Installing nbodykit with ANACONDA

LINUX

STEPS

1. Download the suitable distribution of Anaconda for your machine:

```
$ wget https://repo.continuum.io/archive/Anaconda3-4.2.0-Linux-x86_64.sh
```

2. Install it

```
$ bash Anaconda3-4.2.0-Linux-x86_64.sh
```

3. Reinitialize the terminal to update the changes in the .bashrc (including Anaconda path).
4. In the new terminal you can confirm you have anaconda installed by typing

```
$ conda info
```

5. Now create an environment specifically designated for ***nbodykit*** (and all the dependencies and required packages).

```
$ conda create -n environmentname python=2.7 numpy scipy matplotlib h5py mpi4py astropy cython pyyaml dask
```

6. Activate the new environment.

```
$ source activate environmentname
```

7. **nbodykit** also needs **mpsort**, which is not in **conda.** To get it we use pip

```
(environmentname) $ pip install mpsort
```

8. Download ***nbodykit*** from its github repository:

```
(environmentname) $ git clone http://github.com/bccp/nbodykit
(environmentname) $ cd nbodykit/
```

9. Install the requirements using pip:

```
(environmentname) $ pip install requirements.txt
```

10. Finish the installation.

```
(environmentname) $ python setup.py install
```

11. To run it we use instructions as follows:

```
(environmentname) $ python ./bin/nbkit.py NameOfRoutine path/to/parameters/file
```

NOTES

- nbodykit will only work within this environment where all the dependencies and packages were installed.
- An older version of **nbodykit** can be downloaded from here as a zip file. This contains additional files in an **examples** folder that can be useful for creating parameter files for the routines. You can choose to either download the older version or simply copy the examples.

MAC OSX

STEPS

STEPS

1. Download Anaconda using the graphic installer and follow the instructions to install it.
   https://www.continuum.io/downloads#osx
2. Open a terminal and type

```
$ conda info
```

   to check that conda is correctly installed.

3. Now create an environment specifically designated for ***nbodykit*** (and all the dependencies and required packages).

```
$ conda create -n environmentname python=2.7 numpy scipy matplotlib h5py astropy cython pyyaml dask
```

4. Activate the new environment.

```
$ source activate environmentname
```

5. **mpi4py**
   a. Can be installed using **pip**, and the default **mpi c** compiler in your machine:

```
(environmentname) $ pip install mpi4py
```

   b. Or with **conda**, which hast its own compiler.

```
(environmentname) $ conda install mpi4py
```

6. **nbodykit** also needs **mpsort**, which is not in **conda.** To get it we use pip

```
(environmentname) $ pip install mpsort
```

7. Download ***nbodykit*** from its github repository:

```
(environmentname) $ git clone http://github.com/bccp/nbodykit
(environmentname) $ cd nbodykit/
```

8. Install the requirements using pip:

```
(environmentname) nbodykit$ pip install requirements.txt
```

9. Finish the installation.

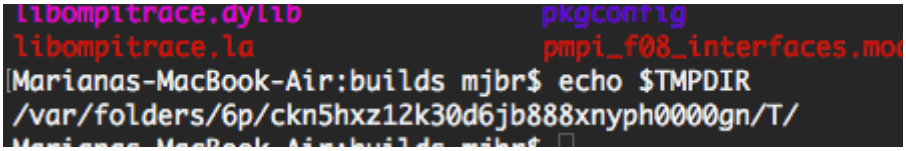
```
(environmentname) nbodykit$ python setup.py install
```

10. To run it we use instructions as follows:

```
(environmentname) nbodykit$ python ./bin/nbkit.py NameOfRoutine path/to/parameters/file
```

NOTES

- Mac has some weird long names for the temporary directories



this can cause errors that can be avoided adding this line to the *.bash_profile* line:

```
# OPENMPI requires shorter temporary path names
export TMPDIR=/tmp
```

- If you have a default mpi c compiler which is not in a standard location you may need to add a line like this one to your *.bash_profile* for MPsort to work properly:

```
#For compiling nbodikit and MPsort in mac if mpi is not in a standard location:
export LD_LIBRARY_PATH="/path/to/libs/openmpi-2.1.0/builds/lib:$LD_LIBRARY_PATH"
```

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