

# SWING - WINDOWADAPTER CLASS

[http://www.tutorialspoint.com/swing/swing\\_windowadapter.htm](http://www.tutorialspoint.com/swing/swing_windowadapter.htm)

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## Introduction

The class **WindowAdapter** is an abstract *adapter* class for receiving window events. All methods of this class are empty. This class is convenience class for creating listener objects.

## Class declaration

Following is the declaration for **java.awt.event.WindowAdapter** class:

```
public abstract class WindowAdapter
    extends Object
    implements WindowListener, WindowStateListener, WindowFocusListener
```

## Class constructors

S.N.	Constructor & Description
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1	<b>WindowAdapter</b>
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## Class methods

S.N.	Method & Description
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1	<b>void windowActivated</b> <i>WindowEvent</i> Invoked when a window is activated.
2	<b>void windowClosed</b> <i>WindowEvent</i> Invoked when a window has been closed.
3	<b>void windowClosing</b> <i>WindowEvent</i> Invoked when a window is in the process of being closed.
4	<b>void windowDeactivated</b> <i>WindowEvent</i> Invoked when a window is de-activated.
5	<b>void windowDeiconified</b> <i>WindowEvent</i> Invoked when a window is de-iconified.
6	<b>void windowGainedFocus</b> <i>WindowEvent</i> Invoked when the Window is set to be the focused Window, which means that the Window, or one of its subcomponents, will receive keyboard events.
7	<b>void windowIconified</b> <i>WindowEvent</i> Invoked when a window is iconified.

## 8 **void windowLostFocus***WindowEvent*

Invoked when the Window is no longer the focused Window, which means that keyboard events will no longer be delivered to the Window or any of its subcomponents.

## 9 **void windowOpened***WindowEvent*

Invoked when a window has been opened.

## 10 **void windowStateChanged***WindowEvent*

Invoked when a window state is changed.

## Methods inherited

This class inherits methods from the following classes:

- java.lang.Object

## WindowAdapter Example

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

*SwingAdapterDemo.java*

```
package com.tutorialspoint.gui;

import java.awt.*;
import java.awt.event.*;

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

    public SwingAdapterDemo(){
        prepareGUI();
    }

    public static void main(String[] args){
        SwingAdapterDemo swingAdapterDemo = new SwingAdapterDemo();
        swingAdapterDemo.showWindowAdapterDemo();
    }

    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 showWindowAdapterDemo(){
    headerLabel.setText("Listener in action: WindowAdapter");

    JButton okButton = new JButton("OK");

    final JFrame aboutFrame = new JFrame();
    aboutFrame.setSize(300,200);
    aboutFrame.setTitle("WindowAdapter Demo");
    aboutFrame.addWindowListener(new WindowAdapter() {
        public void windowClosing(WindowEvent windowEvent){
            aboutFrame.dispose();
        }
    });
    JLabel msgLabel
    = new JLabel("Welcome to Tutorialspoint SWING Tutorial.",
    JLabel.CENTER);
    aboutFrame.add(msgLabel);
    aboutFrame.setVisible(true);
}
}

```

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

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

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

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

Verify the following output

