

Developing a Framework for Managing Change Requests through Stand-Alone Workflows

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Bearbeiter: Annemarie Heuschild

Aufgabensteller: Prof. Dr. Florian Matthes

Betreuer: M.Sc. Matheus Hauder

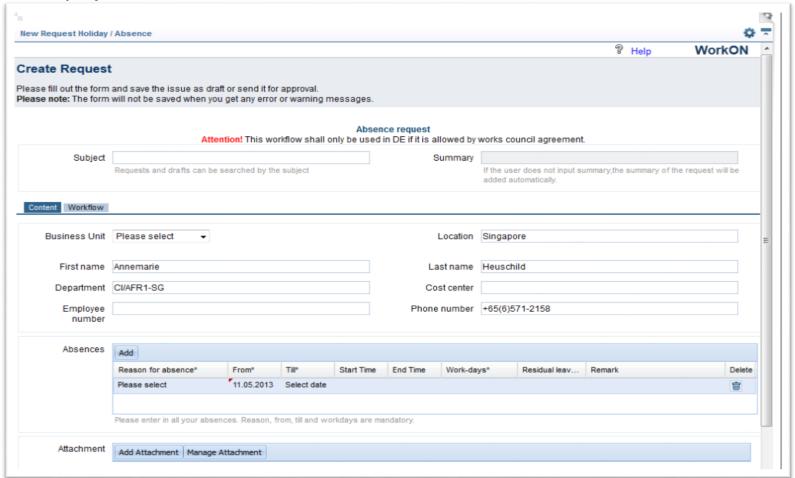


Agenda

- 1 Motivation & Background
- 2 Related Work
- 3 Objective &Outcome
- 4 Next Steps



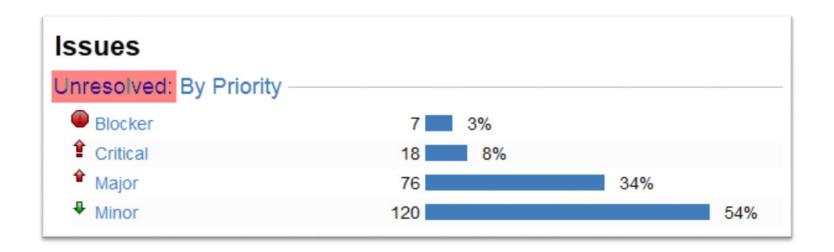
WorkON project







WorkON project





WorkON project

Resulting in

- Unsatisfied customer
- Less usage
- More support
- Additional work
 - → Migration just completed, but successor already in pipeline

Questions to ask

- What went wrong?
- What to do with the backlog?
- How to avoid a situation like this in future?

Find the root cause!



Reasons for project failure*

Project Impaired Factors	% of Responses
1. Incomplete Requirements	13.1%
2. Lack of User Involvement	12.4%
3. Lack of Resources	10.6%
4. Unrealistic Expectations	9.9%
5. Lack of Executive Support	9.3%
6. Changing Requirements & Specifications	8.7%
7. Lack of Planning	8.1%
8. Didn't Need It Any Longer	7.5%
9. Lack of IT Management	6.2%
10. Technology Illiteracy	4.3%
Other	9.9%

^{*} Report by the Standish Group of over 365 Companies and 8000 Projects in the USA [Chaos 1995] 13.05.2013



Reasons for project failure

- Customers are not able to form (technically) well specified requirements (especially in advance of the project and without consulting/support)
- Priorities (and thus requirements) change often
- (Internet) Technologies change fast

Solution:

- Integrate customer
- Make it less technical
- Clarify responsibilities

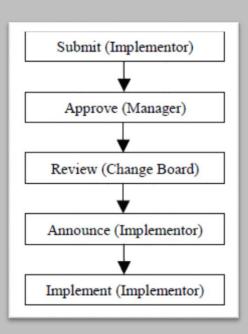
Combine change request management with workflows



Related work

Models for change request management

Simple models, e.g. Rajlich (1999) and Dietel (2004)



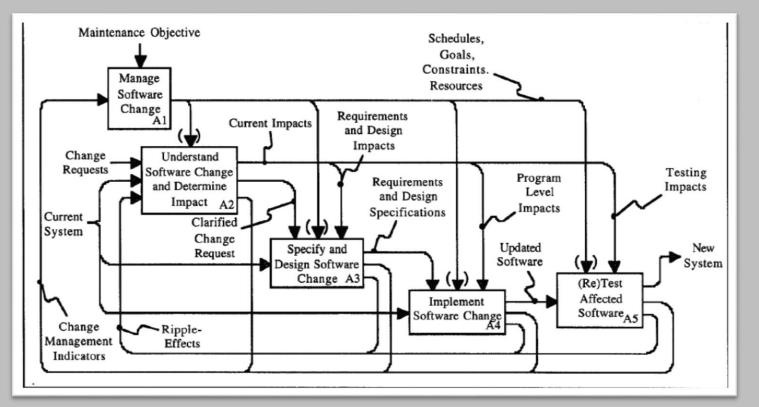
- 1. Request: Formulate the change request.
- Extraction: Extract the applicable concepts from change request.
- 3. Location: Locate the concepts in the code.
- 4. Actualization: Implement the concepts explicitly and fully in new code.
- 5. Incorporation: Replace the latent concepts in the old code by program dependencies between the old and new code ("plug in" the new code).
- Propagation: Propagate change through the old code and fix all inconsistencies introduced by the change



Related work

Models for change request management

Models focusing on a certain aspect, e.g. Bohner (1996), Ahn/Chong(2007), Stojanov (2007)





Related work

Modeling workflows

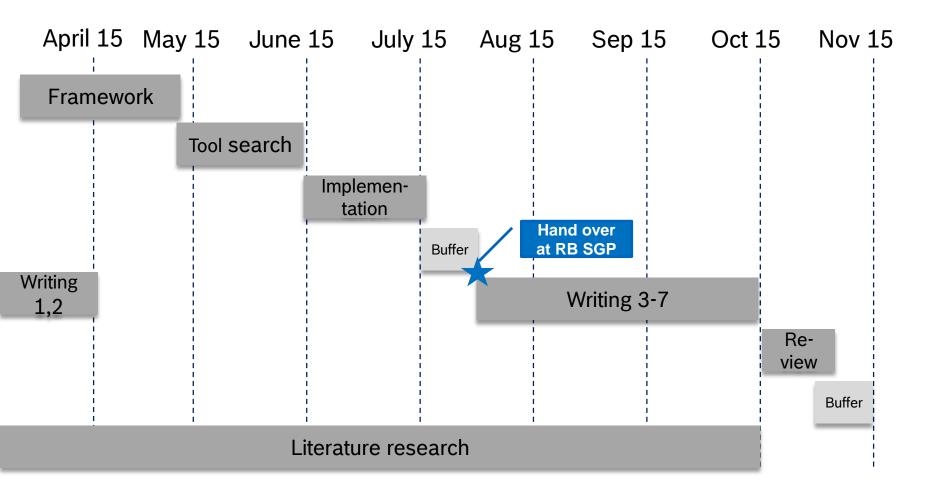
- Petri nets
- Modeling languages such as YAWL, UML, BPMN
- Encourage reuse through workflow patterns, CBR
- · More flexible as constraint based
- Agile workflows



Objective & Outcome



Next steps





Questions and Feedback?