

GitHub Primer

ID	DS-004
Type	Design System
Category	C. Design Systems
Source	https://primer.style/
Licence	MIT (Primer code and primitives, © GitHub Inc.); Mona Sans SIL OFL 1.1; Octicons MIT; GitHub names and logos are trademarks
Platforms	Web, React, Rails (ViewComponent), Figma
Themes	Light · Dark (+ dimmed, high-contrast and colour-blind themes)
Commercial use	Yes. Primer code and primitives are MIT; Mona Sans is OFL 1.1
Attribution	Keep the MIT copyright notice in shipped code. GitHub names and logos are trademarks, so don't present your product as GitHub's
Redistribution	Code yes (MIT); font yes (OFL); GitHub marks no
Delivery	npm (@primer/react, @primer/primitives, @primer/octicons), Ruby gem (primer_view_components), Figma
Added / updated	2026-10-25

Notes

GitHub's design system: functional colour tokens (bgColor-*, fgColor-*, borderColor-*) that switch across light, dark and seven more themes, Mona Sans type roles, 28/32/40 px controls with a 44 px coarse-pointer target, 3/6/12 px radii, viewport ranges and documented UI patterns (empty states, forms, loading, saving) for React and Rails.

Our analysis OURS

Primer is the system behind github.com: a dense, information-heavy product that developers read all day in light or dark mode. Its strongest idea is the three-tier token model. Base tokens (color-scale-pink-5) are never used directly; functional tokens (bgColor-default, fgColor-muted, borderColor-default) describe a role and change automatically across light, dark, dimmed, high-contrast and colour-blind themes; component tokens are kept to a minimum. Type is set in Mona Sans with system fallbacks, with 14 px body-medium as the default UI text and roles from 12 px caption to 40 px display. Controls are 28, 32 and 40 px high, with a 44 px minimum target on coarse pointers and 16 px on fine ones. Layout uses viewport ranges (narrow under 768 px with one column, regular up to two, wide from 1400 px up to three) instead of a strict grid. Primer also documents UI patterns (empty states, forms, loading, saving, progressive disclosure) as well as components, which is what makes it worth studying. Lessons: one primary button per group, write functional token names, and design every multi-column page for the case where the columns no longer fit.

Components and states

- Button (primary, default, invisible, danger; small/medium/large)
- IconButton
- ActionList, ActionMenu
- Autocomplete
- Avatar, AvatarStack
- Banner, Flash
- Blankslate (empty state)
- Breadcrumbs
- Checkbox, Radio, ToggleSwitch
- Dialog
- FormControl, TextInput, Textarea, Select
- Label, StateLabel, CounterLabel

- NavList, UnderlineNav
- PageHeader, PageLayout, SplitPageLayout
- Pagination
- ProgressBar, Spinner, SkeletonText
- SegmentedControl
- Timeline
- Tooltip
- TreeView
- DataTable

Design tokens OFFICIAL

OFFICIAL values from @primer/primitives 11.10.0 (MIT, © GitHub Inc.) functional theme files light.css and dark.css, as documented on primer.style (Color usage and color primitives pages). Use the CSS variable names directly, e.g. var(--bgColor-default). RGB and HSL are converted by us from the official HEX (8-digit HEX = alpha; RGB/HSL shown for the opaque part).

Colour: Functional colour tokens (light / dark) OFFICIAL

Token · role	Light	Dark
bgColor-default · Page and default surface	 #FFFFFF rgb(255,255,255) hsl(0, 0%, 100%)	 #0D1117 rgb(13,17,23) hsl(216, 28%, 7%)
bgColor-muted · Secondary surfaces, sidebars	 #F6F8FA rgb(246,248,250) hsl(210, 29%, 97%)	 #151B23 rgb(21,27,35) hsl(214, 25%, 11%)
bgColor-emphasis · Strong neutral (e.g. tooltips, emphasis labels)	 #25292E rgb(37,41,46) hsl(213, 11%, 16%)	 #3D444D rgb(61,68,77) hsl(214, 12%, 27%)
bgColor-accent-emphasis · Accent fill (selected, primary info)	 #0969DA rgb(9,105,218) hsl(212, 92%, 45%)	 #1F6FEB rgb(31,111,235) hsl(216, 84%, 52%)
bgColor-accent-muted · Accent tint	 #DDF4FF rgb(221,244,255) hsl(199, 100%, 93%)	 #388BFD1A rgb(56,139,253) hsl(215, 98%, 61%)
bgColor-success-emphasis · Success fill; primary button rest	 #1F883D rgb(31,136,61) hsl(137, 63%, 33%)	 #238636 rgb(35,134,54) hsl(132, 59%, 33%)
bgColor-danger-emphasis · Danger fill	 #CF222E rgb(207,34,46) hsl(356, 72%, 47%)	 #DA3633 rgb(218,54,51) hsl(1, 69%, 53%)
bgColor-attention-emphasis · Attention / warning fill	 #9A6700 rgb(154,103,0) hsl(40, 100%, 30%)	 #9E6A03 rgb(158,106,3) hsl(40, 96%, 32%)
bgColor-done-emphasis · Done (merged/closed-complete) fill	 #8250DF rgb(130,80,223) hsl(261, 69%, 59%)	 #8957E5 rgb(137,87,229) hsl(261, 73%, 62%)
fgColor-default · Primary text	 #1F2328 rgb(31,35,40) hsl(213, 13%, 14%)	 #F0F6FC rgb(240,246,252) hsl(210, 67%, 96%)
fgColor-muted · Secondary text	 #59636E rgb(89,99,110) hsl(211, 11%, 39%)	 #9198A1 rgb(145,152,161) hsl(214, 8%, 60%)

fgColor-onEmphasis · Text on emphasis fills	 #FFFFFF rgb(255,255,255) hsl(0, 0%, 100%)	 #FFFFFF rgb(255,255,255) hsl(0, 0%, 100%)
fgColor-accent · Links, accent text	 #0969DA rgb(9,105,218) hsl(212, 92%, 45%)	 #4493F8 rgb(68,147,248) hsl(214, 93%, 62%)
fgColor-success · Success text	 #1A7F37 rgb(26,127,55) hsl(137, 66%, 30%)	 #3FB950 rgb(63,185,80) hsl(128, 49%, 49%)
fgColor-danger · Danger text	 #D1242F rgb(209,36,47) hsl(356, 71%, 48%)	 #F85149 rgb(248,81,73) hsl(3, 93%, 63%)
fgColor-attention · Attention text	 #9A6700 rgb(154,103,0) hsl(40, 100%, 30%)	 #D29922 rgb(210,153,34) hsl(41, 72%, 48%)
fgColor-done · Done text	 #8250DF rgb(130,80,223) hsl(261, 69%, 59%)	 #AB7DF8 rgb(171,125,248) hsl(262, 90%, 73%)
borderColor-default · Default borders	 #D1D9E0 rgb(209,217,224) hsl(208, 19%, 85%)	 #3D444D rgb(61,68,77) hsl(214, 12%, 27%)
borderColor-accent-emphasis · Focus outline colour (focus-outlineColor)	 #0969DA rgb(9,105,218) hsl(212, 92%, 45%)	 #1F6FEB rgb(31,111,235) hsl(216, 84%, 52%)
button-primary-bgColor-hover · Primary button hover	 #1C8139 rgb(28,129,57) hsl(137, 64%, 31%)	 #29903B rgb(41,144,59) hsl(130, 56%, 36%)

Typography: Primer functional type roles (Mona Sans VF, then -apple-system, Segoe UI, Noto Sans...; monospace ui-monospace, SFMono-Regular...) OFFICIAL

Role	Weight	Size	Line height	Tracking
display	Medium	40 px (2xl)	1.375 (snug)	—
title-large	Semibold	32 px (xl)	1.5 (normal)	—
title-medium	Semibold	20 px (lg)	1.625 (relaxed)	—
title-small	Semibold	16 px (md)	1.5 (normal)	—
subtitle	Regular	20 px (lg)	1.625 (relaxed)	—
body-large	Regular	16 px (md)	1.5	—
body-medium (default UI text)	Regular	14 px (sm)	1.5	—
body-small	Regular	12 px (xs)	1.625	—
caption	Regular	12 px (xs)	1.25 (tight)	—
codeBlock (monospace)	Regular	13 px (0.8125rem)	1.5	—

Spacing, grid, radii, shadows, motion and icons OFFICIAL

Base size scale	2 · 4 · 6 · 8 · 12 · 16 · 20 · 24 · 28 · 32 · 36 · 40 · 44 · 48 · 64 · 80 · 96 · 112 · 128 px (--base-size-*)
Control heights	small 28 · medium 32 · large 40 px; minimum target 44 px (coarse pointer) / 16 px (fine)

Border radius	small 3 · medium 6 (default) · large 12 px · full (pill)
Stack gap / padding	condensed 8 · normal 16 · spacious 24 px
Breakpoints	xsmall 320 · small 544 · medium 768 · large 1012 · xlarge 1280 · xxlarge 1400 px
Viewport ranges	narrow <768 px (1 column) · regular ≥768 px (up to 2) · wide ≥1400 px (up to 3)
Focus	2 px outline (--focus-outline-width) in focus-outlineColor (#0969da light / #1f6feb dark)
Shadows (light)	resting-small 0 1px 1px #1f23280a, 0 1px 2px #1f232808 · floating-small 0 0 0 1px #d1d9e040, 0 6px 12px -3px #25292e0a, 0 6px 18px #25292e1f
Motion (base)	durations 0–1000 ms in 50/100 ms steps; easings ease (0.25,0.1,0.25,1), easeIn (0.7,0.1,0.75,0.9), easeOut (0.3,0.8,0.6,1), easeInOut (0.6,0,0.2,1)

Gaps and estimates ESTIMATED / OURS

Primer has no fixed column grid; it uses viewport ranges and PageLayout. Letter-spacing is not tokenised (tracking column shows —).

Best practices

- Use functional tokens (bgColor-default, fgColor-muted, borderColor-default) in code; base scale tokens don't respect colour modes and should never be used directly.
- Ship light and dark from day one and test the high-contrast theme, where Primer aims for 7:1 for most text.
- Keep 14 px body-medium as the default UI size and use title-medium (20 px) as the default page title.
- Use one primary button per group and rarely more than one per page; danger buttons should usually open a confirmation.
- Size controls at 28/32/40 px and keep touch targets at least 44 px on coarse pointers.
- Design multi-column pages for the narrow range (<768 px, one column) first, then add columns at regular (≥768 px) and wide (≥1400 px).
- Follow the documented UI patterns (empty states, loading, saving, forms) rather than inventing per-feature behaviour.

At a glance

What it is	Design system (developer product)
What you get	Functional tokens, Mona Sans, React + Rails components, Octicons, UI patterns
Licence	MIT code; OFL font
Attribution	Keep the MIT notice; don't imply GitHub endorsement
Commercial	Yes (MIT)
How it ships	npm packages / CSS variables
Tip	Import one functional theme file per mode and let colorMode switch them.

How to use

```
npm install @primer/react @primer/primitives
import '@primer/primitives/dist/css/functional/themes/light.css'
import '@primer/primitives/dist/css/functional/size/size.css'
<ThemeProvider colorMode="auto"><BaseStyles>
  <Button variant="primary">Create repository</Button>
</BaseStyles></ThemeProvider>
```

Figures and reference captures

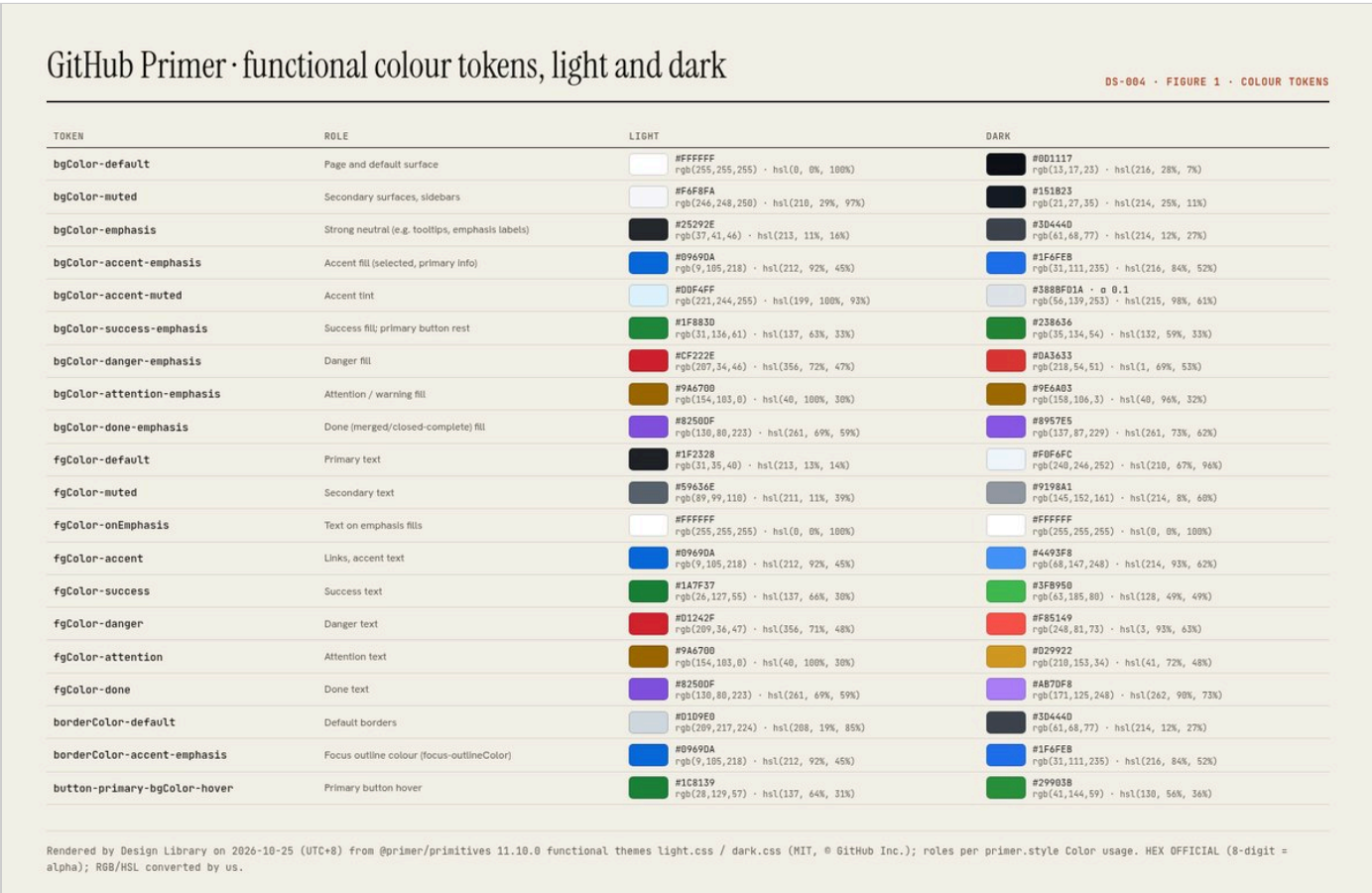
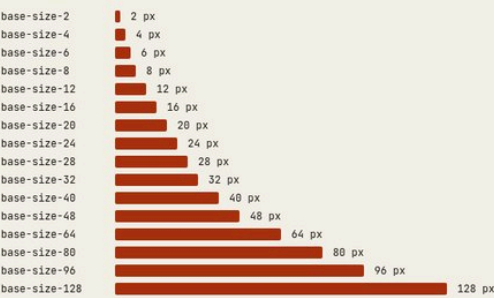


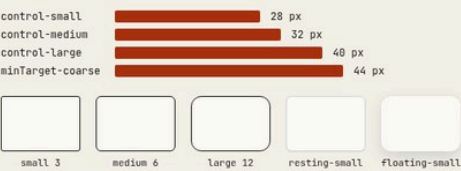
Figure 1. Primer functional colour tokens, light and dark, rendered by Design Library on 2026-10-25 (UTC+8) from @primer/primitives 11.10.0 (MIT, © GitHub Inc.). HEX OFFICIAL; RGB/HSL converted by us. Source: <https://primer.style/>. Our render of Primer token values (MIT, © GitHub Inc.); Mona Sans under SIL OFL 1.1. Free to reuse with credit to GitHub Primer and Design Library.

STYLE	SPECIMEN	VALUES
display	Ship the quarterly report	Medium 500 · 40 px (2x) · LH 1.375 (snug)
title-large	Ship the quarterly report	Semibold 600 · 32 px (xl) · LH 1.5 (normal)
title-medium	Ship the quarterly report	Semibold 600 · 20 px (lg) · LH 1.625 (relaxed)
title-small	Ship the quarterly report	Semibold 600 · 16 px (md) · LH 1.5 (normal)
subtitle	Ship the quarterly report	Regular 400 · 20 px (lg) · LH 1.625 (relaxed)
body-large	Ship the quarterly report	Regular 400 · 16 px (md) · LH 1.5
body-medium (default UI text)	Ship the quarterly report	Regular 400 · 14 px (sm) · LH 1.5
body-small	Ship the quarterly report	Regular 400 · 12 px (xs) · LH 1.625
caption	Ship the quarterly report	Regular 400 · 12 px (xs) · LH 1.25 (tight)
codeBlock (monospace)	Ship the quarterly report	Regular 400 · 13 px (0.8125rem) · LH 1.5

Base size scale



Controls and radii



Rendered by Design Library on 2026-10-25 (UTC+8) from @primer/primitives 11.10.0 (MIT, © GitHub Inc.) typography, size and radius tokens. Specimens set in Mona Sans (SIL OFL 1.1, GitHub) via Google Fonts. Values OFFICIAL.

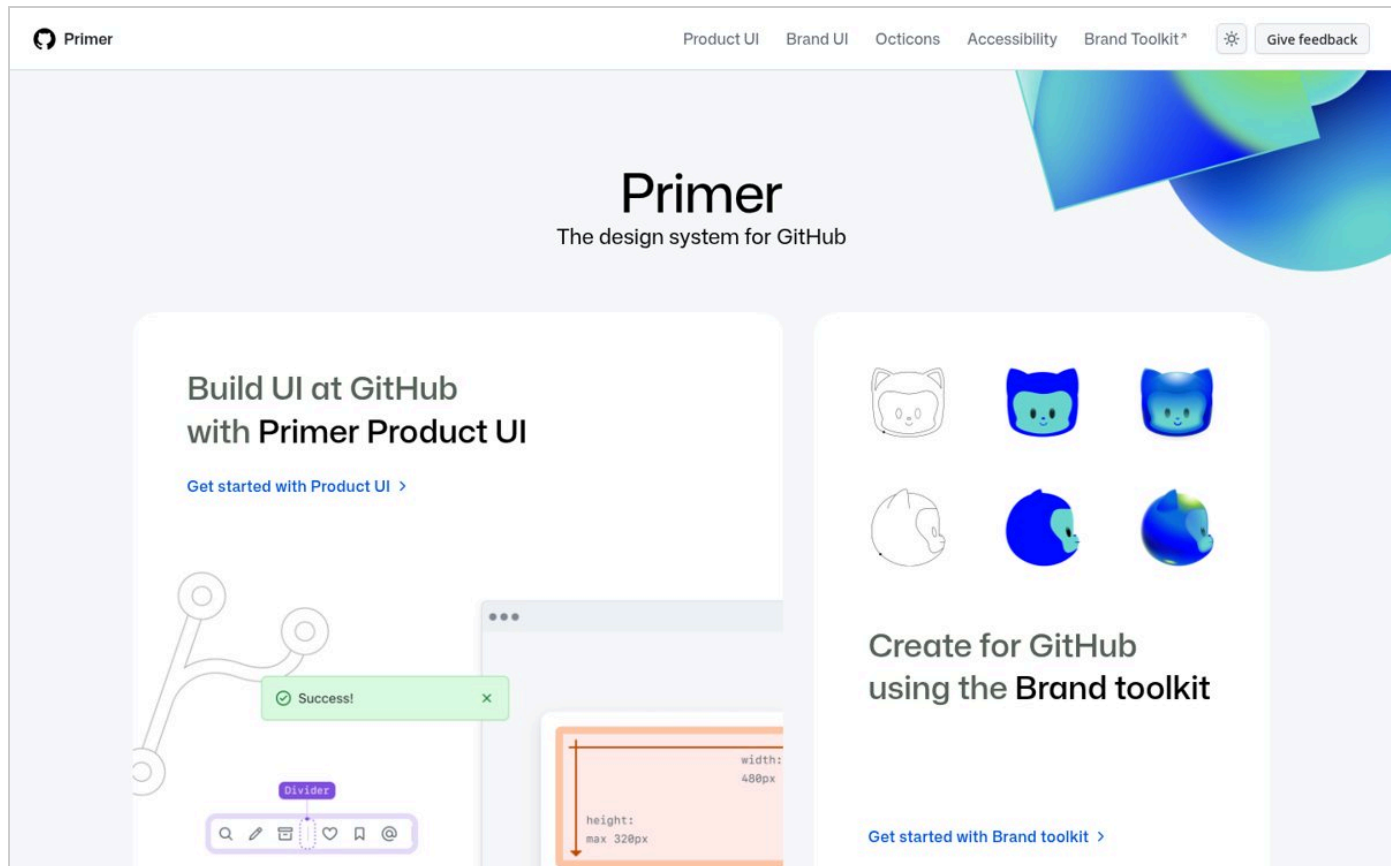
Figure 2. Primer type roles set in Mona Sans (SIL OFL 1.1, GitHub), base size scale, control heights, radii and the resting/floating shadows, rendered by Design Library from @primer/primitives 11.10.0 (MIT, © GitHub Inc.). Source: <https://primer.style/>. Our render of Primer token values (MIT, © GitHub Inc.); Mona Sans under SIL OFL 1.1. Free to reuse with credit to GitHub Primer and Design Library.

GitHub Primer · button variants, sizes and states



Built by Design Library on 2026-10-25 (UTC+8) as a token illustration, not Primer React itself: colours, 6 px radius, 2 px focus outline and 28/32/40 px heights from @primer/primitives 11.10.0 (MIT, © GitHub Inc.); variant names per primer.style Button. 'Inactive' is shown at 50% opacity as our approximation (ESTIMATED), not Primer's inactive tokens. Set in Mona Sans (OFL).

Figure 3. Our token illustration of Primer button variants (primary, default, invisible, danger), states and 28/32/40 px sizes in light and dark, using @primer/primitives 11.10.0 values (MIT, © GitHub Inc.); the 'Inactive' sample is our 50%-opacity approximation (ESTIMATED). Not Primer React itself. Source: <https://primer.style/>. Our render of Primer token values (MIT, © GitHub Inc.); Mona Sans under SIL OFL 1.1. Free to reuse with credit to GitHub Primer and Design Library.



Reference capture of <https://primer.style/>, taken 2026-10-25 10:11 (UTC+8) by this library with a headless browser at 1440×900 (logged out), reduced to 1200px. Fair-use reference for design analysis only; the page, its content and marks belong to GitHub, Inc. (Primer). Source: <https://primer.style/>. Fair-use reference capture; content © GitHub, Inc. (Primer). Entry license: MIT (Primer code and primitives, © GitHub Inc.); Mona Sans SIL OFL 1.1; Octicons MIT; GitHub names and logos are trademarks

Primer

Product UIBrand UIOcticonsAccessibilityBrand Toolkit^Give feedback

Product UI

Q Search Product UI

Getting Started

Component status

Figma libraries

Foundations

Overview

MCP server

Color usage

Content

Icons

Layout

Responsive

Typography

Rails

React

Primitives

Color

Size

Typography

Token Names

Migrating to CSS Variables

Product UI / Getting started / Foundations / Color usage

Color usage

Color is a fundamental part of Primer's visual language. In this guide you will learn about the principles, patterns, and abstractions that make up Primer's color system.

Looking for Primer's color design tokens? See the [color primitives](#) page.

Overview

Light mode

Dark mode

GitHub's UI offers two color modes, `light` and `dark`. Primer supports both color modes across nine [themes](#). Every pattern in Primer is built to work across all color modes out of the box.

Color modes in Figma

When designing product interfaces in Figma, we recommend using **light mode** or **dark mode** as the Primer Web Figma library provides components and tokens in those two modes.

ON THIS PAGE

Overview

Color modes in Figma

Color design tokens

Design token categories

Neutral colors

Background

Borders and dividers

Text and icons

Adjusting contrast

Semantic colors

Muted

Emphasis

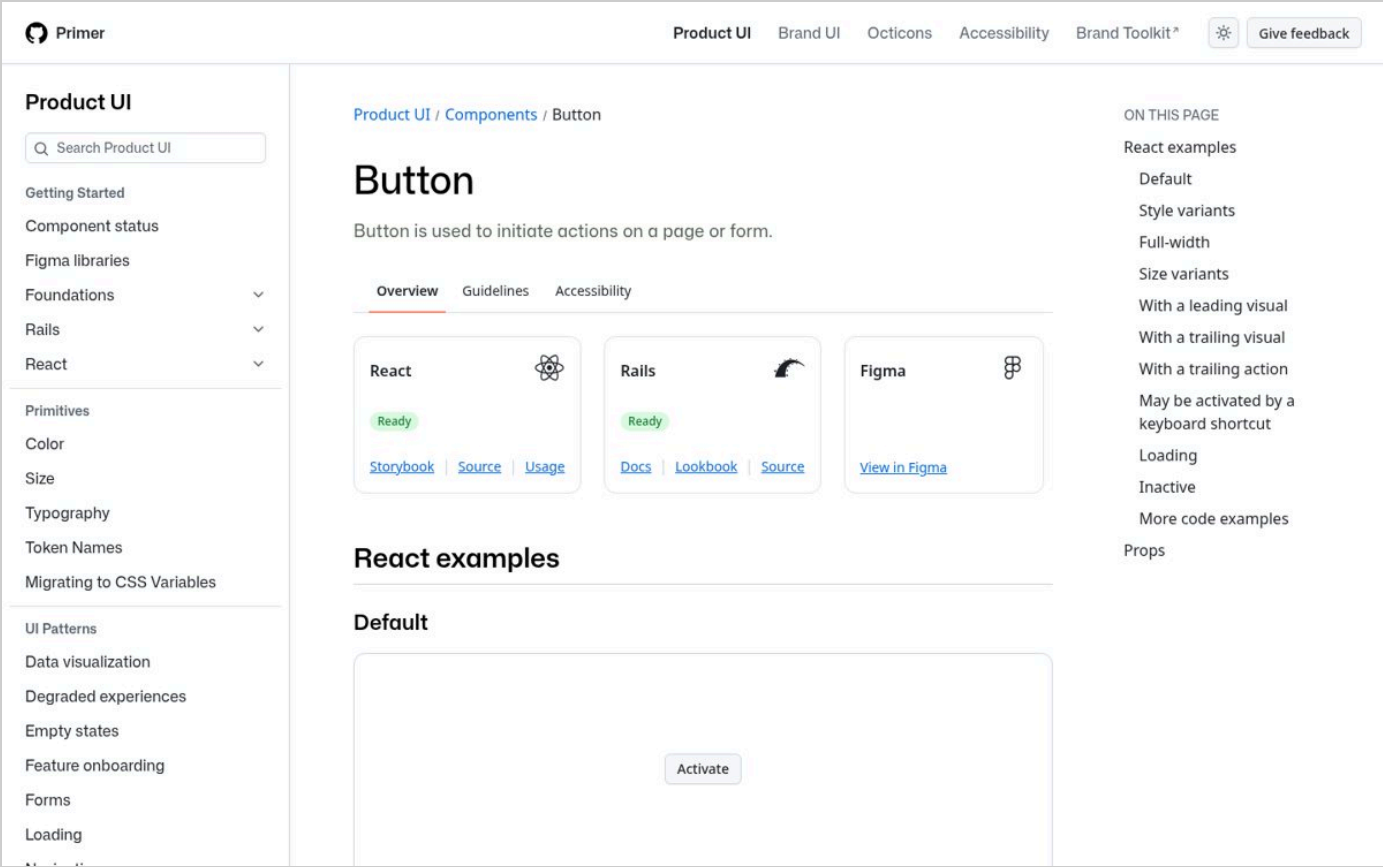
Semantic foreground

Base colors

Color roles

Developers

Reference capture of https://primer.style/product/getting-started/foundations/color-usage/, taken 2026-10-25 10:11 (UTC+8) by this library with a headless browser at 1440x900 (logged out), reduced to 1200px. Fair-use reference for design analysis only; the page, its content and marks belong to GitHub, Inc. (Primer). Source: https://primer.style/. Fair-use reference capture; content © GitHub, Inc. (Primer). Entry license: MIT (Primer code and primitives, © GitHub Inc.); Mona Sans SIL OFL 1.1; Octicons MIT; GitHub names and logos are trademarks



Reference capture of <https://primer.style/product/components/button/>, taken 2026-10-25 10:11 (UTC+8) by this library with a headless browser at 1440×900 (logged out), reduced to 1200px. Fair-use reference for design analysis only; the page, its content and marks belong to GitHub, Inc. (Primer). Source: <https://primer.style/>. Fair-use reference capture; content © GitHub, Inc. (Primer). Entry license: MIT (Primer code and primitives, © GitHub Inc.); Mona Sans SIL OFL 1.1; Octicons MIT; GitHub names and logos are trademarks

Value labels: OFFICIAL = stated on the cited official page or read from the official npm package (installed 2026-10-25, UTC+8); ESTIMATED = measured by us; OURS = our interpretation. Reference captures are fair-use screenshots for design analysis, credited to their source. Licence summaries are not legal advice.

GitHub Primer: deep dive

Structured read of the official docs and the official npm token packages, checked 2026-10-25 (UTC+8). OFFICIAL = stated on the cited page or read from the installed package; ESTIMATED = computed or observed by Design Library (WCAG 2 contrast ratios, our captures); OURS = our interpretation. Earlier pages hold the full colour (HEX/RGB/HSL), type and token tables and captioned figures.

Our analysis

Primer is the system behind github.com: a dense, information-heavy product that developers read all day in light or dark mode. Its strongest idea is the three-tier token model. Base tokens (color-scale-pink-5) are never used directly; functional tokens (bgColor-default, fgColor-muted, borderColor-default) describe a role and change automatically across light, dark, dimmed, high-contrast and colour-blind themes; component tokens are kept to a minimum. Type is set in Mona Sans with system fallbacks, with 14 px body-medium as the default UI text and roles from 12 px caption to 40 px display. Controls are 28, 32 and 40 px high, with a 44 px minimum target on coarse pointers and 16 px on fine ones. Layout uses viewport ranges (narrow under 768 px with one column, regular up to two, wide from 1400 px up to three) instead of a strict grid. Primer also documents UI patterns (empty states, forms, loading, saving, progressive disclosure) as well as components, which is what makes it worth studying. Lessons: one primary button per group, write functional token names, and design every multi-column page for the case where the columns no longer fit.

Best practices

- Use functional tokens (bgColor-default, fgColor-muted, borderColor-default) in code; base scale tokens don't respect colour modes and should never be used directly.
- Ship light and dark from day one and test the high-contrast theme, where Primer aims for 7:1 for most text.
- Keep 14 px body-medium as the default UI size and use title-medium (20 px) as the default page title.
- Use one primary button per group and rarely more than one per page; danger buttons should usually open a confirmation.
- Size controls at 28/32/40 px and keep touch targets at least 44 px on coarse pointers.
- Design multi-column pages for the narrow range (<768 px, one column) first, then add columns at regular (≥768 px) and wide (≥1400 px).
- Follow the documented UI patterns (empty states, loading, saving, forms) rather than inventing per-feature behaviour.

Purpose and audience **OFFICIAL**

- Primer is GitHub's design system, split into Product UI, Brand UI, Octicons, Primitives ("design tokens for color, spacing, and typography"), Accessibility and a Brand Toolkit.
- Audience: engineers and designers building github.com and GitHub-adjacent tools; code is MIT on GitHub.
- Implementations: Primer React, Primer ViewComponents (Rails) and CSS; a Figma library offers components and tokens in light and dark modes.

Source: <https://primer.style/>

Colour model **OFFICIAL**

- “GitHub’s UI offers two color modes, light and dark. Primer supports both color modes across nine themes.”
- Three token tiers: base (map to raw values, never used directly, don’t respect colour modes), functional (text, borders, shadows, backgrounds; respect modes; most used) and component/pattern (limited; functional preferred).
- Neutral scales run 0–13 and are inverted between light and dark so both themes can share functional tokens.
- High-contrast themes use neutral steps 2–7 for backgrounds, 10 for borders and 11–13 for text, targeting at least 7:1 for most text and interactive elements.

Source: <https://primer.style/product/getting-started/foundations/color-usage/>

Typography and layout **OFFICIAL**

- Mona Sans VF with system fallbacks; body-medium 14 px is the “Default UI font”; title-medium 20 px is the “Default page title”, whose 32 px-equivalent line height matches medium control heights.
- caption (12 px, tight) “doesn’t pass accessibility requirements” for multi-line text.
- Layout uses viewport ranges: narrow <768 px (1 column), regular ≥768 px (up to 2), wide ≥1400 px (up to 3); breakpoints are “a unit in a ruler”, not mobile-first rules.
- Layout principles: strive for a focused experience; design fully functional responsive experiences; stay consistent inside and outside GitHub.

Source: <https://primer.style/product/getting-started/foundations/typography/>

Components and states **OFFICIAL**

- Button variants: Primary (“Highest-priority action; use sparingly. Never put more than one in a group of buttons, and rarely use more than one per page”), Default, Invisible and Danger (“typically prompt a confirmation dialog”).
- Sizes small, medium (default) and large (“use sparingly”), mapping to 28/32/40 px control heights; leading and trailing visuals (e.g. counters), loading (spinner) and inactive states are documented.
- Primary rest colour is bgColor-success-emphasis (#1f883d light, #238636 dark), hover #1c8139 / #29903b; focus is a 2 px outline in #0969da / #1f6feb.
- UI patterns are documented alongside components: empty states, feature onboarding, forms, loading, navigation, saving, progressive disclosure and more.

Source: <https://primer.style/product/components/button/>

Contrast checks we ran **ESTIMATED**

- fgColor-default on bgColor-default: light 15.8:1, dark 17.39:1.
- fgColor-muted on bgColor-default: light 6.11:1, dark 6.5:1.
- White on the primary button (#1f883d): 4.52:1; on the dark-mode primary (#238636): 4.63:1.
- fgColor-accent links on white: 5.19:1.

Source: <https://primer.style/product/primitives/color/>

Documentation site UX OURS

- Product UI docs pair a left navigation (Getting started, Foundations, UI patterns, Components) with live React examples, a StackBlitz link and a ‘Show full code’ toggle on each.
- Each component page links React, Rails and Figma sources with a status badge (e.g. ‘React ready’), which tells you quickly what is production-safe.
- A dark-mode switch on the docs lets you check every example in both modes.

Source: <https://primer.style/>

Lessons to take OURS

- Keep a strict three-tier token model and ban base tokens in product code.
- Document patterns (empty, loading, saving) as well as components; that’s where consistency usually breaks.
- Tie type line heights to control heights so text and controls align without manual nudging.
- Plan narrow, regular and wide layouts instead of tuning for each breakpoint.

Source: <https://primer.style/>