Nautilus GPU Compute Cluster Getting Started Instructions

# The Easy Way

* Initialize your Nautilus account by logging into <https://nautilus.optiputer.net/> using your MSU username and password (usually NetID).
* Once your account is initialized, contact [rci-support@montana.edu](mailto:rci-support@montana.edu) to request to be added to the appropriate namespace or to have a namespace created for your group.
* Use the RocketChat at <https://rocket.nautilus.optiputer.net/channel/general> to request a shared Ceph filesystem for your namespace.
* Now that everything is set up, you can login to the Nautilus JupyterLab Web interface at <https://jupyterhub.nautilus.optiputer.net/> using your MSU username and password.
* You will now select the resources you would like to use for your session and launch a JupyterLab instance.
* From your JupyterLab instance, you can transfer files, open terminals, install user space programs, run analyses, and more.
* Your JupyterLab instance will close one hour after you close the web app so keep your browser open while running any computation.

# Advanced Access Methods

You can also access the Nautilus GPU compute cluster directly using the Kubernetes/Docker platform. This method allows for a wide range of computational models including multi-node jobs and swarm methods. Generic documentation for this procedure is available at the following links and a walkthrough tutorial is available in the “Nautilus Direct Access Tutorial” document located in this folder (<https://montana.app.box.com/v/NautilusTrainingDocs>). Please note: if you use these methods, please take care to efficiently use resources in the Nautilus cluster and never leave inactive pods running.

* Full Nautilus Documentation: <http://ucsd-prp.gitlab.io/userdocs/>
* Quick start guide: <http://ucsd-prp.gitlab.io/userdocs/start/quickstart/>
* Storage access: <http://ucsd-prp.gitlab.io/userdocs/storage/toc-storage/>
* Configuring Globus on Nautilus: <http://ucsd-prp.gitlab.io/userdocs/running/globus-connect/>
* Running Jobs: <http://ucsd-prp.gitlab.io/userdocs/running/toc-running/>
* About Nautilus: <http://ucsd-prp.gitlab.io/nautilus/>
* Nautilus status monitor: <https://grafana.nautilus.optiputer.net/d/KMsJWWPiz/cluster-usage?orgId=1>
* Kubernetes tutorials: <https://kubernetes.io/docs/tutorials/>
* Docker Tutorials: <https://docs.docker.com/samples/>
* Docker Hub: <https://hub.docker.com/>

# RCI Support for Nautilus

RCI can offer getting started assistance, recommendations, and some troubleshooting support for the Nautilus cluster. Please direct any questions or requests to [rci-support@montana.edu](mailto:rci-support@montana.edu).