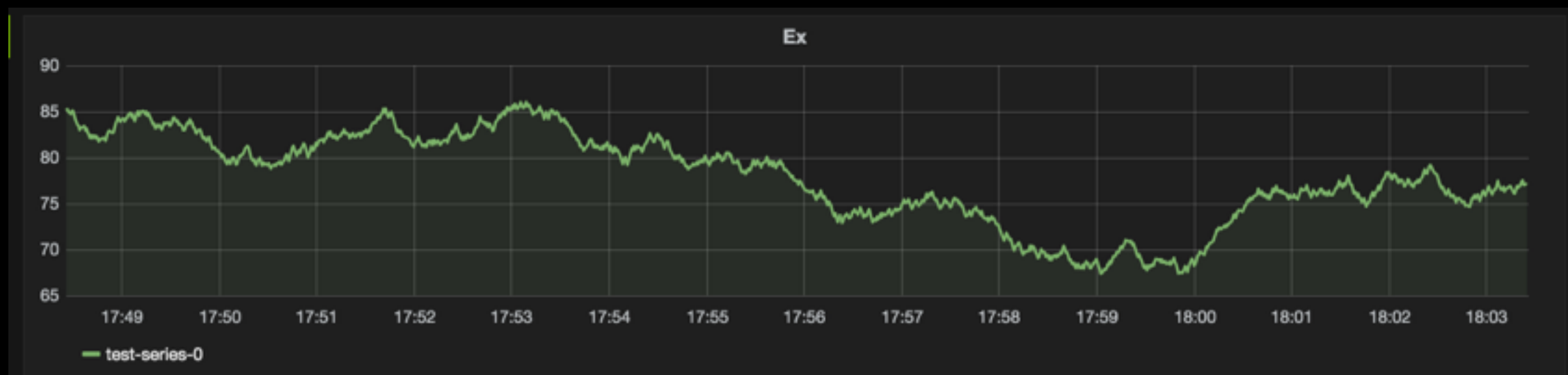


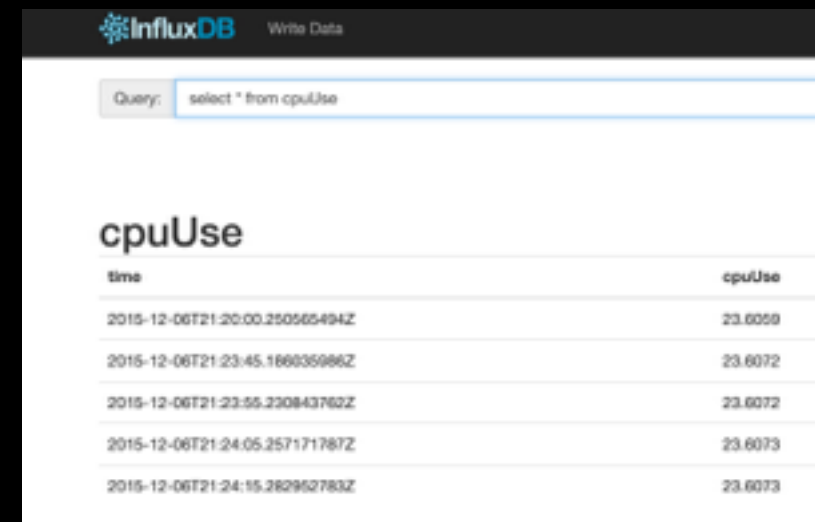
# InfluxDB and Grafana for Real-Time Visualization

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# InfluxDB

- Time-Series data
- Open Source
- Easy portal to view and manage info
- Easy REST API
- SQL-like query language



The screenshot shows the InfluxDB web interface. At the top, there's a header with the InfluxDB logo and the text 'Write Data'. Below the header, there's a query input field with the text 'Query: select \* from cpuUse'. The results are displayed in a table titled 'cpuUse'. The table has two columns: 'time' and 'cpuUse'. The data rows show timestamps and corresponding CPU usage values.

time	cpuUse
2015-12-06T21:20:00.250565494Z	23.6059
2015-12-06T21:23:45.166035986Z	23.6072
2015-12-06T21:23:55.230843760Z	23.6072
2015-12-06T21:24:05.257171787Z	23.6073
2015-12-06T21:24:15.282952783Z	23.6073

# Time-Series Data

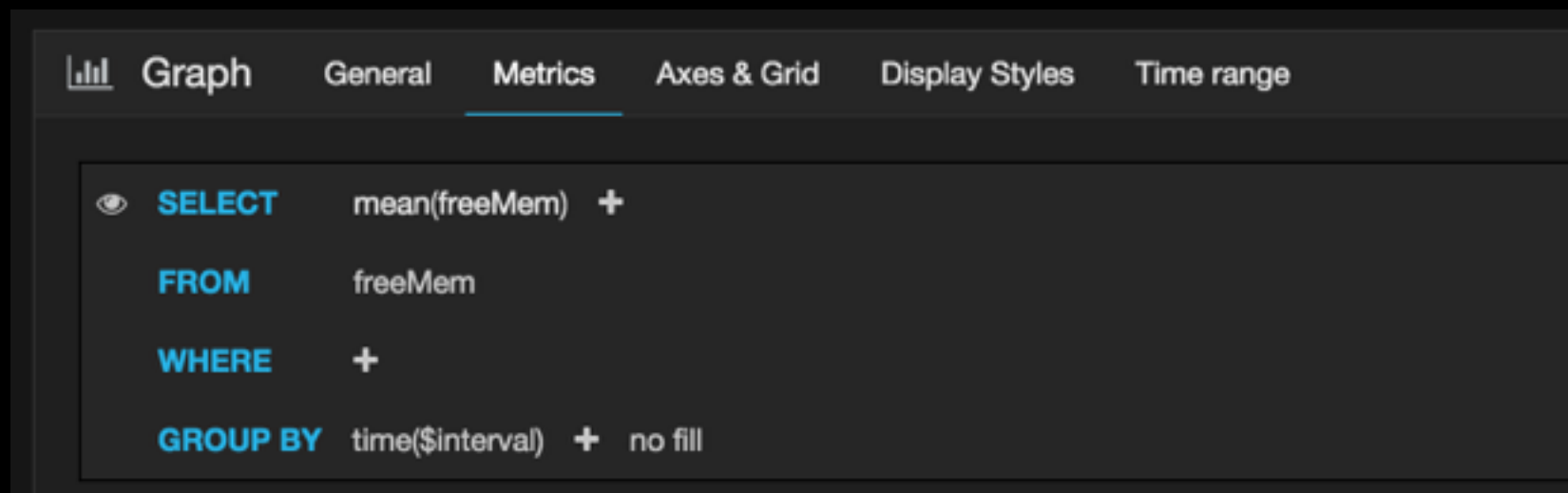
- Time-stamp + other data
- Useful for tracking what happened at a given instant
- Often used in statistics, monitoring system processes, anything that could benefit from use of temporal information

# Grafana

- Open source data visualization tool
- Compatible with: InfluxDB, OpenTSDB, KairosDB, Graphite, Elasticsearch
- Allows for real-time updating
- Graph sharing

# Grafana Overview

- Has query builder, gives options such as mean, stddev, derivative etc
- Can easily add more than 1 data plot to a graph



# Project Goals

- Setup InfluxDB and Grafana to run on CentOS
- Visualize system metrics
- Access info via BASH commands

# Example



# Further Work

- Report r/s and w/s of top 3 hard drives
- Automate installation and setup of Grafana dashboards



# Takeaways

- InfluxDB and Grafana pair well together
- Great for real-time data visualization