MODERNES CSS
JETZT NUTZEN, OHNE SEITENEFFEKTE ZU PRODUZIEREN

Contao Konferenz 2023 | Janosch Oltmanns

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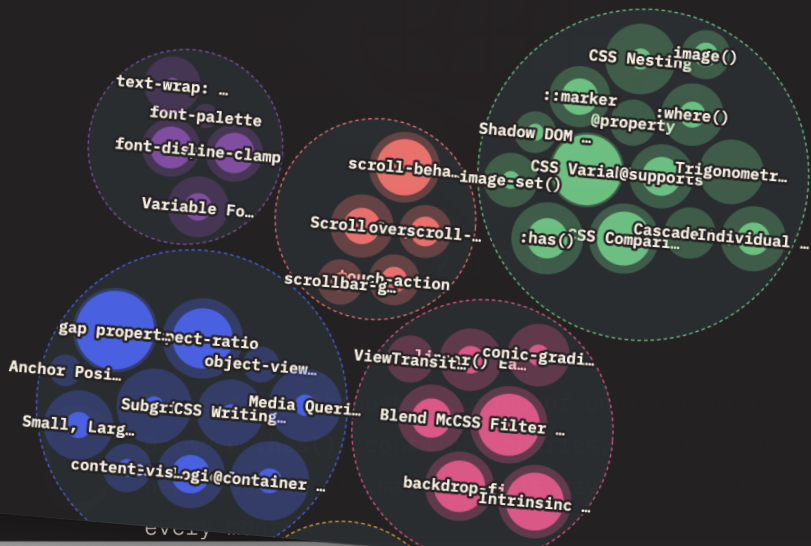*@JanoschOltmanns*

KEY FACTS

MODERNES CSS GRACEFUL DEGRADATION
PROGRESSIVE ENHANCEMENT GRADED BROWSER
SUPPORT INTEROP ANWENDUNGSBEISPIELE

MODERNES CSS

CSS 2023

FEATURES OVERVIEW

Legend:
- Layout
- Typography
- Shapes & Graphics
- Accessibility
- Colors
- Other Features
- Interactions

text-wrap: …
font-palette
font-di_line-clamp
Variable Fo…

scroll-beha…image-set()
Scroll overscroll-…
scrollbar-g…action

CSS Nesting
image()
::marker
:where()
@property
Shadow DOM …
CSS Varia@supports
Trigonometr…
image-set()
:has()SS Compari…
CascadeIndividual…

gap propert…ect-ratio
object-view…
Anchor Posi…
Subgr:CSS Writing…
Media Queri…
Small, Larg…
content-vis…gi@container …

ViewTransit…r() Ea…
conic-gradi…
Blend McCSS Filter …
backdrop-fi…
Intrinsic…

MODERNES CSS – LAYOUT

Subgrid
`grid-template-rows/-columns: subgrid`

CSS Logical Properties
`margin-block, margin-inline,…`

`aspect-ratio: 16 / 9`

`content-visibility: auto`

gap property for flexbox

MODERNES CSS – LAYOUT

Container Queries
```
@container, container-*
```

```
object-view-box
```

Small, large and dynamic viewport units
```
svh, lvh, dvh,…
```

Media Queries Range Context
```
@media (30em <= width < 50em)
```

MODERNES CSS – LAYOUT

Anchor Positioning
anchor-name, anchor()

display: contents

MODERNES CSS – GRAPHICS

```
mix-blend-mode: *
```

CSS filter effects
```
filter: *
```

```
backdrop-filter
```

Intrinsic sizing keywords
```
min-content, max-content, fit-content, fill
```

```
conic-gradient()
```

MODERNES CSS – GRAPHICS

Linear easing function

```
linear(0, 0.009, 0.035 2.1%, 0.141, 0.281 6.7%,
0.723 12.9%, 0.938 16.7%, 1.017, 1.077, 1.121,
1.149 24.3%, 1.159, 1.163, 1.161, 1.154 29.9%,
1.129 32.8%, 1.051 39.6%, 1.017 43.1%, 0.991,
0.977 51%, 0.974 53.8%, 0.975 57.1%, 0.997
69.8%, 1.003 76.9%, 1.004 83.8%, 1)
```

View Transition API

```
view-transition-name
```

MODERNES CSS – COLORS

```
color(colorspace c1 c2 c3[ / A]))

accent-color

currentcolor

color-mix(method, color1[ p1], color2[ p2])
```

MODERNES CSS – COLORS

Wide gamut colors

relative Farben

```
background-color: hsl(from var(--theme-primary) h s 80%)
```

MODERNES CSS – INTERACTION

Scroll snap

```
scroll-snap-type: x mandatory
```

overscroll-behavior

touch-action

scroll-behavior

scrollbar-gutter

MODERNES CSS - TYPOGRAFIE

Font display
```
font-display: swap
```

Line clamp
```
line-clamp: 3
```

Variable fonts

```
font-palette
```

Text wrap
```
text-wrap: balance
```

MODERNES CSS - ACCESSIBILITY

```css
@media (prefers-reduced-motion) {}

@media (prefers-color-scheme: dark) {}

@media (prefers-reduced-data: no-preference) {}

color-scheme

@media (prefers-contrast: more) {}

@media (forced-colors: active) {}

:focus-visible
```

MODERNES CSS

CSS variables (custom properties)
```
var(--*),
```

```
@supports
```

CSS comparison functions
```
clamp(), min(), max()
```

```
@property
```

```
::marker
```

MODERNES CSS

```
:has()
```

```
:where()
```

Cascade layers

Shadow DOM features

Trigonometric functions
```
width: calc(100px * cos(0.785398163rad))
```

MODERNES CSS

CSS nesting

Image-set()

Image()

Individual transform properties

`:nth-child() with of <selector>syntax`

HOW TO USE

GRADED BROWSER SUPPORT

A+ Support

expliziter Vollsupport

A Support

voll funktional (ggf. mit Abstrichen)

B Support

funktionale Darstellung, bedienbar

~~No~~ C Support

kein expliziter Support, rudimentäre Darstellung sichergestellt

GRACEFUL DEGRADATION

Graceful degradation is a design philosophy that centers around trying to build a modern website/application that will work in the newest browsers, but falls back to an experience that while not as good still delivers essential content and functionality in older browsers.

https://developer.mozilla.org/en-US/docs/Glossary/Graceful_degradation

GRACEFUL DEGRADATION

```css
.my-selector {
    -webkit-transition: all 4s ease;
    -moz-transition: all 4s ease;
    -ms-transition: all 4s ease;
    -o-transition: all 4s ease;
    transition: all 4s ease;
}
```

PROGRESSIVE ENHANCEMENT

Progressive enhancement is a design philosophy that provides a baseline of essential content and functionality to as many users as possible, while delivering the best possible experience only to users of the most modern browsers that can run all the required code.

PROGRESSIVE ENHANCEMENT

```css
.flex-container > * {
    /* */
    float: left;
}


@supports (display: flex) {
    .flex-container > * {
        float: none;
    }

    .flex-container {
        display: flex;
    }
}
```

INTEROP 2022 & 2023

Interop 2022/23 is a cross-browser effort to improve the interoperability of the web — to reach a state where each technology works exactly the same in every browser.

Interop 2023 Dashboard

[STABLE] [EXPERIMENTAL]

75
INTEROP

63
INVESTIGATIONS

94
Chrome Edge

82
Firefox

91
Safari
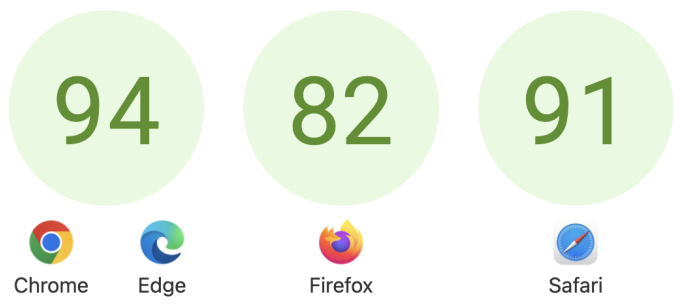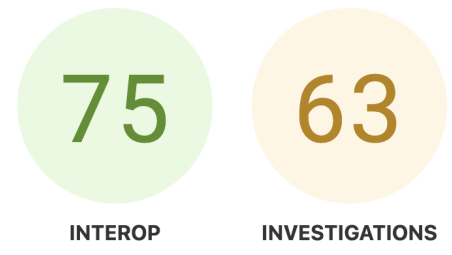
Interop 2023 is a cross-browser effort to improve the interoperability of the web — to reach a state where each technology works exactly

Active Focus Areas	Chrome/Edge	Firefox	Safari	INTEROP
Border Image	100%	97.3%	100%	97.3%
Color Spaces and Functions	99.6%	95.5%	98.7%	94.4%
Container Queries	100%	90.6%	88.6%	84.1%
Containment	99.3%	82.3%	81.8%	80.2%
CSS Math Functions	72.8%	99.1%	93.1%	70.8%
CSS Pseudo-classes	76.7%	94.6%	96.8%	71.2%
Custom Properties	94.5%	7.6%	90.6%	7.6%
Flexbox	99.6%	98.2%	93.8%	92.9%
Font Feature Detection and Palettes	100%	100%	98.1%	98.1%
Forms	85.6%	99.1%	86.0%	84.7%
Grid	99.5%	89.0%	90.7%	83.3%
:has()	95.8%	23.2%	92.0%	23.2%
Inert	100%	100%	100%	100%
Masking	68.9%	96.4%	87.2%	64.7%
Media Queries 4	100%	100%	100%	100%
Modules	99.3%	100%	94.5%	94.5%
Motion Path	99.6%	51.6%	72.3%	46.8%
Offscreen Canvas	99.5%	99.5%	93.7%	93.2%
Pointer and Mouse Events	82.1%	79.9%	53.6%	52.7%
Scrolling	96.2%	93.7%	93.7%	88.1%

@SUPPORTS

```css
@supports (transform-origin: 5% 5%) {
    /* */
}
```

```css
@supports selector(h2 > p) {
    /* */
}
```

```css
@supports not (transform-origin: 10em 10em 10em) {
    /* */
}
```

@SUPPORTS

```css
@supports (display: table-cell) and (display: list-item) {
    /* */
}
```

```css
@supports (transform-style: preserve) or
    (-moz-transform-style: preserve) {
    /* */
}
```

WENN ES MAL DRECKIG WERDEN MUSS...

BROWSER HACKS

```css
/** Microsoft Edge */
@supports (-ms-ime-align: auto) {
    /* */
}
```

```css
/** Mozilla Firefox */
@-moz-document url-prefix() {
    /* */
}
```

BROWSER HACKS

```css
/** Safari */
@media not all and (min-resolution: 0.001dpcm) {
    /* */
}
```

```css
/** Chrominum */
@media screen and (-webkit-min-device-pixel-ratio: 0) and (min
    /* */
}
```

BEISPIELE AUS DEM ECHTEN LEBEN

:HAS()
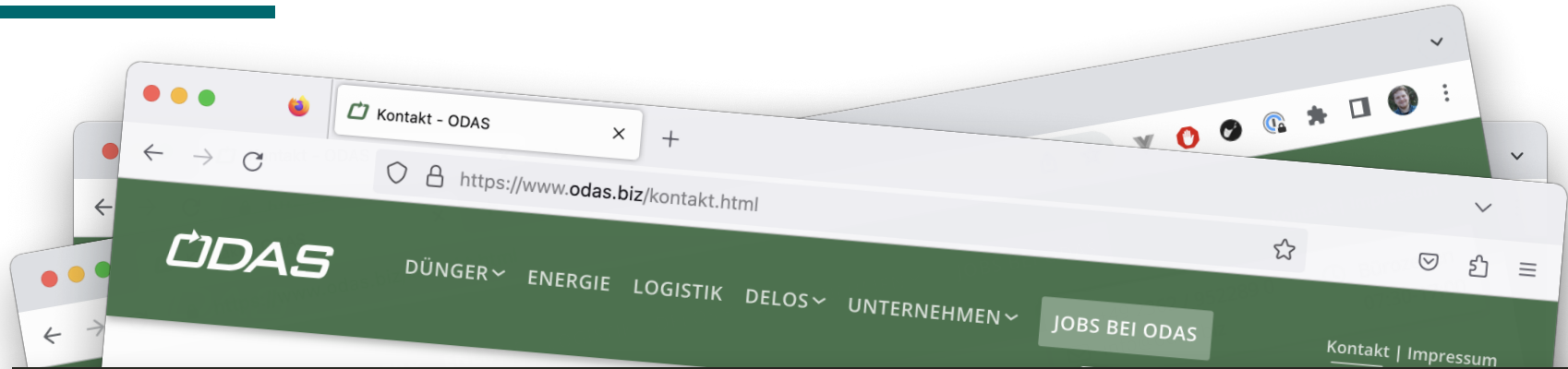
```css
label:has(+input:placeholder-shown) {
    /* */
}

label:has(+input:not(:placeholder-shown)) {
    /* */
}
```

DISPLAY: CONTENTS

NOCH FRAGEN?

RESSOURCEN

- developer.mozilla.org/en-US/docs/Web/CSS/

- caniuse.com

- 2023.stateofcss.com

- medium.com/tag/css

- wpt.fyi/interop-2022

- wpt.fyi/interop-2023

VIELEN DANK!

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www.delos.biz/jobs