FlexiSketch
Liberating Software Engineers from the Tyranny of Strict Modeling Languages

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1st Modelling For Sustainability Workshop @ Bellairs
Our Daily Work: Requirements Modeling

Receive Order

Fill Order

Send Invoice

Overnight Delivery

[rush order]

[else]

Close Order

Source: http://atlas.kennesaw.edu/~dbraun/cs4650/A&D/

FlexiSketch

Source: http://www.metacase.com/
Our Daily Work: Requirements Modeling

[Diagram of workflow process including steps such as Receive Order, Fill Order, Send Invoice, Overnight Delivery, Receive Payment, Regular Delivery, and Close Order.]
Semi-formal Modeling

- Predefined notations (e.g., UML)
- Specialized tool support
- Support of model modifications and structured information re-use (e.g., MDA)
Our Daily Work II: Requirements Sketching

Source: http://www.agilemodeling.com/artifacts/classDiagram.htm
Our Daily Work II: Requirements Sketching
Freeform Sketching

- Arbitrary notations
- Well-known tool support (e.g., whiteboard, paper and pencil)
- Support of ad hoc, creative, collaborative modeling
Our Daily Problem: The Gap Between Sketches and Models

Media break

→ time-consuming and error-prone transcription of the captured information
The Tyranny of Strict Modeling Languages

Either follow the semi-formal modeling paradigm

or enjoy freeform sketching and get punished with the media break
Vision

- Overcome the media break problem
- Combine strengths of freeform sketching and semi-formal modeling
  - Support a flexible sketching / modeling process
  - Allow users to define their own notations / languages on the fly
Our Conceptual Solution

- Assign meanings through annotations
- Automatic inference
- Freeform sketching
- Identify similar symbols
- Beautification

1. Meta-Modeling
2. Modeling
3. Sketch Recognition

FlexiSketch
Our Tool Solution...

...FlexiSketch
Take-away Message

Flexibility of unconstrained sketching

Power of semi-formal modeling

Flexibility of unconstrained sketching

Power of semi-formal modeling

Meta-Modeling

Modeling

Sketch Recognition
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