

Interop 2022

@rachelandrew

2022 is an exciting year for CSS!

- Cascade Layers
- New color functions
- subgrid
- accent-color
- Container Queries
- ...and more!

Interoperable

```
div.content {  
  width:400px;  
  voice-family: "\"}\\"";  
  voice-family:inherit;  
  width:300px;  
}
```

“ The W3C has established standards for interpreting Web-based content.

By releasing browsers which do not uniformly support those standards, browser makers are injuring Web developers, businesses and users alike. ”

Lack of uniform support for W3C standards makes using and developing Web-based technologies unnecessarily difficult and expensive.

WaSP Baseline Standards Proposal, 1998, <https://archive.webstandards.org/mission.html>

Software has bugs, and CSS is complicated.

New to the web platform

A series of posts to keep you updated with what's landing in web browsers each month.



New to the web platform in August



New to the web platform in July



New to the web platform in June

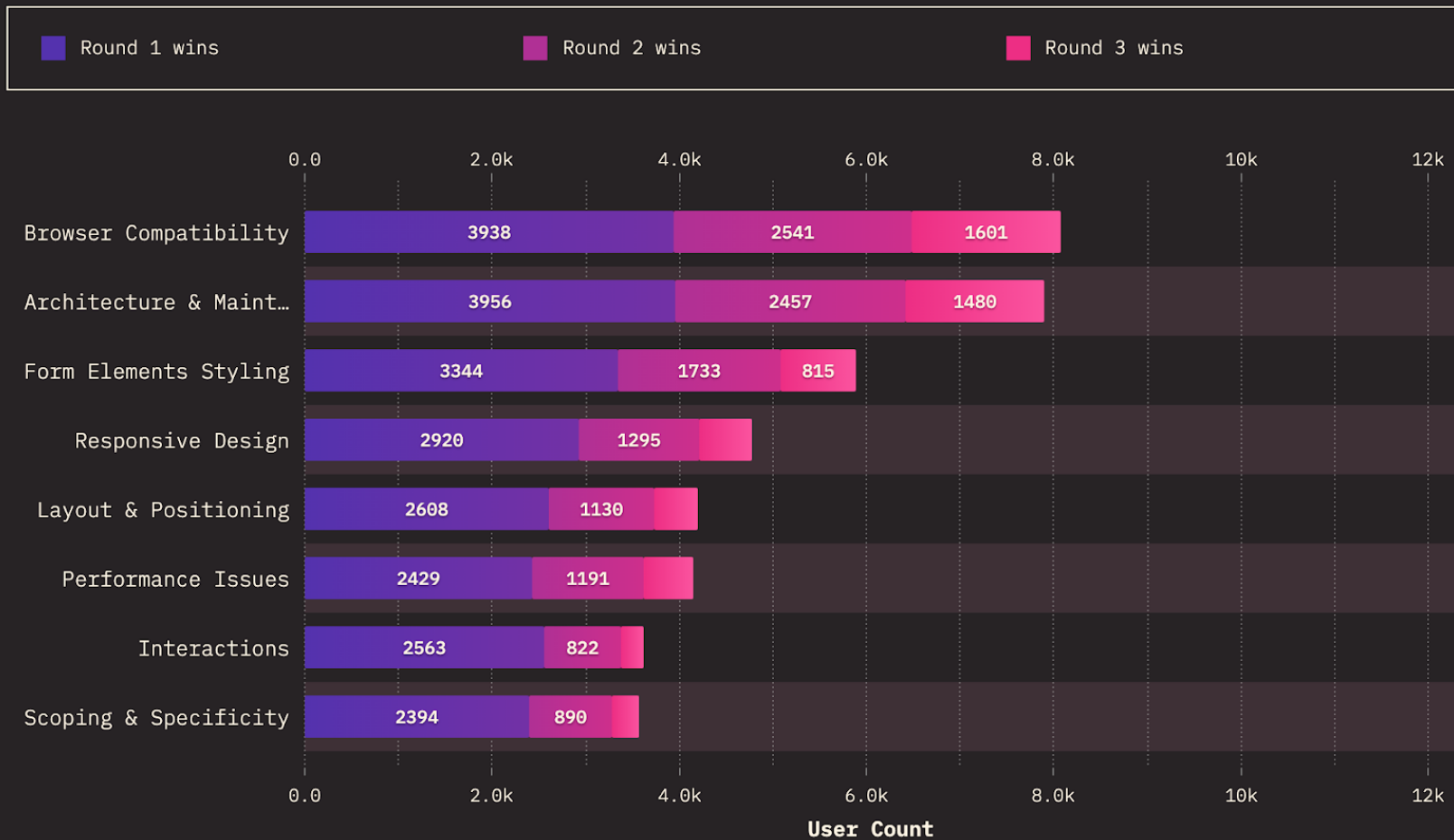
New features land quickly

Each browser has its own set of priorities.

The gap

CSS PAIN POINTS

Which aspect of CSS do you struggle with the most? Results are ranked by number of tournament rounds won.



Adoption of New Technologies

The biggest barrier developers face when adopting a new technology is broad interoperability across browsers, which is the same as last year. A close second is support for legacy browsers. Considering that having to support specific browsers is the overall number one frustration developers have when developing for the web, it's not surprising that barriers to adopting new technologies are related to browser compatibility.

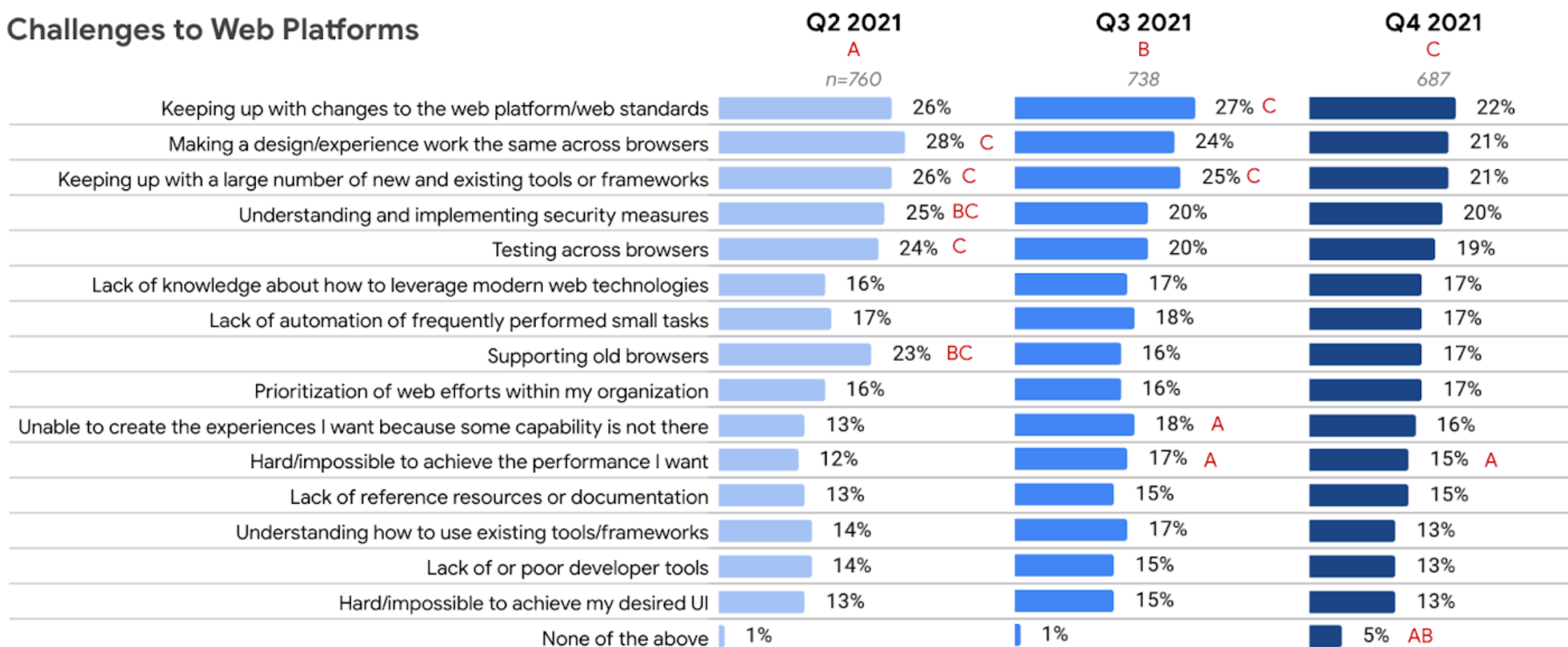
New for this year was the answer, "Organizational approval."



n = 5,526

Keeping up with changes, keeping up with number of tools and making design work the same across browsers remain as top challenges.

Challenges to Web Platforms



Every browser wants to be better, and to
improve the platform for developers.

If each browser implements or fixes a different feature, the gap gets worse.

Interop 2022

STABLE

EXPERIMENTAL

79



Chrome
Dev



Edge
Dev



Firefox
Nightly



Safari
Technology Preview

82

86

How are these scores calculated?

2022 Focus Areas (60%)



Cascade Layers	96%	96%	100%
Color Spaces and Functions	63%	54%	95%
Containment	99%	98%	99%
Dialog Element	97%	92%	96%
Forms	99%	90%	98%
Scrolling	92%	88%	89%
Subgrid	17%	85%	96%
Typography and Encodings	79%	99%	84%
Viewport Units	100%	100%	100%
Web Compat	93%	100%	100%

2021 Focus Areas (30%)

Aspect Ratio	98%	97%	97%
Flexbox	98%	98%	95%
Grid	98%	91%	95%
Sticky Positioning	100%	89%	100%
Transforms	97%	94%	94%

2022 Investigation (10%)

Group Progress

Editing, contenteditable, and execCommand	0%
Pointer and Mouse Events	0%
Viewport Measurement	0%

TOTAL	79%	82%	86%
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Sign in with GitHub

wpt / css / **css-color**

label:interop-2022-color

For information on the search syntax, [view the search documentation](#)

Showing 189 tests (6261 subtests) in css/css-color from the latest master test runs for chrome[experimental], firefox[experimental], safari[experimental]

LINK

EDIT

INTEROP VIEW

DEFAULT VIEW

Path

Chrome 107
Linux 20.04
 32a29b6
Sep 12, 2022

Firefox 106
Linux 20.04
 32a29b6
Sep 12, 2022

Safari 153 preview
macOS 12.5
 32a29b6
Sep 13, 2022



a98rgb-001.html

a98rgb-002.html

a98rgb-003.html

a98rgb-004.html

color-mix-basic-001.html

color-mix-currentcolor-001.html

color-mix-currentcolor-002.html

color-mix-non-srgb-001.html



0 of 1 subtests

0 of 1 subtests

0 of 1 subtests

1 of 1 subtests

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0 of 1 subtests

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web-platform-tests dashboard

+

← → ↺

wpt.fyi/results/css/css-color/color-mix-basic-001.html?label=master&label=experimental&product=chrome&product=firefox&product=safari&aligned&view=interop&q...

🔗 ⭐ 📡 ⚙️ 🖨️ 👤 ⋮

fyi

web-platform-tests dashboard

Latest Run

Recent Runs

🌟 Interop 2022 🌟

Insights

Processor

About

Sign in with GitHub

wpt / css / css-color / color-mix-basic-001.html

label:interop-2022-color

• View source on GitHub (current commit) (master branch)

• Run in your browser on wpt.live

For information on the search syntax, [view the search documentation](#)

Showing the latest master test runs for chrome[experimental], firefox[experimental], safari[experimental]

LINK EDIT

Subtest

Test status



Duration

Chrome 107

Linux 20.04

🔄 32a29b6

Sep 12, 2022

FAIL   COMPARE

0.81 seconds

Firefox 106

Linux 20.04

🔄 32a29b6

Sep 12, 2022

PASS



0.164 seconds

Safari 153 preview

macOS 12.5

🔄 32a29b6


Sep 13, 2022

FAIL   COMPARE


0.33 seconds

SHOW HISTORY

Relevant links for /css/css-color/color-mix-basic-001.html results

 [/css/css-color/color-mix-basic-001.html](#)

>



<https://bugs.chromium.org/p/chromium/issues/detail?id=1092638>

web-platform-tests dashboard

wpt/color-mix-currentcolor-00

github.com/web-platform-tests/wpt/blob/master/css/css-color/color-mix-currentcolor-001.html

🔍

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👤

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Public

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Watch 369

Fork 2.8k

Star 4k

<> Code

🕒 Issues 1.2k

🔗 Pull requests 1.1k

🔄 Actions

📁 Projects 1

🛡️ Security

📈 Insights

🔗 master

wpt / css / css-color / color-mix-currentcolor-001.html

Go to file

⋮

👤

emilio

Add some tests for color-mix() and currentColor.

⋮

✓

Latest commit f6b8809 on May 24

🕒 History

🔍 1 contributor

23 lines (23 sloc) | 628 Bytes

Raw

Blame

✎

⌵

📄

🗑️

1 <!doctype html>

2 <meta charset=utf-8>

3 <link rel="match" href="color-mix-currentcolor-001-ref.html">

4 <title>currentColor is inherited correctly in color-mix()</title>

5 <link rel="help" href="https://drafts.csswg.org/css-color-5/#color-mix">

6 <link rel="author" href="mailto:emilio@crisal.io" title="Emilio Cobos Álvarez">

7 <link rel="author" href="https://mozilla.org" title="Mozilla">

8 <style>

9 div {

10 width: 100px;

11 height: 100px;

12 background-color: red;

13 color: red;

14 background-color: color-mix(in srgb, currentColor 50%, green);

15 }

16 div div {

17 color: green;

18 background-color: inherit;

19 }

20 </style>

21 <div>

22 <div></div>

23 </div>

Included features

Features from Compat 2021

2021 Focus Areas (30%)



Aspect Ratio	98%	97%	97%
Flexbox	98%	98%	95%
Grid	98%	91%	95%
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New features for Interop 2022

2022 Focus Areas (60%)



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Viewport Units	100%	100%	100%
Web Compat	93%	100%	100%

Cascade Layers

```
@layer base, special;
```

```
@layer special {  
    .item {  
        color: rgb(209,54,114);  
    }  
}
```

```
@layer base {  
    .item {  
        color: black;  
    }  
}
```

Color Spaces and Functions

The 216-Color Webmaster's Palette

Here are the colors most widely supported by browsers on the world-wide web. Using colors from this set for backgrounds, fonts and graphics will give your web site the best chance of a consistent appearance across operating systems, color monitors and browser versions. This is particularly true of older computers with limited color palettes that can display only 256 different colors at a time.

Each color chip here is stamped with a hexadecimal HTML color code. CCF9F0 These codes can be used to specify the background color of a web page: <BODY BACKGROUND="#CCF9F0"> or table cells: <TD BACKGROUND="#CCF9F0">

To color text, you could use these codes in style sheets: H1 {color: #FFCC99;} or the officially unfashionable FONT element: attached by older browser demand.

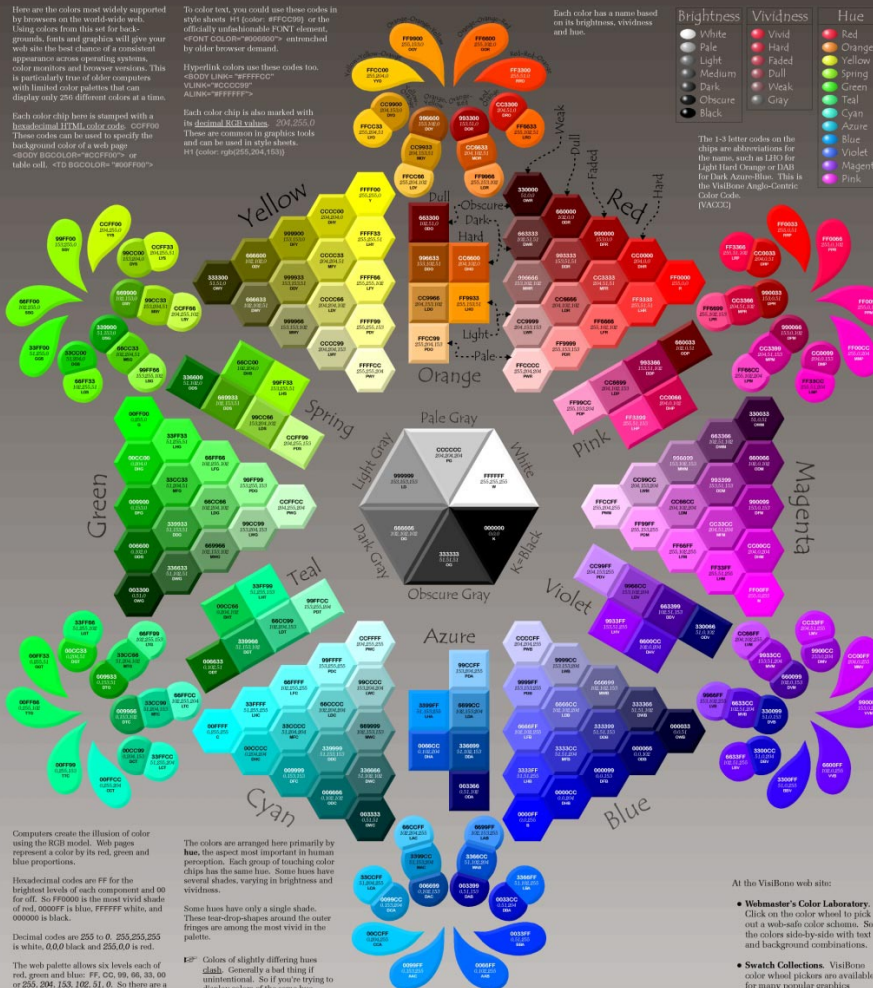
Hyperlink colors use these codes too: <BODY LINK="#FFCC99"> <BODY VLINK="#CC99FF">

Each color chip is also marked with its decimal RGB values: 255,255,0. These are common in graphics tools and can be used in style sheets: H1 {color: rgb(255,255,0)}.

Each color has a name based on its brightness, vividness and hue.

Brightness	Vividness	Hue
● White	● Vivid	● Red
● Pale	● Hard	● Orange
● Light	● Faded	● Yellow
● Medium	● Dull	● Spring
● Dark	● Weak	● Green
● Obscure	● Gray	● Teal
● Black		● Cyan
		● Azure
		● Blue
		● Violet
		● Magenta
		● Pink

The 1-3 letter codes on the chips are abbreviations for the names, such as LFO for Light Hard Orange or LHM for Dark Azure-Blue. This is the VisiBone Angle-Centric Color Code (VACCC).



At the VisiBone web site:

- **Webmaster's Color Laboratory.** Click on the color wheel to pick out a web-safe color scheme. See the colors side-by-side with text and background combinations.
- **Swatch Collections.** VisiBone color wheel pickers are available for many popular graphics programs.
- **Products** and other reference products for sale.

VisiBone

www.visibone.com

<https://www.visibone.com/color/poster.html>

New color functions

color-mix()

Take two colors and return the result of mixing them in a specified color space by a specified amount.

```
.box2 {  
  background-color: color-mix(in lch, white 10%, darkblue);  
}
```

```
.box3 {  
  background-color: color-mix(in lch, white 30%, darkblue);  
}
```

```
.box4 {  
  background-color: color-mix(in lch, white 50%, darkblue);  
}
```

```
.box5 {  
  background-color: color-mix(in lch, white 70%, darkblue);  
}
```


darkblue

darkblue with 10% white

darkblue with 30% white















darkblue with 50% white

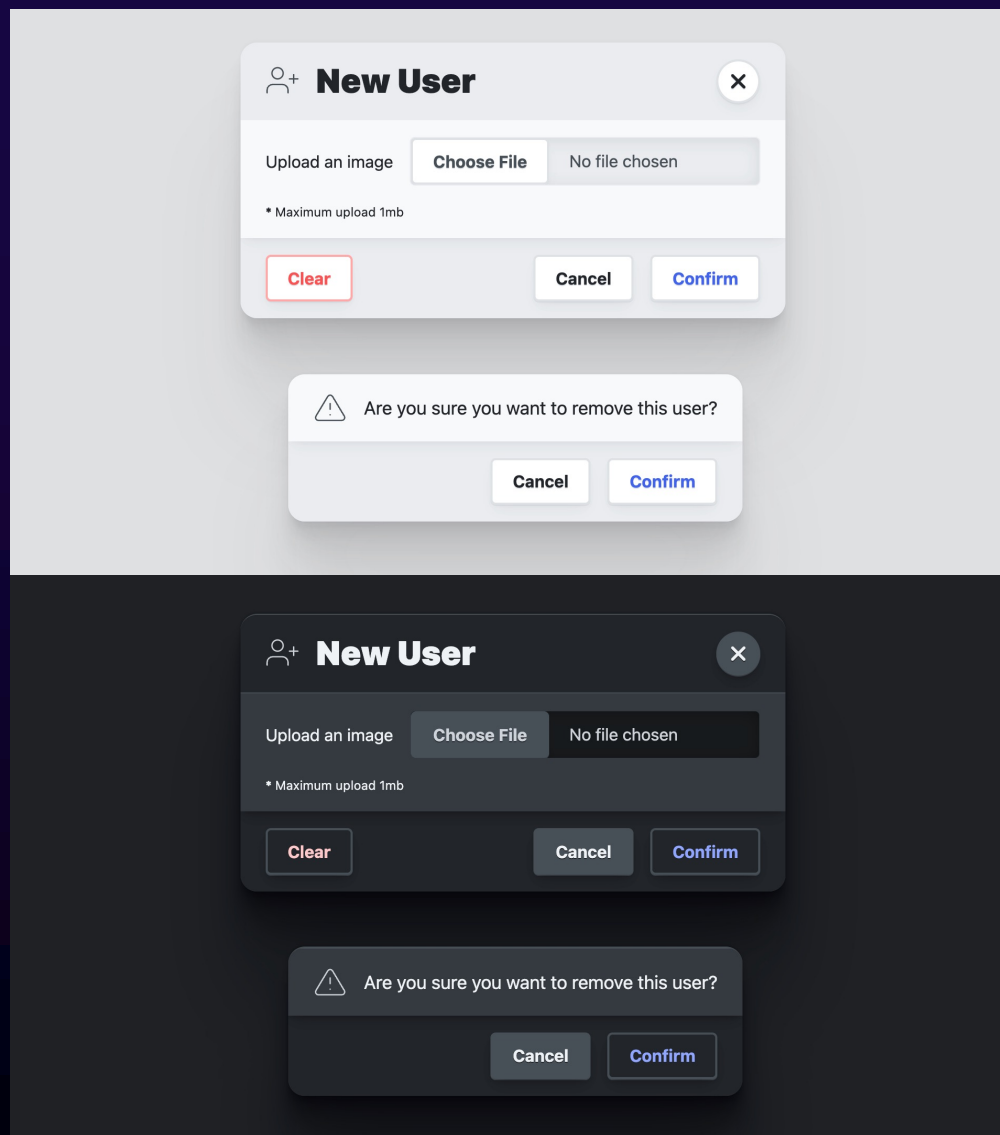
darkblue with 70% white

Containment

```
.item {  
  contain: layout;  
}
```

The <dialog> element

	<div>  </div>						<div>  </div>					
	<div>  </div> <div>Chrome</div>	<div>  </div> <div>Edge</div>	<div>  </div> <div>Firefox</div>	<div>  </div> <div>Internet Explorer</div>	<div>  </div> <div>Opera</div>	<div>  </div> <div>Safari</div>	<div>  </div> <div>Chrome Android</div>	<div>  </div> <div>Firefox for Android</div>	<div>  </div> <div>Opera Android</div>	<div>  </div> <div>Safari on iOS</div>	<div>  </div> <div>Samsung Internet</div>	<div>  </div> <div>WebView Android</div>
<div>dialog</div>	<div>✓</div> <div>37</div>	<div>✓</div> <div>79</div>	<div>✓</div> <div>98</div>	<div>✗</div> <div>No</div>	<div>✓</div> <div>24</div>	<div>✓</div> <div>15.4</div>	<div>✓</div> <div>37</div>	<div>✓</div> <div>98</div>	<div>✓</div> <div>24</div>	<div>✓</div> <div>15.4</div>	<div>✓</div> <div>3.0</div>	<div>✓</div> <div>37</div>
<div>open</div>	<div>✓</div> <div>37</div>	<div>✓</div> <div>79</div>	<div>✓</div> <div>98</div>	<div>✗</div> <div>No</div>	<div>✓</div> <div>24</div>	<div>✓</div> <div>15.4</div>	<div>✓</div> <div>37</div>	<div>✓</div> <div>98</div>	<div>✓</div> <div>24</div>	<div>✓</div> <div>15.4</div>	<div>✓</div> <div>3.0</div>	<div>✓</div> <div>37</div>



<https://web.dev/building-a-dialog-component/>

Forms

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Form Controls #11

[Edit](#) [New issue](#)[Open](#) mfreed7 opened this issue on Nov 8, 2021 · 33 comments

mfreed7 commented on Nov 8, 2021

[Member](#)

Description

Form controls are mentioned frequently as a source of developer frustration. While "form controls" is a quite general area, there are several recurring themes (e.g. see the most recent [state of css survey results](#)):

- Form element stylability, particularly for `<select>`, `<input type=checkbox>`, and `<input type=radio>`, but also generally for all input types.
- Pseudo-element interop, particularly for `<input type=range>`.
- Date/time input element support.
- CSS `accent-color` support.
- Form validation behavior.
- `appearance:none/auto` (unprefixed).

Specification

Other than `accent-color`, form element appearance is not (well) specified.

Tests

- Due to the lack of spec, there is also a lack of WPT testing for form element style-related features.
- `Accent-color` is [fairly-well tested](#), except around the actual appearance with `accent-color` applied.
- Form submission is [somewhat well tested](#), perhaps excepting validation behavior.
- [Appearance tests \(prefixed and unprefixed\)](#).

Assignees

No one—assign yourself

Labels [accepted](#) [proposal](#)**Projects**

None yet

Milestone

No milestone

Development [Create a branch](#) for this issue or link a pull request.**Notifications** [Customize](#) [Unsubscribe](#)

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Scrolling

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2021 Scroll Survey Report

Get the 2021 Scroll Survey Report plus words from the Chrome team about how this impacts priorities and plans for Chromium and the web.

Aug 2, 2021 — Updated Sep 10, 2021



Adam Argyle

[Twitter](#) [GitHub](#) [Glitch](#) [Homepage](#)



Sam Dutton

[Twitter](#) [GitHub](#)

On this page

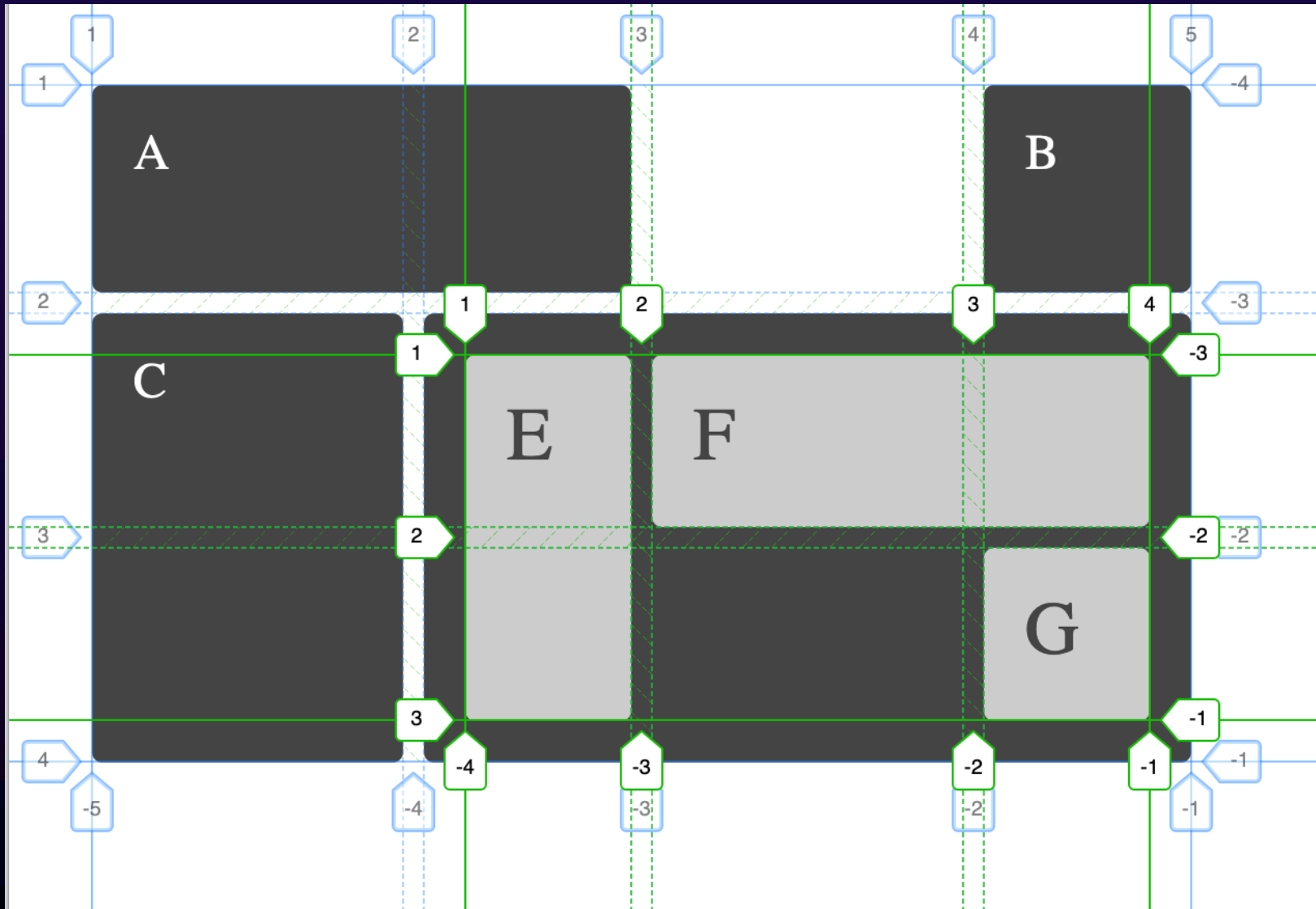


In April, the Chrome team [released a scroll and touch-action survey](#) based on top reported issues from the [2019 MDN Web DNA Report](#). The [2021 Scroll Survey Report](#) is ready, and the Chrome team would like to share some thoughts and action items we've gleaned from the survey results. We hope these results will help browser vendors and standards groups understand how to improve web scrolling.

 SHARE

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Subgrid



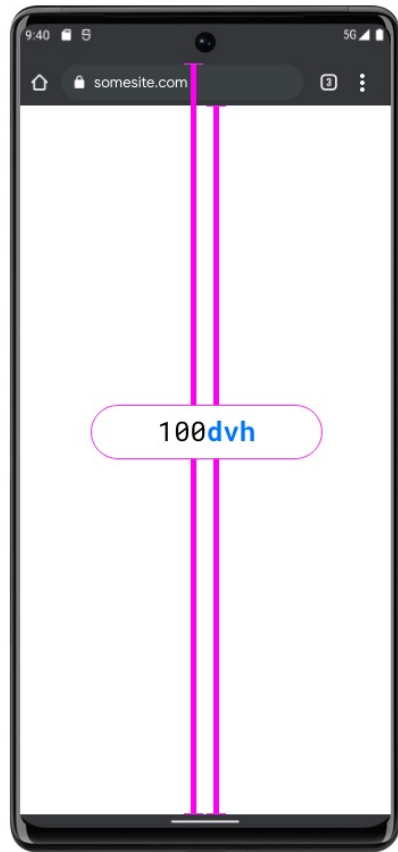
<https://gridbyexample.com/examples/#css-grid-level-2-examples>

Typography and Encodings

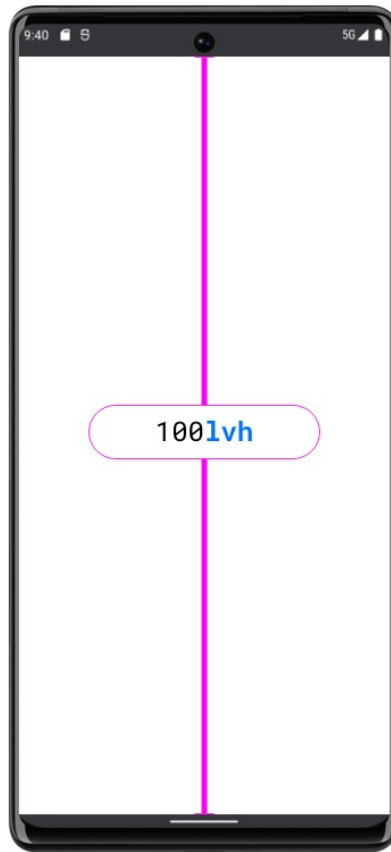
The ic unit

Equal to the used advance measure of the “水” (CJK water ideograph, U+6C34) glyph.

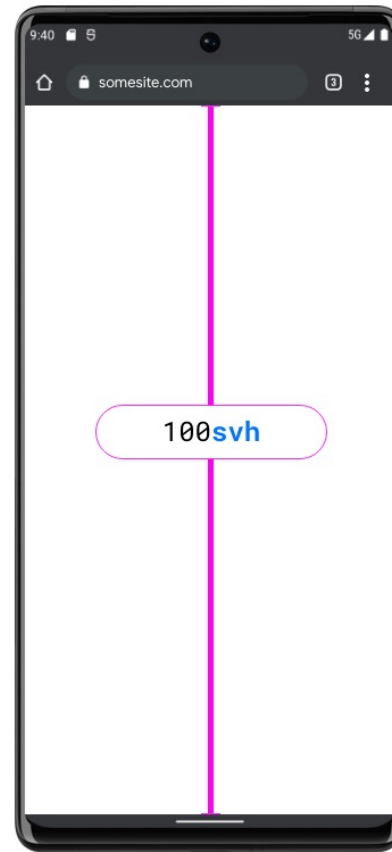
Viewport Units



dvh
dynamic
viewport height



lvh
largest
viewport height



svh
smallest
viewport height

Web Compat

2022 Investigation

Each fix is one less thing you run into.

Each new feature landing cross-browser makes
so much more possible.

Interop 2023 proposals open September 15th

<https://github.com/web-platform-tests/interop/blob/main/2023/README.md>

Thank you!

@rachelandrew