Exercise 1: Sprite Threads

# Visualizing Threads

It is hard to visualize what is going on inside a multi-threaded program. You have different threads changing things in different areas of memory simultaneously. It is hard to get a picture of exactly what is going on at any one moment in time.

But not in this exercise! In this exercise the threads are highly visual. Each of the threads you create will move a different graphical sprite object on the screen. You will be able to see the activity of all your threads at a glance.

# Exercise

1. Create a new project in Eclipse. Pull in the “SpritePanel.java” and “SpriteTinker.java” from your virtual machine desktop.
2. Run the “main” in SpritePanel. The code shows you how to use SpritePanel. Study/experiment with the code.
3. Create classes with “run” methods to move sprites in the following paths:
   1. Move the sprite in a horizontal line 100 pixels long. The sprite should move back and forth, over and over.
   2. Move the sprite in a square pattern 100 pixels on a side. Again, the sprite should loop around your pattern over and over.
   3. Create your own movement pattern. Be creative!
4. Write a “main” to start several of your thread/sprites at the same time.
5. Send me your code.

# Optional

* Code up a circle sprite pattern that takes the radius and speed as parameters.
* Make a sprite thread that “waits” instead of “sleeping” between movements. Then “notify” the thread in a loop from your “main” code.

