

Smart phone optimization

Reference **PageSpeed Insights** <https://developers.google.com/speed/pagespeed/insights/>

Writting place for JavaScript

HTML reading stop while JavaScript is read and implemented.

Write JavaScript before close tag of body element to not interrupt reading and display file.

```
<script src="sample.js"></script>  
</body>  
</html>
```

Attribute that read by JavaScript asynchronous and then implement it was added.
If it is JavaScript that is in no particular order of implementation, you can use it.

```
<script src="sample.js" async></script>
```

Minify of HTML/CSS/JavaScript file

Delete line feed and space of HTML · CSS · JavaScript file to reduce amount of data.

If you consider maintenance, **delete at least indent.**

HTML: Indent 3.92 KB

```
20 <div class="menuArea">
21 <div class="seachArea wrap02">
22 <form>
23 <input type="text" placeholder="商品検索">
24 <input type="submit" value="">
25 </form>
26 </div>
27 <nav class="navArea">
28 <ul class="navList">
29 <li><a href="#">会員登録</a></li>
30 <li><a href="#">ログイン</a></li>
31 <li><a href="#">カート</a></li>
32 <li><a href="#">閲覧履歴</a></li>
33 </ul>
34 </nav>
35 </div>
```



HTML: No indent 3.39 KB

```
20 <div class="menuArea">
21 <div class="seachArea wrap02">
22 <form>
23 <input type="text" placeholder="商品検索">
24 <input type="submit" value="">
25 </form>
26 </div>
27 <nav class="navArea">
28 <ul class="navList">
29 <li><a href="#">会員登録</a></li>
30 <li><a href="#">ログイン</a></li>
31 <li><a href="#">カート</a></li>
32 <li><a href="#">閲覧履歴</a></li>
33 </ul>
34 </nav>
35 </div>
```

CSS: Indent 11.2 KB

```
65 .close .menuBtn span {
66   position: absolute;
67   top: 50%;
68   left: 50%;
69   margin-top: -2px;
70   margin-left: -15px;
71   display: block;
72   width: 30px;
73   height: 4px;
74   background: #fff;
75 }
76
77 .close .menuBtn:after {
78   position: absolute;
79   top: 8px;
80   left: 50%;
```



CSS: 1line for each selector 9.71 KB

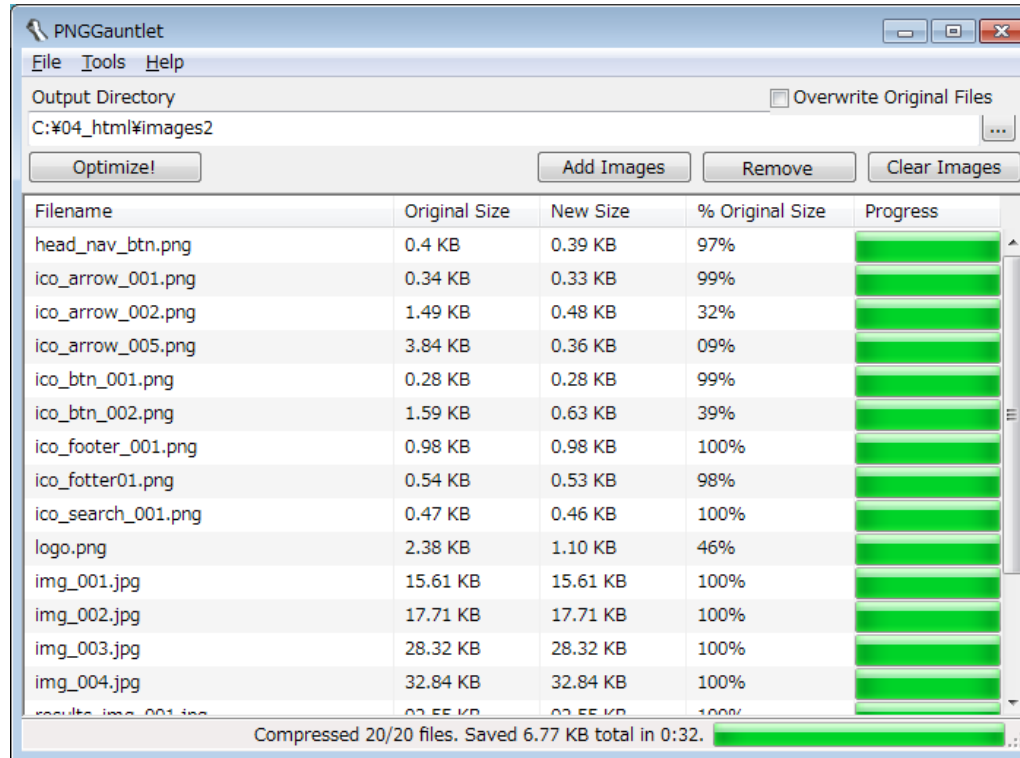
```
20 .headerArea{overflow:hidden;background:#fff;border-bo
21 .logo{float:left;padding:6px 10px}
22 .menuBtn{position:relative;float:right;width:50px;hei
23 .close .menuBtn span{position:absolute;top:50%;left:5
24 .close .menuBtn:after{position:absolute;top:8px;left
25 .close .menuBtn:before{position:absolute;bottom:8px;le
26 .open .menuBtn:after{position:absolute;top:50%;left:5
27 .open .menuBtn:before{position:absolute;top:50%;left:5
28 transform:rotate(-45deg);transform:rotate(-45deg);con
29 transform:rotate(-45deg);transform:rotate(-45deg);con
30 .close .menuArea{display:none}
31 .menuArea .seachArea{margin-top:21px;margin-bottom:25
32 .navList{overflow:hidden}
33 .navList li{position:relative;float:left;width:50%;-w
34 .navList li:nth-child(odd){border-right:1px solid #ff
35 .navList li:after{position:absolute;top:50%;left:10px
```

Reoptimize image

Delete information data that is except for image included in PNG image to make file size small.

Reoptimize PNG image that was written out by Photoshop by using special tool.

PNGGauntlet



Reference

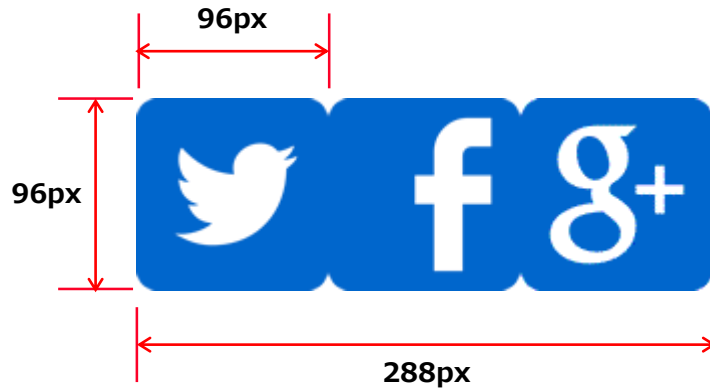
<https://developers.google.com/speed/docs/insights/OptimizeImages>

PNGGauntlet <http://pnggauntlet.com/>

Summarize several icon images to one image.

If HTTP request number reduce by summarizing file, whole speed will be faster because concurrent users for server have limit.

icon.png 288px×96px



```
<ul class="logo">  
  <li class="twitter">twitter</li>  
  <li class="facebook">facebook</li>  
  <li class="google-plus">google-plus</li>  
</ul>
```

```
.logo li {  
  overflow: hidden;  
  float: left;  
  width: 48px;  
  height: 48px;  
  margin-right: 10px;  
  background-image: url(img/icon.png);  
  background-size: 144px 48px;  
  text-indent: 100%;  
  white-space: nowrap;  
}  
.twitter { background-position: 0 0; }  
.facebook { background-position: -48px 0; }  
.google-plus { background-position: -96px 0; }
```

Smart phone coding

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