

WHAT IS PROMETHEUS?



Prometheus is a software application used for event monitoring and alerting

WHY PROMETHEUS?

✓ Records any purely numeric time series



✓ Designed for Reliability



It can monitor both:

Machine-centric and
Highly dynamic service-
oriented architectures

WHY PROMETHEUS?

Prometheus is a Pull-Based Tool



CONTINUOUS MONITORING - PROMETHEUS

Applications
Exception

Memory Usage



Server CPU

Storage Spikes

```
docker run -p 9090:9090 prom/prometheus
```

```
https://devops4solutions.com/monitoring-using-prometheus-and-grafana-on-aws-ec2/
```

☐ Use local time ☐ Enable query history ☒ Enable autocomplete ☐ Enable highlighting ☒ Enable linter

Q

go_info

Execute

TableGraph

Load time: 23ms Resolution: 14s Result series: 1

<

Evaluation time

>

go_info{instance="localhost:9090", job="prometheus", version="go1.19.5"}

1

[Remove Panel](#)

Add Panel

```
Prometheus Time Series X localhost:9090/metrics X +
localhost:9090/metrics 120%
# HELP go_gc_duration_seconds A summary of the pause duration of garbage collection cycles.
# TYPE go_gc_duration_seconds summary
go_gc_duration_seconds{quantile="0"} 5.3652e-05
go_gc_duration_seconds{quantile="0.25"} 0.000115902
go_gc_duration_seconds{quantile="0.5"} 0.000172372
go_gc_duration_seconds{quantile="0.75"} 0.00032202
go_gc_duration_seconds{quantile="1"} 0.004481596
go_gc_duration_seconds_sum 0.01222167
go_gc_duration_seconds_count 29
# HELP go_goroutines Number of goroutines that currently exist.
# TYPE go_goroutines gauge
go_goroutines 31
# HELP go_info Information about the Go environment.
# TYPE go_info gauge
go_info{version="go1.15.6"} 1
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 2.4208464e+07
# HELP go_memstats_alloc_bytes_total Total number of bytes allocated, even if freed.
# TYPE go_memstats_alloc_bytes_total counter
go_memstats_alloc_bytes_total 1.740308e+08
# HELP go_memstats_buck_hash_sys_bytes Number of bytes used by the profiling bucket hash table.
# TYPE go_memstats_buck_hash_sys_bytes gauge
go_memstats_buck_hash_sys_bytes 1.482145e+06
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 858776
# HELP go_memstats_gc_cpu_fraction The fraction of this program's available CPU time used by the GC since the program started.
# TYPE go_memstats_gc_cpu_fraction gauge
go_memstats_gc_cpu_fraction 1.9999821734066367e-05
# HELP go_memstats_gc_sys_bytes Number of bytes used for garbage collection system metadata.
# TYPE go_memstats_gc_sys_bytes gauge
go_memstats_gc_sys_bytes 5.937176e+06
```