

This page last changed on Mar 06, 2008 by [ghostar](#).

1. Scope

1.1 Overview

Java provides a JLabel that can layout text in a horizontal manner but lacks the ability to layout text in a vertical manner. This component will provide functionality similar to a JLabel but will layout the text either in a 90 degree or 270 degree (ie where the ascent is on the left and the decent is on the right OR the ascent is on the right and the descent is on the left). A prototype screenshot is attached that shows the vertical label as it will be used in the UML Tool Side Menu.

1.2 Version

1.0

1.2 Logic Requirements

1.2.1 Specification of the text

This component should allow the setting of the text to be displayed in the label.

1.2.2 Specification of the flipped attribute.

The 'flipped' attribute controls whether the text is written with the ascent on the left or flipped on the right (ie 90 versus 270 above).

1.2.3 Specification of the font.

This component should allow the retrieval and setting of the font.

1.2.4 Specification of the colors.

This component should allow the setting of the background and foreground colors for the label.

1.2.5 Specification of the alignment.

This component should allow the setting of the vertical and horizontal alignments of the label.

1.2.6 Specification of the component orientation

This component should support setting of the ComponentOrientation but for a top to bottom or bottom to top layout.

1.2.7 Any other useful JLabel attributes

The designer is encouraged to support as much functionality as found in JLabel, although only those requirements in 1.2.1 through 1.2.6 are required. Any additional substantial support for features not required will be acceptable as additional functionality.

1.3 Required Algorithms

None

1.4 Example of the Software Usage

This component will be used in the TopCoder UML Tool to specify vertical text in various places, notably in the Side Menu component.

1.5 Future Component Direction

None

2. Interface Requirements

None

2.1.1 Graphical User Interface Requirements

This component is a GUI Swing control that can be placed into a Swing application

2.1.2 External Interfaces

None

2.1.3 Environment Requirements

- Development language: Java1.5
- Compile target: Java1.5

2.1.4 Package Structure

com.topcoder.gui.sidemenu

3. Software Requirements

3.1 Administration Requirements

3.1.1 What elements of the application need to be configurable?

None

3.2 Technical Constraints

3.2.1 Are there particular frameworks or standards that are required?

Swing

3.2.2 TopCoder Software Component Dependencies:

None

**Please review the TopCoder Software component catalog for existing components that can be used in the design.

3.2.3 Third Party Component, Library, or Product Dependencies:

None

3.2.4 QA Environment:

- Solaris 7



- RedHat Linux 7.1
- Windows 2000
- Windows 2003

3.3 Design Constraints

The component design and development solutions must adhere to the guidelines as outlined in the TopCoder Software Component Guidelines. Modifications to these guidelines for this component should be detailed below.

3.4 Required Documentation

3.4.1 Design Documentation

- Use-Case Diagram
- Class Diagram
- Sequence Diagram
- Component Specification

3.4.2 Help / User Documentation

- Design documents must clearly define intended component usage in the 'Documentation' tab of Poseidon.