

## Java API Helper Sheet

This sheet was requested by a student. The Java API is probably the biggest asset of the language. For advanced programmers it holds a wealth of functionality that they can use without having to write things from scratch. For the novice programmer though, it can be extremely frightening, confusing, and frustrating trying to find the things that you need. So what I have done here is list the main packages that we have used as well as the main classes in them.

- java.awt – AWT stands for Abstract Windowing Toolkit. This is where the classes related to graphics and GUIs (Graphical User Interfaces) can be found. It also has sub-packages that we have been using for things like events.
  - Graphics
  - Color
- java.awt.event – This package contains the main events and listeners for Java GUIs. If you want to know what methods are required by a listener or what information you can get from an event, this is where to go.
  - MouseListener
  - MouseMotionListener
  - KeyListener
  - ActionListener
  - MouseEvent
  - KeyEvent
  - ActionEvent
- java.lang – This is the most fundamental package in Java. It is the only one that is automatically imported so all Java programs can use classes in it without doing anything.
  - String
  - Math
  - Integer
  - Double
- java.net – This package contains all the networking stuff in Java. We used the URL class to allow our applets to read images.
  - URL
- java.util – This is the utility package that contains lists. It has other data structures for dealing with information, but the only ones we talked about were lists.
  - List
  - ArrayList
- javax.imageio – This is a little package that contains the ImageIO class that we used to read images from a URL.
  - ImageIO
- javax.swing – This is a second GUI library that was added to Java after AWT. The JApplet class and the Timer class that we used were in this package.
  - JApplet
  - Timer