

D3JS Brief Intro

What Does it Do? Visualization using SVG and Javascript

History Xerox Parc → Protovis → D3JS.

Related Flare, Prefuse

Developers Mike Bostock, Jason Davies, and others

GitHub Raster images often do not scale well, Updating raster images often takes more bandwidth

Where does it run All modern browsers

License BSD

Size 145 kB (min)

Animation and DataBinding

- Human friendly animation effects built in
 - Transitions <http://bost.ocks.org/mike/transition/>
 - Interpolate API
https://github.com/mbostock/d3/wiki/Transitions#wiki-d3_interpolate
- Data, Its all about the data
- The API makes it easy to bind to data, including web sources

But First, What About Browser Support

- Support in modern browsers after IE8
- Including Mobile
- Support for hundreds, if not thousands of elements on low end hardware

GitHub, Libraries, and Examples

- Home <http://d3js.org/>
- Get it here <https://github.com/mbostock/d3>
- Additional Libraries built on top of D3, but not needed
 - Cubism
 - XCharts
 - DCjs
- Visualization [Gallery](#) Page, yes with source

Good, dare I say great, API

- Fluent API

```
var p = d3.select("body").selectAll("p")  
    .data([4, 8, 15, 16, 23, 42])  
    .text(String);
```

See <http://d3js.org/> for more

- Uses SVG as its graphical language, no abstractions on top of SVG
- Fully “Functional”
 - Presents a challenge coming from classical OO
 - Coexists well with other libraries, like jQuery

API and Tutorials

- **API** is very well documented
- API includes commonly used functionality such as:
 - Axis, including non linear, formatted time axis, inverted,
 - Transitions
 - Spine interpolation for lines
 - Bar charts, area charts, line charts, arc, pie, stack
 - Visualizations: force, clusters, histograms, treemaps, geographic (including projections), quad tree
 - Data parsing
 - External Data (e.g. REST services)
 - Shapes
- A large set of **tutorials**
- Yes, there is even a YouTube **channel**
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