

Swing, rich client development in Java



MR-82 4 Days (28 Hours)

Description

In this course, you will discover the Swing graphics library for developing rich client-style Java interfaces. You will study components and their interactions with users, graphic design environments and deploy your applications via Java Web Start.

Who is this training for ?

For whom

Java developers, engineers, project managers close to development.

Prerequisites

Aucune

Training objectives

- Define the skeleton of a Swing application using containers
- Organize graphic components using layouts
- Create user interaction elements
- Deploy a Swing application with Java Web Start

Training program

Introduction

- Presentation and origin of Swing.
- Evolutions of Java graphics toolkits.
- The basic principles.
- Integration with J2SE.
- MVC platform.
- "Lightweight" and "Heavyweight" components.
- Presentation of AWT and Java2D, connection with Swing.
- Notions of Layout and LookAndFeel, events.

Principaux conteneurs

- Containers for creating windows, dialog boxes and various panels.
- JFrame and JDialog: windows and dialog boxes.
- JMenu, JMenuPopup, etc. .
- JPanel: generic container.
- JScrollPane: scrollable container.
- JToolBar, JDesktopPane.
- JFileChooser.
- Practical work Definition of the application model.
- Creation of the HMI skeleton with window, dialog boxes, etc.

Principaux layouts

- The layout, for the arrangement of display elements.
- Objectives and principles.
- Standard layouts BorderLayout, GridBagLayout.
- Use of TableLayout, FormLayout and SwingLayout.
- Creation of a new layout.
- Practical work Organization of HMI components using layout.

Principaux composants

- JLabel: simple text or HTML integration.
- Text components: JTextField, JTextArea, JEditorPane.
- Buttons: JButton, JComboBox, JCheckBox.
- JList, JTree, JTable (models, Renderer, Editor).
- Practical work Creation of interaction elements, management of user events, development of the application.

Fonctions avancées

- Creation of a component.
- Use of actions (toolbars, menu, popup, button).
- Drag'n Drop mechanism.
- Use/installation and adaptation of a Look & Feel.
- Binding framework (JGoodies).
- Asynchronous processing with SwingUtilities, SwingWorker.
- Internationalization.
- Undo/redo mechanism.
- Practical work Implementation of advanced techniques.

Environnements Swing

- Reduce work through the use of graphic design environments and various APIs.
- Frameworks: SwingX, Jide, SwingAppKit.
- Presentation of Matisse and Eclipse Plug-ins.
- Deployment with Java Web Start.