

# WikiBase - Docker: Backup and Restore Docker Volumes.

This is a guide to backup and restore Docker volumes for a given container. This is more specifically used for the wikibase docker image for the 3D Metabolism project however the general workflow will still work with other docker images.

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## Prereqs:

- make sure not to use Windows PowerShell when backing up the Docker Volumes. However Powershell can be used for the import process.
  - A bash terminal is preferred
  - loomchild is a Docker tool that we will use to backup the volumes. Use `docker pull loomchild/volume-backup` to download the tool.
  - Make sure to download loomchild in the working directory you plan to place Volume backups.
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## Backup Volumes:

- Before we begin backing up the volumes, open your terminal and navigate to the working directory you plan to hold the backup files on. This is done by using the `cd` command.
- once in the working directory, make sure your docker containers are running.
- Confirm which docker containers you would like to back up. This is done by using the `docker volume ls` command within your terminal.

```
EML-CDW-XPS88+EMLScarfe-004@EML-CDW-XPS88 MINGW64 /c/Docker
$ docker volume ls
DRIVER      VOLUME NAME
local       docker_mediawiki-images-data
local       docker_mediawiki-mysql-data
local       docker_query-service-data
local       docker_quickstatements-data
```

- For 3DMetabolism, we would like to backup `<docker container directory>_mediawiki-images-data` , `<docker container directory>_mediawiki-mysql-data` , `<docker container directory>_query-service-data` , `<docker container directory>_quickstatements-data`
- Stop the docker container.
- Use this command as the template for the command you will input within the terminal `docker run -v <Volume name>:/volume --rm --log-driver none loomchild/volume-backup backup - > <Volume name>_<date> .`
  - Here is one example: `docker run -v docker_query-service-data:/volume --rm --log-driver none loomchild/volume-backup backup - > docker_query-service-data_2021_jul_1`
  - repeat this step for each docker volume you would like to backup

## Restore from Volumes:

- Before we can restore from the volume backups you made, make sure the docker container you are restoring to has the same docker image.
- use the `docker volume ls` command to match up the names of your volumes you are restoring to.

```
PS D:\Docker\testset_backup> docker volume ls
DRIVER      VOLUME NAME
local       testset_backup_mediawiki-images-data
local       testset_backup_mediawiki-mysql-data
local       testset_backup_query-service-data
local       testset_backup_quickstatements-data
```

- Make sure the docker containers are turned off.
- Use this command as the template for the command you will input within the terminal to restore the volumes: `cat <volume backup name> | docker run -i -v <volume name>:/volume --rm loomchild/volume-backup restore -f - .`
  - Here is one example: `cat test_docker_mediawiki-images-data | docker run -i -v testset_backup_mediawiki-images-data:/volume --rm loomchild/volume-backup restore -f -`
  - repeat this step for each docker volume you would like to restore

