CSSNano modular minifier

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Why write another minifier?

Other projects exist, do we need to reinvent the wheel?

Performance considerations?

If a file can be made smaller, without breaking its syntax, then it should be. Let us consider places where Internet connectivity is less reliable than ours.

Existing tools lack consistency.

Why should it be that CSS run through different tools produces different results?

(demo)

Tools should be smart.

cssnano uses the PostCSS parser, written in JavaScript, which is 3 times faster than libsass, written in C++. No huge regular expressions.

Minifying is too broad a scope.

Many existing tools are very opinionated, and are responsible for too many tasks.

Modularity is king.

npm taught us to extract functionality into separate modules, and publish at will.

Why should a minifier be excluded from this philosophy?

postcss-merge-rules

postcss-calc

postcss-discard-font-face

postcss-single-charset

postcss-convert-values

postcss-zindex

postcss-discard-duplicates

postcss-reduce-idents

cssnano

postcss-normalize-url

postcss-discard-comments

postcss-font-family

postcss-minify-selectors

postcss-minify-font-weight

postcss-pseudoelements

postcss-discard-empty

postcss-colormin

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cssnano

What can it compress?

cssnano covers many optimisations – this is a breakdown of the more unconventional approaches.

postcss-merge-rules

```
a {
 color: black;
  font-weight: bold
h1 {
 color: black;
  font-weight: bold
```

```
a, h1 {
  color: black;
  font-weight: bold
}
```

postcss-normalize-url

```
.one {
  background: url("http://site.com:80/css/../image.jpg")
}
.one {
  background: url(http://site.com/image.jpg)
}
```

postcss-reduce-idents

```
@keyframes whiteToBlack {
  0% {
    color: #fff
  to {
    color: #000
.one {
  animation-name: whiteToBlack
```

```
@keyframes a {
  0% {
    color: #fff
  to {
    color: #000
.one {
  animation-name: a
```

postcss-zindex

```
.one {
                                       .one {
                                         z-index: 2
 z-index: 1000
.two {
                                       .two {
                                         z-index: 1
 z-index: 500
.three {
                                       .three {
                                        z-index: 3
 z-index: 2500
```

```
html{font-family:sans-serif;-webkit-text-size-adjust:100%;-ms-text-size-
adjust:100%}body{margin:0}article,aside,details,figcaption,figure,footer,header,hgroup,main,menu,nav,section,sum
align:baseline}audio:not([controls]){display:none;height:0}[hidden],template{display:none}a{background-
color:transparent}a:active,a:hover{outline:0}abbr[title]{border-bottom:1px dotted}b,strong{font-
weight:700}dfn{font-style:italic}h1{margin:.67em 0;font-size:2em}mark{color:#000;background:#ff0}small{font-
size:80%}sub,sup{position:relative;font-size:75%;line-height:0;vertical-align:baseline}sup{top:-
.5em}sub{bottom:-.25em}img{border:0}svg:not(:root){overflow:hidden}figure{margin:1em 40px}hr{height:0;-webkit-
box-sizing:content-box;-moz-box-sizing:content-box;box-sizing:content-
size:1em}button,input,optgroup,select,textarea{margin:0;font:inherit;color:inherit}button{overflow:visible}butto
appearance:button;cursor:pointer}button[disabled],html input[disabled]{cursor:default}button::-moz-focus-
inner, input::-moz-focus-inner{padding:0; border:0} input{line-
height:normal} input It te=cock of Cock of Stylevy of It test of Cock of Sizing: border-
box; box-sizing: border tox; Cock of Cock of Sizing: border-
webkit-outer-spin-button{height:auto} input[type=search] {-webkit-ox-sizing:content-box;-moz-box-sizing:content-
box;box-sizing:content-box;-webkit-appearance:textfield}input[type="search"]::-webkit-search-cancel-
                                                                                                                      cssnano
```

Built for collaboration.

There are optimisations that are not covered. It is important to get feedback from the community to progress the state of the art of CSS compression.

Project Links

- cssnano homepage
- css-minifier-tests
- broccoli-cssnano
- gulp-cssnano
- grunt-cssnano
- postcss

```
https://github.com/ben-eb/cssnano
```

https://github.com/ben-eb/css-minifier-tests

https://github.com/sindresorhus/broccoli-cssnano

https://github.com/ben-eb/gulp-cssnano

https://github.com/sindresorhus/grunt-cssnano

https://github.com/postcss/postcss

Any Questions?