



CRS Design Systems

Sprint 3 Learnings





Design Systems

What is a design system?

A **design system** is a complete set of standards intended to **manage design at scale** using **reusable components and patterns**.

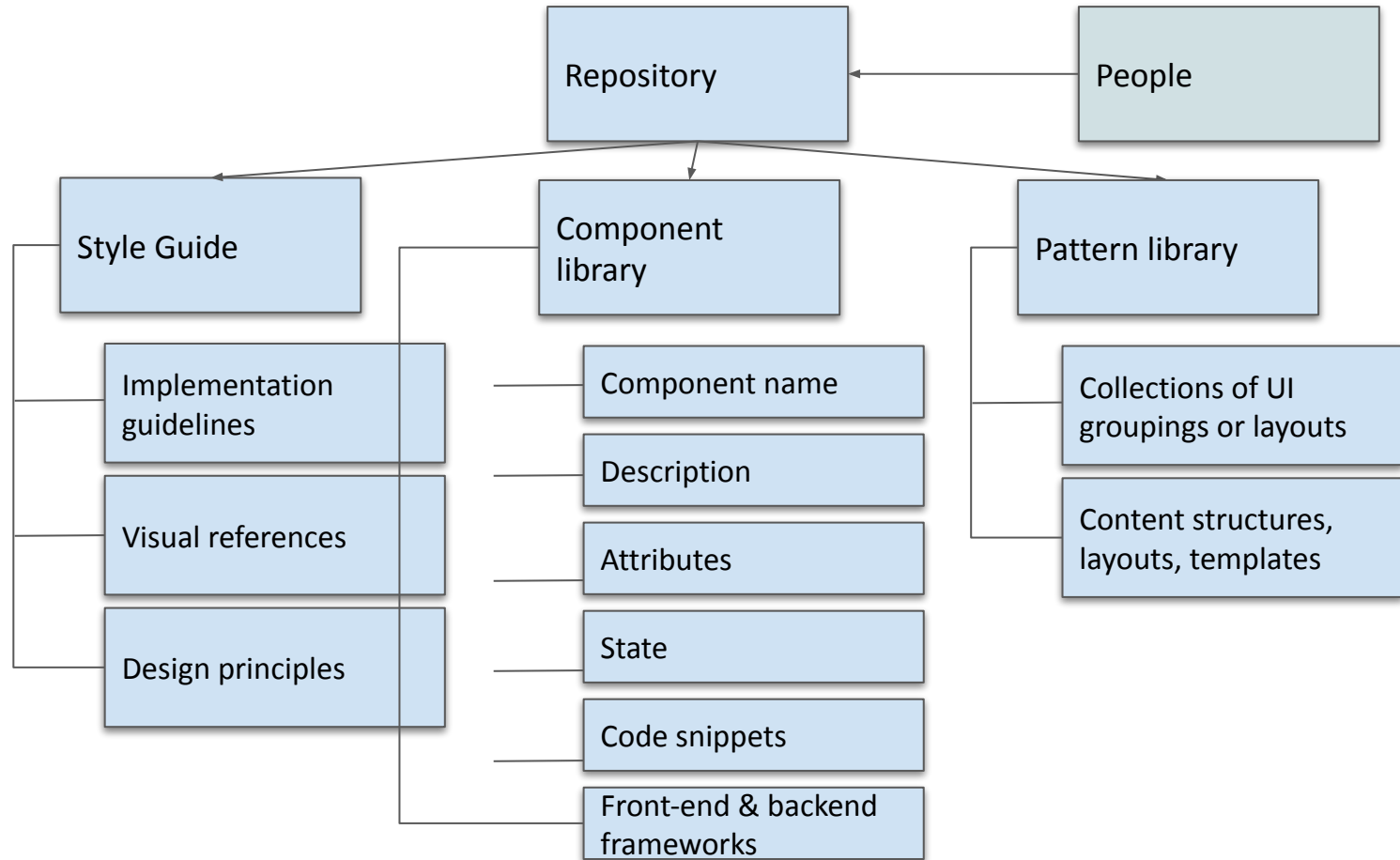
Design systems, when implemented well, can provide a lot of benefits to a design team:

- Design (and development) work can be created and replicated quickly and at scale.
- It alleviates strain on design resources to focus on larger, more complex problems.
- It creates a unified language within and between cross-functional teams.
- It creates visual consistency across products, channels, and (potentially siloed) departments.
- It can serve as an educational tool and reference for junior-level designers and content contributors.

Pros and Cons of a Design System?

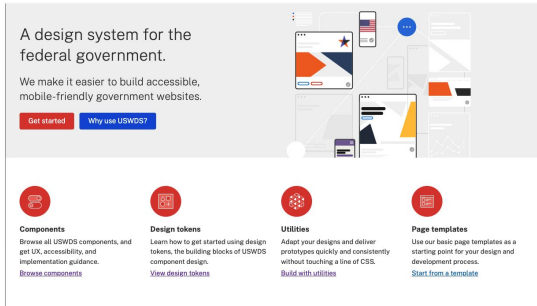
Pros	Cons
Replicate designs quickly and at scale	Time intensive, requires dedicated team
Designers focus less on visual appearance and more on complex issues	Takes time to teach to others: “Any design system, even if it were adapted from an existing one, needs instructions for use — otherwise there is a risk that it may be applied inconsistently or incorrectly across screens or across teams.”
One language for cross functional teams	Unnecessary for one off creations (don't need reusable components)
Enables visual consistency	
Serves as reference for junior designers	

Elements of a Design System



Examples

USWDS (U.S. Web Design System)



A design system for the federal government.

We make it easier to build accessible, mobile-friendly government websites.

[Get started](#) [Why use USWDS?](#)

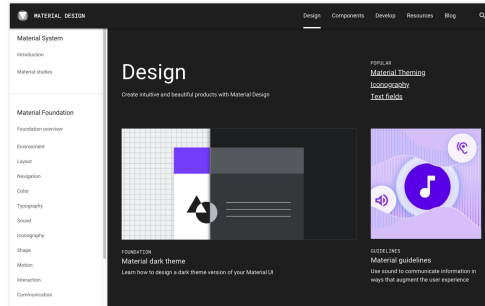
Components
Browse all USWDS components, and get UX, accessibility, and implementation guidance.
[Browse components](#)

Design tokens
Learn how to get started using design tokens, the building blocks of USWDS component design.
[View design tokens](#)

Utilities
Adapt your designs and deliver prototypes quickly and consistently without touching a line of CSS.
[Build with utilities](#)

Page templates
Use our basic page templates as a starting point for your design and development process.
[Start from a template](#)

Material Design



MATERIAL DESIGN

Design Components Develop Resources Blog

Material System

- Introduction
- Material studies

Material Foundation

- Foundation overview
- Environment
- Layout
- Navigation
- Color
- Typography
- Sound
- Accessibility
- Shape
- Motion
- Interaction
- Communications

Design

Create intuitive and beautiful products with Material Design.

POPULAR

- Material Theme
- Accessibility
- Text fields

FOUNDATION

Material dark theme

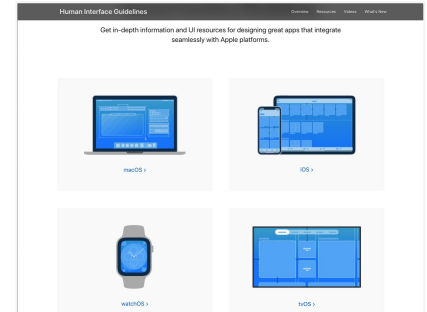
Learn how to design a dark theme version of your Material UI.

GUIDELINES

Material guidelines

The most comprehensive information in ways that align with the user experience.

Apple Human Interface Guidelines



Human Interface Guidelines

Get in-depth information and UI resources for designing great apps that integrate seamlessly with Apple platforms.

macOS

iOS

watchOS

tvOS



The CRS Design System

The CRS Design System

- Congressional Research Service (CRS) is part of the Library of Congress (LOC)
- CRS is a service offered to congress members and their staff
- LOC is working on redesigning the CRS website
- UMD team will create a design system for CRS based on the USWDS guidelines and the CRS brand guide
- Deliverables:
 - Figma files
 - Design system documentation

Style Guide: Design Principles

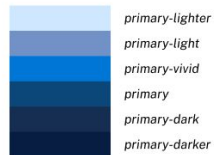
- Usability
 - Promote ease-of-use across platforms and devices
- Accessibility
 - Ensure that diverse needs are addressed.
- Readability
 - Present information that can be easily processed.
- Discoverability
 - Enable users to identify and utilize available functionalities
- Prestige/Excellence/High Quality
 - Convey top quality service

Style Guide: Color Palette

CRS theme palette



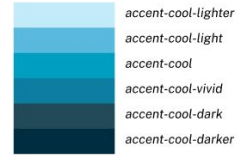
Base



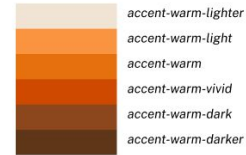
Primary



Secondary

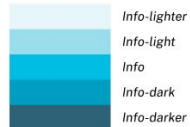


Accent Cool



Accent Warm

State colors



Info



Error



Warning



Success



Disabled

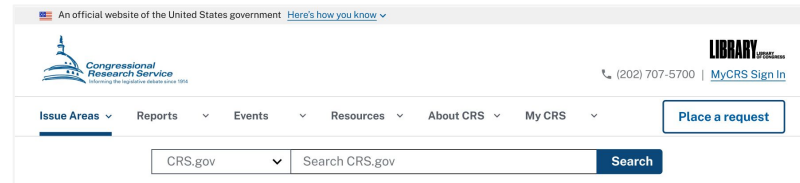
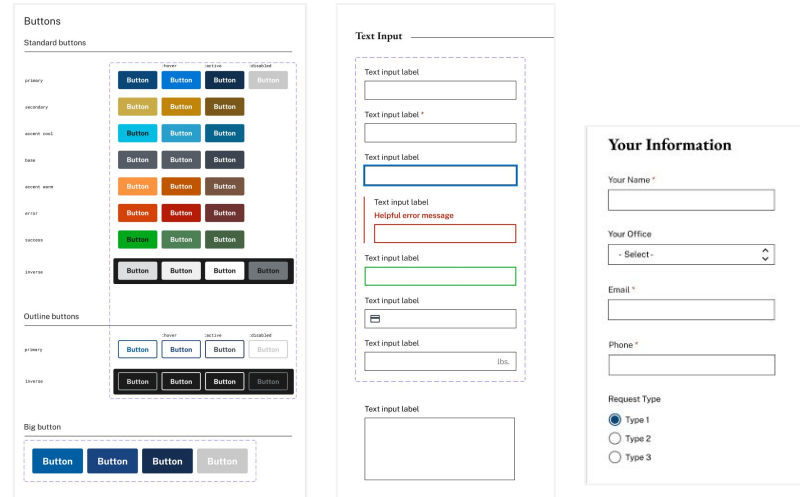
Style Guide: Typography

- Font Size
 - H1: size 14 | 42px
 - H2: size 12 | 32px
 - Body: size 5 | 16px
 - Graphics: size 3 | 14px
- Font Styles
 - **EB Garamond** for h1, h2, and h3
 - **Libre Baskerville** for body text
 - **Public Sans** for h4, h5, h6 and data-driven information.
- Typescale for line height
- Whitespace



Components & Patterns

- Components: *Buttons, Checkbox, Dropdown, Grid, Radio, Pagination, Search, Tags, Text Input*
- Patterns: *Carousel, Form, Header*

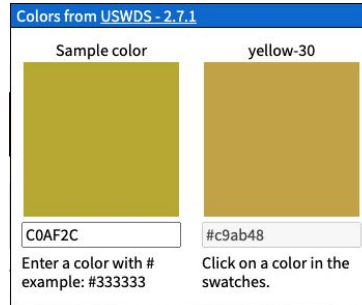




Processes & Learnings

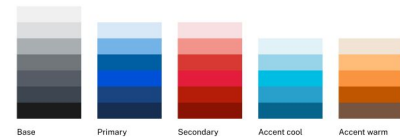
Learnings: Color Palette

- Started with **CRS's color palette** then used a tool provided on USWDS to **generate colors** that conform with their **standards**.
- Followed the color palette template provided by USWDS to pick **variants and separate states**.



Colors

Theme palette



State palette



Learnings: Typography

- At first we picked a few fonts based on the CRS brand guidelines and what we liked.
- We learned that we should choose **free, open source fonts** so we adapted to that by selecting from Google fonts.



Google Fonts

Learnings: Components

- A UI inventory is useful to examine the current website.
- The USWDS naming convention helps us make consistent component names.
- The USWDS component kit in Figma can be used as a good starting point.



U.S. Web Design System (USWDS)

Learnings: General

- Pay attention to clients' working environment
 - Eg. Figma subscription plan, budget, legislative state.
- Client may have some rigid rules that limit design options:
 - Taxonomy: CRS has different research teams that cover different issue areas they cover. They are very specific about their categorization of the issue areas.
 - Colors: blue, white and red are the main go to colors. They do not like to deviate from these colors.
- Other considerations:
 - Competitive research: CRS has an important policy of being non-partisan so when doing competitive research, we must equally cover all the political spectrum. For example, we should list competitor names in alphabetical order.

Learnings: Documentation

- Start early: it's much easier to work on documentation early on, as opposed to working on it after finishing the designs
- Include a table of contents on each page for easy navigation
- Documentation will keep changing as you keep on editing and improving your design system
- Organize elements in order of relevance and frequency of use
- Make sure to back up/justify design choices: using research, data, industry standards...

Challenges & Solutions

- Familiarity with Design Systems
- Access to the CRS site
- Organization in Figma
- Balancing existing guidelines (USWDS, CRS) with creativity
- Verifying if chosen colors go well together
- Usability testing with end users



Thank You