

# LESS VS SASS

Battle for CSS Efficiency!

**By:**

Jon Kinney (@j2fly)

- and -

Chris Schmitz (@ccschmitz)

# CSS IS PAINFUL

- Verbose
- Repetitive
- Hard to maintain
- Browser inconsistencies
- It's old-school



# PREPROCESSORS RELIEVE THE PAIN





# FEATURES

- Variables
- Mixins / Extend
- Nesting
- Operations
- Color functions
- File organization

# VARIABLES

```
$color: red;
```

```
div {  
    color: $color;  
}
```

```
@color: red;
```

```
div {  
    color: @color;  
}
```



# VARIABLES

```
$color: black;
```

```
.scoped {  
  $bg: blue;  
  $color: white;  
  color: $color;  
  background-color: $bg;  
}
```

```
.unscoped {  
  color: $color;  
}
```

// compiles to:

```
.scoped {  
  color: white;  
  background-color: blue;  
}  
.unscoped { color: black; }
```

```
@color: black;
```

```
.scoped {  
  @bg: blue;  
  @color: white;  
  color: @color;  
  background-color: @bg;  
}
```

```
.unscoped {  
  color: @color;  
}
```

// compiles to:

```
.scoped {  
  color: white;  
  background-color: blue;  
}  
.unscoped { color: black; }
```



# MIXINS

```
@mixin bordered {  
  border-top: dotted 1px black;  
  border-bottom: solid 2px black;  
}
```

```
#menu a {  
  @include bordered;  
}
```

```
.bordered {  
  border-top: dotted 1px black;  
  border-bottom: solid 2px black;  
}
```

```
#menu a {  
  .bordered;  
}
```

# MIXINS (WITH PARAMS)

```
@mixin bordered($width: 2px) {  
    border: $width solid black;  
}
```

```
#menu a {  
    @include bordered(4px);  
}
```

```
.bordered(@width: 2px) {  
    border: @width solid black;  
}
```

```
#menu a {  
    .bordered(4px);  
}
```



# MIXINS (EXTEND)

```
.bordered {  
  border: 1px solid black;  
}
```

```
#menu a {  
  @extend .bordered;  
}
```

```
// compiles to:  
.bordered, #menu a {  
  border: 1px solid black;  
}
```

# NESTING

```
p {  
  a {  
    color: red;  
  
    &:hover {  
      color: blue;  
    }  
  }  
}
```



# OPERATIONS

1cm \* 1em => 1 cm \* em  
2in \* 3in => 6 in \* in  
(1cm / 1em) \* 4em => 4cm  
2in + 3cm + 2pc => 3.514in  
3in / 2in => 1.5

1cm \* 1em => Error  
2in \* 3in => 6in  
(1cm / 1em) \* 4em => Error  
2in + 3cm + 2pc => Error  
3in / 2in => 1.5in

# COLOR FUNCTIONS

```
lighten($color, $amount)  
darken($color, $amount)  
saturate($color, $amount)  
desaturate($color, $amount)
```

```
lighten(@color, @amount)  
darken(@color, @amount)  
saturate(@color, @amount)  
desaturate(@color, @amount)
```



# FILE ORGANIZATION

```
@import "/stylesheets/reset.css"
@import "mixins/_variables.css.sass"
@import "mixins/_css3.css.sass"
@import "mixins/_mixin.css.sass"

body {
  background: #f0efee
  color: $text
}
```

# DIFFERENCES

## **SASS**

- `@extend`
- Ruby compiler
- Control structures

## **LESS**

- JavaScript compiler
- Namespaces
- Pattern matching



# GETTING STARTED

## SASS

From the command line:

```
gem install sass  
sass --watch style.scss  
=> style.css
```

## LESS

Drop the JavaScript compiler  
in the head of your document:

```
<script src="less.js"  
      type="text/javascript">  
</script>
```

# GUI COMPILERS

- Scout
- LiveReload
- Codekit

