

# Interfaces Gráficas com o Utilizador em Java™

Uma brevíssima introdução

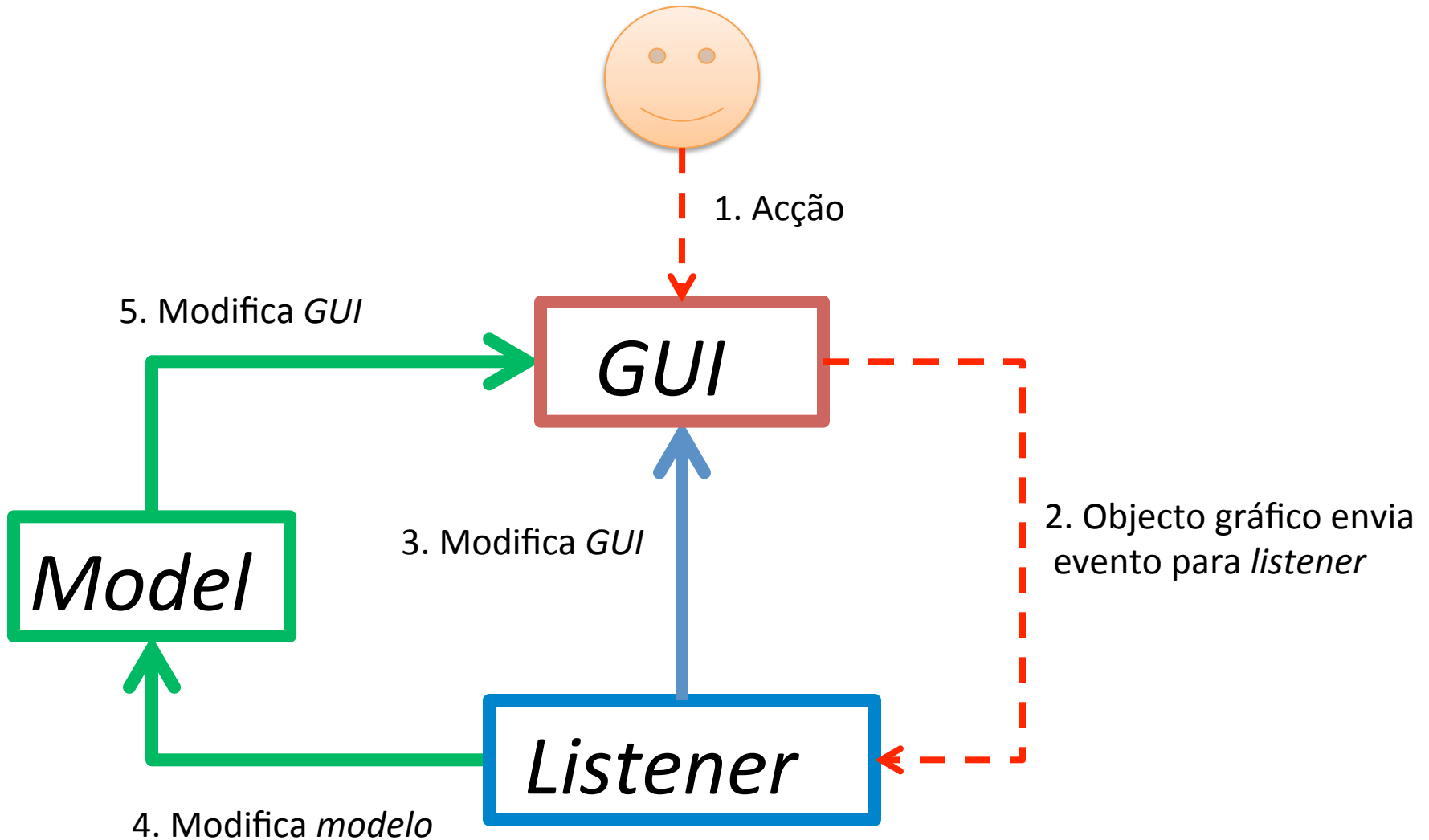
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2015/04/21

# Interfaces Gráficas

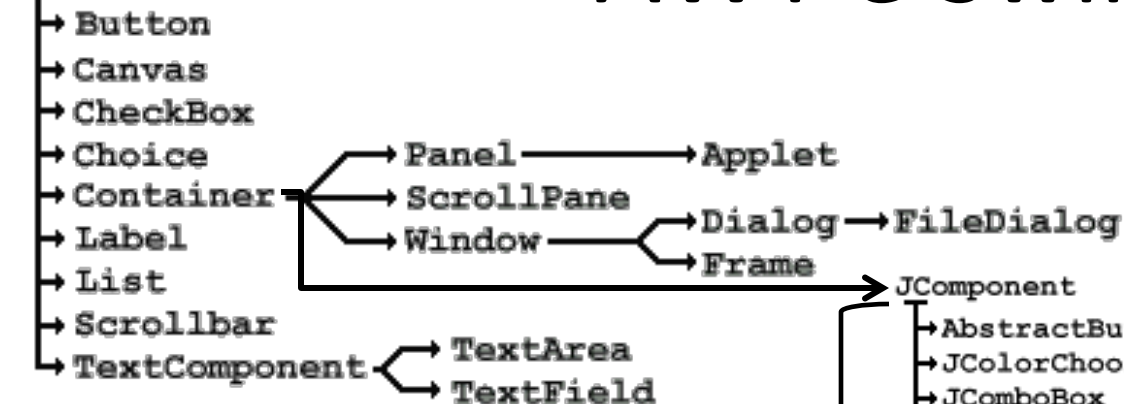
1. As poucas coisas realmente importantes a saber
  - a. Condução por Eventos
  - b. Model-View-Controller
  - c. Partir de exemplos
  - d. Saber procurar as respostas
2. As imensas coisas que felizmente não precisamos de saber
  1. Centenas de classes
  2. Milhares de métodos

# Condução por eventos

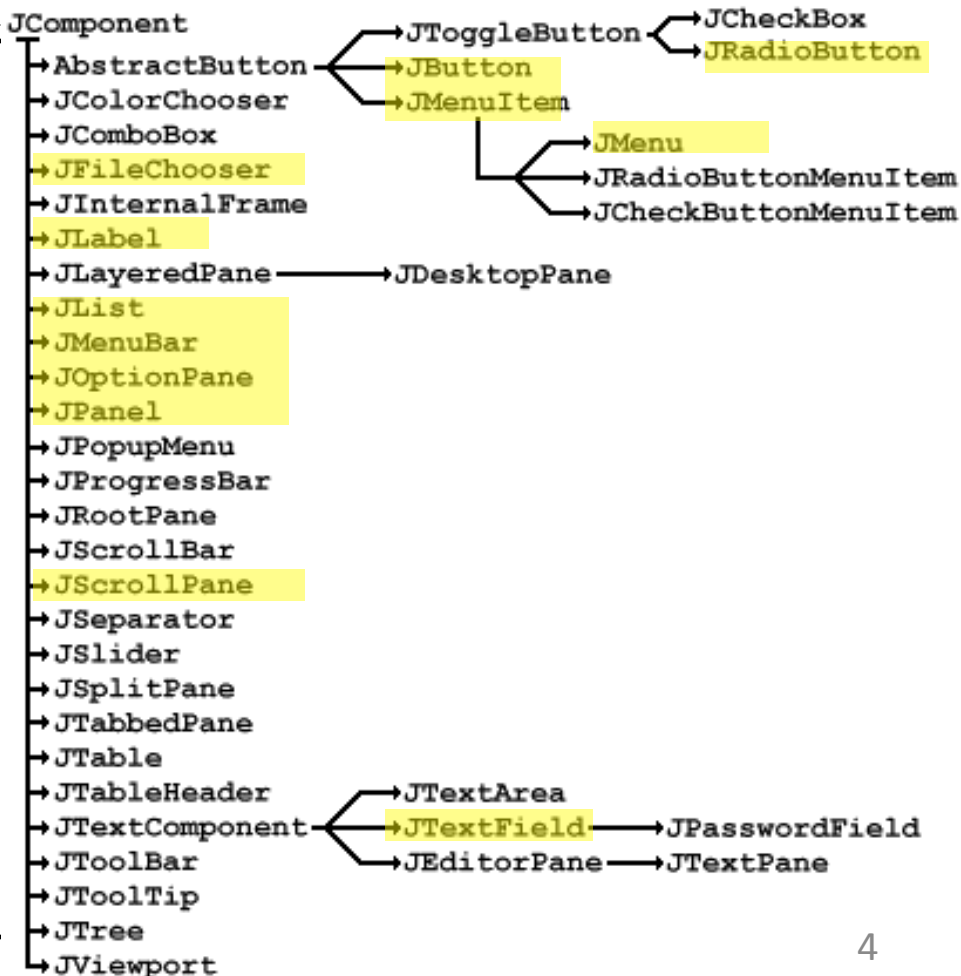


# AWT e Swing

## Component



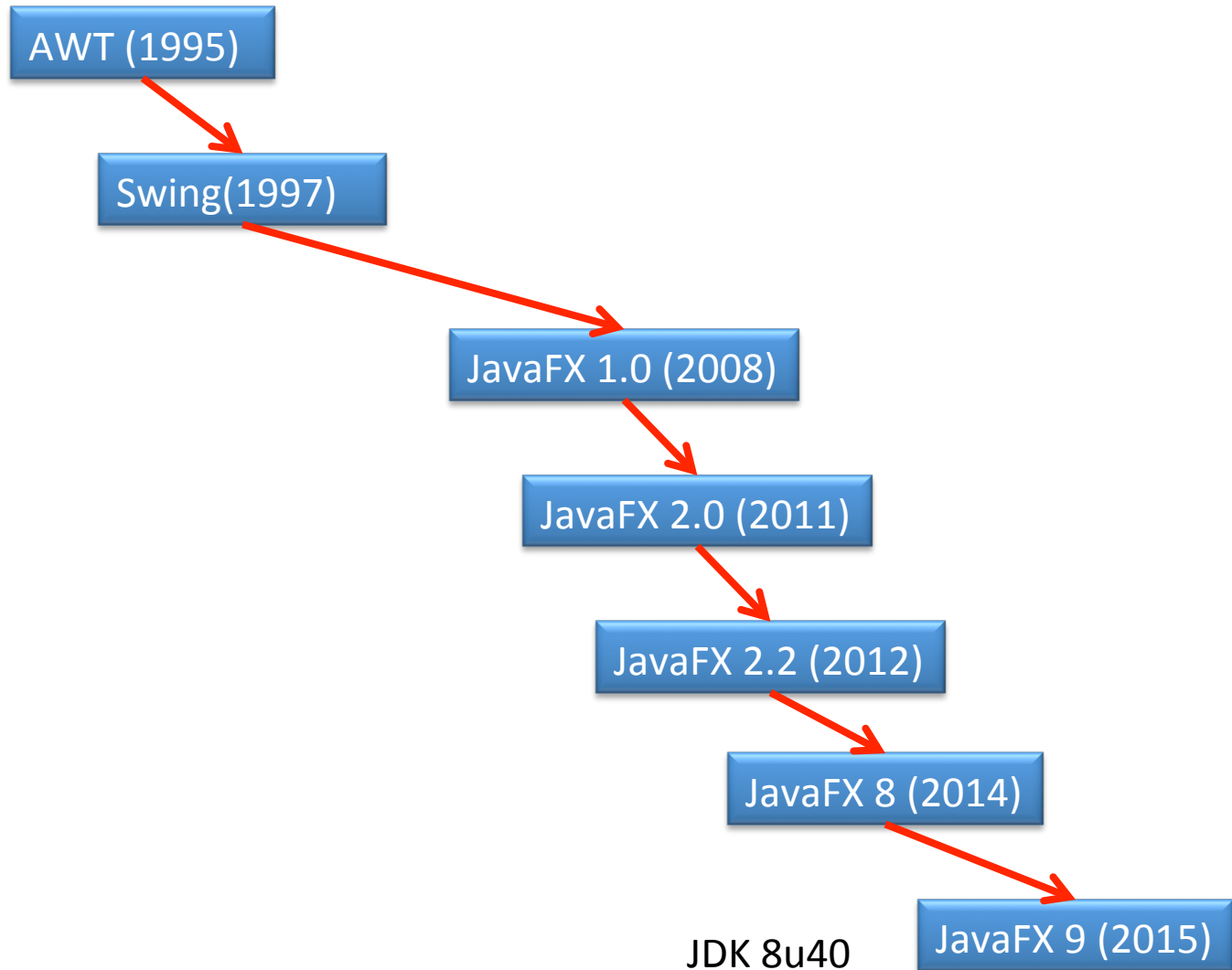
## javax.swing

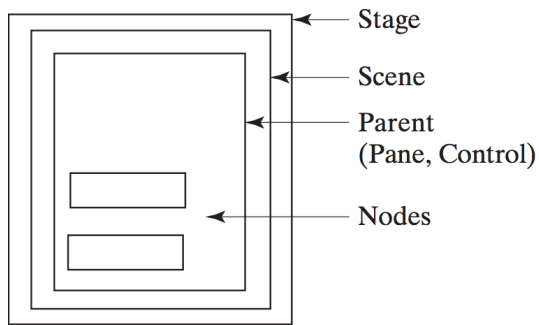


Figuras in <http://www.javafaq.nu/java-book-12.html>

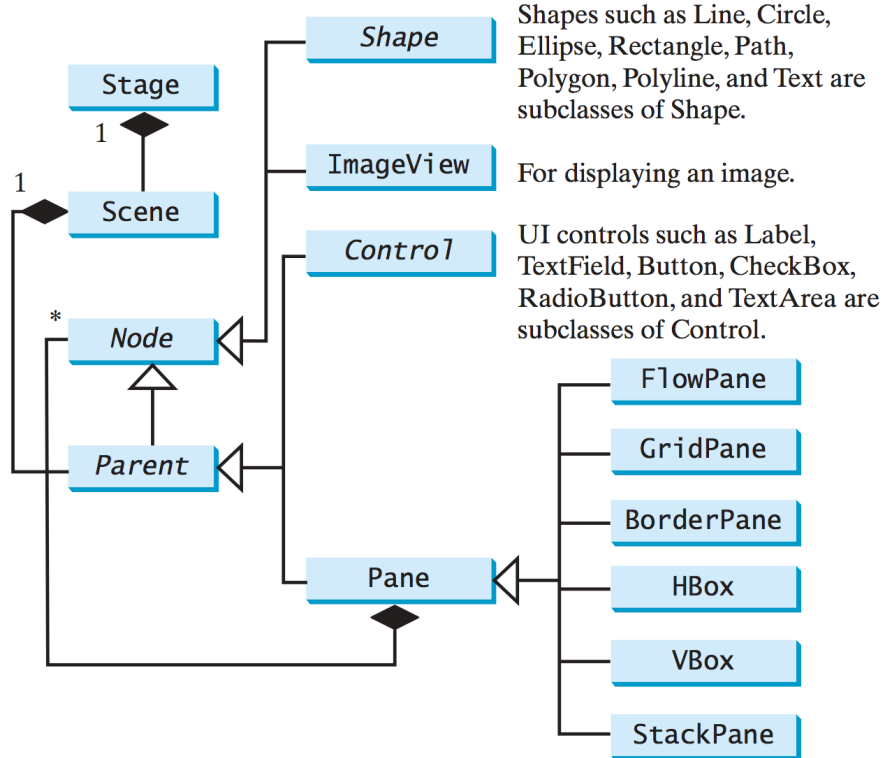
21 de Abril de 2015

# Bibliotecas para GUI em Java





(a)



(b)

**FIGURE 14.3** (a) Panes are used to hold nodes. (b) Nodes can be shapes, image views, UI controls, and panes.

**TABLE 14.1** Panes for Containing and Organizing Nodes

Class	Description
<b>Pane</b>	Base class for layout panes. It contains the <code>getChildren()</code> method for returning a list of nodes in the pane.
<b>StackPane</b>	Places the nodes on top of each other in the center of the pane.
<b>FlowPane</b>	Places the nodes row-by-row horizontally or column-by-column vertically.
<b>GridPane</b>	Places the nodes in the cells in a two-dimensional grid.
<b>BorderPane</b>	Places the nodes in the top, right, bottom, left, and center regions.
<b>HBox</b>	Places the nodes in a single row.
<b>VBox</b>	Places the nodes in a single column.

# Em resumo

- **Problema**

- Existem MUITAS classes, com MUITOS métodos .

- **Solução**

- Partir de exemplos pequenos ou grandes que façam algo.
- Ir adicionado aos poucos, consultando a documentação e procurando na Internet as respostas para as nossa dúvidas. Muitas vezes já outros perguntaram e obtiveram resposta.