

Installing AIMBAT

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1 Getting your Operating System

Go to **System Preferences** as in 1, and click on **Startup Disk**. It should show your operation system version.

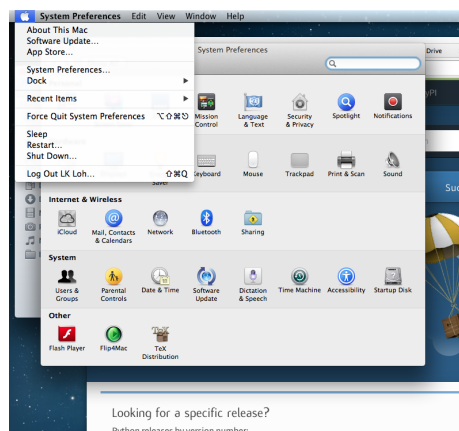


Figure 1: Console

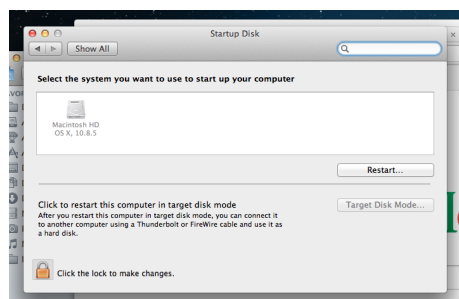
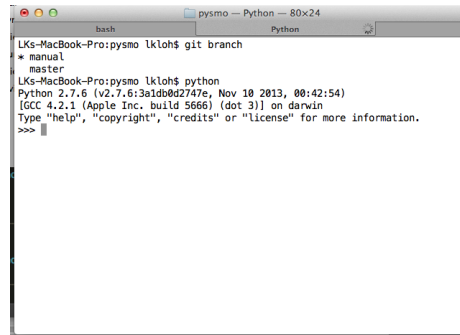


Figure 2: Console

2 Installing Python

2.1 Getting Python

Usually, Macs already have python installed by default. To check if you have python on your mac, open up terminal, and do python in the terminal. If python is installed you should see some sort of console show up, as in Figure 3. If python is not installed, you should see an error message show up.



```
LKS-MacBook-Pro:pysmo lkloh$ git branch
* master
LKS-MacBook-Pro:pysmo lkloh$ python
Python 2.7.6 (v2.7.6:3a1000d2747e, Nov 10 2013, 00:42:54)
[GCC 4.2.1 (Apple Inc. build 5666) (dot 3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
```

Figure 3: Console

To get python, go to <https://www.python.org/>, and get the correct version for your operating system.



Figure 4: Console

2.2 Macports

Its best to use Macports <http://guide.macports.org/> to install the necessary python libraries for AIMBAT.

If you just upgraded your operating system, you need to upgrade Macports and re-install the libraries as well. Follow the instructions here: <https://trac.macports.org/wiki/Migration>.

2.3 Installing the necessary components

Inside the terminal, once python is install, type these commands in using sudo mode. Note you will need to enter your admin password.

```
sudo port install python27
sudo port install py27-numpy
sudo port install py27-scipy
sudo port install py27-matplotlib
sudo port install py27-ipython
sudo port install python_select
```

Installing the last two packages is optional. `ipython` is an enhanced interactive python shell.

`python_select` is used to select default Python version by the following command:

```
port select --set python python27
```

You need this version, not other versions on your computer, since this is the one that has the libraries AIMBAT needs.

3 Installing AIMBAT

3.1 Getting the packages

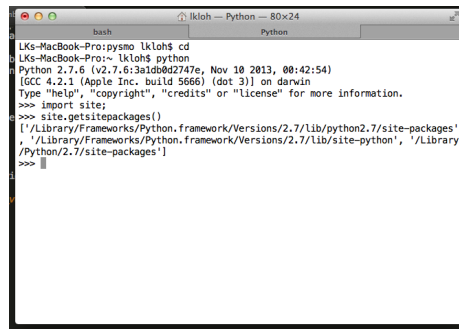
AIMBAT is released as a sub-package of pysmo in the name of `pysmo.aimbat` along with another sub-package `pysmo.sac`. The latest releases of `pysmo.sac` and `pysmo.aimbat` are available for download at <http://www.earth.northwestern.edu/~xlou/aimbat.html> and Github.

The packages should be installed into the Python site-packages directory. To find out where that is, in the python console, do

```
import site;
site.getsitepackages()
```

Whatever is output there, lets call it `<pkg-install-dir>`

Now that we know the location of the site-packages direction, cd into it. Call the path to it `<pkg-install-dir>` Notice that in this case, the site-packages

A screenshot of a macOS terminal window. The title bar shows 'Python' and '80x24'. The terminal text is as follows:

```
bash
LKS-MacBook-Pro:pysmo lkleh$ cd
LKS-MacBook-Pro:~ lkleh$ python
Python 2.7.6 (v2.7.6:3a1d0042747e, Nov 10 2013, 00:42:54)
[GCC 4.2.1 (Apple Inc. build 5666) (dot 3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>> import site;
>>> site.getsitepackages()
['/Library/Frameworks/Python.framework/Versions/2.7/lib/python2.7/site-packages',
'/Library/Frameworks/Python.framework/Versions/2.7/lib/site-python',
'/Library/Python/2.7/site-packages']
>>>
```

Figure 5: Console

has been installed for all users on the computer, not just the current user's home directory.

Put the two Python packages inside the directory.

3.2 Installing pysmo.sac

Python module `Distutils` is used to write a `setup.py` script to build, distribute, and install `pysmo.sac`. In the directory `<pkg-install-dir>/pysmo-sac-0.5`, type

```
python setup.py build
python setup.py install
```

to install it and its package information file `<pysmo.sac-0.5-py2.7.egg-info` to the global site-packages directory `<prefix>/lib/python2.7/site-packages`, which is the same as Numpy, Scipy, and Matplotlib.

If you don't have write permission to the global site-packages directory, use the `'--user'` option to install to `<userbase>/lib/python2.7/site-packages`:

```
python setup.py install --user
```

This will install it to your home directory only, not for all users on the computer.