

# SWING - FOCUSLISTENER INTERFACE

[http://www.tutorialspoint.com/swing/swing\\_focus\\_listener.htm](http://www.tutorialspoint.com/swing/swing_focus_listener.htm)

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## Introduction

The interface **FocusListener** is used for receiving keyboard focus events. The class that process focus events needs to implements this interface.

## Class declaration

Following is the declaration for **java.awt.event.FocusListener** interface:

```
public interface FocusListener
extends EventListener
```

## Interface methods

| S.N. | Method & Description                                                                            |
|------|-------------------------------------------------------------------------------------------------|
| 1    | <b>void focusGained</b> <i>FocusEvent</i><br>Invoked when a component gains the keyboard focus. |
| 2    | <b>void focusLost</b> <i>FocusEvent</i><br>Invoked when a component loses the keyboard focus.   |

## Methods inherited

This class inherits methods from the following interfaces:

- java.awt.event.EventListener

## FocusListener Example

Create the following java program using any editor of your choice in say **D:/ > SWING > com > tutorialspoint > gui >**

*SwingListenerDemo.java*

```
package com.tutorialspoint.gui;

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

public class SwingListenerDemo {
    private JFrame mainFrame;
    private JLabel headerLabel;
    private JLabel statusLabel;
    private JPanel controlPanel;

    public SwingListenerDemo(){
        prepareGUI();
    }

    public static void main(String[] args){
        SwingListenerDemo swingListenerDemo = new SwingListenerDemo();
        swingListenerDemo.showFocusListenerDemo();
    }

    private void prepareGUI(){
        mainFrame = new JFrame("Java SWING Examples");
        mainFrame.setSize(400,400);
```

```

mainFrame.setLayout(new GridLayout(3, 1));

headerLabel = new JLabel("", JLabel.CENTER );
statusLabel = new JLabel("", JLabel.CENTER);

statusLabel.setSize(350,100);
mainFrame.addWindowListener(new WindowAdapter() {
    public void windowClosing(WindowEvent windowEvent){
        System.exit(0);
    }
});
controlPanel = new JPanel();
controlPanel.setLayout(new FlowLayout());

mainFrame.add(headerLabel);
mainFrame.add(controlPanel);
mainFrame.add(statusLabel);
mainFrame.setVisible(true);
}
private void showFocusListenerDemo(){

    headerLabel.setText("Listener in action: FocusListener");
    JButton okButton = new JButton("OK");
    JButton cancelButton = new JButton("Cancel");

    okButton.addFocusListener(new CustomFocusListener());
    cancelButton.addFocusListener(new CustomFocusListener());

    controlPanel.add(okButton);
    controlPanel.add(cancelButton);
    mainFrame.setVisible(true);

}

class CustomFocusListener implements FocusListener{
    public void focusGained(FocusEvent e) {
        statusLabel.setText(statusLabel.getText()
            + e.getComponent().getClass().getSimpleName() + " gained focus. ");
    }

    public void focusLost(FocusEvent e) {
        statusLabel.setText(statusLabel.getText()
            + e.getComponent().getClass().getSimpleName() + " lost focus. ");
    }
}
}

```

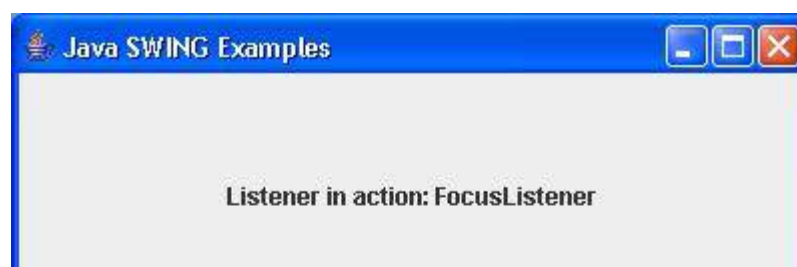
Compile the program using command prompt. Go to **D:/ > SWING** and type the following command.

```
D:\SWING>javac com\tutorialspoint\gui\SwingListenerDemo.java
```

If no error comes that means compilation is successful. Run the program using following command.

```
D:\SWING>java com.tutorialspoint.gui.SwingListenerDemo
```

Verify the following output



OK Cancel

JButton gained focus.

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