LDTA 2011 Call for Papers and Tool Challenge Submissions

11th International Workshop on Language Descriptions, Tools, and Applications

www.ldta.info

Saarbrucken, Germany
March 26 & 27, 2011
an ETAPS workshop

LDTA is an application and tool-oriented workshop focused on *grammarware* - software based on grammars in some form. Grammarware applications are typically language processing applications and traditional examples include parsers, program analyzers, optimizers and translators. A primary focus of LDTA is grammarware that is generated from high-level grammar-centric specifications and thus submissions on parser generation, attribute grammar systems, term/graph rewriting systems, and other grammar-related meta-programming tools, techniques, and formalisms are encouraged.

LDTA is also a forum in which theory is put to the test, in many cases on real-world software engineering challenges. Thus, LDTA also solicits papers on the application of grammarware to areas including, but not limited to, the following:

- program analysis, transformation, generation, and verification,
- implementation of Domain-Specific Languages,
- reverse engineering and re-engineering,
- refactoring and other source-to-source transformations,
- language definition and language prototyping, and
- debugging, profiling, IDE support, and testing.

This year LDTA will also be putting theory, as well as techniques and tools, to the test in a new way - in the LDTA Tool Challenge. Tool developers are invited to participate in the Challenge by developing solutions to a range of language processing tasks over a simple but evolving set of imperative programming languages. Tool challenge participants will present highlights of their solution during a special session of the workshop and contribute to a joint paper on the Tool Challenge and proposed solutions to be co-authored by all participants after the workshop.

Note that LDTA is a well-established workshop similar to other conferences on (programming) language engineering topics such as SLE and GPCE, but is solely focused on grammarware.

Paper Submission

LDTA solicits papers in the following categories.

- research papers: original research results within the scope of LDTA with a clear motivation, description, analysis, and evaluation.
- short research papers: new innovative ideas that have not been completely fleshed out. As a workshop, LDTA strongly encourages these types of submissions.

- experience report papers: description of the use of a grammarware tool or technique to solve a non-trivial applied problem with an emphasis on the advantages and disadvantages of the chosen approach to the problem.
- tool demo papers: discussion of a tool or technique that explains the contributions of the tool and what specifically will be demonstrated. These papers should describe tools and applications that do not fit neatly into the specific problems in the Tool Challenge.

Each submission must clearly state in which of these categories it falls and not be published or submitted elsewhere. Papers are to use the standard LaTeX *article* style and the *authblk* style for affiliations; a sample of which is provided at www.ldta.info. Research and experience papers are limited to 15 pages, tool demonstration papers are limited to 10 pages, and short papers are limited to 6 pages. The final version of the accepted papers will, pending approval, be published in the ACM Digital Library and will also be made available during the workshop.

Please submit your abstract and paper using EasyChair at http://www.easychair.org/conferences/?conf=ldta2011.

The authors of each submission are required to give a presentation at LDTA 2011 and tool demonstration paper presentations are intended to include a significant live, interactive demonstration.

The authors of the best papers will be invited to write a journal version of their paper which will be separately reviewed and, assuming acceptance, be published in journal form. As in past years this will be done in a special issue of the journal Science of Computer Programming (Elsevier Science).

Invited Speaker

Rinus Plasmeijer, Radboud University Nijmegen, The Netherlands

Important Dates

- Abstract submission: Dec. 15, 2010
- Full paper submission: Dec. 22, 2010
- Author notification: Feb. 01, 2011
- Camera-ready papers due: TBD
- LDTA Workshop: March 26-27, 2011

LDTA Tool Challenge

The aim of the LDTA Tool Challenge is to foster a better understanding, among tool developers and tool users, of relative strengths and weaknesses of different language processing tool techniques as well as different implementations and realizations of those techniques. Tool developers are invited to participate in the Tool Challenge and demonstrate their solution to the problems during a special session of LDTA 2011.

The problems in the LDTA Tool Challenge Problem Set can be viewed as points in a two dimensional space: one dimension specifying language processing tasks and the second dimension specifying the set of languages to which these tasks are to be applied. Along the task dimension are several traditional language processing *tasks* such as parsing, pretty

printing, semantic analysis, optimization, and code generation. The language dimension is comprised of a simple, but evolving, suite of imperative programming *languages*. These two dimensions form a "problem space" in which various techniques and implementations will find problems in which they excel and others in which they find some challenges; no single technique or tool is expected to be optimal for all problems. Thus, this is a "challenge" and not a competition; no winner is declared. The full description of the problem set can be found in the LDTA Tool Challenge Problem Set document on the LDTA web page at (http://www.ldta.info).

The Tool Challenge is open to developers of all kinds of grammarware tools and techniques. To participate, tool developers must submit the following by March 5, 2011.

- Names of participants and the name of their tool or technique.
- Presentation title and abstract. The short abstract should specify on what aspects of the problem set the tool was applied, where it excelled and where no solution was offered and/or the solution was considered less than optimal. We expect these to be only a few paragraphs in length.

This information is used for scheduling purposes only and is not used for evaluation; as all tool developers interested in participating are welcome and will be given an opportunity to present their solution at the workshop. Submission of this information indicates a commitment to attend LDTA and to participate in the workshop. This information will be listed in the program.

Authors of submissions that appear to be outside of the scope of LDTA will be contacted to discuss the relevance of their work to the workshop. Of course tool developers who question whether their work falls with the scope of LDTA are encouraged to contact the PC chairs early on for clarification.

After the workshop a joint paper will be written by participants and submitted to a journal, most likely Science of Computer Programming. It is separate from the proceedings of the workshop and any special journal issue for the workshop.

Program Committee

- Emilie Balland, INRIA, France
- Anya Helene Bagge, University of Bergen, Norway,
- Paulo Borba, Federal University of Pernambuco, Brazil
- John Boyland, University of Wisconsin-Milwaukee, USA
- Claus Brabrand, IT University of Copenhagen, Denmark (co-chair), brabrand@itu.dk
- Jim Cordy, Queen's University , Canada
- Kyung-Goo Doh, Hanyang University, Ansan, South Korea
- Giorgios Robert Economopoulos, University of Southampton, UK
- Laurie Hendren, McGill University, Canada
- Nigel Horspool, University of Victoria, Canada
- Roberto Ierusalimschy, Pontifícia Universidade Católica do Rio de Janeiro, Brazil
- Johan Jeuring, Utrecht University, The Netherlands
- Shane Markstrum, Bucknell University, USA
- Sukyoung Ryu, Korea Advanced Institute of Science and Technology, Korea
- João Saraiva, Universidade do Minho, Portugal
- Sylvain Schmitz, Ecole Normale Supérieure de Cachan, France
- Sibylle Schupp, Hamburg University of Technology, Germany
- Eli Tilevich, Virginia Tech, USA
- Eric Van Wyk, University of Minnesota, USA (co-chair), evw@cs.umn.edu

- Eelco Visser, Delft University of Technology, The Netherlands

Organizing Committee

- Emilie Balland, INRIA, France
- Giorgios Robert Economopoulos, University of Southampton, UK