

Using SVG to create stunning Power BI Reports

„Make your data shine!“

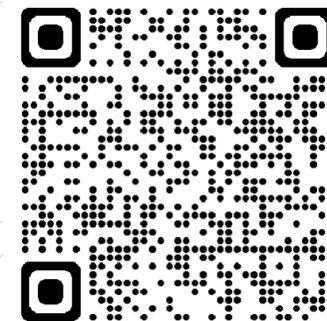
2023

SPEAKER

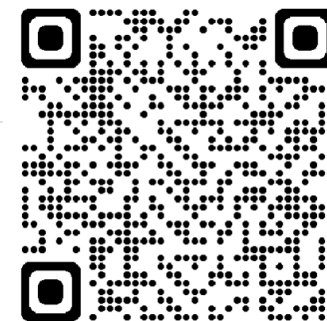


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AGENDA

- What is SVG**
- Elements and Attributes**
- Power BI cooperation with SVGs**

What is SVG

S.V.G. ~ .SVG

Scalable Vector Graphic

- Markup language and file format for 2D vector graphics using XML.
- Images are created directly from geometric shapes defined on a Cartesian plane.
- Graphics can be scaled to any size without losing quality.
- Supports a wide range of elements and is resolution-independent.
- Widely supported by browsers, mobile devices, and easy to integrate into web pages.

It is very variable!

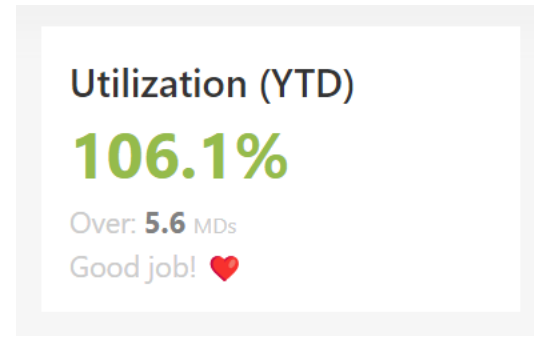
They can handle basically anything



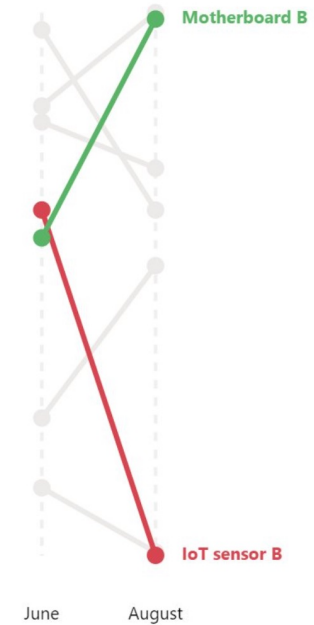
Logo



Icon



Card

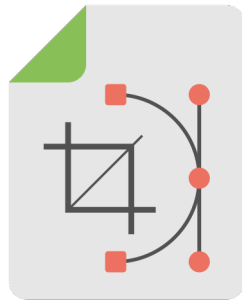


Chart

AND MUCH MORE

Making your own SVG

Choose your own path and test it



by SVG Editor

Inkscape
Vectornator
Illustrator

...



by Text Editor

Notepad
VS Code
PSPad

...

Making your own SVG

Choose your own path and test it

by SVG Editor

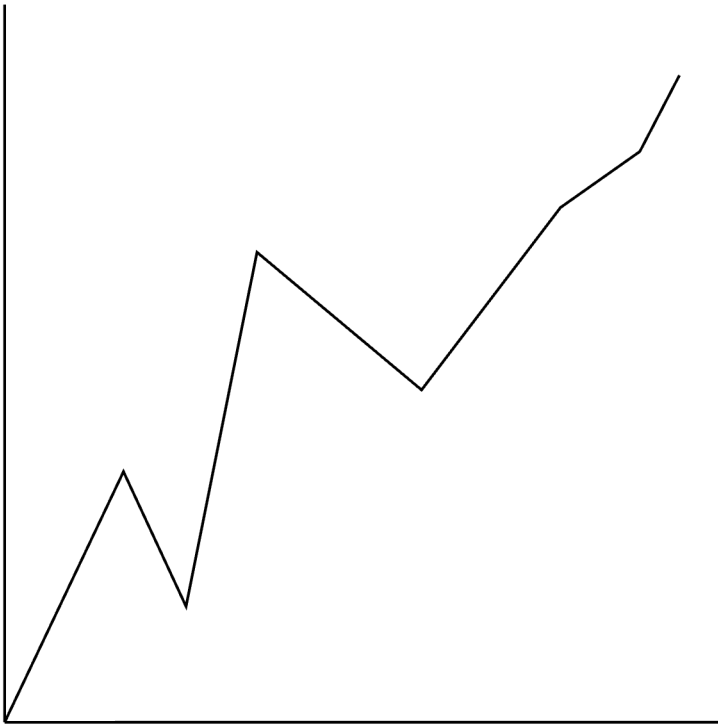
- + UI = more user friendly
- + Support more creativity
- + No need to know elements
- Control over used elements and structures
- Difficult to identify used positioning system

by Text Editor

- + Every time same
- + Simplier solution
- + Absolute control over the elements
- Require some skills
- It requires mathematics to correctly place elements in space

Different editor = different behavior

Some are better and some are worse. But in general they have one thing in common...



```
<svg height="100%" stroke-miterlimit="10"
  style="fill-rule:nonzero;clip-rule:evenodd;stroke-linecap:round;stroke-linejoin:round;" version="1.1"
  viewBox="0 0 300 300" width="100%" xml:space="preserve" xmlns="http://www.w3.org/2000/svg"
  xmlns:xlink="http://www.w3.org/1999/xlink">
  <defs />
  <g id="Layer-1">
    <path d="M20 20L20 280" fill="none" opacity="1" stroke="□#000000" stroke-linecap="butt" stroke-linejoin="miter"
      stroke-width="1" />
    <path d="M280 280L19.9953 280.012" fill="none" opacity="1" stroke="□#000000" stroke-linecap="butt"
      stroke-linejoin="miter" stroke-width="1" />
    <path
      d="M20 280L63.0665 189.199L85.7261 238.016L111.435 109.712L171.068 159.595L221.403 93.5073L250.146 73.2189L264
      fill="none" opacity="1" stroke="□#000000" stroke-linecap="butt" stroke-linejoin="miter" stroke-width="1"
      />
    </g>
  </svg>
```

Elements & Attributes

Basic elements

What are the basics to know to get started?

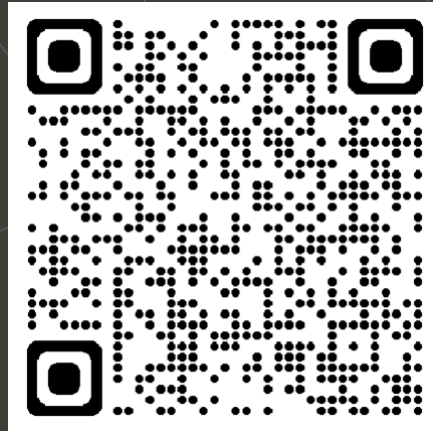
svg	is a container that defines a new coordinate system
g	is a container used to group other SVG elements
text	draws a graphics element consisting of text
tspan	defines a subtext within a <text> or another <tspan> element
rect	draws a rectangles
circle	draws a circles
ellipse	draws a ellipses
line	draws a line connecting two points
polygon/polyline	defines a closed shape consisting of a set of connected straight-line segments
path	is the generic element to define a shape

Attributes

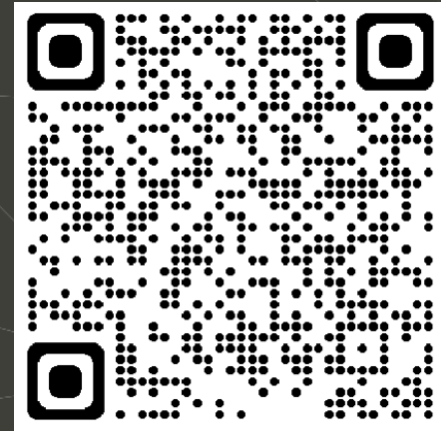
It depends on the element for which they are used. List of basics:

fill	defines the color used to paint the element
fill-opacity	defining the opacity that will be applied to a shape
stroke	used to paint the outline of the shape
stroke-width	defining the width of the stroke
font-family	defines which font family will be used to render the text
font-size	refers to the size of the font from baseline
font-weight	refers to the boldness or lightness of the text characters
rx / ry	defines a radius on the axis (if "ry" is not defined "rx" will be used for both)

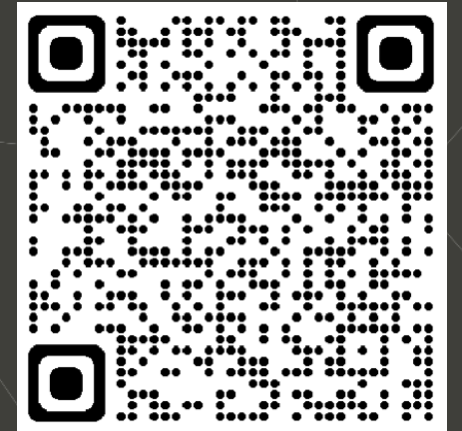
Where to find more details?



developer.mozilla.org



w3school.com



w3.org

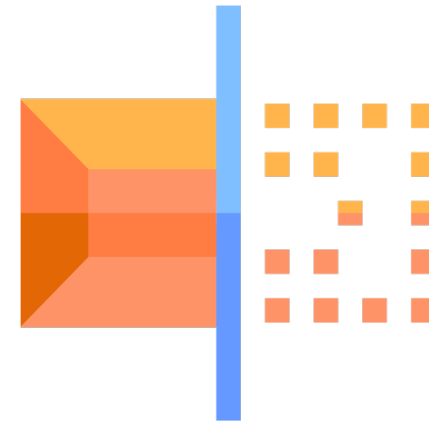
Power BI cooperation with SVGs

We can split them into two types?

Stored in the model / loaded using the line and then those that are based directly on our data



Static

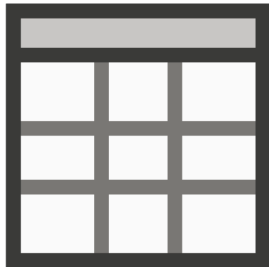


Dynamic

What visuals support dynamic SVGs?

Let's do a simple overview

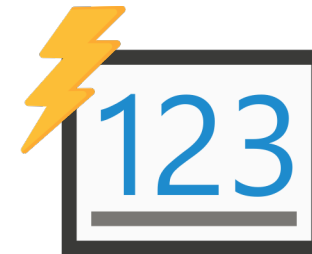
Row-level SVGs



Table



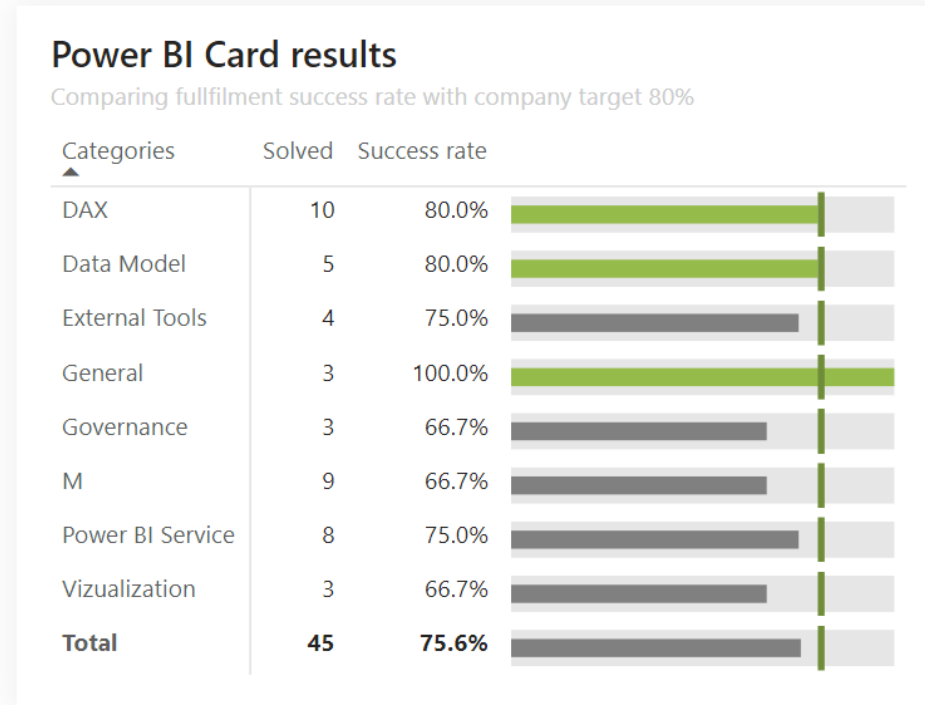
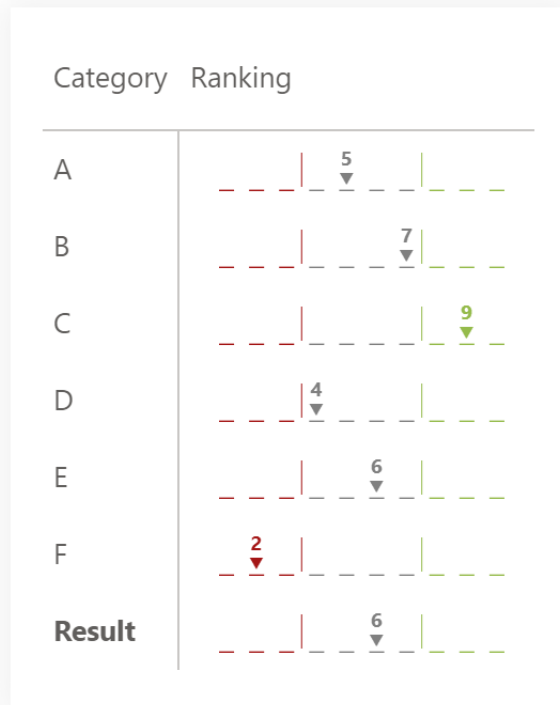
Matrix



Card (new)

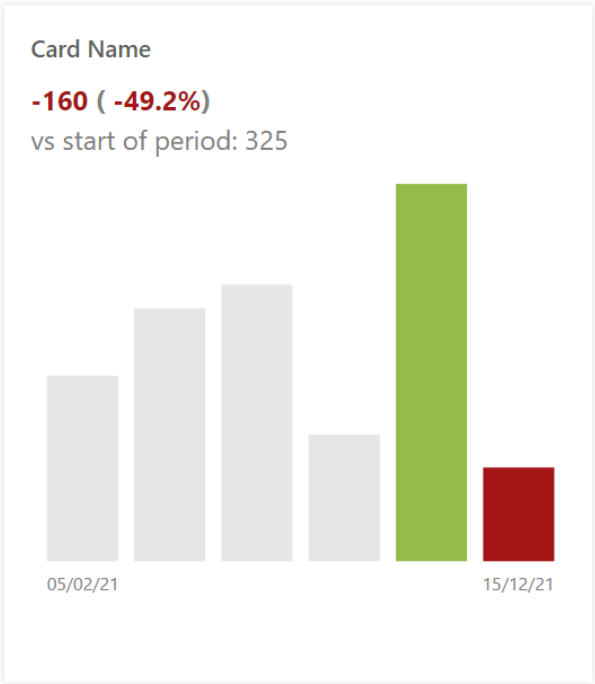
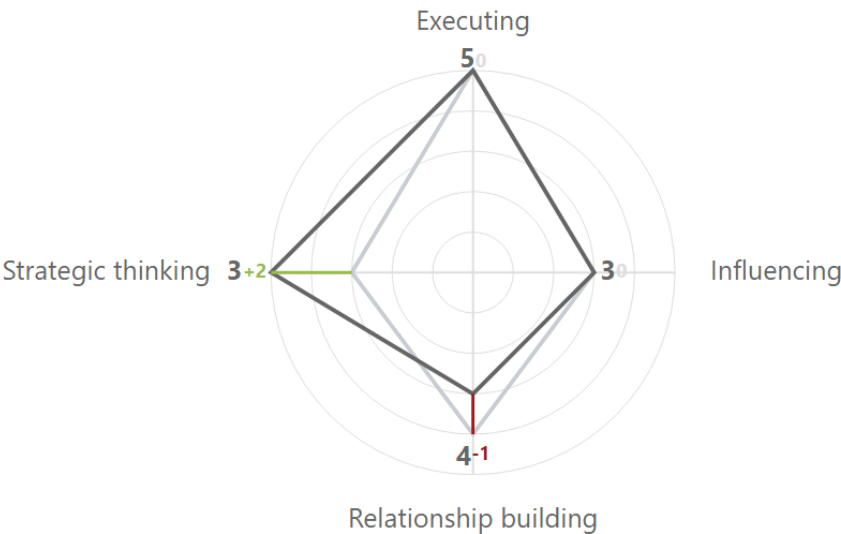
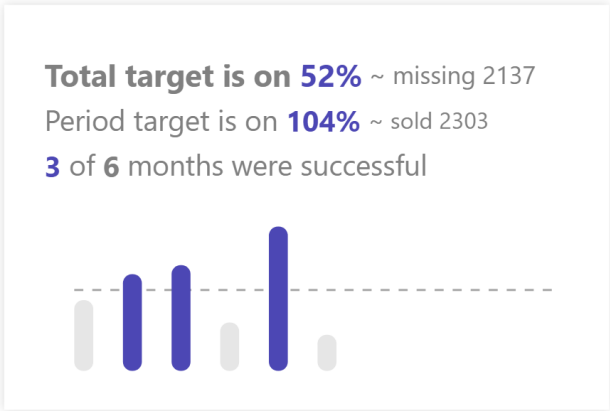
Expanding the visual context

Give users visuals that resonate with them



One visual but full of insights

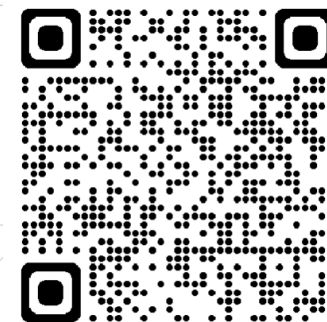
This card provides an incredible space for creating very different variants of outputs



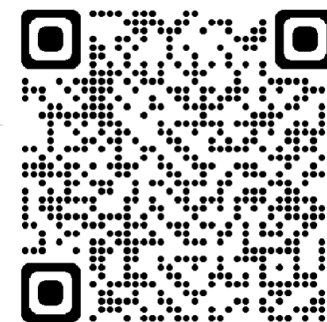
Showcase

THANK YOU FOR THE ATTENTION

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