1. Introduction

Software evolution and maintenance processes have been and continue to be an uncharted area. They are not only neglected by research but also by the mainstream best practice reference models such as ITIL, CMMI and CobiT.

Current models and standards only cover a few of the processes that the industry operates daily. As a result, the software community still does not possess a solid basis for defining industrial software evolution and maintenance. Its definitions are vague; its classifications are not exhaustive and exclusive. The software community has difficulties in identifying the scope of software evolution and maintenance, it can hardly predict its effects on the product quality and productivity, and it is overwhelmed with problems and unexpected surprises which cannot be easily tackled.

Recently, the software community meets new challenges. These challenges concern adaptation of current evolution and maintenance processes to new technologies, methods, organizational infrastructures, and the globalization trend.

Understanding the intricacies of the complex area of evolution and maintenance is critical in framing future research directions. Today, there is a need for enhanced standards, methods, tools and techniques that not only impact development and operations processes but also address organizational, governance, human and globalization issues in the industrial software maintenance and evolution.

This workshop aims at discussing the challenges of identifying, defining, scoping, implementing and improving industrial software evolution and maintenance processes. Its target groups are both practitioners and researchers. Practitioners experiencing challenges in software evolution and maintenance process will share their concerns and successful solutions. Researchers addressing this domain will gain a better understanding of the key issues facing practitioners and share their research results with the practitioners. The workshop’s goal is to create a forum for fruitful co-operation between the industry and academia, and thereby to grow a community of interest in the area of software evolution and maintenance.

2. Workshop Themes

The workshop invites papers on topics that include, but are not limited to the following topics:

- **Industrial lifecycle process models**:
  - Enhancing software systems with new functionality
  - Managing both scheduled and unscheduled (emergency) corrective changes in the product
  - Improving product quality (reengineering, restructuring, refactoring, and modernization processes)
  - Testing and quality assurance
  - Preventive maintenance
  - Metrics and measurements of software evolution and maintenance
  - Pre-delivery process
  - Transition (handover) process
- **Customer support**:
  - Front-end support processes covering Support Line 1 and Support Line 2
  - Customer satisfaction
  - Customer Profiles
- **Education and training**:
  - Effective ways of educating and training software engineers
  - Human resource management, job definition, and performance evaluation.
- **Evaluation and measurement processes**:
  - Evolution and maintenance dashboard
  - Productivity and benchmarking
  - Billing evolution and maintenance services
- **Planning activities and their effects**
- **Management process**:
  - Production surveillance processes
  - Governance and contracts
3. Workshop Outline
This full-day workshop will focus on identifying issues of maintenance and evolution process, sharing their current solutions, and brainstorming the new ones. Hence, it welcomes all types of papers from position papers to research suggestions, to status reports and to model evaluations. The selection criteria will be based solely on the quality of the paper, including the originality of its results and potential industrial applicability.

The workshop’s agenda is as follows. First an overview of current industry and academic trends will be presented. In the first part of the workshop, the authors of the accepted papers will make their presentations. The presentations will be run in a highly interactive manner. In the second part of the workshop, a plenary discussion will be run. Its aim will be to find synergies between the presented solutions and to identify opportunities for further work. The contributions to the working session will be consolidated into a summary report and used to evolve the industrial maintenance and evolution process research agenda. It is hoped that the working session will lead to the establishment of a longer-term community of interest in this domain.

4. Submissions
S3M 2010 seeks original submissions in the form of experience report and research papers. Practitioners are encouraged to submit papers on successful as well as unsuccessful projects. Researchers are asked to submit papers of innovative approaches on Software Maintenance solutions. Submissions must adhere to Springer Lecture Notes on Computer Science format. Workshop language is English. At least one author must register to the workshop before the deadline for camera-ready copies. The proceedings of S3M workshop will be published in a separate book from PROFES 2010 with an ISBN code. Please submit your papers to the workshop chairs.

The selection procedure includes a review of each paper by the Program Committee Experience papers will be accepted based on the relevance of the problems they tackle. Research papers will be accepted based on the relevance of the research questions to practice and the soundness of the research method deployed.

5. Important Dates
- Papers Submission: April 18 2010
- Notification of acceptance: April 25, 2010
- Camera-ready version: May 8, 2010

6. Program Committee
- **Prof. Alain Abran** - Dept. of Software Engineering, ETS Montréal (Canada)
- **Prof. Abdelhak-Djamel Seriai** – University of Montpellier 2 (France)
- **Prof. Mira-Kajko Mattsson** – Dept. of Computer and Systems Sciences – University of Stockholm (Sweden)
- **Dr Alain April** – Dept. of Software Engineering, ETS Montréal (Canada)
- **Dr Luigi Buglione** – Engineering.IT, Rome (Italy)

7. Organizers
- **Dr Alain April** ([alain.april@etsmtl.ca](mailto:alain.april@etsmtl.ca)) – Dept. of Software Engineering, ETS Montréal (Canada)
- **Prof. Mira-Kajko Mattsson** ([mira@dsv.su.se](mailto:mira@dsv.su.se)) – Dept. of Computer and Systems Sciences – University of Stockholm (Sweden)
- **Dr Luigi Buglione** ([luigi.buglione@eng.it](mailto:luigi.buglione@eng.it)) – Engineering.IT, Rome (Italy)