

Worklet Patterns Cookbook

CSS Houdini & Paint Worklets for Dynamic Patterns

About This Document

This reference accompanies the article: CSS Houdini & Paint Worklets for Dynamic Patterns

Read the full article at: <https://svgeneration.com/docs/css-houdini-paint-api>

Article Summary

Use CSS Houdini's Paint API to create parameterized, GPU-native SVG-like backgrounds using JavaScript worklets.

CSS Custom Properties as Parameters

Declare `inputProperties` as a static getter returning the CSS custom property names your painter reads. These properties are automatically observed when their values change (via JS, hover, etc.), the browser calls `paint()` again on the next frame. This enables zero-JavaScript pattern animations driven purely by CSS transitions on custom properties.

Animation via Custom Properties

Use `@property` to register CSS custom properties with types and transition support. Then animate them with CSS keyframes. The Paint Worklet automatically re-renders when the property value changes each frame creating GPU-native animated patterns with no `requestAnimationFrame` needed.

Code example: `@property --dot-size { syntax: ""; initial-value: 4; inherits: false; } @keyframes pulse { from { --dot-size: 3; } to { --dot-size: 8; } }.element { background-image: paint(dots); animation: pulse 2s ease-in-out infinite alternate; }`

Free Resources

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