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import java.applet.
import java.awt.
import java.awt.event.

/**
 * A JOIPanel displays a button and a message.
 * Pushing the button changes the message.
 *
 * This panel can be displayed either from an applet in a browser or by the
 * JVM as an application.
 *
 * @version 10
 */

public class JOIPanel extends Applet
{
    private static final String MESSAGE1 = "Java Outside In";
    private static final String MESSAGE2 = "Java Inside Out";
    private String currentMessage = MESSAGE1; // currently displayed

    private Font font;                // for printing the message
    private Button button;            // for changing messages

    /**
     * Equip this Panel with a Button and an associated ButtonListener, and
     * set the font for the message.
     */

    public void init()
    {
        // what this Panel looks like
        button = new Button( "Press Me" );
        this.add( button );
        font = new Font("Garamond", Font.BOLD, 48);

        // how this Panel behaves
        button.addActionListener( new JOIButtonListener( this ) );
    }

    /**
     * Method that responds when the ButtonListener sends a
     * changeMessage message.
     */

    public void changeMessage()
    {
        currentMessage = currentMessage.equals(MESSAGE1) ? MESSAGE2 : MESSAGE1;
        this.repaint();
    }

    /**
     * Draw the current message on this Panel.
     * (The button is already there.)
     *
     * @param g an object encapsulating the graphics (e.g. pen)
     *          properties.
     */

    public void paint(Graphics g)
    {
        g.setColor(Color.black);
        g.setFont(font);
        g.drawString(currentMessage, 40, 75);
    }

    /**
     * Ask the JVM to display this Panel.
     */

    public static void main( String[] args )
    {
        Terminal t     = new Terminal();
        Frame frame    = new Frame();
        JOIPanel panel = new JOIPanel();
        panel.init();
        frame.add(panel);
        frame.setSize(400,120);
        frame.show();
        t.readLine("Type return to close the window ... ");
    }
}
import java.awt.event.*;

/** A simple listener for responding to button presses.
 * It knows the Panel on which the button lives, and responds to
 * button events by sending a changemessage() message to the Panel.
 * When a user pushes the button, the button event is caught and
 * detected by the actionlistener interface. That must be implemented.
 *
 * @version 10
 */

public class JOIButtonListener implements ActionListener
{
    private JOIPanel panel;  // the Panel containing the Button

    /** Construct the ButtonListener.
     *
     * @param panel the Panel on which this Button will act.
     */
    public JOIButtonListener( JOIPanel panel )
    {
        this.panel = panel;
    }

    /** Defines the ActionListener behavior that must be implemented.
     *
     * When a user pushes the Button that we're listening to,
     * send a changemessage() message to the Panel.
     *
     * @param e the "event" when the button is pressed.
     */
    public void actionPerformed( ActionEvent e )
    {
        panel.changeMessage();  // the Panel containing the Button
    }
}
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