Project Update

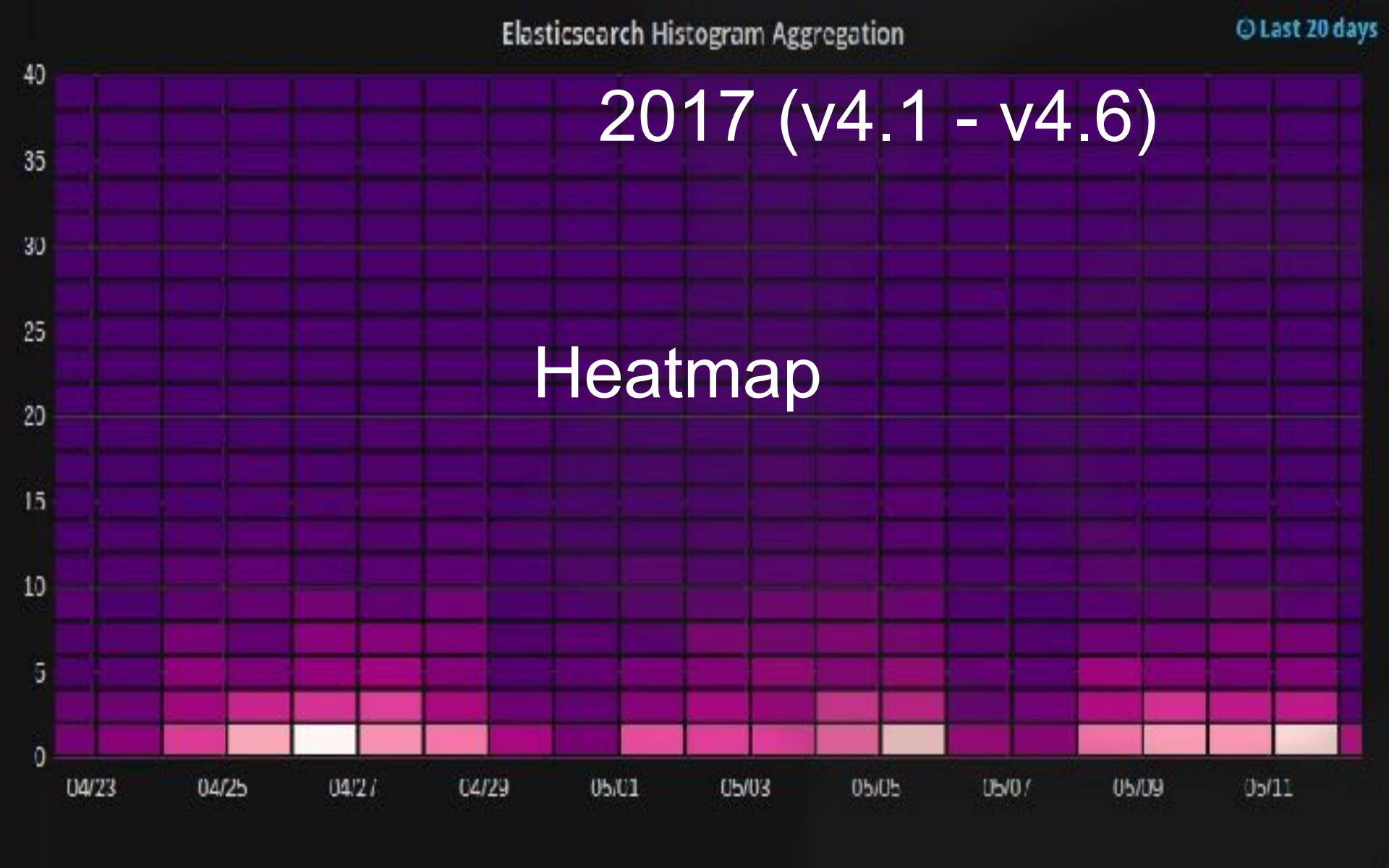
What's New In v5

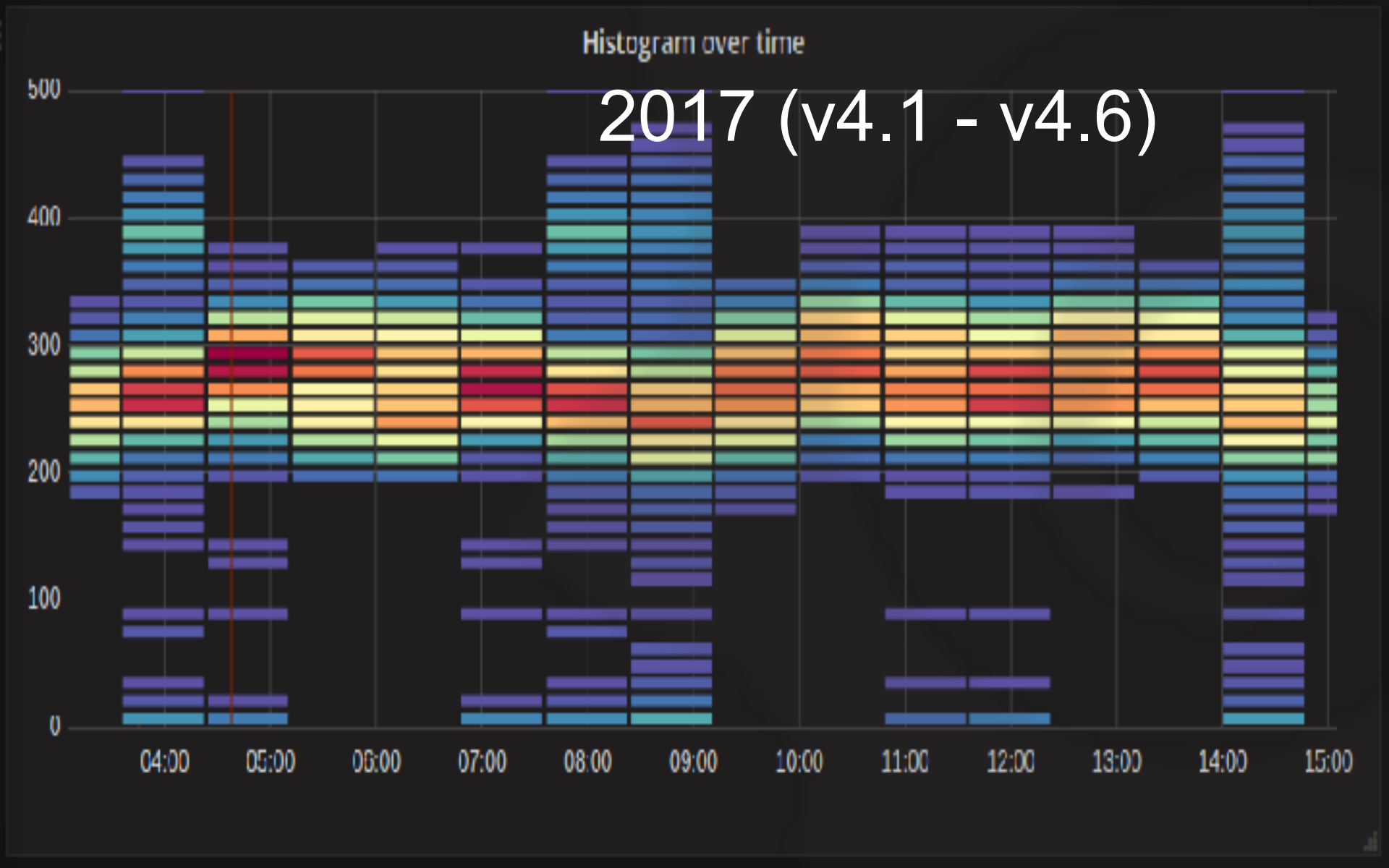
~1 year ago

2017

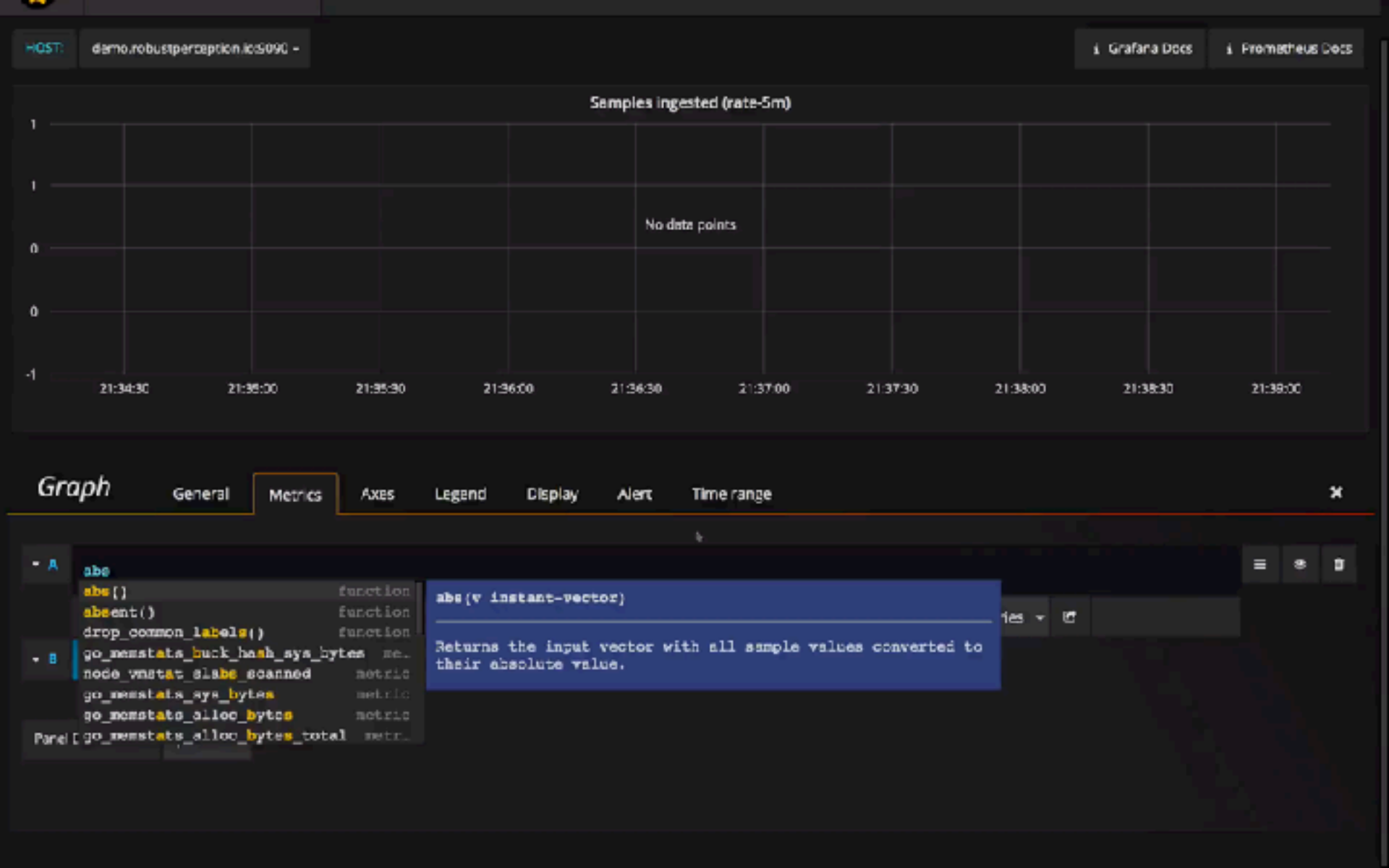
v4.1 - v4.6

Alerting

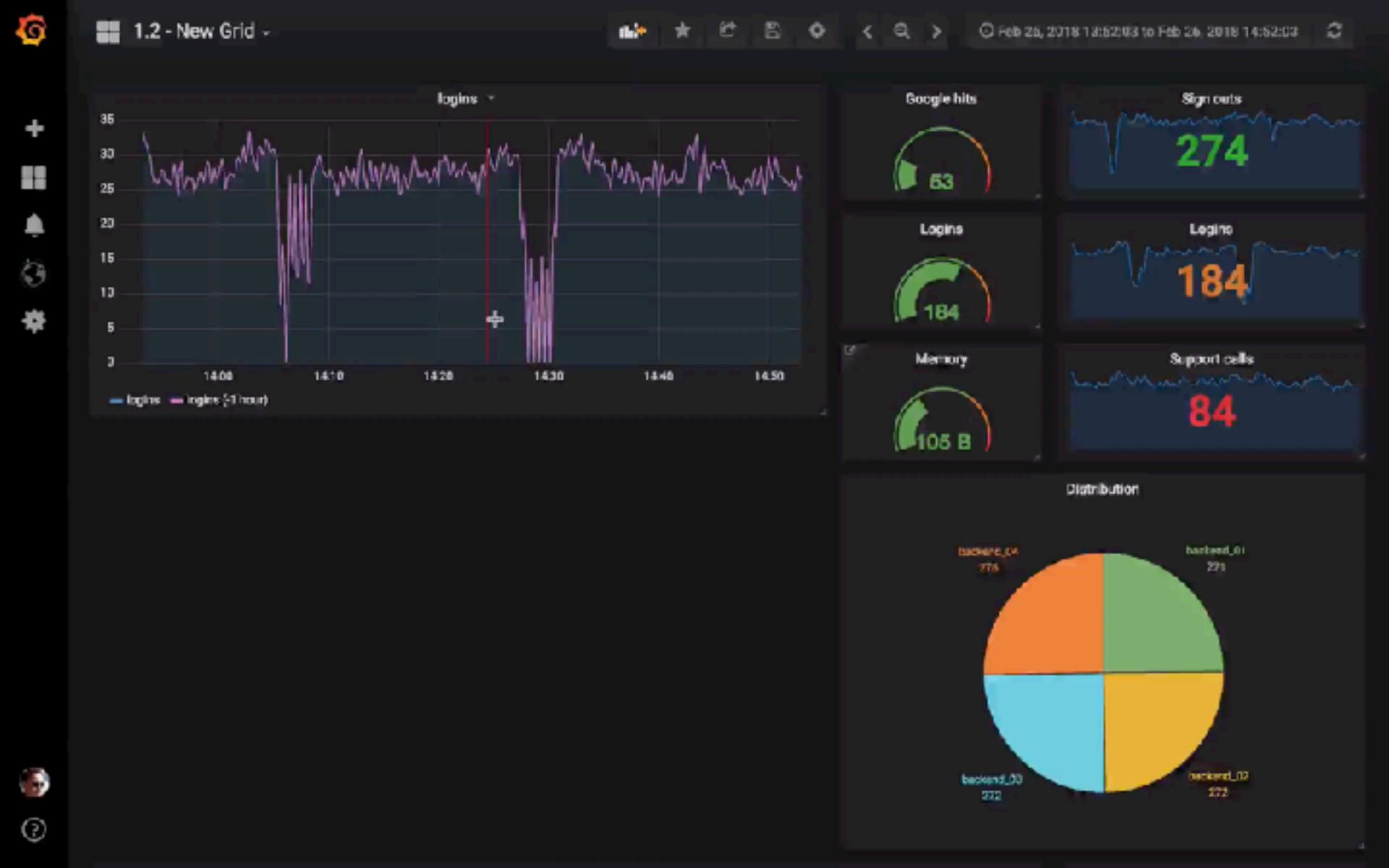

Elasticsearch Histogram Aggregation
Last 20 days
2017 (v4.1 - v4.6)
Heatmap
40
35
30
25
20
15
10
5
0
04/23
04/25
04/27
04/29
05/01
05/03
05/05
05/07
05/09
05/11


Histogram over time
2017 (v4.1 - v4.6)
500
400
300
200
100
0
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00

Prometheus


HOST:
demo.robustperception.io:9090 -
Grafana Docs
Prometheus Docs
Samples ingested (rate-5m)
1
1
0
0
-1
No data points
21:34:30
21:35:00
21:35:30
21:36:00
21:36:30
21:37:00
21:37:30
21:38:00
21:38:30
21:39:00
Graph
General
Metrics
Axes
Legend
Display
Alert
Time range
A
abs
abs()
absent()
drop_common_labels()
go_memstats_buck_hash_sys_bytes
node_vmstat_slabs_scanned
go_memstats_sys_bytes
go_memstats_alloc_bytes
go_memstats_alloc_bytes_total
function
function
function
metric
metric
metric
metric
abs(v instant-vector)
Returns the input vector with all sample values converted to their absolute value.

Annotations


1.2 - New Grid
logins
35
30
25
20
15
10
5
0
14:00
14:10
14:20
14:30
14:40
14:50
logins
logins (-1 hour)
Google hits
53
Sign outs
274
Logins
184
Logins
184
Memory
105 B
Support cells
84
Distribution
backend_01
291
backend_02
272
backend_03
272

Dashboard version history

Versions > Comparing 15 ⟷ 16 (Latest)

Version 16 updated by admin 13 days ago - asd

Version 15 updated by admin a month ago - asd

Restore to version 15

panels changed

- changed web_server_03 `#0a437c` → `#0a50a1` — Line 105 - 106
- changed web_server_04 `#052b51` → `#0a437c` — Line 107 - 108

version changed `15` → `16` — Line 597 - 598

View JSON Diff

@WalmartLabs

Data sources

Open-Falcon
Heroic
OpenHistorian
Google Calendar
DeviceHive
NetXMS
PNP4Nagios
Druid
SideWinder
ClickHouse
OSIsoft-PI
PRTG
DalmatinerDB
Hawkular
IBM APM
Monasca

Oracle
AppDynamics
New Relic
Splunk
DataDog

2017

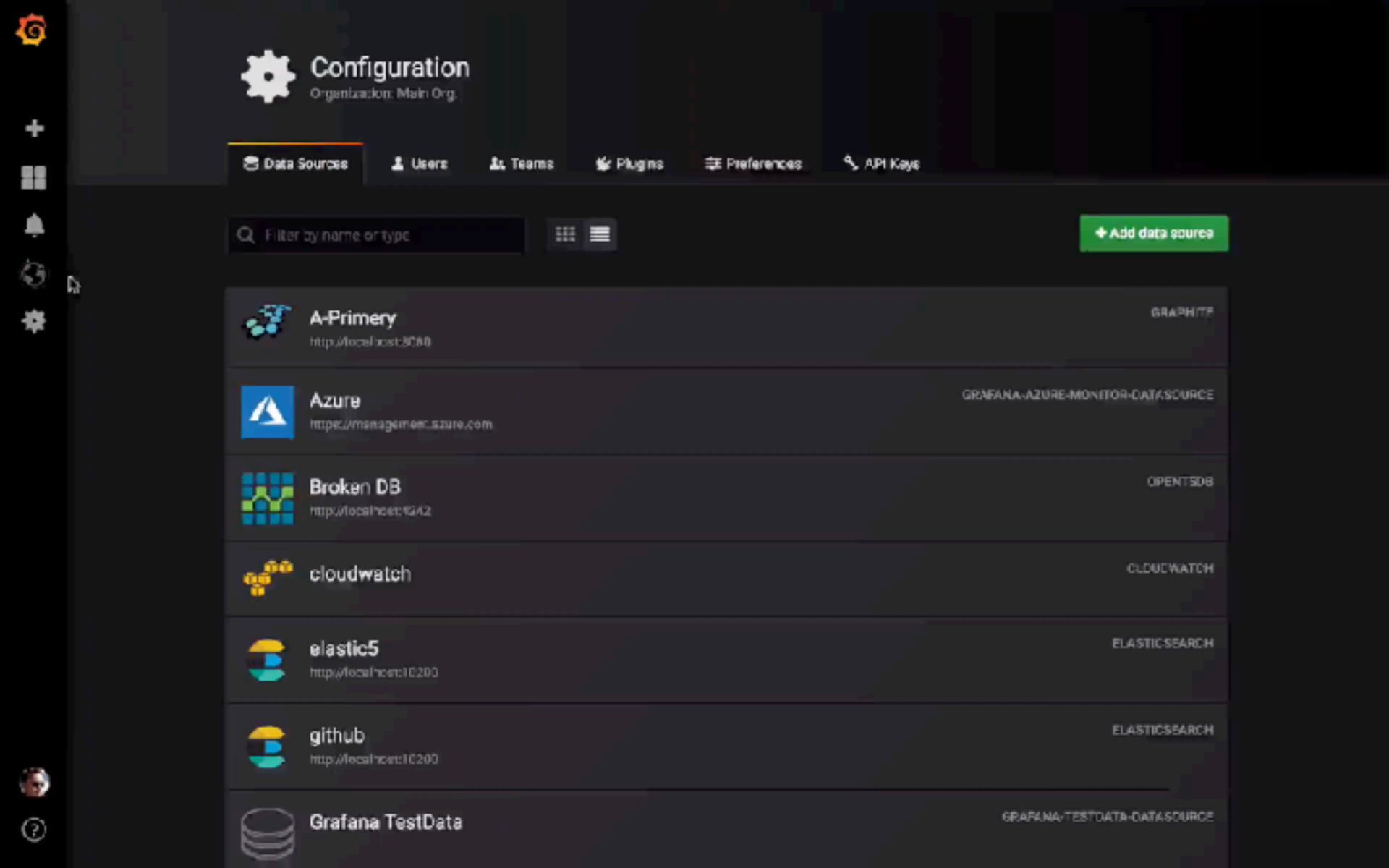
v5

Goals

Improve the core

UX

New sidenav
&
page design


Configuration
Organization: Main Org.
Data Sources
Users
Teams
Plugins
Preferences
API Keys
Filter by name or type
+ Add data source
A-Primery
http://localhost:8080
GRAPHITE
Azure
https://management.azure.com
GRAFANA-AZURE-MONITOR-DATASOURCE
Broken DB
http://localhost:1942
OPENTSDB
cloudwatch
CLOUDWATCH
elastic5
http://localhost:10200
ELASTICSEARCH
github
http://localhost:10200
ELASTICSEARCH
Grafana TestData
GRAFANA-TESTDATA-DATASOURCE

Updated light theme

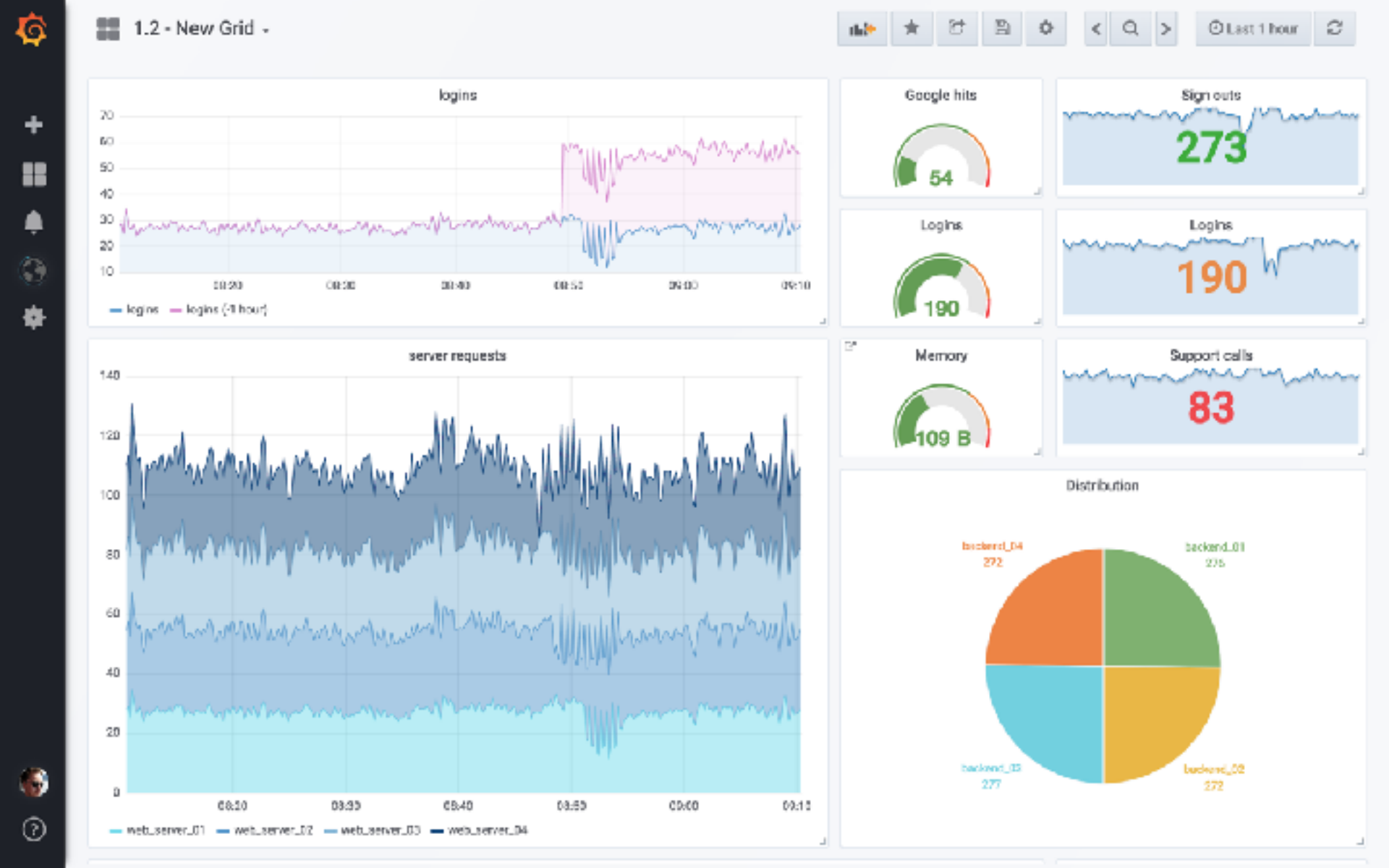
Alerting

Alert rules & notifications

Alert Rules | Notification channels

Search alerts | States: All | How to add an alert

- Other alert
  PAUSED for 2 months
- Panel Title alert
  OK for 2 months
- TestData - Always Alerting
  ALERTING for 2 months
- TestData - Always OK
  OK for 2 months


1.2 - New Grid
Last 1 hour
logins
70
60
50
40
30
20
10
logins
logins (-1 hour)
Google hits
54
Sign outs
273
Logins
190
Logins
190
server requests
140
120
100
80
60
40
20
0
web_server_01
web_server_02
web_server_03
web_server_04
Memory
109 B
Support calls
83
Distribution
backend_04
272
backend_01
275
backend_03
277
backend_02
272

Dashboard Settings

1.0 - Old Dashboard grid
Last 1 hour
Logins
199
Sign outs
283
Support calls
85
Logins
199
Google hits
57
Memory
113 B
Google hits
57
Logouts
227
logins
logins
logins (-1 hour)
Memory / CPU
memory
cpu
server requests
client side full page load

Improve the core

Building Dashboards

1.0 - Old Dashboard grid
Last 1 hour
Logins
198
Support calls
84
Sign outs
281
Logins
198
Google hits
57
Memory
113 B
Google hits
57
Logouts
226
logins
timeshift -1h
Memory / CPU
timeshift -1h
server requests
client side full page load

1.1 - Old Layout -> New Layout -
Last 1 hour
logins
logins
logins (-1 hour)
Sign outs
268
Support calls
83
Logins
185
Logins
185
server requests
Memory / CPU
memory
cpu
Memory
Logouts
Google hits

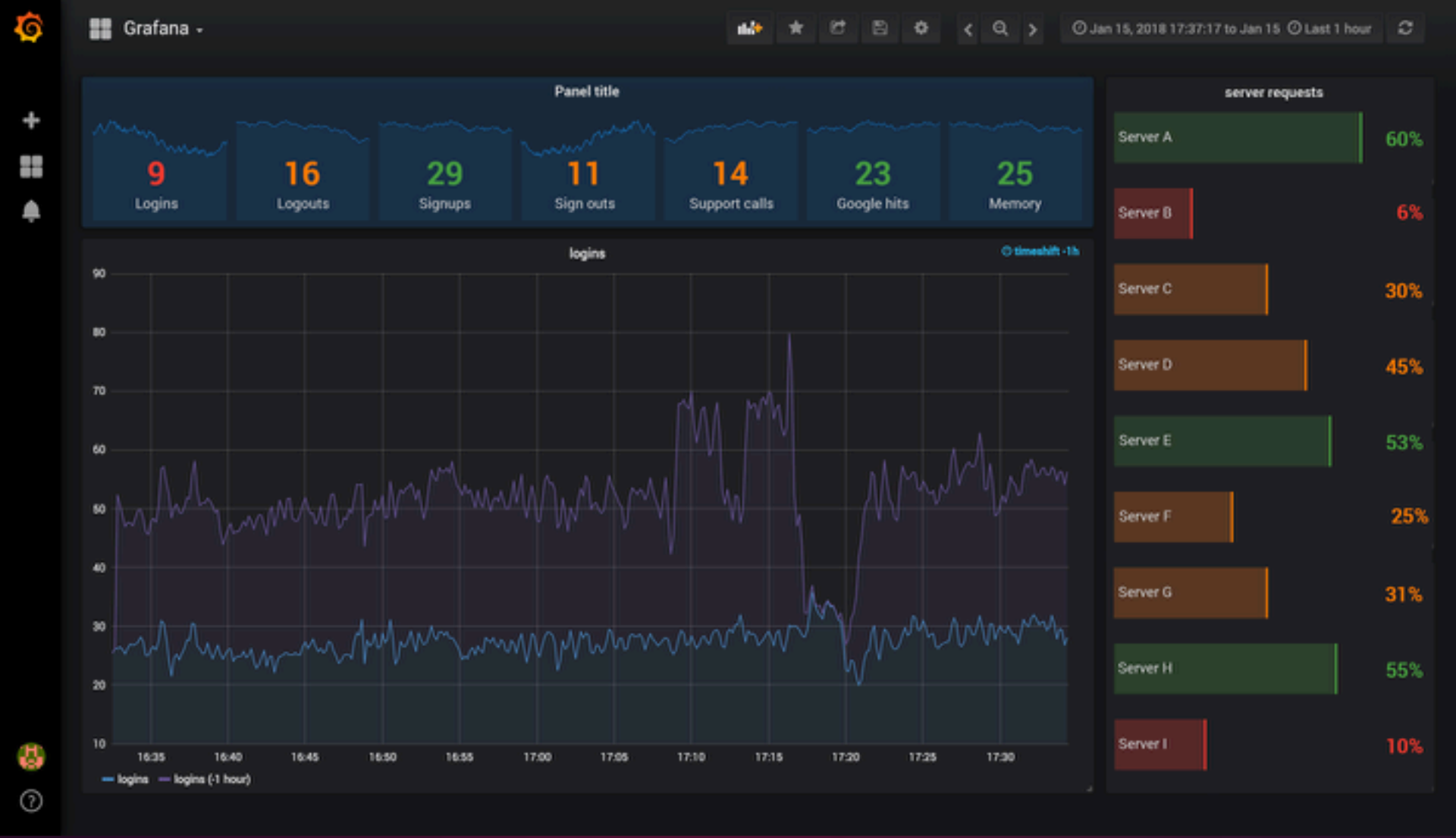
Backward compatible

Grafana v1.0
Zoom Out
a day ago to a few seconds ago
FILTERING
server : backend_01
Server requests
50
40
30
20
10
0
18:00
02-25
20:00
02-25
22:00
02-25
00:00
02-26
02:00
02-26
04:00
02-26
06:00
02-26
08:00
02-26
10:00
02-26
12:00
02-26
14:00
02-26
16:00
02-26
backend_01
New session
150
125
100
75
50
25
0
20:00
02-25
00:00
02-26
04:00
02-26
08:00
02-26
12:00
02-26
16:00
02-26
session_start
session_start
session_start
Load time
10
8
6
4
2
0
6000
5000
4000
3000
2000
1000
0
20:00
02-25
00:00
02-26
04:00
02-26
08:00
02-26
12:00
02-26
16:00
02-26
p95
p95
ADD A ROW

React

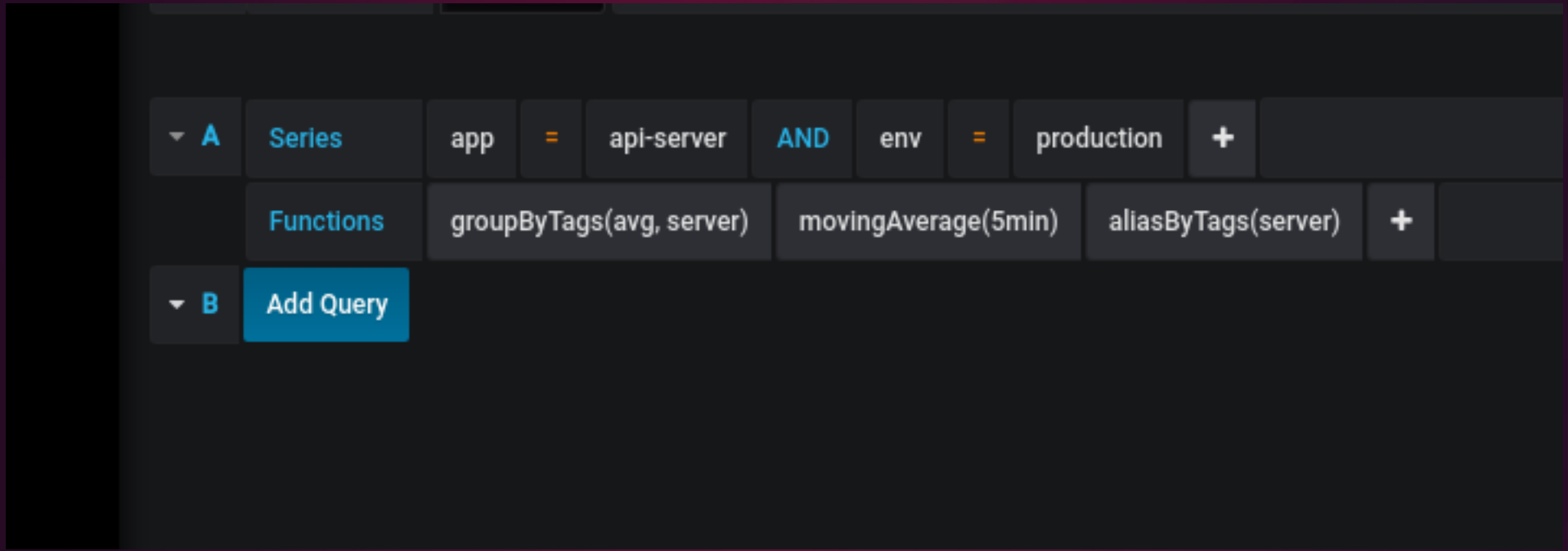
Big Dashboard
Last 1 hour
server requests
140
120
100
80
60
40
20
06:40
06:45
06:50
06:55
05:00
06:05
05:10
06:15
06:20
06:25
06:30
06:35
web_server_01
web_server_02
web_server_03
web_server_04
Sign ups
278

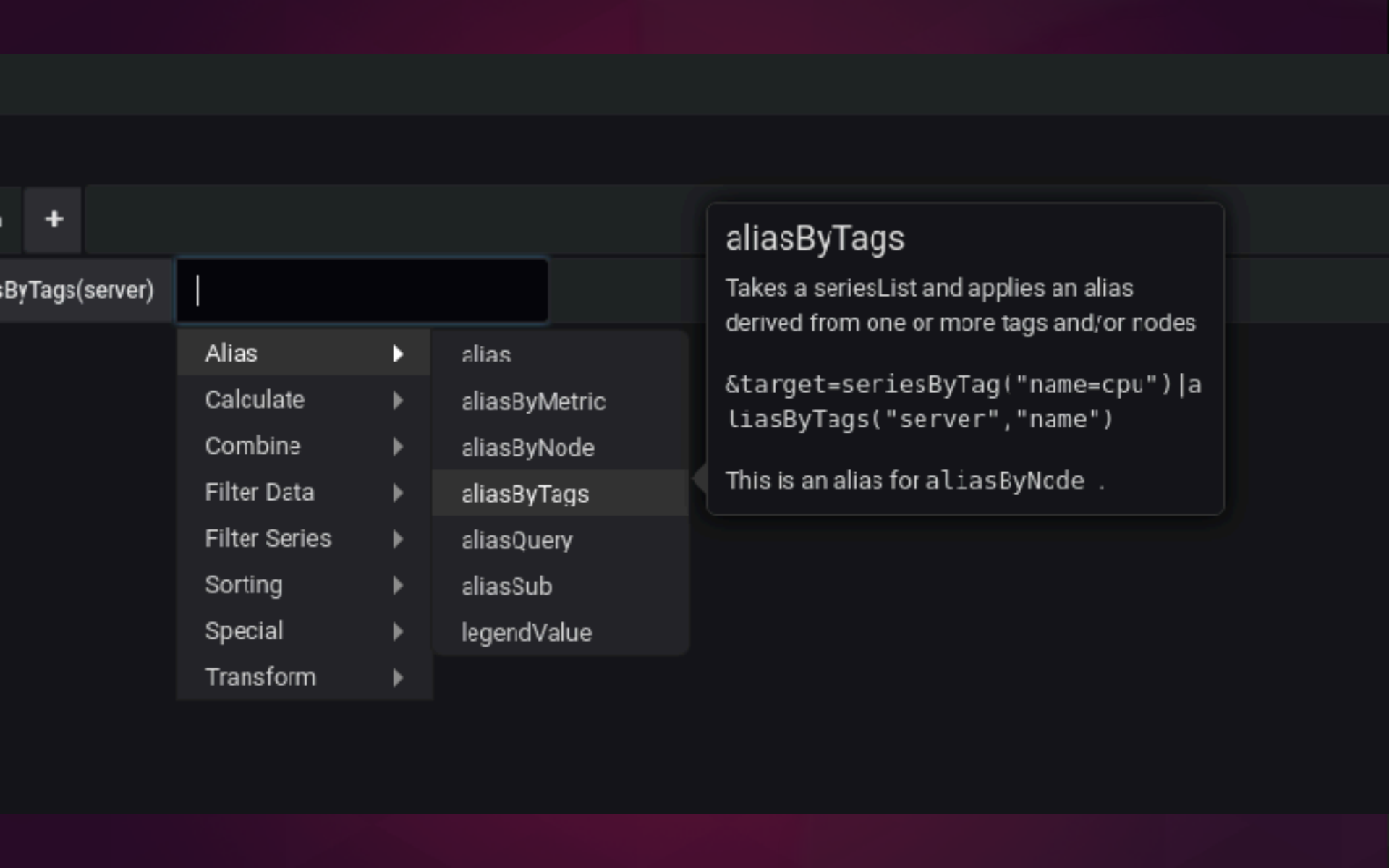
Big Dashboard
Last 1 hour
server requests
140
120
100
80
60
40
20
05:40
05:45
05:50
05:55
05:00
06:05
05:10
06:15
06:20
05:25
06:30
05:35
web_server_01
web_server_02
web_server_03
web_server_04
Sign ups
278
Sign outs
281
Logins
196
Support calls
84
Google hits
56
Memory
112 B


Grafana
Jan 15, 2018 17:37:17 to Jan 15
Last 1 hour
Panel title
9
Logins
16
Logouts
29
Signups
11
Sign outs
14
Support calls
23
Google hits
25
Memory
logins
timeshift -1h
90
80
70
60
50
40
30
20
10
16:35
16:40
16:45
16:50
16:55
17:00
17:05
17:10
17:15
17:20
17:25
17:30
logins
logins (-1 hour)
server requests
Server A
60%
Server B
6%
Server C
30%
Server D
45%
Server E
53%
Server F
25%
Server G
31%
Server H
55%
Server I
10%

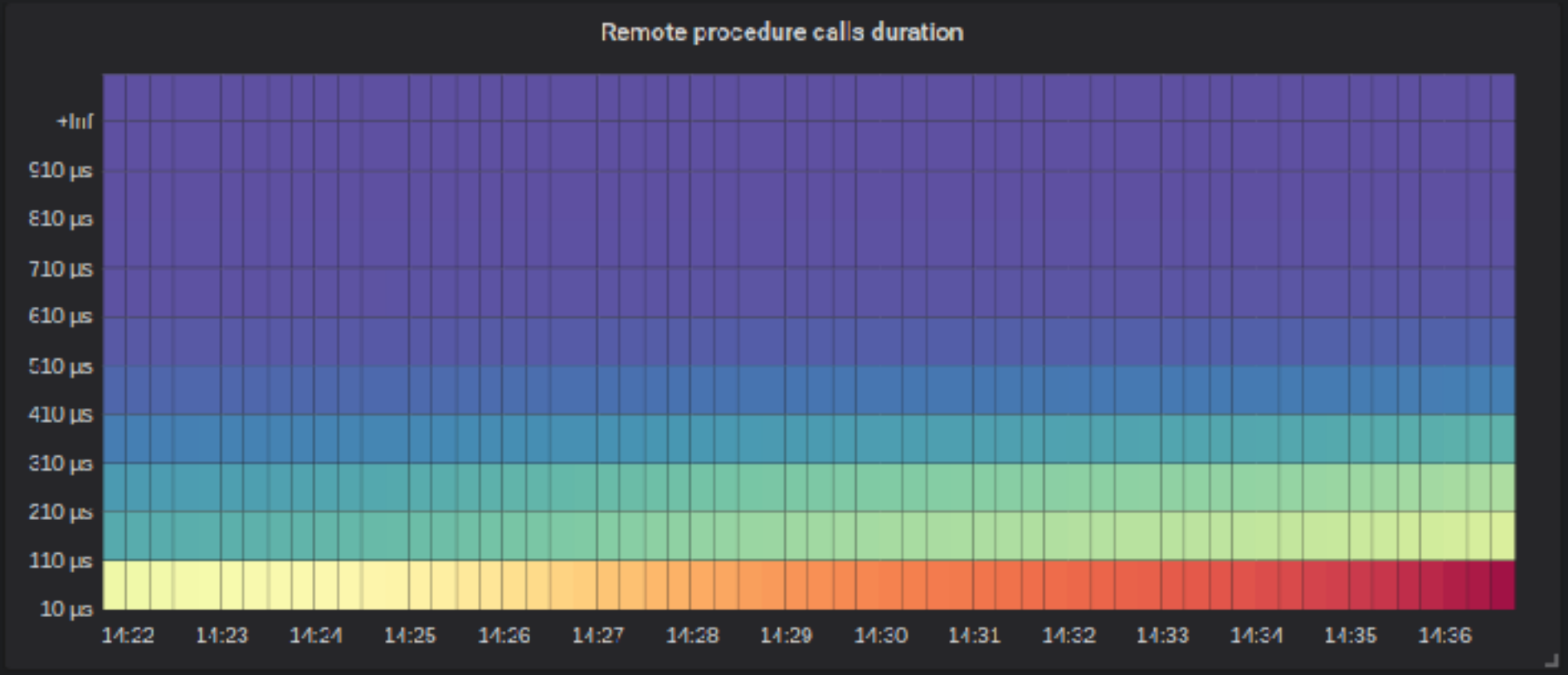
Graphite

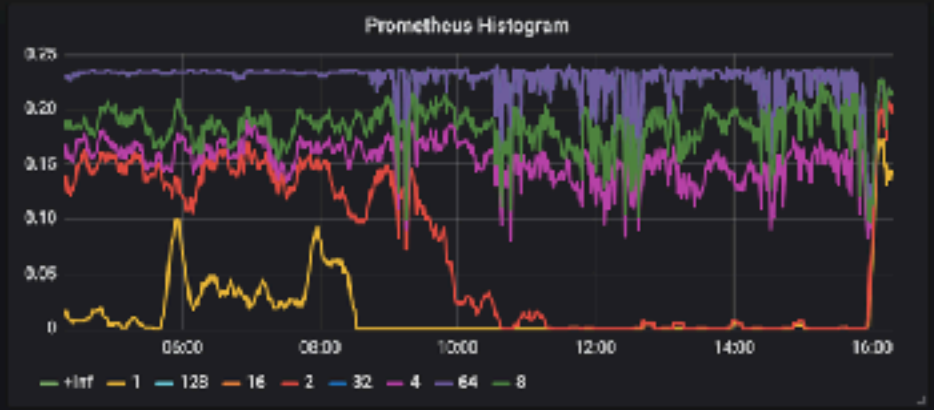
Tags
Custom functions
Function documentation

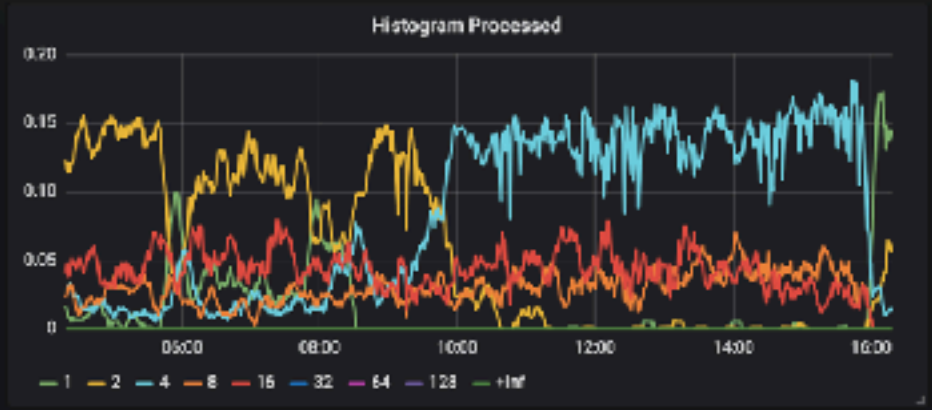

A
Series
app
=
api-server
AND
env
=
production
+
Functions
groupByTags(avg, server)
movingAverage(5min)
aliasByTags(server)
+
B
Add Query

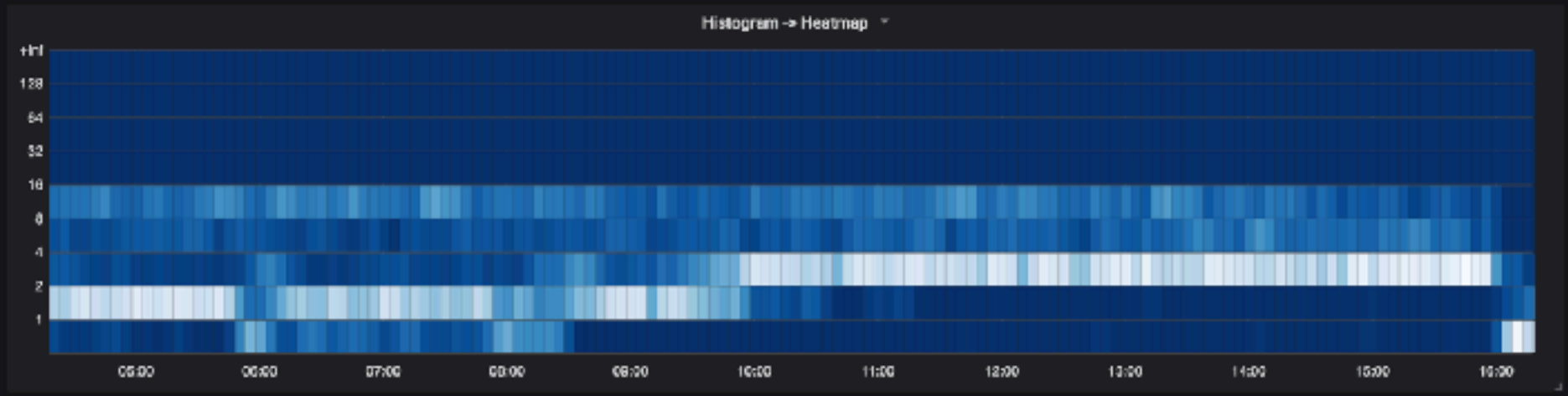

+
sByTags(server)
Alias
Calculate
Combine
Filter Data
Filter Series
Sorting
Special
Transform
alias
aliasByMetric
aliasByNode
aliasByTags
aliasQuery
aliasSub
legendValue
aliasByTags
Takes a seriesList and applies an alias derived from one or more tags and/or nodes
&target=seriesByTag("name=cpu")|aliasByTags("server","name")
This is an alias for aliasByNode .

Prometheus heatmap

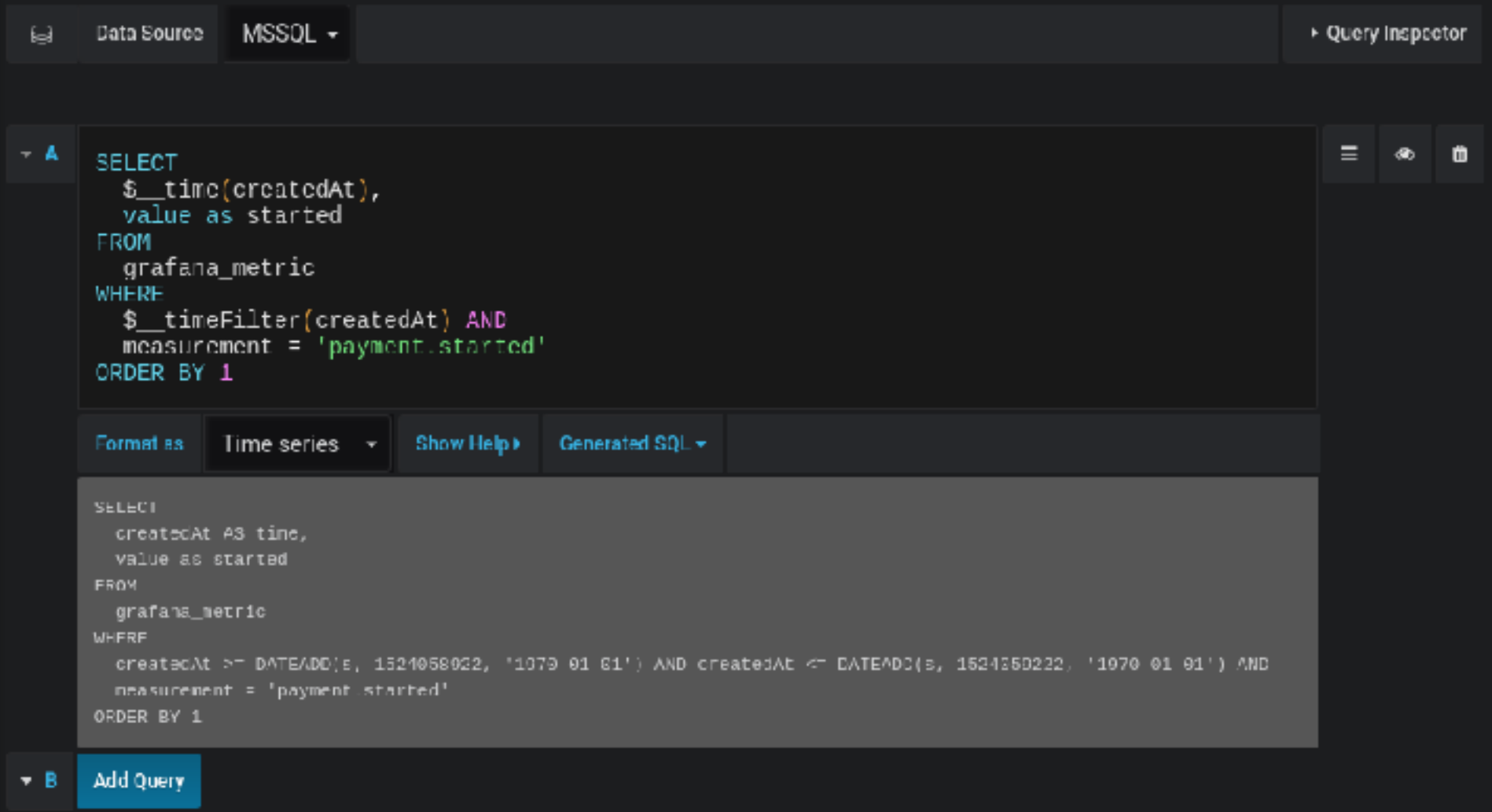

Remote procedure calls duration
+Inf
910 µs
810 µs
710 µs
610 µs
510 µs
410 µs
310 µs
210 µs
110 µs
10 µs
14:22
14:23
14:24
14:25
14:26
14:27
14:28
14:29
14:30
14:31
14:32
14:33
14:34
14:35
14:36


Prometheus Histogram
0.25
0.20
0.15
0.10
0.05
0
06:00
08:00
10:00
12:00
14:00
16:00
+Inf
1
128
16
2
32
4
64
8


Histogram Processed
0.20
0.15
0.10
0.05
0
06:00
08:00
10:00
12:00
14:00
16:00
1
2
4
8
16
32
64
128
+Inf


Histogram -> Heatmap
+Inf
128
64
32
16
8
4
2
1
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00

Microsoft SQL Server


Data Source
MSSQL
Query Inspector
A
SELECT
$__time(createdAt),
value as started
FROM
grafana_metric
WHERE
$__timeFilter(createdAt) AND
measurement = 'payment.started'
ORDER BY 1
Format as
Time series
Show Help
Generated SQL
SELECT
createdAt AS time,
value as started
FROM
grafana_metric
WHERE
createdAt >= DATEADD(s, 1524058022, '1970-01-01') AND createdAt <= DATEADD(s, 1524150222, '1970-01-01') AND
measurement = 'payment.started'
ORDER BY 1
B
Add Query

Provisioning

Datasources

As configuration

```
apiVersion: 1

datasources:
- name: Graphite
  type: graphite
  access: proxy
  url: http://localhost:8080
  jsonData:
     graphiteVersion: "1.1"
```

Data Sources / Graphite

Type: Graphite

Settings | Dashboards

Disclaimer. This datasource was added by config and cannot be modified using the UI. Please contact your server admin to update this datasource.

Name	Graphite	Default	☐
Type	Graphite		

HTTP

URL	http://localhost:8080
Access	proxy

Auth

Dashboards

As configuration

```yaml
apiVersion: 1

providers:
- name: default
  folder: 'Great dashboards'
  type: file
  options:
    path: /var/lib/grafana/dashboards
```

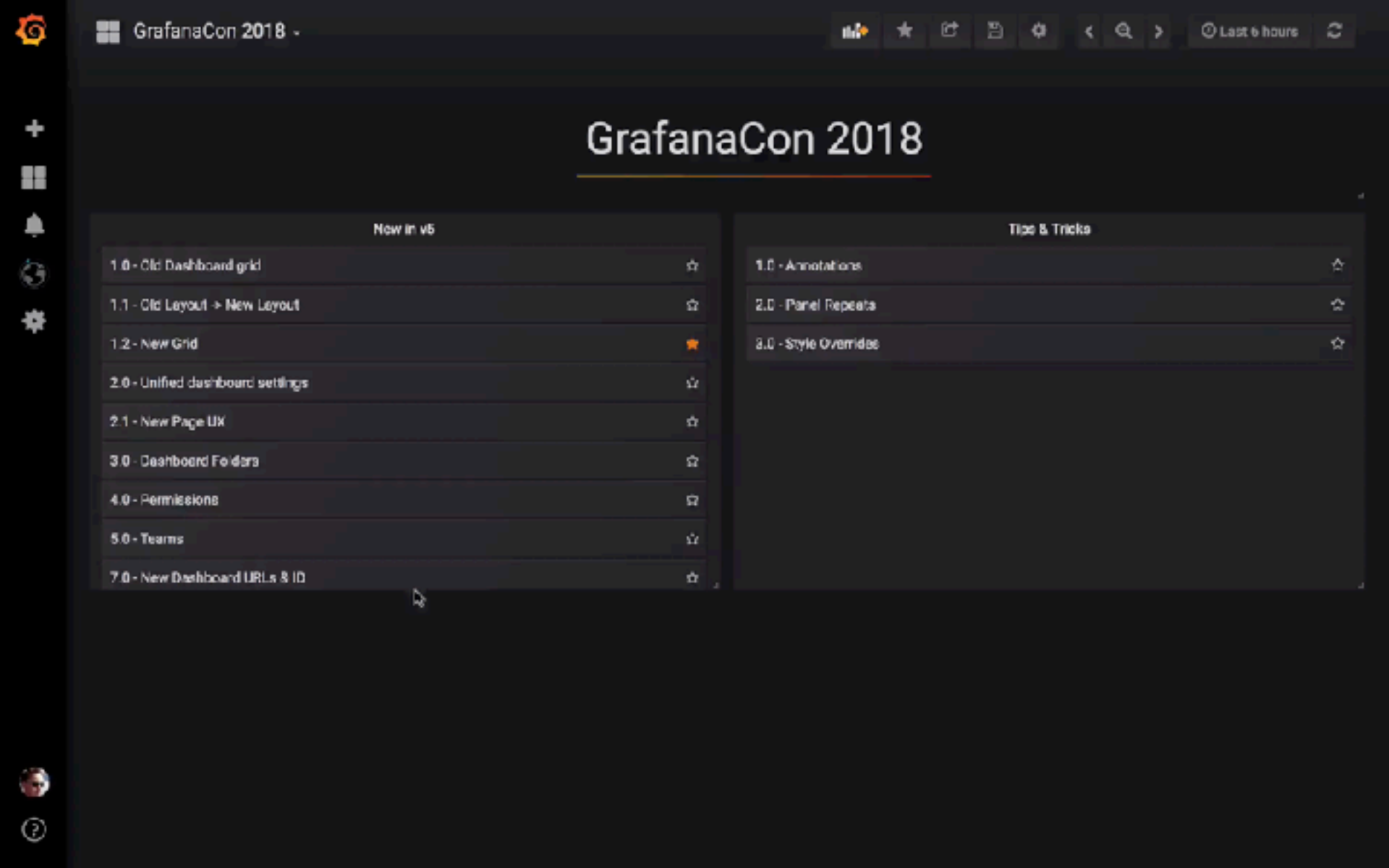
Dashboards

Model


```
{
  "title": "Grafana",
  "uid": "igtbvoldfnjhtgybn",
  "panels": [
    {
      "type": "graph",
      "title": "QPS",
      "gridPos": {
        "x": 0,
        "y": 0,
        "w": 12,
        "h": 9
      }
    }
  ]
}
```

Managing large installations

Folders
Teams
Permissions


GrafanaCon 2018 -
Last 6 hours
GrafanaCon 2018
New in v5
1.0 - Old Dashboard grid
1.1 - Old Layout -> New Layout
1.2 - New Grid
2.0 - Unified dashboard settings
2.1 - New Page UX
3.0 - Dashboard Folders
4.0 - Permissions
5.0 - Teams
7.0 - New Dashboard URLs & ID
Tips & Tricks
1.0 - Annotations
2.0 - Panel Repeats
3.0 - Style Overrides

DASHBOARD FOLDERS
IMPROVED UX
NEW DASHBOARD LAYOUT ENGINE
Grafana
5.0
Now Available!
REDESIGNED LIGHT THEME
FOLDER & DASHBOARD PERMISSIONS
TEAMS
DATASOURCE & DASHBOARD PROVISIONING

Thanks

alexanderzobnin@gmail.com
azobnin@grafana.com

community.grafana.com