Assignment 1006
This assignment combines Java graphics programming with an exercise in manipulating images at the byte level. Note the due date — I’m giving you a little bit more time on this. Use it well 😊

Not for Submission
Textbook material for graphics and memory can be found in Angel Sections 2.5 and 3.12; in reality, this background is so fundamental that you will find it interspersed everywhere. For really specific applications of this knowledge, look at Chapter 8 of the red book — that will truly test how well you understand the correspondence and mapping between pixels and memory.

For Submission
Write the following graphics programs, and submit the code to me both in hardcopy and by e-mail.

1. Convert the Fireworks sample program to 3D using JOGL. By “3D fireworks,” we mean that the sparks travel in three dimensions. Integrate a mouse-rotation feature into your Fireworks 3D so that the 3D fireworks can be viewed from any angle.

2. Reuse the ColorChanger interface to implement 2 additional simple filters for Nanoshop. Ideas include, but are not restricted to: brightness filter, contrast filter, inverter (negative), and tinter (adds a shade of a certain color without completely removing the existing colors).