SVG in Power BI

Mina Saad

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Agenda

- **What** is SVG Code?
- **Why** Use SVG in Power BI?
- **How** to Implement SVG in Power BI?

What is SVG Code?

What is SVG Code?

SVG

Scalable Vector Graphics

XML-based markup language designed to describe two-dimensional graphics

SVG

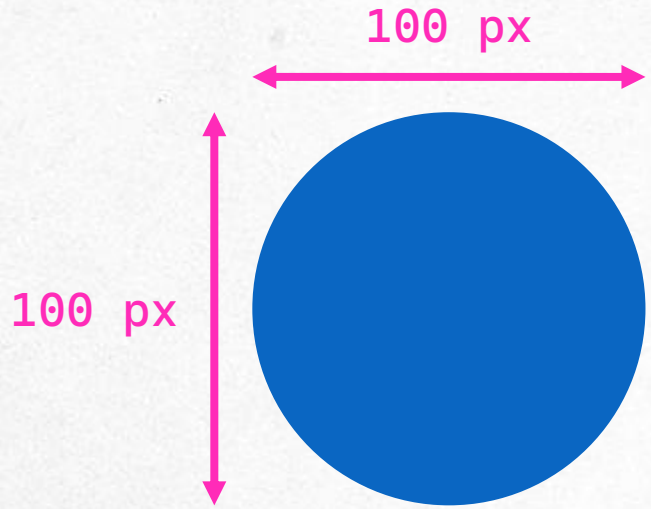
Scalable Vector Graphics

```
<svg fill="#000000" height="800px" width="800px" version="1.1" id="Capa_1"
xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink" viewBox="0 0 22.773
22.773" xml:space="preserve">
  <g>
    <g>
      <path d="M15.769,0c0.053,0,0.106,0,0.162,0c0.13,1.606-0.483,2.806-1.228,3.675c-0.731,0.863-
1.732,1.7-3.351,1.573
                                                c-0.108-1.583,0.506-2.694,1.25-
3.561C13.292,0.879,14.557,0.16,15.769,0z" />
      <path d="M20.67,16.716c0,0.016,0,0.03,0,0.045c-0.455,1.378-1.104,2.559-1.896,3.655c-
0.723,0.995-1.609,2.334-3.191,2.334
                                                c-1.367,0-2.275-0.879-3.676-0.903c-1.482-0.024-
2.297,0.735-3.652,0.926c-0.155,0-0.31,0-0.462,0
                                                c-0.995-0.144-1.798-0.932-2.383-1.642c-1.725-2.098-3.058-
4.808-3.306-8.276c0-0.34,0-0.679,0-1.019
                                                c0.105-2.482,1.311-4.5,2.914-5.478c0.846-0.52,2.009-
0.963,3.304-0.765c0.555,0.086,1.122,0.276,1.619,0.464
                                                c0.471,0.181,1.06,0.502,1.618,0.485c0.378-0.011,0.754-
0.208,1.135-0.347c1.116-0.403,2.21-0.865,3.652-0.648
                                                c1.733,0.262,2.963,1.032,3.723,2.22c-1.466,0.933-
2.625,2.339-2.427,4.74C17.818,14.688,19.086,15.964,20.67,16.716z" />
    </g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
    <g></g>
  </g>
</svg>
```

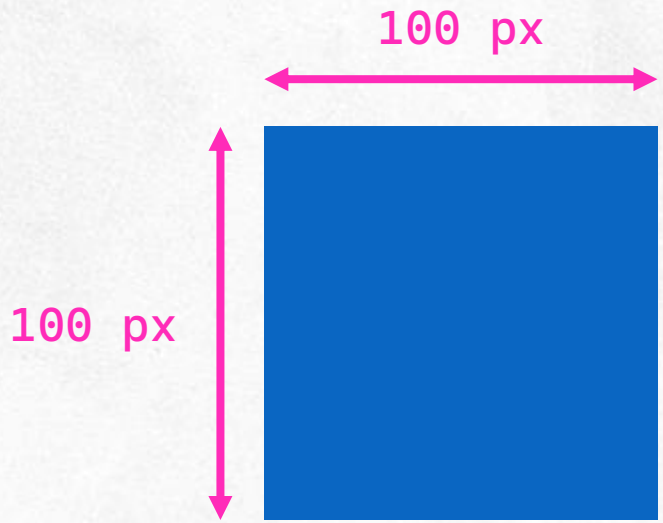
SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<circle cx="50" cy="50" r=“50" fill="blue" />
</svg>
```



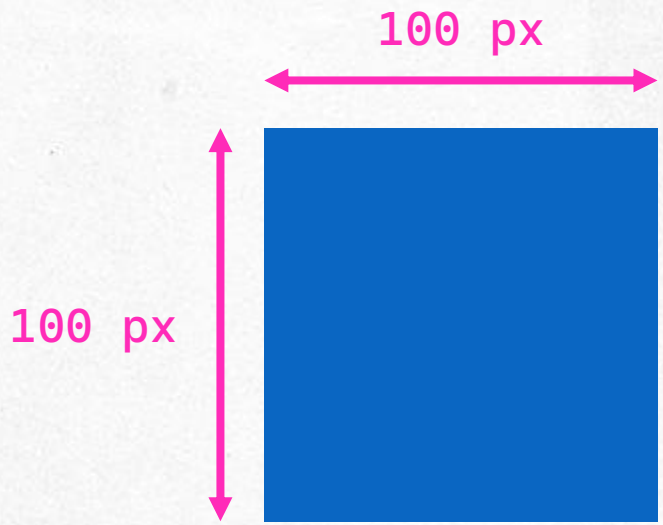

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```



SVG

Scalable Vector Graphics

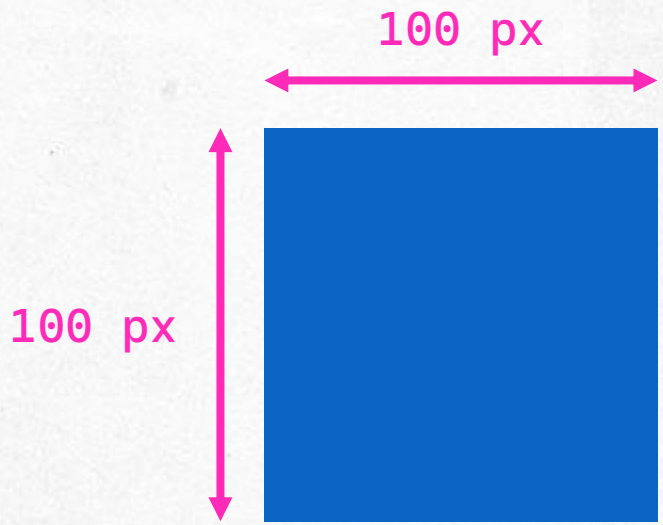
```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```



SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```



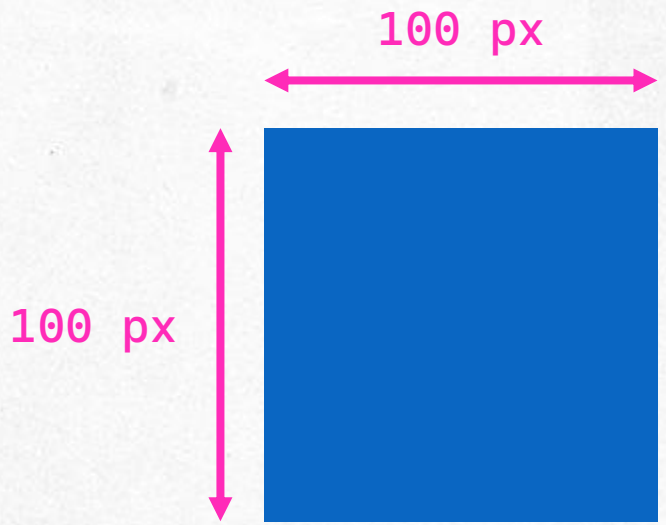

```
<svg

  width="100" height="100“




</svg>
```

Canvas Size

SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```




```
<svg

  width="100" height="100“

  xmlns="http://www.w3.org/2000/svg">

</svg>
```

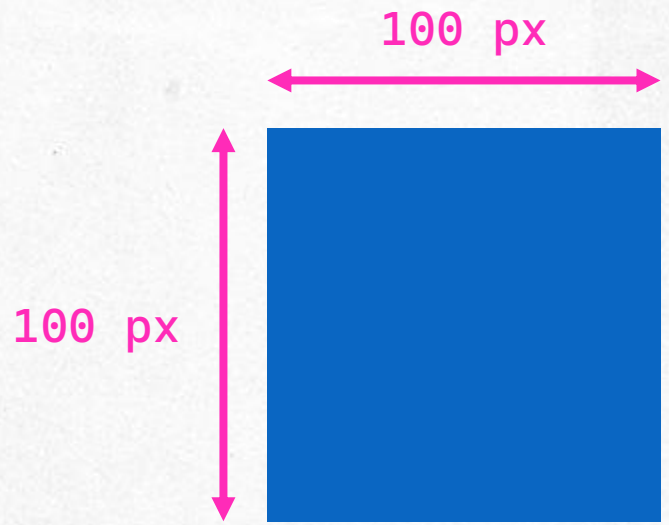
XML namespace for SVG

Canvas Size

SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```




```
<svg

  width="100" height="100“

  xmlns="http://www.w3.org/2000/svg">

  <rect
</svg>
```

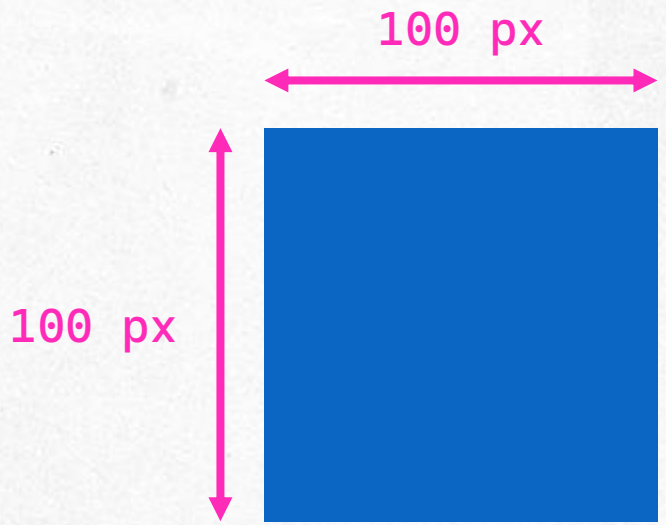
Shape

Canvas Size

SVG

Scalable Vector Graphics

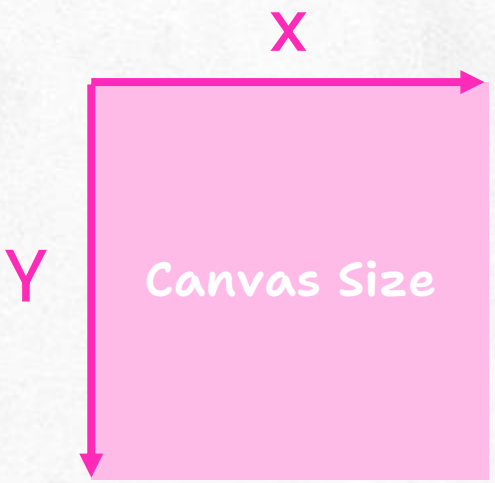
```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```




```
<svg

  width="100" height="100“

  xmlns="http://www.w3.org/2000/svg">

  <rect x="0"
```

X-coordinate

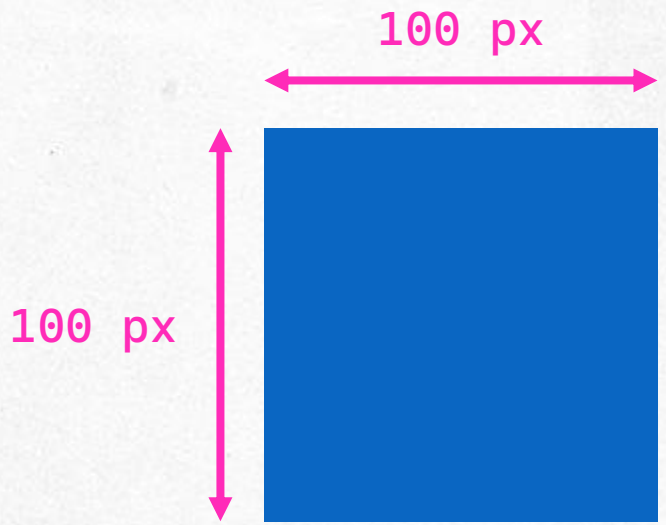
```
</svg>
```



SVG

Scalable Vector Graphics

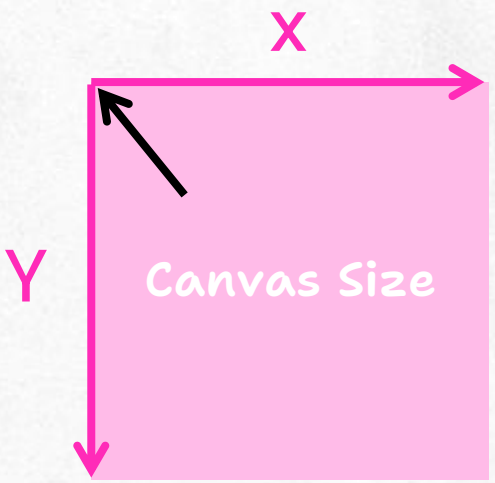
```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```




```
<svg

  width="100" height="100“

  xmlns="http://www.w3.org/2000/svg">

  <rect x="0“ y="0"
```

Y-coordinate

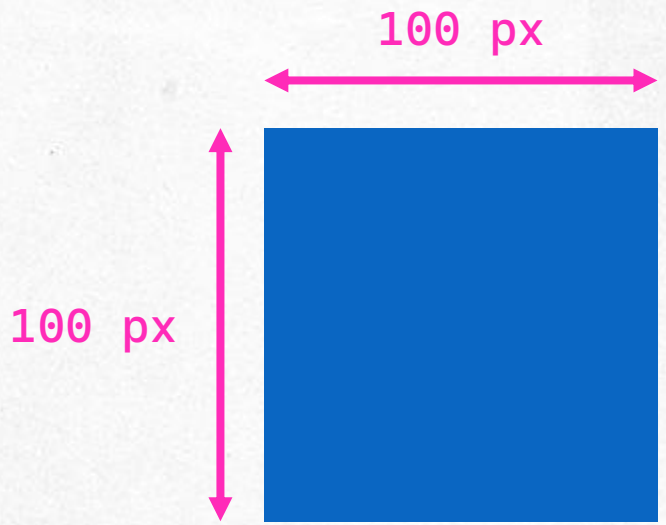
```
</svg>
```



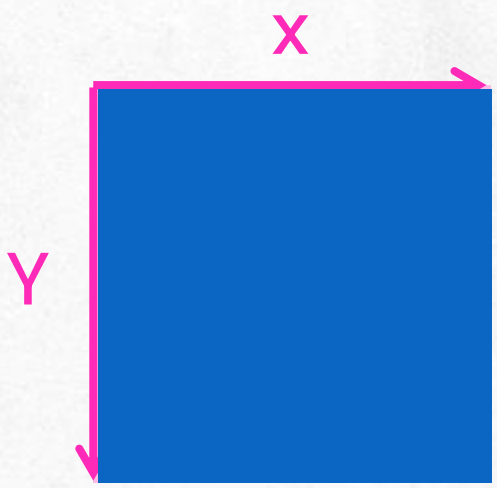
SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```



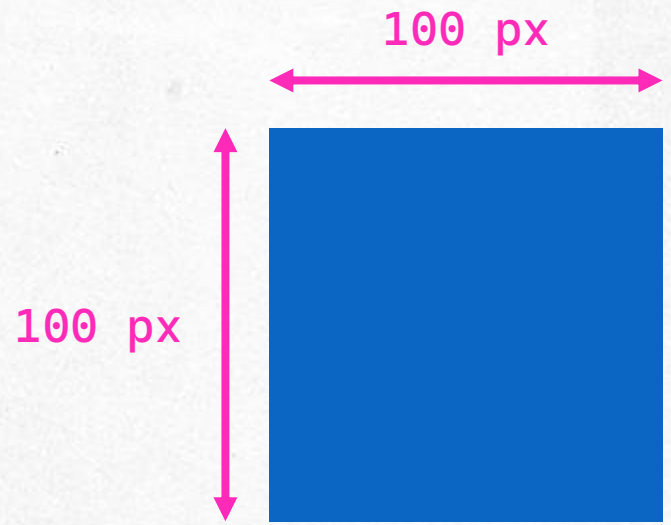

```
<svg

  width="100" height="100“

  xmlns="http://www.w3.org/2000/svg">

  <rect x="0“ y="0“ width="100" height="100" fill="blue"

</svg>
```



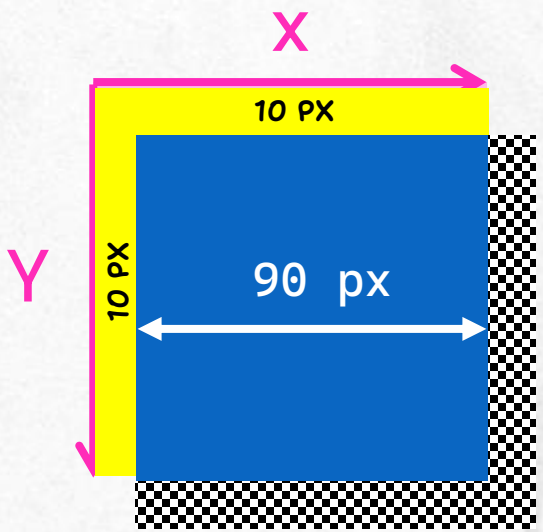
SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0" y="0" width="100" height="100" fill="blue" />
</svg>
```




```
<svg

  width="100" height="100“

  xmlns="http://www.w3.org/2000/svg">

  <rect x=“10“ y=“10“ width="100" height="100" fill="blue"

</svg>
```



SVG

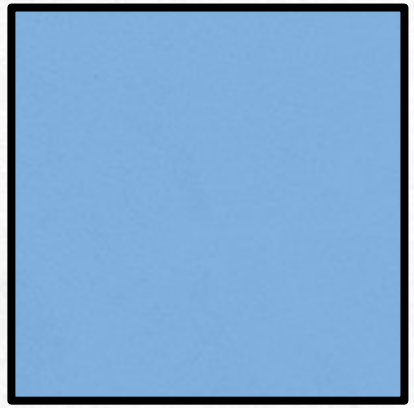
Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0“ y="0“ width="100" height="100" fill="blue"
rx="10" ry="10"
</svg>
```

SVG

Scalable Vector Graphics

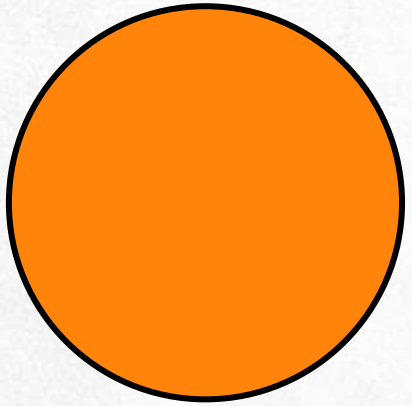
```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<rect x="0“ y="0“ width="100" height="100" fill="blue"
fill-opacity="0.5" stroke="black" stroke-width="3"/>
</svg>
```



SVG

Scalable Vector Graphics

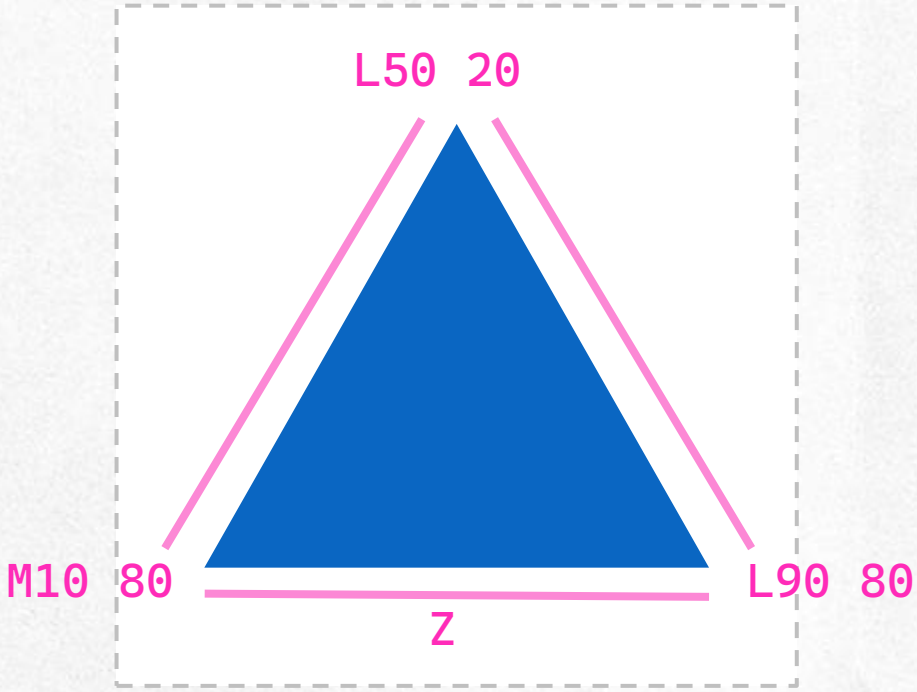
```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<circle cx="50" cy="50" r="40"
fill="orange" stroke="black" stroke-width="2"/>
</svg>
```

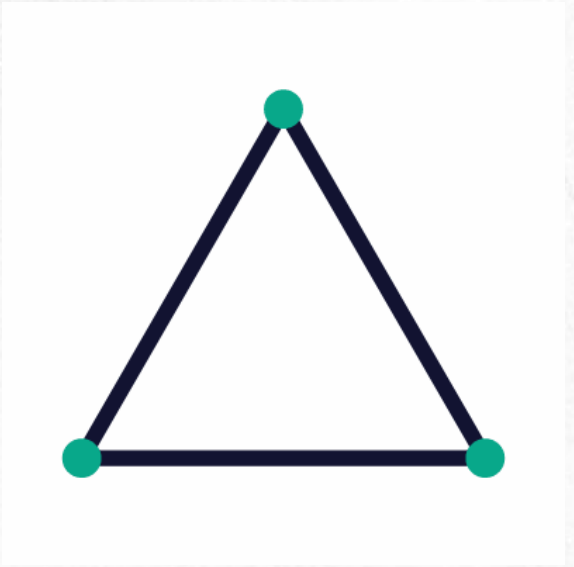


SVG

Scalable Vector Graphics

```
<svg
width="100" height="100“
xmlns="http://www.w3.org/2000/svg">
<path d="M10 80 L50 20 L90 80 Z" fill="blue"/>
</svg>
```





SVG

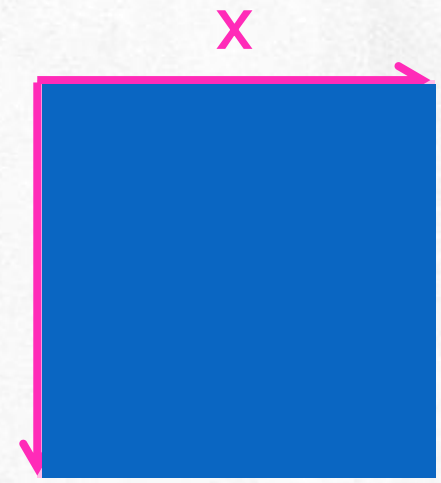
Scalable Vector Graphics

How to use it in Power BI

```
"
data:image/svg+xml;utf8
<svg
   width= '100' height='100'
   xmlns='http://www.w3.org/2000/svg'>
   <rect x='0' y='0' width='100' height='100' fill='blue'
</svg>
"
```

encode the SVG as a **data URL**

' instead of "



Why Use SVG in Power BI?

Why Use SVG in Power BI?

Conditional Formatting

Dynamically adjusts visual properties based on data

Enhanced Data Visualization

Expands visualization capabilities beyond Native Power BI Visuals

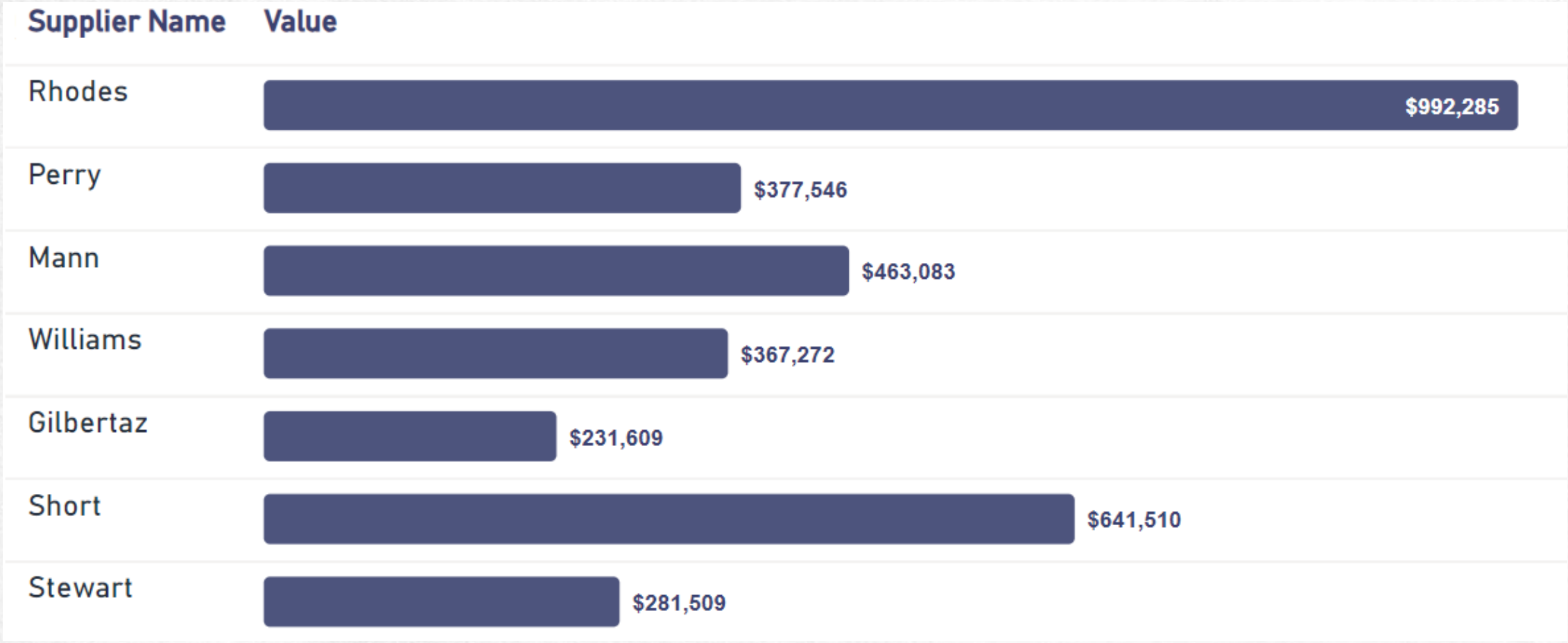
Branding and Theming

Ensures consistent style across reports

Custom Icons and KPIs

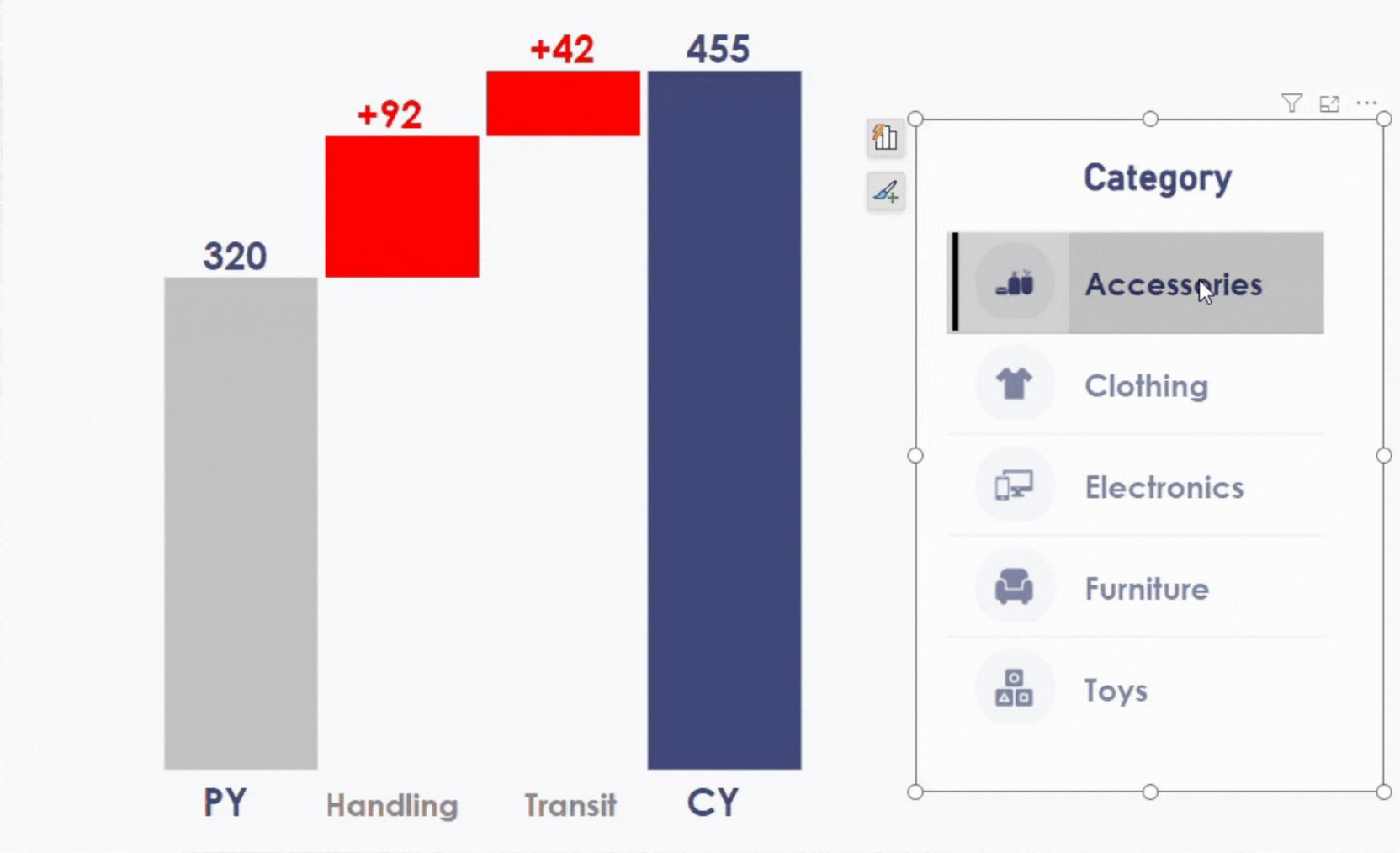
Provides instant data change reflection in visuals

Examples of SVG in Power BI

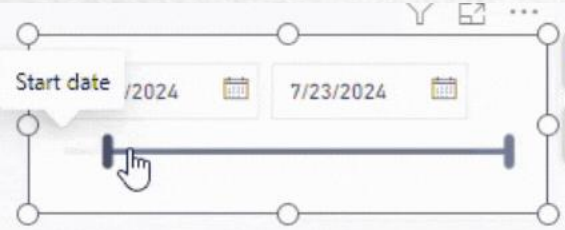


Examples of SVG in Power BI

Examples of SVG in Power BI

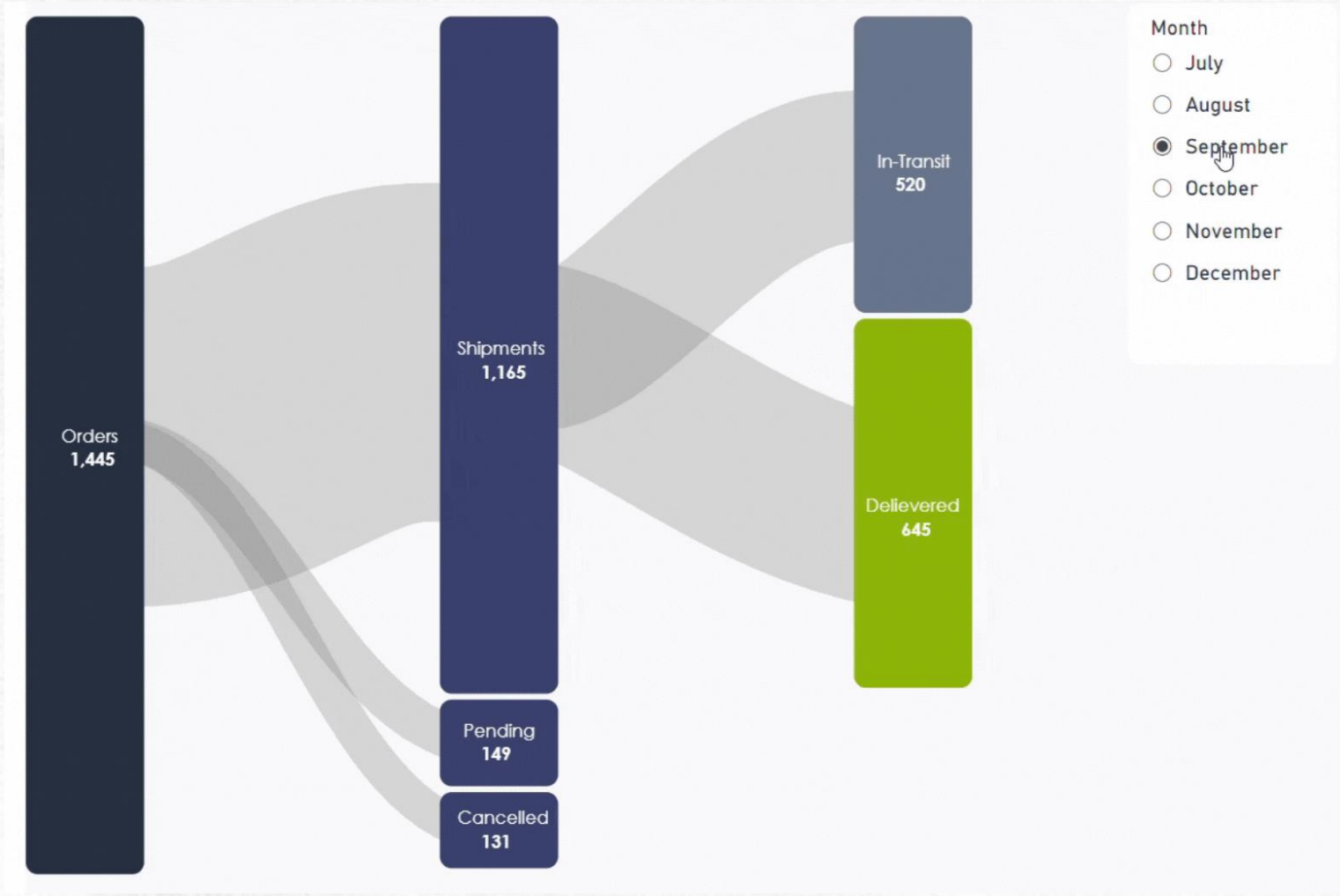


Examples of SVG in Power BI



Order ID	Order Value	Cost	Order Status	Category	Supplier Country ▶ Customer Country
0010dd	$6,966	$2,100	Cancelled	Furniture	Netherlands ● Rail ▶ Czech
001a5a	$4,188	$2,176	Pending	Toys	Mali ● Road ▶ Kazakhstan
00a0a7	$16,526	$2,693	Cancelled	Electronics	Mali ● Rail ▶ Malta
0198ae	$5,773	$2,329	Pending	Clothing	Dominica ● Sea ▶ Nauru
01998e	$32,870	$3,015	Pending	Electronics	Dominica ● Road ▶ Malta
01c567	$1,641	$37,153	Pending	Accessories	Puerto Rico ● Air ▶ Jersey
01fd81	$4,172	$2,753	Pending	Furniture	Netherlands ● Sea ▶ UAE
0523af	$26,977	$2,857	Pending	Toys	Saint Lucia ● Rail ▶ Turkmenistan
0586f8	$26,217	$3,858	Pending	Accessories	Burundi ● Road ▶ Romania
05e810	$12,323	$15,294	Cancelled	Toys	Micronesia ● Air ▶ Peru
0754db	$2,695	$4,216	Pending	Electronics	Puerto Rico ● Road ▶ Qatar
0818c9	$15,995	$48,495	Pending	Electronics	Puerto Rico ● Air ▶ Slovakia

Examples of SVG in Power BI



https://kerrykolosko.com/portfolio-category/svg-templates/

KERRY KOLOSKO

EXPLORATIONS IN DATA STORYTELLING WITH POWER BI

Home Visualisations Templates + About Shop

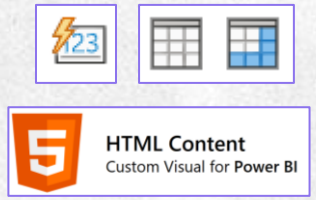
Portfolio Category: SVG Templates

Templates for various Power BI custom visuals including Deneb and PlotlyJS. Learn how to import a template here. Learn to modify SVG templates here. More templates and .pbix files here.

Found these templates helpful? Buy me a paintbrush

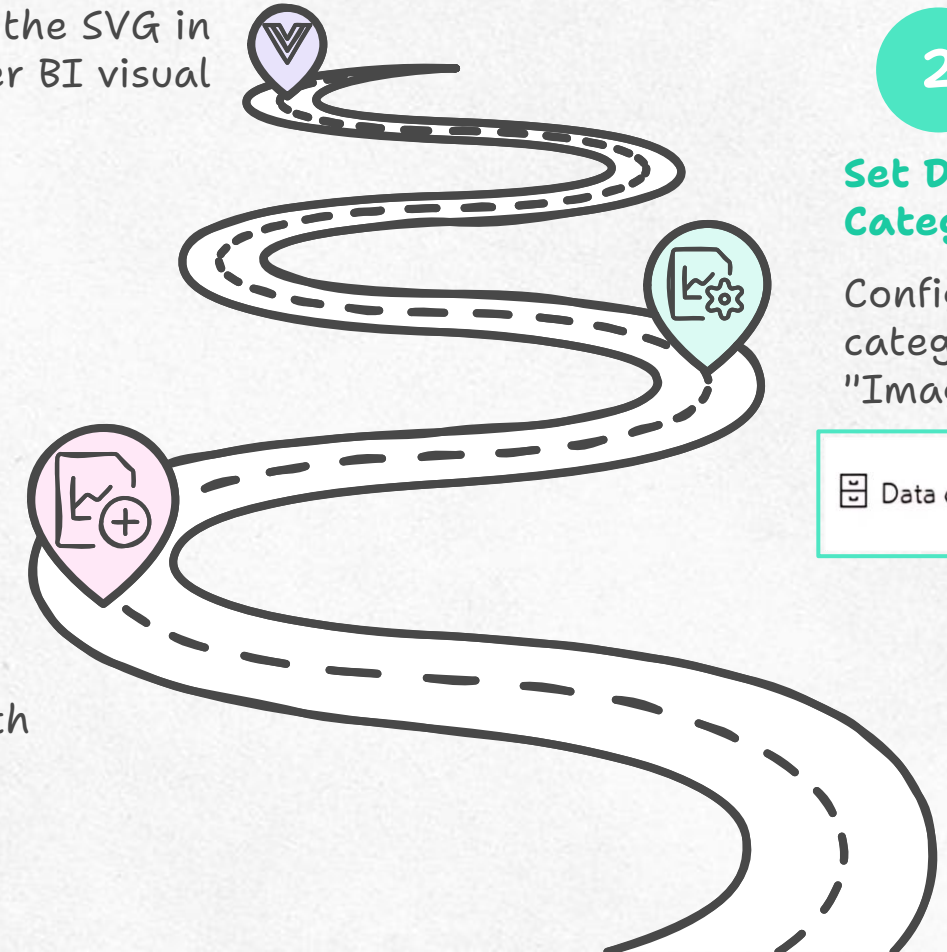
How to Implement SVG in Power BI?

How to Implement SVG in Power BI?



3 Render SVG

Display the SVG in a Power BI visual



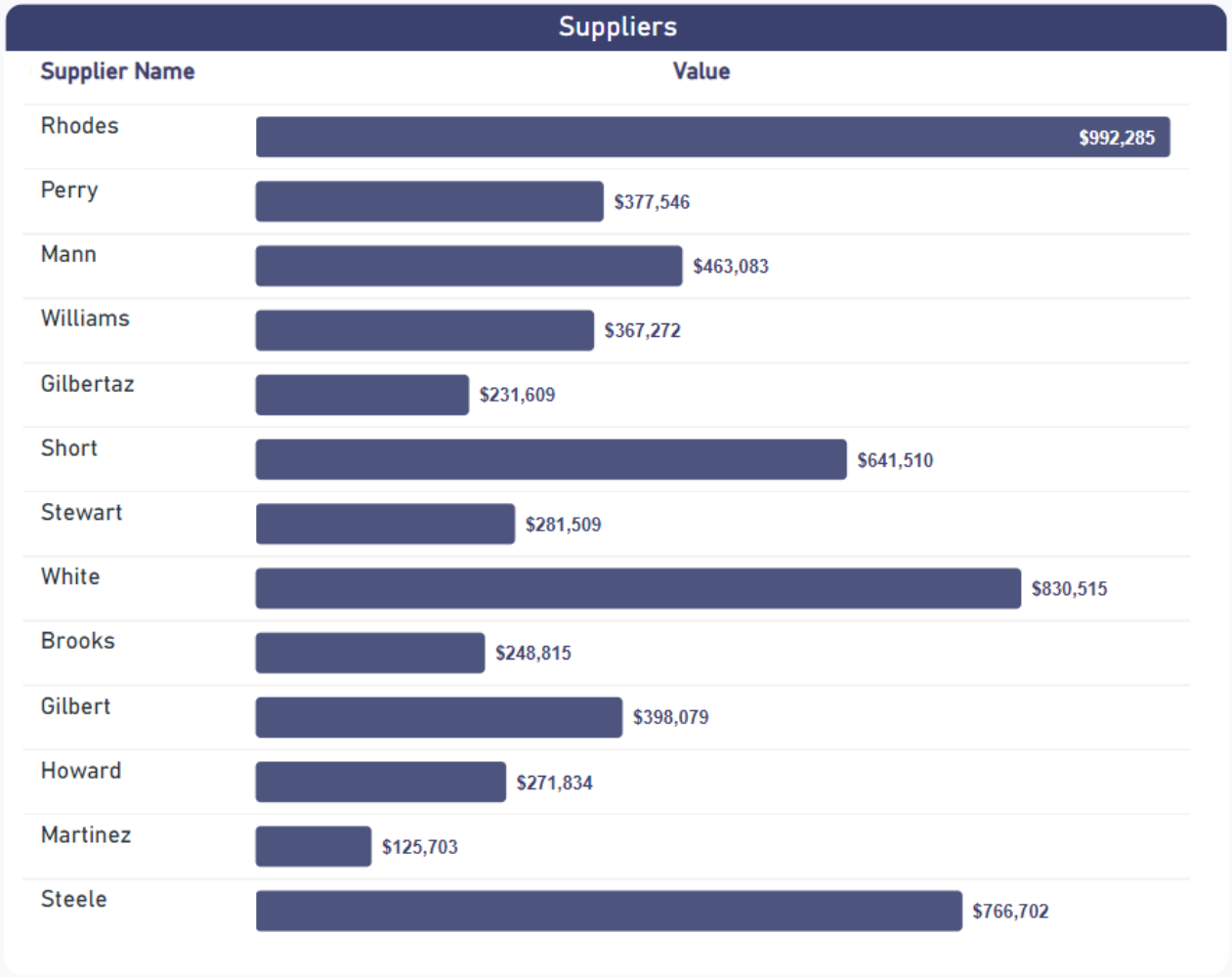
1 Create DAX Measure

- ' instead of "
- Substitute attributes with **[measure]**

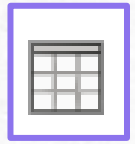
2 Set Data Category

Configure the data category to "Image URL

How to Implement SVG in Power BI?




```
Value =

VAR _Width = 900

-- Maximum CY_Value for standardization
VAR _MaxValue = MAXX(ALL('Orders'[Supplier Name]), [CY_Value] )

-- Scaled bar width for the current value
VAR _Value = DIVIDE([CY_Value], _MaxValue) * _Width

-- Formatted value text to display
VAR _ValueText = FORMAT([CY_Value], "$#,##")

-- Adjusting text position to stay within bounds
VAR _TextPosition =
    IF(_Value > (_Width - 100), _Value - 90, _Value + 10)

--Text Fill
VAR _TextFill =
    IF(_Value > (_Width - 100), "White" , "#3A416F")

-- SVG Code
RETURN
"data:image/svg+xml;utf8," &
"
<svg width='"&_Width&"' height='50' xmlns='http://www.w3.org/2000/svg'>

    <!-- Bar Chart -->
    <rect x='0' y='5' width='"&_Value&"' height='40' fill='#3A416F' fill-opacity='0.9'
      rx='5' ry='5' />

    <!-- Text Display -->
    <text x='"&_TextPosition&"' y='32' font-family='Arial' fill='"&_TextFill&"' font-size='18'
font-weight='bold'>"&_ValueText&"</text>

</svg>"
```



Thank You

Mina Saad

LinkedIn /in/minasaad1