

## Linux Install Guide (last performed when using Ubuntu v14.x)

### Overview:

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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<sup>1</sup>.

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

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

c) Download the Anaconda installer (Linux 64-bit Python v2.7).

d) After locating the install script (e.g., in Downloads/ ), **run the (bash) shell installer**

**bash Anaconda-4.0.0-Linux-x86\_64.sh**

*(note: a newer version of Anaconda may have a new version number; check your exact filename).*

### 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 new terminal** (this is important to ensure that your \$PATH includes Anaconda).

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 open a new terminal (see (a) above) or you did not update your PATH variable during the Anaconda installation (back on Step #1) and thus, you should return to Step #1 and reinstall Anaconda correctly.*

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<sup>1</sup> **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*.

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

```
pip install -U pip
```

d. Install four additional needed packages

```
pip install gensim
```

```
pip install chardet
```

```
pip install natsort
```

```
pip install ete2
```

### 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. Open a new terminal window

b. On the command line, use the cd command to navigate inside the Lexos-master folder.

```
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.*

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 Reset 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 command prompt window (where you entered `python lexos.py` ).*

*Last edited: July 22, 2016*