SITE SPEED SECRETS

The Ultimate Guide To Speed Up Your Website & Increase Conversions





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Introduction To Website Speed Optimization

Have you ever been on a website that took ages to load? And by ages, I mean 5 seconds or more. (In the real-world, however, 5 seconds isn't so bad. In fact, 5 seconds is fast).

How long does it take you to get from your house to your office? Or how long does it take you to brush your teeth? I'm absolutely, positively sure you don't get either activity done in 5 seconds!

So, why does it matter if a website takes 5 or more seconds to load? Why do we 'hate' sites like these? (Admit it, you dislike waiting and staring at your computer or mobile phone screen as a web page loads ever so slowly!).

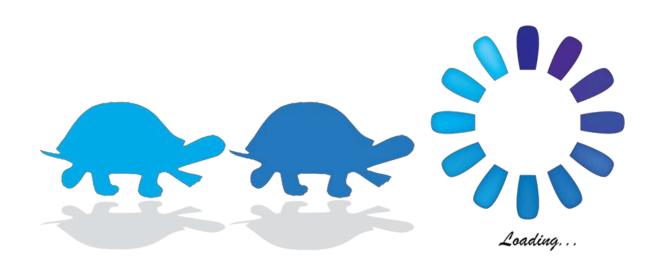
The Internet and Instant Gratification

The answer lies in our desire for instant gratification. We're living in a fast-paced world, and we want things to happen when we want them to happen! Of course, in many situations, instant gratification is impossible no matter how hard you will it to become possible.

In the online world, however, we're all spoiled for choices. We've got blazing-fast Internet connections at home, at work, and even while on the go.

When we type something on Google (or whatever your favorite search engine may be), we want answers right away. We expect information to magically appear right in front of us with just a single swipe or a single mouse click.

When we click on a link, and it takes more than a few seconds to load, we hit the back button so hard our fingers literally throb with pain. We go back to Google and click on another link until we find a website that loads instantly.



What A Slow Website Means For Your Business

If you own a slow website, then you're losing tons of high-quality traffic which translates directly to lost leads, lost sales, and lost revenue for your business.

By *high-quality traffic*, I'm referring to the fact that these are people who purposely typed something into Google looking for information that's

directly related to your service. That's why Google offered up your site – it thinks your content is relevant to what the user is searching for.

If people leave before your site even loads, then you really can't blame them now, can you? After all, you're not the only website on the Internet. You've got tons of competition. Why should they bother waiting for you if they've got better and faster websites to check out?

Instead of your site getting all that traffic, it's your *competitors* benefiting hugely from your slow website! They're the ones getting all that free traffic. They're the ones getting people to sign up to their mailing lists. They're the ones people are buying stuff from and booking appointments on. NOT YOU.

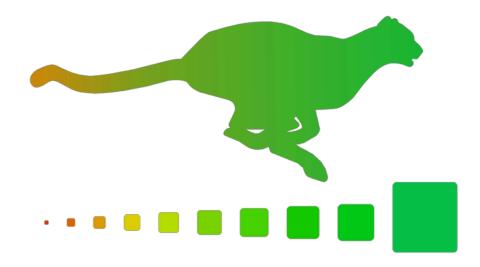
If your website weren't slow in the first place, then people wouldn't have clicked on that back button to go check out your competitors. They would have remained on your website. They would have read your awesome, valuable content. They would have signed up to YOUR mailing list. They would have bought YOUR product and YOUR services.

So, what can you do then?

Well, at this point, giving up shouldn't be an option especially if your site's already ranking on Google. You've also spent a considerable amount of time creating and setting up your website, making sure it looks good, writing good content you know people and search engines will love.

You've invested time, money and energy into your web property. You can't quit when you can tweak your website to make it run as fast as it possibly can!

What you've got to do now is work on optimizing your website's speed by making it run as fast and as efficiently as possible. You've come this far so tweaking your site to make it run faster is a must.



The Benefits Of Having A Fast-Loading Website

If you haven't already guessed, there are a ton of benefits associated with having a speedy website. As we've demonstrated in our earlier examples, these benefits are very real and tangible, not imaginary.

Here are some of the top benefits:

1. You retain your website visitors

A fast loading website will help you retain your website fasters. They won't feel compelled to hit the back button on their browsers to go check out your competitors. Instead, they'll stay on your site and read what you have to offer.

But here's the thing – if you truly want your visitors to stay and keep on coming back for more – then you need to have outstanding content on your site. It doesn't matter how fast your website is if your content is just copied and pasted from somewhere, or worse, spun and computer-generated content!

(While Google is cracking down on sites like these you'd still come across 'garbage' sites every once in a while.)

The important thing to take note is that you've got to think about your site visitors. Why are they on your site? If you give them what they want, then they'll be happy visitors. However, if you give them content that don't give any value, then your fast-loading website isn't going to do you any good at all.

2. Better conversion rates

All webmasters ideally want to have a hundred percent conversion rates for their websites. But this hardly happens in real life. Depending on the industry and the offer, many online businesses are happy with a 10% (or thereabouts) conversion rate. In many cases, that's even considered an above average number.

When you have a speedy website, people tend to stay on your site and check out your services and your products. If your site is well-designed and you follow the best practices for maximizing conversions, then chances are you'll have good conversion rates, too.

However, if you don't follow the best strategies and techniques for improving conversion rates, then your speedy website is not going to help

improve your bottom line at all. So, make sure you read up on what's working in your industry so you can put your fast-loading site to good use!

3. Positive user experience

Your new website visitors are going to judge your brand or business by how fast your website loads. If you've got a slow site, you're literally losing the opportunity to gain their trust. Your website will come off as unprofessional, something that's unworthy of their time, so they'll leave until they find a website that will value their precious time.

Fast websites, on the other hand, have much higher chances of getting their audience's trust. When pages load quickly, it tells the user that your brand values their time and that you're going to make it worth their while to spend a little more time on your site.

If you've also got great content on your site, then that adds to the positive user experience, too. People will be more willing to sign up to your mailing list, they'll be happy to purchase your products or your services, and they won't hesitate to recommend your website to their friends on social media!

This, in turn, leads to even more visitors to your site which further increases the likelihood your website could go 'viral' and get you plenty of new visitors in the process!

4. Better rankings on Google and other search engines

Search engines work hard to provide the best experience possible to their users. This is is why they have algorithms and metrics to rank websites for various keywords. There are billions of websites on the Internet, and they

have to figure out a way to make sure the top spots go to the best websites.

No one knows precisely what all the ranking factors are (*it will be so easy to cheat the system if everyone knows what the ranking factors are*), but website/page speed is one of them. The faster a web page loads, the higher the chances that it's going to rank high on Google and other search engines.

What this means is that if you've got a fast-loading and high-quality website which offers valuable content to users, then search engines are going to love you. They're going to reward you with high rankings on their search pages.

This is why optimizing your site for SEO (search engine optimization) is so important. If you succeed, then you'll get highly-targeted, free traffic for as long as your site is on top of search pages!

Final Words

Website speed optimization is not a subject to be taken lightly. All webmasters should work on making sure their site loads fast on both desktop and mobile browsers.

A slow website is going to hurt your business in the long run. If you want your business to last, then make sure you optimize your website for speed.

Google Wants Your Website To Be Faster

Google is such a prominent and dominant force on the web that it's become a dictionary entry, a verb. When someone asks us for information, and we don't know the answer, we tell the person to 'just google it.' Or even when we know the answer, and we don't have the time to explain, we tell people to 'go google' the information.

Everyone knows what Google is. And all webmasters want their sites to rank high on Google. They know they stand to benefit from the search giant's popularity. Even from the very beginning, Google did search engine right.

Where every other search engine at the time was focused on becoming a portal, a one-stop-shop on the Internet, Google was solely a search engine. When people searched for stuff on Google, they got much better results than other search engines.

This largely led to Google's success. To date, no other search engine comes close, not even Bing, the world's second largest search engine.

Google's Vision

"Organize the world's information and make it universally accessible and useful."

Over the years, Google has continuously improved and developed their services to make it in line with their vision. Ask any so-called black hat SEOs out there – gaming Google nowadays is hard work. In the old days, they could fool Google by implementing techniques that made their spammy sites rank high on Google.

Today, this is no longer the case. If you want your site to rank on Google, you're going to have to play their game. You're going to have to follow the rules.

Otherwise, you risk getting your site forever buried in the 100th or 1000th page – places where no one will ever bother clicking to. What this means is that your site will be practically invisible to people who may be interested in your content.

What Google Wants, Google Gets

No truer words have been spoken. Whenever Google releases an algorithm update, webmasters scramble to make sure their site adheres to whatever information, clues, or guidelines Google has released.

But why should you care what Google wants? How would your brand or business benefit from it?

Before we answer that question, let's understand the context first. Google is the number one website and search engine in the world. It's got the lion's share of most searches on the Internet with over 3 billion queries handled on a daily basis. That means billions of people use Google to look up information on all sorts of topics!

Now, imagine having thousands or millions of people heading on over to your website simply because you appeared on the top spot on Google.

Does that bring a smile to your face? Does the thought make you happy? It should!

Unless of course, your site is hosted on some cheap hosting plan. Your site will probably crash under all that traffic, and you'd need to upgrade your hosting to probably the most expensive option! But, that's a good problem to have, you know.

A massive volume of high-quality traffic is a huge opportunity for your business. It will translate directly to more leads and sales for your business. To top it off, you don't even need to pay a single dollar to have your site appear on those coveted spots on Google search pages!

So, did the above scenario convince you now on why you should care about what Google wants? I hope you see the light! If you don't, you're not going to land anywhere near the first page of Google. Your web pages will be buried somewhere no one will ever see, and no one will be visiting your site from Google.

The only alternative for you then would be to pay Google to have your site appear on the first page. This would be courtesy of Google Adwords which, truth be told, does not come cheaply. Other alternatives include paying for space on other search engines like Bing or paying for ads on social media.

Ask yourself which is better? Getting free and highly targeted traffic OR paying for ads? Of course, you'd choose the first option. There's no point in paying for ads if you can get better quality traffic for free, right?

This is basically the reason why many webmasters and business owners do their best to make sure their site is compliant with Google requirements.

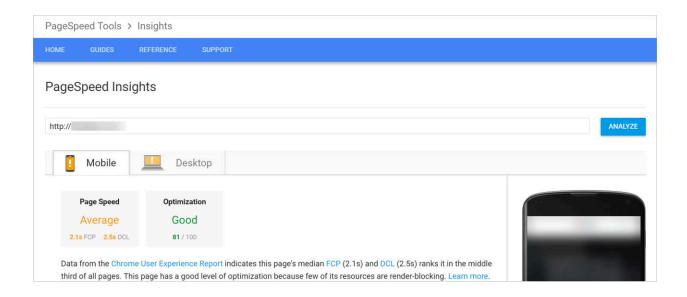
So, if Google says your site should be faster, then it should be faster. If you do as Google says, your site will ultimately be rewarded by higher rankings on its search pages!

The Best Tools To Help You Configure Your Site To Make It Run Faster

Before you go off making your site run faster, you need to establish a baseline first for your site's speed. To do this, you need to use some tools. Here are some of the top free ones which will give you plenty of actionable tips to help you configure your site and make it speedy:

1. Google PageSpeed Insights

(https://developers.google.com/speed/pagespeed/insights)



Google's free tool will allow you to check out your website's real performance for both desktop and mobile devices. You simply need to enter your website URL, click on the blue 'Analyze' button, and wait for Google's suggestions on how your site could be improved.

As you can see on the screenshot, there are two tabs: Mobile and Desktop. Each tab will have its own set of suggestions on how you can improve your site's performance on either platform.

You get a score for Page Speed and Optimization. Ideally, you want a perfect score. And it's not impossible. You just follow the suggestions Google gives you, so you get a perfect mark!

PageSpeed Insight's give you both the good and the bad. When you scroll down the page, you'll see a section for **Optimization Suggestions** and another section for **Optimizations Already Present**. Here's what it looks like:

Optimization Suggestions

Reduce server response time

▶ Show how to fix

Eliminate render-blocking JavaScript and CSS in above-the-fold content

▶ Show how to fix

Prioritize visible content

▶ Show how to fix

Leverage browser caching

▶ Show how to fix

Optimize images

▶ Show how to fix

Optimizations Already Present

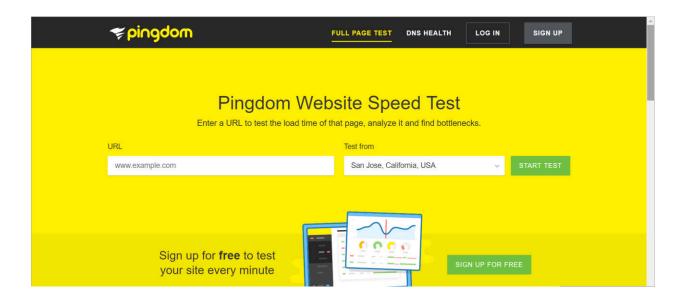
▶ Show details

Download optimized image, JavaScript, and CSS resources for this page.

What you want to do is go through the **Optimization Suggestions** section, click on 'Show how to fix' and do the necessary changes.

If you want to know the good stuff, click on 'Show details' in the **Optimizations Already Present** section. It's always good to see when you're doing something right with your website. It motivates you to go and do the things that need to be done!

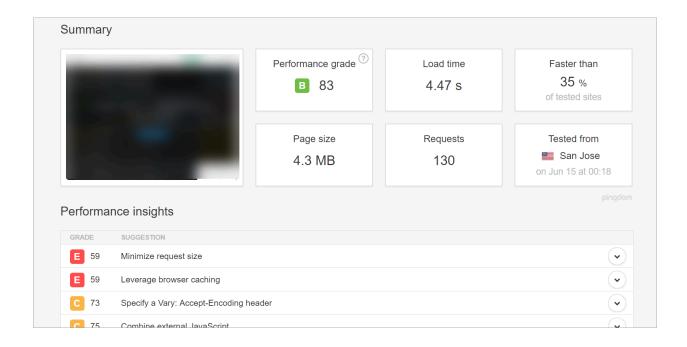
2. Pingdom Website Speed Test (https://tools.pingdom.com)



Pingdom is another popular tool that you can use to check up on what you need to do to improve your website's loading times. Many users love this tool because it shows you a lot more information than Google's PageSpeed Insight does.

All you have to do is type in your website's URL, select the location you want to test from (currently, you can choose from 4 different locations), then hit the 'Start Test' button.

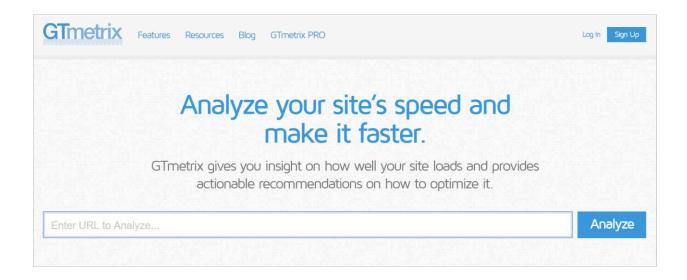
You'll then be presented with the results. First up is a Summary section which gives your site a 'Performance Grade.' It also shows your site's load time, page size, number of requests, and more (see screenshot below). Further down, you'll have a list of things to improve on in the section 'Performance Insights.'



If you want to see which of your website files are contributing to your site's load, then you can check the 'Content size by content type.'

What's really cool about Pingdom's tool is that they include a waterfall analysis of your site. This type of analysis will help you easily look up which factors affect your site's performance.

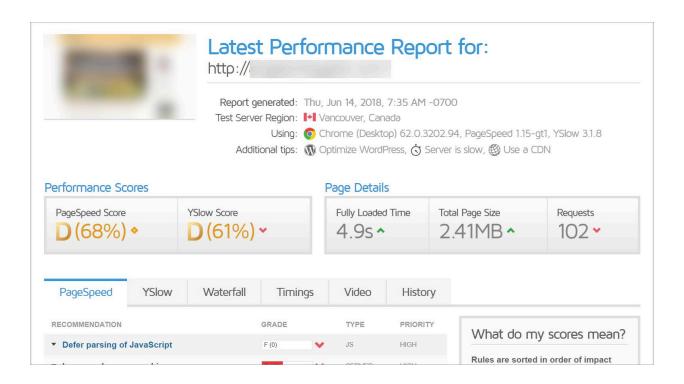
3. GTMetrix (https://gtmetrix.com)



To use GTMetrix, you simply need to enter the URL you want to analyze and you'll have your site's performance report in under a minute. GTMetrix is free to use, and you can glean lots of information on how you can improve your site's speed.

The only drawback is you can't use a test server region closest to your location. Instead, the default region used will be Vancouver, Canada.

Here's what the report looks like:



As you can see, you'll get a summary of your 'Performance scores' and your 'Page details.' You can click on the different tabs to get an idea of the things you need to improve on.

For free users though you can only see data for PageSpeed, YSlow and Waterfall Analysis. If you want to view data in the Timings, Video and

History tabs, then you need to either register an account or sign up for a premium plan.

Final Words

Google is serious about wanting to make the Internet a better place for everyone. If you want your brand or business to succeed, then you'll need to ensure your site loads fast too. Otherwise, you'll be losing potential clients and customers to your competitors.

Speed Starts With Your Web Hosting Company

Web hosting is a necessary investment for your website. Prices are competitive in the industry, and the cutthroat competition often translates to dirt-cheap prices for hosting packages.

Consumers love all the amount they get to save, but at the end of the day, is it really worth it? Can you really build a fast website on cheap hosting?

The answer is 'yes.' If you're building a one-page website and you don't get much in the way of traffic, then your site will probably load fast. However, if your brand or business demands more than just a single static HTML page, then you may need to reconsider your hosting options.

What Exactly Is Web Hosting?

Imagine a vast expanse of land with mansions, houses, and apartments in it. All this land is owned by a single person, the landlord. The landlord will be the *web hosting company*. The real estate properties he's renting out are the different *web hosting packages*.

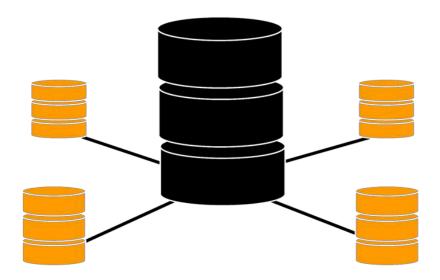
Say, you want to rent one of the vacant houses so you can start building a life for yourself and your family. The house will be your *website*.

You go to the landlord and tell him you want to rent the house. You sign a contract, and you start moving all your belongings to your new house. These belongings will be your *website files*.

In a nutshell, web hosting is the place where your website files live (yes, your website is basically composed of many, many files).

You can save your website files on your personal computer, but if you want the whole wide world to access it, then you need to save those files on a web server.

It's simply not practical to use your home computer as a server since your Internet connection isn't powerful enough to support many users at the same time. Your computer will be crashing all the time and will essentially be useless.



This is why web hosting companies exist. They own many powerful web servers, and they use those to store their client's website files.

Their servers run 24/7 and serve your website files to people who want to view your website.

To put it simply, web hosting companies sell space on their web servers. Some servers are partitioned to accommodate many clients such as in shared hosting packages while other servers are dedicated for a single website only.

How To Choose The Right Web Hosting Company

There are literally thousands of web hosting companies on the Internet – that's how lucrative and profitable this industry is. With billions of websites, however, it's really not surprising.

Web hosting companies play a huge role in making the Internet a better place. With fast, powerful and modern servers, they're able to quickly serve their client's website files to anyone who needs it.

But then again, not all web hosting companies are created equal. In fact, you'll find plenty of subpar hosts whose main claim to fame are their super cheap web hosting packages!

So, how do you choose the right host for your website?

5. Understand your website needs

- How big is your website?
- What kind of content do you publish?
- What's your traffic like?
- How many visitors do you get per month?

- Are you expecting your traffic to grow exponentially over the next few weeks or months?
- Are you going to be using WordPress or any other content management system?
- Or are you going to be building a static HTML website?

If you're just in the beginning stages of your website, and you don't want to overcomplicate things, then a shared hosting plan may be the right plan for you. If you don't have too many people visiting your site, then you don't need to shell out large sums of money for a dedicated server!

Even if you've got the cash to spend, it still won't be a wise investment for your website. Most beginners are happy with shared hosting, at least until their site grows and they need more room and better resources for their website.

On the other hand, if you've got a popular eCommerce site or an established website and you get quite a lot of visitors on a daily basis, then a shared hosting plan may not work for you. Your site will most probably load slowly, and you know that that's not good enough.

You can look into buying VPS hosting or even a dedicated server. Just keep in mind that these options don't come cheap – make sure you actually need the service, so it's worth your investment.

If it takes your site 5 seconds or more to load, you could potentially lose your customers. Slow sites are annoying, and you don't want to compound that by hosting your popular website on a shared web hosting package!

6. Compare the plans

Once you've decided on a suitable hosting package, then you may want to shop around and look for a host that will bring the most value to your business.

For example, you know you don't need an expensive hosting package yet. And you're fairly positive, a shared hosting plan will work just fine for your needs at this time.



So you go to different web hosts and compare their shared hosting plans. You take note of their prices, and what their plans include.

Some hosts include a free domain name while others don't. Some will include free SSL, while others don't. Some may include free CDN (content delivery network) and free daily backups, but others don't.

You may also want to compare on the bandwidth, how many sites you can add to your account, the number of emails you get for each account, the money back guarantee, the uptime guarantee, etc.

You're going to have to weigh your options and see which features matter most to you. If you want to save on a domain name, then you can go for the host that offers the free domain, and so on.

Another thing to consider is the level of support.

- How easy is it to get ahold of a tech support agent?
- Can you contact them by telephone, email, chat?
- Is support available 24/7?
- Do they have a knowledge base on their site with detailed instructions and tutorials on how their products and services work?

Oh, and take note of their renewal prices too. Many people miss the fine print and go on thinking their plan will only cost them \$2.99/mo forever when in fact that's only good for the first year, and subsequent years will be 2x or 3x higher!

7. Read real, objective reviews

Go on Google and search for 'real' reviews of the web hosting packages you're interested in. I'm specifically highlighting 'real' reviews because most of the bigger web hosting companies offer lucrative affiliate programs which often lead to reviewer bias.

Some people 'review' different web hosting services and packages and put their affiliate links in their content without letting people know of this fact. When their readers click on their affiliate link and purchase a hosting package from their recommended hosts, then these 'reviewers' get a commission.

Many reviewers, however, do state up front they're getting a commission if you buy anything through their links. And commissions are really not an issue as long as they review these products **objectively**.

They'll do case studies and use real-world data to make their reviews as objective as possible. These are the kinds of reviews you want to read through to see if the web hosting package you're thinking of buying is the right one for you.

8. Look into the future

Can you imagine staying with the same web hosting company for years? If yes, then you've got to check if they can still help you out when your business grows.

Some hosting companies can only support small and medium-sized websites, and their clients are forced to go elsewhere when their website needs become a bit too much for the hosting company to handle.

One of the main benefits of sticking with the same company is that it keeps your life simple. You don't need to deal with another company and tinker around with your website files. They do all the hard work for you.

For the most part though, many web hosting companies help out with site transfers. However, there's a limit to how many domains they'll migrate for free.

Final Words

Choosing the right web hosting package with the right company can spell the difference between a fast website and a slow website. A difference that can lead to either more sales or lost sales for your business.

There are many other factors involved, of course, not just web hosting. But choosing the right web host provides the perfect foundation for a speedy website that Google – and your site visitors - will love!

How To Dramatically Speed Up Your Website Using A Caching Plugin

If you're tired of having to wait for your website to load on your browser each and every single time, then your customers and clients are probably even more annoyed than you.

But, of course, they don't have access to your website's backend, so they can't do anything about your site's speed. They're technically at your mercy if they choose to wait for your site to load.

However, chances are they're going to just up and leave your site altogether, never to be seen again. No matter how good your content is and how awesome your products are, if your site is slow, then you're going to get dismal conversion rates, if at all.

The question is, why would you subject your visitors to torturous waiting when they don't have to?

The thing is there are plenty of ways you can follow to speed up your website – and web caching is probably one of the most important methods all webmasters should follow.

While those who've been building sites for a long time probably already know all about caching, a novice webmaster may feel overwhelmed.

Admittedly, web caching can be quite technical, and it is but normal to feel like a deer stuck in headlights!

So, What Exactly Is Web Caching?

To understand web caching, we're going to have to break it down into two parts:

The first part is the word 'web' which means website. A website is comprised of many files like HTML documents, CSS stylesheets, scripts, content, images and other media files.

The second part is the word 'cache' which is the root word for 'caching.' It means saving something for later or future use.

When we put these two words together, 'web caching' literally means 'saving website files for later use'.

But, why is it important? How can saving website files for later use help with your site speed?

When someone visits your website either by clicking on a link or typing your domain name directly on their browsers, their browsers sends an HTTP request to your web server (which is owned by your web hosting company).

Your visitor's browser is basically asking your web server to send over your website's files so it can display your content.

So, your web server will then honor the request and send over your website's files – all the HTML codes, CSS stylesheets, the images, videos, scripts, etc.

If these files have not been optimized, that is, the images are super big, and scripts haven't been minified, then it will take quite some time for your server to send over everything to your site visitor's browser.

Once everything is transmitted, your website will then appear on the user's browser.

As you can imagine, the page loading time won't be ideal, and many of your visitors would probably have bounced after the 5-second mark.

Now, imagine having a lot of people going to your website at once. Your server will have to do the same process over and over again which can often cause undue stress to the server.

If the web server were a person, it would be extremely stressed out. And when you're stressed, your performance is affected. The same thing applies to web servers – they can get stressed out too, and your site will run even more slowly than before.

I'm sure you wouldn't that to happen to your website and your web server. So what do you do then?

Well, this is where web caching comes into the picture.

With web caching, you're essentially reducing your web server's burden. Instead of serving the same heavy, uncompressed files over and over

again, your server will send a lightweight copy of those files in the form of a static HTML file.

Web caching is a win-win for everybody

It helps reduce server load, and your website visitor will be able to view your site much faster!

But what about when you update your site? Will the updates not show up on the front end?

Well, the server is smart enough to detect when changes have been made to the site. When updates are made, the server will dump the old cache, and when an HTTP request comes in, the server will make a new cache and serve that copy until the next update is made.

Web Caching and Content Delivery Networks

Content delivery networks (CDN) are basically a network of powerful computers located in various parts of the world. One of the main benefits of signing up for a CDN is their caching feature. They'll take a copy of your website cache and distribute it throughout their network.

Let's say for example your website files are stored in a server in Dallas, Texas. Your site is quite popular, and you've got a global audience.

Now, the thing is the physical distance between your site visitor and your web hosting server can affect your website's loading times.

So, your visitors from Australia, Europe, Asia, and South America will probably find your site slow, while those closest to your server will find your site much faster.

With CDNs, your website visitors no longer have to retrieve your website files from thousands of miles away. Instead, it will retrieve a cached copy of your website from the nearest proxy cache server.

For example, if your CDN has a data center in Sydney, Australia, then your Australian visitors no longer need to retrieve your website files from Dallas, Texas (your main server).

Instead, they'll get your files from the Sydney data center. As you can see, the distance will be much, much shorter and your website files will load on your visitor's browser far quicker than if it was retrieved in Dallas!

CDNs help reduce your site's loading times which translates directly to a faster website. Your international visitors will be happy, and your web server will be happy too!

The Best Caching Plugins For Your WordPress Website

Before I give you a list of the top caching plugins for WordPress, here are a few tips you should take note of:

Check with your web host first if it's okay to install a caching plugin. You
may not know it, but some hosting packages already come with free
server-side caching so a plugin may not be needed.

- Don't use more than one caching plugin! You only need one. If you use 2 or more, it can cause your site to slow down which utterly defeats the purpose of using a caching plugin in the first place.
- Once you've chosen and installed a plugin you like, check your site to see if it's working.

Use Google PageSpeed Insights
(https://developers.google.com/speed/pagespeed/insights) or Pingdom's Website Speed Test Tool (https://tools.pingdom.com).

With that said, here is the list of some of the best caching plugins for your WordPress site:

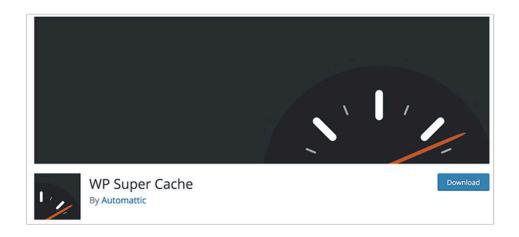
1. W3 Total Cache (https://wordpress.org/plugins/w3-total-cache)



W3 Total Cache is one of the most popular caching plugins on the WordPress Plugin directory. It's relatively easy to setup, but if you get lost, there are tons of tutorials online that can help you out. Your files, content, and scripts are minified on your server.

Its caching features include pages, posts, CSS, JavaScript, feeds, database, objects, fragments, and more. It even features free CDN integration for faster delivery and improved management of media, theme files and WordPress itself.

2. WP Super Cache (https://wordpress.org/plugins/wp-super-cache)



WP Super Cache is another popular caching plugin which you can use to speed up your site. It has similar features to W3 Total Cache, but users say WP Super Cache has a better (and easier to understand) user interface.

The plugin gives you 3 caching options: expert, simple and WP-cache caching. If you're a newbie to WordPress, the simple option should be sufficient, and you don't need to touch code. However, if you're a more advanced user, then the expert and WP-cache modes may be better suited for your skills.

3. WP Fastest Cache (https://wordpress.org/plugins/wp-fastest-cache)

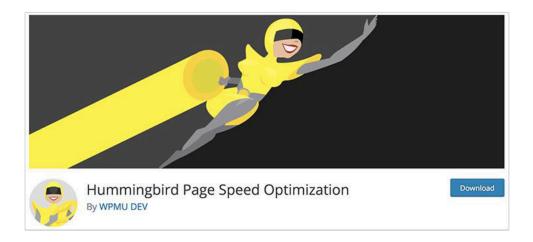


With a 4.8-star rating and over 600,000 installs, WP Fastest Cache is another popular caching plugin. One of its outstanding features is that you can combine CSS and Javascript files which helps with reducing load times.

Additionally, it supports Gzip compression, file minification (HTML and CSS) as well as browser caching. There's even an option to enable or disable caching for users on mobile devices and those logged in to your site.

4. Hummingbird Page Speed Optimization

(https://wordpress.org/plugins/hummingbird-performance)



If you run a news site or at least a site which encourages discussions and you've got plenty of Gravatar comments, then this may be the best caching plugin for you.

Hummingbird features full-page, browser and gravatar caching options. It also includes image optimization, minification, and Gzip compression. Once you've activated the plugin, head on over to Google PageSpeed Insights and see if your score has improved!

Final Words

Website caching is no longer optional. If you want people to actually land on your site and check out what you have to offer, then you need to implement web caching right away. Leverage the power of web caching on your WordPress and non-WordPress sites and watch your traffic numbers increase!

Which Files To Reduce And How To Do It

Your website is made up of many files like HTML, Javascript, CSS stylesheets, image files, and more. And every time someone visits your website, their browser sends a request to your web server to send over all your website files. Once your server sends over the files, then your website will appear in your visitor's browser.

Some sites take a long time to load while some load quickly. If you were to choose between a speedy and a slow website, I'm sure you'd go for the speedy one. No one wants to go on a slow website and wait for more than 5 seconds.

In fact, 5 seconds is already considered slow. Most Internet users expect sites to load in 1-2 seconds. A few seconds difference might seem *minute* in the real world, but to Internet users that delay feels like an *eternity*.

What Are Unoptimized Files?

One of the culprits of slow websites are unoptimized image files. These are high-definition images that people upload straight from their high-resolution cameras or other sources.

They see an image that looks good and uploads it to their website without giving any thought to how big the image file size is. Then they're flabbergasted when their sites take forever to load.

There's a difference between uploading images to your self-hosted website versus uploading the same images to social media, say for example, Facebook.

When you upload to Facebook, your images are automatically resized and optimized. This is why no matter how big your images are it always loads fast on Facebook.

Unfortunately, the same cannot be said for your website. When you upload a 5MB photo, then that's going to remain at 5MB. When people visit your site, your web server will be serving that 5MB image file (and all your other website files) to your visitors.

Now, imagine if you had 10 of those images on your web page – your server would be sending over 50MB of files to people's browsers!

Even people with super-fast Internet connections will experience a slowdown. Think about those who have slower Internet – downloading 50MB+ worth of website files will take a long time!

Print vs Web Images

What most people don't realize is that regular images aren't optimized for the web. If you want your images to be optimized, you're going to have to be proactive about it.

Let's begin by examining the differences between images for print and images for websites:

9. Print images

Print image resolutions are measured in DPI or dots per inch. If you want to print something and you want it to look good, then you should opt for a 300 DPI resolution. This means that for every square inch, there are 300 dots in it. This leads to crisp-looking images with good detail in it.

Images that are meant to be printed usually have large file sizes. This is because higher resolution photos come with more megapixels on it. If you print a low-resolution photo, then it's going to come out as grainy and blurry.

10. Web images

Web images, on the other hand, are measured in PPI or pixels per inch. Pixels are tiny squares you see on computer monitors and other digital devices.

If you use a low-resolution image on your website, then you're going to see little squares on your image. These are the pixels, the smallest unit in digital images.

If you've taken a picture with a DSLR or even your smartphone camera, and you want to upload it to your site, then you'll need to optimize it for web use. This is because most modern cameras (smartphones included) take pictures with many megapixels.

For example, you wrote a blog post about your dog and you took a photo of your dog on your smartphone. You thought the photo will look great in your post so you upload it immediately to your website.

What you don't realize is that the image's resolution would probably look something like this: 4032x1960 pixels with a 7MB file size!

Again, just like I mentioned earlier, if you upload high-resolution images like this to your site, then you're going to have a slow website.

Optimizing Images For The Web

There are a number of techniques you can use to optimize your images for the web. Here are some of them:

1. Reduce the image's dimensions

To check your image's dimensions, you can look up the image's property section. It should state there how many pixels it has in terms of length and width. In our earlier example, the dog photo had 4032x1960 pixels.

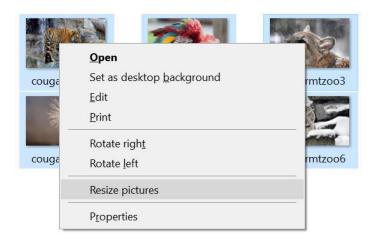
For web images, the optimal size is 1200x800 pixels with the recommended maximum being 2000 pixels.

So, if you've got an image that goes beyond these dimensions, then you should resize it. Your 4032x1960 pixel image will get compressed anyway on web browsers, but it's still going to have the same file size.

Just because your 4032x1960 image looks smaller on computer screens doesn't mean its file size will magically drop to 100KB. It doesn't work that way - you're going to have to optimize it on your end.

This means resizing your image file's dimensions. In this case, you will need to resize your 4032x1960 image to maybe 1200x800 pixels. Your file size will drop considerably.

If you're on Windows, you can use this free tool called 'Image Resizer For Windows' (https://www.bricelam.net/ImageResizer). When you install the software on your computer, you can quickly resize images by via the right-click button. Here's what it looks like:



These are the resize options available:



Of course, there are other free tools available. You may also want to look at 'FastStone Photo Resizer' (http://www.faststone.org/FSResizerDetail.htm). Feel free to explore and use the tool that's right for you.

2. Save images in the appropriate file type

There are many kinds of image file types. However, not all of them are suitable for the web. The 3 most common image files uploaded for web use are JPG (or JPEG), PNG and GIF.

JPG images is a lossy compressed file format and are usually used for photographs which often have lots of subtly different colors. If you go and check photos from your camera, you'll notice the file type will be JPG.

PNG images is a lossless compression file format and is ideal for use in graphics and text-heavy images. If you want to use transparency in your images, then you should save your file in PNG format.

GIF images, on the other hand, is also a lossless compression file format but is limited to 256 colors. GIFs can be animated, you'll often see GIFs used in memes.

3. Compress image for the web

Compressing images for the web is as simple as dragging your images to online tools. These tools remove unneeded data in the image like metadata and additional color profiles which add quite a bit to the image's size.

Try one of these tools below, and you'll have your web-optimized images - with much smaller file size - in seconds!

- TinyPNG (https://tinypng.com)
- TinyJPG (https://tinyjpg.com)
- Compressor.io (https://compressor.io)

These tools work pretty much the same, so you can take your pick and choose the app you're most comfortable with. To access these sites quickly, consider bookmarking these in your browser.

4. Use an image compression plugin on WordPress sites

If you're on WordPress, then you can do all three steps above and still shave off a few kilobytes on your image files. How? By installing a plugin like WP Smush (https://wordpress.org/plugins/wp-smushit).

What's really awesome about this plugin is that it's a set and forget plugin. Simply activate the plugin and everytime you upload new images to WordPress, it will quietly work in the background and automatically optimize your images!

Some Other Files You Can Reduce Or Compress

You can optimize other files for the web too. If you upload documents, presentation files, etc. you can also optimize these for web use. Here's how:

1. CSS stylesheets

There are quite a few ways by which you can reduce your CSS file sizes. The most popular one is by minifying your CSS. This basically means reducing the instances of whitespace in your CSS code. You can use CSSMinifier (https://cssminifier.com), a free web tool, to minify your CSS.

Other CSS-reducing techniques include using image sprites, reducing unnecessary or duplicate code, putting CSS at the top (in the header) and your JavaScript codes at the bottom.

2. JavaScript

Just like CSS, it's also possible to compress your JavaScript files. You can use an online tool like JSCompress (https://jscompress.com) to reduce your JS files by as much as 80%.

3. HTML

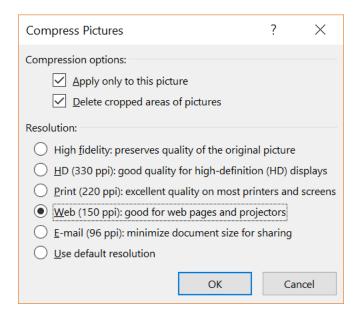
HTML code can also be minified just like CSS and JavaScript. You can use a tool like HTMLCompressor (http://htmlcompressor.com) to compress the code and speed up your web pages.

4. PDF files

If you're building a mailing list, then chances are you're going to be giving away a free eBook, a free course, a free checklist, etc. Often, these giveaways come in the form of PDF files. To reduce your PDF file size, you can use an online compressor like PDFCompressor (http://pdfcompressor.com).

5. Microsoft Office Documents (Word, Excel, PowerPoint)

Regular, text-based Microsoft Office documents aren't heavy files. However, when you insert graphics like photographs, then it contributes to bigger file sizes. What you can do is click on the images you want to compress. This will open the Picture Tools menu. Click on Compress Picture. You'll then see the compression options below:



Tick the compression options you want to use. Then in the Resolution section, select 'Web (150 ppi)' or 'E-mail (96 ppi)' since these will result to lighter documents.

6. Videos

If you're uploading your videos to your web server, then it's important you reduce your video file sizes. This is because videos can easily consume hundreds of megabytes even for videos that are only a few minutes long. You can use an open source tool like Handbrake (https://handbrake.fr) to reduce your video's file size.

Alternatively, you can just upload your video to YouTube or Vimeo and embed the link on your website! This way you're not using any space at all on your server.

Final Words

If you want to make your website run faster, then you need to work on reducing your website's file sizes. You need to know which files are hogging your server space and slowing your site down. Use the optimization techniques we've shared in this guide to finally be on your way to having a fast-loading website.

Tapping Into Your Website Configuration File

Getting involved with your website configuration files sound scary if you've never done it before in your life. However, if you own a self-hosted website, then you need to get your hands 'dirty', so to speak.

If you love the technicalities involved in building websites, then you'd love this guide. If not, well, don't worry. We've made this guide simple and easy to understand, you'll feel like a pro in no time at all!

With that said, most of the techniques covered here involves editing your site's .htaccess file, so I'll define what it is first.

What is .htaccess?

Think of .htaccess as a file that basically tells your web server what it can and can't serve to people and programs who want to access your files. It's technically your site's gatekeeper, however, in order for you to make it work then you need to tell it what to do.

Note that in some cases, you may not even have a .htaccess file, so you need to create one from scratch. Also, some web hosts don't support .htaccess especially if they don't use Apache Web Server software.

It's important to mention here that .htaccess is the full filename. It's not "file.htaccess" or "site.htaccess." You can use a text editor to type in your .htaccess file instructions and then save it simply as ".htaccess." You can

then upload it to your site's directory using an FTP (file transfer protocol) program like FileZilla (https://filezilla-project.org).

Also, your website is composed of a main/root directory and various other directories. If you save your .htaccess file in the main directory, then the file will take effect over the entire directory.

However, if you save your .htaccess file in a sub-directory, then it's only going to take effect in that sub-directory. This essentially means you can have more than one .htaccess file. You can have a .htaccess file in the root directory and another one in a sub-directory.

Just a word of caution though, you have to be extremely careful when making changes to your .htaccess file as one wrong move can shut your site down. Don't be afraid to ask for help from someone who's familiar with .htaccess.

Configuring .htaccess To Speed Up Your Site

11. Enable Gzip compression

Gzip is a method where your website files are compressed before it's sent over to your visitor's browser. For example, if your visitor is requesting to view your site's homepage, instead of receiving 500Kb worth of files, their browser will only receive 100Kb or less.

This means there's lesser load on the server and the files will be transmitted more quickly. This leads to your site loading much faster on your visitor's browser.

Now, the thing is Gzip compression isn't on by default. You've got to activate it so you can take advantage of its powerful compressing technology.

To enable Gzip using **mod_gzip**, you need to add the following code to your .htaccess file (yes, you can just copy and paste the code):

```
# BEGIN GZIP COMPRESSION

<IfModule mod_gzip.c>
mod_gzip_on Yes
mod_gzip_dechunk Yes
mod_gzip_item_include file \.(html?|txt|css|js|php|pl)$
mod_gzip_item_include handler ^cgi-script$
mod_gzip_item_include mime ^text/.*
mod_gzip_item_include mime ^application/x-javascript.*
mod_gzip_item_exclude mime ^image/.*
mod_gzip_item_exclude rspheader ^Content-Encoding:.*gzip.*

</IfModule>
# END GZIP COMPRESSION
```

Alternatively, you can enable Gzip using mod deflate:

```
# BEGIN DEFLATE COMPRESSION

<IfModule mod_deflate.c>

# Compress HTML, CSS, JavaScript, Text, XML and fonts

AddOutputFilterByType DEFLATE application/javascript

AddOutputFilterByType DEFLATE application/rss+xml

AddOutputFilterByType DEFLATE application/vnd.ms-fontobject

AddOutputFilterByType DEFLATE application/x-font

AddOutputFilterByType DEFLATE application/x-font-opentype
```

AddOutputFilterByType DEFLATE application/x-font-otf

AddOutputFilterByType DEFLATE application/x-font-truetype

AddOutputFilterByType DEFLATE application/x-font-ttf

AddOutputFilterByType DEFLATE application/x-javascript

AddOutputFilterByType DEFLATE application/xhtml+xml

AddOutputFilterByType DEFLATE application/xml

AddOutputFilterByType DEFLATE font/opentype

AddOutputFilterByType DEFLATE font/otf

AddOutputFilterByType DEFLATE font/ttf

AddOutputFilterByType DEFLATE image/svg+xml

AddOutputFilterByType DEFLATE image/x-icon

AddOutputFilterByType DEFLATE text/css

AddOutputFilterByType DEFLATE text/html

AddOutputFilterByType DEFLATE text/javascript

AddOutputFilterByType DEFLATE text/plain

AddOutputFilterByType DEFLATE text/xml

</lfModule>

END DEFLATE COMPRESSION

To check if you've properly activated Gzip, you can use the 'Check Gzip Compression' tool (https://checkgzipcompression.com).

12. Enable browser caching by using Expires headers

Using Expires headers in your .htaccess file is another technique you can use to speed up your website. What it essentially does is put an expiration date on your website assets.

For example, your website visitor accesses your website at 10am on January 1st and checks your site again at 10pm the same day. Instead of

your visitor's browser contacting your server, it's going to check its cache to see if the files have expired or become 'stale.'

This helps speed up your site because it means that the browser no longer needs to contact your server if the content is still 'fresh,' that is, it's not yet expired. The browser will simply serve up the cached files and show it to your site visitor.

You can add this code to your .htaccess file (**source**: https://samaxes.com/2011/05/improving-web-performance-with-apache-and-htaccess):

BEGIN Expire headers

<ifModule mod_expires.c>

ExpiresActive On

ExpiresDefault "access plus 5 seconds"

ExpiresByType image/x-icon "access plus 2592000 seconds"

ExpiresByType image/jpeg "access plus 2592000 seconds"

ExpiresByType image/png "access plus 2592000 seconds"

ExpiresByType image/gif "access plus 2592000 seconds"

ExpiresByType application/x-shockwave-flash "access plus 2592000 seconds"

ExpiresByType text/css "access plus 604800 seconds"

ExpiresByType text/javascript "access plus 216000 seconds"

ExpiresByType application/javascript "access plus 216000 seconds"

ExpiresByType application/x-javascript "access plus 216000 seconds"

ExpiresByType text/html "access plus 600 seconds"

ExpiresByType application/xhtml+xml "access plus 600 seconds"

</ifModule>

END Expire headers

You'll notice that different file types (these are the most common files on your site) have different expire headers time. You can either leave the timings alone or edit to something you're comfortable with.

13. Disable hotlinking

Many webmasters don't realize their images and other website files are being stolen. This is called 'hotlinking' or bandwidth theft.

Let's call your site 'Website A.' When uploading files to your site, they are saved on *your* server. When people visit your site, *your* server sends all your website files including your media files. This is how it normally works.

Let's say another webmaster (from Website B) likes your images. Instead of downloading it and then re-uploading it to their web server, they link to your images.

So, now when people visit Website B, *your* server will be sending *your* image files to *their* visitors. Even though these people aren't visiting your website, *your* server is at work serving *your* image files. This is essentially stealing and is not an acceptable practice.

To stop people from hotlinking to your files, you can add the following code to your .htaccess file (please replace highlighted URL with your own website URL):

RewriteEngine on

RewriteCond %{HTTP_REFERER} !^\$

RewriteCond %{HTTP_REFERER} !^http://(www\.)testurl.com/.*\$
[NC]

RewriteRule

\.(gif|jpg|jpeg|bmp|zip|rar|mp3|flv|swf|xml|php|png|css|pdf)\$ - [F]

Alternatively, if you want to have a bit of fun or maybe show your disapproval of hotlinking, you can show an alternative image instead of the file they're actually linking to.

So, for example, if someone's trying to hotlink to your photographs, you can instead show them an image of someone angry or better yet, something highly inappropriate. That will teach them a lesson!

Add this to your .htaccess file to serve alternate content. Remember to change the highlighted sections!

RewriteEngine on

RewriteCond %{HTTP_REFERER} !^\$

RewriteCond %{HTTP_REFERER} !^http://(www\.)testurl.com/.*\$
[NC]

RewriteRule \.(gif|jpg)\$

http://www.testurl.com/inappropriateimage.png [R,L]

14. Reduce the number of redirects

There's a number of reasons why you may need to have redirects in place. Your website's already ranking on Google and you don't want to lose your spot on the search results pages. What you do then is you redirect your old links to your new links, so you don't lose any of that 'SEO juice'.

You can use a tool like Screaming Frog

(https://www.screamingfrog.co.uk/seo-spider) to identify all your existing redirects. Look through your links and check if you have 'redirect chains' which means your redirect is redirecting to another link. This slows down your website considerably.

To remedy this problem, you can edit your .htaccess file to redirect your old pages to the correct pages. Add this line below:

Redirect /old_dir/ http://www.yourdomain.com/new_dir/index.html

Simply replace the codes above with your website's details, and you're good to go.

Final Words

There are a lot of benefits to tapping into your website's .htaccess file. There's no need to install additional plugins (if you're on WordPress), which means there's less work for your website to do and your load times will be much faster. Use the techniques we've shared in this guide and watch your page load times decrease!

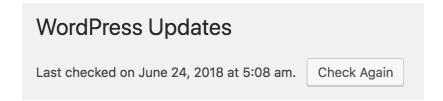
Fast Track Your Speed Optimization With WordPress

It's really not surprising why WordPress powers over 30% of all websites in the world. It's the most popular content management system (CMS) with a global community of developers who work on making the platform the best it can possibly be.

There are those who say that WordPress loads much slower than a static HTML website. It may be true to a certain extent, but there are plenty of tools you can use to fast-track your website's speed with WordPress - tools like image compression plugins, caching plugins, and more.

In this guide, we'll be focusing on the best practices to optimize your WordPress website's speed.

1. Keep Your WordPress Site Updated



Due to its popularity, WordPress sites are hackers' and bots' favorite targets. Thankfully, however, dedicated developers work round the clock to keep WordPress safe and secure by rolling out security updates and bug fixes.

If you don't update your site, you'll risk getting your site infected by malware and spam which can slow your site down.

To protect your site, you can install the WordFence security plugin (https://wordpress.org/plugins/wordfence). It will send you updates everytime your WordPress and plugins have an update as well as protect your site from malicious entities.

2.Use A Fast, Lightweight Theme

WordPress themes are basically a bunch of files that are coded by theme developers. This basically means that the quality of themes depends on the developer's capabilities.

Some themes will be heavy and bloated, while some would be fast and lightweight. I'm sure you wouldn't want to get stuck with a badly-coded theme now.

It's important to remember that not all premium themes are fast and lightweight, and not all free themes are badly coded. So, to make sure you get the right theme, you can shop around, that is, try out different themes until you get the right balance of aesthetics and speed.

3. Keep Plugins To A Minimum

Plugins are one of the reasons why WordPress is so popular. Plugins basically extend the basic capabilities of WordPress and make it extraordinary (or simple, if you wish).

There are thousands upon thousands of plugins for WordPress – you're literally spoiled for choices. There are plugins for anything you can think of! If the feature you have in mind doesn't have a plugin version yet, then you can hire a developer to create it for you.

The only downside to having all these choices is that many people don't realize they're inadvertently slowing their sites down because they've installed far too many plugins.

To make sure your site runs fast, use only the most essential plugins. If one plugin can do the job of 5 or 10 plugins, then go for that super-plugin and delete the others. Note that deleting plugins is not the same as deactivating it – for a faster site, delete the old plugins you no longer need.

4. Optimize Your Wordpress Database

If your site has been around for a while, and you've got tons of content on there, then your database probably needs some spring cleaning done. Since you're using WordPress, then it means you don't need to touch a single line of code to clean your database.



You can install a plugin like WP-Sweep (https://wordpress.org/plugins/wp-sweep), and it will remove revisions, auto drafts, deleted / unapproved / spammed comments, and so much more from your database. Remember to make a backup of your site just in case anything goes wrong.

5.Don't Upload Videos To Wordpress

Instead of using up hundreds of megabytes or maybe even gigabytes for your videos, you can instead upload it to third-party sites like YouTube, Vimeo, and Wistia.

Videos have huge file sizes and a 1 or 2-minute video can easily consume large amounts of your web server's storage. If you've got a metered bandwidth, then you could get in trouble with your host, and you could incur significant bandwidth fees in the process!

When you use a third-party video site, your video is not stored on your web server. So, when someone visits your site, it's going to retrieve the said file from YouTube or wherever you uploaded your video. This essentially lightens the load on your server which ultimately leads to faster load times for your website.

6.Break Comments Into Pages

It sure is nice to have a popular website where people freely share their thoughts and ideas. It's great for your brand and your site's SEO. However, the downside is that when you've got far too many comments on your site, it will ultimately cause it to slow down.

The solution is to basically limit the number of comments that appear on your page. For instance, if you've got 100 comments on a page right now (and more to come!), then you can opt to show only 50 comments per page. This lessens the load on your server since it doesn't have to load up all the comments at once.

To break your comments into pages, log into your WordPress site, go to **Settings** > **Discussion**. In the '**Other Comments Section**,' tick the box which says '**Break comments into pages with** ____.'

Note the default is 50 comments per page – feel free to adjust to a number you're comfortable with.

7. Reduce The Number Of Post Revisions

Post revisions are helpful if you want to restore your content to an earlier version. With just a click of a button, you can undo all your recent changes and have your old content show up instead.

The only downside is that your post revisions take up space in your WordPress database. So, what you need to do is to limit the number of revisions your WordPress site keeps for each post.

Use an FTP client like FileZilla (https://filezilla-project.org) to download and edit your wp-config.php file (you can open in a text editor like Notepad). Then add this line in the file:

I used 5 in the example code which means that WordPress will only save 5 revisions per post and overwrite older versions automatically. Feel free to change the number as you see fit!

Final Words

WordPress sites can be just as fast as static HTML sites. By installing a few highly essential plugins and making a few tweaks behind the scenes, your site will load much faster.

This will lead to a much better user experience and ultimately, an increase in conversions for your business!