ASSETS COMPRESSION TOOLS

After a research made with the 5 most acclaimed image compression tools by the front-end community, which are:

- JPEG optimizer
- Optimizilla
- Tiny PNG
- Compressor.io
- Squoosh.app

Our developer team has determined that the most balanced tool in terms of performance optimization is Compressor.io. Furthermore, it is the only tool among the 4 mentioned that supports compressing images in .svg format, making it our primary tool for image compression.

Having established Compressor.io as our preferred tool for asset compression, it is important to highlight the following information obtained from our tests as a reference in case we might consider using a different tool than Compressor.io for some specific scenarios. This information is divided by image formats to provide a better visualization of the performance of the tools in the asset formats we use most frequently.

PNG

The image used for performance testing in .png format weighs 4MB, and these are the results:

JPEG optimizer

2. new-Media.png

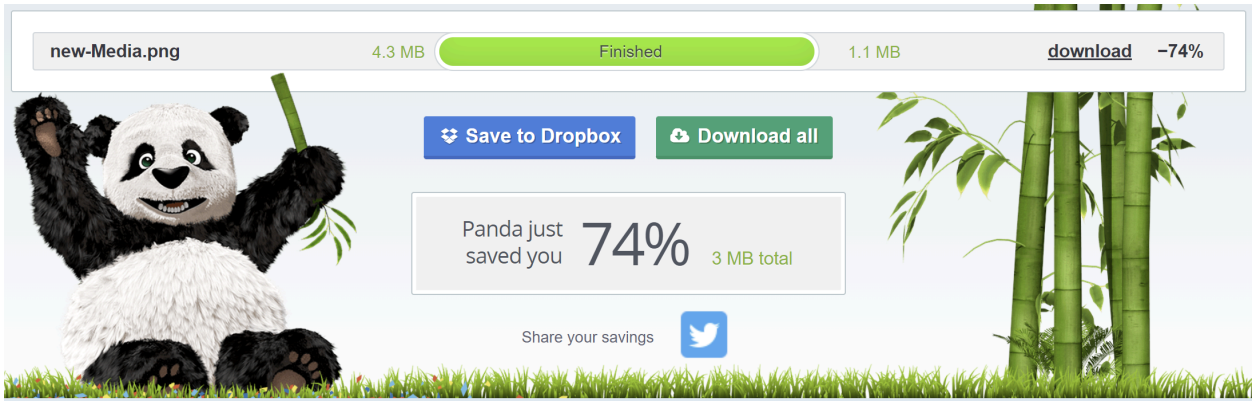
Size: 4.06MB → 1018.74 kB

(75.00% reduced)

Download

The 4MB image size was reduced to 1MB, resulting in a 75% reduction in file size.

Tiny PNG

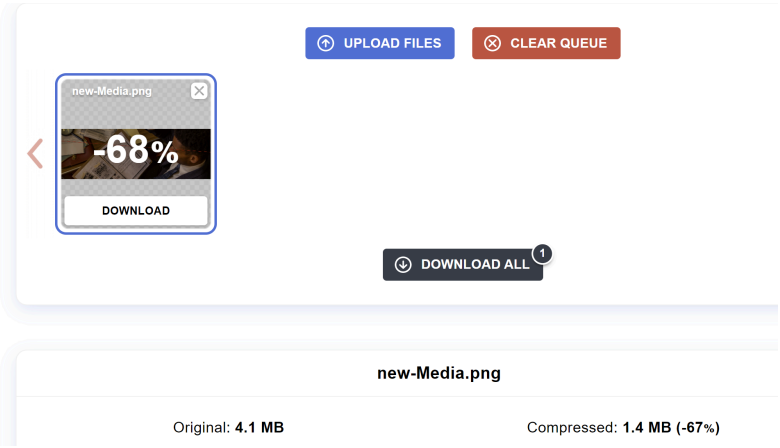


The image size was reduced to 1.1MB, resulting in a 74% reduction in file size.

Compressor.io

The image size was compressed to 1.22MB, achieving a 69% reduction

Optimizilla



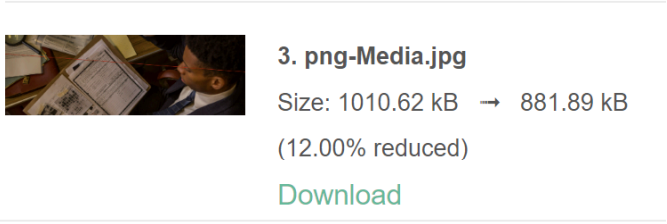
The image size was compressed to 1.4MB, achieving a 68% reduction in file size.

Therefore, it can be understood that JPEG optimizer shows the best performance when compressing in .png format.

JPG

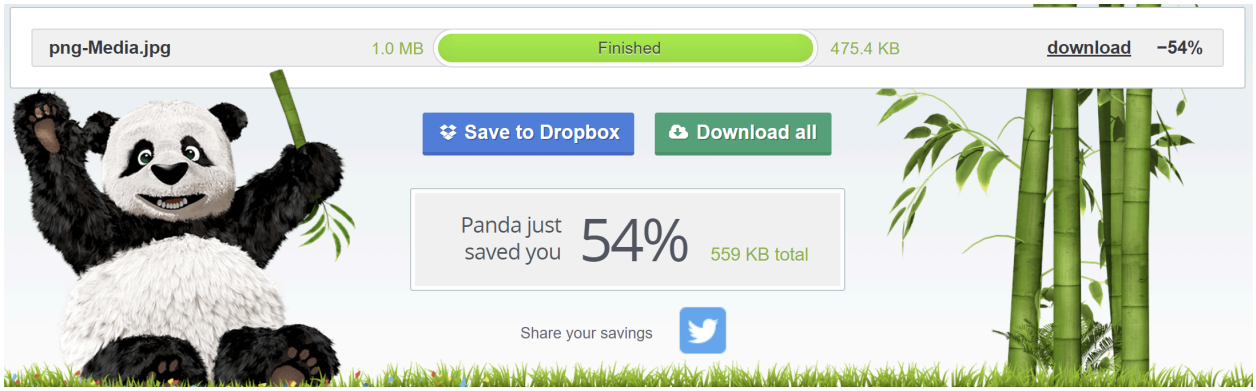
The image used for performance testing in .jpg format weighs 1MB, and these are the results:

JPEG optimizer



The image size was compressed from 1MB to 881.89kb

Tiny PNG



The image size was reduced to 475KB, resulting in a 54% reduction in file size

Compressor.io

After compression, the image size was reduced to 460KB

Optimizilla

Original: **1.3 MB** Compressed: **753 KB (-43%)**

The image size was compressed to 735kb, achieving a 43% reduction in file size

Therefore, it can be understood that Compressor.io shows the best performance when compressing in .jpg format.

SVG

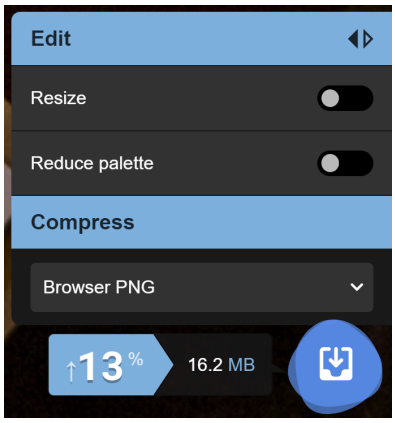
It is important to remember in this section that Compressor.io is the only tool among all the ones previously mentioned that can compress assets in .svg format.

Squoosh.app

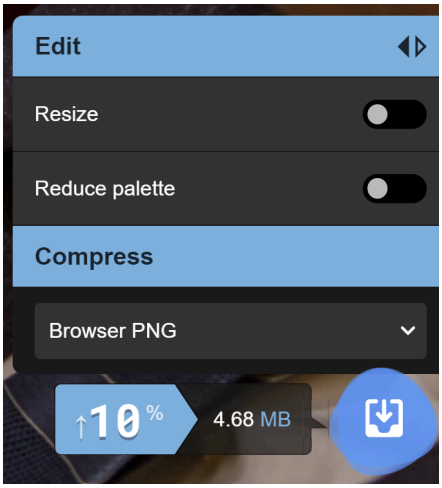
In the performance samples for .jpg, .png, and .svg formats, Squoosh.app was not included. This is because it is important to dedicate a separate section to explain its unique behavior.

PNG a PNG

Based on the conducted tests, using this tool when you have an image in .png format to obtain the compressed image in .png is not viable, as the assets are not compressed.



In this test, a 14MB asset in .png format is used, but the tool returns it as a 16MB .png file.



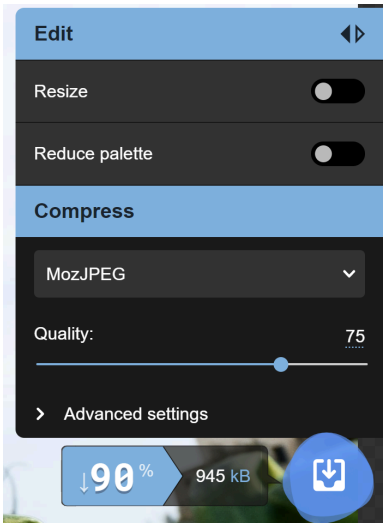
In this other test, a 4.26MB asset in .png format is used, but the tool returns it as a 4.86MB .png file.

JPG to JPG

Since Compressor.io showed the best performance, a comparison was made between Compressor.io and Squoosh.app to verify how they compress jpg formats.

For this test a 9MB jpg asset was used.

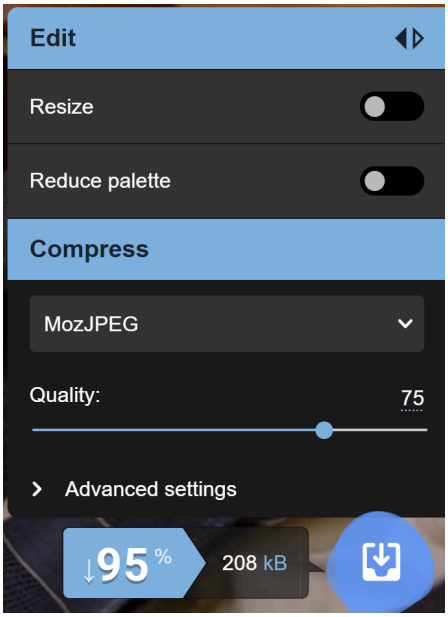
Compressor.io managed to compress from 9MB to 730KB.



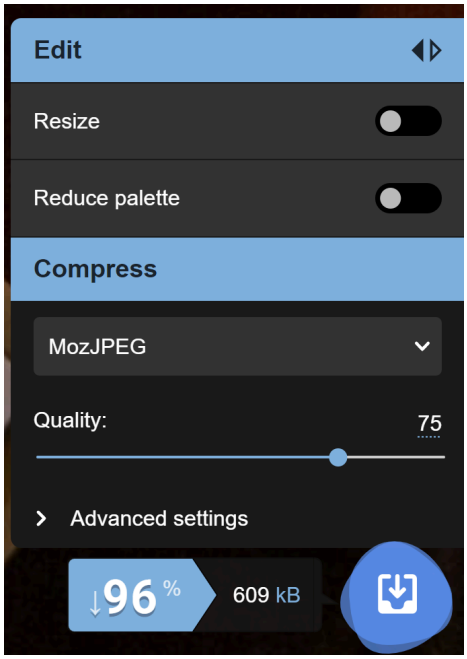
Squoosh.app managed to compress from 9MB to 945KB.

PNG to JPG

During the tests, it was observed that Squoosh.app performs exceptionally well in compressing .png files and delivering them as compressed .jpg files.



The same asset used in the .png format tests, which weighs 4MB, was returned by Squoosh.app as a .jpg file of 208KB.



A 14MB .png was returned by Squoosh.app as a 609KB .jpg file.

CONCLUSIONS:

- Regarding the PNG format, JPEG optimizer is the tool with the best performance.
- Regarding the JPG format, Compressor.io is the tool with the best performance.
- Only Compressor.io is compatible with compressing SVG format.
- If there is a scenario where we have a very heavy PNG file and is not relevant if we use it as a compressed JPG in the project we are working on, compressing that PNG file to obtain a compressed JPG using Squoosh.app is the best option.
- It is important to mention that the tests on the tools were conducted using their free versions. Only Optimizilla and Squoosh can compress files larger than 10MB. In the case of Tiny PNG's free version, it only accepts files of 5MB or less.