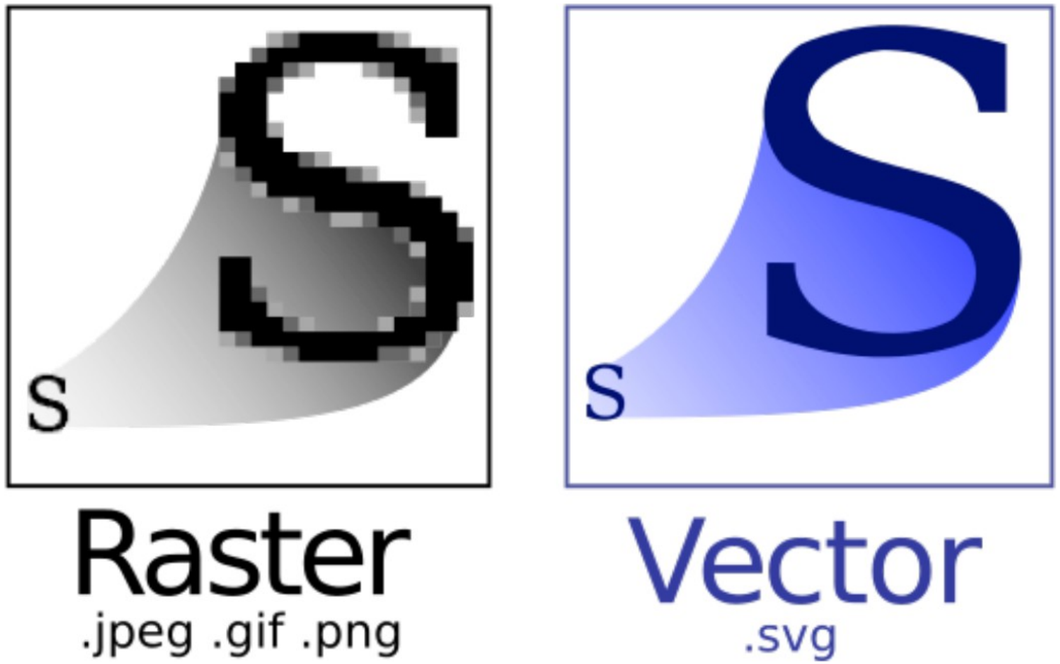
What is D3?

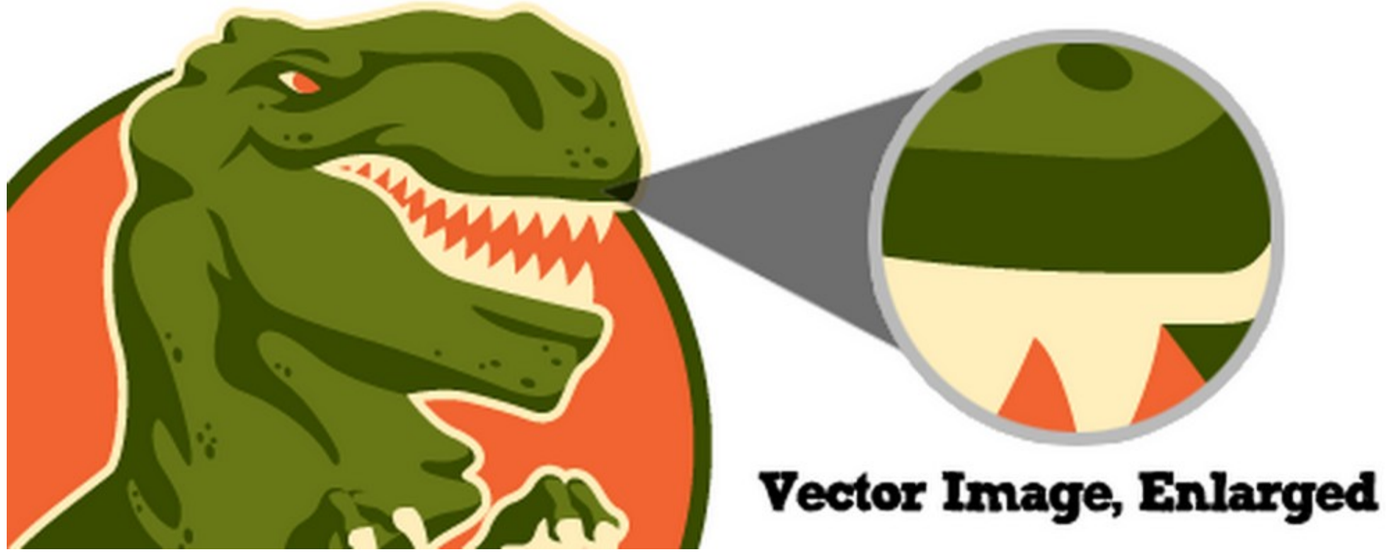
1,000 Foot View

- D3 is an open source JavaScript framework
- Similar to jQuery
- But allows “data-binding,” a (or perhaps the) key component of D3
- Data binding allows you to bind data to DOM elements, like <p> tags.

- D3 can use SVG (scalable vector graphics)
- Raster < Vector
- SVG's consist of DOM elements

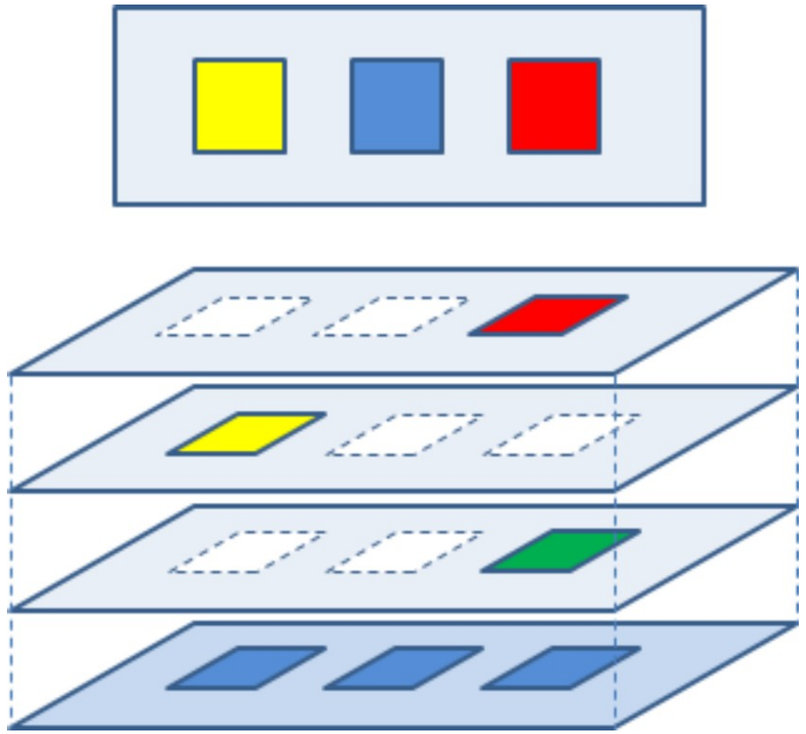


Raster Image, Enlarged



Vector Image, Enlarged

- SVG works with layers over layers
- Sometimes what you're looking for is there, just underneath something else.



Say it again?

- D3 is a JavaScript framework for building data visualizations
- D3 binds data to DOM elements on an SVG, which acts like your canvas

The Building Blocks of a D3 Visualization

HTML

- HyperText Markup Language
- The initial setup for your D3 visualization
- Provides the structure that you work in

```
<!DOCTYPE html>
<html>
  <head>
  <title>D3 Work</title>
    <script src="http://d3js.org/d3.v3.min.js" charset="utf-8"></script>
  </head>

  <body>

    <p> Hey! We're learning D3! </p>

  </body>
</html>

```

CSS

- Cascading Style Sheets
- The look of your D3 visualization
- Maps visual attributes to HTML objects

```
<!DOCTYPE html>
<html>
  <head>
  <title>D3 Work</title>
    <script src="http://d3js.org/d3.v3.min.js" charset="utf-8"></script>
  </head>

<style>

p {
  font: 10px sans-serif;
}

</style>

  <body>

    <p> Hey! We're learning D3! </p>

  </body>
</html>

```

JavaScript

- JavaScript then says how your visualization works

```
<!DOCTYPE html>
<html>
  <head>
  <title>D3 Work</title>
    <script src="http://d3js.org/d3.v3.min.js" charset="utf-8"></script>
  </head>

<style>

p {
  font: 10px sans-serif;
}

</style>

  <body>

    <p> Hey! We're learning D3! </p>

    <script>

    function somethingCool() {
        d3.select(this)
          .style("color", "red");
      }

    d3.select("p")
    .on("mouseover",somethingCool)

    </script>

  </body>
</html>
```