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/*
 * DisplayViewPanel.java
 *
 * Created on January 22, 2007, 2:36 PM
 */

package Vista2;

import Controlador2.DefaultController;
import java.awt.AlphaComposite;
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.Dimension;
import java.awt.Font;
import java.awt.Graphics;
import java.awt.Graphics2D;
import java.awt.RenderingHints;
import java.awt.Shape;
import java.awt.font.TextAttribute;
import java.awt.font.TextLayout;
import java.awt.geom.AffineTransform;
import java.beans.PropertyChangeEvent;
import java.util.HashMap;
import javax.swing.JComponent;

/**
 * This is a custom view panel that displays a "document" consisting of a single
 * text element. Both the document and the text element respond to changes in
 * the model state.
 *
 * @author Robert Eckstein
 */
public class DisplayViewPanel extends AbstractViewPanel
{
    // The controller used by this view

    private DefaultController controller;

    // A private inner class that performs the painting of the text
    // component

    private TextElementComponent paintedString;

    /**
     * Creates new form TextElementDisplayPanel
     * @param controller An object implementing the controller interface that
     * this view can use to process GUI actions
     */
    public DisplayViewPanel(DefaultController controller) {
        this.controller = controller;

        initComponents();
        localInitialization();
    }

    // <editor-fold defaultstate="collapsed" desc=" Local Initialization ">

    /**
     * Initialization method called from the constructor
     */
    public void localInitialization() {
        paintedString = new TextElementComponent();

        displayPanel.add(paintedString, BorderLayout.CENTER);
        displayPanel.repaint();
    }
}
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// </editor-fold>

/** This method is called from within the constructor to
 * initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is
 * always regenerated by the Form Editor.
 */
// <editor-fold defaultstate="collapsed" desc=" Generated Code "> //GEN-BEGIN: initComponents
private void initComponents() {
    documentNameLabel = new javax.swing.JLabel();
    documentScrollPane = new javax.swing.JScrollPane();
    resizablePanel = new javax.swing.JPanel();
    displayPanel = new javax.swing.JPanel();

    documentNameLabel.setFont(new java.awt.Font("Dialog", 1, 14));
    documentNameLabel.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    documentNameLabel.setText("title");

    displayPanel.setLayout(new java.awt.BorderLayout());

    displayPanel.setBackground(new java.awt.Color(255, 255, 255));
    displayPanel.setBorder(javax.swing.BorderFactory.createEtchedBorder());
    displayPanel.setMaximumSize(new java.awt.Dimension(200, 200));
    displayPanel.setMinimumSize(new java.awt.Dimension(200, 200));
    displayPanel.setPreferredSize(new java.awt.Dimension(200, 200));
    resizablePanel.add(displayPanel);

    documentScrollPane.setViewportView(resizablePanel);

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(this);
    this.setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .add(layout.createSequentialGroup()
                        .add(documentScrollPane, javax.swing.GroupLayout.DEFAULT_SIZE, 450, Short.MAX_VALUE)
                        .add(documentNameLabel, javax.swing.GroupLayout.DEFAULT_SIZE, 450, Short.MAX_VALUE)
                    )
                    .addContainerGap())
                .addContainerGap())
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .add(documentNameLabel, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addContainerGap())
    );
} // </editor-fold> //GEN-END: initComponents

// <editor-fold defaultstate="collapsed" desc=" Model Event Handling Code ">

/**
 * Called by the controller when it needs to pass along a property change
 * from a model.
 * @param evt The property change event
 */
public void modelPropertyChange(PropertyChangeEvent evt) {

    if (evt.getPropertyName().equals(DefaultController.DOCUMENT_NAME_PROPERTY)) {
        documentNameLabel.setText((String)evt.getNewValue());
    }

    else if (evt.getPropertyName().equals(DefaultController.DOCUMENT_WIDTH_PROPERTY)) {
        Dimension newSize =
            new Dimension((Integer)evt.getNewValue(), displayPanel.getHeight());
    }
}

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        displayPanel.setPreferredSize(newSize);
        displayPanel.setSize(newSize);
    }

    else if (evt.getPropertyName().equals(DefaultController.DOCUMENT_HEIGHT_PROPERTY)) {

        Dimension newSize =
            new Dimension(displayPanel.getWidth(), (Integer)evt.getNewValue());

        displayPanel.setPreferredSize(newSize);
        displayPanel.setSize(newSize);
    }

    else if (evt.getPropertyName().equals(DefaultController.ELEMENT_X_PROPERTY)) {
        paintedString.xPosition = (Integer)evt.getNewValue();
    }

    else if (evt.getPropertyName().equals(DefaultController.ELEMENT_Y_PROPERTY)) {
        paintedString.yPosition = (Integer)evt.getNewValue();
    }

    else if (evt.getPropertyName().equals(DefaultController.ELEMENT_TEXT_PROPERTY)) {
        paintedString.text = (String)evt.getNewValue();
    }

    else if (evt.getPropertyName().equals(DefaultController.ELEMENT_FONT_PROPERTY)) {
        paintedString.font = (Font)evt.getNewValue();
    }

    else if (evt.getPropertyName().equals(DefaultController.ELEMENT_ROTATION_PROPERTY)) {
        paintedString.rotation = (Integer)evt.getNewValue();
    }

    else if (evt.getPropertyName().equals(DefaultController.ELEMENT_OPACITY_PROPERTY)) {
        paintedString.opacity = (Integer)evt.getNewValue();
    }

    revalidate();
    repaint();
}

// </editor-fold>

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// An inner class that we can use to paint the text component. A real
// drawing program would have a more sophisticated solution, but this
// is presented as is for brevity.

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```

private class TextElementComponent extends JComponent {

    public int xPosition;
    public int yPosition;
    public Font font;
    public String text;
    public int rotation;
    public int opacity;

    public void paintComponent(Graphics g) {

        Graphics2D g2 = (Graphics2D)g;

        // If the current string in the model is empty, then we can return
        // without painting anything.

        if (text.equals(""))
            return;

        // Set up our rendering hints
    }
}

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HashMap renderingHints = new HashMap();
renderingHints.put(RenderingHints.KEY_ANTIALIASING, RenderingHints.VALUE_ANTIALIAS_ON);
renderingHints.put(RenderingHints.KEY_FRACTIONALMETRICS,
RenderingHints.VALUE_FRACTIONALMETRICS_ON);
renderingHints.put(RenderingHints.KEY_COLOR_RENDERING,
RenderingHints.VALUE_COLOR_RENDER_QUALITY);
renderingHints.put(RenderingHints.KEY_STROKE_CONTROL, RenderingHints.VALUE_STROKE_PURE);
g2.addRenderingHints(renderingHints);

// Set up an attributes HashMap to represent the current font

HashMap attributes = new HashMap();
attributes.put(TextAttribute.FONT, font);

// Create an AlphaComposite using the current opacity value

AlphaComposite composite = AlphaComposite.getInstance(
    AlphaComposite.SRC_OVER, (float)(opacity / 100.0));
g2.setComposite(composite);

// Create an AffineTransform to handle the X and Y position, as
// well as the rotation.

AffineTransform affineTransform = new AffineTransform();
affineTransform.translate(xPosition, yPosition);
affineTransform.rotate(rotation*(Math.PI / 180.0));
g2.transform(affineTransform);

// Obtain the textShape using the proper attributes, then draw it and fill it

TextLayout textLayout = new TextLayout(
    text, attributes, g2.getFontRenderContext());
Shape textShape = textLayout.getOutline(null);

g2.setPaint(Color.black);
g2.fill(textShape);

g2.setPaint(Color.black);
g2.draw(textShape);
}

}

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JPanel displayPanel;
private javax.swing.JLabel documentNameLabel;
private javax.swing.JScrollPane documentScrollPane;
private javax.swing.JPanel resizablePanel;
// End of variables declaration//GEN-END:variables
}
```