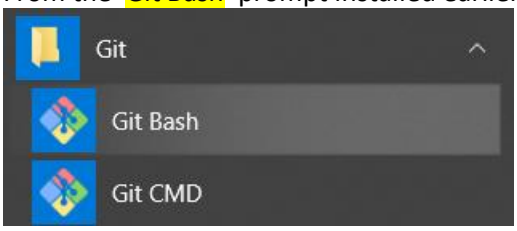
1- Installing the Allen Institute Brain Modeling Toolkit (BMTK)

Installation/Setup

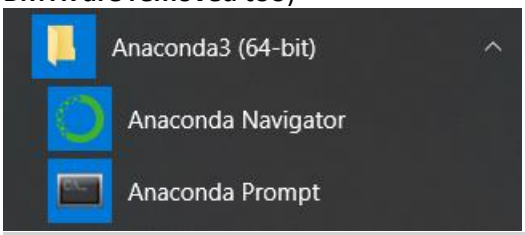
1. You must have Anaconda3 and Neuron installed correctly for BMTK to work. Details at the end of this document.
2. You must also install a git client to get the latest BMTK code. Download and install Git for Windows at (https://git-scm.com/download/win) and install with all the default settings.
3. 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/AllenInstitute/bmtk

Now close the Git Bash Window
```

4. 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\bmtk
pip uninstall bmtk
python setup.py install

You can now safely delete the temp_bmtk_install directory using
the command
cd ../..
rd /s /q C:\Users\<your_username>\Desktop\temp_bmtk_install
```

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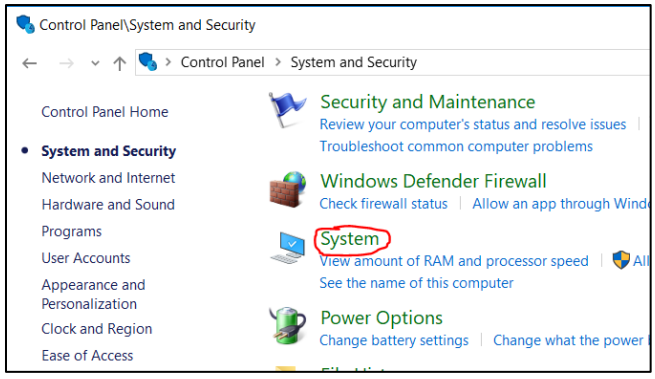
SOME GENERAL INFORMATION

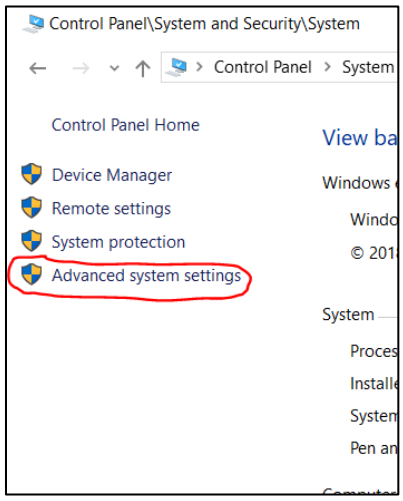
- Main reference for BMTK and BioNet: Gratiy et al. (2018) *BioNet*: A Python interface to NEURON for modeling large-scale networks. PLoS ONE 13(8): e0201630.
- BMTK is a python-based API to interface with NEURON, NEST,……
- API (Application Programming Interface) is a protocol intended to be used as an interface by software components to communicate with each other. It is basically a set of programming instructions and standards for accessing web-based applications or web tools.
- JSON (Java Script Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on the Java programming language, Standard ECMA-262 3rd edition, Dec 1999
- See document “99-Additional_BMTK_info” for additional information

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
    a. Type 'control in the windows search bar and click control panel
    b. Click system and security
    c. Click system



    d. Click 'advanced system settings'



    e. Click 'Environment Variables'
    f. Ensure that 'NEURONHOME' and 'PYTHONPATH' exist and point to the correct install locations