

To monitor Windows metrics using [Cloud Monitoring](#), complete the following steps:

1. [Set up the GPU metrics reporting script](#) on each VM instance.
2. Restart the VMs or run the following command on the VMs

```
C:\Program Files\Google\Compute  
Engine\metadata_scripts\run_startup_scripts.cmd
```

3. [View logs in Google Cloud Cloud Monitoring](#).

Setting up the Windows metrics reporting script

1. Configure your VMs to run [the script](#) on each of your VM instances in either windows-startup-script-ps1 or windows-startup-script-url metadata
 - Configure windows-startup-script-ps1 metadata
 - By console
 1. Add Custom metadata
 - a. Key: windows-startup-script-ps1
 - b. Value: copy the content from [the script](#)

Custom metadata

windows-startup-script-ps1

Param(

+ Add item

■ By CLI

1. Download the script
2. Run the following command

```
gcloud compute instances add-metadata EXAMPLE_INSTANCE_NAME \  
--metadata-from-file windows-startup-script-ps1=PATH_TO_FILE
```

- Configure windows-startup-script-url metadata
 - By console

1. Upload [the script](#) to your Google Cloud Storage bucket
2. Add custom metadata
 - a. Key: windows-startup-script-url
 - b. Value: gs://bucket/your_script_filename.ps1

■ By CLI

1. Upload the script to your Google Cloud Storage bucket by running the following command

```
gsutil cp your_script_filename.ps1 gs://your_bucknet_name
```

2. Run the following command

```
gcloud compute instances add-metadata windows2019-t4-grid \  
--metadata windows-startup-script-url=gs://bucket/your_script_filename.ps1
```

2. Restart your VM or run the following command on the VMs

```
C:\Program Files\Google\Compute  
Engine\metadata_scripts\run_startup_scripts.cmd
```

1.

Reviewing metrics in Cloud Monitoring

1. In the Google Cloud Console, select **Monitoring**, or use the following button:

[Go to Monitoring](#)

The first time you access any Monitoring functionality for a Google Cloud project, the project is associated with a [Workspace](#). If you've never used Monitoring, then a Workspace is automatically created. Otherwise, a dialog is displayed and you are asked to select between creating a Workspace and adding your project to an existing Workspace.



2. In the Monitoring navigation pane, click
3. Ensure the **Metric** tab is selected:

METRIC **VIEW OPTIONS**

Find resource type and metric ?

instance, cpu usage, etc.

+ ADD METRIC

4. Search for windows_.*.

Note: Custom metrics might take some time to display.

Monitoring Overview

Resources

Alerting

Uptime Checks

Groups

Dashboards

Services

Topology

Debug

Trace

Logging

Error Reporting

Google Cloud Platform

Metrics Explorer

METRIC **VIEW OPTIONS**

Find resource type and metric ?

Resource type: GCE VM Instance

Metric: custom/gpu_utilizati...

Filter ?

+ Add a filter

Group By ?

+ Add a filter

Aggregation ?

Aligner

mean

Reducer

none

Alignment Period

1 m

Secondary Aggregation

Reducer

none

Line

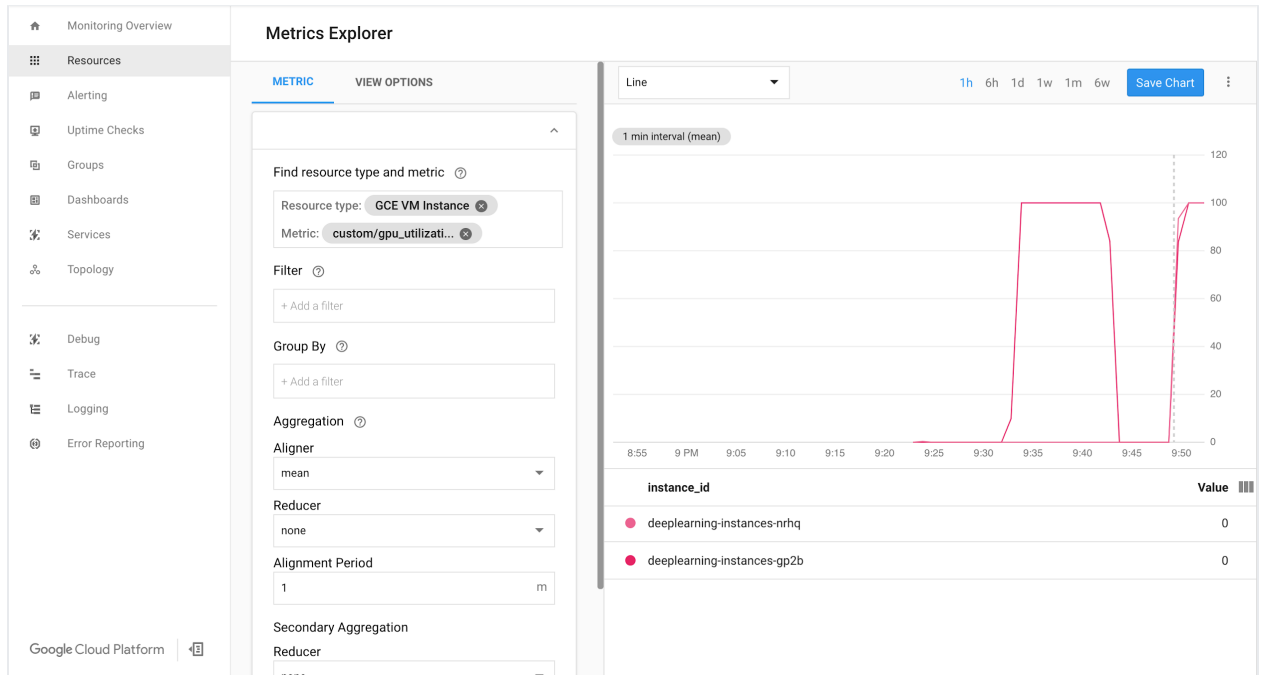
1h 6h 1d 1w 1m 6w

Save Chart

8:30 8:35 8:40 8:45 8:50 8:55 9 PM 9:05 9:10 9:15 9:20 9:25

instance_id	zone	Value
1393306776200649079	us-central1-a	0
751314409327270264	us-central1-b	0

5. Your GPU utilization should resemble the following output:



6. (Optional) Set up autoscaling using managed instance groups. To get started, you can review the [Setting up a multiple-zone cluster](#) section of the TensorFlow inference workload tutorial.