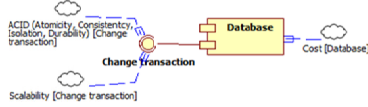
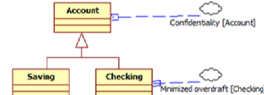
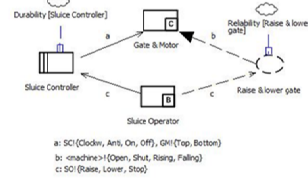
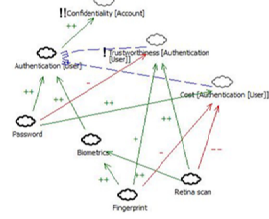
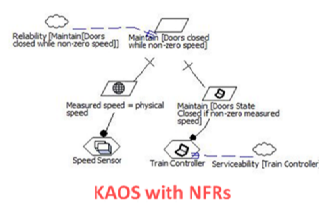
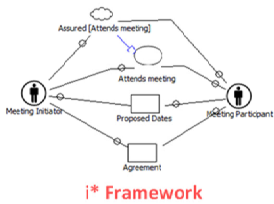


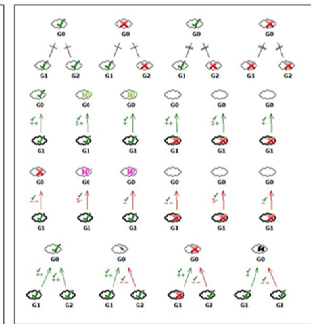
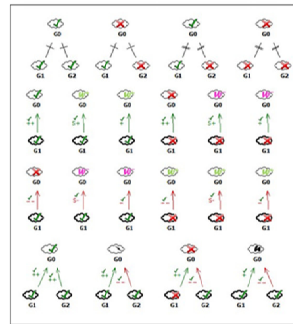
# The RE-Tools: A Multi-notational Requirements Modeling Toolkit

Sam Supakkul, Sabre Inc. and Lawrence Chung, Univ. of Texas-Dallas

## Modeling



## Reasoning

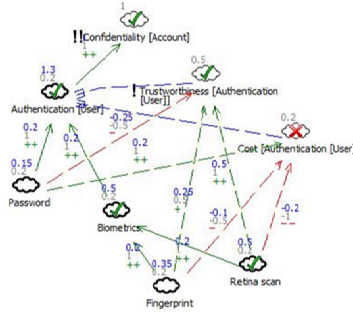


Closed World Assumption

Open World Assumption



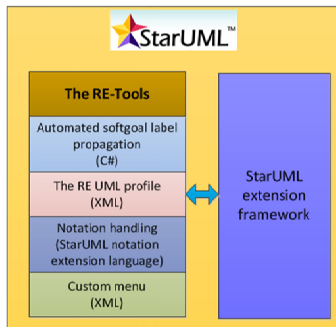
## Qualitative Goal Achievement Reasoning



$$a_{sel} = \text{MAX}_{i=1}^{\#alt} \left( \sum_{j=1}^{\#cvi} u(a_i, c_j) + s(a_i) \right)$$

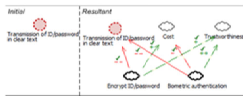
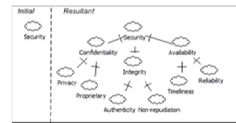
## Quantitative Weight-based Alternatives Selection

## Implementation

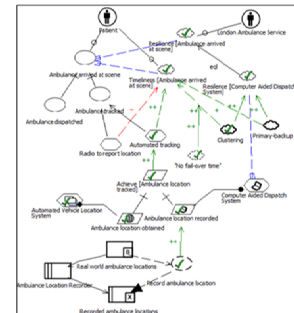


- UML Profile
- StarUML plug-in

## Extensions

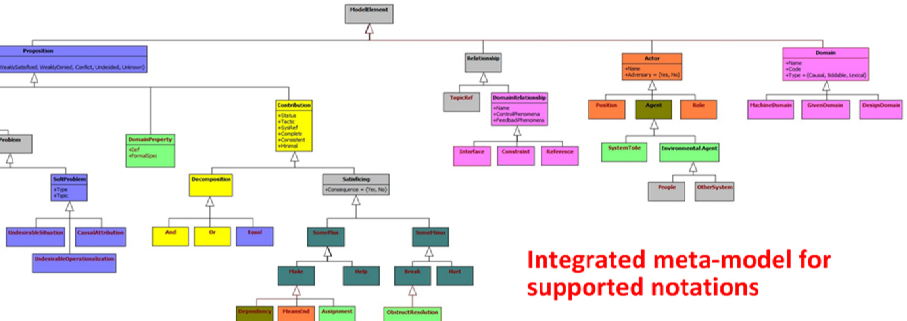
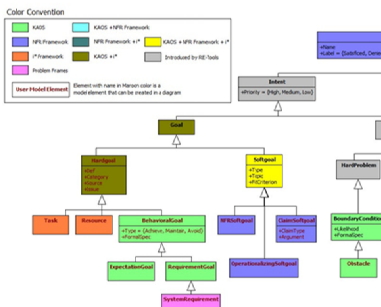


Alternatives Pattern



NFR Patterns

Reasoning across notations



Integrated meta-model for supported notations