

Tools for Requirements Management

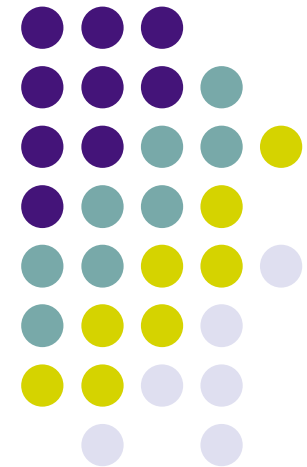
within: Requirements Engineering II

by

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Agenda

- Introduction
- Requirements for requirements management tools (RMT)
- Focal Point
- Requirements for product line specific RMT



Introduction

- Requirements management is the **structuring and administration of information** from elicitation, derivation, analysis, coordination, versioning and tracking of requirements **during the complete product lifecycle.**

Hoffmann et al (2004)



Introduction

- Requirements management tools help to support
 - the acquisition, specification and grouping of requirements
 - the derivation of requirements to more detailed level
 - the traceability of requirements



Requirements for RMT (1)

- Focus on functional requirements
- Requirements depend on various factors
 - Product domain
 - Project size
 - Organization size
 - Amount of reuse
 - Process maturity
- General catalog of requirements developed



Requirements for RMT (2)

- Information model
 - Free definition of a model
 - Identification of objects must be possible
 - Model must be changeable during project
- Views
 - Different view definition
 - Configuration of views possible
 - Support of graphical views



Requirements for RMT (3)

- Change management and comments
 - Handling of change requests possible
- Documentation of the history
 - Tracking and versioning
- Baselining
 - Saving states of a requirements set
- Traceability
 - Direct linking between dependent objects



Requirements for RMT (4)

- Analysis functions
- Tool integration
 - External links possible
- Import
- Document generation
- Collaborative working
- Checking out for offline use
- Web Access



Requirements for RMT (5)

- Central management of projects
- User, roles and rights
- Size restrictions
- Extensibility



Focal Point

- Information model ✓

IBM Telelogic®
Focal Point™

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General
About Focal Point

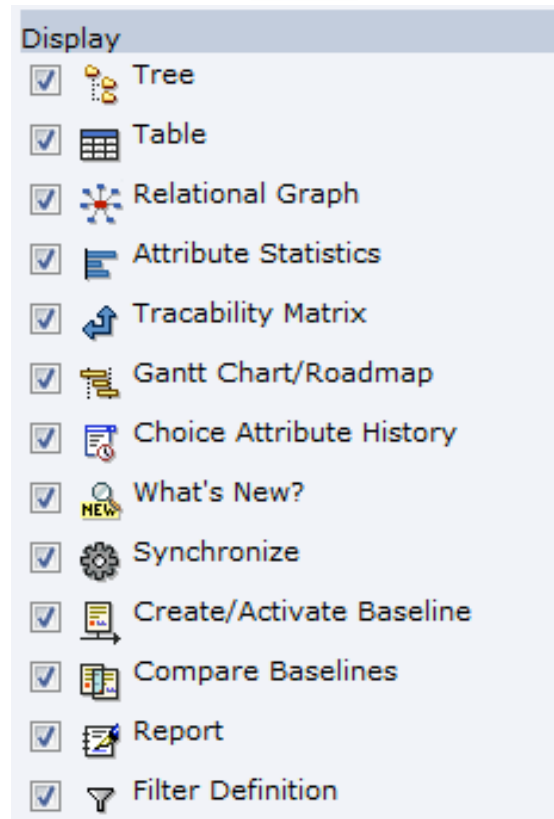
My Workspaces

Name	Description	Responsible	User Administrator	Logins	Last Login
 REII Group 3	Group 3: - Michael Küchler (michael.kuechler@access.uzh.ch) - Reto Zenger (reto.zenger@access.uzh.ch)	Admin	Admin	10	Today



Focal Point

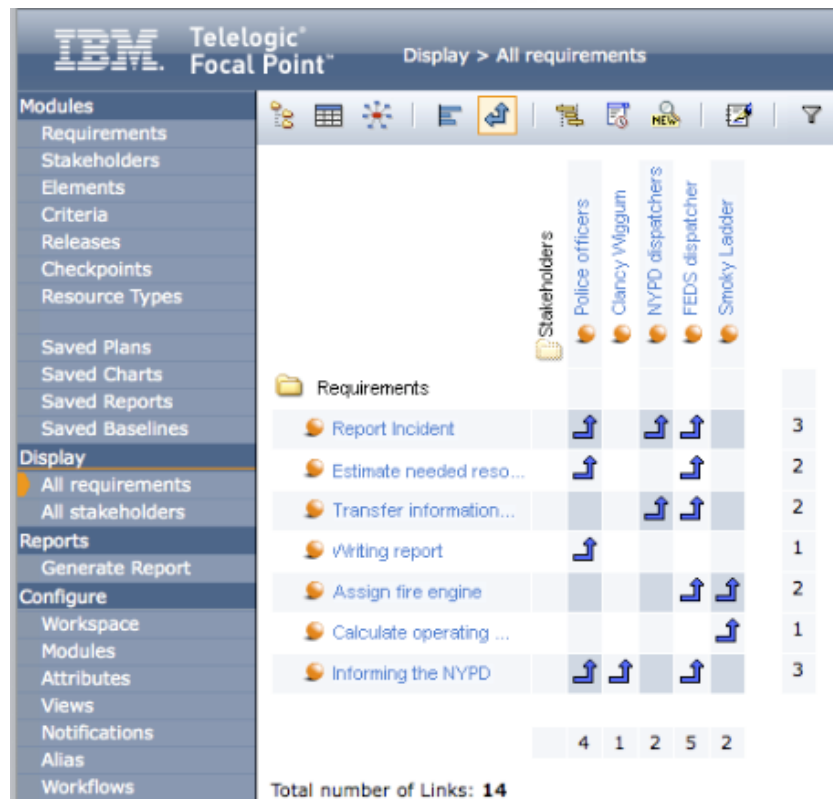
- Views





Focal Point

- Traceability ✓





Focal Point

- Change management and comments ✓
- Documentation of the history ✓
- Baselining ✓
- Web Access ✓
- Document generation ✓
- Collaborative working ✓



Focal Point

- Analysis functions ~
- Tool integration ⛔
- Import ⛔
- Checking out for offline use ⛔

Requirements for product line specific RMT (1)



- The specification for a software product line will change, evolve and vary.
- Product line requirements are more complex, live longer and involve more critical dependencies

Beuch et al. (2007)

Requirements for product line specific RMT (2)



- 3 new categories of requirements
 - Configuration management
 - Versioning
 - Support for multi project/product
 - Discussion support
 - Priorities

Questions?



... thanks for your attention!





References

- Beuche, D., A. Birk, H. Dreier, A. Fleischmann, H. Galle, G. Heller, D. Janzen, I. John, R. Kolagari, T. von der Massen, A. Wolfram (2007). Using Requirements Management Tools in Software Product Line Engineering: The State of the Practice. 11th International Software Product Line Conference (SPLC 2007). Kyoto, Japan.
- Hoffmann, M., N. Kuhn, M. Weber, M. Bittner (2004). Requirements for Requirements Management Tools. 12th International Requirements Engineering Conference (RE'04). Kyoto, Japan.