Using the JGrasp Debugger

A debugger is an important part of every Integrated Development Environment (IDE). A debugger allows you to execute your program under controlled circumstances. This is a big help in debugging your programs, or even just in understanding what your (or my) code is actually doing. All debuggers share a common set of features; those basic features are described below as they occur in the JGrasp IDE.

This is a brief summary of how to use the JGrasp debugger. You should also read The JGrasp Debugger Tutorial sections 6.1 - 6.6 (linked from the class website Related Links page). That document also contains pictures that show where to find the indicated menus, buttons, etc. within JGrasp.

1. Make sure that the menu item Build - Debug Mode is checked. Compile all source code files required by your program.

2. Set a breakpoint (to pause program execution) by left-clicking at the left edge of the line where you want the program to pause. You may set as many breakpoints as you want.

3. Run your program in the debugger by clicking on the button (located next to the regular run button).

4. When your program pauses at a breakpoint, note that you can view the current values of variables. Note that only variables that have already been assigned a value will be displayed in the debugger.

5. There are several options available for continuing your program execution. These include the following:

   - Step one statement, stepping over method invocations (i.e., treating method invocations as a single statement)

   - Step one statement, stepping into method invocations.

   - Resume program execution until the next breakpoint is encountered.