

## East-West Co-operation on Knowledge Engineering

### Clark Morton

Integral Solutions Limited  
3, Campbell Court,  
Bramely, Basingstoke,  
Hampshire RG26 5EG  
ENGLAND

Integral Solutions Limited announces its participation in **PEKADS**, a £ 300,000 project part funded under the European Union programme for Co-operation in Science and Technology with Central and East European Countries (COST-EAST).

COST-EAST aims to build collaboration between groups previously separated by the iron curtain in Europe. The majority of the 12,000 proposals received by the Commission related to personal study visits by scientists from the East. **PEKADS** however involves collaborative research and development by a team of scientists from Romania, Hungary, The Netherlands and the UK.

The aim of **PEKADS** is to make the CommonKADS Knowledge Analyses and Design Methodology usable and accessible especially to Romania and Hungary. CommonKADS is the result of a major ESPRIT project KADS II, led by Cap Sogetti Innovation in Paris. It consists of a methodology for analysing, designing, and managing knowledge-based systems together with a prototype set of tools - the CommonKADS workbench.

The University of Amsterdam has provided key technical input to CommonKADS over a period of eight years. Professor Bob Wielinga's objective is to transform the building of expert systems from the currently prevalent methods of "prototyping" i.e. write a bit in an implementation language, try it, write some more. CommonKADS stresses the need to analyse knowledge-based problems at different levels, and recognizes that certain model problem-types recur, providing the opportunity for re-using proven solution approaches. The resulting design reflects the problem solution, and should not contain unnecessary dependence on the details of the implementation language or technology.

Integral Solutions Limited is a leading UK company specialising in advanced software development tools including knowledge-based systems. ISL's Managing Director, Alan Montgomery says "For many years ISL has been providing tools for implementing knowledge-based systems. As our clients now aim to develop richer, more complex applications, it is important to prove the tools for Analysis and Design". ISL plans to use the prototype Common KADS Workbench developed by the KADS II project partners, and make CommonKADS available to a wider user community.

One of the key research areas in Knowledge-Based Systems is finding means of translating designs into running applications. The Artificial Intelligence group of the Research Institute for Informatics, Bucharest, Romania, has been working on this for several years. Their approach, based on term subsumption languages, is the basis for research activities in the project. Stefan Trausan-Matu leads a group of four researchers who will contribute to this work.

The Information Technology Foundation (ITF) of the Hungarian Academy of Sciences is based in Budapest. Their role is to advise clients, including the Hungarian government, on advanced methods and technologies in IT. Balint Molnar at ITF has been involved in the adoption of CCTA's SSADM and PRINCE methods in Hungary. Through **PEKADS**, ITF can advise on methods for Knowledge - Based Systems.

The **PEKADS** project aims to build an on-going EAST-WEST collaboration. People from each of the four partners will spend periods of up to one month working in another country. ISL's Clark Morton, overall project manager for **PEKADS** states "Building the relationships between top-class people in East and West is as important as the technical work. It is particularly informative for people from previously centrally planned economies to experience life in a highly competitive technology company like ISL. Equally our staff will benefit from the rigorous intellectual approach of the leading Romanian and Hungarian IT research institutes".