**Using SVG Images in Power Apps**

# All About SVG Images

Reference: <https://en.wikipedia.org/wiki/Scalable_Vector_Graphics>

**Scalable Vector Graphics** (**SVG**) is an [XML](https://en.wikipedia.org/wiki/XML)-based [vector image format](https://en.wikipedia.org/wiki/Vector_image_format) for [two-dimensional](https://en.wikipedia.org/wiki/Two-dimensional) graphics with support for interactivity and animation. The SVG specification is an [open standard](https://en.wikipedia.org/wiki/Open_standard) developed by the [World Wide Web Consortium](https://en.wikipedia.org/wiki/World_Wide_Web_Consortium) (W3C) since 1999.

SVG images are defined in a [vector graphics](https://en.wikipedia.org/wiki/Vector_graphics) format and stored in [XML](https://en.wikipedia.org/wiki/XML) text files. SVG images can thus be [scaled](https://en.wikipedia.org/wiki/Scale_(ratio)) in size without loss of quality, and SVG files can be [searched](https://en.wikipedia.org/wiki/Search_algorithm), [indexed](https://en.wikipedia.org/wiki/Subject_indexing), [scripted](https://en.wikipedia.org/wiki/Scripting_language), and [compressed](https://en.wikipedia.org/wiki/Data_compression). The XML text files can be created and edited with [text editors](https://en.wikipedia.org/wiki/Text_editor) or [vector graphics editors](https://en.wikipedia.org/wiki/Vector_graphics_editor), and are [rendered](https://en.wikipedia.org/wiki/Comparison_of_layout_engines_(Scalable_Vector_Graphics)) by the most-used [web browsers](https://en.wikipedia.org/wiki/Web_browser).

SVG has been in development within the [World Wide Web Consortium](https://en.wikipedia.org/wiki/World_Wide_Web_Consortium) (W3C) since 1999 after six competing proposals for vector graphics languages had been submitted to the consortium during 1998 (see below).

The early SVG Working Group decided not to develop any of the commercial submissions, but to create a new markup language that was informed by but not really based on any of them.[[3]](https://en.wikipedia.org/wiki/Scalable_Vector_Graphics#cite_note-secretOrigin-3)

SVG allows three types of graphic objects: [vector graphic](https://en.wikipedia.org/wiki/Vector_graphics) shapes (such as paths consisting of straight lines and curves), [bitmap](https://en.wikipedia.org/wiki/Bitmap) images, and text. Graphical objects can be grouped, styled, transformed and composited into previously [rendered](https://en.wikipedia.org/wiki/Rendering_(computer_graphics)) objects. The feature set includes nested [transformations](https://en.wikipedia.org/wiki/Transformation_(geometry)), [clipping paths](https://en.wikipedia.org/wiki/Clipping_path), [alpha masks](https://en.wikipedia.org/wiki/Alpha_compositing), [filter effects](https://en.wikipedia.org/wiki/SVG_filter_effect) and template objects. SVG drawings can be [interactive](https://en.wikipedia.org/wiki/Interactivity) and can include [animation](https://en.wikipedia.org/wiki/Animation), defined in the SVG XML elements or via [scripting](https://en.wikipedia.org/wiki/Scripting_language) that accesses the SVG [Document Object Model](https://en.wikipedia.org/wiki/Document_Object_Model) (DOM). SVG uses [CSS](https://en.wikipedia.org/wiki/Cascading_Style_Sheets) for styling and [JavaScript](https://en.wikipedia.org/wiki/JavaScript) for scripting. Text, including [internationalization and localization](https://en.wikipedia.org/wiki/Internationalization_and_localization), appearing in plain text within the SVG DOM, enhances the [accessibility](https://en.wikipedia.org/wiki/Accessibility#Web_accessibility) of SVG graphics.

## Scripting and animation

SVG drawings can be dynamic and interactive. Time-based modifications to the elements can be described in [SMIL](https://en.wikipedia.org/wiki/Synchronized_Multimedia_Integration_Language), or can be programmed in a [scripting language](https://en.wikipedia.org/wiki/Scripting_language) (e.g. [JavaScript](https://en.wikipedia.org/wiki/JavaScript)). The W3C explicitly recommends SMIL as the standard for animation in SVG.[[8]](https://en.wikipedia.org/wiki/Scalable_Vector_Graphics#cite_note-8)

A rich set of [event handlers](https://en.wikipedia.org/wiki/Event_handler) such as "*onmouseover"* and "*onclick"* can be assigned to any SVG graphical object to apply actions and events.

### Compression

SVG images, being XML, contain many repeated fragments of text, so they are well suited for [lossless data compression](https://en.wikipedia.org/wiki/Data_compression#Lossless) algorithms. When an SVG image has been compressed with the [gzip](https://en.wikipedia.org/wiki/Gzip" \o "Gzip) algorithm, it is referred to as an "SVGZ" image and uses the corresponding .svgz filename extension. Conforming SVG 1.1 viewers will display compressed images.[[9]](https://en.wikipedia.org/wiki/Scalable_Vector_Graphics#cite_note-9) An SVGZ file is typically 20 to 50 percent of the original size.[[10]](https://en.wikipedia.org/wiki/Scalable_Vector_Graphics#cite_note-10) W3C provides SVGZ files to test for conformance. .

# SVG Tutorial

To learn all about SVG images, refer to following link:

<https://www.w3schools.com/graphics/svg_intro.asp>

# US Map with SVG Image

Map

Description automatically generated

Unlike any other images, SVG Images are more interactive. We can place code to change its values to perform various operations, animations and so on.

In the above screen, you can see the following:

State drop down lists out all the states. When we select a state in the drop down, the respective state shape is highlighted. Also, the details of the state are shown in a box below to the drop down.

Map

Description automatically generated

In the above screen shot, I am using a US Map SVG image and dynamically loading the shape fill color based on the state population value. The state name, population values are stored in a data table.

# Source Code:

Find the source code in the github location to check the code details.