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Compute Resources

Have questions or need help with compute, including activation or issues? Follow [this link.](#)

[User Agreement](#)

Docker Usage

The information on this page assumes that you have a knowledge base of using Docker to create images and push them to a repository for use. If you need to review that information, please see the links below.

[https://washu.atlassian.net/wiki/spaces/RUD/pages/1705115761/Docker+and+the+RIS+Compute1+Platform?atlOrigin=eyJpIjoiNzc4YTZjNjIxYmQwNGI3OTk4M2Q0MW](https://washu.atlassian.net/wiki/spaces/RUD/pages/1705115761/Docker+and+the+RIS+Compute1+Platform)

[https://washu.atlassian.net/wiki/spaces/RUD/pages/1864892726/Docker+Basics+Building+Tagging+Pushing+A+Custom+Docker+Image?atlOrigin=eyJpIjoiMTVjMjNlMW](https://washu.atlassian.net/wiki/spaces/RUD/pages/1864892726/Docker+Basics+Building+Tagging+Pushing+A+Custom+Docker+Image)

Overview

This documentation will guide you on making sure you're using the most appropriate OFED version for your Docker image in regards to the Scientific Compute Platform.

Installing the Correct Version

Shown below is an example of OFED 5.8-4.1.5.0 driver Dockerfile instructions for RedHat 8.9.

This also pertains to the `Ubuntu 22.04` with different code snippets but same version of `OFED 5.8-4.1.5.0`.

Once you have the correct OFED version installation code in your Dockerfile, you can build and push the image as you normally would.

Testing Your Image

Shown below are the steps to run a test job.

Create a bsub file called test.bsub as shown below. Please replace <Docker image tag> with your Docker image tag and <MPI program>.

```
)" #BSUB -G compute-ris #BSUB -oo lsf-%J.log mpirun -np $NP ]]>
```

Run your test. Shown below is an example command. Please replace <Number of processes> with number of exec nodes to run the test.

```
&& \ LSF_DOCKER_NETWORK=host \ LSF_DOCKER_IPC=host \ LSF_DOCKER_SHM_SIZE=20G \ bsub -n $NP < test.bsub]]>
```

There is a test script in https://github.com/WashU-IT-RIS/docker-osu-micro-benchmarks.git . Shown below are the instructions for OSU Benchmark test.

Clone the repository.

Change directory to docker-osu-micro-benchmarks.

Run an OSU Benchmark test.

Replace <test> with an OSU test that you want to run. For example, osu_bw for OSU bandwidth test.

Replace <compute-group> with the compute group you are a member of.

- -G]]>