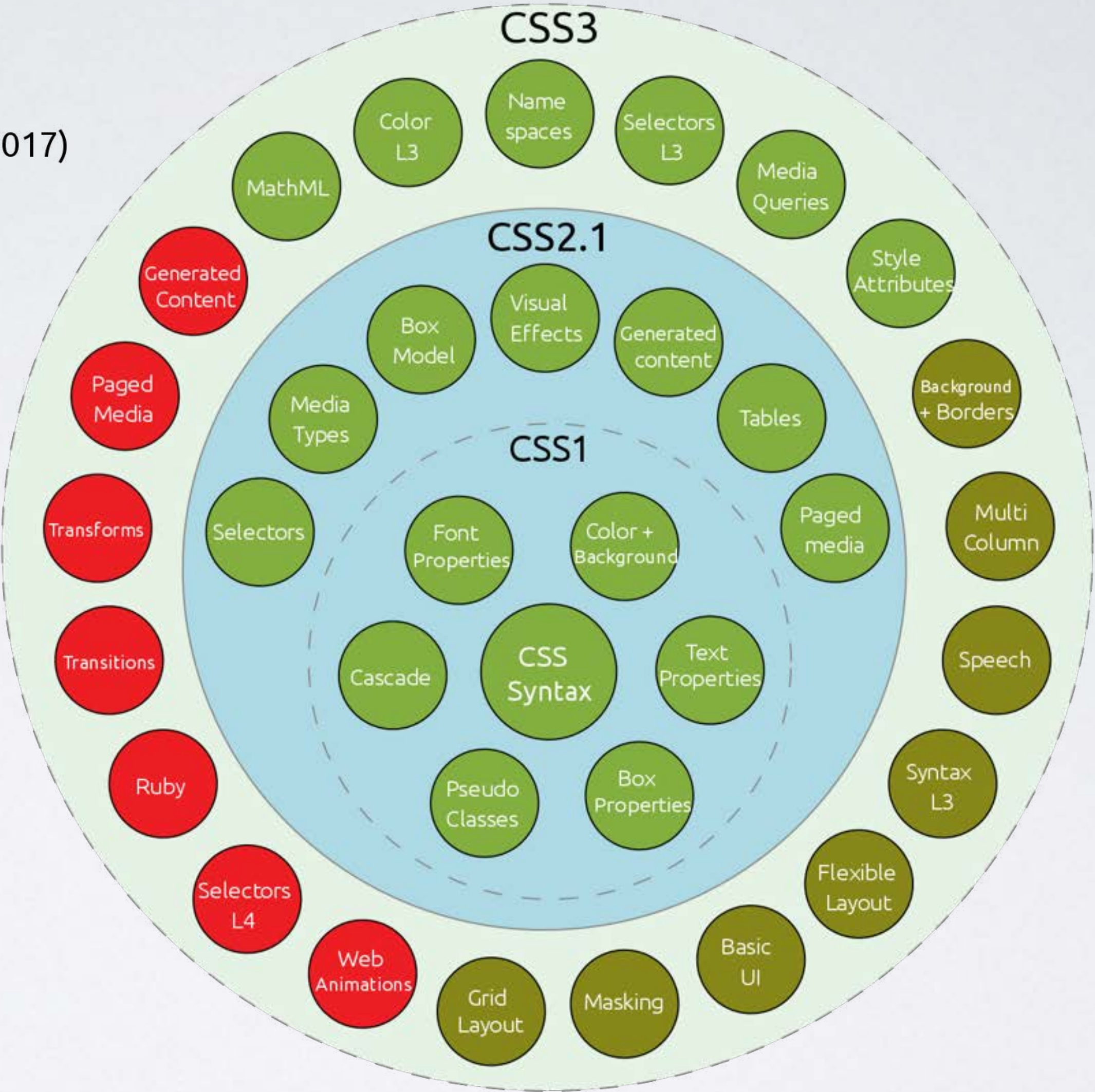
CSS?

CSS3: TAXONOMY AND STATUS BY SERGEY MAVRODY

CSS3

Taxonomy & Status (September 2017)

-  W3C Recommendation
-  Candidate Recommendation
-  Last Call
-  Working Draft
-  Obsolete or inactive



SOURCE: [HTML5 & CSS3: Quick Reference by Sergey Mavrody](#).

+80

SPECIFICATIONS

ALL CSS SPECIFICATIONS

All CSS specifications

W3C

Descriptions
of all CSS specifications


Languages

CSS HOME LEARN & USE SOFTWARE PARTICIPATE / DRAFTS

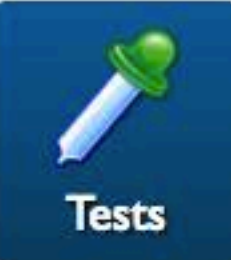


CSS SPECIFICATIONS

This page contains descriptions of all specifications that the [CSS WG](#) is working on. See the [‘current work’](#) page for a compact view and [how to give feedback](#).

MEDIA QUERIES

Media Queries is an enhancement of the @media rules of CSS and the “media” attribute in HTML. It adds parameters such as size of display, color depth and aspect ratio. This is because within a class of media (such as TV sets) there can still be important variations. It is related to the work on CC/PP, but is a much more light-weight and limited solution.


Tests


History

Editors: Florian Rivoal, Håkon Wium Lie, Tantek Çelik, Daniel Glazman, Anne van Kesteren

CSS FLEXIBLE BOX LAYOUT LEVEL 1

The *Flexible Box Layout Module* defines the ‘flex’ and ‘inline-flex’ keywords for the ‘display’ property, which cause an element to be displayed as either a column or a row of child elements. Additional properties determine the order of the child boxes (left to right, bottom to top, etc.) and how space is distributed over the children and the spaces between them. The module is primarily intended for forcing rows of controls in a GUI to equal height or width.

Editors: Tab Atkins Jr., Erika J. Etemad / fantasai, Rossen Atanassov


History

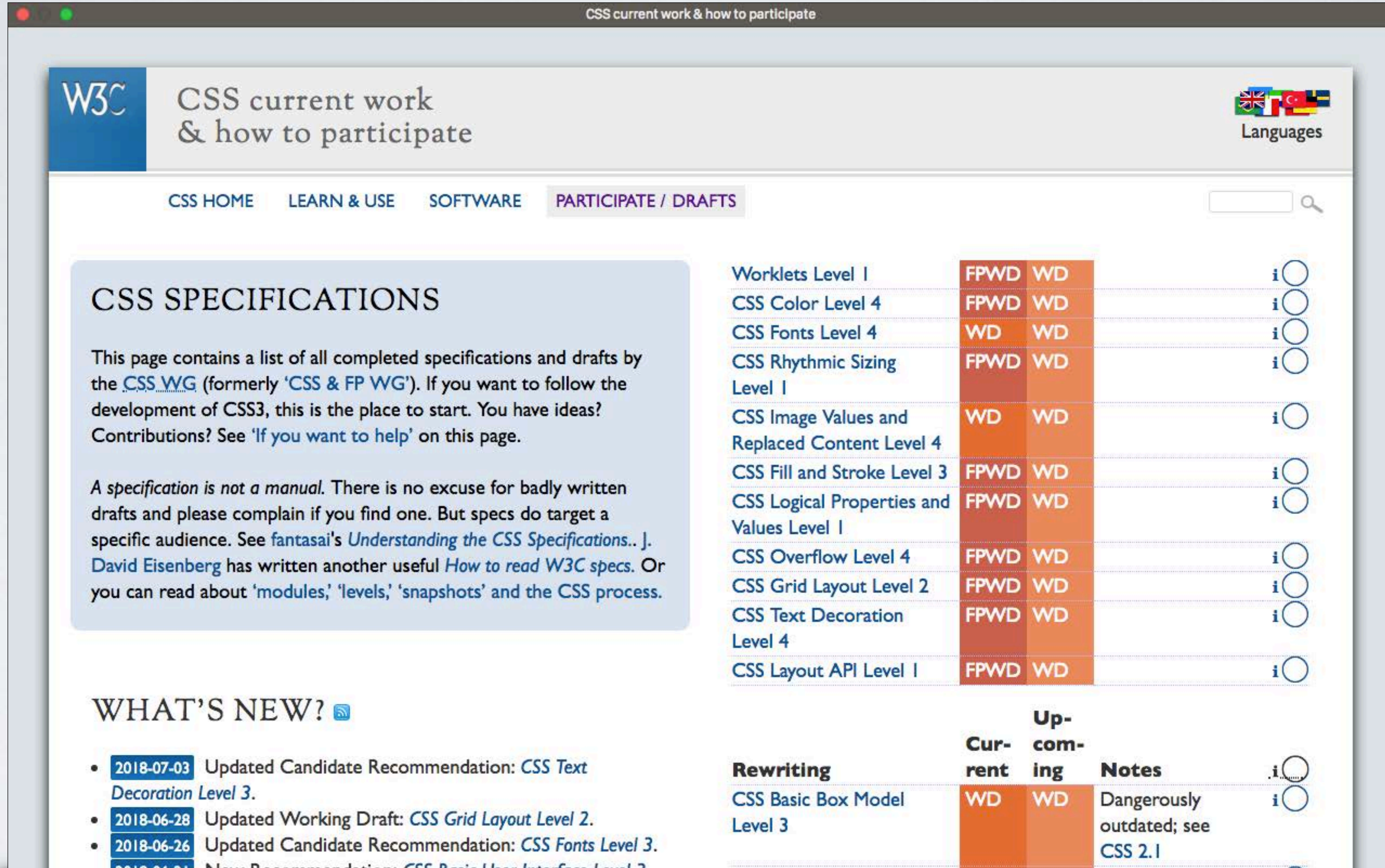
CSS IMAGE VALUES AND REPLACED CONTENT MODULE LEVEL 3

The *Image Values Module* defines how properties can refer to images by URI. All properties that can take



CSS FUNDAMENTALS: Build a strong foundation by solving real cases

inarocket.com



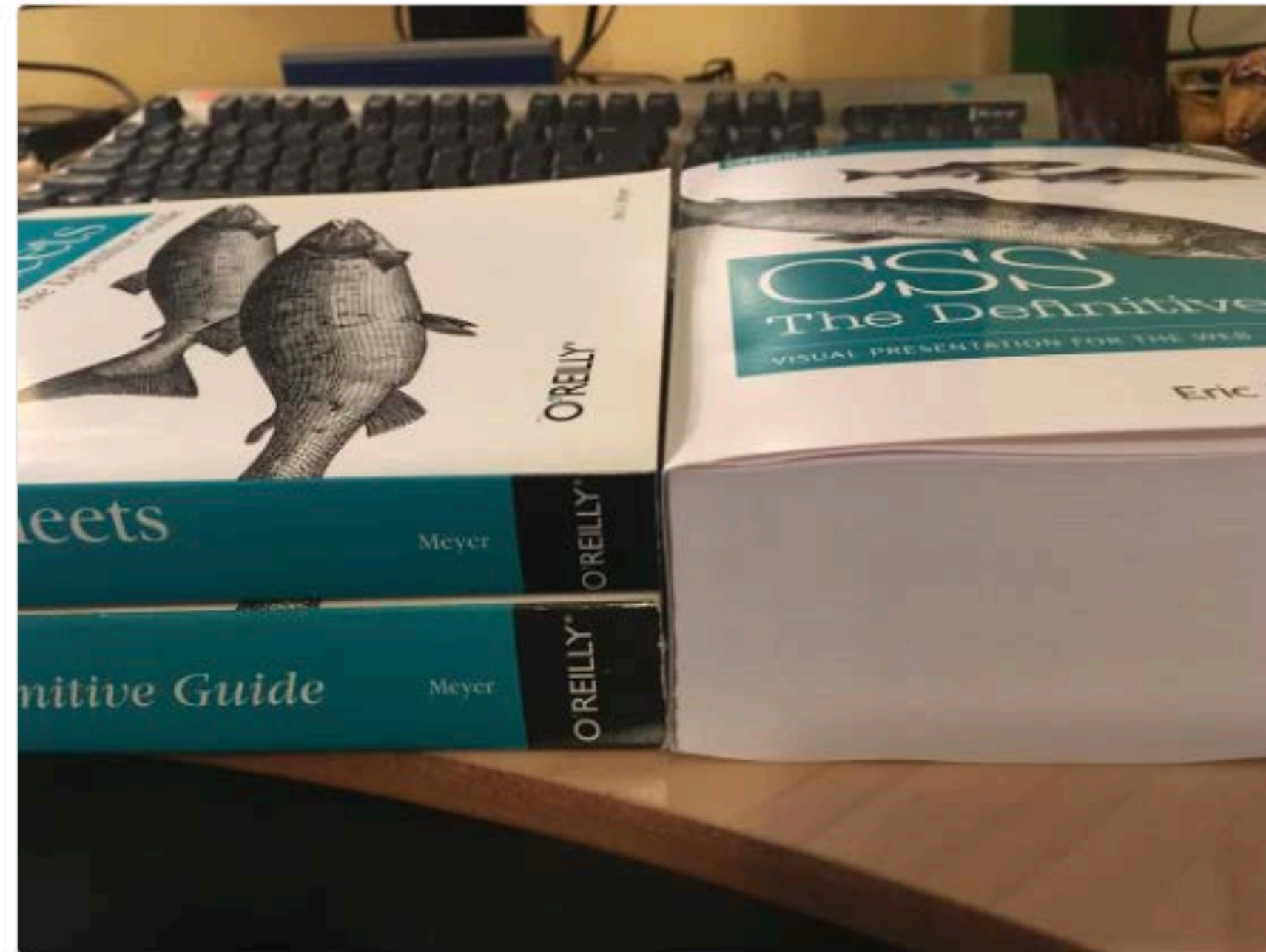


Eric Meyer
@meyerweb

Following



On the left: the 2nd and 3rd editions of “CSS: The Definitive Guide”. On the right, a single copy of the fourth edition.



4:25 PM - 10 Nov 2017

1,316 Retweets 3,303 Likes





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Evergreen browsers



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**POSTCSS
PRESET ENV**

**CSS
HOUDINI**



**POSTCSS
PRESET ENV**

**CSS
HOUDINI**

POSTCSS PRESET ENV

You can write future CSS syntax, and the plugin will convert it to CSS that browsers will understand (using polyfills).

postcss-preset-env

Use tomorrow's CSS today.



Features



Try It Now



Support



GitHub

PostCSS Preset Env lets you convert modern CSS into something most browsers can understand, determining the polyfills you need based on your targeted browsers or runtime environments, using [cssdb](#).

```
npm install postcss-preset-env
```

POSTCSS PRESET ENV

postcss-preset-env

 Features

 Try It Now

 Support

Stage 0+

all property

:any-link pseudo-class

:blank empty-value pseudo-class

break properties

case-insensitive attributes

functional color notation

custom media queries

custom properties

custom selectors

:dir pseudo-class

double position gradients

custom environment variables

:focus-visible pseudo-class

:focus-within pseudo-class

font-variant property

gap properties

gray() function

alpha hex colors

hwb() function

image-set() function

lab() function

all property

STAGE 3

SPECIFICATION

PLUGIN

A property for defining the reset of all properties of an element

```
a {  
  all: initial;  
}
```

:any-link pseudo-class

STAGE 2

SPECIFICATION

PLUGIN

A pseudo-class for matching anchor elements independent of whether they have been visited

```
nav :any-link > span {  
  background-color: yellow;  
}
```

:blank empty-value pseudo-class

STAGE 1

SPECIFICATION

PLUGIN

A pseudo-class for matching form elements when they are empty

```
input:blank {
```

**POSTCSS
PRESET ENV**

**CSS
HOUDINI**

CSS HOUDINI

Group of APIs for direct access to the CSS Object Model

Box Tree API

Layout API

Painting API

Parser API

Properties & values API

Font metrics API

Typed OM

Worklets

Animation worklet

CSS HOUDINI: W3C EDITOR DRAFTS

W3C

Home

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CSS-TAG Houdini Editor Drafts

Specification	Last Update	By	
Box Tree API 1	2018-08-14 05:14:43 PDT	philip_j_genstedt	 
CSS Animation Worklet 1	2019-08-12 06:57:43 PDT	majidvp	  
CSS Layout API 1	2019-02-20 20:05:55 PST	philip_j_genstedt	  
CSS Painting API 1	2019-07-23 13:59:26 PDT	tabatkins	   
CSS Parser API 1	2017-11-09 13:05:45 PST	dbaron	  
CSS Properties and Values API 1	2019-07-31 10:34:16 PDT	tabatkins	 
css-typed-om			
CSS Typed OM 1 (Current Work)	2019-08-21 22:35:09 PDT	kagami_sascha_rosylight	  
CSS Typed OM 2	2018-05-10 15:34:50 PDT	tabatkins	 
Font Metrics API 1	2019-02-11 05:11:49 PST	philip_j_genstedt	  
Worklets 1	2019-08-20 09:04:58 PDT	kagami_sascha_rosylight	 

Other Documents	Last Update	By	
CODE OF CONDUCT	2018-05-23 13:15:48 PDT	plh	 
CONTRIBUTING	2018-05-23 13:15:47 PDT	plh	 
LICENSE	2018-05-23 13:15:46 PDT	plh	 
README	2018-06-11 07:23:45 PDT	astearns	 

Please send comments, questions, and error reports to www-style@w3.org

CSS HOUDINI: EXPERIMENTS

CSS HOUDINIexperimental showcase by @iamvda

Need latest Chrome with flag!Support?

BACKGROUNDS

Conic gradient •

Corners gradient •

Slanted backgrounds •

Checkboxes ••

Background properties ••

JS-in-CSS ••

BORDERS

Simple tooltip ••

LAST Inner borders •

Rough boxes ••

Non-rectangular separators ••

MASKS

Corner shapes ••

Avatar polygons ••

Smooth corners ••

Dynamic hover masks ••

Random bubbles mask ••

ANIMATIONS

Animating a gradient •

Ripple animation •

Highlighter marker annotations ••

Double rainbow •

Wobble animation ••

LAYOUT

EQ: Responsive background ••

Random irregular grid •

CSS Houdini Experiments

Here is my experiments with the latest CSS Houdini spec. You'll need the latest Chrome (with Web Platform flag enabled). See [support](#)

[Source code on GitHub](#)

Let's do it!

First, see [how to register a new custom property](#) (and why). Then, check [how to write your own custom paint](#) to use with `background-image`. Or [borders](#). Or [CSS masks](#).

At the end, [interact with user inputs](#) and [animate it](#) !

Learn Houdini

- [Houdini on Smashing Mag](#)
- [Houdini and the paint API](#)
- [Working with the new CSS Typed Object Model](#)
- [Awesome CSS Houdini](#)

Specification links

- [CSS Properties & Values API](#)
- [CSS Typed OM](#)
- [CSS Painting API](#)
- [CSS Layout API](#)
- [All other Houdini specs](#)

CSS HOUDINI: BROWSER SUPPORT

July 2019

Is Houdini ready yet?

	 Google Chrome	 Mozilla Firefox	 Opera	 Microsoft Edge	 Samsung Internet	 Apple Safari	 Spec
Layout API (Explainer Demos)	Partial support (Canary) Details	Intent to implement Details	No signal	No signal	No signal	No signal	First Public Working Draft Spec
Paint API (Explainer Demos Article)	Shipped (Chrome 65) Details	Intent to implement (Servo) Details	Shipped (Opera 52) Details	No signal	Shipped (Internet 9.2) Details	In Development Details	Candidate Recommendation Spec
Parser API (Explainer)	No signal	No signal	No signal	No signal	No signal	No signal	No spec
Properties & Values API (Demos)	Partial support (Canary) Details	In Development Details	No signal	No signal	No signal	Partial support (Safari TP 67) Details	Working Draft Spec
AnimationWorklet (Explainer Demos Article)	Partial support (Canary) Details	No signal	No signal	No signal	No signal	No signal	First Public Working Draft Spec
Typed OM (Explainer Article)	Shipped (Chrome 66) Details	Intent to implement Details	Shipped (Opera 53) Details	No signal	Shipped (Internet 9.2) Details	In Development Details	Working Draft Spec
Font Metrics API (Explainer)	No signal	No signal	No signal	No signal	No signal	No signal	No spec

CSS HOUDINI: BROWSER SUPPORT

June 2025

Is Houdini ready yet?

							
	Google Chrome	Microsoft Edge	Opera	Samsung Internet	Mozilla Firefox	Apple Safari	Spec
Engine	Blink				Gecko	WebKit	-
Paint API (Explainer Demos Article)	Shipped (Chrome 65) Details	Shipped (Edge 79) Details	Shipped (Opera 52) Details	Shipped (Internet 9.2) Details	Under consideration Details	In Development Details	Candidate Recommendation Spec
Properties & Values API (Demos Article)	Shipped (Chrome 78) Details	Shipped (Edge 79) Details	Shipped (Opera 65) Details	Shipped (Internet 12.0) Details	Under consideration Details	Shipped (Safari 16.4) Details	Working Draft Spec
Typed OM (Explainer Article)	Shipped (Chrome 66) Details	Shipped (Edge 79) Details	Shipped (Opera 53) Details	Shipped (Internet 9.2) Details	Under consideration Details	Shipped (Safari 16.4) Details	Working Draft Spec
Layout API (Explainer Demos)	Partial support (Canary) Details	Partial support (Canary) Details	Partial support (Developer) Details	No signal	Under consideration Details	Under consideration Details	First Public Working Draft Spec
AnimationWorklet (Explainer Demos Article)	Partial support (Chrome 71) Details	Partial support (Edge 79)	Partial support (Opera 58)	Partial support (Internet 10.2)	No signal	Under consideration Details	First Public Working Draft Spec
Parser API (Explainer)	No signal	No signal	No signal	No signal	No signal	No signal	Proposal Spec
Font Metrics API (Explainer)	No signal	No signal	No signal	No signal	No signal	No signal	Proposal Spec

PAST



PRESENT



FUTURE



CONTENT IS KING, NOT CSS

BUT REMEMBER

CONTENT IS KING

NOT YOUR CSS

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