

Bilder usw...

Walter Ebert @wltrd



<http://wpmeetup-frankfurt.de/>

img

```

```

img

```

```

img

```

```

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

PNG8

Bildformate

GIF

JPEG

PNG

SVG Vektorgrafiken

Animationen

CSS

JavaScript

<https://css-tricks.com/using-svg/>

<http://sarasoueidan.com/tags/svg/>

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.

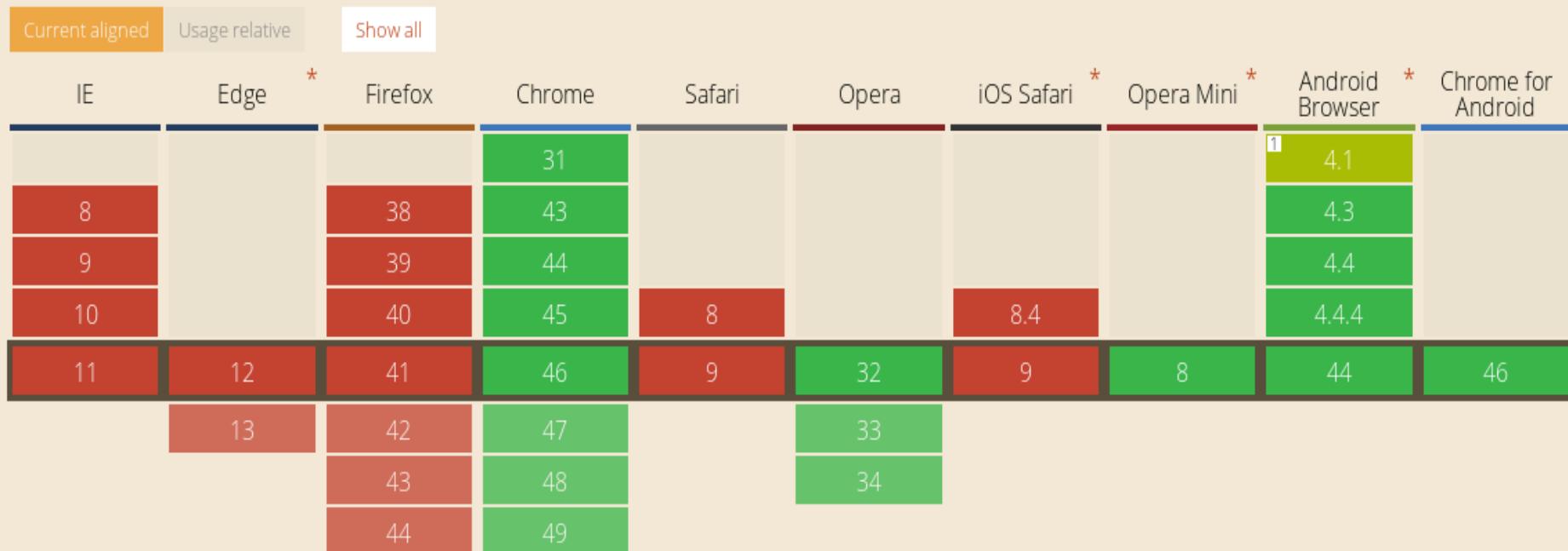
WebP image format

- 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

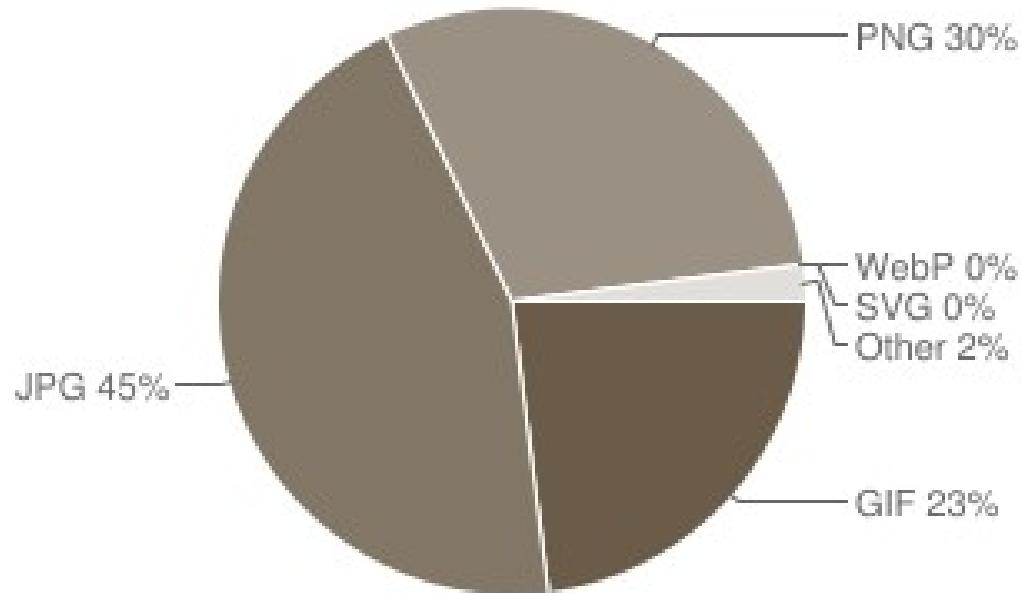
[full story](#)

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

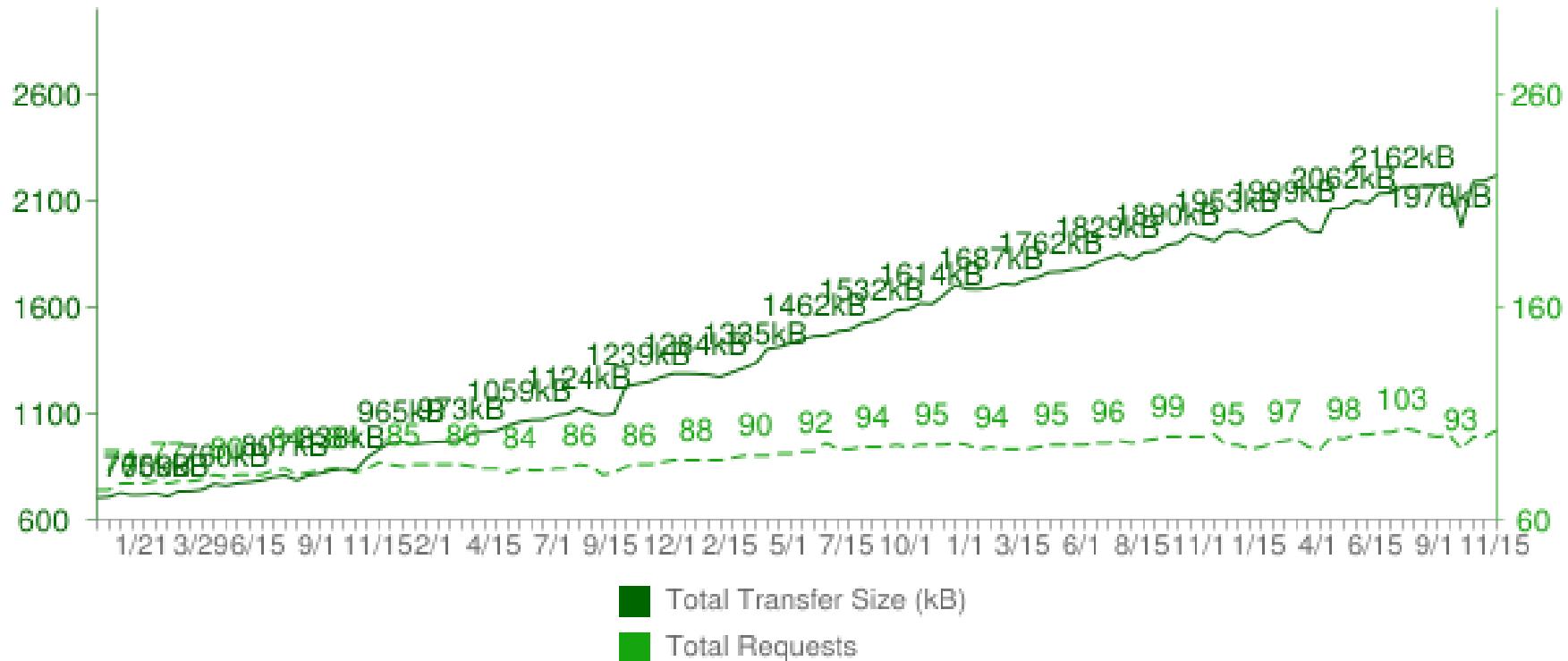
December 8, 2014

[full story](#)

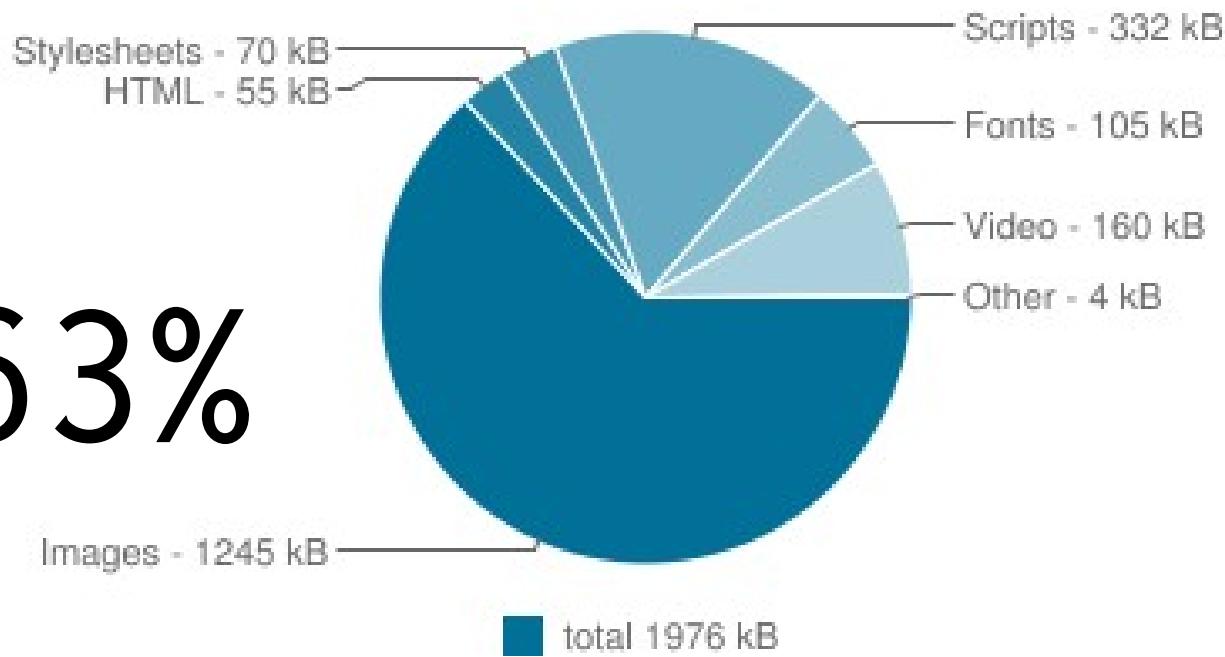
Image Requests by Format



Total Transfer Size & Total Requests



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

Issues 46

Pull requests 4

Pulse

Graphs

HTTPS clone URL

<https://github.cc>



You can clone with [HTTPS](#) or [Subversion](#). ②

[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>



EWWW Image Optimizer

Reduce file sizes for images in WordPress including NextGEN, GRAND FlAGallery and more using lossless/lossy methods and image format conversion.

[Download Version 2.4.1](#)

[Description](#) [Installation](#) [FAQ](#) [Screenshots](#) [Other Notes](#) [Changelog](#) [Stats](#) [Support](#) [Reviews](#) [Developers](#)

The EWWW Image Optimizer is a WordPress plugin that will automatically optimize your images as you upload them to your blog. It can optimize the images that you have already uploaded, convert your images automatically to the file format that will produce the smallest image size (make sure you read the WARNINGS), and optionally apply lossy reductions for PNG and JPG images.

Requires: 3.5 or higher
Compatible up to: 4.2.2
Last Updated: 2015-5-14
Active Installs: 100,000+

<https://wordpress.org/plugins/ewww-image-optimizer/>

[Ratings](#)



Kraken.io
Faster, better images.

Kraken Image Optimizer

This plugin allows you to optimize your WordPress images through the Kraken API, the world's most advanced image optimization solution.

[Download Version 2.0.0](#)

[Description](#) [Installation](#) [FAQ](#) [Screenshots](#) [Other Notes](#) [Changelog](#) [Stats](#) [Support](#) [Reviews](#) [Developers](#)

This plugin allows you to optimize new and existing WordPress image uploads through [Kraken Image Optimizer's API](#). Both lossless and intelligent lossy optimization modes are supported. Supported filetypes are JPEG, PNG and GIF. Maximum filesize limit is 16 MB. For more details, including detailed documentation and plans and pricing, please visit [Kraken.io](#).

Requires: 3.0.1 or higher

Compatible up to: 4.2.2

Last Updated: 2015-4-24

Active Installs: 8,000+

Ratings



<https://wordpress.org/plugins/kraken-image-optimizer/>



Imsanity

Imsanity automatically resizes huge image uploads. Are contributors uploading huge photos? Tired of manually scaling? Imsanity to the rescue!

[Download Version 2.3.5](#)

[Description](#) [Installation](#) [FAQ](#) [Screenshots](#) [Changelog](#) [Stats](#) [Support](#) [Reviews](#) [Developers](#)

Imsanity automatically resizes huge image uploads down to a size that is more reasonable for display in browser, yet still more than large enough for typical website use. The plugin is configurable with a max width, height and quality. When a contributor uploads an image that is larger than the configured size, Imsanity will automatically scale it down to the configured size and replace the original image.

Requires: 2.9 or higher
Compatible up to: 4.1.5
Last Updated: 2015-2-28
Active Installs: 80,000+

<https://wordpress.org/plugins/imsanity/>

Ratings

PageSpeed Insights



<https://europe.wordcamp.org/2015/>



Mobil



Desktop

30 / 100 Übersicht über die Vorschläge



Bilder optimieren

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

Optimieren Sie die folgenden Bilder, um ihre Größe um 1,8 MB (69 %) zu reduzieren.

Durch die Komprimierung und Größenanpassung von <https://europe.wordcamp.org/.../files/2015/09/Gruppen-5-A2-1000x1414.jpg> könnten 306,5 KB (90 %) eingespart werden.

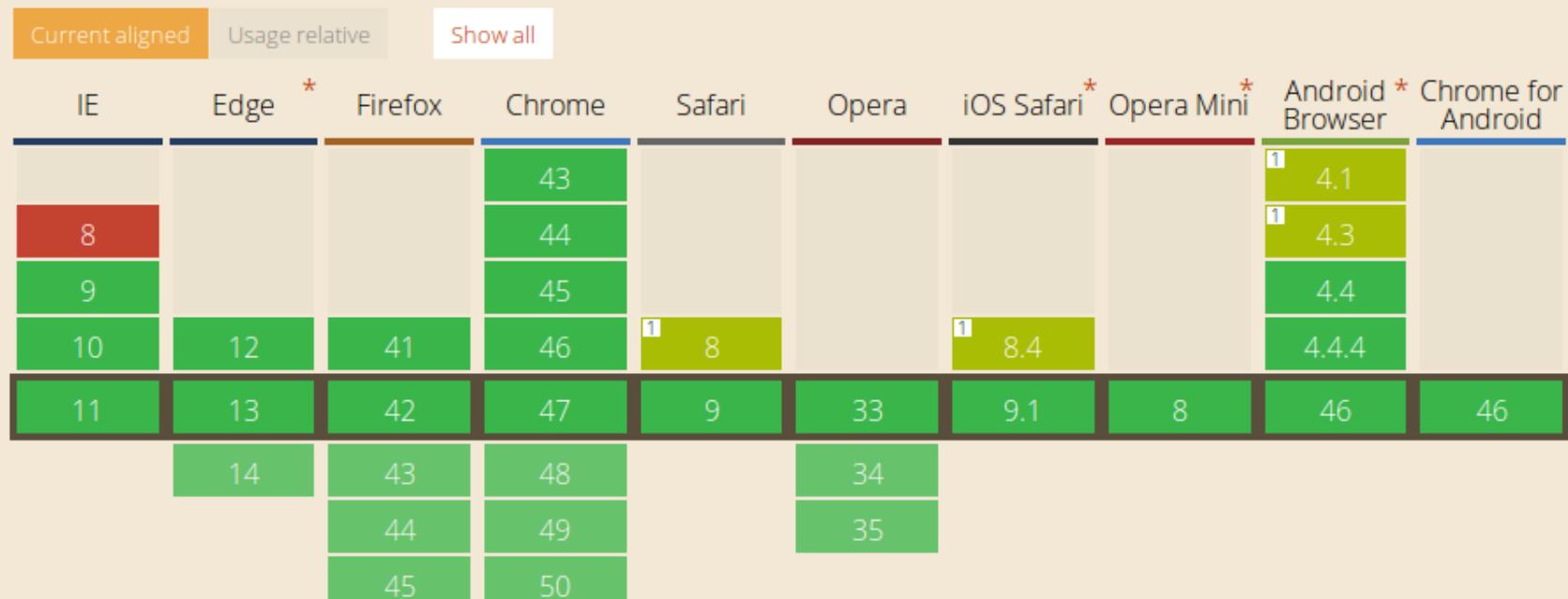
Durch die Komprimierung und Größenanpassung von <https://europe.wordcamp.org/.../files/2015/09/Gruppe-1-A2-1000x1414.jpg> könnten 305,2 KB (90 %) eingespart werden.

Durch die Komprimierung und Größenanpassung von <https://europe.wordcamp.org/...iles/2015/09/speakersketch-1000x1414.jpg> konnten 303,4 KB (90 %) eingespart werden.

Durch die Komprimierung und Größenanpassung von <https://europe.wordcamp.org/.../files/2015/09/Gruppe-4-A2-1000x1414.jpg> könnten 303,3 KB (89 %) eingespart werden.

<https://developers.google.com/speed/pagespeed/insights/>

Method of displaying SVG images in HTML using .

[Notes](#)[Known issues \(2\)](#)[Resources \(3\)](#)[Feedback](#)

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

= Supported = Not supported = Partial support = Support unknown

Backlink Checker Tool

Check all backlinks of any website. Free trial - buy it if you like it.



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/>

Make the Web Faster

8+1

429

Overview

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▶ Analysis

▼ Optimization

▶ Service

▼ Module

▶ Get Started

▶ 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](#)

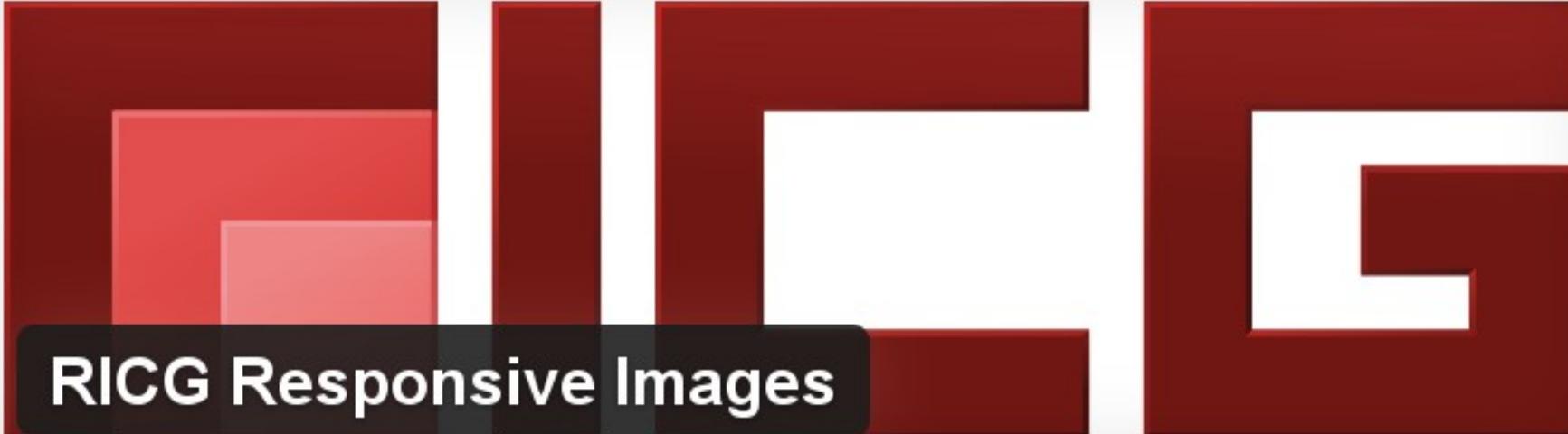
HTML5 srcset

```
  
  

```

HTML5 picture

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



RICG Responsive Images

Bringing automatic default responsive images to WordPress.

[Download Version 2.3.1](#)

[Description](#) [Installation](#) [Changelog](#) [Stats](#) [Support](#) [Reviews](#) [Developers](#)

Bringing automatic default responsive images to WordPress.

This plugin works by including all available image sizes for each image upload. Whenever WordPress outputs the image through the media uploader, or whenever a featured image is generated, those sizes will be included in the image tag via the `srcset` attribute.

Requires: 4.1 or higher

Compatible up to: 4.2.2

Last Updated: 2015-5-27

Active Installs: 5,000+

Ratings



RICG Advanced Image Compression

```
function custom_theme_setup() {  
    add_theme_support( 'advanced-image-compression' );  
}  
add_action( 'after_setup_theme', 'custom_theme_setup' );
```

Benötigt **Imagick-PHP-Extension**



BJ Lazy Load

Lazy loading makes your site load faster and saves bandwidth. Uses jQuery and degrades gracefully for non-js users. Works with both images and iframes

[Download Version 0.7.5](#)

[Description](#) [Installation](#) [FAQ](#) [Other Notes](#) [Changelog](#) [Stats](#) [Support](#) [Reviews](#) [Developers](#)

Lazy loading makes your site load faster and saves bandwidth.

This plugin replaces all your post images, post thumbnails, gravatar images and content iframes with a placeholder and loads the content as it gets close to enter the browser window when the visitor scrolls the page. Also works with text widgets.

Requires: 3.5 or higher

Compatible up to: 4.0.5

Last Updated: 2014-10-14

Active Installs: 30,000+

[Ratings](#)

<https://wordpress.org/plugins/bj-lazy-load/>

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)

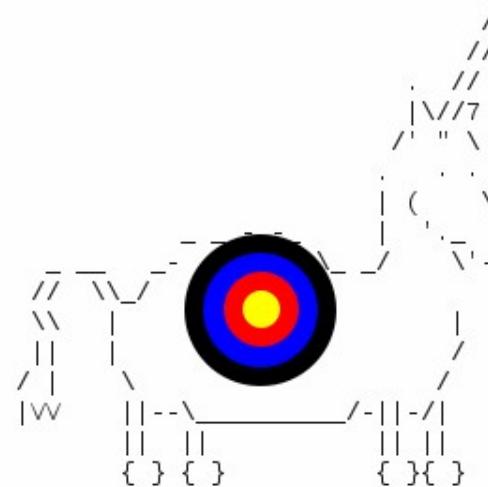
Seren Davies: Death to icon fonts

<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



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](#). ②

[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">  
    
</video>
```

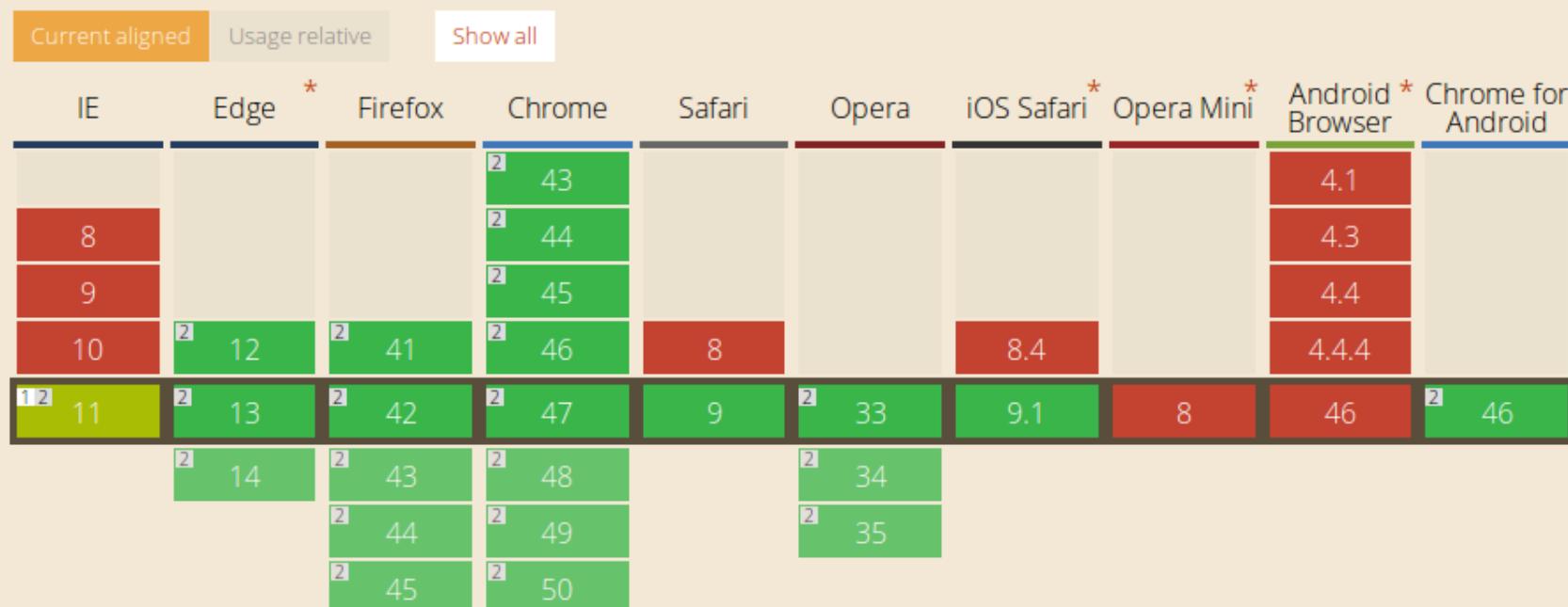
<http://caniuse.com/#feat=mpeg4>

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

Veraltete Techniken wegen HTTP2

- Spriting
- Inlining

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



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.

² Only supports HTTP2 over TLS (https)



@wltrd

walterebert.de

slideshare.net/walterebert