



# Image Optimizer

## User Guide

### Description

Apptrian Image Optimizer will optimize your images (GIF, JPG, PNG) reduce their file size without losing image quality and speed up your site. The extension is very easy to install and use. You can optimize images by clicking a button in Magento Admin or automatically by a configurable cron job. If you are an advanced user you will be pleased to know that extension is fully configurable. You can change optimization options even swap utilities used for optimization with the ones you like. (By default our extension is using optimization utilities recommended by Google PageSpeed Insights and GTmetrix.)

### Features

#### General

- An Easy way to enable or disable the extension.
- Batch Size is the number of images to be optimized per click or cron execution.
- Paths option is a text area field where you can type paths you want to be scanned for images.
- Convenient "Start Scan and Reindex Process" button for scanning and reindexing images.
- Convenient "Start Optimization Process" button for optimizing images.
- Convenient Progress Bar will give you info about the percentage and number of optimized images.
- Convenient "Clear Index" button for resetting progress bar and ability to start index and optimization processes again.

#### Cron

- An Easy way to enable or disable the Scan and Reindex Process Cron Job.
- Option to type Cron Expression for the Scan and Reindex Process.
- An Easy way to enable or disable the Optimization Process Cron Job.
- Option to type Cron Expression for the Optimization Process.

#### Utility

- Use 64-bit Utilities option will allow you to run 64-bit version of utilities.
- Log Utility Output option allows you to log information about the optimization process.
- Force file permissions after optimization.
- Utilities Path option allows you to swap optimization utilities.
- GIF Utility allows you to set GIF optimization utility.
- GIF Utility Exact Path allows you to specify the path to your GIF utility if it is already installed on your

system.

- GIF Utility Options allows you to set GIF utility options.
- JPG Utility allows you to set JPG optimization utility.
- JPG Utility Exact Path allows you to specify the path to your JPG utility if it is already installed on your system.
- JPG Utility Options allows you to set JPG utility options.
- PNG Utility allows you to set PNG optimization utility.
- PNG Utility Exact Path allows you to specify the path to your PNG utility if it is already installed on your system.
- PNG Utility Options allows you to set PNG utility options.

## Installation Instructions

If you purchased an extension on Magento Marketplace then unpack .zip file inside **app/code/Apptrian/ImageOptimizer/** directory.

If you purchased an extension on our site then unpack .zip file inside your Magento root.

Run following commands on Magento root directory:

```
php bin/magento maintenance:enable
```

```
php bin/magento module:enable --clear-static-content Apptrian_ImageOptimizer
```

```
php bin/magento setup:upgrade
```

```
php bin/magento cache:flush
```

```
php bin/magento setup:static-content:deploy
```

```
php bin/magento maintenance:disable
```

```
php bin/magento cache:flush
```

If you do not know how to install an extension or you wish a professional to do it for you, we offer additional Installation service for a small fee.

## Configuration

Find Image Optimizer "bin" directory. (Can be "app/code/Apptrian/ImageOptimizer/bin" or "vendor/apptrian/image-optimizer/bin".) Set execute permissions on **files** inside this directory. These permissions are usually 755. (If you already have gifsicle, jpegtran, and optipng installed on your server use "Utility Exact Path" fields to point extension to your installed versions of these utilities. If utilities are added to the system path then in "Utility Exact Path" fields type only the name of the utility.)

For sites with many images please be aware of the **memory\_limit** requirement. Our extension is tested with 1000000+ images in the index. To operate index with 1000000+ images you need to set PHP value **memory\_limit** to 1024M or more. You should not worry about this for sites with up to 500000 images because Magento 2 default value for **memory\_limit** is 768M (you can see this in a .htaccess file in your Magento root and this is also where you change **memory\_limit** if needed).

## Testing

### Please test the extension before you use it!

Download [testimages.zip](#) file (inside are test images that are not optimized). Unpack testimages.zip file into your Magento "pub" directory. Then in our extension configuration for the option "Paths" remove everything and type "pub/testimages". Click the "Start Scan and Reindex Process" button and after it is finished click "Start Optimization Process" button. After it is finished download files from "pub/testimages" directory and compare with the ones in the testimages.zip file. Downloaded files should be smaller in size. (It does not matter how much smaller just need to be different file size. These are just the test images.) If it is working delete "testimages" directory from your Magento "pub" directory and in extension configuration for the option "Paths" type "pub". Now you can use the extension.

Be aware that some third-party optimization utilities like optipng might change image file permissions to 664 or 666 after optimization. This is not always desirable so to make sure all optimized images have right permissions after optimization use "Force File Permissions" option in our extension config and type permissions you want. Example: 0644 (These permissions might not be good for your server so the best way to know is to look what are your images permissions before you start optimization.)

Be aware that included versions of binary utilities gifsicle, jpegtran, and optipng might not work on every server. If the file size of test images (in bytes) does not change after optimization this means that particular utility is not compatible with your server. In that case, you need to install a version of the utility specifically created for your server OS.

### **gifsicle**

If you are on Debian/Ubuntu:

```
sudo apt-get install gifsicle
```

If you are on Fedora/Centos/RedHat:

```
sudo yum -y install gifsicle
```

### **jpegtran**

If you are on Debian/Ubuntu:

```
sudo apt-get install libjpeg-progs
```

If you are on Fedora/Centos/RedHat:

```
sudo yum install libjpeg-turbo-utils
```

### **optipng**

If you are on Debian/Ubuntu:

```
sudo apt-get update
```

```
sudo apt-get install optipng
```

If you are on Fedora/Centos/RedHat:

```
sudo yum install optipng
```

After utility or utilities are installed, use "GIF Utility Exact Path", "JPG Utility Exact Path", and "PNG Utility Exact Path" and type full path where these are installed on your server or just binary utility name "gifsicle", "jpegtran", "optipng" (without quotes). (Properly installed binary utilities are usually added to system path so you do not need to type full path for these options.)

Installing the above-mentioned utilities would probably require root access. Because of this, you will probably need to contact your server support. Some shared hosting services do not allow installation of any binary utility. In that case, you will not be able to use our extension.

Installation of binary utilities on your server is **not** covered by our installation service nor support service.

If you do not know how to install and/or test extension or you wish a professional to do it for you, we offer additional Installation service (that includes testing) for a small fee.

If you want to configure it differently log to your Magento Admin and go to

**Stores > Configuration > Apptrian Extensions > Image Optimizer**

All options are self-explanatory and have tooltips for additional information.

After changing options make sure you refresh your Magento cache.

If you are an advanced user or web developer you will be pleased to know that extension is fully configurable. You can change optimization options even swap utilities used for optimization with the ones you like. The only requirement is that they are command line utilities. By default, our extension is using optimization utilities recommended by Google PageSpeed Insights. These are gifsicle, jpegtran, and optipng. For example, you could change utility for JPG optimization and instead of jpegtran use jpegoptim. To do this in extension configuration change "JPG Utility" option to "jpegoptim" and for "JPG Utility Options" type "--strip-all %filepath%". If jpegoptim is installed on your server then for "JPG Utility Exact Path" type "jpegoptim".

**Image Optimizer is fully compatible with Google Perceptual JPEG encoder "guetzli"**

However, you need to:

**1. Install guetzli on your server.**

This is not covered by our Installation and Support services. More info on how to install guetzli can be found [here](#).

**2. Configure our extension to use guetzli.**

In our extension config in "Utility" section

For "JPG Utility" type **guetzli**

For "JPG Utility Exact Path" type full path where you installed guetzli or if you added it to the system path then type only the name of the binary it should be **guetzli**

For "JPG Utility Options" type:

**--quality 90 %filepath% %filepath%**

you can adjust quality option to your liking.

**3. Test optimization** by using test images we provided and manually compare file size before and after optimization. (Configuring and testing guetzli is covered by our Installation and Support services.)

Be aware of the following:

Guetzli is a "lossy" compressor. This means you will lose some image quality. (By default our extension is using jpegtran and there is no change in image quality after optimization.)

Guetzli is much slower than jpegtran.

## **IMPORTANT NOTICE**

In order to pass the [Google PageSpeed Insights](#) test regarding image optimization Google Perceptual JPEG encoder "guetzli" is required.

Use [GTmetrix](#) to check your image optimization status.

# This extension is FREE, however support is NOT

Please understand that we get more than a few emails almost every day asking for support. In most cases, problems are lack of basic Magento knowledge and not reading Installation Instructions. Due to our other projects, we do not have time to answer all of them. Because of this, we cannot provide free support for our free extensions. However, we offer very affordable support options.

## FAQ

Q: After upgrading from an older version of Image Optimizer to v2.1.0 (or newer) my old index data is gone and Progress Bar is reset?

A: Image Optimizer v2.1.0 and newer save index data to a file instead of a database. If you are upgrading from any previous version of Image Optimizer prior to v2.1.0 you will lose old index data. Previously optimized images will still be optimized but you will need to re-index and re-optimize all images again. Optimizing images twice or multiple times will not change the quality of images. Image optimization utilities sense if images are optimized and just re-save images without changing them.

To upgrade to new version delete all files from:

**app/code/Apptrian/ImageOptimizer**

then copy new extension files and issue following commands:

**php bin/magento setup:upgrade**

**php bin/magento cache:flush**

then delete all files from:

**var/generation/Apptrian/ImageOptimizer**

directory.

Q: Image Optimizer does not work for me, is there anything I can do?

A: Maybe. First, follow Testing Instructions. The second step is to check permissions on files inside Image Optimizer "bin" directory. (Can be "app/code/Apptrian/ImageOptimizer/bin" or "vendor/apptrian/image-optimizer/bin".) The third is to try 64-bit Utilities option. The fourth use "Utility Exact Path" options but before you do gifsicle, jpegtran, and optipng must be installed on your server (Contact your server support and ask them to install these for you and to send you the full path where these are installed. Some hosting companies will do this other will not). If gifsicle, jpegtran, and optipng are added to system path you can just type the name of the binary, not a full path. (Some servers usually have jpegtran installed. The minimal version required for Image Optimizer to work is v8d but the latest version is preferable.)

Q: Why after clicking "Start Optimization Process" button, none of the images are optimized?

A: Utility binaries located in "app/code/Apptrian/ImageOptimizer/bin" or "vendor/apptrian/image-optimizer/bin" must be executable which means you have to set right permissions on files inside this directory.

Q: After clicking "Start Optimization Process" button, the error message appears "Optimization failed because PHP exec() function is disabled."?

A: This means your server PHP is configured in such a way that PHP exec() function is disabled. Contact your hosting company and ask them to allow exec() function. This usually happens on shared hosting accounts and hosting companies keep this function disabled until you ask them to enable it. This function is needed in order for image optimization utilities to be executed. If you cannot execute optimization utilities you cannot optimize images.

Q: Why Google PageSpeed Insights reports my images are not optimized despite I optimized them properly and can see the difference in file size (in bytes)?

A: Our extension only optimizes images on your site, it will not change format nor resolution of your images.

This brings us to the best practices regarding images and web. You must prepare your images from the start if you want to pass the Google PageSpeed Insights test. This means choosing the right format and resolution for every image.

Image Formats:

GIF is used for images that have very few colors (small web design elements). It is also used for simple animations if it is animated GIF (banners).

JPG is used for images with many colors (photos, product images, and some other design elements).

PNG is used for images where accurate transparency is needed (usually used for design elements, small element backgrounds/css sprites).

Resolution is best explained via an example. Let's say you have an image on your site that is 2000x2000px. However, on your page, it is resized via CSS to 1000x1000px. This means your image is much bigger than it needs to be. If you check your page containing this image via Google PageSpeed Insights it will tell you something like this:

**Compressing and resizing <http://www.example.com/pub/media/wysiwyg/image.jpg> could save 110.1KiB (79% reduction).**

You need to download image.jpg then resize it to 1000x1000px with the image editing program of your choice and upload back to the original location on the server. Then use our extension to optimize it. Only if you did everything correctly you will pass Google PageSpeed Insights test.

Q: Progress bar is stuck?

A: This happens when in one batch of images there are many very large ones and due to memory and time limits for script execution optimization is aborted. To overcome this, lower the "Batch Size" option to 10. In some cases of very large images and certain server configurations, you will need to set "Batch Size" to 1. After you optimize these large images you can set "Batch Size" back to the default value of 50.

Q: Why are not all images optimized?

A: Only images that are on your server can be optimized. Also sometimes Google PageSpeed Insights will report .gif images with transparency not optimized despite the fact they are. For images that have transparency use .png files. There is also an edge case when you use one format while you would get a much smaller file using another. (Read one of the above FAQ for more information on how to choose appropriate image format.)

## A Word From the Author

Thank you very much for your interest in Image Optimizer extension. You can rest assured that by choosing this extension you are getting high-quality product despite the fact it is free. The same professional approach, dedication, and care are invested in this product as if it is paid one. If you find this product useful and want to say "thanks" you can do that by rating it and writing a short review about it on [Magento Marketplace](#). Also, you can like, share and follow us on [Facebook](#), [Google+](#), [Pinterest](#), and [Twitter](#).

If you have any questions about extension or Magento in general feel free to contact us.