



Assignment 7

RE Tools

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I. Tasks

- Read the mandatory items in the reading list
- Be prepared to answer the questions given below in class
- Prepare a 15 minutes presentation (5-10 slides) on the theme assigned to your course group. Browse/read additional papers and/or web pages where necessary.
- Assume you are a requirements engineering process engineer of a large organization that wants to support their requirements management processes with a tool. Prepare a FocalPoint database that allows you to generate the requirements-to-stakeholder traceability matrix produced in Assignment 3 (Traceability and Requirements Evolution).
 1. Define a requirements and a viewpoint module that link together.
 2. Populate the modules with the information you have been working with in assignment 1.
 3. Display the traceability matrix.
 4. Continue exploring the tool. So far you just touched the very surface...
You receive your FocalPoint credentials from the assistant. FocalPoint is introduced in [IBM 2009a] and [IBM 2009b]. Your hand-in is a screenshot of the traceability matrix from step 3.

II. Reading List

Mandatory reading

[Kitchenham 1997] describes and validates a method for systematic tool evaluation. [Farmer 2006] describes a checklist for introducing a new tool to an organization. [Bruckhaus 1996] has evaluated the impact of requirements management tools on productivity.

Theme-specific reading

[Sinha 2006], [Decker 2007]: Tools for Requirements-Centered Collaboration
[Luisa 2004], [Campos 2007]: Tools for Requirements Elicitation and Analysis
[Hoffmann 2004], [Beuche 2007]: Tools for Requirements Management

III. Questions

- What techniques can be employed for evaluating RE tools? How do these techniques compare with respect to efficiency, rigor, and situational fit?
- What are important pitfalls for successful RE tool adoption in a development organization?
- How do requirements management tools affect work efficiency? In which situations do they bring improvements, when not?

IV. Themes for Presentation

Themes will be assigned by the assistant who tutors this course; your group can apply for a theme.

A. Tools for Requirements-Centered Collaboration

How can requirements management tools support collaboration in a software project? How does Wiki-based support differ from support by traditional requirements management tools?

B. Tools for Requirements Elicitation and Analysis

What are the most important tools for the design of graphical user interfaces? What is the influence of the development process on tool choice? What are possible applications of natural language processing in RE? According to [Luisa 2004], is there a market for a CASE (computer-aided software engineering) tool supporting natural language processing? In this market study, which software activities have been perceived as crucial?

C. Tools for Requirements Management

What are requirements for requirements management tools? How does FocalPoint satisfy these requirements? What are tool requirements specific for product line requirements management?

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