Structure Based Editing

KSBasE – KIELER Structure Based Editing

- Improve editing of graphical models by using model transformations for arbitrary operations
- Generic interface for GMF diagram editors

Textual Editing

KSBasE – KIELER Structure Based Editing

- Synchronization of graphical models with textual representations
- Connect textual editors created with Xtext to GMF editors
- Transformation of the Esterel language to SyncCharts

Automatic Layout

KIML – KIELER Infrastructure for Meta Layout

- Automatic layout of GMF diagrams
- Generic interface for layout algorithms
- Flexible configuration of layout options by the user

Environment Visualization

- SVG based rendering of arbitrary environments for simulation
- Specification of animations
- GUI for testing and demonstration of behavioral models

Model Execution

KIEM – KIELER Execution Manager

The semantic domain of Ptolemy is used as a possible simulation backend for KIEM.

Code Generation

- Generate code with Xpand
- Connect executable code to KIEM
- Examples: SyncCharts in C [4], Dataflow to Lustre

View Management

- Dynamically create and layout graphical views of the model
- Arbitrary conditions can trigger different visual effects

Model Comparison

KiViK – KIELER Visual Comparison

- Visualizes differences in two versions of a model graphically
- Integrates into standard Eclipse GMF and comparison mechanisms
- Employs EMF Compare project as differencing engine
- Employs automatic layout and automatic zooming and scrolling for navigation

Further Information:
http://www.informatik.uni-kiel.de/rtys/kieler