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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=eyJpIjoiNzc4YTZjNjIxYmQwNGI3OTk4M2Q0MV](#)

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

storageN

The use of `storageN` within these documents indicates that any storage platform can be used.

Current available storage platforms:

storage1

storage2

Image Details

Docker image hosted at [nvcr.io/nvidia/clara/clara-parabricks:4.0.0-1](#)

Official documentation for [Parabricks version 4.0.0.](#)

Getting Started

Connect to compute client.

Prepare the computing environment before submitting a job.

Submit job. Basic commands for use:

Known Issues

Parabricks relies on available GPU(s) noted with `NVIDIA_VISIBLE_DEVICES` which defaults to 'all' regardless the quantity and

device number of GPU(s) reserved at runtime. As such, there is a possibility the software will attempt to run on GPU(s) the job does not have access to. At this time it is advised to prepend `pbrun` with the following.

Additional Information

Cores (`-n`) and memory (`-M` and `mem`) may need to be adjusted depending on the data set used.

1 GPU server should have 64GB CPU RAM, at least 16 CPU threads.

2 GPU server should have 100GB CPU RAM, at least 24 CPU threads.

4 GPU server should have 196GB CPU RAM, at least 32 CPU threads.

It is suggested to keep the GPUs at 4 and RAM at 196GB unless your data set is smaller than the 5GB test data set.

There is diminishing returns on using more GPUs on small data sets.

Replace `command` with any of the `pbrun` commands such as `fq2bam`, `bqsr`, `applybqsr`, or `haplotypecaller`.

Please refer to official [Parabricks documentation](#) for additional direction.