



# Palantir Technologies

Industrial Placement

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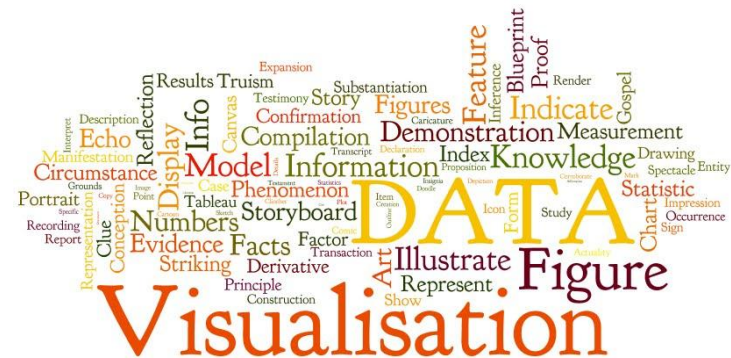
October 9th 2015

# Palantir Technologies - Quick Overview

# Data Analysis



# Data Visualisation



***Tailored to the customer needs!***

# Palantir Technologies - Expansion

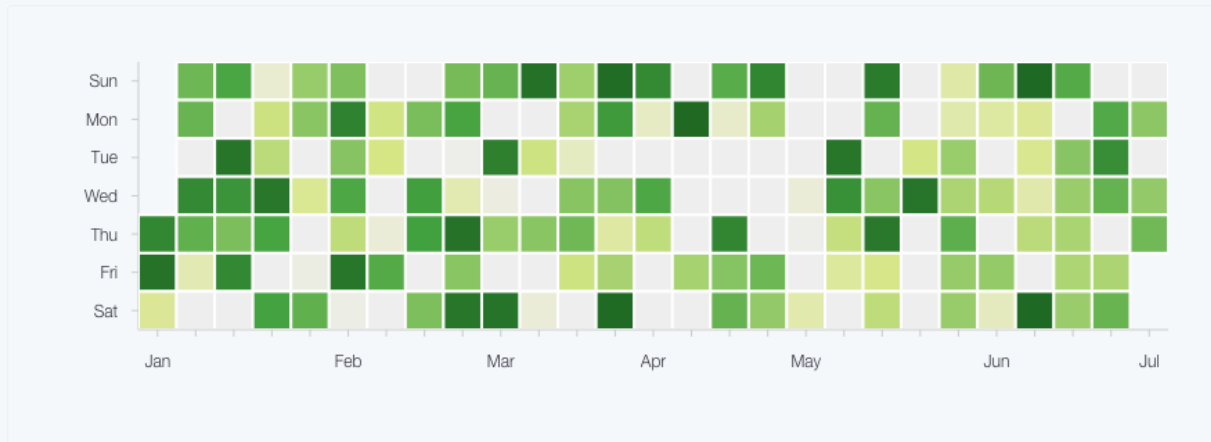
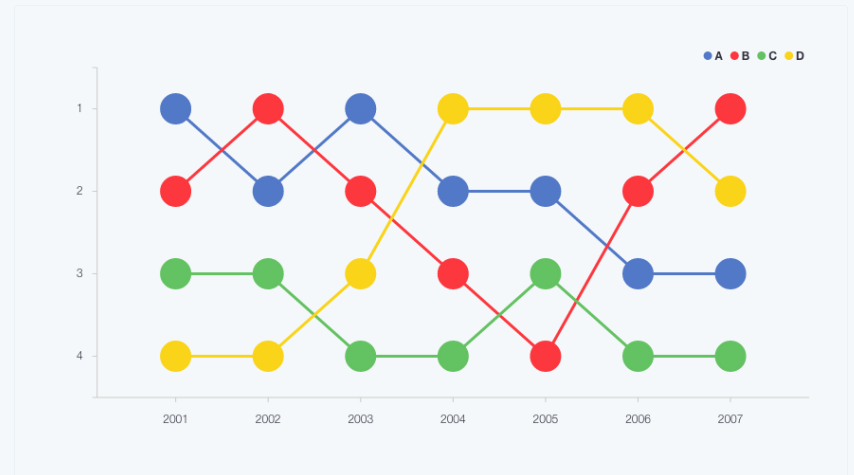











# Plottable.js

Flexible, interactive charts for the web.

# PlottableJS - A charting library




# PlottableJS - An Open Source Product

|   |   |
|---|---|
|  | <b>PanZoom performance improvement</b> ✓ <span>+1</span> <b>QE +1</b>                               |
| #2384 opened on 24 Jun by aicioara  |   |
|  | <b>[Bower] - Adding requirejs as a dev dependency</b> ✓ <span>+1</span> <b>NOQE</b> <b>tooling</b>  |
| #2382 opened on 23 Jun by bluong  |   |
|  | <b>Safari test fix. ES6 Set forEach() badly implemented in Safari</b> ✓ <span>+1</span> <b>NOQE</b> |
| #2365 opened on 20 Jun by aicioara  |   |
|  | <b>Bar plot performance</b> ✓ <span>+1</span> <b>performance</b> <b>QE +1</b>                       |
| #2344 opened on 17 Jun by aicioara  |   |
|  | <b>Map and Set performance improvements</b> ✓ <span>+1</span> <b>QE +1</b>                          |
| #2337 opened on 16 Jun by aicioara  |   |
|  | <b>Overlaying cleaning</b> ✓ <span>+1</span> <b>NOQE</b>  |
| #2333 opened on 15 Jun by aicioara  |   |
|  | <b>Clean overlaying tests</b> ✗ <span>+1</span> <b>NOQE</b> <b>Post API Refactor</b>                |
| #2331 opened on 15 Jun by aicioara  |   |

# PlottableJS - An Open Source Product

 **PanZoom performance improvement** ✓ +1 QE +1


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 **Bar plot performance** ✓ +1 performance QE +1

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 **Map and Set performance**

#2337 opened on 16 Jun by

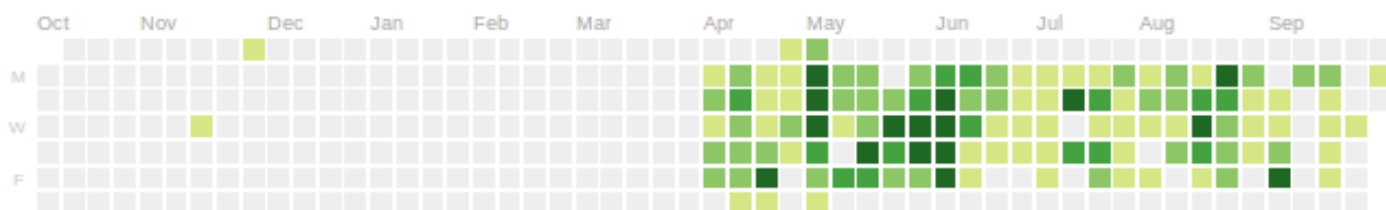
 **Overlaying cleaning**

#2333 opened on 15 Jun by

 **Clean overlaying te**

#2331 opened on 15 Jun by

## Public contributions



Summary of pull requests, issues opened, and commits. [Learn how we count contributions.](#)

Less  More

Contributions in the last year

**1,677 total**

Oct 6, 2014 – Oct 6, 2015

Longest streak

**11 days**

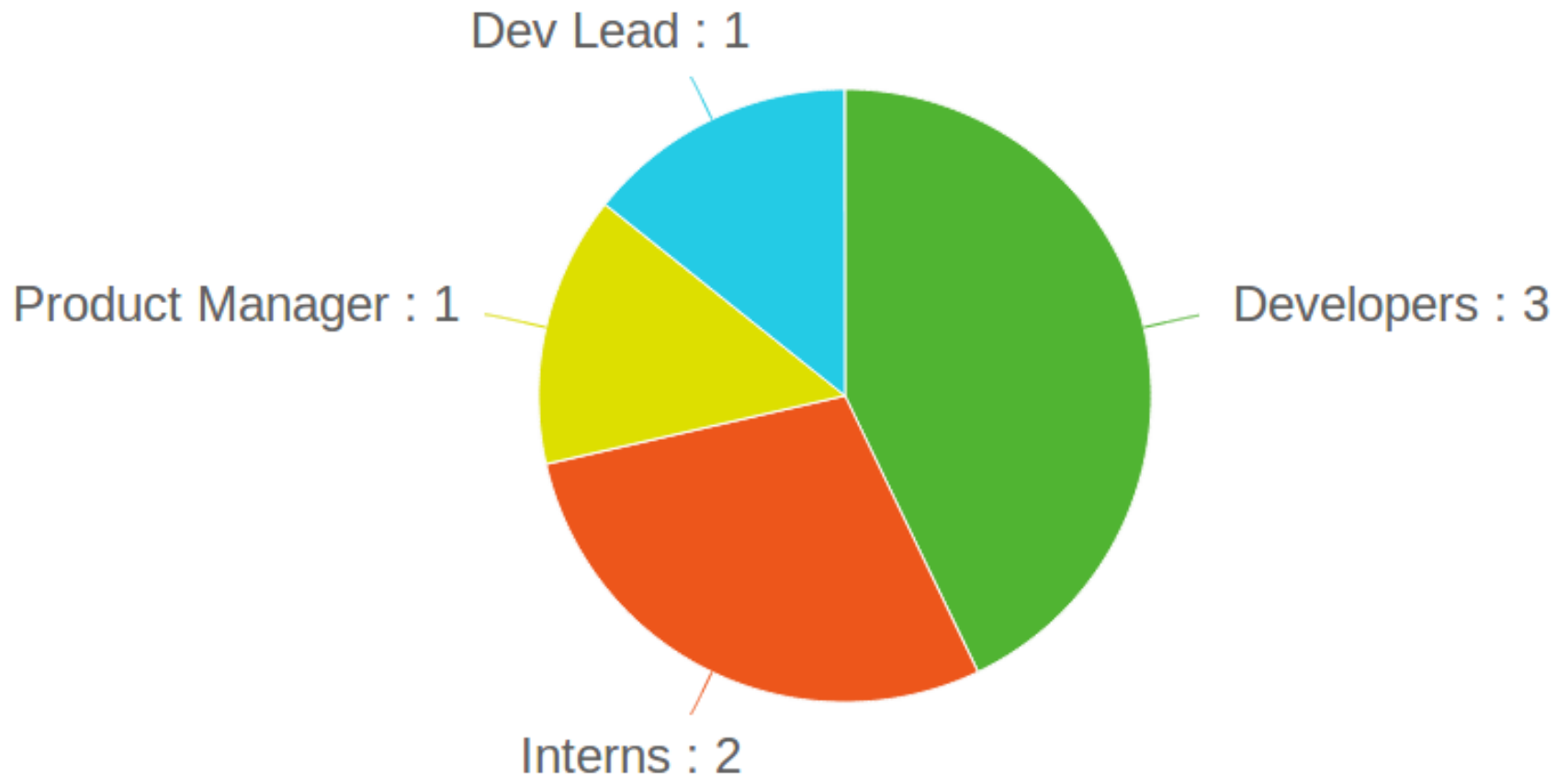
April 20 – April 30

Current streak

**0 days**

Last contributed a day ago

# PlottableJS - Team structure





PlottableJS - Weekly releases!

v1.14.0

# PlottableJS - Weekly releases!

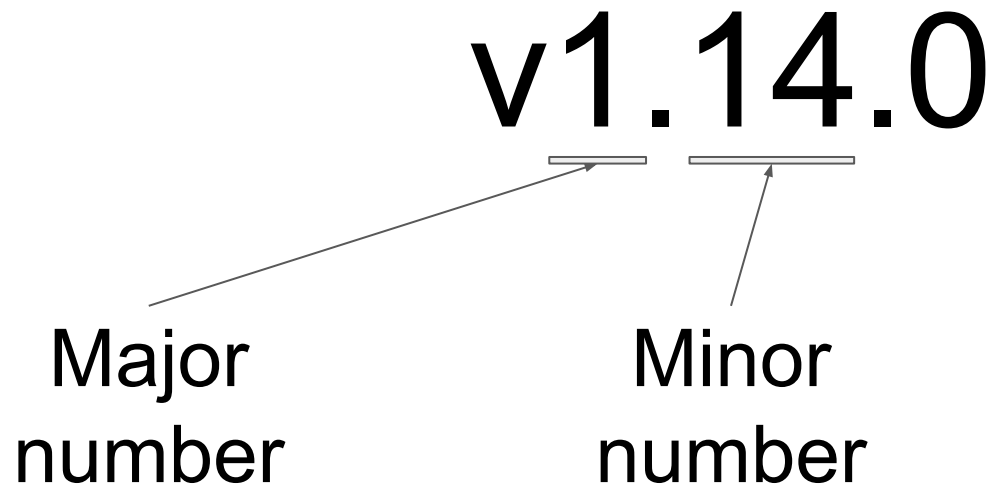
## v1.14.0

Major  
number



- ✓ API Breaks
- ✓ New Features
- ✓ Minor fixes

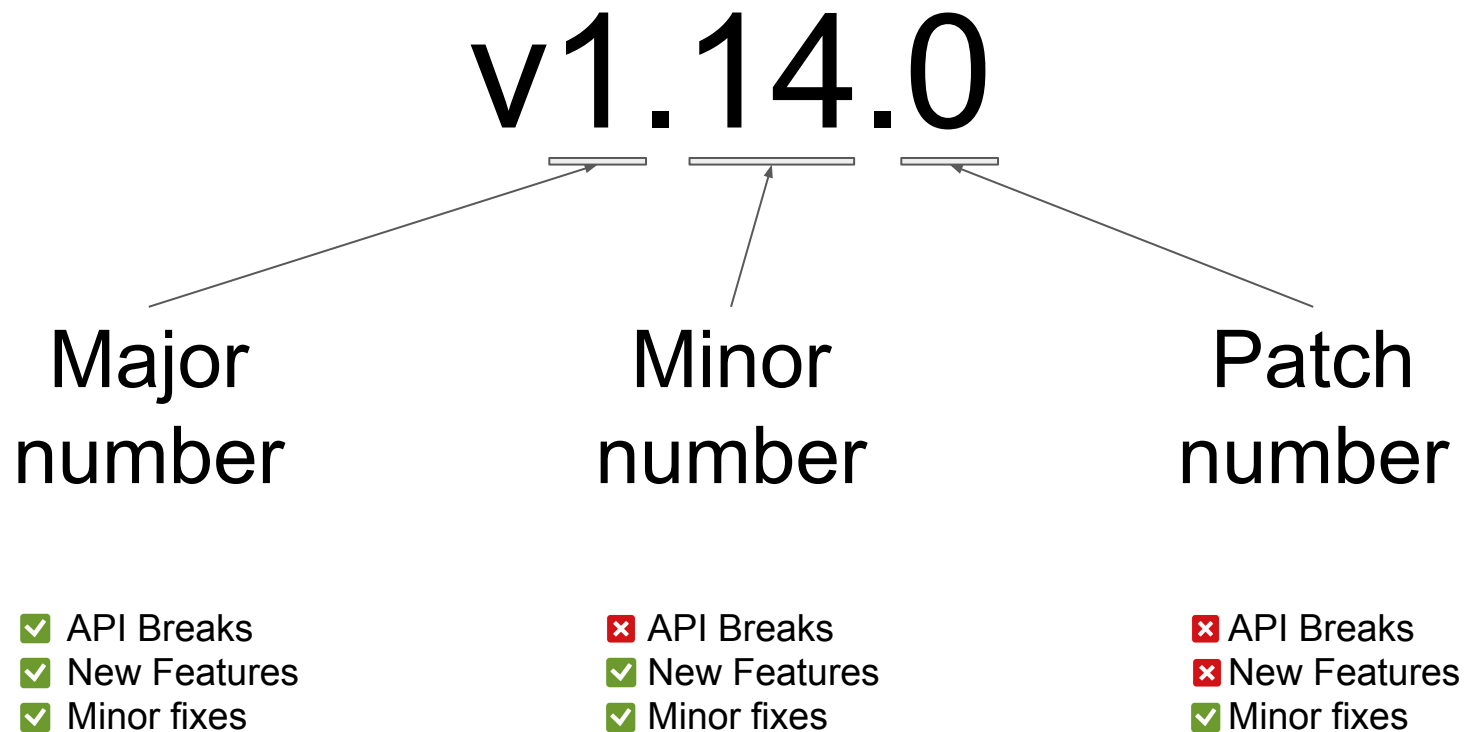
# PlottableJS - Weekly releases!



- ✓ API Breaks
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- ✗ API Breaks
- ✓ New Features
- ✓ Minor fixes

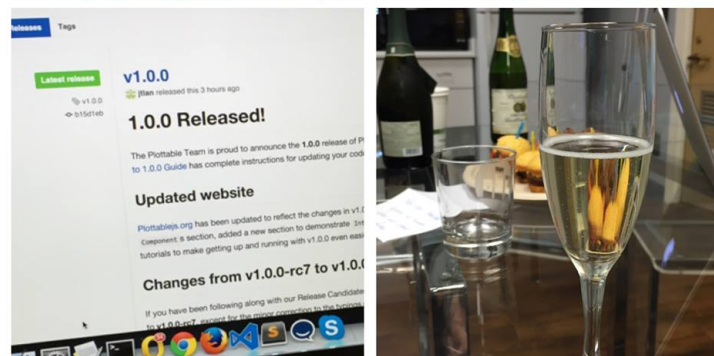
# PlottableJS - Weekly releases!



# My summer

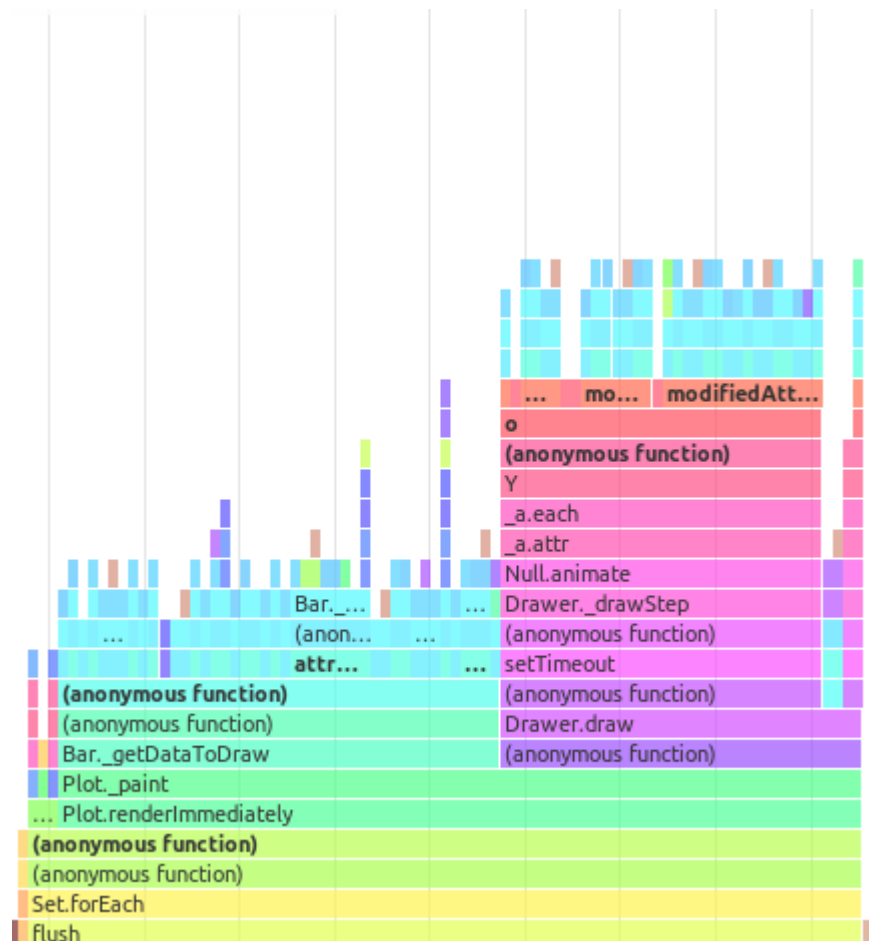
# PlottableJS - Version 1.0.0 release

- **Goal:** Release the first stable version
- **Idea:** Have an API architecture review
- **Problem:** The API was not cohesive nor sound
- **Outcomes:** After 6 weeks of refactoring, code looks pretty
- **Impact:** No API breaks for the past 14 releases



# PlottableJS - Performance improvements

- **Goal:** Optimize bottlenecks
- **Idea:** Use the profiler
- **Problem:** Code written for readability, not performance
- **Outcomes:** Performance improvements of up to 400x
- **Impact:** Users are no longer constrained on their data



# PlottableJS - Build pipeline



- **Goal:** Improve the build process
- **Idea:** Some of the configuration files for the build system (in particular Gruntfile) were 1.5 years old and probably outdated
- **Problem:** Incremental build (Typescript compilation) took 9 seconds. CI Build took up to 30 minutes
- **Outcomes:** Incremental build takes 3 seconds. CI build takes 2.5 minutes
- **Impact:** Faster dev iteration, faster Continuous integration, we could now afford to also support iPad for the CI tests



# PlottableJS - Keeping the customer happy



danmane

Aug 11 02:28

Is it possible to configure the panzoom interaction so that the boundaries are auto computed based on the autorange values for the scale? E.g. I want to pan zoom on x scale, I never want it to go to 1.5x greater than the original range, and never want it to go less than 1% of the original range. Seems like a common use case.

also, i'm seeing a visual glitch with deferred rendering enabled where pan/zoom causes the plot to briefly



aicioara

@danmane Thank you, w  
, a fiddle is always welcom  
code so I might be unawar  
regarding this in 1.6.0 pal  
deferredRendering was us  
let me know if it still manifi  
"glitch" and how long is th



mato75

Sep 16 16:08

is this possible?



aicioara

Sep 16 16:11

I am not sure if there is a first class way of doing that, but if you know how many entities you have and how many entities per column you want, you can deduce how many entities per row to specify (by dividing the 2 values) and you can hack the ordering by using the comparator()



mato75

Sep 16 16:13

can you give me a quick example if possible

I understand much more from examples, sorry



aicioara

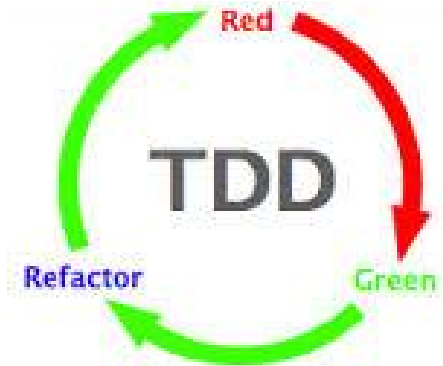
Sep 16 16:15

let me see if I can hack something quick for you

# The takeaways

The obvious skillset addition

TypeScript



Travis CI



GRUNT



When something breaks...



When something breaks...



Instead of blaming...

When something breaks...



Instead of blaming...

... identify what went wrong

You can push for your interest

You can push for your interest

It is your right...



You can push for your interest

It is your right...

... and your obligation

# You can push for your interest

It is your right...

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**Product Manager** - New Features are added regularly

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... and your obligation

**Product Manager** - New Features are added regularly

**Quality Engineer** - Nothing breaks, nothing is shipped half-done

# You can push for your interest

It is your right...

... and your obligation

**Product Manager** - New Features are added regularly

**Quality Engineer** - Nothing breaks, nothing is shipped half-done

**Software Developer** - Project needs to be consistently refactored

# Questions?

Hotfixes: v1.5.1, v1.5.2, v1.6.1...

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That's mine :(

# Hotfixes: v1.5.1, v1.5.2, v1.6.1...



That's mine :(

```
public detach() {  
    this.parent(null);
```

```
    if (this._isAnchored) {  
        this._element.remove();
```

```
+    this._isAnchored = false;  
+    this._onDetachCallbacks.callCallbacks(this);  
    }
```

```
-    this._isAnchored = false;
```

```
-    this._onDetachCallbacks.callCallbacks(this);  
    return this;  
    }
```



# Hotfixes: v1.5.1, v1.5.2, v1.6.1...

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```

Don't be a superhero, keep pull requests in scope