

Call for Contributions

Second International Conference on Generative Programming and Component Engineering (GPCE'03)

In Cooperation with ACM SIGPLAN (approved) and SIGSOFT (application pending)

Part of NetObjectDays'03, Erfurt, Germany, September 22-25, 2003

Generative and component approaches have the potential to revolutionize software development in a similar way as automation and components revolutionized manufacturing. Generative Programming (developing programs that synthesize other programs), Component Engineering (raising the level of modularization and analysis in application design), and Domain-Specific Languages (elevating program specifications to compact domain-specific notations that are easier to write and maintain) are key technologies for automating program development. GPCE arose as a joint conference, merging the prior conference on Generative and Component-Based Software Engineering (GCSE) and the Workshop on Semantics, Applications, and Implementation of Program Generation (SAIG). The goal of GPCE is to provide a meeting place for researchers and practitioners interested in cutting edge approaches to software development. Thanks to the co-location with NetObjectDays'03, one of the largest main-stream software development conferences in Germany, the GPCE'03 presentations are expected to have a high attendance by industry practitioners, in addition to regular conference attendees.

Technical Papers. The GPCE'03 conference invites high quality papers reporting research results and/or experience related to generative programming and component engineering. We seek papers both in software engineering and in programming languages, and especially those that bridge the gap and are accessible to both communities at the same time. The conference solicits submissions related (but not limited) to:

- Generative Programming: Reuse, meta-programming, partial evaluation, multi-stage and multi-level languages,
- Semantics, type systems, symbolic computation, linking and explicit substitution, in-lining and macros, templates, program transformation
- Runtime code generation, compilation, active libraries, synthesis from specifications, development methods, generation of non-code artifacts, formal methods, reflection.
- Product Lines and architectures
- Industrial Applications
- Component-Based Software Engineering: Reuse, distributed platforms, distributed systems, evolution, analysis and design patterns, development methods, formal methods
- Integration of Generative and Component-Based Approaches
- Domain Engineering, analysis, and languages, domain-specific notations
- Separation of Concerns: Aspect-Oriented Programming,
- Intentional Programming, and Multi-Dimensional Separation of Concerns
- Model-driven architecture

Reports on applications of these techniques to real-world problems are especially encouraged, as are submissions that relate ideas and concepts from several of these topics, or bridge the gap between theory and practice. Research papers should describe work that advances the current state of the art. The program committee will evaluate each contributed paper based on its relevance, significance, clarity and originality. The program committee is happy to advise on the appropriateness of a particular subject.

Authors are invited to submit papers of at most 12 pages in ACM proceedings format, in PDF form, by April 6, 2003. This deadline is firm. Simultaneous submission to other venues and submission of previously published material are not allowed. Electronic submission will be required, except by special arrangement with the program chairs.

Practitioner Reports. GPCE '03 will feature a track geared towards industry and practice, where practitioners will present their experience and insight in applying generative and component-based technologies. We solicit reports in two categories:

- Project reports describing successfully completed projects that applied technologies within the scope of GPCE'03.
- Experience reports focussing on a particular aspect of technology usage and practice, or describe broad project experiences.

The report submissions will be reviewed separately from technical paper submissions by a practitioner report committee.

Workshops. GPCE workshops provide intensive collaborative environment to explore a specific sub-area of generative and component technology in depth, cover areas that cross the borders of several sub-areas, or focus on the applications and deployment of generative and/or component technology in a particular application domain. Workshops will take place on the first day of the conference.

Tutorials. We invite proposals for high-quality tutorials in all areas of generative programming and component-based development. Tutorial levels may be introductory, intermediate, or advanced. Introductory tutorials should seek to educate the participants about the basic concepts and techniques of generative and component-based development. More advanced tutorials may cover advanced development techniques and/or underlying theory.

Demonstrations. We invite proposals for demonstrating novel tools, systems, or techniques from both commercial and academic communities. Demonstrations should focus on technical aspects and show how a specific technology is actually used in real world scenarios. Both work in progress or proven techniques are appropriate. Product marketing is inappropriate in this forum.

Posters. Posters at GPCE provide an excellent forum for authors to present their work in an informal and interactive setting. Posters are ideal for presenting speculative, late-breaking results or for giving an introduction to interesting, innovative work.

Exhibits. The GPCE '03 exhibits will be held together with the exhibits of NetObjectDays'03, one of the largest main-stream software development conferences in Germany. Therefore, this will be an excellent forum to reach potential customers with news and demonstrations of your latest products, publications or services. If you would like your company to participate as an exhibitor at the conference, please refer to the web site for submission instructions.

GPCE'03 Best Contribution Awards. The GPCE'03 audience will elect the best contributions in the following categories: Best Paper, Best Practitioner Report, Best Commercial Tool, Best Non-Commercial Tool, and Best Industrial Project.

Important Dates:

Submission deadlines:	
Technical paper:	Apr 6, 2003
Workshop proposal:	Apr 6, 2003
Practitioner report:	May 18, 2003
Tutorials proposal:	May 18, 2003
Demonstration proposal:	May 18, 2003
Poster proposal:	Jul 13, 2003
Notification of acceptance:	
Technical papers:	May 25, 2003
Workshop proposals:	Apr 20, 2003
Practitioner reports:	Jun 1, 2003
Tutorials proposals:	Jun 1, 2003
Demonstration proposals:	Jun 1, 2003
Poster proposals:	Jul 27, 2003
Camera ready copy:	Jun 22, 2003

Organizing Committee

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