Interactive Visualization for Elicitation and Validation of Requirements with Scenario-Based Prototyping

Gregor Gabrysiak, Holger Giese, Andreas Seibel
Hasso Plattner Institute, Potsdam
Problem Statement

• validation of requirements calls for stakeholder involvement

• *semantic barriers* of requirements models restrict feedback during the validation

• overhead through translation
How can we fix it?

- domain-specific requirements animation
- leveraging formal requirements to be tangible for end users and other stakeholders
- transport the modeled content back into the stakeholders’ domain of expertise
How is it derived?

Initial Interviews

↓

Session Data and Feedback

Simulate Process with User(s)

Model Process & Define Roles

Subset of BPMN -> Petri Net

4
How to use it...

Hey Publisher! Currently 1 people are participating in this game. End your session, Refresh Workspace.

start Order article
Approve for publication

Send Feedback
How does it work?

Simulate Process with User(s)

Iterate

Analyze Feedback

Analysis Protocol

Iterate
Show and Tell

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Model Process & Define Roles

Simulate Process with User(s)

Analyze Feedback

Iterate

REV’09

Gregor Gabrysiak, Holger Giese, Andreas Seibel

@hpi.uni-potsdam.de

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Visualizations for whom?

<table>
<thead>
<tr>
<th><strong>PROs</strong></th>
<th><strong>CONs</strong></th>
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<tbody>
<tr>
<td>front-end with domain specific animations</td>
<td>still “kind of unintuitive”</td>
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<tr>
<td>automation can be applied in the back-end</td>
<td>currently, inconsistencies have to be spotted and resolved manually</td>
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<tr>
<td>inexpensive validation sessions</td>
<td>infinite iteration loop possible</td>
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<tr>
<td>single and multi-user modes</td>
<td>currently, underlying models are too static</td>
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Validation & Next Steps

• evaluation in projects together with our industrial partner, D-LABS GmbH

• comparison based on the amount and kind of feedback gathered from end users

• increase automation capabilities

• enhance look and feel of the prototype