

CS202 Java Object Oriented Programming GUI Programming – More GUI Components

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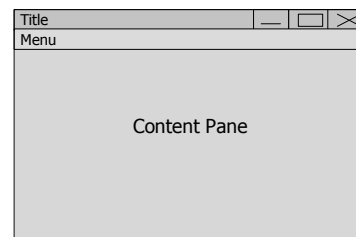
JEdit – A Simple Text Editor

- ◆ Important stuff
 - Menu bar, menu, and menu items
 - Toolbar
 - Scroll Pane
 - Dialog Box
 - FileChooser
- ◆ Optional stuff
 - Tabbed Pane
 - Popup Menu
 - ChangeListener
 - KeyListener
 - ...

Swing Components HOWTO

- ◆ <http://java.sun.com/docs/books/tutorial/uiswing/components/componentlist.html>

Top-level Container Layout



Menu Bar and Menu

- ◆ Menu Bar
 - JMenuBar()
 - add(JMenu)
- ◆ Menu
 - JMenu(String)
 - add(JMenuItem)

```
JMenuBar mb = new JMenuBar();
JMenu fileMenu = new JMenu("File");
mb.add( fileMenu );

setMenuBar( mb ); // add a menu bar
fileMenu.setMnemonic( KeyEvent.VK_F ); // add a hotkey
```

Menu Items

- ◆ JMenuItem(String)
- ◆ JMenuItem(String, int)

```
JMenuItem miOpen = new JMenuItem( "Open...", KeyEvent.VK_O );
JMenuItem miSave = new JMenuItem( "Save...", KeyEvent.VK_S );
JMenuItem miExit = new JMenuItem( "Exit" );
```

```
fileMenu.add( miOpen ); // add a menu item
fileMenu.add( miSave );
fileMenu.addSeparator(); // add a menu separator
fileMenu.add( miExit );
```

Tool Bar and Tool Tip

- ◆ `JToolBar(String title)`
- ◆ `setToolTipText(String)` in `JComponent`

```
JToolBar tb = new JToolBar( "Standard" );
Container cp = getContentPane();
cp.add( tb, BorderLayout.NORTH );
```

```
JButton ob = new JButton( "o" );
ob.setToolTipText( "Open File" );
```

Scroll Pane

- ◆ Provides a scrollable view of a component
- ◆ `JScrollPane(Component)`

```
Container cp = getContentPane();
JTextArea ta = new JTextArea();
```

```
cp.add( ( new JScrollPane(ta)), BorderLayout.CENTER );
```

File Chooser

- ◆ `JFileChooser()`
- ◆ `showDialog(Component, String)`
- ◆ `showOpenDialog(Component)`
- ◆ `showSaveDialog(Component)`
- ◆ `getSelectedFile()`

```
JFileChooser fc = new JFileChooser();

int status = fc.showOpenDialog( this );
if( status == JFileChooser.APPROVE_OPTION )
{
    File f = fc.getSelectedFile();
}
```

Dialog Boxes

- ◆ `JColorChooser`, `JFileChooser`
- ◆ Standard dialog boxes using `JOptionPane`
 - `showConfirmDialog`
 - `showInputDialog`
 - `showMessageDialog`
 - `showOptionDialog`
- ◆ `JDialog` for more complex and/or non-modal dialog boxes

Tabbed Pane

- ◆ `JTabbedPane()`
- ◆ `addTab(String, Component)`
- ◆ `getSelectedIndex()`
- ◆ `addChangeListener(ChangeListener)`

```
JTabbedPane tp = new JTabbedPane();

JTextArea ta1 = new JTextArea();
JTextArea ta2 = new JTextArea();
```

```
tp.addTab( "file1", new JScrollPane(ta1) );
tp.addTab( "file2", new JScrollPane(ta2) );
```

```
getContentPane().add( tp, BorderLayout.CENTER );
```

Pop-up Menu

- ◆ `JPopupMenu()`
- ◆ `add(JMenuItem)`
- ◆ `addSeparator()`
- ◆ `show(Component, int, int)`
- ◆ `isPopupTrigger()` in `MouseEvent` class
 - should be checked in `mousePressed()` and `mouseReleased()`
 - but not `mouseClicked()`