

Making Your Visualizations Interactive



Chris B. Behrens

SOFTWARE ARCHITECT

@chrisbbehrens www.chrisbehrens.rocks



D3 Timer



D3 Timer

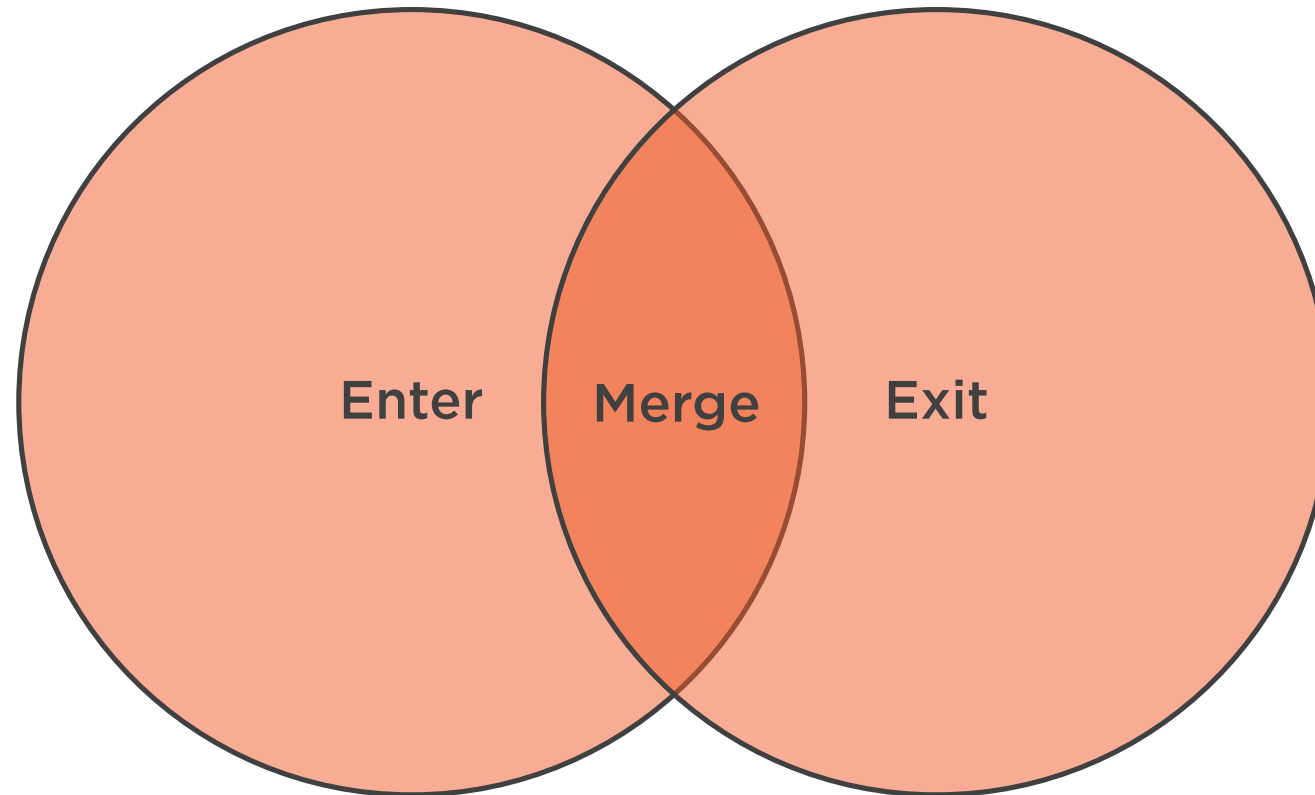
Analogous to `setTimeout`

Calls continuously, so we'll use `interval()` instead

D3 Data merge()



D3 Data merge()



D3 Zoom



We began with scaling

D3 Zoom gives the user control

This can unlock the design of
your visualization

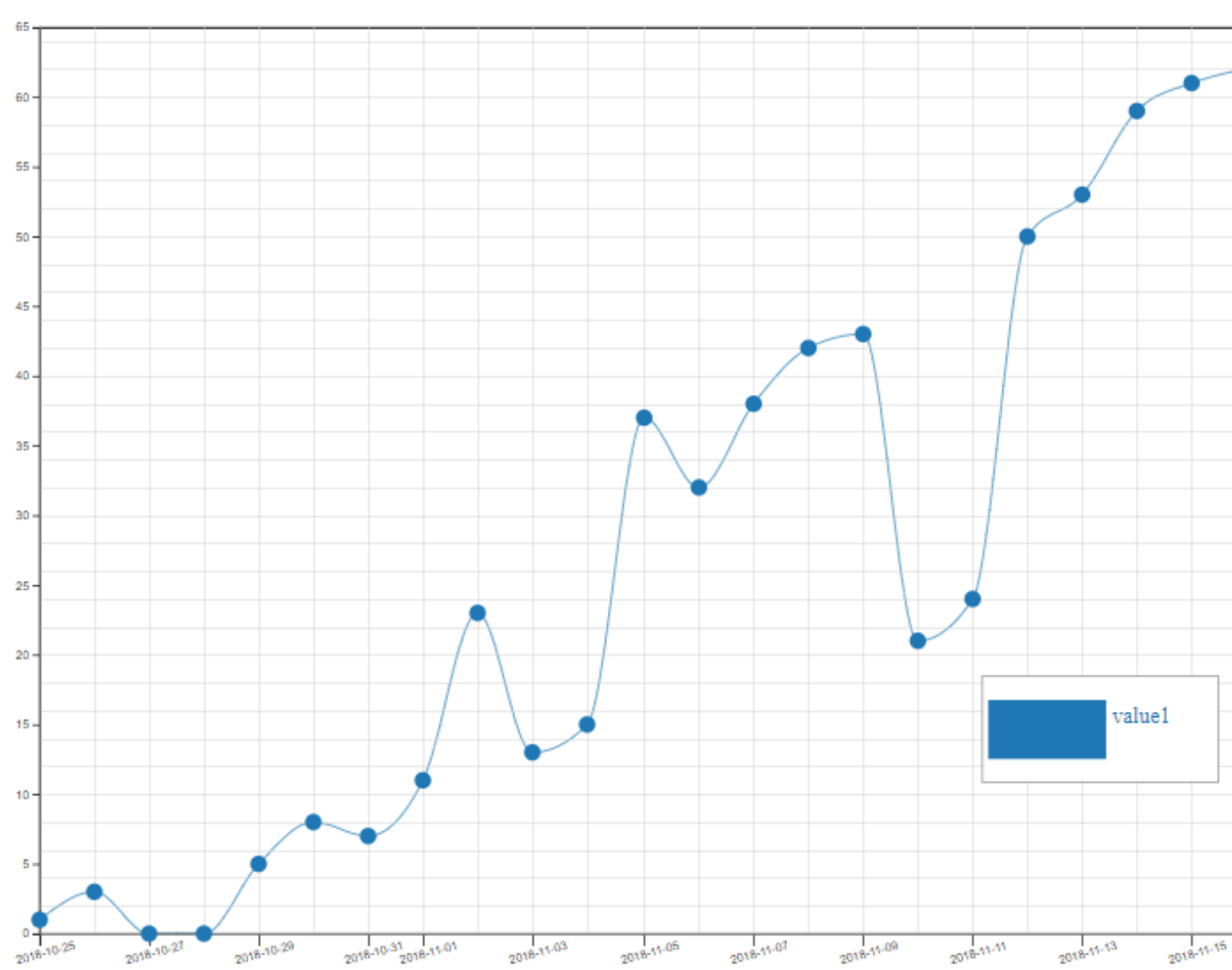
Should *really* be called pan and zoom

D3 Pan and Zoom

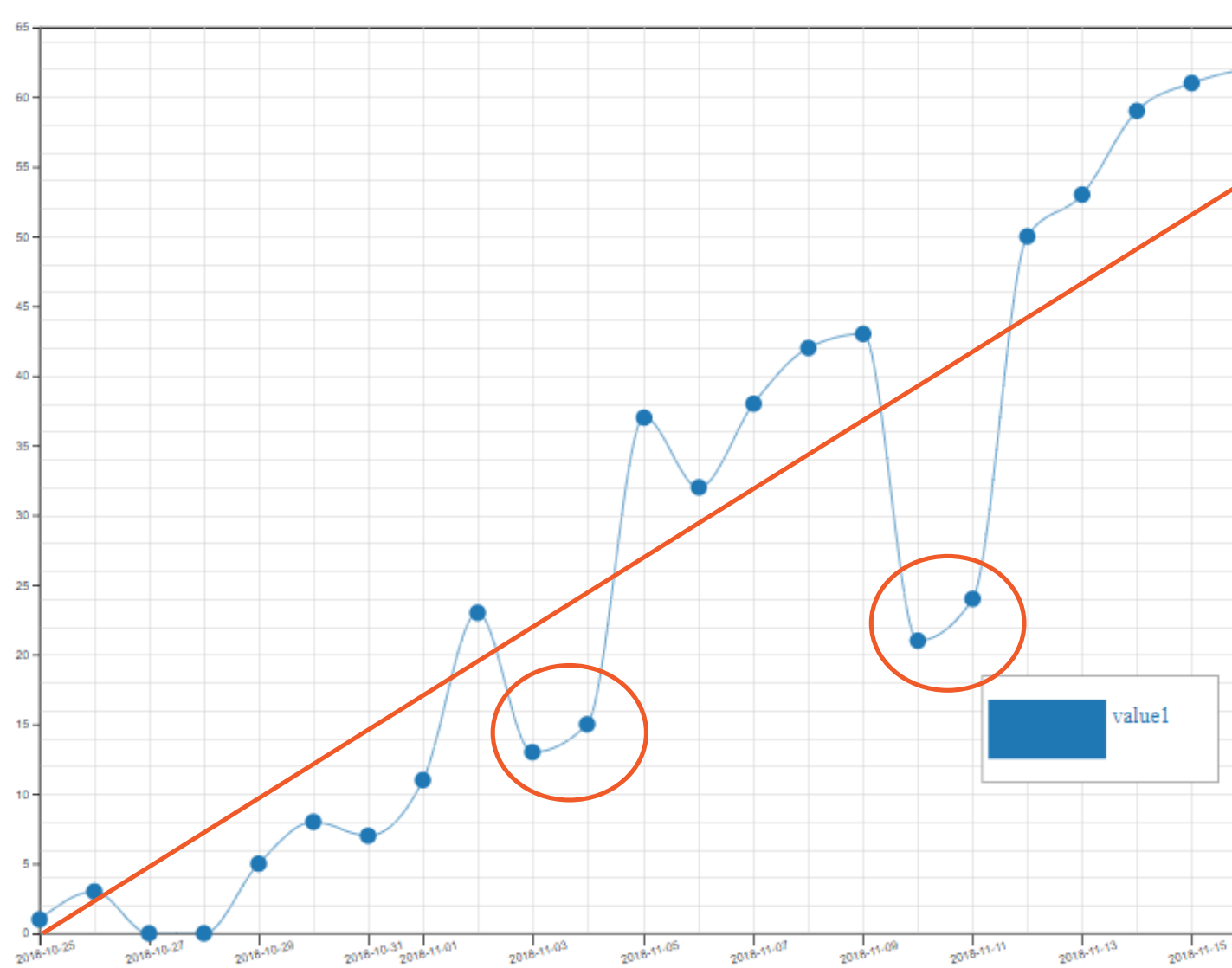
Event	Action
mousedown	Pan start
mousemove	Zoom
mouseup	Pan end
dblclick	<i>Zoom in, zoom out</i>
wheel	<i>Zoom in, zoom out</i>
touchstart	<i>multiple</i>
touchmove	zoom
touchend	Pan end
touchcancel	Pan end



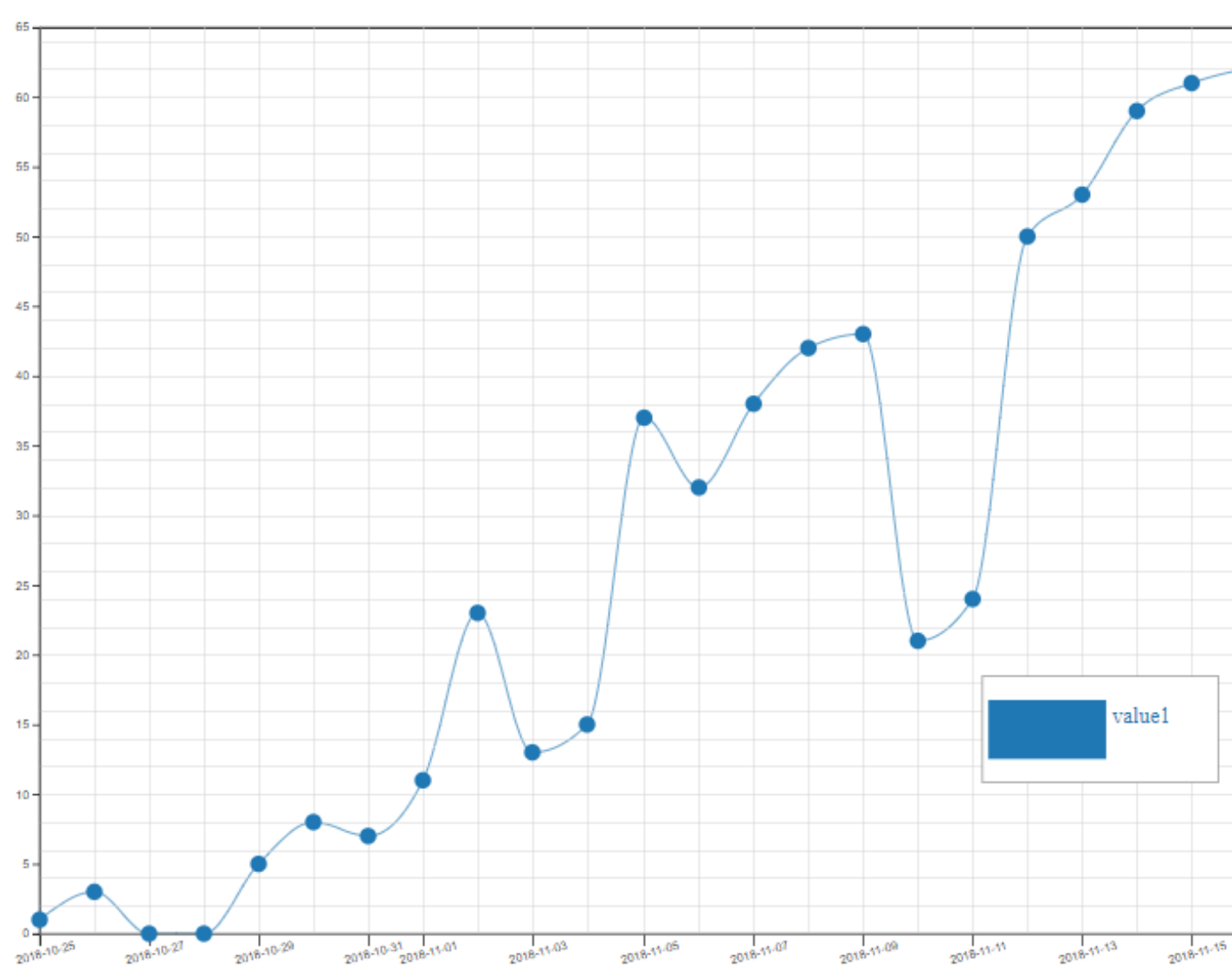
Sorting and Filtering



Sorting and Filtering



Sorting and Filtering



Some Final Notes

Sorting and filtering is
standard Javascript

Be *very* careful about filtering

A clean separation of the data
makes sorting and filtering
possible

Pan and Zoom are
visualization-agnostic



Summary



The D3 interval function

- manages timer events

The D3 merge function

- Provides the code necessary to *update* data
 - Which already exists
 - But has changed

The D3 Zoom function

- Attaches a series of browser events to a zoom and pan context
- panAndZoom()
- Simplest possible zoom function
- Letting zoom and pan open our design frontier
- Not being constrained by the limitations of print

Sorting and Filtering

- Weekend data filter
- For our line
- Sorting our data
- Simple sort for our circles
- Being careful not to lie by omission via filtering

