Event Handling

Applets inherit a group of event-handling methods from the Container class. The Container class defines several methods, such as processKeyEvent and processMouseEvent, for handling particular types of events, and then one catch-all method called processEvent.

In order to react to an event, an applet must override the appropriate event-specific method.

Example **ExampleEventHandling.java**

```
import java.awt.event.MouseListener;
import java.awt.event.MouseEvent;
import java.applet.Applet;
import java.awt.Graphics;

public class ExampleEventHandling extends Applet implements
MouseListener {
   StringBuffer strBuffer;

   public void init() {
      addMouseListener(this);
      strBuffer = new StringBuffer();
      addItem("initializing the apple ");
   }

   public void start() {
      addItem("starting the applet ");
   }

   public void stop() {
      addItem("stopping the applet ");
   }

   public void destroy() {
      addItem("unloading the applet");
```

```
    }

    void addItem(String word) {
      System.out.println(word);
      strBuffer.append(word);
      repaint();
    }

    public void paint(Graphics g) {
      // Draw a Rectangle around the applet's display area.
      g.drawRect(0, 0,
      getWidth() - 1,
      getHeight() - 1);

      // display the string inside the rectangle.
      g.drawString(strBuffer.toString(), 10, 20);
    }


    public void mouseEntered(MouseEvent event) {
    }
    public void mouseExited(MouseEvent event) {
    }
    public void mousePressed(MouseEvent event) {
    }
    public void mouseReleased(MouseEvent event) {
    }
    public void mouseClicked(MouseEvent event) {
      addItem("mouse clicked! ");
    }
}
```

Event. html

```
<html>
  <title>Event Handling</title>
  <hr>
  <applet code = "ExampleEventHandling.class"
    width = "300" height = "300">
  </applet>
  <hr>
</html>
```

Output:

```
C:\Users\sriindu\Desktop>appletviewer Event.html
initializing the apple
starting the applet
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
mouse clicked!
stopping the applet
unloading the applet
```

Displaying Images

An applet can display images of the format GIF, JPEG, BMP, and others. To display an image within the applet, you use the drawImage() method found in the java.awt.Graphics class.

Following is an example illustrating all the steps to show images –

Example ImageDemo.java

```
public class ImageDemo extends Applet {
  private Image image;
  private AppletContext context;

  public void init() {
    context = this.getAppletContext();
    String imageURL = this.getParameter("image");
    if(imageURL == null) {
      imageURL = "java.jpg";
    }
    try {
      URL url = new URL(this.getDocumentBase(), imageURL);
      image = context.getImage(url);
    } catch (MalformedURLException e) {
      e.printStackTrace();
      // Display in browser status bar
      context.showStatus("Could not load image!");
    }
  }

  public void paint(Graphics g) {
    context.showStatus("Displaying image");
    g.drawImage(image, 0, 0, 200, 84, null);
    g.drawString("www.javalicense.com", 35, 100);
```

```
  }
}
```

Images.html

```
<html>
  <title>The ImageDemo applet</title>
  <hr>
  <applet code = "ImageDemo.class" width = "300" height = "200">
    <param name = "image" value = "java.jpg">
  </applet>
  <hr>
</html>
```