How to install cpu-only milvus in minutes

@Milvus.io

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Prerequisites

Operating system requirements

Operating system	Supported versions
CentOS	7.5 or higher
Ubuntu LTS	18.04 or higher
Windows	Windows 10 64-bit: Pro, Enterprise, or Education (Build 15063 or later)
macOS	10.13 or higher

Hardware requirements

Component	Recommended configuration
CPU	Intel CPU Sandy Bridge or higher.

| CPU instruction set |

SSE42

AVX

AVX2

AVX512

| | RAM | 8 GB or more (depends on the data volume) | | Hard drive | SATA 3.0 SSD or higher |

Install Docker

- If you're using Ubuntu or CentOS, Install Docker 19.03 or higher on your local host machine.
- If you're installing Milvus on Windows, install Docker Desktop, and make certain configurations in **Settings > Advanced**. Make sure the Memory available to Docker Engine exceeds the sum of `insert_buffer_size` and `cpu_cache_capacity` you set in the `server_config.yaml` file.

- If you're installing Milvus on macOS, install Docker Desktop for Mac, and make certain configurations in **Settings > Advanced**. Make sure the Memory available to Docker Engine exceeds the sum of `insert_buffer_size` and `cpu_cache_capacity` you set in the `server_config.yaml` file.

Confirm Docker status

Confirm that the Docker daemon is running in the background:

```
1 $ docker info
```

If you do not see the server listed, start the **Docker** daemon.

> Note: On Linux, Docker needs sudo privileges. To run Docker command without `sudo`, create the `docker` group and add your user. For details, see the post-installation steps for Linux.

Select Milvus version from Docker hub

Go to dockerhub, ensure which version of milvus are you going to install. Click the copy button. Full docker pull command will be copied.

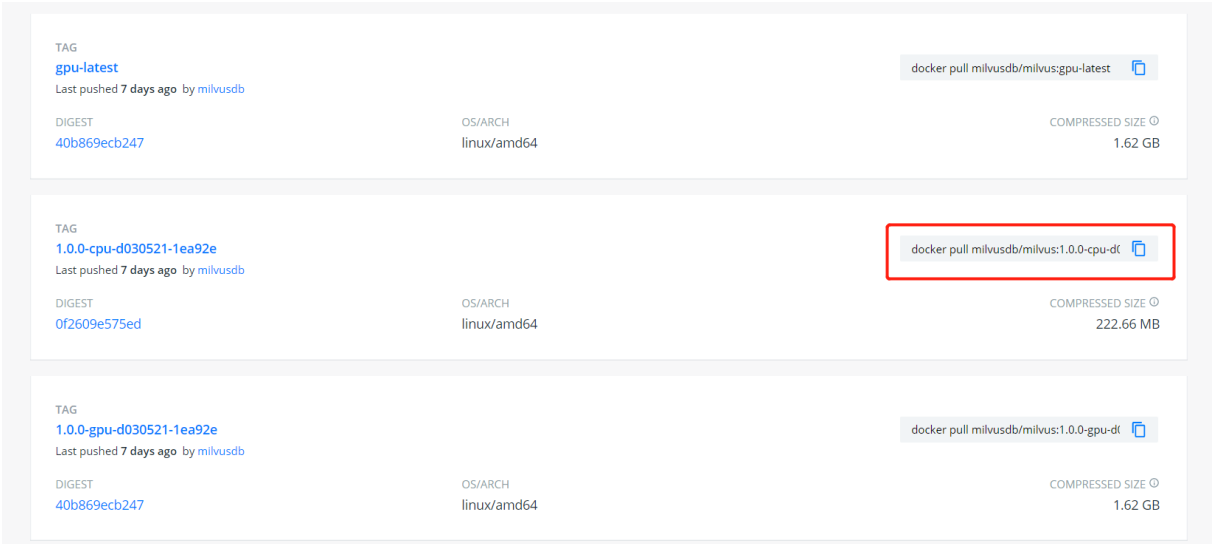


Figure 1: dockerhub-milvus

Pull Milvus Image

Paste the command in your console window

```
$ docker pull milvusdb/milvus:1.0.0-cpu-d030521-1ea92e
```

Create Milvus directories

Create 4 directories for milvus, we will mount these directories into the container later, you can place these folder anywhere, now, we put it at home directory.

- db: vectors will be stored in this directory
- logs: any milvus running logs will be here
- wal: wal will be stored in this directory
- conf: configuration files will be stored in this directory

```
$ mkdir -p /home/$USER/milvus/db
$ mkdir -p /home/$USER/milvus/logs
$ mkdir -p /home/$USER/milvus/wal
$ mkdir -p /home/$USER/milvus/conf
```

Download configuration files

Download the standard milvus configuration file, place it in the conf directory you just created.

```
$ cd /home/$USER/milvus/conf
$ wget https://raw.githubusercontent.com/milvus-io/milvus/v1.0.0/core/
    conf/demo/server_config.yaml
```

> Note: In case you encounter problems downloading configuration files using `wget` command, you can also create `server_config.yaml` under `/home/$USER/milvus/conf`, then copy and paste the content from server config file.

Start Milvus

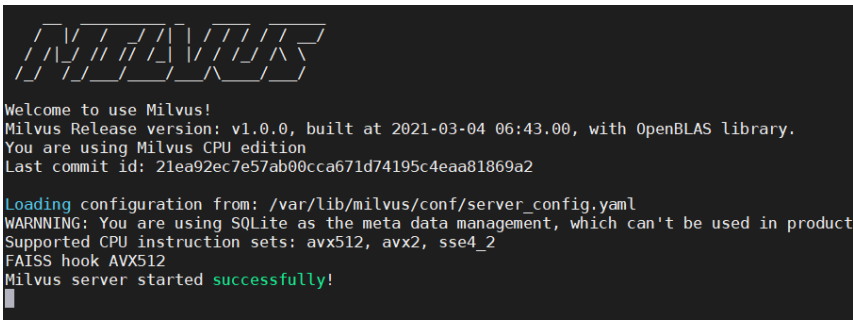
Run the docker that we just pulled. We will map the ports and mounts directories we just created.

- Milvus default port is 19530
- Milvus default http port is 19121

```
$ docker run --name milvus_cpu_1.0.0 \
-p 19530:19530 \
-p 19121:19121 \
-v /home/$USER/milvus/db:/var/lib/milvus/db \
-v /home/$USER/milvus/conf:/var/lib/milvus/conf \
```

```
  -v /home/$USER/milvus/logs:/var/lib/milvus/logs \
  -v /home/$USER/milvus/wal:/var/lib/milvus/wal \
  milvusdb/milvus:1.0.0-cpu-d030521-1ea92e
```

You can see someting like this, and we are done



If you want run milvus in the background, add option '-d'

```
$ docker run -d --name milvus_cpu_1.0.0 \
-p 19530:19530 \
-p 19121:19121 \
-v /home/$USER/milvus/db:/var/lib/milvus/db \
-v /home/$USER/milvus/conf:/var/lib/milvus/conf \
-v /home/$USER/milvus/logs:/var/lib/milvus/logs \
-v /home/$USER/milvus/wal:/var/lib/milvus/wal \
milvusdb/milvus:1.0.0-cpu-d030521-1ea92e
```

Next

- You can Try an example program
- Learn more about milvus
- Give milvus a star if you like it