

# ActiveData

<http://activedata.allizom.org>

Kyle Lahnakoski  
Engineering Productivity



Another lightning talk on...

# ActiveData

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# What is ActiveData?

- A public web service...

```
$ curl http://activedata.allizom.org/query  
-X POST  
-d '{"from": "unittest"}'
```



# What is ActiveData?

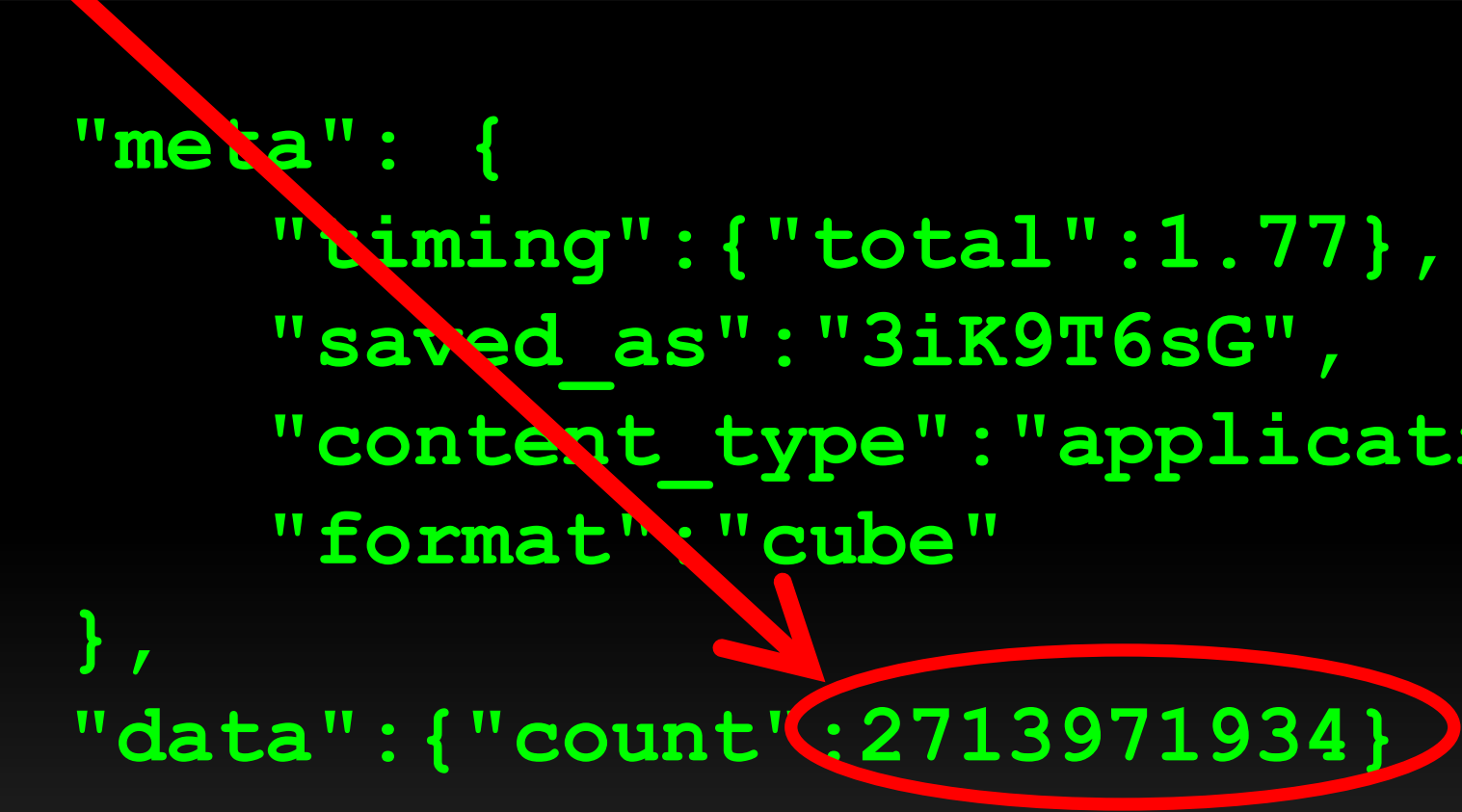
- A public web service...
- providing a query interface...

```
{  
  "select": {  
    "aggregate": "count"  
  },  
  "from": "unittest"  
}
```



# What is ActiveData?

- A public web service...
- providing a query interface...
- to many billions of records...



```
{
  "meta": {
    "timing": {"total": 1.77},
    "saved_as": "3iK9T6sG",
    "content_type": "application/json",
    "format": "cube"
  },
  "data": {"count": 2713971934}
}
```



# What is ActiveData?

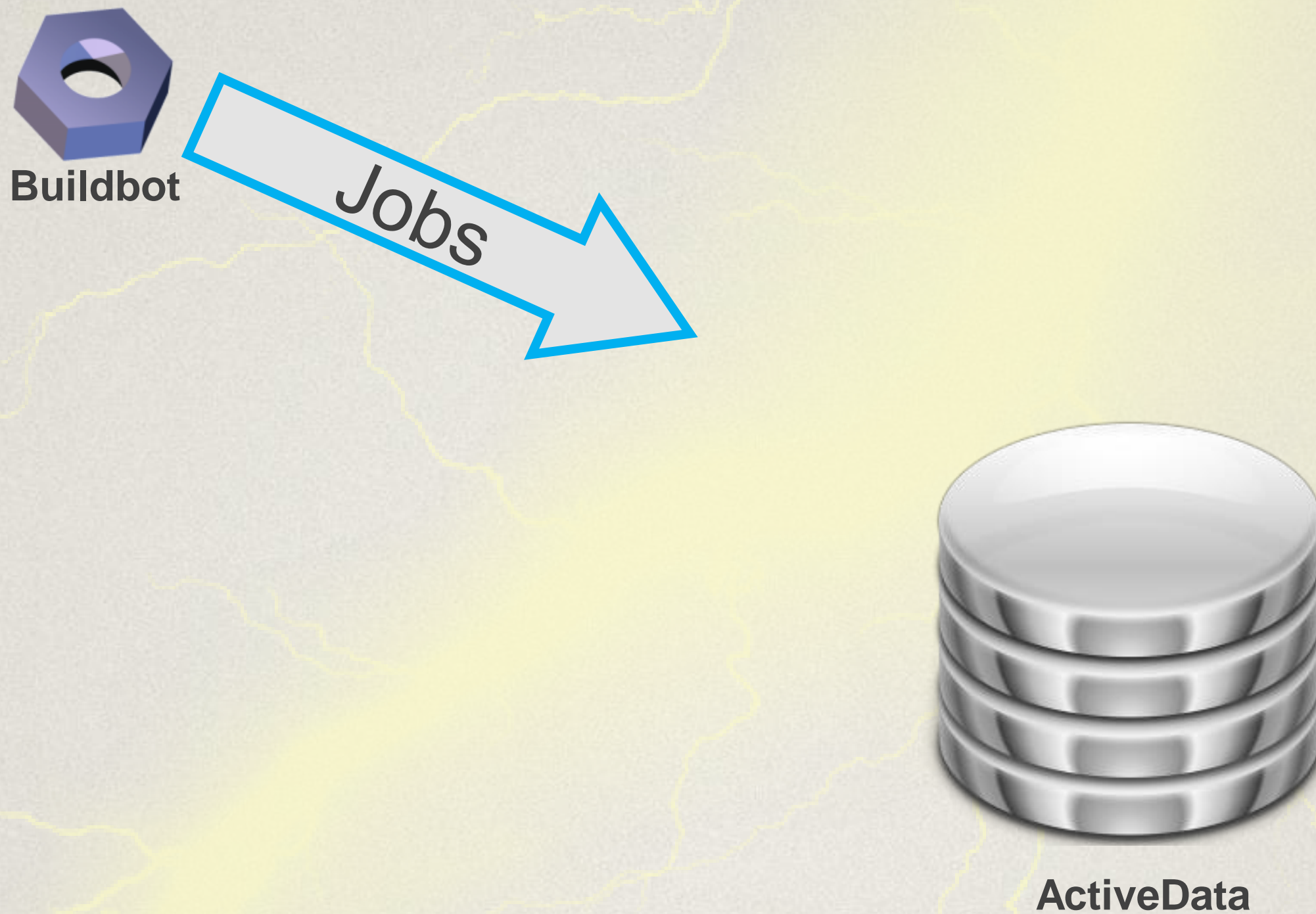
- A public web service...
- providing a query interface...
- to over a billion test results...

• Quickly!

```
{
  "meta": {
    "timing": {"total": 1.77},
    "saved_as": "3iK9T6sG",
    "content_type": "application/json",
    "format": "cube"
  },
  "data": {"count": 2713971934}
}
```



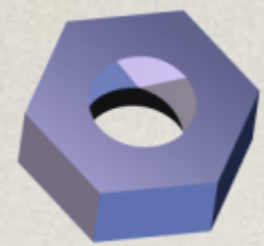
# What Data?



Including Builder and MozHarness timings



# What Data?



Buildbot

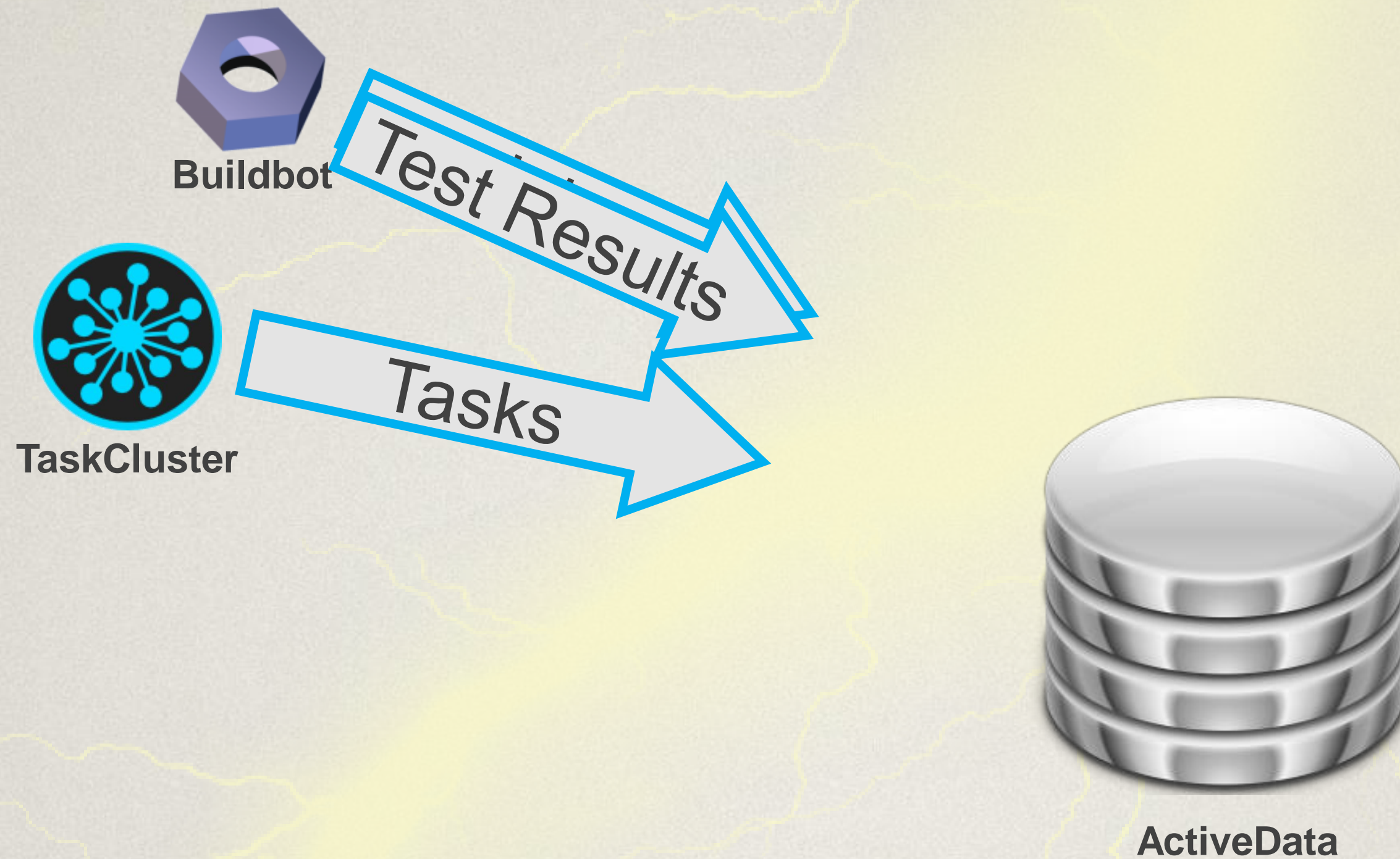


ActiveData

All tests emitting structured logs



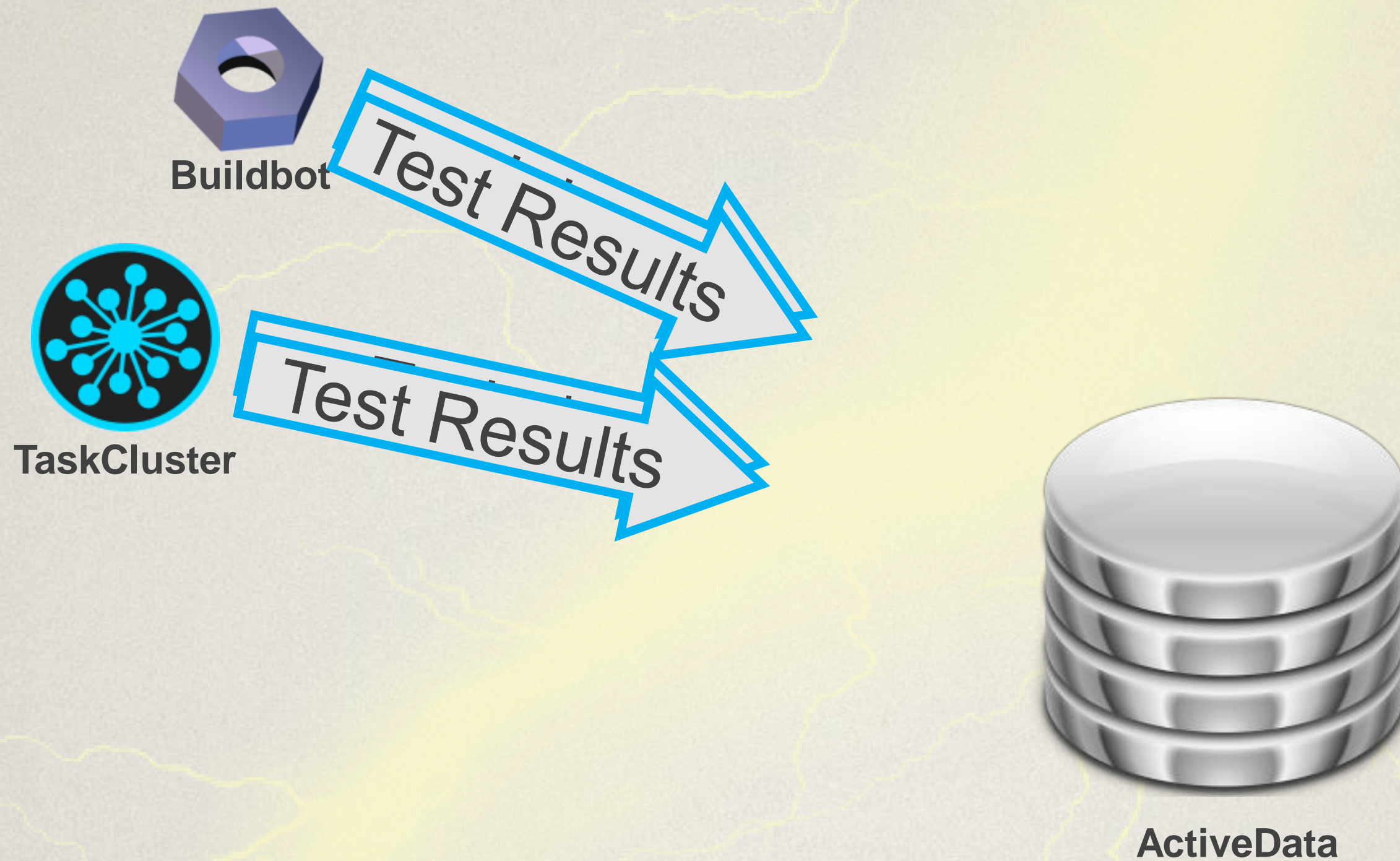
# What Data?



Including `taskcluster` steps and MozHarness timings



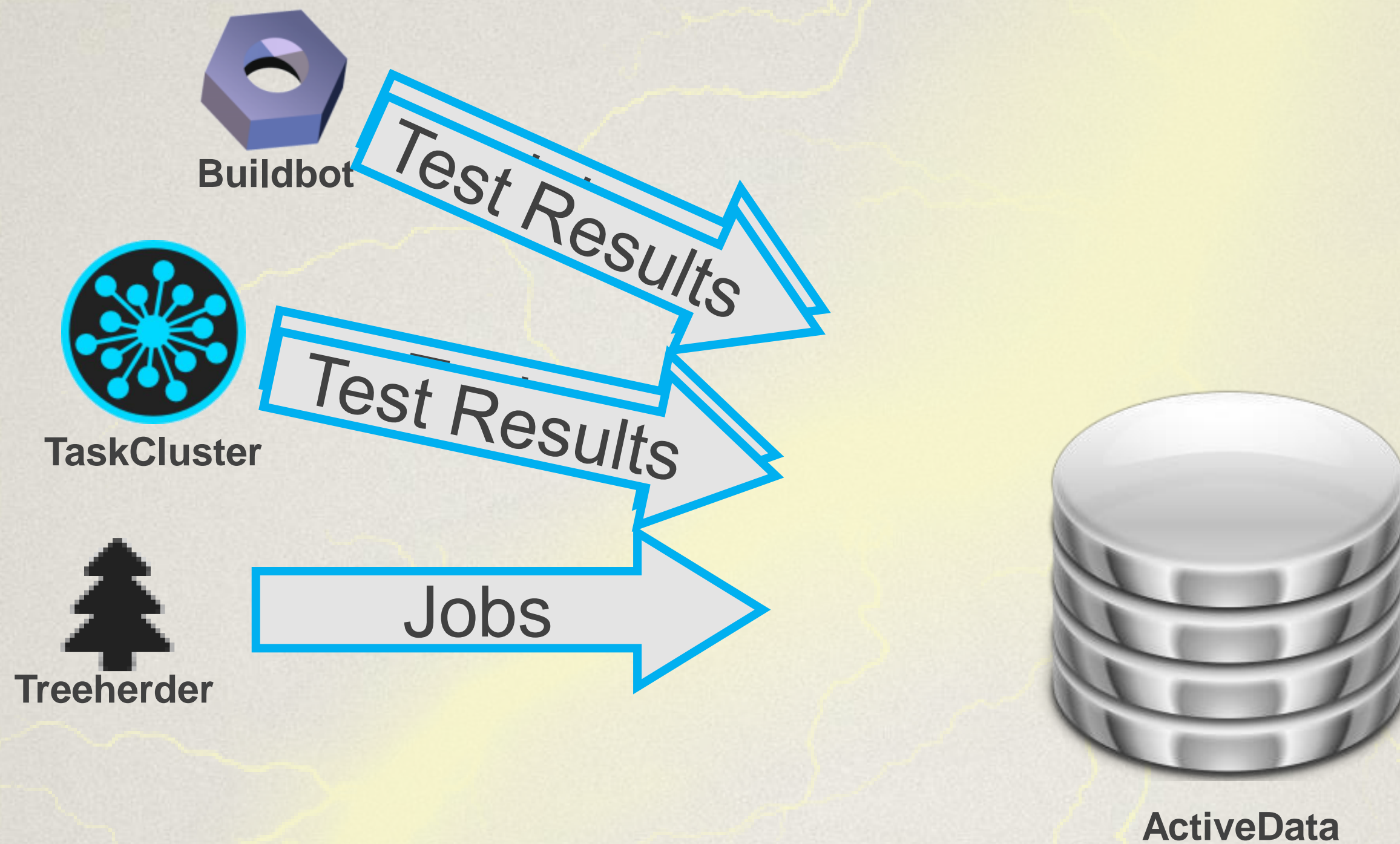
# What Data?



All tests emitting structured logs



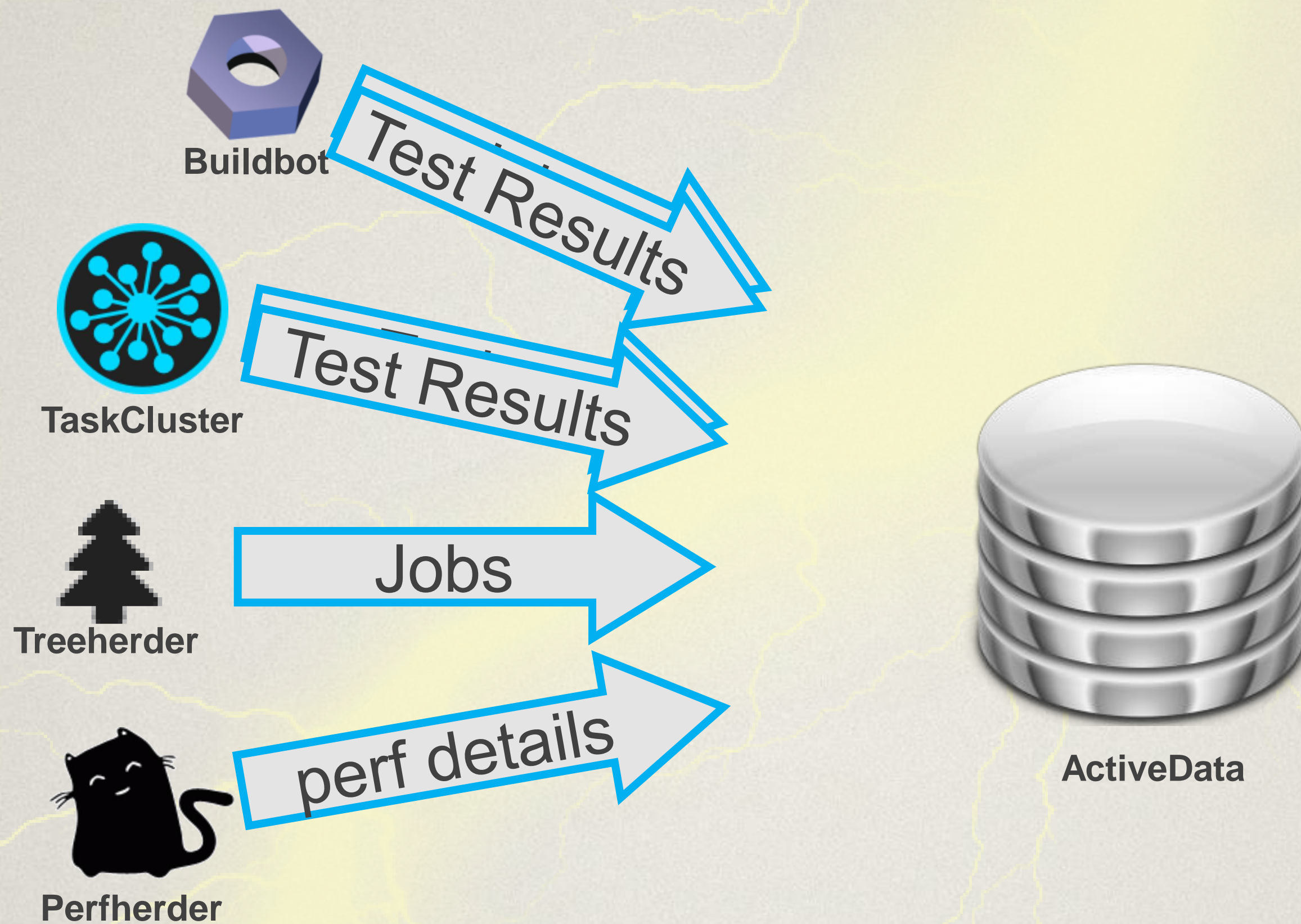
# What Data?



COMING SOON!

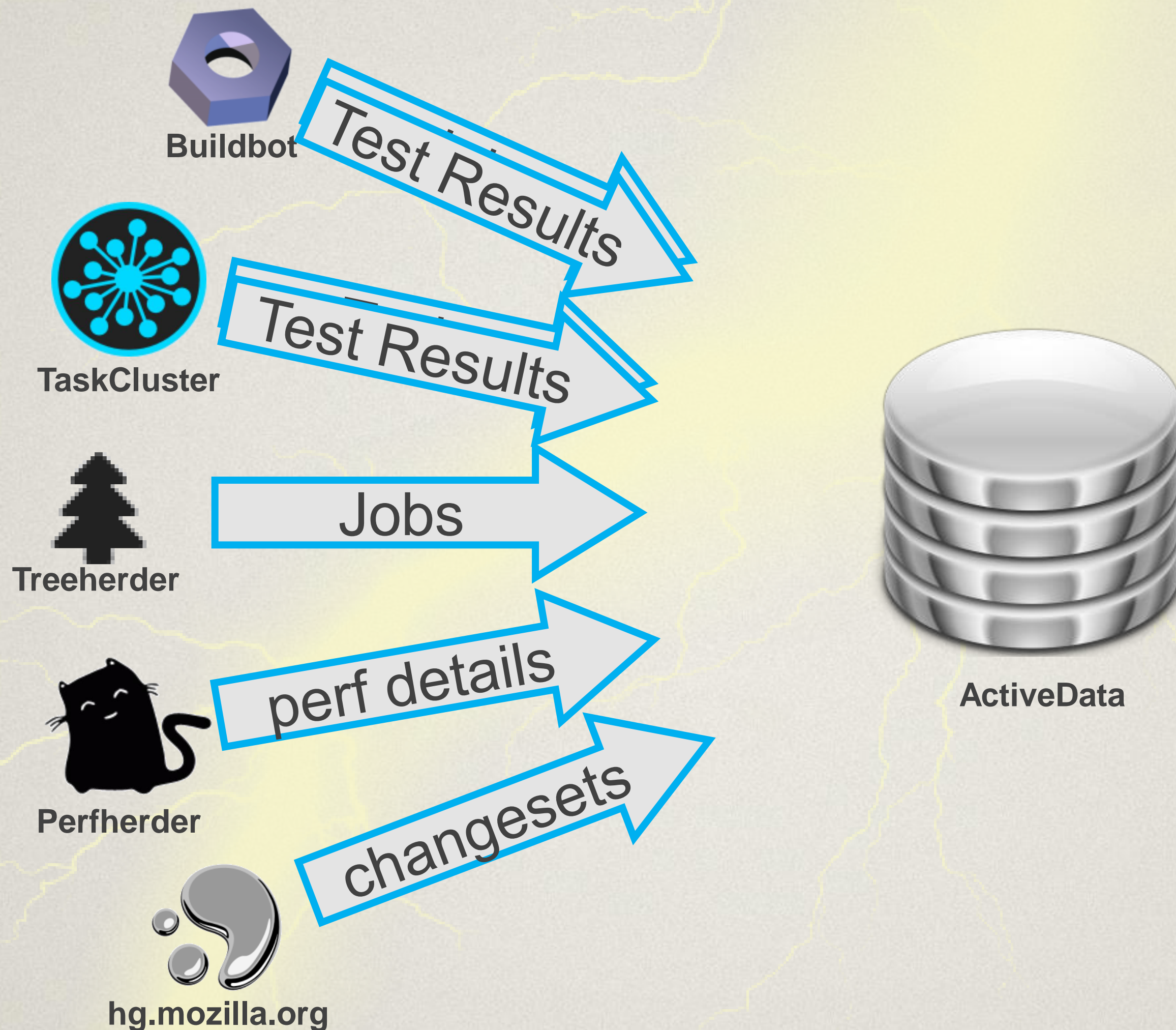


# What Data?



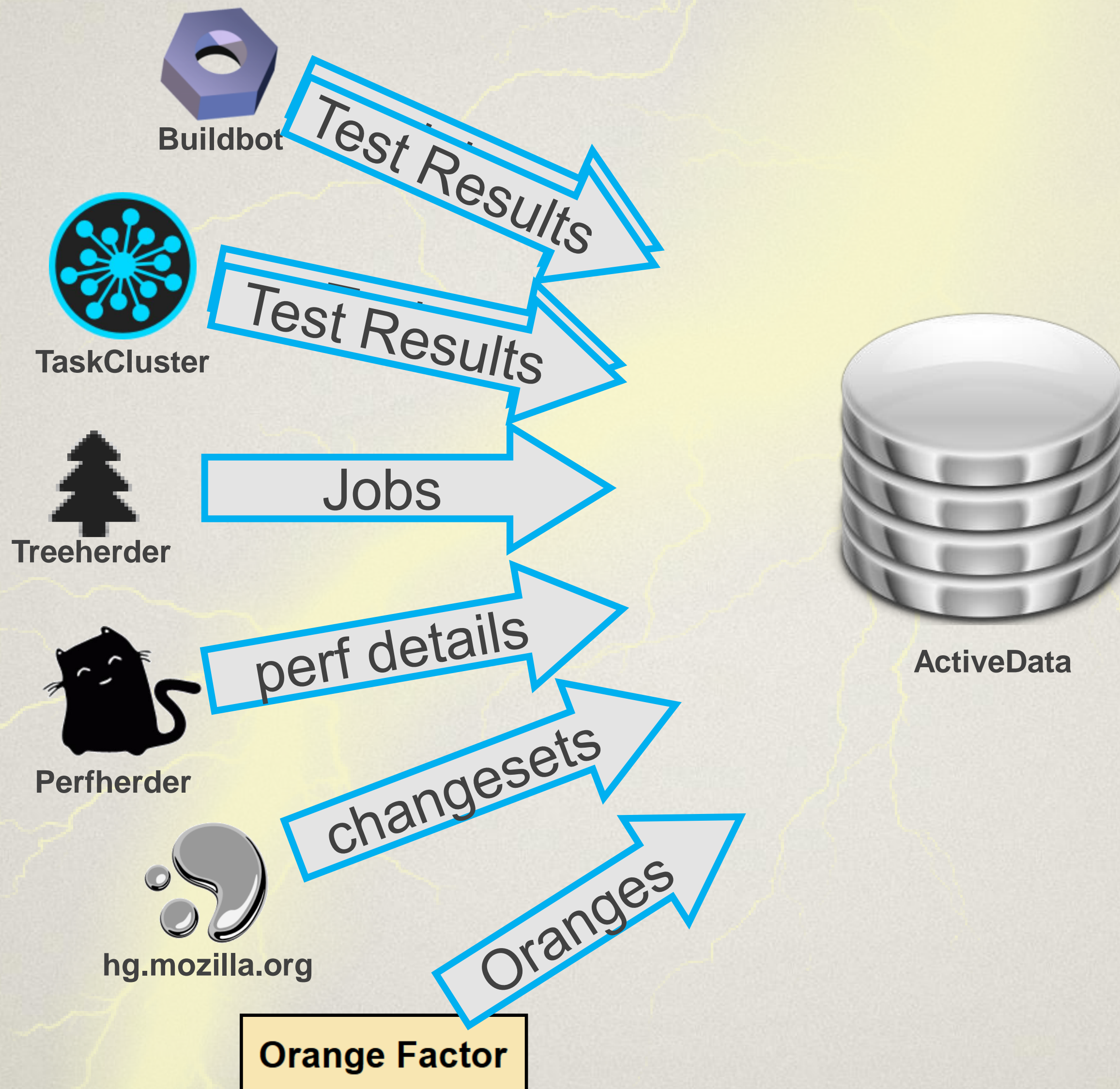


# What Data?



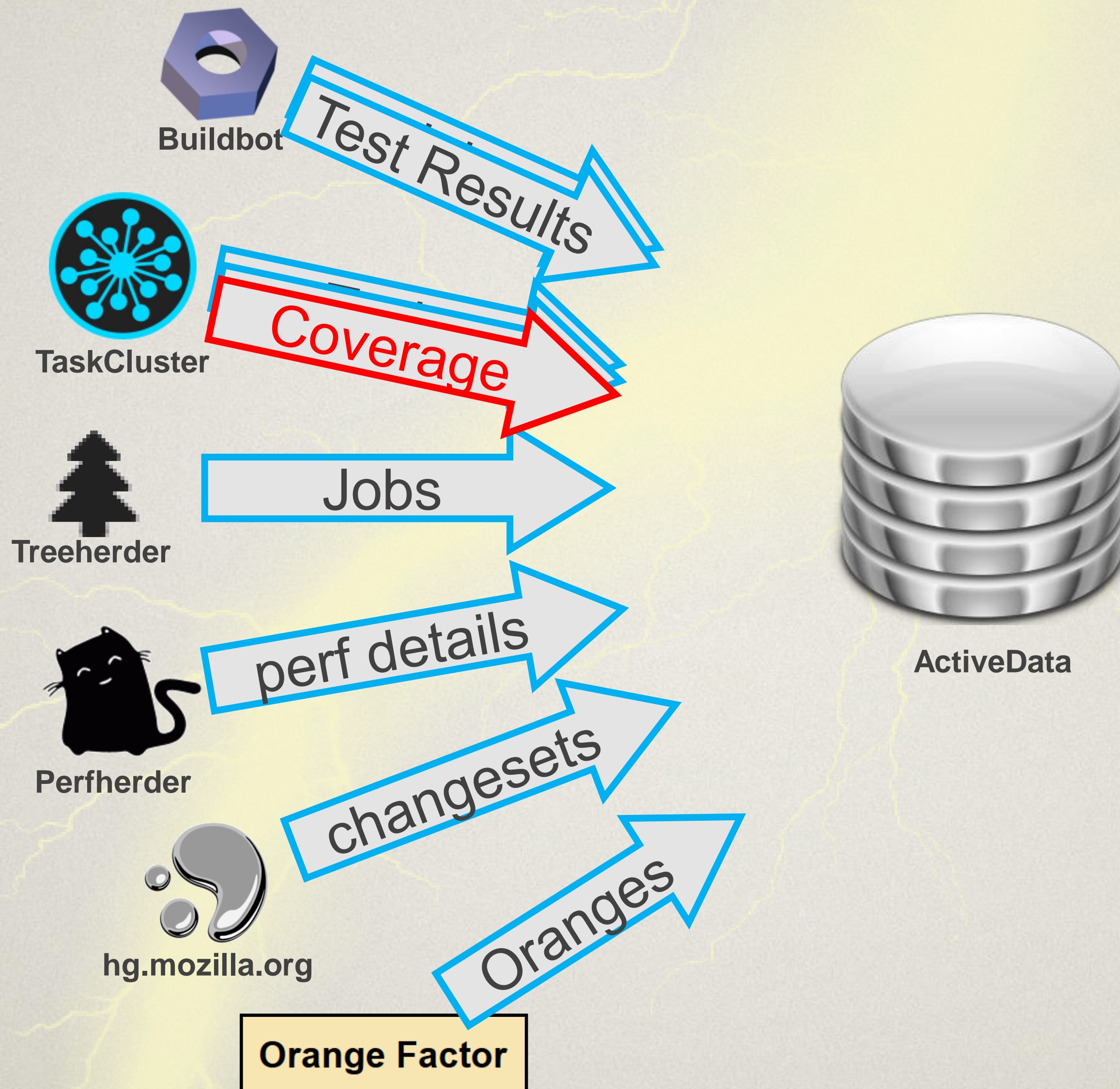


# What Data?





# What Data?





# What Data?





# Why ActiveData?

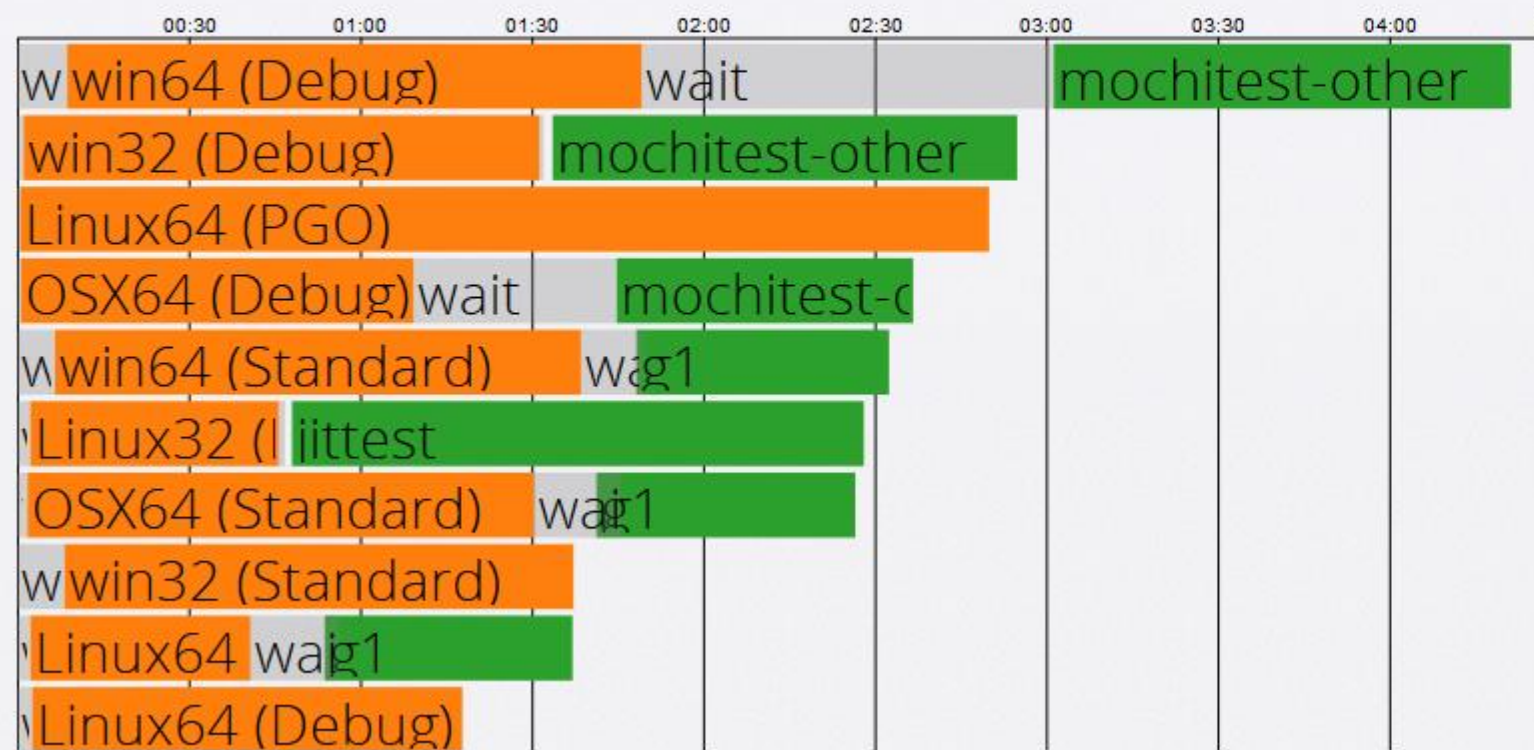
- Reduces query load on OLTP servers
- Optimized for search and aggregation
- Pool machine resources for these tasks
- ActiveData is more discoverable than static data
- Use 3<sup>rd</sup> party Dashboards, BI tools (like Redash), Python notebooks



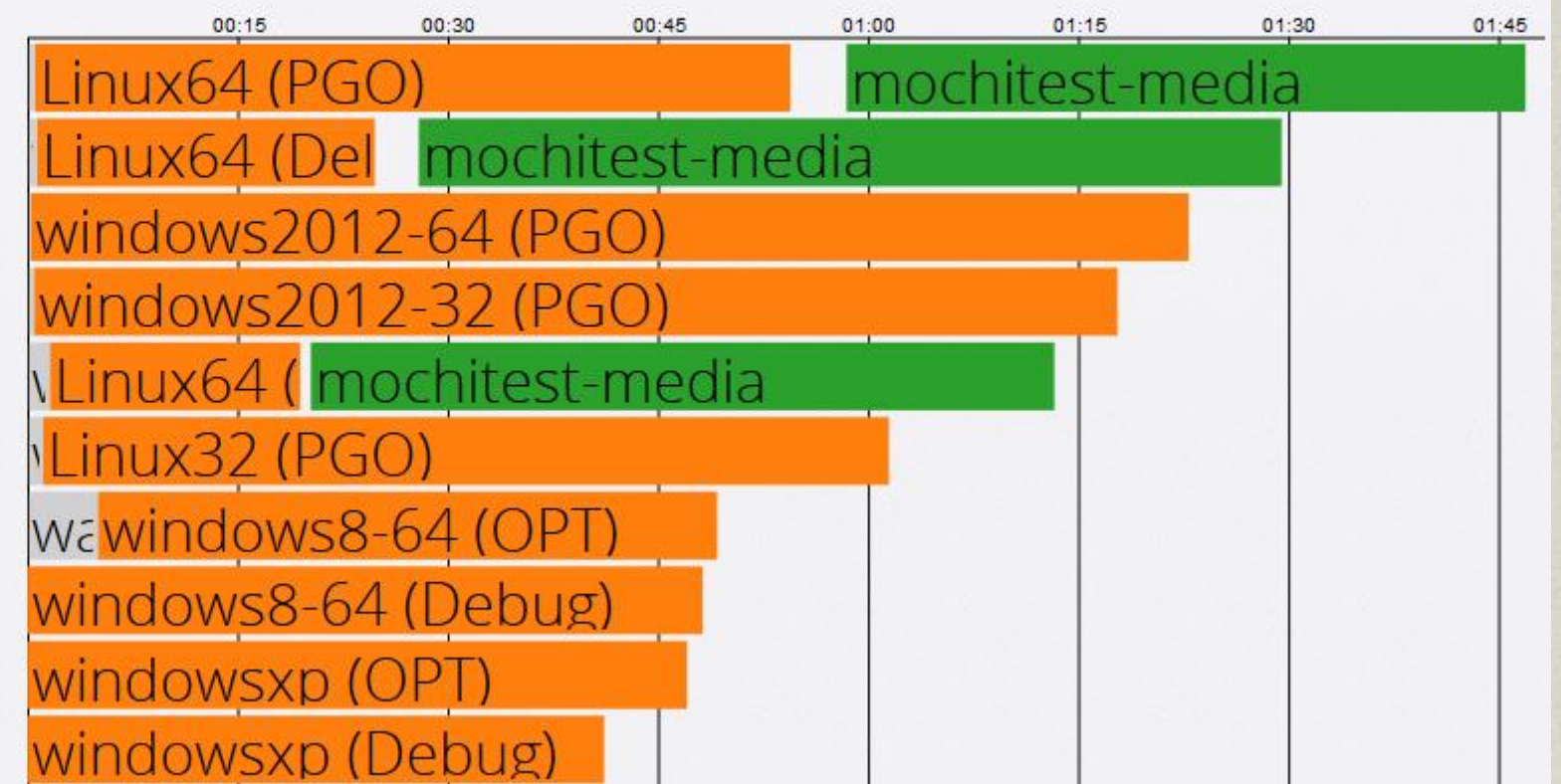
# Dashboards

## End-to-End Times (Median) Done

Past 7 days of Buildbot jobs



Past 7 days of TaskCluster tasks

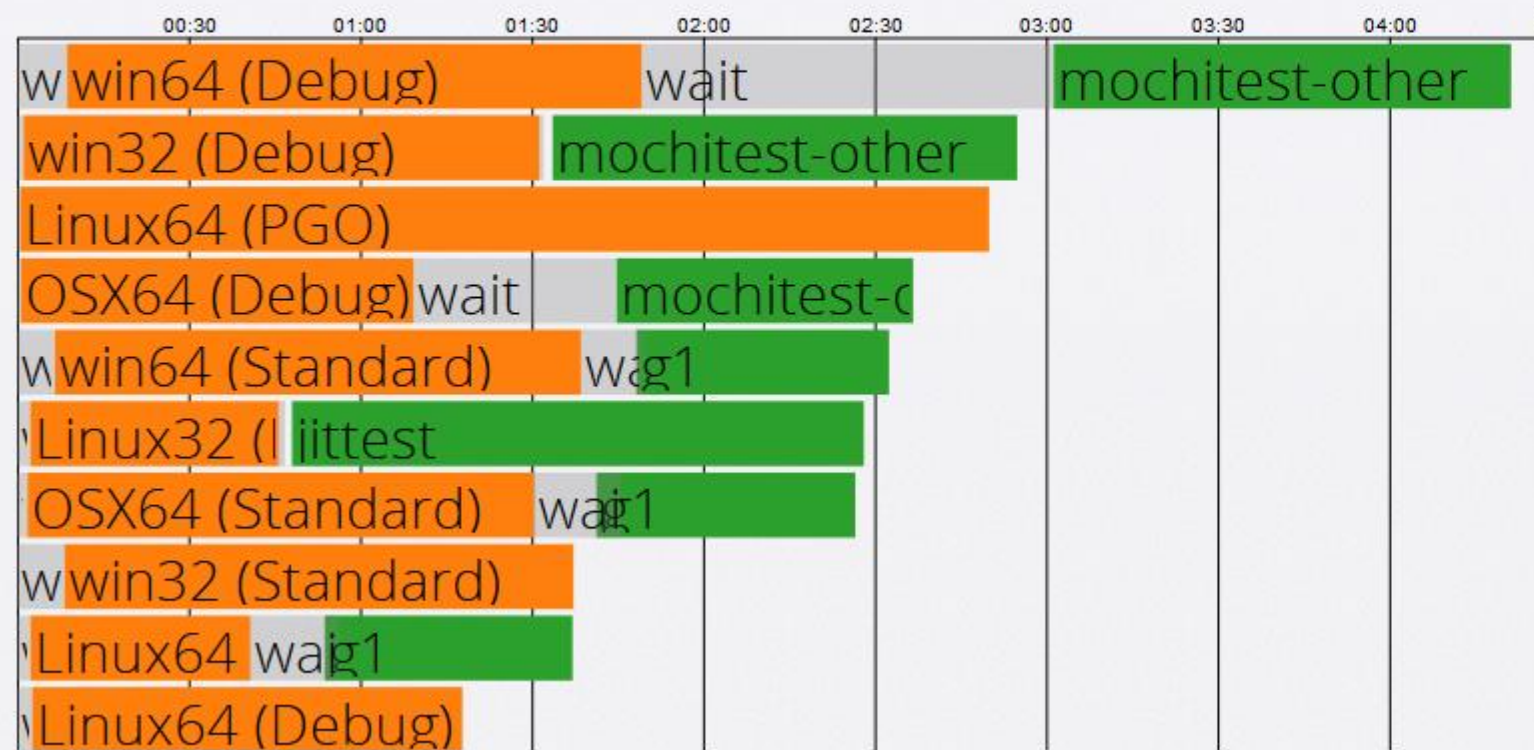




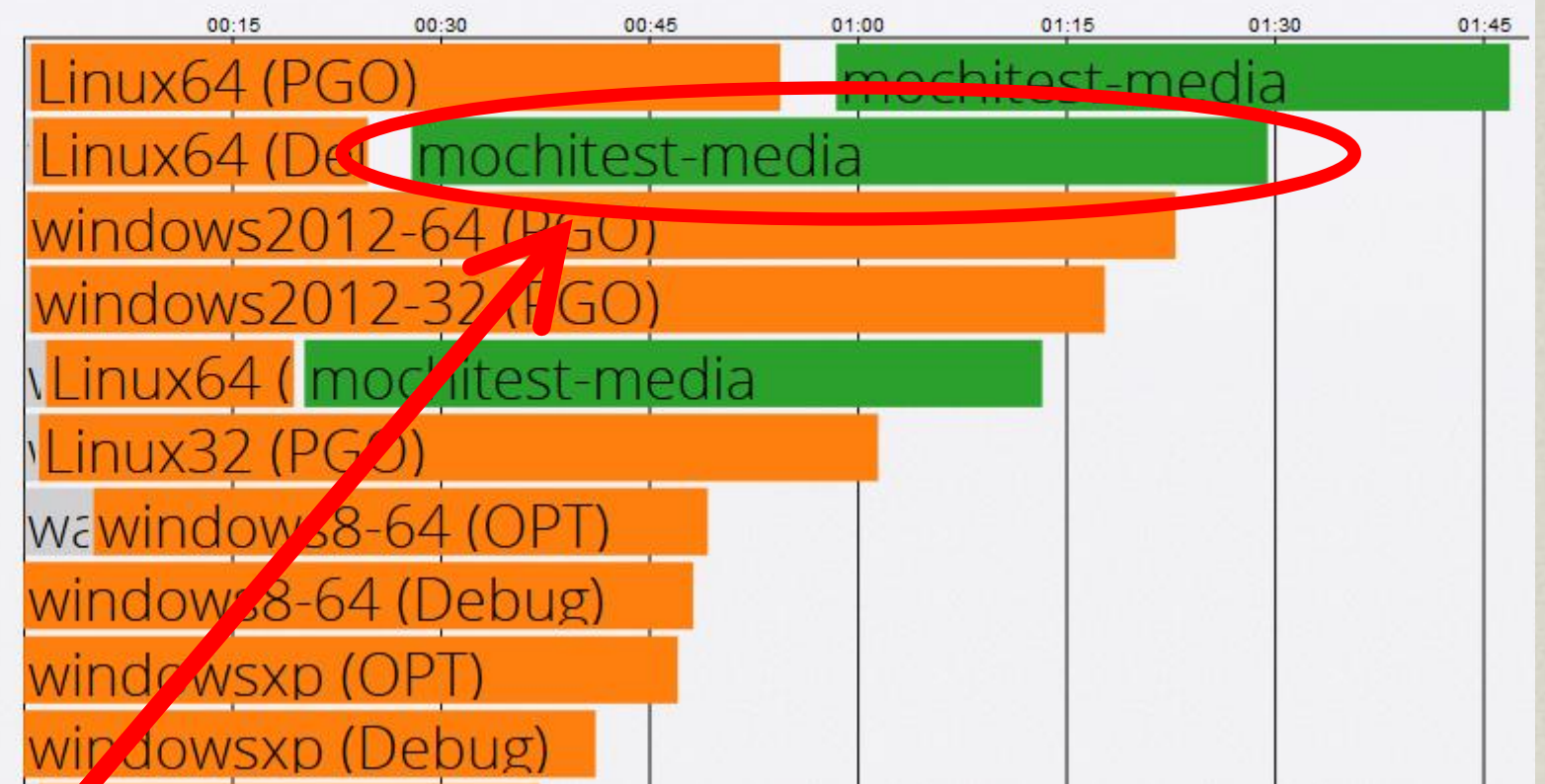
# Dashboards

## End-to-End Times (Median) Done

Past 7 days of Buildbot jobs



Past 7 days of TaskCluster tasks



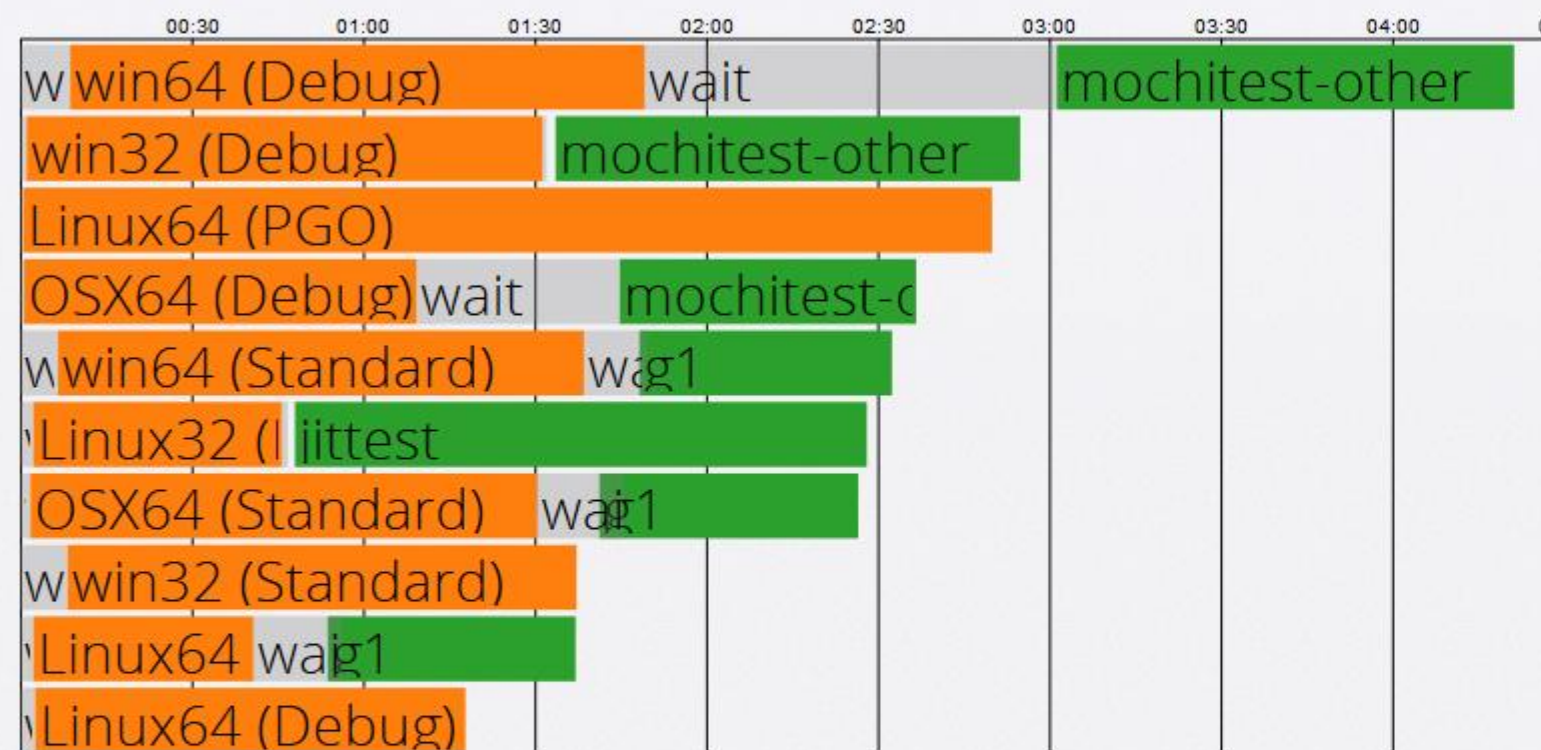
Long running test



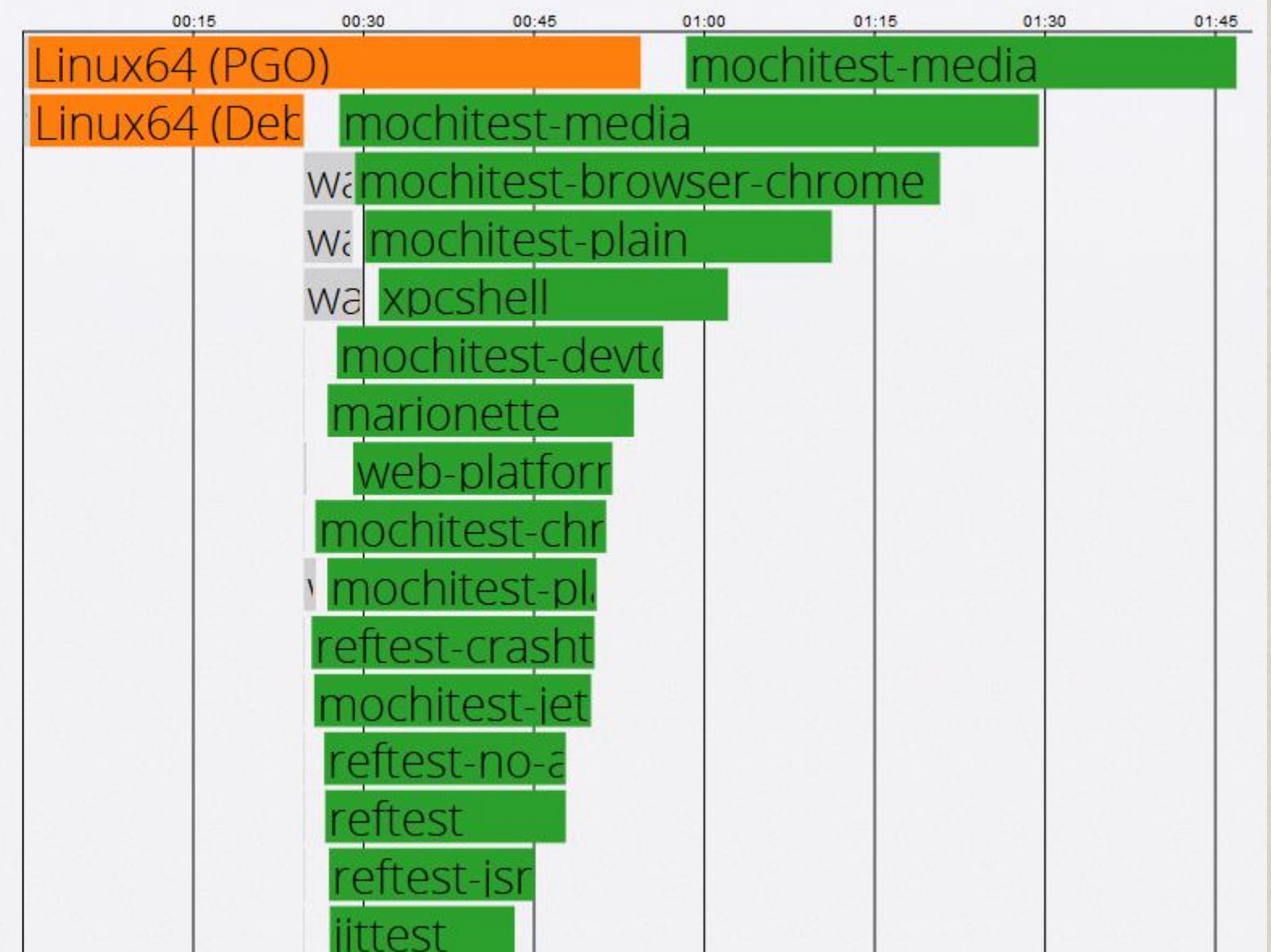
# Dashboards

## End-to-End Times (Median) Done

Past 7 days of Buildbot jobs



Past 7 days of TaskCluster tasks

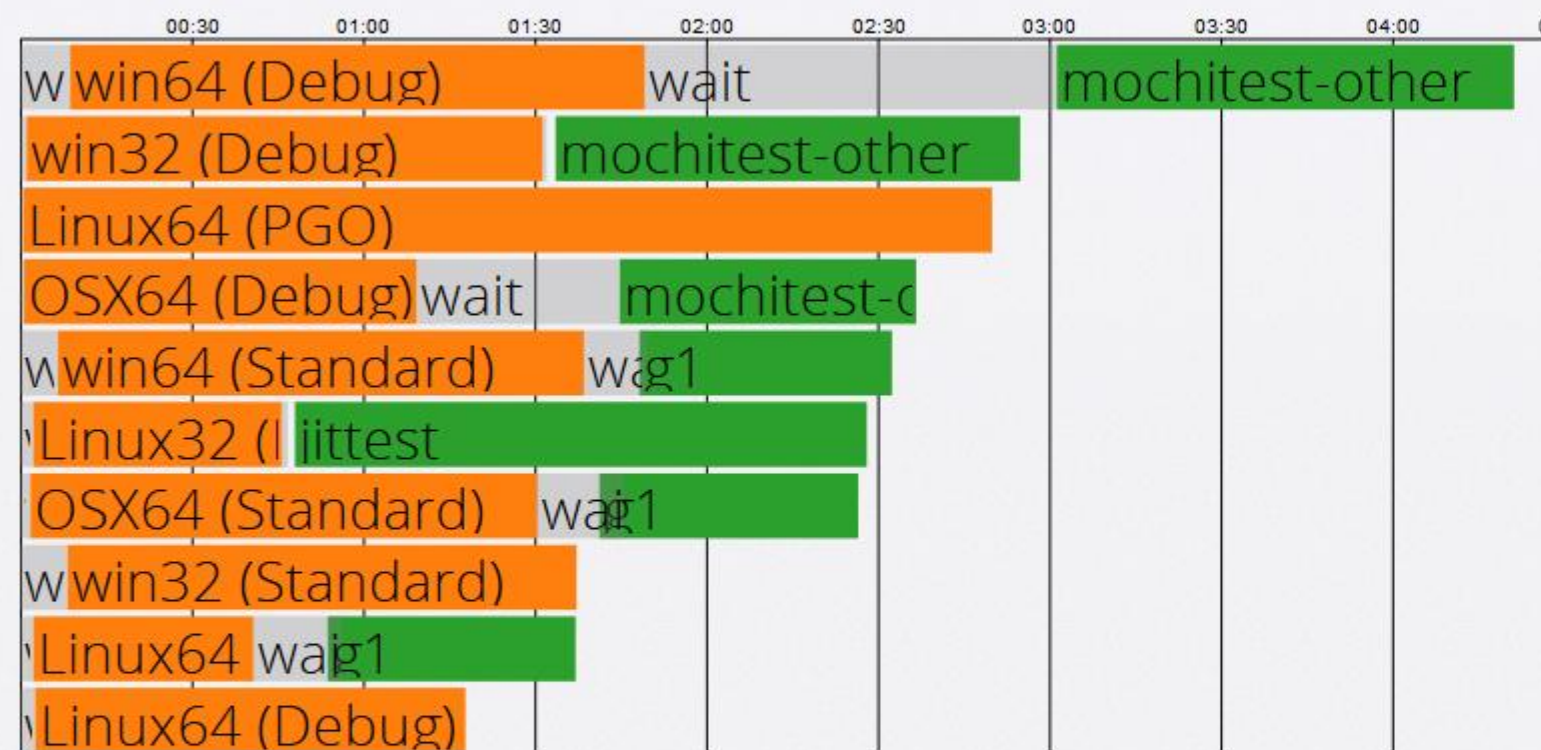




# Dashboards

## End-to-End Times (Median) Done

Past 7 days of Buildbot jobs



Past 7 days of TaskCluster tasks



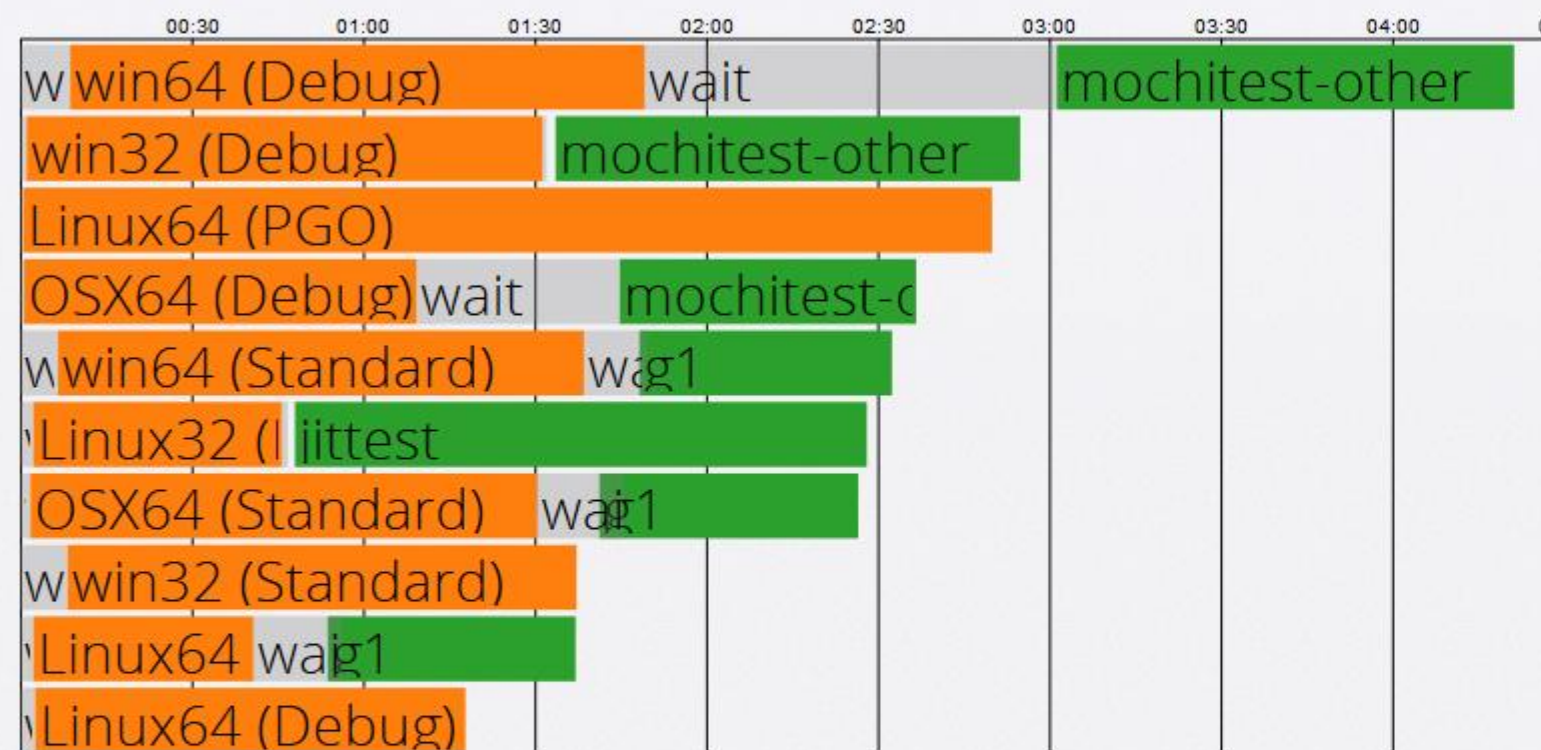
All the others



# Dashboards

## End-to-End Times (Median) Done

Past 7 days of Buildbot jobs



Past 7 days of TaskCluster tasks

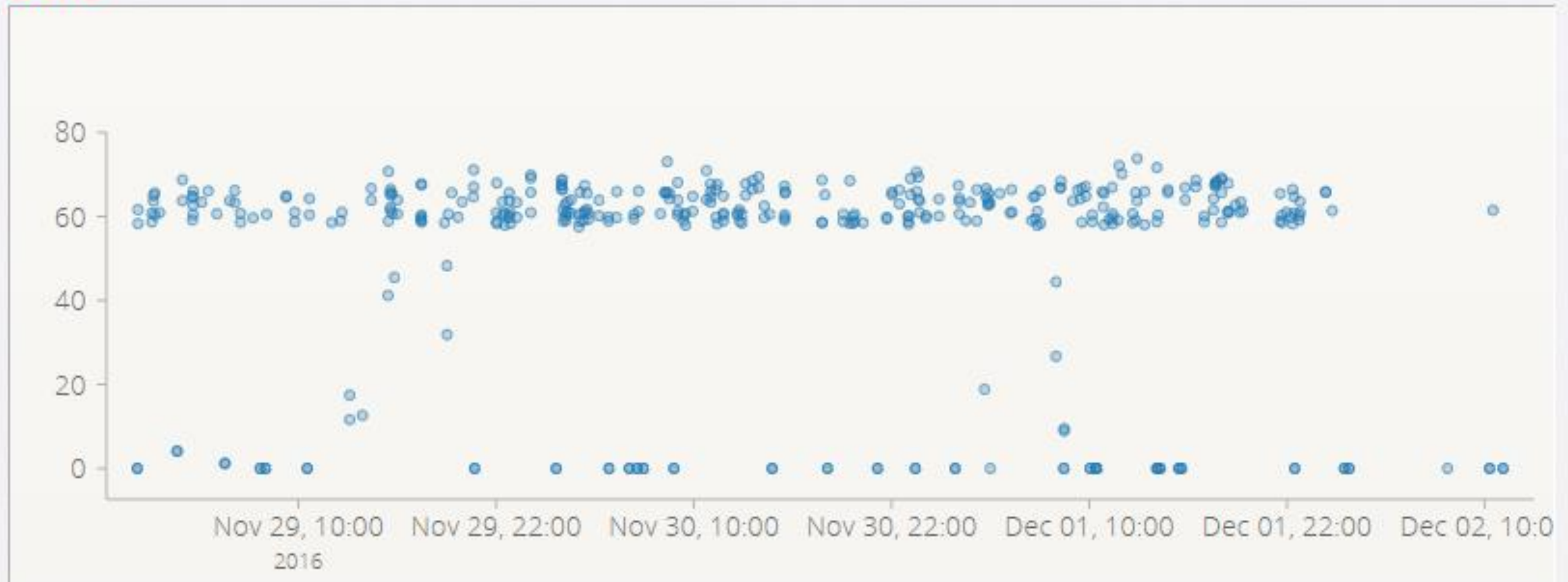


Click to get details

<https://people-mozilla.org/~klahnakoski/MoBuildbotTimings/End-to-End.html>



Done



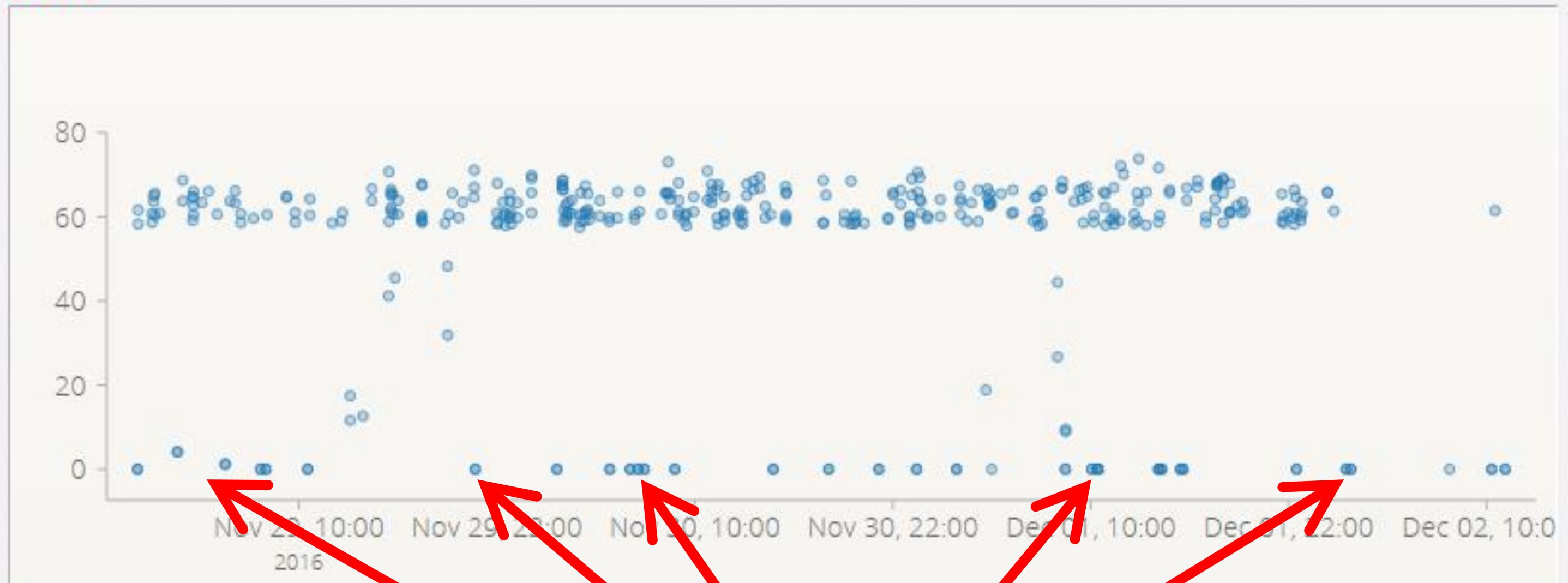


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



Lots of “deadline-exceeded”

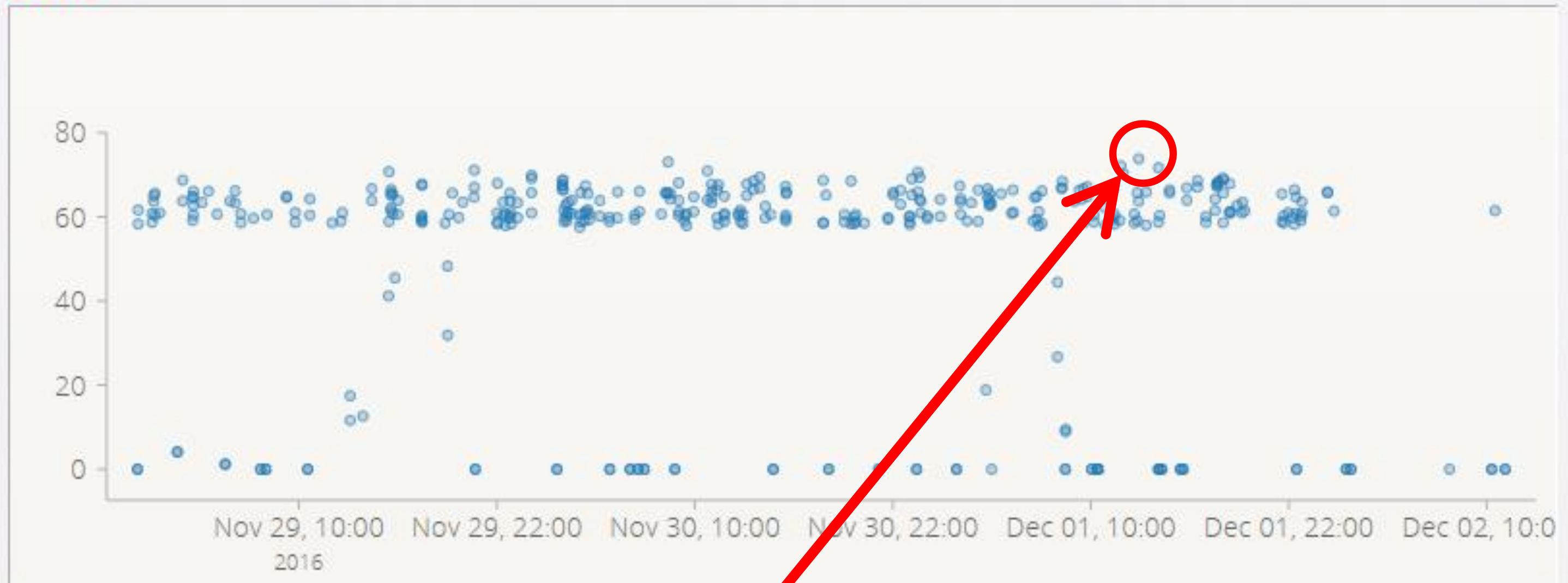


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



Click to get details

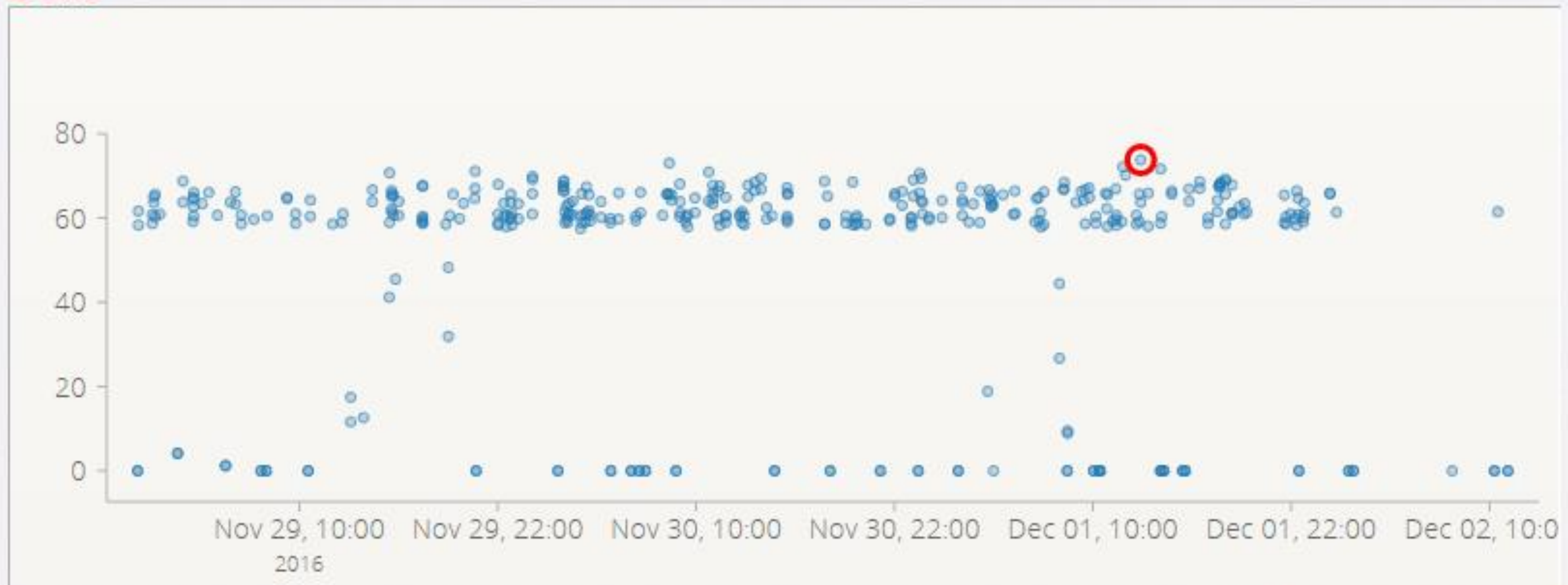


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



COMPLETED : try rev e0c5a2039782

Start Time : December 01, 12:57

[Go to Treeherder](#)

### Timeline (73.8 minutes)



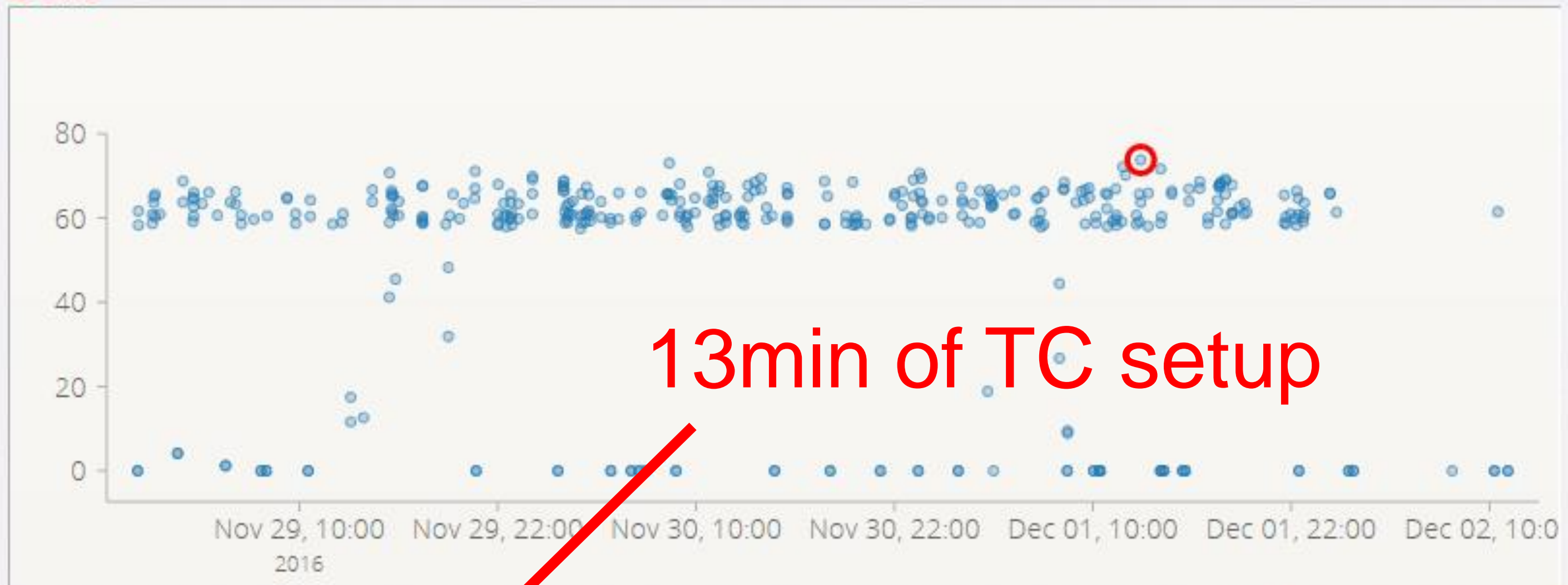


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



13min of TC setup

COMPLETED : try rev e0c5a2039782

Start Time : December 01, 12:57

[Go to Treeherder](#)

Timeline (73.8 minutes)

taskcluster (pre setup)

create-run-tests

00:14:04 00:16:43

01:13:46

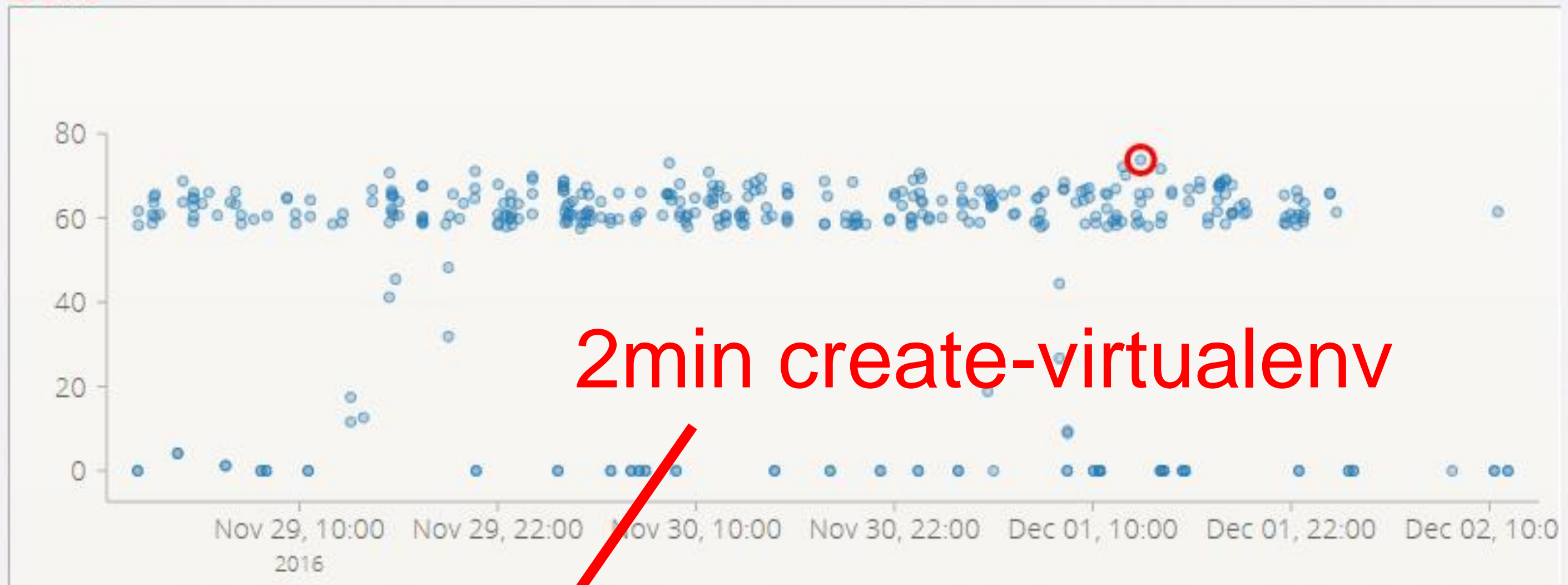


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



2min create-virtualenv

COMPLETED : try rev e8c5a2039782

Start Time : December 01, 12:57

[Go to Treeherder](#)

Timeline (73.8 minutes)



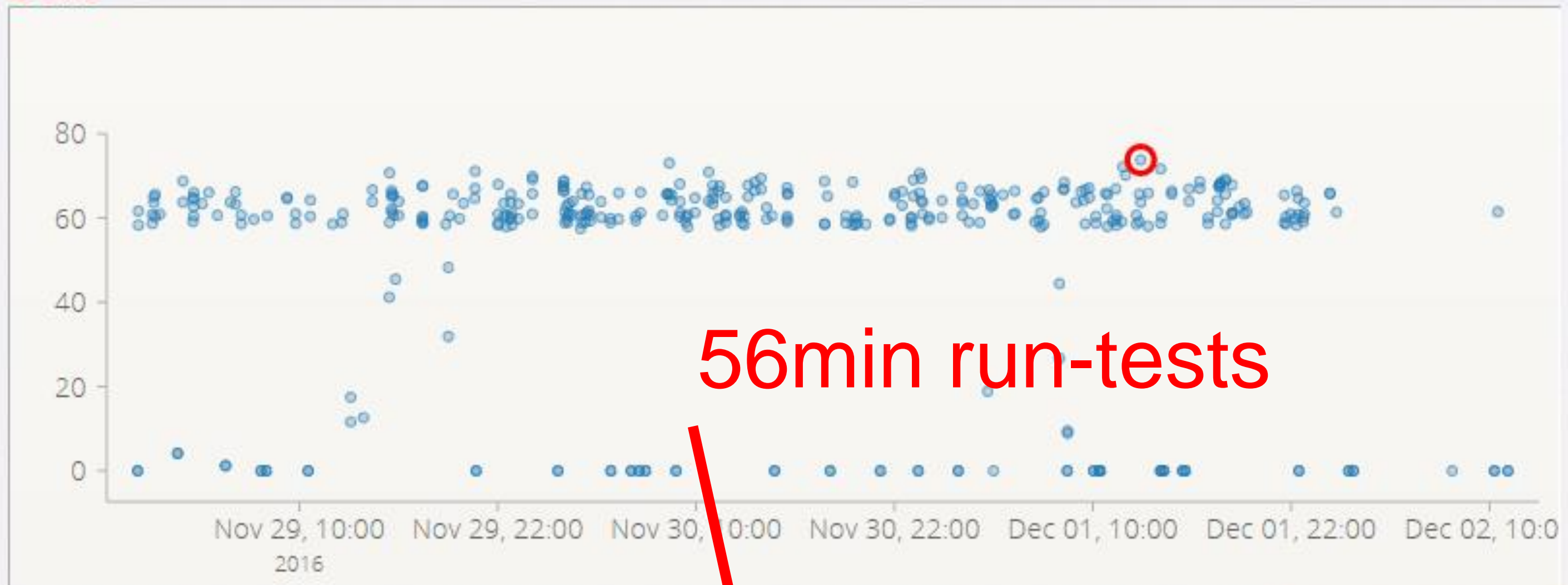


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



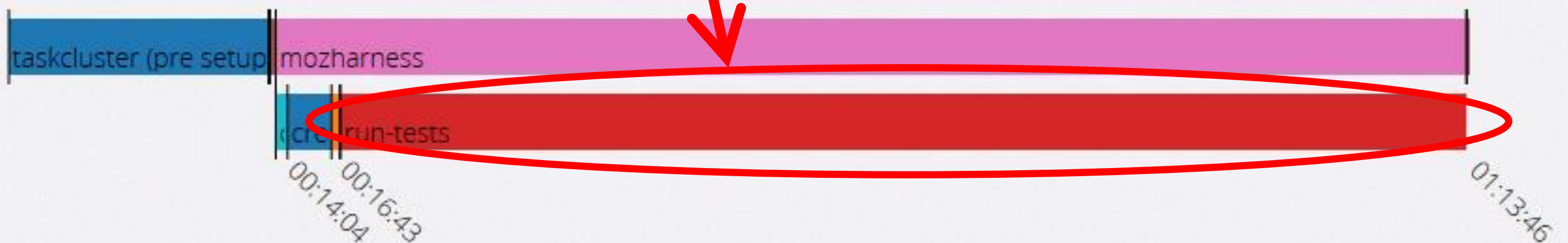
56min run-tests

COMPLETED : try rev e0c5a2039782

Start Time : December 01, 12:57

[Go to Treeherder](#)

Timeline (73.8 minutes)



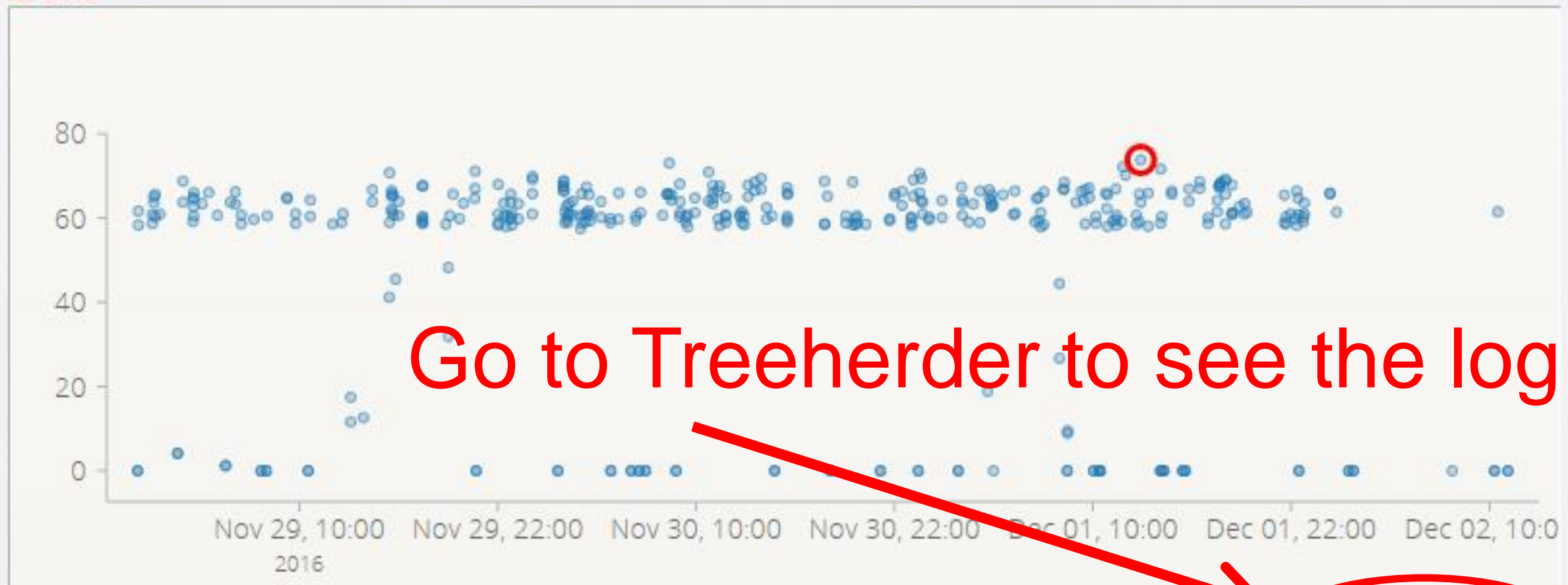


# Dashboards

## Mochitest-Media

Linux64 (Debug) on Try

Done



Go to Treeherder to see the log

COMPLETED : try rev e0c5a2039782

Start Time : December 01, 12:57

Go to Treeherder

### Timeline (73.8 minutes)





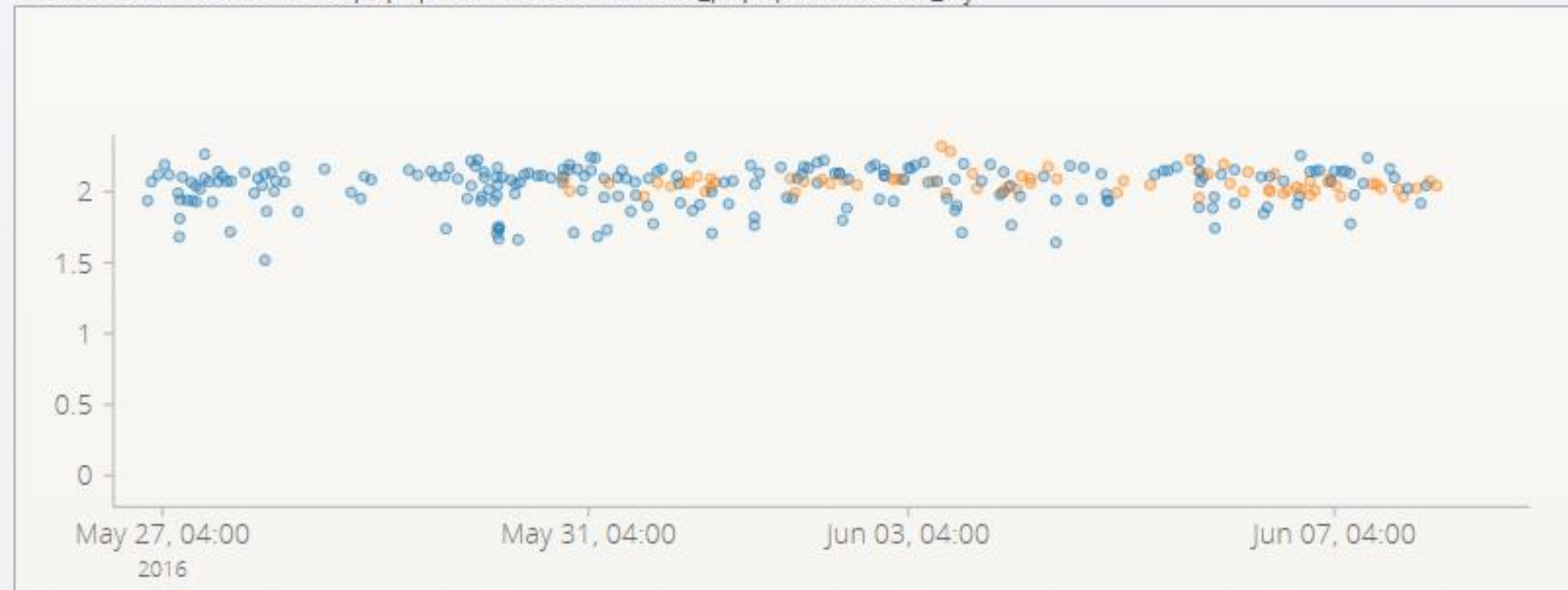
# Dashboards

Search for test: `browser/base/content/test/popupNotifications/browser_popupNotifi`

Done

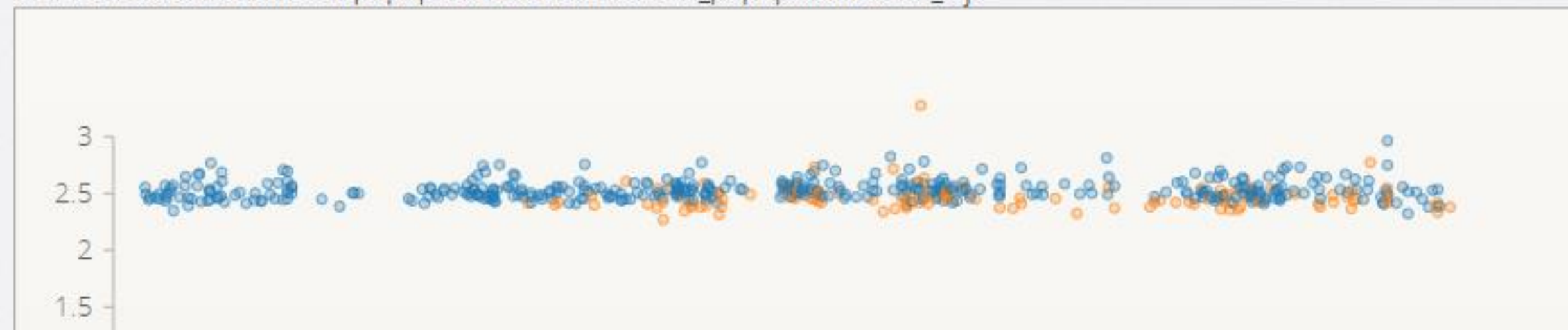
FIREFOX - win64 (pgo) mochitest-e10s-browser-chrome (e10s) (35% failures)

`browser/base/content/test/popupNotifications/browser_popupNotification_4.js`



FIREFOX - win64 (opt) mochitest-e10s-browser-chrome (e10s) (29% failures)

`browser/base/content/test/popupNotifications/browser_popupNotification_4.js`



<https://people-mozilla.org/~klahnakoski/testfailures>



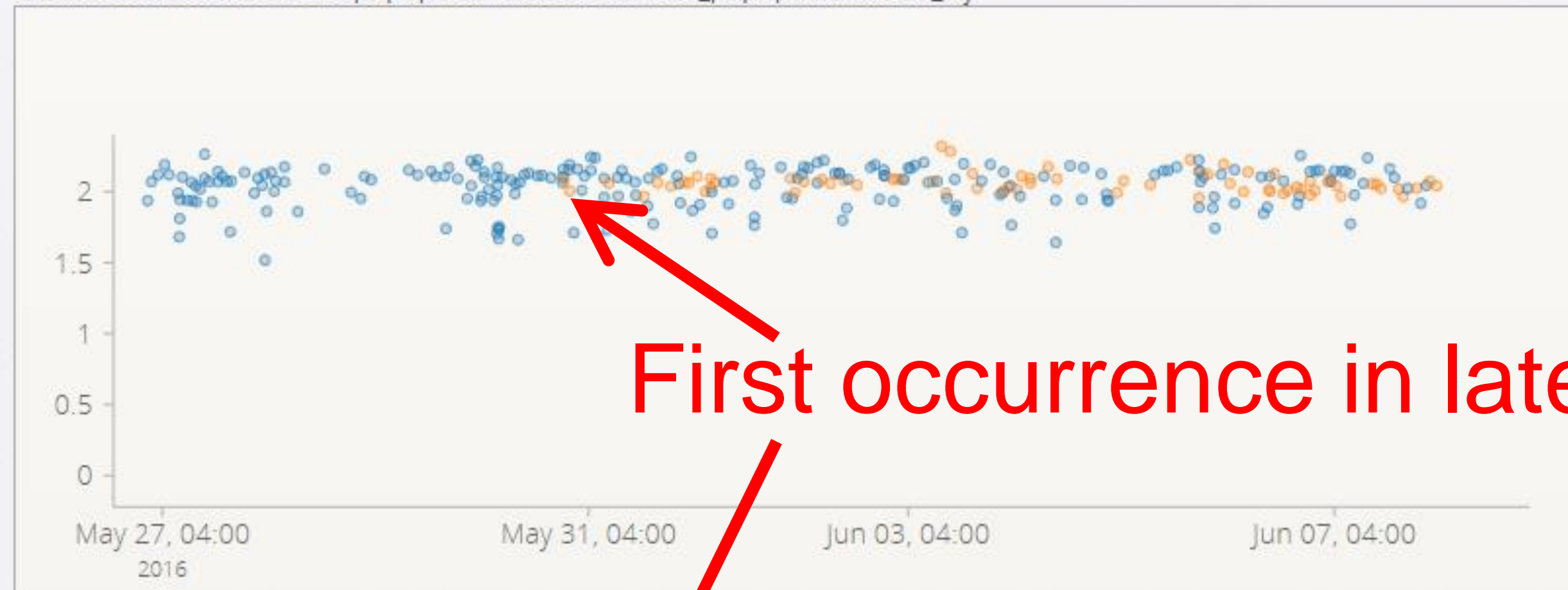
# Dashboards

Search for test: `browser/base/content/test/popupNotifications/browser_popupNotifi`

Done

FIREFOX - win64 (pgo) mochitest-e10s-browser-chrome (e10s) (35% failures)

`browser/base/content/test/popupNotifications/browser_popupNotification_4.js`



First occurrence in late May

FIREFOX - win64 (opt) mochitest-e10s-browser-chrome (e10s) (29% failures)

`browser/base/content/test/popupNotifications/browser_popupNotification_4.js`



<https://people-mozilla.org/~klahnakoski/testfailures>



# Future Plans?

- Attach Redash
- Move to <https://charts.mozilla.org>
- Work on SQL parser \*

```
$ curl http://activedata.allizom.org/query  
  -X POST  
  -d '{"sql": "select count(1) from unittest"}'
```

\*<https://github.com/mozilla/moz-sql-parser>



# Active Data

Don't use static files!  
Use an Active Database!

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# Active Data

<http://activedata.allizom.org>

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