What’s new in CSS

DevFest 2021 North America

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CSS Working Group member.

2021 turned out to be an amazing year for CSS!

Use your brand color in form inputs.

accent-color

Checkbox ☑

Radio buttons ◉ ○

```
input {
  accent-color: var(--blue-sapphire);
}
```

Use accent-color now!

- Chrome ✅
- Edge ✅
- Firefox ✅
- Safari Technology Preview ✅

New color functions

color-mix()

10% #34c9eb

40% #34c9eb

70% #34c9eb

```
li {
  background-color: color-mix(in srgb, #34c9eb 10%, white);
}
```

Try out color-mix()

In Safari Technology Preview enable CSS color-mix() in the develop menu

In Firefox, in about:config enable `layout.css.color-mix.enabled`

Solving font layout shifts

size-adjust, ascent-override, descent-override, line-gap-override

```
@font-face {
  font-family: "fallback";
  src: local(Arial);
  size-adjust: 90%;
  ascent-override: 110%;
  descent-override: 110%;
  line-gap-override: 99%;
}

@font-face {
  font-family: "Webfont";
  src: url(/path/to/webfont.woff2) format('woff2');
}

html {
  font-family: "Webfont", "fallback";
}
```

Use size-adjust, ascent-override, descent-override, and line-gap-override now!

- Chrome ✅
- Edge ✅
- Firefox ✅

Controlling specificity

@layer

```
@layer base special

@layer special {
  .item {
    color: rebeccapurple;
  }
}

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

Try out @layer

In chrome://flags enable “CSS Cascade Layers”.

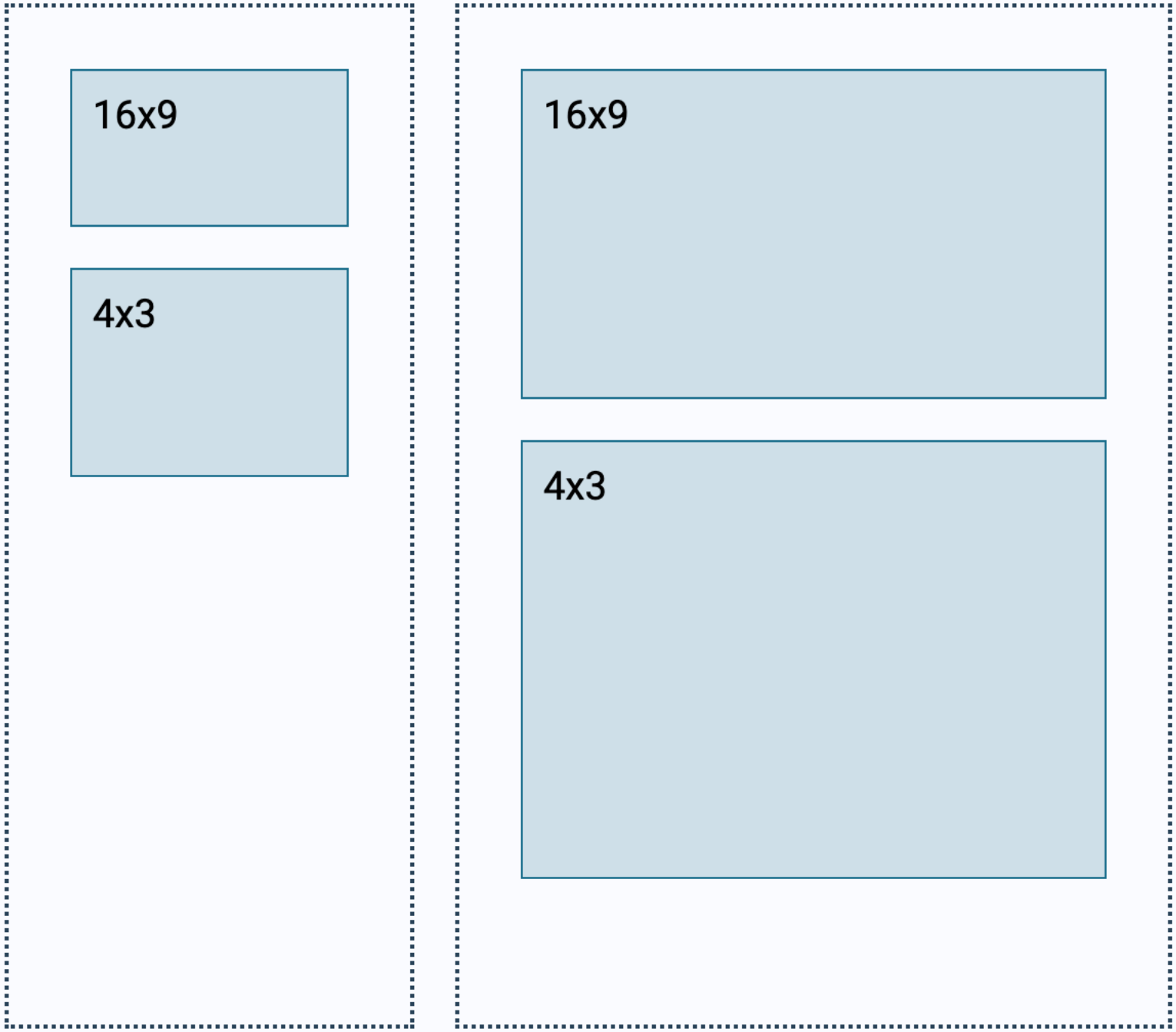
Aspect Ratios

aspect-ratio

The “padding hack”

https://css-tricks.com/aspect-ratio-boxes/

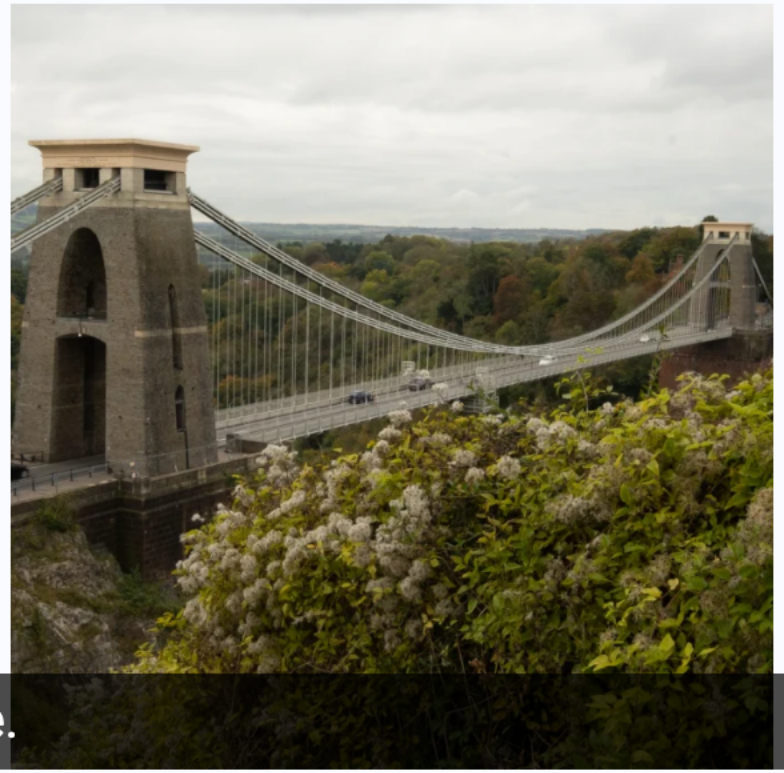
```
aspect-ratio: 16/9;
```


16x9
4x3
16x9
4x3

```
.wrapper {
  display: grid;
  grid-template-columns: 200px 350px;
}

.box16x9 {
  aspect-ratio: 16/9;
}

.box4x3 {
  aspect-ratio: 4/3;
}
```



Bristol is a pretty nice place to live.

1
2
3
4
1
2
3
−3
−2
−1
−4
−3
−2
−1
Bristol is a pretty nice place to live.
BRISTOL BALLOONS

1fr 1fr 1fr

Use aspect-ratio now!

- Chrome ✅
- Edge ✅
- Firefox ✅
- Safari ✅

CSS Containment

This box and children are independent from the rest of the layout.

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

Use the contain property now!

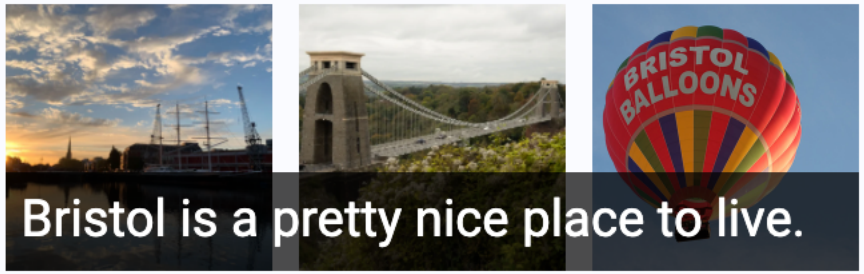
- Chrome ✅
- Edge ✅
- Firefox ✅

Container Queries

Design components that can react to the available space in their container.

Bristol is a pretty nice place to live.

400px



Bristol is a pretty nice place to live.

Try out Container Queries

In chrome://flags enable “CSS Container Queries”.

```
.sidebar {
  container-type: inline-size;
}
```

Using container-type creates a containment context.

This also turns on layout, style, and inline-size containment, in the same way as using the contain property does.

```
.sidebar {
  container-type: inline-size;
  container-name: sidebar;
}
```

```
@container (min-width: 400px) {
  .card {
    display: grid;
    grid-template-columns: 1fr 2fr;
  }
}
```

```
@container sidebar (min-width: 400px) {
  .card {
    display: grid;
    grid-template-columns: 1fr 2fr;
  }
}
```

One

Two

Three

Four

```
.wrapper > div {
  container-type: inline-size;
}

@container (min-width: 220px) {
  .box {
    background-color: var(--blue-sapphire);
  }
}
```

Bristol is a pretty nice place to live.

```
.fig-panel {
  display: grid;
  grid-template-columns: 1fr 1fr;
}
```

Bristol is a pretty nice place to live.

```
@container (min-width: 700px) {
  grid-template-columns: repeat(3,1fr);
}
```

This seems so simple!
Why did it take so long?

RenderingNG deep-dive: LayoutNG

Published on Friday, October 8, 2021

Ian Kilpatrick
Layout tech lead

Koji Ishi
Layout engineer

Table of contents

A 30,000 foot view of layout engine architectures
Types of layout bugs
- Correctness
- Under-invalidation
- Hysteresis
- Over-invalidation and performance

In summary

This post is a part of a series on the Chromium rendering engine. Check out the rest of the series to learn more about RenderingNG, the architecture, key data structures, and VideoNG.

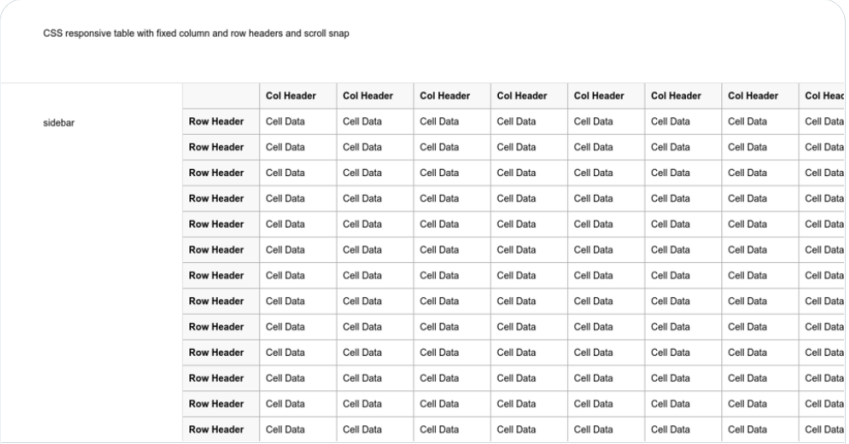
I'm Ian Kilpatrick, an engineering lead on the Blink layout team, along with Koji Ishii. Before working on the Blink team, I was a front-end engineer (before Google had the role of "front-end engineer"), building features within Google Docs, Drive, and Gmail. After around five years in that role I took a large gamble switching to the Blink team, effectively learning C++ on the job, and attempting to ramp up on the massively complex Blink codebase. Even today, I only understand a relatively small portion of it. I'm grateful for the time given to me during this period. I was comforted by the fact a lot of "recovering front-end engineers" made the transition to being a "browser engineer" before me.

Scott Jehl
@scottjehl

Wow... Okay, so here's something I've been trying to do for at least 10 years!

A CSS-only responsive table with fixed column & row headers, inside a layout, with scroll snapping! 🥳
codepen.io/scottjehl/pen/...

Works in: Firefox, Safari (iOS & Mac), Chrome (Mobile & Desktop), Edge



CSS responsive table with fixed column and row headers and scroll snap
...
codepen.io

4:15 PM · Jun 22, 2021 · Twitter Web App

227 Retweets **30** Quote Tweets **1,377** Likes

Please try out features behind flags!

It’s the best time to offer feedback that can change things.

Thank you!

Find me @rachelandrew

Slides at: https://noti.st/rachelandrew