



## Requirements Engineering II

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## Assignment 6: RE Tools

### 1. Tasks

#### Individual Tasks

- Read the mandatory items in the reading list
- Be prepared to answer the questions given below in class

#### Group Tasks

- 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 1 (Requirements Traceability).
  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 with a separate e-mail. Introduction to the concepts and use of FocalPoints is given in [IBM 2009a] and [IBM 2009b]. Your hand-in is a screenshot of the traceability matrix from step 3.

### 2. 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 et al 1996] has evaluated the impact of requirements management tools on productivity.

#### Theme-specific reading

[Sinha 2006], [Decker et al 2007]: Tools for Requirements-Centred Collaboration  
[Maiden et al 2007], [Campos and Nunes 2007]: Tools for Requirements Elicitation and Analysis  
[Hoffmann et al 2004], [Beuche et al 2007]: Tools for Requirements Management

### 3. 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?

#### 4. Themes for presentation

(Will be assigned by the research assistant who tutors this course; your group can apply for a theme)

##### A. Tools for Requirements-Centred 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

(How can mobile technologies be employed for requirements elicitation? What are advantages and limitations? What are the most important tools for the design of graphical user interfaces? What is the influence of the development process on tool choice?)

##### 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?)

#### References

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