

Frontend Usergroup Rhein-Main

10.09.2014

Walter Ebert

Above the fold



THERE  
IS NO  
FOLD



THERE  
IS NO  
FOLD



PageSpeed Insights misst Möglichkeiten zur Steigerung der Leistungsfähigkeit einer Seite in folgender Hinsicht:

- *Erforderliche Zeit zum Laden des ohne Scrollen sichtbaren Inhalts:* Zeitdauer vom Anfordern einer neuen Seite durch einen Nutzer bis zum Rendern des ohne Scrollen sichtbaren Inhalts durch den Browser
- *Erforderliche Zeit zum vollständigen Laden der Seite:* Zeitdauer vom Anfordern einer neuen Seite durch einen Nutzer bis zum vollständigen Rendern der Seite durch den Browser



## Revision 176: will-change, Critical Path und z-index

28. Juni 2014 | [Keine Kommentare](#)

Ungeachtet der Fußball-WM widmete sich das leeterarische Quartett, diesmal bestehend aus Anselm, Hans, Rodney und Peter, einigen kleinen Neuheiten aus der Frontend-Welt.

### [00:00:30] News

#### Improving Viewport Unit Support in WebKit

Endlich (weitgehend) bugfreie Viewport-Units auch in WebKit.

#### IE Developer Channel

Regelmäßig erscheinende Dev-Versionen des IE! Ein Traum wird wahr.

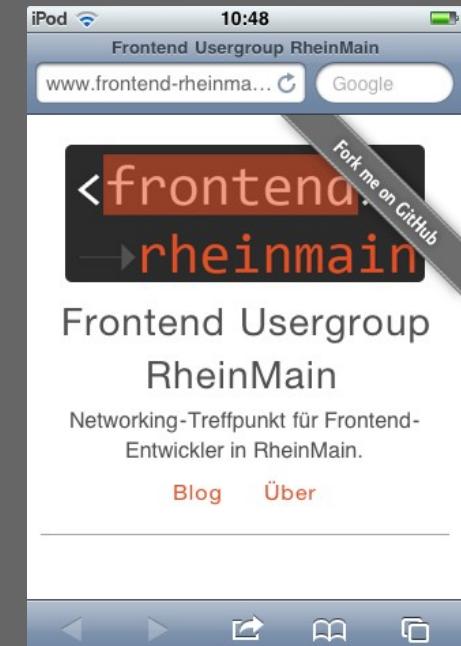
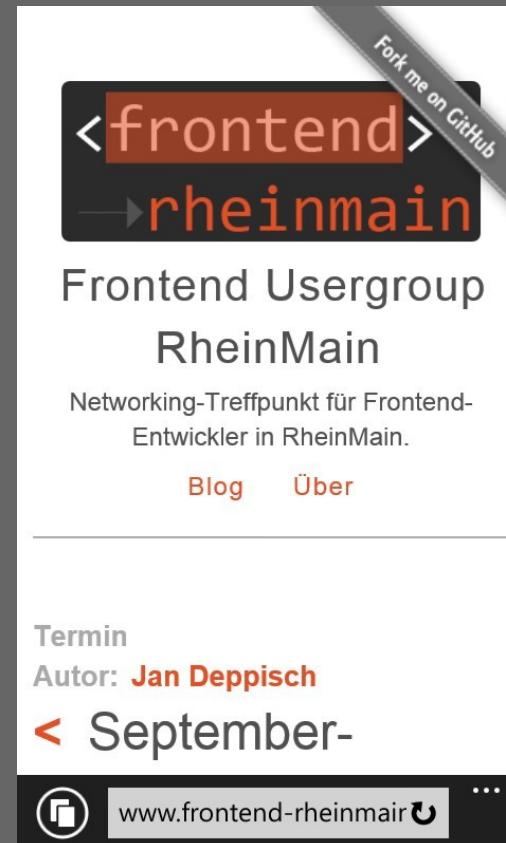
## Schaunotizen

### [00:01:07] will-change

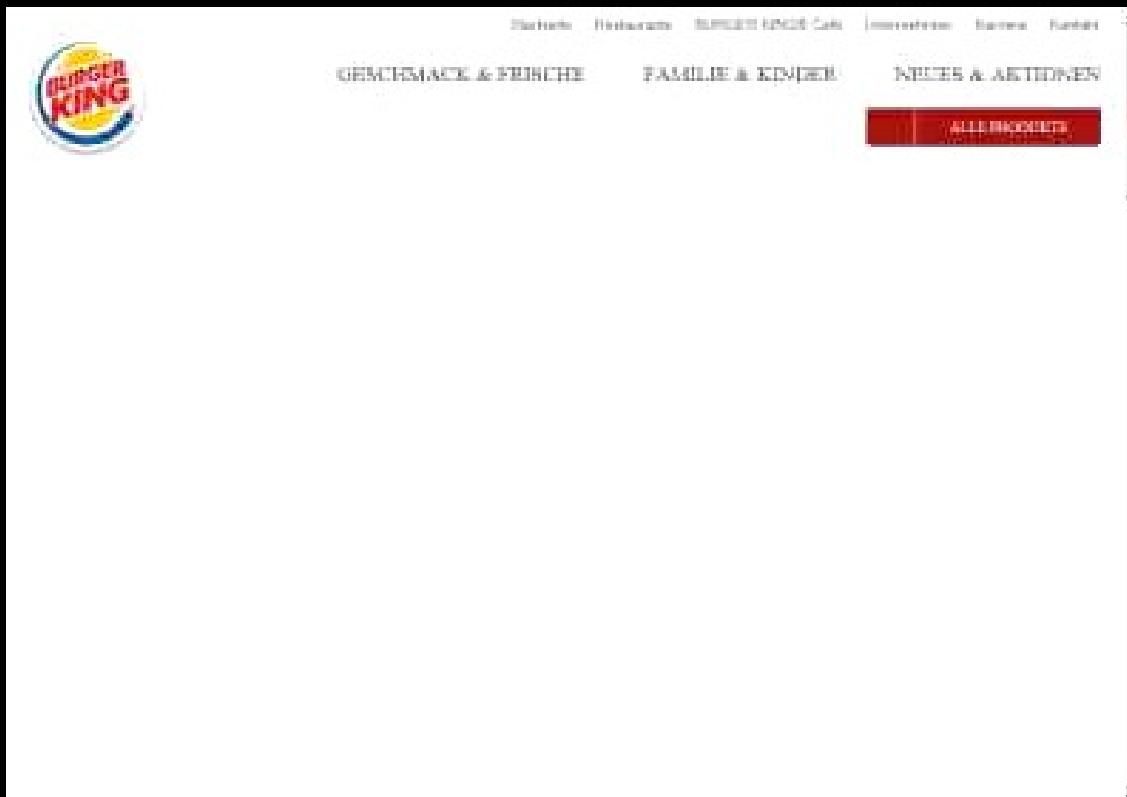
[Ein Opera-Artikel](#) erklärt die neue CSS-Eigenschaft `will-change`. Im Prinzip handelt es sich um die Standardisierung des [3D-Transform-Hacks](#). Wir erläutern nochmals die technischen Hintergründe und diskutieren über Sinnhaftigkeit, Art und mögliche Häufigkeit des Einsatzes dieses neuen Features.

### [00:17:06] Critical Path

Eine Webseite bietet einen [Critical Path CSS Generator](#) an, den wir zum Anlass nehmen das Thema gründlich zu beleuchten. Zunächst kaprizieren wir uns auf CSS-Inlining, das unter anderem Hans [etwas kritisch sieht](#). Gegen Ende schweifen wir in eine Debatte über Tools im Allgemeinen und [Uncss](#) im Speziellen ab, erinnern an [Revision 166](#) und landen am Ende bei [Penthouse](#).



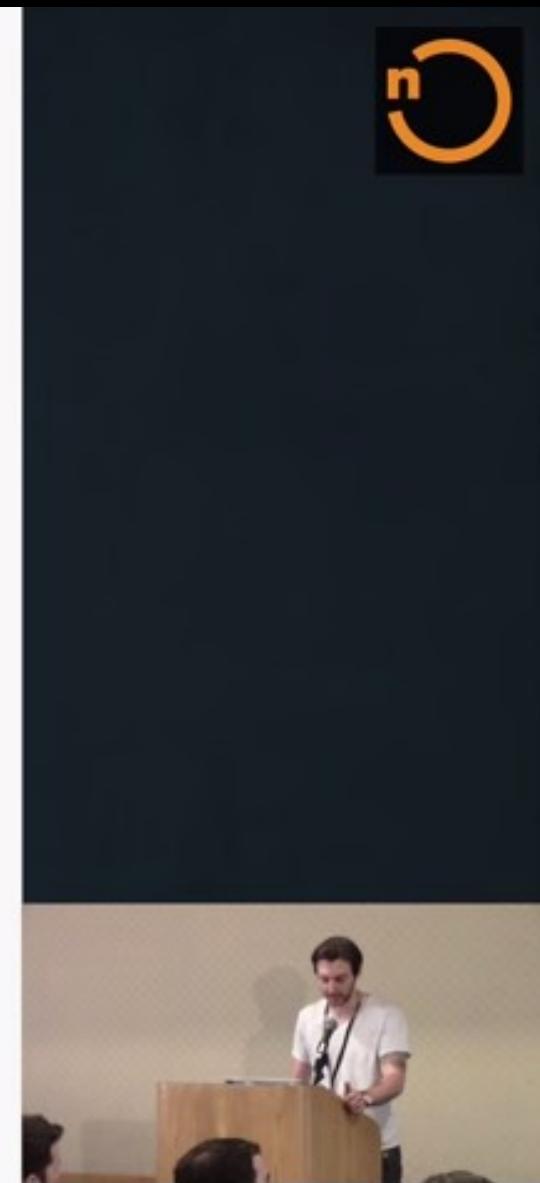
# Subjektive Wahrnehmung der Ladegeschwindigkeit



3.0



"you are not allowed to care about the performance of \* unless you concatenate all your javascript, have it at the bottom, minify your css and js, gzip all your assets, and losslessly compress all your images. If you aren't getting 90+ Page Speed scores, it's way too early to be thinking about selector optimization."



## PageSpeed Insights

g+1

&gt;9999

govdata.de

ANALYSIEREN



Mobil



Desktop

47 / 100 Schneller gemacht

**! Behebung erforderlich:**

JavaScript- und CSS-Ressourcen, die das Rendering blockieren, in Inhalten "above the fold" (ohne Scrollen sichtbar) beseitigen

► Fehlerbehebung anzeigen

Browser-Caching nutzen

► Fehlerbehebung anzeigen

JavaScript reduzieren

► Fehlerbehebung anzeigen

**! Behebung empfohlen:**

Bilder optimieren

► Fehlerbehebung anzeigen



# Critical CSS

```
<!DOCTYPE html>
<html>
  <head>
    <style>/* Critical CSS */</style>
  </head>
  <body>
    <p class="critical">Above the fold content</p>
    <!-- "the fold" -->
    <p>
      Lorizzle cool dolizzle sit amizzle, ...
    </p>

    <link rel="stylesheet"
          type="text/css"
          href="uncritical.css" />
  </body>
</html>
```

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# Authoring Critical Above-the-Fold CSS

Published July 14, 2014 by Guest Author

The following is a guest post by [Ben Edwards](#). I saw Ben tweet about a simple Sass @ mixin that allowed you designate bits of CSS as being "critical" - the idea being to load that critical CSS

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Learn HTML, CSS, and how to build

# Critical Content

```
<!DOCTYPE html>
<html>
  <head>
    <style>/* Critical CSS */</style>
  </head>
  <body>
    <p class="critical">Above the fold content</p>
    <!-- "the fold" -->
    <?php flush(); ?>
    <p>
      Lorizzle cool dolizzle sit amizzle, ...
    </p>

    <link rel="stylesheet"
          type="text/css"
          href="uncritical.css" />
  </body>
</html>
```



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DVAG 7

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DVAG (Innendienst)

Freelance Web Dev...

DVAG (Innendienst)

Eindhoven Univers...

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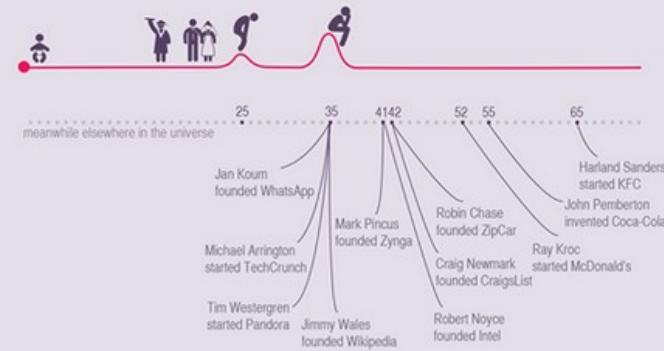
5 mins ·

Nachdenken ist das Eine, die Energie aufbringen sie umzusetzen, das macht den Unterschied.

## TOO LATE TO START?

by Anna Vital

quarter-life crisis mid-life crisis



### IT'S NEVER TOO LATE.

Funders and Founders

projektUP! - Projektbüro für soziale Nachhaltigkeit ► Design Thinking Workshop - vom Problem zum Prototypen

Es ist nie zu spät über neue Ideen nachzudenken!

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30 mins ·

Good Morning everybody. My actual level "almost" 😊



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- GROUPS**
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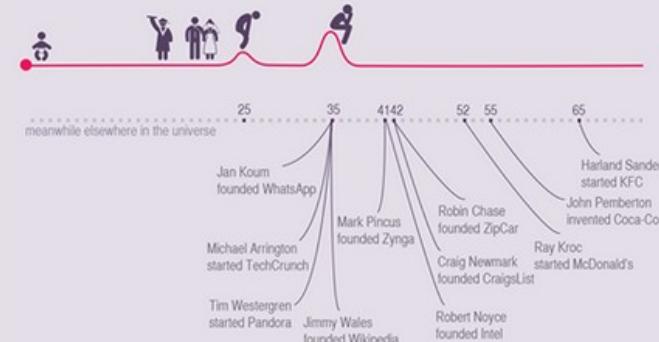
5 mins ·

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quarter-life crisis mid-life crisis

by Anna Vital



### IT'S NEVER TOO LATE.

[141 Funders and Founders](#)

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30 mins ·

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KFZ bewerten lassen!



#### Schlagerfieber

Friday at 22:00

Hipster, Gangster, Rentner und Banker  
singin u. tanzen gemeinsam Atemlos durch  
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# Javascript asynchron laden

```
<script src="//example.com/scripts.js" async defer>
```

# Hack: komplettes CSS einbetten

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      <?php echo file_get_contents('/path/to/style.css'); ?>
    </style>
  </head>
  <body>
    <p>
      Lorizzle cool dolizzle sit amizzle, ...
    </p>
  </body>
</html>
```

# Idee: CSS in localStorage

```
<!DOCTYPE html>
<html>
  <head>
    <script>
      var css = 'body {color: #333; background: #fff; }';
      document.write('<style>' + css + '</style>');
    </script>
  </head>
  <body>
    <p>Lorizzle cool dolizzle sit amizzle, ...</p>
    <script>
      window.localStorage.setItem('css', css);
    </script>
  </body>
</html>
```

# LocalStorage-Support

```
<script>
var useLocalStorage = false;
if ('localStorage' in window) {
    useLocalStorage = true;
}
</script>
```

# CSS laden

```
<script>
var css = false, version = false;
<?php
$file = '/path/to/style.css';
$stat = stat($file);
$version = (string) $stat['mtime'];
if (empty($_COOKIE['version']) or
$_COOKIE['version'] !== $version) {
    echo "version = '$version';"
    $css = file_get_contents($file);
    $css = str_replace(
        array("\r", "\n", "'", ''),
        array(' ', ' ', '\'', '\"'),
        trim($css)
    );
    echo "css = '$css';";
}
?>
</script>
```

# CSS ausgeben

```
<script>
if (!css && useLocalStorage) {
    css = window.localStorage.getItem('css');
}

if (css) {
    document.write('<style>' + css + '</style>');
} else {
    document.write('<link href="/uri/to/style.css"'
        + ' rel="stylesheet" type="text/css" />');
}
</script>

<noscript>
<link href="/uri/to/style.css"
      rel="stylesheet"
      type="text/css" />
</noscript>
```

The image displays three separate windows of Microsoft Internet Explorer 7, each illustrating a different method of CSS injection:

- Left Window (Title: CSS injection using innerHTML - Windows Internet...):** Shows the text "CSS injection using innerHTML" in bold black font at the top, followed by a large amount of placeholder text (Lorem ipsum).
- Middle Window (Title: CSS Injection using createElement - Windows Internet...):** Shows the text "CSS Injection using createElement" in bold black font at the top, followed by the same placeholder text.
- Right Window (Title: CSS Injection using document.write - Windows Internet...):** Shows the text "CSS Injection using document.write" in bold black font at the top, followed by the same placeholder text.

In all three cases, the injected text appears in a light blue box, indicating it has been styled by the injected CSS. The placeholder text is in a standard black font.

**Page Footer:**

http://walterebert.com/playground/wpo/criticalcss/

# Speichern

```
<script>
if (useLocalStorage && version && css) {

    var d = new Date();
    d.setTime(d.getTime() + (30*24*60*60*1000) );
    document.cookie='version=' + version + ';' +
        'expires=' + d.toGMTString() + '; path=/;';
    window.localStorage.setItem('css', css);

}
</script>
```

# Inline-Bilder mit base64

```
<div id="logo">  
    
</div>
```

# SVG mit PNG-Fallback

```
<div id="logo">
  <svg>
    ...
    <image src="logo.png" />
  </svg>
</div>
```



# Performance Calendar

The speed geek's favorite time of the year

2013   2012

2011

2010   2009

3rd

Dec 2011

## Why Inlining Everything Is NOT The Answer

by Guy Podjarny

Every so often I get asked if the best Front-End Optimization wouldn't be to simply inline everything. Inlining everything means embedding all the scripts, styles and images into the HTML, and serving them as one big package.

This question is a great example of taking a best practice too far. Yes, reducing the number of HTTP requests is a valuable best practice. Yes, inlining everything is the ultimate way to reduce the number of requests (in theory to one). But NO, it's not the best way to make your site faster.

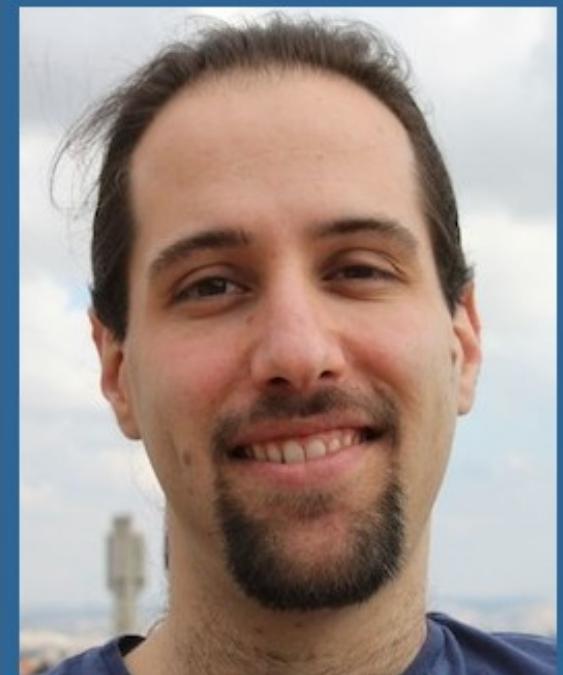
While reducing requests is a good practice, it's not the only aspect that matters. If you inline everything, you fulfill the "Reduce Requests" goal, but you're missing many others. Here are some of the specific reasons you shouldn't inline everything.

### No Browser Caching

The most obvious problem with inlining everything is the loss of caching. If the HTML holds all the resources, and the HTML is not cacheable by itself, the resources are re-downloaded every time. This means the first page load on a new site may be faster, but subsequent pages or return visitors would experience a slower page load.

For example, let's look at the Repeat Visit of the New York Times' home page. Thanks to caching, the original site loads in 2.7 seconds. If we inline the JavaScript files on that page, the repeat visit load time climbs to 3.2 seconds, and the size doubles. Visually, the negative impact is much greater,

### ABOUT THE AUTHOR



Guy Podjarny ([guypod](#)) is Web Performance and Security expert, specializing in Mobile Web Performance, CTO at Blaze. Guy spent a decade prior to Blaze as a Software Architect and Web Application

## Make the Web Faster

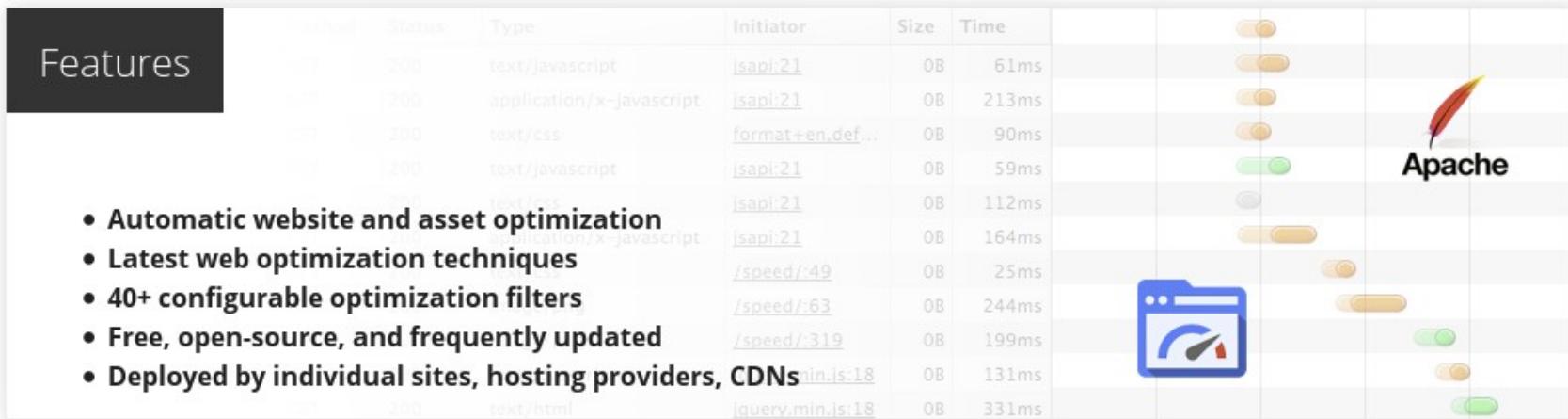
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## mod\_pagespeed

mod\_pagespeed speeds up your site and reduces page load time. This open-source Apache HTTP server module automatically applies [web performance best practices](#) to pages, and associated assets (CSS, JavaScript, images) without requiring that you modify your existing content or workflow.

### Features

- Automatic website and asset optimization
- Latest web optimization techniques
- 40+ configurable optimization filters
- Free, open-source, and frequently updated
- Deployed by individual sites, hosting providers, CDNs



### Get Started

- Download and install
- Review documentation
- Frequently asked questions
- Discuss mod\_pagespeed
- Check mod\_pagespeed announcements
- Learn about performance best practices

### Learn about mod\_pagespeed



### Users & Partners

- 350,000+ optimized web sites
- Hosting providers and CDN's, including:






<https://developers.google.com/speed/pagespeed/mod>  
<http://www.youtube.com/watch?v=uR5urTx8S4E>

# Media Queries

CSS

```
@media (max-height:600px)
```

Javascript

```
window.matchMedia(' (max-height:600px) ')
```

# Responsive Images

```
<picture>
  <source
    media="(min-height:
      600px)"
    srcset="big.jpg">
  <source
    srcset="small.jpg">
  
</picture>
```

```

```

# walter Ebert

@wltrd

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