Limit windows container resources

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(https://www.
windows-container-r

Limit windows container resource

In this blog, we will show you how to limit windows container resources like CPU, memory using docker com

OVERVIEW

We will set CPU and memory usage while creating VM. Likewise, we can also have resource control for windo can configure it using docker commands. It's a function of **docker run** command.

DOCKER HELP

- If we run **docker run – -help** command there are few flags which help us to configure CPU usage.

```
PS C:\> docker run --help

Usage:  docker run [OPTIONS] IMAGE [COMMAND] [ARG...]

Run a command in a new container

Options:
      --add-host list                          Add a custom host-to-IP mapping (host:ip) (default []
  -a, --attach list                            Attach to STDIN, STDOUT or STDERR (default [])
      --blkio-weight uint16                    Block IO (relative weight), between 10 and 1000, or 0
      --blkio-weight-device weighted-device    Block IO weight (relative device weight) (default [])
      --cap-add list                           Add Linux capabilities (default [])
      --cap-drop list                          Drop Linux capabilities (default [])
      --cgroup-parent string                   Optional parent cgroup for the container
      --cidfile string                         Write the container ID to the file
      --cpu-count int                          CPU count (Windows only)
      --cpu-percent int                        CPU percent (Windows only)
      --cpu-period int                         Limit CPU CFS (Completely Fair Scheduler) period
      --cpu-quota int                          Limit CPU CFS (Completely Fair Scheduler) quota
      --cpu-rt-period int                      Limit CPU real-time period in microseconds
      --cpu-rt-runtime int                     Limit CPU real-time runtime in microseconds
  -c, --cpu-shares int                         CPU shares (relative weight)
      --cpus decimal                           Number of CPUs (default 0.000)
      --cpuset-cpus string                     CPUs in which to allow execution (0-3, 0,1)
      --cpuset-mems string                     MEMs in which to allow execution (0-3, 0,1)
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-136.png)

- The common flag which we use for windows container is **– -cpu-percent int.** It allows you to specify the percen host CPU resources that should be used.

- In addition to this, there are few flags to specify the memory usage.

```
-m, --memory string                    Memory limit
    --memory-reservation string        Memory soft limit
    --memory-swap string               Swap limit equal to memory plus swap: '-1' to enabl
    --memory-swappiness int            Tune container memory swappiness (0 to 100) (defaul
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-137.png)

- The common flag which to specify memory is **– –memory string**

- We need to specify the CPU and memory usage while creating the containers. The reason is if a process requires memory if we don't specify these settings while creating the container, it will utilize all the memory in the contain

SETTING CPU AND MEMORY USAGE

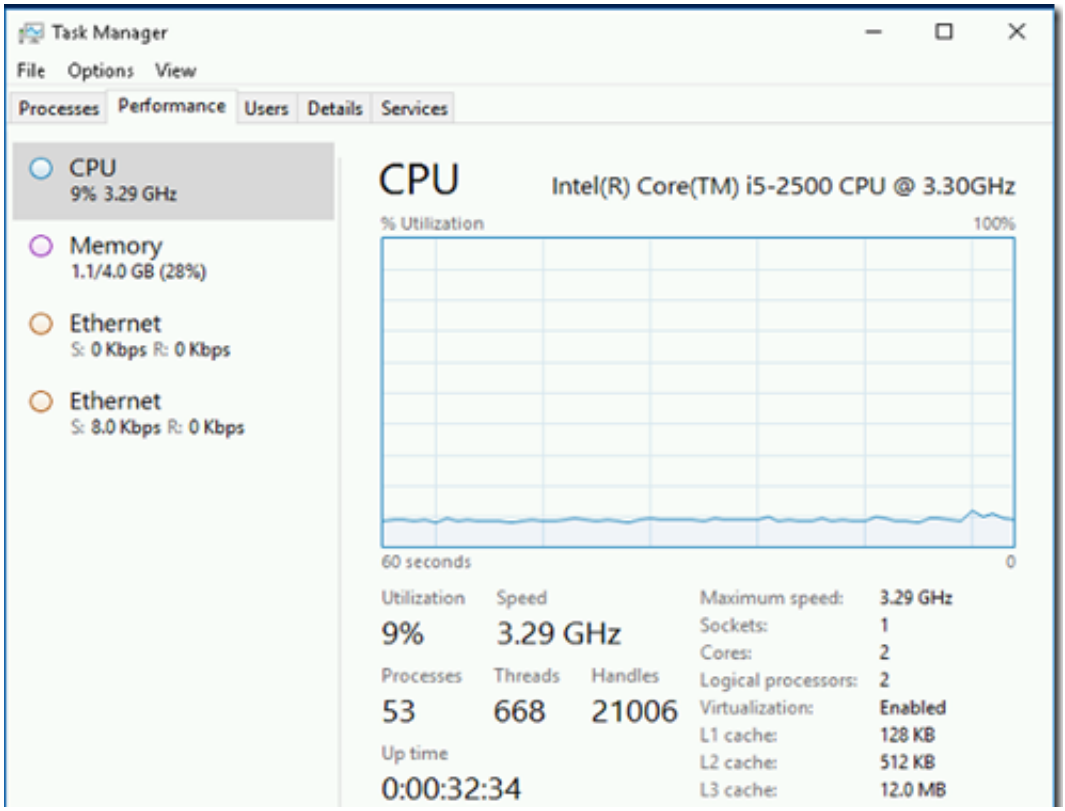
- To set the CPU and memory usage while creating containers, use the below option.

docker run -it –memory 1g –cpu-percent 20 microsoft/nanoserver

```
PS C:\> docker run -it --memory 1g --cpu-percent 20 microsoft/nanoserver
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-138.png)

- Earlier the CPU status is



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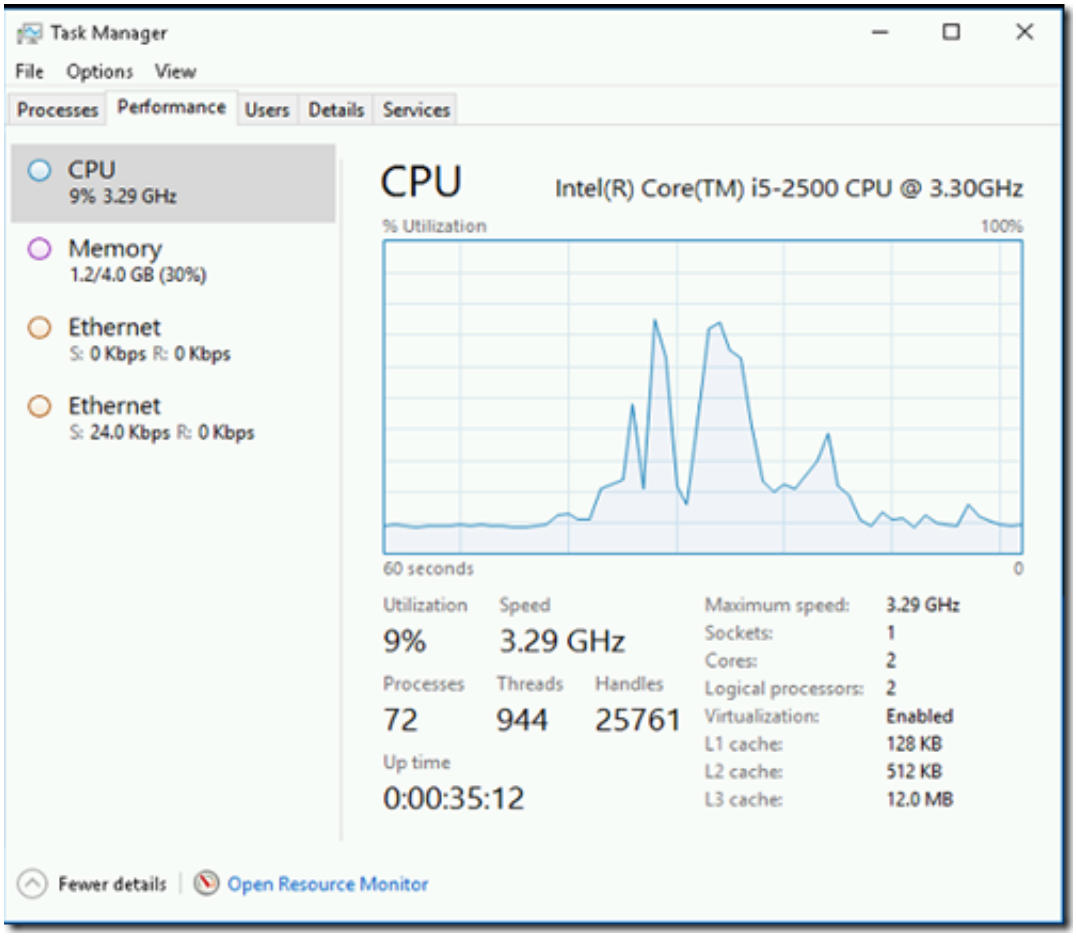

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content/uploads/2017/04/image-140.png)

- There is not much vary in the CPU & memory performance. So it's not pre-provisioning the resources to the cont
  allowing the container to use up to 1GB of memory and 20% of CPU.

VIDEO