

How to Use Sass to Make Your Site More Maintainable

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DRY

- Don't Repeat Yourself
- Every piece of knowledge must have a single, unambiguous, authoritative representation within a system.

“Always code as if the guy
who ends up maintaining
your code will be a
violent psychopath
who knows where you live.”

–Brad Bowman

Sass Color Manipulation

```
$r: #f00; // red
$b: #00f; // blue
p {
  color: rgba($r, 0.5); // rgba(255,0,0,.5)
  color: mix($r, $b); // returns #7f007f
  color: lighten($r, 10%); // returns #ff3333
  color: darken($r, 10%); // returns #cc0000
  color: complement($r); // returns cyan
  color: desaturate($r, 10%); // returns #f20d0d
}
```

Variables

```
$brand_green: #76C642;  
$brand_font: "PT Sans";  
$fontstack: #{ $brand_font }, Arial, sans-serif;
```

```
.btn {  
  font-family: $fontstack;  
  background: $brand_green;  
}
```

Rendered Output

```
.btn {  
  font-family: "PT Sans", Arial, sans-serif;  
  background: #76C642;  
}
```

Nesting

```
.btn {  
  background: $brand_green;  
  &.orange {  
    background: $brand_orange;  
  }  
}
```

Rendered Output

```
.btn {  
  background: #76C642;  
}  
.btn.orange {  
  background: #EFA92D;  
}
```

Includes

```
// style.scss
// This file combines all partials into one
// style sheet that will be loaded on all pages.

@import "vars";           // Variables and mixins.
@import "fonts";          // Custom fonts.
@import "normalize";      // An alternative to CSS resets.
@import "jquery-ui";     // jQuery UI overrides.
@import "drupal";        // Drupal-Specific Styles.
@import "layout";        // Defines overall page layout.
@import "global";        // Styles used on every page.
@import "scoped";        // Styles scoped to individual pages.
@import "home";          // Styles scoped to the homepage.
@import "blog";          // Styles scoped to the blog.
@import "print";         // Styles for printing.
```

Example Partial

```
/**
 * global.scss - Global Styles
 * These styles control the broad strokes of the theme - header, footer, etc.
 * These styles should apply to every section of the site.
 */

/* Base Colors & Fonts ----- */
body {
  background: #fff;
  color: $main_text_color;
  font: 16px/1.5 $fontstack;
}
a {
  @include single-transition(color, .25s);
  text-decoration: none;
  color: $link_color;
  &:hover, &:focus, &:active {
    color: $active_link_color;
    text-decoration: underline;
  }
}
```


Extends

```
%shared_code {  
  font: 30px "Comic Sans MS";  
  color: magenta;  
}  
p.ugly {  
  @extend shared_code;  
  color: green;  
}  
h1.ugly {  
  @extend shared_code;  
  font-size: 120px;  
}
```

```
/* output on next slide */
```

Extends

Rendered Output

```
p.ugly,  
h1.ugly {  
  font: 30px "Comic Sans MS";  
  color: magenta;  
}  
p.ugly {  
  color: green;  
}  
h1.ugly {  
  font-size: 120px;  
}
```

Mixins

```
@mixin font-size($sizeValue, $baseline_px: 16){  
  font-size: ($sizeValue * 1) + px;  
  font-size: ($sizeValue / $baseline_px) + rem;  
}
```

```
h1 {  
  @include font-size(36);  
}
```

Rendered Output

```
h1 {  
  font-size: 36px;  
  font-size: 2.25rem;  
}
```

Buttons Old

```
.btn {
  background: $puppet_green;
  &:hover, &:focus {
    background: mix(white, $puppet_green, 10%);
  }
  &.orange {
    background: $puppet_orange;
    &:hover, &:focus {
      background: mix(white, $puppet_orange, 10%);
    }
  }
  &.purple {
    background: $puppet_purple;
    &:hover, &:focus {
      background: mix(white, $puppet_purple, 10%);
    }
  }
}
```


Buttons New

```
@mixin btn($color: $puppet_green) {  
  background: $color;  
  &:hover, &:focus {  
    background: mix(white, $color, 10%);  
  }  
}  
  
.btn {  
  @include btn();  
  &.orange {  
    @include btn($puppet_orange);  
  }  
  &.purple {  
    @include btn($puppet_purple);  
  }  
}
```

Modernizr Testing

```
@mixin yep($feature) { // feature supported
  .#{ $feature } & {
    @content;
  }
}
```

```
@mixin nope($feature) { // feature not supported
  .no-#{ $feature } & {
    @content;
  }
}
```

```
/* usage on next slide */
```

Modernizr Testing

```
#logo {  
  @include yep(svg) {  
    background: url(logo.svg);  
  }  
  @include nope(svg) {  
    background: url(logo.png);  
  }  
}
```

Rendered Output

```
.svg #logo {  
  background: url(logo.svg);  
}  
.no-svg #logo {  
  background: url(logo.png);  
}
```

Flexible Columns, Fixed Gutter

```
@mixin span-columns($columns, $gutter: 20px) {
  $gutterWidth: (($columns - 1) * $gutter);
  $columnWidth: "(100% - #{ $gutterWidth }) / #{ $columns }";
  width: calc($columnWidth);
  float: left;
  margin: 0 $gutter $gutter 0;
  @include nope(csscalc) {
    // fallback styles for browsers that don't do calc()
  }
}
.three-columns .column {
  @include span-columns(3);
}
```

Rendered Output

```
.three-columns .column {
  width: calc((100% - 40px) / 3);
  margin: 0 20px 20px 0;
}
.no-csscalc .three-columns .column { /* fallback styles */ }

/* abbreviated for readability. full source: git.io/9vb-Fg */
```