Tool-Based Risk Management Made Practical

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Abstract

Risk management has become one of the buzz words in the IT industry. The reasons can especially be found in the current economic crisis.

While risk management is highly accepted in safety-critical industries (aerospace, healthcare), more and more branches (web agencies, e-commerce, software in general) see the value of establishing risk management processes.

As risk management seems to be clear from a theoretical point of view, it is not from a practical standpoint. This is the challenge for project leaders in real life projects.

This one-page abstract summarizes the main aspects of the industrial presentation held at Requirements Engineering 2002 (RE02) in Essen/Germany. The complete presentation deals with how risk management can be grounded as an integral part of a requirements management process.

A full paper (German and English) describing this approach is available from the author by email.

1. Motivation

Risk management has become one of the modern topics in software engineering. One of the main reasons seems to be the perception that more and more software projects fail, generating high unplanned costs. Due to the actual economic crisis it's harder for companies to overcome such expensive risks as we see in downfall of the so-called new economy.

The challenge for new adopters of risk management is twofold. On the one hand it is about methodical aspects, on the other hand they have to cope with technical implementations as well. The methodical/theoretical approach to risk management is straight forward at first glance but the real difficulty that needs to be solved is practical implementation for a everyday life project use as we have seen in several projects.

2. Theory meets Real-Life

Typical approaches define a rather simple risk management cycle (refer to the "inner" circle of fig. 1) and neglect the necessity of knowing the project's requirements properly and to establish a traceability between requirements, risks and actions.

The presented approach (extended circle in fig. 1) offers more practical guidance and is adoptable with commercial requirements management tools (e. g. Rational RequisitePro).

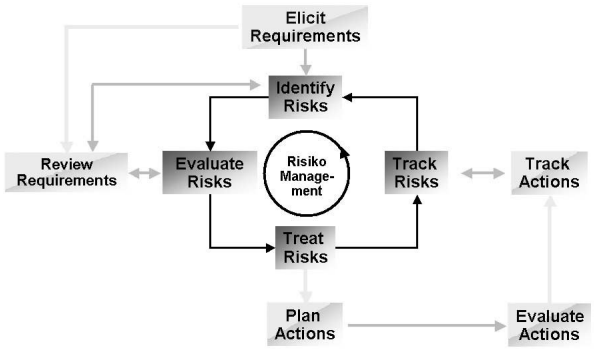

figure 1: typical risk cycle

3. Usage Model and Benefits

We recommend to start requirements management as early as possible in projects (from the very first protocols and meetings) to be able to identify high-risk aspects or open issues of the system (technical as well as political) well timed. During project lifecycle we establish a traceability between open issues, requirements, elicited risks and planned actions (see fig. 2) that are tracked continuously to meet changing requirements and situations.

Project teams profit by clear guidelines and traceability as well as by the availability of reporting and analysis capabilities of a tool-based approach.

Furthermore the costs of introducing this new technique are moderate in case the team already has an established (tool-based) requirements management process.

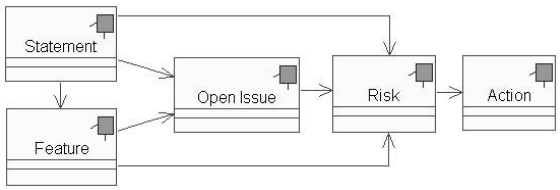

figure 2: traceability example

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