

It is best if you have 20GB free on your laptop (4.5GB for the .ova file and then 12GB for the VM it will be expanded into plus some extra just in case). I am assuming you have basic ability to navigate on a command line. If not, read the first two chapters of this tutorial: http://www.linuxcommand.org/lc3_learning_the_shell.php.

1. Install VirtualBox: <https://www.virtualbox.org/>
2. Download http://129.49.83.188/CompLingLab_Full.ova
3. Import `CompLingLab_Full` into VirtualBox (double-click icon and accept default settings). The password is “student”.
4. Download the following and move them to your desktop

OpenFst: <http://www.openfst.org/twiki/pub/FST/FstDownload/openfst-1.6.9.tar.gz>
<http://www.openfst.org/twiki/bin/view/FST/FstDownload>

Pynini: <http://www.openfst.org/twiki/pub/GRM/PyniniDownload/pynini-2.0.0.tar.gz>

Re2: <https://github.com/google/re2/archive/master.zip>

5. Extract the files (double-click icons). In each folder the README explains how to install the software. The following steps should work.
6. Install `openfst`
 - (a) Open a terminal window. Change directories to `Desktop/openfst-1.6.9`.
 - (b) `sudo ./configure --enable-grm`
 - (c) `sudo make`
 - (d) `sudo make install`
 - (e) This takes some time!
7. Install `re2`
 - (a) Change directories to `Desktop/re2-master`.
 - (b) `sudo make`
 - (c) `sudo make test`
 - (d) `sudo make install`
 - (e) `sudo make testinstall`
 - (f) `sudo ldconfig` (this helps the OS discover where the new shared libraries are)
8. Install `pynini`
 - (a) Install the development files: `sudo apt-get install python-dev`
 - (b) Change directories to `Desktop/pynini-2.0.0`.
 - (c) `sudo python setup.py install`
 - (d) This takes a lot of time. While waiting read this tutorial 2-3 times <http://www.linuxcommand.org/>.
 - (e) `sudo python setup.py test`
9. Read `pynini.pdf`, start python by typing `python`, and experiment!
`>>> import pynini`