

CSE142—Computer Programming I

Programming Assignment #3

Debugging Hints

Java Version

You can get a significant pixel difference if you are using an older version of Java. You can find out which version is running by going into the interactions pane in jGRASP and typing in the following (eclipse users can instead print this):

```
System.getProperty("java.version")
```

You should see a response like the following:

```
14
```

If it begins with “1.6,” “1.7,” or “1.8” then you are using an older version (Java 6, 7, or 8). If you are using a version earlier than 11, then you might have issues. To change which version of Java jGRASP is using, go to Settings, jGRASP Startup Settings, and look for “Java executable (for running jGRASP).” Pick something that begins with “jdk11” or higher. If you don’t see something that begins with “jdk11” or higher, then you need to install a newer JDK first by following the instructions on the “Java Software” tab on the class web page.

Drawing Counts

It is possible to get a large pixel difference if you draw the same line or string multiple times. The DrawingPanel class has an option to help you explore this. Set up your Graphics object this way (assuming you used a variable called “panel” to store the reference to the DrawingPanel object that you constructed in main):

```
Graphics g = panel.getDebuggingGraphics();
```

When you do so, you can include the following line of code after you finish the drawing commands:

```
System.out.println(panel.getCounts());
```

This is the output produced by the sample solution:

```
drawLine=234, fillRect=234}
```

You do not have to match these counts if you are within 500 pixels of difference. Be sure to remove any debugging printlns before you turn in your program.

Running on a Different Computer

There are many configuration issues that can lead to pixel differences when you run your program on your own computer and compare the result to the sample output. Normally we would ask you to run your program on computers on campus that we have configured properly, but we can’t do that this quarter. If you have tried all of the other options and are still seeing an unexplained pixel difference, you should ask your TA to run your program on their computer so that they can check whether a pixel difference is happening because of configuration issues.