

```
public class Line
{
    private Point from;
    private Point to;
    private Color color;

    public Line(Point pFrom, Point pTo, Color pColor)
    {
        from = pFrom;
        to = pTo;
        color = pColor;
    }

    public Line(int fromX, int fromY, int toX, int toY, Color pColor)
    {
        from = new Point(fromX, fromY);
        to = new Point(toX, toY);
        color = pColor;
    }

    public Point getFrom()
    {
        return from;
    }

    public Point getTo()
    {
        return to;
    }

    public Color getColor()
    {
        return color;
    }

    public void draw(Graphics g)
    {
        g.setColor(color);
        g.drawLine(from.x, from.y, to.x, to.y);
    }
}
```

```
public class Lines
{
    private ArrayList<Line> allLines = new ArrayList<>();

    public void add(Line pLine)
    {
        allLines.add(pLine);
    }

    public void draw(Graphics g)
    {
        for (int i=0; i<allLines.size(); i++)
        {
            // chaque ligne doit se dessiner elle-même
            allLines.get(i).draw(g);
        }
    }
}
```

```
public class DrawPanel extends javax.swing.JPanel
{
    // modèle : il *vient* du MainFrame via le setter !!
    // JAMAIS de new ici !!
    private Lines lines = null;

    public DrawPanel()
    {
        initComponents();
    }

    public void setLines(Lines pLines)
    {
        lines = pLines;
    }

    public void paintComponent(Graphics g)
    {
        int w = getWidth();
        int h = getHeight();

        // effacer l'arrière fond
        g.setColor(Color.WHITE);
        g.fillRect(0, 0, w, h);

        // dessiner les lignes (s'il y en a!)
        if (lines != null)
            lines.draw(g);
    }
}
// Skipped: ... initComponents { ... }
// Variables declaration - do not modify//GEN-BEGIN:variables
// End of variables declaration//GEN-END:variables
```

```
public class MainFrame extends javax.swing.JFrame
{
    // le modèle
    private Lines lines = new Lines();

    public MainFrame()
    {
        initComponents();
        drawPanel.setLines(lines);
    }
    // Skipped: ... initComponents { ... }
    private void addButtonActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_addButtonActionPerformed
        // "construire" une nouvelle ligne (toujours de couleur rouge)
        int fromX = Integer.valueOf(fromXTextField.getText());
        int fromY = Integer.valueOf(fromYTextField.getText());
        int toX = Integer.valueOf(toXTextField.getText());
        int toY = Integer.valueOf(toYTextField.getText());

        Line line = new Line(fromX, fromY, toX, toY, Color.RED);

        // ajouter la ligne au modèle et redessiner
        lines.add(line);
        repaint();
    } //GEN-LAST:event_addButtonActionPerformed
    // Skipped: ... Look & Feel
    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton addButton;
    private DrawPanel drawPanel;
    private javax.swing.JTextField fromXTextField;
    private javax.swing.JTextField fromYTextField;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JTextField toXTextField;
    private javax.swing.JTextField toYTextField;
    // End of variables declaration//GEN-END:variables
}
```