

**Webpage  
performance  
optimization -  
Cookbook**

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## *Important notes!*

This book is intended to be used in educational purposes only! Content of this book is not written in such way to be used in professional environment. Instead, it should serve as a collection of ideas for webpage performance optimization, which will allow reader to perform its own research. Content of this book is not giving recommendations on how something should be performed in real world; it only demonstrates some methods that can be used to perform optimization. Also, author is aware that some demonstrated recipes are not in line with current best practices in software development field. In such cases, easy maintenance of code is sacrifices for maximal performances. It is up to reader to decide if easy code maintenance or maximal performances is more important for his project.

Although all examples are tested, author doesn't guarantee that they will be functional! Success of presented recipes depend on environment and, possibly, errors in recipes (Although great effort is made to avoid them).

**AUTHOR OF THIS BOOK IS NOT RESPONSIBLE FOR ANY EVENTUAL MATERIAL, NONMATERIAL OR ANY OTHER KIND OF DAMAGE CREATED USING THIS BOOK! AUTHOR IS NOT RESPONSIBLE FOR DECISIONS BASED ON THIS BOOK!**

## *Color code*

In this book, the following color code is used:

### **Easy recipes**

### **Intermediate recipes**

### **Difficult recipes**

Difficulty of recipe is subjective estimate of how much time is required for certain recipe to be implemented.

### ***WARNING!***

Warning is a part of recipe that requires special attention.

## *Useful tools and literature*

1. Pingdom Website Speed Test - <https://tools.pingdom.com/>
2. WebPageTest - <https://www.webpagetest.org/>
3. Patrick Sexton - <https://varvy.com/pagespeed/>
4. Steve Souders - <https://stevesouders.com/>
5. Patrick Meenan - <http://blog.patrickmeenan.com/>

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**NOTE: Only first recipe is included in this excerpt!**

## Recipe 1 – Compress traffic

By compressing traffic between server and internet browser, size of transferred data is reduced, thus reducing time it takes for data to travel through network.

If Apache WEB server is used, compression can be enabled using .htaccess file, with following code:

```
<IfModule mod_deflate.c>  
  SetOutputFilter DEFLATE  
  <IfModule mod_setenvif.c>  
    # Netscape 4.x has some problems...  
    BrowserMatch ^Mozilla/4 gzip-only-text/html  
  
    # Netscape 4.06-4.08 have some more problems  
    BrowserMatch ^Mozilla/4\.0[678] no-gzip  
  
    # MSIE masquerades as Netscape, but it is fine  
    # BrowserMatch \bMSIE !no-gzip !gzip-only-text/html  
  
    # NOTE: Due to a bug in mod_setenvif up to Apache 2.0.48  
    # the above regex won't work. You can use the following  
    # workaround to get the desired effect:  
    BrowserMatch \bMSI[E] !no-gzip !gzip-only-text/html  
  
    # Don't compress images  
    SetEnvIfNoCase Request_URI \.(?:gif|jpe?g|png)$ no-gzip dont-  
vary  
  </IfModule>
```

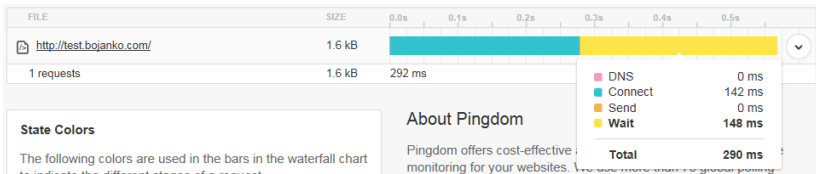


```

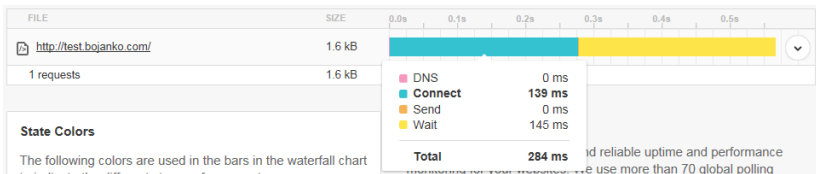
<IfModule mod_headers.c>
  # Make sure proxies don't deliver the wrong content
  Header append Vary User-Agent env=!dont-vary
</IfModule>
</IfModule>

```

\*Without compression



\*With compression



By enabling compression, 2,11% of time is saved!