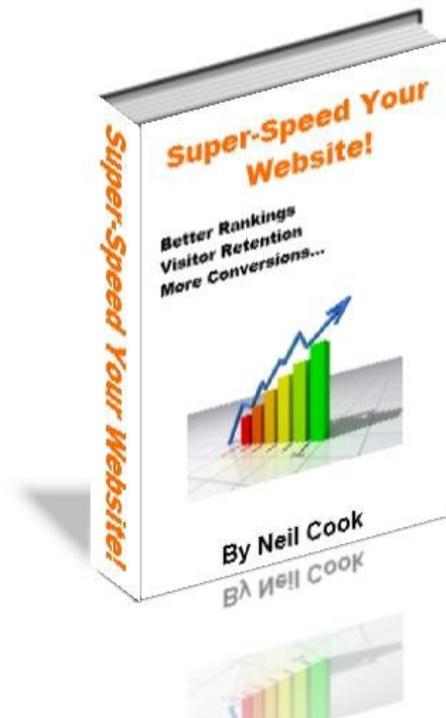# Super-Speed Your Website

## Faster Website – Better Rankings – Higher Conversions!



## "Search engines now consider website page load speed an important ranking factor"

This eBook proudly brought to you by:

Alex Major

www.NicheEmpires.com

## Table of Contents

Legal Stuff:  The results achieved in this guide are my results with my websites and will vary depending on the exact set up and structure of any other website. Whilst I hope you achieve some great improvements in website performance I cannot guarantee your results and cannot be held responsible for any problems that you may encounter.

It is all pretty easy to follow though and you should see some fairly good improvements if you follow the guide correctly and feel free to get in touch if you need any further help or advice.

## Why Website Load Speed Is Important

Let's get straight to the point – slow loading web pages will lose you visitors and most likely a lot of income as well.

Visitors to web pages don't hang around long if the page is slow loading and even a difference of less than a second could be the deciding factor between someone staying on your website or just clicking away.

Website page load speed can affect your search engine rankings, quality score, visitor numbers and conversions.

So maybe it's time we all took a closer look at how our websites are performing in terms of speed because the major search engines such as Google are certainly looking at site speed now.

There are many factors that determine how search engines view the so called quality of a website and as we all know the main players such as Google, Yahoo and Bing all use their own specific algorithm to help them decide how they perceive the quality of a website.

Not forgetting that you could also get a review by an actual person, particularly if your website triggers any red flags so to speak.

Although many of us like to think that we are doing the right things with our websites such as adding quality content this doesn't always seem to be quite enough these days.

**Particularly with the constant search engine algorithm changes.**

You only have to check out a few of the posts in popular forums to see that there are thousands of websites affected. Some have actually benefited whilst others have slumped and lost a ton of visitors and seen their revenue fall massively as a result.

So with website page load speed now seeming to be an increasingly important factor for website performance it's certainly worth a closer look.

## Content Is Still King - Isn't It?

The saying "content is king" has been used a lot over recent years and is generally considered to be true, but there's probably a lot more to it now.

If you had fairly good content and built quite a few quick and easy links to it that was often enough to satisfy search engines and attract good search rankings, as well as help with a good quality score for paid advertising if that's what you were doing.

**Unfortunately it appears as if that is no longer going to be enough!**

Times have certainly changed and even sites with lots of original unique content and links have been hit. I can speak from experience here following an update in May when one of my websites that had survived previous updates got hit - hard!

Thankfully I have enough websites and diversification to weather the storm with that site and after implementing quite a few changes things are now back on track and the site is performing better than ever.

The website in question has over 160 pages indexed in Google and they are all original content. Most of the site's traffic was and still is from good search rankings plus some other referring websites.

The improvements included changes to the content, site structure, affiliate links, and a drastic improvement in site speed which is what we are going to concentrate on dealing with here.

## Website Quality Factors

Dealing with search engine algorithms and exact ranking factors is often like trying to deal with a secret service in that you never really get to know exactly what's going on, and you really just have to do your best to hit as many of the right buttons as you can.

Generally it's considered that the following are currently some of the most important factors:

- Plenty of good quality unique content
  But just unique content is not always enough on its own

- Good quality backlinks
  Poor linking strategies can slow progress

- Visitor retention and interaction
  Low visitor retention affects rankings and perceived site quality

And there are certainly plenty more...

Now I'm not going to go into depth about all of the changes I made involving the content, links and other factors that I believed might be having a damaging effect on my problem site.

We really need to concentrate on website page load speed but what I will say is that you can still be perceived as a "thin affiliate site" even with unique content, plenty of links, and some visitor interaction.

There might be another detailed case study dealing with those areas in more depth but we're here to talk about site speed so let's move on.

Following the tweaks to my content which mainly involved restructuring posts and links I then went on to check my site speed first by using webmaster tools.

**Webmaster tools showed the site was taking 5.3 seconds to load which it said was 77% slower than most websites - OUCH!**

Pretty bad really but I'm sure I won't be on my own with this issue and maybe it's time to go and check some of your own websites to see how they compare.

## How to Check Your Website Speed

If you use Google [webmaster tools](#) you can just go to LABS>>SITE PERFORMANCE and you should see your site load performance.

**Dashboard**
Messages
&#x2295; Site configuration
&#x2295; Your site on the web
&#x2295; +1 Metrics
&#x2295; Diagnostics
&#x2296; Labs
   Instant Previews
   Site performance
   Video Sitemaps

There are a couple of even better ways to check though that will also give you ideas on how to speed up your site's performance.

If you want the quick and easy way just go to the Google page speed tool and input your URL. You'll see details about how your website performs on a 0-100 score basis (higher the better) and suggested improvements graded high, medium and low priority.

Get suggestions to speed up your site:

Enter a web page URL          Analyse Performance    ▼

**Take a look but don't freak out just yet if things look bad!**

We'll have a quick look at another way to check your websites and then we'll move on and look at how to deal with some of the issues you might find, and thankfully it might be a lot easier than you think.

You can use the Google page load tools in your browser as before with Chrome or Firefox. I use Firefox with the Firebug plugin.

Firebug is a really handy plugin that lets you use a number of web development tools to dig around and edit source code as well as install site speed add-ons.

You can add the Google page speed tool and also the Yahoo YSlow tool and that's what we need here. They're both pretty similar but I think that it's worth checking with both.

They're very easy to set up and really don't need yet another tutorial in here. So if you want to try them out just use the links above to install Firefox, then Firebug, and finally the two page speed tools.

Then if you check the bottom right of your screen you should see the activation buttons like this with Firebug and Yslow on the right:
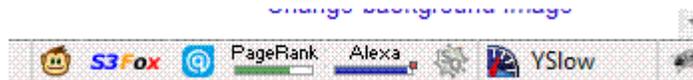
If they're not there just go to your Firefox tools menu at the top and activate Firebug from there. Then all you need to do is go to your website and click on the Firebug or YSlow button to show the Firebug screen similar to this:
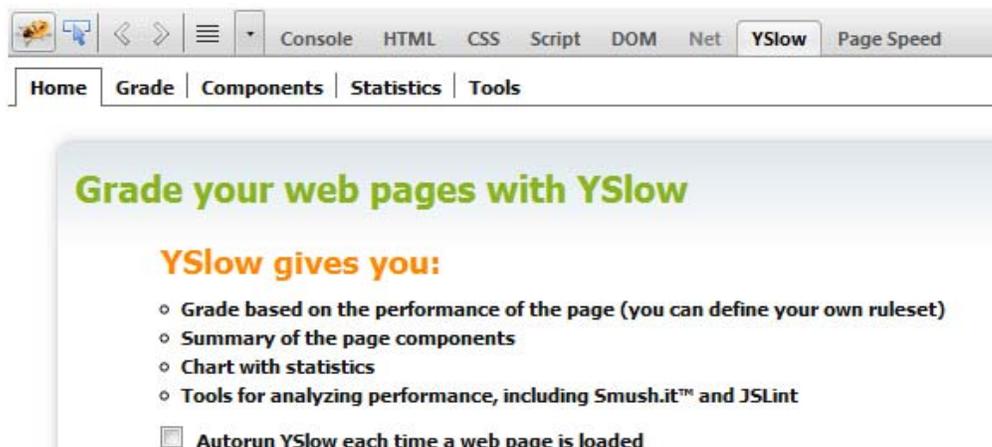
**Notice the YSlow and Page Speed tabs top right.**

- To check you site speed with YSlow just click the YSLOW TAB and then click the GRADE TAB to see the Yahoo results.

- For Google page speed just click on the PAGE SPEED TAB and then ANALYZE PERFORMANCE to get the Google results.

Depending on which one you're using you should see a list similar to the one below but probably with more red and yellow areas requiring attention.

Check out the example below - I think this just illustrates how serious they're taking website page load speed.

**Tip: When you do this for your own website if you hover your cursor over the icons that run down the left side you can see a score for each section.**
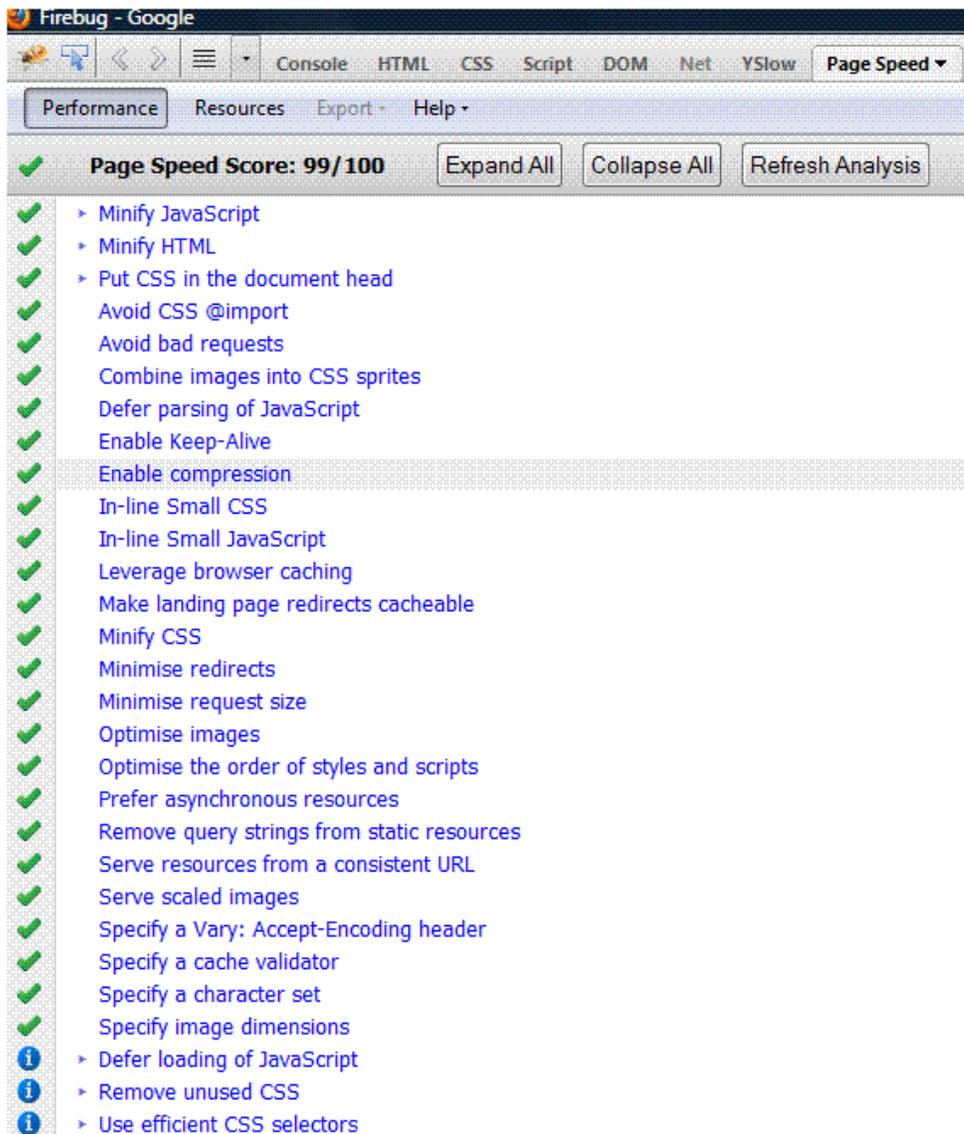
**Did you notice the score shown at the top left was extremely good at 99/100**

**That's because that was for Google's homepage!**

Okay so when you've had a look at your site speed and got an idea what's going on you might have seen something like this:

## Summary

The page _____ got an overall Page Speed Score of **67** (out of 100). Learn more

💡 This Page Speed report is generated for this page as it appears in desktop browsers. To get suggestions on how to optimise the performance of this page for mobile devices, generate a mobile report

## Details

Click on the rule names to see suggestions for improvement.

- **High priority.** These suggestions represent the largest potential performance wins for the least development effort. You should address these items first:
  Leverage browser caching,Combine images into CSS sprites

- **Medium priority.** These suggestions may represent smaller wins or involve much more work to implement. You should address these items next:
  Optimise images,Serve resources from a consistent URL

- **Low priority.** These suggestions represent the smallest wins. You should only be concerned with these items after you've handled the higher-priority items:
  Minify JavaScript,Defer parsing of JavaScript,Minify HTML,Serve scaled images,Specify a cache validator,Minify CSS,Remove query strings from static resources,Specify a Vary: Accept-Encoding header

- **Rules without suggestions.** There are no suggestions for these rules, since this page already follows best practice. Good job!

**This is the website we're going to work on and if you look at the score at the top of the image it has a fairly poor score of 67/100.**

Here's the YSlow results as well:



Grade C and overall performance score 73.

So again they're not very good but if you take a look at a few more websites you'll find quite a few in the 45-75 out of 100 region.

That means there are a lot of slow sites out there that you can be faster than if their webmasters don't bother with much of this, and that could mean better placement for your website.

Many webmaster and marketers will often over-look the performance of their websites until things start to go wrong and visitor numbers come crashing down.

This applies to search engine traffic but is also thought to affect quality score for certain paid advertising campaigns and we've already established that site speed can have a serious effect on visitor numbers and therefore conversions.

**So now let's get into what you can actually do about it!**

## Factors Affecting Website Speed

When we talk about website speed we're really talking about the time it takes for any given page to load, but when people check this they usually just use the main URL to check the homepage of the site.

You really need to look a lot further than that though because there can be factors which effect specific pages such as how many images a page has and also the format and file size of those images.

You'll probably already realise that those great looking but rather large images have a huge file size, so it should come as no surprise that they will take longer to load than smaller images and therefore slow the speed that a particular page loads.

You don't need to go and replace them all with tiny thumbnail images though, and the good news is there are some fairly easy solutions which we'll get to a little later.

**There's much more to page load speed than just images.**

If you use wordpress which a lot of marketers do then each time a visitor lands on one of your website pages the whole thing is basically generated from scratch, and although this might seem to happen fairly quickly you might be surprised just how much this can be improved.

Changes might only appear to gain very small amounts of time but even 0.10 of a second might lead to some improvement and better results. More to the point, if you can make a number of small changes they could add up to a few seconds and then we're really talking progress.

**Still not sure?**

Let's forget about search engines for a minute and think more about your visitors, after all that is what the big G now recommends on their [blog here](#).

**When a visitor lands on your website you literally only have a few seconds to attract them and keep them there.**

**Some experts say you have as little as just three seconds or even less!**

That means if your site takes much longer than about three seconds to load then you could be losing a lot of visitors because they just click away when the pages on your site are slow to load.

# TICK-TICK-TICK

# I'M GONE!

You just lost a ton of potential visitors and customers and it was all down to a slow page load times.

It may be only a second or two in real terms but those fast click aways lead to what's known as a high BOUNCE RATE.

If your site has a high bounce rate it usually means visitors didn't visit more than one page on your site and certainly don't stay for long.

**You can check your sites bounce rate in a number of places.**

Website bounce rate appears in web analytics such as Google analytics, [Alexa](#) and other places so it's not going to be much of a secret that visitors probably aren't finding a website with a high bounce rate very useful or relevant to their search terms that they used to find it.

So a website with a high bounce rate will probably not be seen as high quality as one with a lower bounce rate, and which do you think will gain more respect and higher rankings.

We've now identified some of the key areas we need to deal with to help improve website or page load speed:

- Images
  Image size, format, compression and where to host.

- Page Generation
  How fast pages are generated and delivery speed.

- Bounce Rate (visitor retention)
  Other speed improvements to help retain visitors.

**Now let's look at some of the ways to help improve these areas quickly and easily...**

## Super Speed My Website

There are a number of ways you can increase your page load speed but some can get fairly technical. For example, even your website coding and theme can have a huge effect on site speed.

Heavy and unnecessarily complicated coding can be a drain on resources and additional scripts, plugins and your choice of theme will all have some relevance to your site load speed.

This can be quite an issue on complicated sites such as my main resell rights website at **http://www.NicheEmpires.com/**.

Unless you're an experienced coder though or willing to pay what could be quite a lot then the complicated coding improvements can be way beyond most of us.

What we need are fast and easy solutions that can bring some great speed increases without costing a fortune or taking weeks to get done.

So now let's deal with some of those problems we identified earlier.

## Dealing with Images

The simplest thing you can do here is to first remove any totally unnecessary images and also reduce the size of any that are too large, but we don't want to make the website even less appealing because that's certainly not going to help your bounce rate later on.

When going through your images you also need to decide on the best format to upload them in.

JPEG image files are a lot bigger than either GIF or PNG files, these three examples are for the same image in different formats:

JPEG – 94.8KB
PNG – 39.9KB
GIF – 34.4KB

So if you upload images in a different format to JPEG which is what a lot of people use you can immediately reduce the file size by more than half and that's for all the images on your website.

**Roughly a 58% reduction!**

The next thing you can do is look at a way of compressing your images and making the file size even smaller. You might be surprised at just how much this one thing can do to improve load speed particularly if you have a lot of images.

If using wordpress you can use a plugin such as Smush.it and it'll even compress all those large JPEG's for you.

Using that plugin you can quickly and easily compress all your existing images that you uploaded previously and then let it compress all future images that you upload.

It also does a few more cool things but we don't really need to spend time on those as they happen automatically anyway.

Just install the plugin from your website's Wordpress admin "ADD PLUGINS" area and activate it.

To deal with all your existing images just go to the MEDIA area in your wordpress admin menu and you should see a Smush.it option to the right of each image as shown below, just hit Smush.it Now for each image and your done:



## Page Generation Speed

This will ultimately be determined by pretty much everything that we are looking at here as well as other technical factors that we don't need to get into. The good news is that there is a really easy solution to help the speed at which your pages are delivered on the web and it's called caching.

If you're not familiar with page caching it's basically a saved copy of a previously generated page which can be delivered to your visitors much quicker than generating each page from scratch.

**BE WARNED THOUGH - There can be serious issues with caching if you don't set it up correctly.**

Having a "saved copy" of your web pages available for faster delivery to visitors sounds straight forward but what if your page content changes.

Do you want your visitors just see the old version, and what about first time visitors, do you want them to see older page versions as well?

You can also have issues with your website not displaying correctly if you don't set up your caching in the right way.

The quick and relatively easy method to enable caching on your website is to use a caching plugin and in my opinion one of the best and easiest to set up is [w3 total cache](#).

This plugin actually does a lot more speed optimization as well as providing cached pages but it does get a little techie.

So you can just accept the fact that it works well in most cases or check out the plugin's documentation and read up on it more when you have time.

Just install as with other plugins from your Wordpress admin area but remove any other caching plugins before you activate it or you can run into problems.

Then you can find a new PERFORMANCE TAB in your wordpress admin and just work your way through the step by step instructions for the plugin.



They're quite easy to follow and it's mainly just checking a few boxes so there's no point repeating it all here, but there are a couple of things to note that can be a little confusing.

The MINIFY section can really put the icing on your site speed if you take the trouble to set it up. You don't have to do it all at once and I still get very good results with that area set to automatic in general settings like this:

Then there is a section for CDN which is for if you want to use a content delivery network, this is a slightly more advanced option that we will take a look at later.

So if you don't understand about CDN's yet just leave that section disabled and you'll have much less to worry about.

Dealing with those two areas in the way illustrated above makes it much easier to set the plugin up first time and it's still very effective in my experience.

**So at this point we have now dealt with the following speed improvements:**

- Removed any unnecessary images

- Reduced overly large image sizes

- Changed image format to reduce file size
  (optional but worth it if you have time)

- Used lossless compression to optimize images
  (Smush.it Plugin)

- Set up caching to improve page delivery speed

When you've completed these changes on your website it can take a little while for them to reflect in the speed check tools but it's usually only a few minutes, but it can take longer if you have a large website as all of the pages have to be cached.

Now it should be noted at this stage that the results you can achieve by just implementing these few simple steps will vary depending on the website you're optimizing for load speed and exactly how it is set up.

**On the test site shown earlier just these few simple steps produced a massive increase in site performance as shown below:**
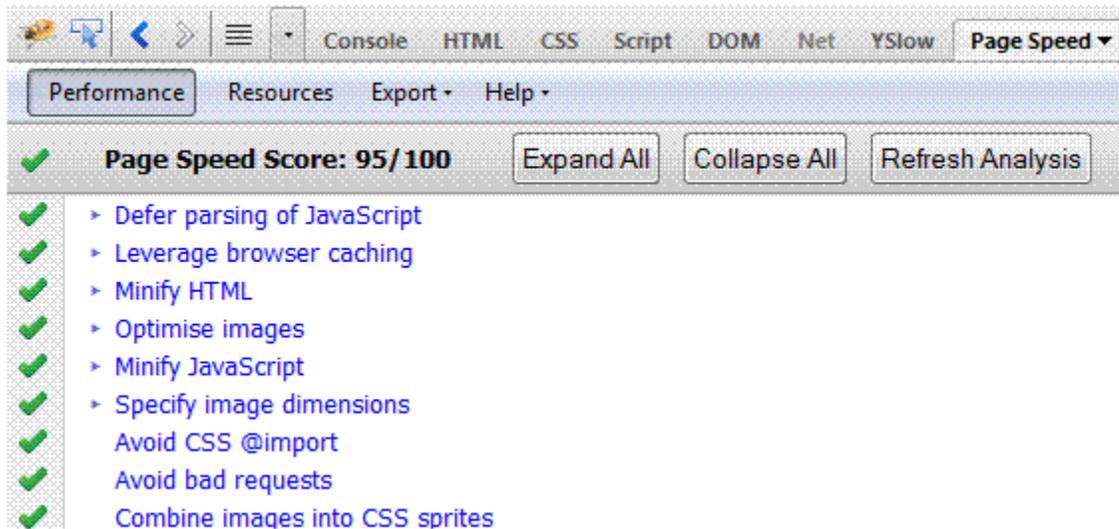


**That's now 95/100 according to Google's page speed tool and all with just a few simple tweaks!**

Here's the YSlow results:
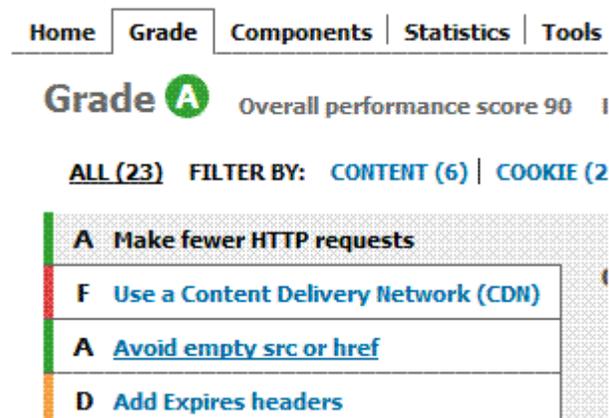


**Grade A and overall performance score now up to 90 Much Better!**

So in this case study we've improved from a pretty crappy 67/100 to a rather speedy 95/100 according to Google's page speed tool which makes it a much faster than average site and that alone should now help with improving the BOUNCE RATE as well.

## So What Else Can You Do

You probably remember that we touched on two other areas earlier, one was called Minify and the other was CDN.

**Minify**

Minify basically helps to reduce load time by decreasing the size and number of CSS and JavaScript files. It also automatically removes unnecessary data from CSS, JavaScript, feed, page and post html.

**Did you get all of that!**

Now that's why I set it to automatic most of the time but if you really want to go for it or you're maybe not seeing enough improvement then you can try setting it to manual but you then need to enter quite a lot of information manually.

It's all explained in the plugin documentation but you basically have to go through your website source code and add the information and links to your theme and other specific files, basically CSS and JavaScript files and groups.

There are also quite a few settings to play with. I'd say just try it on automatic first and if you don't get any issues and see some good results then that is probably all you need to do.

**CDN – Content Delivery Networks**

The name pretty much says it all here. CDN's are a way to deliver your content remotely from your website.

You can "host" your content, images, graphics, basically your website as static pages on networks such as [Amazon S3](#) or [Cloudflare](#). You'll probably also come across terms such as "the cloud" or "cloud hosting" but it's basically the same thing.

Amazon S3 is easy to use and very reasonable pricing depending on how much content you host there and you can store just about any files on their massive servers.

You can manage your files easily using the [Amazon S3 organiser](#) for Firefox which works similar to well known ftp clients such as Filezilla which you're probably familiar with.

There are a few wordpress plugins to help with CDN integration including the feature in the W3 total cache plugin we saw earlier, but if you really need to use a CDN then you might want to check out the free version of [Cloudflare](#).

Cloudflare optimizes and speeds the delivery of your content to your users and there are also some pretty good security protection features as well.

There are higher specification paid versions but the free version is great to start with and will be adequate for most normal users.

**It's also extremely easy to set up...**

Just hit the sign up button and choose the free version then follow the straight forward set up instructions.

## A couple of things to take into account

Using a CDN like Cloudflare is another great way to speed up your website but you don't always need to go that far. Remember that the speed improvements that I showed earlier didn't even use Minify or a CDN.

Particularly with some of the free options you need to be aware that they still have to pay the bills somehow. One example might be to add their own affiliate links to certain content on the areas of your website that are now being hosted on the CDN.

Remember that it's basically not your own hosting and as such and you need to read their terms carefully to see which option is right for you.

At the time of writing Cloudflare have just updated their terms and I believe they have changed it so they only add links if you activate that feature, but it's always best to check because terms of service can change at any time.

A few marketers have also expressed concerns over security breaches and so called bad neighbourhoods.

Personally I don't see that being much more of an issue than with hosting a site in general, so long as the company providing the CDN is professional and competent.

So if you don't get good enough improvements with the first few quick and easy steps we looked at, I've now just shown you a few more ways that you can really juice up your site speed.

They're not always essential but the extra effort could be well worth it if you can deal with the slightly more technical aspects involved.

You've already seen how much of an improvement I managed to achieve with just a few simple changes.

So how about if I show you the results after setting up the site using the Cloudflare CDN?

Before I do, I just wanted to mention that one of my other websites at http://SummerMarketingMadness.com/2011/ has all the images hosted at Amazon S3 which vastly improves the load time due to the large number of images on the main sales page.
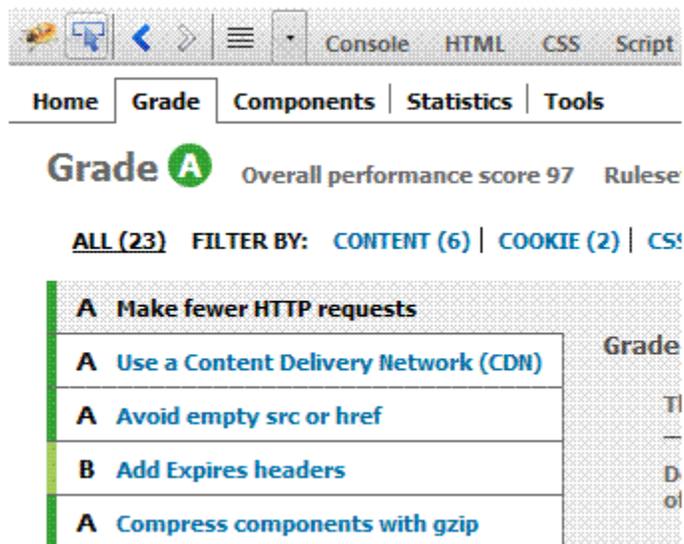
Just take a look at the screenshots below to check out the extra improvement:

**Google Page Speed Results:**
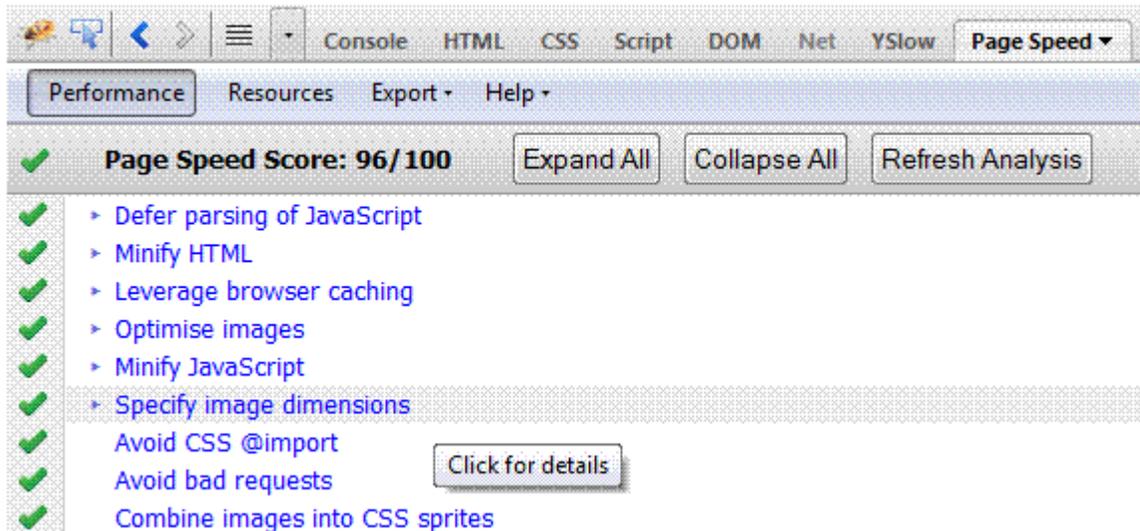


# Page Speed Score Now 96/100!

**YSlow Results:**



# Grade A - Overall Performance Score 97!

So I suppose you could say at this point I'm pretty satisfied with the site speed improvements I achieved with just a few changes and hopefully you can achieve similar results with your own website.

## Conclusion

I hope you've found this guide to improving website speed useful and get some good improvements on your own websites when you implement some or all of what I've shown you.

I could have made this guide much longer, more in-depth and very techie but it really doesn't need to be that complicated and I think the results speak for themselves.

# Up From 67 to 95 with Google

# Up to 97 with YSlow

# All in Just a Few Quick and Easy Steps!

Sure there are a lot more minor tweaks that can be dealt with and you'll probably have seen a lot more in the low priority section of the speed check tools.

If you can get to 95/100 with just a few simple tweaks then that should make your site faster than a lot of the others out there.

Then you could always go on to test a CDN as well if you think that's necessary although I think it really depends on the website you're working on.

Even my worst performers increased well into the 80's and that should still be enough to get them among the better performing sites.


**To Your Success!**

**Alex Major**

**www.NicheEmpires.com**