Install CC3D

Create a new environment with python version 3.10 and activate it.
- conda create -n cc3d python=3.10
  If at this point you're being asked to run:
    - conda init
  Go ahead and do it. You will also be asked to close the current session and reopen it. Once you do (you will have to log out-log in again), you should be able to follow the next steps.
- conda activate cc3d (make sure your conda create takes effect first)
- conda install -c conda-forge -c compucell3d compucell3d=4.6.0
    - When prompted to agree to packages being installed, always reply with Y.
    - This specific installation command will take a while.

CC3D is installed at this point. If, for example, you type:
- Cc3d-player5

and you have X-11 forwarding (which is taken care of if you're using MobaXterm on Windows), the actual GUI will greet you.

The next steps may be redundant, but to the best of my knowledge, they are still needed for headless mode. First, make sure you're in your home directory (/home/username/). Then run the following commands in succession:

- wget http://sourceforge.net/projects/cc3d/files/4.6.0/linux/cc3d-installer-linux-4.6.0-x86-64bit.sh
- chmod +x cc3d-installer-linux-4.6.0-x86-64bit.sh
- ./cc3d-installer-linux-4.6.0-x86-64bit.sh
    - This one will take a while.

You should now have a new folder named CompuCell3D.

Running in headless mode

Navigate to /home/username/CompuCell3D. To run in headless mode, you will have to provide two file locations (can be anywhere, you will be providing the relative path).
- ./runScript.sh -i **<input .cc3d file>** -f **<frequency>** -o **<output directory>** -c **<name of vtk files>**

Some notes:
- When you replace the names indicated by bold with your custom ones, don't use the < > symbols. They are there to indicate where your input starts and where it ends. For example, this command below runs in headless mode the CC3D_sim_for_AVS.cc3d simulation file, puts all the output-related information in the /sim_avs/outputs directory (which is just one of my own custom directories), and names the output vtk files "infoPrinter".

./runScript.sh -i ../sim_avs/CC3D_sim_for_AVS.cc3d -f 100 -o ../sim_avs/outputs/ -c infoPrinter

- More information about other command line arguments can be found here: https://compucell3dreferencemanual.readthedocs.io/en/latest/command_line_options.html

(Rania, 10/5/2024)