Configuration Workshop 2013 - August 29-30 - Vienna Austria

Workshop goals

Product configuration is the task of composing product models of complex systems from parameterizable components in the mass-customization business model. This task demands for powerful knowledge-representation formalisms and acquisition methods to capture the great variety and complexity of configurable product models. Furthermore, efficient reasoning methods are required to provide intelligent interactive behavior in configurator software, such as solution search, satisfaction of user preferences, personalization, optimization, diagnosis, etc...

The main goal of the workshop is to promote high-quality research in all technical areas related to configuration. The workshop is of interest for both researchers working in the various fields of applicable AI technologies mentioned below as well as for industry representatives interested in the relationship between configuration technology and the business problem behind configuration and mass customization. It provides a forum for the exchange of ideas, evaluations and experiences especially in the use of AI techniques within these application and research areas.

Workshop location and history

The Workshop on Configuration 2013 continues the series of successful workshops started at the AAAI'96 Fall Symposium and continued on IJCAI, AAAI, and ECAI since 1999 (see previous workshops and connections). Beside researchers from a variety of different fields, past events also attracted a significant number of industrial participants from major configurator vendors Tacton, SAP, Oracle, Encoway, or IBM-ILOG, as well as from end-users Siemens, Renault, HP, or DaimlerChrysler.

In 2013, the workshop will be a stand-alone event for the first time and last one and a half days - from Thursday, August 29th, 13:00 until Friday, August 30th, 16:00. It will take place in Vienna, Austria at the conference center of Siemens AG Österreich.
(https://www.cee.siemens.com/web/at/de/corporate/portal/SiemensInOesterreich/Organisation/Niederlassungen /StandorteWien/Pages/SiemensstrasseSIE.aspx).
A registration fee of 150 € will cover coffee breaks, lunches, and the workshop dinner on Thursday, August 29th, as well as an excursion through the new LEED Gold certified ("green building") Siemens City. Information about the registration process, hotels, and the detailed agenda will be available in June 2013.

Topics

Configuration problems and models
Structure of configuration problems, knowledge representation, fuzzy and incomplete knowledge, knowledge base verification, validation and diagnosis, standardization of catalog exchange formats, configuration problems, including discrete, continuous and mixed constraints; product and process configuration; product design and configuration.

Techniques for obtaining and/or maintenance of configuration models
Knowledge acquisition methods, cognitive approaches, machine learning, data extraction methods, ontology integration, reconciliation of knowledge bases, knowledge elicitation.

Reasoning methods
Constraint satisfaction problems and extensions, preference based reasoning, description logics, rules, case-based reasoning, SAT-solving, local search, genetic algorithms, neural networks, problem decomposition, optimization, multi-criteria optimization, symmetry breaking, cooperative configuration processes, reconfiguration of existing systems, explanations, distributed problem solving, benchmark proposals, knowledge-based recommendation.

Interactivity and mass customization
Personalization, ontology, machine learning, user interfaces, intelligent man machine interaction, automated assistance and explanations, recommender technologies, client/server architecture, configuration web service, distributed configuration, configuration process modeling, integration into the production process.

Applications and tools
Configuration tools, design tools, application reports, case studies, real-world challenges, test environments for configuration knowledge bases, configuration in related fields like software configuration, service composition, model-driven engineering (MDE), model transformation, model satisfaction and test case generation for component-based software construction.

Paper submission (Call for Papers)

Specifically, but not only, the participation of experts in technologies related with configuration knowledge, constraints, but also MOF, MDA, UML is highly welcome. Especially young researchers and master students are encouraged to submit their results.

If you would like to participate, consider submition of a full paper of **no more than 8 pages**. Position statements and problem instances can be submitted as short papers **limited to 4 pages**. Both regular and short papers should be formatted in pdf file according to (ECAI or IJCAI style) guidelines (see proceedings of last workshop) and submitted to **michel.aldanondo at mines-albi.fr**.

Each submission will be subject to peer review by at least two members of the program committee. Refereeing criteria are relevance to workshop topics, significance and novelty of the research, technical content, discussion on relation to previous work and clarity of presentation. A contribution submitted as a long paper may be accepted as a short paper, if the program committee considers it to be inadequate for a long paper but to present an important issue.

At least one author of each accepted paper is required to register at the workshop and to present the paper. The proceedings of the event will be edited with an ISBN code. Best papers will be considered for publication in a special issue of (AI Communications).

Important dates

Abstract submission Friday, April 12 2013

Paper submission Friday, May 03 2013

Notification of authors Friday, May 24 2013

Camera-ready papers due Friday, June 14 2013

Workshop dates Thursday afternoon & Friday 29-30, August 2013

Organization

Workshop chairs
Andreas Falkner, Siemens AG, Austria
Michel Aldanondo, Toulouse Univ.- Mines Albi, France

Organization committee
Michel Aldanondo, Toulouse Univ.- Mines Albi, France
Andreas Falkner, Siemens AG, Austria
Gerhard Friedrich, AAU Klagenfurt, Austria
Thorsten Kreb, Encoway GmbH Bremen, Germany

Program committee
Claire Bagley, Oracle Corporation, USA
Conrad Drescher, University of Oxford, UK
Ingo Feinerer, TU Wien Austria
Alexander Felfernig, Technische Universität Graz, Austria
Cipriano Forza, Padova University, Italy
Albert Haag, SAP AG, Germany
Lothar Hotz, Universität Hamburg, Germany
Markus Stumptner, University of South Australia, Australia
Juha Tiihonen, Aalto University, Finland
Arnaud Hubaux, University of Namur, Belgium
Elise Vareilles, Toulouse Univ.- Mines Albi, France
Linda Zhang, IESEG business school Paris France
and
Michel Aldanondo, Toulouse Univ.- Mines Albi, France
Andreas Falkner, Siemens AG, Austria
Gerhard Friedrich, AAU Klagenfurt, Austria
Thorsten Krebs, Encoway GmbH Bremen, Germany