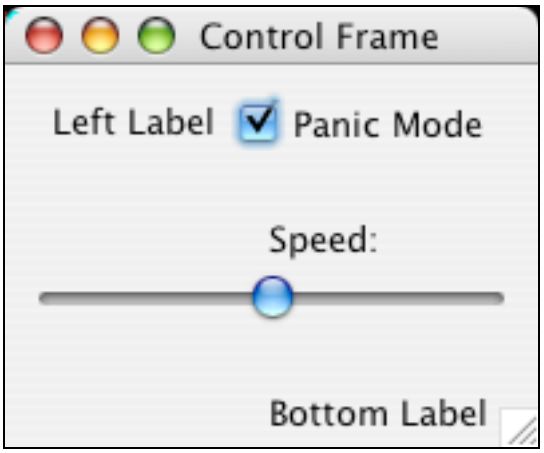
Simple GUI Control Frame

Soon, we will have complete coverage of Swing GUI coding, controls etc. This handout shows the basic use of JCheckBox and JSlider in a frame, just to the extent needed for Tetris. You can also look at the JTetris source code, which demonstrates correct use of these controls.




```
/*
 ControlFrame.java
 Demonstrates basic use of JCheckBox and JSlider
 */
import javax.swing.*;

import java.awt.*;

public class ControlFrame extends JFrame {
    // keep ivars pointing to on-screen objects that
    // we want to access later
    private JPanel panel;
    private JCheckBox checkbox;
    private JLabel label;
    private JSlider slider;


    // Set up the frame -- create and install some controls in the frame
    public ControlFrame(String title) {
        super(title);  // superclass ctor takes frame title

        // Get content pane -- contents of the window
        JComponent content = (JComponent) getContentPane();

        // Set to use the "flow" layout
        // (controls the arrangement of the components in the content)
        content.setLayout(new FlowLayout());

        // ****
        // Set up controls in the frame
        // ****

        // Create a vertical box component
        JComponent box = new JPanel();
        box.setLayout(new BoxLayout(box, BoxLayout.Y_AXIS));
        content.add(box);


        // make a little panel to group a couple things
```

```
        panel = new JPanel();

        // install the panel
        box.add(panel);

        // put a label in the panel
        panel.add(new JLabel("Left Label"));

        // put a checkbox in the panel
        checkbox = new JCheckBox("Panic Mode");
        panel.add(checkbox);

        box.add(Box.createVerticalStrut(20)); // 20 pixels vertical space

        // put some things in the box
        box.add(new JLabel("Speed:"));

        // slider has min, max, and current int values
        slider = new JSlider(0, 100, 50); // min, max, current
        box.add(slider);

        box.add(Box.createVerticalStrut(20));
        box.add(new JLabel("Bottom Label"));

        // later, access the control's state with:
        // (boolean) checkbox.isSelected()
        // (int) slider.getValue()

        // ****
        // Done installing controls
        // ****

        // Standard three lines to put frame on screen
        pack();
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setVisible(true);   // make it show up on screen
    }

    public static void main(String[] args) {
        // Set GUI Look And Feel Boilerplate.
        // Do this incantation at the start of main() to tell Swing
        // to use the GUI LookAndFeel of the native platform. It's ok
        // to ignore the exception.
        try {
            UIManager.setLookAndFeel(UIManager.getSystemLookAndFeelClassName());
        } catch (Exception ignored) { }

        new ControlFrame("Control Frame");
    }
}
```