Foreword

In many cases competitiveness of modern products is defined by the degree of customization, i.e. the ability of a manufacturer to adapt a product according to customer requirements. Knowledge based configuration methods support the composition of complex systems from a set of adjustable components. However, there are two important prerequisites for a successful application of knowledge-based configuration in practice: (a) expressive knowledge representation languages, which are able to capture the complexity of various models of configurable products and (b) powerful reasoning methods which are capable of providing services such as solution search, optimization, diagnosis, etc. The Configuration Workshop aims to bring together industry representatives and researchers from various areas of AI to identify important configuration scenarios found in practice, exchange ideas and experiences and present original methods developed to solve configuration problems.

The workshop continues the series of successful Configuration Workshops started at the AAAI'96 Fall Symposium and continued on IJCAI, AAAI, and ECAI since 1999. During this time the focus of the events broadened from configuration approaches applied to traditional products such as cars, digital cameras, PC, telecommunication switches or railway interlock systems to configuration of software and services available on the Web. In parallel, research in the field of constraint programming, description logic, non-monotonic reasoning, fundamentals of configuration modeling and so forth pushed the limits of configuration systems even further.

The papers selected this year for presentation on the Configuration Workshop continue a recent trend in the research community and focus on modeling and solving of configuration problems.

Wolfgang Mayer and Patrick Albert July 2012

Workshop Organization

Program Co-Chairs

Wolfgang Mayer Patrick Albert University of South Australia, Adelaide, Australia IBM, France

Program Committee

Tomas Axling Claire Bagley Conrad Drescher Alexander Felfernig Gerhard Friedrich Albert Haag Alois Haselboeck Lothar Hotz Klas Orsvarn Markus Stumptner Barry O'Sullivan Juha Tiihonen

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