THE 1987 FALL JOINT COMPUTER CONFERENCE
INFOMART — DALLAS, TEXAS
October 25-29, 1987
EXPLORING TECHNOLOGY TODAY AND TOMORROW

Keynote Speaker — MAX D. HOPPER
Senior Vice President — Information Systems — American Airlines

The Fall Joint Computer Conference '87, a forum for ACM's and IEEE's Computer Society's Annual Conference, is to be held at Infomart in Dallas, Texas on October 25-29, 1987.

The Professional Education Program (PEP), scheduled for the first two days of this conference, will provide intensive one-day courses and hands-on workshops in five areas of technology and also new this year — Related Issues. Take a look at the schedule for Sunday and Monday, October 25 and 26, 1987.

The technical conference, which begins Tuesday, October 27, 1987 will afford an opportunity of listening to world reknown speakers from six different technologies and also a Related Issues Track.

In addition to the conference program and PEP seminars, the Exhibition Hall at INFOMART will be filled with exhibits containing the latest in hardware and software.

THE FJCC '87 CONFERENCE PROGRAM
Special Evening Sessions — Wednesday, October 28, 1987

- Exploring the Limits of Uniprocessor Performance
  Mr. Carl Amdahl, CGA Associates
  Panel Chair with T. Aggerwala, IBM;
  S. Chen, Cray Research;
  R. Tomasulo, CGA Associates

- Computer Science Education in Latin America
  Professor Paulo Franca, Federal University of Rio de Janeiro, Panel Chair
  with R. Monaco, University El Sur National, Argentina;
  O. Harafie, Organization of American States;
  J.C. Amsalmi, UNESCO

- Heterogeneous Databases: Problems, Non Problems and Challenges
  Dr. Ahmed Elmargamid, The Pennsylvania State University, Panel Chair
  with A.P. Sheth, Honeywell Computer Science Center;
  J. Menon, IBM Almaden Research Center
  C. Pu, Columbia University;
  T.M. Ozu, University of Alberta;
  P. Valduriez, MCC;
  R. Elmasri, University of Houston

- The Development of Expert Systems — Some Pragmatic Issues
  Ms. Lorraine M. Duvall, Duvall Computer Technologies, Inc., Panel Chair
**FALL JOINT COMPUTER CONFERENCE**
**October 25-29, 1987**
**INFOMART**
**DALLAS, TEXAS**

**FJCC '87 CONFERENCE REGISTRATION FORM**

Please send this registration form with payments to FJCC '87, INFOMART, 1950 Stemmons Freeway, #6038, Dallas, TX 75207. Phone: 1-800-322-FJCC. Advance registration discounts are available to all registration forms received, with full payment, postmarked on or before September 25. Attendees who have preregistered for the conference or the Professional Education Program may pick up their conference credentials beginning Saturday, October 24 from 3:00-5:00 pm at INFOMART on the plaza level. Please bring your registration acknowledgement with you. Notices of cancellation must be received in writing by INFOMART no later than October 15. There will be a $25.00 administrative fee on all cancellations.

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Mail List Restrictions:
1. No Restrictions
2. Professional Society Use Only

To qualify for member or student member discount:
1. ACM
2. IEEE-CS member number

**NOTE:**
Circle Fee for Registration Type Selected

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<th>FJCC '87 Conference</th>
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A check or money order made payable in US funds to FJCC '87 for the full amount of the registration must accompany your registration form. Purchase orders will be accepted. The following credit card authorization may also be used:

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| ( ) Purchase Order (Copy of Purchase Order must accompany registration) | |
| ( ) I plan to attend the Complimentary Special Joint Conference and Exhibitor's Reception on October 27, 1987. | |
| ( ) I plan to attend the complimentary INFOMART Tenant Reception & Tour on October 26, 1987. | |
| ( ) Spouse Program Information | |

Please indicate room preference by circling the appropriate rate. 9% tax is applicable to all above rates.

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Accompanying Person(s) | |

Reservations must be received by appropriate hotel by October 4, 1987.

Deposits are required if you plan on arriving after 6 p.m. to guarantee availability of your room. Deposits will be refunded by the hotel if you cancel at least 48 hours prior to the arrival date.

**Loews Anatole Reservations** — please send completed form to:
Loews Anatole Hotel — Headquarters Hotel Reservations Department
2201 Stemmons Freeway
Dallas, TX 75207

Phone reservations will also be accepted by calling (214) 748-1200 or toll-free at (800) 223-0888.

**Travelodge Reservations** — please send completed form to:
DMC Services
FJCC '87
P.O. Box 58755
Dallas, TX 75207

Phone reservations will also be accepted by calling (800) 972-1163.

**TRAVEL SERVICES**

DMC Services has been named the official travel coordinator for FJCC '87. Special air fares have been arranged with American Airlines. A 40% discount off the cost of the coach fare in effect the date the tickets are purchased is available to FJCC attendees. Additionally, American Airlines is offering a 5% discount off the lowest applicable round trip fare, subject to availability.

Special car rental rates have also been arranged by DMC Services through Dollar Rent-A-Car. These rates start as low as $29.00 a day or $140 a week for an economy size car.

For information and/or reservations call toll-free (800) 972-1163.

Also — To be named during this joint conference of the ACM and IEEE is the Turing Award Recipient.

**Computer Chess Tournament:**
The ACM's 18th North American Computer Chess Championship 1st, 2nd, and Final Rounds on October 25, 26 and 27.
FJCC 87 Professional Education Program

Sunday — October 25, 1987 (9 am - 5 pm)

Artificial Intelligence
345 Computer Vision
John H. Kender, Columbia University
380 Computer Architectures for Knowledge Processing
Ghassem Z. Qadah, Northwestern University
340 Machine Learning
Michael Lebowitz, Columbia University
370 Knowledge Acquisition Techniques for Expert System Development
Karen L. McGraw, Texas Instruments
375 Speech Recognition: From Isolated Digits to Natural Language Dictation
Paul Bamberg, Dragon Systems
390 Introduction to Building Expert Systems
John McCarthy, Murray State University

Modeling and Measurement
110 Discrete-Event Simulation and Modeling
Omar Balci, Virginia Polytechnic Institute and State University

Computer Design
940 Data Flow Computing: Models, Languages and Machines
Jayantha and Susantha Herath, Keio University
910 Using Laser Optical Technologies
Greg Sturrup, D.V. Phipps, Western Illinois University
920 Introduction to Fault-Tolerant Computing with Applications
Bill D. Carroll, University of Texas; Victor P. Nelson, Auburn University
970 Concurrent Processing Architectures
Phil Neches, Taradise Corporation

Software Systems
210 The UNIX® Operating System
John H. Carvin, George Washington University; SW Productivity Consortium
250 Ana Ades® Primer
J.L. Silver, K.O. Rehmer, L. Rising, M. Tome, Purdue University at Ft. Wayne
260 Applications Development Technologies: Fourth Generation Languages
Donald R. Chad, Bentley College; Sri Raghavan, Wang Institute

Software Engineering
450 Program Design Language (PDL): What It Does; How You Use It
Richard H. Smith, Whitaker 4C, Torrance, CA
460 Computer-Aided Software Engineering for Business Applications
Ray mond Yeh, SYSCORP International
490 Database System Design
Julia Hodges, Mississippi State University
620 Software Engineering Management for Quality and Cost Control
Tom Gill, Consultant
630 New Paradigms for Software Development
William W. Agresti, Computer Sciences Corporation
645 Statistical Approach to Software Engineering
C.K. Cho, Consultant

User Engineering
520 Principles and Guidelines in User Interface Design
Deborah Mayhew, Deborah J. Mayhew & Associates

Related Topics
820 End-User Training: Developing Materials/Programs in a Microcomputer Environment
Susan Helms, Harris-Simmons University
840 Project Planning & Management: State-of-the-Art Strategies
Lori Zellis, Lori Zellis & Associates
860 Dynamics of Expert Interviewing
Michael Berman, Texas Instruments

Monday — October 26, 1987 (8 am - 4 pm)

Artificial Intelligence
385 Computer Architectures for Knowledge Processing
Ghassem Z. Qadah, Northwestern University
350 Natural Language Processing
Michael Lebowitz, Columbia University
320 LISP and AI Programming
Harlan H. Black, US Army Communications/Electronics Command
330 Knowledge Based Expert Systems: Merger of AI & DBMS Techniques
Los Boggs and Julia Hogds, Mississippi State University
390 Knowledge Acquisition: Gathering and Interpreting Expertise
Roy Maxon, Carnegie Mellon University; Mark Detwiler, University of Pittsburgh

Modeling and Measurement
115 Discrete-Event Simulation and Modeling
Osman Balci, Virginia Polytechnic Institute and State University

Computer Design
945 Data Flow Computing: Models, Languages and Machines
Jayantha and Susantha Herath, Keio University
930 Design and Test of Reliable Fault-Tolerant Systems
Dhiraj K. Pradhan and Adidash Herath, Keio University
950 Parallel Processing Networks and Systems
Howard J. Siegel, Purdue University
960 VLSI Computer Architecture for GAs Technology
V. Miw通知, Purdue University

Software Systems
240 Hands-On C Programming
Vess Lee Johnson, Mississippi State University
320 Software Development With UNIX®
John H. Carvin, George Washington University; SW Productivity Consortium
260 Ada® Tasking and Tasking Paradigms
Edward Colbert, Absolute Software Company

Software Engineering
430 The Logical Basis for Computer Programming
Zohar Mann, Stanford University; Richard Wagner, SRI International
440 Object-Oriented System Design and Implementation
John McCarthy, Murray State University
475 Building Defect-free Software
Michael E. Fagan, IBM TJ Watson Research Center
625 Software Engineering Management for Quality and Cost Control
Tom Gill, Consultant
640 Integrating Heterogeneous Distributed Databases: Requirements, Concepts and Solution
Amul P. Mistry, Honeywell CSDD
610 Automated Configuration Management of the Software Life Cycle
Kevin R. Nix, Softrust Corporation

User Engineering
535 User Engineering and Active Prototyping
L. McLaughlin, L. Vail, S. Ovrenyer, TRW Defense Systems Group

Related Topics
810 The Micro Information Center: Serving the End-User
Christine Dobson and Robert M. Feden, INFOMART
830 Effective Management Communications
David M. Rappaport, Arthur Andersen & Co.; Karen Quinn, University of Chicago
850 Financial Aspect of New Technology Enterprises
R.G. Garrick and S.A. Myers, Ernst & Whitney

FJCC Presents the best in Professional Education Programs (PEP) with speakers who are leaders in their field of expertise. All courses are either hands-on workshops or lecture-style presentations and are one-day sessions, Sunday, October 25 or Monday, October 26, 1987. Due to space limitation, pre-registration for these programs is recommended. Additional information on PEPs is available from INFOMART, 1950 Stermons #6038, Dallas, TX 75207 or call 214-746-3500 or 600-322-FJCC.

Exhibitors Forum/Technical Presentations

1. Technical Architecture and Work Bench
   Deon Fair — Arthur Andersen & Company
2. Supporting End User Computing
   Tom Samson — Arthur Young & Company
3. Doing Your Own Technical Publishing
   Maria Volbrecht — CPT Corporation
4. Harnessing the Power of Your Existing Computer Resources
   Chuck Barnes — SYSB Systems, Inc.
5. Networking PC’s in a True Peer-to-Peer Environment Using Corvus PC-NOIS
   Linda Baker — Corvus Systems, Inc.
6. Running Data Processing Like A Business
   Gary W. Kinkham — Forecasting Planning Associates
7. IDA — A Step Toward Integration of AI and DB Technologies
   Dr. Gabriel Jacobson — GTE
8. Benefits of Lap-Top Applications at Northern Telecom
   Darrell Jennings — Grid Systems
9. IBM Presents the New Personal System/2
   Marvin Bond — IBM
10. UNIX Supercomputer Systems: Today’s Technology and Tomorrow’s Forecast — NCR
11. Local Area Networks: The Communications Link
    Peggy Burt — Novell, Inc.
12. Turn Your Lemmons into Lemonade
    Jack D. Spencer — R’s Data Service
13. Texas Innovation Information Network System
    John Rodman — Lehr McKenzie
14. UNISYS Position Statement and Product Overview of Knowledge Based Systems
    Les Baker — UNISYS
15. Demonstration: 2 Newest members of Product Family
    Wang Information Services Corporation
16. Nothing Much Happens Until A Document Changes Hands
    Joanna Matheson — Xerox Corporation
Technical Sessions

SOFTWARE TRACK:
- **Alternative Software Development Paradigms**
  Chaired by Dr. William Lively, Texas A&M University
- **Software Design Synthesis**
  Dr. Winston W. Royce, Lockheed Software Technology Center — Chair
- **Software Design Synthesis for FAA**
  Dr. Philip Yoh, FAA — Chair
- **Software Design Synthesis for Strategic Computing**
  Dr. Carl Davis, University of Alabama — Chair
- **Can Software Quality Be Measured?**
  John D. Musa, AT&T Bell Laboratories — Chair
- **Software Problems of Large Organizations**
  John Manley, Computing Technology Transition, Inc. — Chair
- **Solution to Large Software Development Problems**
  William E. Riddle, Software Productivity Consortium — Chair

INTERNATIONAL TRACK:
- **Advanced Workstations in Japan**
  Dr. Jumihiko Kamijo, Information Technology Promotion Agency, Japan & Les Beladz, MCC, Panel Co-Chairs
- **TRON and Data Flow Machines**
  Prof. Ken Sakamura, The University of Tokyo, Japan — Chair
- **Computer Technology in Europe**
  Dr. Herbert Weber, Universitat Dortmund, Germany — Chair
- **Computer Technology in Asia & Brazil**
  Dr. Pete A. Ng, New Jersey Institute of Technology — Chair
- **Issues on Software Development in Japan**
  N. Akira Onoma, Hitachi, SK, Japan — Chair
- **Technology War**
  Dr. Michael A. Harrison, University of California at Berkeley — Chair
- **Future of Information Industry**
  H.L. Poppel, Broadview Associates
- **Visual Languages**
  Dr. Shi-Kuo Chang, University of Pittsburgh; Dr. Tadao Ichikawa, Hiroshima University, Japan — Co-Chairs

SUPER COMPUTER/PARALLEL COMPUTATION TRACK:
- **Super Computers/Parallel Computation**
  Dr. Aloysius K. Mok, The University of Texas at Austin — Session Chair
- **Parallel Computation**
  Dr. Andre van Tilborg, Office of Naval Research — Panel Chair
- **Algorithm Design for Parallel Architectures**
  Dr. David Matula, Southern Methodist University — Chair

ALGORITHM DESIGN/SECURITY TRACK:
- **Algorithm Design**
  Prof. Peter Kornerup, Aarhus University, Denmark — Session Chair
- **Computer Security**
  Dr. Virgil D. Gilgor, Virgil D. Gilgor, Inc. — Session Chair

DATABASE/COMPUTER AIDED ENGINEERING TRACK:
- **Database: Design and Modeling**
  Dr. David Hsiao, Naval Postgraduate School — Session Chair
- **Computer Aided Database Engineering**
  Dr. Nick Roussopoulos, University of Maryland — Chair
- **Computer-Aided-Design**
  Dr. Herbert Freeman, Rutgers University — Session Chair
- **Fault Tolerance**
  Charles Graff, Center For Communications Systems — Session Chair
- **Communications**
  Dr. Edwin C. Foudrat, NASA, Langley Research Center — Session Chair

ARTIFICIAL INTELLIGENCE TRACK:
- **Logic Programming & Architectures**
  Prof. Masayuki Ida, Aoyama Gakuin University; Dr. Du Ghang, University of Illinois at Chicago — Session Chairs
- **Image Recognition/Signal Processing**
  Dr. J.K. Aggarwal, The University of Texas at Austin — Chair
- **AI Theory**
  Prof. P. Bruce Berra, Syracuse University — Chair
- **AI Application**
  Dr. David Yu, Southern Methodist University — Panel Chair

RELATED ISSUES TRACK:
- **Formal Networks: Information, Research, Capital**
  John Rodman, Texas Innovation Information Systems — Chair
- **Technology Commercialization**
  Meg Wilson, The University of Texas Center for Technology Development and Transfer — Chair
- **Major Legal Issues Caused by Recent Advances in Computer Technology**
  Jerry Keys of Brown, Maroney, Rose, Barber & Dye — Chair
- **Finance Issues in Technology**
  Ronald G. Garrick, Ernst and Whinney — Chairman
- **High Technology Marketing**
  Dr. Raymond W. Smilor, IC² Institute — Chairman
- **Science, Math and Computer Education**
  Dr. Cathy Peavler and Dr. Barbara ten Brink, Texas Education Agency — Co-Chairs
- **Technical Training and Continuing Education**
  Dr. Thomas Stauffer, University of Houston at Clearlake — Chair
- **Computer Education: Today & Tomorrow**