How do I specify nvidia runtime from docker-compose.yml?

Asked 7 years, 3 months ago   Modified 11 months ago   Viewed 54k times

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I am able to run a tensorflow container w/ access to the GPU from the command line w/ the following command

```
$ sudo docker run --runtime=nvidia --rm gcr.io/tensorflow/tensorflow:latest-gpu
```

I would like to be able to run this container from docker-compose. Is it possible to specify the `--runtime` flag from `docker-compose.yml` ?

docker   docker-compose   tensorflow   nvidia-docker

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asked Nov 24, 2017 at 2:51

rissem
553 ● 1 ● 5 ● 11

4 Answers

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Currently (Aug 2018), NVIDIA container runtime for Docker ([nvidia-docker2](#)) [supports Docker Compose](#).

...dia to your GPU service. Docker

...e to show how to launch multiple GPU

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answered Aug 28, 2018 at 18:04

cedrickchee
902 ● 8 ● 12

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5   This option is possible only for docker-compose v2 for now. For more info, please look at the corresponding pull request here github.com/docker/compose/pull/5405 – hgasimov Dec 30, 2018 at 9:33
✎

This option is more elegant as it allows for better packaging using docker-compose – Blaze Jan 22, 2019 at 8:13

hm can different containers have different runtimes in one docker-compose file? – kodlan Feb 1, 2021 at 20:59

Do I still have to include the nvidia runtime in the deamon.json? – Marcel Sep 23, 2024 at 13:23

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You should edit `/etc/docker/daemon.json` , adding the first level key `"default-runtime": "nvidia"` , restart docker daemon (ex. `"sudo service docker restart"`) and then all containers on that host will run with nvidia runtime.

More info on `daemon.json` here

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answered Nov 26, 2017 at 11:58

✔

Gabriel Miretti aka gmiretti
1,469 ● 13 ● 16

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Or better: using `systemd` and assuming the path is `/usr/libexec/oci/hooks.d/nvidia`

```
-containers.conf <<EOF
```

```
runtime=nvidia
```

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Demo

Don't need to specify `--runtime=nvidia` since we set `default-runtime=nvidia` in the configuration step.

```
docker run --rm gcr.io/tensorflow/tensorflow:latest-gpu
```

Solution Inspired from my [tutorial about KATA runtime](#).

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answered Jul 21, 2018 at 15:00

Abdennour TOUMI
93.6k ● 42 ● 268 ● 269

Setting the default runtime seemed the most reasonable to me. However Gabriel's answer did not work for me.

1

Instead I found that the nvidia container toolkit can automatically configure the `daemon.json` [1].

```
sudo nvidia-ctk runtime configure --runtime=docker --set-as-default
sudo service docker restart
```

This should be more future proof, since it now adds a different section to the `daemon.json`.

[1] https://docs.nvidia.com/datacenter/cloud-native/container-toolkit/1.12.1/user-guide.html
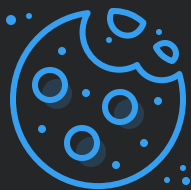
Share Improve this answer Follow   edited Mar 27, 2024 at 8:09
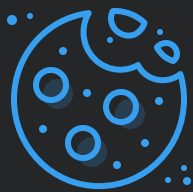
answered Mar 26, 2024 at 9:18

CodeMonkey
4,796 ● 2 ● 41 ● 51

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