Elements Toolbar 1.0 Requirements Specification

1.   Scope

1.1 Overview

The Elements Toolbar component provides a SWING toolbar that allows the user to add different elements to the diagram. It provides a way to signal the listeners that an element was selected to be added.

1.2 Logic Requirements

1.2.1 Sections

The toolbar will have sections of elements, as shown in the sample. A section will begin from where the section text begin.

1.2.2 Toolbar buttons

The toolbar buttons will have configurable icons and will generate an event so that the application will be informed that a certain element needs to be added to the diagram. They will provide the necessary information in the event so that the application knows what element should be added.

1.2.3 Look&Feel

The toolbar will look like the sample provided.

The buttons will be toggle buttons. The button remains selected until the element is added on the diagram (or at least an attempt is made, even if not successful). It will be unselected by the application, which will call this component, signaling the event.

1.2.4 Resize

The toolbar will have a minimum size and a preferred size. It should resize nicely if the width and height change. The preferred way to resize is to keep the buttons in each section on the same row, if possible. Otherwise, the buttons will move on different rows (there is no need to duplicate the section text, as the section start is shown by the beginning of the section text).

1.3 Required Algorithms

None.

1.4 Example of the Software Usage

The component will be used in the TopCoder UML Tool as the element toolbar of the GUI.

1.5 Future Component Direction

None at this moment.

2.   Interface Requirements

2.1.1 Graphical User Interface Requirements

None.

2.1.2 External Interfaces

None.

2.1.3 Environment Requirements
- Development language: Java 1.5
- Compile target: Java 1.5

2.1.4 Package Structure

com.topcoder.gui.toolbars.elements

3. Software Requirements

3.1 Administration Requirements

3.1.1 What elements of the application need to be configurable?
- The actual buttons.

- The element icons

3.2 Technical Constraints

3.2.1 Are there particular frameworks or standards that are required?

None.

3.2.2 TopCoder Software Component Dependencies:
- Configuration Manager 2.1.5

- UML Model Manager - recommended

  **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.