

UNDERSTANDING REPORTS

A guide to make the most
out of your dashboard data

UNDERSTANDING REPORTS

Whether you're a rookie or full-fledged website and performance monitoring expert, Pingdom's guides offer help and information for everyone.

INTRODUCTION

You've created an Uptime check, you're monitoring your page's load performance and have set up real user monitoring. Since then, Pingdom has begun collecting data for you. Now it's time to dive in and see this data in the beautiful reports generated in your dashboard.

Pingdom has really useful reports, and this guide will show you how to keep tabs on your website's uptime and response time, as well as understanding the various logs created whenever an issue detected. You can use these reports to help you improve your website's uptime and performance.

These reports are available on all Pingdom plans. If you don't have a Pingdom account already, you can [get one here](#) for free!

Should you have questions that aren't answered here, there is a handy [FAQ page](#) that you might want to look at, from where you also can contact our support. Now, let's get started.

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Now, let's get started.

WHAT IS UPTIME?

This is a fair question, uptime is the amount of time that a website or server has stayed up and running. Uptime is commonly listed as a percentage when discussed across the Internet, like "99.9% uptime." But here's a little known fact though: Even when your hosting provider says it has provided 100% uptime, that doesn't necessarily mean that your site hasn't had any downtime.

Why is that? Because many hosting providers calculate their uptime in ways that aren't intuitive from a customer perspective, ways that sometimes exclude certain downtime.

When hosting providers calculate their uptime (normally on a monthly basis), they follow a set of rules that are usually lined out in their terms of service, i.e. in the fine print. Here are two common rules that some hosting providers use:

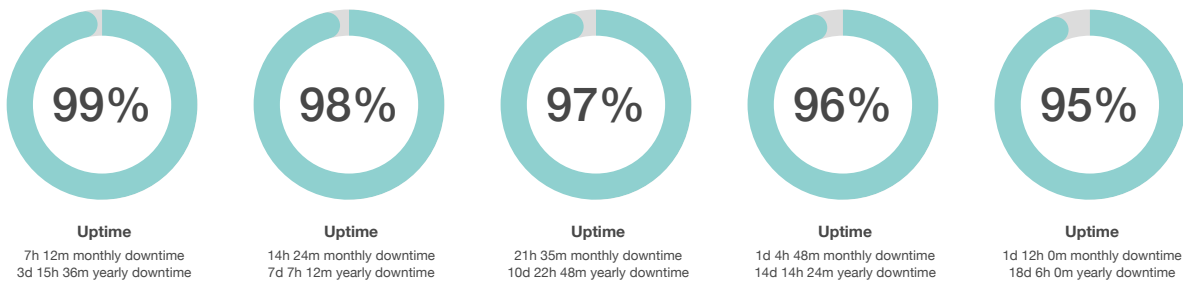
Maintenance downtime – If a hosting company interrupts the service for two hours to perform planned maintenance, this will often not be counted into the uptime percentage. In other words, when it's time to calculate the uptime percentage for that month, any planned service interruptions simply aren't counted.

Only counting network downtime – Common among dedicated hosting providers. Individual server failures that may or may not affect your site aren't counted. To be fair, for dedicated hosting providers it would be difficult to guarantee anything else when the customer has control over the server.

CALCULATE DOWNTIME

At first glance, an uptime upwards of 99.7% will seem like a perfectly satisfactory number and not worth arguing over. What if we told you that 99.7% uptime equals 1 day, 2 hours, 17 minutes of downtime per year? We bet there is a lot of lost sales, and a lost in trust from customers in 1 day, 2 hours and 17 minutes.

Fig 1.



Calculating downtime percentages is easy if you're a tab hand at mental figures. For everyone else, [this resource](#) can make real-world sense of the figures presented by your hosting provider.

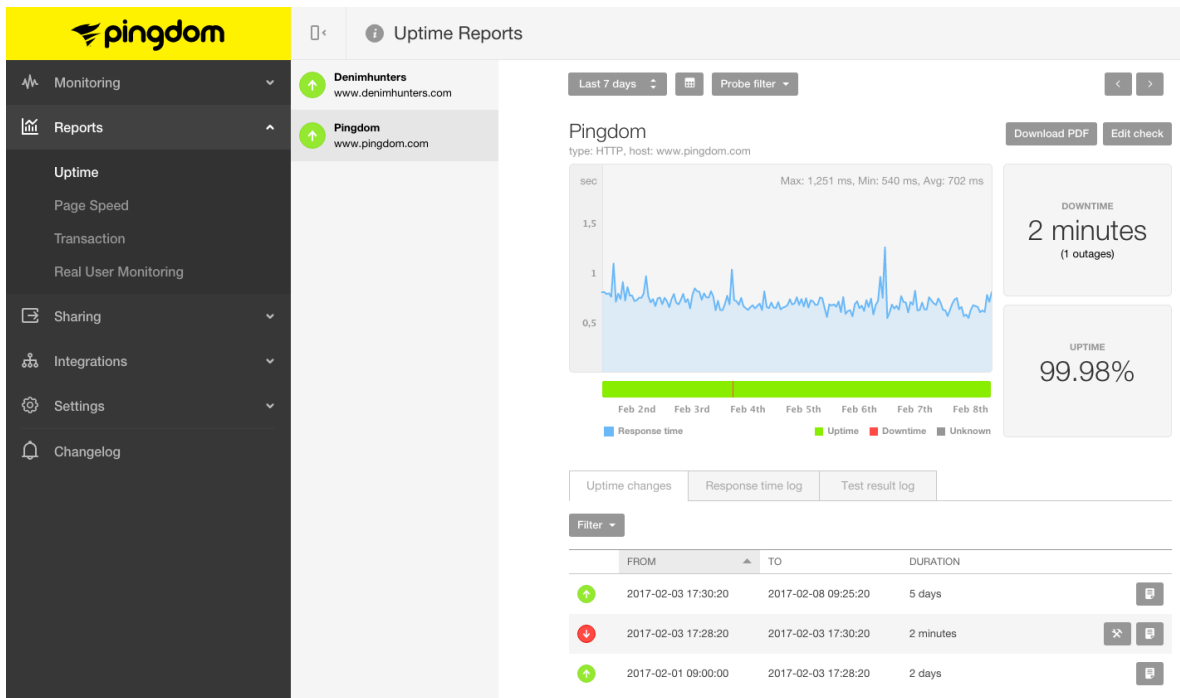
WHAT IS RESPONSE TIME?

Response time means the time between when the client initiates a connection request and finishes receiving the last byte of response.

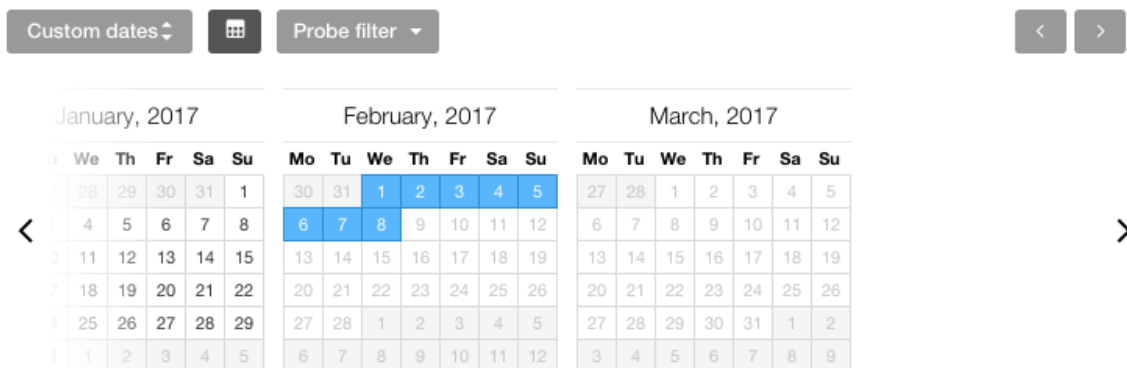
The response time of the HTTP check is determined by the response and load time (including the execution of backend code) of a single GET request to your website. This includes the HTML code and header on your website (no images, flash, JavaScript etc).

UPTIME REPORT

To access your uptime reports you simply click on **Reports** in the left-hand menu, and then choose **Uptime**. Here you will get an overview of the uptime, how long your downtime lasted and the number of downtimes – all within the time range you select.



You can choose from preset date ranges, such as the past month or 7 days but you can also select custom date ranges by clicking on **Custom Dates** in the dropdown menu, or the calendar icon.



You can even filter your uptime report by the probe that performed the test, by selecting one of our probes from the **Probe Filter** drop down menu.

Custom dates Probe filter

January, 2017

Mo	We	Th	Fr	Sa	Su
	28	29	30	31	1
<	4	5	6	7	8
9	11	12	13	14	15
16	18	19	20	21	22
23	25	26	27	28	29
30	1	2	3	4	5

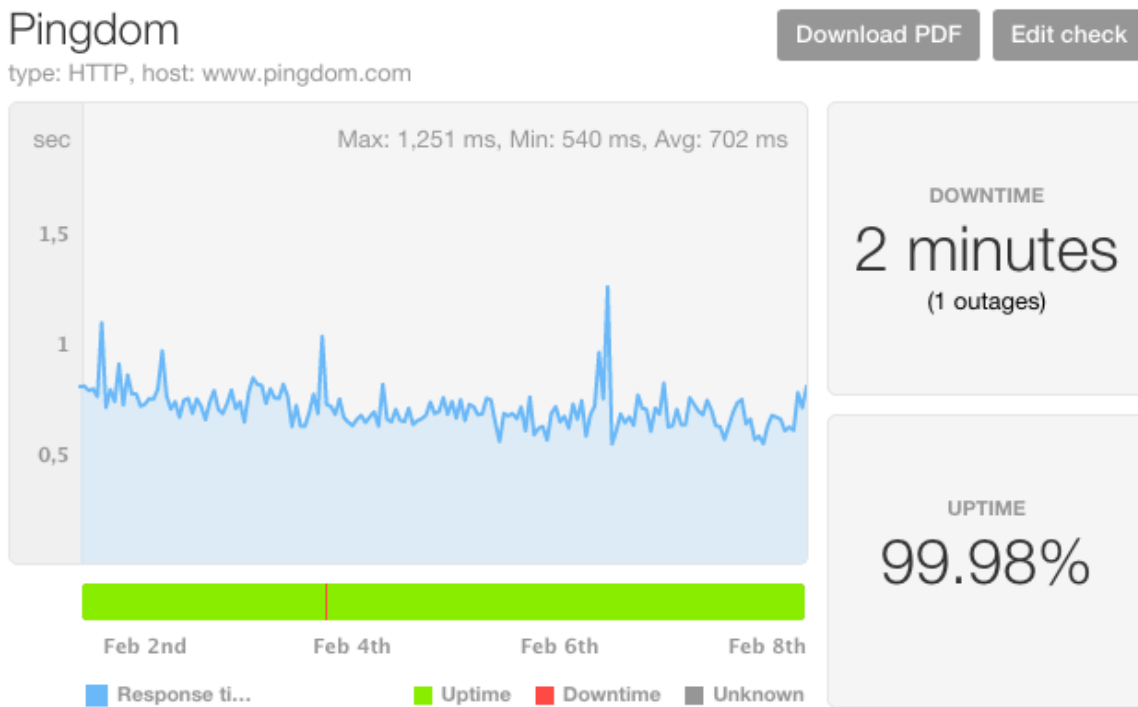
March, 2017

Th	Fr	Sa	Su
2	3	4	5
9	10	11	12
16	17	18	19
23	24	25	26
30	31	1	2
6	7	8	9

Probe filter

- Select all
- North America
 - Toronto 2, Canada
 - Las Vegas 2, NV
 - Las Vegas 4, NV
 - Philadelphia 2, PA
 - St. Louis 3, MO
 - Matawan, NJ

This report will also show you a graphic representation of your check's response times in the given date range, and highlight and downtime experienced.



DOWNLOAD A PDF REPORT!

Need to show the uptime status of your check to your boss or a colleague? You don't need to hand over the keys to your Pingdom to do so. You can download a PDF version of the report you just created to send via email or print. Simply click on the Download PDF button and Pingdom will generate a report for you in seconds.

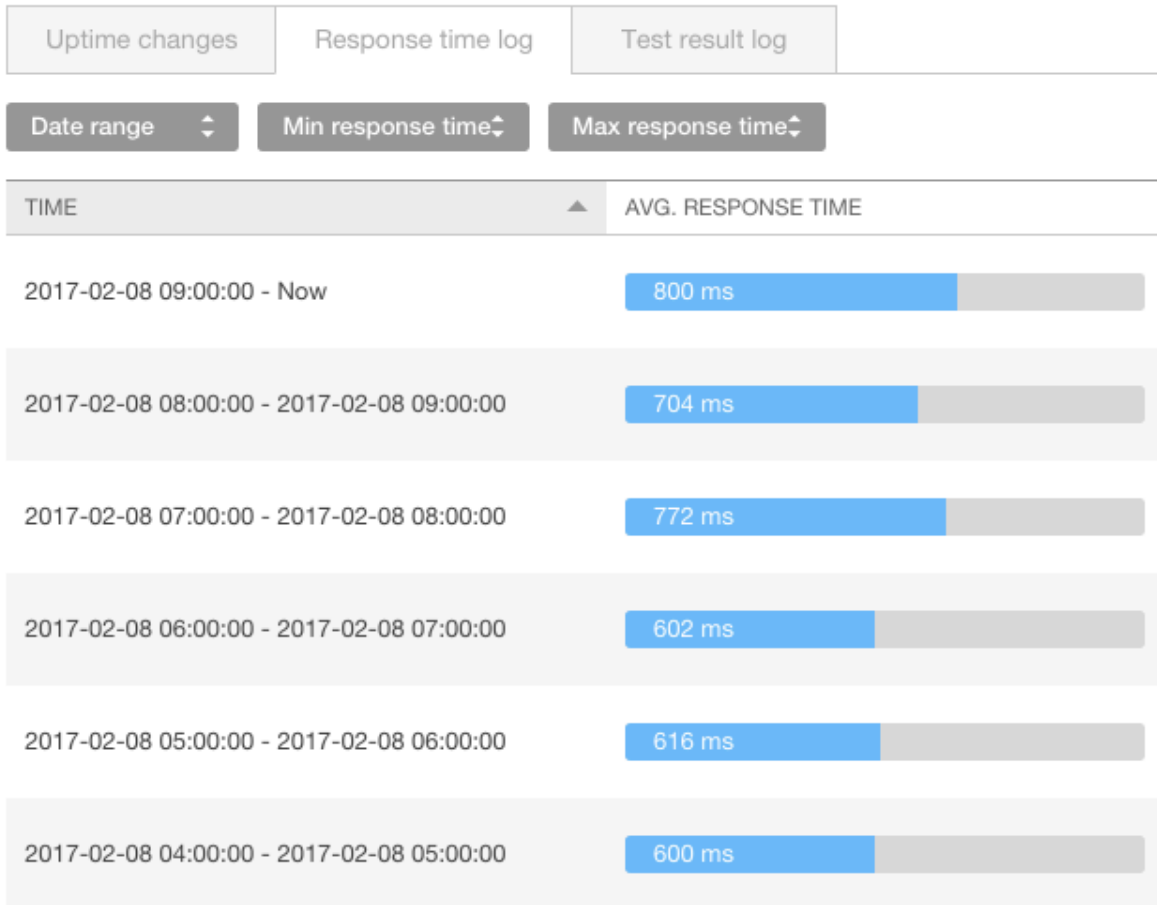
You can also view lists of any changes in your uptime, and filter between periods of uptime or downtime by clicking on the **Filter** drop down menu.

Uptime changes	Response time log	Test result log			
Filter ▾					
	FROM	▲	TO	DURATION	
↑	2017-02-03 17:30:20		2017-02-08 09:25:20	5 days	📄
↓	2017-02-03 17:28:20		2017-02-03 17:30:20	2 minutes	✕ 📄
↑	2017-02-01 09:00:00		2017-02-03 17:28:20	2 days	📄

This view will show you how long each period of up or downtime was that your site experienced within your specified date ranges.

RESPONSE TIME LOG

The **Response time log** tab shows you the time each test took to perform a complete GET request to your website.













Here, you'll be able to see the average response time for each test performed in milliseconds and the date and time of each test performed. This tab is particularly useful for identifying periods where your site was technically available but perhaps took an unusually long time to perform the GET request.

In this tab, you can also filter between various date ranges, minimum and maximum response times in case you'd like to isolate particular occurrences.

TEST RESULT LOG

The third tab—**Test result log**—shows the results for all the individual tests we perform on your site, including the location of the test probe from which the test was performed.

	Uptime changes	Response time log	Test result log	
Filter ▾	Min response time ↕	Max response time ↕	Download CSV	
	TIME	TIME (REL.)	RESPONSE TIME	LOCATION
↑	2017-02-08 09:25:20	1m ago	623 ms	 Toronto 2, C...
↑	2017-02-08 09:24:20	2m ago	818 ms	 Las Vegas 4,...
↑	2017-02-08 09:23:20	3m ago	1 389 ms	 Amsterdam ...
↑	2017-02-08 09:22:20	4m ago	242 ms	 Strasbourg 7...
↑	2017-02-08 09:21:20	5m ago	512 ms	 Philadelphia ...
↑	2017-02-08 09:20:20	6m ago	565 ms	 St. Louis 3, ...
↑	2017-02-08 09:19:20	7m ago	2 230 ms	 Stockholm 2...
↑	2017-02-08 09:18:20	8m ago	843 ms	 Los Angeles ...
↑	2017-02-08 09:17:20	9m ago	399 ms	 Matawan, NJ
↑	2017-02-08 09:16:20	10m ago	689 ms	 Thessaloniki,...

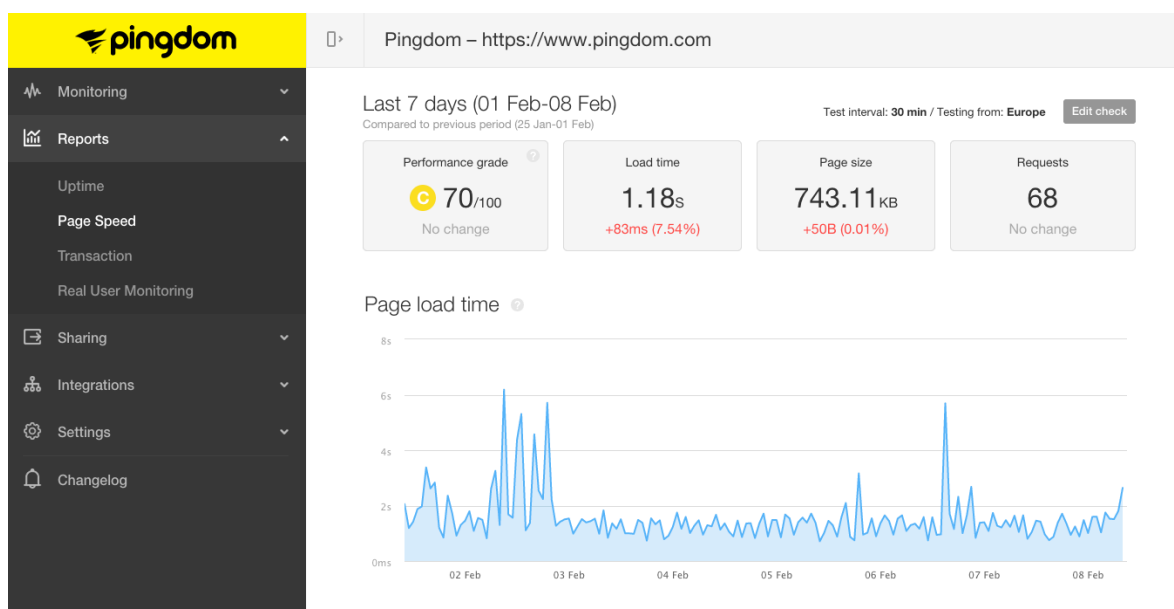
This is a great first step to find out why an outage happened. Usually, the test result log will tell you all you need to know. If you for some reason want to dive deeper into an outage, you can have a look at the Root Cause Analysis that was performed when we detected the outage.

If you want to play around with your data, or churn it through a visualisation tool of your own choosing, just click Download CSV to download the raw data.

PAGE SPEED REPORT

The second report we'll talk about in this guide is your Page Speed reports, which are accessible by clicking on **Reports** in the left-hand menu, and subsequently **Page Speed**. Pretty simple so far!

Once you've done this, you'll be presented with a report of your page's performance from the last 7 days.

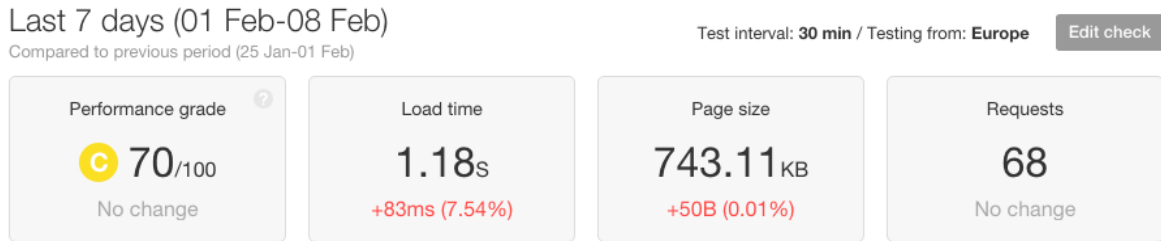


NUMBERS AT A GLANCE

The first section shows a summary of your page performance, including an aggregate Performance Grade based on the grading system developed by Yslow. This is useful for giving a good idea of how your page performs at a glance, but you'll be able to dig down further into the details of your Page Speed report.

Alongside the Performance Grade, you'll be able to see the mean load time, page size and number of requests your page made every time the Page Speed test was performed.

A really nice feature of these summaries is that you can see any changes to your page average from the previous 7 days.








As you can see in the image above, the load time and page size have increased by 83ms and 50B respectively from the previous 7 day period. The number of requests however, has not changed.

Page load time



Further into your Page Speed report, you'll be able to see the time it took each test to fully load the page, including external resources such as images and text. This graph is especially useful to identifying any spikes in the page load time chronologically.

Latest tests

DATE & TIME	LOAD TIME	PAGE SIZE	REQUESTS	PERF. GRADE
2017-02-08 10:14:54	3.27s	743.20 KB	68	 70/100 >
2017-02-08 09:44:55	3.84s	743.14 KB	68	 70/100 >
2017-02-08 09:14:54	1.44s	632.52 KB	68	 70/100 >
2017-02-08 08:44:54	908ms	743.13 KB	68	 70/100 >
2017-02-08 08:14:54	2.7s	632.52 KB	68	 70/100 >

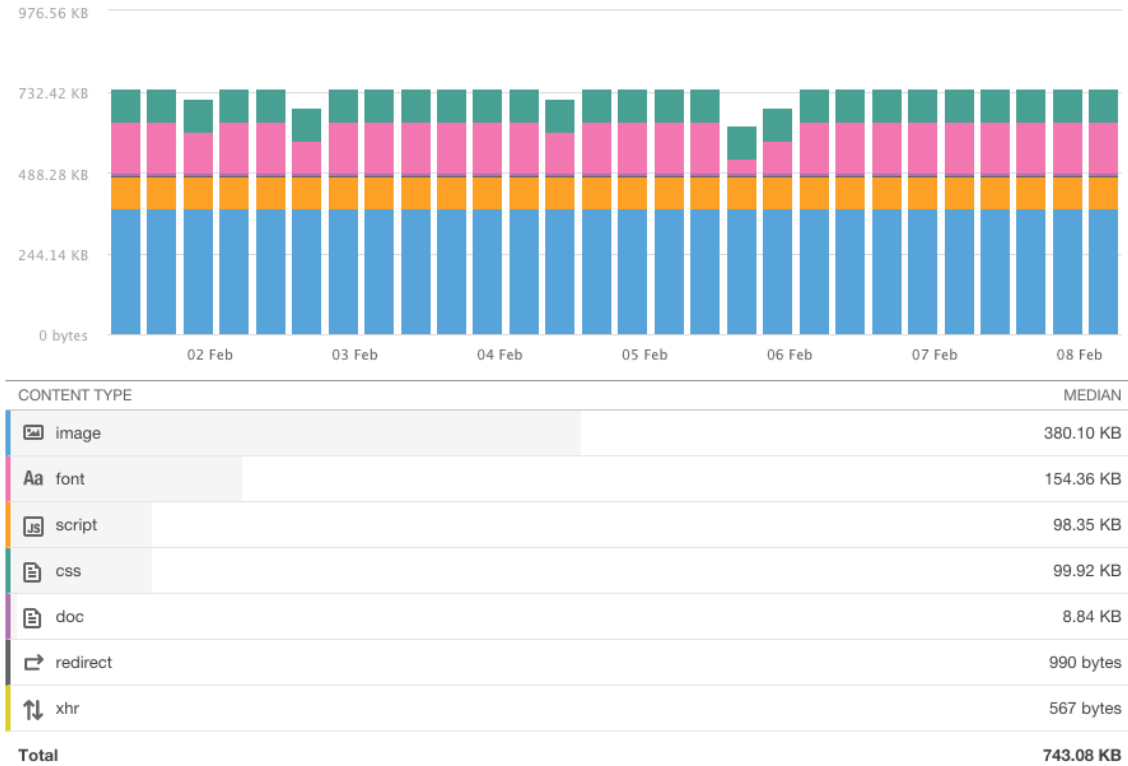
[Show more >](#)

If you prefer to look at the data of individual tests, we've got that covered too! Under the **Latest Tests** header, you can see the summary of each test we've performed, including the time it took to load the page in its entirety, the size of the page, number of requests and the Performance Grade appended to it.

PAGE PERFORMANCE BY CONTENT TYPE

You'll notice as you go through your Page Speed report that we show you a lot of beautiful graphs. Of course, beauty isn't what makes them useful: we present you with an incredible amount of data about your web page's load performance here, sorted in a number of ways.

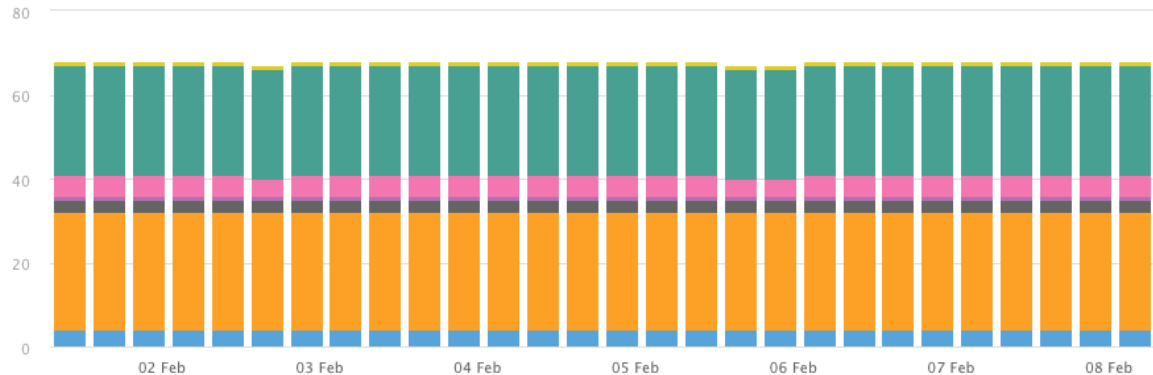
Content size by content type 🔍



The first waterfall graph shows you the size of the content on your page, grouped by its type, such as images, fonts, scripts and redirects. In the example above, images dominate over half of the page's size, with scripts and fonts taking up most of the remainder.

This view is useful when you want to see what type of content is most prevalent on your site. Often, things like images or scripts can be quite large and thus take a while to load so if you were looking to reduce the size of your page, you could take a look at reducing the number of this type of content.

Requests by content type ?

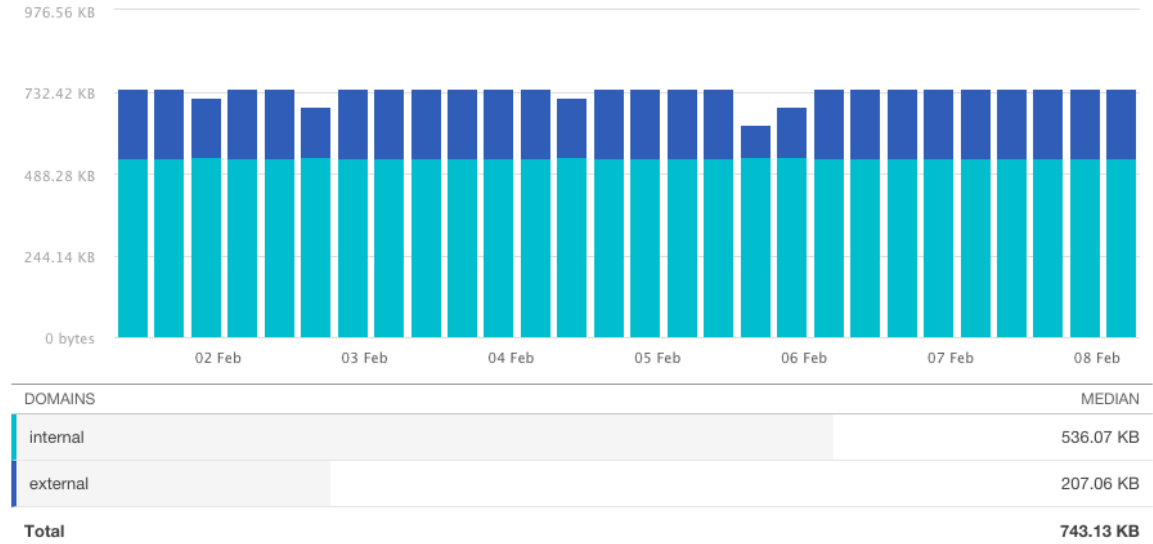


Similarly, you can see the amount of your requests for each type of content your page makes when loading. The more requests your page has to make, the slower it will take to load!

PAGE PERFORMANCE BY DOMAIN

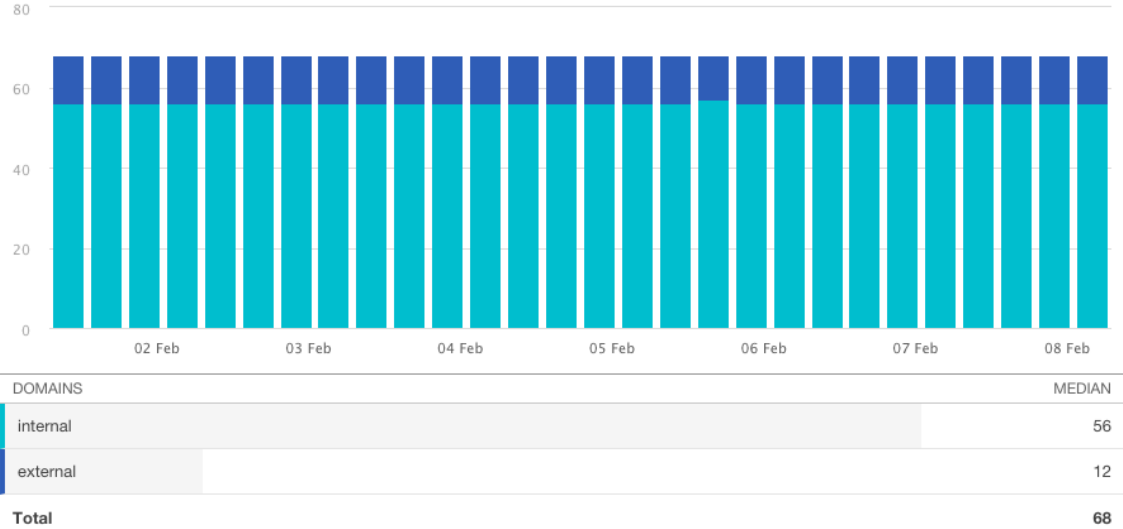
You can also see how your page’s load performance looks by domain. In short, you can see how much of your page content is hosted on your own domain versus that of third parties.

Content size by domain ?



This report can help you identify whether content hosted by third-parties is too large, or whether the third party hosting providers are providing a slow service. In addition to this, you can also check the number of requests made by your page to either your own domain or to third party domains in order to retrieve the content. Again, too many requests can negatively affect the performance of your page.

Requests by domain ?



WE NEED TO GO DEEPER

Sometimes you just need to get even more granular with your page performance data. Luckily, with Pingdom you can go even deeper.

Latest tests ?

DATE & TIME	LOAD TIME	PAGE SIZE	REQUESTS	PERF. GRADE
2017-02-08 14:44:56	1.64s	743.59 KB	69	C 70/100 >

If we take it back to **Latest tests** segment, at the top of your Page Speed report, you can click on a specific test report to see the results in even greater detail.

Performance grade details

GRADE	HOW TO IMPROVE
F 0	Make fewer HTTP requests
F 0	Add Expires headers
F 0	Use a Content Delivery Network (CDN)
F 23	Compress components with gzip
C 70	Avoid URL redirects
B 80	Use cookie-free domains
A 90	Reduce DNS lookups

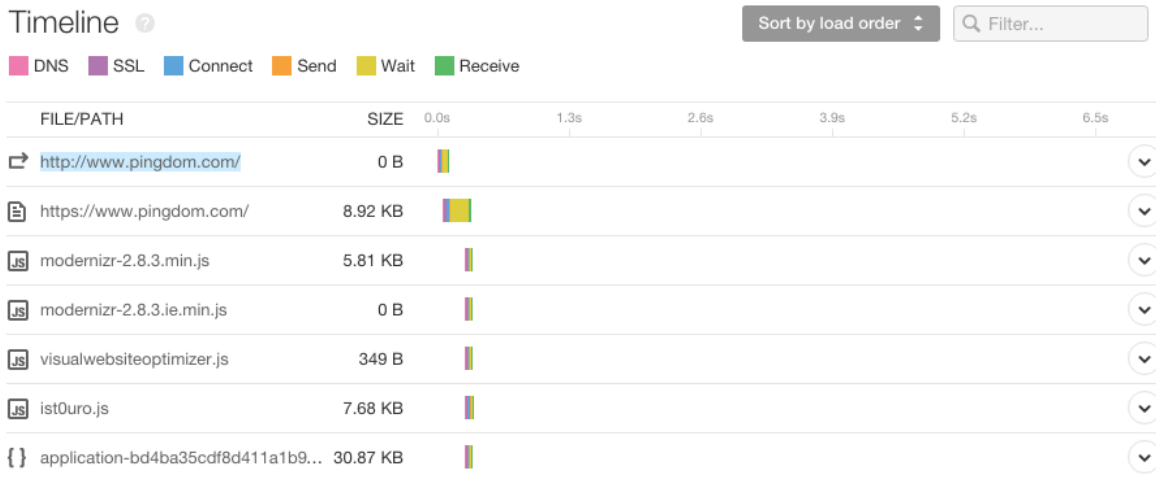
So, your page's performance has been tested and given a Performance Grade. If you're wondering how the grades are awarded, you can see how your page performed in each of the categories we look at, and the score it attained for each, giving you actionable insights for making your page faster.

Response codes

RESPONSE CODE	RESPONSES
200 OK	66
301 Moved Permanently	2
302 Found	1

In the report overview, you can see how many requests were made by your page upon loading. However, we can also show you what the responses to those requests were. In this view, you can see every response from an '200: OK' to a '505: HTTP version not supported'. This can help you identify whether a particular piece of content is loading correctly on your page. Redirects can negatively affect your page performance, so this helps you identify how many your page has to make during load.

LOAD TIMELINE



The **Load timeline** allows you to see the order in which every single element on your page loaded, and the time it took to load each. How's that for granularity!

What's more, in each request, you can see how long it took to connect, send and receive the necessary data along with the size of each request. With this tool, you can pinpoint troublesome

<https://www.pingdom.com/> 8.92 KB

Response Headers

200

status	200
x-request-id	38a305be-dbae-4d18-82af-4353b5e61ba4
x-xss-protection	0; mode=block
x-content-type-...	nosniff nosniff
content-encoding	gzip
set-cookie	_pingdom_com_session=S1YvNXdjaTZmd2VpciJzWmpuS1BLbzlKvixMbm9QMGNEWVRTc1BGZ2hFZmdVOUStcWJKeUZrMHBBVB6RjN1dFN0dXRyd3plYXQ2ai94dIRuc3VpVUF6a0ZYTRkN1bDI0b1VFdXk4b0xROEY0VzA4aVMwTFRqZGJaN1M2N3VEL3ZFcgp2TWNvYkQvL2ZmZ0psODM1OVZCUXVJLzFPTGJnVDgxVEdOYnRyWEt0ckh6Sk1VllwUUp3SFVaYWw3ekM4LS1NRVdTaWU3aWFwZ3lxYUlxT202NWxBPT0%3D--f6efc17fa46864c5878a83350e02b601e5cda71e; path=/; secure; HttpOnly
strict-transport-...	max-age=31536000

Request Headers

accept-language	en-US,en;q=0.8
accept-encoding	gzip, deflate, sdch, br
accept	text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
user-agent	Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Ubuntu Chromium/53.0.2785.143 Chrome/53.0.2785.143 Safari/537.36 PingdomPageSpeed/1.0 (pingbot/2.0; +http://www.pingdom.com/)
cookie	__cfduid=de7dc057d970e46c01eb1241e74e38a241486562380
pragma	no-cache
cache-control	no-cache
upgrade-insecur...	1

elements individually, allowing you to investigate any issues that are affecting your page's load performance.

By clicking on an individual request in the Load timeline, you can drop down to see information on the response and request headers.

In case you want to see the request and response times for the elements of your page in order of size or file type, we've got that covered too. Simply click on the dropdown menu to select from a range of ways to present your data. Alternatively, you can filter the timeline for a particular request by using the Filter field.



MOBILE REPORTS

Did you know that Pingdom's mobile app allows you to access your full reports, even when you're on the go. It's available for download for both iOS and Android via iTunes and Google Play.

AND THERE IS MORE...

With this guide, you should be able to make the most of your Uptime and Page Speed reports. We've covered the basics but if you're interested in getting to know our monitoring tools in greater depth, take a look at our other guides available on pingdom.com/resources.