Applet

Contents

rq: We prefer to use WEB START technology instead of APPLET. Java Web Start provides a platform-independent, secure, and robust deployment technology. It enables developers to deploy full-featured applications to end-users by making the applications available on a standard web server. With any web browser, end-users can launch the applications and be confident they always have the most-recent version :

- It use the native JVE instead of the JVE of the browser.
- It is easy to use with NETBEANS and trully simplify the librairies distribution and signature by certificate.
- It seems to do what we really wanted to do using the APPLET.
- It was advised to us by the JAVA computers scientist of the LPSC laboratory.

1 Introduction

An applet is a program written in the Java programming language that can be included in an HTML page, much in the same way an image is included in a page. You will find here some notes about the Netbeans tutorial.

2 Is-it really working ?

... sometime yes. Into NETBEANS do:

1. Open a new project called "JavaApplication1"
2. Create a new **JAppletForm** file (from the **Swing GUI Forms** cathégory and call it *New-JApplet.java*
3. Add a color Chooser component to the pannel so as to have this code:

```
public class NewJApplet extends javax.swing.JApplet {

    /** Initializes the applet NewJApplet */
    public void init() {
        try {
            java.awt.EventQueue.invokeAndWait(new Runnable() {
                public void run() {
                    initComponents();
                }
            });
        } catch (Exception ex) {
            ex.printStackTrace();
        }
    }

    private void initComponents() {
        jColorChooser1 = new javax.swing.JColorChooser();

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jColorChooser1, javax.swing.GroupLayout.PREFERRED_SIZE,
                  javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap())
```

```
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jColorChooser1, javax.swing.GroupLayout.PREFERRED_SIZE,
                  javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        );
    }
    private javax.swing.JColorChooser jColorChooser1;
}
```

4. Test this selected file with `Maj-F6`
5. Build the *dist/JavaApplication1.jar* with `F11`

Outside of NETBEANS:

1. Copy the JAR archive int */htdocs*
2. Create the *applet1.html* file:

```
<applet
 code=NewJApplet.class
 archive="JavaApplication1.jar">
 width=350 height=200
</applet>
```

3. Now you should be able to load at this URL.

3 Signing the jar file

Please try this second applet (doing like above) so as to test:

- That your browser ask you for accepting our certificat.
- That you cannot write to a file if you refuse it
- That you can write to a file by accepting it

1. testing IO

```
import java.io.*;

public class NewJApplet extends javax.swing.JApplet {

    /** Initializes the applet NewJApplet */
    public void init() {
        try {
            java.awt.EventQueue.invokeAndWait(new Runnable() {
                public void run() {
                    initComponents();
                }
            });
        } catch (Exception ex) {
            ex.printStackTrace();
        }
    }

    private void initComponents() {

        jToggleButton1 = new javax.swing.JToggleButton();
        jScrollPane1 = new javax.swing.JScrollPane();
```

```
        jTextArea1 = new javax.swing.JTextArea();

        jToggleButton1.setText("test");
        jToggleButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jToggleButton1ActionPerformed(evt);
            }
        });

        jTextArea1.setColumns(20);
        jTextArea1.setRows(5);
        jScrollPane1.setViewportView(jTextArea1);

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jToggleButton1)
                    .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 323,
                      javax.swing.GroupLayout.PREFERRED_SIZE))
                .addContainerGap(206, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jToggleButton1)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 155,
                  javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(151, Short.MAX_VALUE))
        );
    }

    private void jToggleButton1ActionPerformed(java.awt.event.ActionEvent evt) {
          try {
              jTextArea1.append("testing...");
              BufferedWriter fichier = new BufferedWriter(new FileWriter("/tmp/tata.log"));
              fichier.write("bonjour tout le monde");
              fichier.newLine();
              fichier.close();
     } catch (Exception e){
System.out.println(e.toString());
        jTextArea1.append(e.toString());
     }
     jTextArea1.append("done");
    }

    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JTextArea jTextArea1;
    private javax.swing.JToggleButton jToggleButton1;
}
```

2. `keytool` is delivered with Sun's development kit.

```
$ keytool -genkey -keyalg rsa -alias yourkey
```

Follow the instructions and type in all needed information.

3. Now we make the certificate:

```
$ keytool -export -alias yourkey -file yourcert.crt
```

4. Now we have to sign the applet:

```
$ jarsigner yourapplet.jar yourkey
```