Color Palette Demonstration

Light Mode vs Dark Mode Comparison

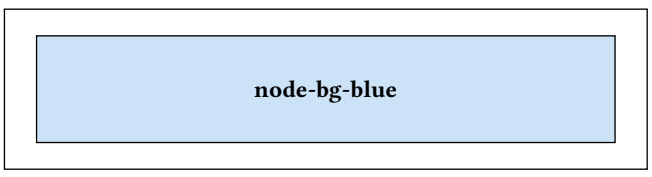
Node Background Colors

This document shows all the colors used in our diagrams and how they transform between light and dark modes.

Blue (Standard)

Used in: System Architecture, Data Flow (Validation, Processing)

Light Mode



\#cce3f7

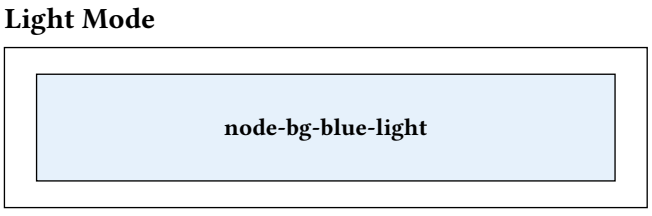
Dark Mode

\#1e3a5f

Blue (Lighter)

Used in: State Machine (Draft, Review states)

Light Mode



\#e6f1fb

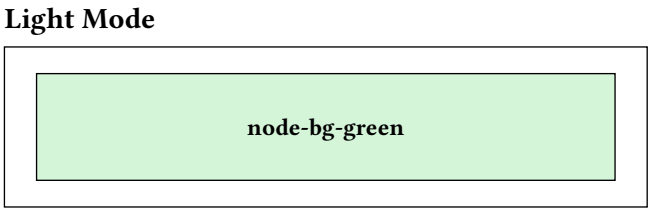
Dark Mode

\#1a2f4a

Green

Used in: Data Flow (User Input), State Machine (Approved state)

Light Mode



\#d5f5d9

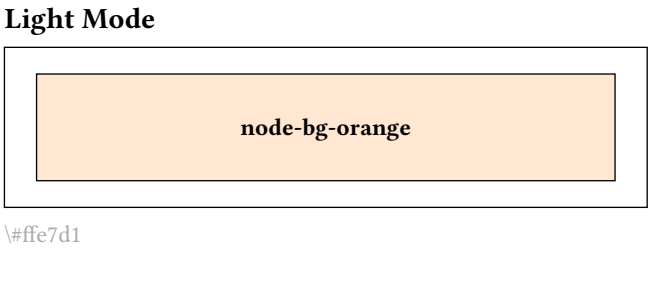
Dark Mode

\#1e3d1e

Orange

Used in: Data Flow (Storage)

Light Mode



\#ffe7d1

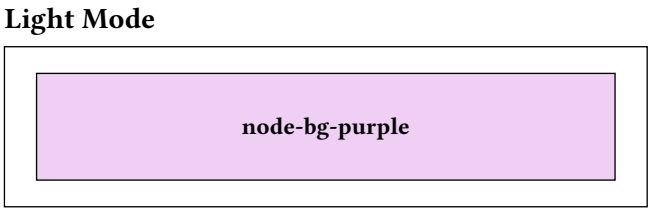
Dark Mode

\#4a3420

Purple

Used in: Data Flow (External API)

Light Mode



\#efcff4

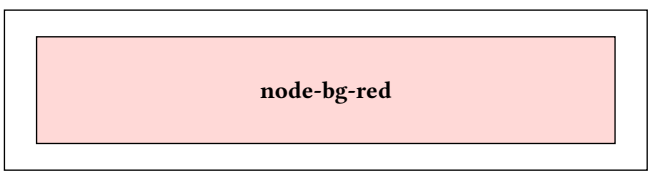
Dark Mode

\#3a2651

Red

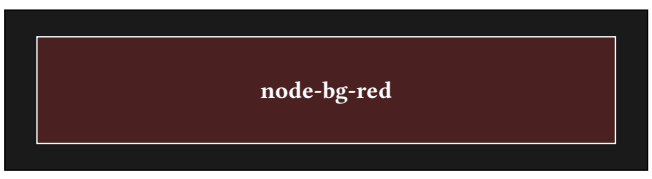
Used in: State Machine (Rejected state)

Light Mode



\#ffd9d7

Dark Mode

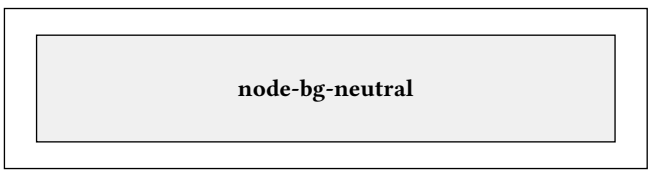


\#4a2020

Neutral (Gray)

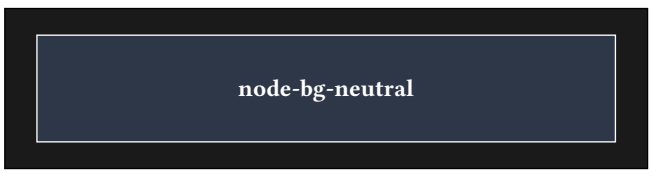
Used in: General purpose nodes

Light Mode



\#f0f0f0

Dark Mode



\#2d3748

Text and Stroke Colors

These colors are used for text, arrows, and node borders.

Light Mode

#000000 (black)

Dark Mode

#ffffff (white)

Color Transformation Details

Design Principles

The dark mode colors follow industry standards (GitHub, VS Code, Material Design):

1. **Lightness**: Dark mode colors are in the 20-26% lightness range (HSL)
2. **Saturation**: Reduced saturation (30-50%) compared to light mode
3. **Contrast**: All colors maintain WCAG AA contrast ratios with white text
4. **Consistency**: Colors are recognizable across both modes

Light Mode (High Saturation, Bright)

- Designed for white backgrounds
- Vibrant, saturated pastels
- 80-90% lightness in HSL
- High visibility and energy

Dark Mode (Low Saturation, Muted)

- Designed for dark backgrounds
- Muted, desaturated tones
- 20-26% lightness in HSL
- Comfortable for extended viewing
- No eye strain

Color Mapping Table

Color	Typst Expression	Light Hex	Dark Hex
Blue	blue.lighten(80%)	#cce3f7	#1e3a5f
Blue (Light)	blue.lighten(90%)	#e6f1fb	#1a2f4a
Green	green.lighten(80%)	#d5f5d9	#1e3d1e
Orange	orange.lighten(80%)	#ffe7d1	#4a3420
Purple	purple.lighten(80%)	#efcff4	#3a2651
Red	red.lighten(80%)	#ffd9d7	#4a2020
Neutral	N/A	#f0f0f0	#2d3748
Text/Stroke	black/white	#000000	#ffffff

How It Works

1. **Typst compiles** diagrams with `color.lighten(%)` expressions
2. **Hex colors** are generated in SVG output
3. **Post-processing** replaces hex colors with CSS variables
4. **CSS rules** define different values for light and dark modes
5. **Theme toggle** changes `data-theme` attribute
6. **CSS variables** update automatically

This ensures diagrams adapt seamlessly to the selected theme!