

SVG viewBox & Transform Reference

Advanced SVG Techniques: viewBox, Transforms & Symbols

About This Document

This reference accompanies the article: Advanced SVG Techniques: viewBox, Transforms & Symbols

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

Article Summary

Master the less-known SVG features: viewBox manipulation, nested transforms, symbols, and use element power-ups.

viewBox: The Coordinate System

The viewBox attribute defines the internal coordinate system of an SVG. It takes four values: min-x min-y width height. The SVG element's width and height attributes define the physical dimensions on screen. viewBox defines the coordinate space inside. This allows you to design at any scale internally while rendering at any physical size externally the magic of SVG's resolution independence.

preserveAspectRatio

When the viewBox aspect ratio doesn't match the physical dimensions, preserveAspectRatio controls how the content is scaled and aligned. It takes an alignment value (xMidYMid is default, like CSS object-fit: contain; object-position: center) and a meet-or-slice value. none stretches the content to fill use this for backgrounds that must fill their container.

Transforms in SVG

SVG transforms use the same CSS transform functions but via an attribute: transform="translate(x,y) rotate(angle,cx,cy) scale(x,y) skewX(angle)". Multiple transforms chain left-to-right (unlike CSS which applies right-to-left). For pattern creation, patternTransform is particularly powerful it transforms the entire tile grid including its repetition offset.

Free Resources

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

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