Design Tokens and CSS

Systemising the design of your components

LDN

Horse Design Systems
@horse_designsys
Follow
It just feels like everyone is screaming the words “Design System” and won’t stop
8:42 am - 1 May 2019
134 Retweets 881 Likes
22
134
881

Design Tokens and CSS

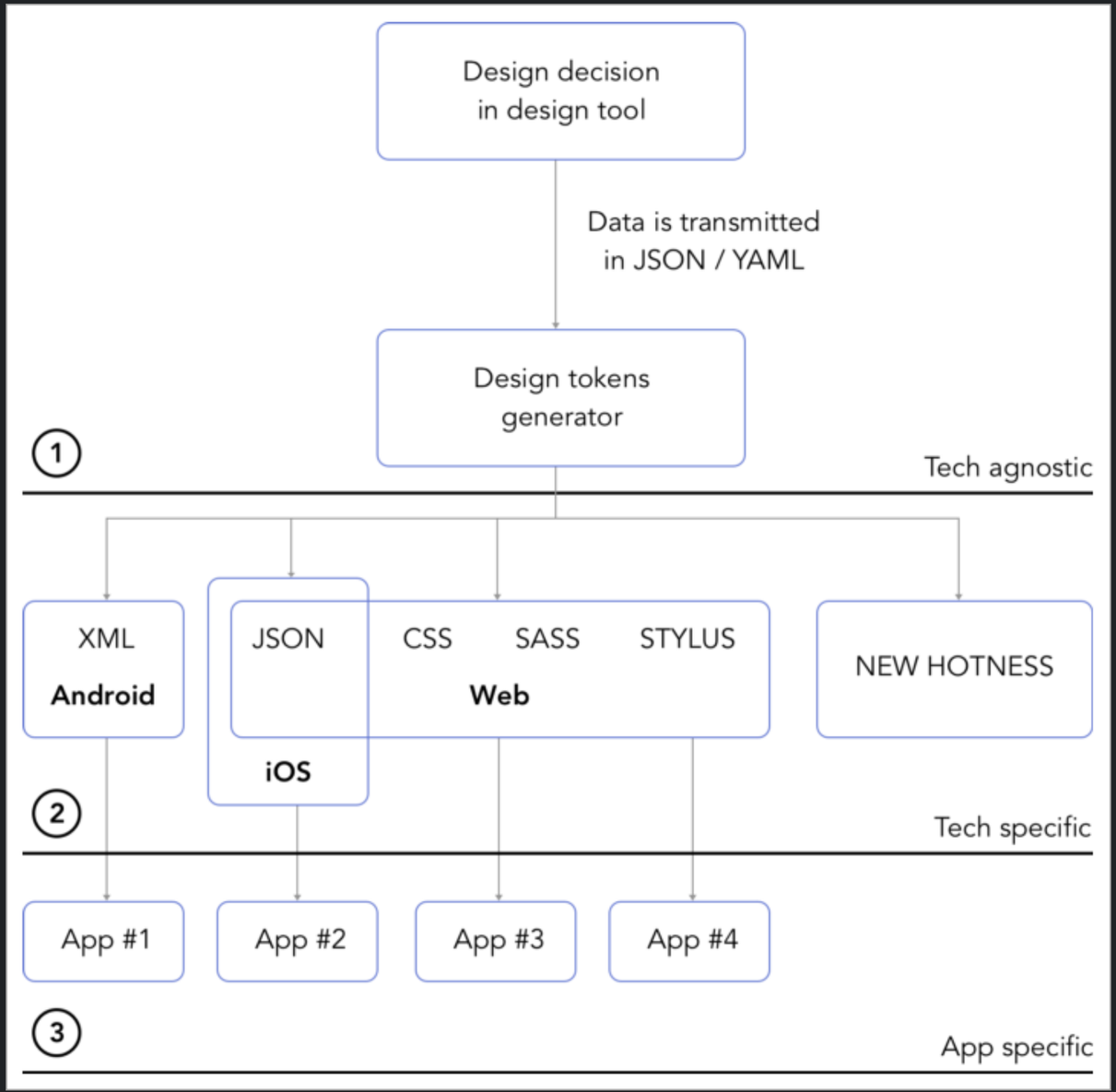
Systemising the design of your components

Horse Design Systems
@horse_designsys
Aren’t these just SASS Variables?
CSS-Tricks @css
Design tokens aren't a new concept, but they're gaining steam as a way to maintain consistency across multiple platforms. css-tricks.com/what-are-desig…
11:49 am - 3 Apr 2019
6 Likes
1
6

Design Tokens are the visual atoms of the design system – specifically, they are named entities that store visual design attributes.

We use them in place of hard–coded values in order to maintain a scalable and consistent visual system.

— Jina | @jina


Design decision
in design tool
Data is transmitted
in JSON / YAML
Design tokens
generator
1
Tech agnostic
XML
Android
JSON
CSS
SASS
STYLUS
Web
iOS
NEW HOTNESS
2
Tech specific
App #1
App #2
App #3
App #4
3
App specific

Danny
@dbanksDesign

Follow

Design tokens are just spicy variables.

5:02 pm - 30 Apr 2019

4 Retweets **23** Likes

1 4 23

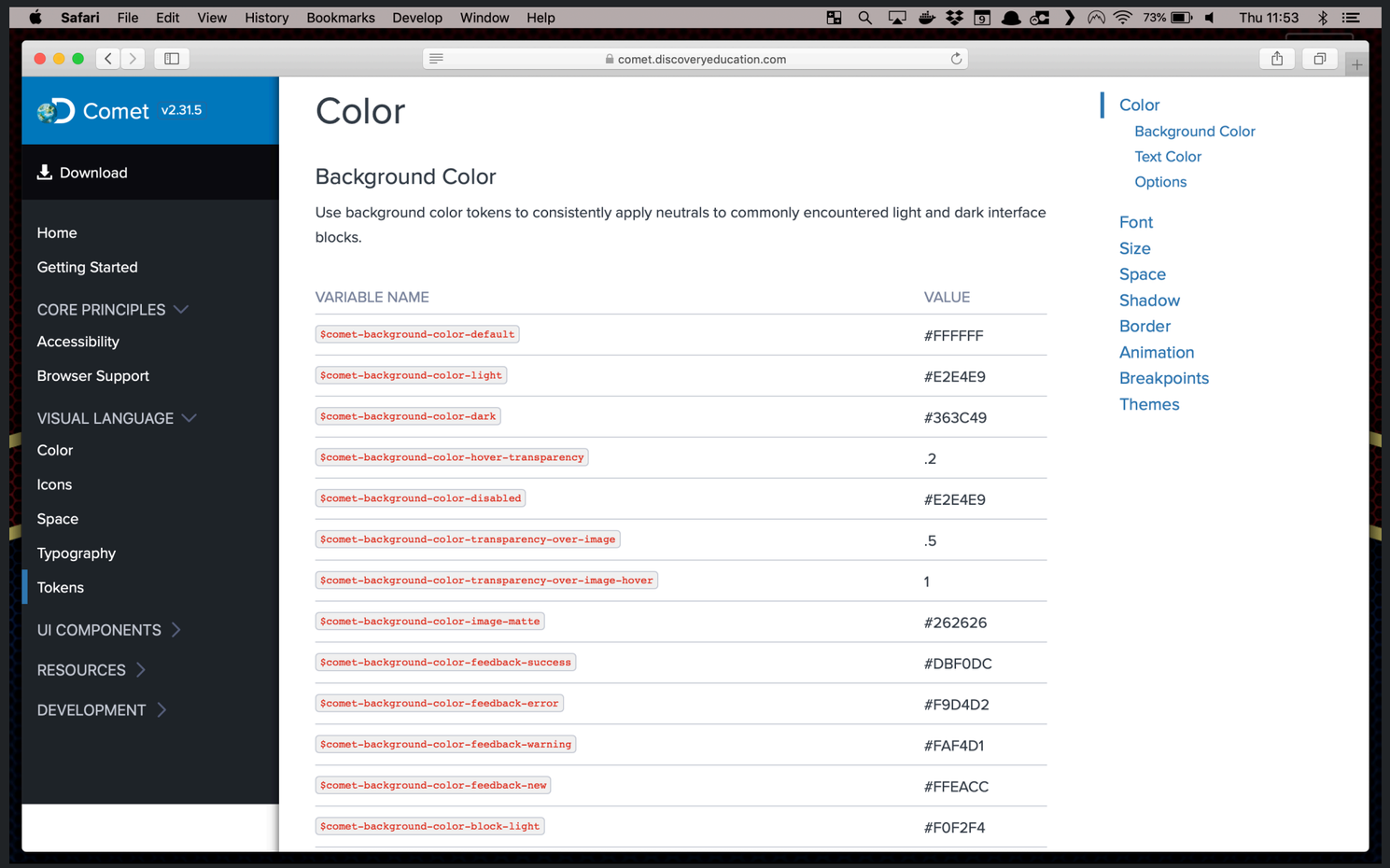
Whatever works best for that team wins.

Variables, Super Variable, Constants, Design Tokens, Style Parameters, Style Dictionary, Primitives, Subatomic Particles, Style Expressions.

— Jina | @jina

Sizing | Fonts Families | Font Styles | Font Weights | Font Sizes | Line Heights | Border Styles | Border Colors | Border Radius | Horizontal Rule Colors | Background Colors | Gradients | Background Gradients | Box Shadows | Text Colors | Text Shadows | Time | Media Queries | Z Index | Icons

Colour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comet.discoveryeducation.com
Comet v2.31.5
Download
Home
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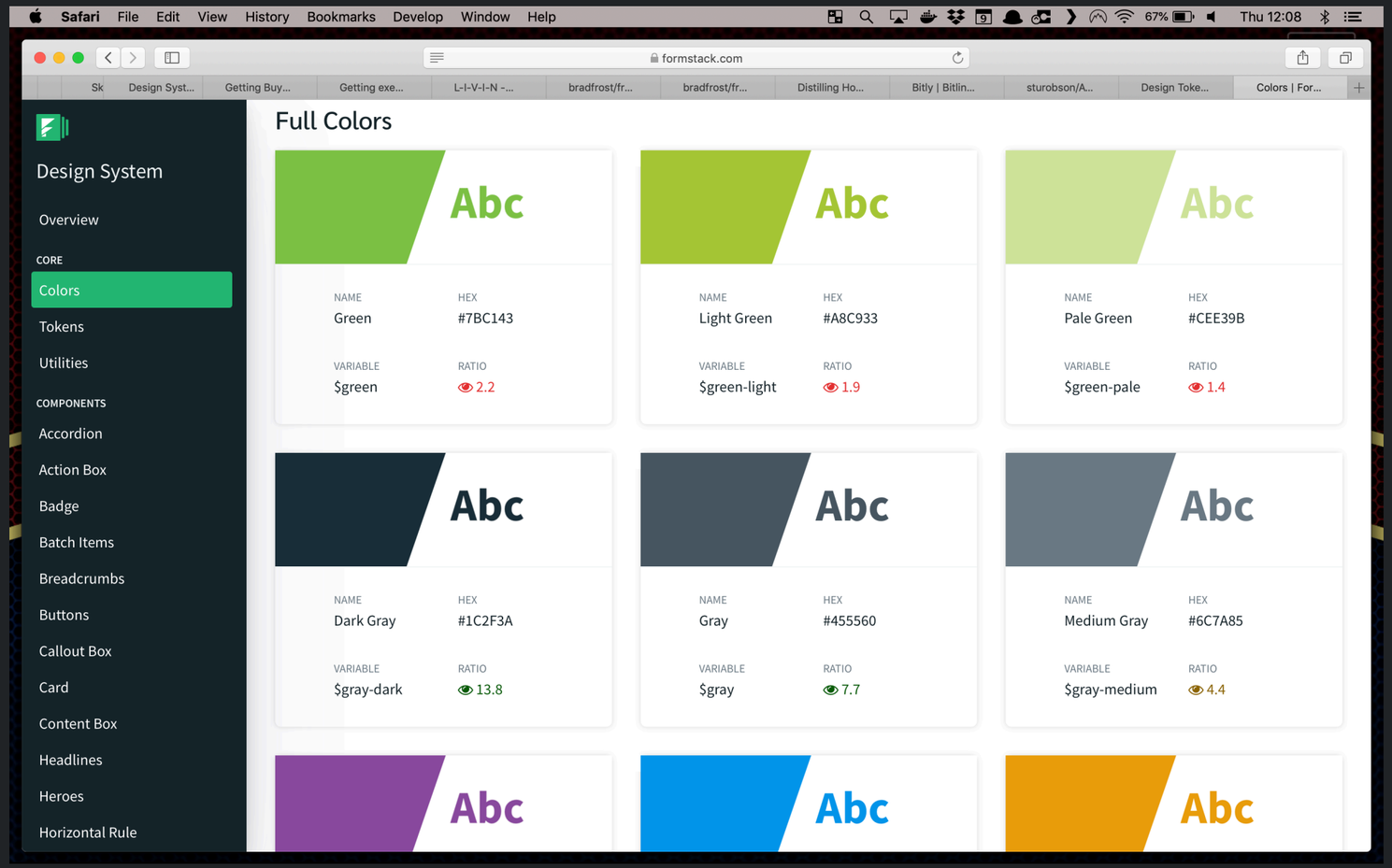
CORE PRINCIPLES
Accessibility
Browser Support
VISUAL LANGUAGE
Color
Icons
Space
Typography
Tokens
UI COMPONENTS
RESOURCES
DEVELOPMENT
Color
Background Color
Use background color tokens to consistently apply neutrals to commonly encountered light and dark interface blocks.
VARIABLE NAME
VALUE
$comet-background-color-default #FFFFFF
$comet-background-color-light #E2E4E9
$comet-background-color-dark #363C49
$comet-background-color-hover-transparency .2
$comet-background-color-disabled #E2E4E9
$comet-background-color-transparency-over-image .5
$comet-background-color-transparency-over-image-hover 1
$comet-background-color-image-matte #262626
$comet-background-color-feedback-success #DBF0DC
$comet-background-color-feedback-error #F9D4D2
$comet-background-color-feedback-warning #FAF4D1
$comet-background-color-feedback-new #FFEACC
$comet-background-color-block-light #F0F2F4
Color
Background Color
Text Color
Options
Font
Size
Space
Shadow
Border
Animation
Breakpoints
Themes

Colour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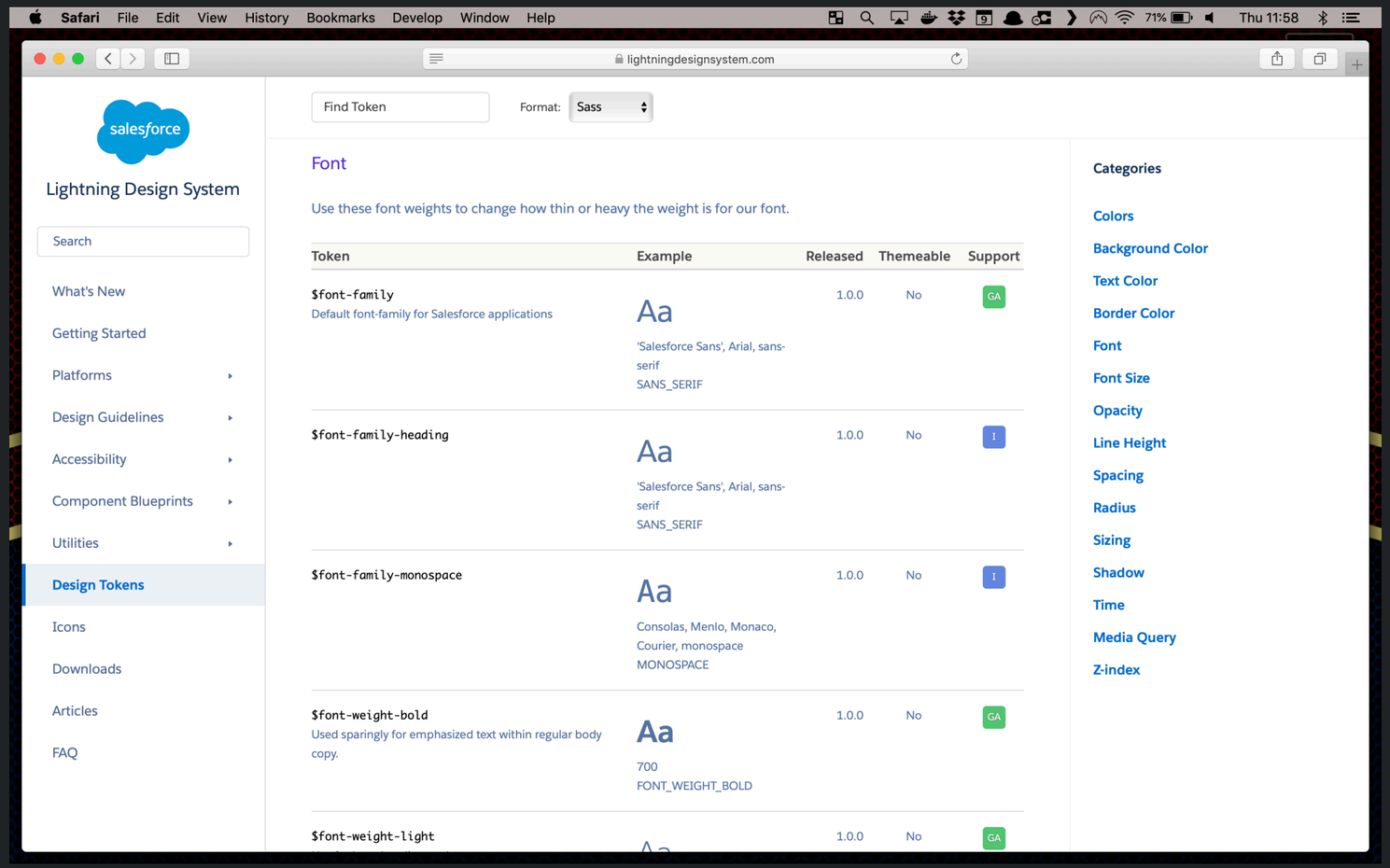
Thu 12:08
formstack.com
Design System
Overview
CORE
Colors
Tokens
Utilities
COMPONENTS
Accordion
Action Box
Badge
Batch Items
Breadcrumbs
Buttons
Callout Box
Card
Content Box
Headlines
Heroes
Horizontal Rule
Full Colors
Abc
NAME Green
HEX #7BC143
VARIABLE $green
RATIO 2.2
Abc
NAME Light Green
HEX #A8C933
VARIABLE $green-light
RATIO 1.9
Abc
NAME Pale Green
HEX #CEE39B
VARIABLE $green-pale
RATIO 1.4
Abc
NAME Dark Gray
HEX #1C2F3A
VARIABLE $gray-dark
RATIO 13.8
Abc
NAME Gray
HEX #455560
VARIABLE $gray
RATIO 7.7
Abc
NAME Medium Gray
HEX #6C7A85
VARIABLE $gray-medium
RATIO 4.4
Abc
Abc
Abc

Typography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Design Tokens
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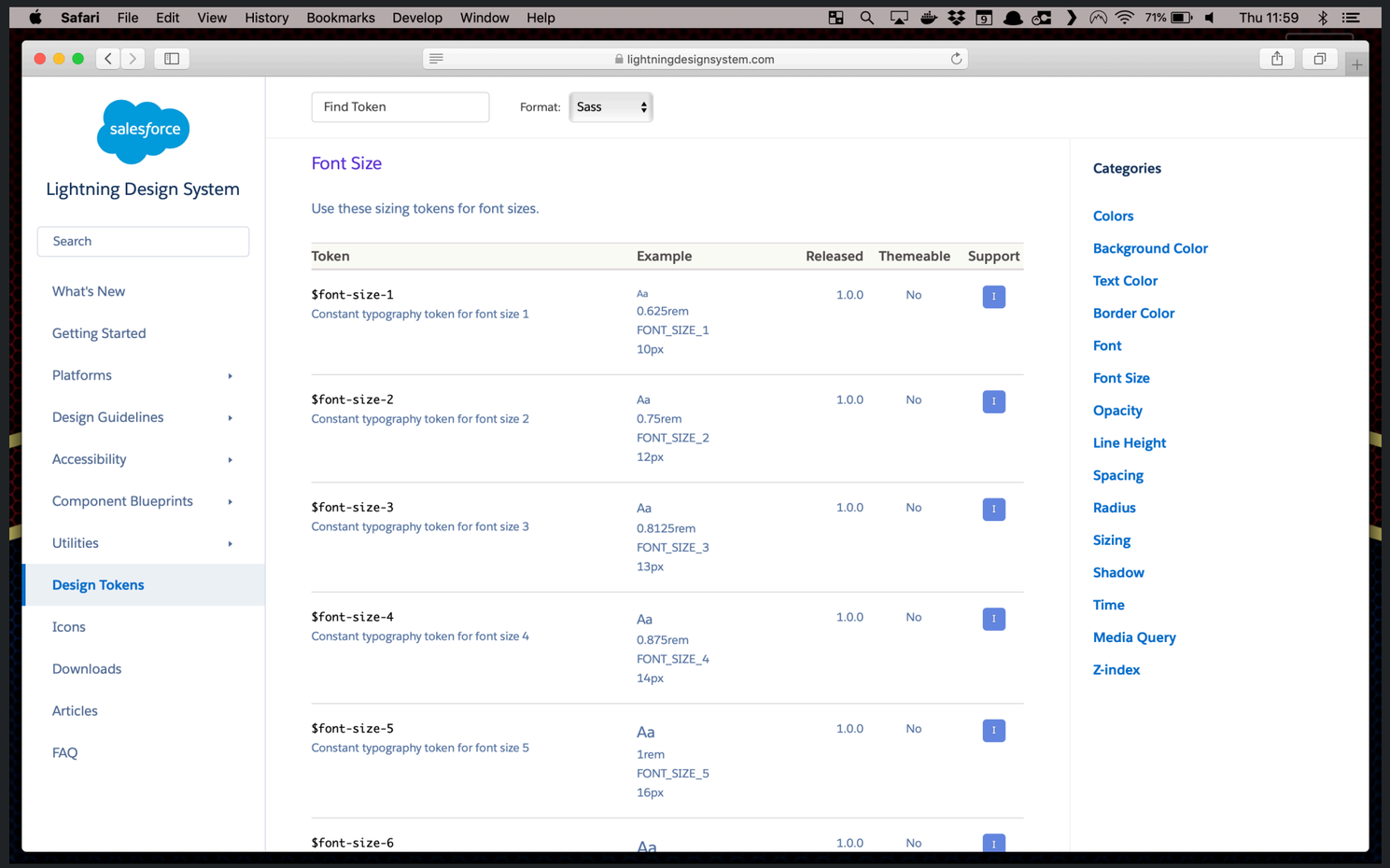
FAQ
Find Token
Format: Sass
Font
Use these font weights to change how thin or heavy the weight is for our font.
Token
Example
Released
Themeable
Support
$font-family
Default font-family for Salesforce applications
Aa
'Salesforce Sans', Arial, sans-serif
SANS_SERIF
1.0.0
No
GA
$font-family-heading
Aa
'Salesforce Sans', Arial, sans-serif
SANS_SERIF
1.0.0
No
I
$font-family-monospace
Aa
Consolas, Menlo, Monaco, Courier, monospace
MONOSPACE
1.0.0
No
I
$font-weight-bold
Used sparingly for emphasized text within regular body copy.
Aa
700
FONT_WEIGHT_BOLD
1.0.0
No
GA
$font-weight-light
1.0.0
No
GA
Categories
Colors
Background Color
Text Color
Border Color
Font
Font Size
Opacity
Line Height
Spacing
Radius
Sizing
Shadow
Time
Media Query
Z-index

Typography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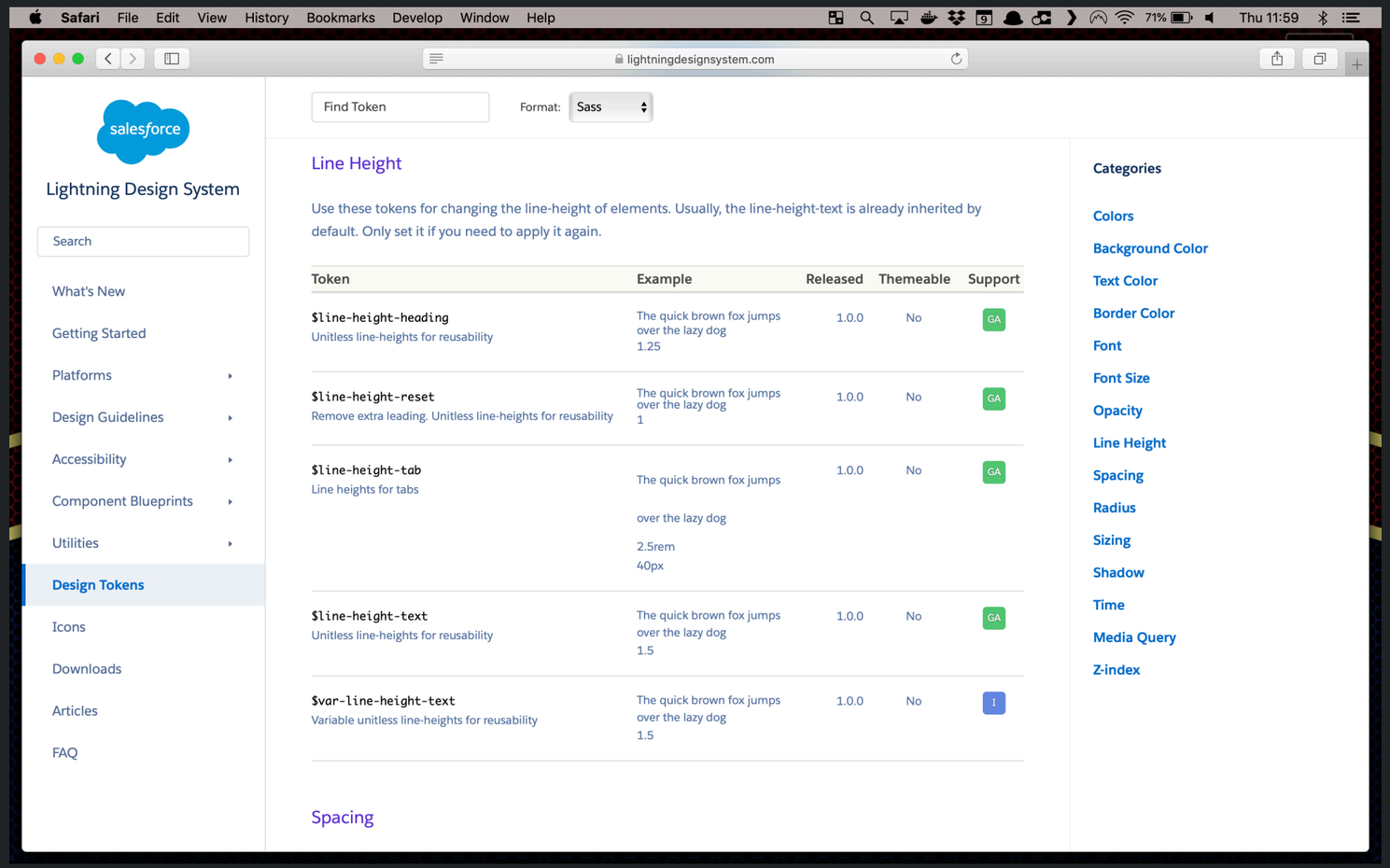
FAQ
Find Token
Format: Sass
Font Size
Use these sizing tokens for font sizes.
Token
Example
Released
Themeable
Support
$font-size-1
Constant typography token for font size 1
Aa 0.625rem FONT_SIZE_1 10px
1.0.0
No
$font-size-2
Constant typography token for font size 2
Aa 0.75rem FONT_SIZE_2 12px
1.0.0
No
$font-size-3
Constant typography token for font size 3
Aa 0.8125rem FONT_SIZE_3 13px
1.0.0
No
$font-size-4
Constant typography token for font size 4
Aa 0.875rem FONT_SIZE_4 14px
1.0.0
No
$font-size-5
Constant typography token for font size 5
Aa 1rem FONT_SIZE_5 16px
1.0.0
No
$font-size-6
Aa
1.0.0
No
Categories
Colors
Background Color
Text Color
Border Color
Font
Font Size
Opacity
Line Height
Spacing
Radius
Sizing
Shadow
Time
Media Query
Z-index

Typography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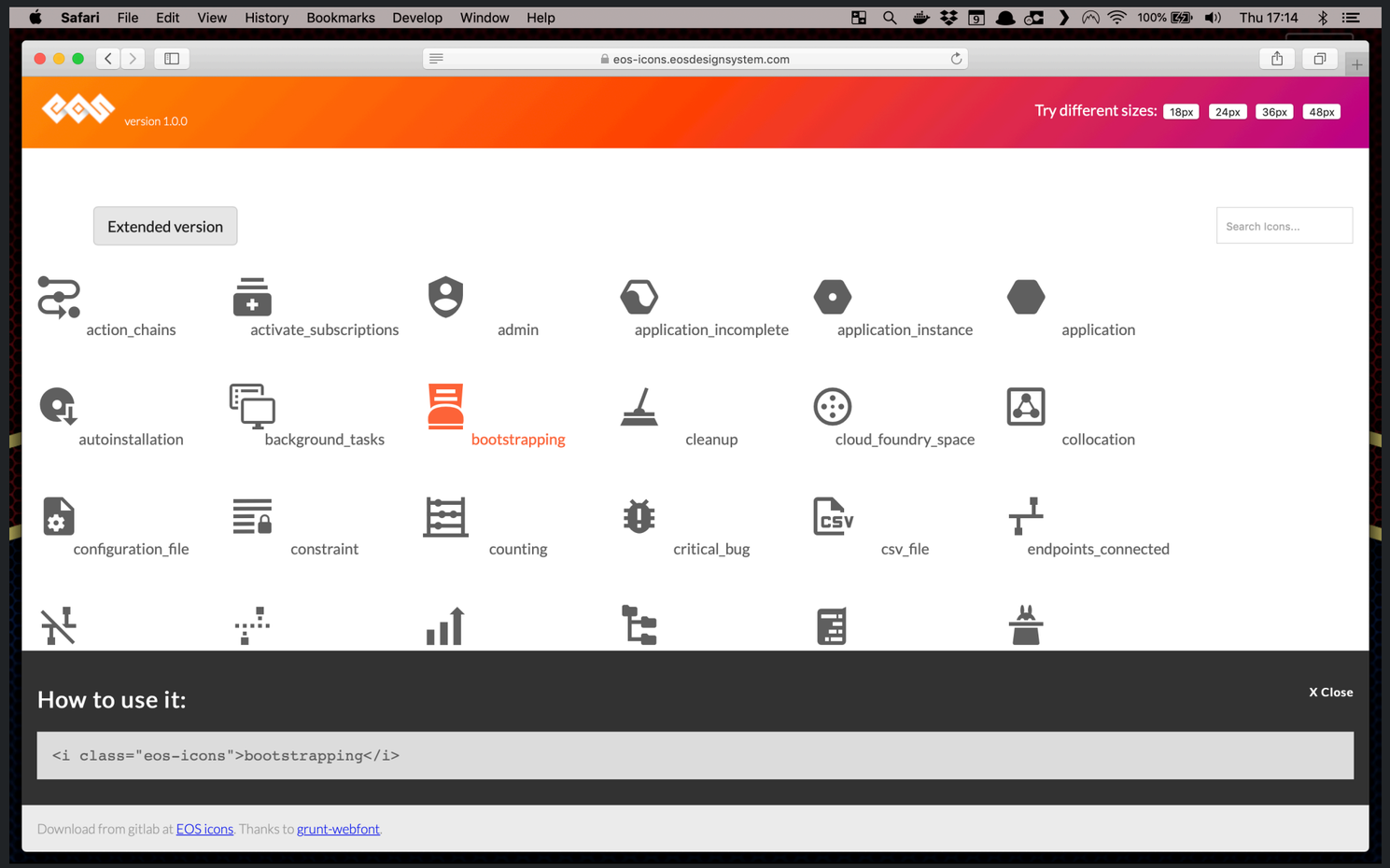
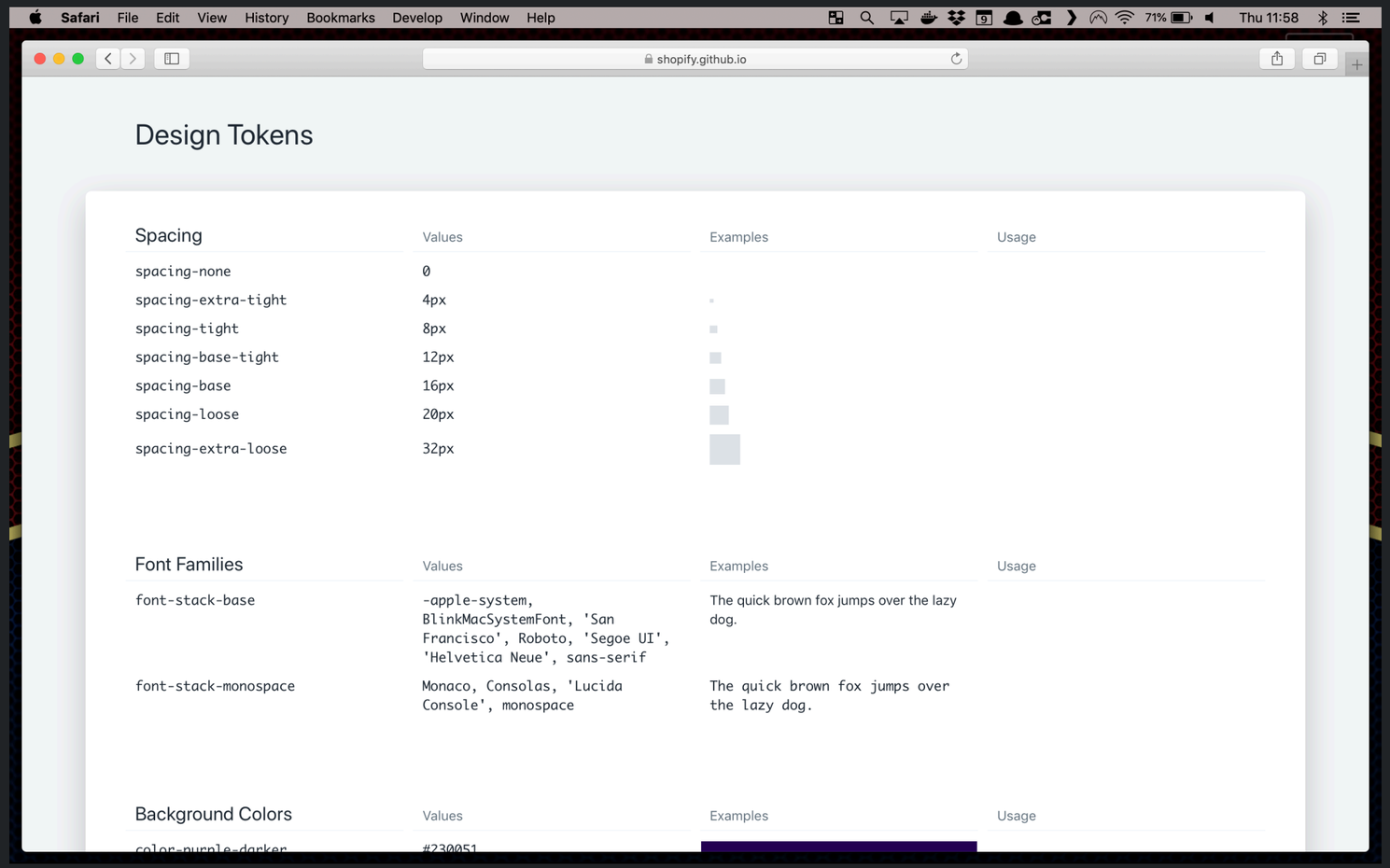
Find Token
Format: Sass
Line Height
Use these tokens for changing the line-height of elements. Usually, the line-height-text is already inherited by default. Only set it if you need to apply it again.
Token
Example
Released
Themeable
Support
$line-height-heading
Unitless line-heights for reusability
The quick brown fox jumps over the lazy dog 1.25
1.0.0
No
GA
$line-height-reset
Remove extra leading. Unitless line-heights for reusability
The quick brown fox jumps over the lazy dog 1
1.0.0
No
GA
$line-height-tab
Line heights for tabs
The quick brown fox jumps over the lazy dog 2.5rem 40px
1.0.0
No
GA
$line-height-text
Unitless line-heights for reusability
The quick brown fox jumps over the lazy dog 1.5
1.0.0
No
GA
$var-line-height-text
Variable unitless line-heights for reusability
The quick brown fox jumps over the lazy dog 1.5
1.0.0
No
I
Spacing
Categories
Colors
Background Color
Text Color
Border Color
Font
Font Size
Opacity
Line Height
Spacing
Radius
Sizing
Shadow
Time
Media Query
Z-index

Iconography



Spacing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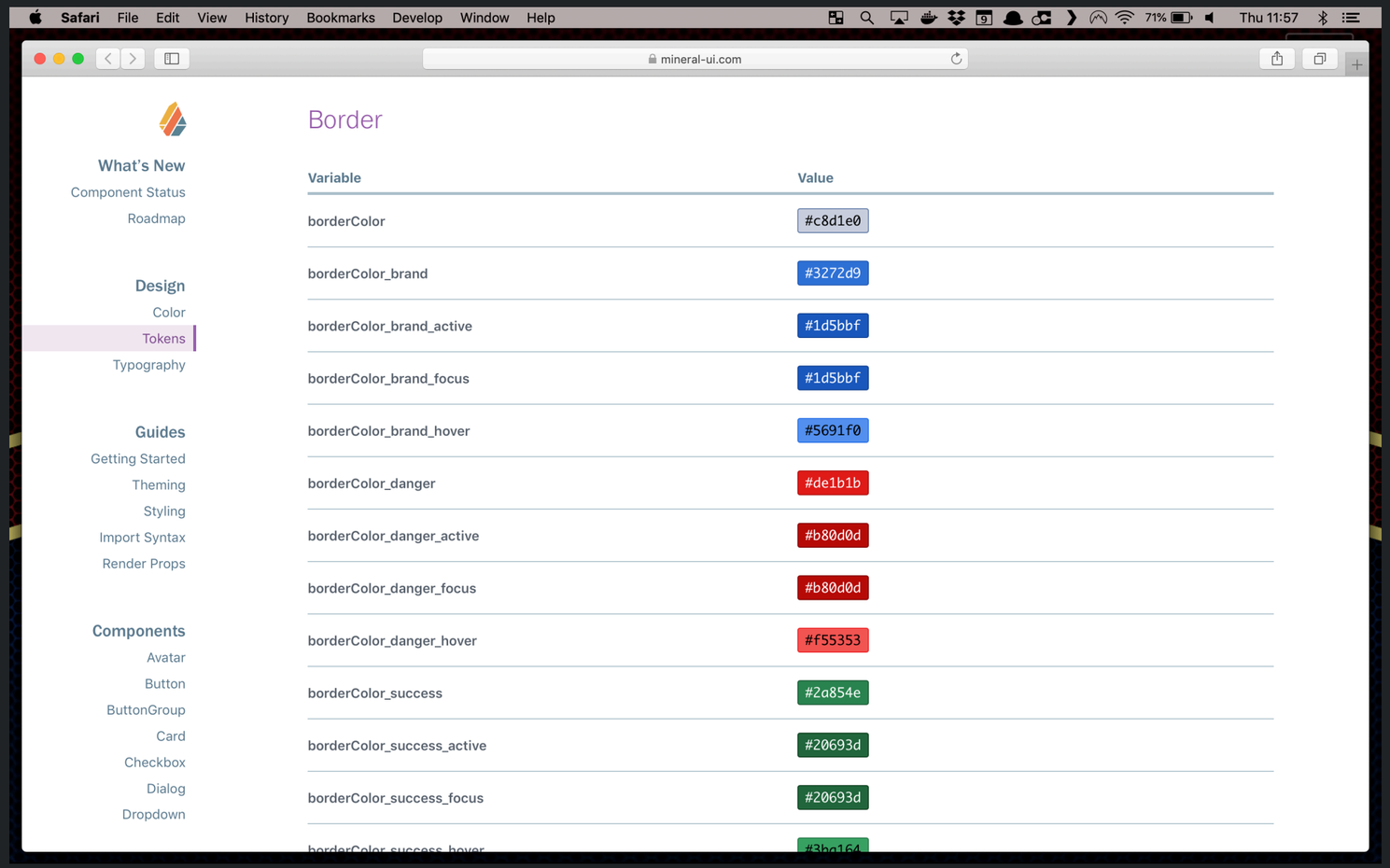
Thu 11:58
shopify.github.io
Design Tokens
Spacing
Values
Examples
Usage
spacing-none
0
spacing-extra-tight
4px
spacing-tight
8px
spacing-base-tight
12px
spacing-base
16px
spacing-loose
20px
spacing-extra-loose
32px
Font Families
Values
Examples
Usage
font-stack-base
-apple-system, BlinkMacSystemFont, 'San Francisco', Roboto, 'Segoe UI', 'Helvetica Neue', sans-serif
The quick brown fox jumps over the lazy dog.
font-stack-monospace
Monaco, Consolas, 'Lucida Console', monospace
The quick brown fox jumps over the lazy dog.
Background Colors
Values
Examples
Usage

Borders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Thu 11:57
mineral-ui.com
What's New
Component Status
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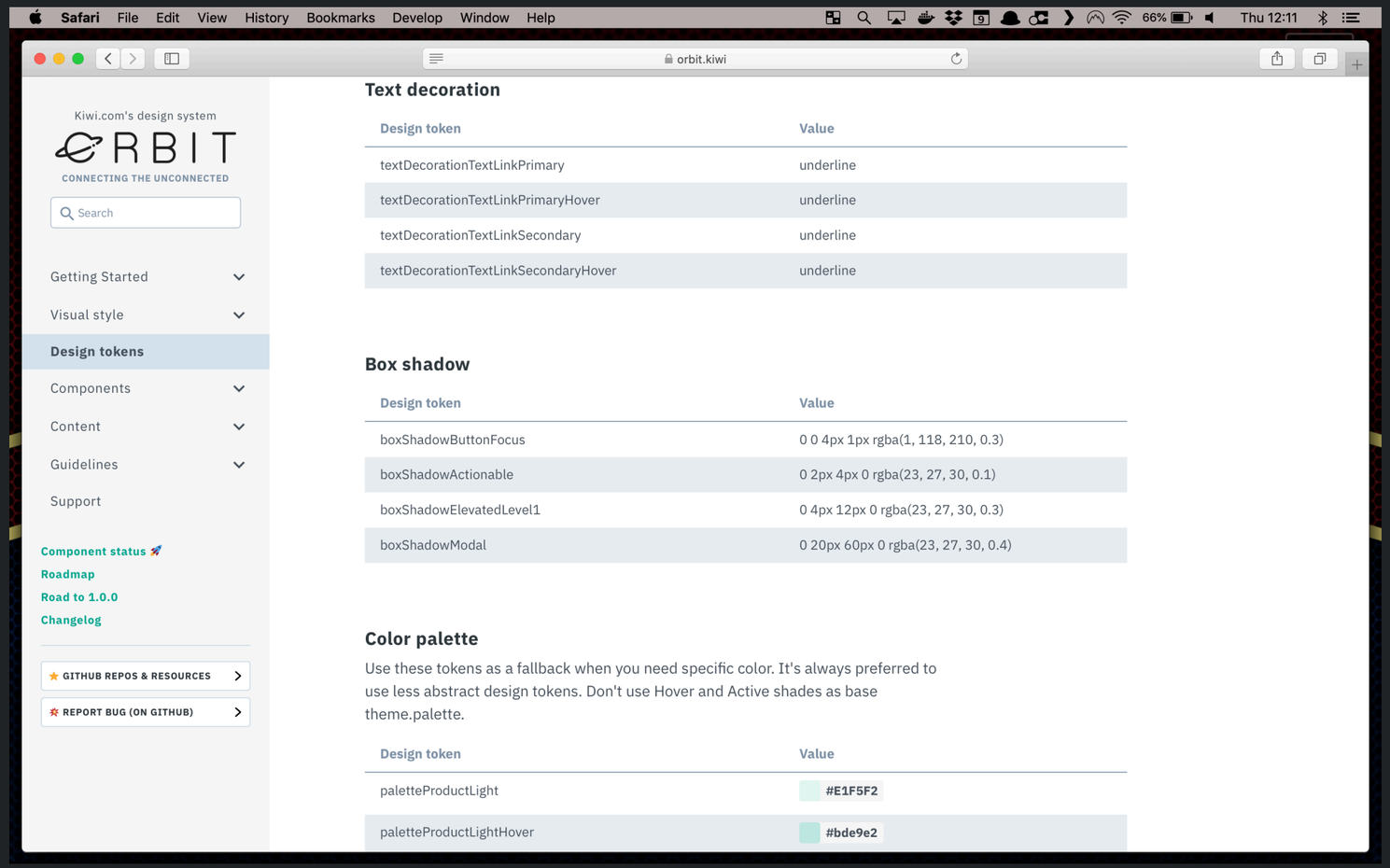
Styling
Import Syntax
Render Props
Components
Avatar
Button
ButtonGroup
Card
Checkbox
Dialog
Dropdown
Border
Variable
Value
borderColor #c8d1e0
borderColor_brand #3272d9
borderColor_brand_active #1d5bbf
borderColor_brand_focus #1d5bbf
borderColor_brand_hover #5691f0
borderColor_danger #de1b1b
borderColor_danger_active #b80d0d
borderColor_danger_focus #b80d0d
borderColor_danger_hover #f55353
borderColor_success #2a854e
borderColor_success_active #20693d
borderColor_success_focus #20693d

Shadows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66% Thu 12:11
orbit.kiwi
Kiwi.com's design system
ORBIT
CONNECTING THE UNCONNECTED
Search
Getting Started
Visual style
Design tokens
Components
Content
Guidelines
Support
Component status
Roadmap
Road to 1.0.0
Changelog
GITHUB REPOS & RESOURCES
REPORT BUG (ON GITHUB)
Text decoration
Design token | Value
textDecorationTextLinkPrimary | underline
textDecorationTextLinkPrimaryHover | underline
textDecorationTextLinkSecondary | underline
textDecorationTextLinkSecondaryHover | underline
Box shadow
Design token | Value
boxShadowButtonFocus | 0 0 4px 1px rgba(1, 118, 210, 0.3)
boxShadowActionable | 0 2px 4px 0 rgba(23, 27, 30, 0.1)
boxShadowElevatedLevel1 | 0 4px 12px 0 rgba(23, 27, 30, 0.3)
boxShadowModal | 0 20px 60px 0 rgba(23, 27, 30, 0.4)
Color palette
Use these tokens as a fallback when you need specific color. It's always preferred to use less abstract design tokens. Don't use Hover and Active shades as base theme.palette.
Design token | Value
paletteProductLight | #E1F5F2
paletteProductLightHover | #bde9e2

Time

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lightningdesignsystem.com

salesforce

Lightning Design System

Search

- What's New
- Getting Started
- Platforms
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- Accessibility
- Component Blueprints
- Utilities
- Design Tokens
- Icons
- Downloads
- Articles
- FAQ

Find Token

Format: Sass

Time

Use timing tokens for animation durations.

Token	Example	Released	Themeable	Support
$duration-immediately 0.05 seconds, 3 frames	0.05s DURATION_IMMEDIATELY	1.0.0	No	GA
$duration-instantly 0 seconds, 0 frames	0s DURATION_INSTANTLY	1.0.0	No	GA
$duration-paused 3.2 seconds, 192 frames	3.2s DURATION_PAUSED	1.0.0	No	GA
$duration-promptly 0.2 seconds, 12 frames	0.2s DURATION_PROMPTLY	1.0.0	No	GA
$duration-quickly 0.1 seconds, 6 frames	0.1s DURATION_QUICKLY	1.0.0	No	GA
$duration-slowly 0.4 seconds, 24 frames	0.4s DURATION_SLOWLY	1.0.0	No	GA

Media Query

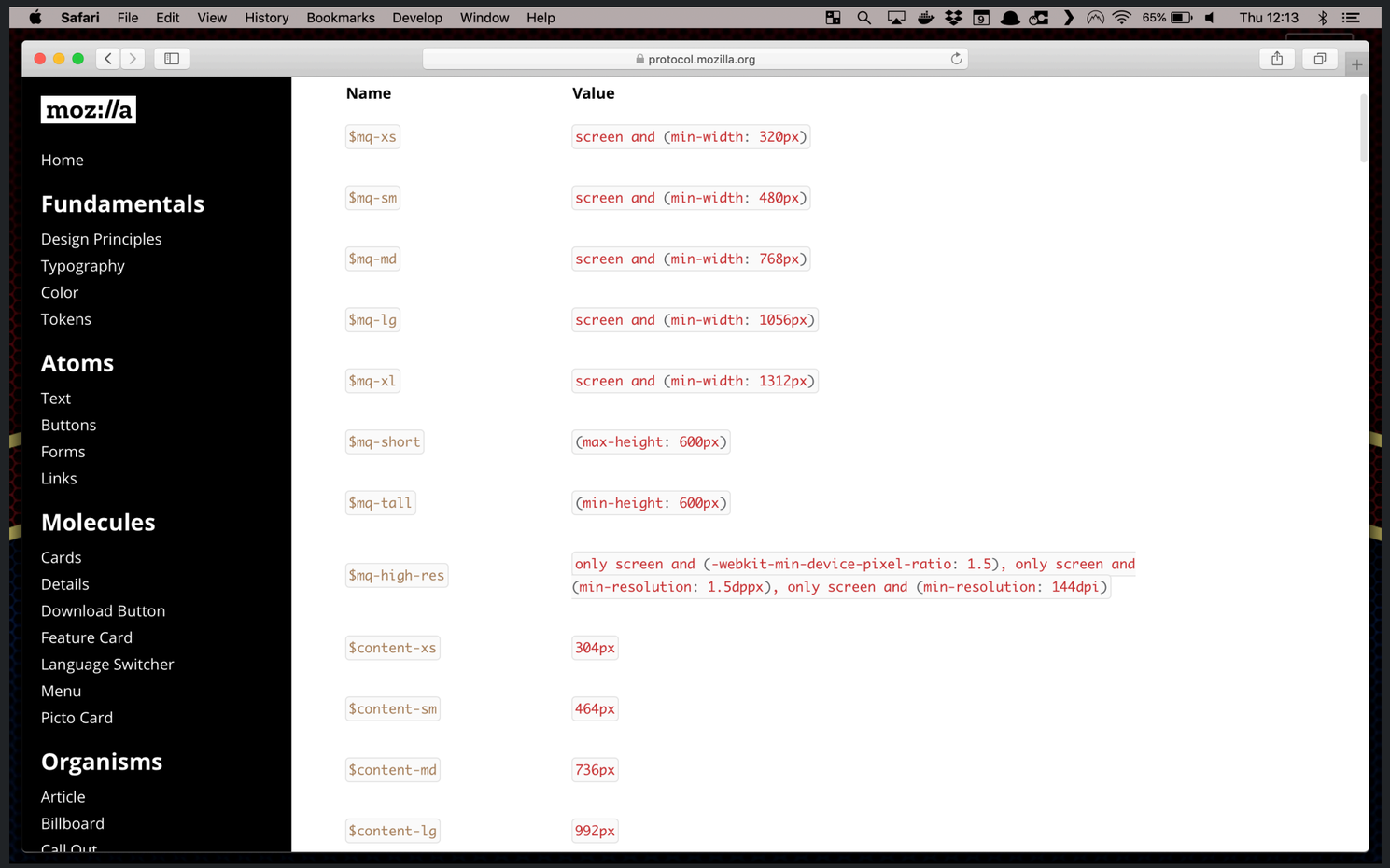
Use media query tokens to set media query width ranges.

Token	Example	Released	Themeable	Support

Categories

- Colors
- Background Color
- Text Color
- Border Color
- Font
- Font Size
- Opacity
- Line Height
- Spacing
- Radius
- Sizing
- Shadow
- Time
- Media Query
- Z-index

Breakpoints



Name	Value
$mq-xs	screen and (min-width: 320px)
$mq-sm	screen and (min-width: 480px)
$mq-md	screen and (min-width: 768px)
$mq-lg	screen and (min-width: 1056px)
$mq-xl	screen and (min-width: 1312px)
$mq-short	(max-height: 600px)
$mq-tall	(min-height: 600px)
$mq-high-res	only screen and (-webkit-min-device-pixel-ratio: 1.5), only screen and (min-resolution: 1.5dppx), only screen and (min-resolution: 144dpi)
$content-xs	304px
$content-sm	464px
$content-md	736px
$content-lg	992px

Safari File Edit View History Bookmarks Develop Window Help 83% Thu 11:23

github.com

Theo

build passing npm v8.1.2

Theo is an abstraction for transforming and formatting Design Tokens.

> **Looking for the gulp plugin?**
>
> As of Theo v6, the gulp plugin is distributed as a separate package: gulp-theo.

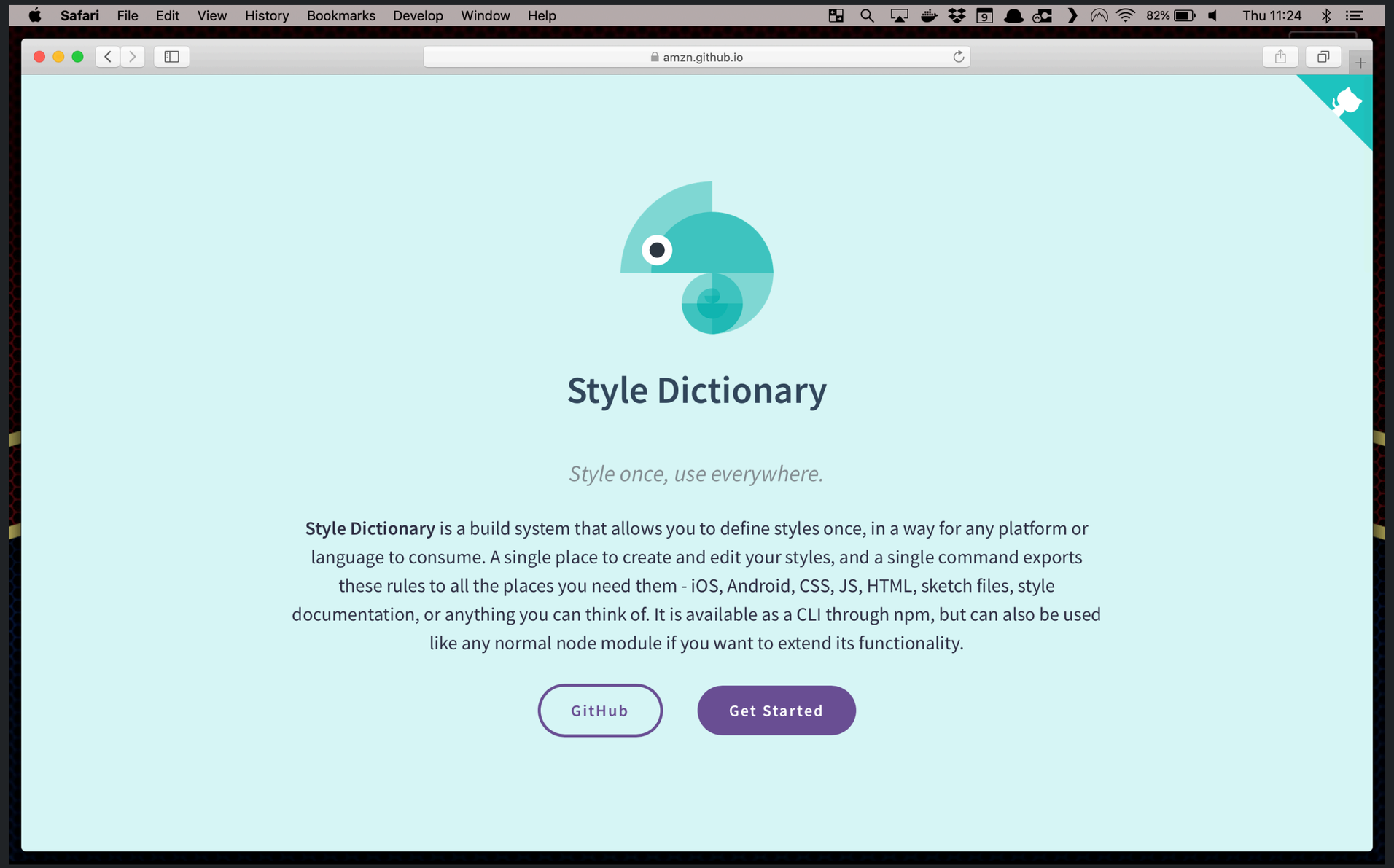
Example

```yaml
# buttons.yml
props:
  button_background:
    value: "{!primary_color}"
imports:
  - ./aliases.yml
global:
  type: color
  category: buttons
```

```yaml
# aliases.yml
aliases:
  primary_color:
    value: "#0070d2"
```

```
const theo = require("theo");

theo
  .convert({
    transform: {
      type: "web",
      file: "buttons.yml"
```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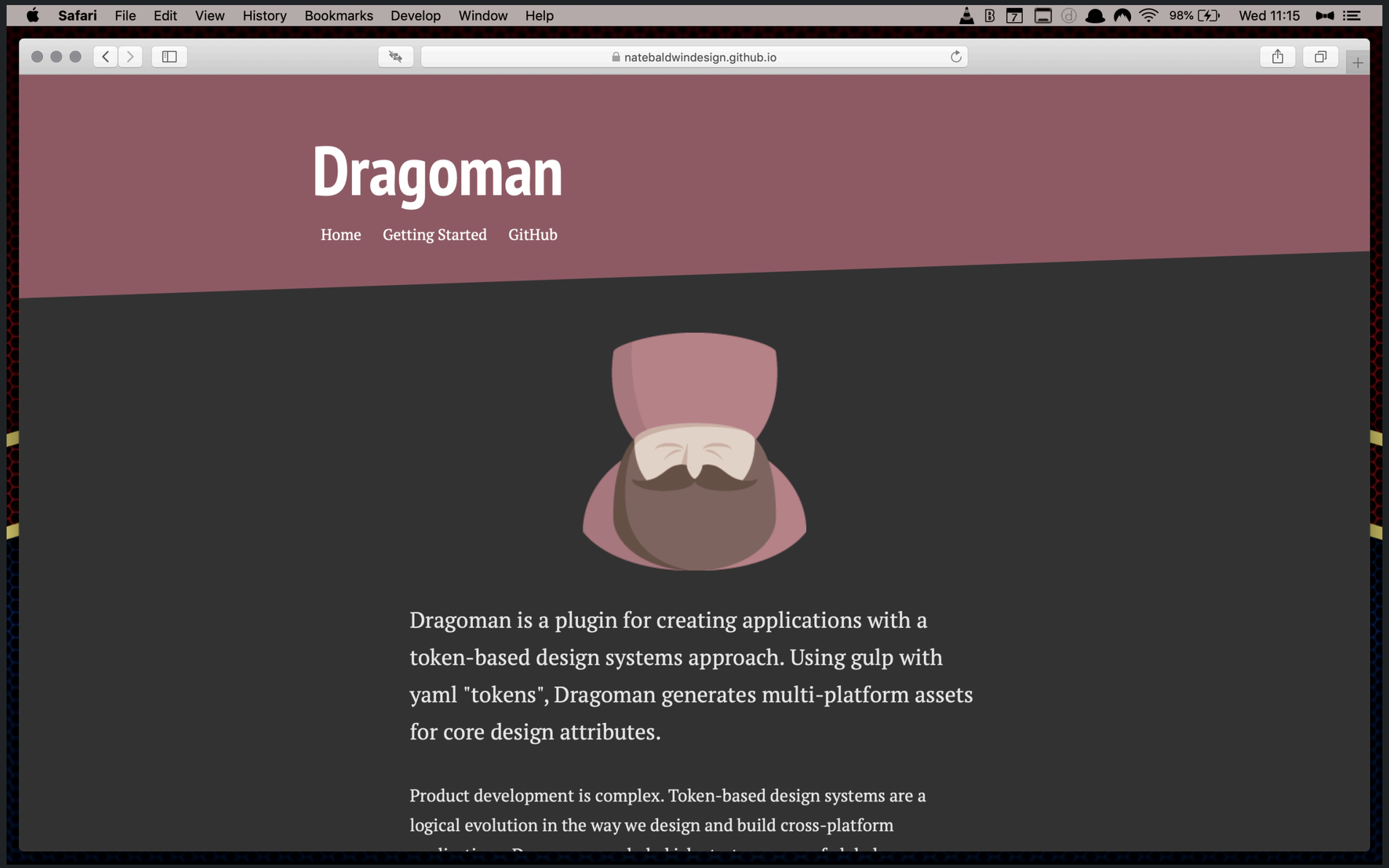
82%
Thu 11:24
amzn.github.io
Style Dictionary
Style once, use everywhere.
Style Dictionary is a build system that allows you to define styles once, in a way for any platform or language to consume. A single place to create and edit your styles, and a single command exports these rules to all the places you need them - iOS, Android, CSS, JS, HTML, sketch files, style documentation, or anything you can think of. It is available as a CLI through npm, but can also be used like any normal node module if you want to extend its functionality.
GitHub
Get Started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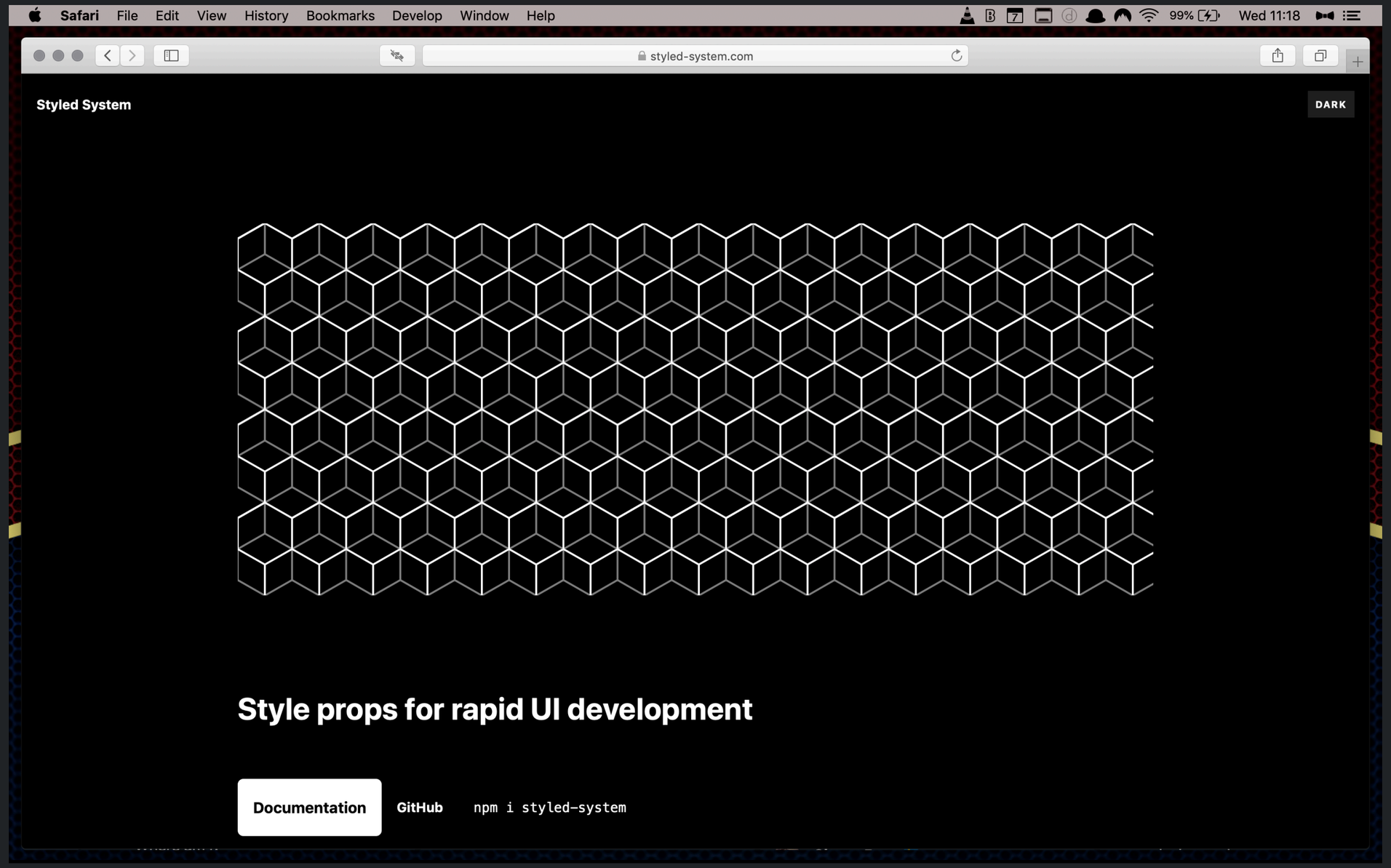
98% Wed 11:15
natebaldwindesign.github.io
Dragoman
Home Getting Started GitHub
Dragoman is a plugin for creating applications with a token-based design systems approach. Using gulp with yaml "tokens", Dragoman generates multi-platform assets for core design attributes.
Product development is complex. Token-based design systems are a logical evolution in the way we design and build cross-platform


Safari File Edit View History Bookmarks Develop Window Help
99% Wed 11:18
styled-system.com
Styled System
DARK
Style props for rapid UI development
Documentation
GitHub
npm i styled-system

Safari File Edit View History Bookmarks Develop Window Help 99% Wed 11:20

github.com

Design System Utils

npm v1.5.0 | minzipped size 1.17 kB | build passing | licence MIT | PRs welcome

Design System Utils is a micro framework that standardises your design-system tokens & provides helpful utility functions to access the information. It can be used with styled-components, emotion, glamorous or any other CSS-in-JS framework.

Install

```
yarn add design-system-utils

# or

npm install --save design-system-utils
```

Size

```
$ size-limit

  build/cjs.js
  Package size: 814 B
  Size limit:   1 KB

  es/index.js
  Package size: 806 B
  Size limit:   1 KB

  With all dependencies, minified and gzipped
```

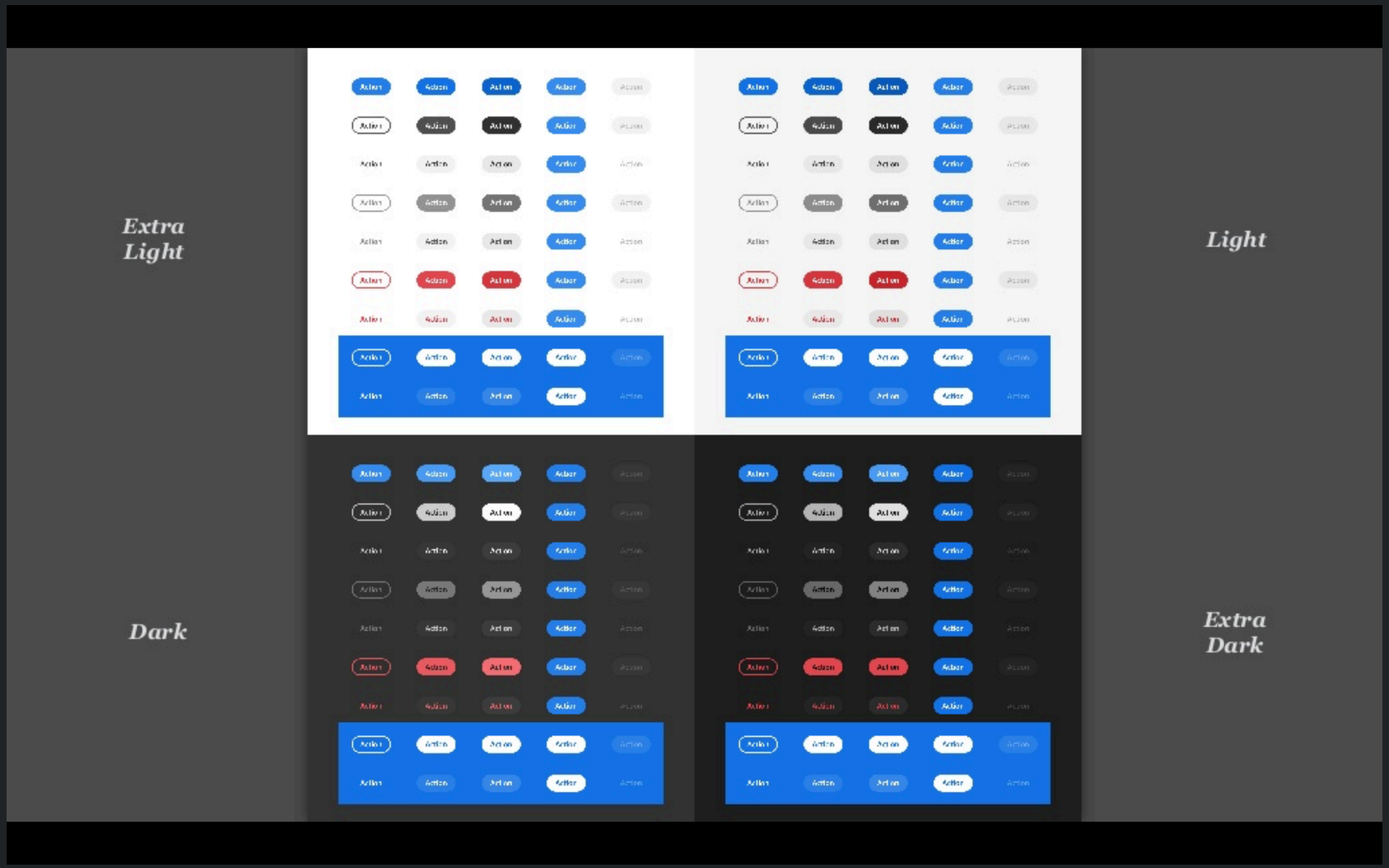
Consistency

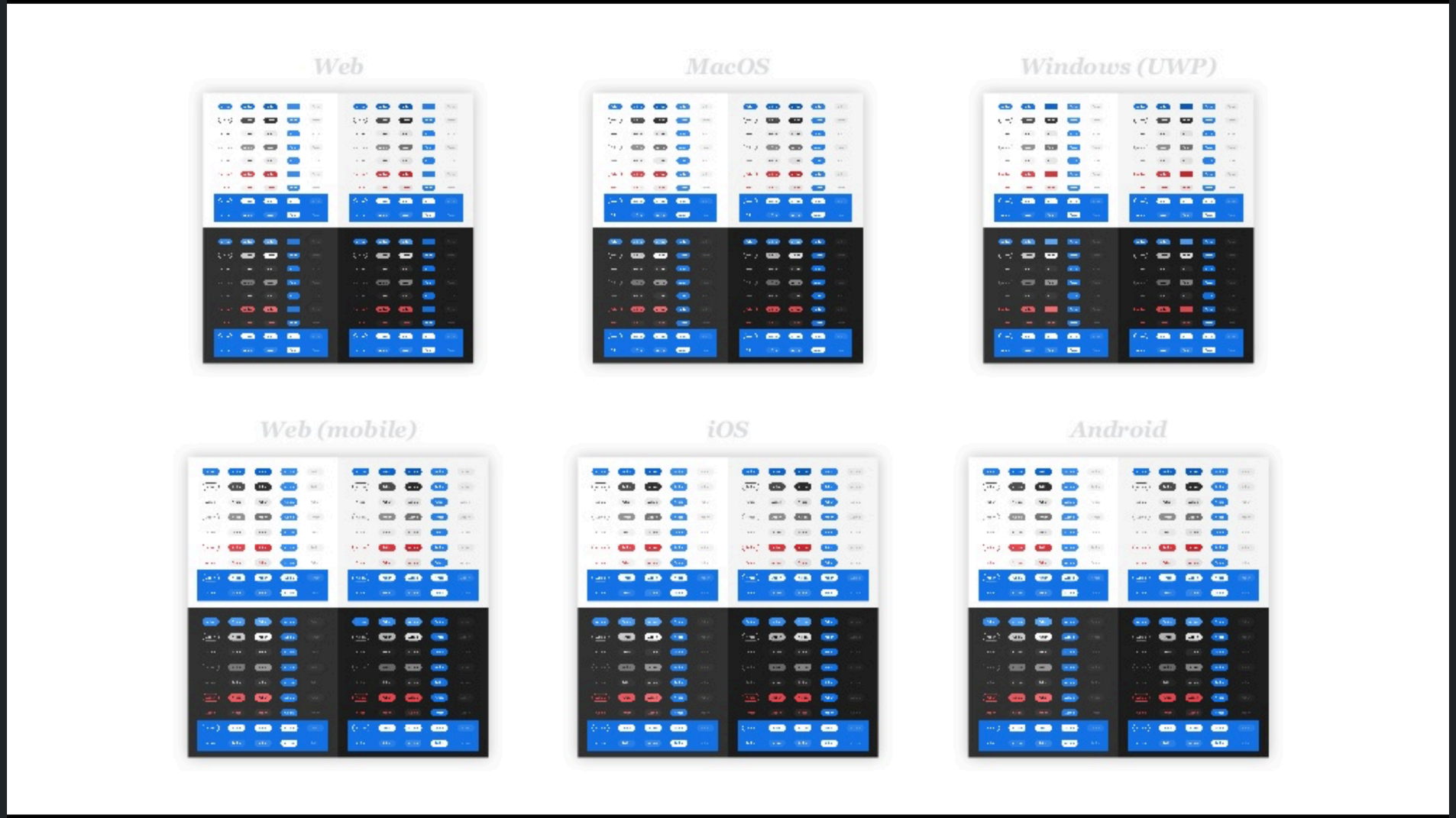
Consistency
Maintainability

Consistency
Maintainability
Scalability

SIGN ON
GO
Maximize Cash Flow
Raise Capital
Mitigate Risk
Go International
Learn More
Sign on to PINACLE®
What is PNC Purchase Payback
How PNC Purchase Payback Works
Get Connected
GET RATES
Enroll Mobile Device
Get Started
Sign On
Next Step
Learn More
Add Reminder
Search Transactions
Export All
Print Spend
Print Reserve
Check Rates
Savings History
Customize Your Pig
Add
Sign On
Apply Now
Continue
Search
Go
CLEAR
SUBMIT
Rate Virtual Wallet
Sign On
+ Add transaction
Show Bars
GO
Share Your Story
Set Payday
Try Again
Sign Up for V.me
Learn More
Learn More

I am a Button


Extra Light
Light
Dark
Extra Dark


Web
MacOS
Windows (UWP)
Web (mobile)
iOS
Android

I am a Button

Variants

- Typography
- Palette
- Borders
- Shadow
- Spacing

- Interaction: hover, focus, active states

Typography

- font family
- font size
- font weight
- text transform

Colour

- text colour
- background colour

Borders

- border colour
- border style
- border width
- border radius

Spacing

- padding top
- padding bottom
- padding left
- padding right

- margin top
- margin bottom
- margin left
- margin right

Interactive States

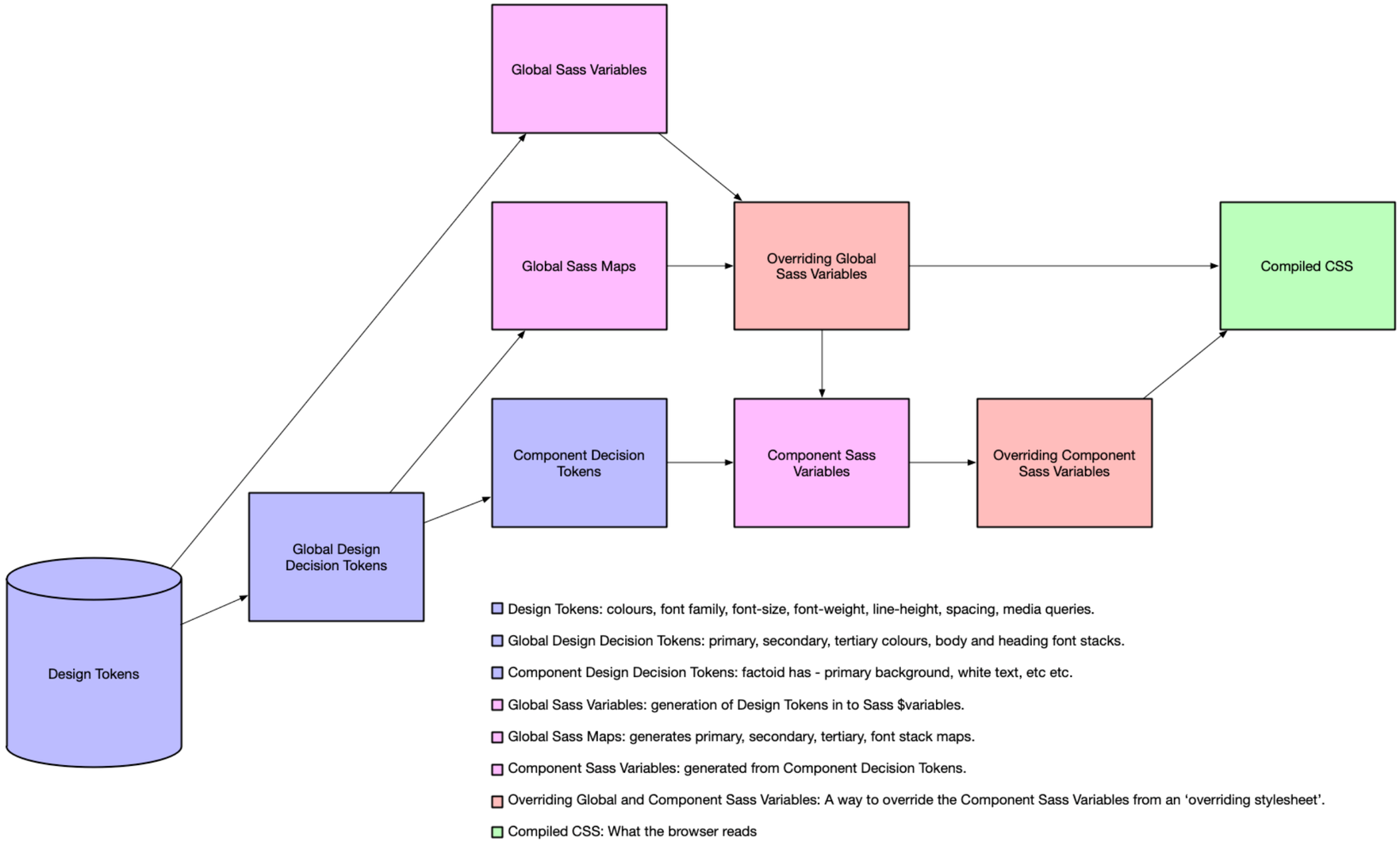
- hover text colour
- hover background colour
- hover box shadow

- focus text colour
- focus background colour
- focus box shadow
- focus border colour
- focus border width

Timing

- transition duration
- transition property
- transition timing function

Let's live code.


Global Sass Variables
Global Sass Maps
Overriding Global Sass Variables
Compiled CSS
Component Decision Tokens
Component Sass Variables
Overriding Component Sass Variables
Global Design Decision Tokens
Design Tokens
Design Tokens: colours, font family, font-size, font-weight, line-height, spacing, media queries.
Global Design Decision Tokens: primary, secondary, tertiary colours, body and heading font stacks.
Component Design Decision Tokens: factoid has - primary background, white text, etc etc.
Global Sass Variables: generation of Design Tokens in to Sass $variables.
Global Sass Maps: generates primary, secondary, tertiary, font stack maps.
Component Sass Variables: generated from Component Decision Tokens.
Overriding Global and Component Sass Variables: A way to override the Component Sass Variables from an 'overriding stylesheet'.
Compiled CSS: What the browser reads

When there's an update to our brand colors or typography, tokens can help streamline the redesign process.

— Maya King | @HiMaya

> There's always this internal struggle in design systems, how flexible you want to be versus how consistent you wanna be, and what constraints you want to introduce.

— Sarah Federman | @SarahFederman

Safari File Edit View History Bookmarks Develop Window Help 100% Wed 13:06

github.com

stylelint-declaration-strict-value

build passing

A stylelint plugin that enforces either variables (`$sass` , `@less` , `var(--cssnext)`), functions or custom CSS keywords (`inherit` , `none` , etc.) for property's values.

Installation

```
npm install stylelint-declaration-strict-value
```

Usage

Usage

Add it to your stylelint config `plugins` array, then add `"declaration-strict-value"` to your rules, specifying the property for which you want to check the usage of variables, functions or keywords.

Like so:

```
// .stylelintrc
{
  "plugins": [
    "stylelint-declaration-strict-value"
  ],
  "rules": {
    // ...
    "scale-unlimited/declaration-strict-value": "color",
    // ...
  }
}
```

"

By making tokens available to all digital teams, we can enable them to create custom experiences that are aligned to current visual standards when a component does not (or will not) exist in the design system.

— Maya King | @HiMaya

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alwaystwisted.com

Always Twisted

Creating Utility Classes with Design Tokens using Sass

22 July 2019

At the start of a Design System, there's a chance that things can move pretty fast.

There may be more than one or two people working on creating components (if you're lucky). You might want to prototype things quickly with "throwaway code". When it matures there may be certain use cases where you need a slight adjustment here and there for a particular component to work, or you may not be able to include the components you need as you would hope to.

After creating a set of Design Tokens for my clients Design System I looked at how best we can quickly create some additional utility classes for the various "exceptions to the rule" mentioned above. We needed something that would work automatically, programatically, and with as little human interaction as possible once it was set up.

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sassmeister.com

Sassmeister File View Share Options

libsass v3.5.4

```sass
/* Colour Utitilty Class Generator */

$vf-colors-map: (
  green-400: #66bb6a,
);

@mixin color-modifiers($property: 'color') {

  @each $name, $hex in $vf-colors-map {

    &--#{$name} {
      #{$property}: $hex;
    }
  }
}

.u-color__text {
  @include color-modifiers();
}
.u-color__background {
  @include color-modifiers(background-color);
}
.u-color__border {
  @include color-modifiers(border-color);
}


/* typographic utility class generator */

$ds-font-map: (
  body--1: (
    font-size: 19px,
    font-weight: 400,
    line-height: 1.63
  ),
  heading--1: (
    font-size: 24px,
    font-weight: 500,
```

CSS Compiled in 0.002s

```css
/* Colour Utitilty Class Generator */
.u-color__text--green-400 {
  color: #66bb6a;
}

.u-color__background--green-400 {
  background-color: #66bb6a;
}

.u-color__border--green-400 {
  border-color: #66bb6a;
}

/* typographic utility class generator */
.u-type__body--1 {
  font-size: 19px;
  font-weight: 400;
  line-height: 1.63;
}

.u-type__heading--1 {
  font-size: 24px;
  font-weight: 500;
  line-height: 1.333;
}

/* Spacing Utility Class Generator */
.u-margin-4 {
  margin: 16px;
}

.u-margin__bottom-4 {
  margin-bottom: 16px;
}

.u-margin__top-4 {
  margin-top: 16px;
}
```

Gist by sturobson About SassMeister

Be Where The Authors Are

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github.com

google-spreadsheets-theo

Import design tokens from a Google Spreadsheet to a format digestable by Theo.

Quick start

This example shows how to manage color tokens using Google Spreadsheets and Theo.

The end result is available in the `./example` directory.

A ready-to-use demo project (more detailed and published to npm), is available at https://github.com/kaelig/google-spreadsheets-theo-demo.

1. Create a Google Spreadsheet to store the design tokens

Paste this table in a new Google spreadsheet, and populate it with the project or company's design tokens:

name	value	type	category	comment
color-primary	red	color	background-color	Primary color for use on all main actions
color-secondary	#ff00ff	color	background-color	
color-tertiary	green	color	background-color	

It should look something like this example Google Spreadsheet.

2. Publish the spreadsheet to the web

`google-spreadsheets-theo` is only able to access the contents of the spreadsheet if it's publicly published to the web.

1. In the **File** menu, select **Publish to the web...**
2. Click the **Publish** button (leave the default options)

Let's live code.

github.com

Awesome-Design-Tokens

Live Sites

A list of company design systems Design Tokens section

- Salesforce Lightning Design System
- Formstack
- Comet (Discovery Education
- Kalo
- Hex (Bitnami
- Mineral UI

Github Repos

A list of repos that contain a companies Design Tokens

- Salesforce
- Open Table
- Kiwi.com
- Mozilla Protocal Design System
- Bloomberg
- Firefox Photon
- Shopify Polaris
- Infor Design
- Envato Foundation
- Backpack
- BuildIt Gravity Particles
- Cedar Design System Tokens

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ISSUE 81 *29th April 2019*

Thanks

Hey,

I hope you enjoy this latest newsletter. There are some new and old links in there. You should see my RSS feed - I think I've about 60 articles to go through and add as needed.

Design Systems are so hot right now!

A while ago I setup a little Patreon account to help towards the costs of running this

Design Tokens and CSS

Systemising the design of your components