

SVG SMIL Animation Guide

Animating SVG Backgrounds with CSS & SMIL

About This Document

This reference accompanies the article: Animating SVG Backgrounds with CSS & SMIL

Read the full article at: <https://svgeneration.com/docs/animating-svg-backgrounds>

Article Summary

From subtle breathing patterns to dramatic morphing tiles learn every technique for animating SVG background patterns.

Animating background-size (Pulse/Breathe)

Animating background-size scales the tile, creating a breathing or pulsing effect. Use ease-in-out for an organic feel. Combine with background-position: center to keep the pattern centred as it scales. Keep the scale range modest (1020%) to avoid dizzying visual effects.

CSS Variables in SVG Data URIs

CSS custom properties (variables) do not work inside data URI SVGs because the SVG content is not part of the CSS cascade. To dynamically change pattern colours, use inline <svg> elements as backgrounds (via a positioned pseudo-element) where CSS variables do apply, or update the data URI via JavaScript when variables change.

SMIL animateTransform on pattern

Inside an SVG <pattern>, you can animate the patternTransform attribute using <animate>. This rotates or translates the entire tile grid. A slowly rotating grid creates a hypnotic optical effect with no JavaScript needed.

Free Resources

Visit SVGeneration.com for 600 free SVG background patterns. No attribution required.

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