Welcome to the ICDE 2006 Demonstration Program.

The very high quality of demonstration submissions made the selection process particularly difficult, but promises that the demonstration sessions will be both interesting and informative. In addition to the usual reviewing criteria of scientific excellence, we also took into account whether reviewers expressed a desire to actually go and see the demonstration at the conference.

We received 11 European demonstration proposals, out of which we accept 6. Of the 7 proposals received from Asia, we accepted 3. And, of the 15 received from the Americas, we accepted 7. Each demonstration proposal was reviewed by 3 reviewers for a total of 99 reviews.

We are very grateful to all the Demo Program Committee members, Wolf-Tilo Balke, Klemens Böhm, Horst Eidenberger, James Frew, Jonathan Goldstein, Christopher Jermaine, Kamal Karlapalem, Roger King, Mukesh Mohania, Sunita Sarawagi, S.Seshadri, Anthony Tung, Can Türker, and Gerd Utz Westermann. We thank them for their time-consuming and meticulous work in judging the demonstration proposals.

The demonstrations are divided in two parallel sessions; those that demonstrate new approaches in data engineering, and those that demonstrate new applications of data engineering techniques.

Starting with the core data engineering demonstrations, Jaber and Voronkov present UNIDOOR, a deductive object-oriented database system (DOOD). Its distinctive features include a scalable persistent store with crash recovery, and database integrity and transaction control facilities in a multi-user environment. Cabibbo, Panella and Torlone introduce DaWaII (Data Warehouse Integration), a tool for the integration of multidimensional data, allowing users to combine independently developed data warehouses. ConQueSt, a constraint-based querying system suited for the intrinsically exploratory nature of pattern discovery is demonstrated by Bonchi et al. Users may specify constraints to effectively steer the discovery process toward potentially interesting patterns, while the system exploits these to reduce the cost of pattern mining. In their demonstration of MAPLE, Wei-Shinn Ku et al. focus on the efficient sharing of query results cached in the local storage of mobile peers. In the SIPPER system, Shuigeng Zhou et al. demonstrate the efficient and effective content-based searching in structured P2P networks. In their demonstration of QPipe, Ailamaki, et al. show a new, versatile, operator-centric relational query engine that can detect and exploit overlap across concurrent queries at run time. Efficient, real time query processing on large spatial networks is demonstrated by Sankaranarayanan et al. Last, but not least in the session on core data engineering demonstrations, Chen et al. present the cgmOLAP server, the first fully functional parallel OLAP system able to build data cubes at a rate of more than 1 Terabyte per hour.

As an example of the demonstrations addressing new applications for data engineering, Krieger et al. have applied data engineering technology to modern traffic supervision systems. VieWNet generates and visualizes a continuous hierarchical clustering of objects moving on a spatial network,
with the goal to identify the dense areas in spatial networks. Another very interesting demonstration of data engineering techniques used for traffic visualization and analysis is the AITVS System by Lu et al. Gounaris et al. present an extension of Grid software that is adaptive to an environment that exhibits unpredictable, volatile behavior. Cammert and his colleagues have coupled their infrastructure for data stream processing (PIPES) with an industrial Production-to-Business software (i-Plant) dedicated to highly automated manufacturing processes. Jialie Shen et al. demonstrate the Hybrid Singer Identifier (HSI) system for automated singer recognition in large music databases. Two demonstrations of the application of data engineering techniques in the context of XML are XPlainer by Consens et al., the first framework to provide an interactive XPath debugging function, which allows the user to partially evaluate XPath expressions, and ACXESS by Mohan et al., which supports the specification and enforcement of enhanced security constraints on XML. Both of these XML related demonstrations could equally well have been placed with the core data engineering demonstrations. Finally, Gruenwald et al. demonstrate PETRANET, a Power Efficient Transaction management technique for real-time mobile Ad-hoc NETwork databases which addresses a number of issues of energy limitations, rapid network topology changes due to server and client mobility, real-time constraints, and frequent disconnections and network partitioning all of which are characteristics of e.g. military database applications.

Visitors to the ICDE 2006 Demonstration Program will have the opportunity to vote for the Best Demo Award, which will be announced at the conference banquet.

Last, but not least, we thank all of the authors who submitted demonstration proposals for contributing to the success of the demonstration program.

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Demonstration Committee Chairs