



PROJECT

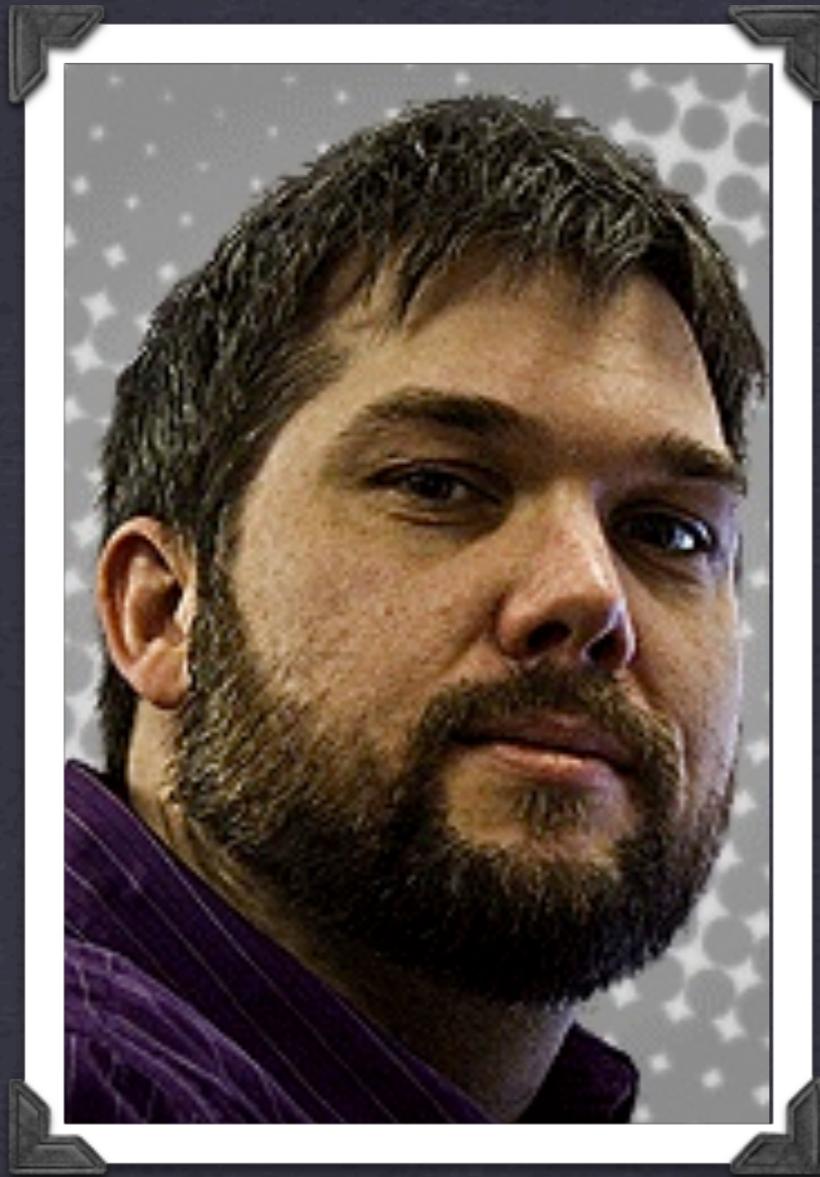
AUTHORING STYLESHEETS WITH SASS AND COMPASS

DATE

7/28/2010

CLIENT

CSS SUMMIT



Caring)com

You're there for them. We're here for you.

CHRIS EPPSTEIN
SOFTWARE ARCHITECT FOR CARING.COM

FOLLOW ME ON TWITTER:
[@CHRISEPPSTEIN](#)



HOLD ON TO YOUR HAT
WE'VE GOT A LOT TO LEARN. CSS HAS GROWN UP.

Today

- * Learn the Sass Syntax and features
- * Learn your way around a compass project
- * Overview of Compass Libraries
- * Style a webpage in minutes
- * Discover a new way of thinking about design

CSS3

33 New Selectors

120+ New Properties

3 New @-rules

Enhanced Media Queries



Nick Coulas

CSS3

More Sophisticated
More Powerful
More Complex

NO NEW FEATURES TO MANAGE COMPLEXITY.



Nick Coulas

Sass & Compass

A workhorse for CSS developers.

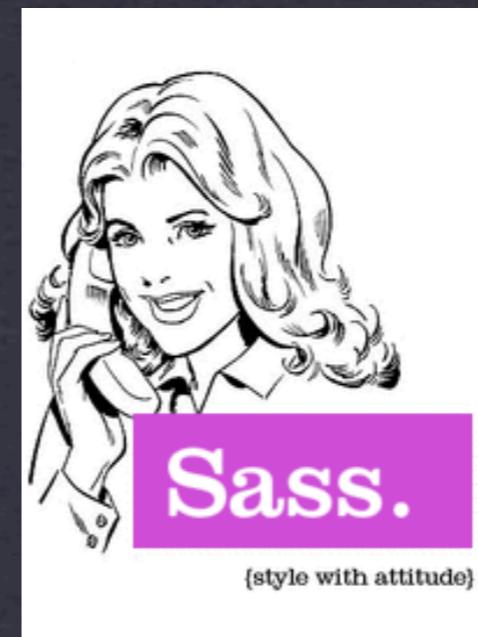


SIMPLIFYING CSS USING ABSTRACTIONS.

```
1 .rounded {  
2     -moz-border-radius: 5px;  
3     -webkit-border-radius: 5px;  
4     -o-border-radius: 5px;  
5     -ms-border-radius: 5px;  
6     -khtml-border-radius: 5px;  
7     border-radius: 5px;  
8 }  
9  
10 .shadowed {  
11     -moz-box-shadow: rgba(0, 0, 0, 0.5)  
12                     2px 2px 5px;  
13     -webkit-box-shadow: rgba(0, 0, 0, 0.5)  
14                     2px 2px 5px;  
15     -o-box-shadow: rgba(0, 0, 0, 0.5)  
16                     2px 2px 5px;  
17     box-shadow: rgba(0, 0, 0, 0.5)  
18                     2px 2px 5px;  
19 }
```



```
1 @import "compass/css3";  
2  
3 .rounded {  
4     @include border-radius(5px);  
5 }  
6  
7 .shadowed {  
8     @include box-shadow(rgba(#000, 0.5),  
9                         2px, 2px, 5px);  
10 }
```



WHAT IS SASS?

WHAT IS COMPASS?

Sass Features

- ✳ Variables
- ✳ Nested Rules
- ✳ Mixins
- ✳ Selector Inheritance
- ✳ Colors
- ✳ Math
- ✳ Conditionals
- ✳ Server-side Imports
- ✳ Output Formatting & Compression
- ✳ Silent Comments
- ✳ Optional Whitespace-Aware Syntax

Sass Syntax

```
1 @import "compass/css3";  
2  
3 $background-color: #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15  .bordered-widget {  
16    $border-width: 2px;  
17    @extend .widget;  
18    // Fix for the broken box model  
19    width: $widget-width - $border-width;  
20    border: $border-width solid lighten($background-color, 20%);  
21  }  
22}
```

SASS

```
1 #container {  
2   background-color: #446688;  
3 }  
4 #container .widget,  
5 #container .bordered-widget {  
6   -moz-box-shadow: #223344 1px 1px 5px;  
7   -webkit-box-shadow: #223344 1px 1px 5px;  
8   -o-box-shadow: #223344 1px 1px 5px;  
9   box-shadow: #223344 1px 1px 5px;  
10  background-color: #bb9977;  
11  width: 250px;  
12 }  
13 #container .bordered-widget {  
14  width: 248px;  
15  border: 2px solid #7799bb;  
16 }  
17  
18  
19  
20  
21  
22
```

CSS

Sass: Variables

```
1 @import "compass/css3";  
2  
3 $background-color: #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15  .bordered-widget {  
16    $border-width: 2px;  
17    @extend .widget;  
18    // Fix for the broken box model  
19    width: $widget-width - $border-width;  
20    border: $border-width solid lighten($background-color, 20%);  
21  }  
22}
```

SASS

```
1 #container {  
2   background-color: #446688;  
3 }  
4 #container .widget,  
5 #container .bordered-widget {  
6   -moz-box-shadow: #223344 1px 1px 5px;  
7   -webkit-box-shadow: #223344 1px 1px 5px;  
8   -o-box-shadow: #223344 1px 1px 5px;  
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13 #container .bordered-widget {  
14  width: 248px;  
15  border: 2px solid #7799bb;  
16 }  
17  
18  
19  
20  
21  
22
```

CSS

Sass: Nested Rules

```
1 @import "compass/css3";  
2  
3 $background-color: #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15 .bordered-widget {  
16   border-width: 2px;  
17   @extend .widget;  
18   // Fix for the broken box model  
19   width: $widget-width - $border-width;  
20   border: $border-width solid lighten($background-color, 20%);  
21 }  
22 }
```

SASS

```
1 #container {  
2   background-color: #446688;  
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4 #container .widget,  
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11  width: 250px;  
12 }  
13 #container .bordered-widget {  
14  width: 248px;  
15  border: 2px solid #7799bb;  
16 }
```

CSS

Sass: Mixins

```
1 @import "compass/css3";  
2  
3 $background-color: #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15  .bordered-widget {  
16    $border-width: 2px;  
17    @extend .widget;  
18    // Fix for the broken box model  
19    width: $widget-width - $border-width;  
20    border: $border-width solid lighten($background-color, 20%);  
21  }  
22}
```

SASS

```
1 #container {  
2   background-color: #446688;  
3 }  
4 #container .widget,  
5 #container .bordered-widget {  
6   -moz-box-shadow: #223344 1px 1px 5px;  
7   -webkit-box-shadow: #223344 1px 1px 5px;  
8   -o-box-shadow: #223344 1px 1px 5px;  
9   box-shadow: #223344 1px 1px 5px;  
10  background-color: #bb9977;  
11  width: 250px;  
12 }  
13 #container .bordered-widget {  
14  width: 248px;  
15  border: 2px solid #7799bb;  
16 }  
17  
18  
19  
20  
21  
22
```

CSS

Mixins: Write Your Own

```
@mixin clearfix {  
  &:after {  
    content: " ";  
    display: block;  
    height: 0;  
    clear: both;  
    overflow: hidden;  
    visibility: hidden;  
  }  
  zoom: 1;  
}  
  
.clearfix {  
  @include clearfix;  
}
```



```
.clearfix {  
  zoom: 1;  
}  
.clearfix:after {  
  content: " ";  
  display: block;  
  height: 0;  
  clear: both;  
  overflow: hidden;  
  visibility: hidden;  
}
```

Sass: Selector Inheritance

```
1 @import "compass/css3";  
2  
3 $background-color: #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15  .bordered-widget {  
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19    width: $widget-width - $border-width;  
20    border: $border-width solid lighten($background-color, 20%);  
21  }  
22}
```

SASS

```
1 #container {  
2   background-color: #446688;  
3 }  
4 #container .widget,  
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6   -moz-box-shadow: #223344 1px 1px 5px;  
7   -webkit-box-shadow: #223344 1px 1px 5px;  
8   -o-box-shadow: #223344 1px 1px 5px;  
9   box-shadow: #223344 1px 1px 5px;  
10  background-color: #bb9977;  
11  width: 250px;  
12 }  
13 #container .bordered-widget {  
14  width: 248px;  
15  border: 2px solid #7799bb;  
16 }  
17  
18  
19  
20  
21  
22
```

CSS

Sass: Colors

```
1 @import "compass/css3";  
2  
3 $background-color: #446688; → #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15  .bordered-widget {  
16    $border-width: 2px;  
17    @extend .widget;  
18    // Fix for the broken box model  
19    width: $widget-width - $border-width;  
20    border: $border-width solid lighten($background-color, 20%);  
21  }  
22}
```

```
1 #container {  
2   background-color: #446688;  
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7   -webkit-box-shadow: #223344 1px 1px 5px;  
8   -o-box-shadow: #223344 1px 1px 5px;  
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13 #container .bordered-widget {  
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15  border: 2px solid #7799bb;  
16 }  
17  
18  
19  
20  
21  
22
```

SASS

CSS

Sass: Colors

- * Hex
- * rgb/rgba
- * hsl/hsla
- * Named Colors
- * Alpha Layers

FUNCTIONS

- * mix
- * darken/lighten
- * transparentize/opacify
- * compliment/adjust-hue
- * saturate/desaturate/
grayscale
- * accessors & more

<HTTP://SASS-LANG.COM/DOCS/YARDOC/SASS/SCRIPT/FUNCTIONS.HTML>

Sass: Mathematical Expressions

```
1 @import "compass/css3";  
2  
3 $background-color: #446688;  
4 $foreground-color: lighten(complement($background-color), 20%);  
5  
6 $widget-width: 250px;  
7  
8 #container {  
9   background-color: $background-color;  
10  .widget {  
11    @include box-shadow(darken($background-color, 20%));  
12    background-color: $foreground-color;  
13    width: $widget-width;  
14  }  
15  .bordered-widget {  
16    $border-width: 2px;  
17    @extend .widget;  
18    // Fix for the broken box model  
19    width: $widget-width - $border-width;  
20    border: $border-width solid lighten($background-color, 20%);  
21  }  
22}
```

SASS

```
1 #container {  
2   background-color: #446688;  
3 }  
4 #container .widget,  
5 #container .bordered-widget {  
6   -moz-box-shadow: #223344 1px 1px 5px;  
7   -webkit-box-shadow: #223344 1px 1px 5px;  
8   -o-box-shadow: #223344 1px 1px 5px;  
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12 }  
13 #container .bordered-widget {  
14  width: 248px;  
15  border: 2px solid #7799bb;  
16 }  
17  
18  
19  
20  
21  
22
```

CSS

Sass: Numeric Units

- * Handles any unit (*even those not yet defined in CSS*)
- * allows complex units in intermediate forms
- * Understands compatible units

EXAMPLES

```
$px-to-em: 1em / 12px;  
  
.widget {  
  height: 240px * $px-to-em;  
  width: 5cm + 20mm;  
  left: 2in + 4pc;  
  invalid: 1foo + 2foo;  
}
```



```
.widget {  
  height: 20em;  
  width: 7cm;  
  left: 2.667in;  
  invalid: 3foo;  
}
```

Sass: Conditionals

```
@mixin foreground-color($bg-color) {  
  @if lightness($bg-color) < 30% {  
    color: #eee;  
  } @else {  
    color: #333;  
  }  
}  
  
.dark-red-widget {  
  background-color: #860704;  
  @include foreground-color(#860704);  
}  
  
.light-blue-widget {  
  background-color: #94D7DC;  
  @include foreground-color(#94D7DC);  
}
```



```
.dark-red-widget {  
  background-color: #860704;  
  color: #eee;  
}  
  
.light-blue-widget {  
  background-color: #94D7DC;  
  color: #333;  
}
```

Sass: Server Side Imports

```
.this-class-is-in-a-partial {  
  color: red;  
}  
  
@mixin this-mixin-is-in-a-partial {  
  @extend .this-class-is-in-a-partial;  
  border: 1px solid blue;  
}
```



_sidebar.scss

```
.before {  
  color: yellow;  
}  
  
@import "sidebar";  
  
.after {  
  @include this-mixin-is-in-a-partial;  
}
```



screen.scss

```
.before {  
  color: yellow;  
}  
  
.this-class-is-in-a-partial, .after {  
  color: red;  
}  
  
.after {  
  border: 1px solid blue;  
}
```

screen.css

Sass: Output Formats

```
// Silent Comment  
.wrap {  
  /* CSS Comment */  
  margin: 0 auto;  
  .inside {  
    width: 500px;  
    float: left;  
  }  
}
```

```
.wrap { /* CSS Comment */ margin: 0 auto; }  
.wrap .inside { width: 500px; float: left; }
```

COMPACT

```
.wrap{margin:0 auto}.wrap .inside{width:500px;float:left}
```

COMPRESSED

```
.wrap {  
  /* CSS Comment */  
  margin: 0 auto; }  
  .wrap .inside {  
    width: 500px;  
    float: left; }
```

NESTED

```
.wrap {  
  /* CSS Comment */  
  margin: 0 auto;  
}  
.wrap .inside {  
  width: 500px;  
  float: left;  
}
```

EXPANDED

Sass: Alternate Syntax

```
@import "compass/css3";  
  
$background-color: #446688;  
$foreground-color: lighten(complement($background-color), 20%);  
  
$widget-width: 250px;  
  
#container {  
    background-color: $background-color;  
    .widget {  
        @include box-shadow(darken($background-color, 20%));  
        background-color: $foreground-color;  
        width: $widget-width;  
    }  
    .bordered-widget {  
        border-width: 2px;  
        @extend .widget;  
        // Fix for the broken box model  
        width: $widget-width - $border-width;  
        border: $border-width solid lighten($background-color, 20%);  
    }  
}
```

Sass: Alternate Syntax

```
@import compass/css3

$background-color: #446688
$foreground-color: lighten(complement($background-color), 20%)

$widget-width: 250px

#container
  background-color: $background-color
  .widget
    +box-shadow(darken($background-color, 20%))
    background-color: $foreground-color
    width: $widget-width

.bordered-widget
  $border-width: 2px
  @extend .widget
  // Fix for the broken box model
  width: $widget-width - $border-width
  border: $border-width solid lighten($background-color, 20%)
```



QUESTIONS ABOUT SASS?

LET'S CLEAR THOSE UP BEFORE WE GO ANY FURTHER DOWN THE RABBIT HOLE.



blueprint

960
GRID SYSTEM

YAML

OO CSS

YAHOO!



baseline

CSS IS 14 YEARS OLD
WE'VE DEVELOPED SOME BEST PRACTICES



blueprint

960
GRID SYSTEM

YAML

LESS

YAHOO!

b

baseline

CSS FRAMEWORKS
A CODIFICATION OF BEST PRACTICES



blueprint

NOT
YAML
FRAMEWORKS

LESS
SCSS

YAHOO!

b

baseline

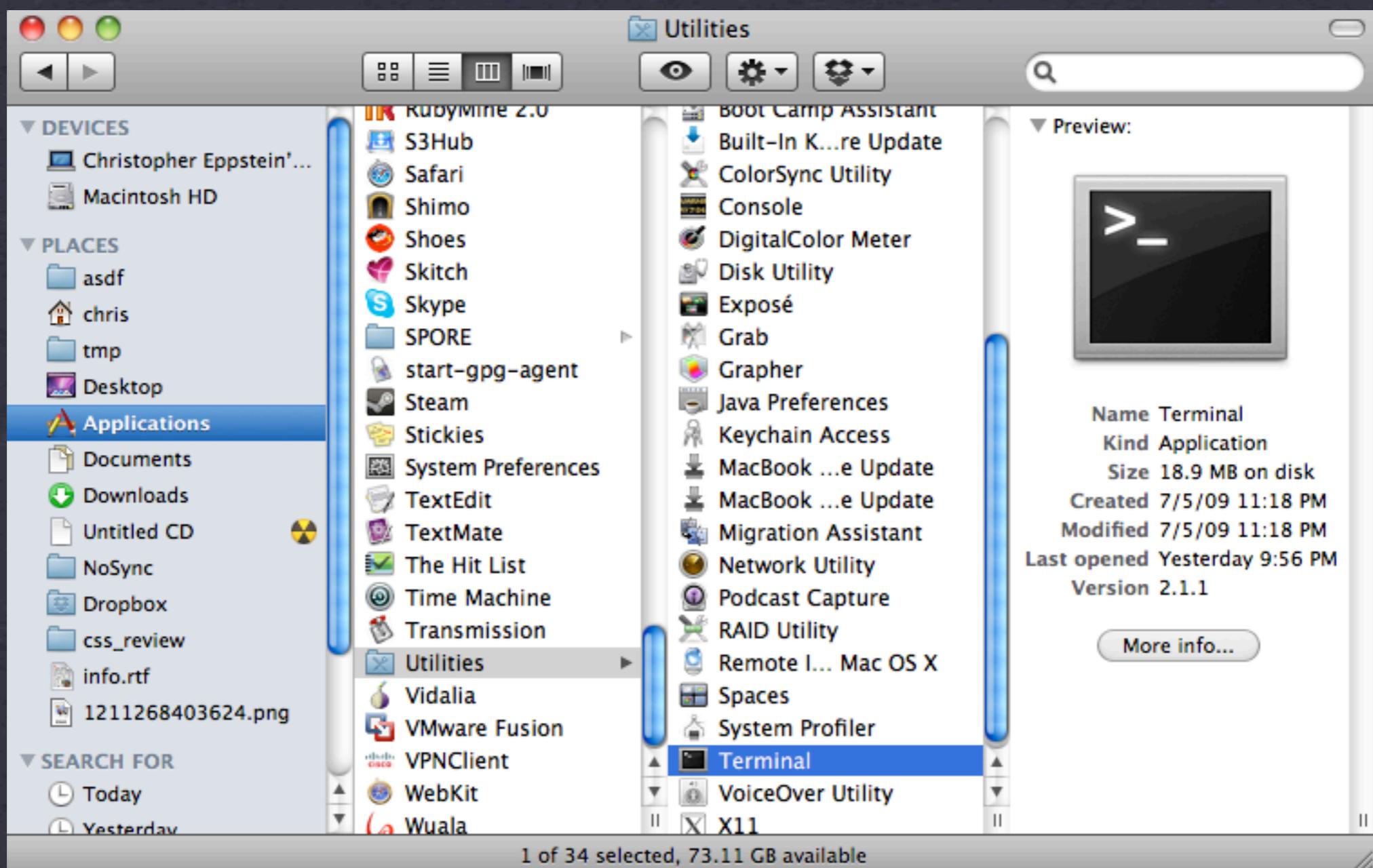
COMPASS
A REAL STYLESHEET FRAMEWORK

Features

- Project Context
- Core Library
- Semantic Frameworks
- Extensions
- Community



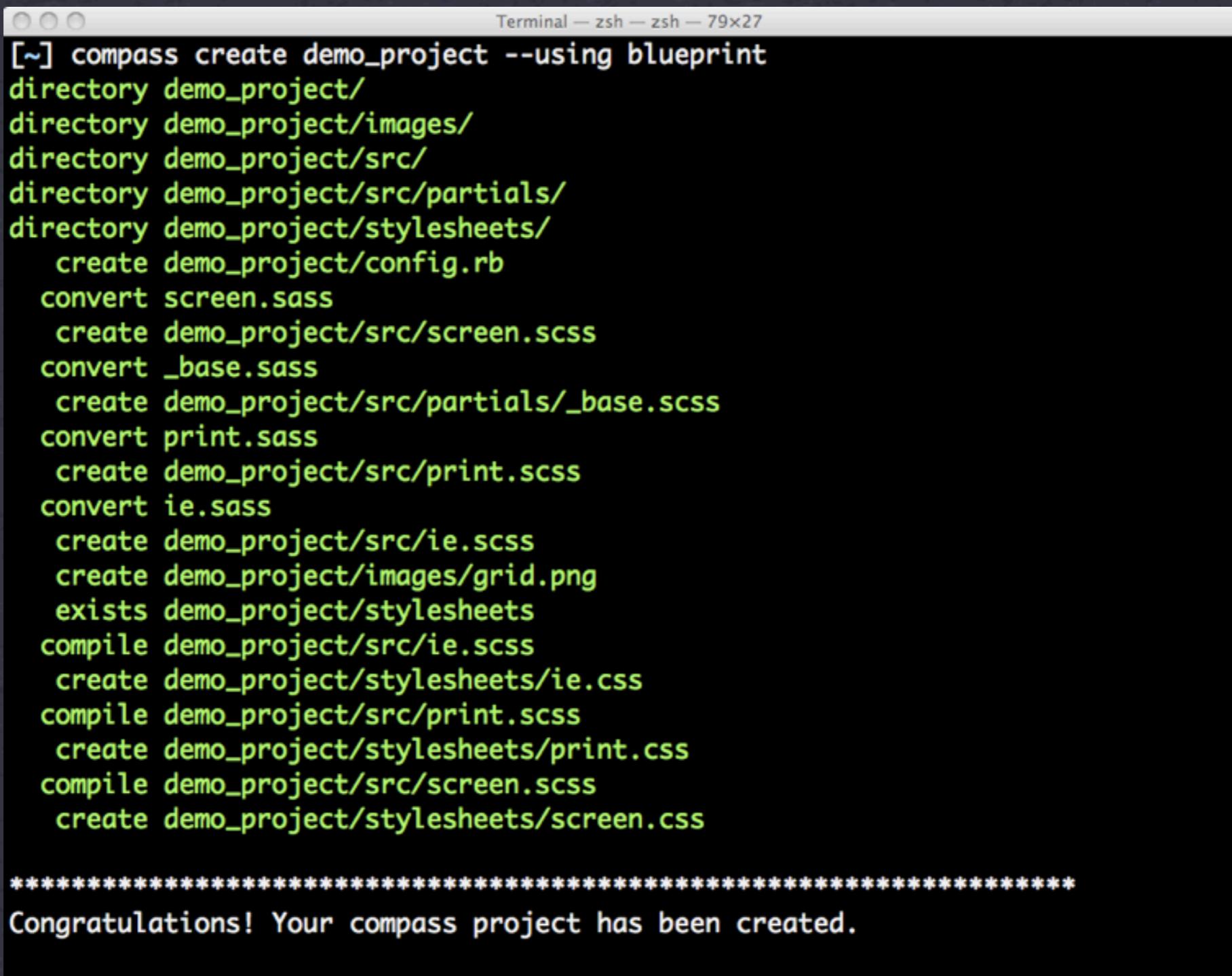
COMPASS
A STYLESHEET AUTHORIZING FRAMEWORK



WINDOWS USERS: COMPASS WORKS FOR YOU TOO!

DON'T BE SCARED
WE'RE GOING TO USE THE TERMINAL

```
compass create <project> --using <framework>
```



A terminal window titled "Terminal — zsh — zsh — 79x27" showing the output of the "compass create" command. The command is "[~] compass create demo_project --using blueprint". The output shows the creation of a project directory "demo_project" and its subdirectories "images", "src", "src/partials", "src/stylesheets", and "config.rb". It also creates SCSS files like "screen.sass", "base.sass", "print.sass", and "ie.sass", and their corresponding CSS outputs. It creates an image file "grid.png" and exists at "demo_project/stylesheets". It compiles "ie.scss" to "ie.css", "print.scss" to "print.css", and "screen.scss" to "screen.css". Finally, it creates "screen.css". A "*****" separator follows, and the message "Congratulations! Your compass project has been created." is displayed.

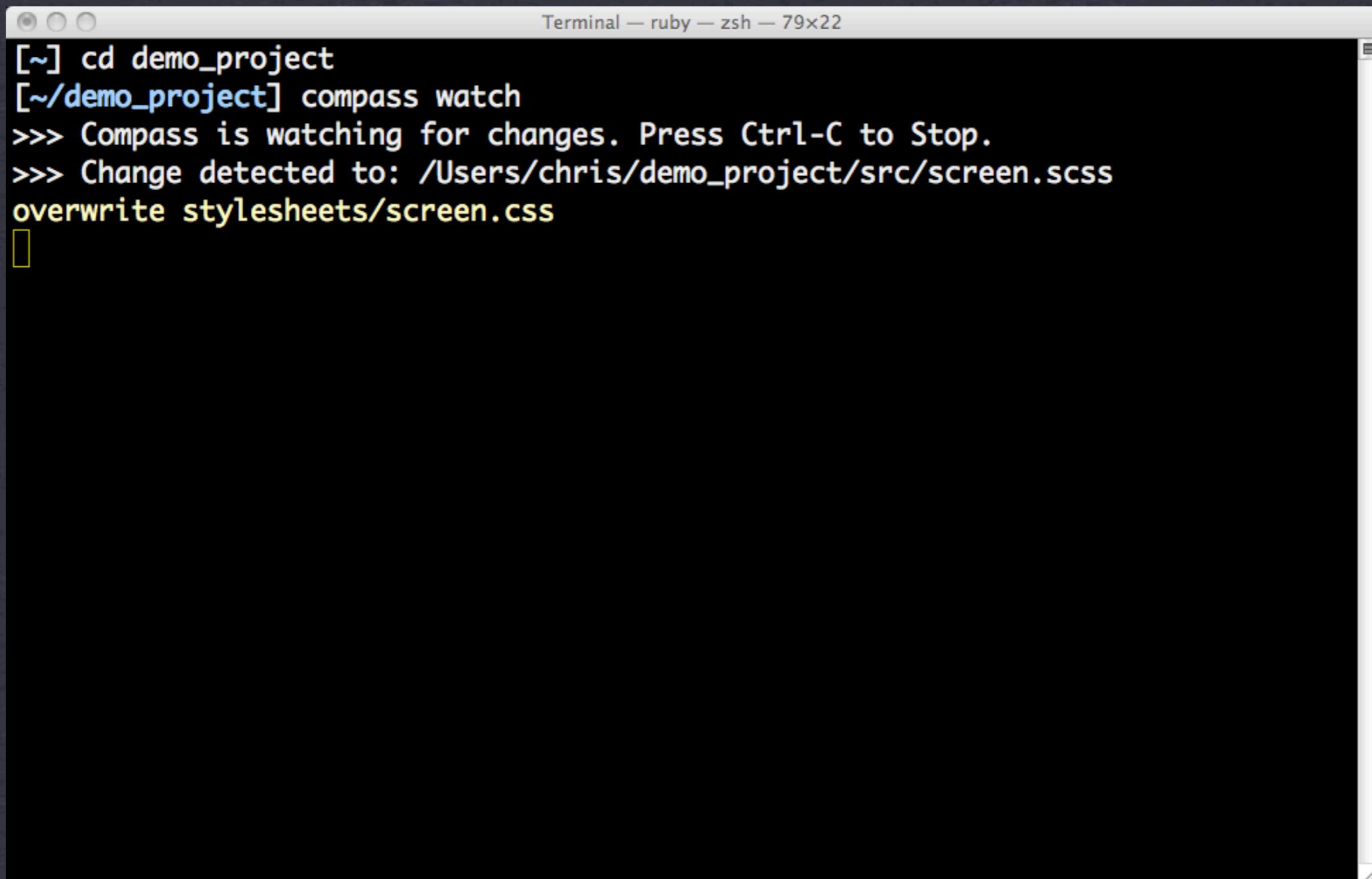
```
[~] compass create demo_project --using blueprint
directory demo_project/
directory demo_project/images/
directory demo_project/src/
directory demo_project/src/partials/
directory demo_project/stylesheets/
  create demo_project/config.rb
convert screen.sass
  create demo_project/src/screen.scss
convert _base.sass
  create demo_project/src/partials/_base.scss
convert print.sass
  create demo_project/src/print.scss
convert ie.sass
  create demo_project/src/ie.scss
  create demo_project/images/grid.png
exists demo_project/stylesheets
compile demo_project/src/ie.scss
  create demo_project/stylesheets/ie.css
compile demo_project/src/print.scss
  create demo_project/stylesheets/print.css
compile demo_project/src/screen.scss
  create demo_project/stylesheets/screen.css

*****
Congratulations! Your compass project has been created.
```

PROJECT CONTEXT

CREATE A NEW PROJECT IN SECONDS

compass watch



A screenshot of a terminal window titled "Terminal — ruby — zsh — 79x22". The window contains the following text:

```
[~] cd demo_project
[~/demo_project] compass watch
>>> Compass is watching for changes. Press Ctrl-C to Stop.
>>> Change detected to: /Users/chris/demo_project/src/screen.scss
overwrite stylesheets/screen.css
[]
```

PROJECT CONTEXT

COMPASS WILL WATCH FOR CHANGES AND COMPILE AUTOMATICALLY

compass help

```
Terminal — zsh — zsh — 88x22
[~/demo_project] compass help
Usage: compass help [command]

Description:
The Compass Stylesheet Authoring Framework helps you
build and maintain your stylesheets and makes it easy
for you to use stylesheet libraries provided by others.

To get help on a particular command please specify the command.

Primary Commands:
* compile      - Compile Sass stylesheets to CSS
* create       - Create a new compass project
* init         - Add compass to an existing project
* watch        - Compile Sass stylesheets to CSS when they change

Other Commands:
* config        - Generate a configuration file for the provided command line options.
* frameworks   - List the available frameworks
* grid-img     - Generates a grid background image.
* help          - Get help on a compass command or extension
* imports       - Emit an imports suitable for passing to the sass command-line.
* install      - Install an extension's pattern into your compass project
```

**IF YOU NEED HELP
SELF DOCUMENTING**

The screenshot shows a web browser window displaying the [Compass Core Framework](http://compass-style.org/docs/reference/compass/) documentation. The URL in the address bar is <http://compass-style.org/docs/reference/compass/>. The page title is "COMPASS". The top navigation bar includes links for "compass", "reference" (which is highlighted in blue), and "tutorials". Below the title, there's a horizontal menu with tabs: "introduction", "core", "blueprint" (highlighted in blue), "Current Version: 0.10.3.pre.1", and a search input field. Underneath the menu, there are links for "CSS3", "Helpers", "Layout", "Reset", and "Utilities". On the left side, there's a sidebar titled "CSS3" with a list of categories: "Background Clip", "Background Origin", "Background Size", "Border Radius", "Box", "Box Shadow", and "Box Sizing". The main content area features a large heading "Compass Core Framework" and a descriptive paragraph: "The compass core framework is a design-agnostic framework that provides common code that would otherwise be duplicated across other frameworks and extensions." Below this, a code snippet is shown: "This file can be imported using: `@import "compass"`".

**IF YOU NEED HELP
ONLINE DOCUMENTATION**

<http://groups.google.com/group/compass-users>

<http://groups.google.com/group/haml>

**IF YOU NEED HELP
THE COMMUNITY**

Projects are more than just Stylesheets

- * Images
- * Fonts
- * JavaScripts

```
* config.rb
1 http_path = "/"
2 css_dir = "css"
3 sass_dir = "sass"
4 images_dir = "images"
5 javascripts_dir = "javascripts"
6 fonts_dir = "fonts"
7 line_comments = false
8 output_style = :compact
9
10 relative_assets = true
```

Where are your Assets?

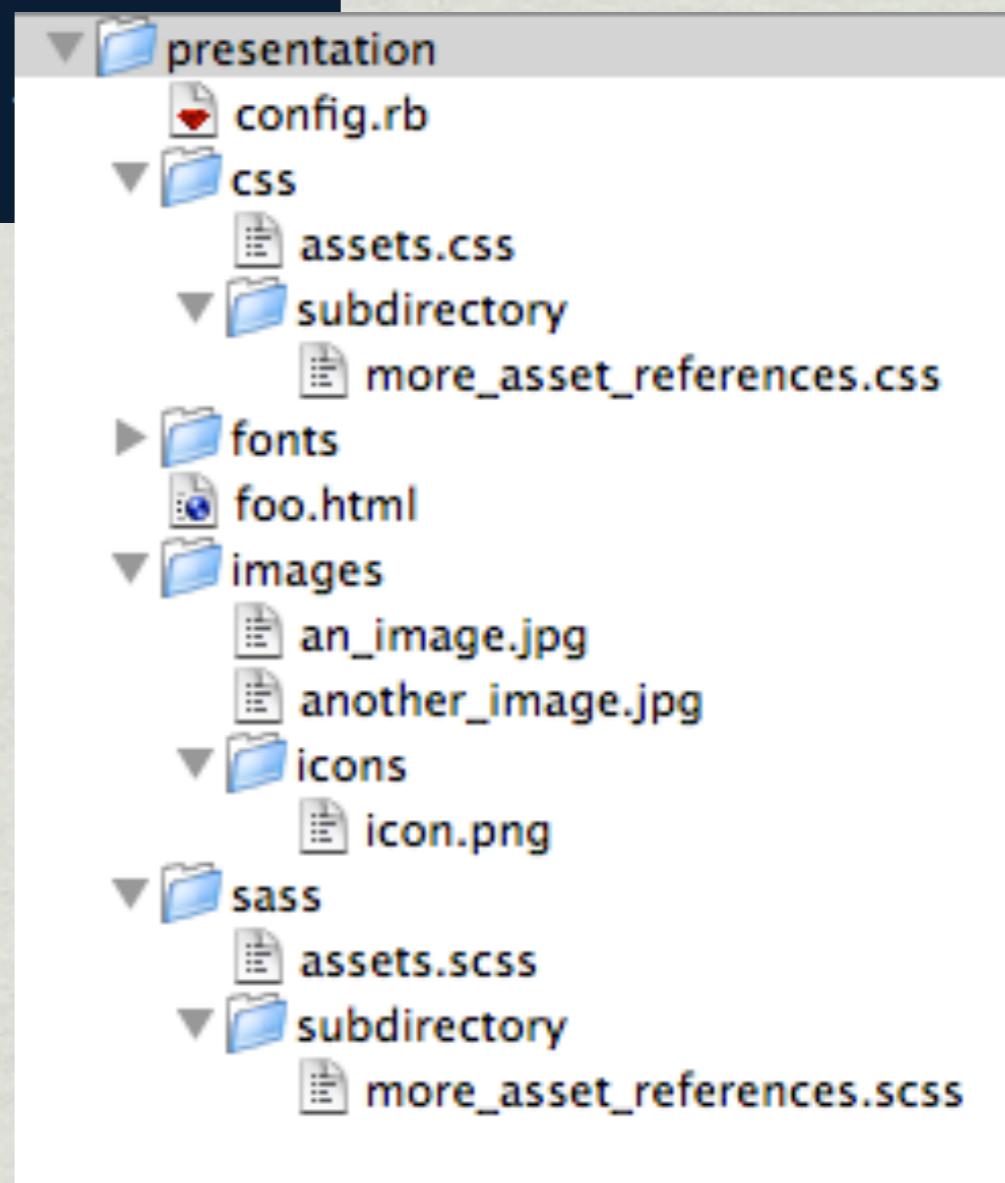
```
@import "compass";
```

```
.icon { background-image: image-url("icons/icon.png"); }
.bg-1 { background-image: image-url("an_image.jpg"); }
.bg-2 { background-image: image-url("another_image.jpg"); }
```

```
@include font-face("A Font", font-files("a_font.ttf",
.widget h3 { font-face: "A Font"; }
```

assets.scss

```
* config.rb
1 http_path = "/"
2 css_dir = "css"
3 sass_dir = "sass"
4 images_dir = "images"
5 javascripts_dir = "javascripts"
6 fonts_dir = "fonts"
7 line_comments = false
8 output_style = :compact
9
10 relative_assets = true
```



Relative Assets: No Web Server Required

```
relative_assets = true  
config.rb
```

```
@import "compass";
```

```
.icon { background-image: image-url("icons/icon.png"); }  
.bg-1 { background-image: image-url("an_image.jpg"); }  
.bg-2 { background-image: image-url("another_image.jpg"); }
```

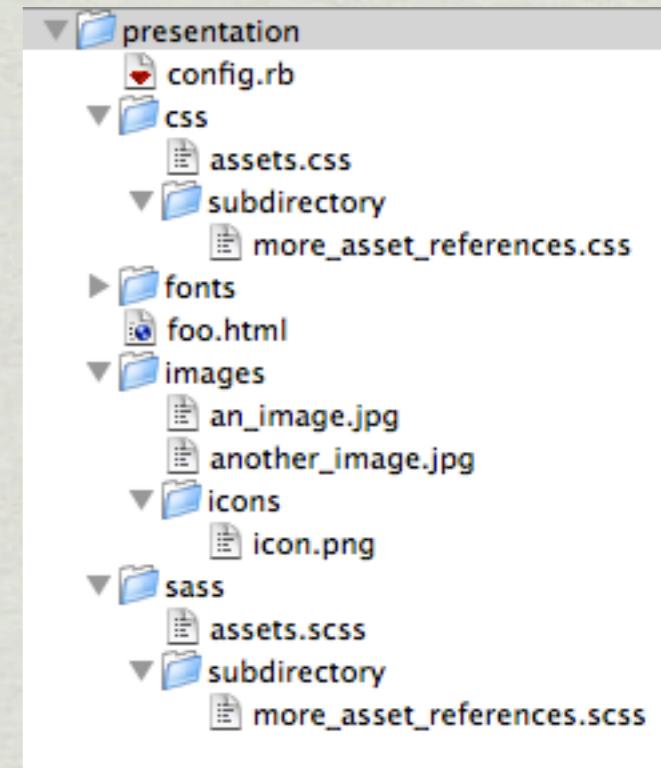
```
@include font-face("A Font", font-files("a_font.ttf", truetype));  
.widget h3 { font-face: "A Font"; }
```

assets.scss



```
.icon { background-image: url('../images/icons/icon.png?1279513973'); }  
.bg-1 { background-image: url('../images/an_image.jpg?1271969973'); }  
.bg-2 { background-image: url('../images/another_image.jpg?1279495250'); }  
  
@font-face { font-family: "A Font"; src: local("☺"), url('../fonts/a_font.ttf') }  
  
.widget h3 { font-face: "A Font"; }
```

assets.css



Absolute Assets: Web Server Required

```
@import "compass";
```

```
.icon { background-image: image-url("icons/icon.png"); }
.bg-1 { background-image: image-url("an_image.jpg"); }
.bg-2 { background-image: image-url("another_image.jpg"); }
```

```
@include font-face("A Font", font-files("a_font.ttf", truetype));
.widget h3 { font-face: "A Font"; }
```

assets.scss



```
.icon { background-image: url('/images/icons/icon.png?1279513973'); }
.bg-1 { background-image: url('/images/an_image.jpg?1271969973'); }
.bg-2 { background-image: url('/images/another_image.jpg?1279495250'); }

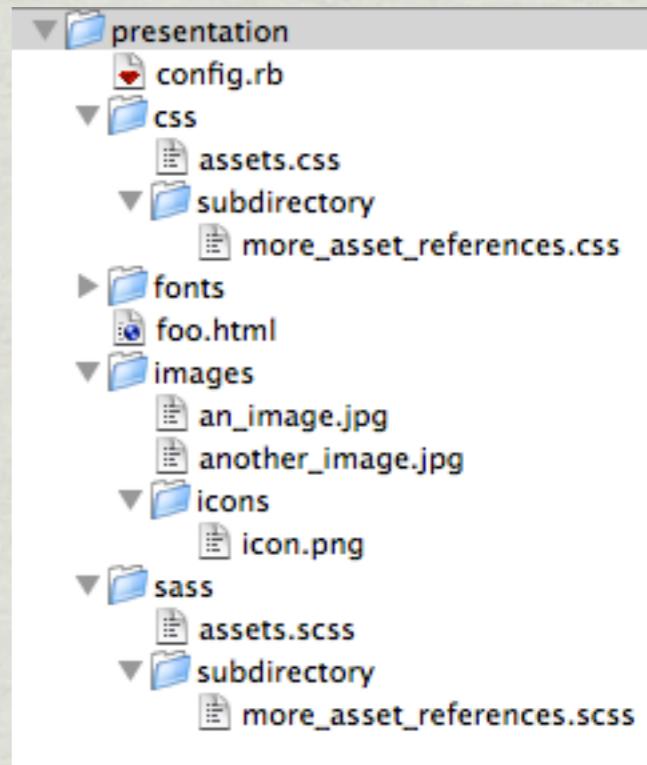
@font-face { font-family: "A Font"; src: local('☺'), url('/fonts/a_font.ttf') }

.widget h3 { font-face: "A Font"; }
```

assets.css

```
http_path = "/"
relative_assets = false
```

config.rb



Set an Application Path Context

```
http_path = "/app"  
relative_assets = false  
config.rb
```

```
@import "compass";
```

```
.icon { background-image: image-url("icons/icon.png"); }  
.bg-1 { background-image: image-url("an_image.jpg"); }  
.bg-2 { background-image: image-url("another_image.jpg"); }
```

```
@include font-face("A Font", font-files("a_font.ttf", truetype));  
.widget h3 { font-face: "A Font"; }
```

assets.scss



```
.icon { background-image: url('/app/images/icons/icon.png?1279513973'); }  
.bg-1 { background-image: url('/app/images/an_image.jpg?1271969973'); }  
.bg-2 { background-image: url('/app/images/another_image.jpg?1279495250'); }  
  
@font-face { font-family: "A Font"; src: local("☺"), url('/app/fonts/a_font.ttf') }  
.widget h3 { font-face: "A Font"; }
```

assets.css

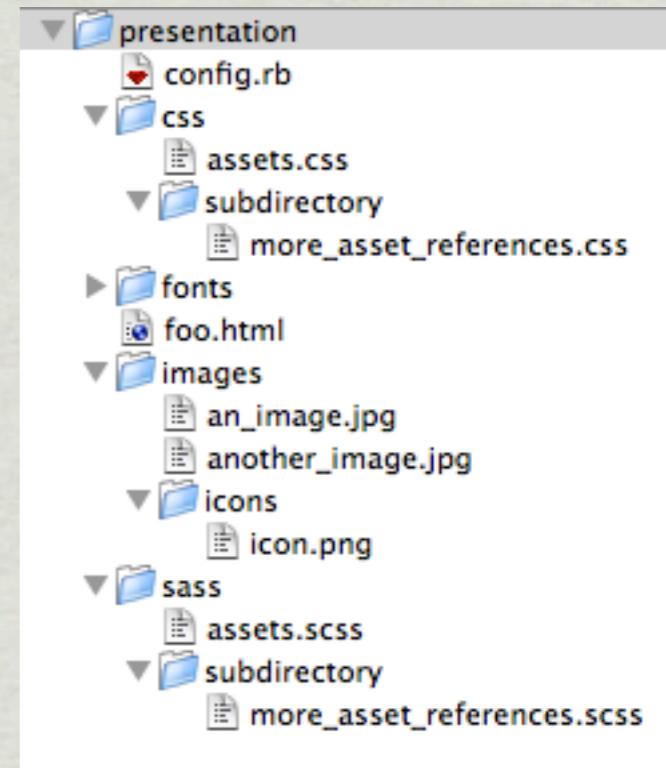


Image Host (CDN/S3/etc)

```
relative_assets = false
http_path = "http://www.eppsteins.net/"
http_images_path = "http://images.eppsteins.net/"
```

config.rb

```
@import "compass";

.icon { background-image: image-url("icons/icon.png"); }
.bg-1 { background-image: image-url("an_image.jpg"); }
.bg-2 { background-image: image-url("another_image.jpg"); }

@include font-face("A Font", font-files("a_font.ttf", truetype));
.widget h3 { font-face: "A Font"; }
```

assets.scss



```
.icon { background-image: url('http://images.eppsteins.net/icons/icon.png?1279513973'); }

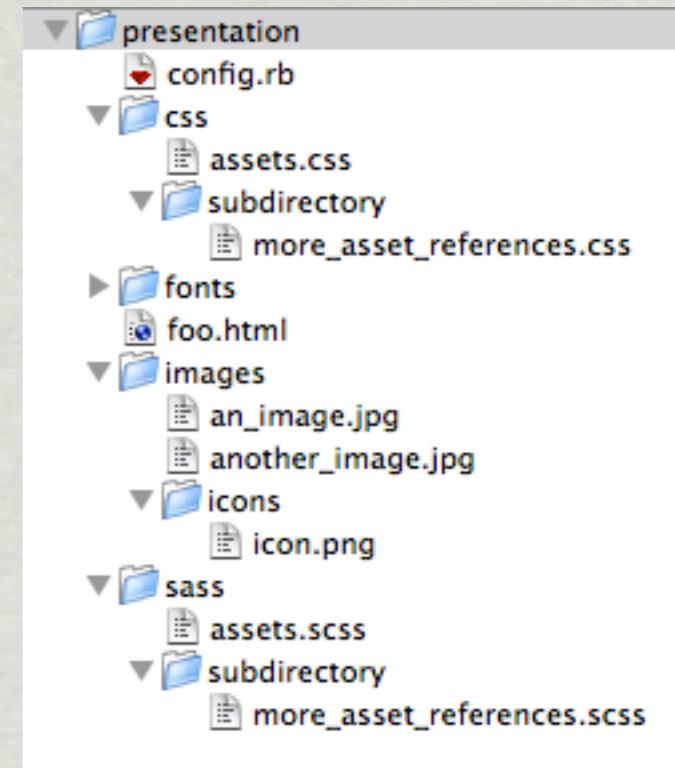
.bg-1 { background-image: url('http://images.eppsteins.net/an_image.jpg?1271969973'); }

.bg-2 { background-image: url('http://images.eppsteins.net/another_image.jpg?1279495250'); }

@font-face { font-family: "A Font"; src: local("☺"), url('http://www.eppsteins.net/fonts/a_font.ttf') }

.widget h3 { font-face: "A Font"; }
```

assets.css



Use Asset Hosts

```
asset_host do |asset|
  idx = asset.hash % 4
  "http://demo-#{idx}.eppsteins.net"
end
```

config.rb

```
@import "compass";

.icon { background-image: image-url("icons/icon.png"); }
.bg-1 { background-image: image-url("an_image.jpg"); }
.bg-2 { background-image: image-url("another_image.jpg"); }

@include font-face("A Font", font-files("a_font.ttf", truetype));
.widget h3 { font-face: "A Font"; }
```

assets.scss



```
.icon { background-image: url('http://demo-1.eppsteins.net/images/icons/icon.png?1279513973'); }

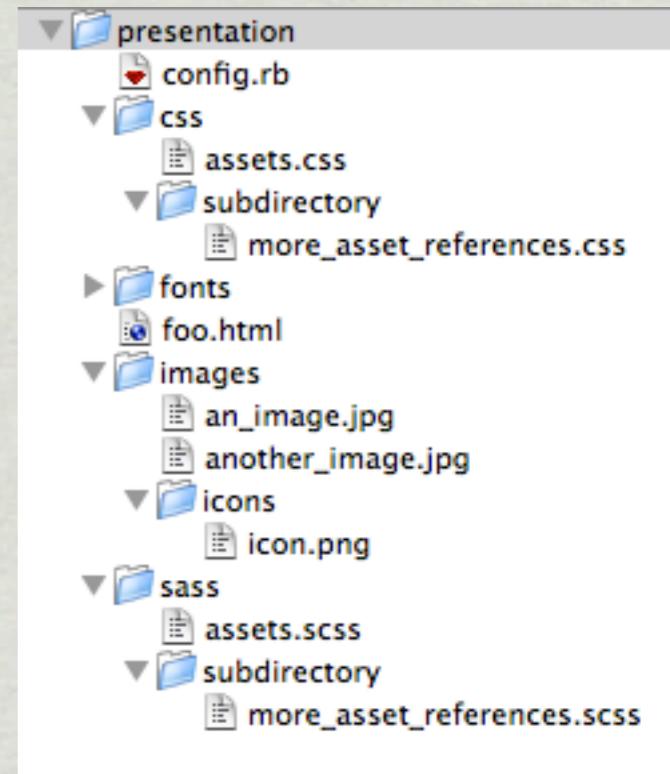
.bg-1 { background-image: url('http://demo-1.eppsteins.net/images/an_image.jpg?1271969973'); }

.bg-2 { background-image: url('http://demo-3.eppsteins.net/images/another_image.jpg?1279495250'); }

@font-face { font-family: "A Font"; src: local("☺"), url('/fonts/a_font.ttf') format('truetype'); }

.widget h3 { font-face: "A Font"; }
```

assets.css



In your CSS?!

```
@import "compass";  
  
.icon { background-image: inline-image( "icons/icon.png"); }  
.bg-1 { background-image: inline-image( "an_image.jpg"); }  
.bg-2 { background-image: inline-image("another_image.jpg"); }  
  
@include font-face("A Font", inline-font-files("a_font.ttf", truetype));  
.widget h3 { font-face: "A Font"; }
```



```
.icon { background-image: url('data:image/png;base64,iVBORw0KG..<snip>..FTkSuQmCC'); }  
  
.bg-1 { background-image: url('data:image/jpeg;base64,/9j/4SkZ..<snip>..lFJacR//Z'); }  
  
.bg-2 { background-image: url('data:image/jpeg;base64,/9j/4AAQ..<snip>../zKjoptfZ'); }  
  
@font-face {  
  font-family: "A Font"; src: local("☺"),  
  url('data:font/truetype;base64,wwPDg0Q..<snip>..jlJ0i') format('truetype');  
}  
  
.widget h3 { font-face: "A Font"; }
```

[WIKIPEDIA REFERENCE](#)

[COMPASS DOCUMENTATION](#)

Asset Helpers

- * `stylesheet-url` - url to assets stored in the CSS directory
- * `font-url` - url to assets in the font directory
- * `image-url` - url to assets in the images directory
- * `inline-image` - embed an image
- * `inline-font-files` - embed a font file

<http://compass-style.org/docs/reference/compass/helpers/urls/>

CSS3

- * You're going to hear a lot about CSS3 today.
- * It's pretty cool.
- * But: It's a #\$/%^@ mess.
- * Vendor prefix hell
- * Incompatible syntaxes
- * Graceful degradation / progressive enhancement considerations
- * Buggy implementations

Prefix Hell

```
1 .rounded {  
2     -moz-border-radius: 5px;  
3     -webkit-border-radius: 5px;  
4     -o-border-radius: 5px;  
5     -ms-border-radius: 5px;  
6     -khtml-border-radius: 5px;  
7     border-radius: 5px;  
8 }  
9  
10 .shadowed {  
11     -moz-box-shadow: rgba(0, 0, 0, 0.5)  
12                     2px 2px 5px;  
13     -webkit-box-shadow: rgba(0, 0, 0, 0.5)  
14                     2px 2px 5px;  
15     -o-box-shadow: rgba(0, 0, 0, 0.5)  
16                     2px 2px 5px;  
17     box-shadow: rgba(0, 0, 0, 0.5)  
18                     2px 2px 5px;  
19 }
```

REALLY?
WHO DOES THIS?
WHAT A PAIN.

```
1 @import "compass/css3";  
2  
3 .rounded {  
4     @include border-radius(5px);  
5 }  
6  
7 .shadowed {  
8     @include box-shadow(rgba(#000, 0.5),  
9                         2px, 2px, 5px);  
10 }
```

SIMPLE.
LIKE IT WILL BE.
ONLY NOW.

Incompatible Implementations

```
@import "compass/css3/gradient";  
  
.linear {  
  @include linear-gradient(color-stops(white, #c39 30%, #b7f 70%, #aaa));  
}  
  
.radial {  
  @include radial-gradient(color-stops(aqua 10px, #1e90ff 30px), 45 45);  
}
```



```
.linear {  
  background-image: -webkit-gradient(linear, 0% 0%, 0% 100%, color-stop(0%, #ffffff), color-stop(30%, #cc3399), color-stop(70%, #bb77ff), color-stop(100%, #aaaaaa));  
  background-image: -moz-linear-gradient(top, #ffffff 0%, #cc3399 30%, #bb77ff 70%, #aaaaaa 100%);  
  background-image: linear-gradient(top, #ffffff 0%, #cc3399 30%, #bb77ff 70%, #aaaaaa 100%);  
}  
  
.radial {  
  background-image: -webkit-gradient(radial, 45 45, 0, 45 45, 30, color-stop(33.333%, #00ffff), color-stop(100%, #1e90ff));  
  background-image: -moz-radial-gradient(45 45, circle, #00ffff 10px, #1e90ff 30px);  
  background-image: radial-gradient(45 45, circle, #00ffff 10px, #1e90ff 30px);  
}
```

<http://compass-style.org/docs/reference/compass/css3/gradient/>

Compass CSS3 Modules

UPDATED FOR YOU AS BROWSERS DEVELOP

- * Background Clip
- * Background Origin
- * Background Size
- * Border Radius
- * Box
- * Box Shadow
- * Box Sizing
- * Columns
- * Font Face
- * Gradient
- * Inline Block
- * Opacity
- * Text Shadow
- * Transform
- * Transition

<http://compass-style.org/docs/reference/compass/css3/>

Compass Utilities

- ✳ Resets
- ✳ Sticky Footer
- ✳ Clearfix
- ✳ Cross browser best practices: floats, mins
- ✳ Links: hover-link, link-colors, unstyled-link
- ✳ Lists: pretty bullets, no-bullets, horizontal lists, inline lists
- ✳ Sprites
- ✳ Tables: striping borders & basic styling
- ✳ Text: ellipsis, no-wrap, text-replacement

<http://compass-style.org/docs/reference/compass/utilities/>



blueprint

- ✳ Mixin Library
- ✳ A La Carte
- ✳ Customizable

The screenshot shows a web browser window displaying the Blueprint module documentation from the Compass Style Reference. The URL in the address bar is <http://compass-style.org/docs/reference/blueprint/>. The page header includes the COMPASS logo, navigation links for compass, reference, and tutorials, and a search bar. The main content area is titled "Blueprint" and contains a sidebar with links to Buttons, Colors, Debug, Fancy Type, Form, Grid, and Interaction modules. The main content area also features a large heading "Blueprint Module" and a description of what it is. Below the description, there is a section titled "Installing" with instructions on how to create a project using Blueprint.

Blueprint

Buttons
Colors
Debug
Fancy Type
Form
Grid
Interaction

Blueprint Module

The blueprint module is a simple way of importing all of the most commonly used blueprint modules. In addition, it provides a single mixin, `+blueprint`, that can be used to generate the blueprint css styles.

Installing

To create a project using blueprint:

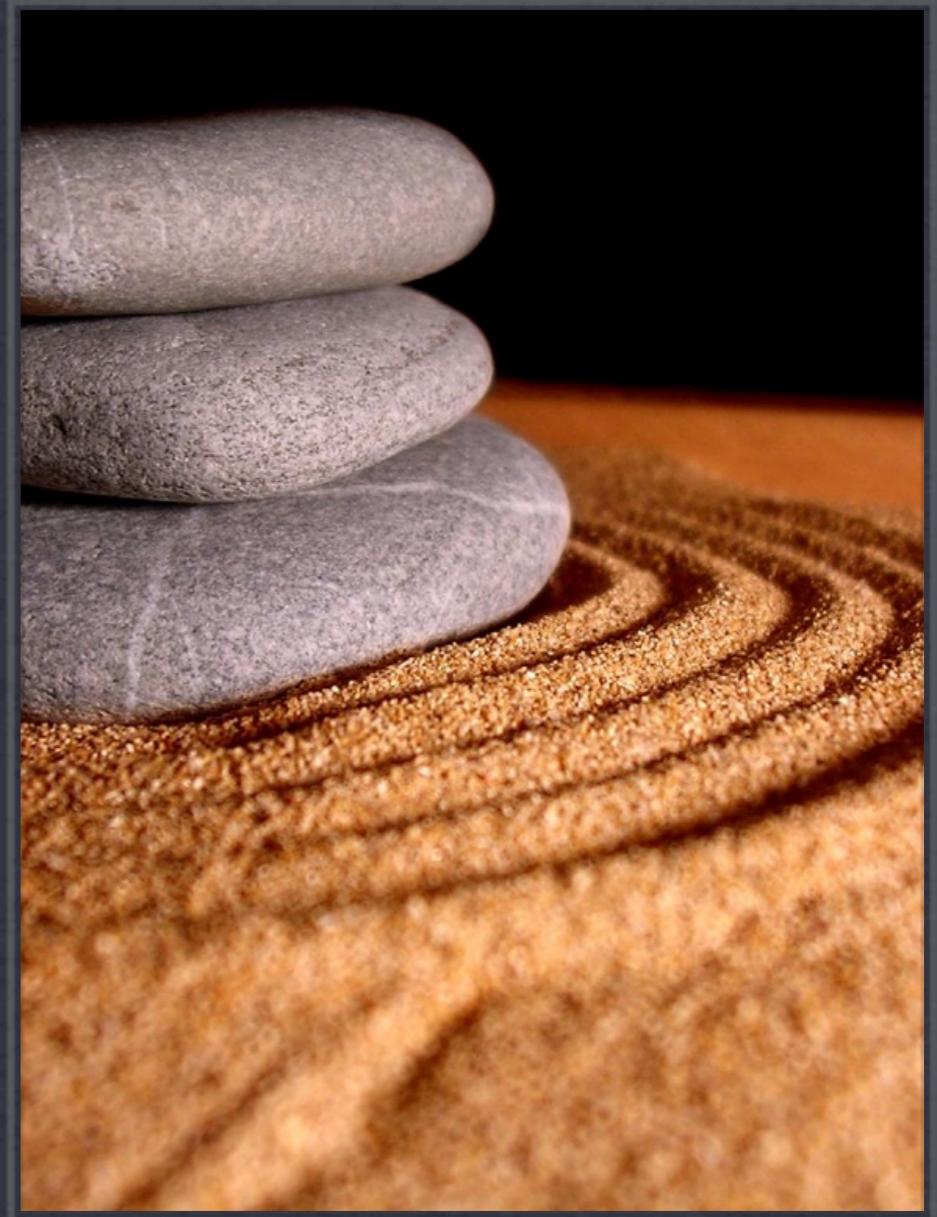
```
compass create my_project --using blueprint
```

Browser Support

- * All Modern Browsers
- * Firefox 2
- * IE6 & 7
- * Exceptions are noted in the docs.
- * Compass ♥'s progressive enhancement

The Zen of Sass

- ▶ Beautiful Markup
- ▶ Stylesheets that you can visualize
- ▶ Keep presentation in your stylesheets.
- ▶ Find your own code style
- ▶ Build your own framework
- ▶ Don't use what you don't like



Susy

- * Created by an Eric Meyer for Compass
- * Uses Natalie Down's CSS Systems approach to grids.
- * Can be elastic, fixed, or fluid.
- * Vertical Rhythm
- * Utilities

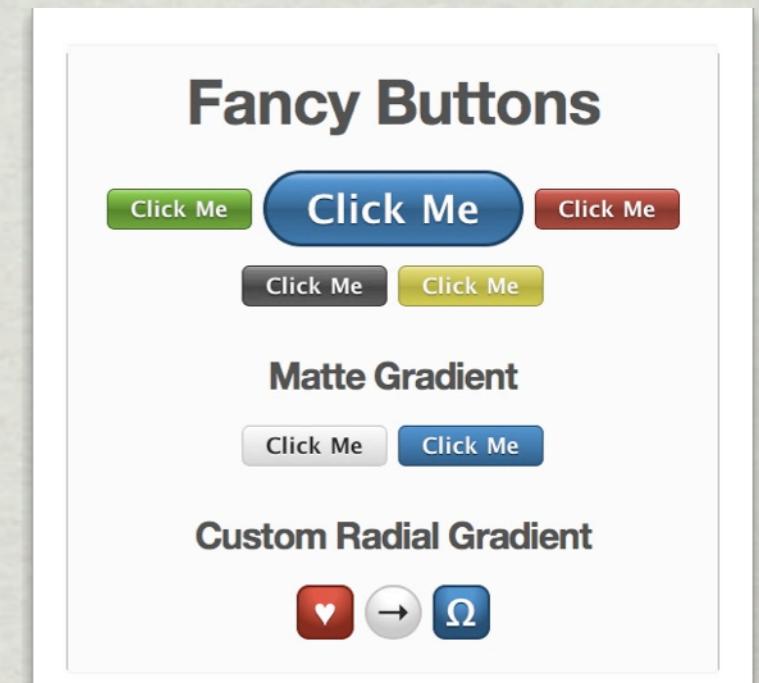
<S>

<http://susy.oddbird.net/>

Some Great Extensions

- * [Lemonade](#) - Sprite Generator
- * [960.gs](#) - The 960 grid system ported to Sass
- * [Lightboxes](#) - Pure CSS lightboxes
- * [Slideshows](#) - Pure CSS slideshows
- * [Fancy Buttons](#) - Pure CSS Button Generator

BUILDING AN EXTENSION IS EASY!





QUESTIONS ABOUT COMPASS?

My Teammates

- * Nathan Wiezenbaum (@nex3) - Sass & Haml
- * Eric Meyer (@eriiicam) - Compass, Susy
- * Brandon Mathis (@imathis) - Compass, Fancy Buttons

Compass is Charityware



If you use Compass & Sass and they make your life better, please help make someone else's life better by making a tax-deductible donation to the United Mitochondrial Disease Foundation.

<http://umdf.org/compass>

Photo Credits



http://www.flickr.com/photos/oly_paul/3989018045/



<http://www.flickr.com/photos/empics/2846078511/>



<http://www.flickr.com/photos/7202153@N03/3361299763/>



<http://www.flickr.com/photos/euart/282104427/>

Similar Projects

- * Less (Ruby, Javascript)
- * CSScaffold (PHP)
- * Turbine (PHP)
- * xCSS (PHP)
- * CleverCSS (Python)
- * Mechanical CSS (PHP)
- * HSS (Neko)