Preface

The pace of the evolution of both hardware and software technology over the past decade is staggering. No longer are databases relegated to large organisations using mainframe machines. Multiple distinct, though interrelated, databases running on everything from mainframes to microcomputers exist within many organisations. People are beginning realistic plans for distributed hierarchies of databases which run on multiple machines and are shared by many people. Some applications are requiring that the meta-information, information describing the data, be stored with the data, so that users can have direct support in formulating queries and exploring the expected contents of the database. This breadth of applications and user requirements has caused many researchers to begin the work of bringing together multiple technologies into an integrated set of support tools. A quick glance at the topics of the paper and panel sessions of this tenth VLDB conference reveals topics such as workstation databases, data management for expert systems, office database systems, distributed systems, and many interesting and advanced applications. This is clearly a merging of advanced technologies.

The tenth VLDB conference was dedicated to the identification and encouragement of research, development, and application of advanced technologies for the management of large databases. This is consistent with the long-range intent of the conference to provide an international forum for the promotion of an understanding of current research, to facilitiate the exchange of experiences gained in the design, construction, and use of databases, and to encourage the discussion of ideas and future research directions amongst both researchers and developers around the world. In this anniversary year we placed a special focus on reflections upon lessons learned over the past ten years together with the implications of these lessons upon research and development work needed for the future. The papers in this volume provide a foundation for new work in the management of large databases, as well as discussing the evolutionary and revolutionary merging of database, artificial intelligence, graphics, software engineering, and other important technologies of the 1980's.

This proceedings contains 44 full papers, 8 short papers, and position papers for 6 panel sessions. These papers were selected from more than 160 papers submitted to the programme committee from Europe, Asia and the Americas. The high quality of the technical papers appearing here indicates the excellent job which the programme committee and the referees did in the difficult job of evaluating and selecting papers.

Like any international conference, the success of VLDB depends in great measure upon the active participation of people from all aspects of data management in many countries. Any conference site will inconvenience people residing far from that site, and the travel expenses and time away often represent a problem for both individuals and organisations. To help assure the participation of as many people as possible, the conference organisers and the sponsoring country worked very hard to solicit the support of governmental organisations and industrial concerns to provide funds for travel grants. While there is never enough, the funds raised enabled us to provide partial support for many of the conference participants. We would like to thank all of the organisations listed on the title page of this proceedings for their financial support as well as their encouragement and good wishes.

There were many people who contributed numerous hours to plan, organise, coordinate, and prepare for this conference. The names of most of these people are listed on the next page. For all of these people, and the many secretaries and other support people whose names do not appear here, we would like to express our sincere appreciation and deep gratitude for their devotion and contributions to the conference. As both the VLDB Endowment and the Conference Committee are entirely voluntary organisations, it is clear that the conference could not happen without the self-sacrificing dedication of these people.

Last, but not least, we would like to thank Singapore, the host country, and all the people of Singapore who have made this important tenth anniversary conference a success.

The Organising Committee