**Developer Guide**

**Developing Tools**

In order to develop for Lighthouse, you have to install the following tools:

* [Eclipse RCP/Plug-in](http://www.eclipse.org/downloads/)
* [Log4J from Eclipse Orbit Project](http://download.eclipse.org/tools/orbit/downloads/drops/R20090825191606/bundles/org.apache.log4j_1.2.13.v200903072027.jar) (download and put the jar file in your eclipse plugins directory)
* [Subclipse 1.6.x](http://subclipse.tigris.org/servlets/ProjectProcess?pageID=p4wYuA)
* [Lighthouse Team Project Set](https://calico.ics.uci.edu/svn/lighthouse/trunk/LighthouseBuild/lighthouse-dev.psf)
* [MySQL Community Server](http://dev.mysql.com/downloads/)

**Lighthouse Task Repository (Bugzilla):**

<https://calico.ics.uci.edu/bugs/>

**Setting the workspace**

After downloading and installing all the required tools, follow the steps below to setup the developing workspace.

1. Create a new Eclipse Workspace
2. Go to File->Import->Team Project Set and select the 'lighthouse-dev.psf'
   1. Mac/Unix: Go to LighthouseBuild project and run the 'patch.projects' target
   2. Windows: For some reason, the step above is not working on Windows. Then, the patch have to be applied manually. Select org.eclipse.zest.core project and right click: Team->Apply Patch and select the LighthouseBuild/org.eclipse.zest.core.patch.
3. Refresh all projects

**Miscellaneous**

* Wepage: [[1]](http://awareness.ics.uci.edu/lighthouse/) wiki: [[2]](http://awareness.ics.uci.edu/wiki/index.php/Lighthouse) bugzilla: [[3]](http://awareness.ics.uci.edu/bugzilla)
* Some tutorials for creating tasks with bugzilla: [[4]](http://awareness.ics.uci.edu/bugzilla/page.cgi?id=bug-writing.html) [[5]](http://divyad.wordpress.com/2007/07/20/quick-bugzilla-tutorial/)
* Mylyn and Bugzilla: [[6]](http://wiki.eclipse.org/Mylyn_User_Guide) [[7]](http://www.ibm.com/developerworks/java/library/j-mylyn1/) [[8]](http://www.ibm.com/developerworks/java/library/j-mylyn2/)
* Eclipse events: [[9]](http://www.eclipse.org/articles/Article-Resource-deltas/resource-deltas.html) [[10]](http://dev.eclipse.org/newslists/news.eclipse.tools.jdt/msg20554.html) [[11]](http://www.ibm.com/developerworks/opensource/library/os-ast/) [[12]](http://www.eclemma.org/index.html)
* Eclipse shortcuts: [[16]](http://eclipse.dzone.com/news/effective-eclipse-shortcut-key)
* JUnit guide: [[17]](http://www.clarkware.com/articles/JUnitPrimer.html)
* JUnit best practices: [[18]](http://www.javaworld.com/jw-12-2000/jw-1221-junit.html?page=1)
* JDT fundamentals: [[19]](http://www.eclipsecon.org/2008/sub/attachments/JDT_fundamentals.ppt)
* JPA links:
  + [Pro EJB 3: Java Persistence API (It is in the bookshelf)](http://www.amazon.com/Pro-EJB-Java-Persistence-API/dp/1590596455/ref=sr_1_3?ie=UTF8&s=books&qid=1259976621&sr=8-3/)
  + [JPA Implementation Patterns](http://java.dzone.com/articles/jpa-implementation-patterns/)
  + [Saving (Detached) Entities](http://java.dzone.com/articles/saving_detatched_entities/)
  + [Java Persistence/Relationships](http://en.wikibooks.org/wiki/Java_Persistence/Relationships/)
  + [Embedded/ Compound Primary Key](http://www.java2s.com/Code/Java/JPA/EmbeddedCompoundPrimaryKey.htm)
  + [Java SSH tunneling with JSch](http://www.beanizer.org/site/index.php/en/Articles/Java-ssh-tunneling-with-jsch.html)
  + [Changing Persistence Unit](http://forums.sun.com/thread.jspa?threadID=5345235/)