

Groupware-Assisted Requirements Assessment

Ahti Salo
Nokia Research Center
Heikkilantie 7
P.O. Box 45
FIN-00211 Finland
ahti.salo@research.nokia.com

This report presents experiences in deploying groupware applications as a platform for facilitating the collection and analysis of requirements in large, geographically distributed organizations.

Specifically, evidence from ongoing product development projects indicates that groupware-based requirement repositories contribute significantly to the efficiency of the earliest phases of requirements engineering. On one hand, distributed repositories permit the solicitation of requirements from broad cross-departmental audiences. On the other hand, these repositories enhance the visibility of product requirements and allow requirements documentation to be analyzed in relation to the originating source information. Furthermore, by enhancing requirement repositories with sufficiently rich domain models of the organizational context, it becomes possible to automate the processes of seeking expert feedback to bear on the requirements under-evaluation.

Requirement repositories are also analyzed from the perspective of organizational memory, as these repositories have been found central in 1) imparting product knowledge to new personnel and 2) preserving the rationale behind product decisions.

Lessons Learned from Applying the Spiral Model in the Software Requirements Analysis Phase

Dr. Chonchanok Viravan
Head of Software Technology Laboratory
National Electronics and Computer Technology Center (NECTEC)
Bangkok Thai Tower, 12th floor, Room 1202
108 Rangnam Road, Rajthevi
Bangkok, Thailand 10400
viravan@nwg.nectec.or.th

Boehm's Spiral model is currently gaining popularity over the traditional Waterfall software development model. The Spiral model is a risk-driven approach. The process steps are determined by the need to resolve the high risk situations – ones that have greatest chance to ruin the project. This approach contrasts with traditional document-driven approach where the process step is determined by the type of document that has to be submitted.

Over a period of two years, the author applied the spiral model approach in requirement analysis phase for four projects. These projects were with different sectors of the Thai government. The author was the head of the requirement analysis team for three projects and was responsible for quality assurance in one project.

The author's experience reveals factors that foster the spiral approach's success in requirement analysis as well as factors that inhibit its effectiveness. Some of these factors include the Thai culture, governmental regulations, education background of requirement engineers, the governmental employees' understanding of requirement analysis, terms in the contract, etc. The experience also reveals the risks in conducting software requirement analysis in a country that endures shortages of software engineers.