Mac OSX Install Guide

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0. About *Lexos*

    Lexos is an integrated workflow of tools to facilitate the computational analyses of texts, presented in a web-based interface. Lexos is written primarily in Python 2.7.11 using the Flask microframework, based on Werkzeug and Jinja 2. A heavy dose of Javascript and CSS is included on the front-end. We increasingly incorporate the wiz from D3.js in our visualizations and the power in the scikit-learn modules for text and statistical processing.

1. Install Python

    Install a free distribution of Python v2.7 called Anaconda[1].

    a) Visit the website: http://continuum.io/downloads

    b) On the website, locate Choose Your Installer on the screen; click on the OS X link.

    c) Download the Anaconda installer (Python v2.7 Graphical Installer).

    d) Double-click on the installer application icon (.pkg file) and follow the instructions.

    e) Finally, select **Continue** to finish the install of Anaconda.

2. Install additional packages
    Now that Anaconda has been installed, we can verify that we have installed it correctly. Then we will install the two additional packages we need to run Lexos.

    a. Open a terminal window. *(If you are unfamiliar with how to access a terminal window, search for "terminal" in Spotlight. You should see a window appear with a command-line prompt, typically a "$" prompt).*

    b. Verify that Anaconda is installed by typing in the terminal the following command:

        python -V

    You should see a response that looks like :
    Python 2.7.11 :: Anaconda 4.0.0 (64-bit) If you do not see ":: Anaconda 4.0.0" then you did not update your PATH variable during the Anaconda installation (back on Step #1) and thus, you should return to Step #1 and

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1   **Anaconda** is a free distribution of the Python programming language for large-scale data processing, predictive analytics, and scientific computing, that aims to simplify package management and deployment. As of June 2016, Anaconda includes 820+ of the most popular Python packages, including most of the packages needed for *Lexos*.

reinstall Anaconda correctly.

c. Make sure that your package installer (pip) is up to date:

      pip install -U pip

Your terminal should display some information showing you the update process. If you don't have pip, do the following: `sudo easy_install pip` *(requires your password)*

d. Install three additional needed packages

      pip install gensim

      pip install chardet

      pip install natsort

3. Download and extract *Lexos*

a. Go to the *Lexos* github page: **https://github.com/WheatonCS/Lexos**

b. At the bottom of the right-side navigation bar you will see a button to "**Download ZIP**". Click this button to download a zipped file which contains the file folder which holds all the necessary source code for *Lexos*. **Extract** the contents of the .ZIP file **to your Desktop**. *If you want you can change the name of the containing folder from Lexos-master to just Lexos, but be sure to use the new name you used when in the command line on the subsequent steps.*

4. Start *Lexos*
    a. Close your current window and **open a new terminal window**. **IMPORTANT!**
    b. On the command line, use the cd command to navigate inside the Lexos-master folder[2].

      cd Desktop/Lexos-master

c. Start *Lexos* -- On the command line enter:

      python lexos.py

    It may take a minute the first time you run the command because Python has to reconfigure some of the project files for your computer, but shortly after you should see the following:
    * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
    * Restarting with stat

Note: You must keep the "python lexos.py" command running while you use Lexos. You may minimize the terminal window, but do not close the terminal window.

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2   (If you need additional information on file navigation, check out this article by macworld
   http://www.macworld.com/article/2042378/master-the-command-line-navigating-files-and-folders.htm)

Note: We've noticed on that some version of Mac OS X do not have the character encoding set to UTF-8, thus they got an error on this step. Here is a fix that has worked for us:

(i) **cd**

(ii) *using an editor of your choice, e.g., perhaps "open":*   **open .bash_profile**

(iii) *add these two lines and save (command-s) the file*
 export LC_ALL=en_US.UTF-8
 export LANG=en_US.UTF-8

(iv) *return to the Lexos directory by entering these two commands, then restart* Lexos
 cd
 cd Desktop/Lexos-master

 python lexos.py

d. Using *Lexos* with your browser

To interact with the program you need to open your favorite web browser (Firefox or Chrome) and in the URL-address bar enter:

 localhost:5000

Because your computer is acting as both the web server and the user of Lexos, you may need to hit the <u>Reset</u> button in the top right corner of the Upload page to make sure files from any previous sessions are purged.

To quit Lexos simply close the terminal window (where you entered python lexos.py).

<div align="right">Last edited: June 2, 2016</div>