

Re: A JLabel's Size

Source: <http://coding.derkeiler.com/Archive/Java/comp.lang.java.gui/2007-03/msg00077.html>

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 - *Date:* Wed, 07 Mar 2007 19:22:26 -0000
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On 2007-03-07, Jason Cavett <jason.cavett@xxxxxxxx> wrote:

On Mar 7, 11:45 am, Knute Johnson <nos...@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Jason Cavett wrote:

Something I'm curious about...

When I create a JLabel and place it into a JPanel/JDialog/some other component, it always appears as the correct size (just large enough to display the text + appropriate boundary around the text). But, when I attempt to get that JLabel's size, it returns 0 width and 0 height unless I specifically set the size of the JLabel.

Shouldn't the size have been set correctly upon the addition of the text to the label? I'm confused on how this is working and why it's working that way.

The component has to be realized first. It gets realized when the container it is in is either packed or its size is set.

Excuse the quibble, but the size of the component is set by pack() as a side effect of pack() validating (laying out) the Window. Validating a Container causes the LayoutManager of the Container to set the sizes of the Components in the Container. (I'll skip the detail of the Window being made displayable.)

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In the example program if the invocation of `pack()` is replaced by `setSize(100,200)`, then the width of the label remains zero until after `setVisible(true)` is invoked on the `JFrame`. Making the `JFrame` visible has the side effect of validating it.

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

public class test8 {
public static void main(String[] args) {
Runnable r = new Runnable() {
public void run() {
JFrame f = new JFrame();
f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

JLabel l = new JLabel("Hello World!");
f.add(l, BorderLayout.CENTER);
System.out.println(l.getWidth());

f.pack();
System.out.println(l.getWidth());
f.setVisible(true);
}
};
EventQueue.invokeLater(r);
}

}

--
```

Knute Johnson
email s/nospam/knute/

Okay, that makes sense.

But...why is "preferred size" recognized. For example, I can do something like this...

```
JLabel label = new JLabel("Hello World");
label.setSize(label.getPreferredSize());
```

I never set the preferred size on my own. Is something being done underneath the covers with preferred size?

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With Java Swing, there is a lot being done underneath the covers. For a text label, the `getPreferredSize()` method determines what the size Component needs to be to draw 1) the text of the label in the font being used for the text and 2) the border.

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