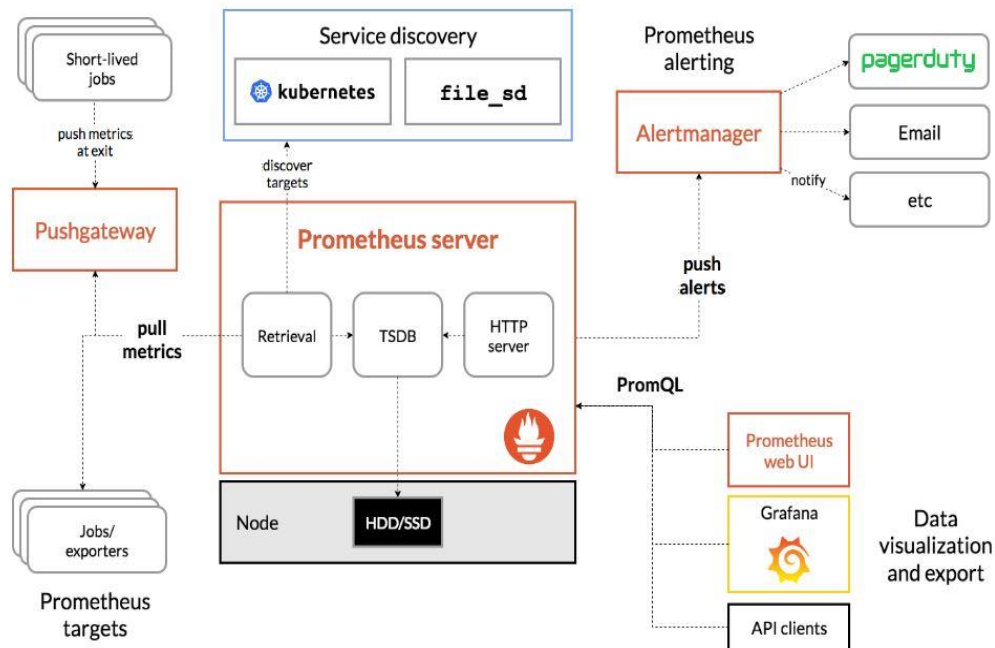


Monitoring Windows OS with Prometheus

This diagram illustrates the architecture of Prometheus and some of its ecosystem components:



To monitor a Windows computer with Prometheus, you must have Prometheus installed on your computer. You also need to have the Prometheus Windows Exporter installed on your Windows computer.

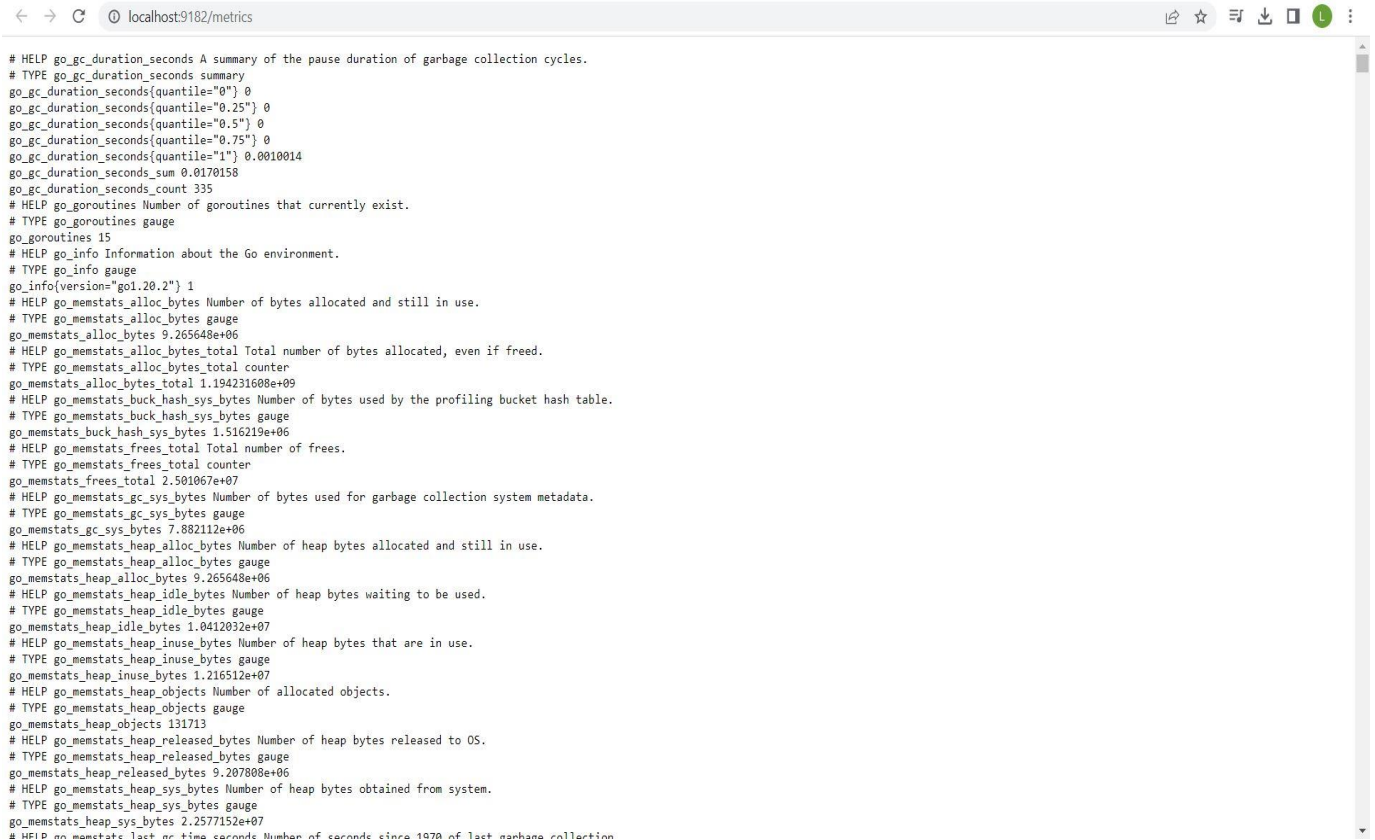
To download Prometheus Windows Exporter, navigate to the https://github.com/prometheus-community/windows_exporter from your web browser.

You can download Prometheus for the official site <https://prometheus.io/download/>

After you download Prometheus and windows exporter, you need to run the windows exporter.

Windows Exporter should be running on port 9182 of your Windows computer

To verify whether Windows Exporter is working, open a web browser and visit <http://localhost:9182/metrics>. If you see the following output, then Windows Exporter is working.



```
# 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"} 0
go_gc_duration_seconds{quantile="0.25"} 0
go_gc_duration_seconds{quantile="0.5"} 0
go_gc_duration_seconds{quantile="0.75"} 0
go_gc_duration_seconds{quantile="1"} 0.0010014
go_gc_duration_seconds_sum 0.0170158
go_gc_duration_seconds_count 335
# HELP go_goroutines Number of goroutines that currently exist.
# TYPE go_goroutines gauge
go_goroutines 15
# HELP go_info Information about the Go environment.
# TYPE go_info gauge
go_info{version="go1.20.2"} 1
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 9.265648e+06
# 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 1.194231608e+09
# 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 1.516219e+06
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 2.501067e+07
# 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 7.882112e+06
# HELP go_memstats_heap_alloc_bytes Number of heap bytes allocated and still in use.
# TYPE go_memstats_heap_alloc_bytes gauge
go_memstats_heap_alloc_bytes 9.265648e+06
# HELP go_memstats_heap_idle_bytes Number of heap bytes waiting to be used.
# TYPE go_memstats_heap_idle_bytes gauge
go_memstats_heap_idle_bytes 1.0412032e+07
# HELP go_memstats_heap_inuse_bytes Number of heap bytes that are in use.
# TYPE go_memstats_heap_inuse_bytes gauge
go_memstats_heap_inuse_bytes 1.216512e+07
# HELP go_memstats_heap_objects Number of allocated objects.
# TYPE go_memstats_heap_objects gauge
go_memstats_heap_objects 131713
# HELP go_memstats_heap_released_bytes Number of heap bytes released to OS.
# TYPE go_memstats_heap_released_bytes gauge
go_memstats_heap_released_bytes 9.207808e+06
# HELP go_memstats_heap_sys_bytes Number of heap bytes obtained from system.
# TYPE go_memstats_heap_sys_bytes gauge
go_memstats_heap_sys_bytes 2.2577152e+07
# HELP go_memstats_last_gc_time_seconds Number of seconds since 1970 of last garbage collection.
```

Once the Windows Exporter is installed on your Windows computer, you should be able to add it to Prometheus. To add your Windows computer to Prometheus, you need to know the IP address of your Windows computer.

To find the IP address of your Windows computer, you can run the following command on the Command Prompt app of your Windows computer.

```
C:\Users\Lyubomir Vasilev\Downloads>ipconfig
```

As you can see, the IP address of my Windows computer is 192.168.1.10. It will be different for you. So, make sure to replace it with yours from now on.

```

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2a01:5a8:31d:3b1:fee7:7706:e20b:b2ea
    Temporary IPv6 Address. . . . . : 2a01:5a8:31d:3b1:dcac:1a5d:688b:b3cb
    Link-local IPv6 Address . . . . . : fe80::524:7897:58b5:f8e%18
    IPv4 Address. . . . . : 192.168.1.10
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::1%18
                                192.168.1.1

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::7066:993a:2fb7:2b2f%14
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

```

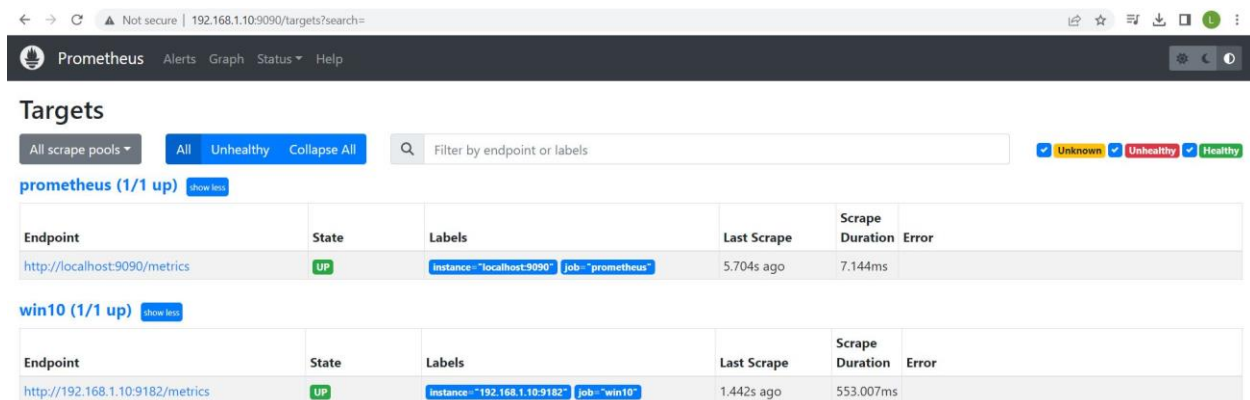
Now we need to open the Prometheus configuration file and add the job, also specify the target IP address of our Windows computer:

```

global:
  scrape_interval: 15s
scrape_configs:
  - job_name: 'prometheus'
    static_configs:
      - targets: ['localhost:9090']
  - job_name: 'win10'
    static_configs:
      - targets: ['192.168.1.10:9182']

```

After that we can navigate to localhost:9090/targets:



Targets

All scrape pools ▾ All Unhealthy Collapse All

Filter by endpoint or labels

Unknown Unhealthy Healthy

prometheus (1/1 up) [show less](#)

| Endpoint | State | Labels | Last Scrape | Scrape Duration | Error |
|---|-------|--|-------------|-----------------|-------|
| http://localhost:9090/metrics | UP | instance="localhost:9090" job="prometheus" | 5.704s ago | 7.144ms | |

win10 (1/1 up) [show less](#)

| Endpoint | State | Labels | Last Scrape | Scrape Duration | Error |
|---|-------|--|-------------|-----------------|-------|
| http://192.168.1.10:9182/metrics | UP | instance="192.168.1.10:9182" job="win10" | 1.442s ago | 553.007ms | |

To monitor your Windows computer with Prometheus, visit the Prometheus Graph page at [http:// 192.168.1.10:9090/graph](http://192.168.1.10:9090/graph) from your web browser.

To monitor the download speed of your Windows computer, run the expression `rate(windows_net_bytes_received_total[1m])`.

You should see a graph of the download speed of your Windows computer, as shown in the screenshot below.

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

Q `rate(window_net_bytes_received_total[1m])` Execute

Table Graph Load time: 14ms Resolution: 14s Result series: 2

