Message from the Workshop Chair

Workshop E. Software Process and Product Improvement

Welcome to the Euromicro Workshop on Software Process and Product Improvement!

Software is ever present and without it this conference would not be taking place, not only due to the lack of topics but also due to the fact that only e-mail and electronic data processing have provided fast communication channels and electronic exchange of documents. In the same way the success of most companies is based upon the quality of the employed software. This in turn requires high-quality software from the software providers. Building high-quality software is extremely difficult, as Fred Brooks has pointed out ("No silver bullets").

Most classical engineering methods for ensuring high-quality products do not work in the software arena. Software faults differ in their nature from faults in other technological products: they are not caused by a bit breaking or a byte getting worn out.

Software faults are of a logical nature, closely dependent on the understanding and modelling of the application domain. Thus the faults are a consequence of a misunderstanding of system requirements, of wrong assumptions about the application domain, and of co-ordination problems at interfaces between subsystems.

Such faults are not only the most difficult only to locate but also those which are most likely to remain in the delivered products.

Today it is generally accepted that improving the development process is one of the most effective means of improving the quality of the final software products. And looking into current surveys of the software situation in Europe, there is still much to be improved.

Hence the topic of this workshop is primarily concerned with the software process. The importance of this topic has manifested itself in the number of papers answering our call for papers: 42 submissions. Each paper was usually inspected by three referees. Based on their judgement 26 papers have been accepted.

---

The papers are presented in seven sessions covering most areas relevant to the development process.

- E1: Software Process Improvement
- E2: Change Management
- E3: Improving Software Development
- E4: Testing
- E5: Improving Software Development Maturity
- E6: Increasing Software Reuse
- E7: Better Products by better Processes

Looking at the software development domain, we can, on a very high level, identify three areas:

- metaprocesses, concerned with the specification of development processes,
- front-end life cycle processes, concerned with the user oriented activities in software development, and,
- back-end life/cycle processes, concerned with the computer oriented activities.

The sessions can be assigned to these areas as shown in Figure 1.

![Figure 1: Software Areas and the Workshop Sessions](image)

A workshop like this is the co-operative effort of many persons. First of all I would like to thank the members of the Program Committee (and a few additional reviewers) who have helped both to acquire and evaluate papers. I would especially like to thank Veikko Seppanen and Konrad Klöckner for their outstanding support.

My thanks go also to Dagmar Reinmann, my secretary, for handling and classifying all the papers and entering their individual data into the data base. Furthermore I want to thank the Kepler University Linz for use of its facilities and the current SPIRE project (ESSI Project 23873), also the late ESPITI project (ESSI Project 11000). These projects have given me much of the insight and the contracts needed for a workshop of this kind.

Finally I want to thank the Program Chairman of Conference, Paco Tirado and his staff, Milagros Fernandez Centeno and Katzalin Olcoz Herrero and the Organizing Chairman Lennard Lindt for help and understanding of the various needs the workshop had.

Gerhard Chroust

System Engineering and Automation
Kepler University, Linz, Austria

XXX