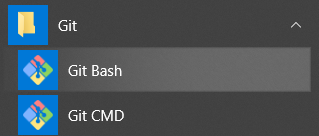
1. Installing the Allen Institute Brain Modeling Toolkit (BMTK)

# Installation/Setup

1. You must have Anaconda3 and Neuron installed correctly for BMTK to work. Details at the end of this document.
2. You must also install a git client to get the latest BMTK code. Download and install Git for Windows at (<https://git-scm.com/download/win>) and install with all the default settings.
3. Currently there are several issues in Windows when using BMTK, fixes have been made from a forked repository located at: <https://github.com/tjbanks/bmtk> (You’ll need to change to the correct branch for now as well)

From the ‘Git Bash’ prompt installed earlier execute the following commands:



cd C:/Users/<your\_username>/Desktop

mkdir temp\_bmtk\_install

cd temp\_btmk\_install

git clone <https://github.com/tjbanks/bmtk>

cd btmk

git checkout develop\_winin

In the future, these changes may be included in the BMTK release but until then and otherwise, for Linux/Mac use the Allen Institute’s repository: (Don’t run this again if you’re on Windows)

mkdir temp\_bmtk\_install

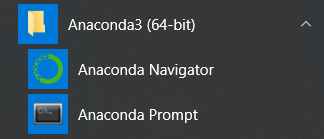
cd temp\_btmk\_install

git clone <https://github.com/AllenInstitute/bmtk>

cd btmk

Now close the Git Bash Window

1. Next, run **setup** and **install** from the **Anaconda Prompt** (We will also ensure that **old versions of BMTK are removed too**)



cd C:\Users\<your\_username>\Desktop\temp\_bmtk\_install

pip uninstall bmtk

python setup.py install

You can now safely delete the temp\_bmtk\_install directory using the command

rd /s /q C:\Users\<your\_username>\Desktop\temp\_bmtk\_install

1. Now that BTMK is installed, visit the directory you want to **build** your model in and run BMTK’s directory setup. The network directory is where the node/edge configuration files will sit. For example, the following will change directory to your desktop, create a project directory (bmtk\_model), create a network directory for btmk to use, and initialize the directory for your further customization. **This step will only be run once!**

cd C:\Users\<your\_username>\Desktop

mkdir my\_bmtk\_model

cd my\_bmtk\_model

mkdir network

python -m bmtk.utils.sim\_setup -n ./network bionet

1. In Windows you may be met with compilation errors like the following:

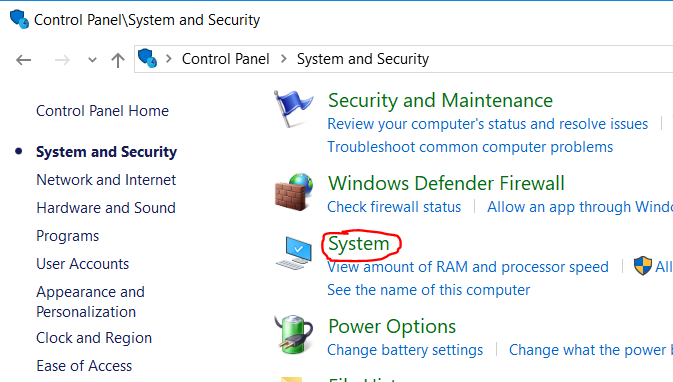
C:\Users\Tyler\Desktop\my\_bmtk\_model\biophys\_components\mechanisms

Was unable to compile mechanism in $COMPONENTS\_DIR/mechanisms

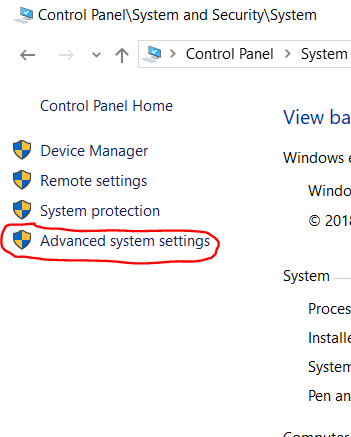
This is normal. You will need to compile your mod files any time they change. Run mknrndll in the (\biophys\_components\mechanisms\modfiles\) directory then copy the resulting dll file to the parent directory (\biophys\_components\mechanisms\)

# Anaconda/Neuron Installation

1. Download and install Anaconda3 (<https://www.anaconda.com/download/#download>)
2. Download and install Neuron (<https://www.neuron.yale.edu/neuron/download>)
3. Ensure your environment variables are set
   1. Type ‘control in the windows search bar and click control panel
   2. Click system and security
   3. Click system



* 1. Click ‘advanced system settings’



* 1. Click ‘Environment Variables’
  2. Ensure that ‘NEURONHOME’ and ‘PYTHONPATH’ exist and point to the correct install locations

