

Transitions



Watch out or transitions will be your ruin.

Transitions

- **Do not run two transitions on the same selection at the same time (see p. 172)**

ex. (doesn't work)

```
d3.selectAll("circle").transition()  
    .duration(2000).attr("cx", "300");
```

```
d3.selectAll("circle").transition()  
    .duration(2000).attr("fill", "green");
```

Transitions

- **Transition from something to something, not nothing to something (applies esp. to new elements)**

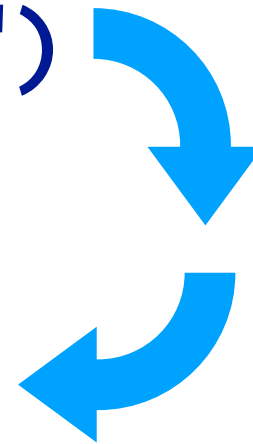
ex. (doesn't work)

```
d3.select("svg").append("circle")  
  .transition()  
  .duration(2000)  
  .attr("cx", "200")  
  .attr("cy", "100")  
  .attr("r", "25")  
  .attr("fill", "red");
```

Transitions

ex. (works)

```
d3.select("svg").append("circle")  
  .attr("cx", "200")  
  .attr("cy", "100")  
  .attr("r", "25")  
  .attr("fill", "lightblue")  
  .transition()  
  .duration(2000)  
  .attr("fill", "red");
```



Transitions

- **Think carefully about what you want to happen, and then decide what goes before and after the transition**

Plan

1. new bars appear
in proper place
immediately
w/ orange fill

2. fill transitions to blue

`.enter().append("rect")`

1. orange fill

`.merge(bars)`

2. reposition all bars

`.transition().duration(2000)`

3. blue fill

Transitions

Plan

1. new bar appears off to the right side
2. all bars gradually scooch left into place

`.enter().append("rect")`

1. position new bar to the right of svg width

`.merge(bars)`

`.transition().duration(2000)`

2. reposition all bars

Transition warnings

- Do not try to store chains with transitions

ex. (doesn't work)

```
var circ = d3.selectAll("circle")  
            .transition()  
            .duration(2000)  
            .attr("cx", "300");  
  
circ.attr("fill", "green");
```

Transition warnings

- Do not put a transition before "merge"

ex. (doesn't work)

```
d3.selectAll("circle")  
    .transition()  
    .duration(2000)  
    .attr("cx", "300")  
    .merge("oldcirc")  
    .attr("fill", "green");
```