Advance Program
Symposium on Architectural Support for Programming Languages and Operating Systems
Sponsored by ACM SIGARCH, SIGOPS and SIGPLAN. In cooperation with IFIP WG10.3.
March 1-3, 1982 Rickey’s Hyatt House Palo Alto, California

Hardware/Software Tradeoffs
"Hardware/Software Tradeoffs for Improved Performance Control and Software Management" J.F. Rattner, Intel
"Hardware/Software Tradeoffs for Increased Performance" J.Hennessy, N.Jauppi, F.Baskett, T.Gross, J.Gill, Stanford University
"Code Generation Guidelines for Pipelined Processors" J.Rymarczyk, IBM

Advanced Processor Implementations
"An Overview of the Mesa Processor Architecture" R.Johnson, J.Wick, Xerox
"The Operating System and Language Support Features of the BELLMAC-32" A.Berenbaum, M.Condry, P.Lu, Bell Labs
"The 801 Microprocessor" G. Radin, IBM Research

Procedure Calls and Register Allocation
"Register Allocation for Free: The C Machine Stack" D.Ditziel, R.McLellan, Bell Labs
"Fast Procedure Calls" B. Lampson, Xerox

Short Papers
"Systematic Protection Mechanism Design" D. Jones, University of Iowa
"On a General Property of Memory Mapping Tables" K. Reed, Royal Melbourne Institute of Technology
"An Experiment to Improve Operand Addressing" R.Cook, N.Donde, University of Wisconsin
"Guidelines for Creating a Debuggable Processor" R.McLear, D.Scheibehut, T.Tamaru, Bell Labs

Memory Management
"Hardware Support for Memory Protection" M. Wilkes, DEC

Language/Architecture Interactions
"Direct Execution of LISP on a List Directed Architecture" J.Sansommet, M.Castan, P.Percebois, D.Botella, J.Perez, Universite Paul Sabatier
"Architectural Support for Software Debugging" M.Johnson, HP Labs
"The Effect of the PDP-11 Architecture on Code Generation for CHILL" C.Middleburg, Dr. Neher Laboratories

Instruction Set Analysis
"Static Analysis of the Mesa Instruction Set" S.Taylor, J.Sandman, Xerox
"An Analysis of a Mesa Instruction Set Using Dynamic Instruction Frequencies" G.McDaniel, Xerox
"A Case Study of VAX-11 Instruction Set Usage for Compiler Execution" C.Wiecek, DEC

System Support
"Firmware Realization of an Operating System" M.Maekawa, A.Tanaka, K.Sakamura, C.Ishikawa, Univ. of Tokyo and Toshiba
"A Multi-Microprocessor Architecture with Hardware Support for Communication and Scheduling" S.Ahuja, A.Asthana, Bell Labs

Invited Presentations
- Operating System and Language Support in the Sloan Mark II Supercomputer
- The Symbolics' LISP Machine
- High Level Architecture Research at Data General
- Hardware/Software Tradeoffs in the Intel iAPX-286 Evolution
- Architectural Support in the National NSI6000 Microprocessor

Panel Session
"Complex versus Reduced Instruction Set Computers"
Doug Clark, DEC
Dave Ditziel, Bell Labs
Mike Farmwald, Lawrence Livermore Labs
Dave Patterson, U.C. Berkeley
George Radin, IBM Research

Advance Symposium Registration and Hotel Reservation
Mail to: Russ Atkinson, 3333 Coyote Hill Road, Xerox PARC, Palo Alto, CA 94304

Name ____________________________
Address ____________________________
City/State/Zip ____________________________
Affiliation ____________________________

□ SIG member $165
□ ACM member $175
□ Non-member $200
□ Student $70

Hotel: ____ Single $58/day  ____ Double(1bed) $68/day  ____ Double(2beds) $68/day

Arrival Date & Time __________ Departure Date __________ Amount enclosed ______

Registration fee includes 1 copy of proceedings, 2 lunches, wine and cheese reception(Monday), 1 dinner(Tuesday). Symposium registration starts Monday 8:30 am, symposium ends 12:30 Wednesday. Hotel reservations may be made with symposium registration or separately. Reservations will not be held past 6 pm unless accompanied by deposit for first night. Add $40 late fee if mailed after February 12. Make checks payable to ASPLOS Symposium.

Hotel Address: Rickey’s Hyatt House, 4219 El Camino Real, Palo Alto, CA. 415-493-8000

Additional information: Lloyd Dickman, General Chairman, 408-746-8930