

Progressive Enhancement Guide

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.

Progressive Enhancement Strategy

Paint Worklets are Chrome-only. Always provide a CSS data URI SVG fallback. The feature detection: if ('paintWorklet' in CSS) { CSS.paintWorklet.addModule('...') }. The CSS fallback is declared first; the paint() value overrides it only when supported. Users on Firefox and Safari see the SVG pattern; Chrome users get the dynamic paint version.

Performance vs SVG Data URIs

For static patterns, SVG data URIs are simpler and equally fast. Houdini Paint Worklets have an initial overhead (worklet module loading, registration). The performance advantage of Houdini emerges for: patterns that must animate continuously, patterns parameterized by many CSS properties that change frequently, and patterns that require Canvas 2D capabilities beyond SVG's declarative model (procedural noise, pixel manipulation).

Free Resources

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