



# *CSS Preprocessors*

## CSS

```
1 body {  
2   color: #0982c1;  
3   border: 1px dotted #0982c1;  
4   max-width: 1024px;  
5 }
```

# Variablen

## LESS

```
1 @mainColor: #0982c1;  
2 @siteWidth: 1024px;  
3 @borderStyle: dotted;  
4  
5 body {  
6   color: @mainColor;  
7   border: 1px @borderStyle @mainColor;  
8   max-width: @siteWidth;  
9 }
```

## Sass

```
1 $mainColor: #0982c1;  
2 $siteWidth: 1024px;  
3 $borderStyle: dotted;  
4  
5 body {  
6   color: $mainColor;  
7   border: 1px $borderStyle $mainColor;  
8   max-width: $siteWidth;  
9 }
```

## Stylus

```
1 mainColor = #0982c1  
2 siteWidth = 1024px  
3 $borderStyle = dotted  
4  
5 body  
6   color mainColor  
7   border 1px $borderStyle mainColor  
8   max-width siteWidth
```

CSS

```
1 | section {  
2 |   margin: 10px;  
3 | }  
4 | section nav {  
5 |   height: 25px;  
6 | }  
7 | section nav a {  
8 |   color: #0982C1;  
9 | }  
10 | section nav a:hover {  
11 |   text-decoration: underline;  
12 | }
```

# *Nesting*

LESS, Sass & Stylus

```
1 | section {  
2 |   margin: 10px;  
3 |  
4 |   nav {  
5 |     height: 25px;  
6 |  
7 |     a {  
8 |       color: #0982C1;  
9 |  
10 |      &:hover {  
11 |        text-decoration: underline;  
12 |      }  
13 |    }  
14 |  }  
15 | }
```

## CSS

```
1 .generic-error {
2   padding: 20px;
3   margin: 4px;
4   border: 2px solid #f00;
5   color: #f00;
6 }
7 .login-error {
8   left: 12px;
9   position: absolute;
10  top: 20px;
11  border: 5px solid #f00;
12  color: #f00;
13 }
```

# Mixins

## LESS

```
2 .error(@borderWidth: 2px) {
3   border: @borderWidth solid #F00;
4   color: #F00;
5 }
6
7 .generic-error {
8   padding: 20px;
9   margin: 4px;
10  .error();
11 }
12 .login-error {
13   left: 12px;
14   position: absolute;
15   top: 20px;
16   .error(5px);
17 }
```

## Sass

```
2 @mixin error($borderWidth: 2px) {
3   border: $borderWidth solid #F00;
4   color: #F00;
5 }
6
7 .generic-error {
8   padding: 20px;
9   margin: 4px;
10  @include error();
11 }
12 .login-error {
13   left: 12px;
14   position: absolute;
15   top: 20px;
16   @include error(5px);
17 }
```

## Stylus

```
2 | error(borderWidth= 2px) {  
3 |   border: borderWidth solid #F00;  
4 |   color: #F00;  
5 | }  
6 |  
7 | .generic-error {  
8 |   padding: 20px;  
9 |   margin: 4px;  
10 |   error();  
11 | }  
12 | .login-error {  
13 |   left: 12px;  
14 |   position: absolute;  
15 |   top: 20px;  
16 |   error(5px);  
17 | }
```