Grafana + ClickHouse

A Story of Open-source GitHub Activity









Open source column-oriented distributed OLAP database

Developed since 2009, OSS 2016 28.4k GitHub stars 1k+ contributors 300+ releases Best for aggregations Files per column Sorting and indexing Background merges Replication Sharding Multi-master Cross-region Analytics use cases
Aggregations
Visualization
Mostly immutable data

Speaks SQL

Most SQL-compatible Uls, editors, applications, frameworks will just work!

Lots of writes

Millions of writes per second!

Distributed

Replicated and sharded,
largest known cluster is 4000
servers

Highly efficient storage

Lots of encoding and compression options

Very fast queries

Scan and process even billions of rows per second and uses vectorized query execution

Serverless Cloud offering

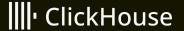
Let us deal with the infrastructure and scaling!

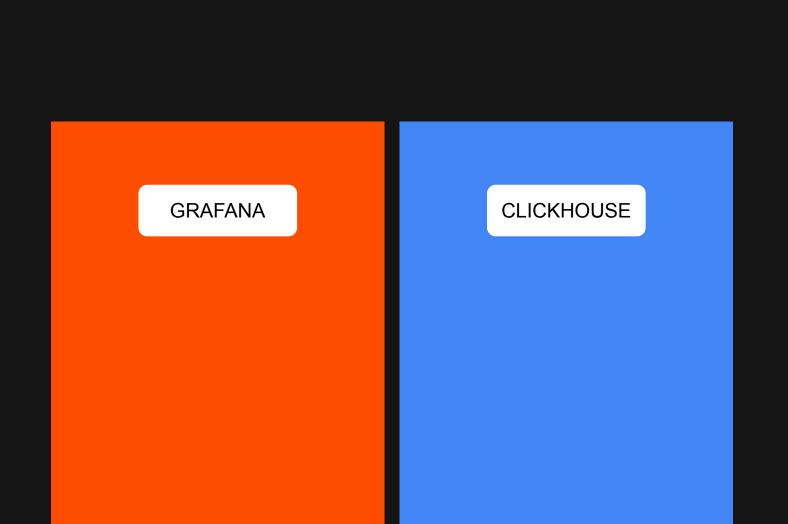
https://clickhouse.cloud/signUp



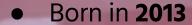
Parallel open-source Stories

Grafana | ClickHouse









- 55.5k GitHub stars
- 2000+ Contributors
- Millions of users
- Grafana OSS + Cloud



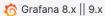
- Born in **2009**
- Open-sourced in 2016
- 28.9k GitHub stars
- **1000+** Contributors
- Millions of users
- ClickHouse OSS + Cloud





Version 3.0.3-beta

Dependencies



Developer



Resources

Website License

ClickHouse

Overview Installation Change log Related content

ClickHouse data source for Grafana

The ClickHouse data source plugin allows you to query and visualize ClickHouse data from within Grafana.

As of 2.0 this plugin will only support ad hoc filters when using ClickHouse 22.7+

Installation

For detailed instructions on how to install the plugin on Grafana Cloud or locally, please checkout the Plugin installation docs.

Configuration

ClickHouse user for the data source

Set up an ClickHouse user account with readonly permission and access to databases and tables you want to query. Please note that Grafana does not validate that queries are safe. Queries can contain any SQL statement. For example, statements like ALTER TABLE system.users DELETE WHERE name='sadUser' and DROP TABLE sadTable; would be executed.

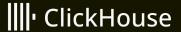


The dataset

- **Github Events** All PRs, Issues, Stars, Forks, Watch & Comments for **every** repository on Github since the beginning 2011 over 5.5 billion events. Available in play.clickhouse.com. Load into ClickHouse yourself details here.
- Github Commits For just the grafana repository. Also available in play.clickhouse.com. < 10m events, consisting of:
 - commits.tsv every Commit ~ 35k rows
 - file_changes.tsv File change ~ 190k
 - line_changes.tsv Line change ~ 8m rows

This can be generated for any repository using the ClickHouse tool git-import tool.

Demonstration





Thanks for joining!



clickhousedb.slack.com grafana.slack.com



@ClickHouseDB

@grafana

