

Projekt11a – ab Schuljahr 2009/10

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Sat Jun 20 15:30:13 CEST 2009 – 13. Oktober 2011

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Disclaimer

Wissen ist zum Teilen da. Ich teile mein Wissen mit Ihnen, lieber Kollege.
Ich bin aber nicht perfekt. Unter worgtsone@hush.com
nehme ich dankbar Ihre Verbesserungsvorschläge entgegen.

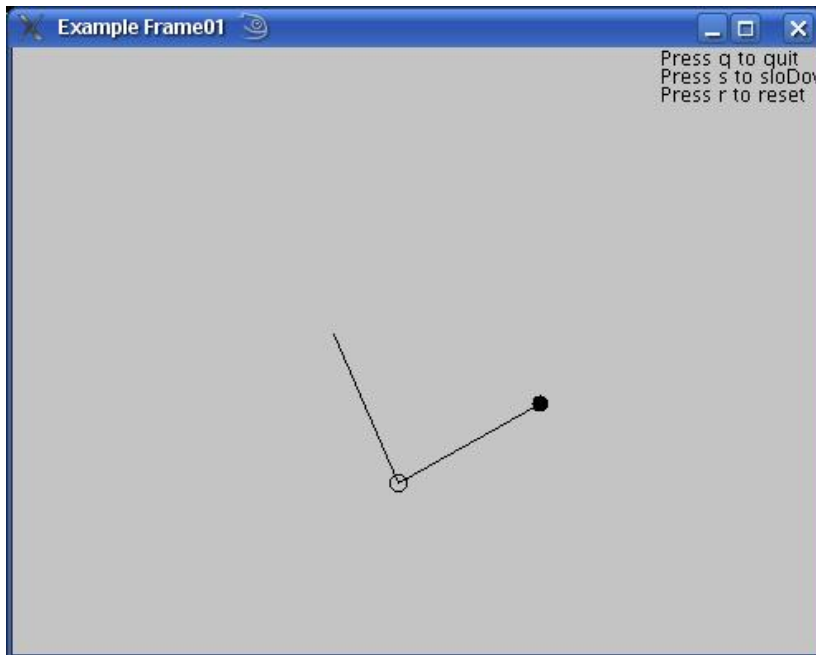
*

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irreführend, irrelevant und / oder funktionieren einfach nicht.
Wenn Sie es trotzdem benutzen, und es geht dabei etwas kaputt, ist das Ihr Problem,
nicht meins.

*

Bitte teilen Sie meine Web-Adresse nicht Ihren Schülern mit.

1 Doppelpendel



Quelltext:

```
import java.awt.*;
import java.awt.event.*;

class Frame01 extends Frame implements ActionListener, KeyListener {

    double w=0;
    double wv=0.1;
    double w2=0;
    double w2v=0.1;
    int hebel=99;
    int r=5;
    int off=25;

    public Frame01 () {
        setTitle ("Example Frame01");
        setVisible(true);
        setLocation(99,99);
        setSize(5*hebel, 4*hebel);
        addKeyListener(this);

        /*
        Button b = new Button("Knopf");
        b.addActionListener (this);
        b.setSize(55,55);
        this.add (b);
        Button b2 = new Button("SloDown");
        this.add (b2);
        b2.addActionListener (this);
        b2.setSize(55,55);
        */
        while (true){
```

```

        w=w+wv;
        wv=wv+0.1*Math.random()-0.05;
        w2=w2+w2v;
        w2v=w2v+0.1*Math.random()-0.05;
        repaint();
        try {Thread.sleep(29);} catch (Exception e ){}
    }
}

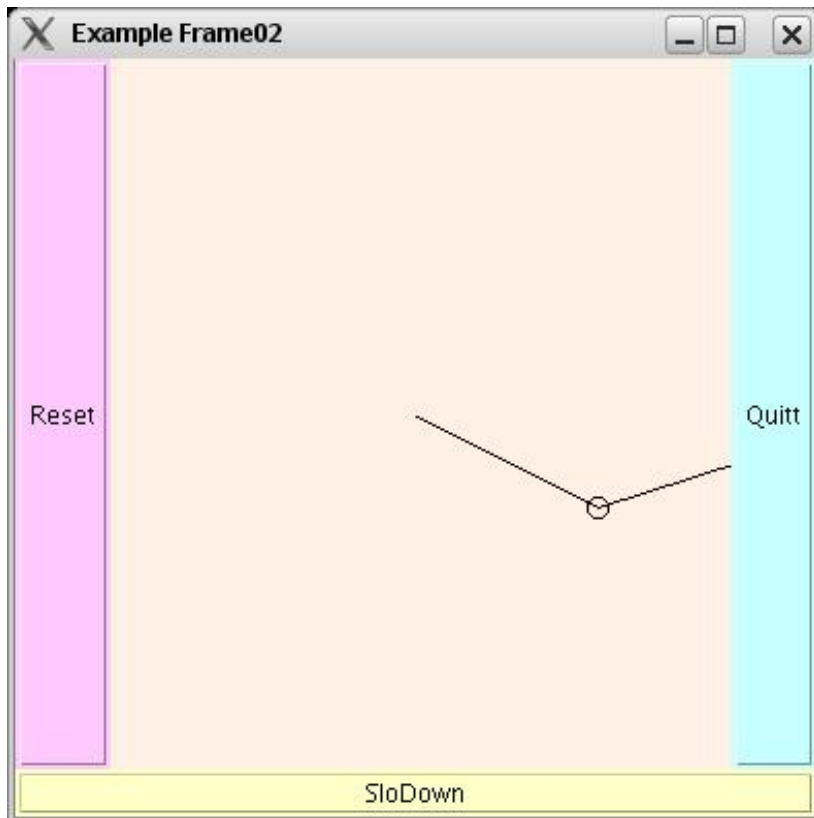
public void paint (Graphics g){
    int x=(int)(hebel*Math.cos(w));
    int y=(int)(hebel*Math.sin(w));
    int x2=(int)(hebel*Math.cos(w2));
    int y2=(int)(hebel*Math.sin(w2));
    g.drawLine(2*hebel,2*hebel,2*hebel+x,2*hebel+y);
    g.drawOval (2*hebel+x-r,2*hebel+y-r,2*r,2*r);
    g.drawLine(2*hebel+x,2*hebel+y, 2*hebel+x+x2, 2*hebel+y+y2);
    g.fillOval (2*hebel+x+x2-r, 2*hebel+y+y2-r ,2*r,2*r);
    g.drawString ("Press q to quit",    4*hebel, 11+off );
    g.drawString ("Press s to sloDown", 4*hebel, 22+off );
    g.drawString ("Press r to reset",   4*hebel, 33+off );
}

public static void main (String[]args) {
    Q.p ("Frame01 by worgtsone");
    Frame01 f = new Frame01();
}

public void actionPerformed (ActionEvent ae){
/*    System.out.println(ae);
    System.out.println(ae.getActionCommand());
    if (ae.getActionCommand() == "SloDown") {
        wv *= 0.1;
        w2v *= 0.1;
    }
*/
}

public void keyReleased(KeyEvent ke){}
public void keyPressed (KeyEvent ke){}
public void keyTyped    (KeyEvent ke){
//    System.out.println(ke.getKeyChar());
    if (ke.getKeyChar() == 'q') System.exit(0);
    if (ke.getKeyChar() == 's') { wv *= 0.1; w2v *= 0.1; }
    if (ke.getKeyChar() == 'r') { w = w2 = 0; }
}
}

```



```

import java.awt.*;
import java.awt.event.*;

class Frame02 extends Frame implements ActionListener, KeyListener {

    double w=0;
    double wv=0.1;
    double w2=0;
    double w2v=0.1;
    int hebel=99;
    int r=5;
    int off=25;

    public Frame02 () {
        setTitle ("Example Frame02");
        setVisible(true);
        setLocation(99,99);
        addKeyListener(this);
        setLayout (new BorderLayout());
        setBackground (new Color(255,240,230));

        Button b = new Button("Quitt");
        b.addActionListener (this);
        //    b.setSize(55,55);
        b.setBackground(new Color(200,255,255));
        add (b, BorderLayout.EAST);

        Button b2 = new Button("SloDown");
        this.add (b2, BorderLayout.SOUTH);
        b2.addActionListener (this);
        b2.setBackground(new Color(255,255,200));
        //    b2.setSize(55,55);

        Button b3 = new Button("Reset");
        this.add (b3, BorderLayout.WEST);
        b3.addActionListener (this);
    }
}

```

```

b3.setBackground(new Color(255,200,255));
pack();
setSize(4*hebel, 4*hebel);

while (true){
    w=w+wv;
    wv=wv+0.1*Math.random()-0.05;
    w2=w2+w2v;
    w2v=w2v+0.1*Math.random()-0.05;
    repaint();
    try {Thread.sleep(29);} catch (Exception e){}
}

public void paint (Graphics g){
    int x=(int)(hebel*Math.cos(w));
    int y=(int)(hebel*Math.sin(w));
    int x2=(int)(hebel*Math.cos(w2));
    int y2=(int)(hebel*Math.sin(w2));
    g.drawLine(2*hebel,2*hebel,2*hebel+x,2*hebel+y);
    g.drawOval (2*hebel+x-r,2*hebel+y-r,2*r,2*r);
    g.drawLine(2*hebel+x,2*hebel+y, 2*hebel+x+x2, 2*hebel+y+y2);
    g.fillOval (2*hebel+x+x2-r, 2*hebel+y+y2-r ,2*r,2*r);
/*
    g.drawString ("Press q to quit",    4*hebel, 11+off );
    g.drawString ("Press s to sloDown", 4*hebel, 22+off );
    g.drawString ("Press r to reset",   4*hebel, 33+off );
*/
}

public static void main (String[]args) {
    System.out.println ("Frame02 by worgtsone");
    // import Schuelermeinung, dann wirste schlauer
    new Frame02();
}

public void actionPerformed (ActionEvent ae){
//    System.out.println(ae);           // druckt gurkenkram
    System.out.println(ae.getActionCommand());
    if (ae.getActionCommand() == "SloDown") {
        wv *= 0.1;
        w2v *= 0.1;
    }
    if (ae.getActionCommand() == "Quitt") {
        System.exit(0);
    }
    if (ae.getActionCommand() == "Reset") {
        w = 0;
        w2 = 0;
    }
}

public void keyReleased(KeyEvent ke){}
public void keyPressed (KeyEvent ke){}
public void keyTyped (KeyEvent ke){
//    System.out.println(ke.getKeyChar());
    if (ke.getKeyChar() == 'q') System.exit(0);
    if (ke.getKeyChar() == 's') { wv *= 0.1; w2v *= 0.1; }
    if (ke.getKeyChar() == 'r') { w = w2 = 0; }
}
}

```

2 Indent

In 20 Minuten entstand das folgende, von SICH SELBST indented:

```
import java.io.*;
class Indent01 {
    public static void main (String[]args) throws IOException {
        int N=999;
        String [] line = new String [N];
        Q.p ("Indent01 by wortgtstone");
        BufferedReader br = new BufferedReader (new FileReader (new File ("file.txt")));
        String s="";
        int i=0;
        while ((s = br.readLine() ) != null) {
            line[i++] = s;
        }
        s="";
        for (int j=0;
            j<i;
            j++) s += line[j];
        // Leerzeichen rauswerfen s = s.replaceAll (" ", " ");
        s = s.replaceAll (" ", " ");
        s = s.replaceAll (" ", " ");
        s = s.replaceAll (" ", " ");
        // newline hinter }
    und ;
    //// argh! java mistakes {
    for kinda regexp, so must DOUBLE ESCAPE it/* secret */ // add 2 indentation spaces
String t="";
    int depth=0;
    for (i=0;
        i<s.length();
        i++){
        if (s.charAt(i) == '{
            ') depth++;
            if (s.charAt(i) == '}
                ') depth--;
            if (s.charAt(i) == '\n' ) {
                String u="\n";
                for (int j=0;
                    j<depth;
                    j++) u += " ";
                t += u;
            }
            else {
                t += s.charAt(i);
            }
        }
        s=t;
        Q.p (s);
    }
}
```