

Launching RStudio on GRACE

⚠ While this interactive app has been tested, there is a possibility that users may have use cases or desires that are incompatible with the current version of the interactive app. If this happens to you please reach out to the HPC admins and let us know via email: hpcadmin@uams.edu

To launch RStudio on GRACE you need to first login to the HPC portal at: portal.hpc.uams.edu

Then navigate to the Interactive Apps tab in the top and select RStudio Server

The screenshot shows the Grace Open OnDemand web interface. The navigation bar at the top includes 'Grace Open OnDemand', 'Files', 'Jobs', 'Clusters', 'Interactive Apps', and a document icon. The 'Interactive Apps' dropdown menu is open, listing the following options: 'Desktops', 'Grace Desktop', 'Jupyter Servers', 'Jupyter Lab', 'Jupyter Notebook', 'R Servers', and 'RStudio Server'. The 'RStudio Server' option is highlighted. In the background, there is a blue notice box that reads: 'Notice: We have updated the documentation for the HPC. Visit: <http://hpc.uams.edu>'. Below the notice is the 'OPEN OnDemand' logo and the text: 'OnDemand provides an integrated, single access point to your HPC resources.'

This will bring up a submission form where you will specify time, memory, CPUs, node type, and conda environment path needed for your job.

You can also specify which type of nodes you want to queue on using the Queue drop down menu.

⚠ By default the RStudio server will use the base conda environment for the R library and R version. If you need other packages or a different R version you should create a conda environment containing all the packages and appropriate R version on the login node. You then would give the full conda environment path (i.e. `/home/username/.conda/envs/my_env`) in the "conda env fullpath" box to specify the location of the conda environment to get your desired R packages and version. For more information about creating conda packages on the HPC please refer to the appropriate documentation: <https://hpc.uams.edu/display/HPC/Conda+and+Jupyter+App+Documentation>

Click Launch to submit the RStudio Server as a job.

Interactive Apps
Desktops
 Grace Desktop
Jupyter Servers
 Jupyter Lab
 Jupyter Notebook
R Servers
 RStudio Server

RStudio Server

This app will launch an RStudio server on one node.

Node Type

Choose which type of node to use: xeon, phi, gpu, any

conda env fullpath

Give the full filepath to the env you would like to use (i.e. /home/SE/BMIG_6203)

Number of Cores Requested

Max cores per node type: Xeon=56, Phi=256, GPU=48

Requested Memory (Gb)

Requested Time

Acceptable time formats include "minutes", "minutes:seconds", "hours:minutes:seconds", "days-hours", "days-hours:minutes" and "days-hours:minutes:seconds"

I would like to receive an email when the session starts

* The RStudio Server session data for this session can be accessed under the [data root directory](#).

Once the job is submitted your RStudio Server session will be Queued

RStudio Server (41893) Queued

Created at: 2021-04-27 20:19:31 CDT  Delete

Time Requested: 1 hour

Session ID: [63b6c3e3-17ec-4b29-abcb-bb43f23d05dc](#)

Please be patient as your job currently sits in queue. The wait time depends on the number of cores as well as time requested.

Once the RStudio Server session has found an available node the status will switch to Starting. The RStudio Server session will not be available yet as it is still starting up.

RStudio Server (41893) 1 node | 4 cores | Starting

Created at: 2021-04-27 20:19:31 CDT  Delete

Time Remaining: 59 minutes

Session ID: [63b6c3e3-17ec-4b29-abcb-bb43f23d05dc](#)

Your session is currently starting... Please be patient as this process can take a few minutes.

Once your RStudio Server session is ready the status will change to Running and you must click on the "(R) Connect to RStudio Server" button to access RStudio

RStudio Server (41893) 1 node | 4 cores | Running

Host: [>_knl085.uams-hpc](#)  Delete

Created at: 2021-04-27 20:19:31 CDT

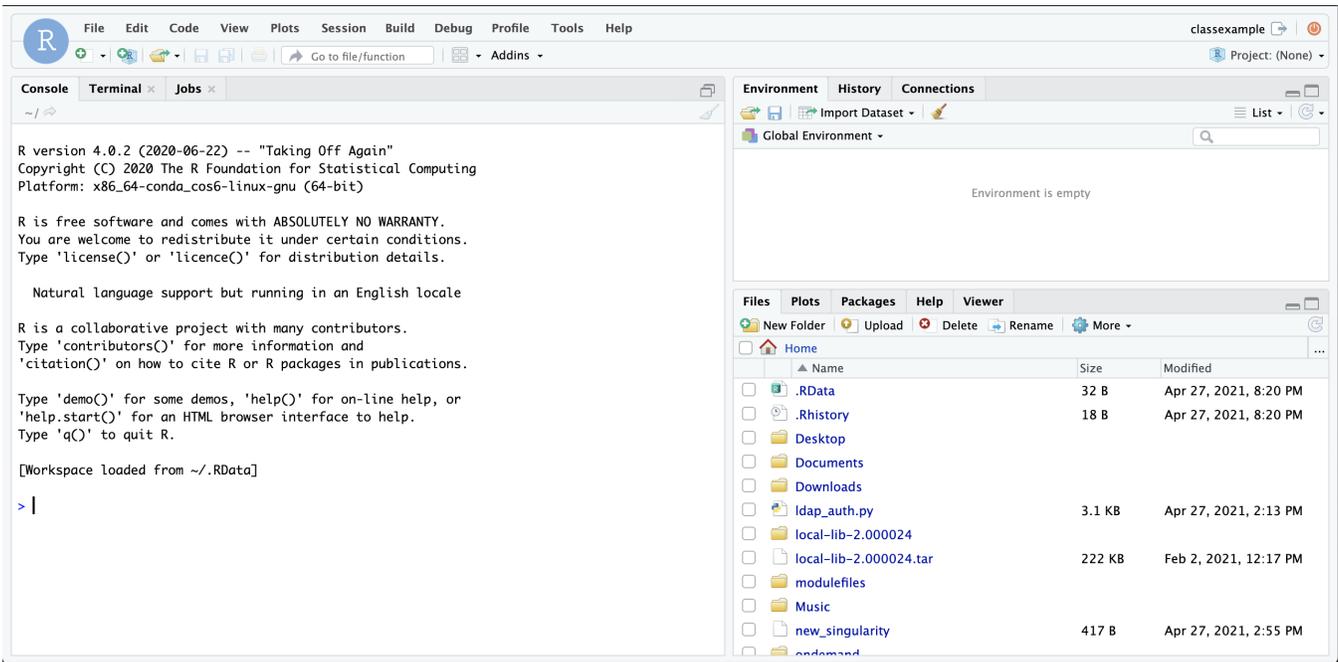
Time Remaining: 59 minutes

Session ID: [63b6c3e3-17ec-4b29-abcb-bb43f23d05dc](#)

 Connect to RStudio Server

Once you click the Connect button you should see RStudio displayed in your browser.

 **Note:** As the RStudio session is running on a compute node (which doesn't have internet access), you will be unable to install packages from within the RStudio Session. You must leave the session and update your conda environment and resubmit the RStudio job to add packages that you have forgotten.



NOTE: If you switch R versions by changing conda environments you will see a message like this in the new session.

R version change [3.6.0 -> 4.0.2] detected when restoring session; search path not restored

While the version of R has changed you may feel more comfortable restarting R as shown below

