

Bilder einbinden ist kein Thema, oder?

Walter Ebert @wltrd

DrupalCamp Essen 24./25. Oktober 2015



@wltrd

walterebert.de

slideshare.net/walterebert

img

```

```

img

```

```

img

```

```

img

```

```

img

```
<a href="http://beispiel.de/bildbeschreibung">  
    
</a>
```

img

```

```

HTML

```
<div class="deko">...</div>
```

CSS

```
.deko {  
    background: url(deko.jpg) no-repeat left center;  
}
```

img

```

```

Fluid

```
img {  
  max-width: 100%;  
  height: auto;  
}
```

Bildformate

GIF

JPEG

PNG

Bildformate

GIF Gut für Logos / Grafiken.

JPEG Transparenz.

PNG Maximal 256 Farben.

Animationen.

Bildformate

GIF

JPEG Gut für Fotos.

PNG Keine Transparenzen.

Bildformate

GIF

JPEG

PNG Gut für Logos / Grafiken.
 Transparenzstufen.

Bildformate

GIF

JPEG

PNG

SVG Vektorgrafiken.

Animationen.

Stylbar über CSS.

Bildformate

GIF

JPEG

PNG

SVG

WebP

JXR

JPEG2000



A new image format for the Web

Contents

[How WebP Works](#)

[WebP Support](#)

[WebP Converter Download](#)

WebP is a new image format that provides lossless and lossy compression for images on the web.

WebP lossless images are [26% smaller](#) in size compared to PNGs. WebP lossy images are [25-34% smaller](#) in size compared to JPEG images at equivalent SSIM index. WebP supports lossless transparency (also known as alpha channel) with just [22% additional bytes](#). Transparency is also supported with lossy compression and typically provides 3x smaller file sizes compared to PNG when lossy compression is acceptable for the red/green/blue color channels.



Webmasters and web developers can use the WebP image format to <https://developers.google.com/speed/webp/> tools that can help make the web faster.

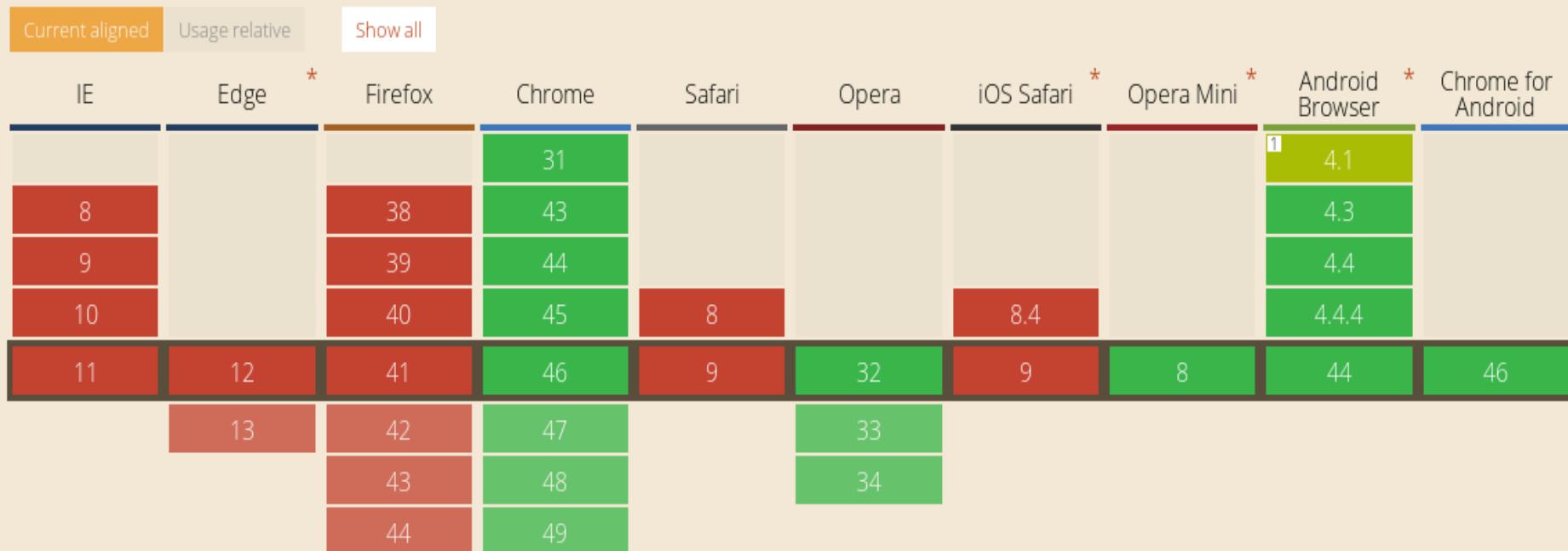
WebP image format

- UNOFF

Global

65.57% + 1.15% = 66.72%

Image format that supports lossy and lossless compression, as well as animation and alpha transparency.



Animated WebP images are supported in Chrome 32+ and Opera 19+.

Current MS Edge status: Not currently planned

1 Partial support in older Chrome, Opera and Android refers to browsers not supporting lossless and alpha versions of WebP.

WebP mit Fallback

```
<picture>
  <source srcset="image.webp" type="image/webp">
    
</picture>
```



JPEG



XT



LS



2000



XR



JBIG



AIC



JPSearch



systems



AR

NEWS

JPEG Privacy & Security Abstract and Executive Summary

September 10, 2015

[full story](#)

JPEG Privacy & Security Workshop Announcement and Call for Participation

August 17, 2015

[full story](#)

JPEG PLENO Workshop Proceedings

July 2, 2015

[full story](#)

[MORE...](#)

PRESS RELEASE

69th Meeting - Warsaw, Poland - JPEG Committee initiates standardization of JPEG XS, a low-latency lightweight image coding system

July 9, 2015

[full story](#)

68th Meeting - Sydney, Australia - JPEG XT's Lossless/Near-Lossless and Alpha Channel Coding Move to Committee Draft Stage

February 6, 2015

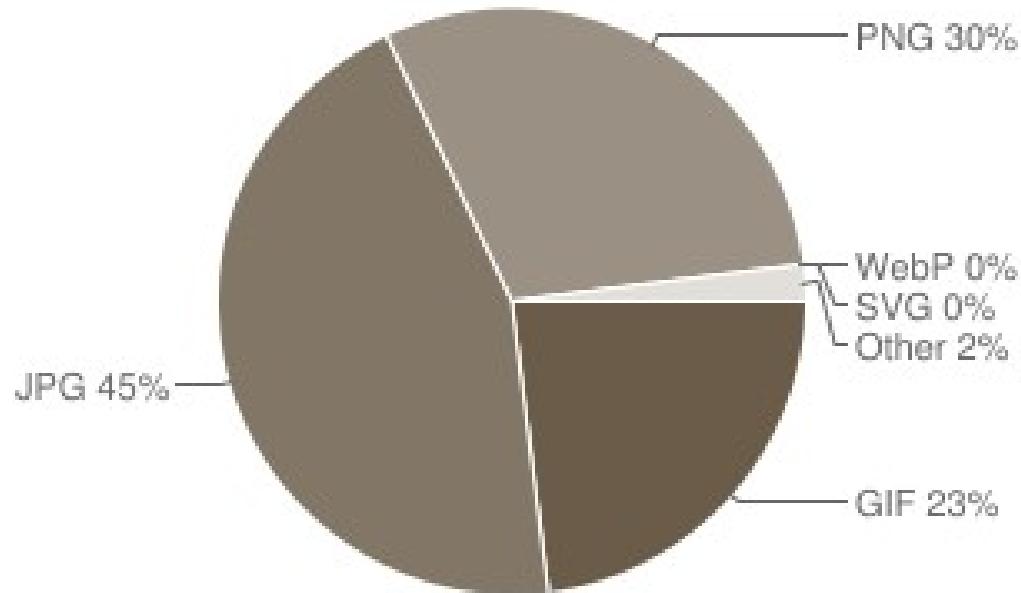
[full story](#)

67th Meeting - Strasbourg, France - New Website, New Logo and a New Initiative JPEG PLENO

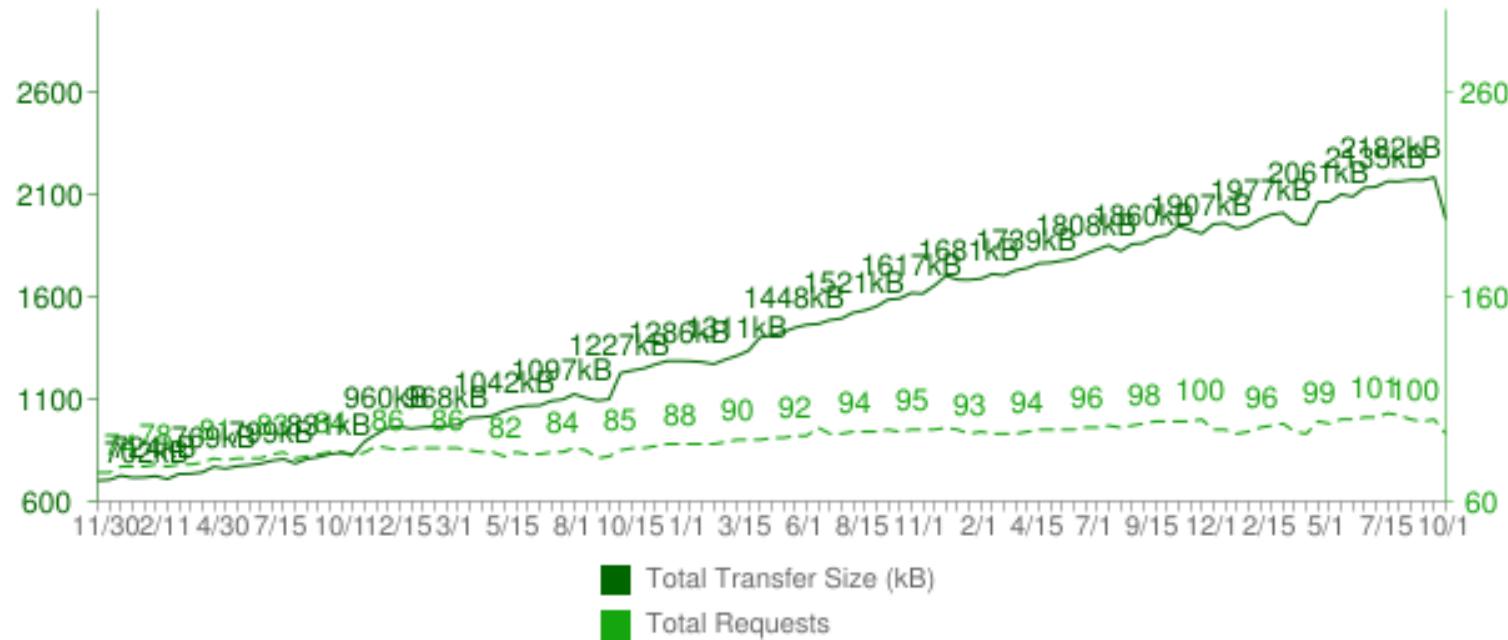
December 8, 2014

[full story](#)

Image Requests by Format



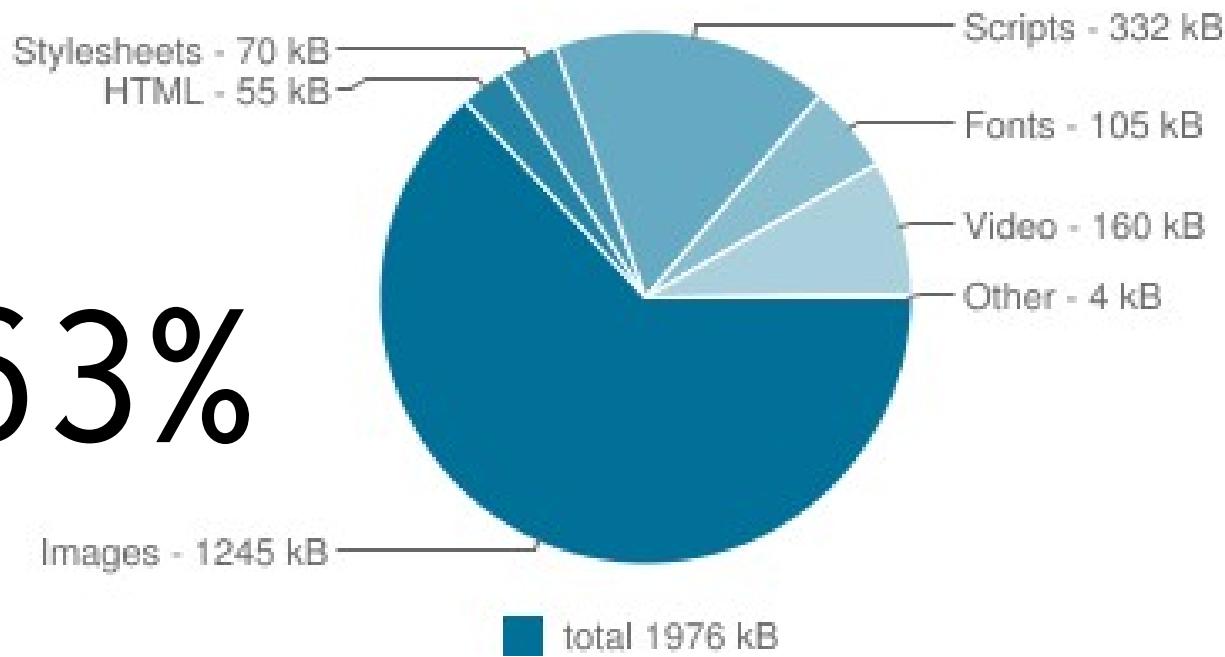
Total Transfer Size & Total Requests



702kB (2010)

1976kB (2015)

63%





Improved JPEG encoder.

1,303 commits

7 branches

7 releases

18 contributors



Branch: master ▾

mozjpeg / +



Josh Aas Bump version number to 3.1.

Latest commit 5198654 on May 18

cmakescripts Initial commit of libjpeg-turbo plus readme edits. 2 years ago

doc/html If the output buffer in the TurboJPEG destination manager was allocat... a year ago

java Merge branch 'libjpeg-turbo' 10 months ago

md5 Fix build on OS X PowerPC platforms a year ago

release Merge branch 'libjpeg-turbo' 10 months ago

sharedlib Merge libjpeg-turbo r1390 a year ago

simd Merge branch 'libjpeg-turbo' 10 months ago

testimages 12-bit JPEG support a year ago

win Use tabs in the DLL definition files, per Microsoft conventions. a year ago

.gitauthors Script for git-svn reinitialization a year ago

.gitignore Expanded .gitignore 9 months ago

BUILDING.txt Merge pull request #152 from jodiecunningham/master 8 months ago

CMakeLists.txt Bump version number to 3.1. 5 months ago

<https://github.com.mozilla/mozjpeg>

Include ARMv8 binaries when generating a combined OS X/iOS package us

Code

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Pulse

Graphs

HTTPS clone URL

<https://github.cc>

You can clone with [HTTPS](#) or [Subversion](#).

Download ZIP



Overview of JPEG XT



JPEG XT (ISO/IEC 18477) specifies a series of backwards compatible extensions to the legacy JPEG standard (ITU Recommendation T.81 | ISO/IEC 10918-1).

While JPEG is still the dominant technology for storing digital images, it fails to address several requirements that have become important in recent years, such as compression of images with higher bit depths (9 to 16 bits), high-dynamic-range imaging, lossless compression, and representation of alpha channels.

JPEG XT extends the JPEG specification in a completely backwards compatible way. Existing tools and software will continue to work with the new code streams, while new features will help move JPEG into the 21st century.

JPEG XT, like most other JPEG standards, is a multi part specification. The following parts are currently in the process of standardization:

Part 1, Core coding system

JPEG XT Part 1 specifies the base technology, and specifies as such the core JPEG as it is used nowadays, namely as a selection of features from ISO/IEC 10918-1, 10918-5 and 10918-6. Part 1 defines as what is commonly understood as JPEG today.

Part 2, Coding of high dynamic range images

JPEG XT Part 2 is a backwards compatible extension of JPEG towards high-dynamic range photography using a legacy text-based encoding technology for its metadata.

Part 3, Box file format

JPEG XT Part 3 specifies an extensible boxed-based file format all following and future extensions of JPEG will be based on. The format specified in Part 3 is itself compatible to JFIF, ISO/IEC 10918-5, and thus can be read by all existing implementations.

Bilder optimieren

ImageOptim (Mac)

<https://imageoptim.com/>

<https://github.com/JamieMason/ImageOptim-CLI>

FileOptimizer (Windows)

<http://sourceforge.net/projects/nikkhokkho/files/FileOptimizer/>

Trimage (Linux)

<http://trimage.org/>

imagemin

NPM

<https://www.npmjs.com/package/imagemin>

gulp-imagemin

<https://github.com/sindresorhus/gulp-imagemin>

grunt-contrib-imagemin

<https://github.com/gruntjs/grunt-contrib-imagemin>

http://drupalcamp-essen.de/15/



Mobil



Desktop

81 / 100 Übersicht über die Vorschläge

! Behebung erforderlich:

Bilder optimieren

Durch eine korrekte Formatierung und Komprimierung von Bildern können viele Datenbytes gespart werden.

Optimieren Sie die folgenden Bilder, um ihre Größe um 138,3 KB (47 %) zu reduzieren.

Durch die Komprimierung und Größenanpassung von <http://drupalcamp-essen.de/15/dateien/sponsor/acquia.jpg> könnten 100,6 KB (97 %) eingespart werden.

Durch die Komprimierung von <http://drupalcamp-essen.de/...es/breite-col2/public/sponsor/arocom.png> könnten 25,1 KB (24 %) ohne Verluste eingespart werden.

Durch die Komprimierung und Größenanpassung von <http://drupalcamp-essen.de/15/dateien/sponsor/erdfisch.png> könnten 3,5 KB (44 %) eingespart werden.

Durch die Komprimierung von http://drupalcamp-essen.de/...ol2/public/sponsor/brightsolutions_0.png könnten 2,9 KB (27 %) ohne Verluste eingespart werden.

Durch die Komprimierung von http://drupalcamp-essen.de/.../iStock_social-media-button-concept1.jpg könnten 1,7 KB (14 %) ohne Verluste eingespart werden.

Durch die Komprimierung von http://drupalcamp-essen.de/15/dateien/dce15_logo_datum.png könnten 1,4 KB (34 %) ohne Verluste eingespart werden.

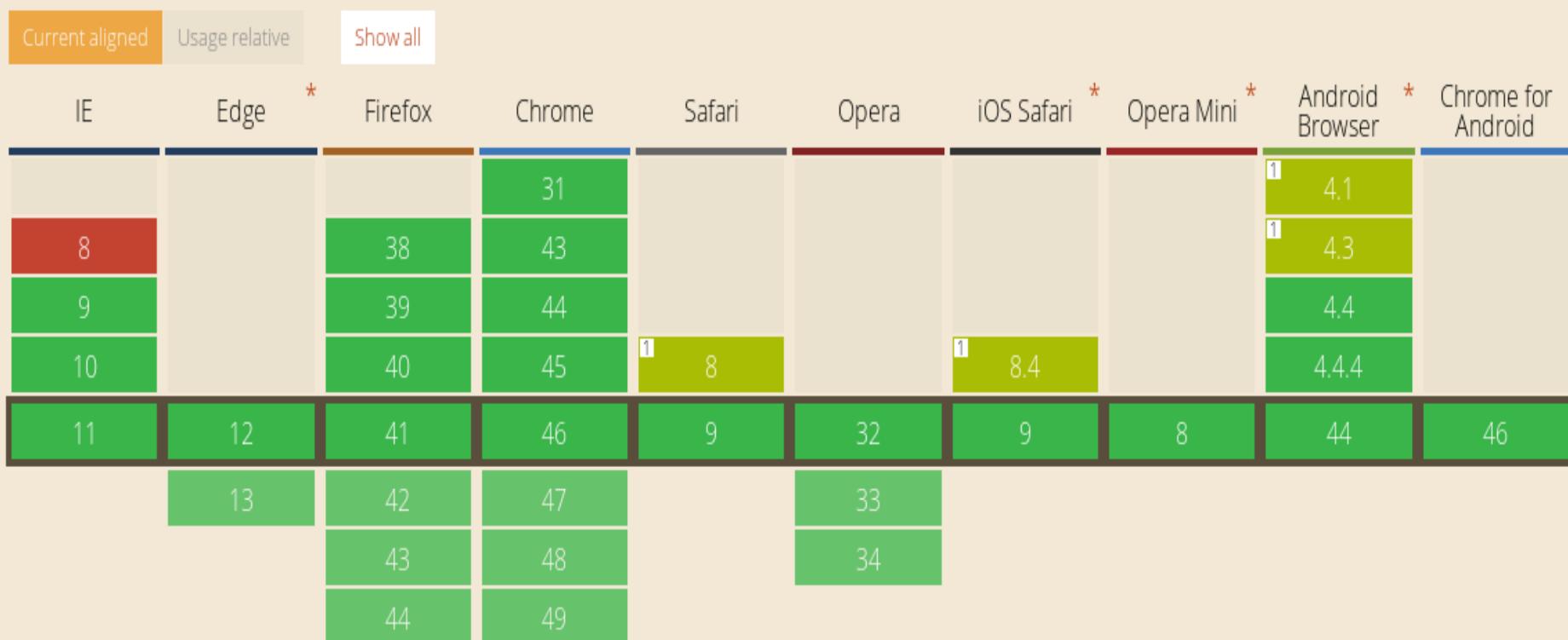


SVG in HTML img element

Global

85.85% + 10.24% = 96.09%

Method of displaying SVG images in HTML using .



¹ Partial support refers to not supporting embedded images (data URIs) inside the SVG.

SVG mit Fallback

```

```

```

```

Inline SVG

```
<!DOCTYPE html>

<html>

    ...

<svg version="1.1" width="300" height="200">
    <rect width="75" height="50" rx="20" ry="20"
        fill="#90ee90" stroke="#228b22" stroke-fill="1" />
</svg>

    ...

</html>
```

Barrierefreiheit

```
<svg version="1.1" width="300" height="200">
<title>Grünes Rechteck</title>
<rect width="75" height="50" rx="20" ry="20"
fill="#90ee90" stroke="#228b22" stroke-fill="1" />
</svg>
```

SVG optimieren

Scour

<http://www.codedread.com/scour/>

SVGO

<https://github.com/svg/svgo>

SVGOMG (online)

<https://jakearchibald.github.io/svgomg/>

Lazyloading

```

```

<http://developer.telerik.com/featured/lazy-loading-images-on-the-web/>
<http://dinbror.dk/blazy/>
<https://www.christianheilmann.com/2015/09/08/quick-trick-using-template-to-delay-loading-of-images/>

Make the Web Faster

8+1

429

Overview

▼ PageSpeed

▶ Analysis

▼ Optimization

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▶ Filter

Documentation

▶ Optimization SDK

▶ Public DNS

▶ Hosted Libraries

▶ Protocols & Standards

▶ Best Practices

Community

PageSpeed Module

PageSpeed speeds up your site and reduces page load time. This open-source webserver 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

| Request | Status | Type | Initiator | Size | Time |
|---------|--------|--------------------------|------------------|------|-------|
| | | text/javascript | jsapi[21] | 0B | 61ms |
| | | application/x-javascript | jsapi[21] | 0B | 213ms |
| | | text/css | format+en.def... | 0B | 90ms |
| | | | jsapi[21] | 0B | 59ms |
| | | | jsapi[21] | 0B | 112ms |
| | | | jsapi[21] | 0B | 164ms |
| | | | /speed/-49 | 0B | 25ms |
| | | | /speed/-63 | 0B | 244ms |
| | | | /speed/-319 | 0B | 199ms |
| | | | jquery.min.js-18 | 0B | 131ms |

Get Started

- Download and install
- Review documentation
- Frequently asked questions
- Discuss PageSpeed for Apache and Nginx
- Subscribe to PageSpeed announcements for [Apache](#) and [Nginx](#)
- Learn about performance best practices

Learn about PageSpeed



Users & Partners

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

HTML5 figure

```
<figure>

<figcaption>
Beschreibung darf HTML enthalten <a rel="license"
href="http://creativecommons.org/licenses/by/4.0/">
Creative Commons Namensnennung 4.0 International
Lizenz</a>.
</figcaption>
</figure>
```

HTML5 figure

```
<figure>  
  
  
  
<figcaption>  
Beschreibung darf HTML enthalten <a rel="license"  
href="http://creativecommons.org/licenses/by/4.0/">  
Creative Commons Namensnennung 4.0 International  
Lizenz</a>.  
</figcaption>  
</figure>
```



RESPONSIVE IMAGES COMMUNITY GROUP

We're a group of developers working towards a markup-based means of delivering alternate image sources based on device capabilities to prevent wasted bandwidth and optimize display for both screen and print.

[JOIN US!](#)



Examples of [art direction](#). See more [demos of responsive Images](#).

WHAT IS THE `PICTURE` ELEMENT?

The picture element is a markup pattern that allows developers to declare multiple sources for an image. By using media queries, it gives developers control as to when and if those images are presented to the user.

SAMPLE MARKUP FOR `PICTURE`

```
<picture>
  <source media="(min-width: 40em)" srcset="big.jpg 1x,
  big-hd.jpg 2x">
```

<http://responsiveimages.org/>

WHAT IS THE `SRCSET` ATTRIBUTE?

The srcset attribute is an extension to the existing img tag that provides some of the functionality of the picture element. It uses a more concise syntax, part of which can be used by the picture element.

SAMPLE MARKUP FOR `SRCSET`

```

```

[Read the srcset Specification](#)

[Example srcset parser](#)

HTML5 srcset

```
  
  

```

HTML5 picture

```
<picture>  
  <source srcset="S.jpg" media="(max-width: 800px)">  
  <source srcset="L.jpg" media="(min-width: 1281px)">  
    
</picture>
```



Membership is contribution too.

[Join Today](#)

Download & Extend

[Download & Extend Home](#) [Drupal Core](#) [Distributions](#) [Modules](#) [Themes](#)

Picture

[View](#) [Version control](#) [Automated Testing](#)Posted by [attiks](#) on August 16, 2012 at 7:40am

This module is a backport of Drupal 8 [Responsive Image](#) module. It allows administrators to optimize images for different devices and resolutions by pairing image styles with CSS media queries. It is implemented as a display formatter for image fields.

The Picture module uses the "`<picture>`" element, which was recently added to the HTML specification. While browser support for this new element is currently very limited, this module uses a polyfill library to provide backward compatibility with older browsers.

While this module cannot account for different connection speeds (such as WiFi vs. 3g), it does limit wasted bandwidth by ensuring delivery of only one image, optimized for the device being used, and therefore can improve mobile performance.

Version 2.0 (preferred)

Version 2.0 is ready and upgrading should be working, if you start a new project use 2.0, if you want to upgrade, download the 2.0 version and run update.php (drush updb) and check that everything is still working.

<https://www.drupal.org/project/picture>

Version 2.0 is the latest stable release for this project.

Maintainers for Picture

[Jelle_S](#) - 98 commits
last: 4 weeks ago, first: 3 years ago

[attiks](#) - 103 commits
last: 1 month ago, first: 3 years ago

[View all committers](#)
[View commits](#)

Issues for Picture

To avoid duplicates, please search before submitting a new issue.

[Advanced search](#)

[All issues](#)

[43 open, 312 total](#)

[Bug report](#)

Iconfonts

Funktioniert nicht mit Benutzer-definierten Schriften (z.B. wegen Lesestörungen)

In iOS9 kann man Support für Webfonts deaktivieren

Kein Support in Opera Mini (277M Benutzer)

Iconfonts

Funktioniert nicht mit Benutzer-definierten Schriften (z.B. wegen Lesestörungen)

In iOS9 kann man Support für Webfonts deaktivieren

Kein Support in Opera Mini (277M Benutzer)

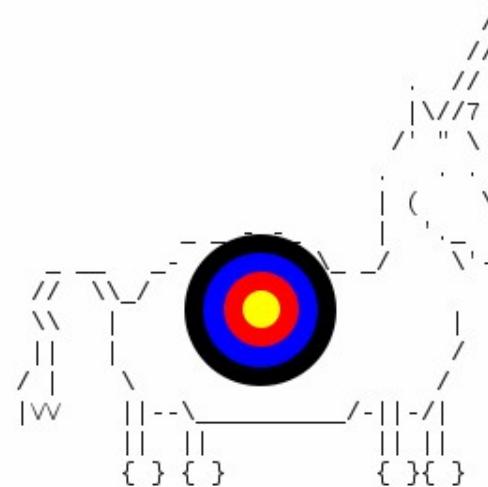
Seren Davies: Death to icon fonts

<https://www.youtube.com/watch?v=9xXYcWgCHA>

SVG-Sprites

```
<svg xmlns="http://www.w3.org/2000/svg"
      style="display: none;">
  <symbol id="icon-1" viewBox="214.7 0 182.6 792">
    <!-- ... -->
  </symbol>
  <symbol id="icon-2" viewBox="0 26 100 48">
    <!-- ... -->
  </symbol>
</svg>
```

```
<svg class="icon">
  <use xlink:href="#icon-1" />
</svg>
```



Drag & Drop ur SVGs on the Grumpicon plz.



[Grumpiconfig](#)

filament group

With special guest, Eric Ponto
unicornkey head drawn by R.B.Cleary in 1995



jkphl / svg-sprite

Watch 14

Star 337

Fork 44

SVG sprites & stacks galore — A low-level Node.js module that takes a bunch of SVG files, optimizes them and bakes them into SVG sprites of several types along with suitable stylesheet resources (e.g. CSS, Sass, LESS, Stylus, etc.) <https://github.com/jkphl/svg-sprite>

239 commits

2 branches

55 releases

10 contributors



Branch: master ▾

[svg-sprite](#) / +**jkphl** Merge pull request #115 from lukebarton/master ... Latest commit 9bbf1ee 13 days ago

bin Introduced CSS positioning values floating point precision (#102) 2 months ago

docs Added accessibility features to symbol sprites (#107) a month ago

lib Added accessibility features to symbol sprites (#107) a month ago

test Added CSS class namespacing (#42) 3 months ago

tmpl Remove "." (dot), selector already has one. 3 months ago

.editorconfig Initial next generation commit 10 months ago

.gitattributes Initial next generation commit 10 months ago

.gitignore Updated dependencies 15 days ago

.jshintrc Updated dependencies (#67, #82) 5 months ago

.travis.yml Make io.js optional in Travis build as long as node-sass is in a bad ... 2 months ago

CHANGELOG.md Updated dependencies 15 days ago

LICENSE.txt Update ... 10 months ago

Code

Issues 5

Pull requests 1

Pulse

Graphs

HTTPS clone URL<https://github.cc> You can clone with [HTTPS](#) or [Subversion](#).

Download ZIP

Animated GIF



<https://www.washingtonpost.com/news/the-switch/wp/2015/08/06/tesla-unveils-weird-new-car-charging-robo-snake/>

Animated GIF



GIF 4,3 MB

MP4 161 kB

```
ffmpeg -i video.gif -c:v libx264 -an -movflags faststart video.mp4
```

<https://www.washingtonpost.com/news/the-switch/wp/2015/08/06/tesla-unveils-weird-new-car-charging-robo-snake/>

Video

```
<video controls autoplay loop>
  <source src="video.mp4" type="video/mp4">
  <object data="flvplayer.swf"
    type="application/x-shockwave-flash">
    <param value="flvplayer.swf" name="movie">
    <param name="flashvars" value="file=video.mp4">
  </object>
</video>
```

<http://caniuse.com/#feat=mpeg4>

<http://walterebert.com/blog/video-autoplay-on-mobile/>

Veraltete Techniken wegen HTTP2

- Spriting
- Inlining

HTTP2 Server Push

PHP

```
if ($_SERVER['SERVER_PROTOCOL'] === 'HTTP/2.0') {  
    header('Link: </buehne.jpg>'; rel=preload; as=image);  
}
```

HTML

```
<link rel="preload" href="/buehne.jpg" as="image">
```

#

HTTP/2 protocol

- OTHER

Global

56.67% + 6.17% = 62.84%

Networking protocol for low-latency transport of content over the web. Originally started out from the SPDY protocol, now standardized as HTTP version 2.

Current aligned Usage relative Show all

| IE | Edge * | Firefox | Chrome | Safari | Opera | iOS Safari * | Opera Mini * | Android Browser | Chrome for Android |
|----|--------|---------|--------|--------|-------|--------------|--------------|-----------------|--------------------|
| 8 | | | 31 | | | | | 4.1 | |
| 9 | | 38 | 43 | | | | | 4.3 | |
| 10 | | 39 | 44 | | | | | 4.4 | |
| 11 | 12 | 40 | 45 | 8 | | 8.4 | | 4.4.4 | |
| | 13 | 41 | 46 | 9 | 32 | 9 | 8 | 44 | 46 |
| | | 42 | 47 | | 33 | | | | |
| | | 43 | 48 | | 34 | | | | |
| | | 44 | 49 | | | | | | |

Notes

Known issues (0)

Resources (5)

Feedback

See also support for [the SPDY protocol](#), precursor of HTTP2.

1 Partial support in IE11 refers to being limited to Windows 10.

walter.ebert.engineering

@wltrd

waltereber.de

slideshare.net/waltereber