R - Create and manage your own R environment

NYUAD HPC team provides a global R software environment which can be used through “Linux environment modules”. However, we do not install additional R modules to the global environment. So if you need, say the “coda” module, you will need to install it in your own environment.

Step-by-step guide

Install R Modules:

2. Login Dalma.
3. Make sure you don’t have anything related to R automatically set up. E.g., in your .bashrc, no R_LIBS is set, no specific R executable is added to $PATH
4. Load R module

   module load R

Or, specify a version to load

   module load R/3.4.1

5. Now you should be able to install R packages locally. For certain packages, gcc must be loaded before installation:

   module load gcc

Then you enter R. Run this in terminal:

   R

Then, inside R:

   install.packages('coda')

6. (One time only) It might ask you to install the package in a personal folder. Say yes. The following is a sample message. It will vary from different R versions you have loaded.

Never mix and match R versions. E.g., to use R packages installed by Conda with the R in module system will lead to failures which are impossible to debug.

If you are from CGSB, please contact Gencore for any software related issue: https://gencore.bio.nyu.edu/bioinformatics/
'lib = "/share/apps/NYUAD3/R/sse4.2/3.4.1/lib64/R/library"' is not writable
Would you like to use a personal library instead? (y/n) y
Would you like to create a personal library
~/R/x86_64-pc-linux-gnu-library/3.4
to install packages into? (y/n) y

If in any doubt, remove the folder R personal library folder and start from scratch.

Remove R Modules

1. In R, if you want to remove a package called coda:

   ```r
   remove.packages('coda')
   ```

Update R Modules

1. In R, if you want to update a package called coda:

   ```r
   update.packages('coda')
   ```

List R Modules

1. To list installed R modules

   ```r
   installed.packages()
   ```

Related articles

- Visualization Nodes
- Use GPU nodes in Dalma
- Access Dalma
- Mount $WORK with SSHFS
- Python - Create Your Own Environment using Anaconda