

## CS 5070

### Getting Started Project DUE September 2, 2009 (midnight)

Consult the webpage at <http://digital.cs.usu.edu/~cooley/> for due dates and electronic versions of handouts.

Do log on to Eagle at <http://eagle.cs.usu.edu/> so you will get emails we may send.

We realize some of you may not have used Java before. Some of you have not used NetBeans nor configured it to run with an older version of Java. Consider the requirements of this project as what MAY be expected of you on your first job. If you don't have the specific skills required, acquire them using your skill acquisition techniques (use google, ask a friend, visit the tutor room). Obviously, we will expect less from someone who is using Java for the first time, but picking up new skills is definitely what will be required on the job.

*If you choose to do a project in some other language, adjust this assignment to use THAT language and make sure we can run it on the server.*

The project consists of two parts.

1. **Create a simple applet.** Create an applet which asks the user:

What is your name? (suppose the user responds, Kyle)

What is your favorite color? (suppose the user responds, Blue)

What is your favorite food? (suppose the user responds, pizza)

Then the applet responds, "Kyle, do you like blue pizza?"

2. **Make the applet visible on the server.** Move the applet to the csilm.usu.edu system so it is visible to the world. Create a course at "Utah State University" named CS5070XXXX where XXXX is your name. Create a lesson which uses your applet.

### Software to use:

1. Use NetBeans to drag and drop the GUI widgets. You will want to use Java 1.5 (see explanation below).
2. Logon to csilm.usu.edu as a teacher. Create a class with your name (using Utah State University) as the school. Submit your applet as an activity. Share the class so others can see it. (See the handout entitled, "**How to get the project working on CSILM**".) (Every time you change the class, it will need to be shared again.)

### Using an Older Version of Java

Unfortunately GUI applications developed with the latest Windows NetBeans 5.5 (the free Java API from Sun) require some configuration to allow applications to be developed that run on out-of-the-box Macs. This is not just because of the OSX Java 1.6 problem, but also some glitches with the "backport" targeting in NetBeans. This affects GUI applications developed with NetBeans GUI editor which uses Swing, a cross-platform GUI layer for Java.

It is not enough to set the source level to 1.5 in the project properties, but to continue to use the 1.6 JDK. This will not run on OSX with 1.5 JRE. The error in the Console will be:

```
java.lang.NoClassDefFoundError: javax/swing/GroupLayout$Group
```

The problem is that when using NetBeans' Swing editor with the 1.6 JDK will create code that won't run on machines that have Java 1.5. This is because it inserts references to javax.swing.GroupLayout, which only exists in 1.6 onwards. Misleadingly, it does this even if 'source level' is set to 1.5.

### The solution

This can be fixed by downloading the 1.5 JDK (aka the Java Development Kit 5.0 Update 14) and set your NetBeans project to use it. When new Swing GUI elements are created with this JDK set, the IDE uses the org.jdesktop.layout.GroupLayout class instead. This is not built into the JRE but the additional files can be bundled in your .jar. More about this in a second.

The file you require is `jdk-1_5_0_14-windows-i586-p.exe` and can be downloaded from Sun. Once installed, in NetBeans select Tools->Java Platform Manager. Click Add Platform and choose `C:\Program Files\Java\jdk1.5.0_14`. In your applications, in the properties panel, select Libraries, then set the Java Platform to *Java Hotspot(TM) Client VM 1.5.0 14-b03* which should now be available. It is important that you do this *before* you add any Frames as the act of doing this generates the code that must use the correct version of GroupLayout.