

Swing Rocks

A beautiful example

Pär Sikö och Martin Gunnarsson

“Sure it looks like shit, but at least it does so consistently on all operating systems.”

”... the APIs are too clumsy to code to, and compared to any decent Mac app, the results look like a Soviet tractor built on a Monday”

”One way that Pollak has found to speed up Java programs is to rewrite their user interfaces in Microsoft's Visual Basic.”

”Things have become a little better with the introduction of the Windows XP look and feel. Now it doesn't suck, it's just awful :)”

”... and that's why Java on the desktop is as dead as an Egyptian mummy.”

Swing Rocks

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Hur illa är det?

250,000
 Principal

30
 Years

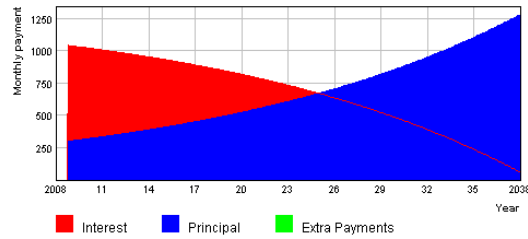
Nov
 Start month

2008
 Start year

5
 Interest

0 0 0
 .0 .00 .000

1,342.05
 Payment



Fixed Loan Data

Principal:	250,000	Monthly payment:	1,342.05
Interest %:	5	Start date:	November 2008
Years:	30	End date:	October 2038
Annual insurance:		Total interest:	\$233,141.28
Annual tax:		Total interest %:	48.26%
Annual inflation %:	3	Real interest:	\$165,047.24

Prepayment Data

Monthly prepayment:		Total interest paid:	<<no change>>
Starting month #:		Savings:	\$0.00
Annual prepayment:		Real savings:	\$0.00
Starting month #:		New end date:	<<no change>>
One-time prepayment:		New term length:	<<no change>>
Month #:		Term shortened by:	<<no change>>

This samples show the various types of fields.

Text Field: **Checkbox**

List Box:
Item 1
Item 2
Item 3
Item 4

Choice (Pulldown):

Text Area:

Radio Button Group:

Button 1 **Button 2** **Button 3**

Site Animator 1.1

Please enter the image files in the appropriate order

1	<input type="text"/>	2	<input type="text"/>	3	<input type="text"/>
4	<input type="text"/>	5	<input type="text"/>	6	<input type="text"/>
7	<input type="text"/>	8	<input type="text"/>	9	<input type="text"/>

HTML & JavaScript (paste into .htm file)

HTML code will appear here...

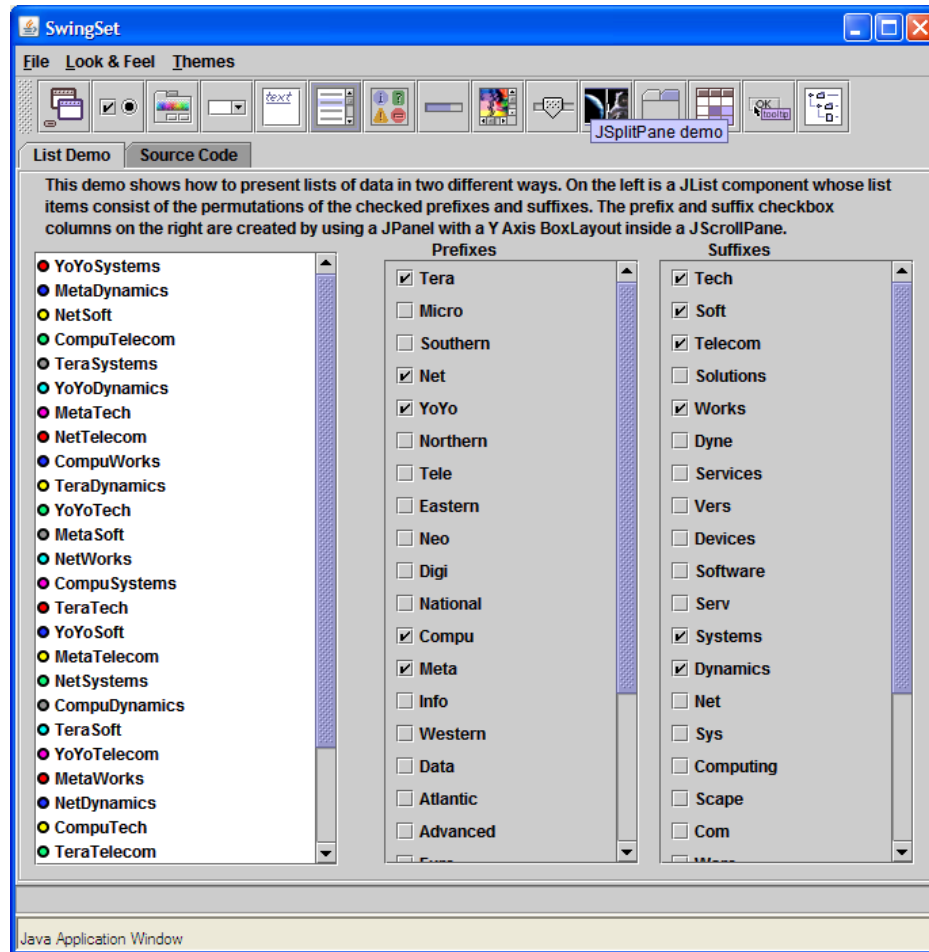
URL to link to

Frame to target

Loop Time (Milliseconds)

Reset HTML

Generate new HTML code



Varför blev det så här?





Swing Rocks-receptet

Smakfulla effekter

Mjuka animationer

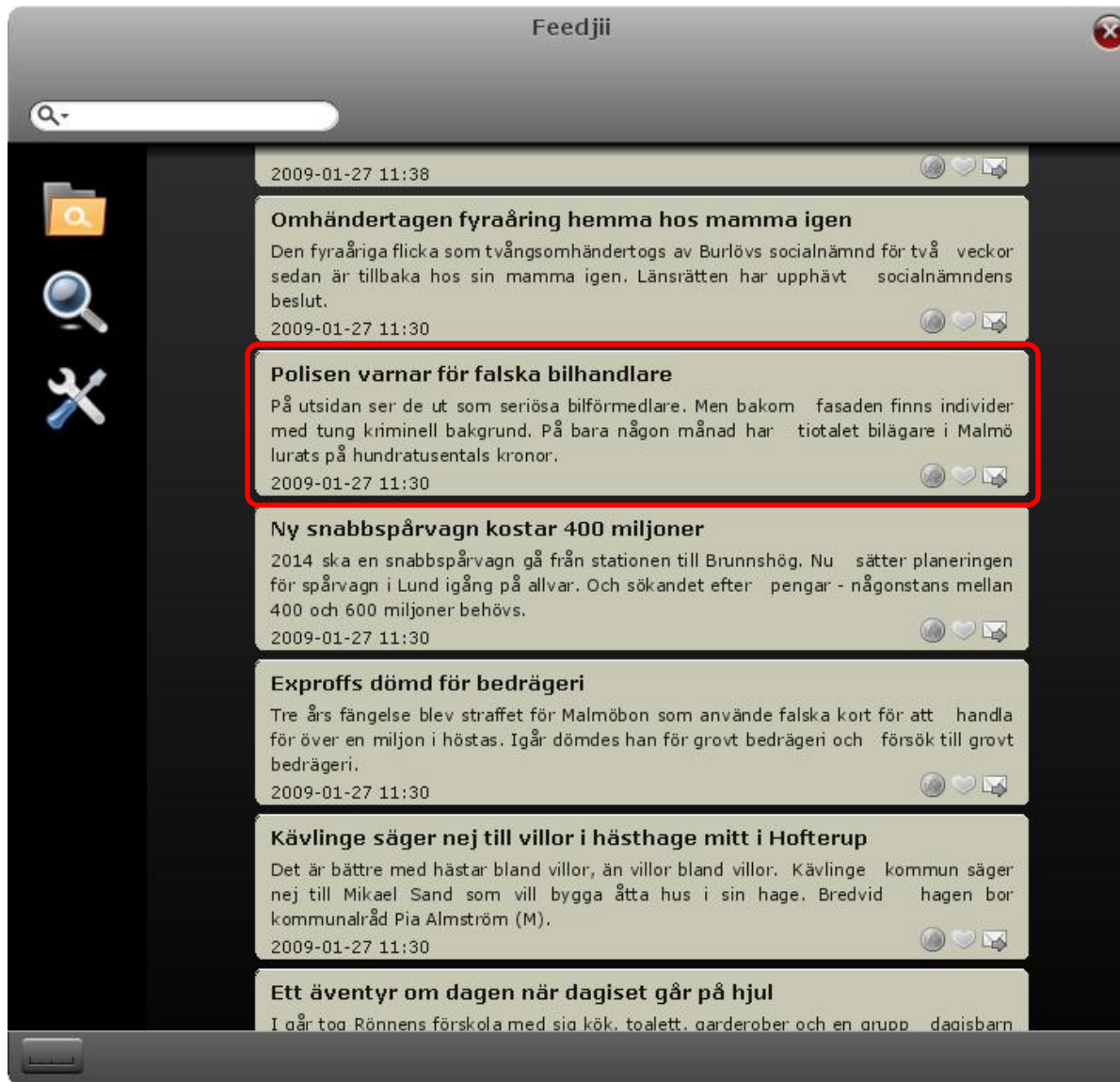
Egna komponenter

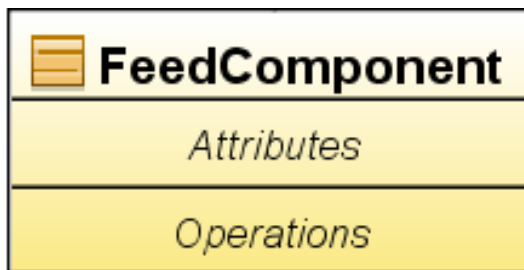
Bra prestanda

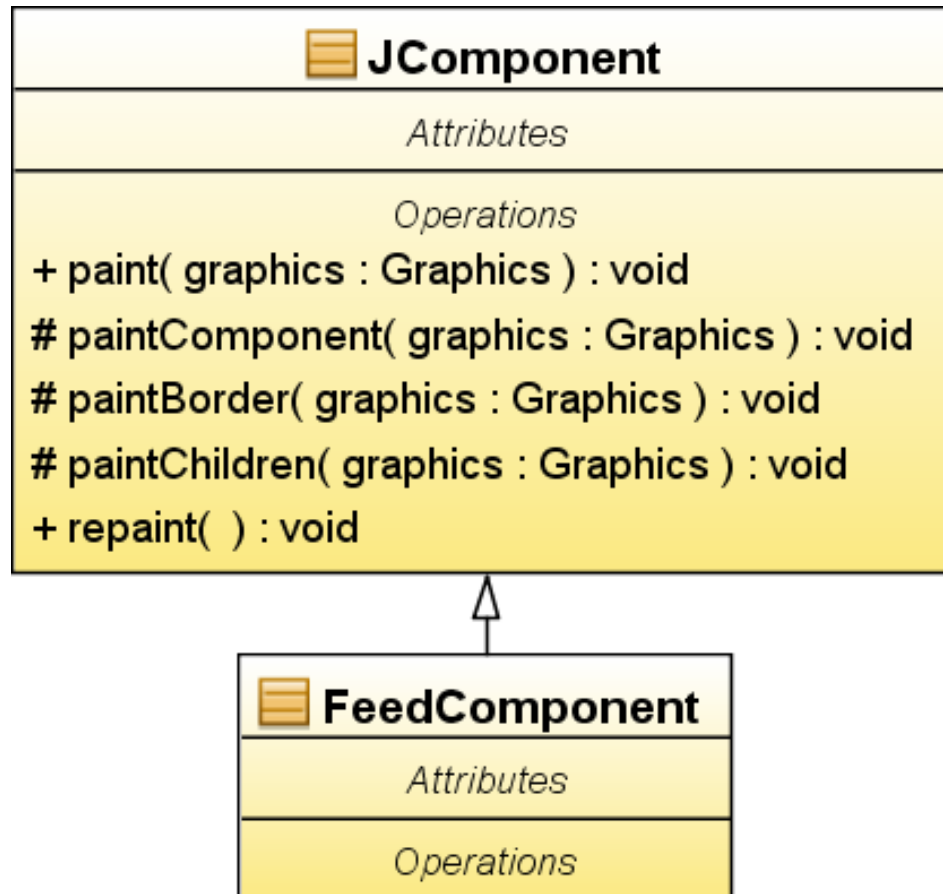
Demo

Under huven









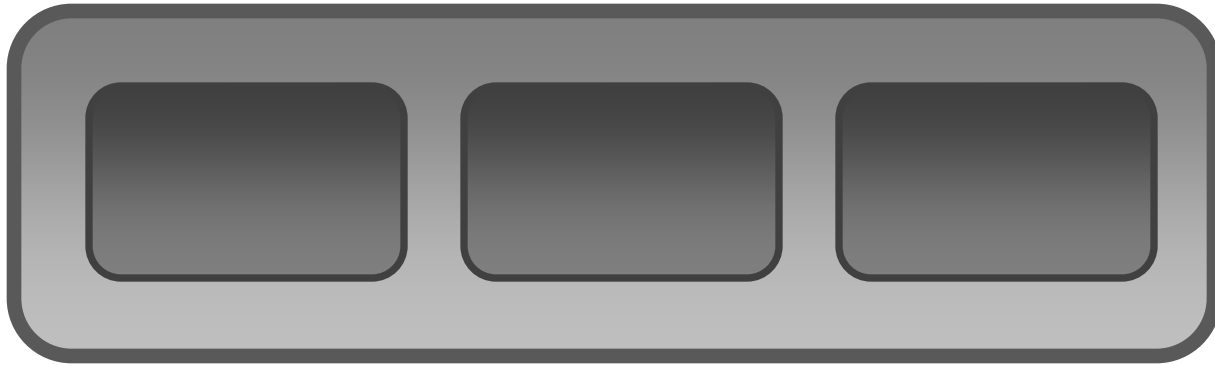
paintComponent(Graphics g)

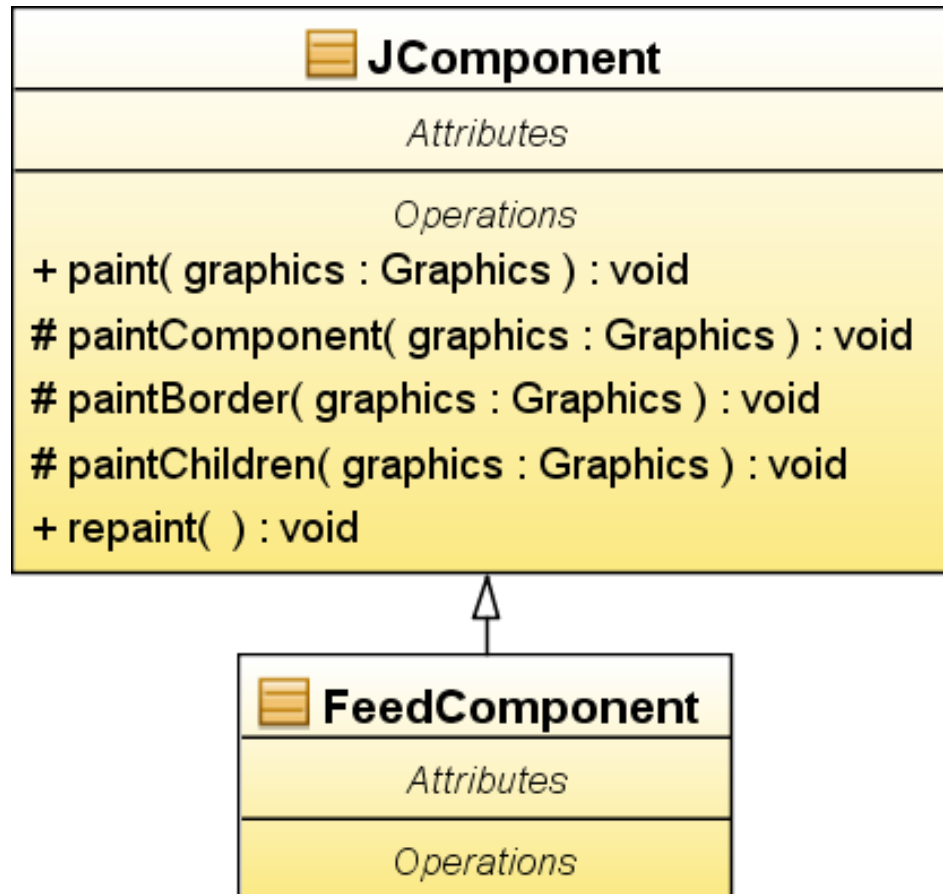


paintBorder(Graphics g)



paintChildren(Graphics g)





paintComponent(Graphics g)



FeedComponent

FeedComponent

```
public class FeedComponent extends JComponent {  
    private String headline, text;  
    private BufferedImage buffer;  
  
    public FeedComponent(String headline, String text) {  
        this.headline = headline;  
        this.text = text;  
    }  
  
    public void paintComponent(Graphics g) {  
        // Paint code goes here  
    }  
}
```

```
if (buffer != null) {  
    g.drawImage(buffer, 0, 0);  
    return;  
}
```

```
// Create buffer  
buffer = new BufferedImage(getWidth(), getHeight(),  
    BufferedImage.TYPE_INT_ARGB);  
Graphics2D g2 = (Graphics2D) buffer.getGraphics();
```

```
// Enable antialiasing  
g2.setRenderingHint(RenderingHints.KEY_ANTIALIASING,  
    RenderingHints.VALUE_ANTIALIASING_ON);
```

```
// Create gradient paint
Point top = new Point(0, 0);
Point bottom = new Point(0, getHeight());
Color topColor = new Color(192, 192, 192);
Color bottomColor = new Color(95, 95, 95);

Paint paint = new GradientPaint(top, topColor, bottom,
    bottomColor);

// Set paint
g2.setPaint(paint);
```

```
// Draw background
int radius = 10;
g2.fillRoundRect(0, 0, getWidth(), getHeight(), radius,
    radius);
```



```
// Draw headline
g2.setPaint(Color.BLACK);
g2.drawString(this.headline, 15, 15);
```

Javachock!

```
// Draw text  
g2.drawString(15, 40, this.text);
```

Javachock!

Miljontals svenskar kan ha missat JFokus utan att veta om det!
Tabeller län för län, se om du är drabbad.

```
// Draw to screen  
g.drawImage(buffer, 0, 0);
```


Kinetic Scrolling

Timing Framework

```
public class AnimationExample implements TimingTarget {
```

```
    public void createAnimation() {  
        Animator animator = new Animator(2000, this);  
        animator.setResolution(10);  
        animator.setAcceleration(0.3f);  
        animator.setDeceleration(0.3f);  
        animator.start();  
    }
```

```
@Override  
    public void timingEvent(float fraction) {  
        // uppdatera och rita om  
    }
```

The image shows a screenshot of a web browser window titled "Feedjii" with a red close button in the top right corner. The browser displays a list of news items. Four callout boxes are overlaid on the left side, each pointing to a specific news item with a colored dot (yellow, red, yellow, green). The callout boxes describe the following steps:

- Steg 1 - mousePressed**
 - Starta en klocka
 - Spara Y-koordinaten
- Steg 2 - mouseDragged**
 - Anropas upprepade gånger
 - Flytta listan
- Steg 3 - mouseReleased**
 - Stoppa klockan
 - Beräkna avståndet i y-led
- Steg 4 - timingEvent**
 - Anropas upprepade gånger
 - Flytta listan. Avtagande fart.

The news items visible in the browser are:

- Omhändertagen fyraåring hemma hos mamma igen** (Yellow dot): Den fyraåriga flickan som tvångsomhändertogs av Burlövs socialnämnd för två veckor sedan är tillbaka hos sin mamma igen. Länsrätten har upphävt socialnämndens...
- Polisen varnar för falska bilhandlare** (Red dot): På utstället hade utomstående lösa bilförmedlare. Men bakom fasaden finns individer som på bara någon månad har tjänat ett bilägare i Malmö lurats på hundratusentals kronor.
- Snabbspårvagn kostar 400 miljoner** (Yellow dot): Snabbspårvagn går från stationen till Brunnsög. Nu sätter planeringen för spårvagn i Lud i gång på allvar. Och sökandet efter pengar någonstans mellan...
- Exproffs dömd för bedrägeri** (Yellow dot): Tre års fängelse blev straffet för Malmöboen som använde falska kort för att handla för över en miljon i höstas. Igår dömdes han för grovt bedrägeri och försök till grovt bedrägeri.
- Byggherren vill bygga hus i sin hage mitt i Hofterup** (Green dot): Det är borta med hästar bland villor, än så länge. Kävlinge kommun säger nej till Mikael Sand som vill bygga ett hus i sin hage. Bredvid hagen bor kommunråd Pia Almström (M).
- Ett äventyr om dagen när dagiset går på hjul** (Green dot): I går toa Rönnens förskola med sig kök, toalett, garderob och en grupp dagisbarn...

Kinetic Scrolling

```
public class KineticScrolling
    extends JComponent
    implements MouseListener, MouseMotionListener,
    TimingTarget {

    private JComponent componentToScroll;
    private Animator animator;
    private long startTime;
    private int startPosition;
    private int distanceToScroll;
    private MouseEvent previousMouseEvent;
    private final int animationDuration = 1300;
```

Kinetic Scrolling

```
public KineticScrolling(JComponent component) {  
    setLayout(null);  
  
    addMouseListener(this);  
    addMouseMotionListener(this);  
  
    componentToScroll = component;  
    add(componentToScroll);  
}
```

Kinetic Scrolling

```
@Override  
public void mousePressed(MouseEvent e) {  
    startTime = System.currentTimeMillis();  
    startPosition = componentToScroll.getY();  
    previousMouseEvent = e;  
}
```

Kinetic Scrolling

```
@Override
public void mouseDragged(MouseEvent e) {
    int diff = e.getYOnScreen() -
               previousMouseEvent.getYOnScreen();

    int newYPosition = componentToScroll.getY() + diff;
    componentToScroll.setLocation(0, newYPosition);
    previousMouseEvent = e;
    repaint();
}
```

Kinetic Scrolling

@Override

```
public void mouseReleased(MouseEvent e) {  
    int yDiff = componentToScroll.getY() - startPosition;  
    double elapsedTime = System.currentTimeMillis() - startTime;  
    double speed = yDiff / elapsedTime;  
    distanceToScroll = (int) (speed * animationTime);  
    startPosition = componentToScroll.getY();  
  
    animator = new Animator(animationTime, this);  
    animator.setResolution(0);  
    animator.setDeceleration(1);  
    animator.start();  
}
```


Kinetic Scrolling

```
@Override
public void timingEvent(float fraction) {
    int newY =
        (int)(startPosition + distanceToScroll * fraction);
    componentToScroll.setLocation(0, newY);
    repaint();
}
```

Demo

Prestanda

Kompatibla bilder

```
buffer = new BufferedImage(width, height,  
    BufferedImage.TYPE_INT_ARGB);
```

```
GraphicsConfiguration conf = g.getGraphicsConfiguration();  
buffer = conf.createCompatibleImage(width, height);
```

Hårdvaruacceleration

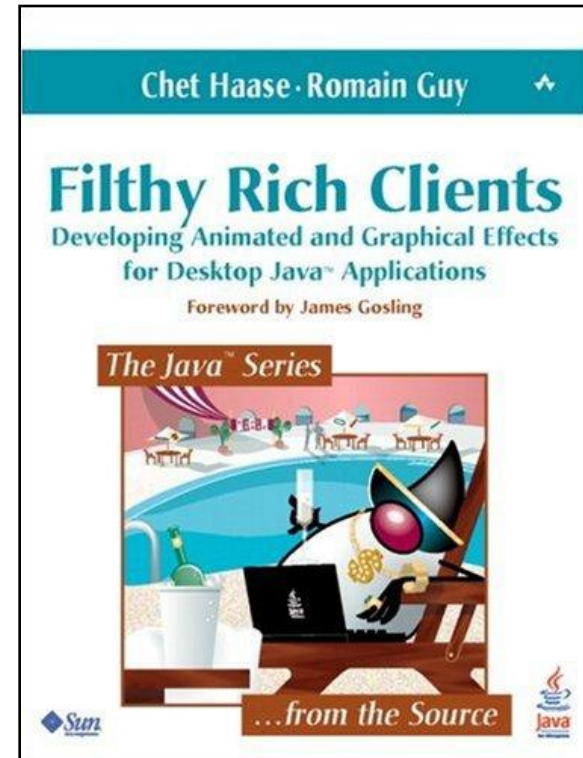
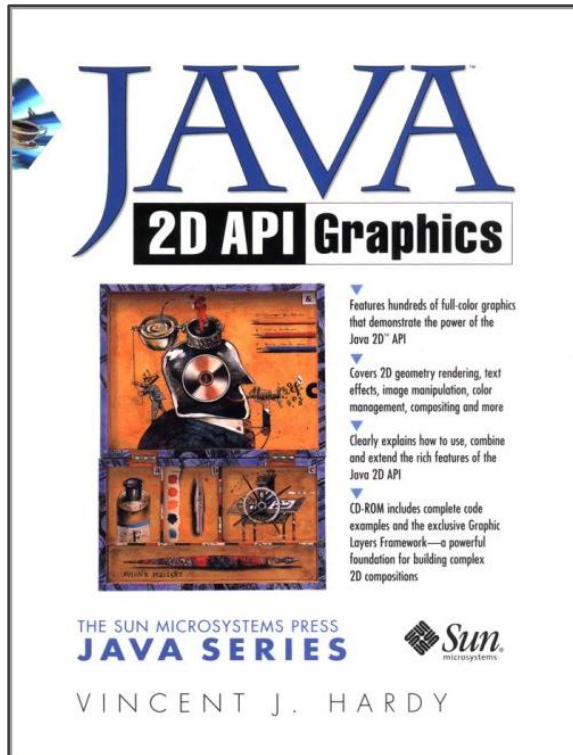
```
C:\> java Feedjii
```

```
C:\> java -Dsun.java2d.opengl=true Feedjii
```

```
C:\> java -Dsun.java2d.d3d=true Feedjii
```

Swing
ROCKS

Böcker



www.feedjii.com

Frågor

SWING ROCKS