

PROJECT MAC

June 18, 1973

Computer Systems Research Division

Request for Comments No.30

1972-1973 PROGRESS REPORT -- PUBLICATIONS, ETC.

by J. H. Saltzer

Part of the annual Project MAC Progress Report is a list of all publications, talks, and theses produced during the year, and in progress. Enclosed is a first draft of the material for the CSR section of the progress report. If you spot anything which is missing, please let me know. The period covered by the progress report is July 1, 1972 to June 30, 1973.

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DIVISION II

PUBLIC DOCUMENTS

1. Schroeder, M.D. "Cooperation of Mutually Suspicious Subsystems in a Computer Utility", Project MAC Technical Report TR-104.
2. Sekino, Akira, Performance Evaluation of Multiprogrammed Time-Shared Computer Systems", Project MAC Technical Report, TR-103.
3. Clark, D., "A Demonstration of the Multics System," Videotape recording, M.I.T. Center for Advanced Engineering Studies.

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SEMI-PUBLIC DOCUMENTS

Multics Programmers' Manual, Part I, (Introduction), Revision 12,  
November 30, 1972.

Multics Programmers' Manual, Part II, (Reference Guide), Revision 14,  
April 30, 1973.

Multics Programmers' Manual, Part III, (Subsystem Writer's Guide),  
Revision 1, May 31, 1973.

Frankston, R., and Saltzer, J., "Notes on Memory Charging," Computer  
System Research Division, Multics Checkout Bulletin-1084.

Theses:

D. Reed, "Estimation of Primary Memory Requirements of Processes  
in Multics," S.B. Thesis, Department of Electrical Engineering,  
June, 1973.

M. Chang, "Development Of An Accurate Buffer Memory Simulation Model,"  
S.B. Thesis, Department of Electrical Engineering, June, 1973.

D. Bricklin, "A Source Language Oriented Debugger for Multics,"  
S.B. Thesis, Department of Electrical Engineering, June, 1973.

R. Bratt, "A Design for Shared, User-Provided, Protected Subsystems  
in Multics," S.B. Thesis, Department of Electrical Engineering,  
June, 1973.

P. Green, "An Implementation of SEAL on Multics," S.B. Thesis,  
Department of Electrical Engineering, June, 1973.

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TALKS

Saltzer, J.H.

"A Simple Model of Demand Paging", given at

Hitachi Central Research Laboratory, October, 1972  
Nippon Electric Company, October, 1972  
Nippon Telephone and Telegraph Company, October, 1972  
Fujitsu Company, October, 1972  
ElectroTechnical Laboratory, October, 1972  
University of Kansas, November 16, 1972  
Kansas City ACM Chapter Meeting, November 17, 1972  
Stevens Institute, February 22, 1973

"Current Computer System Research in Japan," given at  
Office of Naval Research Headquarters Seminar,  
January 24, 1973

Schroeder, M.D.

"Protection in Multics," ADP Secure Data Sharing Conference,  
Washington D.C., September 26-28, 1972.

"Cooperation of Mutually Suspicious Subsystems," Computer  
Laboratory, Cambridge University, England,  
January 17, 1973.

Corbató, F.J.

"Maxi vs Mini Computers," participation in a panel discussion/  
debate, JPL/CIT/NASA Conference, Jet Propulsion  
Laboratory, Pasadena, California, November 3, 1972.

"Automatic Programming," Industrial Liason Office Symposium, M.I.T.  
November 8, 1972

"The Multics System," The Moore School of Electrical Engineering,  
University of Pennsylvania, Philadelphia, Pennsylvania,  
December 6, 1972

"A Brief History of Multics," Honeywell Multics Announcement,  
Boston Museum of Science, January 17, 1973

"Privacy and Protection in the Multics System," Honeywell  
Pacesetters Conference, Paradise Island, Bahamas,  
March 10-13, 1973.

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TALKS (continued)

Padlipsky, M.A.

"The ARPANET", (talk and demonstration) SIGUCC Northeastern Universities Computer Center Director's Conference, Boston, Mass., June 28, 1973.

Pogran, K.T.

"Protection Mechanisms in Multics," University of Illinois, May 2, 1973.

"Multics," (talk and demonstration) SIGUCC Northeastern Universities Computer Center Director's Conference, Boston, Mass., June 28, 1973.

Wells, D.M.

Multics and ARPANET demonstrations and talks, NEREM, Boston, Mass., November, 1972.

Padlipsky, M.A., K.T. Pogran, and D.M. Wells

Multics and ARPANET demonstrations and talks, International Conference on Computer Communications, Washington, D.C., October 24-26, 1972.

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IN PROGRESS

Papers and Publications:

- Scheffler, L., "Optimal Folding of a Paging Drum in a Three-Level Memory," submitted to Fourth ACM Symposium on Operating Systems.
- Moon, D. and A. Sunguroff, "LISP Reference Manual".
- Saltzer, J.H., "Protection and the Control of Information Sharing in Multics," submitted to Fourth ACM Symposium on Operating Systems.
- Richards, M., A. Evans and R. Mabee, "The BCPL Reference Manual".
- Saltzer, J.H., "A Simple Linear Model of Demand Paging Performance," submitted to Comm ACM.
- Saltzer, J.H., and M.D. Schroeder, "Controlling Access to Information in Computer Systems," IEEE invited paper.

Theses in progress:

- D. Clark, "Input/Output in a Virtual Memory Computer System," Ph.D. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, September, 1973.
- R. Gumpertz, "The Design and Fabrication of an ARPA Network Interface," S.B. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, July, 1973.
- B. Greenberg, "An Experiment Analysis of Program Reference Patterns in the Multics Virtual Memory," S.M. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, September, 1973.
- R. Frankston, "The Computer Utility as a Marketplace for Computer Services," S.M. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, September, 1973.
- J. Stern, "Automatic File Backup in a Computer Utility," S.M. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, September, 1973.
- L. Scheffler, "Performance Evaluations of Movable Head Disk Subsystems," S.M. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, September, 1973.
- L. Rotenberg, "Guarantying Privacy with a Public Computer Utility," Ph.D. Thesis, M.I.T. Department of Electrical Engineering, estimated completion, September, 1973.