

## INSTALLING JOGL (Java OpenGL Binding)

1. Verify that you have the latest version of Java (type “**java -version**” at a command prompt). If your version is less than 1.8, visit <http://www.oracle.com/technetwork/java> and click “Java SE” (Standard Edition) link under “Software Downloads”. Then download and install the most recent version of the “JDK” (Java Development Kit), which includes both the compiler and the JRE.
2. Make a directory where you will store JOGL. Under Windows or Linux you can choose any directory you want. Under Mac OS/X you must use `/Library/Java/Extensions`. In the author’s university instructional laboratory, JOGL is stored in a folder inside of `c:/javagaming`.
3. Go to <http://jogamp.org>, the open-source community website that hosts JOGL. In the “Builds/Downloads” section, under “Current”, click on **[zip]**. This displays the latest stable JOGL files in a folder named `/deployment/jogamp-current/archive`. Note: there are also more recent versions of JOGL available under other links, but these are not necessarily stable.
4. Download each of the following to your JOGL folder (the one you created in step 2 above):  
`jogamp-all-platforms.7z`  
`jogl-javadoc.7z`  
Note that the folder also contains files for JOCL and JOAL; be sure to download the **JOGL** files.
5. Unzip each of the files in your JOGL folder.
6. The unzipped **jogamp-all-platforms** file contains a folder named “jar”. In this **jar** folder you will find two important files: “jogl-all.jar” and “gluegen-rt.jar”. Add the full path name of each of these two files to your **CLASSPATH** environment variable. This allows Java to find the JOGL classes you will use in your programs. Be sure to include the appropriate OS-specific separator character between elements of the CLASSPATH -- in Windows this is a semi-colon (“;”).
7. Inside the **jogl-javadoc** folder, double-click **index.html**. This should open the JOGL JavaDocs in a browser. It is recommended that you bookmark this, because you will refer to it frequently.