Enhancing Your Viz

Part 1 – Scales and Axis

Ben Sullins
bensullins.com
@bensullins

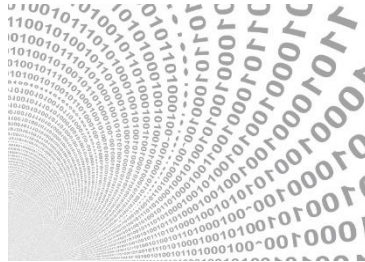pluralsight
hardcore dev and IT training

Course Outline

The Basics

Working with Data

Mapping

Basic Charting

Enhancing
Your Viz

Pulling it
All Together

Overview

- **Scaling Overview**

- **Scaling Data**

- **Axis Overview**

- **Adding Axis to Charts**

Scaling Overview

"Scales are functions that map from an **input** domain to an **output** range.

Mike Bostock"

Domain and Range

Sales Input

Year	Sales (1k)	
2010	150	
2011	130	**(min)**
2012	225	
2013	350	**(max)**

Input Domain

130   350

Output Range

10   100

Scaling Example

Create the Scale

```
var scale = d3.scale.linear() //also try .log() or .pow()
```

Assign Domain and Range

```
var scale = d3.scale.linear()
        .domain([130,350]) //input min/max of sales values
        .range([10,100]); //output pixels for SVG
```

Use your function!

```
console.log(scale(300)); //output 79.54
console.log(scale(270)); //output 67.27
console.log(scale(150)); //output 18.18
```

Scaling Data

Axis Overview

Creating an Axis

Create the Axis

```
var xAxis= d3.svg.axis()
```

Assign the Scale

```
xAxis.scale(xScale) //created in previous section
```

Assign Labels

```
xAxis.orient("bottom")
```

Add to SVG

```
svg.append("g") //group element
    .call(xAxis);
```

Adding Axis to Charts

Summary

- **Scaling Overview**

- **Scaling Data**

- **Axis Overview**

- **Adding Axis to Charts**