

## Mid-Level Containers – JScrollPanes

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JScrollPanes are ideal when the Developer wishes to show a component which may grow to be larger than first displayed or doesn't need to be shown in its entirety in the first instant.

By default the scrollbars will not appear until the component's size demands it ...

In this first example, the JFrame has been made so small that Java will automatically display both scroll bars, notice that the JScrollPane is initialised with the JLabel.

The Developer will need to import the following ...

```
import javax.swing.JScrollPane;
```

# Mid-Level Containers – JScrollPane



```
import javax.swing.ImageIcon;  
import javax.swing.JFrame;  
import javax.swing.JLabel;  
import javax.swing.JScrollPane;
```

```
public class border1 {
```

```
    static ImageIcon icon = new ImageIcon("c:/course/front_cover_detail.gif");  
    static JLabel msg = new JLabel(icon);  
    static JFrame newframe = new JFrame("Label with Icon");  
    static JScrollPane scroll1 = new JScrollPane(msg);
```

```
public static void main(String[] arguments)
```

```
{  
    newframe.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
    newframe.setSize(150,150);  
    newframe.getContentPane().add(scroll1);  
    newframe.setVisible(true);  
}
```



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Specifying a larger JFrame will remove the horizontal scroll bar ...



The Developer could remove the Scroll bars by setting the Scroll Bar policy, these settings are given on the next slide ...

## Mid-Level Containers – Scroll Bar policy

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The Developer can dictate how the Scroll Bars behave using the following settings (these are termed Scroll Bar policy) ...

This is the default.

*JScrollPane.VERTICAL\_SCROLLBAR\_AS\_NEEDED*  
*JScrollPane.HORIZONTAL\_SCROLLBAR\_AS\_NEEDED*

Displays the scroll bars, whether they are needed or not.

*JScrollPane.VERTICAL\_SCROLLBAR\_ALWAYS*  
*JScrollPane.HORIZONTAL\_SCROLLBAR\_ALWAYS*

Never displays the scroll bars.

*JScrollPane.VERTICAL\_SCROLLBAR\_NEVER*  
*JScrollPane.HORIZONTAL\_SCROLLBAR\_NEVER*

## Mid-Level Containers – Scroll Bar policy

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Scroll Bar policy can be implemented in one of two ways, either at initialisation of the container or later in the processing using the appropriate method ...

```
JScrollPane scroll1 = new JScrollPane(msg,  
                                       JScrollPane.VERTICAL_SCROLLBAR_NEVER,  
                                       JScrollPane.HORIZONTAL_SCROLLBAR_NEVER  
                                       );
```

or

```
msg.setHorizontalScrollBarPolicy(JScrollPane.HORIZONTAL_SCROLLBAR_NEVER);  
msg.setVerticalScrollBarPolicy(JScrollPane.VERTICAL_SCROLLBAR_NEVER);
```