

SVG - OVERVIEW

http://www.tutorialspoint.com/svg/svg_overview.htm

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What is SVG?

- SVG, Scalable Vector Graphics is an XML based language to define vector based graphics.
- SVG is intended to display images over the web.
- Being vector images, SVG image never loses quality no matter how they are zoomed out or resized.
- SVG images supports interactivity and animation.
- SVG is a W3C standard.
- Others image formats like raster images can also be clubbed with SVG images.
- SVG integrates well with XSLT and DOM of HTML.

Advantages

- Use any text editor to create and edit SVG images.
- Being XML based, SVG images are searchable, indexable and can be scripted and compressed.
- SVG images are highly scalable as they never loses quality no matter how they are zoomed out or resized
- Good printing quality at any resolution
- SVG is an Open Standard

Disadvantages

- Being text format size is larger then compared to binary formatted raster images.
- Size can be big even for small image.

Example

Following XML snippet can be used to draw a circle in web browser.

```
<svg width="100" height="100">
  <circle cx="50" cy="50" r="40" stroke="red" stroke-width="2" fill="green" />
</svg>
```

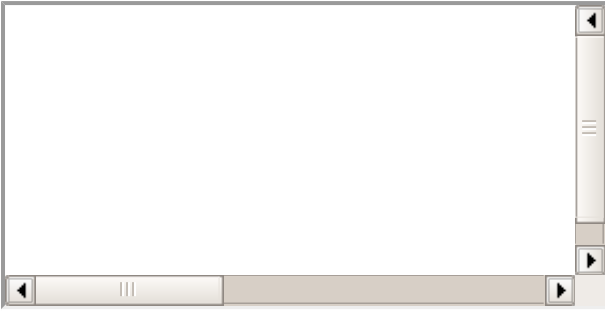
Embed the SVG XML directly in an HTML page.

testSVG.htm

```
<html>
  <title>SVG Image</title>
  <body>
    <h1>Sample SVG Image</h1>
    <svg width="100" height="100">
      <circle cx="50" cy="50" r="40" stroke="red" stroke-width="2" fill="green" />
    </svg>
  </body>
</html>
```

Output

Open textSVG.htm in Chrome web browser. You can use Chrome/Firefox/Opera to view SVG image directly without any plugin. In Internet Explorer, activeX controls are required to view SVG images.



How SVG integrates with HTML

- `<svg>` element indicates the start of SVG image.
- `<svg>` element's width and height attributes defines the height and width of the SVG image.
- In above example, we've used a `<circle>` element to draw a circle.
- `cx` and `cy` attribute represents center of the circle. Default value is 0, 0. `r` attribute represents radius of circle.
- Other attributes `stroke` and `stroke-width` controls the outlining of the circle.
- `fill` attribute defines the fill color of the circle.
- Closing `</svg>` tag indicates the end of SVG image.

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