GCP persistent Disk to Windows Guest OS Mapping

This current work-a-round is a method for customer to use existing backup software vendors to map a specific guest drive and device id to a globally unique persistent GCP disk id (Since GCP doesn't present the disk id in the guest). This solution is based on a powershell module that a member from the Google engineering team has built ([Github](#)) with an API call to our metadata server and gcloud commands. Here is a [video](#) of how it works.

Installation Instructions:

1. Build a Windows Instance
2. Get the powershell module from [Git](#)
3. Follow the directions to import the module
4. Download the powershell wrapper [here](#) and extract in the same directory as the powershell module in step #2
5. In powershell, run the script .\GuestDiskMappingWrapper.ps1

    Example command In Guest OS

```
PS C:\gce-tools-master\GceTools\GetGcePdName> .\GuestDiskMappingWrapper.ps1
System Server Name: WIN-NAA|


Name        : disk-4
DeviceId    : 1
DiskNumber  : 1
DriveLetter :
Id          : 2682634891642720454

Name        : disk-4
DeviceId    : 1
DiskNumber  : 1
DriveLetter : E
Id          : 2682634891642720454

Name        : win-naa
DeviceId    : 0
DiskNumber  : 0
DriveLetter : C
Id          : 8261789656730751811
```

Querying the Persistent Disks in Gcloud (Note that the disk-4 is device 1 and id matches that in the Guest OS)

```
jonshannon@cloudshell:~ (p2f-prod)$ gcloud compute disks describe disk-4 --zone us-east1-b
creationTimestamp: '2019-04-26T13:46:33.820-07:00'
id: '2682634891642720454'
kind: compute#disk
labelFingerprint: 42WmSpB8rSM=
lastAttachTimestamp: '2019-04-26T13:46:40.377-07:00'
name: disk-4
physicalBlockSizeBytes: '4096'
selfLink: https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b/disks/disk-4
sizeGb: '500'
status: READY
type: https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b/diskTypes/pd-standard
users:
- https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b/instances/win-naa
zone: https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b


To take a quick anonymous survey, run:
  $ gcloud alpha survey

jonshannon@cloudshell:~ (p2f-prod)$
jonshannon@cloudshell:~ (p2f-prod)$
jonshannon@cloudshell:~ (p2f-prod)$ gcloud compute disks describe win-naa --zone us-east1-b
creationTimestamp: '2019-04-26T13:44:28.738-07:00'
guestOsFeatures:
- type: VIRTIO_SCSI_MULTIQUEUE
- type: WINDOWS
- type: MULTI_IP_SUBNET
id: '8261789656730751811'
kind: compute#disk
labelFingerprint: 42WmSpB8rSM=
lastAttachTimestamp: '2019-04-26T13:44:28.738-07:00'
licenseCodes:
- '1000017'
licenses:
- https://www.googleapis.com/compute/v1/projects/windows-cloud/global/licenses/windows-server-2012-r2-dc
name: win-naa
physicalBlockSizeBytes: '4096'
selfLink: https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b/disks/win-naa
sizeGb: '50'
sourceImage: https://www.googleapis.com/compute/v1/projects/windows-cloud/global/images/windows-server-2012-r2-dc-v20190411
sourceImageId: '1488586627039723258'
status: READY
type: https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b/diskTypes/pd-standard
users:
- https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b/instances/win-naa
zone: https://www.googleapis.com/compute/v1/projects/p2f-prod/zones/us-east1-b
jonshannon@cloudshell:~ (p2f-prod)$
```