

## Examples

### How do I show a PDF in my Swing Application

Here is some simple code adapted from the viewer demo which will show a PDF in a JFrame. This uses the PagePanel class from the viewer demo, which handles all of the details of repainting the pdf in a JPanel.

```
package pdfpaneltest;

import com.sun.pdfview.PDFFile;
import com.sun.pdfview.PDFPage;
import com.sun.pdfview.PagePanel;
import java.io.*;
import java.nio.ByteBuffer;
import java.nio.channels.FileChannel;
import javax.swing.*;

/**
 * An example of using the PagePanel class to show PDFs. For more advanced
 * usage including navigation and zooming, look at the
 * com.sun.pdfview.PDFViewer class.
 *
 * @author joshua.marinacci@sun.com
 */
public class Main {

    public static void setup() throws IOException {

        //set up the frame and panel
        JFrame frame = new JFrame("PDF Test");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        PagePanel panel = new PagePanel();
        frame.add(panel);
        frame.pack();
        frame.setVisible(true);

        //load a pdf from a byte buffer
        File file = new File("test.pdf");
        RandomAccessFile raf = new RandomAccessFile(file, "r");
        FileChannel channel = raf.getChannel();
        ByteBuffer buf = channel.map(FileChannel.MapMode.READ_ONLY,
            0, channel.size());
        PDFFile pdffile = new PDFFile(buf);

        // show the first page
        PDFPage page = pdffile.getPage(0);
        panel.showPage(page);

    }

    public static void main(final String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            public void run() {
                try {
                    Main.setup();
                } catch (IOException ex) {
                    ex.printStackTrace();
                }
            }
        });
    }
}
```

## How do I draw a PDF into an Image?

Here is some sample code to draw a PDF into an image.

```
package pdfpaneltest;

import com.sun.pdfview.PDFFile;
import com.sun.pdfview.PDFPage;
import java.awt.Image;
import java.awt.Rectangle;
import java.io.*;
import java.nio.ByteBuffer;
import java.nio.channels.FileChannel;
import javax.swing.*;

/**
 * An example of drawing a PDF to an image.
 *
 * @author joshua.marinacci@sun.com
 */
public class ImageMain {

    public static void setup() throws IOException {

        //load a pdf from a byte buffer
        File file = new File("test.pdf");
        RandomAccessFile raf = new RandomAccessFile(file, "r");
        FileChannel channel = raf.getChannel();
        ByteBuffer buf = channel.map(FileChannel.MapMode.READ_ONLY, 0, channel.size());
        PDFFile pdffile = new PDFFile(buf);

        // draw the first page to an image
        PDFPage page = pdffile.getPage(0);

        //get the width and height for the doc at the default zoom
        Rectangle rect = new Rectangle(0,0,
            (int)page.getBBox().getWidth(),
            (int)page.getBBox().getHeight());

        //generate the image
        Image img = page.getImage(
            rect.width, rect.height, //width & height
            rect, // clip rect
            null, // null for the ImageObserver
            true, // fill background with white
            true // block until drawing is done
        );

        //show the image in a frame
        JFrame frame = new JFrame("PDF Test");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.add(new JLabel(new ImageIcon(img)));
        frame.pack();
        frame.setVisible(true);
    }

    public static void main(final String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            public void run() {
                try {
                    ImageMain.setup();
                } catch (IOException ex) {

```

```
        ex.printStackTrace();
    }
}
});
}
```

## How do I draw a PDF directly to my own Graphics2D object?

Sometimes you may need to draw directly to some other Graphics2D object instead of directly to an image. A common example is printing. The PDFRenderer lets you draw directly to a Graphics2D object rather than returning an image.

The following code draws a pdf into the Graphics2D from a BufferedImage

```
File file = new File("/Users/joshy/splats.pdf");

// set up the PDF reading
RandomAccessFile raf = new RandomAccessFile(file, "r");
FileChannel channel = raf.getChannel();
ByteBuffer buf = channel.map(FileChannel.MapMode.READ_ONLY, 0, channel.size());
PDFFile pdfFile = new PDFFile(buf);

// get the first page
PDFPage page = pdfFile.getPage(0);

// create and configure a graphics object
BufferedImage img = new BufferedImage(100, 100, BufferedImage.TYPE_INT_ARGB);
Graphics2D g2 = img.createGraphics();
g2.setRenderingHint(RenderingHints.KEY_ANTIALIASING, RenderingHints.VALUE_ANTIALIAS_ON);

// do the actual drawing
PDFRenderer renderer = new PDFRenderer(page, g2,
    new Rectangle(0, 0, 500, 500), null, Color.RED);
page.waitForFinish();
renderer.run();
```