

## Instructions to install the lcsim simulation framework for REDTOP in Mac

1. Download the Java JDK bundle for MacOSX (.dmg file) from: <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

2. Proceed with the installation by opening the .dmg file.

3. Add the following lines to your ~/.bash\_profile file:

```
export JAVA_HOME="/Library/Java/JavaVirtualMachines/jdk1.8.0_111.jdk/Contents/Home/"
export PATH=$JAVA_HOME/bin:$PATH
```

4. Download the Java JDK bundle with NetBeans 8.0.2 for MacOSX (.dmg file) from: <http://www.oracle.com/technetwork/es/java/javase/downloads/jdk-7-netbeans-download-432126.html>

5. Install NetBeans by opening the .dmg file by following the instructions in the pop-up window.

6. To get the lcsim software, please follow the instructions in the section "Getting and Building lcsim Software" in the link:

<https://confluence.slac.stanford.edu/display/ilc/Installing+lcsim+software+for+the+Winter+2012+tutorial>

First, you have to download and build the GeomConverter project. Then, download the "lcsim" package. Before building it, it is needed to skip all tests, otherwise you would not be able to build the project properly. For this, please make right click on the org.lcsim project and do:

```
org.lcsim_> Properties->Build->Actions-> Build project -> Add->
skipTests=true
```

```
org.lcsim_> Properties->Build->Actions-> Clean and Build project ->
Add-> skipTests=true
```

Then, build org.lcsim.

7. Get lcsim-contrib and build it.

8. Get lcsim-parent and build it.

9. Get mcd-analysis. Before build it, please check that the pom.xml files in the following paths:

```
~/NetBeansProjects/lcsim-parent/
~/NetBeansProjects/mcd-analysis/
```

have the same version specified (2.11-SNAPSHOT) in the lines 10 and 11, respectively.

10. Up to now, the installation of the projects needed to run the REDTOP project is done. You can get it from the Subversion repository as it is stated in the instructions here: <http://redtop.fnal.gov/lcsim-reconstruction-framework/>. Alternatively, you can also get all the projects above from this repository.

11. Before building/running the REDTOP project in NetBeans, it is needed to have the detector conditions in a directory called `.lcsim` that must be in the home directory of the computer. You can download the tarball from <ftp://t1015-svn.fnal.gov/0/lcsim/.lcsim.rar>.

12. Try to run one of the examples in the webpage <http://redtop.fnal.gov/lcsim-reconstruction-framework/> to check that everything is working.

### **For the visualization of the output**

You can install jas3 by following the instructions here:

<https://confluence.slac.stanford.edu/display/ilc/Installing+lcsim+software+for+the+Winter+2012+tutorial>

Up to now, there is a problem with one of the plug-ins that cannot be installed, but it is for reasons not related with the operating system. You can run it from the terminal by typing:

```
jas-assembly-0.9.9/jas3
```