News, Notices and Miscellanea

Problems in the Optimization of Data Communications Systems

This year the Computer Society has joined with the ACM's Special Interest Group on Data Communications as a sponsor of the Second Symposium on Problems in the Optimization of Data Communications Systems. The symposium will be held in Palo Alto, Calif., on October 20-22, 1971.

Purpose of the symposium is to bring together people engaged in computer communication system design, analysis and research. Sessions will cover such topics as ANSI standards, systems aspects, software, modeling, and networks.

For further information about the conference contact Dr. Peter E. Jackson, Chairman, Room 2B434, Bell Telephone Labs, Holmdel, N.J. 07733.

Pre-Registration Fees For 71/FJCC

Pre-registrants for the 1971 Fall Joint Computer Conference, November 16-18 in the Las Vegas Convention Center, can save $10 on the full conference registration fee.

According to Ralph R. Wheeler, Conference General Chairman, “Registration fees for those who pre-register for the 71 FJCC will be $20 for members of any of the twelve AFIPS constituent societies, and $50 for non-members. Comparable fees for those who register at the time of the conference will be $30 for members and $90 for non-members. Students and military personnel in uniform may register for $5.”

Pre-registration for the conference, sponsored by the American Federation of Information Processing Societies (AFIPS), closes October 29, 1971, Registrations received at AFIPS Headquarters after October 29 will be returned to the sender. Information on the conference, including registration and housing forms, can be obtained by writing to: 1971 FJCC, c/o AFIPS, 210 Summit Avenue, Montvale, New Jersey 07645.

Wheeler to Chair 1971 FJCC

Wheeler, who is Supervisor of Hybrid Computing for Lockheed Missiles and Space Company in Sunnyvale, California.

Wheeler is expected to attract approximately 30,000 computer specialists, EDP users, administrators, educators and students to its technical sessions and exhibit program.

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According to Wheeler, major responsibility for the planning, organization, and execution of the conference will be handled by a fifteen-member Steering Committee drawn from the San Francisco area. Among those named by Mr. Wheeler are Albert C. Porter, California Public Utilities Commission, Conference Vice Chairman; Dr. Martin Y. Silberberg, IBM Corporation, Technical Program Chairman; and Robert Blumenthal, IBM Corporation, Technical Program Vice Chairman.

Other key members of the Committee include Joseph M. Crosslin, Control Data Corporation, Secretary; Corydon Hurtado, Cyberserv International Company, Treasurer; Thomas Bieg, IBM Corporation, Local Arrangements Chairman; Robert Borkenhagen, ISI Corporation, Registration Chairman; Jeffrey D. Stein, On-Line Systems, Inc., Printing and Mailing Chairman; Jack Miller, Ampex Corporation, Exhibits Coordinator; Norma Kristovich, Department of Industrial Relations, Special Programs Chairman; Frederick M. Hoar, Fairchild Camera & Instrument Corporation, Public Relations Chairman; Diane Tufts, RCA, Ladies Program Chairman; J. E. Sherman, Lockheed Missiles and Space Company, SCI Representative; and Thomas E. Murray, Del Monte Corporation, ACM Representative.

Commenting on the conference, Mr. Wheeler stated, “In keeping with our theme of COMPUTERS AND THE QUALITY OF LIFE, we have solicited papers from all areas of the computer field and from allied disciplines relating to the use of computer technology in meeting man’s most pressing needs. The result has been gratifying. We are confident that the technical program will prove a significant step in providing information and insight on how computers may be best used as an aid in the solution of critical social and environmental problems. In addition, major papers will be presented covering recent important innovations in computer hardware, software, and systems.”

1972 AFIPS Computer Internship Program for Assistance to Developing Countries

The Computer Internship Program of The American Federation of Information Processing Societies (AFIPS) will be continued for a second year. According to Mr. Keith Uncapher, AFIPS President, the program is designed to assist in the development and application of computer technology in developing countries. The program will consist of five grants to cover transportation costs for candidates to serve for one year at an institution or university in a nation whose computing technology is still in the developmental stage.

The program was conceived by Dr. Harry D. Huskey, Director of the Computer Center, University of California at Santa Cruz, and is being administered by the AFIPS Computer Internship Committee, chaired by Dr. Anthony Ralston, Computing Center, State University of New York. According to Dr. Ralston, “Emphasis will be on the rendering of service in such areas as teaching and in the development of systems programming, applications programming, hardware and logical design. In addition, candidates will be encouraged to actively participate in cultural activities designed to enhance the understanding between the host country and the United States.”

APPLICATION FOR GRANTS

Applications should be sent no later than November 1, 1971 to: Chairman, AFIPS Internship Committee, 210 Summit Avenue, Montvale, New Jersey 07645. An AFIPS committee will select five candidates and five alternates. Se-
More Concerning Software Reliability

Being an engineer rather than a programmer, I use computers only when I can reasonably expect machine computations to develop needed data at the least "cost" to me. Despite the existence of numerous alternatives, machine computation frequently appears attractive.

In many instances the cost of writing a program exceeds the cost of running that program; this is especially true of the one-time analyses written by non-professional programmers like myself. Clearly the danger of an error creeping in is far greater during the writing of a program than during its running. Consequently anything that fosters more efficient and accurate writing of programs is worthy of considerable attention.

For these reasons I was pleased to read in the January/February issue of Computer a paper on software reliability by Elspas, Green and Levitt. Their proposals for automatic program verification are fascinating.

The objections raised by Cole in the May/June issue of Computer are based on the assumption that casual users would prefer to avoid any additional details. This line of reasoning ignores the fact that most diagnostics are unseen by the casual user until he needs them — at which time he will be more than anxious for whatever assistance is offered.

Although I have never been involved in writing a compiler, I have given considerable thought to the additional things that compilers could do to help the casual user like myself. My thoughts in the debugging area are based on a classification of errors into four types according to the resulting action at compile-and-run time:

I. The job is aborted with adequate explanation.
II. The job is aborted without adequate diagnostic information.
III. The job runs, yielding absurd results.
IV. The job runs, yielding plausible but incorrect results.

In terms of the cost of identifying the error (fixing it is frequently simple), and in terms of the danger that the final result be flawed (not as inconsequential as some people think) the higher-numbered classes are more severe. Any action on the part of a compiler that promises to translate some errors from higher-numbered classes to lower-numbered classes is of compelling importance to us non-professional programmers, and I suggest that we would be willing to pay for that service!

I heartily support the rebuttal by Green that also appeared in the May/June issue of Computer.

It seems to me that extended assistance in the area of program verification would be especially valuable to time-sharing users.

Thomas F. Dwyer
Consulting Engineer

2-D Digital Signal Processing

A conference entitled "Two Dimensional Digital Signal Processing," will be held on October 6, 7, and 8, at the University of Missouri — Columbia, Missouri.

Two dimensional digital signal processing is a relatively recent discipline concerned with the techniques for utilizing digital computers to analyze pictorial information.

Many recent developments in both techniques and components coupled with a desire to overcome the technical language barriers between applications area provide the motivation for the conference.

The sessions will include two dimensional digital signal processing theory, image processing, pictorial pattern recognition, two dimensional filtering, biomedical applications, aerial reconnaissance applications, geophysical applications, image communications and environmental applications.

The conference is sponsored by the Department of Electrical Engineering and Engineering Extension Division, University of Missouri-Columbia and Atlantic Richfield Company, Dallas, Texas in cooperation with the IEEE Computer Society, Society of Photo-Optical Instrumentation Engineers and the Pattern Recognition Society.

Conference organizers include: C. F. George, Atlantic Richfield; C. O. Harbort, UMC; C. K. Chow, IBM; S. J. Dwyer, UMC; W. K. Pratt, USC; A. Rosenfeld, UMD; E. L. Hall, UMC; C. A. Harlow, UMC; K. S. Fu, Purdue; R. W. McLaren, UMC; O. J. Tret lak, MIT; D. L. Tebbe, UMC; L. H. Enloe, B.T.L.; J. J. Maier, Griffiss AFB; G. S. Lockett, UMC; G. E. Otten, UMC; F. A. Wald, UMC; C. R. Silinsky, UMC; and M. J. Devaney, UMC.

Conference fees are $20 per person. For further information about the conference, write Professor Ernest L. Hall, Department of Electrical Engineering, University of Missouri-Columbia, Columbia, Missouri 65201.