netcentric

ENTERPRISE WEB EXCELLENCE

Frontend Talk

29.09.2015

PostCSS

Summary

- Brief history of CSS
- Preprocessors
- What is PostCSS?
- Live code examples
  a. Autoprefixer
  b. Lost grid system
  c. CSSNext
- Comparison
- Things that can only be done with PostCSS

Brief history of CSS

W3C Recommendation

CSS 1	- December 1996 -	=>	typeface, emphasis, color, backgrounds, alignment, border, positioning...
CSS 2	- May 1998 -	=>	absolute, relative, and fixed positioning of elements, z-index, media types, shadows...
CSS 2.1	- June 2011 -	=>	fixed CSS2 implementation problems that lasted for 13 years

CSS 3

- 2012-06-19: Media Queries
- 2011-09-29: Namespaces
- 2011-09-29: Selectors Level 3
- 2011-06-07: Color

CSS 4 - TBA -

Preprocessors

CSS preprocessors take code written in the preprocessed language and then convert that code into the same old css we've been writing for years.

Preprocessors

What can’t be done with preprocessors?

Automatically prefix with vendor prefixes

From

```
a {
  transition: transform 1s
}
```

To

```
a {
  -webkit-transition: -webkit-transform 1s;
  transition: -ms-transform 1s;
  transition: transform 1s
}
```

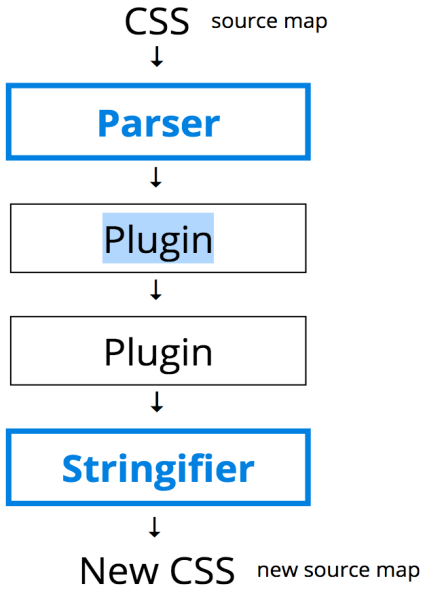
What is PostCSS?

Andrey Sitnik (@andreysitnik)

- Saint Petersburg (Russia)
- Author of autoprefixer and PostCSS
- Rework by TJ Holowaychuk (@tjholowaychuk) at Stylus Team=> PostCSS

PostCSS

- Wrapper for CSS files
- Parser => Plugins => Stringifier
- CSS streams and an abstract node tree
- Does nothing without plugins
- What plugins can do? Let's see it!



Live code examples

1. Autoprefixer
2. Lost
3. CSS Next
4. All together

Comparison

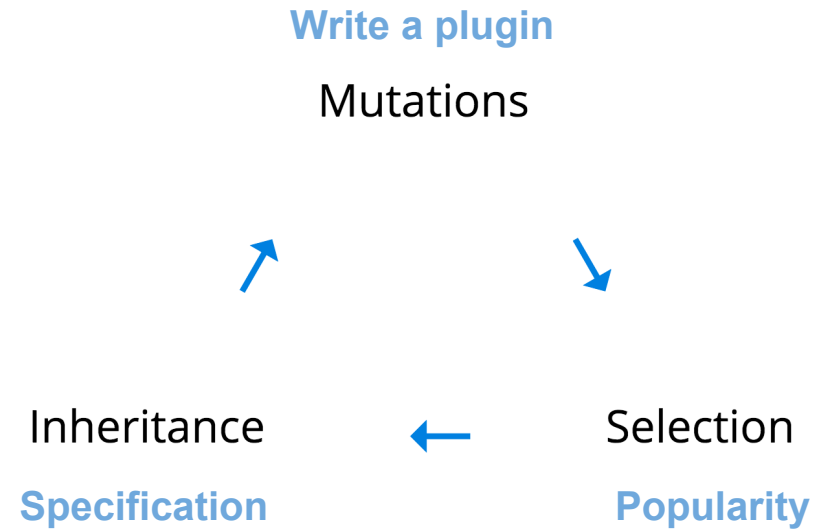
Preprocessors

- Code (logic) inside CSS template
- Monolithic
  - Libsass: 110 files, 3000LOC of C++
  - Stylus: 72 files, 7900 LOC
  - LESS: 105 files, 9800LOC
- Hard to code

PostCSS

- All features by plugins
- JS transforms CSS
- Maintainability
  - postcss-nested: 68LOC
  - postcss-simple-vars: 74LOC
  - postcss-mixins: 147LOC

Enables preprocessor-like syntax



PostCSS Magic

Impossible with Sass

autoprefixer

```
:fullscreen a {
    transition: transform 1s;
}
```

```
:-webkit-full-screen a {
    -webkit-transition: -webkit-transform 1s;
            transition: transform 1s;
}
:-moz-full-screen a {
    transition: transform 1s;
}
:-ms-fullscreen a {
    transition: transform 1s;
}
:fullscreen a {
    -webkit-transition: -webkit-transform 1s;
            transition: transform 1s;
}
```

PostCSS Magic

Impossible with Sass

cssnext

```
@custom-selector --heading h1, h2, h3, h4, h5, h6;

.post-article --heading {
    margin-top: calc(10 * var(--row));
    color: color( var(--mainColor) blackness(+20%) );
    font-variant-caps: small-caps;
}
```

PostCSS Magic

Impossible with Sass

cssgrace

```
.icon {
    opacity: 0.6;
    display: inline-block;
}
```

```
.icon {
    opacity: 0.6;
    filter: alpha(opacity=60);
    display: inline-block;
    *display: inline;
    *zoom: 1;
}
```

PostCSS Magic

Impossible with Sass

rtlcss

Mirror styles for Arabic or Hebrew

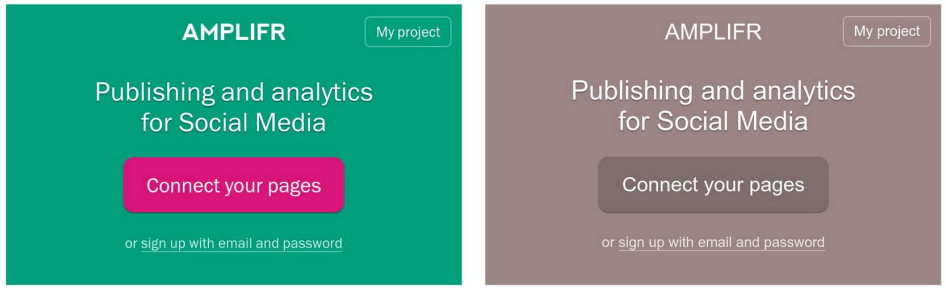
```
a {
    left: 10px;
    text-align: left;
}
```

```
a {
    right: 10px;
    text-align: right;
}
```

PostCSS Magic

Impossible with Sass

postcss-colorblind



PostCSS Magic

Impossible with Sass

doiuse

Lint CSS for browser support against Can I Use database

```
main.css: line 15, col 3 -
  CSS user-select: none not supported by: IE (8,9)
main.css: line 32, col 3 -
  CSS3 Transforms not supported by: IE (8)
```

Good things about PostCSS

1. Performance
2. Modularity
3. Features that are impossible in SASS

   [...]

4. Customization

References

Homepage: code and plugins

- PostCSS @github (repository)

Videos and conferences

- Andrey Sitnik @cssconf (video)
- Level Up Tuts on PostCSS (playlist)

Blog posts and articles

- What Will Save Us from the Dark Side of CSS Pre-Processors? by Lyza Danger Gardner
- Breaking up with Sass: it's not you, it's me by Ben Frain

SEO

Summary

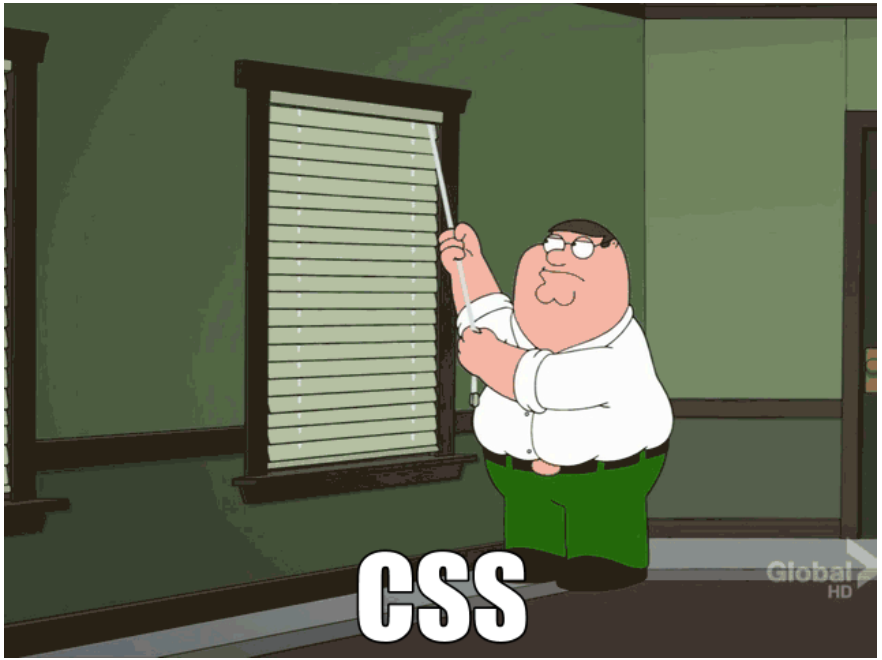
- Content is king
- Good code = Good SEO
- Server-side magic
- Speeding up your pages
- Social Media
- Related talks/workshops
- Resources

Content is king

- Create good content: long texts, relevant keywords, cite sources…
- Research what your users want and update your content, keep it fresh
- Blogs, social media, RSS feeds, newsletters... spread the word!
- Mobile matters: specific mobile versions, mobile-first approach

Good Content + Lots of Backlinks = Great Rankings!

Good Code = Good SEO



Good code = Good SEO

- <title>: unique, descriptive, brief
- <description>: unique, descriptive, relevant
- Keywords?
- Always include an <h1> tag
- Use <h2> and <h3> tags accordingly

Good code = Good SEO

- Google loves descriptive URLs, use them!
- Make sure you can navigate to every page: breadcrumbs, main nav…
- HTML sitemap
- Use meaningful texts on <a> tags
- Images: use descriptive file names, “alt” attribute

Good code = Good SEO

- http://www.frontend-cake-shop.com
- http://www.frontend-cake-shop.com/index.html
- http://frontend-cake-shop.com

<link rel="canonical" href="https://www.frontend-cake-shop.com" />

- http://www.frontend-cake-shop.com/articles/omg-cakes-are-awesome
- http://www.frontend-cake-shop.com/articles.html?articleId=286543457

<link rel="canonical" href="https://www.frontend-cake-shop.com/articles/omg-cakes-are-awesome" />

Server-side magic

Server-side magic

- Setting Max-Age expiry header for .html, .css, .js, .jpg…
- Serve gzipped files
- Redirects: Non-WWW to WWW redirects, 302 -> 301, manage 404 errors
- Robots.txt
- Sitemap XML

Speeding up your pages

- Use inline styles only for 'above the fold' content
- Move JavaScript and CSS code to external files
- Minify the source code to remove 'white space'
- Use CSS sprites to reduce server requests

Social Media

Social Media

- Facebook pages/groups + location
- Twitter: tweet regularly, target keywords/hashtags
- Google+
- Youtube videos: words related to most frequent searches (e.g., “how to”, “review”, “tutorial”)
- Linkedin: yes, you can use SEO in your profile!

Related talks/workshops

- Running a Google AdWords campaign
- Keyword research
- Link building strategies

Resources

- http://www.google.com/webmasters/
- http://moz.com/blog
- http://www.quicksprout.com/blog/
- http://twitter.com/thewalkingpixel :)

Thanks!