SCCharts-Editor based on Yakindu

Project Overview

Project Status:

- **CURRENTLY NOT UNDER ACTIVE DEVELOPMENT**

Responsible:

- Christian Motika

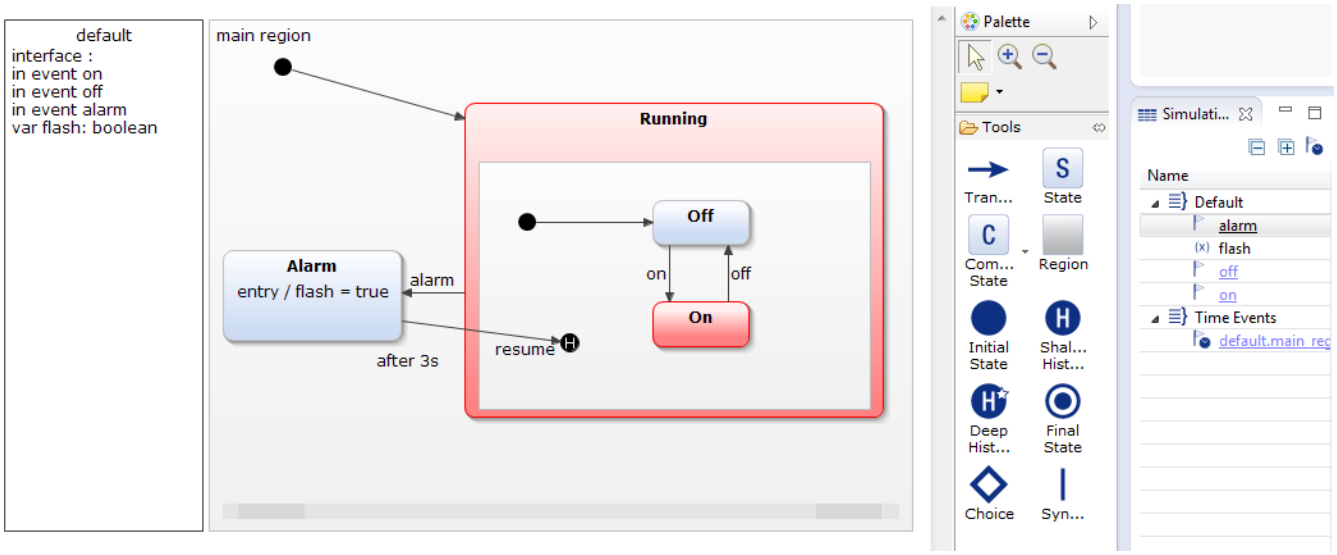
Related Theses:

- Whabi Haribi, *A SyncChart-Editor based on Yakindu*, March 2013 (pdf)

Yakindu SCT

YAKINDU Statechart Tools (SCT) is an open source tool for the specification and development of reactive, event-based systems using state machines (Yakindu SCT User Guide).

YAKINDU SCT consists of a graphical tool for editing and provides validation, simulation, and code generators for different target platforms. The tools are provided as Eclipse-plugins and integrate tightly into the IDE (Yakindu SCT Website).



Yakindu SCT Editor VS KIELER SyncCharts Editor

- Comparison of the graphical representation
- Comparison of the textual description language
- The KIELER textual SyncCharts
- Interfaces declarations
- Transitions priorities

Yakindu SCT module structure

See Yakindu Wiki

Customizing Yakindu SCT Editor to SyncCharts

Two steps are required to adapt the Yakindu SCT Editor to the SyncCharts syntax:

- adapting the graphical representation (sgraph + ui)
- adapting the textual description language (stext)

The graphical representation

To adapt the graphical representation, several steps are required:

1. adapting the Metamodel for the graphical representation of the state machine models (org.yakindu.sct.model.sgraph)
    a. Yakindu SCT Metamodel
    b. KIELER SyncCharts Metamodel
2. Figures (org.yakindu.sct.ui.editor.editor.figures)
3. Editparts (org.yakindu.sct.ui.editor.editparts)
4. Propertysheets (org.yakindu.sct.ui.editor.propertysheets)
5. The palette (org.yakindu.sct.ui.editor/plugin.xml)

Experimentations

- How to modify Initial and Finial States in Yakindu SCT Editor
- How to add Transition Types in Yakindu SCT Editor

The textual description language

Yakindu: The textual description language is used to declare and describe behaviors in the state machine.

- Yakindu-SCCharts textual desciption language.

Project progress