

THE LATEST PERFORMANCE TECHNOLOGIES TO **SPEED UP WORDPRESS**

Hristo Pandjarov - WordPress Expert at  SiteGround



PART 1**BENCHMARKING**

Pandjarov

Just a place to share my thoughts on WordPress, travelling and other stuff

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[Speaking](#)

[Contact Me](#)

Make your gallery fade to colour with only SVG and CSS

Subscribe to my blog

Email Address

URL	Status	Domain	Size	Remote IP	Timeline
▶ GET pandjarov.com	200 OK	pandjarov.com	29.3 KB	181.224.147.223:80	309ms
▶ GET style.css?ver=2.2.7	304 Not Modified	pandjarov.com	27.8 KB	181.224.147.223:80	156ms
▶ GET styles.css?ver=4.4.1	304 Not Modified	pandjarov.com	1.1 KB	181.224.147.223:80	155ms
▶ GET jquery.fancybox-1.3.4.css?ver=1.6.7	304 Not Modified	pandjarov.com	8.5 KB	181.224.147.223:80	158ms
▶ GET light.min.css?ver=1	304 Not Modified	pandjarov.com	14.4 KB	181.224.147.223:80	150ms
▶ GET gppro-custom-1.css?ver=1458602694	304 Not Modified	pandjarov.com	5.5 KB	181.224.147.223:80	145ms
▶ GET jquery.js?ver=1.11.3	304 Not Modified	pandjarov.com	93.7 KB	181.224.147.223:80	262ms
▶ GET jquery-migrate.min.js?ver=1.2.1	304 Not Modified	pandjarov.com	7.0 KB	181.224.147.223:80	287ms
▶ GET jquery.fancybox-1.3.4.js?ver=1.6.7	304 Not Modified	pandjarov.com	28.2 KB	181.224.147.223:80	296ms
▶ GET front.js?ver=1.6.7	304 Not Modified	pandjarov.com	9.0 KB	181.224.147.223:80	302ms
▶ GET skip-links.js?ver=4.4.2	304 Not Modified	pandjarov.com	781 B	181.224.147.223:80	302ms
▶ GET wp-emoji-release.min.js?ver=4.4.2	304 Not Modified	pandjarov.com	32.9 KB	181.224.147.223:80	296ms
▶ GET classic-081711.css	304 Not Modified	cdn-images.mailchimp.com	3.5 KB	52.85.71.212:80	66ms
▶ GET mc-validate.js	304 Not Modified	s3.amazonaws.com	139.5 KB	54.231.0.248:80	144ms
▶ GET jquery.form.min.js?ver=3.51.0-2014.06.20	304 Not Modified	pandjarov.com	14.9 KB	181.224.147.223:80	299ms
▶ GET scripts.js?ver=4.4.1	304 Not Modified	pandjarov.com	11.5 KB	181.224.147.223:80	315ms
▶ GET hoverIntent.min.js?ver=1.8.1	304 Not Modified	pandjarov.com	1.1 KB	181.224.147.223:80	330ms
▶ GET superfish.min.js?ver=1.7.5	304 Not Modified	pandjarov.com	4.9 KB	181.224.147.223:80	342ms
▶ GET superfish.args.min.js?ver=2.2.7	304 Not Modified	pandjarov.com	132 B	181.224.147.223:80	344ms
▶ GET visibility.min.js?ver=1.0.14	304 Not Modified	cdnjs.cloudflare.com	873 B	198.41.214.67:80	2ms
▶ GET handlebars.js?ver=1.0.14	304 Not Modified	pandjarov.com	140.7 KB	181.224.147.223:80	349ms
▶ GET epoch.min.js?ver=1.0.14	304 Not Modified	pandjarov.com	10.2 KB	181.224.147.223:80	446ms
▶ GET wp-embed.min.js?ver=4.4.2	304 Not Modified	pandjarov.com	1.5 KB	181.224.147.223:80	453ms
▶ GET css?family=Lato:300,400,700	200 OK	fonts.googleapis.com	545 B	64.233.166.95:80	49ms
▶ GET simple-smile.png	304 Not Modified	pandjarov.com	1,008 B	181.224.147.223:80	261ms

FIREBUG

Analyze your site's speed and make it faster.

GTmetrix gives you insight on how well your site loads and provides actionable recommendations on how to optimize it.

Analyze

Latest News

[View Changes](#)

Pushed out some fixes for Chrome on our Vancouver test servers. These were some tricky bugs to track down!
March 17, 2016

Located in Vancouver, BC and want to help make GTmetrix even better? We're hiring! <https://t.co/WIXpJW2rc3>
March 9, 2016

Over 100 million pages have been tested since we launched 6 years ago!
February 17, 2016

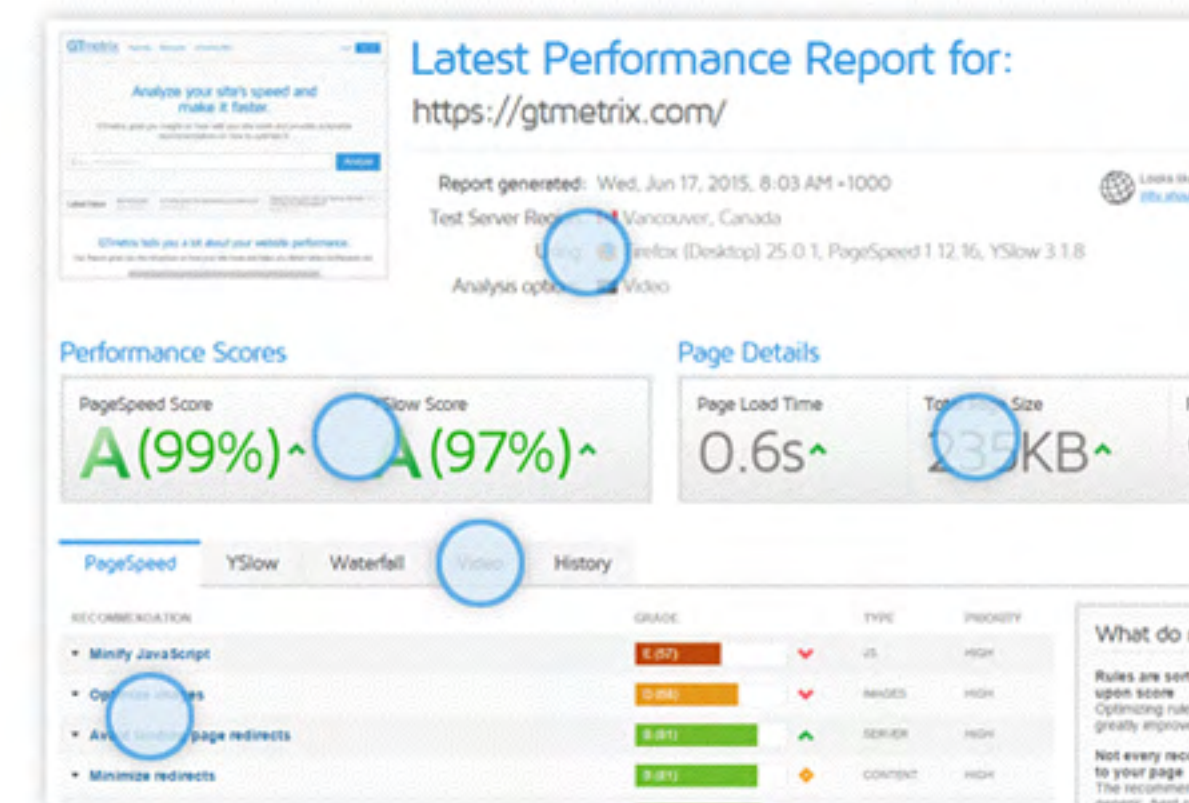
GTmetrix tells you a lot about your website performance.

Our Report gives you the full picture on how your site loads and helps you detect where bottlenecks are.

Key features include:

- [PageSpeed and YSlow scores](#) and [Recommendations](#)
- [Page Load Details](#) (time, size, number of requests)
- [Various Analysis Options](#)
- [Waterfall, Video and Report History](#)

[See more features](#)




GTMETRIX

Pingdom Website Speed Test

Enter a URL to test the load time of that page, analyze it and find bottlenecks

[Test Now](#)[Settings](#)



pandjarov.com
Tested from on March 31 at 09:37:46

Perf. grade	Requests	Load time	Page size
79/100	92	1.23s	2.2MB

Your website is **faster than 86%** of all tested websites

[DOWNLOAD HAR](#)[Tweet](#)[Post to Timeline](#)[Email](#)

[Waterfall](#)[Performance Grade](#)[Page Analysis](#)[History](#)

Page Speed Performance

Recommendation

Grade

Combine external JavaScript

10

Leverage browser caching

48

Remove query strings from static resources

75

PINGDOM TOOLS














How fast is your site? You can test here the performance of any of your sites from across the globe.

pandjarov.com

TEST LOAD-TIME

☐ Do not show the results on the boards

This test measures how long it takes to connect to your site and for one page to fully load. A very important value to pay attention is the **"time to first byte"**, which gives us how long it took for the content to be sent back to browser to start processing the page. If you are using a CDN (*Content Delivery Network*), your connection time may be low, but if the time to first byte and total time is also not low, it will not give you much in terms of performance.

	Location	Website	Connection	First Byte	Total
	USA, Dallas	pandjarov.com (181.224.147.223)	0.047 secs	0.267 secs	0.289 secs
	Canada, Toronto	pandjarov.com (181.224.147.223)	0.093 secs	0.308 secs	0.317 secs
	USA, Atlanta	pandjarov.com (181.224.147.223)	0.217 secs	0.244 secs	0.271 secs
	USA, New York	pandjarov.com (181.224.147.223)	0.099 secs	0.124 secs	0.148 secs
	Canada, Montreal	pandjarov.com (181.224.147.223)	0.053 secs	0.078 secs	0.104 secs
	USA, Los Angeles	pandjarov.com (181.224.147.223)	0.119 secs	0.177 secs	0.234 secs
	Germany, Frankfurt	pandjarov.com (181.224.147.223)	0.116 secs	0.231 secs	0.347 secs
	France, Paris	pandjarov.com (181.224.147.223)	0.200 secs	0.293 secs	0.385 secs
	NL, Amsterdam	pandjarov.com (181.224.147.223)	0.103 secs	0.205 secs	0.306 secs
	UK, London	pandjarov.com (181.224.147.223)	0.180 secs	0.272 secs	0.454 secs
	Brazil, Sao Paulo	pandjarov.com (181.224.147.223)	0.138 secs	0.276 secs	0.413 secs
	JP, Tokyo	pandjarov.com (181.224.147.223)	0.691 secs	0.845 secs	0.995 secs
	Singapore	pandjarov.com (181.224.147.223)	0.231 secs	0.456 secs	0.681 secs

SUCURI PERFORMANCE

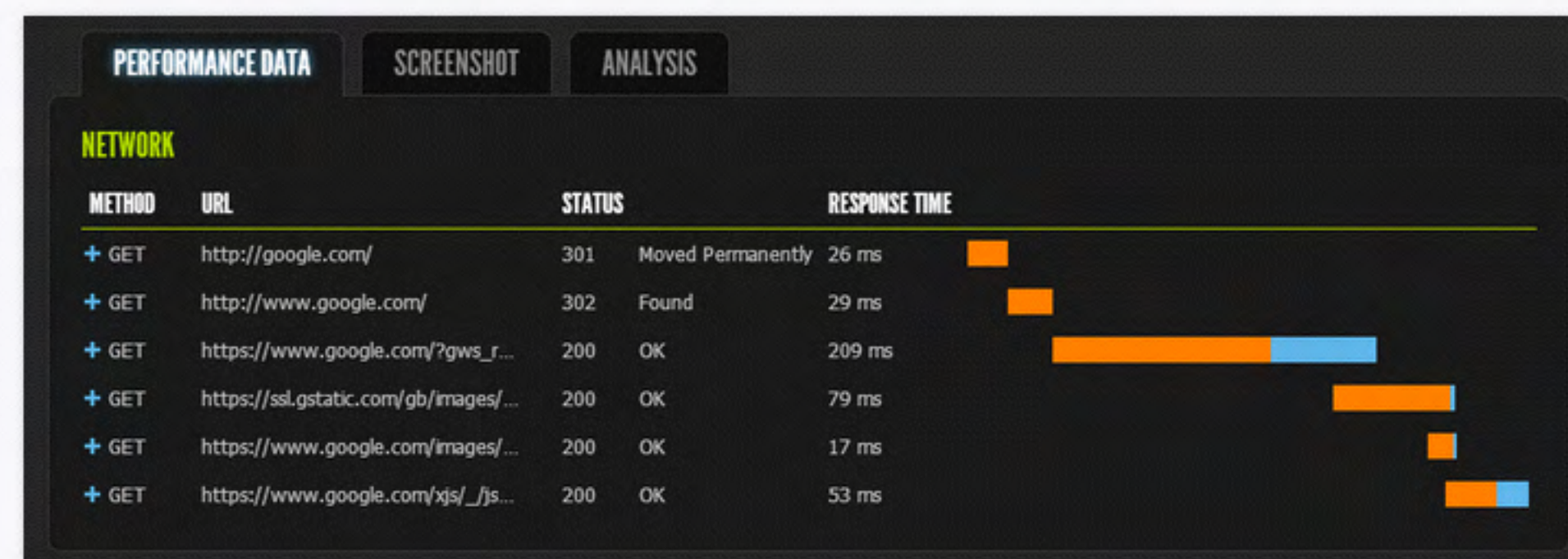
Blitz Docs

[Overview](#)
[Sprinting](#)
[Rushing](#)
[Performance](#)
[Basics](#)
[Results](#)
[Analytics](#)
[Variables](#)
[Ruby Gem](#)
[Clients](#)
[Browser Add-ons](#)
[Partners](#)

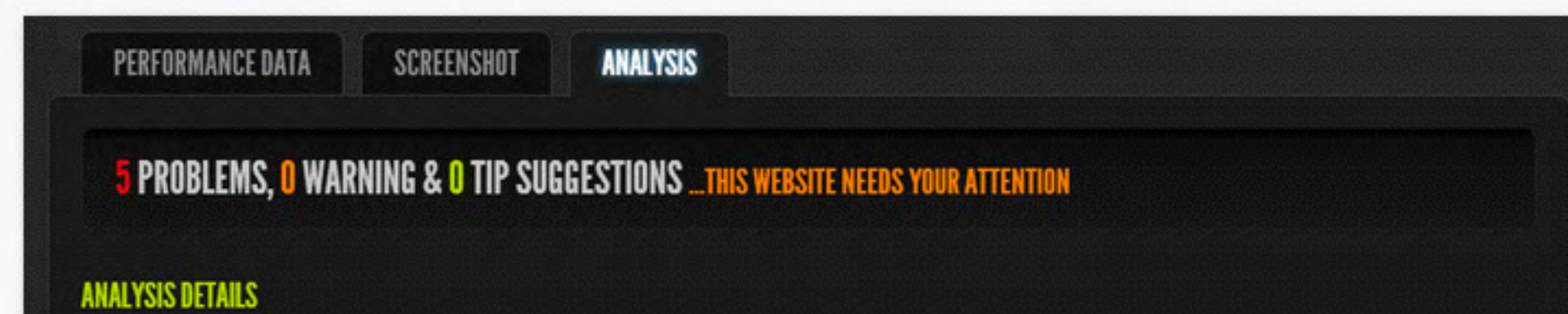
Performance | Results

Blitz provides performance results of containing rich diagnostic information, so you can understand the end user experience and track performance of individual HTML components such as CSS, JavaScript and images.

The results include the performance data – containing waterfall charts of resource loading, status and response times for all components.



You can also check a detailed analysis with descriptions of problems found and suggestions for remediation.



PART2 **SERVER-SIDE**

NGINX REVERSE PROXY

This article describes the basic configuration of a proxy server. You will learn how to pass a request from NGINX to proxied servers over different protocols, modify client request headers that are sent to the proxied server, and configure buffering of responses coming from the proxied servers.

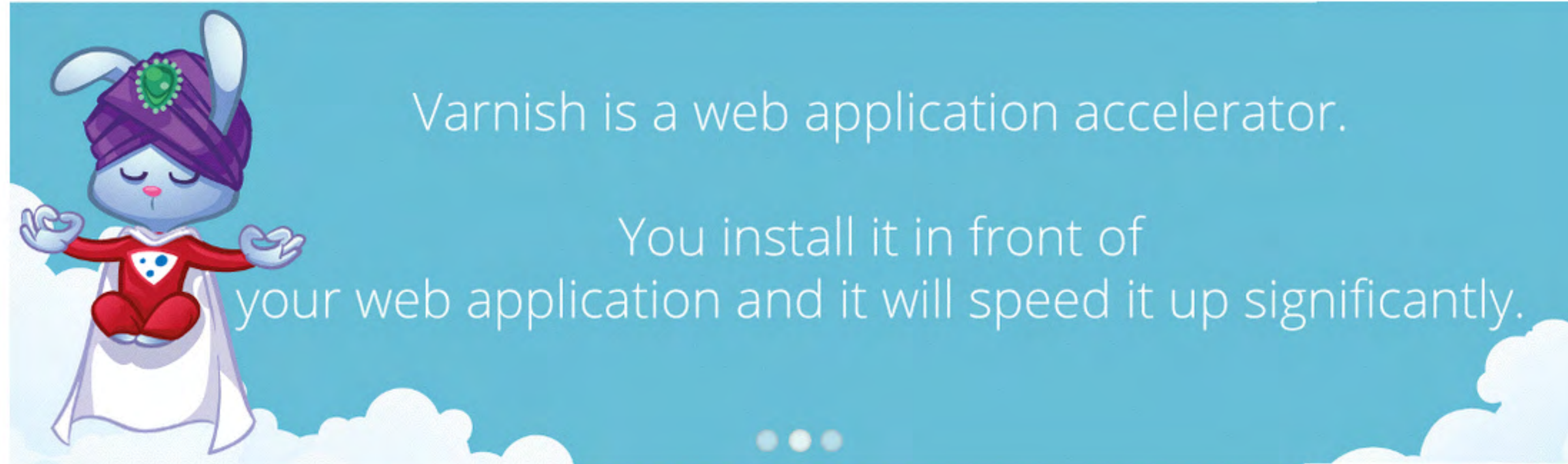
Table of Contents

- [Introduction](#)
- [Passing a Request to a Proxied Server](#)
- [Passing Request Headers](#)
- [Configuring Buffers](#)



NGINX REVERSE PROXY

Home



Releases

Varnish Cache 4.1.2

Mon, 2016-03-07 14:40

Varnish Cache 4.1.1

Thu, 2016-01-28 12:52

Varnish Cache 4.1.0

Wed, 2015-09-30 16:09

[All releases](#)

Twitter



spf13

RT @ruben_varnish: @ruben_varnish

@varnishcache I could test a new theme within 5

Events

Apr 21st Varnish Summit Copenhagen

9:00 to 16:00

Carlsberg Museum & Business Centre, Valby
Langgade 1, 2500 København, Denmark

Apr 21st User meeting Varnish + eZ Publish

19:00 to

21:30

Mobiskill, 43 rue Beaubourg, Paris

May 11th Varnish Summit Sydney

9:00

Sydney, Australia

May 13th Varnish Summit Auckland

9:00

Planet Varnish

Varnish needs YOU! Varnish User Survey 2016

10 March, 2016 ruben@varnish.sh (Rubén Romero)

Varnish Cache relies on community input and needs and wants to hear from you. We invite...

#varnish10years - "Swiss Army Knife of HTTP" winners are...

8 March, 2016 Rubén Romero

Varnish Cache is celebrating its 10th anniversary this year, and as a part of the...

10 Years of Varnish Cache: How It All Began

23 February, 2016 Rubén Romero

As we launch into the tenth-year anniversary festivities for

VARNISH



CDN PROVIDERS

Moving fast with high performance Hack and PHP

[GET STARTED WITH HHVM](#)

What is HHVM?

HHVM is an **open-source** virtual machine designed for executing programs written in **Hack** and **PHP**. HHVM uses a just-in-time (JIT) compilation approach to achieve superior performance while maintaining the development flexibility that PHP provides.

HHVM supports **Hack**, **PHP 5** and the major features of **PHP 7**. We are aware of **minor incompatibilities**, so please **open issues** when you find them. HHVM

Community

- [HHVM on IRC](#)
- [HHVM on Facebook](#)
- [HHVM on Twitter](#)

HHVM

PHP7[®]

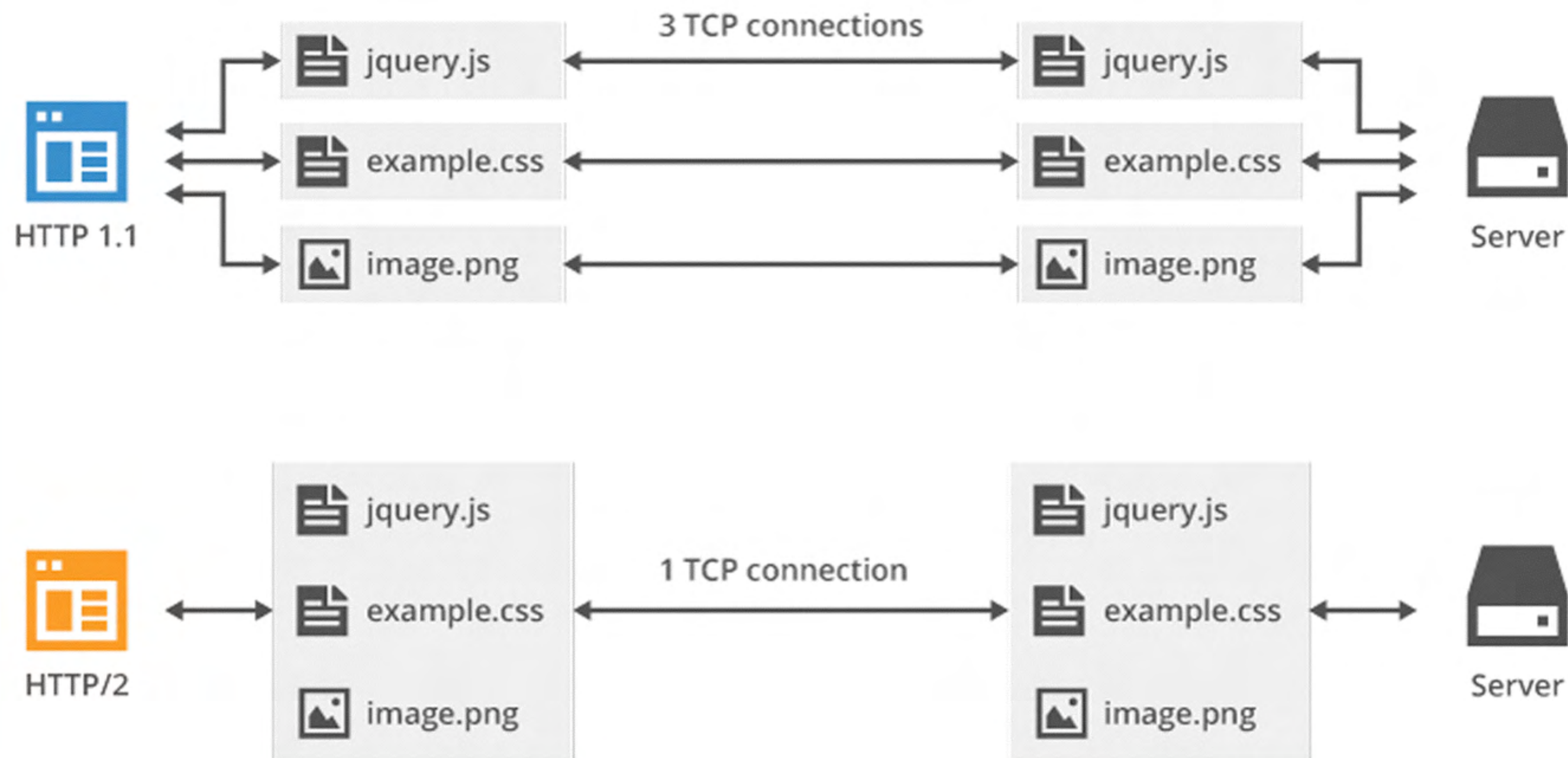
PHP7[®]

PHP7[®]

PHP7[®]

PHP 7

Multiplexing



HTTP2



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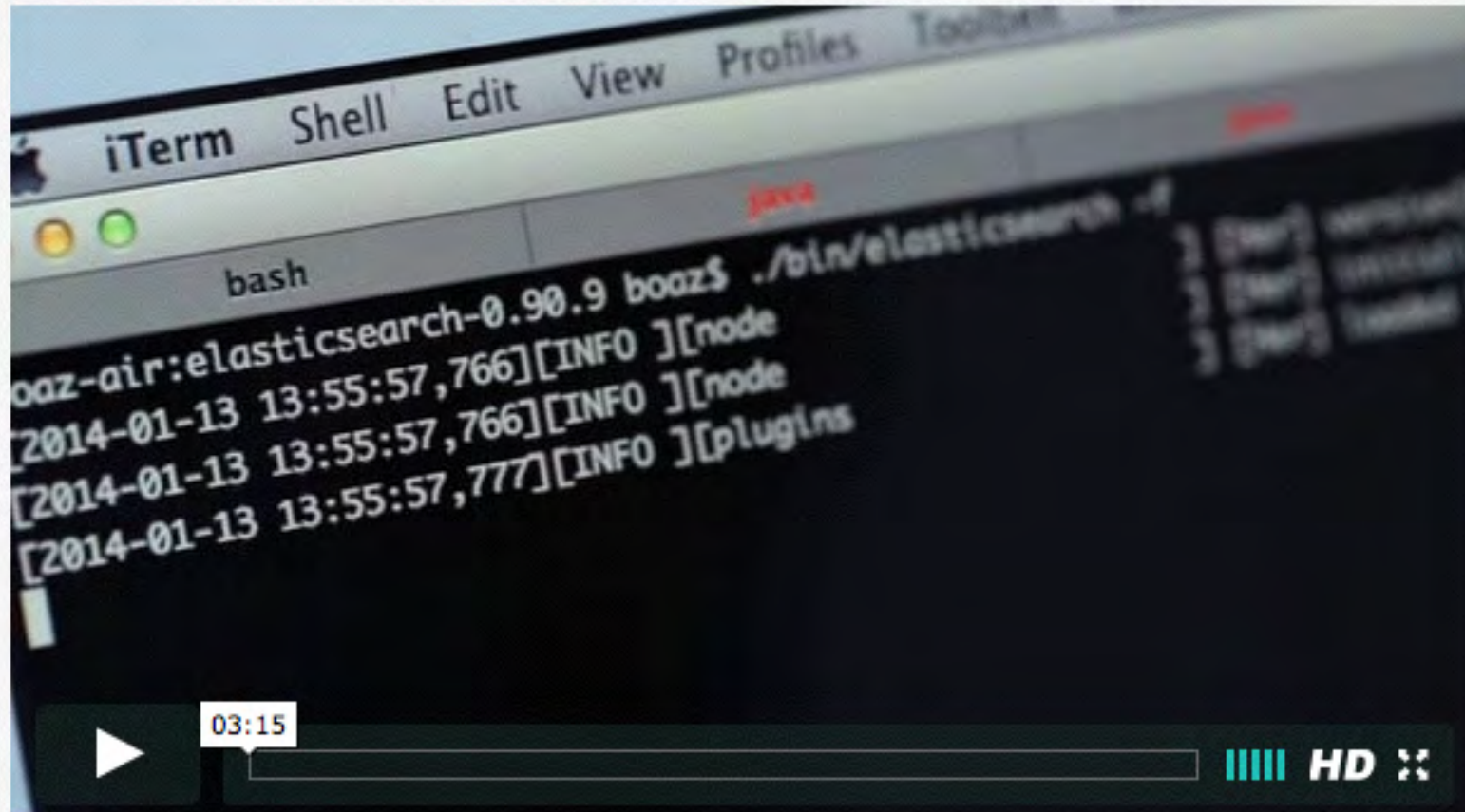
Let's Encrypt is a new Certificate Authority:
It's free, automated, and open.

[Get Started \(Public Beta\)](#)

LET'S ENCRYPT



Elasticsearch | Search & Analyze Data in Real Time



Actionable Insight at Your Fingers

- Distributed, scalable, and highly available
- Real-time search and analytics capabilities
- Sophisticated RESTful API

[Download](#)[Subscriptions](#)

Video: What's Evolving in Elasticsearch

[Watch Now](#)

What's New in Elasticsearch?

Have you ever needed to change mappings or gain performance benefits of one of the latest Elasticsearch data structures? Elasticsearch 2.3 is for you. In addition to our brand-new reindex API that can reindex data without it ever leaving the cluster, 2.3 includes all of the latest advances in speed, security, scalability, and hardware efficiency. Plus it has a brand-new built-in task management API and is compatible with the 2.3 versions of Shield (security), Marvel (monitoring), Watcher (alerts), and more. [Learn more.](#)

ELASTICSEARCH

PART3 **WP OPTIMIZATION**



Looking for a Faster Website?

Thanks to Our Plugin, WordPress has never been so Efficient.

[View Pricing & Buy It Now](#)

or [Discover all our features.](#)

Already

7

8

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6

8

sites in orbit

Simplicity & Speed

Don't waste your time struggling with complex plugin settings.

WP Rocket launches upon activation - minimal configuration, immediate results.

WPROCKET

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[google \(2,062\)](#)
[twitter \(2,006\)](#)
[page \(1,984\)](#)
[images \(1,967\)](#)
[comments \(1,919\)](#)



Autoptimize speeds up your website and helps you save bandwidth by aggregating and minimizing JS, CSS and HTML.

Download Version 2.0.2

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

Autoptimize makes optimizing your site really easy. It concatenates all scripts and styles, minifies and compresses them, adds expires headers, caches them, and moves styles to the page head and can move scripts to the footer. It also minifies the HTML code itself, making your page really lightweight. There are advanced options and an extensive API available to enable you to tailor Autoptimize to each and every site's specific needs.

If you consider performance important, you really should use a caching-plugin such as e.g. [WP Super Cache](#) or [HyperCache](#) to complement Autoptimize.

(Image under creative commons [by LL Twistiti](#))

Requires: 2.7 or higher
Compatible up to: 4.5
Last Updated: 1 week ago
Active Installs: 100,000+

Ratings



4.7 out of 5 stars

5 stars  239

4 stars  14

AUTOPTIMIZE

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[page \(1,984\)](#)
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[comments \(1,919\)](#)



BJ Lazy Load

Lazy loading for images and iframes makes your site load faster and saves bandwidth. Uses no external JS libraries and degrades gracefully for non-js

Download Version 1.0.6

[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.

Since it works with iframes, it also covers embedded videos from YouTube, Vimeo etc.

You can also lazy load other images and iframes in your theme, by using a simple filter.

Requires: 3.5 or higher

Compatible up to: 4.3.3

Last Updated: 7 months ago

Active Installs: 40,000+

Ratings



4.1 out of 5 stars

BJ LAZY LOAD

Plugin Directory

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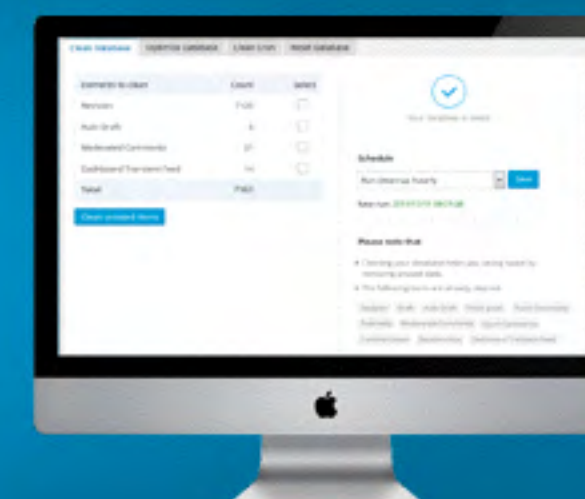
Popular Tags

widget (5,798)
Post (3,602)
plugin (3,565)
admin (3,069)
posts (2,761)
shortcode (2,286)
sidebar (2,191)
google (2,062)
twitter (2,006)
page (1,984)
images (1,967)
comments (1,919)

Clean & Optimize
your Database



Advanced Database Cleaner



Clean up your database by deleting unused data such as 'revisions', 'drafts', optimize your database and more...

Download Version 2.0.0

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

If you have been using WordPress for a while, then you should think absolutely about a clean up. Indeed, your database may be full of garbage that make your site sluggish and bloated, such as: revisions, drafts, spam comments, etc. You should clean this unnecessary data to reduce the size of your database and improve efficiency when accessing tables. In addition, your backup files will be quicker and smaller.

'Advanced Database Cleaner' is a must-have plugin that cleans and optimizes your WordPress database.

Main Features

Requires: 3.1.0 or higher

Compatible up to: 4.4.2

Last Updated: 2 weeks ago

Active Installs: 4,000+

Ratings



5 out of 5 stars

5 stars 20

4 stars 0

ADVANCED DATABASE CLEANER

./WP-CLI

A command line interface for WordPress

[Commands](#)[Configuration](#)[Docs](#)[Blog](#)[Packages](#)[RESTful WP-CLI](#)

wp db - Perform basic database operations.

Quick links: [Github issues](#)

SUBCOMMANDS

Name	Description
cli	Open a mysql console using the WordPress credentials.
create	Create the database, as specified in wp-config.php
drop	Delete the database.
export	Exports the database to a file or to STDOUT.
import	Import database from a file or from STDIN.
optimize	Optimize the database.
query	Execute a query against the database.
repair	Repair the database.
reset	Remove all tables from the database.
tables	List the database tables.

GLOBAL PARAMETERS

- path=<path>**
Path to the WordPress files.
- url=<url>**
Pretend request came from given URL. In multisite, this argument is how the
- user=<id|login|email>**
Set the WordPress user.
- skip-plugins[=<plugin>]**
Skip loading all or some plugins. Note: mu-plugins are still loaded.
- skip-themes[=<theme>]**
Skip loading all or some themes.
- skip-packages**
Skip loading all installed packages.
- require=<path>**
Load PHP file before running the command (may be used more than once)
- [no-]color**
Whether to colorize the output.
- debug**
Show all PHP errors; add verbosity to WP-CLI bootstrap.
- prompt**
Prompt the user to enter values for all command arguments.
- quiet**
Suppress informational messages.

WP-CLI

PART4CONTENT OPTIMIZATION

SPEED UP YOUR WEBSITE WITH LIGHTER IMAGES

Image optimization for everyone

TRY FOR FREE

OR

[SEE OUR PLANS](#)

IMAGIFY WILL HELP YOU REACH PERFECTION

It's a fact that the average web page keeps getting heavier. It can be blamed on images, as they are more and more prominent.

Why should we have to choose between beauty and speed? It is time to fix this.



SPEED UP YOUR WEBSITES

With lighter images you will gain in speed, user experience and even in SEO.



SAVE TIME

Stop fine-tuning your images, they are now automatically optimized.



DON'T SACRIFICE QUALITY

Reduce the weight of your images without sacrificing their quality. They will remain beautiful.

IMAGIFY

Plugin Directory

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widget (5,800)

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sidebar (2,191)

google (2,062)

twitter (2,009)

page (1,981)

images (1,967)

comments (1,919)

EWWW Image Optimizer

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

Download Version 2.7.2

[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.

Since version 2.7.1, it also covers embedded videos from YouTube, Vimeo etc.

You can also lazy load other images and iframes in your theme, by using a simple filter.

Requires: 4.4 or higher

Compatible up to: 4.5

Last Updated: 5 days ago

Active Installs: 300,000+

Ratings



4.1 out of 5 stars

EWWW IMAGE OPTIMIZER

QUESTIONS TIME!