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 renowned 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 Elmagarmid, 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. Ozsu, 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
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DALLAS, TEXAS

FJCC '87 CONFERENCE
REGISTRATION FORM

Please send this registration form with payments to FJCC '87, INFOMART, 1950 Stemmons Freeway, 75207, 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. Notice 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.

Name (last) (first) Position
Institution/Co. Address
City State Zip Phone

Mail List Restrictions:
( ) No Restrictions
( ) Professional Society Use Only
To qualify for men,or or student member discount.
( ) ACM ( ) IEEE-CS member number

NOTE:
Circle Fee for Registration Type Selected

FJCC '87 Conference
Advance Registration
Regular
On-Site
Before 9-25-87
Registration
Registration

Full Conference & Exhibits
Member $190 $225
Non-Member $240 $285
Full-time Student $60 $60
One Day Only
* Member $75 $100
* Non-Member $90 $115
Circle One: Tu We Th
* Exhibits Only $25 $25
Proceedings Only $40 $80
Professional Education Program/ Courses
One Day Courses
INFOMART $300 $240
Non-Member $250 $300
Indicate course number: Sun Mon

* No Proceedings

A check or money order 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:

U.S. $ Name as it appears on card:
Card No. ( ) VISA ( ) AMEX, EXP. ( ) MC
Exp. Date:

Authorized Signature
Date:

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

FJCC HOTEL RESERVATION FORM
October 25-29, 1987

Loews Anatole $87 $59
Travelodge
(formerly Viscount) $99 $59

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

Arrival Date ____________ Departure Date ______________

Name ____________________________

Affiliation _________________________

Address __________________________

City State Zip ______________________

Accompanying Person(s) __________________________

Reservations must be received by a prior hotel by October 4, 1987.

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

Artificial Intelligence
345 Computer Vision
John R. Kender, Columbia University

380 Computer Architectures for Knowledge Processing
Ghassan Z. Gzah, 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

380 Introduction to Building Expert Systems
John McGregor, Murray State University

Modeling and Measurement
110 Discrete-Event Simulation and Modeling
Osman Baci, Virginia Polytechnic Institute and State University

Computer Design
940 Date Flow Computing: Models, Languages and Machines
Jayantha and Susantha Herath, Keio University

910 Using Laser Optical Technologies
Greg Bau and D. P. Fogdell, 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, Teradata Corporation

Software Systems
210 The UNIX™ Operating System
John H. Carson, George Washington University; SW Productivity Consortium

250 An Ada™ Primer
J. L. Silver, K. O. Rehmer, L. Rising, M. Tette, Purdue University at Ft. Wayne

280 Applications Development Technologies: Fourth Generation Languages
Donald R. Chend, Bentley College; Sri Raghavan, Wang Institute

Software Engineering
450 Program Design Language (PDL): What It Does; How You Use It
Richard Smith, WhitTailer 4C, Torrance, CA

460 Computer-aided Software Engineering for Business Applications
Raymond Yeh, SYSCORP International

490 Database Systems Design
Julia Hodges, Mississippi State University

520 Software Engineering Management for Quality and Cost Control
Tom Gilb, Consultant

530 New Paradigms for Software Development
William W. Argeti, Computers 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, Hardin-Simmons University

840 Project Planning & Management: State-of-the-Art Strategies
Lola Zella, Lois Zella & Associates

860 Dynamics of Expert Interviewing
Michael Birmes, Texas Instruments

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

Artificial Intelligence
385 Computer Architectures for Knowledge Processing
Ghassan Z. Gzah, Northwestern University

350 Natural Language Processing
Michael Lebowitz, Columbia University

320 LISP and AI Programming
Herbert H. Block, US Army Communications/Electronics Command

330 Knowledge Based Expert Systems Merger of AI & DBMS Techniques
Los Boggess and Julia Hodges, Mississippi State University

360 Knowledge Acquisition: Gathering and Interpreting Expertise
Roy Maxon, Carnegie Mellon University; Mark Detweller, University of Pittsburgh

Modeling and Measurement
115 Discrete-Event Simulation and Modeling
Osman Baci, 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
Shriram K. Pradhan and Adi Singh, University of Massachusetts at Amherst

950 Parallel Processing Networks and Systems
Howard J. Siegel, Purdue University

960 VLSI Computer Architecture for GaAs Technology
V. Miliutinovic, Purdue University

Software Systems
240 Hands-On C Programming
Vesl Lee Johnson, Mississippi State University

230 Software Development With UNIX™
John H. Carson, George Washington University; SW Productivity Consortium

280 Ada™ Testing and Testing Paradigms
Edward Colbert, Absolute Software Company

290 Fault-Tolerant Distributed Software
Ahmed Elmagdah, The Pennsylvania State University

Software Engineering
430 The Logical Basis for Computer Programming
Zohar Mann, Stanford University; Richard Wadinger, SR International

440 Object-oriented System Design and Implementation
John McGregor, Murray State University

475 Building Defect Free Software
Michael L. Fagan, IBM TJ Watson Research

625 Software Engineering Management for Quality and Cost Control
Tom Gilb, Consultant

480 Integrating Heterogeneous Distributed Databases: Requirements, Concepts and Solution
Amit P. Seth, Honeywell CSDO

610 Automated Configuration Management of the Software Life Cycle
Kevin R. Nix, SoftCo Corporation

User Engineering
530 User Engineering and Active Prototyping
L. McLaughlin, L. Valt, S. Overmyer, TRW Defense Systems Group

Related Topics
810 The Micro Information Center: Serving the End-user
Christine Dobson and Robert M. Peden, INFORMART

830 Effective Management Communications
David M. Rapaport, Arthur Andersen & Co; Karen Quinn, University of Chicago

850 Financial Aspect of New Technology Enterprises
R.G. Garrick and S.A. Myers, Ernst & Whinney

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 INFORMART, 195 Stearnss #6038, Dallas, TX 75207 or call 214-746-3500 or 800-322-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
Marla Vachon — CPT Corporation

4. Harnessing the Power of Your Existing Computer Resources
Chuck Barrie — CYB Systems, Inc.

5. Networking PC’s in A True Peer-to-Peer Environment Using Corvus PC-NOS
Linda Baker — Corvus Systems, Inc.

6. Running Data Processing Like a Business
Gary W. Kirkham — 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 Supermicrocomputer Systems: Today’s Technology and Tomorrow’s Forecast — NCR

11. Local Area Networks: The Communications Link
Peggy Butt — Novell, Inc.

12. Turn Your Lemmings Into Lemonade
Jack D. Spencer — R’s Data Service

13. Texas Innovation Information Network System
John Rodman — Leh 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 & Lee 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, Universitatsiete 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. Gligor, Virgil D. Gligor, 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. Duk 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**
  Al and Software Engineering
  Dr. David Yun, 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**