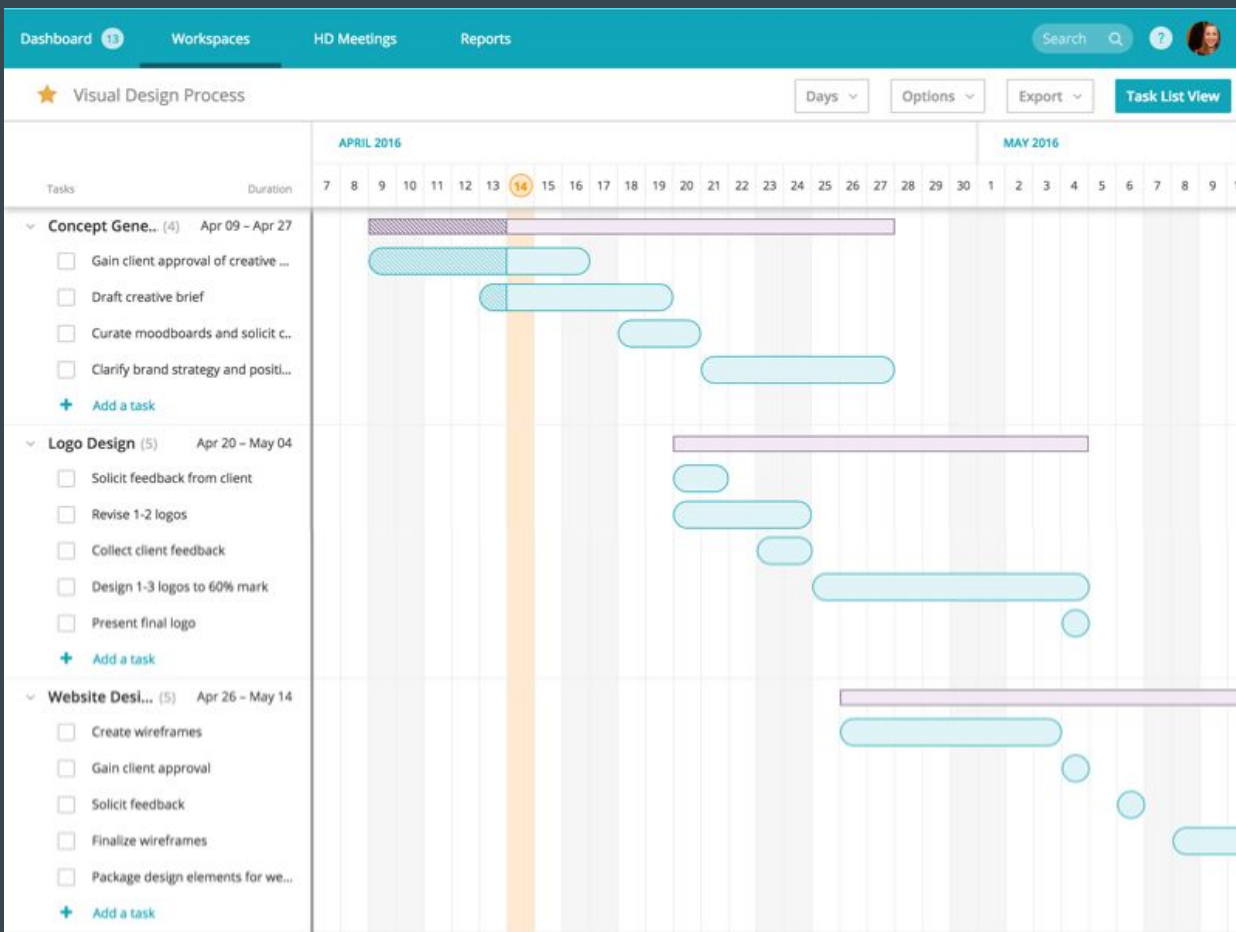


Intro to react virtualized





Gantt redux

Built with React

4 people

3 months

Fast development

90 - 90 rule

90% prototype

90% production ready

10K project

A project with 10,000 tasks

Results

Slow initial rendering

Really bad UX

✓ **shouldComponentUpdate**

✓ **Redux**

DOM

Problem

How to display large amount of data efficiently...
in a reasonable amount of time...
without freezing the ui...
without crashing the browser?

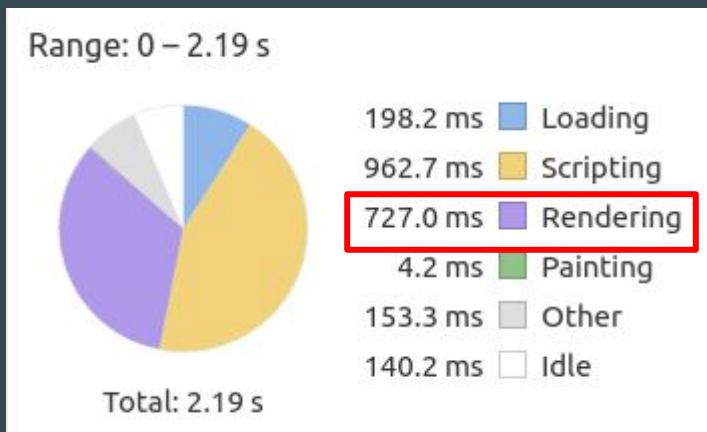
Virtual rendering



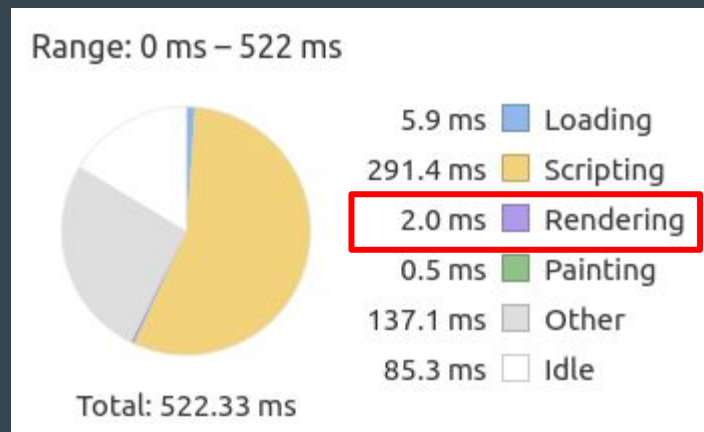
Render **only visible** stuff

Rendering 20K divs

Non virtualized

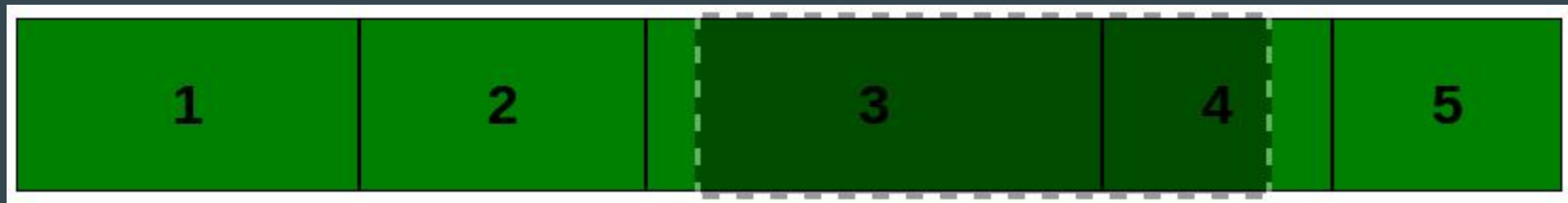


Virtualized



Windowing + Positioning

Windowing



Don't reinvent the wheel,
It's **already done**

react-virtualized

Actively maintained

Tabular and scattered layouts

Can handle up to 10M pixels

Absolute positioning

Components

Grid

Great for tabular data

JIT cell measurement

Dynamic row height

P	Peter Brimer	Lorem ipsum dolor sit amet, consectetur adipiscing elit.
T	Tera Gaona	Phasellus vulputate odio commodo tortor sodales, et vehicula ipsum viverra.
K	Kandy Liston	Cras tincidunt nisi in urna molestie varius.
L	Lonna Wrede	Curabitur ac enim dictum arcu varius fermentum vel sodales dui.
K	Kristie Yard	Ut tristique augue at congue molestie.
R	Raul Host	Cras eget enim nec odio feugiat tristique eu quis ante.
Y	Yukiko Binger	Phasellus eget enim vitae nunc luctus sodales a eu erat.

VirtualScroll

Good for simple lists

Infinite loading support

Extends Grid



THIS IS ROW 17



Glinda Palazzo

This is row 18



Lupe Island

This is row 19



Cordelia Trotta

This is row 20



Samara Berrier

This is row 21



Era Stepp

This is row 22



Malka Spradlin

This is row 23

FlexTable

Table with built-in header

Sortable columns

Extends Grid

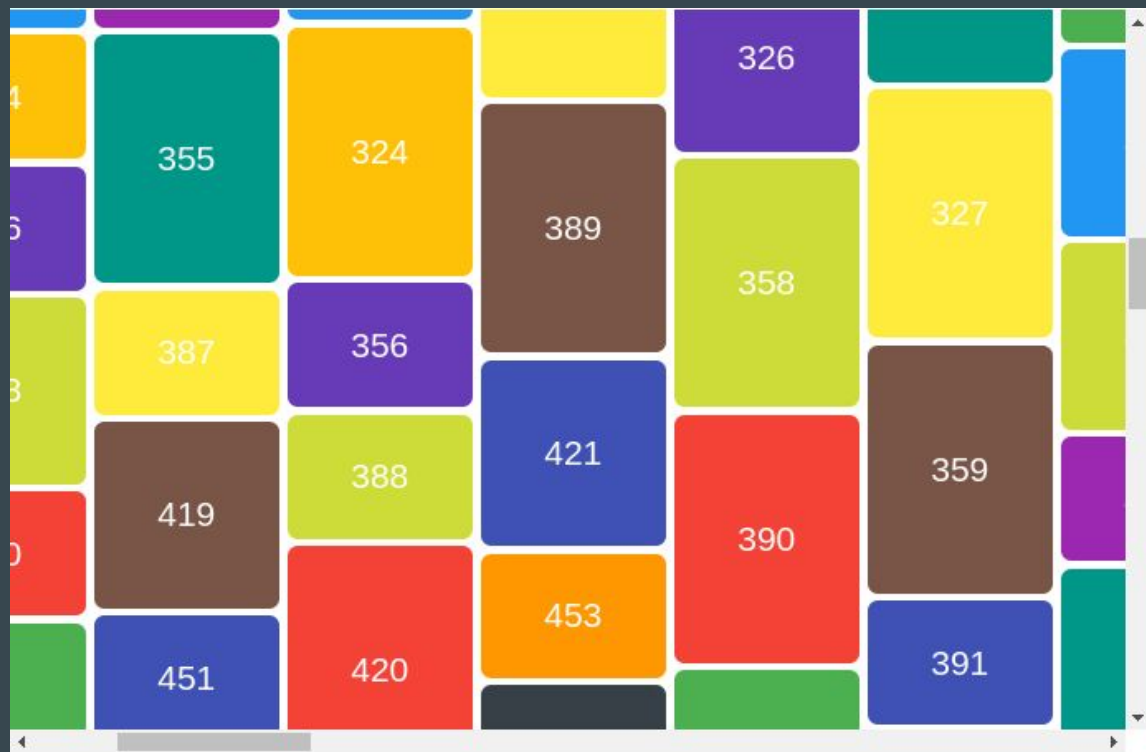
id...	Full Name	The description label is really long so.
62	Sherryl Noack	Phasellus vulputate odio commodo torto.
63	Gala Munsey	Cras tincidunt nisi in urna molestie varius
64	Stephani Frew	Curabitur ac enim dictum arcu varius fer.
65	Twana Anthony	Ut tristique augue at congue molestie.
66	Mauro Matlock	Cras eget enim nec odio feugiat tristiqu...
67	Claudie Meisner	Phasellus eget enim vitae nunc luctus s..
	Adrienne	

Collection

Scattered data

Flexible layout

Precomputed measurements



Utility

AutoSizer

ScrollSync

InfiniteLoader

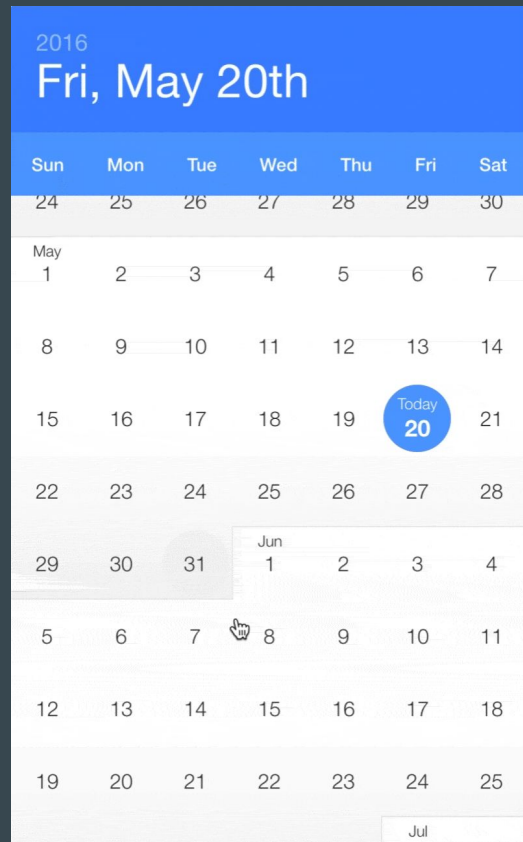
CellMeasurer

Real world examples

Infinite calendar

VirtualScroll

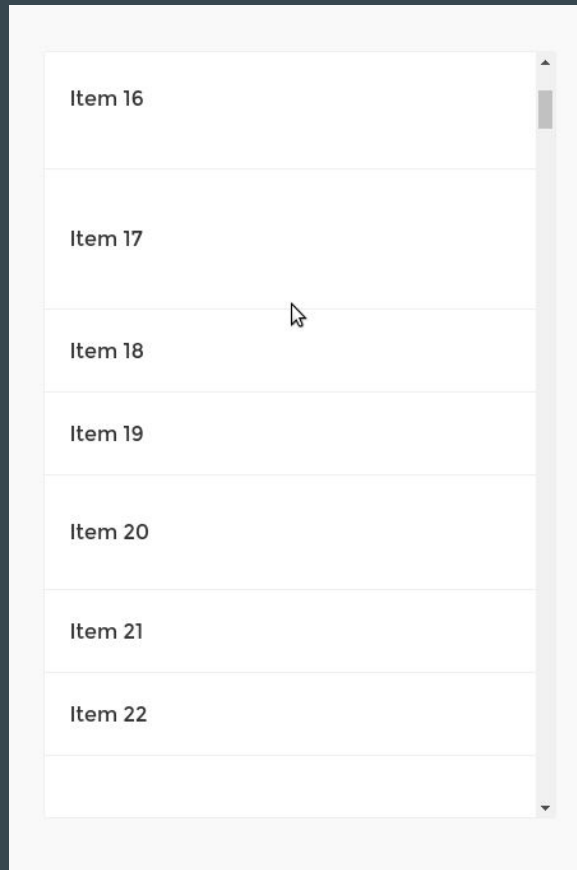
- Infinite scroll
- Smooth animations



Sortable list

VirtualScroll

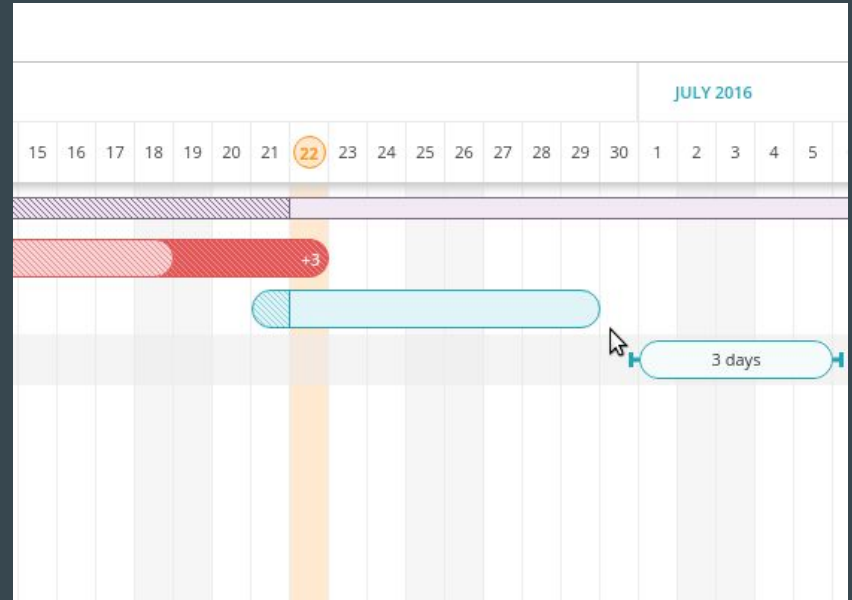
- Touch support
- Drag&Drop



Redbooth gantt

Grid + Collection

- Drag&Drop
- Synced grids



Usage considerations

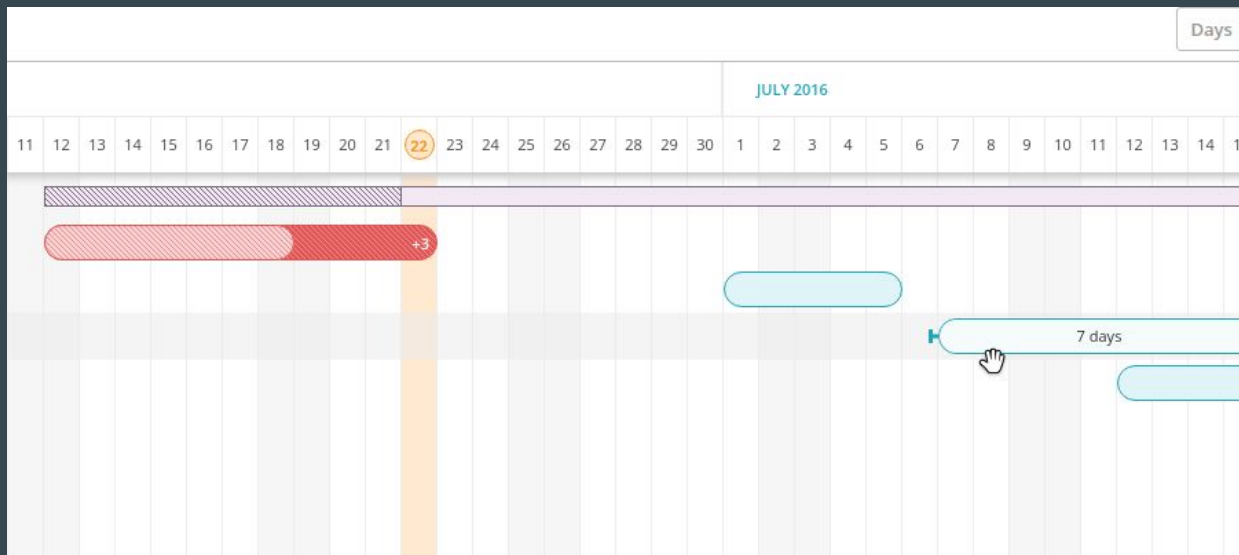
Data changes

“VirtualScroll has no way of knowing when its underlying list data has changed since it only receives a rowHeight property”

 Use `VirtualScroll.recomputeRowHeights`

Single cell update

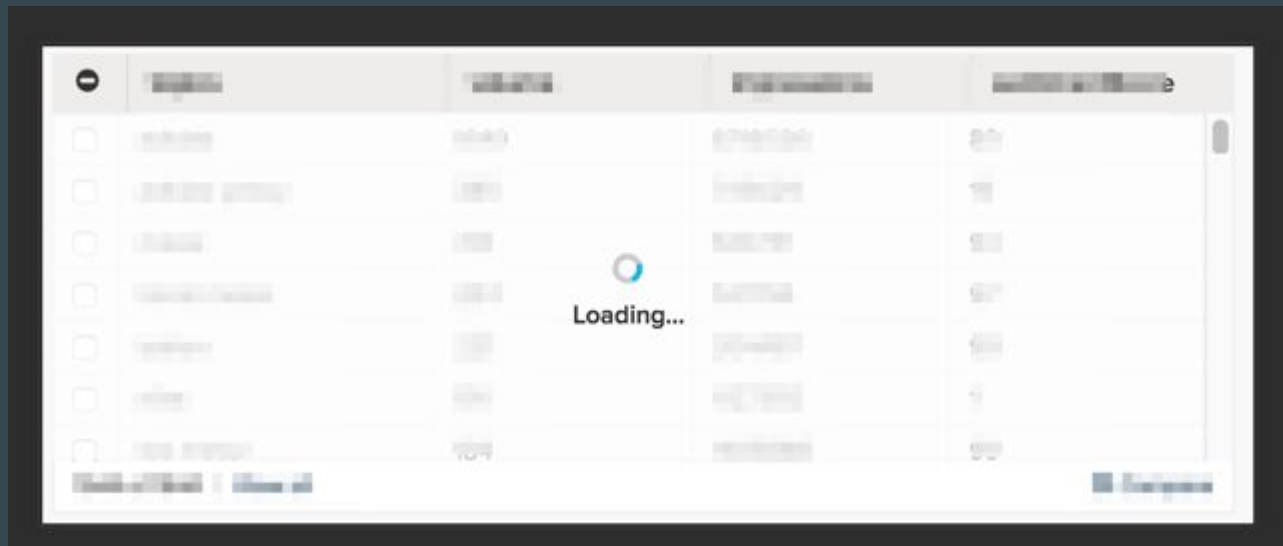
State is not
preserved



💡 Connect to a store (Redux, Flux, MobX...)

Custom cell layout

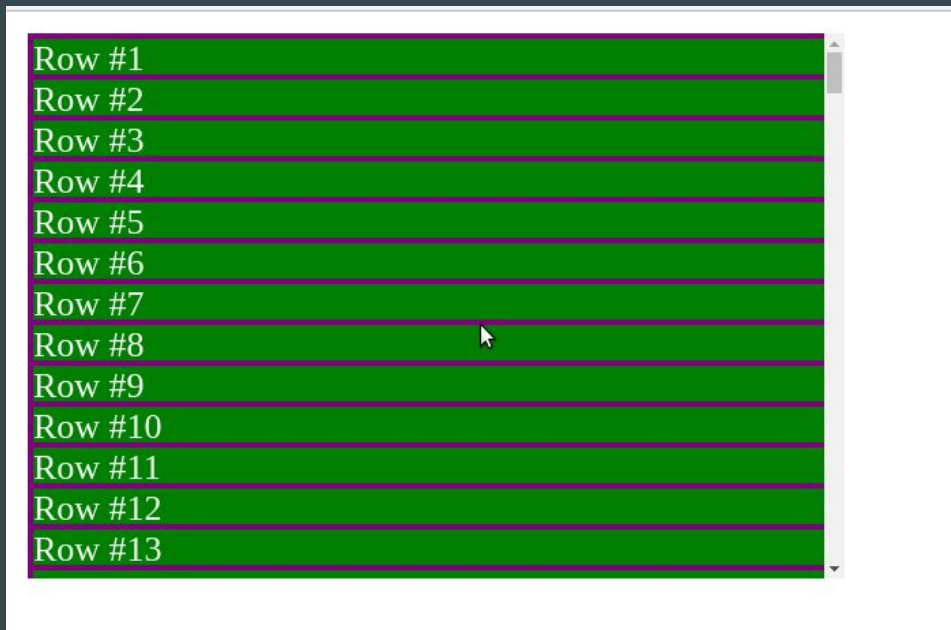
Useful for cell overlays



Use `cellRangeRenderer`

Scroll flickering

Small cells



Use overscan option

Getting started

- ❏ Check the demo website
- ❏ Clone the repo
- ❏ Check the examples source
- ❏ Chat on Gitter

Q&A

Resources

<http://codepen.io/edulan/pen/pbENpq>

<http://www.lab4games.net/zz85/blog/2012/06/23/virtual-rendering-1000000-items-efficiently/>

<https://github.com/clauderic/react-sortable-hoc>

<https://github.com/clauderic/react-infinite-calendar>