

# Java GUI

Komponenten und Code

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# 1 Java GUI Komponenten

Folgende Komponenten wurden erfolgreich eingebaut:

1. JFrame
2. JPanel
3. JMenu
4. JMenuBar
5. JMenuItem
6. JTextArea
7. JButton
8. JRadioButton
9. JCheckBox
10. ActionListener
11. ActionEvent
12. MouseAdapter
13. MouseMotionAdapter
14. paintComponent
15. paintTimer

## 2 Code

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.border.*;
import java.util.Random;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
public class basic2 extends JFrame{
    public int tool = 1;
    public int currentX, currentY, oldX, oldY;
    public ValueS val;
    public JPanel p2;
    public JMenu menu,menu1;
    public JMenuBar mBar;
    public JMenuItem mItem1,mItem2,mItem3,mItem4,mItem5,mItem6,mItem7,mItem8,mItem9;
    public JTextArea tA;
    public JButton b1,b2,b3;
    public JRadioButton r1,r2,r3;
    public JCheckBox c1,c2,c3;
    public void mMenu(){
        ActionListener aLMenu=new ActionListener(){
            public void actionPerformed(ActionEvent e){
                if(e.getActionCommand().equals("a")){setLabel(1);}
                if(e.getActionCommand().equals("b")){setLabel(2);}
                if(e.getActionCommand().equals("c")){setLabel(3);}
                if(e.getActionCommand().equals("d")){setLabel(4);}
            }
        };
        mBar=new JMenuBar();
        menu=new JMenu("a-b");
        menu1=new JMenu("c-d");
        mItem1=new JMenuItem("a");
        menu.add(mItem1);
        mItem1.addActionListener(aLMenu);
        mItem2=new JMenuItem("b");
        menu.add(mItem2);
        mItem2.addActionListener(aLMenu);
        mItem3=new JMenuItem("c");
        menu1.add(mItem3);
        mItem3.addActionListener(aLMenu);
        mItem4=new JMenuItem("d");
        menu1.add(mItem4);
        mItem4.addActionListener(aLMenu);
        mBar.add(menu);
        mBar.add(menu1);
    }
    public void setLabel(int x){
        switch(x){
            case(1):tA.setText("a");break;
            case(2):tA.setText("b");break;
            case(3):tA.setText("c");break;
            case(4):tA.setText("d");break;
        }
    }
    public basic2(){
        val=new ValueS();
        JDialog dialog=new JDialog();
        JPanel p1=new JPanel(new FlowLayout());
        p2=new Panel2(val);
    }
}
```

```

JEditorPane p3=new JEditorPane();
mMenu();
b1=new JButton("b1");
r1=new JRadioButton("r1");
c1=new JCheckBox("c1");
ActionListener actionListButton=new ActionListener(){
    String str="";
    public void actionPerformed(ActionEvent e){
        str=""+((JButton)e.getSource()).getText();
        System.out.println("|"+str);val.setCheck(9);
    }
};
ActionListener actionListRadioButton=new ActionListener(){
    String str="";
    public void actionPerformed(ActionEvent e){
        str=""+((JRadioButton)e.getSource()).getText();
        System.out.println("|"+str+"|"+r1.isSelected());
    }
};
ActionListener actionListCheckBox=new ActionListener(){
    String str="";
    public void actionPerformed(ActionEvent e){
        str=""+((JCheckBox)e.getSource()).getText();
        System.out.println("|"+str+"|"+c1.isSelected());
    }
};
b1.addActionListener(actionListButton);
r1.addActionListener(actionListRadioButton);
c1.addActionListener(actionListCheckBox);
tA=new JTextArea("start",10,30);
JScrollPane scrollPane=
    new JScrollPane(tA,ScrollPaneConstants.VERTICAL_SCROLLBAR_ALWAYS,ScrollPaneConstants.HORIZONTAL_SCROLLBAR_ALWAYS);
p1.add(scrollPane);
p1.add(b1);
p1.add(r1);
p1.add(c1);
dialog.add(mBar, BorderLayout.NORTH);
dialog.add(p1, BorderLayout.CENTER);
dialog.add(p2, BorderLayout.EAST);
dialog.add(p3, BorderLayout.SOUTH);
dialog.setSize(600,300);
dialog.setVisible(true);
p2.addMouseListener(new MouseAdapter(){
    public void mousePressed(MouseEvent evt){
        jPanel2MousePressed(evt);
    }
    public void mouseReleased(MouseEvent evt){
        jPanel2MouseReleased(evt);
    }
});
p2.addMouseMotionListener(new MouseMotionAdapter(){
    public void mouseDragged(MouseEvent evt){jPanel2MouseDragged(evt);}
});
}
private void jPanel2MouseDragged(MouseEvent evt){
    if(tool==1){
        currentX=evt.getX();
        currentY=evt.getY();
        oldX=currentX;
        oldY=currentY;
    }
}

```

```

}
private void jPanel2MousePressed(MouseEvent evt){
    oldX=evt.getX();
    oldY = evt.getY();
    p2.repaint();
    val.setCheck(oldX);
}
private void jPanel2MouseReleased(MouseEvent evt){
    if(tool==2){
        currentX=evt.getX();
        currentY=evt.getY();
    }
}
public static void main(String[] arg){new basic2();}
}
class ValueS{
    public Random rand;
    public int check=0;
    public ValueS(){rand=new Random();}
    public int ran(int x){int y=rand.nextInt(x);return y;}
    public void setCheck(int x){check=x;}
}
class Panel2 extends JPanel{
    ValueS val;
    public int count=0;
    Panel2(ValueS val){setPreferredSize(new Dimension(200,300));
    this.val=val;
    new Timer(999, paintTimer).start();}
    @Override
    public void paintComponent(Graphics g) {
        super.paintComponent(g);
        count++;
        g.drawString("old X: ", 20, 20);
        g.drawString(""+val.check, 20, 40);
        g.drawString("timer: ", 20, 60);
        g.drawString(""+count, 20, 80);
        g.drawRect(3, 3, 100, 100);}
    Action paintTimer=new AbstractAction(){
        public void actionPerformed(ActionEvent e){repaint();}
    };
}
}

```