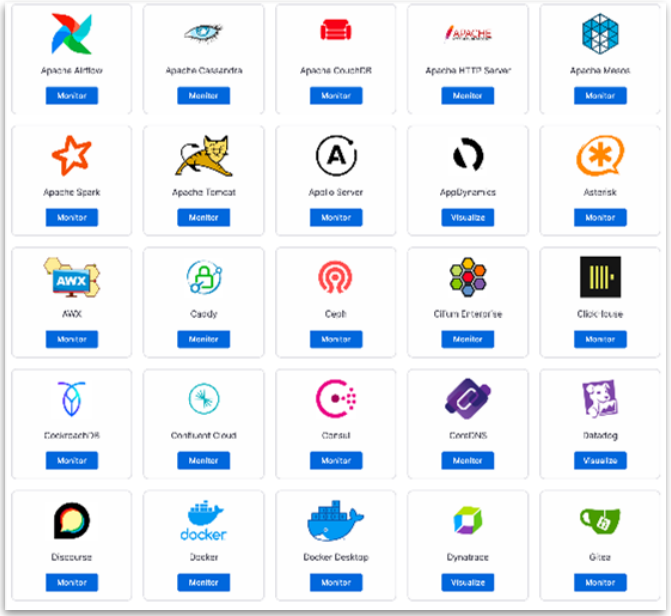
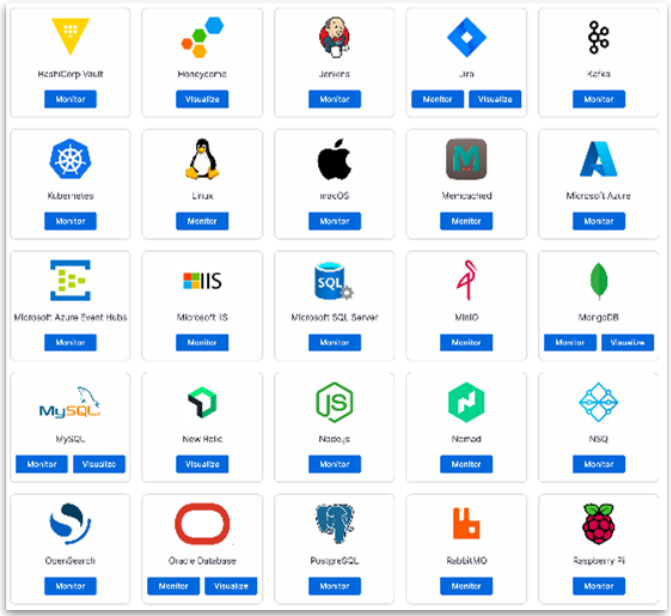
Grafana

串聯上百種數據的可視化平台

使用 Grafana 統一您的數據

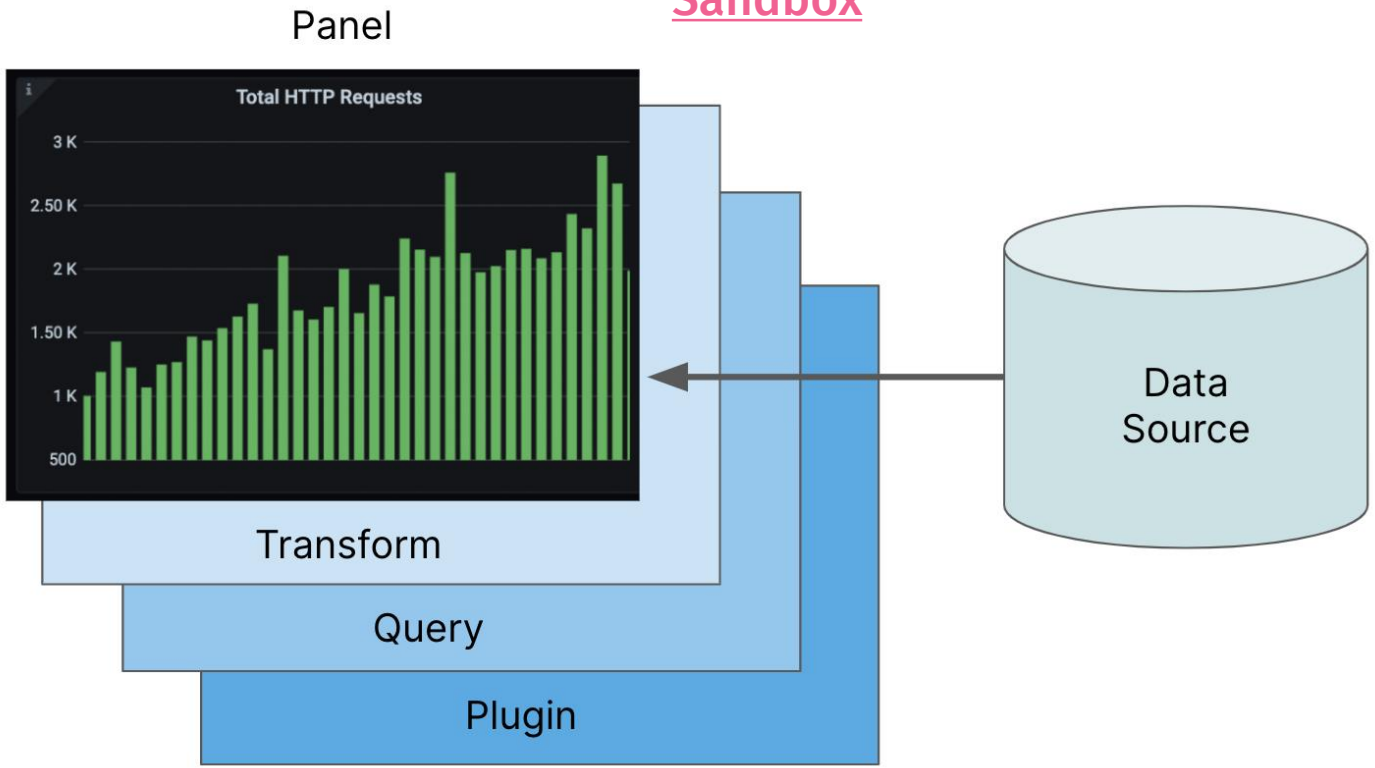
提供對300 +數據源的即時訪問，包括Elasticsearch，Jira，Datadog，Splunk，InfluxDB，Oracle，MongoDB等的企業外掛程式。





Dashboard 組合架構

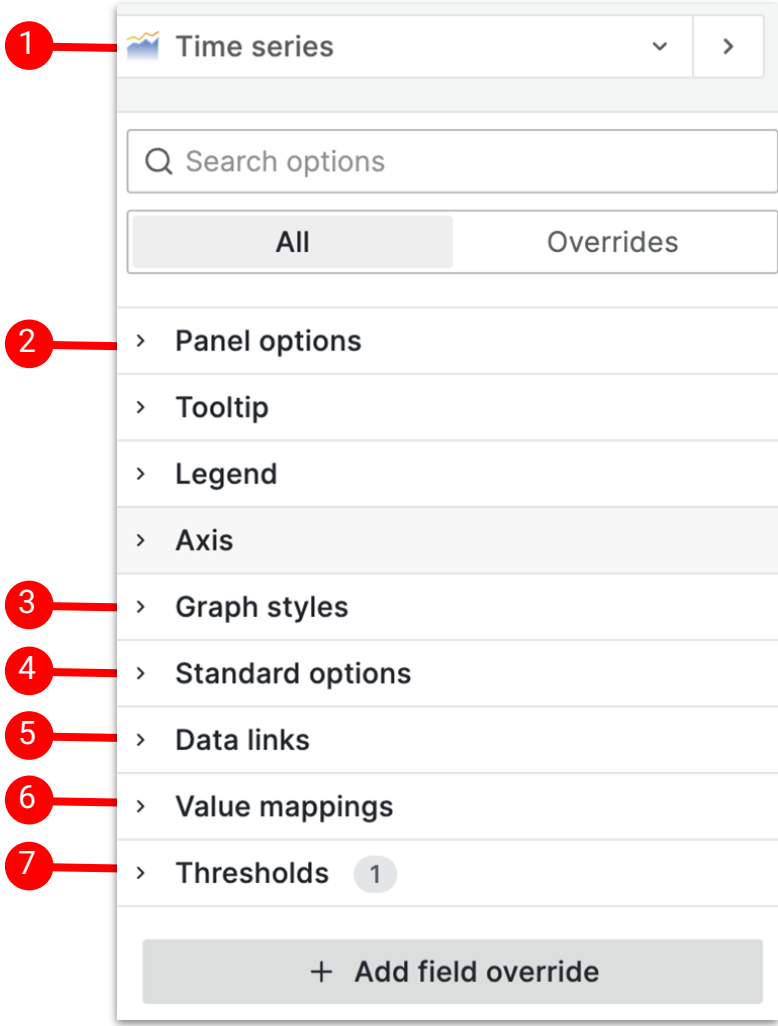
↖ Grafana Sandbox




Bucket
data
Host
bimap-B
disk_name
All
CPU
CPU
4.08%
CPUS
cpu0
cpu1
cpu2
cpu3
cpu4
cpu5
cpu6
cpu7
2.83%
6.59%
4.51%
2.51%
4.94%
3.01%
4.41%
3.84%
Disk
Busy
0.17%
sda
0
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
read_mb
write_mb
Busy
0.56%
sdb
20
0
read_mb
write_mb
Busy
0.00%
sdc
100
0
read_mb
write_mb
Filesystem
Usage
56%
/
13%
/boot
0%
/sata
14%
/ssd

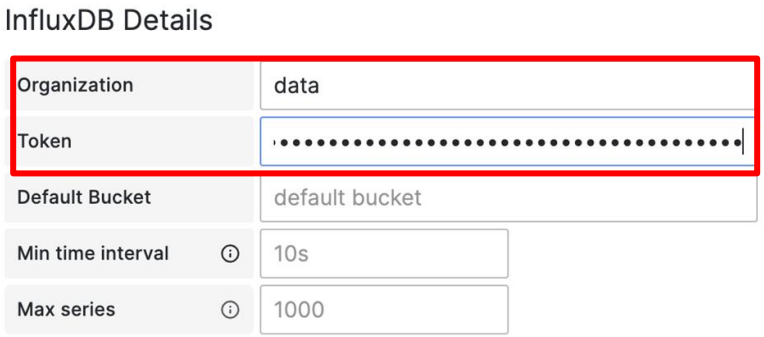
Panel 常用功能說明

1. 圖表呈現樣式：例折線圖、圓餅圖、表格 .....
2. 針對圖表整體編輯選項：標題名稱命名、連結 .....
3. 針對圖表顯示細節設定：呈現的線條粗細、透明度 .....
4. 針對文字顯示細節設定：單位、欄位名稱 .....
5. 根據圖表內部的欄位做連結定義 .....
6. 針對欄位值重新定義，例如 1 表示 on，0 表示 off
7. 針對欄位值高低給予不同的顏色顯示，例如閥值定義為 1000，超過 1000 顯示紅色，1000 以下顯示綠色

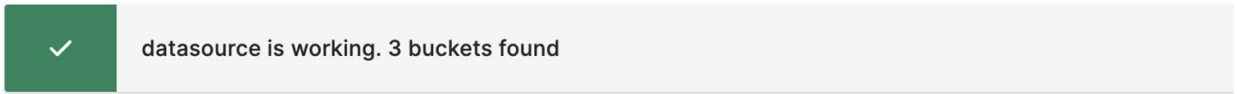


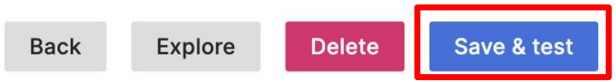
添加 InfluxDB 資料源

添加 InfluxDB 資料源



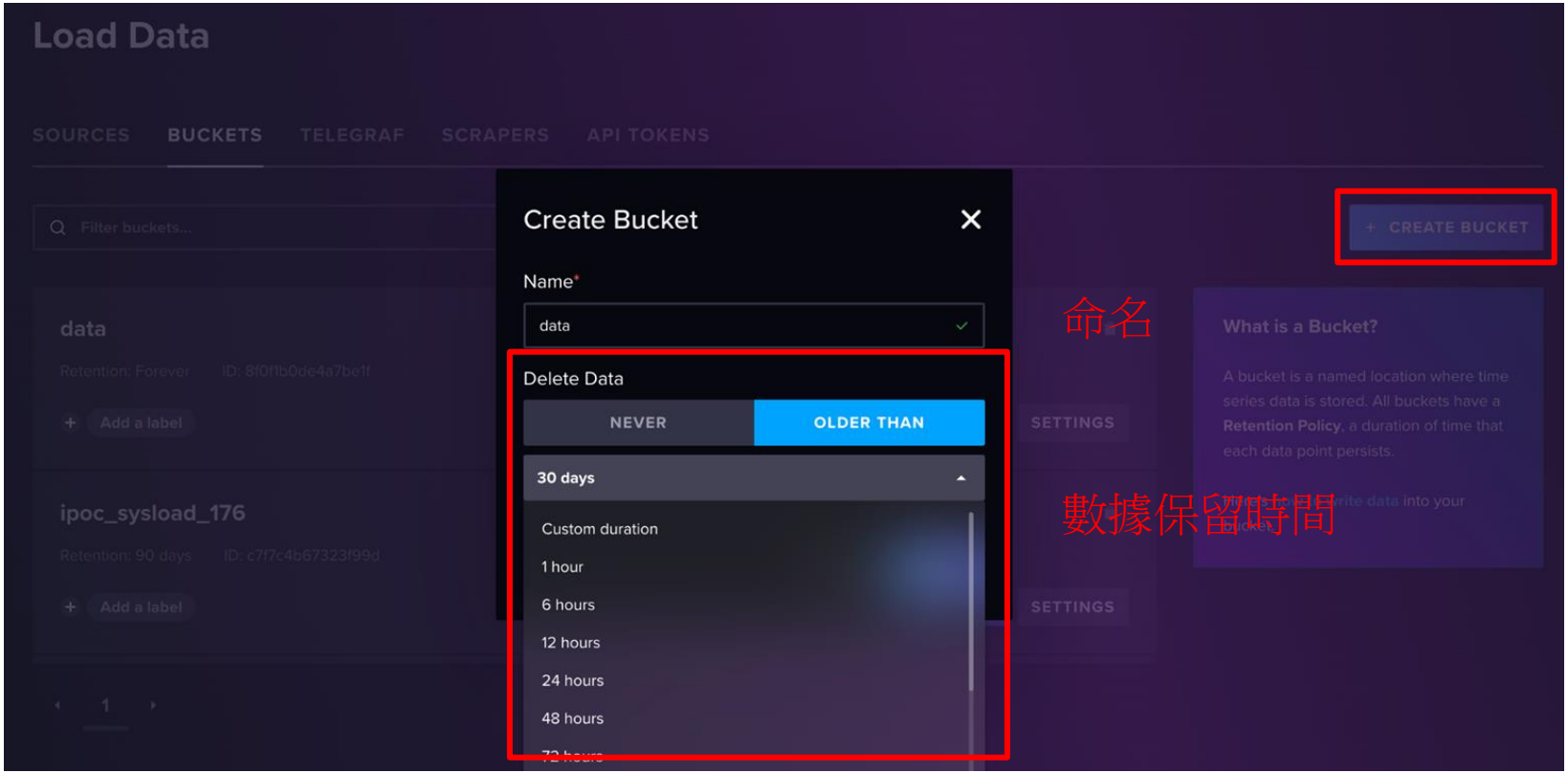
必填



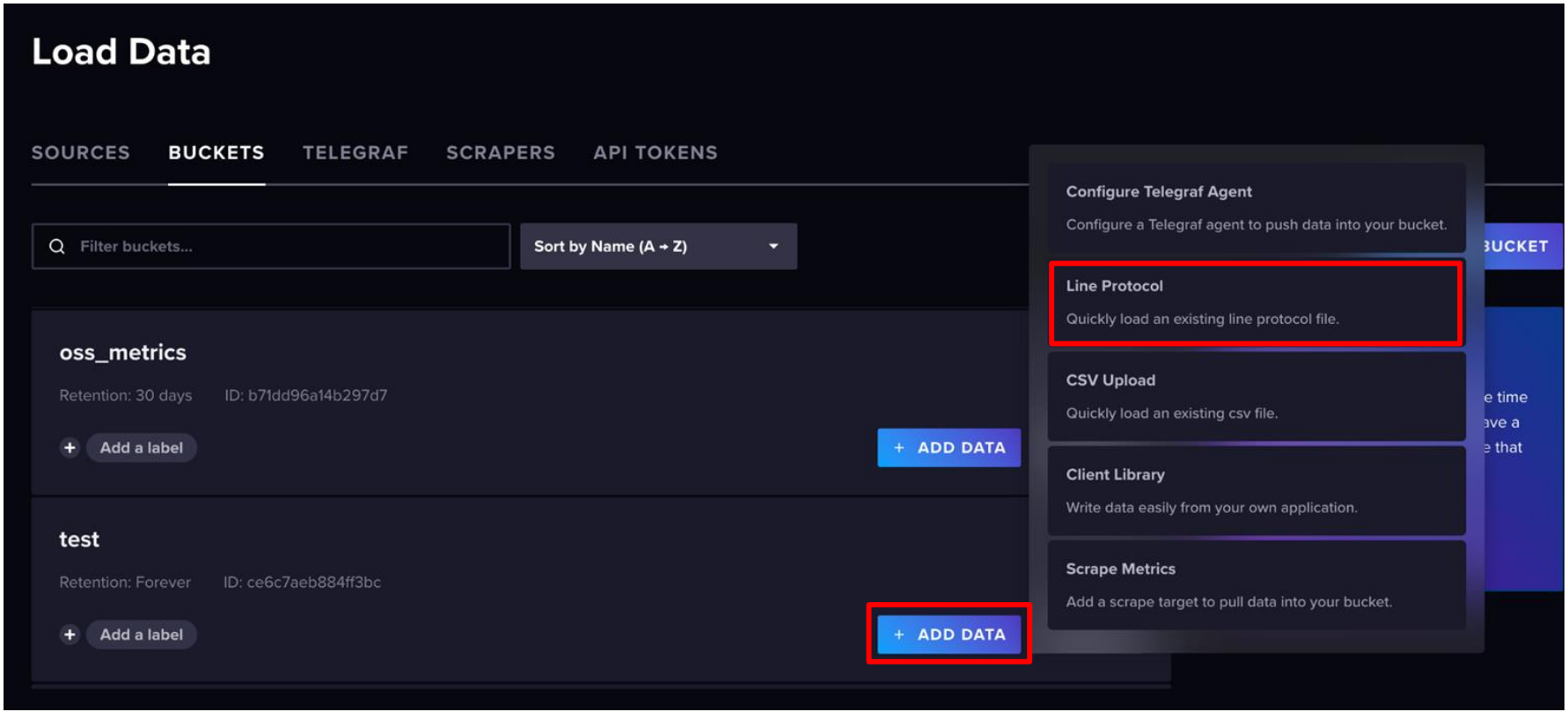


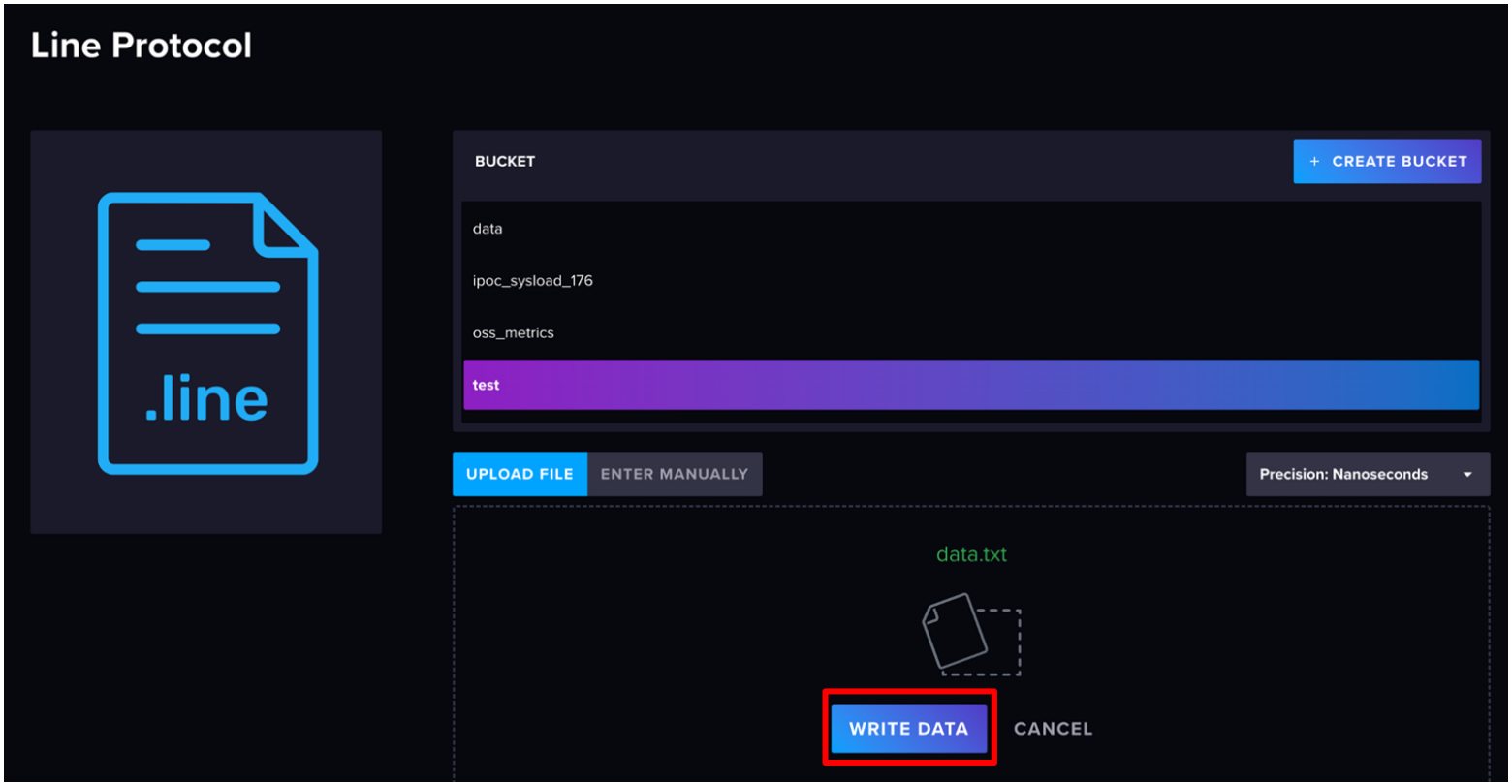
點擊按鈕後，顯示有找到bucket的訊息
代表連接成功

建立 InfluxDB Bucket

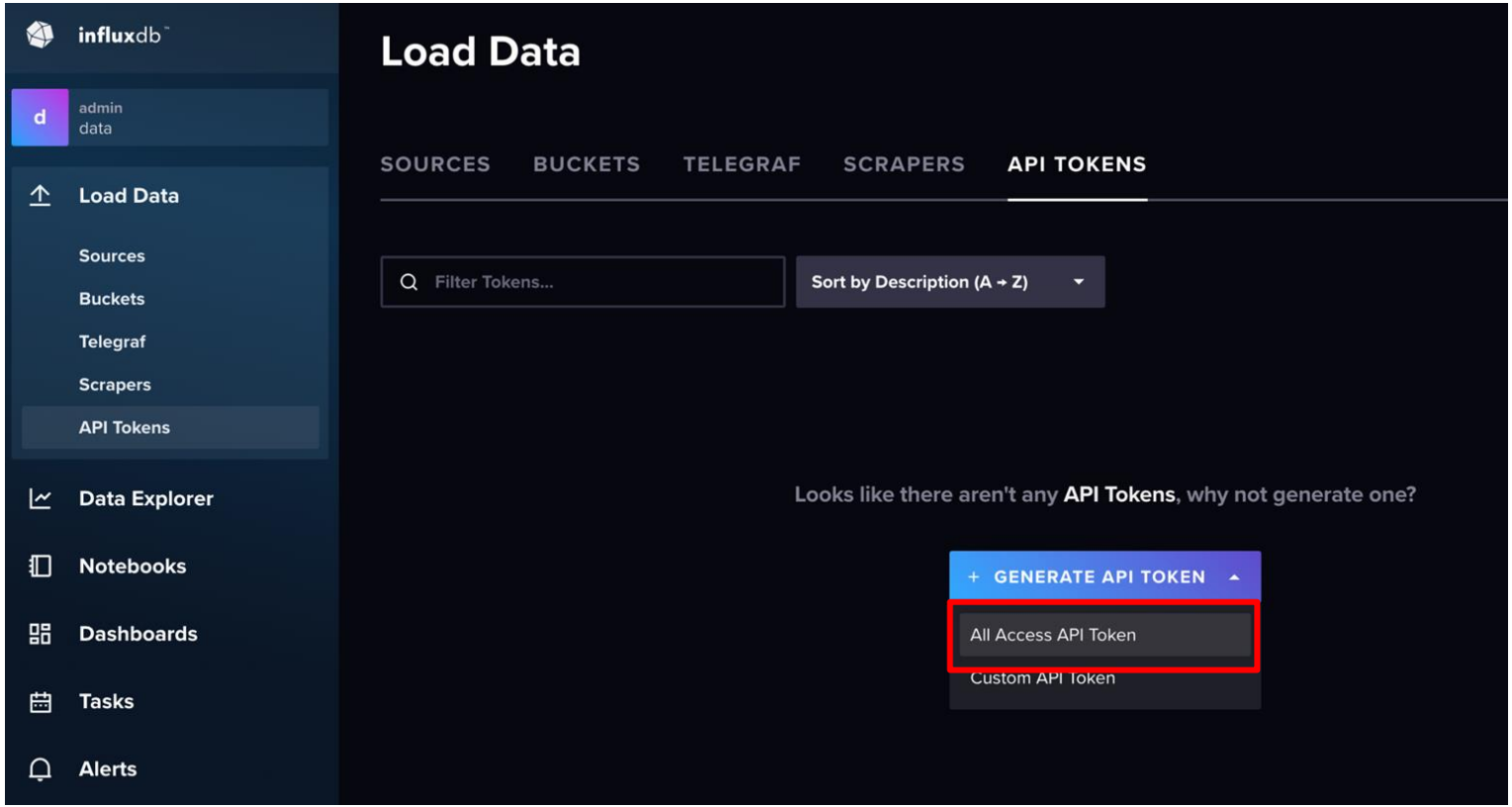


上傳數據到 InfluxDB

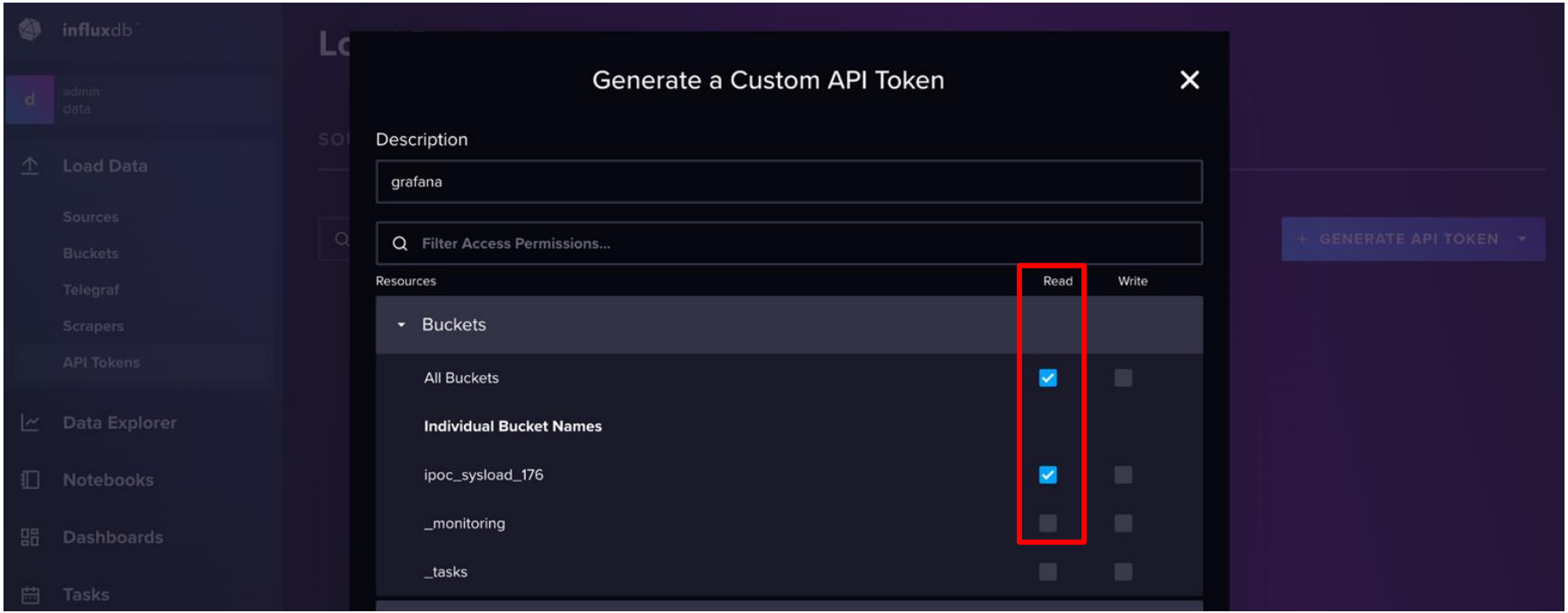



Line Protocol
.line
BUCKET
+ CREATE BUCKET
data
ipoc_sysload_176
oss_metrics
test
UPLOAD FILE
ENTER MANUALLY
Precision: Nanoseconds
data.txt
WRITE DATA
CANCEL

Create InfluDB Token



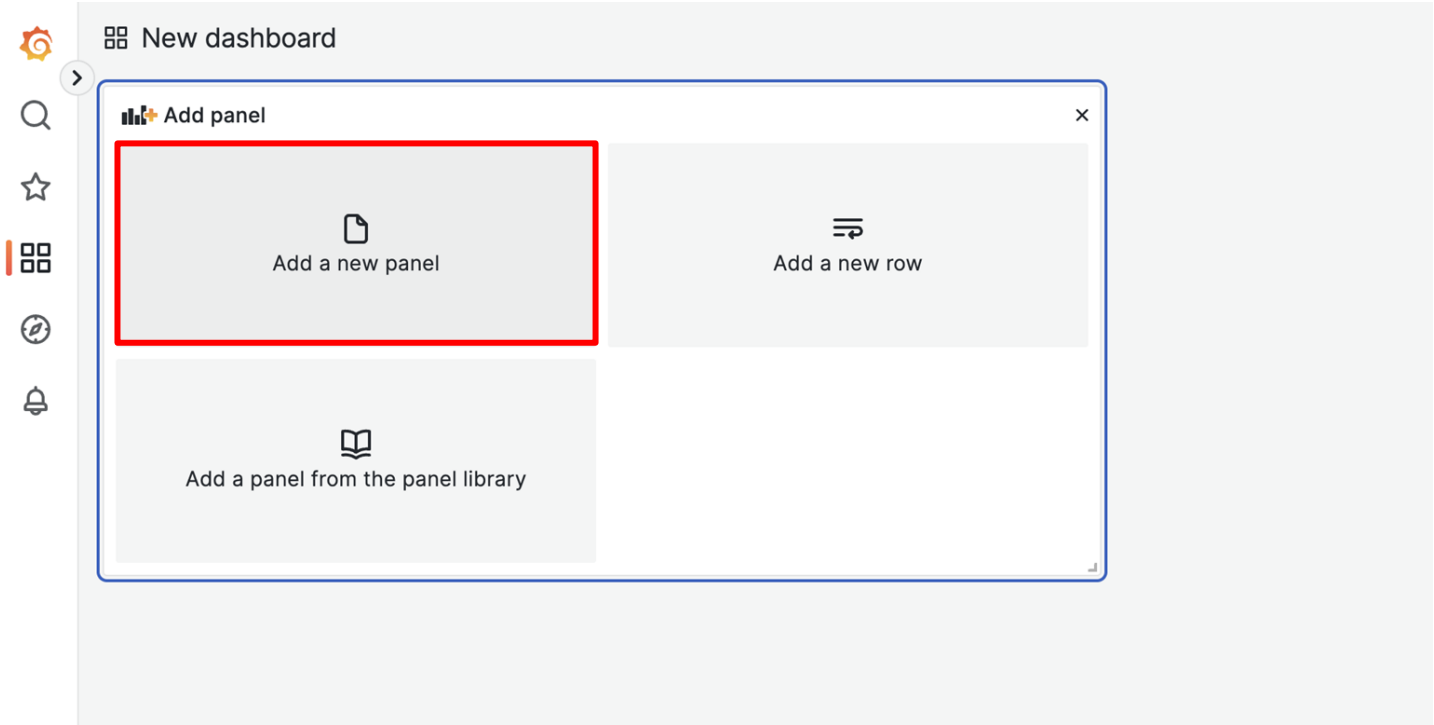
Create InfluDB Token



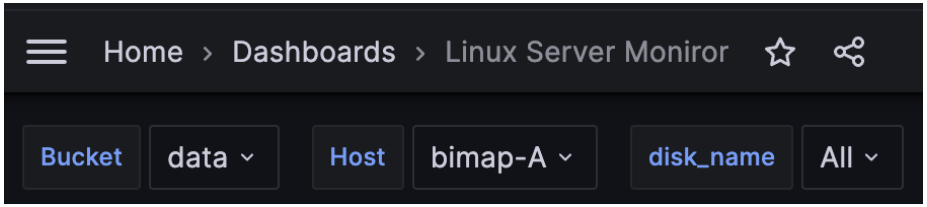
針對給grafana連接的token可以只給讀取bucket的權限

添加 Dashboard

添加 Panel

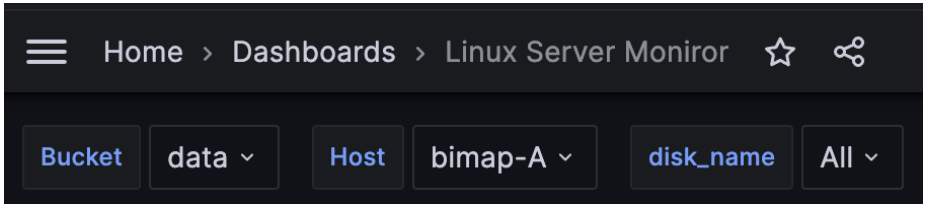

New dashboard
Add panel
Add a new panel
Add a new row
Add a panel from the panel library

建立變數：Bucket 下拉選單



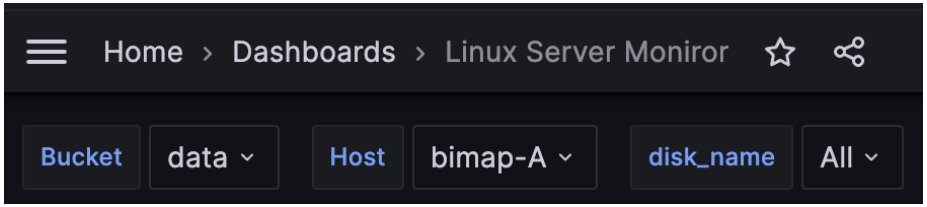

```
buckets()
|> filter(fn: (r) => r.name !~ /^_/)
|> rename(columns: {name: "_value"})
|> keep(columns: ["_value"])
```

建立變數：Host 下拉選單



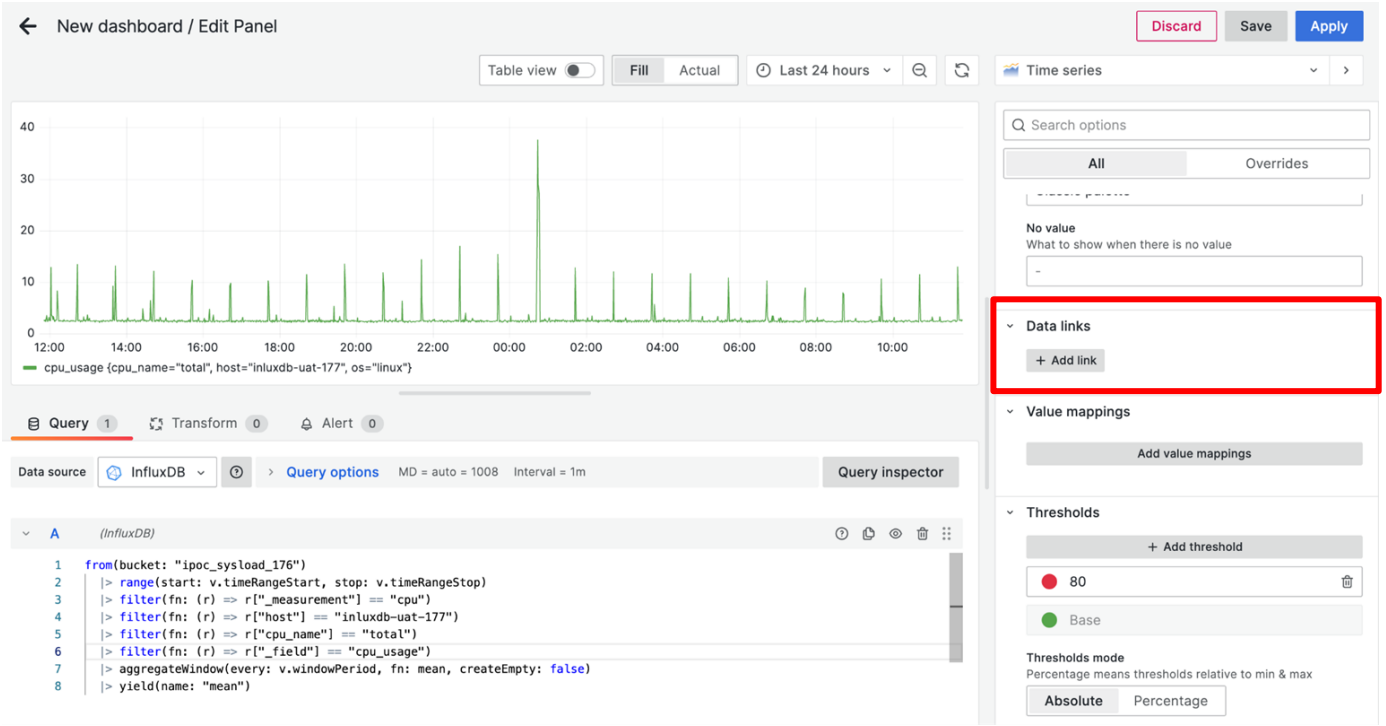

```
import "influxdata/influxdb/v1"
v1.tagValues(
bucket: "${Bucket}",
tag: "host",
predicate: (r) => true
)
```

建立變數：Disk_name 選單

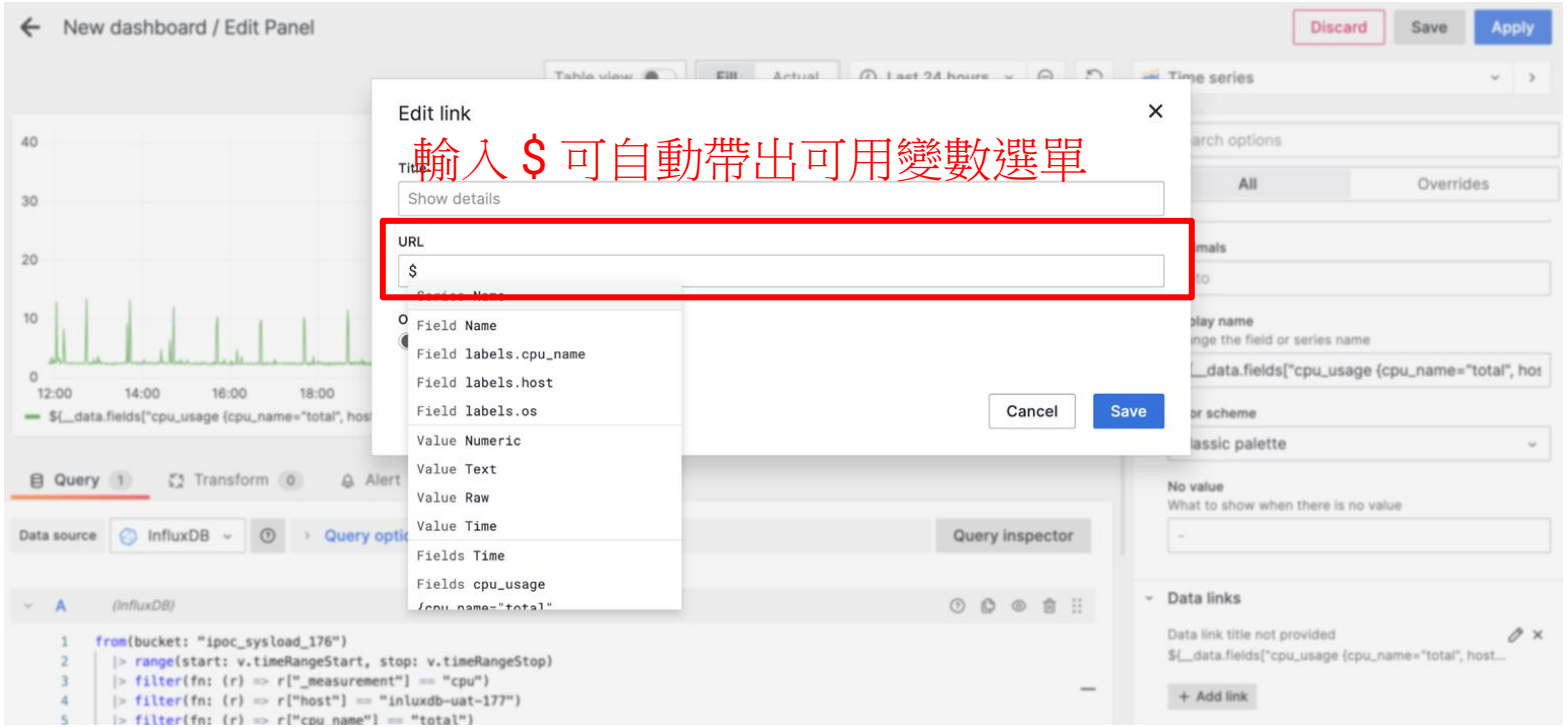



```
import "influxdata/influxdb/schema"
    schema.tagValues(
    bucket: "${Bucket}",
    tag: "disk_name",
    predicate: (r) =>
    r.host == "${Host}",
    start: v.timeRangeStart,
    stop: v.timeRangeStop
)
```

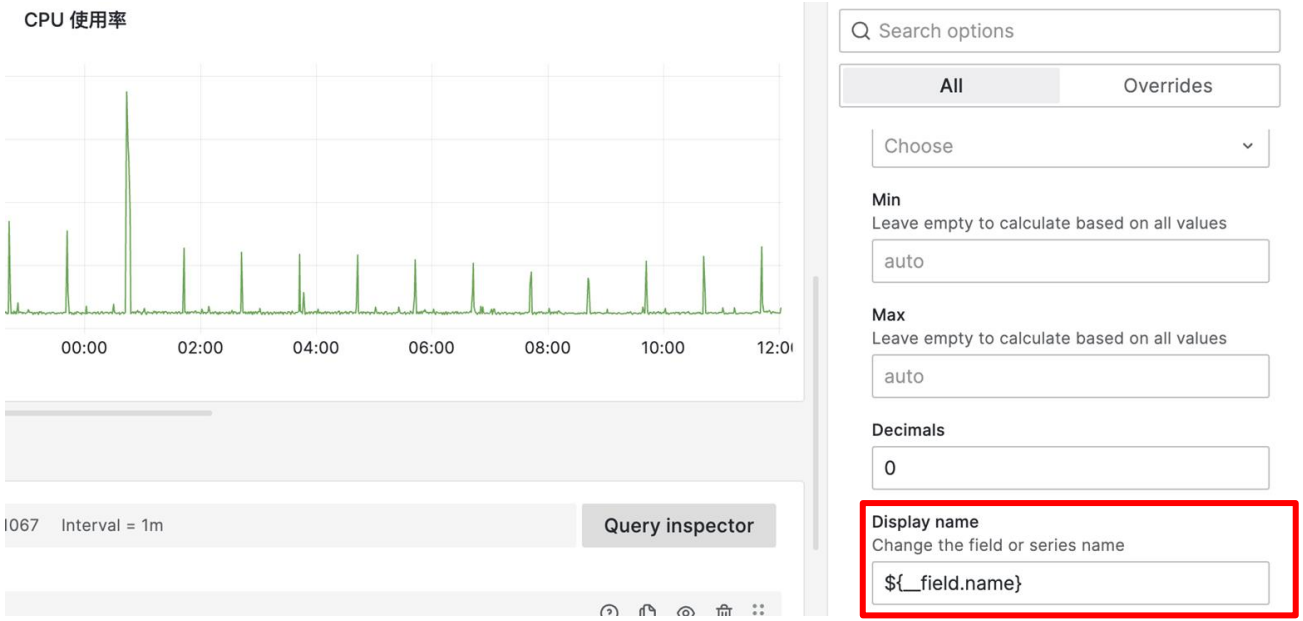
使用 Data links 帶入變數



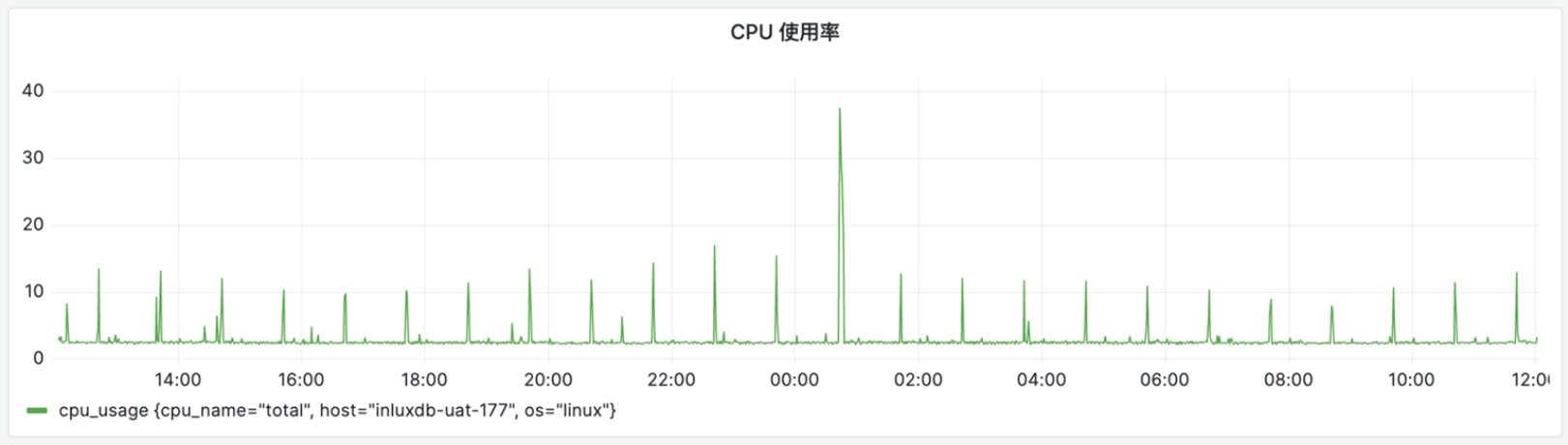
查找變數

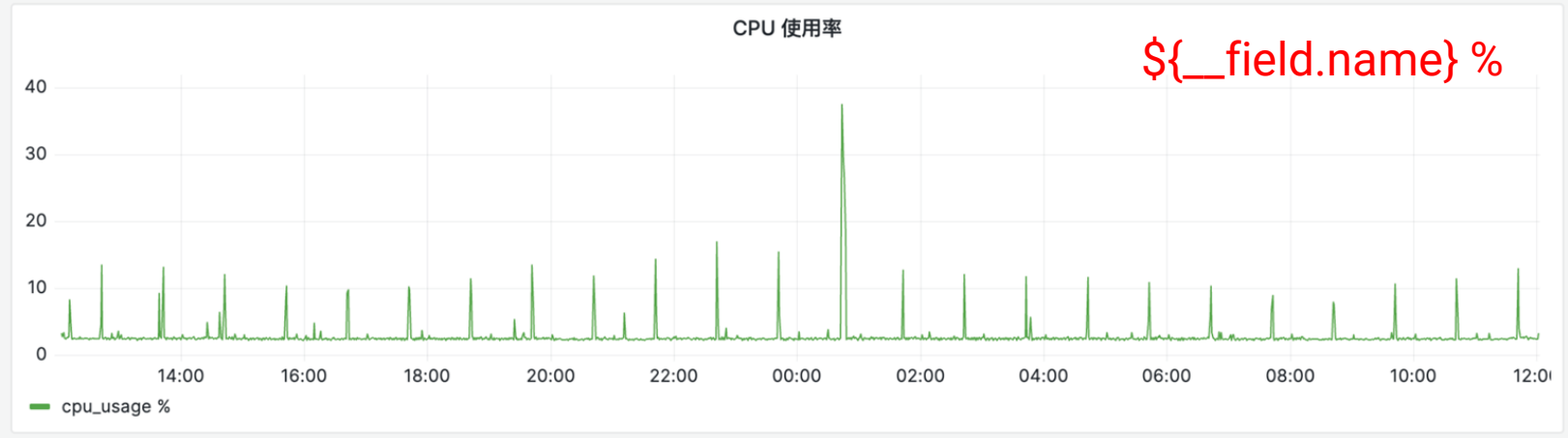

New dashboard / Edit Panel
Discard
Save
Apply
Edit link
輸入 $ 可自動帶出可用變數選單
Title
Show details
URL
$
Field Name
Field labels.cpu_name
Field labels.host
Field labels.os
Value Numeric
Value Text
Value Raw
Value Time
Fields Time
Fields cpu_usage
Cancel
Save
Query
Transform
Alert
Data source
InfluxDB
Query inspector
Data links
Add link
from(bucket: "ipoc_sysload_176")
|> range(start: v.timeRangeStart, stop: v.timeRangeStop)
|> filter(fn: (r) => r["_measurement"] == "cpu")
|> filter(fn: (r) => r["host"] == "inluxdb-uat-177")

欄位名使用變數



${__field.name}


CPU 使用率
40
30
20
10
0
14:00
16:00
18:00
20:00
22:00
00:00
02:00
04:00
06:00
08:00
10:00
cpu_usage {cpu_name="total", host="inluxdb-uat-177", os="linux"}


CPU 使用率
${__field.name} %
40
30
20
10
0
14:00
16:00
18:00
20:00
22:00
00:00
02:00
04:00
06:00
08:00
10:00
cpu_usage %

Before

建立儀錶板的目標是什麼？要解決什麼問題

After

需要多少說明讓別人理解你的儀錶板

儀錶板最佳實踐

X 一次性儀錶板

X 大量複製的儀錶板

X 大量瀏覽儀錶板

O 設置查詢變數

O 設計分層可向下探索到下一個級別

O 定義閾值與區分顏色來簡化資訊