Multimedia, Knowledge-Based and Object-Oriented Databases
Table of Contents

Keynote Paper

Bringing Knowledge to Bear: Challenges for Decision Support Databases
David Maier, Mary Edie Meredith and Leonard Shapiro; USA ..................... 1

Invited Papers

OODB Support for Software Process Management
Chunnian Liu; China ..................................................................................... 16

Using Active Rules to Maintain the Data Consistency in Heterogeneous Database Systems
Shi-Ming Huang and Jung-Kwi Liu; Taiwan ..................................................... 26

An Object-Oriented Approach to the Knowledge-based Scheduling Environment
J. G. Hughes, P. Ye, Y. Song, D. Glass and M.D. Mulvenna;
United Kingdom ............................................................................................... 40

An Object-Oriented Approach to Interoperable Heterogeneous Information Sources
Ling Liu and Calton Pu; Canada ........................................................................ 49

An Information Architecture to Support Modern Information Systems Development
Maria E. Orlowska; Australia .......................................................................... 64

Why Users cannot ‘Get What They Want’
Ray J. Paul; United Kingdom ........................................................................... 75
Multimedia Databases

A Grammar-based Approach for the Integration of Text-Dominated Databases
Nabil Kamel; Hong Kong .................................................. 85

Modelling Transactions for Distributed Multimedia Database Systems
Weihai Yu; Norway .......................................................... 98

Knowledge-based Databases

Towards a Knowledge-based System for Database Re-engineering
Irene S. Y. Kwan; Hong Kong ........................................... 115

Multiple Granularity Locks for the KBMS Environment
Fernando De Ferreira Rezende and Theo Harder; Germany .......... 126

Object-Oriented Databases

Concurrency Control in an Object-Oriented DBMS by Exploiting Navigation
Mohsen Beheshti and Lois M. L. Delcambre; USA .................. 149

Cost-Controlled OFL Rewriting Rules for Multiple Collection Traversals
Didier Chretien, Fernando Machuca, Puthirak Om and ZhaoHui Tang; France.......................... 167

Translating Database Update Statements from Relational to Object-Oriented Database Systems for Database Re-engineering
Joseph Fong and Paul Chitson; Hong Kong ................................ 189

Using Semantic Enrichment to Provide Interoperability between Relational and ODMG Databases
Uwe Hohenstein; Germany ............................................... 210
A Production Rule Approach to Modeling Complex Objects
Weijia Hia; Hong Kong ................................................................. 233

Extending Path Expression to Tree Expression in OODM
John W.T. Lee and Stephen C. F. Chan; Hong Kong ...................... 248

An S-Signature Scheme on Path Dictionary for Efficient Query Processing in Object-Oriented Database Systems
Hakgene Shin and Jaewoo Chang; Korea ........................................ 264

Query Translation: The Query Interoperability Approach
Carlos Wong and W. S. Luk; Canada .............................................. 282

Towards a Method for Schema Translation from Relational to Object-Oriented Databases
Brian Siu and T-Y. Cheung; Hong Kong ....................................... 307

A Distributed Object Database's Basic Design Issues
Xiuzhen Zhang and Joseph Fong; China ....................................... 324

Industrial Stream Papers

A Case Study on the Capability of Object-Oriented Database under UNISQL
Chee Hoi Pong; Hong Kong ......................................................... 331

Building the Virtual Enterprise with OO Technology
Stuart Seow; Hong Kong ............................................................ 342

DRDA Implementation
Aaron K. D. Sze; Hong Kong ...................................................... 349

Oracle 7 Release 7.3 Universal Database
Doug Farber; Hong Kong .......................................................... 354

UniSQL and World Wide Web
Andrew Lam; Hong Kong ........................................................ 363

Object-Oriented Middleware
Ray Ruff; Hong Kong ............................................................ 364
Object Relational Databases: Towards a Universal Server
Tony Banham.................................................................................................................. 365

Poster Session Papers

Using Multistage Retrieval and Hybrid Adaption to Build Case-based Reasoning System for Pilot Production
Tzu-Fu Chiu, Jackie Archibald and Colin Hardy; United Kingdom.................. 372

A Temporal Probabilistic Object-Oriented Data Model
Bingning Dai, John G. Hughes and David A. Bell; United Kingdom.............. 375

Design and Implementation of an Object Management Module for a PDA
Chang-ju Lee, Sang-ui Yoon and Sang-goo Lee; Korea................................. 378

Variable Knowledge-Based System
Li-gou Wang; United Kingdom................................................................. 381