Call for Papers

Distributed Software Development – Methods and Tools for Risk Management

August 17, 2008 — *http://icgse2008.di.uniba.it/*

Bangalore, India

Co-located with ICGSE 2008 Bangalore, India, August 17-20, 2008

Important dates

June 16, 2008 (updated)	Deadline for paper submission to the workshop organizers
June 30, 2008 (updated)	Decision of acceptance to paper authors
July 13, 2008	Final version of accepted papers due, according to IEEE standards
August 17, 2008	DSDMTRM Workshop

Organizers

Dr. Juho Mäkiö, FZI Research Centre for Information Technologies (maekioe@fzi.de)
Stefanie Betz, University of Karlsruhe
Rafael Prikladnicki, PUCRS, Brazil

Invited Talk

Dr. Ita Richardson: Globalising Risk Management in Safety Critical Industries
Lero – the Irish Software Engineering Research Centre and University of Limerick
Ireland (http://www.lero.ie/)

For software companies to thrive, they must avail of business opportunities that present themselves. Such opportunities include the development of software for safety-critical industries such as the automotive and the medical device industry. In both of these industries, there has been a significant growth in the amount of software in the finished product. However, when software is developed for these industries, cognisance must be taken of the safety critical standards required by organisations such as the International Standards Organisation (ISO) and Food and Drug Administration (FDA) for marketing purposes. Combining these standards with software development standards such as Capability Maturity Model Integrated and ISO15504 can cause difficulty for the software developer. A further issue to be catered for is distributed software development, particularly when it is globalised. Add this issue to the complications imposed by safety-critical standards and software standards – ultimately software project managers have a conglomeration of issues to deal with.

In this talk, Dr. Richardson will look at the implementation of software Risk Management for safety-critical industries, focusing on medical device software development which takes account of both software development and safety-critical standards. She will then examine some of the issues which must be catered for implementing successful global software development and suggest how safety-critical risk management can be implemented in such projects.

Technical description

Motivation

The strategic reasons for a company to opt for distributed software development are among others to speed up the time-to-market, to access the global resource pools, to profit from the around-the-clock development, and to reduce the costs. The distribution may be organized in multiple ways: The Company may cooperate with an onshore or offshore provider or the distribution is organized within the company by captive outsourcing. The distribution of software development projects has become a key software development technique. But, the distribution is a challenge. For example, various studies report about failures in outsourced software development projects. Hence, there seems to be a gap between the expectations and the reality regarding the results. In reality, the actual savings may not fulfil the expectation, or even, in worst case, no cost savings at all were realized. This is caused by multiple reasons like the lack of methodological foundations, insufficient least standardized models, ignorance of the risks of offshore software development projects and increasing complexity of software development projects. Do we have any practicable methods to select suitable projects from a set of possible projects? How does project portfolio management need to be organized for offshoring?

Various aspects of distributed software development are discussed in the current literature. However, there are still several gaps in planning and accomplishment of distributed software development projects. Reasons for negative incidents are, for example, poor project management and missing skill management. Thus, suitable tools and methods taking into account the specific needs of offshore software development are required. What are the specific needs? How and by which tools these needs may be fulfilled?

Issues of risk management are highly relevant, when an organization distributes the software development project. Fitting risk management tools and methodologies are required as the ignorance of the risks may lead to various undesirable and costly events. But, how should one manage the risks? What tools and methodologies are required? What is “risky” in the distributed software development and how the risks may be avoided?

Successful organization of geographically distributed teams requires additional efforts. Different approaches should be taken for dividing and allocating tasks. Additional infrastructure and tools need to be implemented. Time and communication delays are often inevitable in an offshore environment. It is therefore more difficult for the whole team to react to emerging events or changes. How can tool support the communication during the project? Which information needs to be communicated to whom and when?

Furthermore globally distributed software development projects also raise new challenges for the education of future software professionals. In addition to technical skills, there is obviously a need to focus on the education of high-level system skills, project management issues, and analytical as well as synthetic reasoning techniques in the software engineering field.

Technical issues

The challenges that are coupled with the management of distributed software development projects call for new process models, techniques, methodologies and tools. This workshop focuses on multiple aspects of management of distributed software development.

Topics of interest to the conference include the following aspects of global software engineering projects (but are not restricted to):

- risk management / risk modelling / risk analysis of offshore projects
- process for planning and execution
- organizational models and strategies
- project portfolio management
- communication models for distributed software development teams
- causalities between critical success factors
- metrics for critical success factors
- problem handling during project work
- outsourcing / offshoring contracts
- decision support systems
- strategic planning
- project planning and preparations
- simulation

Goals

The challenging issues arising in the field of offshore software engineering projects require novel approaches in risk analysis, project planning, and methods in order to handle the bounded financial and technical risks.
The goal of this workshop is to provide a forum for researchers and professionals interested in global software development to discuss and exchange ideas. In particular, this workshop takes the perspective of the practitioner and focuses on the techniques that will help software professionals to meet the unique challenges in a global development environment. Thus, the major goal of this workshop is to discuss novel methodologies for risk management for global software development. Additionally, we want to provide a platform bringing together researches and practitioners in order to share their knowledge and requirements in the field of offshore software development.

Target Audience

- software engineers
- computer scientists
- business process engineers
- project managers

Program committee

- Jens Borchers, steria mummert consulting
- Prof. Dr. M. Esser, St. Petersburg State Polytechnic University
- PhD. Robert Feld, Blekinge Inst. of Technology
- Prof. Dr. Andreas Gadatsch, University of Applied Science Bonn-Rhein Sieg
- Prof. Dr. Eila Järvenpää, Helsinki University of Technology
- Dr. Andreas Kotulla
- Prof. Dr. Andreas Oberweis, University of Karlsruhe
- Dr. Maria Paasivaara, Helsinki University of Technology
- Dr. Darja Smite, Riga Information Technology Institute
- Rolf Stephan, Centre for International Collaborative Software Development
- Prof. Dr. Walter Tichy, University of Karlsruhe
- Dr. M. Wiener, Friedrich-Alexander University Erlangen-Nuernberg

Paper submission

- Papers must be submitted electronically by email to the organizers (maekioe@fzi.de)
- Your paper must conform to the IEEE proceedings publication format (8.5" x 11", Two-Column Format) described at IEEE/CPS
- You paper should not be longer than 6 pages including all text, references, appendices, and figures
- Your submissions should be in PDF format
- Submissions that exceed the page limit (6) or do not comply with the proceedings format will be desk rejected without review
- The results described must not be under consideration for publication elsewhere

Accepted papers will be published online and as workshop proceedings.